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Report for  
**Floyd County Commissioners,  
Indiana**

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**Old Vincennes Road Traffic Impact Study**

Prepared by:

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**SECTION 1  
SUMMARY AND INTRODUCTION**

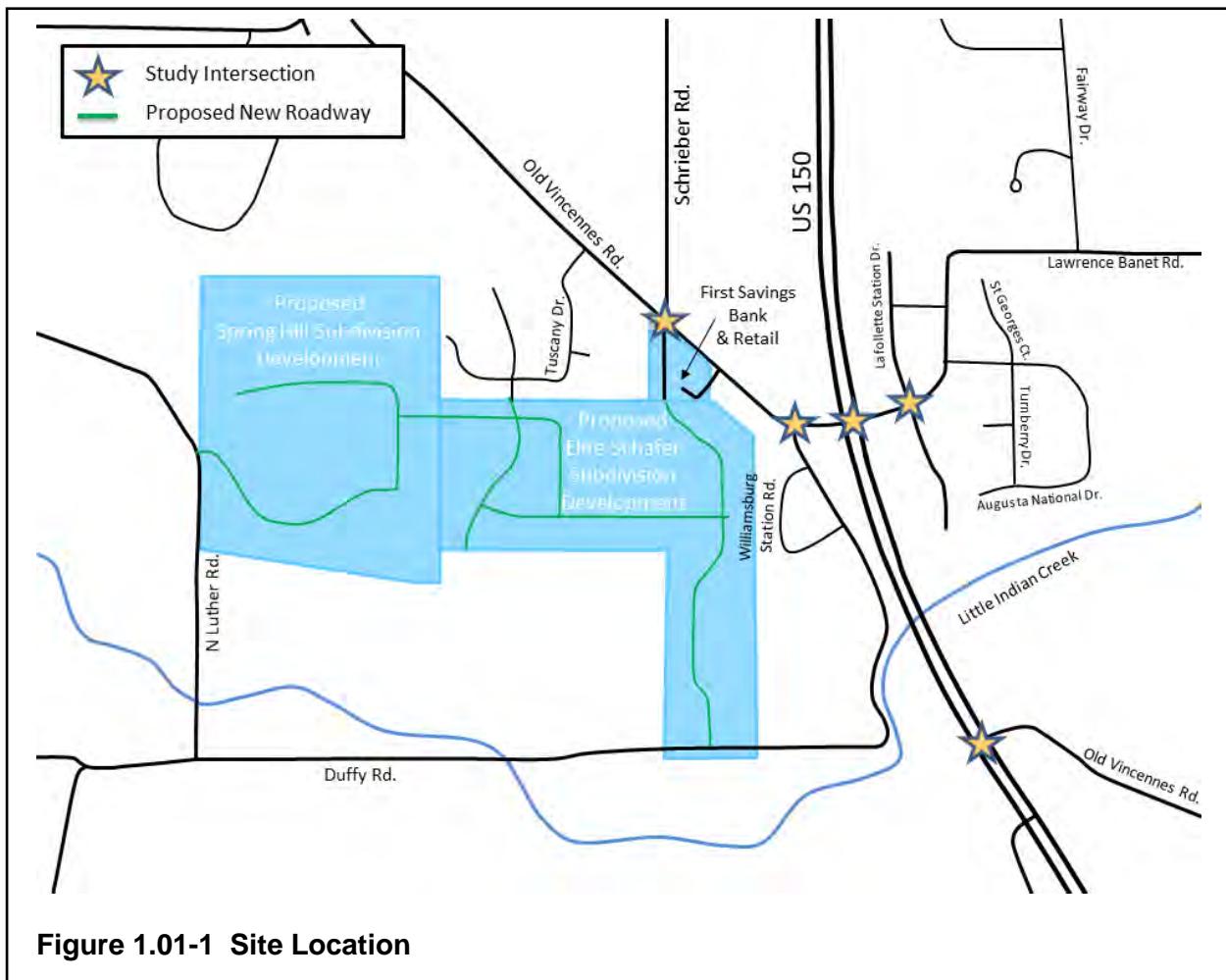
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## 1.01 EXECUTIVE SUMMARY

Strand Associates, Inc.<sup>®</sup> (Strand) completed a traffic impact study (TIS) evaluating the impacts of the proposed development in Floyd County, Indiana (County). This Executive Summary includes descriptions of the study area, the development, results of the traffic operations analysis, and recommendations based on the findings of the TIS.

### A. Site Location and Study Area

Three developments are proposed near the intersection of Schrieber Road and Old Vincennes Road. A bank with attached retail will be developed in the southeast quadrant of this intersection, and two residential subdivisions will be constructed to the south and west. The study area focused on five intersections: Old Vincennes Road and Schrieber Road, Old Vincennes Road and Duffy Road, Old Vincennes Road and United States (US) 150, Lawrence Banet Road and Lafollette Station Drive, and US 150 and East Old Vincennes Road to the south. The location of the proposed development and study area intersections are shown in Figure 1.01-1.



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## B. Development Description

Figure 1.01-2 shows the proposed site plan for the developments created by the developers.



**Figure 1.01-2 Proposed Site Plan**

The proposed land uses and building square footages are:

- 213 single-family homes
- One bank with two drive-through lanes
- 2,000 square feet of general retail gross floor area

The single-family homes will be located in the Elite Schafer and Spring Hill subdivisions in the southwest quadrant of Schrieber Road and Old Vincennes Road. First Savings Bank and the retail area are located in the southeast quadrant of Schrieber Road and Old Vincennes Road. The primary access to both development sites will be via an extension of Schrieber Road to the south of Old Vincennes Road, as it is currently a T-intersection.

## C. Principal Findings

Motor vehicle operations were analyzed using the Synchro 11/SimTraffic 11 software program. The overall intersection operations are reported using the Highway Capacity Manual (HCM) overall intersection delay calculated in Synchro. Operations are evaluated based on conditions at the

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intersections. An intersection's Level of Service (LOS) is based on average delay in seconds per vehicle for traffic entering the intersection. LOS A indicates travelers will experience minimal average delay at an intersection (less than 10 seconds). LOS F indicates that average delay is quite high (more than 50 seconds at an unsignalized intersection and 80 seconds at a signalized intersection).

Traffic modeling indicated that the Old Vincennes Road corridor will require improvements to accommodate the projected traffic from the Elite Schafer and Spring Hill subdivisions and First Savings Bank developments. The traffic models were also used to determine the design for the access points, including turn lane lengths and a required signal. Table 1.01-1 shows the traffic operations at the study intersections with the future 2026 traffic, which includes the new developments and a 1 percent growth rate, without any roadway improvements.

Location	Intersection Operations			
	AM Peak Hour		PM Peak Hour	
	Overall Intersection Operation	LOS F Movements	Overall Intersection Operation	LOS F Movements
Old Vincennes Road and Schrieber Road (U)	LOS E	--	LOS F	SBT
Old Vincennes Road and Duffy Road (U)	LOS F	SBT	LOS F	SBT, NBT
Old Vincennes Road and US 150 (S)	LOS E	EBR	LOS E	EBR
Lawrence Banet Road and Lafollette Station Drive (U)	LOS C	--	LOS F	NBL
US 150 and East Old Vincennes Road (U)	LOS C	--	LOS F	WBT

**Table 1.01-1 2026 Total Traffic Operations–No Build**

Because most intersections operate at LOS E or F in the peak hours, roadway improvements are recommended and discussed in the following section.

#### D. Conclusion and Recommendations

The improvements listed in Table 1.01-2 are recommended to improve operations in the 2026 horizon year at the study intersections.

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Intersection	Improvements
Old Vincennes Road and Schrieber Road	<ul style="list-style-type: none"><li>▪ Install 50-foot northbound left-turn bay.</li><li>▪ Install 50-foot eastbound left-turn bay.</li><li>▪ Install 130-foot southbound left-turn bay.</li><li>▪ Install 60-foot westbound left-turn bay.</li><li>▪ Convert intersection to traffic signal control.</li></ul>
Old Vincennes Road and Duffy Road	<ul style="list-style-type: none"><li>▪ Convert intersection to RIRO.</li><li>▪ Convert gas station driveway to entrance only.</li></ul>
Old Vincennes Road and US 150	<ul style="list-style-type: none"><li>▪ Convert EBR phasing to permitted+overlap.</li></ul>

**Table 1.01-2 Recommended Roadway Improvements for 2026 Development**

Table 1.01-3 shows the traffic operations at the study intersections with the post-development 2026 traffic.

Location	Anticipated Intersection Operations			
	AM Peak Hour		PM Peak Hour	
	Overall Intersection Operation	LOS F Movements	Overall Intersection Operation	LOS F Movements
Old Vincennes Road and Schrieber Road (S)	LOS B	--	LOS B	--
Old Vincennes Road and Duffy Road (RIRO) (U)	LOS C	--	LOS D	--
Old Vincennes Road and US 150 (S)	LOS D	--	LOS D	NBL
Lawrence Banet Road and Lafollette Station Drive (U)	LOS C	--	LOS F	NBL
US 150 and East Old Vincennes Road (U)	LOS C	--	LOS F	WBT

**Table 1.01-3 2026Total Traffic Operations–Build**

The proposed roadway improvements at the intersections primarily affected by the developments will provide acceptable overall operations throughout the study area in the 2026 horizon year.

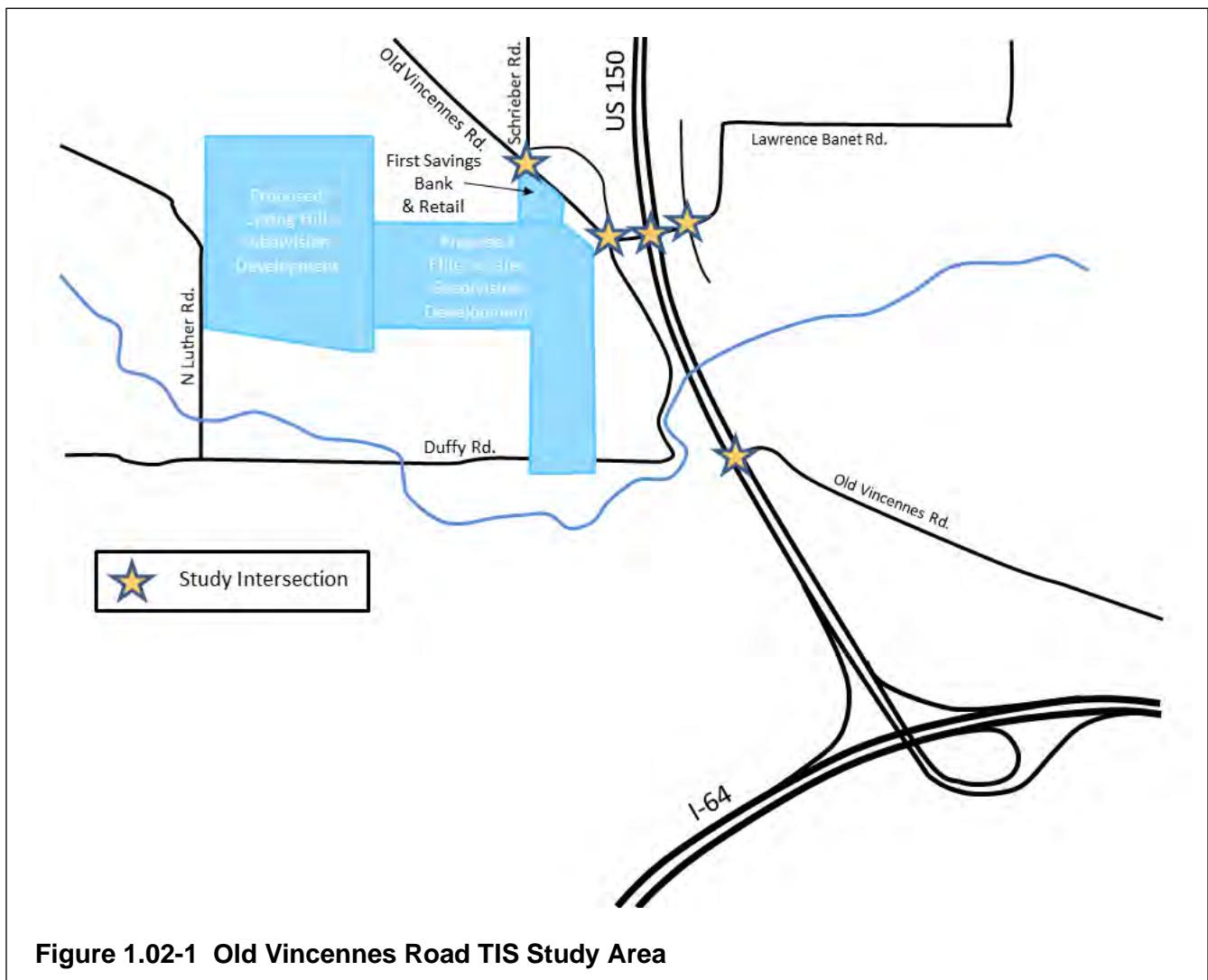
## 1.02 PURPOSE OF REPORT AND STUDY OBJECTIVES

Strand has been hired by the County to perform a TIS for the proposed development near the intersection of Schrieber Road and Old Vincennes Road, approximately 0.25 miles west of the intersection of Old Vincennes Road and US 150 and approximately 0.9 miles north of the US 150 and Interstate 64 (I-64) interchange. The study area is shown in Figure 1.02-1.

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Floyd County Commissioners, Indiana  
Old Vincennes Road Traffic Impact Study

Section 1—Summary and Introduction



**Figure 1.02-1 Old Vincennes Road TIS Study Area**

This study:

- Identifies the existing traffic volumes and analyzes the intersections and the proposed roadway network changes with background traffic during the 2026 weekday A.M. and P.M. peak hours.
- Recommends improvements to the proposed roadway network to accommodate the total traffic generated by the developments in 2026, including any required traffic control or roadway geometry changes, such as traffic signals and the number and length of turn lanes.

## 1.03 DEFINITIONS

AADT annual average daily traffic  
County Floyd County, Indiana

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EBT	Eastbound Traffic
FHWA	Federal Highway Administration
HCM	Highway Capacity Manual
I-64	Interstate 64
ICC	Index of Crash Cost
ICF	Index of Crash Frequency
INDOT	Indiana Department of Transportation
ITE	Institute of Transportation Engineers
LOS	Level of Service
PDO	property damage only
RIRO	Right-in and Right-out Only
S	Signalized intersection
sq ft	square foot
SR	state route
Strand	Strand Associates, Inc. <sup>®</sup>
TIS	Traffic Impact Study
U	Unsignalized intersection
US	United States
vpd	vehicles per day
WBT	Westbound Traffic

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**SECTION 2  
PROPOSED DEVELOPMENT**

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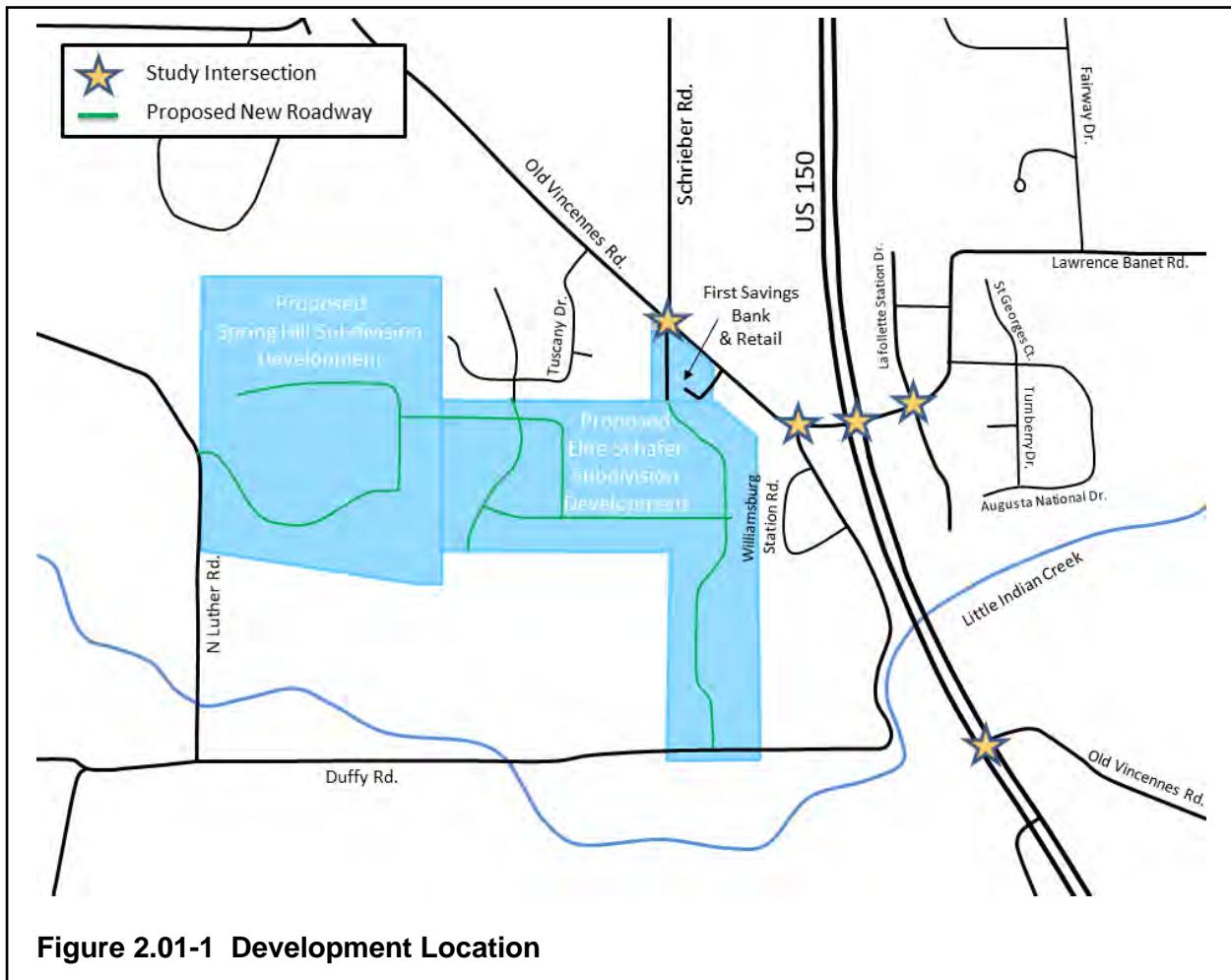
## 2.01 SUBJECT SITE

### A. Land Use and Intensity

The land on which both developments are proposed is primarily used for agriculture. The Elite Schafer and Spring Hill subdivisions developments will be single-family housing. The First Savings Bank building also has a separate area for general retail.

### B. Location

The development is located near the intersection of US 150 and Old Vincennes Road in Floyd County, Indiana, specifically at the intersection of Schrieber Road and Old Vincennes Road. This area is a suburb of Louisville, Kentucky, and traffic patterns on the roadways near the site reflect that of a commuter area. There is also a high school approximately 2 miles west of the study area that affects traffic patterns. The location of the proposed development is shown in Figure 2.01-1.



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## C. Site Plan

Figure 2.01-2 shows the proposed site plan for the developments created by the developers.



**Figure 2.01-2 Proposed Site Plan**

The proposed land uses and building square footages are:

- 213 single-family homes
- One bank with two drive-through lanes
- 2,000 square feet of general retail gross floor area

The single-family homes will all be located in the Elite Schafer and Spring Hill subdivisions in the southwest quadrant of Schrieber Road and Old Vincennes Road. First Savings Bank and the retail area are located in the southeast quadrant of Schrieber Road and Old Vincennes Road. The primary access to both development sites will be via an extension of Schrieber Road to the south of Old Vincennes Road, as it is currently a T-intersection. The intersection will require improvements to accommodate the projected traffic from the sites as discussed in Section 5.

## D. Phasing and Timing

First Savings Bank will likely open by the end of 2021. It is expected that both residential subdivisions and the retail site will be fully occupied by the end of 2026.

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## 2.02 OFF-SITE DEVELOPMENTS

More development in the area has been discussed, particularly farther north on Schrieber Road, but there were no official plans at the time of this study. Therefore, the only off-site traffic that was considered was background traffic at a growth rate of 1 percent a year.

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**SECTION 3  
AREA CONDITIONS**

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## 3.01 STUDY AREA LIMITS

This development will primarily impact Schrieber Road near Old Vincennes Road. This is in the vicinity of the intersection of Old Vincennes Road and US 150 and several closely-spaced intersections; all intersections were included in the traffic analysis of the proposed development. These intersections are shown in Figure 3.01-1.

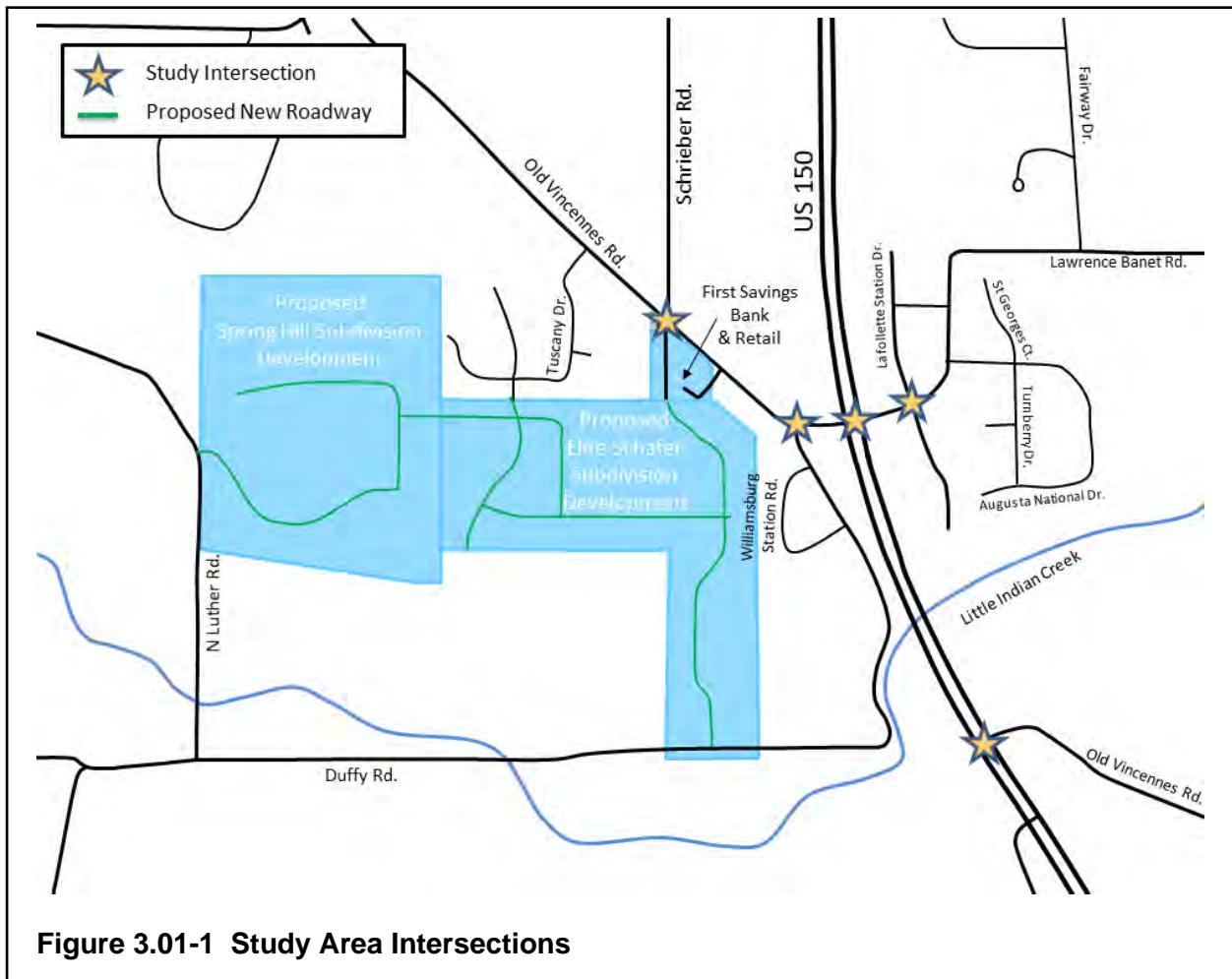


Figure 3.01-1 Study Area Intersections

## 3.02 STUDY AREA LAND USE

### A. Existing Land Use

The existing land uses in the project area include highway service and commercial, residential, and agricultural. Within the study area are gas stations, banks, fast food and sit-down restaurants, salons, pharmacies, medical buildings, commercial buildings, homes, and farm operations.

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## B. Anticipated Future Developments

Although development farther north on Schrieber Road has been discussed, there are no specific future developments currently proposed that would affect the study intersections.

### **3.03 SITE ACCESSIBILITY**

#### A. Area Roadway System

##### 1. Existing

I-64 provides access from the local area to the greater Louisville Metropolitan area. US 150 merges with I-64 less than one mile south of the study area and provides access to the nearby rural communities of Galena and Greenville. Old Vincennes Road intersects with US 150 and provides access to many residential communities as well as Floyd Central High School.

Schrieber Road currently ends at its intersection with Old Vincennes Road (tee to the north). Duffy Road provides access to commercial development immediately north and south of Old Vincennes Road and connects to the local street network to the west of this area; however, it is approximately 300 feet from the intersection with US 150 and is locally known as an unsafe intersection. East of US 150, Lafollette Station Drive intersects Lawrence Banet Road, again approximately 300 feet from the intersection. Lawrence Banet Road connects the study area with the community of Floyds Knobs to the northeast. Lastly, a separate intersection of US 150 and Old Vincennes Road is near the south end of the study area. This intersection is unsignalized and experiences a high crash rate in addition to significant delay on the stop approach during the peak hours.

##### 2. Proposed

Schrieber Road will be extended south of Old Vincennes Road to create a four-leg intersection as part of the new developments. The Elite Schafer subdivision and First Savings Bank will have access directly off this new roadway. The Spring Hill subdivision is connected to Schrieber Road through the Elite Schafer subdivision and also has an entrance off Luther Road to the west. The County desires to connect the new alignment of Schrieber Road south to Duffy Road and to signalize the intersection of Schrieber Road and Old Vincennes Road.

As part of this study, two additional alternatives will be analyzed:

- Closure of Duffy Road south of the commercial development and extension of Schrieber Road south to Duffy Road. This will reduce the number of vehicles turning at Duffy Road and route them through the new alignment of Schrieber Road.
- Realignment of Old Vincennes Road to the south to connect with Lafollette Station Drive, closing the unsignalized intersection at US 150.

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## B. Traffic Volumes

According to the 2017 count data from the Indiana Department of Transportation (INDOT), the daily traffic along US 150 just north of Old Vincennes Road is 17,507 vehicles per day (vpd). A count was completed in 2020 as well, but these values are generally considered to be atypical because of the Covid-19 pandemic. Just south of this intersection the annual average daily traffic (AADT) is estimated at approximately 20,500. A significant amount of this daily traffic along US 150 is destined for the I-64 corridor. Old Vincennes Road northwest of the study area had an AADT of 10,297 in 2020. Turning movement counts were conducted at the study area intersections in May 2021. The 2021 traffic counts for the study area intersections are shown in Figure 3.03-1.

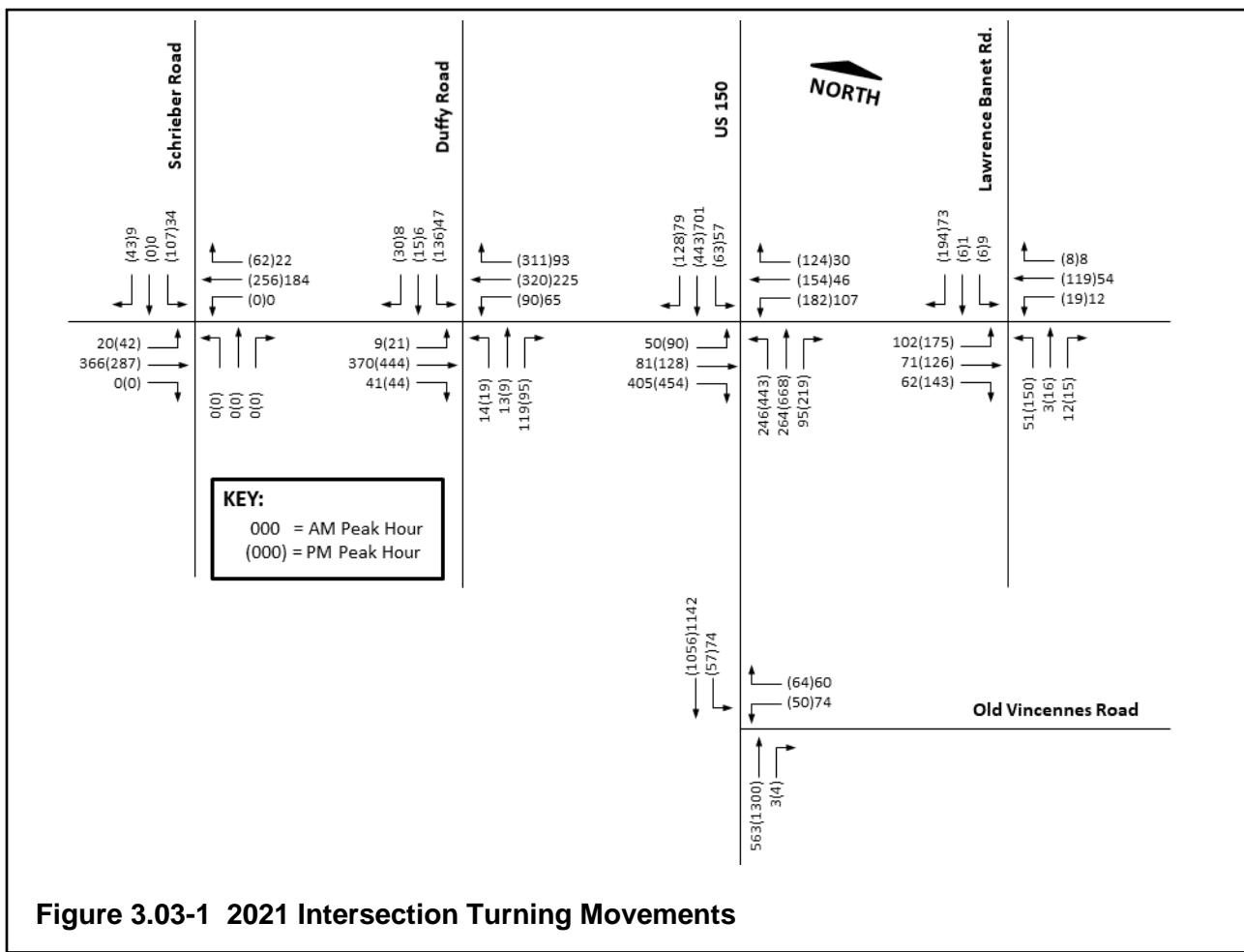


Figure 3.03-1 2021 Intersection Turning Movements

## C. Transit Service

There are currently no regularly scheduled transit services that serve the project area.

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**SECTION 4  
PROJECTED TRAFFIC**

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## 4.01 2020 AND 2026 SITE TRAFFIC

### A. Trip Generation

Trips were estimated for the proposed development using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition*. No linked trips were assumed and no pass-by trip reduction was applied due to the minor effect it would have on the results of this analysis. The final development 2026 AM and PM peak trips are shown in Figures 4.01-1 and 4.01-2, respectively. Refer to Appendix B for the trip generation data.

ITE Land Use Code	ITE Land Use	Units	AM Peak		AM Directional Distribution		2025 AM Peak Hour Trips		
			Hour Rate	Entering	Exiting		Total	Entering	Exiting
210	Single-Family Housing	137	# of Dwelling Units	0.74	25%	75%	102	26	76
210	Single-Family Housing	76	# of Dwelling Units	0.74	25%	75%	57	14	43
820	Shopping Center	2	1000 GSF	0.94	62%	38%	2	1	1
912	Drive-in Bank	3	1000 Sq Ft	9.50	58%	42%	24	14	10
New Auto Trips							185	55	130

Figure 4.01-1 2026 AM Peak-Hour Trip Generation

ITE Land Use Code	ITE Land Use	Units	PM Peak		PM Directional Distribution		2025 PM Peak Hour Trips		
			Hour Rate	Entering	Exiting		Total	Entering	Exiting
210	Single-Family Housing	137	# of Dwelling Units	0.99	63%	37%	136	86	50
210	Single-Family Housing	76	# of Dwelling Units	0.99	63%	37%	76	48	28
820	Shopping Center	2	1000 GSF	3.81	48%	52%	8	4	4
912	Drive-in Bank	3	1000 Sq Ft	20.45	50%	50%	52	26	26
New Auto Trips							272	164	108

Figure 4.01-2 2026 PM Peak-Hour Trip Generation

### B. Trip Distribution

The development trips were distributed to the roadway network based on existing roadway network patterns. The directional distributions for entering and exiting traffic during the AM peak hour are shown in Tables 4.01-1 and 4.01-2, and the same are shown for the PM peak hour are show in in Tables 4.01-3 and 4.01-4. The directionality has most of the traffic coming from and going to the east, assuming most trips are related to commuting patterns on US 150. Turning distribution at the development generally follows existing patterns at the Schrieber Road and Old Vincennes Road

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intersection. Trips generated from the development were carried through the US 150 and Old Vincennes Road intersection according to existing turning movement patterns for incoming and outgoing trips.

Direction of Travel	Entering Trip (Percentage)	Exiting Trip (Percentage)
North	5	5
South	0	0
East	70	70
West	25	25

**Table 4.01-1 AM Peak-Hour Development Trip Distribution at Schrieber Road**

Direction of Travel	Entering Trip (Percentage)	Exiting Trip (Percentage)
North	20	10
South	70	75
East	10	15
West	0	0

**Table 4.01-2 AM Peak-Hour Development Trip Distribution at US 150**

Direction of Travel	Entering Trip (Percentage)	Exiting Trip (Percentage)
North	5	5
South	0	0
East	70	70
West	25	25

**Table 4.01-3 Peak-Hour Development Trip Distribution at Schrieber Road**

Direction of Travel	Entering Trip (Percentage)	Exiting Trip (Percentage)
North	20	15
South	60	65
East	20	20
West	0	0

**Table 4.01-4 PM Peak-Hour Development Trip Distribution at US 150**

## C. Traffic Assignment

The development traffic was assigned to the roadway system according to the previously listed distribution and the proposed layout of the site access points. Despite the developments having access to Duffy Road and Luther Road, all generated trips are assumed to use Schrieber Road to access the roadway network as it is the most direct route to the busiest roads. The final development traffic in the study area is shown in Figure 4.01-3.

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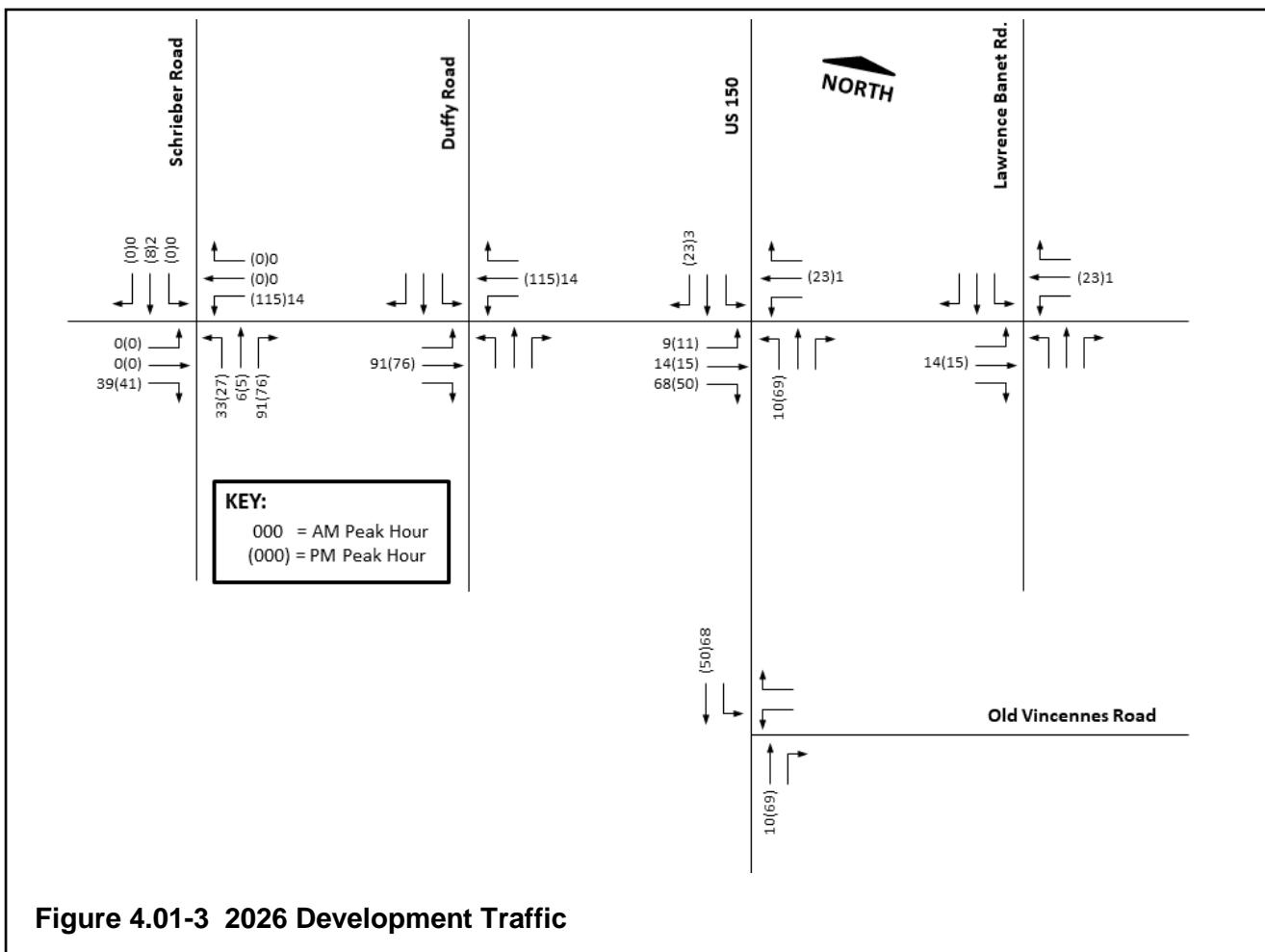


Figure 4.01-3 2026 Development Traffic

## 4.02 2026 NONSITE TRAFFIC

### A. Method of Projection

Development farther north and west of the intersection of Schrieber Road and Old Vincennes Road is expected, but an exact timeline is unknown. Nonsite traffic for this analysis is comprised of the existing traffic that has been grown to the 2026 horizon year. To calculate background traffic, the existing traffic was grown at an assumed 1.0 percent per year rate from the existing year to the 2026 horizon year for this analysis. The projected 2026 background traffic is shown in Figure 4.02-1.

### B. Trip Generation

No additional developments are known at this time, so no additional trips were generated for land uses outside of the proposed development.

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## C. Trip Distribution

The background traffic patterns were assumed to remain the same from the existing to the 2026 horizon year. The growth rate was applied to all movements equally.

## D. Traffic Assignment

Because the background traffic was forecasted with an overall growth rate, the traffic assignments will follow the existing patterns. The 2026 background traffic is shown in Figure 4.02-1.

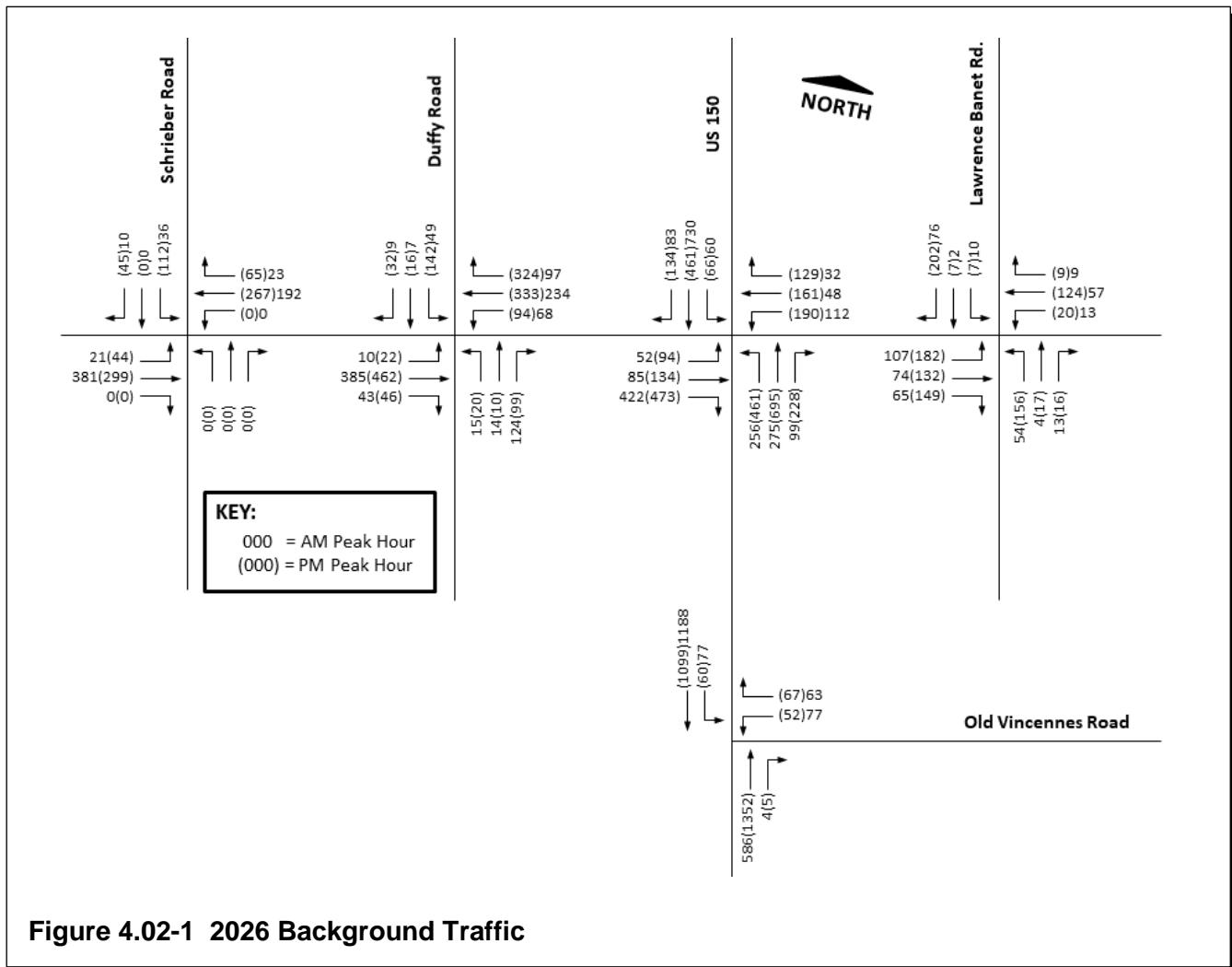


Figure 4.02-1 2026 Background Traffic

## 4.03 2026 TOTAL TRAFFIC

The 2026 traffic estimates the horizon year traffic volumes once both subdivisions, the bank, and the retail store are complete. The 2026 total traffic is shown in Figure 4.03-1.

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Old Vincennes Road Traffic Impact Study

Section 4—Projected Traffic

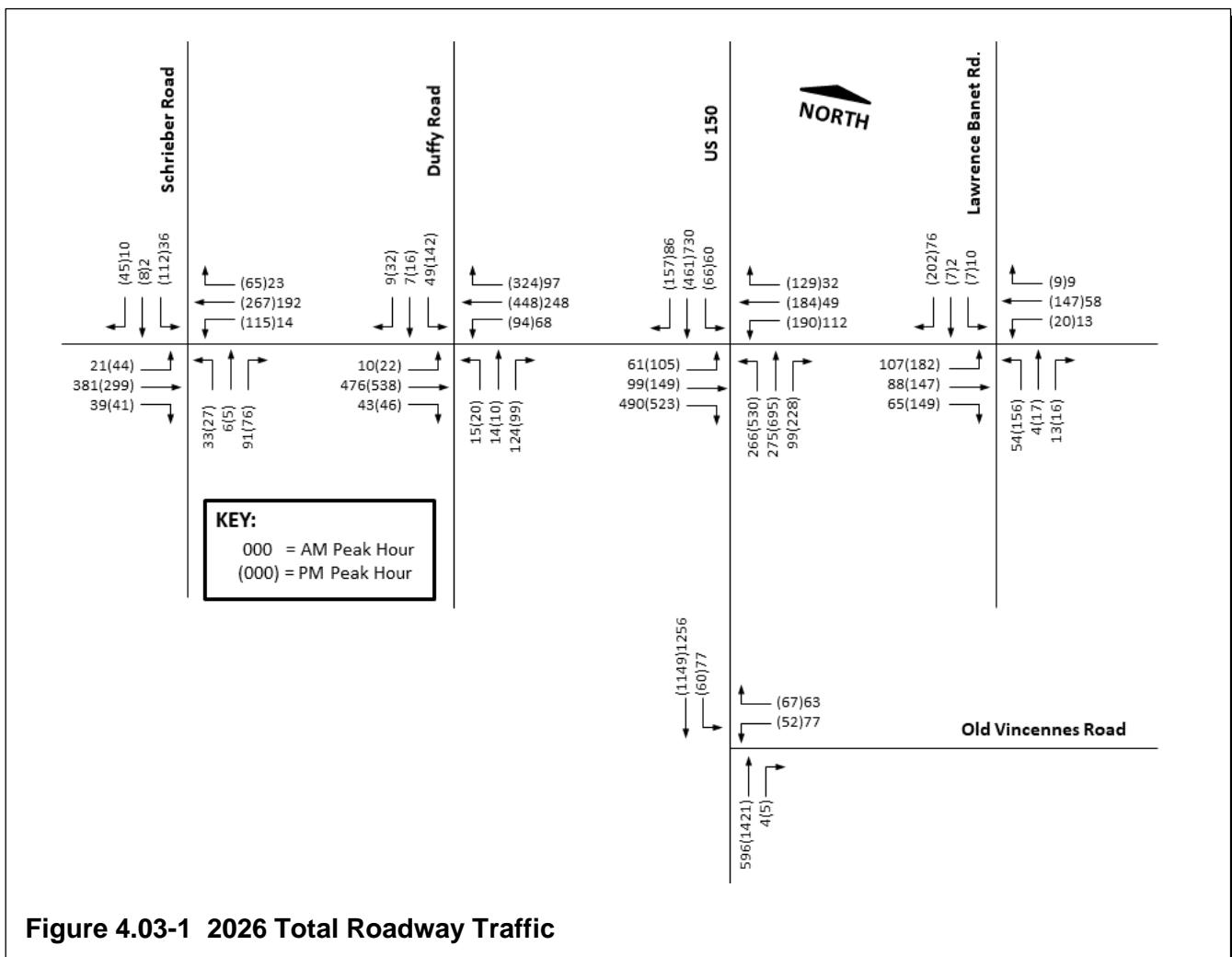


Figure 4.03-1 2026 Total Roadway Traffic

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**SECTION 5  
TRAFFIC ANALYSIS**

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## 5.01 EXISTING CAPACITY AND LOS

Motor vehicle operations were analyzed using the Synchro 11/SimTraffic 11 software program. Synchro is a macroscopic program that uses equations outlined in the HCM developed by the Federal Highway Administration (FHWA). SimTraffic is a microsimulation program that models individual vehicles on a simulated network that represents existing or proposed street conditions. These vehicles are assigned routings based on turning-movement counts at each individual intersection.

Operations are evaluated based on conditions at the intersections. An intersection's LOS is based on average delay in seconds per vehicle for traffic entering the intersection. LOS A indicates travelers will experience minimal average delay at an intersection (less than 10 seconds). LOS F indicates that average delay is quite high (more than 50 seconds at an unsignalized intersection and 80 seconds at a signalized intersection).

For signalized intersections, the overall intersection operations are reported using the HCM overall intersection delay calculated in Synchro. For unsignalized intersections, the highest delay for any yielding movement is used to report the overall intersection operations. This is done because the intersection average delay for an unsignalized intersection tends to be skewed to lower delays as the through movements that receive zero delay are factored into the overall average.

LOS E is often considered to be the limit of acceptable delay, and LOS F indicates a facility where improvements are needed. Many communities establish LOS D as their minimum acceptable condition.

First, signal warrants were completed for the existing intersection of Schrieber Road and Old Vincennes Road. No warrants were met with existing traffic volumes. However, the intersection operates at LOS F without a signal in the PM peak hour and, therefore, meets the peak-hour signal warrant. More information regarding signal warrants for that intersection can be found in subsequent paragraphs.

The existing roadway was simulated both with and without the development traffic to establish the operating conditions of the existing roadway and determine the improvements required to accommodate the development traffic.

Modeling indicates the existing roadway corridor after construction of the developments will have some operational issues without any further improvements or development. Every intersection in the study area operates at LOS F in the PM peak hour except for US 150 and Old Vincennes Road, which operates at LOS E and has a movement operating at LOS F.

The HCM6 traffic operations from the Synchro models at the study intersections with the base traffic is shown in Table 5.01-1. Complete results of the traffic analysis can be found in Appendix C.

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Location	Intersection Operations			
	AM Peak Hour		PM Peak Hour	
	Overall Intersection Operation	LOS F Movement	Overall Intersection Operation	LOS F Movements
Old Vincennes Road and Schrieber Road (U)	LOS C	--	LOS C	--
Old Vincennes Road and Duffy Road (RIRO) (U)	LOS F	SBT	LOS F	NBT, SBT
Old Vincennes Road and US 150 (S)	LOS D	EBR	LOS E	EBR
Lawrence Banet Road and Lafollette Station Drive (U)	LOS C	--	LOS F	NBL
US 150 and East Old Vincennes Road (U)	LOS C	--	LOS E	--

Table 5.01-1 2025 Background Traffic Operations

Traffic modeling indicates that when the 2026 development traffic is added to the existing roadway network, all intersections operate at LOS F in the PM peak hour except for US 150 and Old Vincennes Road, which operates at LOS E and has a movement operating at LOS F. Assumptions for modeling include the following:

- Switching the phasing scheme at US 150 and Old Vincennes Road. INDOT provided signal timings for this intersection, which showed a longer green time for the southbound left-turn movement than the northbound left-turn movement according to traditional phasing. This was switched because the northbound left-turn movement has much higher traffic volumes.
- Assume 10% of eastbound right-turning vehicles can turn on red at the US 150 intersection. This somewhat improves the LOS when using HCM6.
- Assume one vehicle can be stored in the median at the unsignalized intersection of US 150 and Old Vincennes Road.

This can be compared to the 2026 background traffic, in which only two of the intersections operate at LOS F in the PM peak hour. HCM6 traffic operations without any roadway improvements for total traffic after construction of the developments is shown in Table 5.01-2.

Location	Intersection Operations			
	AM Peak Hour		PM Peak Hour	
	Overall Intersection Operation	LOS F Movement	Overall Intersection Operation	LOS F Movements
Old Vincennes Road and Schrieber Road (U)	LOS E	--	LOS F	SBT
Old Vincennes Road and Duffy Road (U)	LOS F	SBT	LOS F	SBT, NBT
Old Vincennes Road and US 150 (S)	LOS E	EBR	LOS E	EBR
Lawrence Banet Road and Lafollette Station Drive (U)	LOS C	--	LOS F	NBL
US 150 and East Old Vincennes Road (U)	LOS C	--	LOS F	WBT

Table 5.01-2 2025 Total Traffic Operations-No Build

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## 5.02 TRAFFIC SIGNAL WARRANT ANALYSIS

A traffic signal warrant analysis was conducted to evaluate whether the development traffic will warrant a traffic signal at the intersection of Schrieber Road and Old Vincennes Road. To evaluate the hourly values, the daily trips generated by the development were distributed from 7 A.M. to 7 P.M. at a similar percentage to existing traffic. They were also distributed by the percentage of vehicles going into or out of the developments over the course of the day and by the direction of travel. These volumes were added to the existing traffic to determine the traffic volumes to use for the signal warrant analysis. Table 5.02-1 shows the results of the signal warrant analysis. Full-signal warrant sheets are located in Appendix D.

Signal Warrant	Satisfied	Number of Hours Satisfied
Eight-Hour Warrant	No	3 hours
Four-Hour Warrant	No	2 hours
Peak-Hour Warrant	Yes	0 hours

**Table 5.02-1 2025 Traffic Signal Warrant Analysis**

The 2026 development traffic satisfies traffic the signal warrant for the peak hour. The volume does not meet, but the delay on the minor approach exceeds the threshold. The signal will be further warranted if recommendations in the Build scenario are recommended and as additional development occurs in the area.

## 5.03 CRASH ANALYSIS

Crash data for 2017 to 2019 was analyzed at each of the five study intersections. The crash type and crash severity are shown in Tables 5.04-1 and 5.04-2, respectively. RoadHAT 4D was used in accordance with INDOT direction to determine whether the intersection experiences an above-average crash rate, meaning the Index of Crash Frequency (ICF) or Index of Crash Cost (ICC) are greater than 1.0. Three of the five intersections were identified as high-crash locations: Old Vincennes and Duffy Road, Lawrence Banet Road and Lafollette Station Drive, and US 150 and East Old Vincennes Road. Recommended improvements to these intersections are discussed in the following section.

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Intersection	Total Crashes	Rear End	Right Angle	Ran off Road	Side-swipe	Turning	Other
Schrieber Road and Old Vincennes Road	4	4	0	0	0	0	0
Duffy Road and Old Vincennes Road	7	1	5	0	0	0	1
US 150 and Old Vincennes Road/ Lawrence Banet Road	62	33	5	2	9	6	7
Lawrence Banet Road and Lafollette Station Drive	13	3	3	1	1	4	1
US 150 and East Old Vincennes Road	25	13	4	3	0	2	3

Table 5.03-1 Crash Analysis: Type

Intersection	Total Crashes	Severity			ICF	ICC
		Fatal	Injury	PDO		
Schrieber Road and Old Vincennes Road	4	0	0	4	0.65	-0.40
Duffy Road and Old Vincennes Road	7	0	0	7	1.01	-0.48
US 150 and Old Vincennes Road/Lawrence Banet Road	62	4	9	49	0.82	0.50
Lawrence Banet Road and Lafollette Station Drive	13	1	2	10	2.53	0.88
US 150 and East Old Vincennes Road	25	1	2	22	2.98	0.42

PDO = property damage only

Table 5.03-2 Crash Analysis: Severity

## 5.04 ROADWAY IMPROVEMENTS TO IMPROVE CAPACITY AND LOS

A signal is recommended at the intersection of Schrieber Road and Old Vincennes Road due to the delay on Schrieber Road if the intersection remains unsignalized. Conversion of the north approach of Duffy Road to a RIRO layout is also recommended. This intersection was identified as a high-crash location and also operates at LOS F in both peak hours, even without development traffic. Converting it to RIRO improves safety because it eliminates several crossing movements while also improving operations to LOS D. This traffic will use the new signal at Schrieber Road to turn left onto Old Vincennes Road. Eliminating through and left-turn movements from Duffy Road was also discussed; however, this was not the preference of the County due to limited access points for residents and businesses to the south. Converting the driveway to the gas station at the southwest corner of Old Vincennes Road and Duffy Road to entrance only should also be considered because of the proximity of the driveway to the intersection. Lastly, an overlap phase should be considered for the eastbound right-turn movement at the intersection of Old Vincennes Road with US 150. A dedicated right-turn bay already exists, so the change in signal timing would be minor. The proposed improvements are summarized in Table 5.04-1.

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Intersection	Improvements
Old Vincennes Road and Schrieber Road	<ul style="list-style-type: none"> <li>▪ Install 50-foot northbound left-turn bay.</li> <li>▪ Install 50-foot eastbound left-turn bay.</li> <li>▪ Install 130-foot southbound left-turn bay.</li> <li>▪ Install 60-foot westbound left-turn bay.</li> <li>▪ Convert intersection to traffic signal control.</li> </ul>
Old Vincennes Road and Duffy Road	<ul style="list-style-type: none"> <li>▪ Convert intersection to RIRO.</li> <li>▪ Convert gas station driveway to entrance only.</li> </ul>
Old Vincennes Road and US 150	<ul style="list-style-type: none"> <li>▪ Convert EBR phasing to permitted+overlap.</li> </ul>

**Table 5.04-1 Recommended Roadway Improvements for 2025 Development**

These recommendations improve the operations of this corridor as shown in Table 5.04-2. Modeling indicates that only two intersections now operate at LOS F in the PM peak hour and that the other intersections also have improved operations. The overall intersection operations of LOS B through D indicates some capacity to accommodate additional future developments.

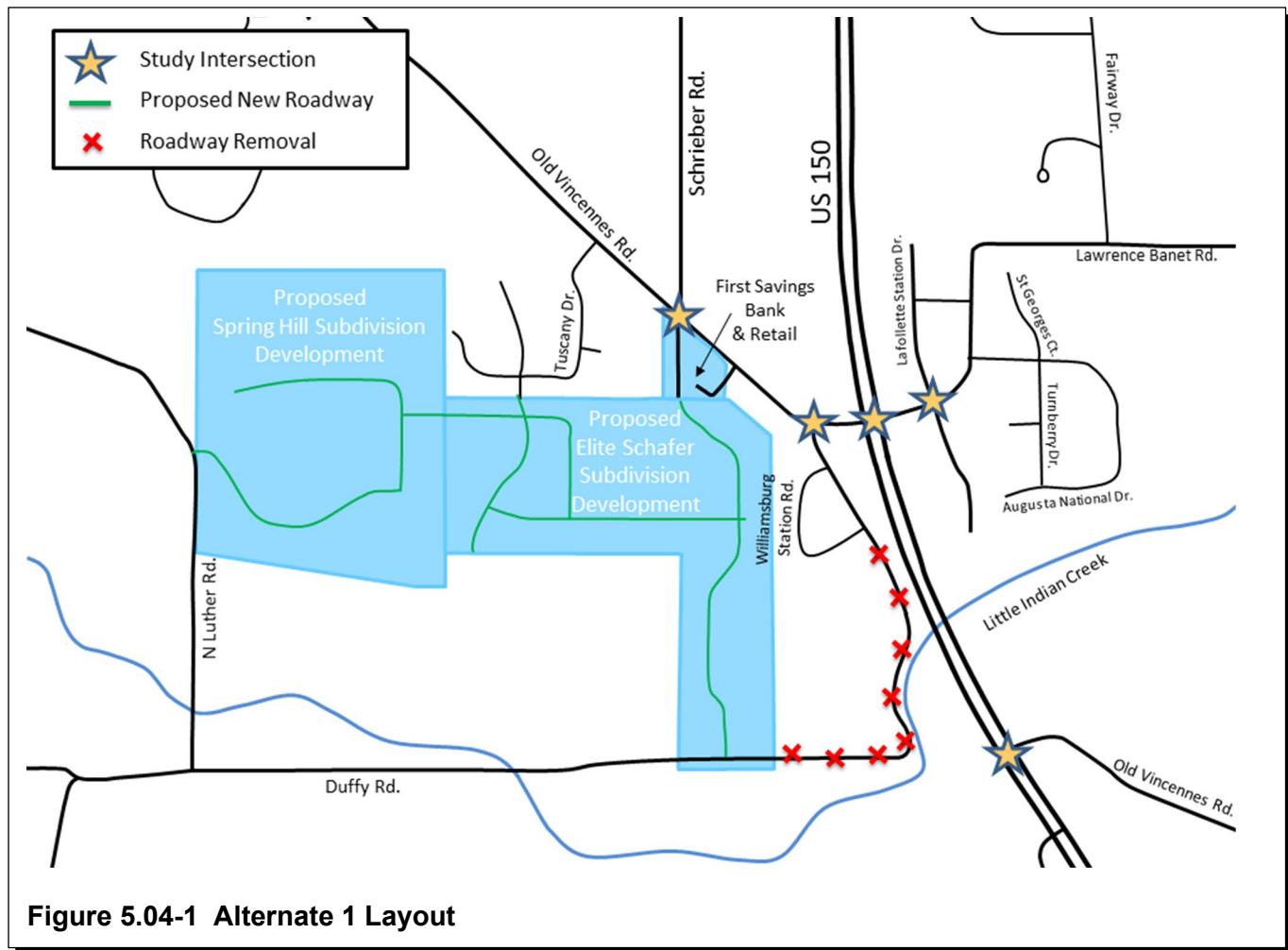
Location	Anticipated Intersection Operations			
	AM Peak Hour		PM Peak Hour	
	Overall Intersection Operation	LOS F Movement	Overall Intersection Operation	LOS F Movement
Old Vincennes Road and Schrieber Road (S)	LOS B	--	LOS B	--
Old Vincennes Road and Duffy Road (RIRO) (U)	LOS C	--	LOS D	--
Old Vincennes Road and US 150 (S)	LOS D	--	LOS D	NBL
Lawrence Banet Road and Lafollette Station Drive (U)	LOS C	--	LOS F	NBL
US 150 and East Old Vincennes Road (U)	LOS C	--	LOS F	WBT

**Table 5.04-2 2025 Total Traffic Operations—Build**

Improvements to the Lawrence Banet Road and Lafollette Station Drive intersection and the US 150 and Old Vincennes Road unsignalized intersection are considered outside the scope of these recommendations. US 150 and Old Vincennes Road has been identified by INDOT as a location for improvement and has a project currently in design. Lafollette Station Drive to the south has low traffic volumes and no other access points; it does not warrant a project at this time.

As previously noted, two alternatives were also studied at the request of the County. Alternate 1 studied the closure of Duffy Road south of the development near Old Vincennes Road as shown in Figure 5.04-01. The purpose of this would be to reduce the number of turning vehicles at this intersection. Traffic would have access to Duffy Road farther to the west via the proposed Schrieber Road connection. The analysis assumes 20 percent of traffic on Duffy Road would be rerouted to Schrieber Road, as most traffic is assumed to access the businesses near the intersection with Old Vincennes Road. Because the volume of rerouted traffic is small, it is expected that the roadway network could accommodate this additional traffic without any additional improvements beyond what the developments require. Operations are shown in Table 5.04-3.

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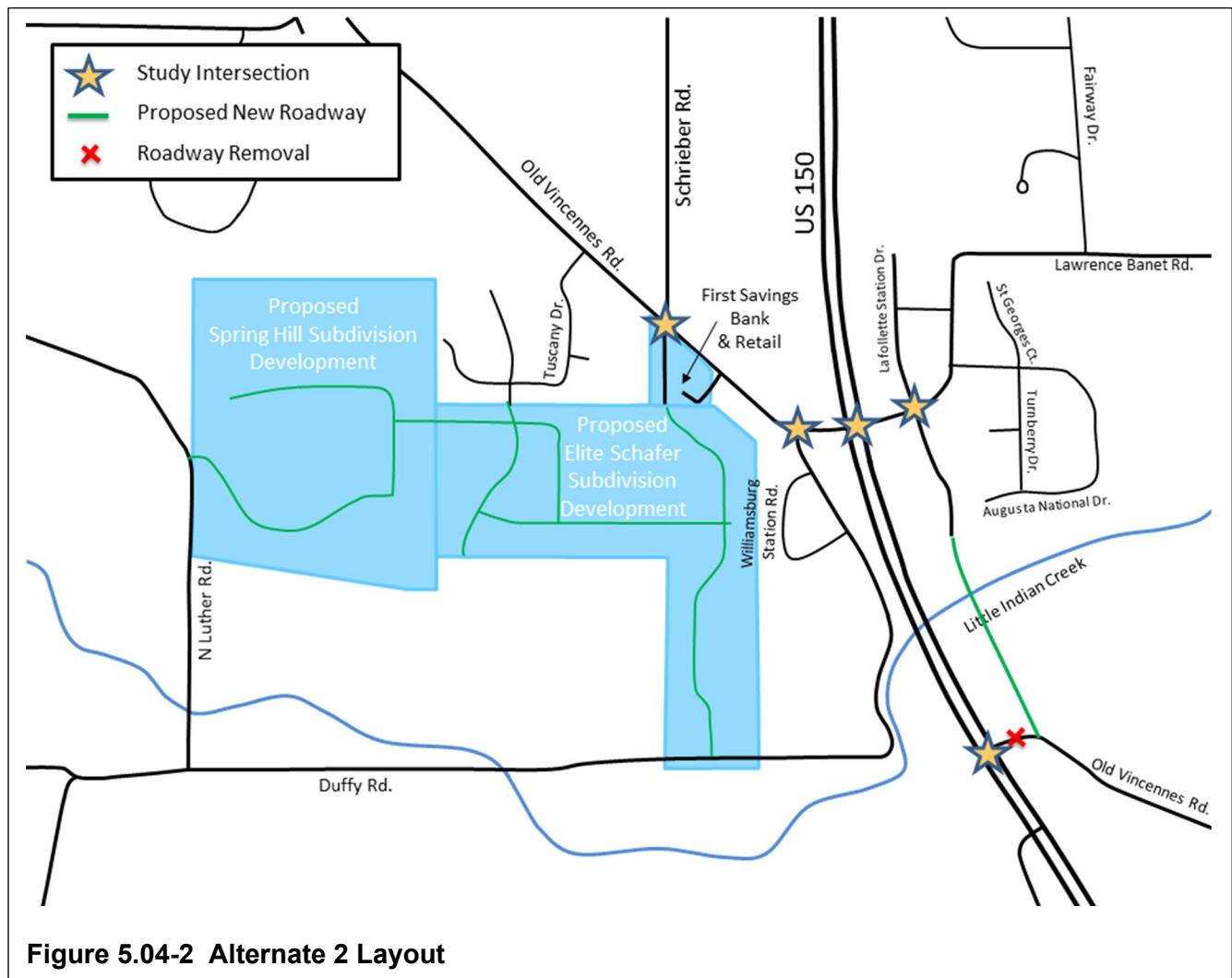
Location	Anticipated Intersection Operations			
	AM Peak Hour		PM Peak Hour	
	Overall Intersection Operation	LOS F Movement	Overall Intersection Operation	LOS F Movement
Old Vincennes Road and Schrieber Road (U)	LOS B	--	LOS B	--
Old Vincennes Road and Duffy Road (RIRO) (U)	LOS C	--	LOS D	--
Old Vincennes Road and US 150 (S)	LOS D	--	LOS D	NBL
Lawrence Banet Road and Lafollette Station Drive (U)	LOS C	--	LOS F	NBL
US 150 and East Old Vincennes Road (U)	LOS C	--	LOS F	WBT

**Table 5.04-3 2025 Total Traffic Operations—Alternate 1**

Alternate 2 studied a proposed connection from East Old Vincennes Road to connect with Lafollette Station Drive as shown in Figure 5.04-2. This was discussed due to the poor LOS at the US 150 and Old Vincennes Road unsignalized intersection as well as the safety benefits of closing that intersection. However, this further burdens the northbound left-turn movement on Lafollette Station Drive at the intersection with Lawrence Banet Road, which already operates at

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LOS F without this added traffic. Other improvements would be needed to accommodate this traffic. However, a signal would not be recommended because of the proximity to the signal at US 150. A roundabout could be considered, but a westbound right-turn lane and an additional westbound left-turn lane would likely be needed to prevent those vehicles from queuing back into the roundabout. Operations are shown in Table 5.04-4.



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Location	Anticipated Intersection Operations			
	AM Peak Hour		PM Peak Hour	
	Overall Intersection Operation	LOS F Movement	Overall Intersection Operation	LOS F Movements
Old Vincennes Road and Schrieber Road (U)	LOS B	--	LOS B	--
Old Vincennes Road and Duffy Road (RIRO) (U)	LOS C	--	LOS D	--
Old Vincennes Road and US 150 (S)	LOS D	SBL	LOS D	NBL, SBL
Lawrence Banet Road and Lafollette Station Drive (U)	LOS C	--	<b>LOS F</b>	<b>NBL</b>
US 150 and East Old Vincennes Road (U)	N/A	--	N/A	--

**Table 5.04-4 2025 Total Traffic Operations—Alternate 2**

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**SECTION 6  
RECOMMENDATIONS AND CONCLUSIONS**

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Floyd County, Indiana

Old Vincennes Road Traffic Impact Study

Section 6—Recommendations and Conclusions

## 6.01 SITE ACCESS AND CIRCULATION PLAN

The proposed development will get its primary site access from Schrieber Road via the intersection with Old Vincennes Road. Some additional local trips may use Duffy Road to access the development from the south or Luther Road to access the development from the west. Enhancements to improve connectivity between Duffy Road and Schrieber Road could be studied in the future to provide better traffic circulation.

## 6.02 ROADWAY IMPROVEMENTS

The results from this analysis were used to determine the design of the Schrieber Road and Old Vincennes Road intersection and to determine whether other improvements to the surrounding roadway network were necessary. The Schrieber Road and Old Vincennes Road intersection will require signalization and left-turn bays for each approach. Left-turn bays improve the LOS of the intersection and will provide flexibility if the left-turn movement needs to have a dedicated signal phase in the future. The turn bay lengths are shown in table 6.02-1; however, these could be lengthened to provide deceleration in accordance with the Indiana Design Manual or at the discretion of the County.

Conversion of the southbound approach of Duffy Road to RIRO is also recommended. This movement operates at LOS F and is a high-crash location. This traffic can access Old Vincennes Road via the new signal at Schrieber Road.

Lastly, it is also recommended to convert the eastbound right-turn movement at Old Vincennes Road and US 150 to permitted+overlap phasing. This movement has a high traffic volume and can overlap with the high volume of northbound left-turning vehicles.

Intersection	Improvements
Old Vincennes Road and Schrieber Road	<ul style="list-style-type: none"><li>▪ Install 50-foot northbound left-turn bay.</li><li>▪ Install 50-foot eastbound left-turn bay.</li><li>▪ Install 130-foot southbound left-turn bay.</li><li>▪ Install 60-foot westbound left-turn bay.</li><li>▪ Convert intersection to traffic signal control.</li></ul>
Old Vincennes Road and Duffy Road	<ul style="list-style-type: none"><li>▪ Convert intersection to RIRO.</li><li>▪ Convert gas station driveway to entrance only.</li></ul>
Old Vincennes Road and US 150	<ul style="list-style-type: none"><li>▪ Convert EBR phasing to permitted+overlap.</li></ul>

Table 6.01-1 Recommended Roadway Improvements

The signalized intersection would operate at LOS B in both peak hours, and the RIRO intersection would operate at LOS C in the AM and D in the PM. This indicates that these intersections will be able to accommodate additional traffic in the future. Exhibits showing the proposed intersection layouts are located in Appendix A.

## 6.03 ADEQUACY OF PROPOSED PLAN INCLUDING RECOMMENDED IMPROVEMENTS

The proposed roadway improvements will provide acceptable overall operations at most intersections according to HCM6 output throughout the study area in the 2026 horizon year.

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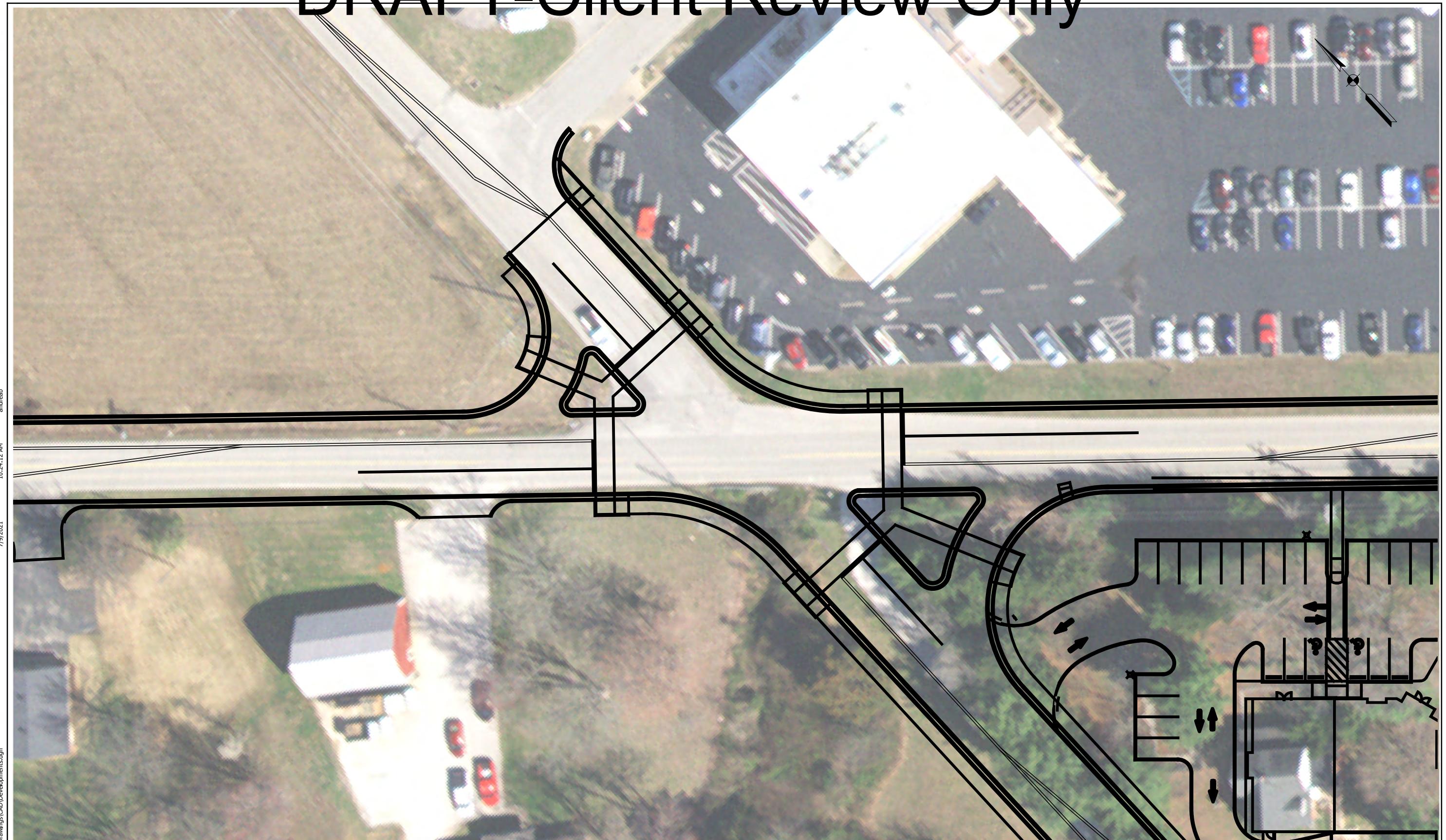
However, the intersections of Lawrence Banet Road with Lafollette Station Drive and US 150 with East Old Vincennes Road still operate at LOS F in the PM peak hour. While INDOT is studying the intersection of US 150 and East Old Vincennes Road, other improvements can be studied in the future.

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**APPENDIX A  
EXHIBITS**

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RECOMMENDED  
FOR APPROVAL \_\_\_\_\_

DESIGN ENGINEER \_\_\_\_\_

DATE \_\_\_\_\_

DESIGNED: \_\_\_\_\_

DRAWN: \_\_\_\_\_

CHECKED: \_\_\_\_\_

CHECKED: \_\_\_\_\_

FLOYD COUNTY COMMISSIONERS

SCHRIEBER ROAD AND  
OLD VINCENNES ROAD

HORIZONTAL SCALE \_\_\_\_\_

BRIDGE FILE NO. \_\_\_\_\_

Full Size 1 = 1

VERTICAL SCALE \_\_\_\_\_

DESIGNATION NO. \_\_\_\_\_

SURVEY BOOK NO. \_\_\_\_\_

SHEETS \_\_\_\_\_

1 \_\_\_\_\_ of \_\_\_\_\_

CONTRACT NO. \_\_\_\_\_

PROJECT NO. \_\_\_\_\_

# DRAFT-Client Review Only



		RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____ DATE _____	FLOYD COUNTY COMMISSIONERS	HORIZONTAL SCALE _____	BRIDGE FILE NO. _____
		DESIGNED: _____	DRAWN: _____	DUFFY ROAD & OLD VINCENNES ROAD		Full Size 1 = 1
		CHECKED: _____	CHECKED: _____			VERTICAL SCALE _____
						DESIGNATION NO. _____
						SURVEY BOOK NO. _____
						1 of _____ SHEETS
						CONTRACT NO. _____
						PROJECT NO. _____

**DRAFT-Client Review Only**

**APPENDIX B  
TRIP GENERATION DATA**

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**Proposed Development at Schriber and Old Vincennes Road (SW Quad)- Year 2025**  
Trip Generation

Date: 2021-06-02

Lot	Specified Designation	ITE Table	Given Units	Unit	Daily Rate	AM Peak			PM Peak		Daily Trips	AM Peak Hour			PM Peak Hour			
						Hour Rate	% In	% Out	Hour Rate	% In	% Out	AM In	AM Out	Trips	PM In	PM Out	Trips	
Elite Schafer	Single-Family Housing	210	137	# of Dwelling Units	9.44	0.74	25%	75%	0.99	63%	37%	1294	26	76	102	86	50	136
Spring Hill	Single-Family Housing	210	76	# of Dwelling Units	9.44	0.74	25%	75%	0.99	63%	37%	718	14	43	57	48	28	76
						<b>Total Trips:</b>			<b>2,012</b>	<b>40</b>	<b>119</b>	<b>159</b>	<b>134</b>	<b>78</b>	<b>212</b>			
						<b>*Linked Trip Reduction:</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			
						<b>Total Driveway Trips:</b>			<b>2,012</b>	<b>40</b>	<b>119</b>	<b>159</b>	<b>134</b>	<b>78</b>	<b>212</b>			
						<b>**Passby Reduction:</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			
						<b>Total New Development Trips:</b>			<b>2,012</b>	<b>40</b>	<b>119</b>	<b>159</b>	<b>134</b>	<b>78</b>	<b>212</b>			

**Proposed Development at Schriber and Old Vincennes Road (SE Quad)- Year 2025**  
Trip Generation

Date: 2021-06-02

Lot	Specified Designation	ITE Table	Given Units	Unit	Daily Rate	AM Peak			PM Peak		Daily Trips	AM Peak Hour			PM Peak Hour			
						Hour Rate	% In	% Out	Hour Rate	% In	% Out	AM In	AM Out	Trips	PM In	PM Out	Trips	
Retail	Shopping Center	820	2	1000 GSF	37.75	0.94	62%	38%	3.81	48%	52%	76	1	1	2	4	4	8
Bank	Drive-in Bank	912	2.5	1000 GSF	100.03	9.5	58%	42%	20.45	50%	50%	251	14	10	24	26	26	52
						<b>Total Trips:</b>			<b>327</b>	<b>15</b>	<b>11</b>	<b>26</b>	<b>30</b>	<b>30</b>	<b>60</b>			
						<b>*Linked Trip Reduction:</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			
						<b>Total Driveway Trips:</b>			<b>327</b>	<b>15</b>	<b>11</b>	<b>26</b>	<b>30</b>	<b>30</b>	<b>60</b>			
						<b>**Passby Reduction:</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			
						<b>Total New Development Trips:</b>			<b>327</b>	<b>15</b>	<b>11</b>	<b>26</b>	<b>30</b>	<b>30</b>	<b>60</b>			

Notes:

\*Linked trips applied as follows: X No linked trips assumed for industrial and residential

**0** daily trips

Total Daily Linked Trip Reduction is

**0** trips

Same methodology applied to AM and PM peak trips

\*\* Passby trips applied as follows: X No pass-by trips assumed

**0** daily trips

Total Daily Passby Traffic is

**0** trips

Same methodology applied to AM and PM peak trips

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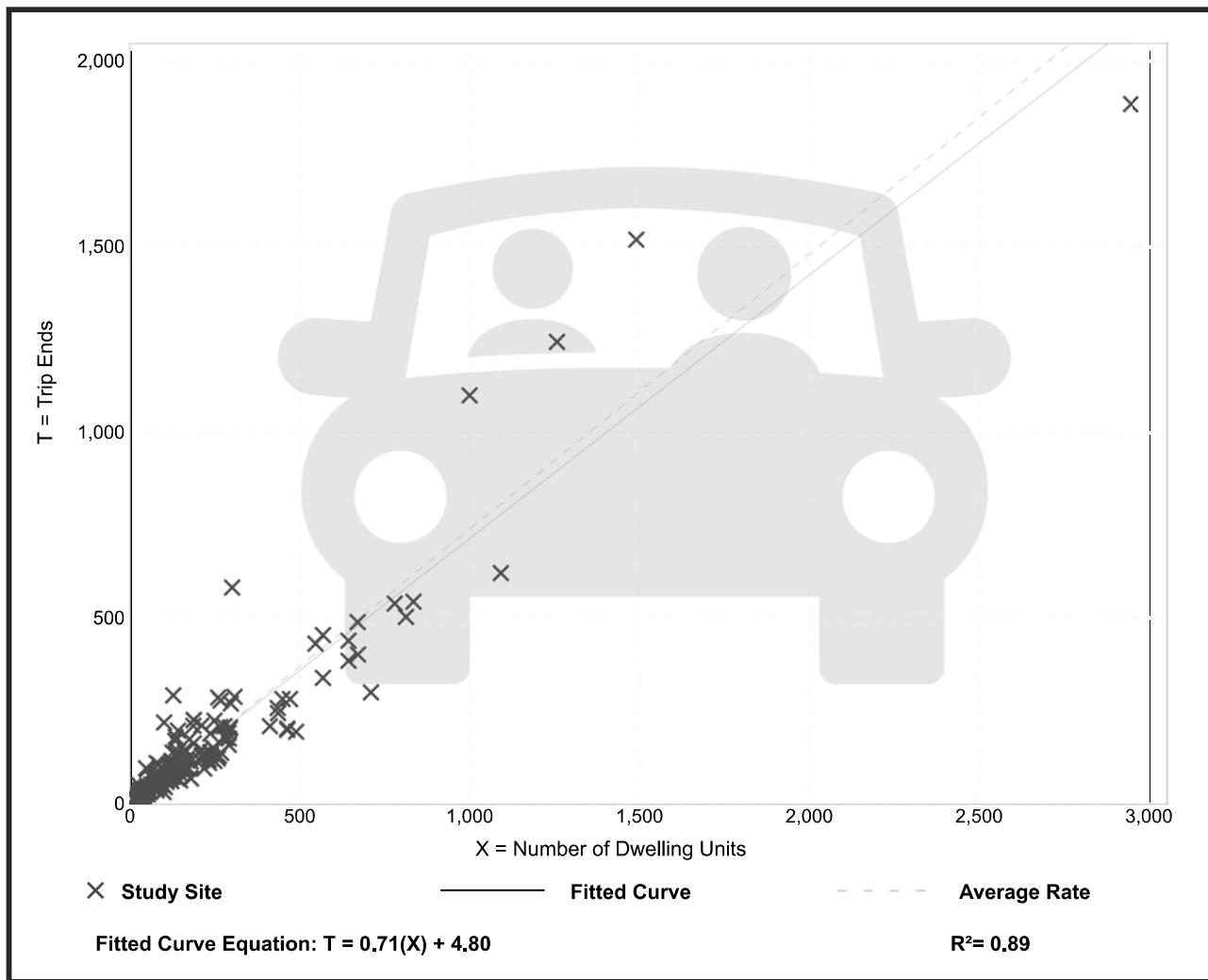
## Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 7 and 9 a.m.  
Setting/Location: General Urban/Suburban  
Number of Studies: 173  
Avg. Num. of Dwelling Units: 219  
Directional Distribution: 25% entering, 75% exiting

### Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.74	0.33 - 2.27	0.27

### Data Plot and Equation



# DRAFT-Client Review Only

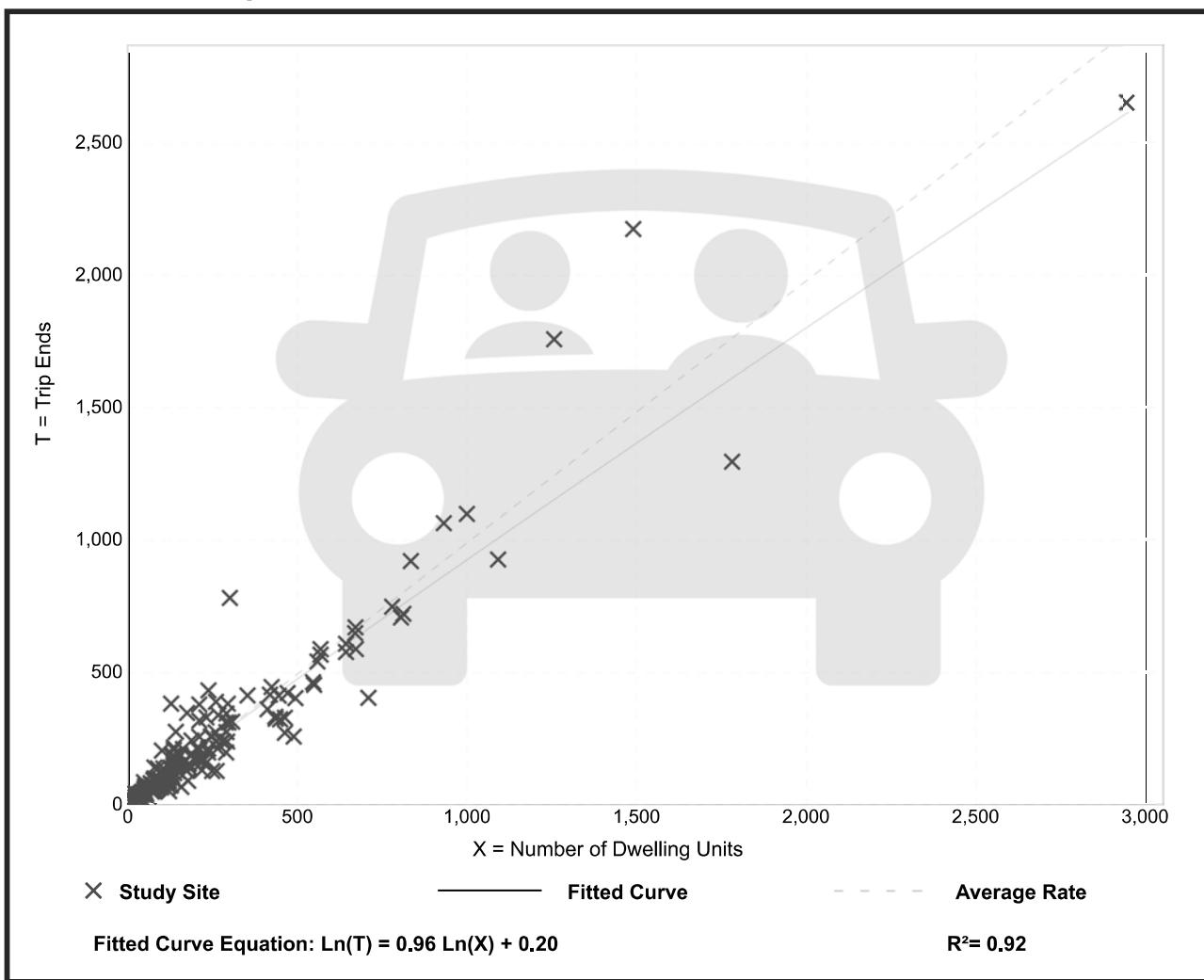
## Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 4 and 6 p.m.  
Setting/Location: General Urban/Suburban  
Number of Studies: 190  
Avg. Num. of Dwelling Units: 242  
Directional Distribution: 63% entering, 37% exiting

### Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.99	0.44 - 2.98	0.31

### Data Plot and Equation



# DRAFT-Client Review Only

## Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday

**Setting/Location:** General Urban/Suburban

Number of Studies: 159

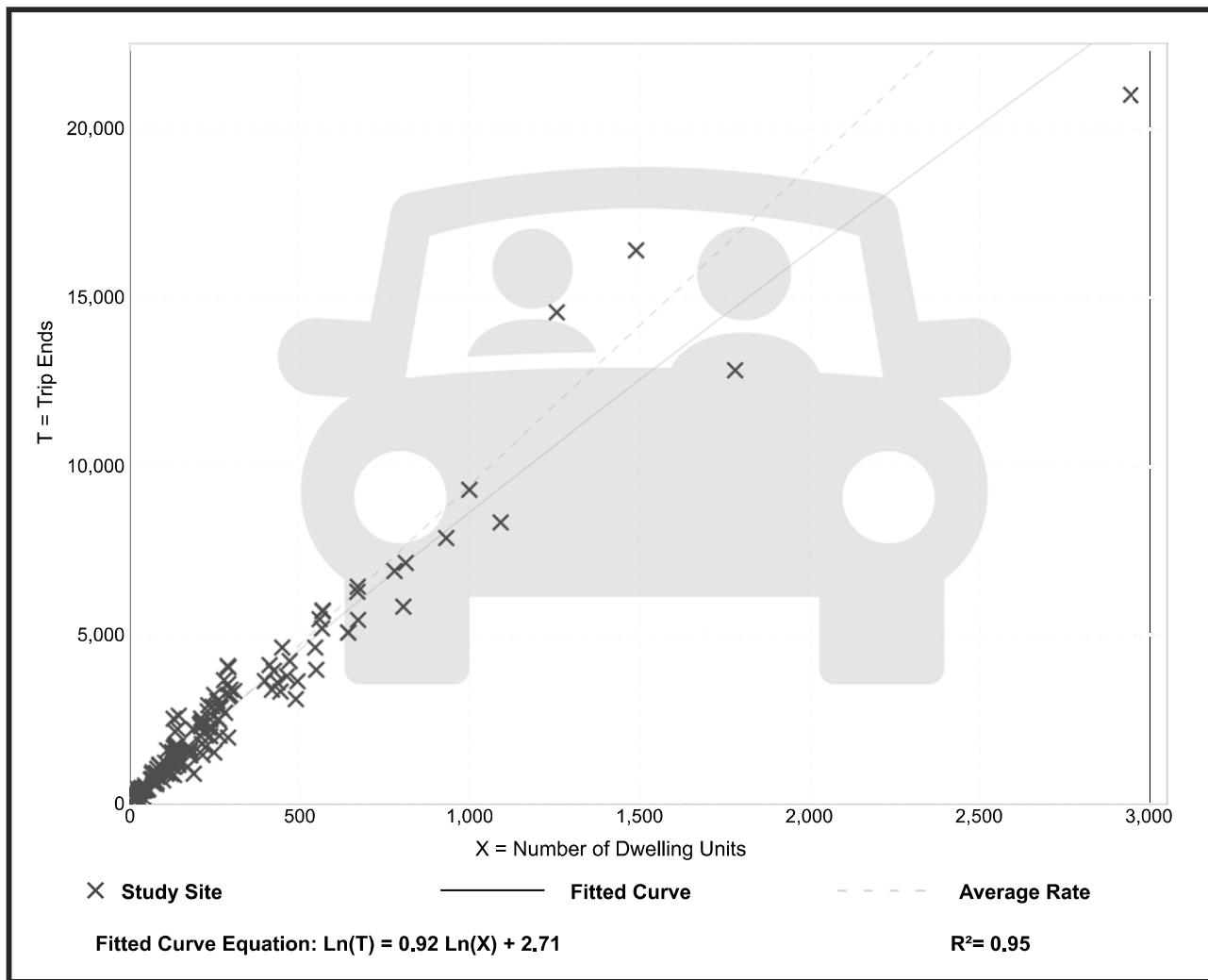
Avg. Num. of Dwelling Units: 264

Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.44	4.81 - 19.39	2.10

### Data Plot and Equation



# DRAFT-Client Review Only

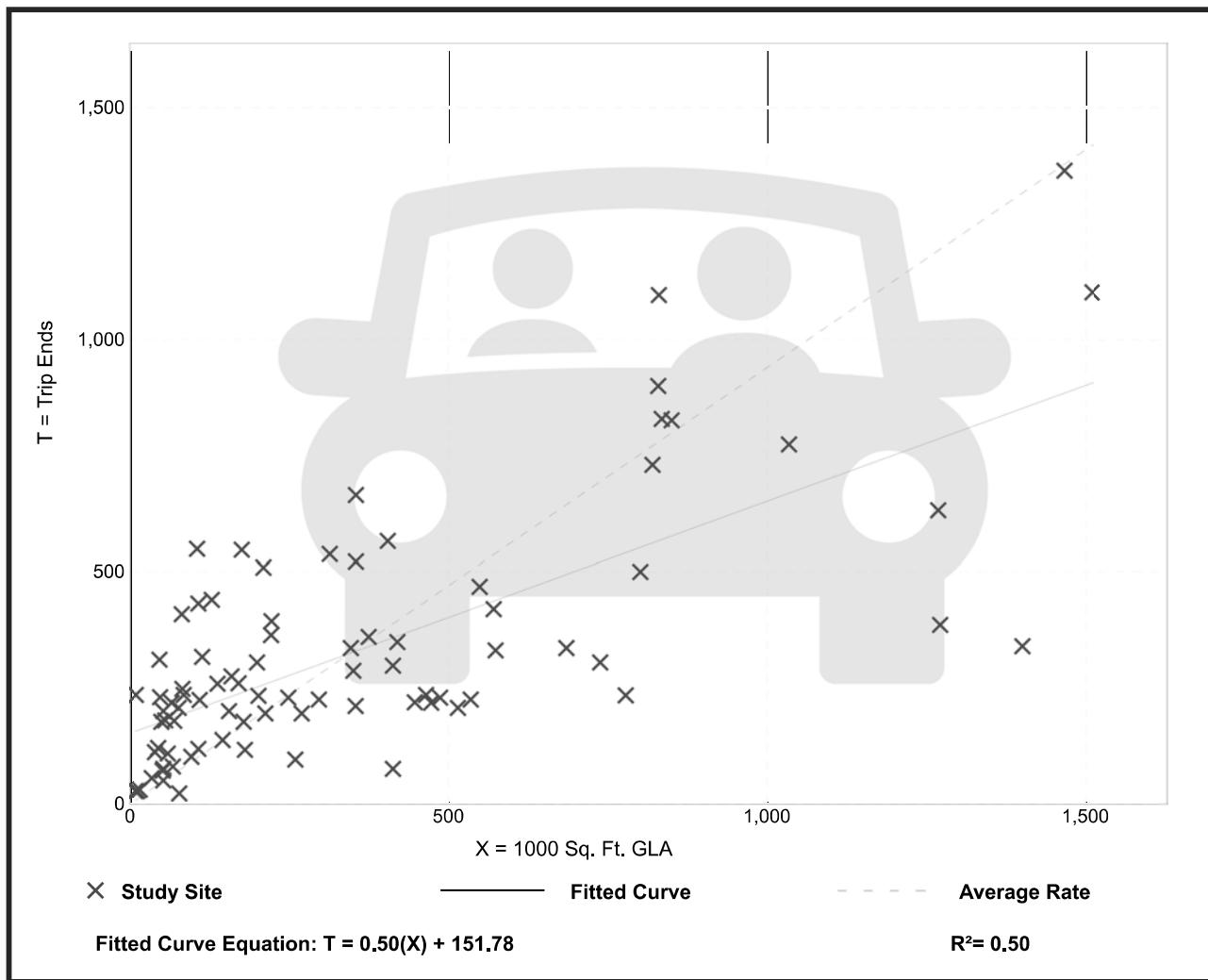
## Shopping Center (820)

**Vehicle Trip Ends vs:** 1000 Sq. Ft. GLA  
**On a:** Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 7 and 9 a.m.  
**Setting/Location:** General Urban/Suburban  
Number of Studies: 84  
Avg. 1000 Sq. Ft. GLA: 351  
Directional Distribution: 62% entering, 38% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
0.94	0.18 - 23.74	0.87

### Data Plot and Equation



# DRAFT-Client Review Only

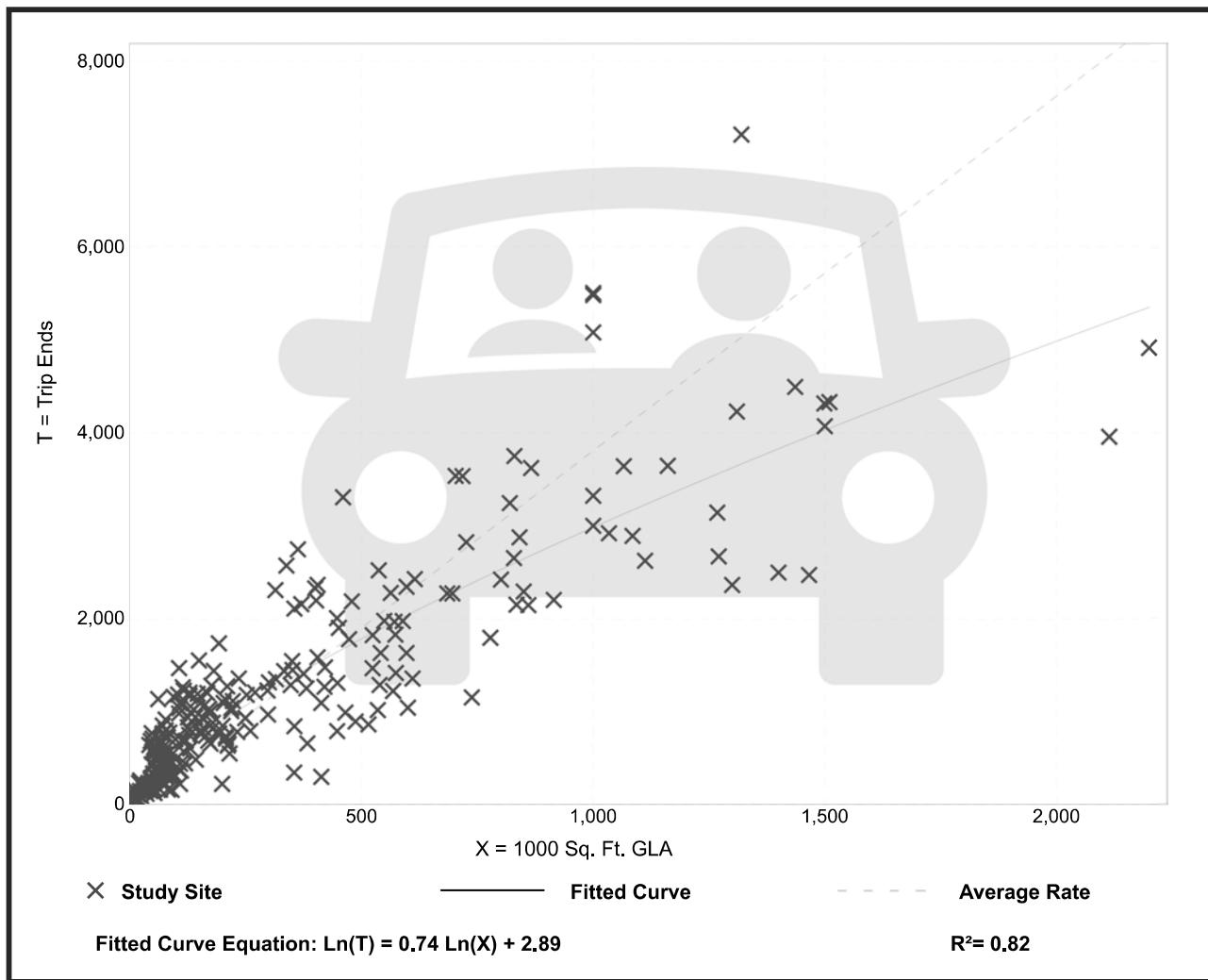
## Shopping Center (820)

**Vehicle Trip Ends vs:** 1000 Sq. Ft. GLA  
**On a:** Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 4 and 6 p.m.  
**Setting/Location:** General Urban/Suburban  
Number of Studies: 261  
Avg. 1000 Sq. Ft. GLA: 327  
Directional Distribution: 48% entering, 52% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.81	0.74 - 18.69	2.04

### Data Plot and Equation



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## Shopping Center (820)

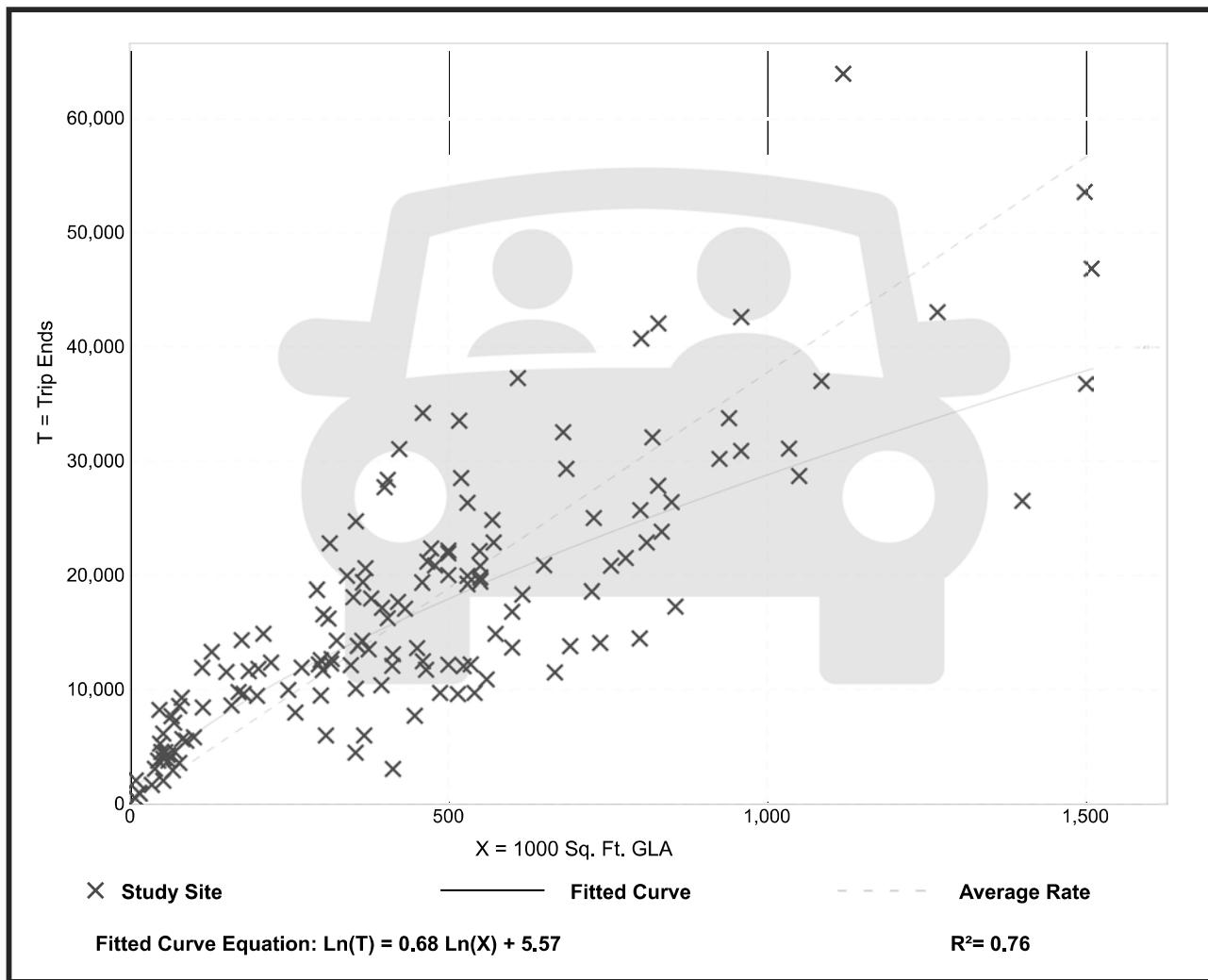
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA  
On a: Weekday

**Setting/Location:** General Urban/Suburban  
Number of Studies: 147  
Avg. 1000 Sq. Ft. GLA: 453  
Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
37.75	7.42 - 207.98	16.41

### Data Plot and Equation



# DRAFT-Client Review Only

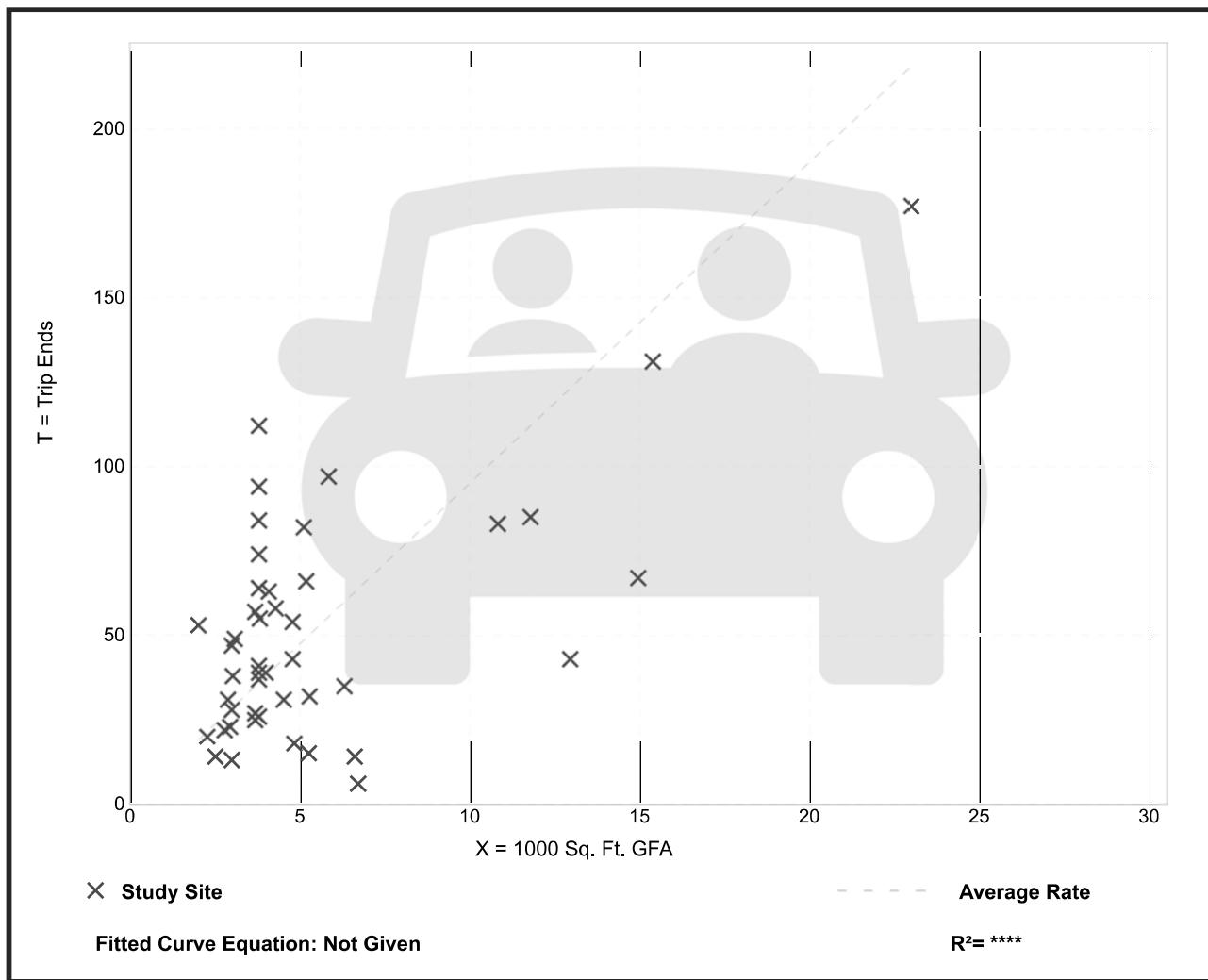
## Drive-in Bank (912)

**Vehicle Trip Ends vs:** 1000 Sq. Ft. GFA  
**On a:** Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 7 and 9 a.m.  
**Setting/Location:** General Urban/Suburban  
Number of Studies: 46  
Avg. 1000 Sq. Ft. GFA: 5  
Directional Distribution: 58% entering, 42% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.50	0.89 - 29.47	5.85

### Data Plot and Equation



# DRAFT-Client Review Only

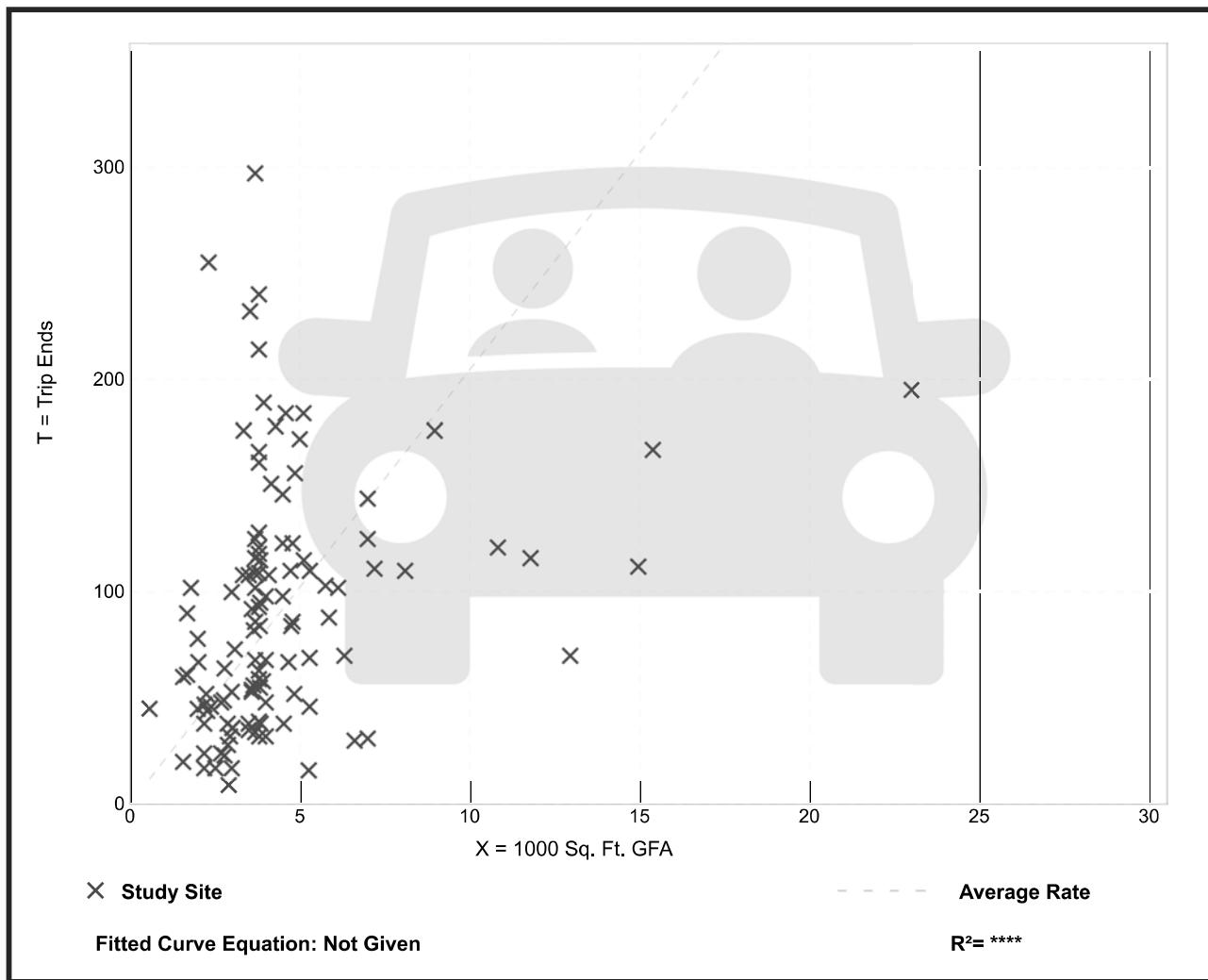
## Drive-in Bank (912)

**Vehicle Trip Ends vs:** 1000 Sq. Ft. GFA  
**On a:** Weekday,  
Peak Hour of Adjacent Street Traffic,  
One Hour Between 4 and 6 p.m.  
**Setting/Location:** General Urban/Suburban  
Number of Studies: 115  
Avg. 1000 Sq. Ft. GFA: 4  
Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
20.45	3.04 - 109.91	15.01

### Data Plot and Equation



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## Drive-in Bank (912)

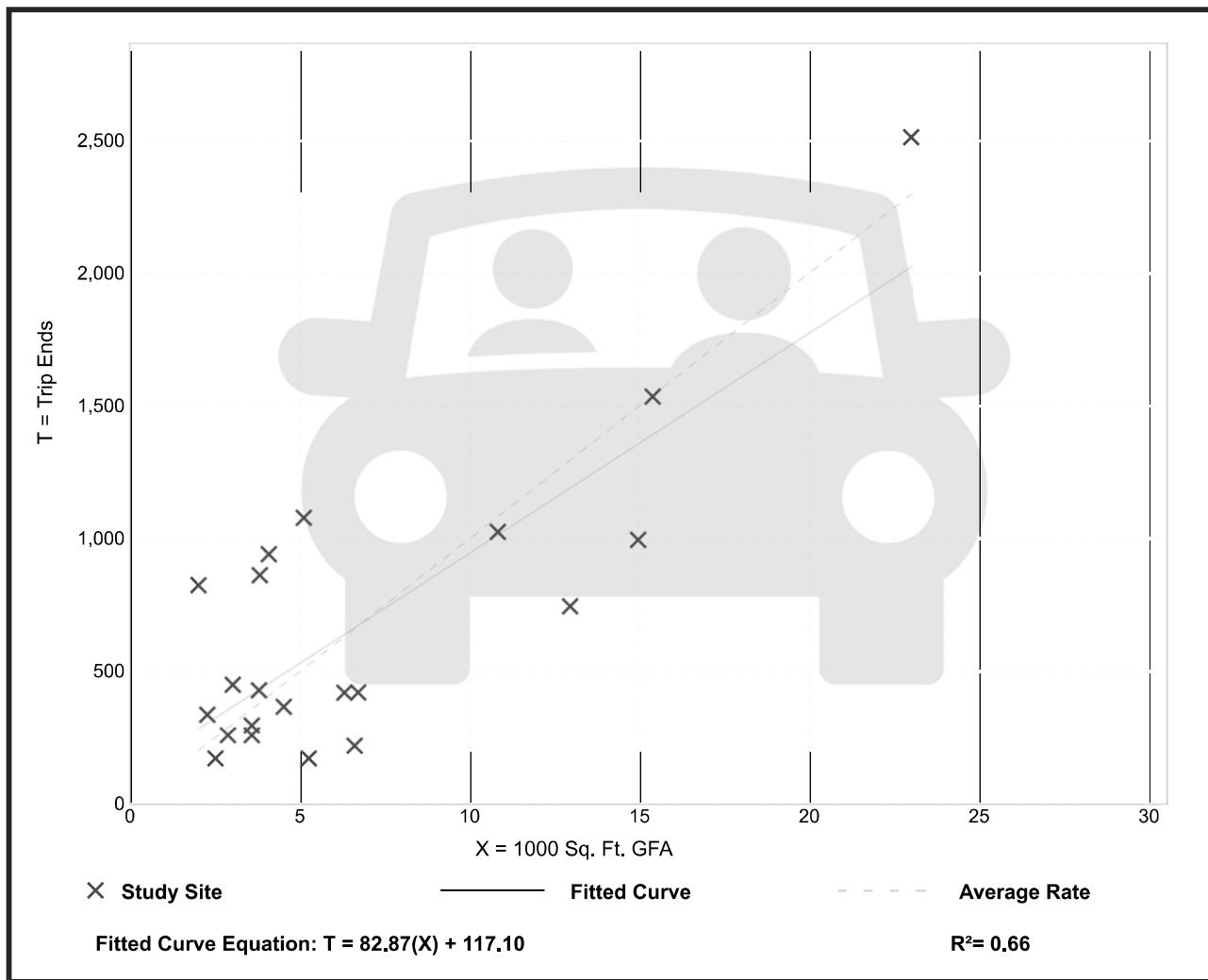
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 21  
Avg. 1000 Sq. Ft. GFA: 7  
Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
100.03	32.67 - 408.42	61.61

### Data Plot and Equation



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**APPENDIX C  
TRAFFIC ANALYSIS**

# DRAFT-Client Review Only

## Existing AM Peak 2: Duffy Road & Old Vincennes

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Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘ ↗ ↗ ↘ ↗ ↘ ↗ ↗ ↘ ↗ ↘											
Traffic Vol, veh/h	9	370	41	65	225	93	14	13	119	47	6	8
Future Vol, veh/h	9	370	41	65	225	93	14	13	119	47	6	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	60	-	0	-	-	80	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	4	4	4	2	2	2	5	5	5	1	1	1
Mvmt Flow	11	463	51	81	281	116	18	16	149	59	8	10
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	397	0	0	514	0	0	1021	1070	489	1036	979	281
Stage 1	-	-	-	-	-	-	511	511	-	443	443	-
Stage 2	-	-	-	-	-	-	510	559	-	593	536	-
Critical Hdwy	4.14	-	-	4.12	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.218	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1151	-	-	1052	-	-	212	218	573	211	251	760
Stage 1	-	-	-	-	-	-	540	532	-	596	577	-
Stage 2	-	-	-	-	-	-	541	506	-	494	525	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1151	-	-	1052	-	-	191	199	573	137	229	760
Mov Cap-2 Maneuver	-	-	-	-	-	-	191	199	-	137	229	-
Stage 1	-	-	-	-	-	-	535	527	-	590	533	-
Stage 2	-	-	-	-	-	-	486	467	-	351	520	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0.2		1.5		16.1		44.5					
HCM LOS					C		E					
Minor Lane/Major Mvmt	NBLn1		NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	195		573		1151	-	-	1052	-	-	144	760
HCM Lane V/C Ratio	0.173		0.26		0.01	-	-	0.077	-	-	0.46	0.013
HCM Control Delay (s)	27.3		13.5		8.2	-	-	8.7	-	-	49.7	9.8
HCM Lane LOS	D		B		A	-	-	A	-	-	E	A
HCM 95th %tile Q(veh)	0.6		1		0	-	-	0.3	-	-	2.1	0

# DRAFT-Client Review Only

Existing AM Peak  
3: Old Vincennes & Schreiber

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Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	366	184	22	34	9
Future Vol, veh/h	20	366	184	22	34	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	68	68	68	68	68	68
Heavy Vehicles, %	4	4	1	1	5	5
Mvmt Flow	29	538	271	32	50	13
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	303	0	-	0	883	287
Stage 1	-	-	-	-	287	-
Stage 2	-	-	-	-	596	-
Critical Hdwy	4.14	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.236	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1247	-	-	-	312	745
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	545	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1247	-	-	-	302	745
Mov Cap-2 Maneuver	-	-	-	-	302	-
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	545	-
Approach	EB	WB	SB			
HCM Control Delay, s	0.4	0	17.8			
HCM LOS			C			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1247	-	-	-	345	-
HCM Lane V/C Ratio	0.024	-	-	-	0.183	-
HCM Control Delay (s)	8	0	-	-	17.8	-
HCM Lane LOS	A	A	-	-	C	-
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7	-

# DRAFT-Client Review Only

Existing AM Peak 8: US 150 & Old Vincennes/Lawrence Banet Road

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑		↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	50	81	405	107	46	30	246	264	95	57	701	79
Future Volume (veh/h)	50	81	405	107	46	30	246	264	95	57	701	79
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00			1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1811	1811	1811	1826	1826	1826
Adj Flow Rate, veh/h	52	84	422	111	48	31	256	275	99	59	730	82
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	6	6	6	5	5	5
Cap, veh/h	257	149	126	249	104	67	320	1795	800	107	1379	615
Arrive On Green	0.06	0.08	0.08	0.08	0.10	0.10	0.19	0.52	0.52	0.06	0.40	0.40
Sat Flow, veh/h	1753	1841	1560	1753	1045	675	1725	3441	1535	1739	3469	1547
Grp Volume(v), veh/h	52	84	422	111	0	79	256	275	99	59	730	82
Grp Sat Flow(s), veh/h/ln	1753	1841	1560	1753	0	1719	1725	1721	1535	1739	1735	1547
Q Serve(g_s), s	2.3	3.8	7.0	4.9	0.0	3.8	12.3	3.6	2.9	2.9	13.9	2.9
Cycle Q Clear(g_c), s	2.3	3.8	7.0	4.9	0.0	3.8	12.3	3.6	2.9	2.9	13.9	2.9
Prop In Lane	1.00			1.00			0.39	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	257	149	126	249	0	171	320	1795	800	107	1379	615
V/C Ratio(X)	0.20	0.56	3.34	0.45	0.00	0.46	0.80	0.15	0.12	0.55	0.53	0.13
Avail Cap(c_a), veh/h	472	649	550	432	0	606	809	2418	1079	314	2438	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	38.3	39.8	32.9	0.0	36.8	33.7	10.8	10.6	39.5	19.9	16.6
Incr Delay (d2), s/veh	0.4	3.3	1067.3	1.2	0.0	1.9	9.5	0.0	0.1	4.4	0.3	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.0	1.8	40.0	2.1	0.0	1.6	5.6	1.2	0.9	1.3	5.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.5	41.6	1107.0	34.2	0.0	38.7	43.2	10.8	10.7	43.9	20.2	16.7
LnGrp LOS	C	D	F	C	A	D	D	B	B	D	C	B
Approach Vol, veh/h		558			190			630			871	
Approach Delay, s/veh		846.6			36.1			23.9			21.5	
Approach LOS		F			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	51.3	12.0	12.5	21.4	40.6	10.4	14.1				
Change Period (Y+Rc), s	* 5.4	6.2	* 5.4	5.5	* 5.4	6.2	* 5.4	5.5				
Max Green Setting (Gmax), s	* 16	60.8	* 16	30.5	* 41	60.8	* 16	30.5				
Max Q Clear Time (g_c+l1), s	4.9	5.6	6.9	5.8	14.3	15.9	4.3	5.8				
Green Ext Time (p_c), s	0.1	4.9	0.1	0.1	1.8	18.5	0.1	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			228.1									
HCM 6th LOS			F									
Notes												

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# DRAFT-Client Review Only

Existing AM Peak  
13: Lafollette Station & Lawrence Banet Road

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Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	102	71	62	12	54	8	51	3	12	9	1	73
Future Vol, veh/h	102	71	62	12	54	8	51	3	12	9	1	73
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	100	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	3	3	3	4	4	4	3	3	3	6	6	6
Mvmt Flow	119	83	72	14	63	9	59	3	14	10	1	85
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	72	0	0	155	0	0	460	421	83	462	489	68
Stage 1	-	-	-	-	-	-	321	321	-	96	96	-
Stage 2	-	-	-	-	-	-	139	100	-	366	393	-
Critical Hdwy	4.13	-	-	4.14	-	-	7.13	6.53	6.23	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.16	5.56	-
Follow-up Hdwy	2.227	-	-	2.236	-	-	3.527	4.027	3.327	3.554	4.054	3.354
Pot Cap-1 Maneuver	1522	-	-	1413	-	-	510	522	974	503	474	984
Stage 1	-	-	-	-	-	-	689	650	-	901	808	-
Stage 2	-	-	-	-	-	-	862	810	-	645	599	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1522	-	-	1413	-	-	431	472	974	457	429	984
Mov Cap-2 Maneuver	-	-	-	-	-	-	431	472	-	457	429	-
Stage 1	-	-	-	-	-	-	630	594	-	824	800	-
Stage 2	-	-	-	-	-	-	779	802	-	578	547	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	3.3		1.2		13.5		9.5					
HCM LOS					B		A					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	431	803	1522	-	-	1413	-	-	457	967		
HCM Lane V/C Ratio	0.138	0.022	0.078	-	-	0.01	-	-	0.023	0.089		
HCM Control Delay (s)	14.7	9.6	7.6	0	-	7.6	-	-	13.1	9.1		
HCM Lane LOS	B	A	A	A	-	A	-	-	B	A		
HCM 95th %tile Q(veh)	0.5	0.1	0.3	-	-	0	-	-	0.1	0.3		

# DRAFT-Client Review Only

Existing AM Peak  
17: US 150 & Old Vincennes Road

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Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	74	0	60	0	563	3	74	1142	0
Future Vol, veh/h	0	0	0	74	0	60	0	563	3	74	1142	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	110	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	3	3	3	7	7	7	4	4	4
Mvmt Flow	0	0	0	77	0	63	0	586	3	77	1190	0
Major/Minor			Minor1		Major1		Major2					
Conflicting Flow All			1335	1930	293	1190	0	0	589	0	0	
Stage 1			586	586	-	-	-	-	-	-	-	
Stage 2			749	1344	-	-	-	-	-	-	-	
Critical Hdwy			6.86	6.56	6.96	4.24	-	-	4.18	-	-	
Critical Hdwy Stg 1			5.86	5.56	-	-	-	-	-	-	-	
Critical Hdwy Stg 2			5.86	5.56	-	-	-	-	-	-	-	
Follow-up Hdwy			3.53	4.03	3.33	2.27	-	-	2.24	-	-	
Pot Cap-1 Maneuver			144	65	700	555	-	-	969	-	-	
Stage 1			517	493	-	-	-	-	-	-	-	
Stage 2			425	217	-	-	-	-	-	-	-	
Platoon blocked, %							-	-	-	-	-	
Mov Cap-1 Maneuver			133	0	700	555	-	-	969	-	-	
Mov Cap-2 Maneuver			262	0	-	-	-	-	-	-	-	
Stage 1			517	0	-	-	-	-	-	-	-	
Stage 2			391	0	-	-	-	-	-	-	-	
Approach			WB		NB		SB					
HCM Control Delay, s			20.9		0		0.5					
HCM LOS			C									
Minor Lane/Major Mvmt			NBL	NBT	NBR	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	555	-	-	364	969	-	-	-	-			
HCM Lane V/C Ratio	-	-	-	0.383	0.08	-	-	-	-			
HCM Control Delay (s)	0	-	-	20.9	9	-	-	-	-			
HCM Lane LOS	A	-	-	C	A	-	-	-	-			
HCM 95th %tile Q(veh)	0	-	-	1.8	0.3	-	-	-	-			

# DRAFT-Client Review Only

Existing PM Peak  
2: Duffy Road & Old Vincennes

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Intersection														
Int Delay, s/veh	25.1													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations	↑	↓	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑		
Traffic Vol, veh/h	21	444	44	90	320	311	19	9	95	136	15	30		
Future Vol, veh/h	21	444	44	90	320	311	19	9	95	136	15	30		
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0		
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop		
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None		
Storage Length	150	-	-	60	-	0	-	-	80	-	-	100		
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-		
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-		
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93		
Heavy Vehicles, %	2	2	2	1	1	1	2	2	2	2	2	2		
Mvmt Flow	23	477	47	97	344	334	20	10	102	146	16	32		
Major/Minor	Major1		Major2		Minor1		Minor2							
Conflicting Flow All	678	0	0	524	0	0	1276	1419	501	1141	1108	344		
Stage 1	-	-	-	-	-	-	547	547	-	538	538	-		
Stage 2	-	-	-	-	-	-	729	872	-	603	570	-		
Critical Hdwy	4.12	-	-	4.11	-	-	7.12	6.52	6.22	7.12	6.52	6.22		
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-		
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.518	4.018	3.318	3.518	4.018	3.318		
Pot Cap-1 Maneuver	914	-	-	1048	-	-	144	137	570	178	210	699		
Stage 1	-	-	-	-	-	-	521	517	-	527	522	-		
Stage 2	-	-	-	-	-	-	414	368	-	486	505	-		
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-		
Mov Cap-1 Maneuver	914	-	-	1048	-	-	117	121	570	~125	186	699		
Mov Cap-2 Maneuver	-	-	-	-	-	-	117	121	-	~125	186	-		
Stage 1	-	-	-	-	-	-	508	504	-	514	473	-		
Stage 2	-	-	-	-	-	-	346	334	-	381	492	-		
Approach	EB		WB		NB		SB							
HCM Control Delay, s	0.4		1.1		20.2		193.3							
HCM LOS					C		F							
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2				
Capacity (veh/h)	118	570	914	-	-	1048	-	-	129	699				
HCM Lane V/C Ratio	0.255	0.179	0.025	-	-	0.092	-	-	1.259	0.046				
HCM Control Delay (s)	45.7	12.7	9	-	-	8.8	-	-	229.6	10.4				
HCM Lane LOS	E	B	A	-	-	A	-	-	F	B				
HCM 95th %tile Q(veh)	0.9	0.6	0.1	-	-	0.3	-	-	10.2	0.1				
Notes														
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon											

# DRAFT-Client Review Only

Existing PM Peak  
3: Old Vincennes & Schreiber

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Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	42	287	256	62	107	43
Future Vol, veh/h	42	287	256	62	107	43
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	84	84	84	84	84	84
Heavy Vehicles, %	3	3	1	1	1	1
Mvmt Flow	50	342	305	74	127	51
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	379	0	-	0	784	342
Stage 1	-	-	-	-	342	-
Stage 2	-	-	-	-	442	-
Critical Hdwy	4.13	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.227	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1174	-	-	-	363	703
Stage 1	-	-	-	-	722	-
Stage 2	-	-	-	-	650	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1174	-	-	-	344	703
Mov Cap-2 Maneuver	-	-	-	-	344	-
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	650	-
Approach	EB	WB	SB			
HCM Control Delay, s	1	0	20.9			
HCM LOS			C			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBR
Capacity (veh/h)	1174	-	-	-	403	-
HCM Lane V/C Ratio	0.043	-	-	-	0.443	-
HCM Control Delay (s)	8.2	0	-	-	20.9	-
HCM Lane LOS	A	A	-	-	C	-
HCM 95th %tile Q(veh)	0.1	-	-	-	2.2	-

# DRAFT-Client Review Only

Existing PM Peak 8: US 150 & Old Vincennes/Lawrence Banet Road

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	90	128	454	182	154	124	443	668	219	63	443	128
Future Volume (veh/h)	90	128	454	182	154	124	443	668	219	63	443	128
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	95	135	478	192	162	131	466	703	231	66	466	135
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	4	4	4
Cap, veh/h	217	280	237	332	188	152	525	1651	736	101	799	356
Arrive On Green	0.06	0.15	0.15	0.11	0.19	0.19	0.30	0.47	0.47	0.06	0.23	0.23
Sat Flow, veh/h	1781	1870	1585	1795	965	780	1767	3526	1572	1753	3497	1560
Grp Volume(v), veh/h	95	135	478	192	0	293	466	703	231	66	466	135
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1795	0	1745	1767	1763	1572	1753	1749	1560
Q Serve(g_s), s	4.6	6.9	15.5	9.1	0.0	16.9	26.1	13.8	9.5	3.8	12.3	7.6
Cycle Q Clear(g_c), s	4.6	6.9	15.5	9.1	0.0	16.9	26.1	13.8	9.5	3.8	12.3	7.6
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	217	280	237	332	0	340	525	1651	736	101	799	356
V/C Ratio(X)	0.44	0.48	2.02	0.58	0.00	0.86	0.89	0.43	0.31	0.66	0.58	0.38
Avail Cap(c_a), veh/h	372	549	466	407	0	513	691	2064	921	263	2048	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	40.5	44.2	31.4	0.0	40.5	34.8	18.3	17.2	47.9	35.7	33.8
Incr Delay (d2), s/veh	1.4	1.3	472.3	1.6	0.0	9.5	13.8	0.2	0.2	7.1	0.7	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.0	3.2	37.1	4.0	0.0	8.0	12.4	5.1	3.4	1.8	5.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.2	41.8	516.5	33.0	0.0	50.0	48.6	18.5	17.4	55.0	36.3	34.5
LnGrp LOS	D	D	F	C	A	D	D	B	B	D	D	C
Approach Vol, veh/h		708			485			1400			667	
Approach Delay, s/veh		361.5			43.2			28.4			37.8	
Approach LOS		F			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	54.8	16.6	21.0	36.3	29.9	11.9	25.7				
Change Period (Y+Rc), s	* 5.4	6.2	* 5.4	5.5	* 5.4	6.2	* 5.4	5.5				
Max Green Setting (Gmax), s	* 16	60.8	* 16	30.5	* 41	60.8	* 16	30.5				
Max Q Clear Time (g_c+l1), s	5.8	15.8	11.1	8.9	28.1	14.3	6.6	18.9				
Green Ext Time (p_c), s	0.1	15.3	0.2	0.1	2.7	9.4	0.1	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			104.9									
HCM 6th LOS			F									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

# DRAFT-Client Review Only

Existing PM Peak  
13: Lafollette Station & Lawrence Banet Road

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Intersection												
Int Delay, s/veh	16.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	175	126	143	19	119	8	150	16	15	6	6	194
Future Vol, veh/h	175	126	143	19	119	8	150	16	15	6	6	194
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	100	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	1	1	1	1	1	1	1	1	1
Mvmt Flow	192	138	157	21	131	9	165	18	16	7	7	213
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	140	0	0	295	0	0	810	704	138	796	857	136
Stage 1	-	-	-	-	-	-	522	522	-	178	178	-
Stage 2	-	-	-	-	-	-	288	182	-	618	679	-
Critical Hdwy	4.12	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1443	-	-	1272	-	-	300	363	913	306	296	915
Stage 1	-	-	-	-	-	-	540	533	-	826	754	-
Stage 2	-	-	-	-	-	-	722	751	-	478	453	-
Platoon blocked, %	-	-	-	-	-	-						
Mov Cap-1 Maneuver	1443	-	-	1272	-	-	195	299	913	248	244	915
Mov Cap-2 Maneuver	-	-	-	-	-	-	195	299	-	248	244	-
Stage 1	-	-	-	-	-	-	452	446	-	691	741	-
Stage 2	-	-	-	-	-	-	540	738	-	377	379	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	3.1		1		68.2		11.1					
HCM LOS					F		B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	195	443	1443	-	-	1272	-	-	248	845		
HCM Lane V/C Ratio	0.845	0.077	0.133	-	-	0.016	-	-	0.027	0.26		
HCM Control Delay (s)	79.4	13.8	7.9	0	-	7.9	-	-	19.9	10.8		
HCM Lane LOS	F	B	A	A	-	A	-	-	C	B		
HCM 95th %tile Q(veh)	6.2	0.2	0.5	-	-	0.1	-	-	0.1	1		

# DRAFT-Client Review Only

Existing PM Peak  
17: US 150 & Old Vincennes Road

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## Intersection

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	50	0	60	0	1300	4	57	1056	0
Future Vol, veh/h	0	0	0	50	0	60	0	1300	4	57	1056	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	110	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	3	3	3	4	4	4	2	2	2
Mvmt Flow	0	0	0	53	0	63	0	1368	4	60	1112	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2044	2600	684
Stage 1	1368	1368	-
Stage 2	676	1232	-
Critical Hdwy	6.86	6.56	6.96
Critical Hdwy Stg 1	5.86	5.56	-
Critical Hdwy Stg 2	5.86	5.56	-
Follow-up Hdwy	3.53	4.03	3.33
Pot Cap-1 Maneuver	~48	24	389
Stage 1	200	211	-
Stage 2	464	246	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	~42	0	389
Mov Cap-2 Maneuver	139	0	-
Stage 1	200	0	-
Stage 2	408	0	-

Approach	WB	NB	SB
HCM Control Delay, s	40	0	0.7
HCM LOS	E	-	-
<hr/>			
Minor Lane/Major Mvmt	NBL	NBT	NBR
Capacity (veh/h)	612	-	214
HCM Lane V/C Ratio	-	-	0.541
HCM Control Delay (s)	0	-	40
HCM Lane LOS	A	-	E
HCM 95th %tile Q(veh)	0	-	2.9

## Notes

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

# DRAFT-Client Review Only

No Build Alt AM Peak 2026 Background

2: Duffy Road & Old Vincennes

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## Intersection

Int Delay, s/veh 8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	389	44	69	237	98	15	14	125	50	7	9
Future Vol, veh/h	10	389	44	69	237	98	15	14	125	50	7	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	4	4	4	2	2	2	5	5	5	1	1	1
Mvmt Flow	13	486	55	86	296	123	19	18	156	63	9	11

Major/Minor	Major1	Major2		Minor1		Minor2						
Conflicting Flow All	419	0	0	541	0	0	1080	1131	514	1095	1035	296
Stage 1	-	-	-	-	-	-	540	540	-	468	468	-
Stage 2	-	-	-	-	-	-	540	591	-	627	567	-
Critical Hdwy	4.14	-	-	4.12	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.218	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1129	-	-	1028	-	-	193	201	555	192	233	746
Stage 1	-	-	-	-	-	-	520	516	-	577	563	-
Stage 2	-	-	-	-	-	-	520	490	-	473	509	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1129	-	-	1028	-	-	166	176	555	115	204	746
Mov Cap-2 Maneuver	-	-	-	-	-	-	166	176	-	115	204	-
Stage 1	-	-	-	-	-	-	511	507	-	567	501	-
Stage 2	-	-	-	-	-	-	447	436	-	323	500	-

Approach	EB	WB		NB		SB		
HCM Control Delay, s	0.2	1.5		22.9		64.8		
HCM LOS				C		F		
<hr/>								
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	390	1129	-	-	1028	-	-	137
HCM Lane V/C Ratio	0.494	0.011	-	-	0.084	-	-	0.602
HCM Control Delay (s)	22.9	8.2	0	-	8.8	0	-	64.8
HCM Lane LOS	C	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	2.6	0	-	-	0.3	-	-	3.1

# DRAFT-Client Review Only

No Build Alt AM Peak 2026 Background

3: Old Vincennes & Schreiber

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## Intersection

Int Delay, s/veh 1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
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Lane Configurations						
Traffic Vol, veh/h	21	385	194	24	36	10
Future Vol, veh/h	21	385	194	24	36	10
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	68	68	68	68	68	68
Heavy Vehicles, %	4	4	1	1	5	5
Mvmt Flow	31	566	285	35	53	15

Major/Minor	Major1	Major2	Minor2
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Conflicting Flow All	320	0	-	0	931	303
Stage 1	-	-	-	-	303	-
Stage 2	-	-	-	-	628	-
Critical Hdwy	4.14	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.236	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1229	-	-	-	293	730
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	526	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1229	-	-	-	282	730
Mov Cap-2 Maneuver	-	-	-	-	282	-
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	526	-

Approach	EB	WB	SB
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HCM Control Delay, s	0.4	0	19
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
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Capacity (veh/h)	1229	-	-	-	325
HCM Lane V/C Ratio	0.025	-	-	-	0.208
HCM Control Delay (s)	8	0	-	-	19
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

**DRAFT-Client Review Only**

8: US 150 &amp; Old Vincennes/Lawrence Banet Road



Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑		↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	53	86	426	113	49	32	259	278	100	60	737	83
Future Volume (veh/h)	53	86	426	113	49	32	259	278	100	60	737	83
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1811	1811	1811	1826	1826	1826
Adj Flow Rate, veh/h	55	90	400	118	51	33	270	290	104	62	768	86
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	6	6	6	5	5	5
Cap, veh/h	422	439	372	350	269	174	312	1621	723	85	1176	524
Arrive On Green	0.05	0.24	0.24	0.07	0.26	0.26	0.18	0.47	0.47	0.05	0.34	0.34
Sat Flow, veh/h	1753	1841	1560	1753	1044	675	1725	3441	1535	1739	3469	1547
Grp Volume(v), veh/h	55	90	400	118	0	84	270	290	104	62	768	86
Grp Sat Flow(s), veh/h/ln	1753	1841	1560	1753	0	1719	1725	1721	1535	1739	1735	1547
Q Serve(g_s), s	3.0	5.0	30.5	6.4	0.0	4.9	19.4	6.2	4.9	4.5	24.1	5.0
Cycle Q Clear(g_c), s	3.0	5.0	30.5	6.4	0.0	4.9	19.4	6.2	4.9	4.5	24.1	5.0
Prop In Lane	1.00			1.00			0.39	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	422	439	372	350	0	442	312	1621	723	85	1176	524
V/C Ratio(X)	0.13	0.21	1.08	0.34	0.00	0.19	0.86	0.18	0.14	0.73	0.65	0.16
Avail Cap(c_a), veh/h	553	439	372	448	0	442	547	1635	729	212	1649	735
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	39.0	48.7	33.3	0.0	37.1	50.9	19.5	19.2	60.0	35.9	29.6
Incr Delay (d2), s/veh	0.1	0.2	68.3	0.6	0.0	0.2	13.9	0.1	0.1	11.5	0.6	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.3	2.3	18.7	2.8	0.0	2.1	9.3	2.4	1.8	2.2	9.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.9	39.2	117.1	33.9	0.0	37.3	64.8	19.6	19.3	71.5	36.5	29.8
LnGrp LOS	C	D	F	C	A	D	E	B	B	E	D	C
Approach Vol, veh/h	545				202			664			916	
Approach Delay, s/veh	95.8				35.3			37.9			38.3	
Approach LOS		F			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	66.5	13.8	36.0	28.6	49.6	11.4	38.4				
Change Period (Y+Rc), s	* 5.4	6.2	* 5.4	5.5	* 5.4	6.2	* 5.4	5.5				
Max Green Setting (Gmax), s	* 16	60.8	* 16	30.5	* 41	60.8	* 16	30.5				
Max Q Clear Time (g_c+l1), s	6.5	8.2	8.4	32.5	21.4	26.1	5.0	6.9				
Green Ext Time (p_c), s	0.1	5.2	0.1	0.0	1.7	17.3	0.1	0.4				

**Intersection Summary**

HCM 6th Ctrl Delay                    51.4  
HCM 6th LOS                            D

**Notes**

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# DRAFT-Client Review Only

No Build Alt AM Peak 2026 Background  
13: Lafollette Station & Lawrence Banet Road

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Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘											
Traffic Vol, veh/h	108	75	66	13	57	9	54	4	13	10	2	77
Future Vol, veh/h	108	75	66	13	57	9	54	4	13	10	2	77
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	100	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	3	3	3	4	4	4	3	3	3	6	6	6
Mvmt Flow	126	87	77	15	66	10	63	5	15	12	2	90
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	76	0	0	164	0	0	486	445	87	489	517	71
Stage 1	-	-	-	-	-	-	339	339	-	101	101	-
Stage 2	-	-	-	-	-	-	147	106	-	388	416	-
Critical Hdwy	4.13	-	-	4.14	-	-	7.13	6.53	6.23	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.16	5.56	-
Follow-up Hdwy	2.227	-	-	2.236	-	-	3.527	4.027	3.327	3.554	4.054	3.354
Pot Cap-1 Maneuver	1517	-	-	1402	-	-	490	506	969	483	457	980
Stage 1	-	-	-	-	-	-	673	638	-	895	804	-
Stage 2	-	-	-	-	-	-	853	806	-	628	585	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1517	-	-	1402	-	-	409	454	969	435	410	980
Mov Cap-2 Maneuver	-	-	-	-	-	-	409	454	-	435	410	-
Stage 1	-	-	-	-	-	-	611	579	-	813	795	-
Stage 2	-	-	-	-	-	-	765	797	-	557	531	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	3.3		1.2		14.1		9.7					
HCM LOS					B		A					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	409	765	1517	-	-	1402	-	-	435	947		
HCM Lane V/C Ratio	0.154	0.026	0.083	-	-	0.011	-	-	0.027	0.097		
HCM Control Delay (s)	15.4	9.8	7.6	0	-	7.6	-	-	13.5	9.2		
HCM Lane LOS	C	A	A	A	-	A	-	-	B	A		
HCM 95th %tile Q(veh)	0.5	0.1	0.3	-	-	0	-	-	0.1	0.3		

# DRAFT-Client Review Only

No Build Alt AM Peak 2026 Background  
17: US 150 & Old Vincennes Road

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## Intersection

Int Delay, s/veh

2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	78	0	63	0	592	4	78	1200	0
Future Vol, veh/h	0	0	0	78	0	63	0	592	4	78	1200	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	110	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	3	3	3	7	7	7	4	4	4
Mvmt Flow	0	0	0	81	0	66	0	617	4	81	1250	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1404	2029	309
Stage 1	617	617	-
Stage 2	787	1412	-
Critical Hdwy	6.86	6.56	6.96
Critical Hdwy Stg 1	5.86	5.56	-
Critical Hdwy Stg 2	5.86	5.56	-
Follow-up Hdwy	3.53	4.03	3.33
Pot Cap-1 Maneuver	129	56	684
Stage 1	498	477	-
Stage 2	406	201	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	118	0	684
Mov Cap-2 Maneuver	246	0	526
Stage 1	498	0	-
Stage 2	371	0	-

Approach	WB	NB	SB
HCM Control Delay, s	23	0	0.6
HCM LOS	C		
<hr/>			
Minor Lane/Major Mvmt	NBL	NBT	NBR
Capacity (veh/h)	526	-	345
HCM Lane V/C Ratio	-	-	0.426
HCM Control Delay (s)	0	-	23
HCM Lane LOS	A	-	C
HCM 95th %tile Q(veh)	0	-	2.1
			0.3

# DRAFT-Client Review Only

No Build Alt PM Peak 2026 Background  
2: Duffy Road & Old Vincennes

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## Intersection

Int Delay, s/veh 63.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘ ↗ ↗ ↘ ↗ ↘ ↗ ↗ ↘ ↗ ↘											
Traffic Vol, veh/h	23	543	47	95	451	327	20	10	100	143	16	32
Future Vol, veh/h	23	543	47	95	451	327	20	10	100	143	16	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	60	-	0	-	-	80	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	1	1	1	2	2	2	2	2	2
Mvmt Flow	25	584	51	102	485	352	22	11	108	154	17	34

Major/Minor	Major1	Major2		Minor1		Minor2						
Conflicting Flow All	837	0	0	635	0	0	1551	1701	610	1408	1374	485
Stage 1	-	-	-	-	-	-	660	660	-	689	689	-
Stage 2	-	-	-	-	-	-	891	1041	-	719	685	-
Critical Hdwy	4.12	-	-	4.11	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	797	-	-	953	-	-	92	92	~ 116	145	582	
Stage 1	-	-	-	-	-	-	452	460	-	436	446	-
Stage 2	-	-	-	-	-	-	337	307	-	420	448	-
Platoon blocked, %	-	-	-	-	-	-						
Mov Cap-1 Maneuver	797	-	-	953	-	-	70	80	494	~ 73	125	582
Mov Cap-2 Maneuver	-	-	-	-	-	-	70	80	-	~ 73	125	-
Stage 1	-	-	-	-	-	-	438	446	-	422	398	-
Stage 2	-	-	-	-	-	-	271	274	-	311	434	-

Approach	EB	WB		NB		SB					
HCM Control Delay, s	0.4	1		31.5		\$ 576.3					
HCM LOS				D		F					
Minor Lane/Major Mvmt		NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)		73	494	797	-	-	953	-	-	76	582
HCM Lane V/C Ratio	0.442	0.218	0.031	-	-	-	0.107	-	-	2.25	0.059
HCM Control Delay (s)	88.7	14.3	9.7	-	-	-	9.2	-	\$ 689.9	11.6	
HCM Lane LOS	F	B	A	-	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	1.8	0.8	0.1	-	-	-	0.4	-	-	15.9	0.2

## Notes

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**DRAFT-Client Review Only**

3: Old Vincennes &amp; Schreiber

**Intersection**

Int Delay, s/veh 4.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
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Lane Configurations						
Traffic Vol, veh/h	45	302	269	66	113	46
Future Vol, veh/h	45	302	269	66	113	46
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	84	84	84	84	84	84
Heavy Vehicles, %	3	3	1	1	1	1
Mvmt Flow	54	360	320	79	135	55

Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	399	0	-	0	828	360
Stage 1	-	-	-	-	360	-
Stage 2	-	-	-	-	468	-
Critical Hdwy	4.13	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.227	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1154	-	-	-	342	687
Stage 1	-	-	-	-	708	-
Stage 2	-	-	-	-	632	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1154	-	-	-	322	687
Mov Cap-2 Maneuver	-	-	-	-	322	-
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	632	-

Approach	EB	WB	SB
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HCM Control Delay, s 1.1 0 23.5

HCM LOS C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1154	-	-	-	380
HCM Lane V/C Ratio	0.046	-	-	-	0.498
HCM Control Delay (s)	8.3	0	-	-	23.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	2.7

# DRAFT-Client Review Only

No Build Alt PM Peak 2026 Background

8: US 150 & Old Vincennes/.



Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	95	135	477	192	162	131	466	702	230	67	466	135
Future Volume (veh/h)	95	135	477	192	162	131	466	702	230	67	466	135
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00			1.00	1.00		1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	100	142	502	202	171	138	491	739	242	71	491	142
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	4	4	4
Cap, veh/h	274	423	359	361	259	209	516	1608	717	90	754	336
Arrive On Green	0.06	0.23	0.23	0.10	0.27	0.27	0.29	0.46	0.46	0.05	0.22	0.22
Sat Flow, veh/h	1781	1870	1585	1795	966	779	1767	3526	1572	1753	3497	1560
Grp Volume(v), veh/h	100	142	502	202	0	309	491	739	242	71	491	142
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1795	0	1745	1767	1763	1572	1753	1749	1560
Q Serve(g_s), s	5.7	8.6	30.5	11.3	0.0	21.2	36.7	19.4	13.3	5.4	17.3	10.6
Cycle Q Clear(g_c), s	5.7	8.6	30.5	11.3	0.0	21.2	36.7	19.4	13.3	5.4	17.3	10.6
Prop In Lane	1.00			1.00			0.45	1.00		1.00		1.00
Lane Grp Cap(c), veh/h	274	423	359	361	0	469	516	1608	717	90	754	336
V/C Ratio(X)	0.37	0.34	1.40	0.56	0.00	0.66	0.95	0.46	0.34	0.79	0.65	0.42
Avail Cap(c_a), veh/h	378	423	359	390	0	469	532	1608	717	203	1577	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	43.7	52.2	33.6	0.0	43.8	46.8	25.2	23.6	63.2	48.3	45.6
Incr Delay (d2), s/veh	0.8	0.5	196.2	1.5	0.0	3.4	27.6	0.2	0.3	13.9	1.0	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.6	4.0	31.5	5.1	0.0	9.6	19.4	7.8	5.0	2.7	7.4	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.5	44.1	248.3	35.1	0.0	47.2	74.4	25.4	23.8	77.1	49.2	46.5
LnGrp LOS	D	D	F	D	A	D	E	C	C	E	D	D
Approach Vol, veh/h		744			511			1472			704	
Approach Delay, s/veh		181.2			42.4			41.5			51.5	
Approach LOS		F			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	67.7	18.8	36.0	44.8	35.3	13.1	41.7				
Change Period (Y+Rc), s	* 5.4	6.2	* 5.4	5.5	* 5.4	6.2	* 5.4	5.5				
Max Green Setting (Gmax), s	* 16	60.8	* 16	30.5	* 41	60.8	* 16	30.5				
Max Q Clear Time (g_c+l1), s	7.4	21.4	13.3	32.5	38.7	19.3	7.7	23.2				
Green Ext Time (p_c), s	0.1	15.6	0.1	0.0	0.7	9.8	0.1	1.1				

## Intersection Summary

HCM 6th Ctrl Delay	74.0
HCM 6th LOS	E

## Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# DRAFT-Client Review Only

No Build Alt PM Peak 2026 Background

13: Lafollette Station & Lawrence Banet Road

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## Intersection

Int Delay, s/veh 22.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	184	133	151	20	125	9	158	17	16	7	7	204
Future Vol, veh/h	184	133	151	20	125	9	158	17	16	7	7	204
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	0	0	-	-	100	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	1	1	1	1	1	1	1	1	1
Mvmt Flow	202	146	166	22	137	10	174	19	18	8	8	224

Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	147	0	0	312	0	0	852	741	146	838	902	142
Stage 1	-	-	-	-	-	-	550	550	-	186	186	-
Stage 2	-	-	-	-	-	-	302	191	-	652	716	-
Critical Hdwy	4.12	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1435	-	-	1254	-	-	281	345	904	287	279	908
Stage 1	-	-	-	-	-	-	521	517	-	818	748	-
Stage 2	-	-	-	-	-	-	709	744	-	458	436	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1435	-	-	1254	-	-	176	280	904	229	226	908
Mov Cap-2 Maneuver	-	-	-	-	-	-	176	280	-	229	226	-
Stage 1	-	-	-	-	-	-	430	427	-	676	735	-
Stage 2	-	-	-	-	-	-	519	731	-	355	360	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	1	99.9	11.4
HCM LOS		F		B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	176	421	1435	-	-	1254	-	-	229	825
HCM Lane V/C Ratio	0.987	0.086	0.141	-	-	0.018	-	-	0.034	0.281
HCM Control Delay (s)	117.8	14.4	7.9	0	-	7.9	-	-	21.3	11.1
HCM Lane LOS	F	B	A	A	-	A	-	-	C	B
HCM 95th %tile Q(veh)	7.9	0.3	0.5	-	-	0.1	-	-	0.1	1.2

# DRAFT-Client Review Only

## Intersection

Int Delay, s/veh 2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	53	0	68	0	1365	5	60	1109	0
Future Vol, veh/h	0	0	0	53	0	68	0	1365	5	60	1109	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	110	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	3	3	3	4	4	4	2	2	2
Mvmt Flow	0	0	0	56	0	72	0	1437	5	63	1167	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2147	2730	719 1167 0 0 1442 0 0
Stage 1	1437	1437	- - - - - - - -
Stage 2	710	1293	- - - - - - - -
Critical Hdwy	6.86	6.56	6.96 4.18 - - 4.14 - -
Critical Hdwy Stg 1	5.86	5.56	- - - - - - - -
Critical Hdwy Stg 2	5.86	5.56	- - - - - - - -
Follow-up Hdwy	3.53	4.03	3.33 2.24 - - 2.22 - -
Pot Cap-1 Maneuver	~41	20	369 583 - - 466 - -
Stage 1	183	195	- - - - - - - -
Stage 2	446	229	- - - - - - - -
Platoon blocked, %			- - - - - - - -
Mov Cap-1 Maneuver	~35	0	369 583 - - 466 - -
Mov Cap-2 Maneuver	127	0	- - - - - - - -
Stage 1	183	0	- - - - - - - -
Stage 2	386	0	- - - - - - - -

Approach	WB	NB	SB
HCM Control Delay, s	49.6	0	0.7
HCM LOS	E		
<hr/>			
Minor Lane/Major Mvmt	NBL	NBT	NBR
Capacity (veh/h)	583	-	201 466 - -
HCM Lane V/C Ratio	-	-	0.634 0.136 - -
HCM Control Delay (s)	0	-	49.6 13.9 - -
HCM Lane LOS	A	-	E B - -
HCM 95th %tile Q(veh)	0	-	3.7 0.5 - -

## Notes

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

# DRAFT-Client Review Only

No Build Alt AM Peak 2026 Total  
2: Duffy Road & Old Vincennes

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Intersection												
Int Delay, s/veh	9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↓	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	10	480	43	69	251	98	15	14	125	50	7	9
Future Vol, veh/h	10	480	43	69	251	98	15	14	125	50	7	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	60	-	0	-	-	80	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	4	4	4	2	2	2	5	5	5	1	1	1
Mvmt Flow	13	600	54	86	314	123	19	18	156	63	9	11
Major/Minor												
Major1		Major2			Minor1			Minor2				
Conflicting Flow All	437	0	0	654	0	0	1211	1262	627	1226	1166	314
Stage 1	-	-	-	-	-	-	653	653	-	486	486	-
Stage 2	-	-	-	-	-	-	558	609	-	740	680	-
Critical Hdwy	4.14	-	-	4.12	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.218	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1112	-	-	933	-	-	157	168	478	156	195	729
Stage 1	-	-	-	-	-	-	451	459	-	565	553	-
Stage 2	-	-	-	-	-	-	509	481	-	410	452	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1112	-	-	933	-	-	137	151	478	88	175	729
Mov Cap-2 Maneuver	-	-	-	-	-	-	137	151	-	88	175	-
Stage 1	-	-	-	-	-	-	446	453	-	558	502	-
Stage 2	-	-	-	-	-	-	447	437	-	262	447	-
Approach												
EB			WB			NB			SB			
HCM Control Delay, s	0.2		1.5			20.3			101			
HCM LOS	C						F					
Minor Lane/Major Mvmt		NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	
Capacity (veh/h)	143	478	1112	-	-	-	933	-	-	94	729	
HCM Lane V/C Ratio	0.253	0.327	0.011	-	-	-	0.092	-	-	0.758	0.015	
HCM Control Delay (s)	38.5	16.1	8.3	-	-	-	9.3	-	-	115.4	10	
HCM Lane LOS	E	C	A	-	-	-	A	-	-	F	B	
HCM 95th %tile Q(veh)	1	1.4	0	-	-	-	0.3	-	-	3.9	0	

# DRAFT-Client Review Only

No Build Alt AM Peak 2026 Total  
3: Old Vincennes & Schreiber

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Intersection															
Int Delay, s/veh	6.9														
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
Lane Configurations															
Traffic Vol, veh/h	21	381	39	14	194	24	33	6	91	36	2	10			
Future Vol, veh/h	21	381	39	14	194	24	33	6	91	36	2	10			
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0			
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop			
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None			
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-			
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-			
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-			
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68			
Heavy Vehicles, %	4	4	4	1	1	1	5	5	5	5	5	5			
Mvmt Flow	31	560	57	21	285	35	49	9	134	53	3	15			
Major/Minor	Major1		Major2		Minor1		Minor2								
Conflicting Flow All	320	0	0	617	0	0	1005	1013	589	1067	1024	303			
Stage 1	-	-	-	-	-	-	651	651	-	345	345	-			
Stage 2	-	-	-	-	-	-	354	362	-	722	679	-			
Critical Hdwy	4.14	-	-	4.11	-	-	7.15	6.55	6.25	7.15	6.55	6.25			
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-			
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-			
Follow-up Hdwy	2.236	-	-	2.209	-	-	3.545	4.045	3.345	3.545	4.045	3.345			
Pot Cap-1 Maneuver	1229	-	-	968	-	-	217	236	503	197	232	730			
Stage 1	-	-	-	-	-	-	452	460	-	664	631	-			
Stage 2	-	-	-	-	-	-	657	620	-	413	447	-			
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-			
Mov Cap-1 Maneuver	1229	-	-	968	-	-	200	221	503	133	217	730			
Mov Cap-2 Maneuver	-	-	-	-	-	-	200	221	-	133	217	-			
Stage 1	-	-	-	-	-	-	434	442	-	638	614	-			
Stage 2	-	-	-	-	-	-	623	603	-	285	430	-			
Approach	EB			WB			NB			SB					
HCM Control Delay, s	0.4			0.5			27.3			43					
HCM LOS							D			E					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1							
Capacity (veh/h)	348	1229	-	-	968	-	-	163							
HCM Lane V/C Ratio	0.549	0.025	-	-	0.021	-	-	0.433							
HCM Control Delay (s)	27.3	8	0	-	8.8	-	-	43							
HCM Lane LOS	D	A	A	-	A	-	-	E							
HCM 95th %tile Q(veh)	3.2	0.1	-	-	0.1	-	-	2							

# DRAFT-Client Review Only

No Build Alt AM Peak 2026 Total  
8: US 150 & Old Vincennes/Lawrence Banet Road

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	62	100	494	113	50	32	269	278	100	60	737	86
Future Volume (veh/h)	62	100	494	113	50	32	269	278	100	60	737	86
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00			1.00	1.00		1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1811	1811	1811	1826	1826	1826
Adj Flow Rate, veh/h	65	104	464	118	52	33	280	290	104	62	768	90
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	6	6	6	5	5	5
Cap, veh/h	424	435	369	329	283	180	322	1636	730	84	1170	522
Arrive On Green	0.04	0.24	0.24	0.07	0.27	0.27	0.19	0.48	0.48	0.05	0.34	0.34
Sat Flow, veh/h	1753	1841	1560	1753	1053	668	1725	3441	1535	1739	3469	1547
Grp Volume(v), veh/h	65	104	464	118	0	85	280	290	104	62	768	90
Grp Sat Flow(s), veh/h/ln	1753	1841	1560	1753	0	1720	1725	1721	1535	1739	1735	1547
Q Serve(g_s), s	3.6	5.9	30.5	6.4	0.0	4.9	20.3	6.2	4.9	4.5	24.3	5.3
Cycle Q Clear(g_c), s	3.6	5.9	30.5	6.4	0.0	4.9	20.3	6.2	4.9	4.5	24.3	5.3
Prop In Lane	1.00			1.00			0.39	1.00		1.00		1.00
Lane Grp Cap(c), veh/h	424	435	369	329	0	463	322	1636	730	84	1170	522
V/C Ratio(X)	0.15	0.24	1.26	0.36	0.00	0.18	0.87	0.18	0.14	0.74	0.66	0.17
Avail Cap(c_a), veh/h	579	435	369	426	0	463	543	1636	730	210	1634	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	39.9	49.3	33.3	0.0	36.3	51.0	19.4	19.0	60.6	36.4	30.1
Incr Delay (d2), s/veh	0.2	0.3	136.6	0.7	0.0	0.2	14.4	0.1	0.1	11.8	0.6	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.6	2.7	25.7	2.8	0.0	2.1	9.8	2.4	1.8	2.2	9.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.3	40.2	185.9	34.0	0.0	36.5	65.3	19.4	19.1	72.4	37.1	30.3
LnGrp LOS	D	D	F	C	A	D	E	B	B	E	D	C
Approach Vol, veh/h		633			203			674			920	
Approach Delay, s/veh		146.5			35.0			38.5			38.8	
Approach LOS		F			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	67.6	13.9	36.0	29.5	49.7	9.6	40.2				
Change Period (Y+Rc), s	* 5.4	6.2	* 5.4	5.5	* 5.4	6.2	4.5	5.5				
Max Green Setting (Gmax), s	* 16	60.8	* 16	30.5	* 41	60.8	16.5	30.5				
Max Q Clear Time (g_c+l1), s	6.5	8.2	8.4	32.5	22.3	26.3	5.6	6.9				
Green Ext Time (p_c), s	0.1	5.2	0.1	0.0	1.8	17.2	0.1	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			66.4									
HCM 6th LOS				E								
Notes												

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# DRAFT-Client Review Only

No Build Alt AM Peak 2026 Total  
13: Lafollette Station & Lawrence Banet Road

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Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	108	89	66	13	58	9	54	4	13	10	2	77
Future Vol, veh/h	108	89	66	13	58	9	54	4	13	10	2	77
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	100	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	3	3	3	4	4	4	3	3	3	6	6	6
Mvmt Flow	126	103	77	15	67	10	63	5	15	12	2	90
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	77	0	0	180	0	0	503	462	103	506	534	72
Stage 1	-	-	-	-	-	-	355	355	-	102	102	-
Stage 2	-	-	-	-	-	-	148	107	-	404	432	-
Critical Hdwy	4.13	-	-	4.14	-	-	7.13	6.53	6.23	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.16	5.56	-
Follow-up Hdwy	2.227	-	-	2.236	-	-	3.527	4.027	3.327	3.554	4.054	3.354
Pot Cap-1 Maneuver	1515	-	-	1384	-	-	477	495	949	470	447	979
Stage 1	-	-	-	-	-	-	660	628	-	894	803	-
Stage 2	-	-	-	-	-	-	852	805	-	615	575	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1515	-	-	1384	-	-	397	444	949	423	401	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	397	444	-	423	401	-
Stage 1	-	-	-	-	-	-	599	570	-	811	794	-
Stage 2	-	-	-	-	-	-	763	796	-	544	522	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	3.1		1.2		14.4		9.7					
HCM LOS					B		A					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	397	749	1515	-	-	1384	-	-	423	945		
HCM Lane V/C Ratio	0.158	0.026	0.083	-	-	0.011	-	-	0.027	0.097		
HCM Control Delay (s)	15.8	9.9	7.6	0	-	7.6	-	-	13.8	9.2		
HCM Lane LOS	C	A	A	A	-	A	-	-	B	A		
HCM 95th %tile Q(veh)	0.6	0.1	0.3	-	-	0	-	-	0.1	0.3		

# DRAFT-Client Review Only

No Build Alt AM Peak 2026 Total  
17: US 150 & Old Vincennes Road

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Intersection													
Int Delay, s/veh	1.9												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	0	0	0	78	0	63	0	602	4	78	1268	0	
Future Vol, veh/h	0	0	0	78	0	63	0	602	4	78	1268	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	110	150	-	-	
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	
Heavy Vehicles, %	2	2	2	3	3	3	7	7	7	4	4	4	
Mvmt Flow	0	0	0	81	0	66	0	627	4	81	1321	0	
Major/Minor			Minor1		Major1		Major2						
Conflicting Flow All			1450	2110	314	1321	0	0	631	0	0		
Stage 1			627	627	-	-	-	-	-	-	-		
Stage 2			823	1483	-	-	-	-	-	-	-		
Critical Hdwy			6.86	6.56	6.96	4.24	-	-	4.18	-	-		
Critical Hdwy Stg 1			5.86	5.56	-	-	-	-	-	-	-		
Critical Hdwy Stg 2			5.86	5.56	-	-	-	-	-	-	-		
Follow-up Hdwy			3.53	4.03	3.33	2.27	-	-	2.24	-	-		
Pot Cap-1 Maneuver			121	50	679	493	-	-	934	-	-		
Stage 1			492	472	-	-	-	-	-	-	-		
Stage 2			389	185	-	-	-	-	-	-	-		
Platoon blocked, %							-	-	-	-	-		
Mov Cap-1 Maneuver			110	0	679	493	-	-	934	-	-		
Mov Cap-2 Maneuver			237	0	-	-	-	-	-	-	-		
Stage 1			492	0	-	-	-	-	-	-	-		
Stage 2			355	0	-	-	-	-	-	-	-		
Approach			WB		NB		SB						
HCM Control Delay, s			24			0			0.5				
HCM LOS			C										
Minor Lane/Major Mvmt			NBL	NBT	NBR	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	493	-	-	334	934	-	-	-	-				
HCM Lane V/C Ratio	-	-	-	0.44	0.087	-	-	-	-				
HCM Control Delay (s)	0	-	-	24	9.2	-	-	-	-				
HCM Lane LOS	A	-	-	C	A	-	-	-	-				
HCM 95th %tile Q(veh)	0	-	-	2.2	0.3	-	-	-	-				

# DRAFT-Client Review Only

No Build Alt PM Peak 2026 Total  
2: Duffy Road & Old Vincennes

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## Intersection

Int Delay, s/veh 63.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	23	543	47	95	451	327	20	10	100	143	16	32
Future Vol, veh/h	23	543	47	95	451	327	20	10	100	143	16	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	150	-	-	60	-	0	-	-	80	-	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	1	1	1	2	2	2	2	2	2
Mvmt Flow	25	584	51	102	485	352	22	11	108	154	17	34

Major/Minor	Major1	Major2		Minor1		Minor2		
Conflicting Flow All	837	0	0	635	0	0	1551	1701
Stage 1	-	-	-	-	-	-	660	660
Stage 2	-	-	-	-	-	-	891	1041
Critical Hdwy	4.12	-	-	4.11	-	-	7.12	6.52
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.518	4.018
Pot Cap-1 Maneuver	797	-	-	953	-	-	92	92
Stage 1	-	-	-	-	-	-	452	460
Stage 2	-	-	-	-	-	-	337	307
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	797	-	-	953	-	-	70	80
Mov Cap-2 Maneuver	-	-	-	-	-	-	70	80
Stage 1	-	-	-	-	-	-	438	446
Stage 2	-	-	-	-	-	-	271	274

Approach	EB	WB		NB		SB		
HCM Control Delay, s	0.4	1		31.5		\$ 576.3		
HCM LOS				D		F		
<hr/>								
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR SBLn1 SBLn2
Capacity (veh/h)	73	494	797	-	-	953	-	- 76 582
HCM Lane V/C Ratio	0.442	0.218	0.031	-	-	0.107	-	- 2.25 0.059
HCM Control Delay (s)	88.7	14.3	9.7	-	-	9.2	-	- \$ 689.9 11.6
HCM Lane LOS	F	B	A	-	-	A	-	- F B
HCM 95th %tile Q(veh)	1.8	0.8	0.1	-	-	0.4	-	- 15.9 0.2

## Notes

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

# DRAFT-Client Review Only

No Build Alt PM Peak 2026 Total  
3: Old Vincennes & Schreiber

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Intersection												
Int Delay, s/veh 36.8												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↑	↑	↑	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	45	302	41	115	269	66	27	5	76	113	8	46
Future Vol, veh/h	45	302	41	115	269	66	27	5	76	113	8	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	3	3	3	1	1	1	1	1	1	1	1	1
Mvmt Flow	54	360	49	137	320	79	32	6	90	135	10	55
Major/Minor												
Major1		Major2			Minor1			Minor2				
Conflicting Flow All	399	0	0	409	0	0	1159	1166	385	1175	1151	360
Stage 1	-	-	-	-	-	-	493	493	-	634	634	-
Stage 2	-	-	-	-	-	-	666	673	-	541	517	-
Critical Hdwy	4.13	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.227	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1154	-	-	1155	-	-	174	195	665	169	199	687
Stage 1	-	-	-	-	-	-	560	549	-	469	474	-
Stage 2	-	-	-	-	-	-	450	456	-	527	535	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1154	-	-	1155	-	-	129	155	665	~119	158	687
Mov Cap-2 Maneuver	-	-	-	-	-	-	129	155	-	~119	158	-
Stage 1	-	-	-	-	-	-	526	516	-	440	401	-
Stage 2	-	-	-	-	-	-	342	386	-	423	502	-
Approach												
EB			WB			NB			SB			
HCM Control Delay, s	1			2.2			25.2		220.4			
HCM LOS							D		F			
Minor Lane/Major Mvmt												
NBLn1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	304	1154	-	-	1155	-	-	156				
HCM Lane V/C Ratio	0.423	0.046	-	-	0.119	-	-	1.274				
HCM Control Delay (s)	25.2	8.3	0	-	8.5	-	-	220.4				
HCM Lane LOS	D	A	A	-	A	-	-	F				
HCM 95th %tile Q(veh)	2	0.1	-	-	0.4	-	-	11.7				
Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

# DRAFT-Client Review Only

No Build Alt PM Peak 2026 Total

8: US 150 & Old Vincennes/Lawrence Banet Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	106	150	527	192	185	131	535	702	230	67	466	158
Future Volume (veh/h)	106	150	527	192	185	131	535	702	230	67	466	158
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00			1.00	1.00		1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	112	158	500	202	195	138	563	739	242	71	491	166
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	4	4	4
Cap, veh/h	257	419	355	351	268	190	527	1620	722	90	744	332
Arrive On Green	0.06	0.22	0.22	0.10	0.26	0.26	0.30	0.46	0.46	0.05	0.21	0.21
Sat Flow, veh/h	1781	1870	1585	1795	1027	727	1767	3526	1572	1753	3497	1560
Grp Volume(v), veh/h	112	158	500	202	0	333	563	739	242	71	491	166
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1795	0	1754	1767	1763	1572	1753	1749	1560
Q Serve(g_s), s	6.5	9.7	30.5	11.5	0.0	23.6	40.6	19.5	13.4	5.4	17.5	12.8
Cycle Q Clear(g_c), s	6.5	9.7	30.5	11.5	0.0	23.6	40.6	19.5	13.4	5.4	17.5	12.8
Prop In Lane	1.00			1.00			0.41	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	257	419	355	351	0	458	527	1620	722	90	744	332
V/C Ratio(X)	0.44	0.38	1.41	0.58	0.00	0.73	1.07	0.46	0.33	0.79	0.66	0.50
Avail Cap(c_a), veh/h	349	419	355	378	0	458	527	1620	722	201	1562	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	44.7	52.8	34.5	0.0	45.8	47.8	25.2	23.5	63.8	49.1	47.2
Incr Delay (d2), s/veh	1.2	0.6	199.5	1.9	0.0	5.7	58.6	0.2	0.3	13.9	1.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.9	4.6	31.7	5.2	0.0	10.9	25.7	7.8	5.0	2.7	7.5	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.5	45.3	252.3	36.3	0.0	51.6	106.4	25.4	23.8	77.7	50.1	48.4
LnGrp LOS	D	D	F	D	A	D	F	C	C	E	D	D
Approach Vol, veh/h		770			535			1544			728	
Approach Delay, s/veh		178.9			45.8			54.6			52.4	
Approach LOS		F			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	68.7	19.0	36.0	46.0	35.1	13.9	41.0				
Change Period (Y+Rc), s	* 5.4	6.2	* 5.4	5.5	* 5.4	6.2	* 5.4	5.5				
Max Green Setting (Gmax), s	* 16	60.8	* 16	30.5	* 41	60.8	* 16	30.5				
Max Q Clear Time (g_c+l1), s	7.4	21.5	13.5	32.5	42.6	19.5	8.5	25.6				
Green Ext Time (p_c), s	0.1	15.6	0.1	0.0	0.0	9.4	0.1	0.9				

## Intersection Summary

HCM 6th Ctrl Delay                            79.6  
HCM 6th LOS                                    E

## Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# DRAFT-Client Review Only

No Build Alt PM Peak 2026 Total  
13: Lafollette Station & Lawrence Banet Road

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Intersection														
Int Delay, s/veh	26.3													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘													
Traffic Vol, veh/h	184	148	151	20	148	9	158	17	16	7	7	204		
Future Vol, veh/h	184	148	151	20	148	9	158	17	16	7	7	204		
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0		
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop		
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None		
Storage Length	-	-	0	0	-	-	100	-	-	80	-	-		
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-		
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-		
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91		
Heavy Vehicles, %	2	2	2	1	1	1	1	1	1	1	1	1		
Mvmt Flow	202	163	166	22	163	10	174	19	18	8	8	224		
Major/Minor	Major1		Major2		Minor1		Minor2							
Conflicting Flow All	173	0	0	329	0	0	895	784	163	881	945	168		
Stage 1	-	-	-	-	-	-	567	567	-	212	212	-		
Stage 2	-	-	-	-	-	-	328	217	-	669	733	-		
Critical Hdwy	4.12	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21		
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-		
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309		
Pot Cap-1 Maneuver	1404	-	-	1236	-	-	263	326	884	268	263	879		
Stage 1	-	-	-	-	-	-	510	509	-	792	729	-		
Stage 2	-	-	-	-	-	-	687	725	-	449	428	-		
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-		
Mov Cap-1 Maneuver	1404	-	-	1236	-	-	~162	262	884	212	212	879		
Mov Cap-2 Maneuver	-	-	-	-	-	-	~162	262	-	212	212	-		
Stage 1	-	-	-	-	-	-	418	417	-	649	716	-		
Stage 2	-	-	-	-	-	-	497	712	-	345	351	-		
Approach	EB		WB		NB		SB							
HCM Control Delay, s	3		0.9		125.1		11.8							
HCM LOS					F		B							
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2				
Capacity (veh/h)	162	398	1404	-	-	1236	-	-	212	796				
HCM Lane V/C Ratio	1.072	0.091	0.144	-	-	0.018	-	-	0.036	0.291				
HCM Control Delay (s)	148.1	15	8	0	-	8	-	-	22.6	11.4				
HCM Lane LOS	F	C	A	A	-	A	-	-	C	B				
HCM 95th %tile Q(veh)	8.8	0.3	0.5	-	-	0.1	-	-	0.1	1.2				
Notes														
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon											

# DRAFT-Client Review Only

No Build Alt PM Peak 2026 Total  
17: US 150 & Old Vincennes Road

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## Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	53	0	68	0	1434	5	60	1159	0
Future Vol, veh/h	0	0	0	53	0	68	0	1434	5	60	1159	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	110	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	3	3	3	4	4	4	2	2	2
Mvmt Flow	0	0	0	56	0	72	0	1509	5	63	1220	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2245	2855	755
Stage 1	1509	1509	-
Stage 2	736	1346	-
Critical Hdwy	6.86	6.56	6.96
Critical Hdwy Stg 1	5.86	5.56	-
Critical Hdwy Stg 2	5.86	5.56	-
Follow-up Hdwy	3.53	4.03	3.33
Pot Cap-1 Maneuver	~ 35	16	349
Stage 1	168	180	-
Stage 2	432	216	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	~ 30	0	349
Mov Cap-2 Maneuver	117	0	-
Stage 1	168	0	-
Stage 2	370	0	-

Approach	WB	NB	SB
HCM Control Delay, s	57.6	0	0.7
HCM LOS	F	-	-
<hr/>			
Minor Lane/Major Mvmt	NBL	NBT	NBR
Capacity (veh/h)	556	-	187
HCM Lane V/C Ratio	-	-	0.681
HCM Control Delay (s)	0	-	57.6
HCM Lane LOS	A	-	B
HCM 95th %tile Q(veh)	0	-	4.1

## Notes

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

# DRAFT-Client Review Only

Build AM Peak 2026 Total  
2: Duffy Road & Old Vincennes

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## Intersection

Int Delay, s/veh 3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	530	51	69	251	98	15	14	125	0	0	9
Future Vol, veh/h	0	530	51	69	251	98	15	14	125	0	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	60	-	0	-	-	80	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	4	4	4	2	2	2	5	5	5	1	1	1
Mvmt Flow	0	663	64	86	314	123	19	18	156	0	0	11

Major/Minor	Major1	Major2		Minor1			Minor2		
Conflicting Flow All	-	0	0	727	0	0	1248	1304	695
Stage 1	-	-	-	-	-	-	695	695	-
Stage 2	-	-	-	-	-	-	553	609	-
Critical Hdwy	-	-	-	4.12	-	-	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.545	4.045	3.345
Pot Cap-1 Maneuver	0	-	-	876	-	-	148	158	437
Stage 1	0	-	-	-	-	-	428	439	-
Stage 2	0	-	-	-	-	-	512	481	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	876	-	-	135	143	437
Mov Cap-2 Maneuver	-	-	-	-	-	-	263	264	-
Stage 1	-	-	-	-	-	-	428	439	-
Stage 2	-	-	-	-	-	-	455	434	-

Approach	EB	WB		NB		SB		
HCM Control Delay, s	0	1.6		18.4		10		
HCM LOS				C		B		
<hr/>								
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	263	437	-	-	876	-	-	729
HCM Lane V/C Ratio	0.138	0.358	-	-	0.098	-	-	0.015
HCM Control Delay (s)	20.9	17.8	-	-	9.6	-	-	10
HCM Lane LOS	C	C	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	1.6	-	-	0.3	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑		↑	↑	
Traffic Volume (veh/h)	21	381	39	14	192	24	33	6	91	93	2	10
Future Volume (veh/h)	21	381	39	14	192	24	33	6	91	93	2	10
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1885	1885	1885	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	31	560	57	21	282	35	49	9	134	137	3	15
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Percent Heavy Veh, %	4	4	4	1	1	1	5	5	5	5	5	5
Cap, veh/h	531	737	75	314	737	92	495	24	350	379	63	316
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1046	1643	167	812	1644	204	1362	98	1464	1216	265	1323
Grp Volume(v), veh/h	31	0	617	21	0	317	49	0	143	137	0	18
Grp Sat Flow(s), veh/h/ln	1046	0	1811	812	0	1848	1362	0	1562	1216	0	1588
Q Serve(g_s), s	0.8	0.0	11.3	0.9	0.0	4.5	1.1	0.0	3.0	4.2	0.0	0.3
Cycle Q Clear(g_c), s	5.3	0.0	11.3	12.2	0.0	4.5	1.5	0.0	3.0	7.3	0.0	0.3
Prop In Lane	1.00		0.09	1.00		0.11	1.00		0.94	1.00		0.83
Lane Grp Cap(c), veh/h	531	0	812	314	0	829	495	0	373	379	0	380
V/C Ratio(X)	0.06	0.00	0.76	0.07	0.00	0.38	0.10	0.00	0.38	0.36	0.00	0.05
Avail Cap(c_a), veh/h	1085	0	1771	744	0	1808	986	0	937	818	0	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.1	0.0	9.2	14.3	0.0	7.3	12.2	0.0	12.6	15.7	0.0	11.6
Incr Delay (d2), s/veh	0.0	0.0	1.5	0.1	0.0	0.3	0.1	0.0	0.6	0.6	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	0.3	0.0	5.6	0.3	0.0	2.2	0.5	0.0	1.7	1.9	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.1	0.0	10.7	14.3	0.0	7.6	12.3	0.0	13.3	16.3	0.0	11.7
LnGrp LOS	A	A	B	B	A	A	B	A	B	B	A	B
Approach Vol, veh/h	648			338			192			155		
Approach Delay, s/veh	10.6			8.0			13.0			15.7		
Approach LOS	B			A			B			B		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	15.7		24.0		15.7		24.0					
Change Period (Y+Rc), s	* 6.2		6.2		* 6.2		6.2					
Max Green Setting (Gmax), s	* 24		38.8		* 24		38.8					
Max Q Clear Time (g_c+l1), s	5.0		13.3		9.3		14.2					
Green Ext Time (p_c), s	0.9		4.5		0.4		2.0					
Intersection Summary												
HCM 6th Ctrl Delay			10.9									
HCM 6th LOS			B									
Notes												

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	62	100	494	113	50	32	269	278	100	60	737	86
Future Volume (veh/h)	62	100	494	113	50	32	269	278	100	60	737	86
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1811	1811	1811	1826	1826	1826
Adj Flow Rate, veh/h	65	104	464	118	52	33	280	290	104	62	768	90
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	6	6	6	5	5	5
Cap, veh/h	424	435	660	329	284	180	322	1636	730	84	1170	522
Arrive On Green	0.04	0.24	0.24	0.07	0.27	0.27	0.19	0.48	0.48	0.05	0.34	0.34
Sat Flow, veh/h	1753	1841	1560	1753	1053	668	1725	3441	1535	1739	3469	1547
Grp Volume(v), veh/h	65	104	464	118	0	85	280	290	104	62	768	90
Grp Sat Flow(s), veh/h/ln	1753	1841	1560	1753	0	1720	1725	1721	1535	1739	1735	1547
Q Serve(g_s), s	3.6	5.9	30.5	6.4	0.0	4.9	20.3	6.2	4.9	4.5	24.3	5.3
Cycle Q Clear(g_c), s	3.6	5.9	30.5	6.4	0.0	4.9	20.3	6.2	4.9	4.5	24.3	5.3
Prop In Lane	1.00		1.00	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	424	435	660	329	0	464	322	1636	730	84	1170	522
V/C Ratio(X)	0.15	0.24	0.70	0.36	0.00	0.18	0.87	0.18	0.14	0.74	0.66	0.17
Avail Cap(c_a), veh/h	470	435	660	426	0	464	543	1636	730	210	1634	729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	39.9	30.6	33.3	0.0	36.2	51.0	19.4	19.0	60.6	36.4	30.1
Incr Delay (d2), s/veh	0.2	0.3	3.4	0.7	0.0	0.2	14.4	0.1	0.1	11.8	0.6	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	2.8	4.9	17.9	5.0	0.0	3.8	14.9	4.3	3.2	4.0	15.1	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.3	40.2	33.9	33.9	0.0	36.4	65.3	19.4	19.1	72.4	37.0	30.3
LnGrp LOS	D	D	C	C	A	D	E	B	B	E	D	C
Approach Vol, veh/h		633			203			674			920	
Approach Delay, s/veh		35.1			35.0			38.5			38.8	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), \$1.6	67.6	13.9	36.0	29.5	49.7	9.6	40.3					
Change Period (Y+Rc), \$ 5.4	6.2	* 5.4	5.5	* 5.4	6.2	4.5	5.5					
Max Green Setting (Gmax) 16	60.8	* 16	30.5	* 41	60.8	8.5	30.5					
Max Q Clear Time (g_c+l) 16.5	8.2	8.4	32.5	22.3	26.3	5.6	6.9					
Green Ext Time (p_c), s	0.1	5.2	0.1	0.0	1.8	17.2	0.0	0.4				

#### Intersection Summary

HCM 6th Ctrl Delay      37.4  
HCM 6th LOS              D

#### Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# DRAFT-Client Review Only

Build AM Peak 2026 Total  
13: Lafollette Station & Lawrence Banet Road

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Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	108	89	66	13	58	9	54	4	13	10	2	77
Future Vol, veh/h	108	89	66	13	58	9	54	4	13	10	2	77
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	100	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	3	3	3	4	4	4	3	3	3	6	6	6
Mvmt Flow	126	103	77	15	67	10	63	5	15	12	2	90
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	77	0	0	180	0	0	503	462	103	506	534	72
Stage 1	-	-	-	-	-	-	355	355	-	102	102	-
Stage 2	-	-	-	-	-	-	148	107	-	404	432	-
Critical Hdwy	4.13	-	-	4.14	-	-	7.13	6.53	6.23	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.16	5.56	-
Follow-up Hdwy	2.227	-	-	2.236	-	-	3.527	4.027	3.327	3.554	4.054	3.354
Pot Cap-1 Maneuver	1515	-	-	1384	-	-	477	495	949	470	447	979
Stage 1	-	-	-	-	-	-	660	628	-	894	803	-
Stage 2	-	-	-	-	-	-	852	805	-	615	575	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1515	-	-	1384	-	-	397	444	949	423	401	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	397	444	-	423	401	-
Stage 1	-	-	-	-	-	-	599	570	-	811	794	-
Stage 2	-	-	-	-	-	-	763	796	-	544	522	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	3.1		1.2		14.4		9.7					
HCM LOS					B		A					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	397	749	1515	-	-	1384	-	-	423	945		
HCM Lane V/C Ratio	0.158	0.026	0.083	-	-	0.011	-	-	0.027	0.097		
HCM Control Delay (s)	15.8	9.9	7.6	0	-	7.6	-	-	13.8	9.2		
HCM Lane LOS	C	A	A	A	-	A	-	-	B	A		
HCM 95th %tile Q(veh)	0.6	0.1	0.3	-	-	0	-	-	0.1	0.3		

# DRAFT-Client Review Only

Build AM Peak 2026 Total  
17: US 150 & Old Vincennes Road

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## Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	78	0	63	0	602	4	78	1268	0
Future Vol, veh/h	0	0	0	78	0	63	0	602	4	78	1268	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	110	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	3	3	3	7	7	7	4	4	4
Mvmt Flow	0	0	0	81	0	66	0	627	4	81	1321	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1450	2110	314
Stage 1	627	627	-
Stage 2	823	1483	-
Critical Hdwy	6.86	6.56	6.96
Critical Hdwy Stg 1	5.86	5.56	-
Critical Hdwy Stg 2	5.86	5.56	-
Follow-up Hdwy	3.53	4.03	3.33
Pot Cap-1 Maneuver	121	50	679
Stage 1	492	472	-
Stage 2	389	185	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	110	0	679
Mov Cap-2 Maneuver	237	0	-
Stage 1	492	0	-
Stage 2	355	0	-

Approach	WB	NB	SB
HCM Control Delay, s	24	0	0.5
HCM LOS	C		
<hr/>			
Minor Lane/Major Mvmt	NBL	NBT	NBR
Capacity (veh/h)	493	-	334
HCM Lane V/C Ratio	-	-	0.44
HCM Control Delay (s)	0	-	24
HCM Lane LOS	A	-	C
HCM 95th %tile Q(veh)	0	-	2.2
			0.3

# DRAFT-Client Review Only

Build Alt PM Peak 2026 Total  
2: Duffy Road & Old Vincennes

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## Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	686	63	95	448	327	30	0	100	0	0	32
Future Vol, veh/h	0	686	63	95	448	327	30	0	100	0	0	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	60	-	0	0	-	80	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	1	1	1	2	2	2	2	2	2
Mvmt Flow	0	738	68	102	482	352	32	0	108	0	0	34

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	-	0	806	0
Stage 1	-	-	-	772
Stage 2	-	-	-	879
Critical Hdwy	-	-	4.11	-
Critical Hdwy Stg 1	-	-	-	6.12
Critical Hdwy Stg 2	-	-	-	6.12
Follow-up Hdwy	-	-	2.209	-
Pot Cap-1 Maneuver	0	-	823	-
Stage 1	0	-	-	392
Stage 2	0	-	-	342
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	823	-
Mov Cap-2 Maneuver	-	-	-	179
Stage 1	-	-	-	392
Stage 2	-	-	-	282

Approach	EB	WB	NB	SB				
HCM Control Delay, s	0	1.1	20.1	11.6				
HCM LOS			C	B				
<hr/>								
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	179	400	-	-	823	-	-	584
HCM Lane V/C Ratio	0.18	0.269	-	-	0.124	-	-	0.059
HCM Control Delay (s)	29.5	17.3	-	-	10	-	-	11.6
HCM Lane LOS	D	C	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.6	1.1	-	-	0.4	-	-	0.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↓		↑	↓		↑	↓		↑	↓	
Traffic Volume (veh/h)	45	302	41	115	269	76	27	5	76	272	8	46
Future Volume (veh/h)	45	302	41	115	269	76	27	5	76	272	8	46
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	54	360	49	137	320	90	32	6	90	324	10	55
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	1	1	1	1	1	1	1	1	1
Cap, veh/h	375	649	88	379	574	161	566	34	508	535	85	465
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	968	1599	218	984	1415	398	1347	101	1512	1310	252	1384
Grp Volume(v), veh/h	54	0	409	137	0	410	32	0	96	324	0	65
Grp Sat Flow(s), veh/h/ln	968	0	1816	984	0	1814	1347	0	1613	1310	0	1636
Q Serve(g_s), s	2.2	0.0	8.3	6.0	0.0	8.3	0.8	0.0	2.0	11.1	0.0	1.3
Cycle Q Clear(g_c), s	10.5	0.0	8.3	14.2	0.0	8.3	2.1	0.0	2.0	13.2	0.0	1.3
Prop In Lane	1.00		0.12	1.00		0.22	1.00		0.94	1.00		0.85
Lane Grp Cap(c), veh/h	375	0	737	379	0	736	566	0	542	535	0	550
V/C Ratio(X)	0.14	0.00	0.56	0.36	0.00	0.56	0.06	0.00	0.18	0.61	0.00	0.12
Avail Cap(c_a), veh/h	764	0	1468	776	0	1466	781	0	800	744	0	811
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	10.9	16.4	0.0	11.0	11.8	0.0	11.3	15.9	0.0	11.0
Incr Delay (d2), s/veh	0.2	0.0	0.7	0.6	0.0	0.7	0.0	0.0	0.2	1.1	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	0.8	0.0	4.8	2.2	0.0	4.8	0.4	0.0	1.1	5.4	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.2	0.0	11.6	17.0	0.0	11.6	11.8	0.0	11.4	17.0	0.0	11.1
LnGrp LOS	B	A	B	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h	463			547			128			389		
Approach Delay, s/veh	12.0			13.0			11.5			16.0		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	22.3		25.7		22.3		25.7					
Change Period (Y+Rc), s	* 6.2		6.2		* 6.2		6.2					
Max Green Setting (Gmax), s	* 24		38.8		* 24		38.8					
Max Q Clear Time (g_c+l1), s	4.1		12.5		15.2		16.2					
Green Ext Time (p_c), s	0.6		2.9		1.0		3.2					
Intersection Summary												
HCM 6th Ctrl Delay			13.3									
HCM 6th LOS			B									
Notes												

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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8: US 150 &amp; Old Vincennes/Lawrence Banet Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	106	150	527	192	185	131	535	702	230	67	466	158
Future Volume (veh/h)	106	150	527	192	185	131	535	702	230	67	466	158
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	110	156	498	200	193	136	557	731	240	70	485	165
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	4	4	4
Cap, veh/h	268	421	832	351	277	196	530	1620	722	89	736	328
Arrive On Green	0.06	0.23	0.23	0.10	0.27	0.27	0.30	0.46	0.46	0.05	0.21	0.21
Sat Flow, veh/h	1781	1870	1585	1795	1029	725	1767	3526	1572	1753	3497	1560
Grp Volume(v), veh/h	110	156	498	200	0	329	557	731	240	70	485	165
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1795	0	1755	1767	1763	1572	1753	1749	1560
Q Serve(g_s), s	6.4	9.6	29.5	11.2	0.0	22.8	40.6	19.2	13.2	5.3	17.2	12.7
Cycle Q Clear(g_c), s	6.4	9.6	29.5	11.2	0.0	22.8	40.6	19.2	13.2	5.3	17.2	12.7
Prop In Lane	1.00		1.00	1.00		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	421	832	351	0	473	530	1620	722	89	736	328
V/C Ratio(X)	0.41	0.37	0.60	0.57	0.00	0.70	1.05	0.45	0.33	0.79	0.66	0.50
Avail Cap(c_a), veh/h	271	421	832	381	0	473	530	1620	722	202	1570	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	44.4	22.3	34.0	0.0	44.5	47.4	25.0	23.4	63.6	49.0	47.2
Incr Delay (d2), s/veh	1.0	0.5	1.2	1.7	0.0	4.4	53.4	0.2	0.3	14.0	1.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/lr	5.1	8.0	16.4	8.8	0.0	15.8	34.2	12.2	8.6	4.8	11.9	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.0	44.9	23.5	35.7	0.0	48.9	100.8	25.2	23.6	77.5	50.0	48.4
LnGrp LOS	D	D	C	D	A	D	F	C	C	E	D	D
Approach Vol, veh/h		764			529			1528			720	
Approach Delay, s/veh		30.1			43.9			52.5			52.3	
Approach LOS		C			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), \$	2.3	68.4	18.8	36.0	46.0	34.7	12.7	42.0				
Change Period (Y+Rc), \$	5.4	6.2	* 5.4	5.5	* 5.4	6.2	4.5	5.5				
Max Green Setting (Gmax)	16	60.8	* 16	30.5	* 41	60.8	8.5	30.5				
Max Q Clear Time (g_c+l17), \$	3	21.2	13.2	31.5	42.6	19.2	8.4	24.8				
Green Ext Time (p_c), s	0.1	15.4	0.1	0.0	0.0	9.3	0.0	0.9				

**Intersection Summary**

HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

**Notes**

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# DRAFT-Client Review Only

Build Alt PM Peak 2026 Total

13: Lafollette Station & Lawrence Banet Road

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## Intersection

Int Delay, s/veh 26.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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### Lane Configurations

Traffic Vol, veh/h	184	148	151	20	148	9	158	17	16	7	7	204
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Future Vol, veh/h	184	148	151	20	148	9	158	17	16	7	7	204
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Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
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Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
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RT Channelized	-	-	None									
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Storage Length	-	-	0	0	-	-	100	-	-	80	-	-
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Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
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Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
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Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
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Heavy Vehicles, %	2	2	2	1	1	1	1	1	1	1	1	1
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Mvmt Flow	202	163	166	22	163	10	174	19	18	8	8	224
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Major/Minor	Major1	Major2			Minor1			Minor2			
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Conflicting Flow All	173	0	0	329	0	0	895	784	163	881	945	168
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Stage 1	-	-	-	-	-	-	567	567	-	212	212	-
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Stage 2	-	-	-	-	-	-	328	217	-	669	733	-
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Critical Hdwy	4.12	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
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Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
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Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
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Follow-up Hdwy	2.218	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
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Pot Cap-1 Maneuver	1404	-	-	1236	-	-	263	326	884	268	263	879
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Stage 1	-	-	-	-	-	-	510	509	-	792	729	-
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Stage 2	-	-	-	-	-	-	687	725	-	449	428	-
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Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
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Mov Cap-1 Maneuver	1404	-	-	1236	-	-	~162	262	884	212	212	879
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Mov Cap-2 Maneuver	-	-	-	-	-	-	~162	262	-	212	212	-
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Stage 1	-	-	-	-	-	-	418	417	-	649	716	-
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Stage 2	-	-	-	-	-	-	497	712	-	345	351	-
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Approach	EB	WB			NB			SB			
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HCM Control Delay, s	3	0.9			125.1			11.8			
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HCM LOS					F			B			
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Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
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Capacity (veh/h)	162	398	1404	-	-	1236	-	-	212	796
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HCM Lane V/C Ratio	1.072	0.091	0.144	-	-	0.018	-	-	0.036	0.291
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HCM Control Delay (s)	148.1	15	8	0	-	8	-	-	22.6	11.4
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HCM Lane LOS	F	C	A	A	-	A	-	-	C	B
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HCM 95th %tile Q(veh)	8.8	0.3	0.5	-	-	0.1	-	-	0.1	1.2
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## Notes

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

# DRAFT-Client Review Only

Build Alt PM Peak 2026 Total  
17: US 150 & Old Vincennes Road

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## Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	53	0	68	0	1434	5	60	1159	0
Future Vol, veh/h	0	0	0	53	0	68	0	1434	5	60	1159	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	110	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	3	3	3	4	4	4	2	2	2
Mvmt Flow	0	0	0	56	0	72	0	1509	5	63	1220	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2245	2855	755
Stage 1	1509	1509	-
Stage 2	736	1346	-
Critical Hdwy	6.86	6.56	6.96
Critical Hdwy Stg 1	5.86	5.56	-
Critical Hdwy Stg 2	5.86	5.56	-
Follow-up Hdwy	3.53	4.03	3.33
Pot Cap-1 Maneuver	~ 35	16	349
Stage 1	168	180	-
Stage 2	432	216	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	~ 30	0	349
Mov Cap-2 Maneuver	117	0	-
Stage 1	168	0	-
Stage 2	370	0	-

Approach	WB	NB	SB
HCM Control Delay, s	57.6	0	0.7
HCM LOS	F	-	-
<hr/>			
Minor Lane/Major Mvmt	NBL	NBT	NBR
Capacity (veh/h)	556	-	187
HCM Lane V/C Ratio	-	-	0.681
HCM Control Delay (s)	0	-	57.6
HCM Lane LOS	A	-	B
HCM 95th %tile Q(veh)	0	-	4.1

## Notes

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

# DRAFT-Client Review Only

Alt 1 AM Peak 2026 Total  
2: Duffy Road & Old Vincennes

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Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	530	51	69	251	98	23	0	99	0	0	9
Future Vol, veh/h	0	530	51	69	251	98	23	0	99	0	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	60	-	0	0	-	80	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	4	4	4	2	2	2	5	5	5	1	1	1
Mvmt Flow	0	663	64	86	314	123	29	0	124	0	0	11
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	-	0	0	727	0	0	1248	-	695	-	-	314
Stage 1	-	-	-	-	-	-	695	-	-	-	-	-
Stage 2	-	-	-	-	-	-	553	-	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	7.15	-	6.25	-	-	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.545	-	3.345	-	-	3.309
Pot Cap-1 Maneuver	0	-	-	876	-	-	148	0	437	0	0	729
Stage 1	0	-	-	-	-	-	428	0	-	0	0	-
Stage 2	0	-	-	-	-	-	512	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	876	-	-	135	-	437	-	-	729
Mov Cap-2 Maneuver	-	-	-	-	-	-	263	-	-	-	-	-
Stage 1	-	-	-	-	-	-	428	-	-	-	-	-
Stage 2	-	-	-	-	-	-	455	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0		1.6		17.2		10					
HCM LOS					C		B					
Minor Lane/Major Mvmt	NBLn1		NBLn2		EBT	EBR	WBL	WBT	WBR	SBLn1		
Capacity (veh/h)	263		437		-	-	876	-	-	729		
HCM Lane V/C Ratio	0.109		0.283		-	-	0.098	-	-	0.015		
HCM Control Delay (s)	20.4		16.5		-	-	9.6	-	-	10		
HCM Lane LOS	C		C		-	-	A	-	-	B		
HCM 95th %tile Q(veh)	0.4		1.2		-	-	0.3	-	-	0		

# DRAFT-Client Review Only

Alt 1 AM Peak 2026 Total  
3: Old Vincennes & Schreiber

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑		↑	↑	
Traffic Volume (veh/h)	88	385	39	14	194	47	36	6	119	36	2	10
Future Volume (veh/h)	88	385	39	14	194	47	36	6	119	36	2	10
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1885	1885	1885	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	129	566	57	21	285	69	53	9	175	53	3	15
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Percent Heavy Veh, %	4	4	4	1	1	1	5	5	5	5	5	5
Cap, veh/h	532	768	77	341	685	166	458	16	306	307	55	273
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1011	1645	166	808	1466	355	1362	76	1483	1171	265	1323
Grp Volume(v), veh/h	129	0	623	21	0	354	53	0	184	53	0	18
Grp Sat Flow(s), veh/h/ln	1011	0	1811	808	0	1821	1362	0	1559	1171	0	1588
Q Serve(g_s), s	3.7	0.0	10.6	0.8	0.0	4.9	1.2	0.0	4.0	1.6	0.0	0.3
Cycle Q Clear(g_c), s	8.6	0.0	10.6	11.4	0.0	4.9	1.6	0.0	4.0	5.7	0.0	0.3
Prop In Lane	1.00		0.09	1.00		0.19	1.00		0.95	1.00		0.83
Lane Grp Cap(c), veh/h	532	0	846	341	0	851	458	0	322	307	0	328
V/C Ratio(X)	0.24	0.00	0.74	0.06	0.00	0.42	0.12	0.00	0.57	0.17	0.00	0.05
Avail Cap(c_a), veh/h	1093	0	1851	790	0	1862	1031	0	977	800	0	995
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.5	0.0	8.2	12.9	0.0	6.7	12.7	0.0	13.6	16.1	0.0	12.1
Incr Delay (d2), s/veh	0.2	0.0	1.3	0.1	0.0	0.3	0.1	0.0	1.6	0.3	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	0.0	2.7	0.1	0.0	1.2	0.3	0.0	1.3	0.4	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.8	0.0	9.5	12.9	0.0	7.0	12.8	0.0	15.2	16.4	0.0	12.2
LnGrp LOS	A	A	A	B	A	A	B	A	B	B	A	B
Approach Vol, veh/h	752				375			237			71	
Approach Delay, s/veh	9.5				7.3			14.6			15.3	
Approach LOS	A				A			B			B	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	14.0		23.9		14.0		23.9					
Change Period (Y+Rc), s	* 6.2		6.2		* 6.2		6.2					
Max Green Setting (Gmax), s	* 24		38.8		* 24		38.8					
Max Q Clear Time (g_c+l1), s	6.0		12.6		7.7		13.4					
Green Ext Time (p_c), s	1.2		5.1		0.2		2.3					
Intersection Summary												
HCM 6th Ctrl Delay			10.1									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

# DRAFT-Client Review Only

Alt 1 AM Peak 2026 Total  
8: US 150 & Old Vincennes/Lawrence Banet Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘ ↙ ↖ ↗ ↘ ↙ ↖ ↗ ↘ ↙ ↖											
Traffic Volume (veh/h)	62	100	494	113	50	32	269	278	100	60	737	86
Future Volume (veh/h)	62	100	494	113	50	32	269	278	100	60	737	86
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1811	1811	1811	1826	1826	1826
Adj Flow Rate, veh/h	65	104	515	118	52	33	280	290	104	62	768	90
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	6	6	6	5	5	5
Cap, veh/h	418	435	660	322	266	169	322	1636	730	84	1169	521
Arrive On Green	0.05	0.24	0.24	0.07	0.25	0.25	0.19	0.48	0.48	0.05	0.34	0.34
Sat Flow, veh/h	1753	1841	1560	1753	1053	668	1725	3441	1535	1739	3469	1547
Grp Volume(v), veh/h	65	104	515	118	0	85	280	290	104	62	768	90
Grp Sat Flow(s), veh/h/ln	1753	1841	1560	1753	0	1720	1725	1721	1535	1739	1735	1547
Q Serve(g_s), s	3.6	5.9	30.5	6.5	0.0	5.0	20.4	6.2	4.9	4.5	24.3	5.3
Cycle Q Clear(g_c), s	3.6	5.9	30.5	6.5	0.0	5.0	20.4	6.2	4.9	4.5	24.3	5.3
Prop In Lane	1.00		1.00	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	418	435	660	322	0	436	322	1636	730	84	1169	521
V/C Ratio(X)	0.16	0.24	0.78	0.37	0.00	0.20	0.87	0.18	0.14	0.74	0.66	0.17
Avail Cap(c_a), veh/h	544	435	660	418	0	436	542	1636	730	210	1633	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	39.9	32.1	33.9	0.0	37.9	51.0	19.4	19.1	60.6	36.5	30.1
Incr Delay (d2), s/veh	0.2	0.3	6.0	0.7	0.0	0.2	14.4	0.1	0.1	11.8	0.6	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.5	2.7	14.6	2.8	0.0	2.1	9.8	2.4	1.8	2.2	10.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.5	40.2	38.1	34.6	0.0	38.1	65.4	19.5	19.2	72.5	37.1	30.3
LnGrp LOS	C	D	D	C	A	D	E	B	B	E	D	C
Approach Vol, veh/h		684			203			674			920	
Approach Delay, s/veh		38.1			36.1			38.5			38.8	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), \$1.6	67.6	13.9	36.0	29.5	49.7	11.7	38.2					
Change Period (Y+Rc), \$ 5.4	6.2	* 5.4	5.5	* 5.4	6.2	* 5.4	5.5					
Max Green Setting (Gmax) 16	60.8	* 16	30.5	* 41	60.8	* 16	30.5					
Max Q Clear Time (g_c+l) 16.5	8.2	8.5	32.5	22.4	26.3	5.6	7.0					
Green Ext Time (p_c), s	0.1	5.2	0.1	0.0	1.8	17.2	0.1	0.4				
Intersection Summary												
HCM 6th Ctrl Delay		38.3										
HCM 6th LOS		D										
Notes												

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# DRAFT-Client Review Only

Alt 1 AM Peak 2026 Total  
13: Lafollette Station & Lawrence Banet Road

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Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	108	89	66	13	58	9	54	4	13	10	2	77
Future Vol, veh/h	108	89	66	13	58	9	54	4	13	10	2	77
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	-	100	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	3	3	3	4	4	4	3	3	3	6	6	6
Mvmt Flow	126	103	77	15	67	10	63	5	15	12	2	90
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	77	0	0	180	0	0	503	462	103	506	534	72
Stage 1	-	-	-	-	-	-	355	355	-	102	102	-
Stage 2	-	-	-	-	-	-	148	107	-	404	432	-
Critical Hdwy	4.13	-	-	4.14	-	-	7.13	6.53	6.23	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.16	5.56	-
Follow-up Hdwy	2.227	-	-	2.236	-	-	3.527	4.027	3.327	3.554	4.054	3.354
Pot Cap-1 Maneuver	1515	-	-	1384	-	-	477	495	949	470	447	979
Stage 1	-	-	-	-	-	-	660	628	-	894	803	-
Stage 2	-	-	-	-	-	-	852	805	-	615	575	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1515	-	-	1384	-	-	397	444	949	423	401	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	397	444	-	423	401	-
Stage 1	-	-	-	-	-	-	599	570	-	811	794	-
Stage 2	-	-	-	-	-	-	763	796	-	544	522	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	3.1		1.2		14.4		9.7					
HCM LOS					B		A					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	397	749	1515	-	-	1384	-	-	423	945		
HCM Lane V/C Ratio	0.158	0.026	0.083	-	-	0.011	-	-	0.027	0.097		
HCM Control Delay (s)	15.8	9.9	7.6	0	-	7.6	-	-	13.8	9.2		
HCM Lane LOS	C	A	A	A	-	A	-	-	B	A		
HCM 95th %tile Q(veh)	0.6	0.1	0.3	-	-	0	-	-	0.1	0.3		

# DRAFT-Client Review Only

Alt 1 AM Peak 2026 Total  
17: US 150 & Old Vincennes Road

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## Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	78	0	63	0	602	4	78	1268	0
Future Vol, veh/h	0	0	0	78	0	63	0	602	4	78	1268	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	110	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	3	3	3	7	7	7	4	4	4
Mvmt Flow	0	0	0	81	0	66	0	627	4	81	1321	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1450	2110	314
Stage 1	627	627	-
Stage 2	823	1483	-
Critical Hdwy	6.86	6.56	6.96
Critical Hdwy Stg 1	5.86	5.56	-
Critical Hdwy Stg 2	5.86	5.56	-
Follow-up Hdwy	3.53	4.03	3.33
Pot Cap-1 Maneuver	121	50	679
Stage 1	492	472	-
Stage 2	389	185	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	110	0	679
Mov Cap-2 Maneuver	237	0	-
Stage 1	492	0	-
Stage 2	355	0	-

Approach	WB	NB	SB
HCM Control Delay, s	24	0	0.5
HCM LOS	C		
<hr/>			
Minor Lane/Major Mvmt	NBL	NBT	NBR
Capacity (veh/h)	493	-	334
HCM Lane V/C Ratio	-	-	0.44
HCM Control Delay (s)	0	-	24
HCM Lane LOS	A	-	C
HCM 95th %tile Q(veh)	0	-	2.2
			0.3

# DRAFT-Client Review Only

Alt 1 PM Peak 2026 Total  
2: Duffy Road & Old Vincennes

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Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	686	63	76	470	327	30	0	100	0	0	32
Future Vol, veh/h	0	686	63	76	470	327	30	0	100	0	0	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	60	-	0	0	-	80	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	1	1	1	2	2	2	2	2	2
Mvmt Flow	0	738	68	82	505	352	32	0	108	0	0	34
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	-	0	0	806	0	0	1634	-	772	-	-	505
Stage 1	-	-	-	-	-	-	772	-	-	-	-	-
Stage 2	-	-	-	-	-	-	862	-	-	-	-	-
Critical Hdwy	-	-	-	4.11	-	-	7.12	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.209	-	-	3.518	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	823	-	-	81	0	400	0	0	567
Stage 1	0	-	-	-	-	-	392	0	-	0	0	-
Stage 2	0	-	-	-	-	-	350	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	823	-	-	70	-	400	-	-	567
Mov Cap-2 Maneuver	-	-	-	-	-	-	185	-	-	-	-	-
Stage 1	-	-	-	-	-	-	392	-	-	-	-	-
Stage 2	-	-	-	-	-	-	296	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0		0.9		19.9		11.8					
HCM LOS					C		B					
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	185 400		-	-	823	-	-	567				
HCM Lane V/C Ratio	0.174 0.269		-	-	0.099	-	-	0.061				
HCM Control Delay (s)	28.5 17.3		-	-	9.9	-	-	11.8				
HCM Lane LOS	D C		-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.6 1.1		-	-	0.3	-	-	0.2				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↓		↑	↓		↑	↓		↑	↓	
Traffic Volume (veh/h)	68	302	41	115	269	76	27	5	76	272	8	46
Future Volume (veh/h)	68	302	41	115	269	76	27	5	76	272	8	46
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00			1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	81	360	49	137	320	90	32	6	90	324	10	55
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	1	1	1	1	1	1	1	1	1
Cap, veh/h	375	649	88	379	574	161	566	34	508	535	85	465
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	968	1599	218	984	1415	398	1347	101	1512	1310	252	1384
Grp Volume(v), veh/h	81	0	409	137	0	410	32	0	96	324	0	65
Grp Sat Flow(s), veh/h/ln	968	0	1816	984	0	1814	1347	0	1613	1310	0	1636
Q Serve(g_s), s	3.4	0.0	8.3	6.0	0.0	8.3	0.8	0.0	2.0	11.1	0.0	1.3
Cycle Q Clear(g_c), s	11.7	0.0	8.3	14.2	0.0	8.3	2.1	0.0	2.0	13.2	0.0	1.3
Prop In Lane	1.00			0.12	1.00		0.22	1.00		0.94	1.00	
Lane Grp Cap(c), veh/h	375	0	737	379	0	736	566	0	542	535	0	550
V/C Ratio(X)	0.22	0.00	0.56	0.36	0.00	0.56	0.06	0.00	0.18	0.61	0.00	0.12
Avail Cap(c_a), veh/h	764	0	1468	776	0	1466	781	0	800	744	0	811
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	10.9	16.4	0.0	11.0	11.8	0.0	11.3	15.9	0.0	11.0
Incr Delay (d2), s/veh	0.3	0.0	0.7	0.6	0.0	0.7	0.0	0.0	0.2	1.1	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.7	0.0	2.7	1.2	0.0	2.7	0.2	0.0	0.6	3.0	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.7	0.0	11.6	17.0	0.0	11.6	11.8	0.0	11.4	17.0	0.0	11.1
LnGrp LOS	B	A	B	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h	490				547				128			389
Approach Delay, s/veh	12.3				13.0				11.5			16.0
Approach LOS	B				B				B			B
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	22.3		25.7		22.3		25.7					
Change Period (Y+Rc), s	* 6.2		6.2		* 6.2		6.2					
Max Green Setting (Gmax), s	* 24		38.8		* 24		38.8					
Max Q Clear Time (g_c+l1), s	4.1		13.7		15.2		16.2					
Green Ext Time (p_c), s	0.6		3.0		1.0		3.2					
Intersection Summary												
HCM 6th Ctrl Delay			13.4									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

# DRAFT-Client Review Only

Alt 1 PM Peak 2026 Total  
8: US 150 & Old Vincennes/Lawrence Banet Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	106	150	527	192	185	131	535	702	230	67	466	158
Future Volume (veh/h)	106	150	527	192	185	131	535	702	230	67	466	158
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	112	158	555	202	195	138	563	739	242	71	491	166
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	4	4	4
Cap, veh/h	257	419	828	345	268	190	527	1620	722	90	744	332
Arrive On Green	0.06	0.22	0.22	0.10	0.26	0.26	0.30	0.46	0.46	0.05	0.21	0.21
Sat Flow, veh/h	1781	1870	1585	1795	1027	727	1767	3526	1572	1753	3497	1560
Grp Volume(v), veh/h	112	158	555	202	0	333	563	739	242	71	491	166
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1795	0	1754	1767	1763	1572	1753	1749	1560
Q Serve(g_s), s	6.5	9.7	30.5	11.5	0.0	23.6	40.6	19.5	13.4	5.4	17.5	12.8
Cycle Q Clear(g_c), s	6.5	9.7	30.5	11.5	0.0	23.6	40.6	19.5	13.4	5.4	17.5	12.8
Prop In Lane	1.00		1.00	1.00		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	257	419	828	345	0	458	527	1620	722	90	744	332
V/C Ratio(X)	0.44	0.38	0.67	0.59	0.00	0.73	1.07	0.46	0.33	0.79	0.66	0.50
Avail Cap(c_a), veh/h	349	419	828	372	0	458	527	1620	722	201	1562	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	44.7	23.9	34.5	0.0	45.8	47.8	25.2	23.5	63.8	49.1	47.2
Incr Delay (d2), s/veh	1.2	0.6	2.1	2.1	0.0	5.7	58.6	0.2	0.3	13.9	1.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.9	4.6	13.2	5.2	0.0	10.9	25.7	7.8	5.0	2.7	7.5	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.5	45.3	26.0	36.5	0.0	51.6	106.4	25.4	23.8	77.7	50.1	48.4
LnGrp LOS	D	D	C	D	A	D	F	C	C	E	D	D
Approach Vol, veh/h		825			535			1544			728	
Approach Delay, s/veh		31.5			45.9			54.6			52.4	
Approach LOS		C			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), \$2.4	68.7	19.0	36.0	46.0	35.1	13.9	41.0					
Change Period (Y+Rc), \$ 5.4	6.2	* 5.4	5.5	* 5.4	6.2	* 5.4	5.5					
Max Green Setting (Gmax) 16	60.8	* 16	30.5	* 41	60.8	* 16	30.5					
Max Q Clear Time (g_c+l17), 46	21.5	13.5	32.5	42.6	19.5	8.5	25.6					
Green Ext Time (p_c), s	0.1	15.6	0.1	0.0	0.0	9.4	0.1	0.9				

## Intersection Summary

HCM 6th Ctrl Delay      47.7  
HCM 6th LOS              D

## Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# DRAFT-Client Review Only

Alt 1 PM Peak 2026 Total  
13: Lafollette Station & Lawrence Banet Road

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Intersection														
Int Delay, s/veh 26.3														
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations														
Traffic Vol, veh/h	184	148	151	20	148	9	158	17	16	7	7	204		
Future Vol, veh/h	184	148	151	20	148	9	158	17	16	7	7	204		
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0		
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop		
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None		
Storage Length	-	-	0	0	-	-	100	-	-	80	-	-		
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-		
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-		
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91		
Heavy Vehicles, %	2	2	2	1	1	1	1	1	1	1	1	1		
Mvmt Flow	202	163	166	22	163	10	174	19	18	8	8	224		
Major/Minor	Major1		Major2		Minor1		Minor2							
Conflicting Flow All	173	0	0	329	0	0	895	784	163	881	945	168		
Stage 1	-	-	-	-	-	-	567	567	-	212	212	-		
Stage 2	-	-	-	-	-	-	328	217	-	669	733	-		
Critical Hdwy	4.12	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21		
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-		
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309		
Pot Cap-1 Maneuver	1404	-	-	1236	-	-	263	326	884	268	263	879		
Stage 1	-	-	-	-	-	-	510	509	-	792	729	-		
Stage 2	-	-	-	-	-	-	687	725	-	449	428	-		
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-		
Mov Cap-1 Maneuver	1404	-	-	1236	-	-	~162	262	884	212	212	879		
Mov Cap-2 Maneuver	-	-	-	-	-	-	~162	262	-	212	212	-		
Stage 1	-	-	-	-	-	-	418	417	-	649	716	-		
Stage 2	-	-	-	-	-	-	497	712	-	345	351	-		
Approach	EB		WB		NB		SB							
HCM Control Delay, s	3		0.9		125.1		11.8							
HCM LOS					F		B							
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2				
Capacity (veh/h)	162	398	1404	-	-	1236	-	-	212	796				
HCM Lane V/C Ratio	1.072	0.091	0.144	-	-	0.018	-	-	0.036	0.291				
HCM Control Delay (s)	148.1	15	8	0	-	8	-	-	22.6	11.4				
HCM Lane LOS	F	C	A	A	-	A	-	-	C	B				
HCM 95th %tile Q(veh)	8.8	0.3	0.5	-	-	0.1	-	-	0.1	1.2				
Notes														
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon											

# DRAFT-Client Review Only

Alt 1 PM Peak 2026 Total  
17: US 150 & Old Vincennes Road

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## Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	53	0	68	0	1434	5	60	1159	0
Future Vol, veh/h	0	0	0	53	0	68	0	1434	5	60	1159	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	110	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	3	3	3	4	4	4	2	2	2
Mvmt Flow	0	0	0	56	0	72	0	1509	5	63	1220	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2245	2855	755
Stage 1	1509	1509	-
Stage 2	736	1346	-
Critical Hdwy	6.86	6.56	6.96
Critical Hdwy Stg 1	5.86	5.56	-
Critical Hdwy Stg 2	5.86	5.56	-
Follow-up Hdwy	3.53	4.03	3.33
Pot Cap-1 Maneuver	~ 35	16	349
Stage 1	168	180	-
Stage 2	432	216	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	~ 30	0	349
Mov Cap-2 Maneuver	117	0	-
Stage 1	168	0	-
Stage 2	370	0	-

Approach	WB	NB	SB
HCM Control Delay, s	57.6	0	0.7
HCM LOS	F	-	-
<hr/>			
Minor Lane/Major Mvmt	NBL	NBT	NBR
Capacity (veh/h)	556	-	187
HCM Lane V/C Ratio	-	-	0.681
HCM Control Delay (s)	0	-	57.6
HCM Lane LOS	A	-	B
HCM 95th %tile Q(veh)	0	-	4.1

## Notes

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

# DRAFT-Client Review Only

Alt 2 AM Peak 2026 Total  
2: Duffy Road & Old Vincennes

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## Intersection

Int Delay, s/veh 3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	530	51	69	251	98	15	14	124	0	0	9
Future Vol, veh/h	0	530	51	69	251	98	15	14	124	0	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	60	-	0	-	-	80	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	4	4	4	2	2	2	5	5	5	1	1	1
Mvmt Flow	0	663	64	86	314	123	19	18	155	0	0	11

Major/Minor	Major1	Major2		Minor1			Minor2		
Conflicting Flow All	-	0	0	727	0	0	1248	1304	695
Stage 1	-	-	-	-	-	-	695	695	-
Stage 2	-	-	-	-	-	-	553	609	-
Critical Hdwy	-	-	-	4.12	-	-	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-
Follow-up Hdwy	-	-	-	2.218	-	-	3.545	4.045	3.345
Pot Cap-1 Maneuver	0	-	-	876	-	-	148	158	437
Stage 1	0	-	-	-	-	-	428	439	-
Stage 2	0	-	-	-	-	-	512	481	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	876	-	-	135	143	437
Mov Cap-2 Maneuver	-	-	-	-	-	-	263	264	-
Stage 1	-	-	-	-	-	-	428	439	-
Stage 2	-	-	-	-	-	-	455	434	-

Approach	EB	WB		NB		SB		
HCM Control Delay, s	0	1.6		18.3		10		
HCM LOS				C		B		
<hr/>								
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	263	437	-	-	876	-	-	729
HCM Lane V/C Ratio	0.138	0.355	-	-	0.098	-	-	0.015
HCM Control Delay (s)	20.9	17.7	-	-	9.6	-	-	10
HCM Lane LOS	C	C	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	1.6	-	-	0.3	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	2	3	4	5	6	7	8	9	10	11	12
Traffic Volume (veh/h)	33	385	39	14	194	24	33	6	91	97	2	10
Future Volume (veh/h)	33	385	39	14	194	24	33	6	91	97	2	10
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1885	1885	1885	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	49	566	57	21	285	35	49	9	134	143	3	15
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Percent Heavy Veh, %	4	4	4	1	1	1	5	5	5	5	5	5
Cap, veh/h	528	742	75	309	743	91	497	24	356	380	64	322
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1043	1645	166	808	1647	202	1362	98	1464	1216	265	1323
Grp Volume(v), veh/h	49	0	623	21	0	320	49	0	143	143	0	18
Grp Sat Flow(s), veh/h/ln	1043	0	1811	808	0	1849	1362	0	1562	1216	0	1588
Q Serve(g_s), s	1.3	0.0	11.7	0.9	0.0	4.7	1.2	0.0	3.1	4.5	0.0	0.4
Cycle Q Clear(g_c), s	6.0	0.0	11.7	12.6	0.0	4.7	1.5	0.0	3.1	7.6	0.0	0.4
Prop In Lane	1.00		0.09	1.00		0.11	1.00		0.94	1.00		0.83
Lane Grp Cap(c), veh/h	528	0	817	309	0	834	497	0	380	380	0	386
V/C Ratio(X)	0.09	0.00	0.76	0.07	0.00	0.38	0.10	0.00	0.38	0.38	0.00	0.05
Avail Cap(c_a), veh/h	1056	0	1733	718	0	1770	965	0	917	799	0	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.4	0.0	9.3	14.6	0.0	7.4	12.3	0.0	12.8	15.9	0.0	11.7
Incr Delay (d2), s/veh	0.1	0.0	1.5	0.1	0.0	0.3	0.1	0.0	0.6	0.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.2	0.0	3.3	0.1	0.0	1.3	0.3	0.0	1.0	1.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.4	0.0	10.8	14.7	0.0	7.7	12.4	0.0	13.4	16.6	0.0	11.8
LnGrp LOS	A	A	B	B	A	A	B	A	B	B	A	B
Approach Vol, veh/h	672				341				192			161
Approach Delay, s/veh	10.7				8.1				13.1			16.0
Approach LOS	B				A				B			B
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	16.1		24.5		16.1		24.5					
Change Period (Y+Rc), s	* 6.2		6.2		* 6.2		6.2					
Max Green Setting (Gmax), s	* 24		38.8		* 24		38.8					
Max Q Clear Time (g_c+l1), s	5.1		13.7		9.6		14.6					
Green Ext Time (p_c), s	0.9		4.6		0.4		2.0					

#### Intersection Summary

HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

#### Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# DRAFT-Client Review Only

Alt 2 AM Peak 2026 Total  
8: US 150 & Old Vincennes/Lawrence Banet Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑↑	↖	↖	↑↑	↖
Traffic Volume (veh/h)	62	100	494	190	50	82	269	215	104	137	653	86
Future Volume (veh/h)	62	100	494	190	50	82	269	215	104	137	653	86
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1811	1811	1811	1826	1826	1826
Adj Flow Rate, veh/h	65	104	515	198	52	85	280	224	108	143	680	90
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	6	6	6	5	5	5
Cap, veh/h	415	434	659	380	180	294	322	1356	605	168	1055	471
Arrive On Green	0.05	0.24	0.24	0.10	0.29	0.29	0.19	0.39	0.39	0.10	0.30	0.30
Sat Flow, veh/h	1753	1841	1560	1753	628	1027	1725	3441	1535	1739	3469	1547
Grp Volume(v), veh/h	65	104	515	198	0	137	280	224	108	143	680	90
Grp Sat Flow(s), veh/h/ln	1753	1841	1560	1753	0	1656	1725	1721	1535	1739	1735	1547
Q Serve(g_s), s	3.6	5.9	30.5	10.7	0.0	8.3	20.4	5.5	5.9	10.5	21.9	5.6
Cycle Q Clear(g_c), s	3.6	5.9	30.5	10.7	0.0	8.3	20.4	5.5	5.9	10.5	21.9	5.6
Prop In Lane	1.00		1.00	1.00		0.62	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	415	434	659	380	0	474	322	1356	605	168	1055	471
V/C Ratio(X)	0.16	0.24	0.78	0.52	0.00	0.29	0.87	0.17	0.18	0.85	0.64	0.19
Avail Cap(c_a), veh/h	541	434	659	418	0	474	542	1619	722	210	1632	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	40.0	32.2	31.0	0.0	35.9	51.0	25.4	25.5	57.5	38.9	33.2
Incr Delay (d2), s/veh	0.2	0.3	6.0	1.1	0.0	0.3	14.4	0.1	0.1	22.9	0.7	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.5	2.7	14.6	4.6	0.0	3.4	9.8	2.2	2.2	5.5	9.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.5	40.3	38.2	32.1	0.0	36.2	65.5	25.4	25.7	80.4	39.6	33.4
LnGrp LOS	C	D	D	C	A	D	E	C	C	F	D	C
Approach Vol, veh/h		684			335			612			913	
Approach Delay, s/veh		38.2			33.8			43.8			45.4	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), \$	7.9	57.1	18.2	36.0	29.5	45.5	11.7	42.5				
Change Period (Y+Rc), \$	5.4	6.2	* 5.4	5.5	* 5.4	6.2	* 5.4	5.5				
Max Green Setting (Gmax)	16	60.8	* 16	30.5	* 41	60.8	* 16	30.5				
Max Q Clear Time (g_c+112.5)	7.5	12.7	32.5	22.4	23.9	5.6	10.3					
Green Ext Time (p_c), s	0.1	3.5	0.1	0.0	1.7	15.4	0.1	0.7				

## Intersection Summary

HCM 6th Ctrl Delay	41.5
HCM 6th LOS	D

## Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# DRAFT-Client Review Only

Alt 2 AM Peak 2026 Total  
13: Lafollette Station & Lawrence Banet Road

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Intersection												
Int Delay, s/veh	8.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘
Traffic Vol, veh/h	108	89	147	13	58	9	181	4	26	10	2	77
Future Vol, veh/h	108	89	147	13	58	9	181	4	26	10	2	77
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	0	0	-	-	100	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	3	3	3	4	4	4	3	3	3	6	6	6
Mvmt Flow	126	103	171	15	67	10	210	5	30	12	2	90
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	77	0	0	274	0	0	503	462	103	560	628	72
Stage 1	-	-	-	-	-	-	355	355	-	102	102	-
Stage 2	-	-	-	-	-	-	148	107	-	458	526	-
Critical Hdwy	4.13	-	-	4.14	-	-	7.13	6.53	6.23	7.16	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.16	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.16	5.56	-
Follow-up Hdwy	2.227	-	-	2.236	-	-	3.527	4.027	3.327	3.554	4.054	3.354
Pot Cap-1 Maneuver	1515	-	-	1278	-	-	477	495	949	433	394	979
Stage 1	-	-	-	-	-	-	660	628	-	894	803	-
Stage 2	-	-	-	-	-	-	852	805	-	575	522	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1515	-	-	1278	-	-	394	440	949	381	350	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	394	440	-	381	350	-
Stage 1	-	-	-	-	-	-	594	565	-	805	793	-
Stage 2	-	-	-	-	-	-	763	795	-	497	470	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	2.4		1.3		22		9.9					
HCM LOS					C		A					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	394	822	1515	-	-	1278	-	-	381	936		
HCM Lane V/C Ratio	0.534	0.042	0.083	-	-	0.012	-	-	0.031	0.098		
HCM Control Delay (s)	24.1	9.6	7.6	0	-	7.9	-	-	14.7	9.3		
HCM Lane LOS	C	A	A	A	-	A	-	-	B	A		
HCM 95th %tile Q(veh)	3	0.1	0.3	-	-	0	-	-	0.1	0.3		

# DRAFT-Client Review Only

Alt 2 PM Peak 2026 Total  
2: Duffy Road & Old Vincennes

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## Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	543	63	95	451	327	30	0	99	0	0	32
Future Vol, veh/h	0	543	63	95	451	327	30	0	99	0	0	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	60	-	0	0	-	80	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	1	1	1	2	2	2	2	2	2
Mvmt Flow	0	584	68	102	485	352	32	0	106	0	0	34

Major/Minor	Major1	Major2		Minor1		Minor2	
Conflicting Flow All	-	0	0	652	0	0	1500
Stage 1	-	-	-	-	-	618	-
Stage 2	-	-	-	-	-	882	-
Critical Hdwy	-	-	-	4.11	-	7.12	-
Critical Hdwy Stg 1	-	-	-	-	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	-	6.12	-
Follow-up Hdwy	-	-	-	2.209	-	3.518	-
Pot Cap-1 Maneuver	0	-	-	939	-	100	0
Stage 1	0	-	-	-	-	477	0
Stage 2	0	-	-	-	-	341	0
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	939	-	86	-
Mov Cap-2 Maneuver	-	-	-	-	-	199	-
Stage 1	-	-	-	-	-	477	-
Stage 2	-	-	-	-	-	286	-

Approach	EB	WB		NB		SB		
HCM Control Delay, s	0	1		17.2		11.6		
HCM LOS				C		B		
<hr/>								
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	199	489	-	-	939	-	-	582
HCM Lane V/C Ratio	0.162	0.218	-	-	0.109	-	-	0.059
HCM Control Delay (s)	26.6	14.4	-	-	9.3	-	-	11.6
HCM Lane LOS	D	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.6	0.8	-	-	0.4	-	-	0.2

# DRAFT-Client Review Only

Alt 2 PM Peak 2026 Total  
3: Old Vincennes & Schreiber

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↓		↑	↓		↑	↓		↑	↓	
Traffic Volume (veh/h)	68	302	41	115	269	76	27	5	76	272	8	46
Future Volume (veh/h)	68	302	41	115	269	76	27	5	76	272	8	46
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	81	360	49	137	320	90	32	6	90	324	10	55
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	1	1	1	1	1	1	1	1	1
Cap, veh/h	375	649	88	379	574	161	566	34	508	535	85	465
Arrive On Green	0.41	0.41	0.41	0.41	0.41	0.41	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	968	1599	218	984	1415	398	1347	101	1512	1310	252	1384
Grp Volume(v), veh/h	81	0	409	137	0	410	32	0	96	324	0	65
Grp Sat Flow(s), veh/h/ln	968	0	1816	984	0	1814	1347	0	1613	1310	0	1636
Q Serve(g_s), s	3.4	0.0	8.3	6.0	0.0	8.3	0.8	0.0	2.0	11.1	0.0	1.3
Cycle Q Clear(g_c), s	11.7	0.0	8.3	14.2	0.0	8.3	2.1	0.0	2.0	13.2	0.0	1.3
Prop In Lane	1.00		0.12	1.00		0.22	1.00		0.94	1.00		0.85
Lane Grp Cap(c), veh/h	375	0	737	379	0	736	566	0	542	535	0	550
V/C Ratio(X)	0.22	0.00	0.56	0.36	0.00	0.56	0.06	0.00	0.18	0.61	0.00	0.12
Avail Cap(c_a), veh/h	764	0	1468	776	0	1466	781	0	800	744	0	811
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	10.9	16.4	0.0	11.0	11.8	0.0	11.3	15.9	0.0	11.0
Incr Delay (d2), s/veh	0.3	0.0	0.7	0.6	0.0	0.7	0.0	0.0	0.2	1.1	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.7	0.0	2.7	1.2	0.0	2.7	0.2	0.0	0.6	3.0	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.7	0.0	11.6	17.0	0.0	11.6	11.8	0.0	11.4	17.0	0.0	11.1
LnGrp LOS	B	A	B	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h	490				547				128			389
Approach Delay, s/veh	12.3				13.0				11.5			16.0
Approach LOS	B				B				B			B
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	22.3		25.7		22.3		25.7					
Change Period (Y+Rc), s	* 6.2		6.2		* 6.2		6.2					
Max Green Setting (Gmax), s	* 24		38.8		* 24		38.8					
Max Q Clear Time (g_c+l1), s	4.1		13.7		15.2		16.2					
Green Ext Time (p_c), s	0.6		3.0		1.0		3.2					
Intersection Summary												
HCM 6th Ctrl Delay			13.4									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

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Alt 2 PM Peak 2026 Total  
8: US 150 & Old Vincennes/Lawrence Banet Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘ ↙ ↖ ↗ ↘ ↙ ↖ ↗ ↘ ↙ ↖											
Traffic Volume (veh/h)	106	150	527	244	185	185	535	702	235	127	406	158
Future Volume (veh/h)	106	150	527	244	185	185	535	702	235	127	406	158
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	112	158	555	257	195	195	563	739	247	134	427	166
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	4	4	4
Cap, veh/h	236	425	840	378	243	243	535	1404	626	158	650	290
Arrive On Green	0.06	0.23	0.23	0.12	0.28	0.28	0.30	0.40	0.40	0.09	0.19	0.19
Sat Flow, veh/h	1781	1870	1585	1795	865	865	1767	3526	1572	1753	3497	1560
Grp Volume(v), veh/h	112	158	555	257	0	390	563	739	247	134	427	166
Grp Sat Flow(s), veh/h/ln	1781	1870	1585	1795	0	1730	1767	1763	1572	1753	1749	1560
Q Serve(g_s), s	6.4	9.6	30.5	14.4	0.0	28.1	40.6	21.4	15.0	10.1	15.2	13.0
Cycle Q Clear(g_c), s	6.4	9.6	30.5	14.4	0.0	28.1	40.6	21.4	15.0	10.1	15.2	13.0
Prop In Lane	1.00		1.00	1.00		0.50	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	236	425	840	378	0	486	535	1404	626	158	650	290
V/C Ratio(X)	0.47	0.37	0.66	0.68	0.00	0.80	1.05	0.53	0.39	0.85	0.66	0.57
Avail Cap(c_a), veh/h	332	425	840	378	0	486	535	1598	713	204	1585	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	43.7	22.8	33.0	0.0	44.8	46.8	30.7	28.8	60.1	50.6	49.7
Incr Delay (d2), s/veh	1.5	0.5	1.9	4.8	0.0	9.4	53.5	0.3	0.4	22.0	1.1	1.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.9	4.5	12.7	6.7	0.0	13.2	25.0	8.8	5.7	5.3	6.5	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.4	44.3	24.7	37.8	0.0	54.1	100.3	31.0	29.2	82.1	51.8	51.5
LnGrp LOS	D	D	C	D	A	D	F	C	C	F	D	D
Approach Vol, veh/h		825			647			1549			727	
Approach Delay, s/veh		30.5			47.6			55.9			57.3	
Approach LOS		C			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), \$	7.5	59.6	21.0	36.0	46.0	31.1	13.8	43.2				
Change Period (Y+Rc), \$	5.4	6.2	* 5.4	5.5	* 5.4	6.2	* 5.4	5.5				
Max Green Setting (Gmax)	16	60.8	* 16	30.5	* 41	60.8	* 16	30.5				
Max Q Clear Time (g_c+Rc), s	12	23.4	16.4	32.5	42.6	17.2	8.4	30.1				
Green Ext Time (p_c), s	0.1	15.2	0.0	0.0	0.0	7.8	0.1	0.1				
Intersection Summary												
HCM 6th Ctrl Delay		49.1										
HCM 6th LOS		D										
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

# DRAFT-Client Review Only

Alt 2 PM Peak 2026 Total  
13: Lafollette Station & Lawrence Banet Road

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Intersection																
Int Delay, s/veh	96.2															
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR				
Lane Configurations	↖ ↗ ↘ ↗ ↖ ↗ ↘ ↗ ↘ ↗ ↘ ↗ ↘															
Traffic Vol, veh/h	184	148	216	20	148	9	264	17	29	7	7	204				
Future Vol, veh/h	184	148	216	20	148	9	264	17	29	7	7	204				
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0				
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop				
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None				
Storage Length	-	-	0	0	-	-	100	-	-	80	-	-				
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-				
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-				
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91				
Heavy Vehicles, %	2	2	2	1	1	1	1	1	1	1	1	1				
Mvmt Flow	202	163	237	22	163	10	290	19	32	8	8	224				
Major/Minor																
Major1		Major2			Minor1			Minor2								
Conflicting Flow All	173	0	0	400	0	0	895	784	163	923	1016	168				
Stage 1	-	-	-	-	-	-	567	567	-	212	212	-				
Stage 2	-	-	-	-	-	-	328	217	-	711	804	-				
Critical Hdwy	4.12	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21				
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-				
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-				
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309				
Pot Cap-1 Maneuver	1404	-	-	1164	-	-	~263	326	884	251	239	879				
Stage 1	-	-	-	-	-	-	510	509	-	792	729	-				
Stage 2	-	-	-	-	-	-	687	725	-	425	397	-				
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-				
Mov Cap-1 Maneuver	1404	-	-	1164	-	-	~160	259	884	193	190	879				
Mov Cap-2 Maneuver	-	-	-	-	-	-	~160	259	-	193	190	-				
Stage 1	-	-	-	-	-	-	413	412	-	641	715	-				
Stage 2	-	-	-	-	-	-	497	711	-	316	321	-				
Approach																
EB			WB			NB			SB							
HCM Control Delay, s	2.7		0.9		\$ 375.1			11.9								
HCM LOS	F						B									
Minor Lane/Major Mvmt			NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2				
Capacity (veh/h)	160	467	1404	-	-	1164	-	-	-	193	785					
HCM Lane V/C Ratio	1.813	0.108	0.144	-	-	0.019	-	-	-	0.04	0.295					
HCM Control Delay (s)	\$ 438.1	13.6	8	0	-	8.2	-	-	-	24.4	11.5					
HCM Lane LOS	F	B	A	A	-	A	-	-	-	C	B					
HCM 95th %tile Q(veh)	21.4	0.4	0.5	-	-	0.1	-	-	-	0.1	1.2					
Notes																
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon							

**DRAFT-Client Review Only**

**APPENDIX D**  
**TRAFFIC SIGNAL WARRANT ANALYSIS**

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# DRAFT-Client Review Only

## Indiana Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Old Vincennes Road and Schrieber Road

County: Floyd County

City: Floyds Knobs

Major Street: Old Vincennes Road

Minor Street: Schrieber Road

Critical Approach Speed: 35 mph

Critical Approach Speed: 30 mph

Lanes: 1 lane

Lanes: 1 lane

% Right Turns Included

In built-up area of isolated community of < 10,000 population? No

From North (SB) 100%

Total number of approaches at intersection? 3

From East (WB) 100%

If it is a "T" intersection, inflate minor threshold to 150%? No

From South (NB) 100%

Manually set volume level? No

From West (EB) 100%

Analysis based on EXISTING volume data.

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
5/18/2021	Tuesday	7:00	AM	7:00	PM

### Warrant Evaluation Summary

### Warrant Met:

#### Warrant 1: Eight - Hour Vehicular Volume

No

Condition A: Minimum Vehicular Volume

No

Condition B: Interruption of Continuous Traffic

No

Condition C: Combination: 80% of A and B

No

#### Warrant 2: Four-Hour Volume

No

#### Warrant 3: Peak Hour Volume

No

#### Warrant 4: Pedestrian Volume

N/A

Criterion A: Four-Hour

Criterion B: Peak-Hour

#### Warrant 5: School Crossing

N/A

#### Warrant 6: Coordinated Signal System

N/A

#### Warrant 7: Crash Experience

N/A

#### Warrant 8: Roadway Network

N/A

#### Warrant 9: Intersection Near a Grade Crossing

N/A

#### Warrant Analysis Conducted By:

Name: Andrea Bland

Agency: Strand Associates

Date: 6/2/2021

# DRAFT-Client Review Only

## Warrant 1: Eight - Hour Vehicular Volume

**100%**

Warrant Evaluated? Yes

Condition A :		
Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	500	400
Minor Rd. Req	150	120
Number of Hours	2	3

Satisfied? No

Warrant Satisfied? No

Manually Set To:

Time Period	6:00 AM		Enter Start Time (Military Time) (HH:MM)		Total
	From	To	Major Road: Both App. (VPH)	Minor Road: High App. (VPH)	
1	6:00	7:00	0	0	0
2	7:00	8:00	650	37	687
3	8:00	9:00	488	39	527
4	9:00	10:00	319	55	374
5	10:00	11:00	315	73	388
6	11:00	12:00	319	103	422
7	12:00	13:00	287	94	381
8	13:00	14:00	290	93	383
9	14:00	15:00	584	104	688
10	15:00	16:00	581	124	705
11	16:00	17:00	598	152	750
12	17:00	18:00	527	164	691
13	18:00	19:00	432	106	538
14	19:00	20:00	0	0	0
15	20:00	21:00	0	0	0
16	21:00	22:00	0	0	0

### Condition B:

Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	750	600
Minor Rd. Req	75	60
Number of Hours	0	0

Satisfied? No

### Condition C:

Combination of A & B at 80%		
Satisfied? No		

Satisfied? No

## Warrant 2: Four-Hour Volume

**100%**

Warrant Evaluated?

Yes

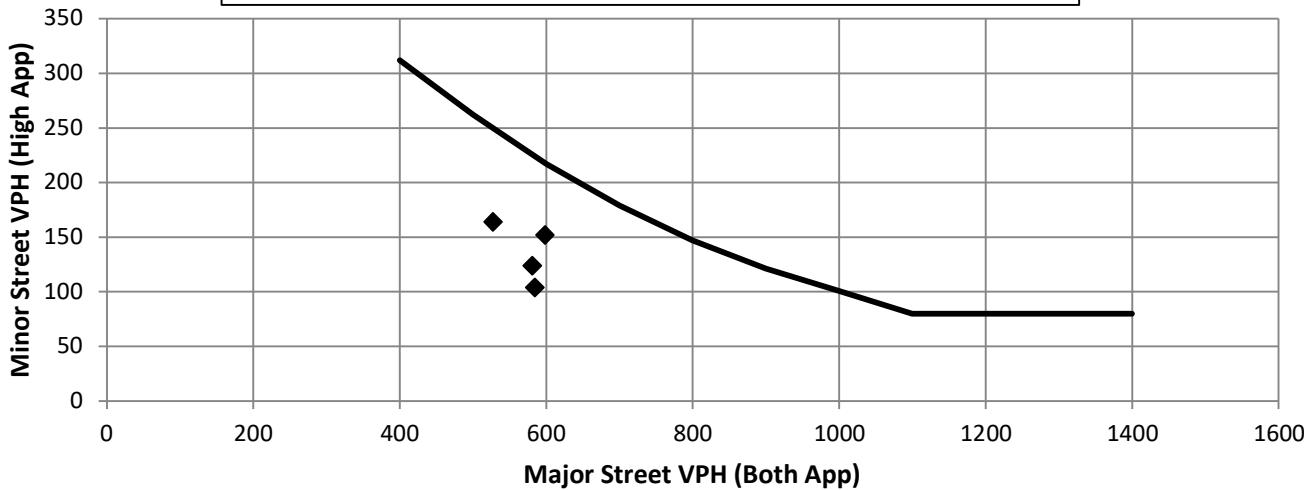
Warrant Satisfied?

No

Manually Set To:

Hour Start	16:00	17:00	15:00	14:00
Major Road Vol.	598	527	581	584
Minor Road Vol.	152	164	124	104

Figure 4C-1 Warrant 2, Four-Hour Vehicular Volume



# DRAFT-Client Review Only

## Warrant 3: Peak Hour Volume

100%

**Warrant Evaluated? Yes**

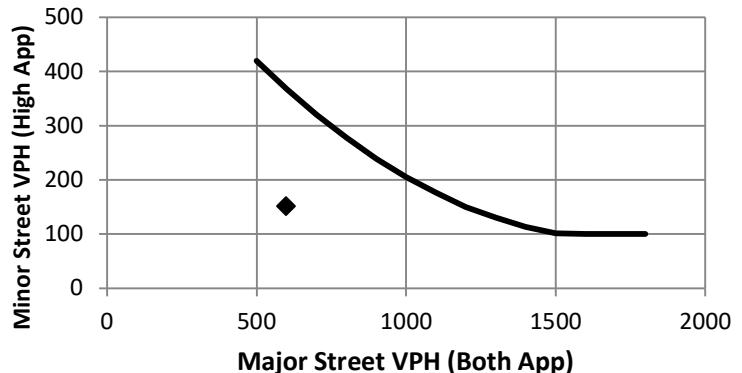
Condition justifying use of warrant:

Criteria	Met?
Delay on Minor Approach	4
Volume on Minor Approach	100
Total Entering Volume (veh/h)	650

**Warrant Satisfied? No**

**Manually Set To:**

Figure 4C-3 Warrant 3, Peak Hour



**Manually Set Peak Hour?**

Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
16:00	598	152

## Warrant 4: Pedestrian Volume

100%

**Warrant Evaluated? No**

**Warrant Satisfied? N/A**

**Manually Set To:**

### Criterion A: Four Hour

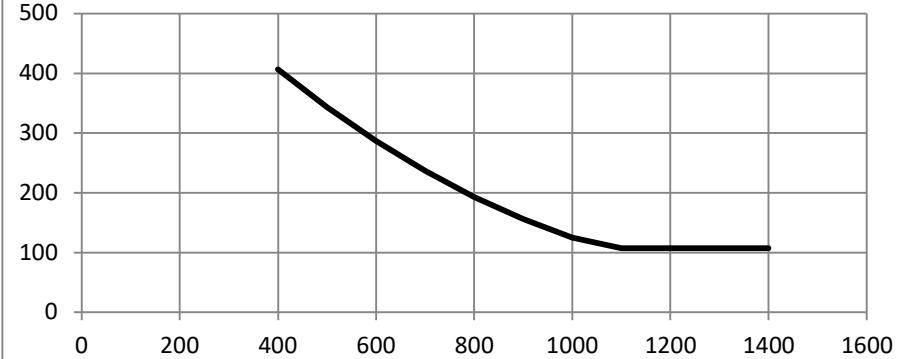
Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

**Manually Set Major Rd Vol?**

Avg. walk speed less than 3.5 ft/s?

**Criterion A Satisfied?**

Figure 4C-5 Warrant 4, Pedestrian Four-Hour Volume

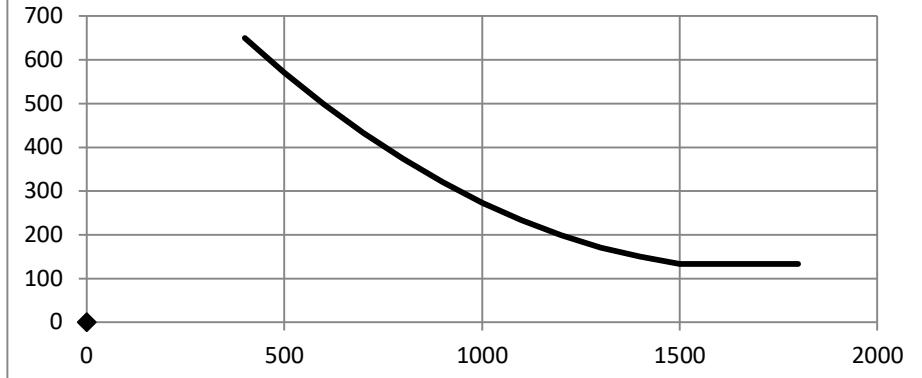


### Criterion B: Peak Hour

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

**Criterion B Satisfied?**

Figure 4C-7 Warrant 4, Pedestrian Peak Hour



# DRAFT-Client Review Only

## Warrant 5: School Crossing

100%

Warrant Evaluated? No

Warrant Satisfied? N/A

Manually Set To:

Fulfilled?

**Criteria**

1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

## Warrant 6: Coordinated Signal System

100%

Warrant Evaluated? No

Warrant Satisfied? N/A

Manually Set To:

Fulfilled?

**Criteria**

1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

## Warrant 7: Crash Experience

100%

Warrant Evaluated?

Warrant Satisfied? N/A

Manually Set To:

Met? Fulfilled?

**Criteria**

1	Adequate trial of other remedial measures has failed to reduce crash frequency.  Measures Tried:		
		# of crashes per 12 months	
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.		
	Warrant 1, Condition A (80%)	No	
	Warrant 1, Condition B (80%)	No	
3	Warrant 4, Criterion A (80%)	No	Yes
	Warrant 4, Criterion B (80%)	Yes	

## Warrant 8: Roadway Network

100%

Warrant Evaluated?

Warrant Satisfied? N/A

Manually Set To:

Met? Fulfilled?

**Criteria**

1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour		750	No	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.			No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)				
	Hour				
	Volume				

**Characteristics of Major Routes - Select yes if all intersecting routes have characteristic**

Fulfilled?

1	Part of the road or highway system that serves as the principal roadway network for through traffic flow	Yes
2	Rural or suburban highway outside of, entering, or traversing a city	
3	Appears as a major route on an official plan	Yes

# DRAFT-Client Review Only

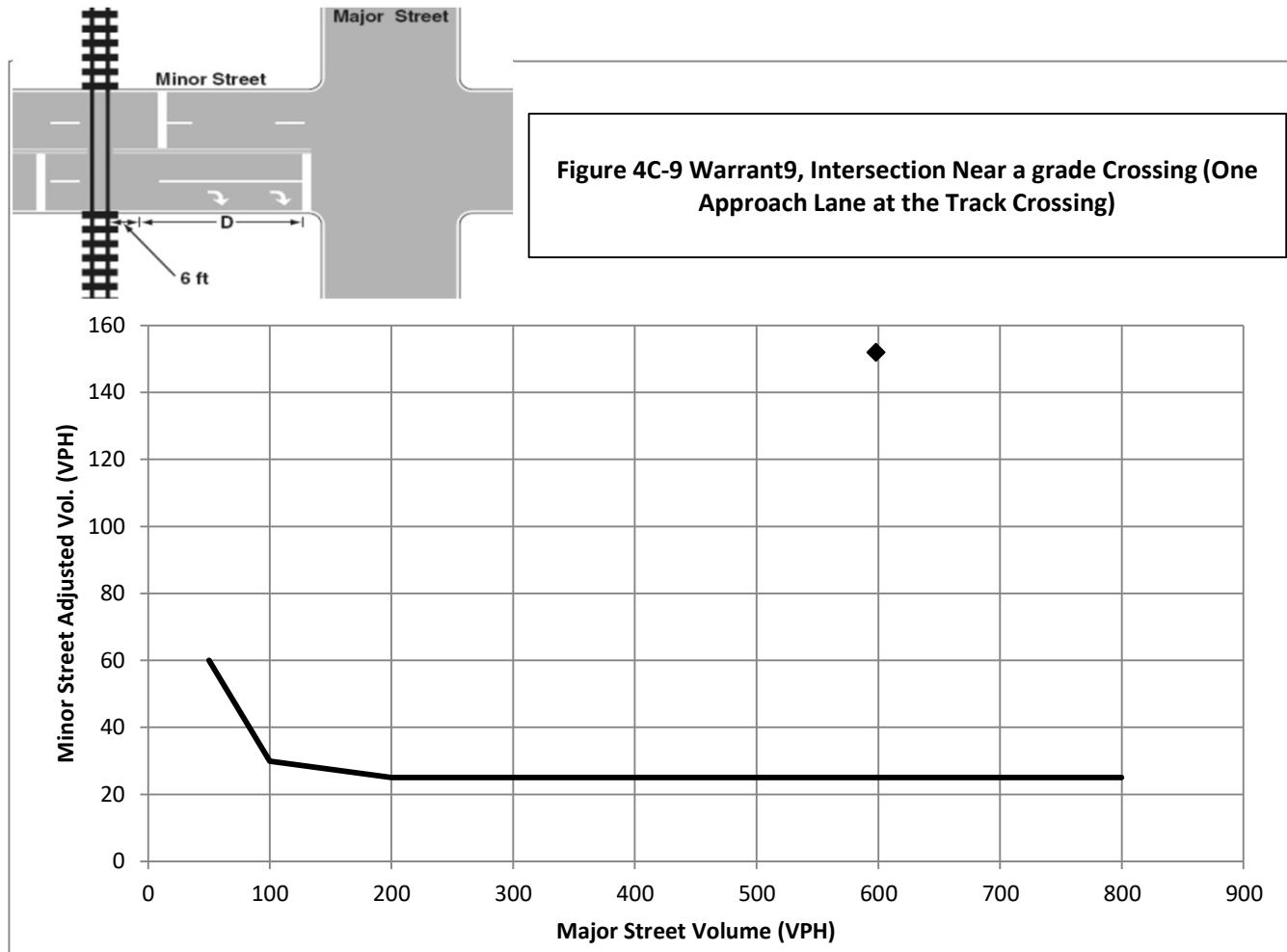
## Warrant 9: Intersection Near a Grade Crossing 100%

Warrant Evaluated?

Warrant Satisfied? N/A

Manually Set To:

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
				16:00	598	152	152



Conclusions/Comments:

# DRAFT-Client Review Only

## Indiana Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Old Vincennes Road and Schrieber Road

County: Floyd County

City: Floyds Knobs

Major Street: Old Vincennes Road

Minor Street: Schrieber Road

Critical Approach Speed: 35 mph

Critical Approach Speed: 30 mph

Lanes: 1 lane

Lanes: 1 lane

% Right Turns Included

In built-up area of isolated community of < 10,000 population? No

From North (SB) 100%

Total number of approaches at intersection? 4 or more

From East (WB) 100%

If it is a "T" intersection, inflate minor threshold to 150%? No

From South (NB) 100%

Manually set volume level? No

From West (EB) 100%

**Analysis based on PROJECTED volume data.**

Forecast Year	Within 5 Years of Construction?	Time (HH:MM)			
		From	AM / PM	To	AM / PM
2025	Yes	7:00	AM	7:00	PM

### Warrant Evaluation Summary

### Warrant Met:

<b>Warrant 1: Eight - Hour Vehicular Volume</b>	No
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
<b>Warrant 2: Four-Hour Volume</b>	No
<b>Warrant 3: Peak Hour Volume</b>	No
<b>Warrant 4: Pedestrian Volume</b>	N/A
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
<b>Warrant 5: School Crossing</b>	N/A
<b>Warrant 6: Coordinated Signal System</b>	N/A
<b>Warrant 7: Crash Experience</b>	N/A
<b>Warrant 8: Roadway Network</b>	N/A
<b>Warrant 9: Intersection Near a Grade Crossing</b>	N/A

### Warrant Analysis Conducted By:

Name: Andrea Bland

Agency: Strand Associates

Date: 6/22/2021

# DRAFT-Client Review Only

## Warrant 1: Eight - Hour Vehicular Volume 100%

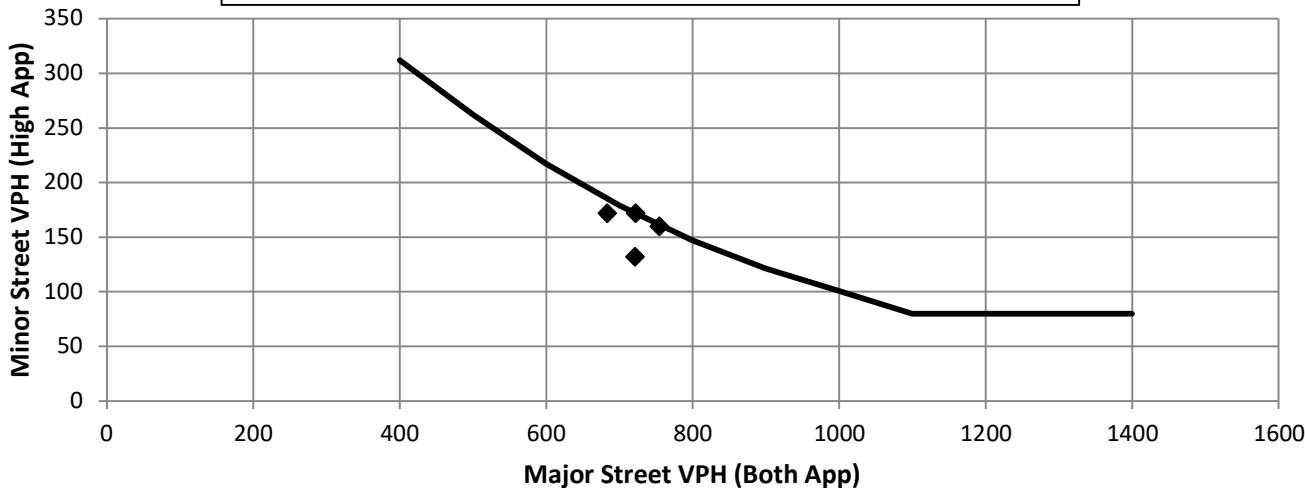
Warrant Evaluated? Yes			Warrant Satisfied? No			Manually Set To:		
Condition A :			6:00 AM Enter Start Time (Military Time) (HH:MM)					
Min. Veh. Volume			Time Period	From	To	Major Road: Both App. (VPH)		Total
Volume Level	100%	80%				Minor Road: High App. (VPH)	Total	
Major Rd. Req	500	400	1	6:00	7:00	0	0	0
Minor Rd. Req	150	120	2	7:00	8:00	722	172	894
Number of Hours	3	5	3	8:00	9:00	548	124	672
Satisfied? No			4	9:00	10:00	367	84	451
			5	10:00	11:00	371	84	455
			6	11:00	12:00	383	107	490
			7	12:00	13:00	351	98	449
			8	13:00	14:00	354	97	451
			9	14:00	15:00	712	112	824
			10	15:00	16:00	721	132	853
			11	16:00	17:00	754	160	914
			12	17:00	18:00	683	172	855
			13	18:00	19:00	556	114	670
			14	19:00	20:00	0	0	0
			15	20:00	21:00	0	0	0
			16	21:00	22:00	0	0	0

## Warrant 2: Four-Hour Volume 100%

Hour Start	7:00	16:00	17:00	15:00
Major Road Vol.	722	754	683	721
Minor Road Vol.	172	160	172	132

Warrant Evaluated? Yes  
 Warrant Satisfied? No  
 Manually Set To:

Figure 4C-1 Warrant 2, Four-Hour Vehicular Volume



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## Warrant 3: Peak Hour Volume

100%

**Warrant Evaluated? Yes**

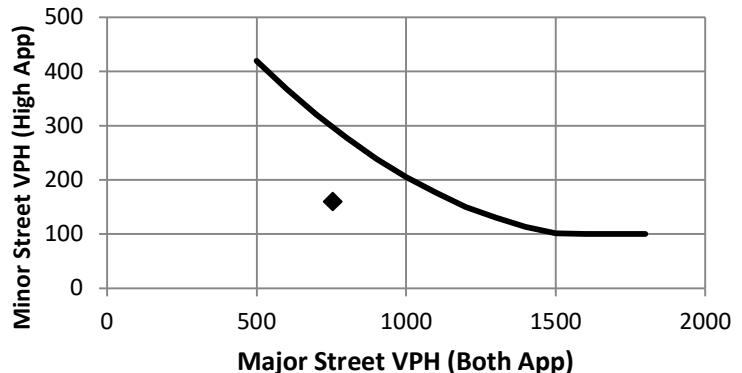
Condition justifying use of warrant:

Criteria	Met?
Delay on Minor Approach	Yes
Volume on Minor Approach	100
Total Entering Volume (veh/h)	800

**Warrant Satisfied? No**

**Manually Set To:**

Figure 4C-3 Warrant 3, Peak Hour



**Manually Set Peak Hour?**

Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
16:00	754	160

## Warrant 4: Pedestrian Volume

100%

**Warrant Evaluated? No**

**Warrant Satisfied? N/A**

**Manually Set To:**

### Criterion A: Four Hour

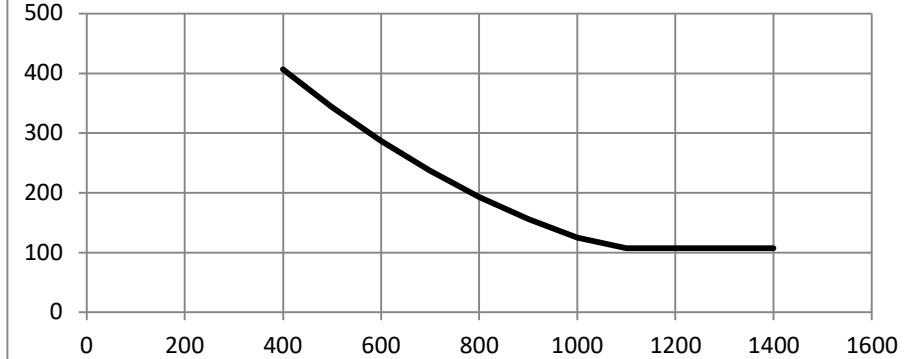
Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

**Manually Set Major Rd Vol?**

Avg. walk speed less than 3.5 ft/s?

**Criterion A Satisfied?**

Figure 4C-5 Warrant 4, Pedestrian Four-Hour Volume

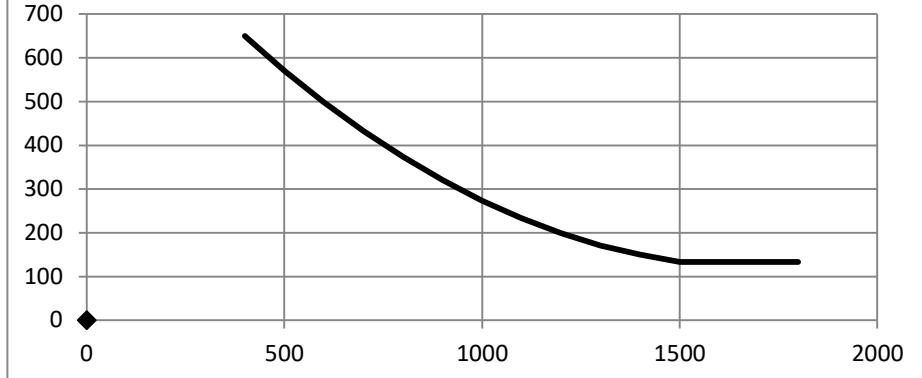


### Criterion B: Peak Hour

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

**Criterion B Satisfied?**

Figure 4C-7 Warrant 4, Pedestrian Peak Hour



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## Warrant 5: School Crossing

100%

Warrant Evaluated? No

Warrant Satisfied? N/A

Manually Set To:

Fulfilled?

**Criteria**

1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

## Warrant 6: Coordinated Signal System

100%

Warrant Evaluated? No

Warrant Satisfied? N/A

Manually Set To:

Fulfilled?

**Criteria**

1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

## Warrant 7: Crash Experience

100%

Warrant Evaluated?

Warrant Satisfied? N/A

Manually Set To:

Met? Fulfilled?

**Criteria**

1	Adequate trial of other remedial measures has failed to reduce crash frequency. Measures Tried:			
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.	# of crashes per 12 months		
3	Warrant 1, Condition A (80%)		No	Yes
	Warrant 1, Condition B (80%)		No	
	Warrant 4, Criterion A (80%)		No	
	Warrant 4, Criterion B (80%)		Yes	

## Warrant 8: Roadway Network

100%

Warrant Evaluated?

Warrant Satisfied? N/A

Manually Set To:

Met? Fulfilled?

**Criteria**

1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour		914	No	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.			No	
2 Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)					
	Hour				
	Volume				

**Characteristics of Major Routes - Select yes if all intersecting routes have characteristic**

Fulfilled?

1	Part of the road or highway system that serves as the principal roadway network for through traffic flow		Yes
2	Rural or suburban highway outside of, entering, or traversing a city		
3	Appears as a major route on an official plan		Yes

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## Warrant 9: Intersection Near a Grade Crossing

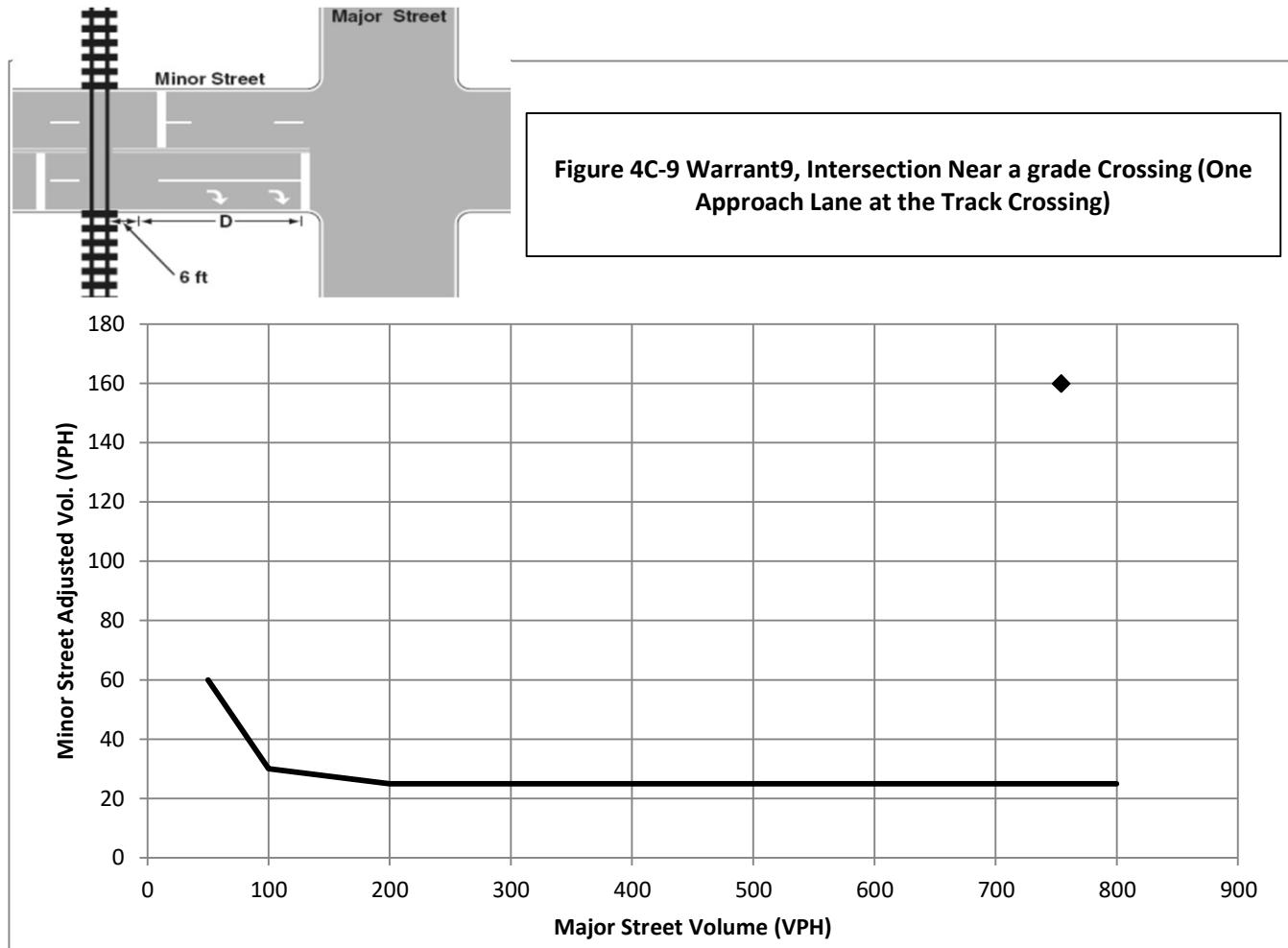
100%

Warrant Evaluated?

Warrant Satisfied? N/A

Manually Set To:

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
				16:00	754	160	160



Conclusions/Comments: