Updated Traffic Study

Fair Park Crossing

prepared for:

Fair Park Crossing, LLC

Caraway Road, Race Street
and
Fair Park Boulevard

Jonesboro, Arkansas

PETERS & ASSOCIATES
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Project No.: P-2037

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EXECUTIVE SUMMARY

Peters & Associates Engineers, Inc., has conducted a traffic engineering study in conjunction with assessing vehicular access to the proposed Fair Park Crossing commercial development. This report is an update to the traffic study report dated May 7, 2020 and reflects changes to the subdivision plat for Fair Park Crossing.

The site is east of Caraway Road, south of Race Street and west of Fair Park Boulevard. Access to the Fair Park Crossing commercial development is proposed via four fully-directional access drives. One of the access drives (Lot 5 Drive) is proposed to intersect Caraway Road. Two of the access drives (Drive R-1 and Drive R-2) are proposed to intersect Race Street. The other access drive (Drive F-1) is proposed to intersect Fair Park Boulevard. The primary focus of this report is to assess traffic operational characteristics of the access drive intersections proposed to serve the site.

Directional splits and proposed street assignments for site-generated traffic volumes at the study intersections were made based on existing traffic patterns and the transportation network and the proposed Fair Park Crossing development tracts layout.

Projected traffic volumes were calculated for full build-out of the proposed Fair Park Crossing development with planned or assumed land-uses. These projected site-generated trips were added to the existing traffic volumes which resulted in projected traffic volumes at full build-out of the site as proposed. As a part of this study, capacity and level of service traffic operational analysis has been conducted for the study intersections for AM, noon and PM peak hours for projected traffic conditions.

Findings of this study are summarized as follows:

- Approximately 2,795 vehicle trips (combined in and out) per average weekday are projected to be generated by full build-out of the proposed Fair Park Crossing development commercial land uses on this site. Of this total for full build-out conditions, approximately 128 vehicle trips are estimated during the traffic conditions of the AM peak hour, approximately 250 vehicle trips

are estimated during the traffic conditions of the noon peak hour and approximately 183 vehicle trips are estimated during the traffic conditions of the PM peak hour.

- Capacity and LOS analysis was performed for projected traffic conditions for full build-out of the Fair Park Crossing development for the AM, noon and PM peak hours for the study intersections. All vehicle movements for the projected traffic conditions at the study access drive intersections proposed to serve the site are expected to operate at what calculates as an acceptable LOS "D" or better for the AM, noon and PM peak hours with existing Caraway Road, Race Street and Fair Park Boulevard lane geometry and with the new access drives assumed to be constructed as proposed. Also, the 95th percentile calculated vehicle queue length are expected to only be one vehicle at each access drive exiting the site during the AM, noon and PM with "Stop" sign control.

- The average seconds delay per vehicle is expected to be acceptable levels during the AM, noon and PM peak hours for these projected traffic conditions at each of the four study intersections.

The conclusion of traffic operational findings associated with this study is that additional traffic expected to be generated by the Fair Park Crossing development can be accommodated by the existing adjacent roadways lane geometry and proposed new access drive intersections constructed as proposed, without discernable impact on traffic flow in the vicinity.

New access drive intersections along Caraway Road, Race Street and Fair Park Boulevard must conform to design standards of the City of Jonesboro and will require approval by the City.

INTRODUCTION

Peters & Associates Engineers, Inc., has conducted a traffic engineering study in conjunction with assessing vehicular access to the proposed Fair Park Crossing commercial development. The site is east of Caraway Road, south of Race Street and west of Fair Park Boulevard. Access to the Fair Park Crossing commercial development is proposed via four fully-directional access drives. One of the access drives (Lot 5 Drive) is proposed to intersect Caraway Road. Two of the access drives (Drive R-1 and Drive R-2) are proposed to intersect Race Street. The other access drive (Drive F-1) is proposed to intersect Fair Park Boulevard. The primary focus of this report is to assess traffic operational characteristics of the access drive intersections proposed to serve the site. A reduced copy of the site plat is included in the Appendix for reference.

Directional splits and proposed street assignments for site-generated traffic volumes at the study intersections were made based on existing traffic patterns and the transportation network and the proposed Fair Park Crossing development tracts layout.

This is a report of methodology and findings relating to a traffic engineering study undertaken to:

- Evaluate existing traffic conditions in the vicinity of the site.

- Determine projected traffic volumes entering and exiting the proposed development at the access drive intersections proposed to serve the site.

- Identify the effects on traffic operations for existing traffic in combination with site-generated traffic associated with full build-out of the proposed Fair Park Crossing Development.

- Evaluate projected traffic operations for the study intersections and make recommendations for improvements which may be necessary and appropriate for acceptable traffic operations for the projected traffic conditions.

In the following sections of this traffic study report are traffic data, study methods, findings and recommendations. The study is technical in nature. Analysis techniques employed are those most commonly used in the traffic engineering profession for traffic impact analysis. Certain data and calculations relative to traffic operational analysis are referenced in the report. Complete calculations and data are included in the Appendix of the report.

THE SITE

The location of the development is in the City of Jonesboro, in Craighead County, Arkansas. The development is proposed to be constructed on the east side of Caraway Road and south side of Race Street and west of Fair Park Boulevard. The site is currently undeveloped. The proposed development site location and vicinity are shown on Figures 1 and 2, which follow.

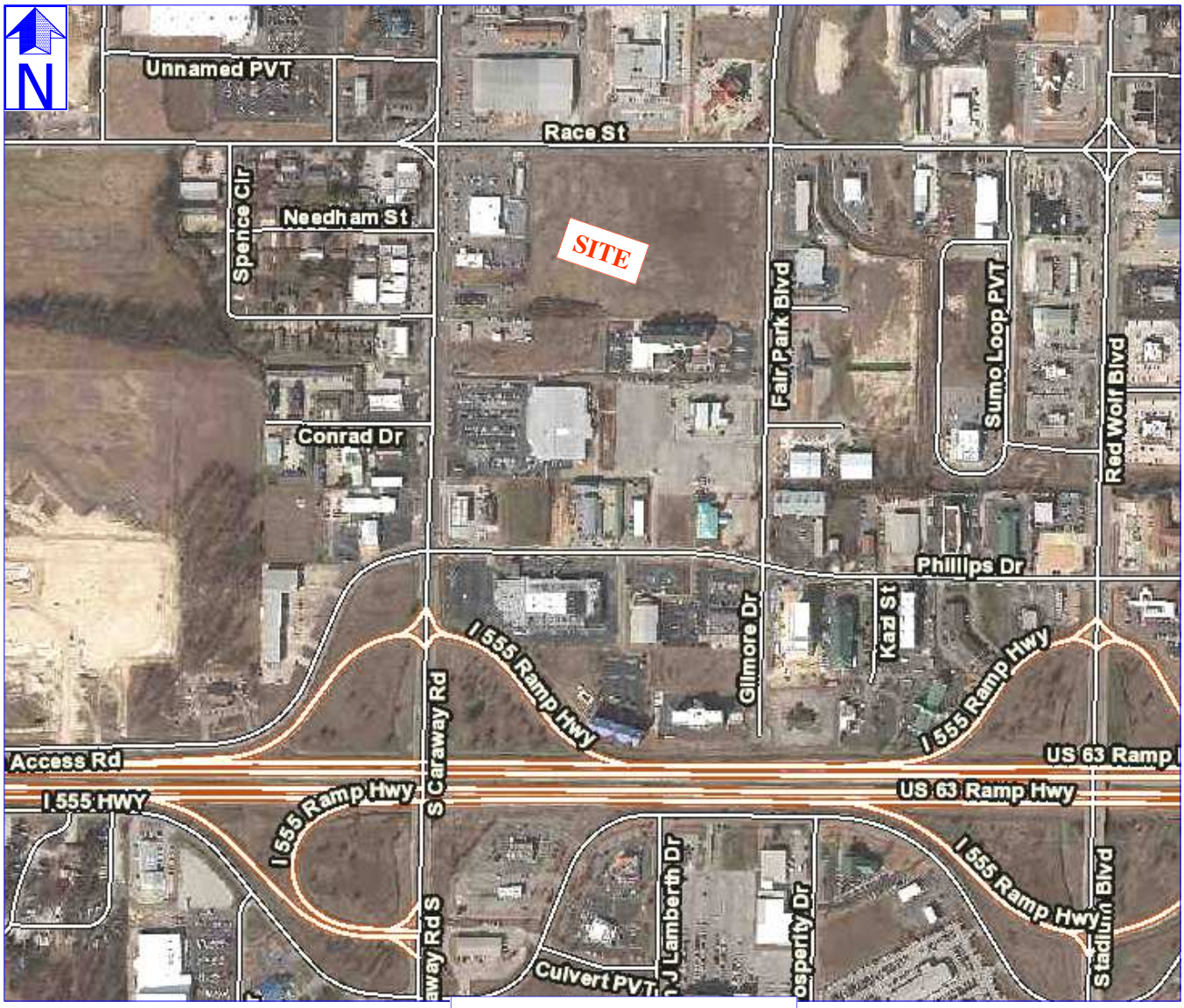


Figure 1 – Vicinity Map

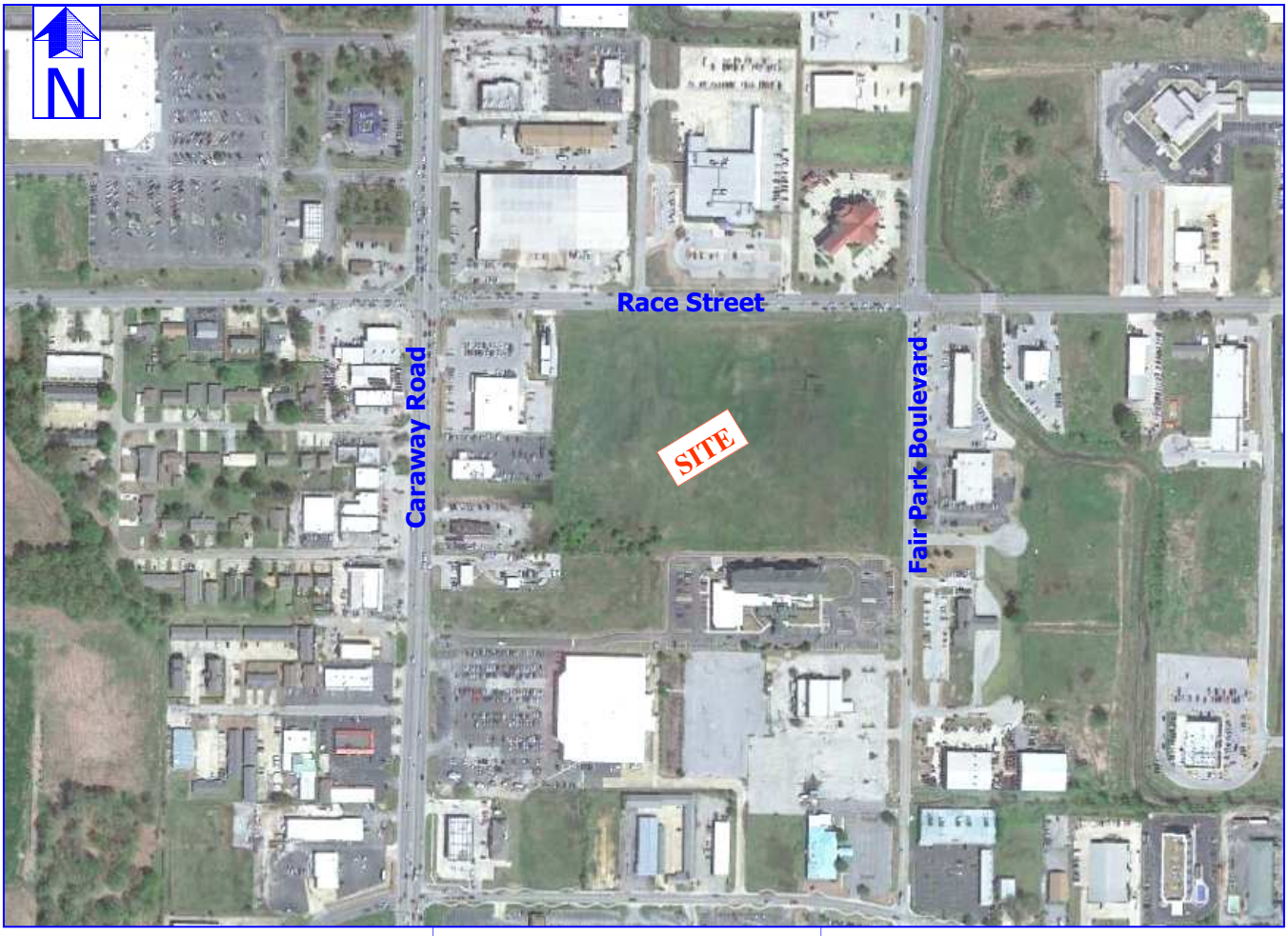


Figure 2 – Site Location Map

Access to the Fair Park Crossing commercial development is proposed via four fully-directional access drives. One of the access drives (Lot 5 Drive) is proposed to intersect Caraway Road approximately 500 feet south of Race Street. Two of the access drives (Drive R-1 and Drive R-2) are proposed to intersect Race Street. Drive R-1 is proposed to intersect Race Street approximately 500 feet east of Caraway Road. Drive R-2 is proposed to intersect Race Street approximately 300 feet east of Drive R-2 and approximately 410 feet west of Fair Park Boulevard. The other access drive (Drive F-1) is proposed to intersect Fair Park Boulevard approximately 440 feet south of Race Street. These access drives are proposed to be constructed as follows:

- Lot 5 Drive constructed to consist of an outbound right-turn lane, an outbound left-turn lane and an inbound receiving lane.

- Drive R-1, Drive R-2 and Drive F-1 each to be constructed to consist of an inbound lane and an outbound lane.

Caraway Road is a five-lane roadway in the vicinity of the site. Caraway Road is classified as a Principal Arterial on the City of Jonesboro Master Street Plan (MSP).

Race Street is a four-lane roadway in the vicinity of the site. Race Street is classified as a Minor Arterial on the City of Jonesboro (MSP).

Fair Park Boulevard is a two-lane roadway in the vicinity of the site. Fair Park Boulevard is classified as a Collector on the City of Jonesboro (MSP).

EXISTING TRAFFIC CONDITIONS

Since schools are temporarily closed and some local businesses are currently closed due to Covid-19 virus, current traffic counts would not be representative of actual daily and peak hour conditions. Therefore, the method to calculate existing traffic volumes for the study intersections is described as follows.

Arkansas Department of Transportation (ARDOT) published average daily traffic (ADT) data has been researched for Caraway Road and for Race Street in the vicinity of the site. ARDOT published 2018 average daily traffic ADT on Caraway Road in the vicinity of the site is 24,000 vehicles per day. ARDOT published 2018 average daily traffic ADT on Race Street in the vicinity of the site is 9,800 vehicles per day. It was found that volumes have not had an increase in traffic volumes at either of these locations (has reduced in some years) for the last several years. Therefore a calculated growth factor has not been added to these traffic volumes to calculate representative 2020 ADT's. The ADT's were then utilized to calculate AM, noon and PM peak hour traffic volumes on Caraway Road and on Race Street in the vicinity of the site. Previously, 24-hour traffic counts on Fair Park Boulevard, north of Race Street were made by this Consultant for a project by others. The peak hour volumes were then calculated by direction for Fair Park Boulevard, south of Race Street.

The results of the calculations for the AM, noon and PM peak hours are summarized as follows:

AM Peak Hour

Caraway Road = 840 Northbound and 960 Southbound.
Race Street = 343 Eastbound and 392 Westbound.
Fair Park Boulevard = 150 Northbound and 120 Southbound.

Noon Peak Hour

Caraway Road = 800 Northbound and 890 Southbound.
Race Street = 300 Eastbound and 340 Westbound.
Fair Park Boulevard = 270 Northbound and 300 Southbound.

PM Peak Hour

Caraway Road = 1,200 Northbound and 975 Southbound.
Race Street = 441 Eastbound and 343 Westbound.
Fair Park Boulevard = 210 Northbound and 270 Southbound.

TRIP GENERATION and SITE TRAFFIC PROJECTIONS

The Trip Generation, an Informational Report, published by the Institute of Transportation Engineers (ITE) and The Trip Generation Manual 10th Edition, 2017, were utilized in calculating the magnitude of traffic volumes expected to be generated by the proposed land uses of the site. These are reliable sources for this information and are commonly used in the traffic engineering profession. This software is the most up-to-date software for estimating vehicle trip generation at this time.

Using the selected trip generation rates, calculations were made as a part of this study to provide a reliable estimate of traffic volumes that can be expected to be associated with full build-out of the Fair Park Crossing Development as proposed. These calculations entail applying the appropriate trip-generation rates to the land uses planned or assumed for the development. Results of these calculations are summarized on Table 1, "Summary of Trip-Generation."

These calculations indicate that approximately 2,795 vehicle trips (combined in and out) per average weekday are projected to be generated by build-out of the proposed Fair Park Crossing Development land uses on this site. Of this total for full build-out conditions, approximately 128 vehicle trips are estimated during the traffic conditions of the AM peak hour, approximately 250 vehicle trips are estimated during the traffic conditions of the noon peak hour and approximately 183 vehicle trips are estimated during the traffic conditions of the PM peak hour.

These data have been adjusted for internal trip capture (i.e. multi-purpose trips within the site as opposed to new trips for each site land use).

LOT	PROPOSED/ASSUMED LAND USES	APPROXIMATE SIZE	ITE CODE	24-HOUR TWO-WAY WEEKDAY VOLUME	AM PEAK HOUR VOLUME		NOON PEAK HOUR VOLUME		PM PEAK HOUR PEAK HOUR VOLUME	
					ENTER	EXIT	ENTER	EXIT	ENTER	EXIT
1	High Turnover Sit-Down Restaurant	5,000 Sq. Ft.	932	561	27	23	45	42	30	19
2,3,4	*Commercial Retail	23,000 Sq. Ft.	820	868	13	9	31	34	42	46
5	High Turnover Sit-Down Restaurant	5,000 Sq. Ft.	932	561	27	23	45	42	30	19
6	Quality Restaurant	6,000 Sq. Ft.	931	503	4	0	30	20	31	16
8	*Commercial Retail	8,000 Sq. Ft.	820	302	5	3	11	12	14	16
	UNADJUSTED TOTAL DRIVEWAY VOLUMES			**2,795**	**76**	**58**	**162**	**150**	**147**	**116**
	INTERNAL TRIP CAPTURE				**-3**	**-3**	**-32**	**-30**	**-40**	**-40**
	ADJUSTED DRIVEWAY VOLUMES				**73**	**55**	**130**	**120**	**107**	**76**
	TOTAL ENTERING + EXITING				**128**		**250**		**183**	

**Commercial Retail Noon Peak Hour assumes 75% of PM Peak Hour.*

Table 1 – Summary of Trip-Generation

These data have also been adjusted for "pass-by" trips (i.e. that portion of the site-destined traffic that could come from the existing adjacent street traffic stream). Calculations for pass-by trips was made consistent with values from Institute of Transportation Engineers (ITE) Trip Generation Manual 9th Edition, 2012, and Trip Generation Software 2013 by Trafficware, LLC and details of these volumes are included in the Appendix of this report.

Restaurant and retail commercial traffic, as will be associated with site, ordinarily contributes to the adjacent street traffic conditions during the on-street AM, noon and PM peak traffic hours. Accordingly, the AM, noon and PM peak traffic periods of the adjacent roads are the traffic operating conditions which have warranted primary traffic analysis as a part of this study.

TRAFFIC VOLUME ASSIGNMENTS

Once projected traffic was estimated for the site, directional distributions were made to reflect the percent of anticipated vehicle turning movements at the study intersections. Vehicle trip distribution was developed based on current traffic counts and expected travel patterns to and from the proposed development. Assignment of projected traffic volume to individual drives proposed to serve the tracts take into account that Lots 1-4 will be physically separated from Lots 5 and 6 due to a proposed detention pond to be constructed between Lots 1-4 and Lots 5 and 6 (see subdivision plat by Civilogic included in the Appendix). Directional distribution percentages used in this study are shown on Figure 3A, "Directional Distribution - Site Traffic - AM Peak Hour," and Figure 3B, "Directional Distribution - Site Traffic - Noon and PM Peak Hours." Shared access driveway connections are proposed between Lots 1 and 2, between Lots 3 and 4 and between Lots 6 & 8.

Figure 3A
Directional Distribution - Site Traffic
AM Peak Hour

Figure 3B
Directional Distribution - Site Traffic
Noon and PM Peak Hours

The directional distribution percentages for site traffic have been equated to percentage turns for each movement at the study intersections. The site-generated traffic volumes result from applying the directional distribution percentages to the corresponding projected site-generated traffic volumes summarized on Table 1, "Summary of Trip-Generation."

These projected site-generated trips for the development were added to the existing traffic volumes and the results are depicted on the following figures:

- Figure 4A, "Projected Traffic Volumes - AM Peak Hour."
- Figure 4B, "Projected Traffic Volumes - Noon Peak Hour."
- Figure 4C, "Projected Traffic Volumes - PM Peak Hour."

Traffic volumes shown on Figures 4A, 4B and 4C are the values used in capacity and level of service calculations conducted as a part of this study. The effect of existing background traffic (i.e. the adjacent street non-site traffic which exists) and projected traffic associated with the site development has thus been accounted for in this analysis.

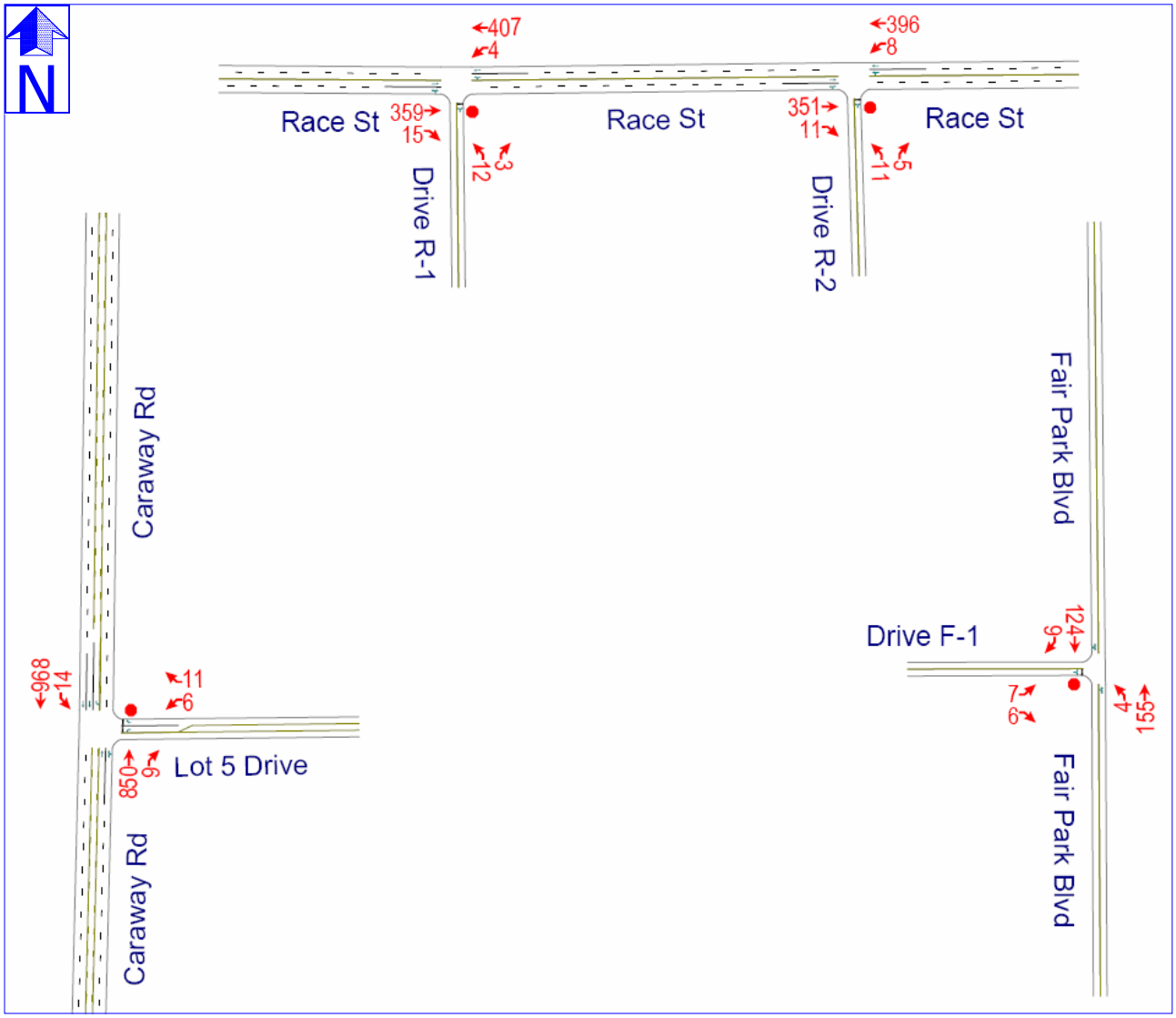


Figure 4A
Projected Traffic Volumes
AM Peak Hour

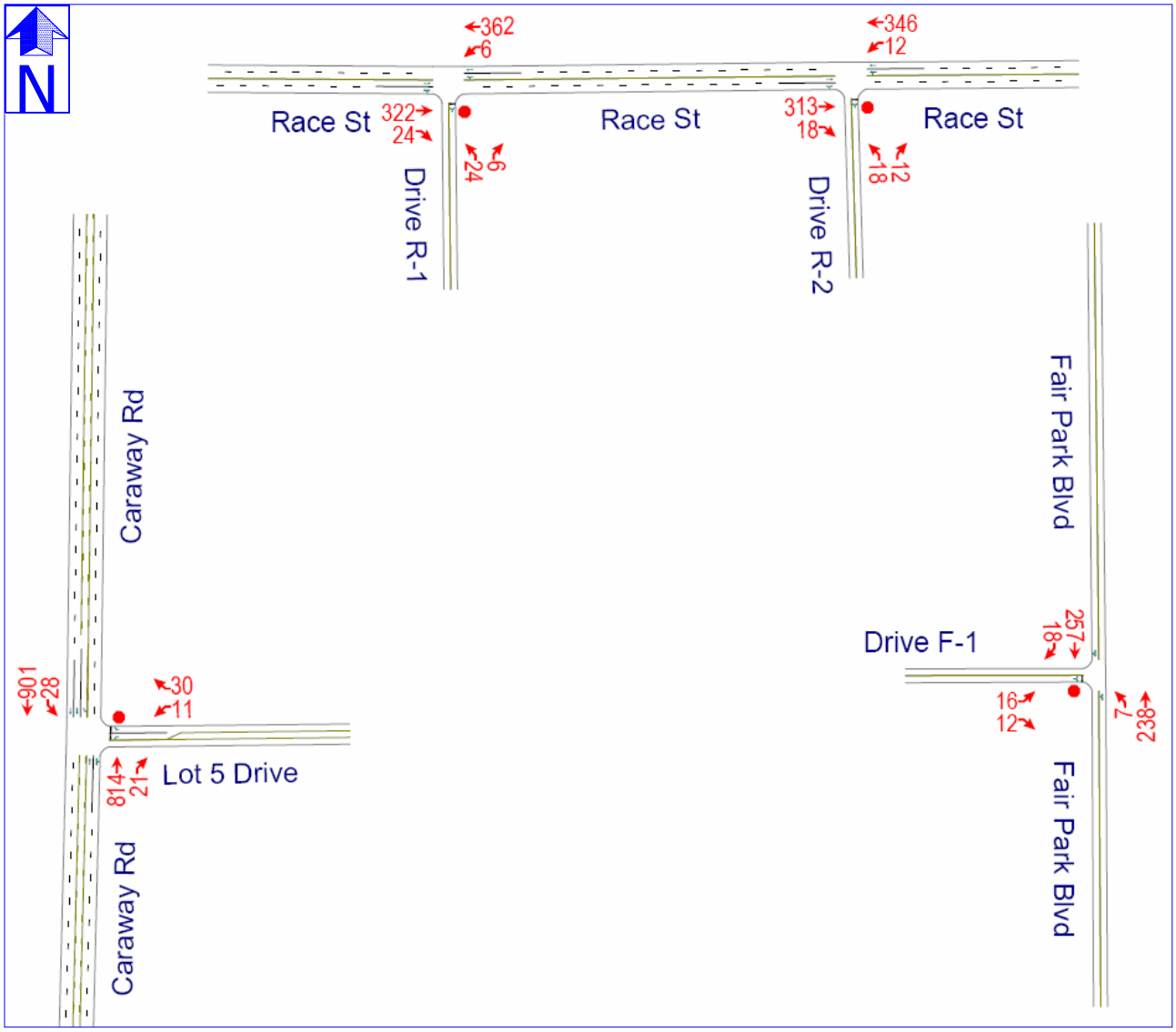


Figure 4B
Projected Traffic Volumes
Noon Peak Hour

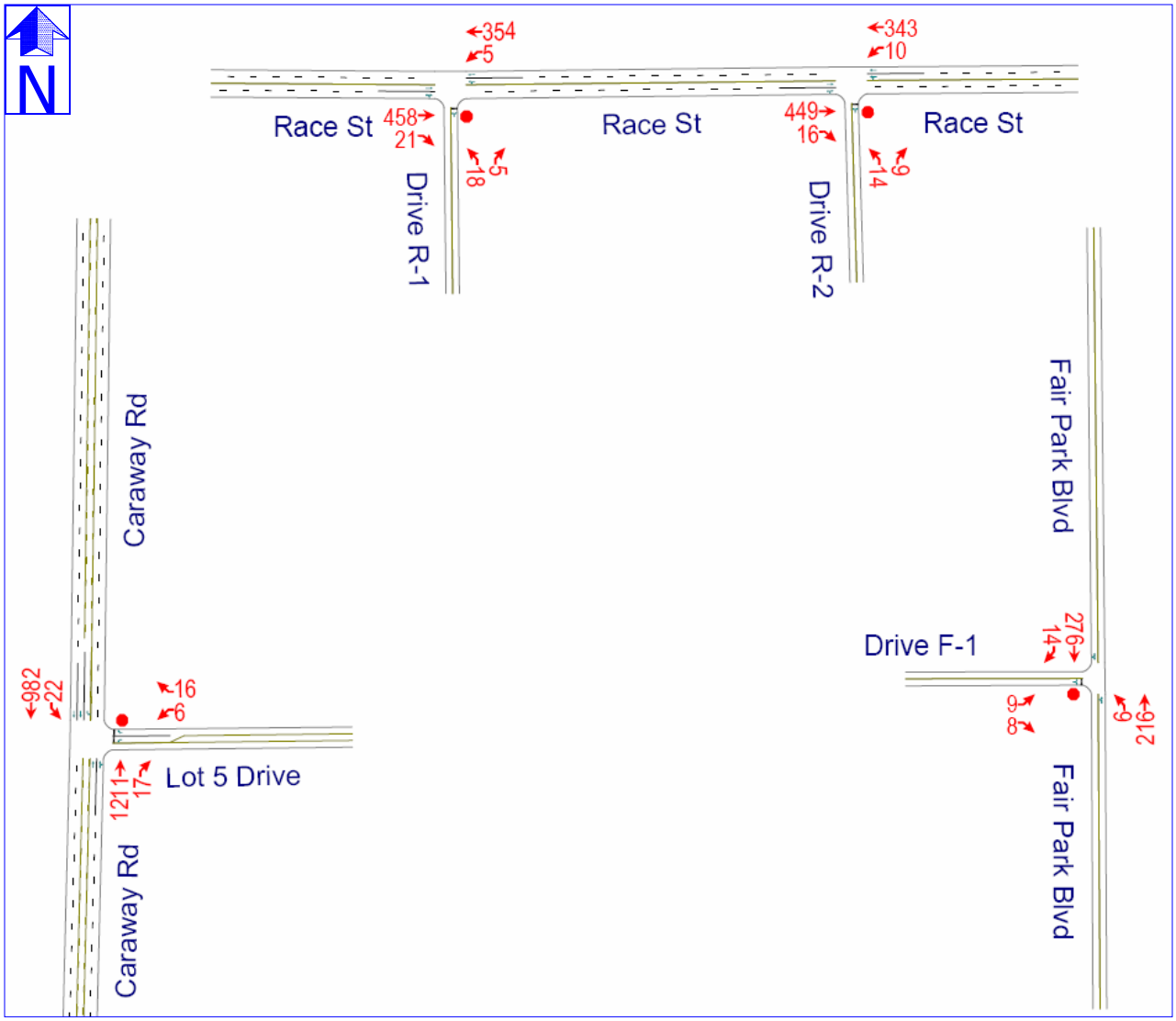


Figure 4C
Projected Traffic Volumes
PM Peak Hour

CAPACITY and LEVEL OF SERVICE

Generally, the "capacity" of a street is a measure of its ability to accommodate a certain magnitude of moving vehicles. It is a rate as opposed to a quantity, measured in terms of vehicles per hour. More specifically, street capacity refers to the maximum number of vehicles that a street element (e.g. an intersection) can be expected to accommodate in a given time period under the prevailing roadway and traffic conditions.

Traffic operational analysis for the study intersections were evaluated based on the methodologies outlined in the Highway Capacity Manual, 2010 Edition, published by the Transportation Research Board. The operating conditions at an intersection are graded by the "level of service" experienced by drivers. Level of service (LOS) describes the quality of traffic operating conditions and is rated from "A" to "F". LOS "A" represents the most desirable condition with free-flow movement of traffic with minimal delays. LOS "F" generally indicates severely congested conditions with excessive delays to motorists. Intermediate grades of B, C, D, and E reflect incremental increases in the average delay per stopped vehicle. Delay is measured in seconds per vehicle. The table below shows the upper limit of delay associated with each level of service for signalized and un-signalized intersections.

Intersection Level of Service Delay Thresholds

Level of Service (LOS)	Signalized	Un-Signalized
A	< 10 Seconds	< 10 Seconds
B	< 20 Seconds	< 15 Seconds
C	< 35 Seconds	< 25 Seconds
D	< 55 Seconds	< 35 Seconds
E	< 80 Seconds	< 50 Seconds
F	≥ 80 Seconds	≥ 50 Seconds

The LOS rating deemed acceptable varies by community, facility type and traffic control device. LOS "D" is the desirable goal for movements at un-signalized intersections that must yield to other movements; however, a LOS "E" or "F" is often accepted for low to moderate traffic volumes where the installation of a traffic signal is not warranted by the conditions at the intersection or the location is deemed undesirable for signalization for other reasons. Other reasons may include the close proximity of an existing traffic signal or the presence of a convenient alternative route. For signalized intersections, level of service and average delay relate to all vehicles using the intersection. LOS "D" is the typical desirable standard for signalized intersections. The study intersection was evaluated using the Synchro analysis software package based on Highway Capacity Manual methods. This computer program has been proven to be reliable when used to analyze capacity and levels of traffic service under various operating conditions. Detailed results for all capacity calculations are included in the Appendix. The adjacent street weekday AM, noon and PM peak traffic periods were used for these calculations. Factors included in the analysis are as follows:

- Existing traffic volumes.
- Directional distribution of projected traffic volumes.
- Proposed intersection geometry (including elements such as turn lanes, curb radii, etc.).
- Existing background traffic volumes and projected site-generated volumes for projected traffic conditions.
- Proposed traffic control.

CAPACITY ANALYSIS

Level of Service Analysis Results

Projected Traffic Conditions

Capacity and LOS analysis was performed for projected traffic conditions for full build-out of the Fair Park Crossing Development for the AM, noon and PM peak hours for the following intersections:

- Caraway Road and Lot 5 Drive.
- Race Street and Drive R-1.
- Race Street and Drive R-2.
- Fair Park Boulevard and Drive F-1.

Traffic volumes used for these projected traffic conditions are shown on Figure 4A, "Projected Traffic Volumes - AM Peak Hour," Figure 4B, "Projected Traffic Volumes - Noon Peak Hour," and Figure 5C, "Projected Traffic Volumes - PM Peak Hour." The operating conditions projected to exist at the study access drive intersections are summarized in Table 2, "Level of Service Summary - Projected Traffic Conditions."

As indicated in Table 2, all vehicle movements for the projected traffic conditions at the study access drive intersections proposed to serve the site are expected to operate at what calculates as an acceptable LOS "D" or better for the AM, noon and PM peak hours with existing Caraway Road, Race Street and Fair Park Boulevard lane geometry and with the new access drives assumed to be constructed as proposed. Also, the 95th percentile calculated vehicle queue length are expected to only be one vehicle at each access drive existing the site during the AM, noon and PM with "Stop" sign control. Furthermore, the average seconds delay per vehicle is expected to be acceptable levels during the AM, noon and PM peak hours for these projected traffic conditions at each of the four study intersections.

PROJECTED TRAFFIC CONDITIONS		Traffic Control	Eastbound Left-Turn	Eastbound Thru	Eastbound Right-Turn	Westbound Left-Turn	Westbound Thru	Westbound Right-Turn	Northbound Left-Turn	Northbound Thru	Northbound Right-Turn	Southbound Left-Turn	Southbound Thru	Southbound Right-Turn	Overall Intersection	Avg. Control Delay Seconds / Vehicle
INTERSECTION	PEAK HR		PEAK HOUR - LEVEL OF SERVICE													
Caraway Road and Lot 5 Drive	AM	"STOP" SIGN				C		B		A		B	A		n/a	0.2
	Noon					C		B		A		B	A		n/a	0.5
	PM					D		B		A		B	A		n/a	0.3
Race Street and Drive R-1	AM	SIGNAL		A		A			B		B				n/a	0.3
	Noon			A		A			B		B				n/a	0.6
	PM			A		A			B		B				n/a	0.4
Race Street and Drive R-2	AM	"STOP" SIGN		A		A			B		B				n/a	0.4
	Noon			A		A			B		B				n/a	0.7
	PM			A		A			B		B				n/a	0.5
Fair Park Boulevard and Drive F-1	AM	"STOP" SIGN	A		A				A				A		n/a	0.5
	Noon		B		B				A				A		n/a	0.7
	PM		B		B				A				A		n/a	0.5

Table 2 - Level of Service Summary - Projected Traffic Conditions

SUMMARY OF FINDINGS

Findings of this study are summarized as follows:

- Approximately 2,795 vehicle trips (combined in and out) per average weekday are projected to be generated by full build-out of the proposed Fair Park Crossing Development commercial land uses on this site. Of this total for full build-out conditions, approximately 128 vehicle trips are estimated during the traffic conditions of the AM peak hour, approximately 250 vehicle trips are estimated during the traffic conditions of the noon peak hour and approximately 183 vehicle trips are estimated during the traffic conditions of the PM peak hour.

- Capacity and LOS analysis was performed for projected traffic conditions for full build-out of the Fair Park Crossing Development for the AM, noon and PM peak hours for the study intersections. All vehicle movements for the projected traffic conditions at the study access drive intersections proposed to serve the site are expected to operate at what calculates as an acceptable LOS "D" or better for the AM, noon and PM peak hours with existing Caraway Road, Race Street and Fair Park Boulevard lane geometry and with the new access drives assumed to be constructed as proposed. Also, the 95th percentile calculated vehicle queue length are expected to only be one vehicle at each access drive existing the site during the AM, noon and PM with "Stop" sign control.

- The average seconds delay per vehicle is expected to be acceptable levels during the AM, noon and PM peak hours for these projected traffic conditions at each of the four study intersections.

The conclusion of traffic operational findings associated with this study is that additional traffic expected to be generated by the Fair Park Crossing development can be accommodated by the existing adjacent roadways lane geometry and proposed new access drive intersections constructed as proposed, without discernable impact on traffic flow in the vicinity.

New access drive intersections along Caraway Road, Race Street and Fair Park Boulevard must conform to design standards of the City of Jonesboro and will require approval by the City.

City Staff Comments and Responses

During the April 28, 2020 MAPC meeting when this item was tabled for completion of a traffic study the only access issue before the Commission was the proposed drive on Caraway Road. There was discussion also related to the number of access drives on Race Street and on Fair Park Boulevard. In the traffic study the operation of the proposed Caraway Road drive as well as the other joint drives on Race Street and on Fair Park Boulevard were included in traffic operational analysis with full build of all lots assumed.

Based on the original traffic study report (dated May 7, 2020) for this development, the City of Jonesboro staff made certain comments. Those comments and responses to them are included below.

Comment 1) What about Lot 7? Given the lot dimension and the proximity to the intersection of Race and Fairpark, shared use driveways on either Race and/or Fairpark will be required to serve this Lot.

Response 1) The site plan for FNBC Bank on Lot 7 has already been approved (prior to the City's Access Management Plan) with an exclusive access drive on both Race Street and Fair Park Boulevard.

Comment 2) What percentage of traffic generated by this site is "new" traffic as compared to "existing" traffic being captured?

Response 2) Related to the Caraway Road drive:
AM Peak: 65 vehicles generated (=3.5% of total at the intersection)
Noon Peak: 109 vehicles generated (=6.6% of total at the intersection)
PM Peak: 78 vehicles (=3.5% of total at the intersection)
Pass by trips from existing traffic stream:
AM: 0
Noon 4
PM: 4.

Comment 3) How does the "new" traffic generated by this site impact the signalized intersections at Caraway/Race and Race/Fairpark, since they are within 1/8-mile?

Response 3) Traffic operations at vicinity traffic signal controlled intersections was not expressed as an issue during the MAPC meeting on April 28, 2020. So those intersections were not analyzed. Furthermore, with schools temporarily closed and some local businesses currently closed due to Covid-19 virus, current traffic counts that would have been needed to assess traffic operations at those intersections could not be made and be representative of actual daily and peak hour conditions.

Comment 4) At what LOS do the remaining driveways operate without the requested driveway connection to Caraway Road?

Response 4) Traffic operations for the proposed access drives on Race Street and on Fair Park Boulevard were not analyzed for that condition.

Comment 5) Does an additional driveway on Fairpark alleviate any issues caused by the loss of a driveway on Caraway Road?

Response 5) Traffic operations for the an additional access drive on Fair Park Boulevard were not analyzed. Additional access on Fair Park Boulevard in exchange for the loss one on Caraway Road will most likely not have a positive impact on Lot 5. Frontage on dedicated public right-of-way is *required* to create a legal lot. That is what has been proposed.

Comment 6) If a connection to Caraway Road is still warranted (i.e., the LOS of the other driveway scenarios falls below a "D") is a cross connection to Hilton Garden Inn possible, and will this remedy the LOS issue?

Response 6) The Hilton Garden Inn site has no provision for cross access to adjacent property. To attempt to secure such joint access from an established business with separate ownership would be difficult and would likely yield no benefit to access for either tract.

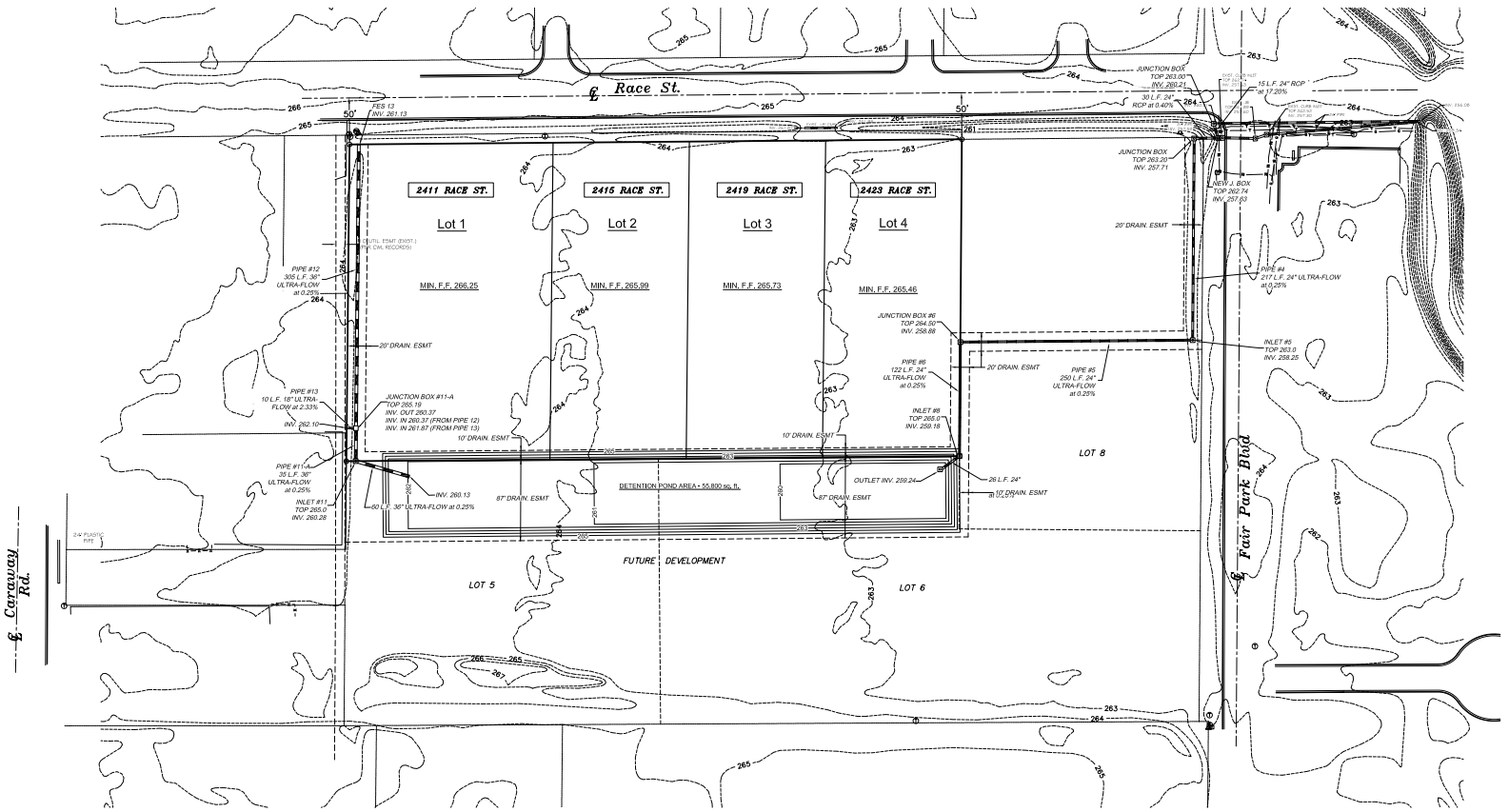
Comment 7) Is cross access with Hilton Garden Inn possible regardless?

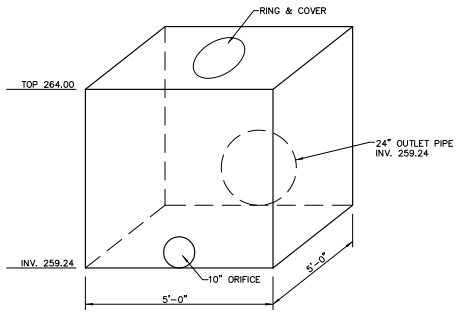
Response 7) Same as 6, above.

PETERS & ASSOCIATES
ENGINEERS, INC.

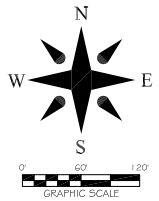
APPENDIX

Site Plat





OUTLET STRUCTURE



PROPOSED DRAINAGE PLAN
FAIR PARK CROSSING
JONESBORO, ARKANSAS
FOR
FAIR PARK CROSSING, LLC

ENGINEERS PLANNERS SURVEYORS
Civilogic
203 Southwest Dr. - Jonesboro, AR - (870)932-7880 - www.civilogic.net

Sheet No.	Job No.
2 of 4	118111

Date	Scale	County
5-8-2020	1"=60'	CRAIGHEAD

Section	Township	Range	Checked by:
28	14N	04E	GH

Drawn By: RE

CERTIFICATE OF AUTHORIZATION
CIVILOGIC
No. 329
ARKANSAS-ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7880
GEORGE M. HAMMAN

JOB NO.: 118111

SHEET NUMBER
2 of 4

PETERS & ASSOCIATES
ENGINEERS, INC.

Trip-Generation Data

ITE TRIP-GENERATION 10TH EDITION
5,000 Sq. Ft. High Turnover Sit-Down Restaurant (ITE 932)
5/6/2020
P2037

Weekday Daily Volume

DATA STATISTICS

Land Use:
High-Turnover (Sit-Down) Restaurant (932) Click for more details

Independent Variable:
1000 Sq. Ft. GFA

Time Period:
Weekday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
50

Avg. 1000 Sq. Ft. GFA:
5

Average Rate:
112.18

Range of Rates:
13.04 - 742.41

Standard Deviation:
72.51

Fitted Curve Equation:
Not Given

R^2:
****

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 561 (Total), 280 (Entry), 281 (Exit)

Weekday AM Peak Hour of Adjacent Street

Directional Distribution:
55% entering, 45% exiting

Calculated Trip Ends:
Average Rate: 50 (Total), 27 (Entry), 23 (Exit)

Weekday PM Peak Hour of the Generator (Noon)

Directional Distribution:
52% entering, 48% exiting

Calculated Trip Ends:
Average Rate: 87 (Total), 45 (Entry), 42 (Exit)

Weekday PM Peak Hour of Adjacent Street

Directional Distribution:
62% entering, 38% exiting

Calculated Trip Ends:
Average Rate: 49 (Total), 30 (Entry), 19 (Exit)

ITE TRIP-GENERATION 10TH EDITION
23,000 Sq. Ft. Commercial Retail (ITE 820)
5/6/2020
P2037

Weekday Daily Volume

DATA STATISTICS

Land Use:
Shopping Center (820) Click for more details

Independent Variable:
1000 Sq. Ft. GLA

Time Period:
Weekday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
147

Avg. 1000 Sq. Ft. GLA:
453

Average Rate:
37.75

Range of Rates:
7.42 - 207.98

Standard Deviation:
16.41

Fitted Curve Equation:
Ln(T) = 0.68 Ln(X) + 5.57

R^2:
0.76

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 868 (Total), 434 (Entry), 434 (Exit)
Fitted Curve: 2213 (Total), 1106 (Entry), 1107 (Exit)

Weekday AM Peak Hour of Adjacent Street

Directional Distribution:
62% entering, 38% exiting

Calculated Trip Ends:
Average Rate: 22 (Total), 13 (Entry), 9 (Exit)
Fitted Curve: 163 (Total), 101 (Entry), 62 (Exit)

Weekday PM Peak Hour of Adjacent Street

Directional Distribution:
48% entering, 52% exiting

Calculated Trip Ends:
Average Rate: 88 (Total), 42 (Entry), 46 (Exit)
Fitted Curve: 183 (Total), 88 (Entry), 95 (Exit)

ITE TRIP-GENERATION 10TH EDITION
5,000 Sq. Ft. High Turnover Sit-Down Restaurant (ITE 932)
5/6/2020
P2037

Weekday Daily Volume

DATA STATISTICS

Land Use:
High-Turnover (Sit-Down) Restaurant (932) Click for more details

Independent Variable:
1000 Sq. Ft. GFA

Time Period:
Weekday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
50

Avg. 1000 Sq. Ft. GFA:
5

Average Rate:
112.18

Range of Rates:
13.04 - 742.41

Standard Deviation:
72.51

Fitted Curve Equation:
Not Given

R^2:
****

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 561 (Total), 280 (Entry), 281 (Exit)

Weekday AM Peak Hour of Adjacent Street

Directional Distribution:
55% entering, 45% exiting

Calculated Trip Ends:
Average Rate: 50 (Total), 27 (Entry), 23 (Exit)

Weekday PM Peak Hour of the Generator (Noon)

Directional Distribution:
52% entering, 48% exiting

Calculated Trip Ends:
Average Rate: 87 (Total), 45 (Entry), 42 (Exit)

Weekday PM Peak Hour of Adjacent Street

Directional Distribution:
62% entering, 38% exiting

Calculated Trip Ends:
Average Rate: 49 (Total), 30 (Entry), 19 (Exit)

ITE TRIP-GENERATION 10TH EDITION
6,000 Sq. Ft. High Quality Restaurant (ITE 931)
5/6/2020
P2037

Weekday Daily Volume

DATA STATISTICS

Land Use:
Quality Restaurant (931) Click for more details

Independent Variable:
1000 Sq. Ft. GFA

Time Period:
Weekday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
10

Avg. 1000 Sq. Ft. GFA:
9

Average Rate:
83.84

Range of Rates:
33.45 - 139.93

Standard Deviation:
40.01

Fitted Curve Equation:
Not Given

R^2:
****

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 503 (Total), 251 (Entry), 252 (Exit)

Weekday AM Peak Hour of Adjacent Street

Directional Distribution:
Not available

Calculated Trip Ends:
Average Rate: 4 (Total)

Weekday PM Peak Hour of the Generator (Noon)

Directional Distribution:
61% entering, 39% exiting

Calculated Trip Ends:
Average Rate: 50 (Total), 30 (Entry), 20 (Exit)

Weekday PM Peak Hour of Adjacent Street

Directional Distribution:
67% entering, 33% exiting

Calculated Trip Ends:
Average Rate: 47 (Total), 31 (Entry), 16 (Exit)

ITE TRIP-GENERATION 10TH EDITION
8,000 Sq. Ft. Commercial Retail (ITE 820)
5/6/2020
P2037

Weekday Daily Volume

DATA STATISTICS

Land Use:
Shopping Center (820) Click for more details

Independent Variable:
1000 Sq. Ft. GLA

Time Period:
Weekday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
147

Avg. 1000 Sq. Ft. GLA:
453

Average Rate:
37.75

Range of Rates:
7.42 - 207.98

Standard Deviation:
16.41

Fitted Curve Equation:
Ln(T) = 0.68 Ln(X) + 5.57

R^2:
0.76

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 302 (Total), 151 (Entry), 151 (Exit)
Fitted Curve: 1079 (Total), 539 (Entry), 540 (Exit)

Weekday AM Peak Hour of Adjacent Street

Directional Distribution:
62% entering, 38% exiting

Calculated Trip Ends:
Average Rate: 8 (Total), 5 (Entry), 3 (Exit)
Fitted Curve: 156 (Total), 97 (Entry), 59 (Exit)

Weekday PM Peak Hour of Adjacent Street

Directional Distribution:
48% entering, 52% exiting

Calculated Trip Ends:
Average Rate: 30 (Total), 14 (Entry), 16 (Exit)
Fitted Curve: 84 (Total), 40 (Entry), 44 (Exit)

Trip Generation Summary - Fair Park Crossing

Project: Fair Park Crossing
Alternative: Fair Park Crossing

Open Date: 5/6/2020
Analysis Date: 5/6/2020

ITE	Land Use	Average Daily Trips			AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
932	RESTAURANTHT 1	318	318	636	30	24	54	29	20	49
	5 Gross Floor Area 1000 SF									
820	CENTERSHOPPING 1	491	491	982	14	8	22	41	44	85
	23 Gross Leasable Area 1000 SF									
932	RESTAURANTHT 2	318	318	636	30	24	54	29	20	49
	5 Gross Floor Area 1000 SF									
931	RESTAURANTQ 1	270	270	540	3	2	5	30	15	45
	6 Gross Floor Area 1000 SF									
820	CENTERSHOPPING 2	171	171	342	5	3	8	14	16	30
	8 Gross Leasable Area 1000 SF									
Unadjusted Volume		1568	1568	3136	82	61	143	143	115	258
Internal Capture Trips		0	0	0	3	3	6	40	40	80
Pass-By Trips		0	0	0	0	0	0	42	29	71
Volume Added to Adjacent Streets		1568	1568	3136	79	58	137	61	46	107

Total AM Peak Hour Internal Capture = 4 Percent

Total PM Peak Hour Internal Capture = 31 Percent

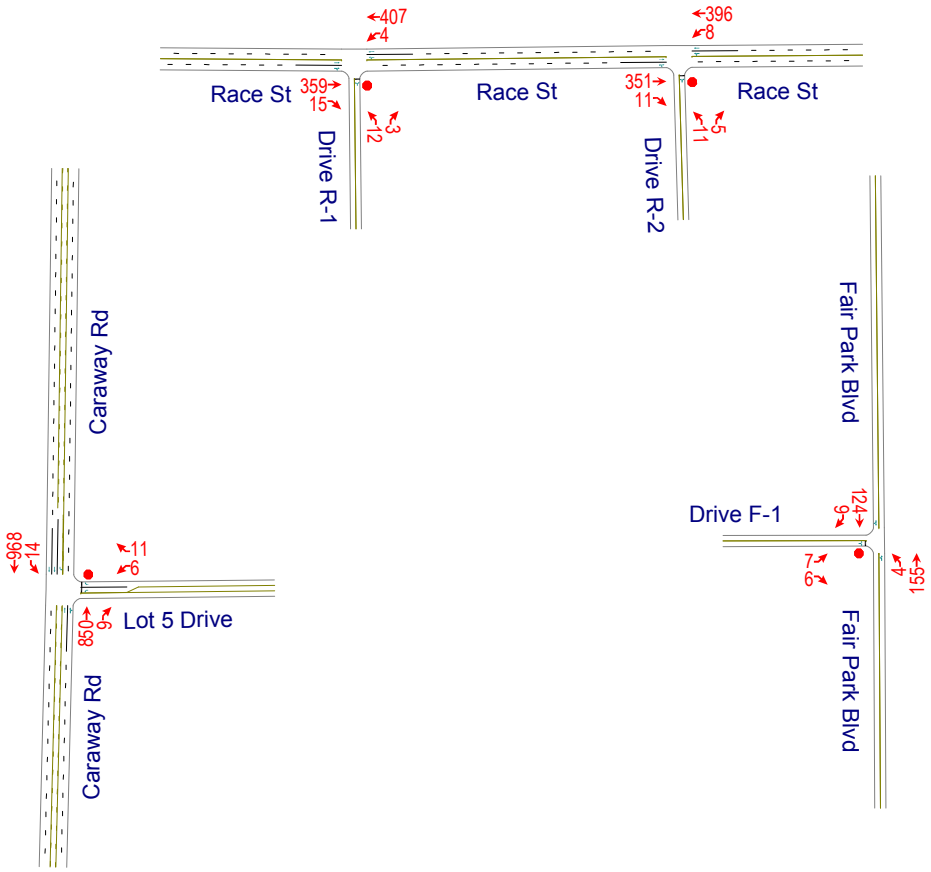
Source: Institute of Transportation Engineers, Trip Generation Manual 9th Edition, 2012

PETERS & ASSOCIATES
ENGINEERS, INC.

Capacity & Level of Service Calculations

P2037 **5/22/2020**

5-22-20 update



AM Projected

Intersection	
Intersection Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	6	11	850	9	14	968
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	12	924	10	15	1052

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1486	467	0	0	934	0
Stage 1	929	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Follow-up Headway	3.52	3.32	-	-	2.22	-
Pot Capacity-1 Maneuver	115	542	-	-	729	-
Stage 1	345	-	-	-	-	-
Stage 2	537	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	113	542	-	-	729	-
Mov Capacity-2 Maneuver	239	-	-	-	-	-
Stage 1	345	-	-	-	-	-
Stage 2	526	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.9	0	0.1
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	239	542	729	-
HCM Lane V/C Ratio	-	-	0.027	0.022	0.021	-
HCM Control Delay (s)	-	-	20.5	11.8	10.044	-
HCM Lane LOS			C	B	B	
HCM 95th %tile Q(veh)	-	-	0.084	0.068	0.064	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	359	15	4	407	12	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	390	16	4	442	13	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	407	0	628	203
Stage 1	-	-	-	-	398	-
Stage 2	-	-	-	-	230	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	1148	-	415	804
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	786	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1148	-	413	804
Mov Capacity-2 Maneuver	-	-	-	-	413	-
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	782	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	13.2
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	457	-	-	1148	-
HCM Lane V/C Ratio	0.036	-	-	0.004	-
HCM Control Delay (s)	13.2	-	-	8.148	0
HCM Lane LOS	B			A	A
HCM 95th %tile Q(veh)	0.111	-	-	0.011	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	351	11	8	396	11	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	382	12	9	430	12	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	393	0	620	197
Stage 1	-	-	-	-	387	-
Stage 2	-	-	-	-	233	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	1162	-	420	811
Stage 1	-	-	-	-	656	-
Stage 2	-	-	-	-	784	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1162	-	416	811
Mov Capacity-2 Maneuver	-	-	-	-	416	-
Stage 1	-	-	-	-	656	-
Stage 2	-	-	-	-	776	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	12.6
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	491	-	-	1162	-
HCM Lane V/C Ratio	0.035	-	-	0.007	-
HCM Control Delay (s)	12.6	-	-	8.121	0
HCM Lane LOS	B			A	A
HCM 95th %tile Q(veh)	0.11	-	-	0.023	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.5

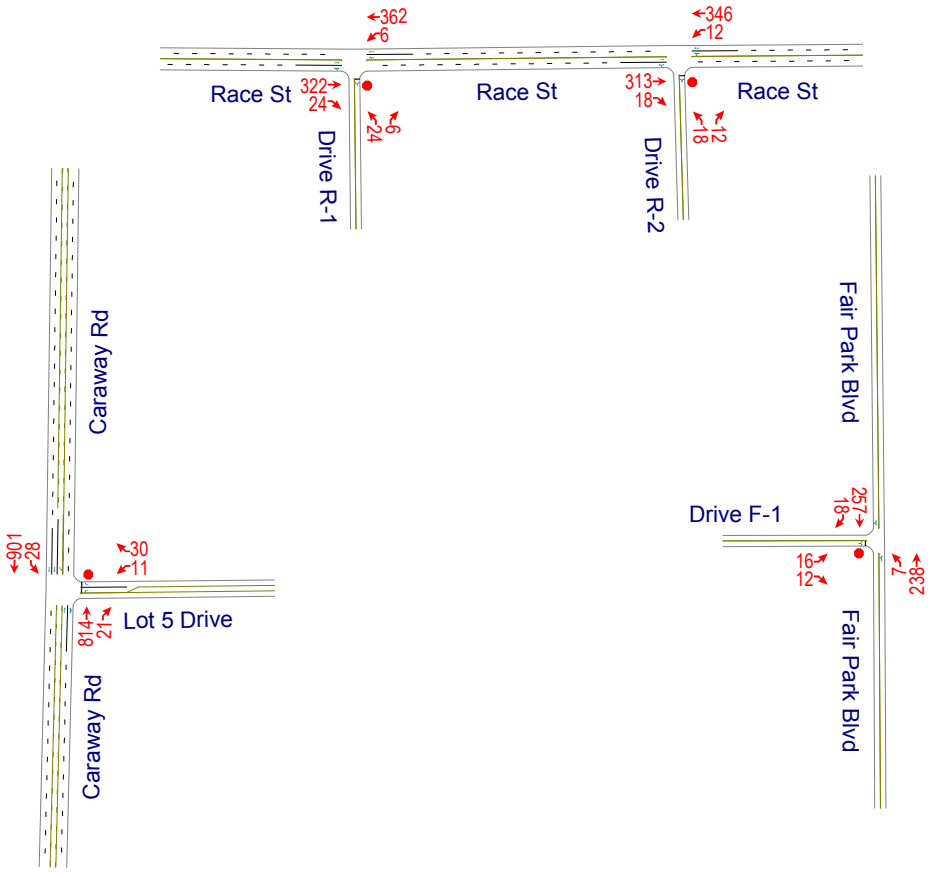
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	7	6	4	155	124	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	7	4	168	135	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	317	140	145	0	-	0
Stage 1	140	-	-	-	-	-
Stage 2	177	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	676	908	1437	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	854	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	674	908	1437	-	-	-
Mov Capacity-2 Maneuver	674	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	851	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.2	0
HCM LOS	A		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1437	-	765	-	-
HCM Lane V/C Ratio	0.003	-	0.018	-	-
HCM Control Delay (s)	7.513	0	9.8	-	-
HCM Lane LOS	A	A	A		
HCM 95th %tile Q(veh)	0.009	-	0.056	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined



Noon Projected
5-22-20 update

Intersection	
Intersection Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	11	30	814	21	28	901
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	33	885	23	30	979

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1447	454	0	0	908	0
Stage 1	896	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Follow-up Headway	3.52	3.32	-	-	2.22	-
Pot Capacity-1 Maneuver	122	553	-	-	745	-
Stage 1	359	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	117	553	-	-	745	-
Mov Capacity-2 Maneuver	245	-	-	-	-	-
Stage 1	359	-	-	-	-	-
Stage 2	519	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	0.3
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	245	553	745	-
HCM Lane V/C Ratio	-	-	0.049	0.059	0.041	-
HCM Control Delay (s)	-	-	20.4	11.9	10.038	-
HCM Lane LOS			C	B	B	
HCM 95th %tile Q(veh)	-	-	0.153	0.187	0.128	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	322	24	6	362	24	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	350	26	7	393	26	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	376	0	573	188
Stage 1	-	-	-	-	363	-
Stage 2	-	-	-	-	210	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	1179	-	450	822
Stage 1	-	-	-	-	674	-
Stage 2	-	-	-	-	805	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1179	-	446	822
Mov Capacity-2 Maneuver	-	-	-	-	446	-
Stage 1	-	-	-	-	674	-
Stage 2	-	-	-	-	799	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.9
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	491	-	-	1179	-
HCM Lane V/C Ratio	0.066	-	-	0.006	-
HCM Control Delay (s)	12.9	-	-	8.07	0
HCM Lane LOS	B			A	A
HCM 95th %tile Q(veh)	0.213	-	-	0.017	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	313	18	12	346	18	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	340	20	13	376	20	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	360	0	564	180
Stage 1	-	-	-	-	350	-
Stage 2	-	-	-	-	214	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	1195	-	456	832
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	801	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1195	-	450	832
Mov Capacity-2 Maneuver	-	-	-	-	450	-
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	790	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	11.9
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	551	-	-	1195	-
HCM Lane V/C Ratio	0.059	-	-	0.011	-
HCM Control Delay (s)	11.9	-	-	8.046	0.1
HCM Lane LOS	B			A	A
HCM 95th %tile Q(veh)	0.188	-	-	0.033	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.7

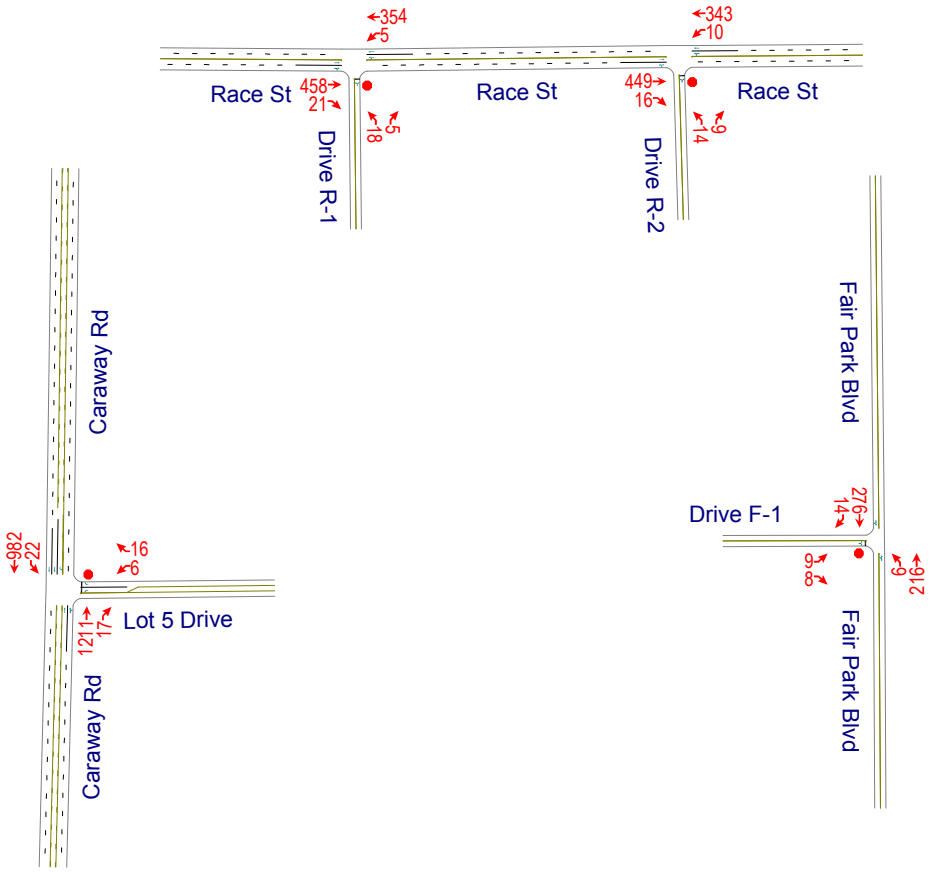
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	16	12	7	238	257	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	13	8	259	279	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	563	289	299	0	-	0
Stage 1	289	-	-	-	-	-
Stage 2	274	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	487	750	1262	-	-	-
Stage 1	760	-	-	-	-	-
Stage 2	772	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	484	750	1262	-	-	-
Mov Capacity-2 Maneuver	484	-	-	-	-	-
Stage 1	760	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	0.2	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1262	-	571	-	-
HCM Lane V/C Ratio	0.006	-	0.053	-	-
HCM Control Delay (s)	7.87	0	11.7	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.018	-	0.168	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined



PM Projected
5-22-20 update

Intersection	
Intersection Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	6	16	1211	17	22	982
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	120	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	17	1316	18	24	1067

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1908	667	0	0	1335	0
Stage 1	1326	-	-	-	-	-
Stage 2	582	-	-	-	-	-
Follow-up Headway	3.52	3.32	-	-	2.22	-
Pot Capacity-1 Maneuver	60	401	-	-	513	-
Stage 1	212	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	57	401	-	-	513	-
Mov Capacity-2 Maneuver	157	-	-	-	-	-
Stage 1	212	-	-	-	-	-
Stage 2	498	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.4	0	0.3
HCM LOS	C		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	157	401	513	-
HCM Lane V/C Ratio	-	-	0.042	0.043	0.047	-
HCM Control Delay (s)	-	-	28.9	14.4	12.36	-
HCM Lane LOS			D	B	B	
HCM 95th %tile Q(veh)	-	-	0.129	0.136	0.146	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	458	21	5	354	18	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	498	23	5	385	20	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	521	0	712	260
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	203	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	1041	-	367	739
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	811	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1041	-	365	739
Mov Capacity-2 Maneuver	-	-	-	-	365	-
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	806	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14.4
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	410	-	-	1041	-
HCM Lane V/C Ratio	0.061	-	-	0.005	-
HCM Control Delay (s)	14.4	-	-	8.476	0
HCM Lane LOS	B			A	A
HCM 95th %tile Q(veh)	0.194	-	-	0.016	-

Notes
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Intersection	
Intersection Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	449	16	10	343	14	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	488	17	11	373	15	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	505	0	705	253
Stage 1	-	-	-	-	497	-
Stage 2	-	-	-	-	208	-
Follow-up Headway	-	-	2.22	-	3.52	3.32
Pot Capacity-1 Maneuver	-	-	1056	-	371	746
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	807	-
Time blocked-Platoon, %	-	-		-		
Mov Capacity-1 Maneuver	-	-	1056	-	366	746
Mov Capacity-2 Maneuver	-	-	-	-	366	-
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	797	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	13.3
HCM LOS			B

Minor Lane / Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	457	-	-	1056	-
HCM Lane V/C Ratio	0.055	-	-	0.01	-
HCM Control Delay (s)	13.3	-	-	8.445	0.1
HCM Lane LOS	B			A	A
HCM 95th %tile Q(veh)	0.173	-	-	0.031	-

Notes
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Intersection	
Intersection Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	9	8	6	216	276	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	9	7	235	300	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	556	308	315	0	-	0
Stage 1	308	-	-	-	-	-
Stage 2	248	-	-	-	-	-
Follow-up Headway	3.518	3.318	2.218	-	-	-
Pot Capacity-1 Maneuver	492	732	1245	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	793	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	489	732	1245	-	-	-
Mov Capacity-2 Maneuver	489	-	-	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	788	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	0.2	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1245	-	580	-	-
HCM Lane V/C Ratio	0.005	-	0.032	-	-
HCM Control Delay (s)	7.907	0	11.4	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.016	-	0.099	-	-

Notes
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