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engineers

TRANSPORTATION IMPACT ANALYSIS

WAKE AVENUE AFFORDABLE HOUSING

El Centro, California
February 24, 2022

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TRANSPORTATION IMPACT ANALYSIS

WAKE AVENUE AFFORDABLE HOUSING

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1.0 PROJECT AND STUDY DESCRIPTION

Linscott, Law and Greenspan, Engineers (LLG) has prepared this Transportation Impact Analysis including Vehicle Miles Traveled (VMT) Analysis and Local Mobility Analysis (LMA) in order to assess the impacts to the street system as a result of the proposed 288-unit Wake Avenue Affordable Housing Project located on the northeast corner of the 6th Street / Spears Avenue intersection in the City of El Centro.

The traffic analysis presented in this report includes the following:

Section 1. Project and Study Description
Section 2. Methodology and Thresholds
Section 3. Substantial Effect Criteria
Section 4. Existing Conditions
Section 5. Project Traffic
Section 6. Existing + Project Analysis
Section 7. Cumulative Projects Traffic Volumes
Section 8. Near-Term Analysis
Section 9. Site Access Assessment
Section 10. Active Transportation Conditions
Section 11. Project VMT Analysis
Section 12. Conclusions

1.1 Project Location and Vicinity Map

The site is located on located on the northeast corner of the 6th Street / Spears Avenue intersection in the City of El Centro.

Figure 1–1 is the Vicinity Map depicting the Project location and the vicinity. ***Figure 1–2*** is the Project Area Map.

1.2 Project Size and Description

As described above, the Wake Avenue Project is an Affordable Housing project in the City of El Centro. A total of 288 units are proposed on four parcels.

1.3 Project Access

The following access is proposed:

- A full access driveway on the south side of the project site at Spears Avenue.
- An emergency only access on the northwest corner of the project site at 6th Street.

Figure 1–3 depicts the Site Plan.

1.4 Proposed Project Opening Year and Analysis Scenarios

The proposed Project opening in late 2024. The following scenarios are analyzed in this study.

- Existing
- Existing + Project
- Near Term without Project (Existing + Cumulative Projects)
- Near Term + Project (Existing + Project + Cumulative Projects)

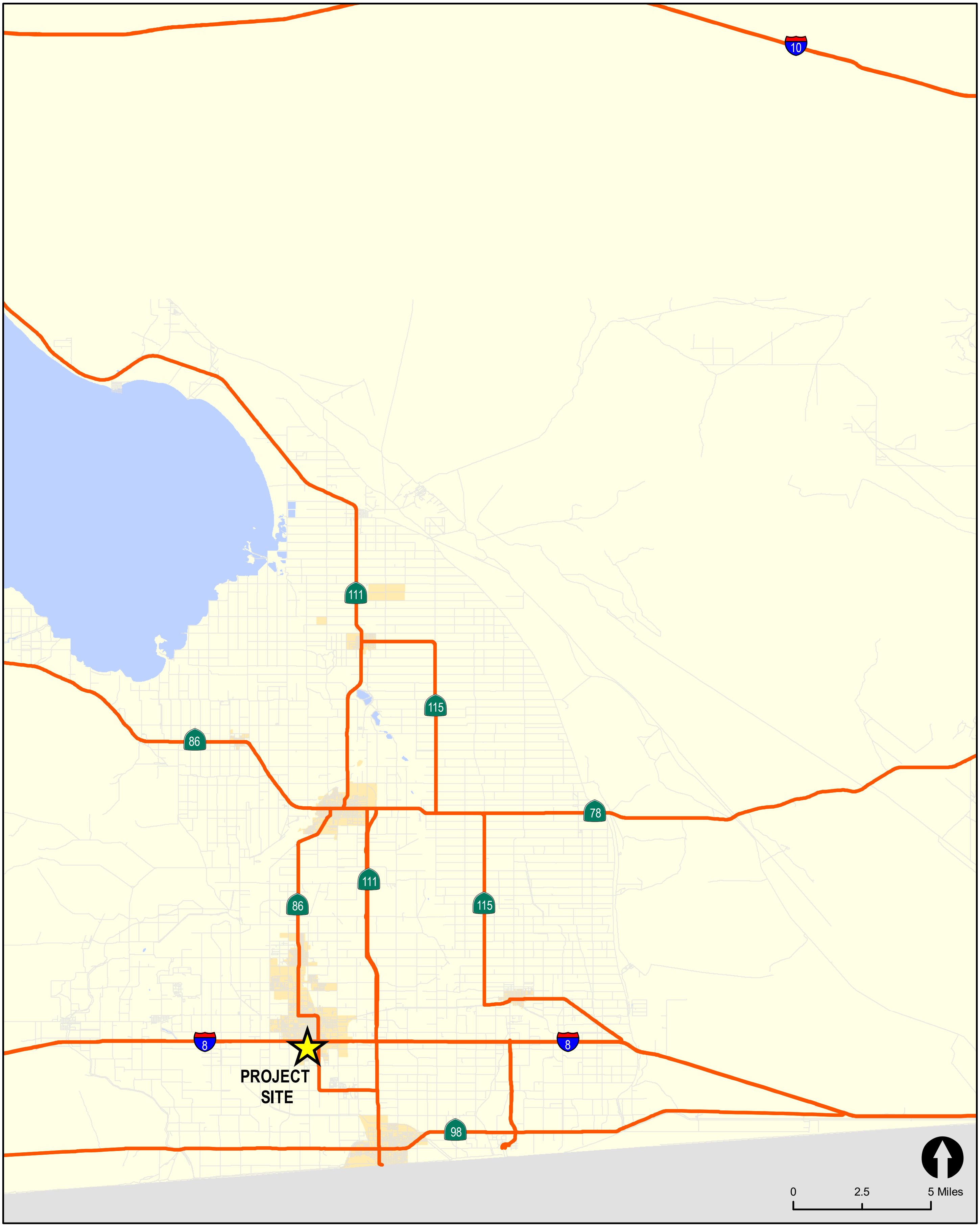

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Figure 1-1

Project Vicinity Map

Wake Avenue Affordable Housing

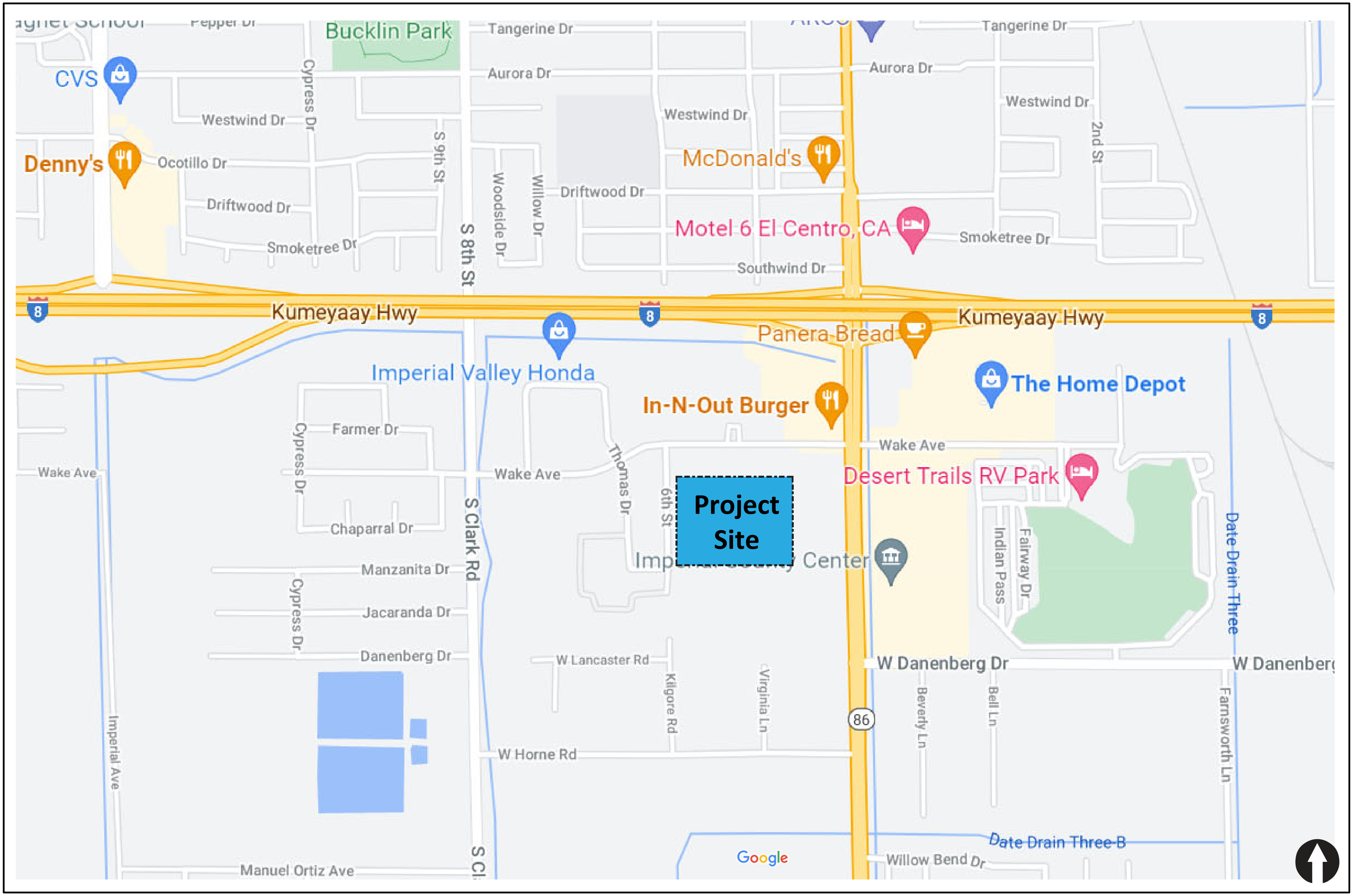

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Figure 1-2

Project Area Map

Wake Avenue Affordable Housing

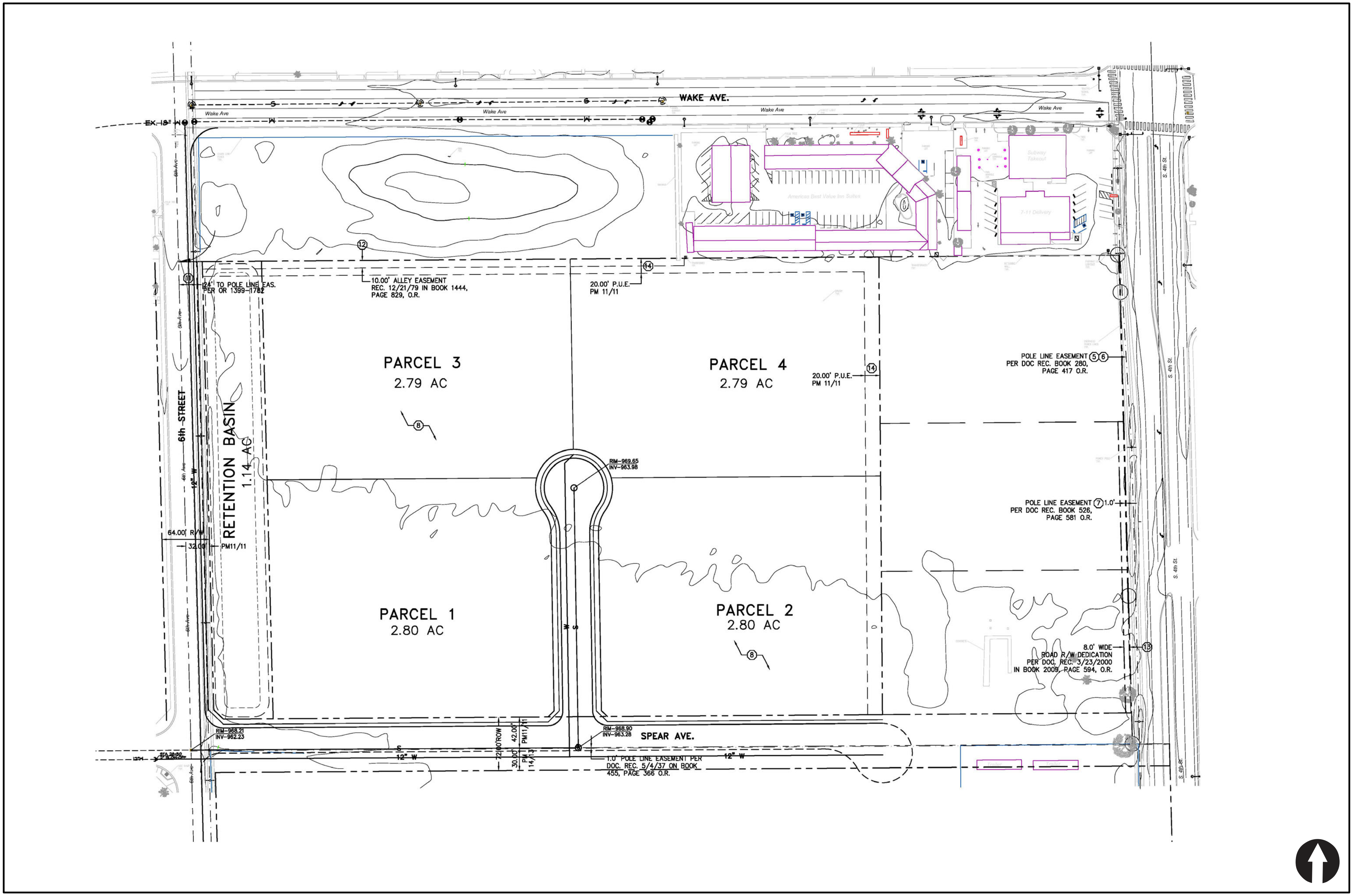

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Figure 1-3

Project Site Plan

Wake Avenue Affordable Housing

2.0 METHODOLOGY AND THRESHOLDS

2.1 Study Area

The Project study area was determined based on the locations where the Project is likely to have impacts and includes the following intersections and segments:

INTERSECTIONS:

1. Wake Avenue / 8th Street
2. Wake Avenue / Thomas Drive
3. Wake Avenue / 6th Street
4. 4th Street (SR-86) / Ross Avenue
5. 4th Street (SR-86) / I-8 WB Ramps
6. 4th Street (SR-86) / I-8 EB Ramps
7. 4th Street (SR-86) / Wake Avenue
8. 4th Street (SR-86) / Danenberg Drive
9. Dogwood Road / Danenberg Drive
10. 6th Street / Spears Avenue

SEGMENTS:

1. **Wake Avenue:** 8th Street to 6th Street
2. **Wake Avenue:** 6th Street to 4th Street (SR-86)
3. **4th Street (SR-86):** Ross Avenue to I-8
4. **4th Street (SR-86):** I-8 to Wake Avenue
5. **4th Street (SR-86):** Wake Avenue to Danenberg Drive
6. **4th Street (SR-86):** Danenberg Drive to McCabe Road
7. **Danenberg Drive:** SR-86 to Dogwood Road

2.2 Methodology

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level of service designation is reported differently for signalized intersections, unsignalized intersections and roadway segments.

In the Highway Capacity Manual (HCM) 6th Edition, LOS for signalized intersections is defined in terms of delay. The LOS analysis provides results in seconds of delay expressed in terms of letters A through F. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. ***Table 2–1*** summarizes the signalized intersections levels of service descriptions.

2.2.1 *Signalized Intersections*

Table 2–2 depicts the criteria, which are based on the average control delay for any particular minor movement (unsignalized intersections) and overall intersection (signalized intersections).

For signalized intersections, LOS criteria are stated in terms of the average control delay per vehicle for a 15-minute analysis period. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

LOS A describes operations with very low delay, (i.e. less than 10.0 seconds per vehicle). This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

LOS B describes operations with delay in the range 10.1 seconds and 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of Average delay.

LOS C describes operations with delay in the range 20.1 seconds and 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.

LOS D describes operations with delay in the range 35.1 seconds and 55.0 seconds per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or higher v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are frequent.

LOS E describes operations with delay in the range of 55.1 seconds to 80.0 seconds per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.

LOS F describes operations with delay in excess of over 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation (i.e., when arrival flow rates exceed the capacity of the intersection). It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Signal timing plans were obtained from the City and Caltrans for use in the analysis. Copies of the signal timing plans obtained from the City are included in *Appendix A*.

TABLE 2–1
INTERSECTION LEVEL OF SERVICE DESCRIPTIONS

LOS	Description
A	Occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	Generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
C	Generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	Generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.
F	Considered to be unacceptable to most drivers. This condition often occurs with over saturation i.e. when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume-to-capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels

TABLE 2–2
INTERSECTION LEVEL OF SERVICE (LOS) & DELAY RANGES

LOS	Delay (seconds/vehicle)	
	Signalized Intersections	**Unsignalized Intersections**
A	≤ 10.0	≤ 10.0
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	≥ 80.1	≥ 50.1

Source: Highway Capacity Manual 6.

2.2.2 *Unsignalized Intersections*

For unsignalized intersections, LOS is determined by the computed or measured control delay and is defined for each minor movement. For All-Way-Stop-controlled (AWSC) intersections, the overall intersection delay is reported. For two-way-stop-controlled (TWSC) intersections, LOS is not defined for the intersection as a whole, but the worst-case movement (typically the minor street left-turn) delay and LOS are reported.

LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to safely cross through a major street traffic stream. This LOS is generally evident from extremely long control delays experienced by side-street traffic and by queuing on the minor-street approaches. The method, however, is based on a constant critical gap size; that is, the critical gap remains constant no matter how long the side-street motorist waits.

LOS F may also appear in the form of side-street vehicles selecting smaller-than-usual gaps. In such cases, safety may be a problem, and some disruption to the major traffic stream may result. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal gap acceptance behavior, which are more difficult to observe in the field than queuing.

2.2.3 *Street Segments*

Street segment analysis is based upon the comparison of daily traffic volumes (ADTs) to the City of El Centro’s Level of Threshold Volumes for Various Roadway Types (ADT) table (***Table 2-3***). This table provides segment capacities for different street classifications, based on traffic volumes and roadway characteristics.

TABLE 2–3
CITY OF EL CENTRO LEVEL OF SERVICE THRESHOLD VOLUMES FOR VARIOUS TYPES (ADT)

Roadway Type	Code	LOS A	LOS B	LOS C	LOS D	LOS E
10-Lane Freeway	10F	64,000	99,000	139,000	160,000	182,000
8-Lane Freeway	8F	51,000	79,000	112,000	136,000	146,000
6-Lane Freeway	6F	39,000	59,000	85,000	102,000	110,000
8-Lane Expressway	8E	35,000	54,000	75,000	90,000	98,000
6-Lane Expressway	6E	28.000	42.000	56.000	67.000	74.000
4-Lane Freeway	4F	26,000	40,000	57,000	69,000	74,000
8-Lane Divided Arterial (w/left-turn lane)	9	40,000	47,000	54,000	61,000	68,000
6-Lane Divided Arterial (w/left-turn lane)	7	32,000	38,000	43,000	49,000	54,000
4-Lane Expressway	4E	18,000	27,000	36,000	45,000	50,000
4-Lane Undivided Arterial (w/left-turn lane)	5	22,000	25,000	29,000	32,500	36,000
4-Lane Divided Arterial (no left-turn lane)	4	16,000	19,000	22,000	24,000	27,000
2-Lane Rural Highway	2R	4,000	8,000	12,000	17,000	25,000
2-Lane Arterial (w/left-turn lane)	3	11,000	12,500	14,500	16,000	18,000
2-Lane Collector	2	6,000	7,500	9,000	10,500	12,500
2-Lane Local	1	1,200	1,400	1,600	1,800	2,000
1-Lane Freeway Diamond Ramp	1D	11,000	12,800	14,700	16,500	18,300
2-Lane Freeway Diamond Ramp	2D	22,000	25,600	29,400	33,000	36,600
1-Lane Freeway Loop Ramp	1L	9,000	10,500	12,000	13,500	15,000
2-Lane Freeway Loop Ramp	2L	16,000	18,700	21,300	24,000	26,700

Notes:

1. The above threshold volumes for preliminary planning purposes only. If available, the results of detailed level of service analyses will typically have priority over the levels of service derived from this table. In that case this table can be used by the analyst for providing additional considerations for recommending the appropriate general roadway type for the specific condition being analyzed.
2. All above facilities assume a 60%/40% peak hour directional split. All above facilities assume peak hour representing approximately 10% of the Average Daily Traffic (ADT), except for mainline freeway facilities, which assume peak hour representing 9% of the Average Daily Traffic (ADT).
3. Based on Highway Capacity Manual, Transportation Research Board, 2000.
4. Freeway thresholds are consistent with conditions utilizing a .95 peak hour factor, with 2% trucks and slightly over a one-mile average interchange spacing.
5. Expressways are consistent with the average of a multi-lane highway (with no signals) and Class 1 arterial (with an average signal spacing of 0.8 signals per mile and a .45 G/C ratio).
6. Arterial thresholds are consistent with the average of Class 1 and Class 2 arterials with an assumed signal density of two signals per mile. This assumes a divided arterial with left-turn lanes. Thresholds for four-lane undivided arterials assume approximately two-thirds the capacity of a four-lane divided arterial due to the impedance in traffic flow resulting from left-turning vehicles waiting in the inside through lane, thus significantly reducing the capacity of the roadway.
7. Rural highways are generally consistent with the 2000 Highway Capacity Manual rural highway, assuming 8% trucks, 4% RV's, 20% no-passing, and level terrain. The greatest difference is that it assumes a maximum capacity (upper end of LOS E) of 25,000 rather than the 28,000 calculated using the new Highway Capacity Manual.
8. Two-lane collectors assume approximately three-fourths of the capacity of a two-lane arterial with left-turn lanes. This is based on the assumption that left-turn channelization is not provided on a two-lane collector.
9. Local street level of service thresholds are based upon "Neighborhood Traffic Related Quality-of-Life Considerations" which assumes a standard suburban neighborhood, 40-foot roadway width, and 25 mile per hour speed limit with normal speed violation rates.
10. Capacities for Diamond Ramps and Loop Ramps may be slightly higher or lower than the planning level capacities indicated above. The 2000 Highway Capacity Manual (2000 HCM) states that the capacity of a one-lane diamond to be 2,200 vehicles per hour (vph), and 1,800 vph for a small radius loop ramp. Two-lane freeway ramp capacities are estimated in the 2000 HCM to be 4,400vph for a two-lane diamond, and 3,200vph 20 for a two-lane small radius loop. Varying intermediate capacities are provided for incremental conditions between these extremes. Capacities given for each service level assume the same level of service for the adjoining merging roadway as well as level of service being determined by volume-to-capacity and not attainable speed. Level of service will be controlled by freeway level of service if worse than ramp. Mitigations of level of service deficiencies may include the addition of a lane on the freeway ramp, the addition of an auxiliary lane on the freeway mainline, the addition of approach lanes at the ramp junction with the local intersecting street, and/or geometric modifications to improve the efficiency of the ramp itself or its termini. The appropriate mitigation should be determined on a case-by-case basis, considering freeway main line volumes and weaving, the extent that the freeway ramp volume exceeds the above planning thresholds, and the level of service of the ramp intersection with the local street.
11. All volumes are approximate and assume ideal roadway characteristics.

3.0 SUBSTANTIAL EFFECT CRITERIA

The City General Plan states that the level of service (LOS) goal is for intersections and segments to operate at is C or better with LOS D operations allowed during the peak periods.

If a location operates at LOS E or worse with and without project traffic, the project has a substantial effect if the project causes the intersection delta to increase by more than two (2) seconds, or the V/C ratio at a roadway segment to increase by more than 0.02.

Table 3-1 summarizes the thresholds for all roadways.

TABLE 3–1
TRAFFIC IMPACT SUBSTANTIAL EFFECT CRITERIA

Level of Service with Project [a]	Allowable Increase Due to Project Impacts [b]					
	Freeways		Roadway Segments		Intersections	Ramp Metering
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec.)	Delay (min.)
E & F	0.01	1	0.02	1	2	2[c]

Footnotes:

a. All level of service measurements are based upon HCM procedures for peak-hour conditions. However, V/C ratios for Roadway Segments may be estimated on an ADT/24-hour traffic volume. The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped or not densely developed locations per jurisdiction definitions). For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

b. If a proposed project's traffic causes the values shown in the table to be exceeded, the Project has a substantial effect. These impact changes may be measured from appropriate computer programs or expanded manual spreadsheets. The project applicant shall then identify feasible mitigations (within the Traffic Impact Study [TIS] report) that will maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see note a above), or if the project adds a significant amount of peak hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating Project's substantial effect.

c. The allowable increase in delay at a ramp meter with more than 15 minutes of delay and freeway LOS E is 2 minutes and at LOS F is 1 minute.

General Notes:

1. V/C = Volume to Capacity Ratio
2. Speed = Arterial speed measured in miles per hour
3. Delay = Average stopped delay per vehicle measured in seconds for intersections, or minutes for ramp meters.
4. LOS = Level of Service

4.0 EXISTING CONDITIONS

Effective evaluation of the traffic impacts associated with the proposed project requires an understanding of the existing transportation system within the project area. ***Figure 4–1*** shows an existing conditions diagram, including signalized/un-signalized intersections and lane configurations.

4.1 Existing Transportation Conditions

The facilities analyzed in this report fall under the jurisdiction of the City of El Centro. The following is a brief description of the streets in the project area:

ROSS AVENUE

Ross Avenue is an east/west facility and is classified as a 2-Lane Arterial east of 4th Street (SR-86) and as a 4-Lane Arterial west of 4th Street (SR-86). It is currently constructed as a two-lane undivided roadway, providing one travel lane per direction. Sidewalks are provided intermittently on both sides of the roadway. Curbside parking is not permitted. Bike lanes are not provided. The posted speed limit is 35 mph.

WAKE AVENUE

Wake Avenue is and east-west facility and is classified as a 2-Lane Collector between Austin Road and SR-86 and as a 4-Lane Collector between SR-86 and 2nd Street in the City of El Centro Circulation Element. Wake Avenue is currently constructed between Cypress Drive and 2nd Street. This roadway does not currently connect to Imperial Avenue. It is currently constructed as a two-lane undivided roadway from Cypress Drive to 8th Street, as a four-lane divided roadway with a two-way left-turn lane, providing two travel lanes per direction, between 8th Street and 4th Street (SR-86), and as a two-lane undivided roadway between 4th Street (SR-86) and 2nd Street. Sidewalks are provided on both sides of the roadway except for the portion between 6th Street and 4th Street, where no sidewalks are provided on the south curb. Curbside parking is not permitted. Bike lanes are not provided. The posted speed limit is 40 mph.

DANENBERG DRIVE

Danenberg Drive is an east/west facility and is classified as a 4-Lane Arterial in the City of El Centro Circulation Element. It is currently constructed as a two-lane undivided roadway, providing one travel lane per direction, between 4th Street (SR-86) and Dogwood Road. 450 feet west of Dogwood Road, Danenberg Drive is built as a four-lane undivided roadway, providing two travel lanes per direction. Approximately 650 feet of sidewalk is provided on the north side of the roadway, east of 4th Street (SR-86). Curbside parking is not permitted. Bike lanes are not provided. The posted speed limit is 40 mph.

S. 8TH STREET /S. CLARK ROAD

S. 8th Street / S. Clark Road is an unclassified north / south roadway in the City of El Centro Circulation Element. It is currently constructed as four-lane undivided roadway, south of Wake Avenue and is constructed as a two-lane undivided roadway north of Wake Avenue. Sidewalks are provided on the west side of the roadway. Curbside parking is not permitted. Bike lanes are not provided. The posted speed limit is 50 mph.

THOMAS DRIVE

Thomas Drive is an unclassified north/douth roadway in the City of El Centro Circulation Element. It is currently constructed as a two-lane undivided roadway, providing one travel lane per direction. Sidewalks are provided on both sides of the roadway. Curbside parking is permitted on both sides of the roadway. Bike lanes are not provided. There is no posted speed limit.

6TH STREET

6th Street is an unclassified north / south roadway in the City of El Centro Circulation Element. It is currently constructed as a two-lane undivided roadway, providing one travel lane per direction. Sidewalks are provided on the west side of the roadway. Curbside parking is permitted on the west side of the roadway. Bike lanes are not provided. There is no posted speed limit.

4TH STREET (STATE ROUTE 86)

4th Street (State Route 86) north / south facility and is classified as a 6-Lane Arterial in the City of El Centro Circulation Element. It is currently constructed as a four-lane undivided roadway with a two-way left-turn lane, providing two travel lanes per direction, between Ross Avenue and Driftwood Drive. From Driftwood Drive to Wake Avenue, 4th Street (SR-86) is built as a four-lane divided roadway, providing two travel lanes per direction. Between Wake Avenue and Danenberg Drive, the roadway is constructed as a three-lane divided roadway, providing one southbound travel lane and two northbound travel lanes. Sidewalks are provided on both sides of the roadway except for the west side portion, south of Wake Avenue. Curbside parking is not permitted. Bike lanes are not provided. The posted speed limit is 40 mph.

4.2 Imperial Avenue Extension

The extension of Imperial Avenue between I-8 and Dannenberg is currently under construction. The redesigned I-8 / Imperial Avenue diamond interchange has been completed and is open to traffic since December 2021. The extension of Imperial Avenue to Danenberg Drive is expected to be opened to traffic by 2023. Imperial Avenue will be extended further south to Valley View Avenue by 2024. The extension of Imperial Avenue further south to McCabe Road is not currently funded.

With the extension of Imperial Avenue to Danenberg Drive and the connection of Wake Avenue to Imperial Avenue, the traffic flow through the 8th Avenue (Clark Avenue) / Wake Avenue intersection will change. The high volumes in the southbound left turn and westbound right-turn volumes are expected to reduce and the volumes in the eastbound and westbound through volumes are expected to increase.

4.3 Existing Traffic Volumes – AM and PM Peak Hour and ADT

Existing peak hour intersection turning movement volume counts and daily segment volume counts were conducted during the third week of December 2021 at all study area intersections and roadway segments.

Due to Covid, traffic counts conducted at this time may not reflect normal traffic volumes. Hence, research was conducted to identify historical traffic volume counts in the Project study area. Pre-Covid (2019) counts were obtained from previous LLG projects and from the Caltrans Traffic Census website: https://dot.ca.gov/programs/traffic-operations/census at some of the study area intersections and segments.

Comparison of the roadway segment and freeway mainline segment volumes proved inconclusive. However, counts at three of the study area intersections were also obtained and compared. It was determined that the Pre-Covid and Covid volumes are similar. Therefore, it was decided to use the December 2021 volumes in the analysis without applying a Covid factor.

Appendix A contains the count sheets. The existing segment volumes are summarized in ***Table 4-1.***

TABLE 4-1
EXISTING TRAFFIC VOLUMES

Segment	ADT
Wake Avenue	
8th Street to Thomas Drive	7,960
6th Street to 4th Street (SR-86)	9,610
4th Street (SR-86)	
Ross Avenue to Aurora Drive	23,150
I-8 Eastbound Ramps to Wake Avenue	23,970
SR-86	
Wake Avenue to Danenberg Drive	14,090
Danenberg Drive to McCabe Road	9,960
Danenberg Drive	
SR-86 to Dogwood Road	7,880

4.4 Existing Intersection Levels of Service

Table 4–2 summarizes the Existing intersections level of service. As seen in *Table 4–2*, all signalized intersections are calculated to operate at LOS C or better and the minor street worst case movements at all unsignalized intersections are calculated to operate at LOS D or better.

Appendix B contains the Existing intersection analysis worksheets.

4.5 Existing Segment Levels of Service

Table 4–3 summarizes the Existing segment level of service. As seen in *Table 4–3*, all segments are calculated to operate at LOS B or better.

TABLE 4–2
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Delay [a]	LOS [b]
1. Wake Ave / 8th St	Signal	AM	29.3	C
		PM	33.6	C
2. Wake Ave / Thomas Dr	AWSC [c]	AM	9.1	A
		PM	10.2	B
3. Wake Ave / 6th St	TWSC [d]	AM	11.1	B
		PM	14.7	B
4. 4th St (SR-86) / Ross Ave	Signal	AM	41.4	D
		PM	40.3	D
5. 4th St (SR-86) / I-8 WB Ramps	Signal	AM	29.0	C
		PM	23.3	C
6. 4th St (SR-86) / I-8 EB Ramps	Signal	AM	38.1	D
		PM	40.1	D
7. 4th St (SR-86) / Wake Ave	Signal	AM	31.8	C
		PM	34.6	C
8. 4th St (SR-86) / Danenberg Dr	Signal	AM	12.4	B
		PM	30.6	C
9. Dogwood Rd / Danenberg Dr	Signal	AM	28.1	C
		PM	46.3	D
10. 6th St / Spears Ave	AWSC	AM	7.0	A
		PM	7.0	A

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. AWSC – All-Way-Stop-Controlled intersection. Overall delay and LOS reported.
d. TWSC – Two-Way Stop Controlled intersection. Minor street worst-case delay and LOS are reported.

General ***Note***:
Bold indicates LOS E or worse operation

SIGNALIZED		UNSIGNALIZED	
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 4–3
EXISTING SEGMENT OPERATIONS

Intersection	Functional Classification [a]	LOS E Capacity [b]	Volume	LOS [c]	V/C [d]
Wake Avenue					
8th Str to 6th St	4-Ln Col (w/ TWLTL)	24,000 [e]	7,960	A	0.332
6th St to 4th St (SR-86)	4-Ln Col (w/ TWLTL)	24,000 [e]	9,610	A	0.400
4th Street (SR-86)					
Ross Ave to I-8	4-Ln Art (w/ TWLTL)	36,000	23,150	B	0.643
I-8 to Wake Ave	4-Ln Divided Arterial	36,000 [f]	23,970	B	0.666
Wake Ave to Danenberg Dr	3-Ln Divided Arterial	27,000 [g]	14,090	A	0.522
Danenberg Dr to McCabe Rd	3-Ln Divided Arterial	27,000 [g]	9,960	A	0.369
Danenberg Drive					
SR-86 to Dogwood Rd	2-Ln Arterial	18,000 [g]	7,880	A	0.438

Footnotes:

a. The roadway classification at which the road currently operates.
b. The capacity of the roadway at LOS E. – Capacities are determined by the *City of El Centro General Plan* – Capacities are calculated if City of El Centro does not state LOS Thresholds and Capacities
c. Level of Service.
d. Volume/Capacity ratio.
e. Capacity of a 4-Lane Collector is not given. Therefore, twice the capacity of a 2-Lane Collector is used.
f. This segment has a raised median. The capacity of a 4-Lane Divided Arterial (w/ left-turn lane) is assumed.
g. This segment has three lanes, one in the southbound direction and two lanes in the northbound direction and a raised median. 75% of a 4-Lane Divided Arterial (w/ left-turn lane) capacity is assumed.

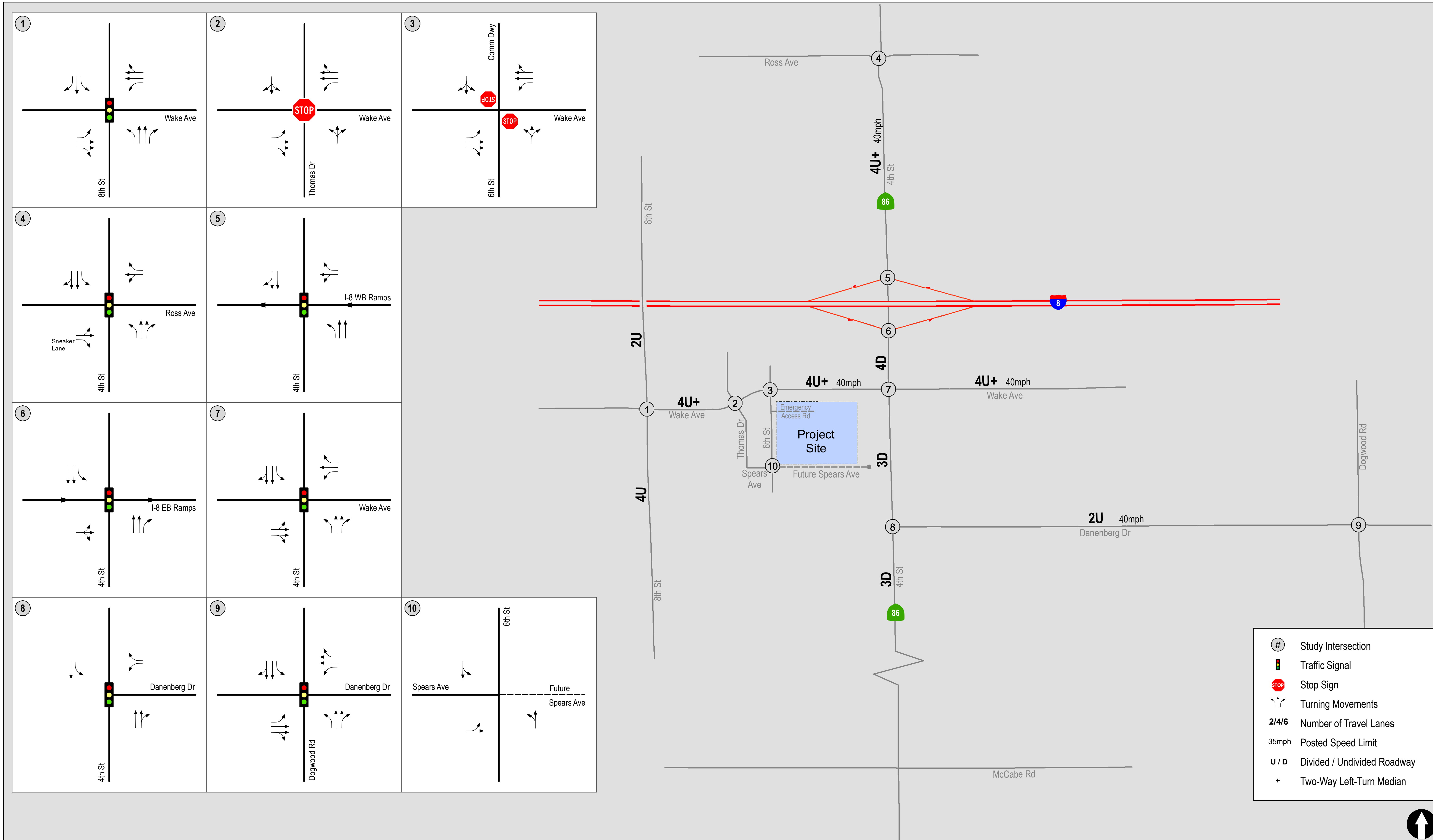

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Figure 5-1

Existing Conditions Diagram

Wake Avenue Affordable Housing

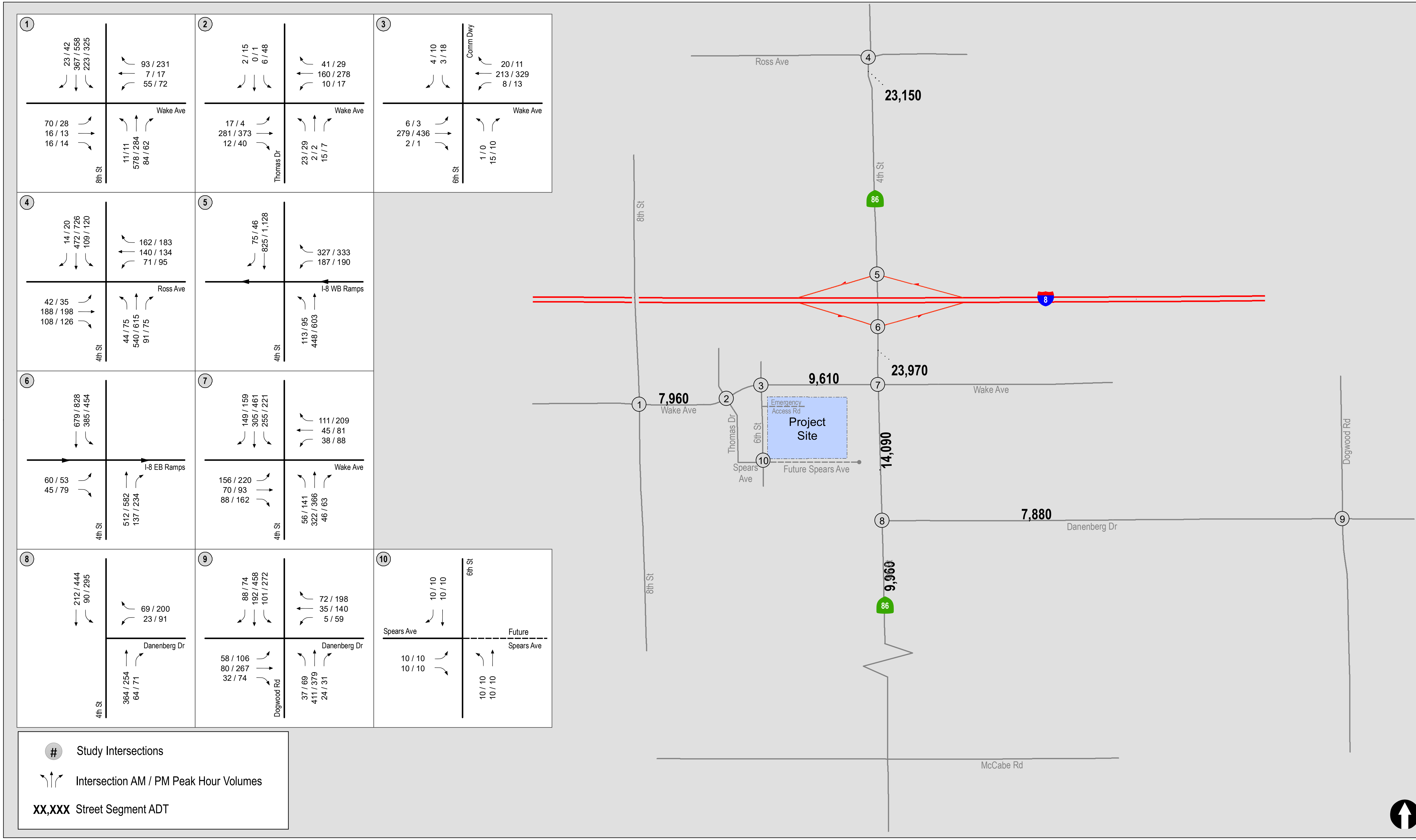

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Figure 4-2
Existing Traffic Volumes

Wake Avenue Affordable Housing

LINSCOTT LAW & GREENSPAN engineers

5.0 PROJECT TRAFFIC

5.1 Trip Generation

The trip rates for "Affordable Housing", Land Use 223 provided in the 11th Edition of the *Trip Generation* manual published by the Institute of Transportation Engineers (ITE) were used to estimate the trips generated by the proposed land use.

Table 5-1 summarizes the project trip generation. As seen in *Table 5-1*, the Project is calculated to generate a total of 1,214 daily trips with 80 AM peak hour trips (23 inbound and 57 outbound) and 110 PM peak hour trips (65 inbound 45 outbound).

5.2 Trip Distribution and Assignment

Project trip distribution was developed based on existing traffic patterns, location of schools, work and shopping opportunities and the regional roadway network.

Figure 5-1 depicts the Project trip distribution. Project traffic was distributed and assigned based on the distribution percentages on *Figure 5-1*.

Figure 5-2 depicts the Project trip distribution, while ***Figure 5-3*** depicts the Existing + Project traffic volumes.

TABLE 5-1
TRIP GENERATION

Land Use	Size		Daily Trip Ends (ADT)		AM Peak Hour							PM Peak Hour						
			Rate [a]	Volume	Rate		In:Out Split		Volume			Rate		In:Out Split		Volume		
									In	Out	Total [c]					In	Out	Total [d]
Affordable Housing	288	DU	[b]	**1,214**	0.28	/DU	29 :	71	**23**	**57**	**80**	0.38	/DU	59 :	41	**65**	**45**	**110**

Footnotes:

a. Rates are based on Institute of Transportation Engineers (ITE) *Trip Generation Manual 11th Edition* (Land Use 223).
b. Weekday Fitted Curve Equation: T = 3.73(X) + 139.35
c. Total was calculated using the AM Peak Hour Fitted Curve Equation: T = 0.21(X) + 17.21
d. Total was calculated using the PM Peak Hour Fitted Curve Equation: Ln(T) = 0.72Ln(X) + 0.64

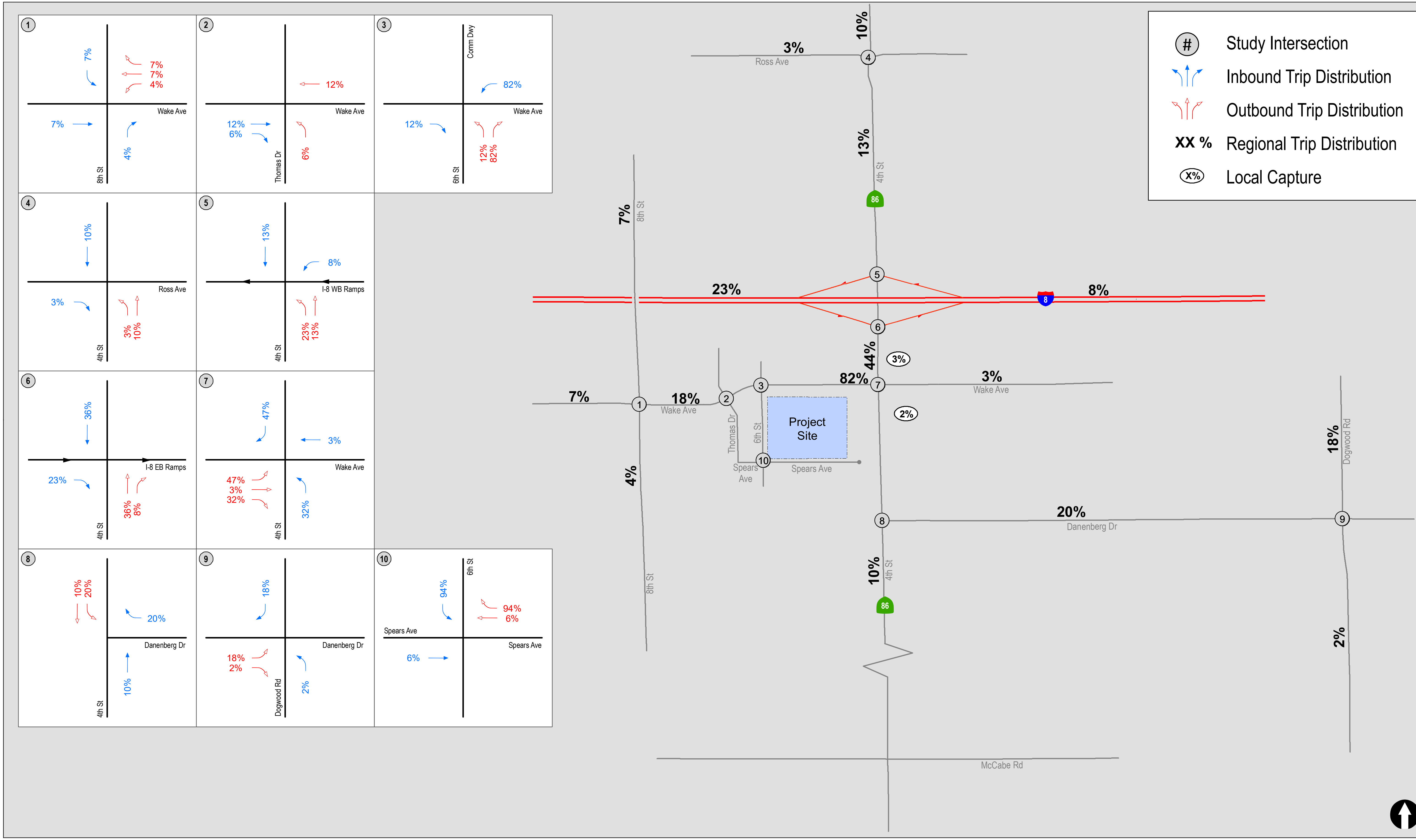

Figure 5-1
Project Traffic Distribution

Linscott Law & Greenspan engineers

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Wake Avenue Affordable Housing

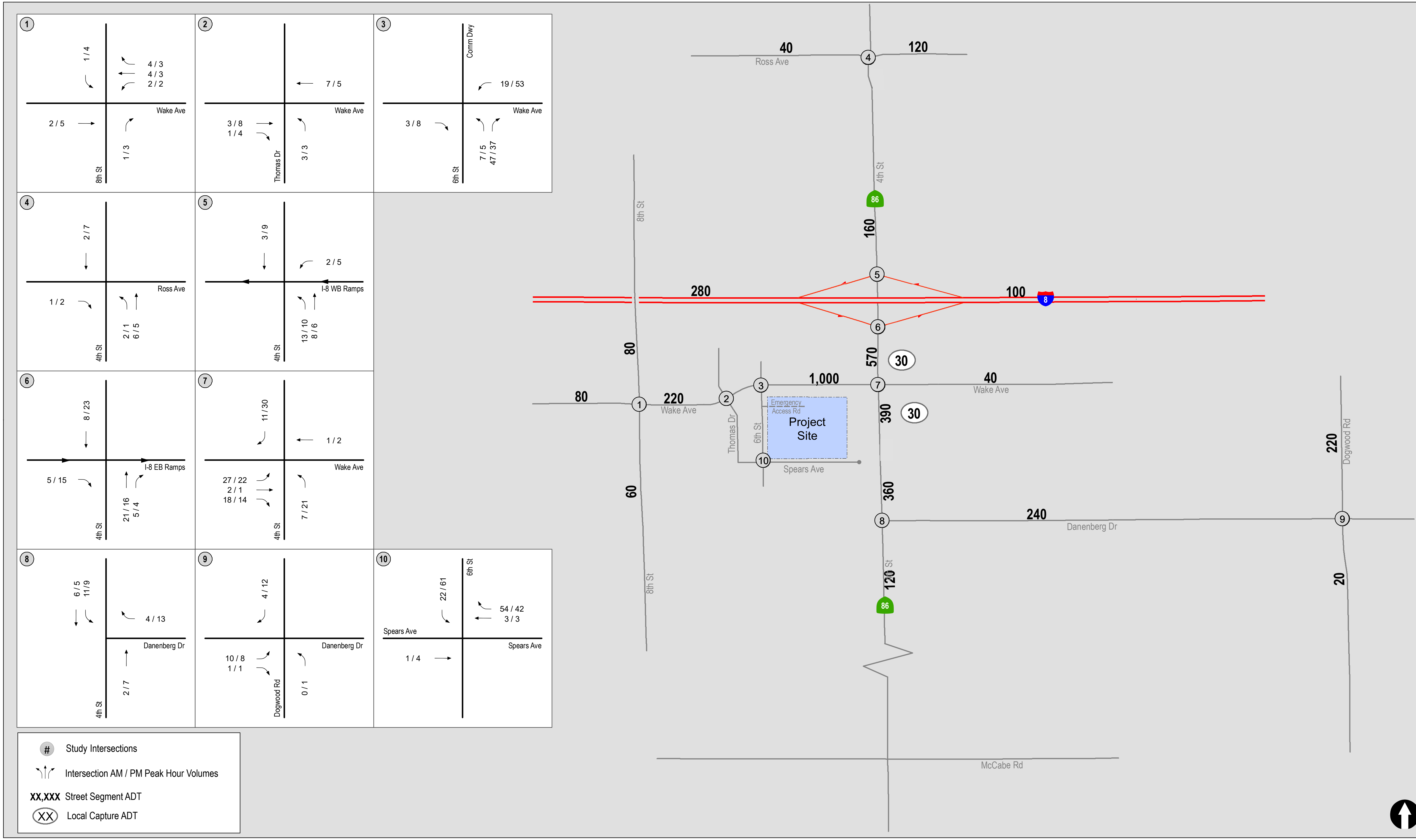

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Figure 5-2
Project Traffic Volumes

Wake Avenue Affordable Housing

6.0 EXISTING + PROJECT ANALYSIS

6.1 Intersection Level of Service

Table 6–1 summarizes the Existing + Project intersections level of service. As seen in *Table 6–1*, with the addition of Project traffic, the minor street worst case movements at all unsignalized intersections are calculated to operate at LOS D or better and all signalized intersections are calculated to operate at LOS D or better.

Appendix C contains the Existing + Project intersection analysis worksheets.

6.2 Segment Levels of Service

Table 6–2 summarizes the Existing + Project segment level of service. As seen in *Table 6–2*, with the addition of Project traffic, all segments are calculated to operate at LOS B or better.

6.3 Identification of Intersection Deficiencies and Improvements.

No intersection or segment substantial effects are identified and hence no improvements are required.

TABLE 6–1
EXISTING + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Δ [e]	Substantial Effect?
			Delay [a]	LOS [b]	Delay	LOS		
1. Wake Ave / 8th St	Signal	AM	29.3	C	29.6	C	0.3	No
		PM	33.6	C	34.2	C	0.6	No
2. Wake Ave / Thomas Dr	AWSC [c]	AM	9.1	A	9.2	A	0.1	No
		PM	10.2	B	10.4	B	0.2	No
3. Wake Ave / 6th St	TWSC [d]	AM	11.1	B	11.8	B	0.7	No
		PM	14.7	B	17.8	C	3.1	No
4. 4th St (SR-86) / Ross Ave	Signal	AM	41.4	D	41.5	D	0.1	No
		PM	40.3	D	40.4	D	0.1	No
5. 4th St (SR-86) / I-8 WB Ramps	Signal	AM	29.0	C	30.5	C	1.5	No
		PM	23.3	C	24.1	C	0.8	No
6. 4th St (SR-86) / I-8 EB Ramps	Signal	AM	38.1	D	38.1	D	0.0	No
		PM	40.1	D	40.2	D	0.1	No

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TABLE 6–1 (CONTINUED)
EXISTING + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Δ [e]	Substantial Effect?
			Delay [a]	LOS [b]	Delay	LOS		
CONTINUED FROM THE PREVIOUS PAGE								
7. 4th St (SR-86) / Wake Ave	Signal	AM	31.8	C	33.5	C	1.7	No
		PM	34.6	C	37.5	D	2.9	No
8. 4th St (SR-86) / Danenberg Dr	Signal	AM	12.4	B	12.7	B	0.3	No
		PM	30.6	C	36.5	D	5.9	No
9. Dogwood Rd / Danenberg Dr	Signal	AM	28.1	C	28.9	C	0.8	No
		PM	46.3	D	47.6	D	1.3	No
10. 6th St / Spears Ave	AWSC	AM	7.0	A	7.1	A	0.1	No
		PM	7.0	A	7.4	A	0.4	No

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. AWSC – All-Way-Stop-Controlled intersection. Overall delay and LOS reported.
d. TWSC – Two-Way Stop Controlled intersection. Minor street worst-case delay and LOS are reported.
e. Δ = Increase in delay due to Project traffic.

SIGNALIZED		UNSIGNALIZED	
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 6–2
EXISTING + PROJECT SEGMENT OPERATIONS

Intersection	Functional Classification [a]	LOS E Capacity [b]	Existing			Existing + Project			Δ Delay [e]	Substantial Effect?
			Volume	LOS [c]	V/C [d]	Volume	LOS	V/C		
Wake Avenue										
8^{th} St to 6^{th} St	4-Ln Col (w/ TWLTL)	24,000 [d]	7,960	A	0.332	8,180	A	0.341	0.009	No
6^{th} St to 4^{th} St (SR-86)	4-Ln Col (w/ TWLTL)	24,000 [d]	9,610	A	0.400	10,610	A	0.442	0.042	No
4^{th} Street (SR-86)										
Ross Ave to I-8	4-Ln Art (w/ TWLTL)	36,000	23,150	B	0.643	23,310	B	0.648	0.004	No
I-8 to Wake Ave	4-Ln Divided Arterial	36,000 [e]	23,970	B	0.666	24,580	B	0.683	0.017	No
Wake Ave to Danenberg Dr	3-Ln Divided Arterial	27,000 [f]	14,090	A	0.522	14,480	A	0.536	0.014	No
Danenberg Dr to McCabe Rd	3-Ln Divided Arterial	27,000 [f]	9,960	A	0.369	10,080	A	0.373	0.004	No
Danenberg Drive										
SR-86 to Dogwood Rd	2-Ln Arterial	18,000 [g]	7,880	A	0.438	8,120	A	0.451	0.013	No

Footnotes:

a. The roadway classification at which the road currently operates.
b. The capacity of the roadway at LOS E. – Capacities are determined by the *City of El Centro General Plan* – Capacities are calculated if City of El Centro does not state LOS Thresholds and Capacities
c. Level of Service.
d. Volume/Capacity ratio.
e. Increase in V/C ratio due to the Project
f. Capacity of a 4-Lane Collector is not given. Therefore, twice the capacity of a 2-Lane Collector is used.
g. This segment has a raised median. The capacity of a 4-Lane Divided Arterial (w/ left-turn lane) is assumed.
h. This segment has three lanes, one in the southbound direction and two lanes in the northbound direction and a raised median. 75% of a 4-Lane Divided Arterial (w/ left-turn lane) capacity is assumed.

7.0 CUMULATIVE TRAFFIC VOLUMES

Based on discussions with the City of El Centro Staff, the following cumulative Projects were identified in the Project vicinity. Brief descriptions of each cumulative project are given below.

CHP Station: The proposed CHP Station will be located at the northwest corner of the SR 86 / Wake Avenue intersection. This project will have 33 employees and is estimated to generate a total of 357 daily trips with 36 AM peak hour trips (24 inbound and 12 outbound) and 24 PM peak hour trips (9 inbound and 15 outbound).

State Courthouse Office: The proposed State Courthouse Office will be located on the north side of Wake Street, between 8th Street and 4th Street. This project consists of 47,000 SF of office space and is estimated to generate a total of 1,057 daily trips with 157 AM peak hour trips (118 inbound and 39 outbound) and 78 PM peak hour trips (20 inbound and 58 outbound).

Imperial Avenue Extension: The Imperial Avenue Extension Project proposes to extend the existing Imperial Avenue from Wake Avenue to McCabe Avenue. This project will not generate new traffic but will be beneficial to parallel facilities as traffic will divert to Imperial Avenue.

Table 7-1 summarizes the trip generation for the cumulative projects. As seen in *Table 7-1*, the cumulative projects are calculated to generate a total of 1,414 daily trips with 193 AM peak hour trips (142 inbound and 51 outbound) and 102 PM peak hour trips (29 inbound and 73 outbound).

TABLE 7-1
CUMULATIVE PROJECTS TRIP GENERATION

Land Use	Size		Daily Trip Ends (ADT)	AM Peak Hour Volume			PM Peak Hour Volume		
				In	**Out**	**Total**	**In**	**Out**	**Total**
CHP Station [a]	33	Employees	357	24	12	36	9	15	24
State Courthouse Office [b]	47,000	SF	1,057	118	39	157	20	58	78
Total Proposed			**1,414**	**142**	**51**	**193**	**29**	**73**	**102**

Footnotes:

a. Rates from CHP El Centro Area Office Replacement Project Initial Study/Mitigated Negative Declaration dated June 2018, prepared by Horizon Water and Environment, LLC
b. Rates for Land Use 730 Government Office Building from ITE Trip Generation 10th Edition.
c. This project does not generate new traffic, hence none is shown.

Figure 7-1 depicts the Cumulative Project traffic volumes and ***Figure 7-2*** depicts the Existing + Project + Cumulative Project traffic volumes.

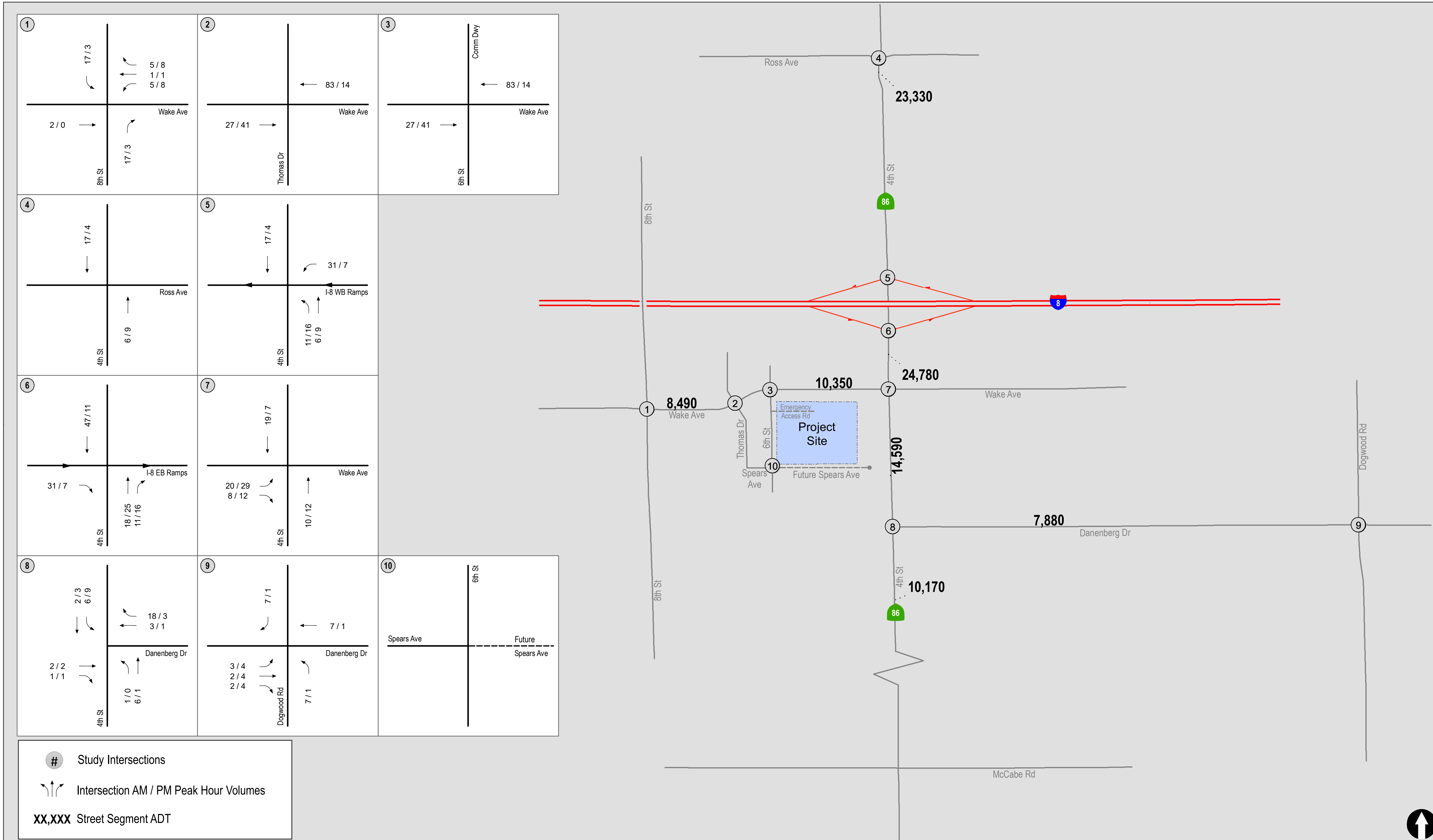

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Figure 7-1
Cumulative Projects Traffic Volumes

Wake Avenue Affordable Housing

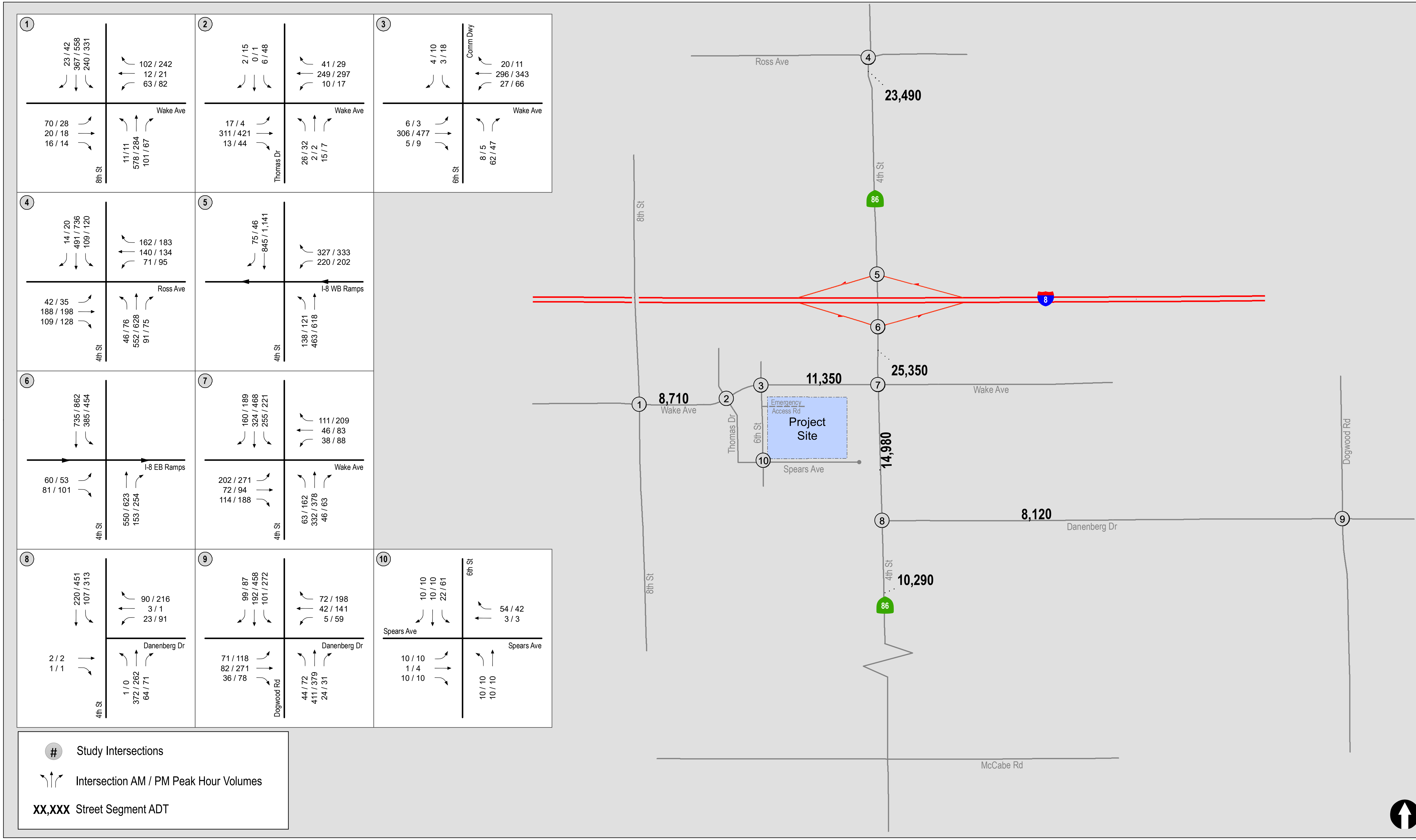

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Figure 7-2

Existing + Project + Cumulative Projects Traffic Volumes

Wake Avenue Affordable Housing

8.0 NEAR-TERM ANALYSIS

8.1 Existing + Cumulative Analysis

8.1.1 *Intersection Level of Service*

Table 8–1 summarizes the Existing + Cumulative projects intersections level of service. As seen in *Table 8–1*, with the addition of Cumulative projects traffic, the minor street worst case movements at all unsignalized intersections are calculated to operate at LOS D or better and all signalized intersections are calculated to operate at LOS D or better.

Appendix D contains the Existing + Cumulative projects intersection analysis worksheets.

8.2 Segment Levels of Service

Table 8–2 summarizes the Existing + Cumulative projects segment level of service. As seen in *Table 8–2*, with the addition of Cumulative projects traffic, all segments are calculated to operate at LOS B or better.

8.3 Existing + Cumulative Projects + Project Analysis

8.3.1 *Intersection Level of Service*

Table 8–1 summarizes the Existing + Cumulative projects + Project intersection level of service. As seen in *Table 8–1*, with the addition of Project traffic, the minor street worst case movements at all unsignalized intersections are calculated to operate at LOS D or better and all signalized intersections are calculated to operate at LOS D or better.

Appendix E contains the Existing + Cumulative projects + Project intersection analysis worksheets.

8.3.2 *Segment Levels of Service*

Table 8–2 summarizes the Existing + Cumulative projects + Project segment level of service. As seen in *Table 8–2,* with the addition of Project traffic, all segments are calculated to operate at LOS C or better.

8.4 Identification of Intersection Deficiencies and Improvements.

No intersection or segment deficiencies are identified and hence no improvements are required.

TABLE 8–1
NEAR-TERM INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Cumulative		Existing + Project + Cumulative Projects		Δ Delay [c]	Substantial Effect?
			Delay [a]	LOS [b]	Delay	LOS	Delay	LOS		
1. Wake Ave / 8th St	Signal	AM	29.3	C	31.0	C	31.4	C	0.4	No
		PM	33.6	C	36.2	D	36.8	D	0.6	No
2. Wake Ave / Thomas Dr	AWSC [d]	AM	9.1	A	9.6	A	9.7	A	0.1	No
		PM	10.2	B	10.7	B	10.8	B	0.1	No
3. Wake Ave / 6th St	TWSC [e]	AM	11.1	B	12.1	B	12.9	B	0.8	No
		PM	14.7	B	15.3	C	18.8	C	3.5	No
4. 4th St (SR-86) / Ross Ave	Signal	AM	41.4	D	41.4	D	41.5	D	0.1	No
		PM	40.3	D	40.4	D	40.5	D	0.1	No
5. 4th St (SR-86) / I-8 WB Ramps	Signal	AM	29.0	C	31.6	C	33.7	C	2.1	No
		PM	23.3	C	24.2	C	25.1	C	0.9	No
6. 4th St (SR-86) / I-8 EB Ramps	Signal	AM	38.1	D	38.5	D	38.5	D	0.0	No
		PM	40.1	D	40.0	D	40.0	D	0.0	No
7. 4th St (SR-86) / Wake Ave	Signal	AM	31.8	C	32.6	C	32.6	C	0.0	No
		PM	34.6	C	35.9	D	38.5	D	2.6	No

Continued on the next Page

TABLE 8–1 (CONTINUED)
NEAR-TERM INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Cumulative		Existing + Project + Cumulative Projects		Δ Delay [c]	Substantial Effect?
			Delay [a]	LOS [b]	Delay	LOS	Delay	LOS		
Continued from the previous Page										
8. 4th St (SR-86) / Danenberg Dr	Signal	AM	12.4	B	13.0	B	13.3	B	0.3	No
		PM	30.6	C	32.5	C	38.4	D	5.9	No
9. Dogwood Rd / Danenberg Dr	Signal	AM	28.1	C	28.6	C	29.5	C	0.9	No
		PM	46.3	D	46.7	D	47.3	D	0.6	No
10. 6th St / Spears Ave	AWSC	AM	7.0	A	7.0	A	7.1	A	0.1	No
		PM	7.0	A	7.0	A	7.4	A	0.4	No

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Increase in delay due to Project traffic.
d. AWSC – All-Way-Stop-Controlled intersection. Overall delay and LOS reported.
e. TWSC – Two-Way Stop Controlled intersection. Minor street worst-case delay and LOS are reported.

SIGNALIZED		UNSIGNALIZED	
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 8–2
EXISTING + PROJECT +CUMULATIVE PROJECTS OPERATIONS

Intersection	Functional Classification [a]	LOS E Capacity [b]	Existing + Cumulative Projects			Existing + Project + Cumulative Projects			Δ Delay [e]	Substantial Effect?
			Volume	LOS [c]	V/C [d]	Volume	LOS	V/C		
Wake Avenue										
8th St to 6th St	4-Ln Col (w/ TWLTL)	24,000 [f]	8,490	A	0.354	8,710	A	0.363	0.009	No
6th St to 4th St (SR-86)	4-Ln Col (w/ TWLTL)	24,000b[f]	10,350	A	0.431	11,350	A	0.473	0.042	No
4th Street (SR-86)										
Ross Ave to I-8	4-Ln Art (w/ TWLTL)	36,000	23,330	B	0.648	23,490	B	0.653	0.004	No
I-8 to Wake Ave	4-Ln Divided Art W Median	36,000 [g]	24,780	B	0.688	25,390	C	0.705	0.017	No
Wake Ave to Danenberg Dr	3-Ln Divided Art W Median	27,000 [h]	14,590	A	0.540	14,980	A	0.555	0.015	No
Danenberg Dr to McCabe Rd	3-Ln Divided Art W Median	27,000 [h]	10,170	A	0.377	10,290	A	0.381	0.004	No
Danenberg Drive										
SR-86 to Dogwood Rd	2-Lane Arterial	18,000	7,880	A	0.438	8,120	A	0.451	0.013	No

Footnotes:

a. The roadway classification at which the road currently operates.
b. The capacity of the roadway at LOS E. – Capacities are determined by the *City of El Centro General Plan* – Capacities are calculated if City of El Centro does not state LOS Thresholds and Capacities
c. Level of Service.
d. Volume/Capacity ratio.
e. Increase in V/C ratio due to the Project
f. Capacity of a 4-Lane Collector is not given. Therefore, twice the capacity of a 2-Lane Collector is used.
g. This segment has a raised median. The capacity of a 4-Lane Divided Arterial (w/ left-turn lane) is assumed.
h. This segment has three lanes, one in the southbound direction and two lanes in the northbound direction and a raised median. 75% of a 4-Lane Divided Arterial (w/ left-turn lane) capacity is assumed.

9.0 SITE ACCESS ASSESSMENT

One access driveway is planned to Spears Avenue on the southern boundary of the site. This access will provide adequate access to the residents. Since Spears Avenue is a cul-de-sac to the east of the property, the project driveway will function as a turn in the street with no opposing traffic.

An emergency only access will be provided at the northwest corner of the site to 6th Street. This access will not be open to the residents for day-to-day access.

Based on the above discussion, sufficient access is provided at this site.

10.0 ACTIVE TRANSPORTATION CONDITIONS

10.1 Pedestrian Conditions

Continuous sidewalks are provided in the Project vicinity as follows:

- Along both sides of 4th Street (SR-86), north of Wake Avenue, and on the east side of 4th Street (SR-86), south of Wake Avenue.
- Along both curbs of Wake Avenue between 8th Street (Clark Avenue) and 6th Street; east of 4th Street (SR 86); and on the north side of Wake Avenue, between 6th Street and 4th Street (SR-86).
- Along the west curb of 8th Street.
- Along both curbs of Thomas Drive.
- Along the west curb of 6th Street.
- Along both curbs of 4th Street (SR 86) north of Wake Avenue and along the east curb of 4th Street (SR 86) south of Wake Avenue.

It is recommended that the Project should provide the following missing sidewalks in the Project vicinity:

1. Construct Spears Avenue along the Project frontage east of 6th Street and provide curb, gutter and sidewalks
2. Construct curb, gutter and sidewalk, along the east curb of 6th Street between Spears Avenue and Wake Avenue, along the Project frontage.

In order to provide potential connectivity between the Project site and 4th Street, it would be advantageous to provide sidewalk along the missing section of Wake Avenue between 6th Street and 4th Street.

10.2 Bicycle Conditions

Currently, there is a Class III bike route along 8th Street and Dogwood Road and on Ross Avenue, west of 4th Street (SR-86). There are no other bicycle facilities provided along the remaining street segments within the study area, nor are any proposed.

10.3 Transit Conditions

The Imperial Valley Transit (IVT) operates within the study area. A description of the transit services within the Project vicinity are as follows:

Blue Line – El Centro

The Imperial Valley Transit (IVT) Blue line begins at State Street / 7th Street and ends at State Street / 7th Street. There are 17 stops along this route. It operates on the weekdays from approximately 6 AM to 6:30 PM. Services are at 140-minute frequency.

Stops at the above route are located along 4th Street (SR-86), Wake Avenue, and Danenberg Drive. The nearest bus stop at the project site is on Wake Avenue, east of 4th Street (SR-86).

Route 1S

The IVT Route 1S begins at State Street / 7th Street, El Centro and ends at Hacienda Drive / Ollie Avenue, Calexico. There are 13 stops along this route. It operates on the weekdays from approximately 6 AM to 11 PM. Saturday service operates from approximately 7 AM to 7 PM. Sunday service operates from approximately 8:30 AM to 5 PM. Services are at 30 to 60-minute frequency.

Stops at the above route are located along 4th Street (SR-86). The nearest bus stop at the project site is on 4th Street (SR-86), north of Wake Avenue.

Route 1N

The IVT Route 1S begins at Hacienda Drive / Ollie Avenue, Calexico and ends at State Street / 7th Street, El Centro. There are 25 stops along this route. It operates on the weekdays from approximately 6 AM to 11:30 PM. Saturday service operates from approximately 7 AM to 8:30 PM. Sunday service operates from approximately 7 AM to 5 PM. Services are at 30 to 60-minute frequency.

Stops at the above route are located along 4th Street (SR-86). The nearest bus stop at the project site is on 4th Street (SR-86), south of Wake Avenue.

Appendix F contains the transit bus routes and schedules.

11.0 PROJECT VMT ANALYSIS

The Governor's Office of Planning and Research (OPR) as a service to professional planners, land use officials, and CEQA practitioners published a Technical Advisory as part of a series of advisories in December 2018. In the section on "Screening Thresholds for Land Use Projects". Some projects are screened out from requiring a VMT analysis based on several criteria. The following Screening Criterion applies to the subject project.

The Presumption of Less Than Significant Impact for Affordable Residential Development

Adding affordable housing to infill locations generally improves jobs-housing match, in turn shortening commutes and reducing VMT. Further, "… low-wage workers in particular would be more likely to choose a residential location close to their workplace, if one is available." In areas where existing jobs-housing match is closer to optimal, low-income housing nevertheless generates less VMT than market-rate housing. Therefore, a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT. Evidence supports a presumption of less than significant impact for a 100 percent affordable residential development (or the residential component of a mixed-use development) in infill locations. Lead agencies may develop their own presumption of less than significant impact for residential projects (or residential portions of mixed-use projects) containing a particular amount of affordable housing, based on local circumstances and evidence. Furthermore, a project which includes any affordable residential units may factor the effect of the affordability on VMT into the assessment of VMT generated by those units.

Based on the above, since the subject Project is a 100% affordable housing project, it is presumed to have less than significant impact. Hence a VMT analysis is not required for this Project.

12.0 CONCLUSIONS

The subject Project is a 100% affordable housing project and therefore a VMT analysis is not required.

The intersection and segment analyses indicate that the increase in delay at intersections and the increase in v/c ratio at the segments do not exceed the City's allowable threshold and therefore the Project is not required to implement any improvements.

It is recommended that the Project should provide the following:

1. Construct Spears Avenue along the Project frontage east of 6th Street and provide curb, gutter and sidewalks
2. Construct curb, gutter and sidewalk, along the east curb of 6th Street between Spears Avenue and Wake Avenue, along the Project frontage.

In order to provide potential connectivity between the Project site and 4th Street, it would be advantageous to provide sidewalk along the missing section of Wake Avenue between 6th Street and 4th Street.

end of Report