

Memorandum

To: Mr. Mark Sorrentino
RICHMAR Realty and Development Company

From: Lynn M. Means, P.E., PTOE
Senior Transportation Engineer

Date: December 8, 2020

Subject: Geneva Business Center
Fabyan Parkway, East of Kirk Road
Geneva, Illinois

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Part I. Introduction and Project Context

Gewalt Hamilton Associates, Inc. (GHA) has conducted a Traffic Summary for the proposed Geneva Business Center development. The site is located on the north side of Fabyan Parkway, east of Kirk Road in unincorporated Kane County. The approximately 18-acre site is located immediately to the east of the Comfort Inn and Suites and currently contains an office building, paved area for storage of vehicles and vacant land. There are three driveways/curb cuts that serve the property, with the eastern most access shared and aligned opposite Paramount Parkway.

As currently proposed, the project consists of the construction of a phased, multi-building development. The exact size and use of each building has yet to be defined but is anticipated to consist of industrial / warehousing use. As we understand, there has been an access agreement previously established for this property that includes access via Dawn Boulevard (new City, collector roadway on the western site limits), a new right/in-right-out access (central to property) and then the eastern, existing full access, opposite Paramount Parkway. The agreement also indicates stipulations pertaining to intersection improvements, temporary use of such access, along with the removal of two existing driveways (approximately 200 and 325 feet west of Paramount Parkway). The development is also anticipated to include future annexation into the City of Geneva.

The following provides a summary of site traffic characteristics and the analysis conducted, which includes an analysis of the development's impact on the surrounding roadway network. *Exhibits* and *Appendices* referenced are in the Technical Addendum at the end of this document.

Part II. Background Information

Site Location Map and Roadway Inventory

Exhibit 1 provides a site location map. The existing traffic operations in the site area are illustrated on ***Exhibit 2***. Pertinent comments to the adjacent roadways and study area include:

Fabyan Parkway (County Route #8)

- Fabyan Parkway is an east-west, principal arterial roadway under the jurisdiction of the Kane County Division of Transportation (KDOT).
- It generally provides a five-lane cross section (two through lanes in each direction and a center median/left-turn lane at intersections) with a posted speed limit of 45 miles per hour (mph).

Fabyan Parkway (County Route #8) – cont.

- Fabyan Parkway is designated as a Strategic Regional Arterial (SRA) route. SRA routes are designed to carry higher traffic volumes at higher travel speeds through access control and traffic signal installation / spacing. It is also designated as a Class II Truck route.
- Improvements are currently ongoing at Fabyan Parkway's signalized intersection with Kirk Road (see **Appendix A**). Upon completion, Fabyan Parkway will provide dual left-turn lanes, two through lanes and a right-turn lane in the eastbound direction and dual left-turn lanes, two through lanes and a shared through/right-turn lane in the westbound direction.
- The annual daily traffic (ADT) on Fabyan Parkway is 14,874, year 2019.

Kirk Road (County Route #77)

- Kirk Road is a north-south, principal arterial roadway under the jurisdiction of KDOT.
- It generally provides a five-lane cross section (two through lanes in each direction and a center median/left-turn lane at intersections) with a posted speed limit of 45 mph.
- Kirk Road is also designated as a SRA route, as well as a Class II Truck route.
- At its signalized intersection with Fabyan Parkway, with the aforementioned improvements, Kirk Road will provide dual left-turn lanes, two through lanes and a right-turn lane in the northbound direction and dual left-turn lanes, two through lanes and a shared through/right-turn lane in the southbound direction.
- The ADT on Kirk Road north of Fabyan Parkway is 30,308 vehicles, year 2019.

Existing Traffic

Exhibit 3 summarizes the existing weekday morning and evening peak hour traffic volumes. Peak period count data along Fabyan Parkway and Kirk Road were obtained from KDOT's annual count program from October 2019. Based on these counts, the weekday morning peak hour occurred from 7:00 to 8:00 AM on Fabyan Parkway and 7:15 to 8:15 AM on Kirk Road and the weekday evening peak hour occurred from 4:30 to 5:30 PM along both roadways.

Exhibit 3 also provides the ADT along Fabyan Parkway and Kirk Road (year 2019), also obtained from KDOT's annual count program. Summaries of the KDOT traffic counts can be found in **Appendix B**.

- Notes:
1. The traffic volumes presented in **Appendix B** represent "raw", unadjusted data. These volumes are adjusted based on day of week and month of year factors, resulting in an Annual Average Daily Traffic (AADT) which is lower than the total.
 2. No new traffic data was collected due to current abnormal traffic conditions within the study area associated with school and business closures due to COVID-19.

2035 and 2045 No-Build (Non-Site) Traffic

Exhibits 4 and 5 summarize the 2035 and 2045 No-Build peak hour traffic volumes, respectively. The build-out year for the site is anticipated to be 2025. In accordance with KDOT requirements, future traffic volume conditions were developed for the years 2035 and 2045, build-out plus ten and twenty years, respectively. Based on a review of historical traffic volumes projections contained on the IDSs prepared for the ongoing improvements at Kirk Road and Fabyan Parkway (see **Appendix A**) and future Kautz Road Extension at Fabyan Parkway (see **Appendix C**), located to the east of the site, traffic volumes along the roadways surrounding the site are assumed to experience an overall annual, compounded growth rate of approximately 1.2 to 1.6 percent per year. However, to provide a conservative analysis scenario, a 2.0 percent per year compounded growth rate was applied.

Part III. Project Traffic Characteristics

Proposed Development

The preliminary site plan is provided in **Appendix D**. As currently proposed, the project includes a phased, multi-building development. The exact size and use of each building has yet to be defined but is anticipated to consist of industrial / warehousing use.

Phase I is anticipated to include the development of the lots fronting Fabyan Parkway: Lots 1 to 4. Lots 1 to 3 were, conservatively, assumed to contain 35,000 square-feet of warehouse use on each lot; Lot 4 was assumed to remain office/warehouse (approximately 11,600 square-foot building). Phase II will include the development of the rear portion of the property, Lot 5. Again, to provide a conservative analysis scenario, it was assumed to 150,000 square-feet of warehouse use. Phase I construction is anticipated to commence next year (2021) and both phases of the development (Phases I and II) are anticipated to be completed within 5 years.

As we understand, there has been an access agreement previously established for this property that includes access via Dawn Boulevard (new City, collector roadway on the western site limits), a new right/in-right-out access (central to property) and then the eastern, existing full access, opposite Paramount Parkway. The agreement also indicates stipulations pertaining to intersection improvements, temporary use of such access, along with the removal of two existing driveways (approximately 200 and 325 feet west of Paramount Parkway). The development is also anticipated to include future annexation into the City of Geneva.

Trip Generation and Directional Distribution

Trip generation rates published by the Institute of Transportation Engineers (ITE) in the 10th Edition of the Manual *Trip Generation* were used to determine the anticipated traffic from the proposed industrial use (see **Appendix E**). The number of vehicle trips anticipated during the weekday morning peak hour (one hour between 7:00 and 9:00 AM) and weekday evening peak hour (one hour between 4:00 and 6:00 PM) and weekday daily basis is displayed in **Table 1A** and includes all traffic attributed to the proposed development (employees, customers, deliveries, etc.). The anticipated truck trips during the weekday morning and evening peak hours, as well as on a daily basis is summarized in **Table 1B** and the resulting car trips (**Table 1A less 1B**) is shown in **Table 1C**.

Table 1A: Estimated Trip Generation – Total Vehicles (Cars & Trucks)

Lot	Land Use	Size	ITE Land Use Code	Weekday								
				AM Peak Hour ^A			PM Peak Hour ^B			Daily		
				In	Out	Total	In	Out	Total	In	Out	Total
Phase I												
1-3	Warehousing	105,000 SF	150	29	9	38	11	29	40	106	106	212
4 ^C	Office	11,600 SF	710	11	2	13 ^D	2	13	15	66	66	132
Subtotal (Lots 1-4)				40	11	51	13	42	55	172	172	344
Phase II												
5	Warehousing	150,000 SF	150	33	10	43	12	34	46	141	141	282
Total Development												
Phases I (Lots 1-4) & II (Lot 5)^E				73	21	94	25	76	101	313	313	626

^A One hour between 7:00 and 9:00 AM.

^B One hour between 4:00 and 6:00 PM.

^C Existing Office Building (11,600 SF) located on Lot 4.

^D Average rates used to develop trip generation estimates as ITE equations produced unrealistic results.

^E Lot 6 will be used for the site's stormwater detention.

Table 1B: Estimated Trip Generation – Trucks

Lot	Land Use	Size	ITE Land Use Code	Weekday								
				AM Peak Hour			PM Peak Hour			Daily		
				In	Out	Total	In	Out	Total	In	Out	Total
Phase I												
1-3	Warehousing	105,000 SF	150	1	1	2	1	2	3	32	32	64
4	Office	11,600 SF	710	0	0	0	0	0	0	2	2	4
Subtotal (Lots 1-4)				1	1	2	1	2	3	34	34	68
Phase II												
5	Warehousing	150,000 SF	150	2	1	3	2	3	5	44	44	88
Total Development												
Phases I (Lots 1-4) & II (Lot 5)				3	2	5	3	5	8	78	78	156

Table 1C: Estimated Trip Generation – Cars ^A

Lot	Land Use	Size	ITE Land Use Code	Weekday								
				AM Peak Hour			PM Peak Hour			Daily		
				In	Out	Total	In	Out	Total	In	Out	Total
Phase I												
1-3	Warehousing	105,000 SF	150	28	8	36	10	27	37	74	74	148
4	Office	11,600 SF	710	11	2	13	2	13	15	64	64	128
Subtotal (Lots 1-4)				39	10	49	12	40	52	138	138	276
Phase II												
5	Warehousing	150,000 SF	150	31	9	40	10	31	41	97	97	194
Total Development												
Phases I (Lots 1-4) & II (Lot 5)				70	19	89	22	71	93	235	235	470

^A Table 1A estimates less Table 1B estimates.

Note: The existing site currently contains an 11,600 square-foot office use, as well as a vehicle storage yard. Thus, the new trips as presented in Table 1 provides a conservative analysis scenario.

The anticipated trip distribution of site traffic is summarized in **Table 2**. This was based on current travel patterns, the operational characteristics of the street system and site access.

Table 2: Trip Distribution

Route & Direction	Percent Route To/From Site	
	Cars	Trucks
Fabyan Parkway		
East of Paramount Pkwy	35%	20%
West of Kirk Rd	25%	15%
Kirk Road		
North of Fabyan Pkwy	20%	30%
South of Fabyan Pkwy	20%	35%
Total =	100%	

Site and Total Traffic Assignments

Exhibits 6a and 6b illustrate the site traffic assignment for the Phase I car and truck trips, respectively, which is based on the traffic characteristics summarized in *Tables 1 and 2* (traffic generation and trip distribution) and assigned to the area roadways. Similarly, **Exhibits 6c and 6d** illustrate the site traffic assignment for the Phase II car and truck trips, respectively. **Exhibit 6e** depicts the development's total site traffic (addition of Exhibits 6a, 6b, 6c and 6d).

The site traffic (*Exhibit 6d*) and 2035 No-Build traffic (*Exhibit 4*) were combined to produce the 2035 Total traffic, which is illustrated on **Exhibit 7**. Similarly, the site traffic (*Exhibit 6d*) and 2045 No-Building traffic (*Exhibit 5*) were combined to produce the 2045 Total traffic, which is depicted on **Exhibit 8**.

Traffic Increases

As shown on *Exhibit 6e*, the total (including both entering and exiting traffic) weekday AM and PM peak hour vehicle trips of 89 and 93, respectively, are expected on the roadways leading beyond the study area, or one to two additional vehicle every minute. On a daily basis, volume increases of 470 vehicles (total both entering and exiting) are expected on the study area roadways. This represents an approximately 2% increase on Fabyan Parkway over existing (year 2019) traffic volumes. Accordingly, the amount of site-generated traffic is expected to have minimal effects on the operations of the external street network.

Part IV. Traffic Evaluation

Turn Lane Analysis

Access to the site will be provided via Dawn Boulevard (new City, collector roadway on the western site limits), a new right/in-right-out access (central to property) and then the eastern, existing full access, opposite Paramount Parkway. This study examined whether a right-turn deceleration lane and/or a left-turn storage lane is required for the access driveways under future design year conditions (years 2035 and 2045). *Note: an eastbound left-turn lane is currently provided at the existing eastern site access, opposite Paramount Parkway, as well as the central access is restricted (via barrier median) to right-in/right-out only.*

The KDOT *Access Permit and Access Control Regulations* was used to determine the need for auxiliary lanes. Section 2.F Turn Lane Improvements indicates that a right-turn lane is considered when the criterion is met in Table 8 – Right-Turn Lane Guidelines for Four-Lane Highways. The Table is included on **Exhibit 9 – Part A**. Based on the posted speed limit (45 mph on Fabyan Parkway) and the projected approach volumes, a right-turn lane is not warranted on westbound Fabyan Parkway at any of the three proposed site accesses (see **Exhibit 9 – Part B**).

KDOT's *Access Permit and Access Control Regulations* was also reviewed to determine the need for a left-turn lane at the site full access (Dawn Boulevard). A left-turn lane is warranted at any unsignalized intersection that satisfies the guidelines depicted in Table 10 for four-lane highways with a speed limit of 45 to 55 mph (such as Fabyan Parkway). The Access Ordinance further states that "left-turn deceleration lanes will be required for all full access points to an arterial where there are more than 12 left turns per peak hour." The Table is included on **Exhibit 9 – Part A**. Based on the geometric design, lane usage and the estimated volume of site-generated traffic, a left-turn lane is warranted on eastbound Fabyan Parkway at the western access (Dawn Boulevard) (see **Exhibit 9 – Part B**).

Capacity Analysis

Capacity analyses are a standard measurement that identifies how an intersection operates. They are measured in terms of Level of Service (LOS). The concept of LOS is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six Levels of Service are defined for each type of facility. They are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F the worst. LOS C is often considered acceptable for design purposes and LOS D is usually considered as providing the lower threshold of acceptable operations. Since the level of service is a function of the traffic flows placed upon it, the facility may operate at a wide range of levels of service, depending on the time of day, day of week or period of year. A description of the operating condition under each level of service, based on the analysis parameters as published in the Transportation Research Board's (TRB) Highway Capacity Manual (HCM), Sixth Edition, is provided in **Table 3**.

Table 3: Level of Service (LOS) Summary

LOS	Description	Delay (sec/veh)	
		Traffic Signal	Stop Sign
A	Describes conditions with little to no delay to motorists.	<10	< 10
B	Represents a desirable level with relatively low delay to motorists.	>10 and < 20	>10 and < 15
C	Describes conditions with average delays to motorists.	>20 and < 35	>15 and < 25
D	Describes operations where the influence of congestion becomes more noticeable. Delays are still within an acceptable range.	>35 and < 55	>25 and < 35
E	Represents operating conditions with high delay values. This level is often considered within urban settings or for minor streets intersecting major arterial roadways to be the limit of acceptable delay.	>55 and < 80	>35 and < 50
F	Is unacceptable to most drivers with high delay values that often occur, when arrival flow rates exceed the capacity of the intersection.	>80	>50

Capacity analyses were performed at the site access (Dawn Boulevard) intersection with Fabyan Parkway using the methodologies outlined in the HCM, for the following scenarios: *2035 and 2045 Total Traffic* – Future No-Build traffic volumes (years 2035 and 2045) plus the addition of site generated traffic.

Table 4 summarizes the intersection capacity and queue analysis results. Capacity analysis summary printouts are provided in **Appendix F**.

As shown in Table 4, under future conditions (2035 and 2045 Total traffic), all movements at the site access (Dawn Boulevard) unsignalized intersection with Fabyan Parkway operate at acceptable Levels of Service (at LOS "D" or better) during both peak hours studied with the exception of southbound left-turn movements. These movements are anticipated to operate at LOS "E/F". However, the delay experienced by these movements is typical for a minor street/driveway intersection with a major street with heavy through volumes, such as Fabyan Parkway. The 95th percentile queue lengths for exiting movements, as well as left-turn entering movements, are not anticipated to exceed two vehicle, which will not impact operations on- or off-site. Future traffic conditions assumed an eastbound left-turn lane would be constructed on Fabyan Parkway at the site access. It also assumed the southbound approach would contain one entering lanes and two exiting lanes (separate left- and right-turn lane), operating under Stop sign control.

Table 4: Level-of-Service and Queue Summary

Intersection / Timeframe	Roadway Conditions	Movement Group By Approach													
		> = Shared Lane - Non Critical or not Allowed Movement						Southbound							
		Eastbound		Westbound		Northbound		Southbound		Northbound		Southbound			
LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Fabyan Pkwy at Site Access (Dawn Blvd)	TWSC - SB Stops	A	-	-	-	-	-	-	-	-	-	-	D	-	B
AM Peak	• LOS	9.1	-	-	-	-	-	-	-	-	-	-	31.9	-	10.7
	• 95th Queue Length (ft)	3	-	-	-	-	-	-	-	-	-	-	3	-	3
	• Approach LOS (Delay)	C (16.8)													
B. 2045 Total (See Exhibit 8)	• LOS	A	-	-	-	-	-	-	-	-	-	-	E	-	B
	• Delay	9.6	-	-	-	-	-	-	-	-	-	-	46.8	-	11.4
	• 95th Queue Length (ft)	3	-	-	-	-	-	-	-	-	-	-	3	-	3
	• Approach LOS (Delay)	C (21.5)													
PM Peak	• LOS	B	-	-	-	-	-	-	-	-	-	-	F	-	B
	• Delay	12.6	-	-	-	-	-	-	-	-	-	-	53.9	-	14.1
	• 95th Queue Length (ft)	3	-	-	-	-	-	-	-	-	-	-	15	-	8
	• Approach LOS (Delay)	D (26.8)													
B. 2045 Total (See Exhibit 8)	• LOS	B	-	-	-	-	-	-	-	-	-	-	F	-	C
	• Delay	14.9	-	-	-	-	-	-	-	-	-	-	102.1	-	16.3
	• 95th Queue Length (ft)	3	-	-	-	-	-	-	-	-	-	-	28	-	8
	• Approach LOS (Delay)	E (43.7)													

Part V. Recommendations and Conclusions

Analyses have been conducted to determine the impact from the proposed Geneva Business Center development on the adjacent roadway network. The capacity analysis results indicate that the increase in project site-generated traffic has minimal effect upon the operations of the area roadway network with the implementation of the following recommendations:

1. Provide an eastbound left-turn lane on Fabyan Parkway at the proposed site access (Dawn Boulevard).
2. Provide one inbound lane and a separate southbound left- and right-turn lane on the site access (Dawn Boulevard) southbound approach to the Fabyan Parkway intersection, operating under Stop sign control.
3. Consider constructing additional capacity (second northbound lane) on Dawn Boulevard to accommodate traffic associated with future development to the north.
4. Monitor the Fabyan Parkway and Dawn Boulevard intersection for traffic control installation and/or additional geometric improvements with future development to the north.

Part VI. Technical Addendum

The following *Exhibits* and *Appendices* were previously referenced. They provide technical support for our observations, findings and recommendations discussed in the text.

Exhibits

1. Location Map
2. Existing Operations
3. Existing Traffic
4. 2035 No-Build Traffic
5. 2045 No-Build Traffic
6. Site Traffic
7. 2035 Total Traffic
8. 2045 Total Traffic
9. Turn Lane Requirements

Appendices

- A. IDS – Kirk Road and Fabyan Parkway
- B. KDOT Traffic Count Summaries
- C. IDS – Fabyan Parkway and Kautz Road Extension
- D. Preliminary Site Plan
- E. ITE Trip Generation Excerpts
- F. Capacity Analysis Worksheets

Technical Addendum

Exhibits

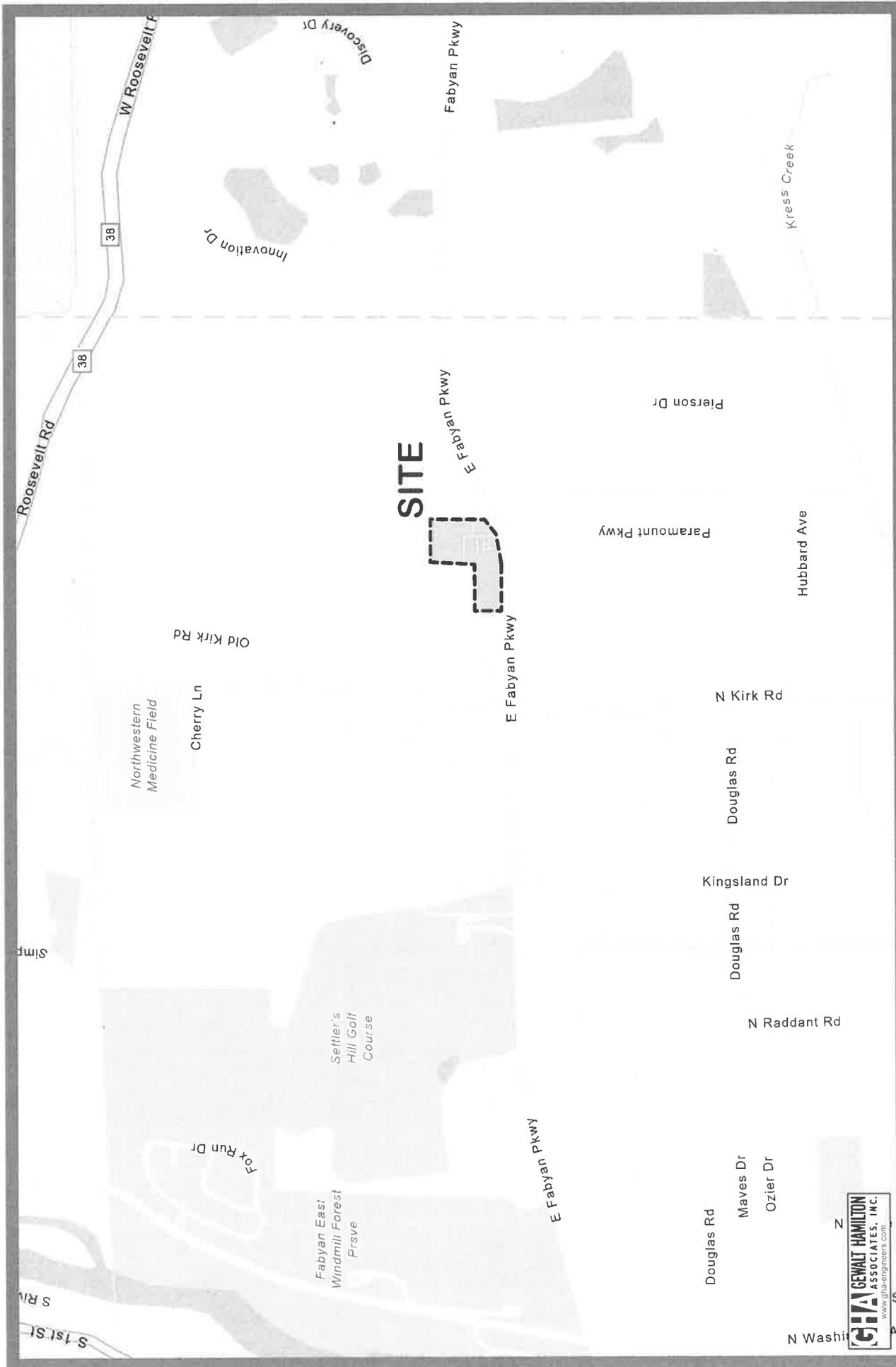
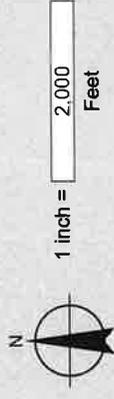


Exhibit 1 - Location Map

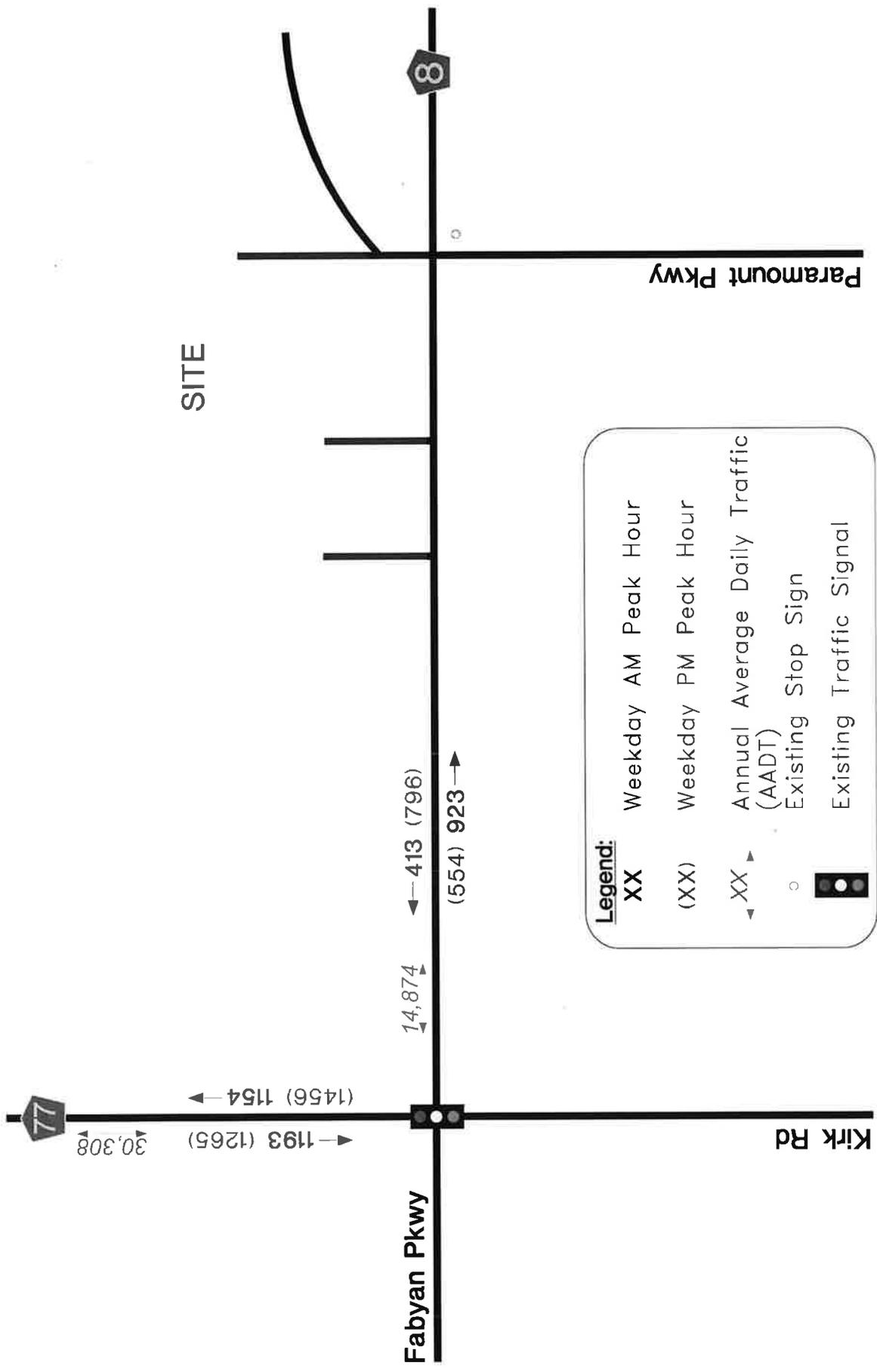
Genova Business Center
Geneva, IL



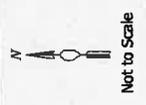
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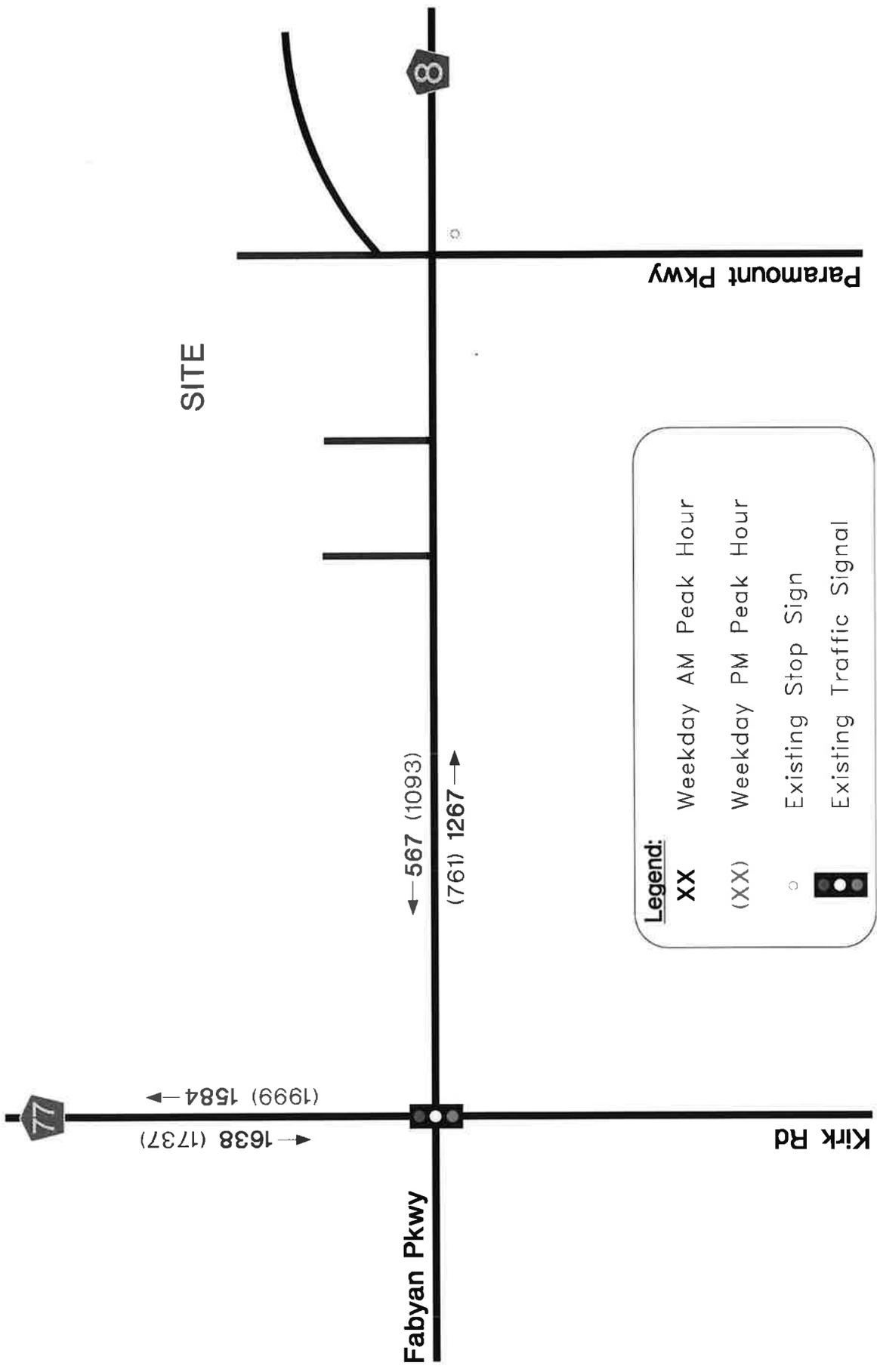
- Existing Travel Lane
- (S) Existing Stop Sign
- ⊠ Existing Traffic Signal
- Pedestrian Crosswalk
- 90 Existing Speed Limit





SITE

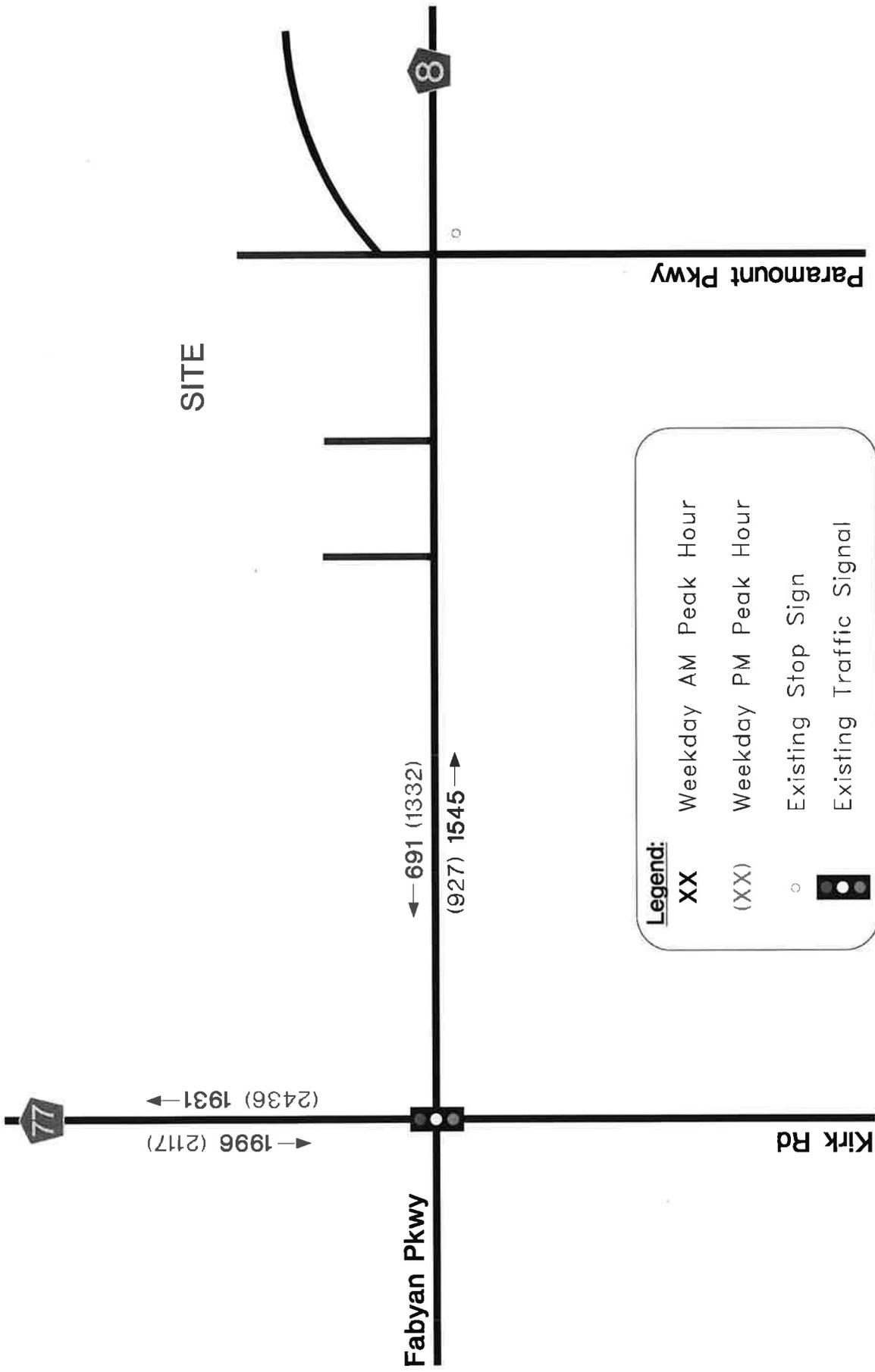




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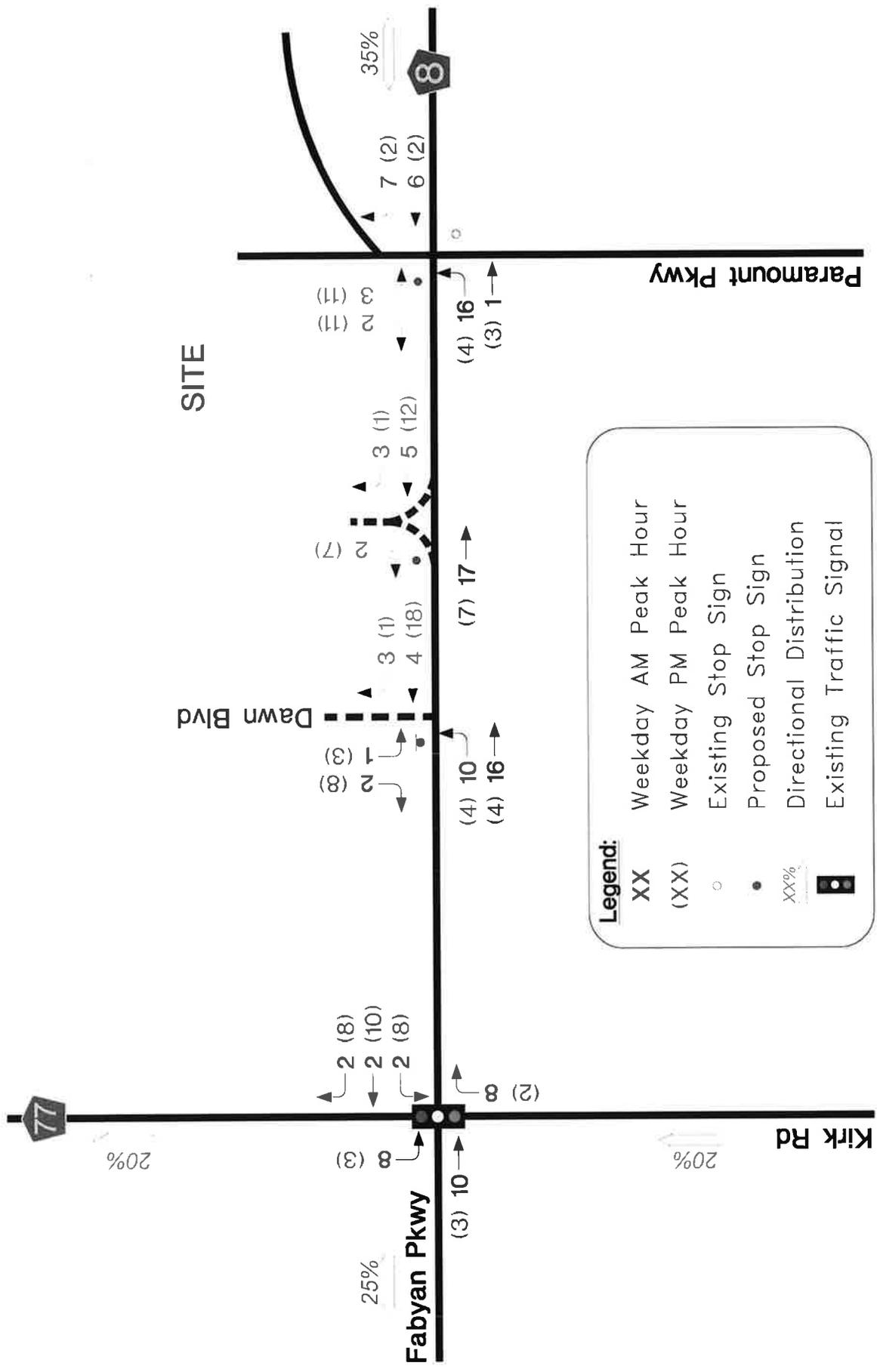
- XX Weekday AM Peak Hour
- (XX) Weekday PM Peak Hour
- Existing Stop Sign
- ◼ Existing Traffic Signal

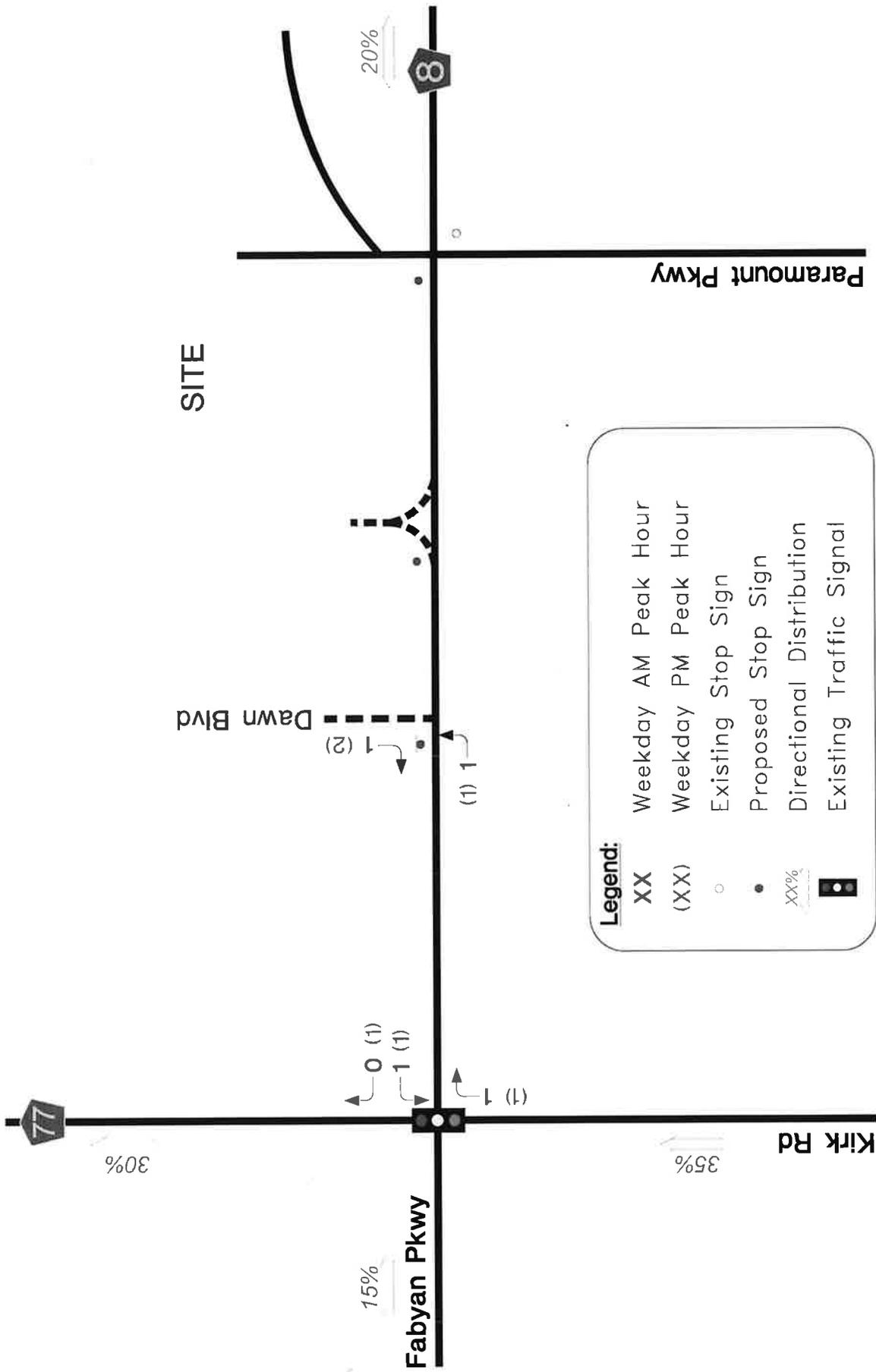




Not to Scale

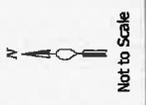
Exhibit 6A
Site Traffic
Phase I - Cars

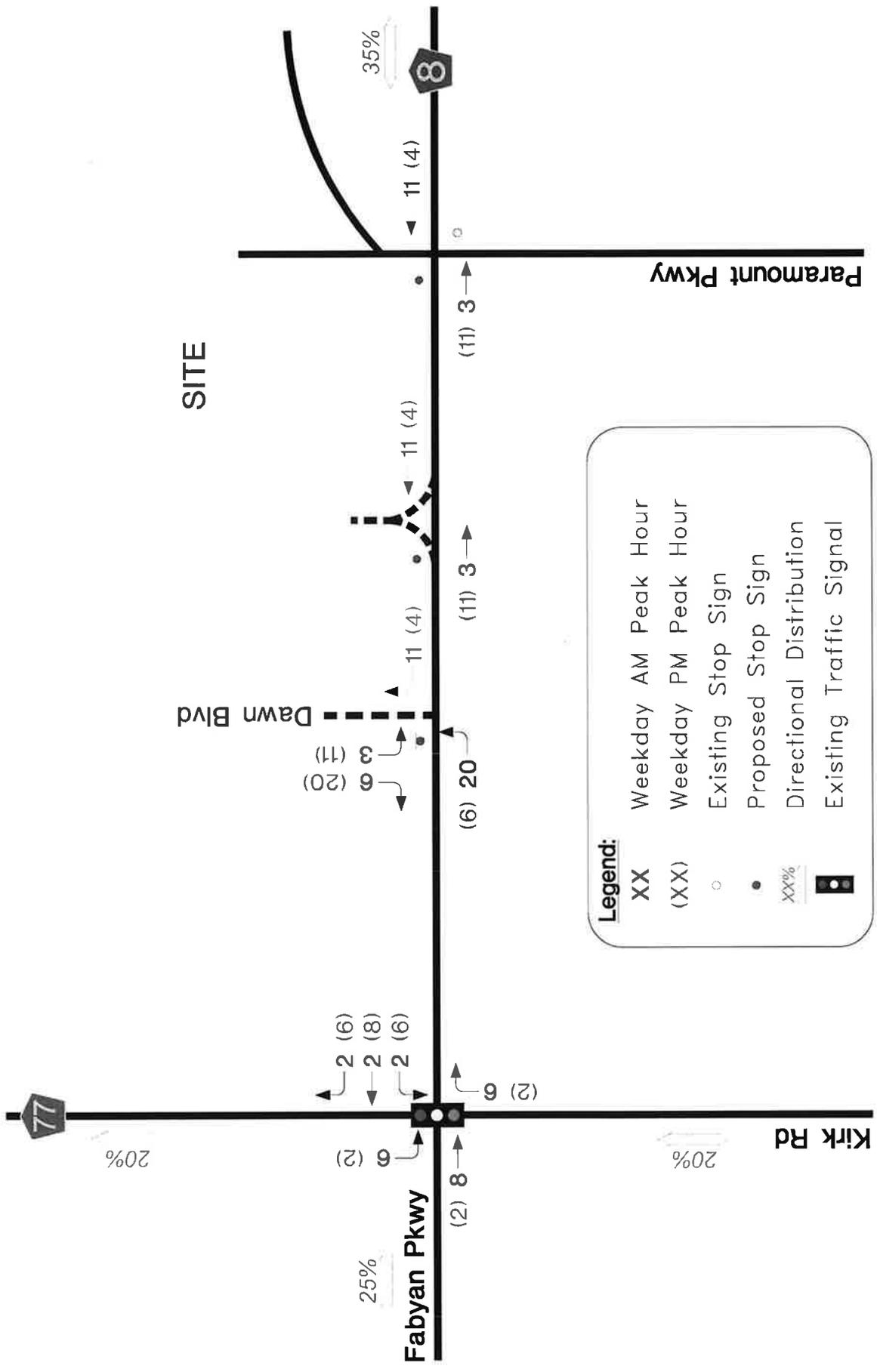




Legend:

- XX Weekday AM Peak Hour
- (XX) Weekday PM Peak Hour
- Existing Stop Sign
- Proposed Stop Sign
- XX% Directional Distribution
- ◼ Existing Traffic Signal





Legend:

- XX Weekday AM Peak Hour
- (XX) Weekday PM Peak Hour
- Existing Stop Sign
- Proposed Stop Sign
- XXX% Directional Distribution
- Existing Traffic Signal

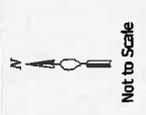
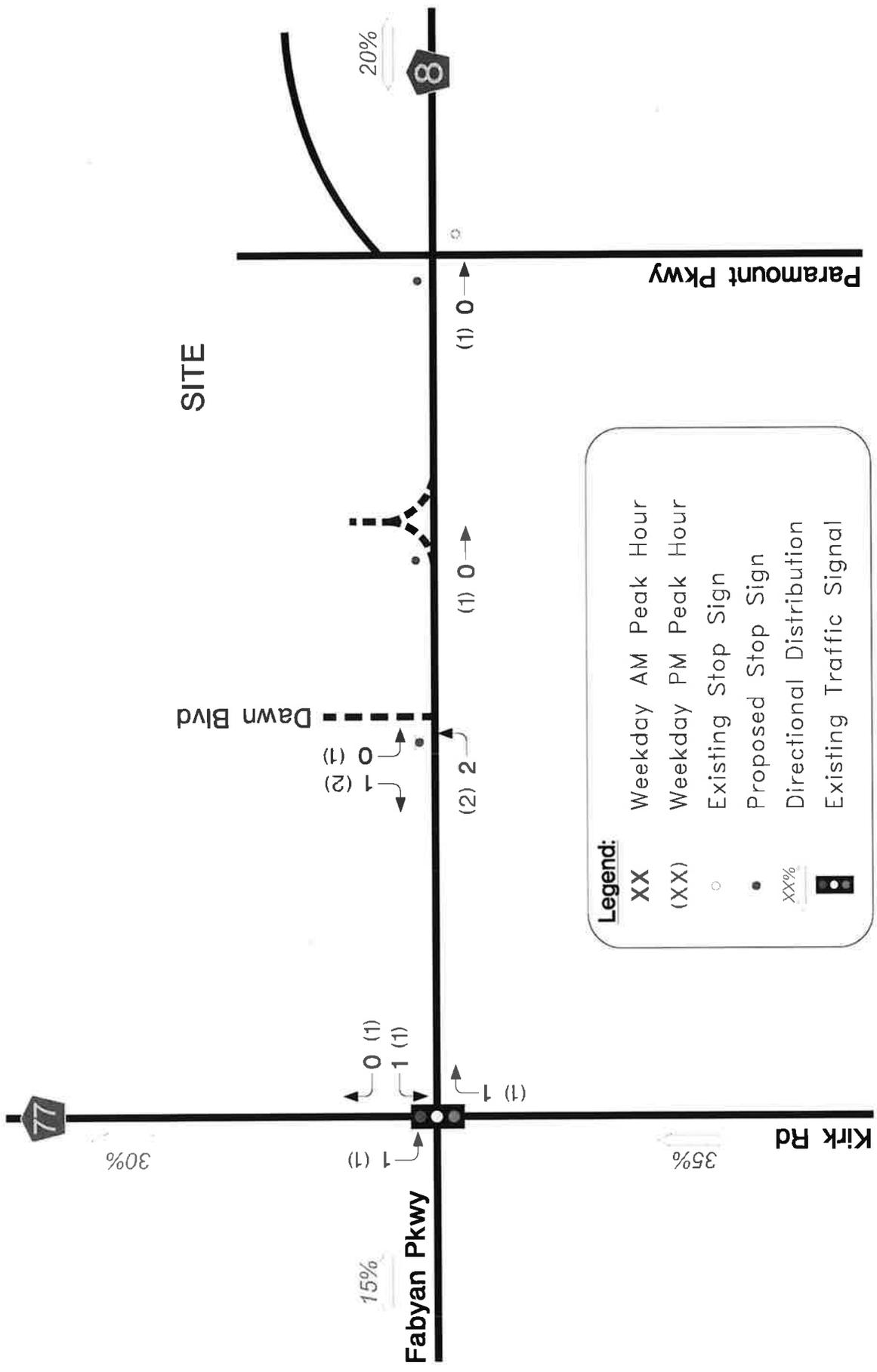
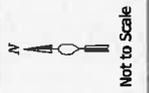
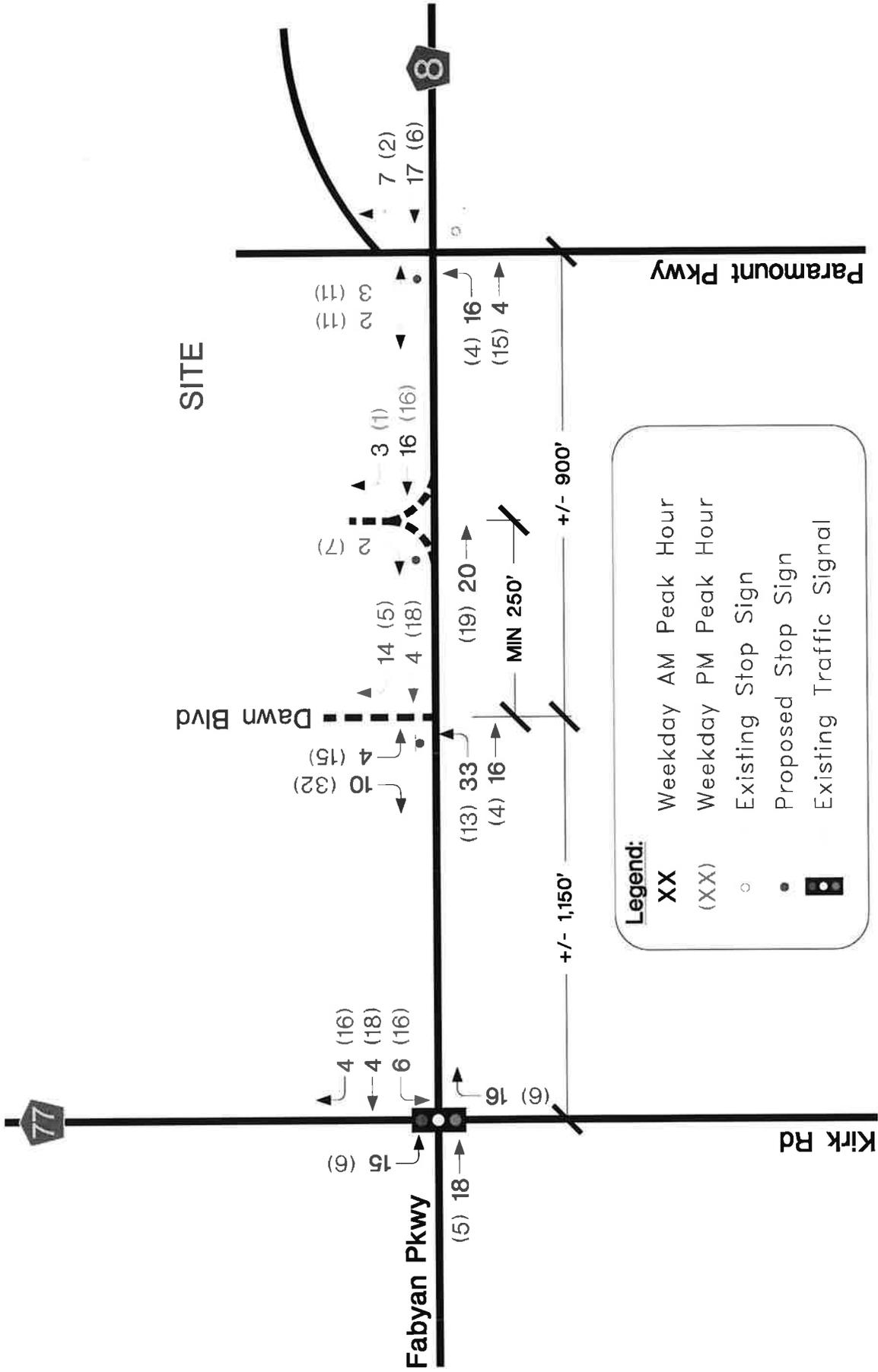
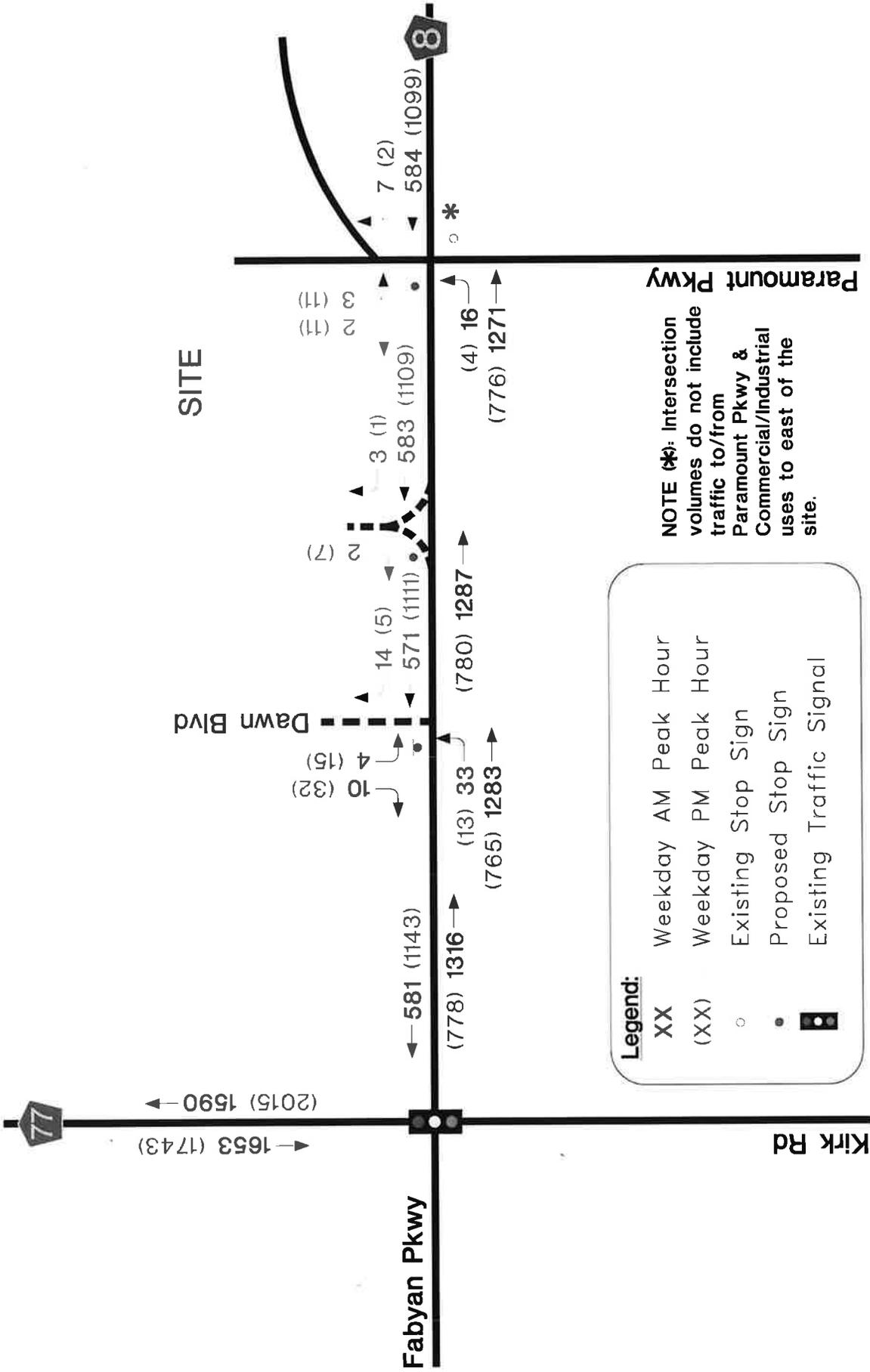
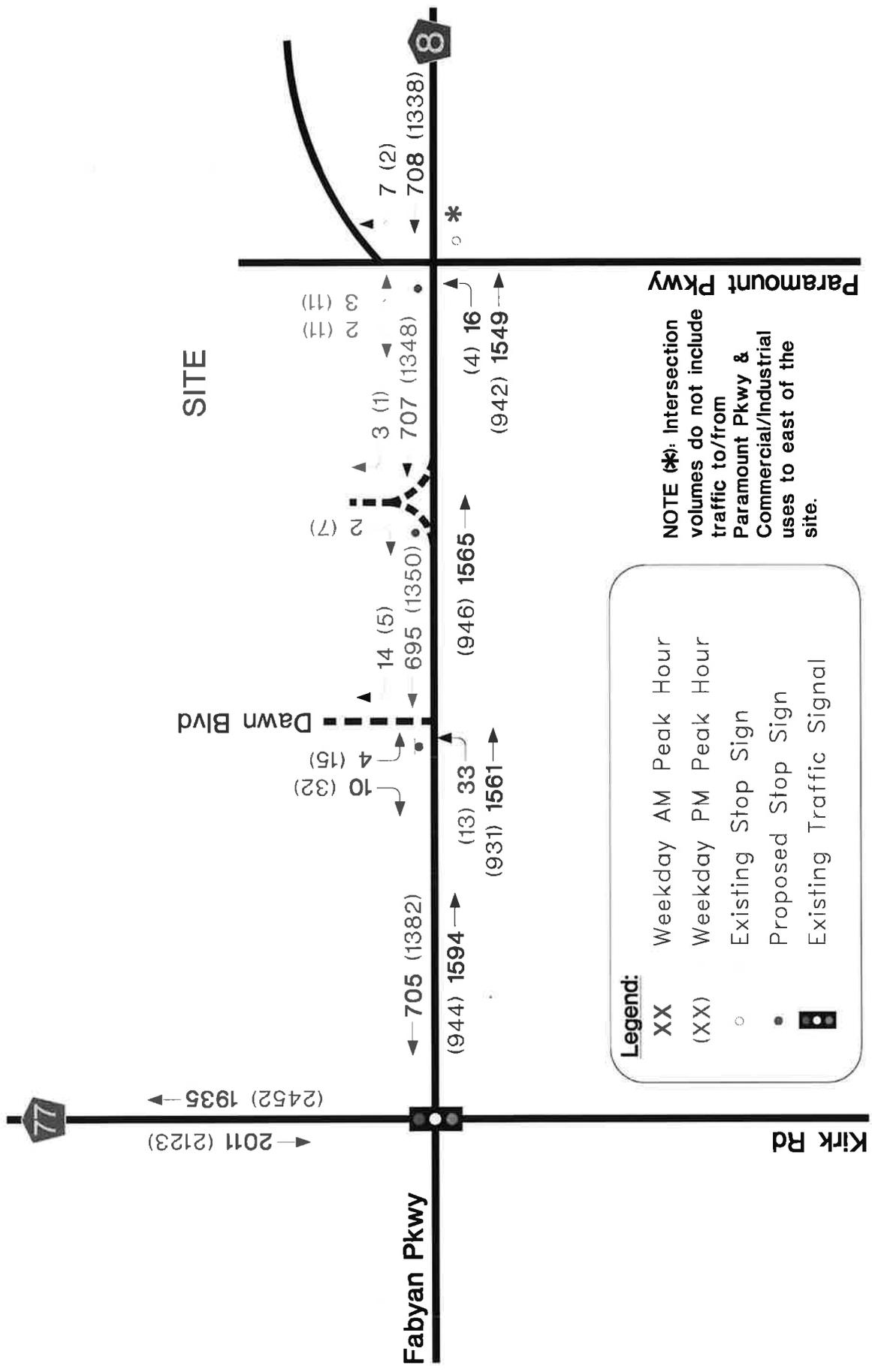


Exhibit 6D
Site Traffic
Phase II - Trucks









**Exhibit 9
Turn Lane Requirements
Geneva Business Center - Fabyan Parkway, Geneva, Illinois**

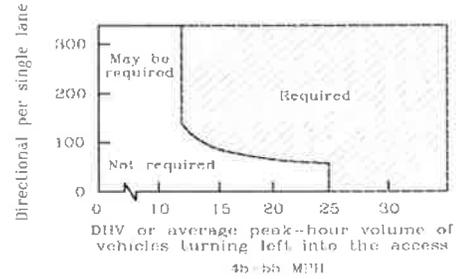
Part A. Parameters - Minimum Volume Required for Warranting Exclusive Lane

(Source: KDOT Permit Regulations and Access Control Regulations)

I. Right-turn Lane

Minimum Right-turn Volume Warranting Exclusive Lane (vph)					
Approach Lane Vol. (vph)	Posted Speed Limit - mph (km/h)				
	35 (56)	40 (64)	45 (72)	50 (81)	55 (89)
300	—	—	—	75	10
400	—	40	40	40	15
500	—	40	40	30	15
600	40	40	40	25	10
800	40	35	30	20	10
1200	15	20	20	15	10
1600	15	15	15	10	5
2000	10	10	10	10	5

II. Left-turn Lane



access points to a freeway. The installation of left-turn deceleration lanes shall be required for all full access points to an arterial where there are more than 12 left turns per peak hour.

Part B. Results

	Right-Turn Warrant			Left-Turn Warrant		
	WB Approach Total	WB Right Turns	Satisfied?	EB Approach Total	EB Left Turns	Satisfied?
1. Fabyan Pkwy at Dawn Blvd (West Site Access)						
Posted Speed Limit: 45 mph						
A. Weekday Morning Peak Hour						
2035 Total Traffic (See Exhibit 7)	585	14	NO	1316	33	YES
2045 Total Traffic (See Exhibit 8)	709	14	NO	1594	33	YES
B. Weekday Evening Peak Hour						
2035 Total Traffic (See Exhibit 7)	1116	5	NO	778	13	YES
2045 Total Traffic (See Exhibit 8)	1355	5	NO	944	13	YES
2. Fabyan Pkwy at Center Site RIRO Access						
Posted Speed Limit: 45 mph						
A. Weekday Morning Peak Hour						
2035 Total Traffic (See Exhibit 7)	586	3	NO			
2045 Total Traffic (See Exhibit 8)	710	3	NO			
B. Weekday Evening Peak Hour						
2035 Total Traffic (See Exhibit 7)	1110	1	NO			
2045 Total Traffic (See Exhibit 8)	1349	1	NO			
3. Fabyan Pkwy at East Access, Opposite Paramount **						
Posted Speed Limit: 45 mph						
A. Weekday Morning Peak Hour						
2035 Total Traffic (See Exhibit 7)	591	7	NO			
2045 Total Traffic (See Exhibit 8)	715	7	NO			
B. Weekday Evening Peak Hour						
2035 Total Traffic (See Exhibit 7)	1101	2	NO			
2045 Total Traffic (See Exhibit 8)	1340	2	NO			

** Note: Intersection volumes do not included traffic to/from Paramount Pkwy and commercial/industrial uses to east.

Appendices

Appendix A
IDS – Kirk Road and Fabyan Parkway

NOTES

1. ALL PROPOSED RIGHT OF WAY IS PRELIMINARY

MATCH LINE (SEE THIS SHEET BELOW)
FABYAN PARKWAY STA. 57+00



FABYAN PARKWAY

PROPOSED B-6.24
CURB & GUTTER

PROPOSED RAISED CONCRETE MEDIAN

FABYAN PARKWAY

MATCH LINE (SEE THIS SHEET ABOVE)
FABYAN PARKWAY STA. 57+00

MATCHLINE (SEE SHEET 1 OF 5)
FABYAN PARKWAY STA. 71+50



PROPOSED RAISED CONCRETE MEDIAN

PROPOSED B-6.24
CURB & GUTTER

PROPOSED RAISED CONCRETE MEDIAN

PROPOSED ROW

PROPOSED RAISED CONCRETE MEDIAN



PROPOSED B-6.24
CURB & GUTTER

FABYAN PARKWAY

MATCH LINE (SEE SHEET 1 OF 5)
FABYAN PARKWAY STA. 81+00

CE #3
PROPOSED ACCESS CONVERSIONS
RIGHT-IN/RIGHT-OUT ACCESS TO
UNSIGNIALIZED FULL ACCESS

FUTURE DAMN
BOULEVARD

END OF IMPROVEMENT STA. 82+40.00

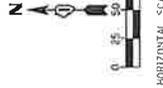
FABYAN PARKWAY

PROPOSED ROW

PROPOSED B-6.24
CURB & GUTTER

PROPOSED RAISED CONCRETE MEDIAN

EXIST. CURVE STA. FABYAN-1
PI STA. = 38+93.21
D = 334.00' (R)
P = 1.765' (S)
T = 519.03'
L = 1040.70'
E = 75.15'
TAN = 1.0000
S.E. RUN = 1000.00'
P.C. STA. = 5+27.23
P.T. STA. = 1019.28



DRAWING NO. _____
INTERSECTION DESIGN STUDY
 MAP ROUTE 210, LAREN ROAD - CR 271
 MAP ROUTE 253, FABYAN PARKWAY - CR 81
 SEC. NO. 12-03-02-02-01 PROJ. NO. P-10-05-212
 SCALE 1"=50' COUNTY NAME _____
 DATE _____ SHEET NO. _____
 DATE DOWNSHIP REVIEWED _____
 CAD FILE NAME _____
 REF FILE NAME _____
 TALK. SHEET 2 OF 5
 REVISION

Appendix B

KDOT Traffic Count Summaries

Time/Class Report

Device ID: 301596 Operator: GHA Begin: 10/29/2019 12:00 AM End: 10/30/2019 12:00 AM Hours: 24.00 Period (min): 15	Location: KIRK RD TO DUPAGE COUNTY LINE Lane: EB COMBINED Street: FABYAN PKWY City: AADT20190059 County: KANE State: IL	Raw Count: 7,888 AADT Count: 7,888 AADT Factor: 1 Speed Limit: 45			
Date And Time Range	< to 23	24 to 38	39 to 99	100 to >	Total

Date	<	24	39	100	to	to	>	Total
Tue, 10/29/2019								
[12:00 AM-12:15 AM]	16	0	0	0	0	0	0	16
[12:15 AM-12:30 AM]	8	0	0	0	0	0	0	8
[12:30 AM-12:45 AM]	3	1	0	0	0	0	0	4
[12:45 AM-01:00 AM]	4	1	0	0	0	0	0	5
[01:00 AM-01:15 AM]	31	2	0	0	0	0	0	33
[01:15 AM-01:30 AM]	12	0	0	0	0	0	0	12
[01:30 AM-01:45 AM]	4	0	0	0	0	0	0	4
[01:45 AM-02:00 AM]	3	0	2	0	0	0	0	5
[02:00 AM-02:15 AM]	9	2	0	0	0	0	0	11
[02:15 AM-02:30 AM]	28	2	2	0	0	0	0	32
[02:30 AM-02:45 AM]	7	2	2	0	0	0	0	11
[02:45 AM-03:00 AM]	8	0	0	0	0	0	0	8
[03:00 AM-03:15 AM]	8	0	0	0	0	0	0	8
[03:15 AM-03:30 AM]	3	0	2	0	0	0	0	5
[03:30 AM-03:45 AM]	26	2	4	0	0	0	0	32
[03:45 AM-04:00 AM]	5	0	1	0	0	0	0	6
[04:00 AM-04:15 AM]	2	0	0	0	0	0	0	2
[04:15 AM-04:30 AM]	13	0	0	0	0	0	0	13
[04:30 AM-04:45 AM]	11	1	0	0	0	0	0	12
[04:45 AM-05:00 AM]	31	1	1	0	0	0	0	33
[05:00 AM-05:15 AM]	26	1	0	0	0	0	0	27
[05:15 AM-05:30 AM]	34	1	2	0	0	0	0	37
[05:30 AM-05:45 AM]	52	3	1	0	0	0	0	56
[05:45 AM-06:00 AM]	64	3	0	0	0	0	0	67
[06:00 AM-06:15 AM]	176	8	3	0	0	0	0	187
[06:15 AM-06:30 AM]	52	2	1	0	0	0	0	55
[06:30 AM-06:45 AM]	80	4	2	0	0	0	0	86
[06:45 AM-07:00 AM]	132	6	3	0	0	0	0	141
[07:00 AM-07:15 AM]	168	7	4	0	0	0	0	179
[07:15 AM-07:30 AM]	432	19	10	0	0	0	0	461
[07:30 AM-07:45 AM]	98	8	2	0	0	0	0	108
[07:45 AM-08:00 AM]	160	20	7	0	0	0	0	187
[08:00 AM-08:15 AM]	192	13	4	0	0	0	0	209
[08:15 AM-08:30 AM]	222	13	8	0	0	0	0	243

Time/Class Report

Device ID: 301596 Operator: GHA Begin: 10/29/2019 12:00 AM End: 10/30/2019 12:00 AM Hours: 24.00 Period (min): 15	Location: KIRK RD TO DUPAGE COUNTY LINE Lane: EB COMBINED Street: FABYAN PKWY City: AADT20190059 County: KANE State: IL	Raw Count: 7,888 AADT Count: 7,888 AADT Factor: 1 Speed Limit: 45			
Date And Time Range	< to 23	24 to 38	39 to 99	100 to >	Total

Tue, 10/29/2019					
Time Range	<	24	39	100	Total
Time Range	23	38	99	>	
[07:00 AM-07:15 AM]	672	54	21	0	747
[07:15 AM-07:30 AM]	197	6	10	0	213
[07:30 AM-07:45 AM]	203	9	5	0	217
[07:45 AM-08:00 AM]	245	9	8	0	262
	211	12	8	0	231
[08:00 AM-08:15 AM]	856	36	31	0	923
[08:15 AM-08:30 AM]	183	9	14	0	206
[08:30 AM-08:45 AM]	172	4	7	0	183
[08:45 AM-09:00 AM]	121	10	7	0	138
	117	13	5	0	135
[09:00 AM-09:15 AM]	593	36	33	0	662
[09:15 AM-09:30 AM]	99	5	4	0	108
[09:30 AM-09:45 AM]	71	7	5	0	83
[09:45 AM-10:00 AM]	89	7	11	0	107
	71	3	8	0	82
[10:00 AM-10:15 AM]	330	22	28	0	380
[10:15 AM-10:30 AM]	59	2	5	0	66
[10:30 AM-10:45 AM]	65	8	6	0	79
[10:45 AM-11:00 AM]	65	5	6	0	76
	63	5	4	0	72
[11:00 AM-11:15 AM]	252	20	21	0	293
[11:15 AM-11:30 AM]	58	7	7	0	72
[11:30 AM-11:45 AM]	71	3	9	0	83
[11:45 AM-12:00 PM]	74	7	13	0	94
	71	6	5	0	82
[12:00 PM-12:15 PM]	274	23	34	0	331
[12:15 PM-12:30 PM]	80	10	8	0	98
[12:30 PM-12:45 PM]	73	5	5	0	83
[12:45 PM-01:00 PM]	66	3	6	0	75
	92	4	9	0	105
[01:00 PM-01:15 PM]	311	22	28	0	361
[01:15 PM-01:30 PM]	72	7	6	0	85
[01:30 PM-01:45 PM]	84	8	8	0	100
	67	6	7	0	80

Time/Class Report

Device ID: 301596 Operator: GHA Begin: 10/29/2019 12:00 AM End: 10/30/2019 12:00 AM Hours: 24.00 Period (min): 15	Location: KIRK RD TO DUPAGE COUNTY LINE Lane: EB COMBINED Street: FABYAN PKWY City: AADT20190059 County: KANE State: IL	Raw Count: 7,888 AADT Count: 7,888 AADT Factor: 1 Speed Limit: 45																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Date</th> <th style="text-align: center;"><</th> <th style="text-align: center;">24</th> <th style="text-align: center;">39</th> <th style="text-align: center;">100</th> </tr> <tr> <th style="text-align: left;">And</th> <th style="text-align: center;">to</th> <th style="text-align: center;">to</th> <th style="text-align: center;">to</th> <th style="text-align: center;">></th> </tr> <tr> <th style="text-align: left;">Time Range</th> <th style="text-align: center;">23</th> <th style="text-align: center;">38</th> <th style="text-align: center;">99</th> <th style="text-align: center;">></th> </tr> </thead> <tbody> <tr> <td style="text-align: right;">Total</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Date	<	24	39	100	And	to	to	to	>	Time Range	23	38	99	>	Total						
Date	<	24	39	100																		
And	to	to	to	>																		
Time Range	23	38	99	>																		
Total																						

Date	<	24	39	100
And	to	to	to	>
Time Range	23	38	99	>
Tue, 10/29/2019				
[01:45 PM-02:00 PM]	79	8	6	0
	302	29	27	0
[02:00 PM-02:15 PM]	69	14	7	0
[02:15 PM-02:30 PM]	107	8	10	0
[02:30 PM-02:45 PM]	134	6	10	0
[02:45 PM-03:00 PM]	125	10	7	0
	435	38	34	0
[03:00 PM-03:15 PM]	110	10	5	0
[03:15 PM-03:30 PM]	90	7	5	0
[03:30 PM-03:45 PM]	120	6	10	0
[03:45 PM-04:00 PM]	105	11	3	0
	425	34	23	0
[04:00 PM-04:15 PM]	126	11	4	0
[04:15 PM-04:30 PM]	103	5	10	0
[04:30 PM-04:45 PM]	142	4	8	0
[04:45 PM-05:00 PM]	98	5	3	0
	469	25	25	0
[05:00 PM-05:15 PM]	148	4	2	0
[05:15 PM-05:30 PM]	129	6	5	0
[05:30 PM-05:45 PM]	94	4	4	0
[05:45 PM-06:00 PM]	78	6	5	0
	449	20	16	0
[06:00 PM-06:15 PM]	79	6	2	0
[06:15 PM-06:30 PM]	70	3	2	0
[06:30 PM-06:45 PM]	71	4	0	0
[06:45 PM-07:00 PM]	62	4	2	0
	282	17	6	0
[07:00 PM-07:15 PM]	61	5	2	0
[07:15 PM-07:30 PM]	41	2	0	0
[07:30 PM-07:45 PM]	47	0	2	0
[07:45 PM-08:00 PM]	27	3	0	0
	176	10	4	0
[08:00 PM-08:15 PM]	43	0	1	0
[08:15 PM-08:30 PM]	43	1	1	0

Time/Class Report

Device ID: 301586 Operator: GHA Begin: 10/29/2019 12:00 AM End: 10/30/2019 12:00 AM Hours: 24.00 Period (min): 15	Location: KIRK RD TO DUPAGE COUNTY LINE Lane: EB COMBINED Street: FABYAN PKWY City: AADT20190059 County: KANE State: IL	Raw Count: 7,888 AADT Count: 7,888 AADT Factor: 1 Speed Limit: 45
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Date	<		24		39		100		Total
	to	to	to	to	to	to	to		
Time Range	23	38	99	>					
Tue, 10/29/2019									
[08:30 PM-08:45 PM]	43	1	0	0	0	0	0	0	44
[08:45 PM-09:00 PM]	36	0	2	0	0	0	0	0	38
	165	2	4	0	0	0	0	0	171
[09:00 PM-09:15 PM]	21	2	2	0	0	0	0	0	25
[09:15 PM-09:30 PM]	30	0	1	0	0	0	0	0	31
[09:30 PM-09:45 PM]	35	1	0	0	0	0	0	0	36
[09:45 PM-10:00 PM]	27	0	0	0	0	0	0	0	27
	113	3	3	0	0	0	0	0	119
[10:00 PM-10:15 PM]	26	0	0	0	0	0	0	0	26
[10:15 PM-10:30 PM]	36	0	0	0	0	0	0	0	36
[10:30 PM-10:45 PM]	41	2	0	0	0	0	0	0	43
[10:45 PM-11:00 PM]	30	2	2	0	0	0	0	0	34
	133	4	2	0	0	0	0	0	139
[11:00 PM-11:15 PM]	29	1	0	0	0	0	0	0	30
[11:15 PM-11:30 PM]	17	0	1	0	0	0	0	0	18
[11:30 PM-11:45 PM]	11	1	2	0	0	0	0	0	14
[11:45 PM-12:00 AM]	7	0	0	0	0	0	0	0	7
	64	2	3	0	0	0	0	0	69
10/29/2019 12:00 AM									
10/30/2019 12:00 AM	7025	431	363	0	0	0	0	0	7819

Time/Class Report

Device ID: 302134 Operator: GHA Begin: 10/29/2019 12:00 AM End: 10/30/2019 12:00 AM Hours: 24.00 Period (min): 15	Location: KIRK RD TO DUPAGE COUNTY LINE Lane: WB COMBINED Street: FABYAN PKWY City: AADT20190059 County: KANE State: IL	Raw Count: 7,072 AADT Count: 7,072 AADT Factor: 1 Speed Limit: 45
--	--	--

Date	<	24	39	100		to	to	to	>	Total
Time Range	23	38	99	>						
Tue, 10/29/2019										
[12:00 AM-12:15 AM]	18	0	0	0	0	0	0	0	0	18
[12:15 AM-12:30 AM]	11	0	1	0	0	0	0	0	0	12
[12:30 AM-12:45 AM]	10	0	0	0	0	0	0	0	0	10
[12:45 AM-01:00 AM]	11	1	1	0	0	0	0	0	0	13
[01:00 AM-01:15 AM]	50	1	2	0	0	0	0	0	0	53
[01:15 AM-01:30 AM]	7	0	0	0	0	0	0	0	0	7
[01:30 AM-01:45 AM]	10	0	0	0	0	0	0	0	0	10
[01:45 AM-02:00 AM]	5	1	0	0	0	0	0	0	0	6
[02:00 AM-02:15 AM]	8	0	0	0	0	0	0	0	0	8
[02:15 AM-02:30 AM]	30	1	0	0	0	0	0	0	0	31
[02:30 AM-02:45 AM]	4	0	1	0	0	0	0	0	0	5
[02:45 AM-03:00 AM]	4	0	1	0	0	0	0	0	0	5
[03:00 AM-03:15 AM]	2	0	0	0	0	0	0	0	0	2
[03:15 AM-03:30 AM]	5	1	0	0	0	0	0	0	0	6
[03:30 AM-03:45 AM]	15	1	2	0	0	0	0	0	0	18
[03:45 AM-04:00 AM]	4	0	0	0	0	0	0	0	0	4
[04:00 AM-04:15 AM]	4	0	2	0	0	0	0	0	0	6
[04:15 AM-04:30 AM]	8	0	2	0	0	0	0	0	0	10
[04:30 AM-04:45 AM]	16	1	0	0	0	0	0	0	0	17
[04:45 AM-05:00 AM]	32	1	4	0	0	0	0	0	0	37
[05:00 AM-05:15 AM]	7	2	0	0	0	0	0	0	0	9
[05:15 AM-05:30 AM]	11	0	1	0	0	0	0	0	0	12
[05:30 AM-05:45 AM]	23	2	1	0	0	0	0	0	0	26
[05:45 AM-06:00 AM]	12	2	1	0	0	0	0	0	0	15
[06:00 AM-06:15 AM]	53	6	3	0	0	0	0	0	0	62
[06:15 AM-06:30 AM]	21	1	1	0	0	0	0	0	0	23
[06:30 AM-06:45 AM]	23	1	1	0	0	0	0	0	0	25
[06:45 AM-07:00 AM]	72	1	2	0	0	0	0	0	0	75
[07:00 AM-07:15 AM]	69	1	4	0	0	0	0	0	0	74
[07:15 AM-07:30 AM]	185	4	8	0	0	0	0	0	0	197
[07:30 AM-07:45 AM]	78	3	1	0	0	0	0	0	0	82
[07:45 AM-08:00 AM]	88	6	2	0	0	0	0	0	0	96
[08:00 AM-08:15 AM]	69	4	2	0	0	0	0	0	0	75
[08:15 AM-08:30 AM]	91	6	3	0	0	0	0	0	0	100

Time/Class Report

Device ID: 302134 Operator: GHA Begin: 10/29/2019 12:00 AM End: 10/30/2019 12:00 AM Hours: 24.00 Period (min): 15	Location: KIRK RD TO DUPAGE COUNTY LINE Lane: WB COMBINED Street: FABYAN PKWY City: AADT20190059 County: KANE State: IL
Raw Count: 7,072 AADT Count: 7,072 AADT Factor: 1 Speed Limit: 45	

Date	<	24	39	100				Total
Time Range	to	to	to	to	99	>		
Tue, 10/29/2019								
[01:45 PM-02:00 PM]	97	5	5	0	0	0	107	
	346	26	22	0	0	0	394	
[02:00 PM-02:15 PM]	107	8	11	0	0	0	126	
[02:15 PM-02:30 PM]	107	10	9	0	0	0	126	
[02:30 PM-02:45 PM]	133	16	4	0	0	0	153	
[02:45 PM-03:00 PM]	128	11	7	0	0	0	146	
	475	45	31	0	0	0	551	
[03:00 PM-03:15 PM]	154	6	7	0	0	0	167	
[03:15 PM-03:30 PM]	126	2	7	0	0	0	135	
[03:30 PM-03:45 PM]	228	10	10	0	0	0	248	
[03:45 PM-04:00 PM]	196	5	6	0	0	0	207	
	704	23	30	0	0	0	757	
[04:00 PM-04:15 PM]	176	3	5	0	0	0	184	
[04:15 PM-04:30 PM]	173	7	5	0	0	0	185	
[04:30 PM-04:45 PM]	180	5	4	0	0	0	189	
[04:45 PM-05:00 PM]	183	4	7	0	0	0	194	
	712	19	21	0	0	0	752	
[05:00 PM-05:15 PM]	193	5	3	0	0	0	201	
[05:15 PM-05:30 PM]	204	5	3	0	0	0	212	
[05:30 PM-05:45 PM]	156	3	2	0	0	0	161	
[05:45 PM-06:00 PM]	158	0	3	0	0	0	161	
	711	13	11	0	0	0	735	
[06:00 PM-06:15 PM]	121	6	2	0	0	0	129	
[06:15 PM-06:30 PM]	112	1	2	0	0	0	115	
[06:30 PM-06:45 PM]	103	0	2	0	0	0	105	
[06:45 PM-07:00 PM]	84	4	6	0	0	0	94	
	420	11	12	0	0	0	443	
[07:00 PM-07:15 PM]	59	2	1	0	0	0	62	
[07:15 PM-07:30 PM]	73	0	1	0	0	0	74	
[07:30 PM-07:45 PM]	55	2	1	0	0	0	58	
[07:45 PM-08:00 PM]	44	0	2	0	0	0	46	
	231	4	5	0	0	0	240	
[08:00 PM-08:15 PM]	41	0	2	0	0	0	43	
[08:15 PM-08:30 PM]	53	0	1	0	0	0	54	

Time/Class Report

Device ID: 302134		Location: KIRK RD TO DUPAGE COUNTY LINE		Raw Count: 7,072		
Operator: GHA		Lane: WB COMBINED		AADT Count: 7,072		
Begin: 10/29/2019 12:00 AM		Street: FABYAN PKWY		AADT Factor: 1		
End: 10/30/2019 12:00 AM		City: AADT20190059		Speed Limit: 45		
Hours: 24.00		County: KANE				
Period (min): 15		State: IL				
		<	24	39	100	
		to	to	to	to	>
		23	38	99	99	Total
Tue, 10/29/2019						
[08:30 PM-08:45 PM]	40	1	3	0	0	44
[08:45 PM-09:00 PM]	36	1	2	0	0	39
	170	2	8	0	0	180
[09:00 PM-09:15 PM]	36	0	0	0	0	36
[09:15 PM-09:30 PM]	29	1	2	0	0	32
[09:30 PM-09:45 PM]	37	1	1	0	0	39
[09:45 PM-10:00 PM]	30	1	0	0	0	31
	132	3	3	0	0	138
[10:00 PM-10:15 PM]	32	1	0	0	0	33
[10:15 PM-10:30 PM]	21	0	1	0	0	22
[10:30 PM-10:45 PM]	20	0	0	0	0	20
[10:45 PM-11:00 PM]	21	1	0	0	0	22
	94	2	1	0	0	97
[11:00 PM-11:15 PM]	28	1	2	0	0	31
[11:15 PM-11:30 PM]	20	0	0	0	0	20
[11:30 PM-11:45 PM]	14	0	1	0	0	15
[11:45 PM-12:00 AM]	13	0	2	0	0	15
	75	1	5	0	0	81
10/29/2019 12:00 AM						
10/30/2019 12:00 AM						
	6411	313	331	0	0	7055

Time/Class Report

Device ID: 304300 Operator: GHA Begin: 10/29/2019 12:00 AM End: 10/30/2019 12:00 AM Hours: 24.00 Period (min): 15	Location: CHERRY LN TO FABYAN PKWY Lane: NB COMBINED Street: KIRK RD City: AADT20190111 County: KANE State: IL	Raw Count: 15,738 AADT Count: 15,738 AADT Factor: 1 Speed Limit: 45			
Date And Time Range	< to 23	24 to 38	39 to 99	100 to >	Total

Date	<	24	to	39	to	100	>	Total
Tue, 10/29/2019								
[12:00 AM-12:15 AM]	28	0	1	0	0	0	0	29
[12:15 AM-12:30 AM]	11	0	0	0	0	0	0	11
[12:30 AM-12:45 AM]	17	0	1	0	0	0	0	18
[12:45 AM-01:00 AM]	12	0	2	0	0	0	0	14
[01:00 AM-01:15 AM]	68	0	4	0	0	0	0	72
[01:15 AM-01:30 AM]	16	0	2	0	0	0	0	18
[01:30 AM-01:45 AM]	13	0	1	0	0	0	0	14
[01:45 AM-02:00 AM]	13	0	1	0	0	0	0	14
[02:00 AM-02:15 AM]	11	1	1	0	0	0	0	13
[02:15 AM-02:30 AM]	53	1	5	0	0	0	0	59
[02:30 AM-02:45 AM]	11	0	1	0	0	0	0	12
[02:45 AM-03:00 AM]	9	1	0	0	0	0	0	10
[03:00 AM-03:15 AM]	9	0	1	0	0	0	0	10
[03:15 AM-03:30 AM]	17	0	1	0	0	0	0	18
[03:30 AM-03:45 AM]	46	1	3	0	0	0	0	50
[03:45 AM-04:00 AM]	11	0	3	0	0	0	0	14
[04:00 AM-04:15 AM]	17	2	3	0	0	0	0	22
[04:15 AM-04:30 AM]	43	0	1	0	0	0	0	44
[04:30 AM-04:45 AM]	34	1	3	0	0	0	0	38
[04:45 AM-05:00 AM]	105	3	10	0	0	0	0	118
[05:00 AM-05:15 AM]	36	3	0	0	0	0	0	39
[05:15 AM-05:30 AM]	56	2	3	0	0	0	0	61
[05:30 AM-05:45 AM]	99	6	0	0	0	0	0	105
[05:45 AM-06:00 AM]	104	1	3	0	0	0	0	108
[06:00 AM-06:15 AM]	295	12	6	0	0	0	0	313
[06:15 AM-06:30 AM]	94	6	1	0	0	0	0	101
[06:30 AM-06:45 AM]	143	9	7	0	0	0	0	159
[06:45 AM-07:00 AM]	211	10	5	0	0	0	0	226
[07:00 AM-07:15 AM]	231	6	8	0	0	0	0	245
[07:15 AM-07:30 AM]	679	31	21	0	0	0	0	731
[07:30 AM-07:45 AM]	178	9	5	0	0	0	0	192
[07:45 AM-08:00 AM]	205	26	10	0	0	0	0	241
[08:00 AM-08:15 AM]	240	11	14	0	0	0	0	265
[08:15 AM-08:30 AM]	307	9	12	0	0	0	0	328

Time/Class Report

Device ID: 304300 Operator: GHA Begin: 10/29/2019 12:00 AM End: 10/30/2019 12:00 AM Hours: 24:00 Period (min): 15	Location: CHERRY LN TO FABYAN PKWY Lane: NB COMBINED Street: KIRK RD City: AADT20190111 County: KANE State: IL	Raw Count: 15,738 AADT Count: 15,738 AADT Factor: 1 Speed Limit: 45			
Date And Time Range	< to 23	24 to 38	39 to 99	100 to >	Total

Tue, 10/29/2019					
Time Range	<	to	to	>	Total
[07:00 AM-07:15 AM]	930	55	41	0	1026
[07:15 AM-07:30 AM]	218	6	8	0	232
[07:30 AM-07:45 AM]	256	8	4	0	268
[07:45 AM-08:00 AM]	284	6	9	0	299
	275	9	9	0	293
	1033	29	30	0	1092
[08:00 AM-08:15 AM]	272	14	8	0	294
[08:15 AM-08:30 AM]	216	7	14	0	237
[08:30 AM-08:45 AM]	226	18	12	0	256
[08:45 AM-09:00 AM]	210	8	14	0	232
	924	47	48	0	1019
[09:00 AM-09:15 AM]	156	7	12	0	175
[09:15 AM-09:30 AM]	132	19	16	0	167
[09:30 AM-09:45 AM]	168	12	22	0	202
[09:45 AM-10:00 AM]	143	10	15	0	168
	599	48	65	0	712
[10:00 AM-10:15 AM]	137	9	16	0	162
[10:15 AM-10:30 AM]	137	8	12	0	157
[10:30 AM-10:45 AM]	159	16	17	0	192
[10:45 AM-11:00 AM]	131	13	15	0	159
	564	46	60	0	670
[11:00 AM-11:15 AM]	144	7	14	0	165
[11:15 AM-11:30 AM]	147	17	8	0	172
[11:30 AM-11:45 AM]	173	10	15	0	198
[11:45 AM-12:00 PM]	140	12	19	0	171
	604	46	56	0	706
[12:00 PM-12:15 PM]	169	11	11	0	191
[12:15 PM-12:30 PM]	160	7	8	0	175
[12:30 PM-12:45 PM]	161	8	16	0	185
[12:45 PM-01:00 PM]	167	14	14	0	195
	657	40	49	0	746
[01:00 PM-01:15 PM]	180	10	20	0	210
[01:15 PM-01:30 PM]	180	11	12	0	203
[01:30 PM-01:45 PM]	187	9	14	0	210

Time/Class Report

Device ID: 304300 Operator: GHA Begin: 10/29/2019 12:00 AM End: 10/30/2019 12:00 AM Hours: 24.00 Period (min): 15	Location: CHERRY LN TO FABYAN PKWY Lane: NB COMBINED Street: KIRK RD City: AADT20190111 County: KANE State: IL	Raw Count: 15,738 AADT Count: 15,738 AADT Factor: 1 Speed Limit: 45
--	---	--

Date	<	24	39	100	Total
Time Range	23	38	99	>	
Tue, 10/29/2019					
[01:45 PM-02:00 PM]	179	14	21	0	214
[02:00 PM-02:15 PM]	726	44	67	0	837
[02:15 PM-02:30 PM]	195	8	7	0	210
[02:30 PM-02:45 PM]	183	9	13	0	205
[02:45 PM-03:00 PM]	241	12	10	0	263
[03:00 PM-03:15 PM]	216	7	16	0	239
[03:15 PM-03:30 PM]	835	36	46	0	917
[03:30 PM-03:45 PM]	267	11	18	0	296
[03:45 PM-04:00 PM]	242	13	15	0	270
[04:00 PM-04:15 PM]	301	8	15	0	324
[04:15 PM-04:30 PM]	282	5	16	0	303
[04:30 PM-04:45 PM]	1092	37	64	0	1193
[04:45 PM-05:00 PM]	347	10	18	0	375
[05:00 PM-05:15 PM]	334	8	9	0	351
[05:15 PM-05:30 PM]	361	7	9	0	377
[05:30 PM-05:45 PM]	333	5	12	0	350
[05:45 PM-06:00 PM]	1375	30	48	0	1453
[06:00 PM-06:15 PM]	359	6	9	0	374
[06:15 PM-06:30 PM]	340	5	10	0	355
[06:30 PM-06:45 PM]	317	3	3	0	323
[06:45 PM-07:00 PM]	281	4	4	0	289
[07:00 PM-07:15 PM]	1297	18	26	0	1341
[07:15 PM-07:30 PM]	228	7	10	0	245
[07:30 PM-07:45 PM]	233	3	13	0	249
[07:45 PM-08:00 PM]	192	1	4	0	197
[08:00 PM-08:15 PM]	210	3	9	0	222
[08:15 PM-08:30 PM]	863	14	36	0	913
[08:30 PM-08:45 PM]	132	3	6	0	141
[08:45 PM-09:00 PM]	130	3	4	0	137
[09:00 PM-09:15 PM]	120	5	3	0	128
[09:15 PM-09:30 PM]	121	2	6	0	129
[09:30 PM-09:45 PM]	503	13	19	0	535
[09:45 PM-10:00 PM]	96	2	1	0	99
[10:00 PM-10:15 PM]	83	4	2	0	89

Time/Class Report

Device ID: 1580 Operator: GHA Begin: 10/29/2019 12:00 AM End: 10/30/2019 12:00 AM Hours: 24.00 Period (min): 15	Location: CHERRY LN TO FABYAN PKWY Lane: SB COMBINED Street: KIRK RD City: AADT20190111 County: KANE State: IL	Raw Count: 14,758 AADT Count: 14,758 AADT Factor: 1 Speed Limit: 45														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Date And Time Range</th> <th style="text-align: center;">< to</th> <th style="text-align: center;">24 to</th> <th style="text-align: center;">39 to</th> <th style="text-align: center;">100 to</th> <th style="text-align: center;">></th> <th style="text-align: right;">Total</th> </tr> <tr> <th style="text-align: left;">Time Range</th> <th style="text-align: center;">23</th> <th style="text-align: center;">38</th> <th style="text-align: center;">99</th> <th style="text-align: center;">></th> <th></th> <th></th> </tr> </thead> </table>	Date And Time Range	< to	24 to	39 to	100 to	>	Total	Time Range	23	38	99	>				
Date And Time Range	< to	24 to	39 to	100 to	>	Total										
Time Range	23	38	99	>												

Date And Time Range	< to	24 to	39 to	100 to	>	Total
Time Range	23	38	99	>		
Tue, 10/29/2019						
[12:00 AM-12:15 AM]	44	3	0	0	0	47
[12:15 AM-12:30 AM]	30	0	1	0	0	31
[12:30 AM-12:45 AM]	31	1	2	0	0	34
[12:45 AM-01:00 AM]	17	1	0	0	0	18
	122	5	3	0	0	130
[01:00 AM-01:15 AM]	19	0	0	0	0	19
[01:15 AM-01:30 AM]	21	0	2	0	0	23
[01:30 AM-01:45 AM]	13	1	3	0	0	17
[01:45 AM-02:00 AM]	17	0	1	0	0	18
	70	1	6	0	0	77
[02:00 AM-02:15 AM]	24	0	1	0	0	25
[02:15 AM-02:30 AM]	19	0	2	0	0	21
[02:30 AM-02:45 AM]	20	3	0	0	0	23
[02:45 AM-03:00 AM]	20	0	2	0	0	22
	83	3	5	0	0	91
[03:00 AM-03:15 AM]	17	1	1	0	0	19
[03:15 AM-03:30 AM]	24	0	1	0	0	25
[03:30 AM-03:45 AM]	42	1	3	0	0	46
[03:45 AM-04:00 AM]	19	0	1	0	0	20
	102	2	6	0	0	110
[04:00 AM-04:15 AM]	32	2	0	0	0	34
[04:15 AM-04:30 AM]	23	2	2	0	0	27
[04:30 AM-04:45 AM]	64	1	2	0	0	67
[04:45 AM-05:00 AM]	54	1	3	0	0	58
	173	6	7	0	0	186
[05:00 AM-05:15 AM]	71	2	5	0	0	78
[05:15 AM-05:30 AM]	89	2	4	0	0	95
[05:30 AM-05:45 AM]	181	1	11	0	0	193
[05:45 AM-06:00 AM]	167	4	8	0	0	179
	508	9	28	0	0	545
[06:00 AM-06:15 AM]	162	6	3	0	0	171
[06:15 AM-06:30 AM]	229	8	8	0	0	245
[06:30 AM-06:45 AM]	248	6	12	0	0	266
[06:45 AM-07:00 AM]	254	16	15	0	0	285

Time/Class Report

Device ID: 1580 Operator: GHA Begin: 10/29/2019 12:00 AM End: 10/30/2019 12:00 AM Hours: 24.00 Period (min): 15	Location: CHERRY LN TO FAYAN PKWY Lane: SB COMBINED Street: KIRK RD City: AADT20190111 County: KANE State: IL
Raw Count: 14,758 AADT Count: 14,758 AADT Factor: 1 Speed Limit: 45	

Date	<	24	to	39	to	100	>	Total
Time Range	23	38	99					
Tue, 10/29/2019								
[07:00 AM-07:15 AM]	893	36	38	0	0	0	0	967
[07:15 AM-07:30 AM]	221	6	11	0	0	0	0	238
[07:30 AM-07:45 AM]	305	7	9	0	0	0	0	321
[07:45 AM-08:00 AM]	289	8	13	0	0	0	0	310
	280	9	11	0	0	0	0	300
	1095	30	44	0	0	0	0	1169
[08:00 AM-08:15 AM]	243	11	8	0	0	0	0	262
[08:15 AM-08:30 AM]	234	9	14	0	0	0	0	257
[08:30 AM-08:45 AM]	151	9	12	0	0	0	0	172
[08:45 AM-09:00 AM]	156	9	11	0	0	0	0	176
	784	38	45	0	0	0	0	867
[09:00 AM-09:15 AM]	145	12	7	0	0	0	0	164
[09:15 AM-09:30 AM]	134	6	17	0	0	0	0	157
[09:30 AM-09:45 AM]	110	13	14	0	0	0	0	137
[09:45 AM-10:00 AM]	105	7	20	0	0	0	0	132
	494	38	58	0	0	0	0	590
[10:00 AM-10:15 AM]	111	6	20	0	0	0	0	137
[10:15 AM-10:30 AM]	109	10	10	0	0	0	0	129
[10:30 AM-10:45 AM]	120	6	18	0	0	0	0	144
[10:45 AM-11:00 AM]	134	7	18	0	0	0	0	159
	474	29	66	0	0	0	0	569
[11:00 AM-11:15 AM]	121	9	13	0	0	0	0	143
[11:15 AM-11:30 AM]	132	15	18	0	0	0	0	165
[11:30 AM-11:45 AM]	134	12	11	0	0	0	0	157
[11:45 AM-12:00 PM]	148	5	7	0	0	0	0	160
	535	41	49	0	0	0	0	625
[12:00 PM-12:15 PM]	142	10	20	0	0	0	0	172
[12:15 PM-12:30 PM]	139	14	20	0	0	0	0	173
[12:30 PM-12:45 PM]	176	8	12	0	0	0	0	196
[12:45 PM-01:00 PM]	150	6	12	0	0	0	0	168
	607	38	64	0	0	0	0	709
[01:00 PM-01:15 PM]	118	8	10	0	0	0	0	136
[01:15 PM-01:30 PM]	134	12	16	0	0	0	0	162
[01:30 PM-01:45 PM]	166	6	11	0	0	0	0	183

Time/Class Report

Device ID: 1560 Operator: GHA Begin: 10/29/2019 12:00 AM End: 10/30/2019 12:00 AM Hours: 24.00 Period (min): 15	Location: CHERRY LN TO FABYAN PKWY Lane: SB COMBINED Street: KIRK RD City: AADT20190111 County: KANE State: IL
Raw Count: 14,758 AADT Count: 14,758 AADT Factor: 1 Speed Limit: 45	

Time Range	Date		24		39		100		Total
	<	to	to	to	to	to	>		
Tue, 10/29/2019									
[01:45 PM-02:00 PM]	147	12	16	0	0	0	0	0	175
[02:00 PM-02:15 PM]	565	38	53	0	0	0	0	0	656
[02:15 PM-02:30 PM]	196	12	13	0	0	0	0	0	221
[02:30 PM-02:45 PM]	282	14	18	0	0	0	0	0	255
[02:45 PM-03:00 PM]	229	9	15	0	0	0	0	0	306
[03:00 PM-03:15 PM]	930	52	60	0	0	0	0	0	280
[03:15 PM-03:30 PM]	266	12	8	0	0	0	0	0	1042
[03:30 PM-03:45 PM]	222	19	12	0	0	0	0	0	286
[03:45 PM-04:00 PM]	285	12	19	0	0	0	0	0	253
[04:00 PM-04:15 PM]	1017	52	51	0	0	0	0	0	316
[04:15 PM-04:30 PM]	258	10	21	0	0	0	0	0	265
[04:30 PM-04:45 PM]	278	9	11	0	0	0	0	0	1120
[04:45 PM-05:00 PM]	313	4	4	0	0	0	0	0	289
[05:00 PM-05:15 PM]	1126	34	48	0	0	0	0	0	297
[05:15 PM-05:30 PM]	297	3	11	0	0	0	0	0	301
[05:30 PM-05:45 PM]	319	6	7	0	0	0	0	0	321
[05:45 PM-06:00 PM]	264	9	6	0	0	0	0	0	1208
[06:00 PM-06:15 PM]	241	5	3	0	0	0	0	0	311
[06:15 PM-06:30 PM]	1121	23	27	0	0	0	0	0	332
[06:30 PM-06:45 PM]	249	5	8	0	0	0	0	0	279
[06:45 PM-07:00 PM]	233	5	7	0	0	0	0	0	249
[07:00 PM-07:15 PM]	195	7	4	0	0	0	0	0	1171
[07:15 PM-07:30 PM]	162	2	8	0	0	0	0	0	262
[07:30 PM-07:45 PM]	839	19	27	0	0	0	0	0	245
[07:45 PM-08:00 PM]	181	3	1	0	0	0	0	0	206
[08:00 PM-08:15 PM]	137	4	1	0	0	0	0	0	172
[08:15 PM-08:30 PM]	126	2	2	0	0	0	0	0	885
[08:30 PM-08:45 PM]	106	0	4	0	0	0	0	0	185
[08:45 PM-09:00 PM]	550	9	8	0	0	0	0	0	142
[09:00 PM-09:15 PM]	112	2	1	0	0	0	0	0	130
[09:15 PM-09:30 PM]	98	1	2	0	0	0	0	0	110

Time/Class Report

Device ID: 1580		Location: CHERRY LN TO FABYAN PKWY		Raw Count: 14,758		
Operator: GHA		Lane: SB COMBINED		AADT Count: 14,758		
Begin: 10/29/2019 12:00 AM		Street: KIRK RD		AADT Factor: 1		
End: 10/30/2019 12:00 AM		City: AADT20190111		Speed Limit: 45		
Hours: 24.00		County: KANE				
Period (min): 15		State: IL				
		<	24	39	100	
		to	to	to	to	
		23	38	99	>	Total
Tue, 10/29/2019						
[08:30 PM-08:45 PM]	86	2	1	0	0	89
[08:45 PM-09:00 PM]	83	3	0	0	0	86
	379	8	4	0	0	391
[09:00 PM-09:15 PM]	104	1	0	0	0	105
[09:15 PM-09:30 PM]	104	2	1	0	0	107
[09:30 PM-09:45 PM]	77	2	1	0	0	80
[09:45 PM-10:00 PM]	69	1	1	0	0	71
	354	6	3	0	0	363
[10:00 PM-10:15 PM]	93	3	3	0	0	99
[10:15 PM-10:30 PM]	82	3	0	0	0	85
[10:30 PM-10:45 PM]	84	1	2	0	0	87
[10:45 PM-11:00 PM]	60	2	2	0	0	64
	319	9	7	0	0	335
[11:00 PM-11:15 PM]	71	1	3	0	0	75
[11:15 PM-11:30 PM]	73	0	4	0	0	77
[11:30 PM-11:45 PM]	74	1	1	0	0	76
[11:45 PM-12:00 AM]	56	1	1	0	0	58
	274	3	9	0	0	286
10/29/2019 12:00 AM						
10/30/2019 12:00 AM	13414	529	716	0	0	14659

Appendix C

IDS – Fabyan Parkway and Kautz Road Extension

Appendix D

Preliminary Site Plan

Appendix E

ITE Trip Generation Excerpts

Land Use: 150

Warehousing

Description

A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas. High-cube transload and short-term storage warehouse (Land Use 154), high-cube fulfillment center warehouse (Land Use 155), high-cube parcel hub warehouse (Land Use 156), and high-cube cold storage warehouse (Land Use 157) are related uses.

Additional Data

Time-of-day distribution data for this land use are presented in Appendix A. For the 13 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 11:30 a.m. and 12:30 p.m. and 3:00 and 4:00 p.m., respectively.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Connecticut, Minnesota, New Jersey, New York, Ohio, Oregon, Pennsylvania, and Texas.

Source Numbers

184, 331, 406, 411, 443, 579, 583, 596, 598, 611, 619, 642, 752, 869, 875, 876, 914, 940

0.17

0.02 - 1.93

Warehousing Data Plot and Equation

Vehicle Trip Ends vs:

A

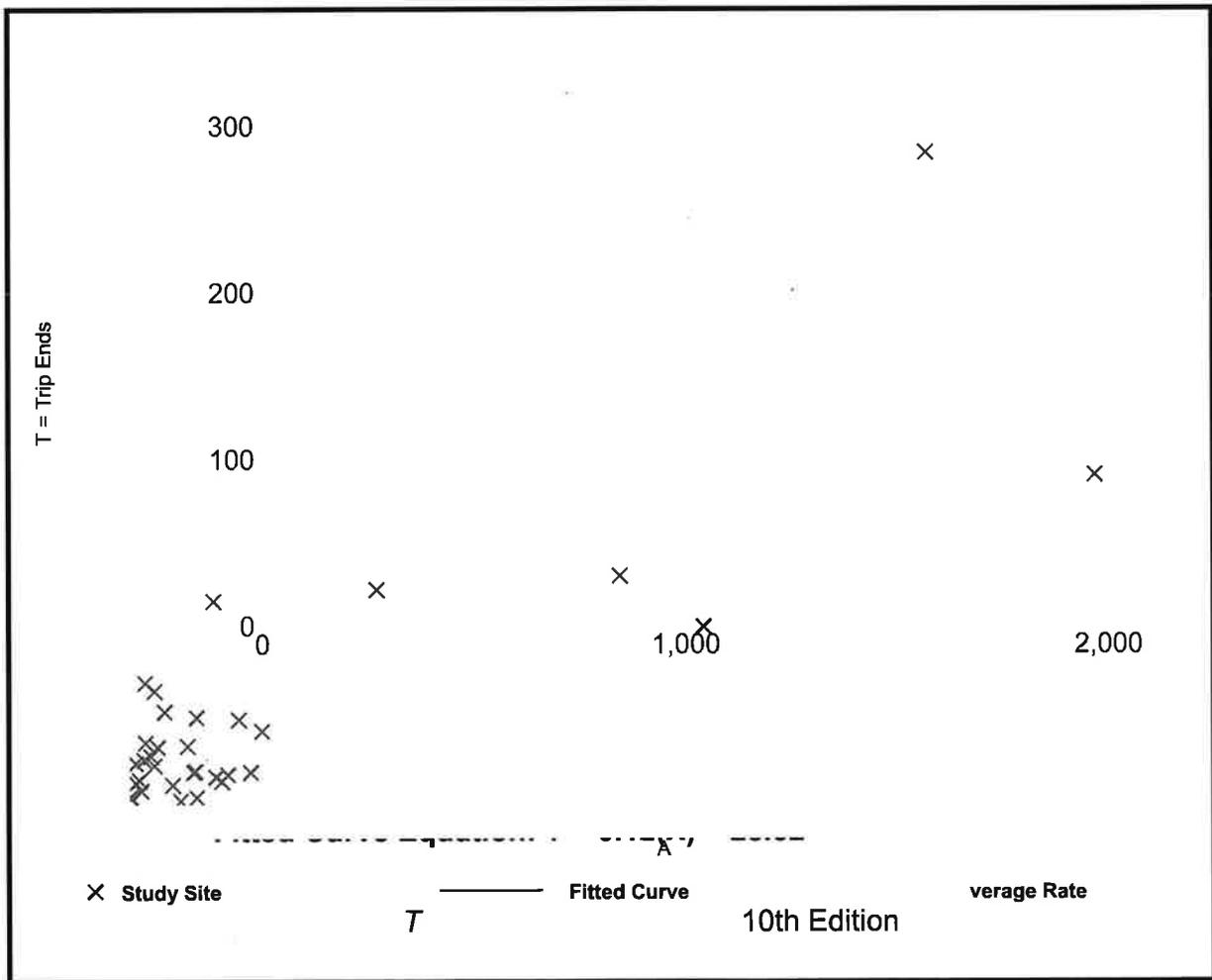
Weekday,

Traffic,

avg. 1000 Sq. Ft. GFA:

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate



0.19

0.01 - 1.80

Warehousing Data Plot and Equation

Vehicle Trip Ends vs: A

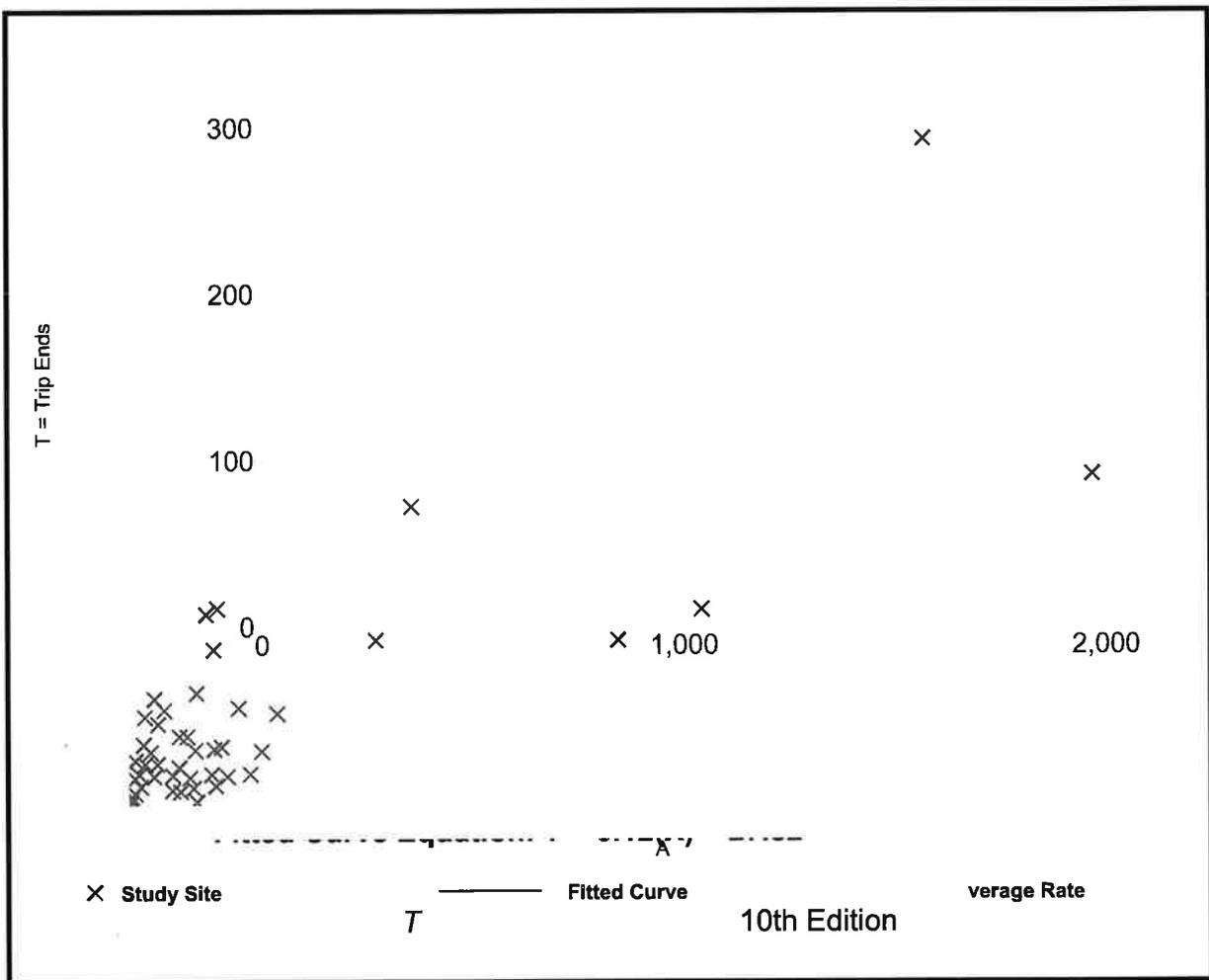
Weekday,

Traffic,

avg. 1000 Sq. Ft. GFA:

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate



Trip Generation Manual,

Institute of Transportation Engineers

1.74

0.15 - 16.93

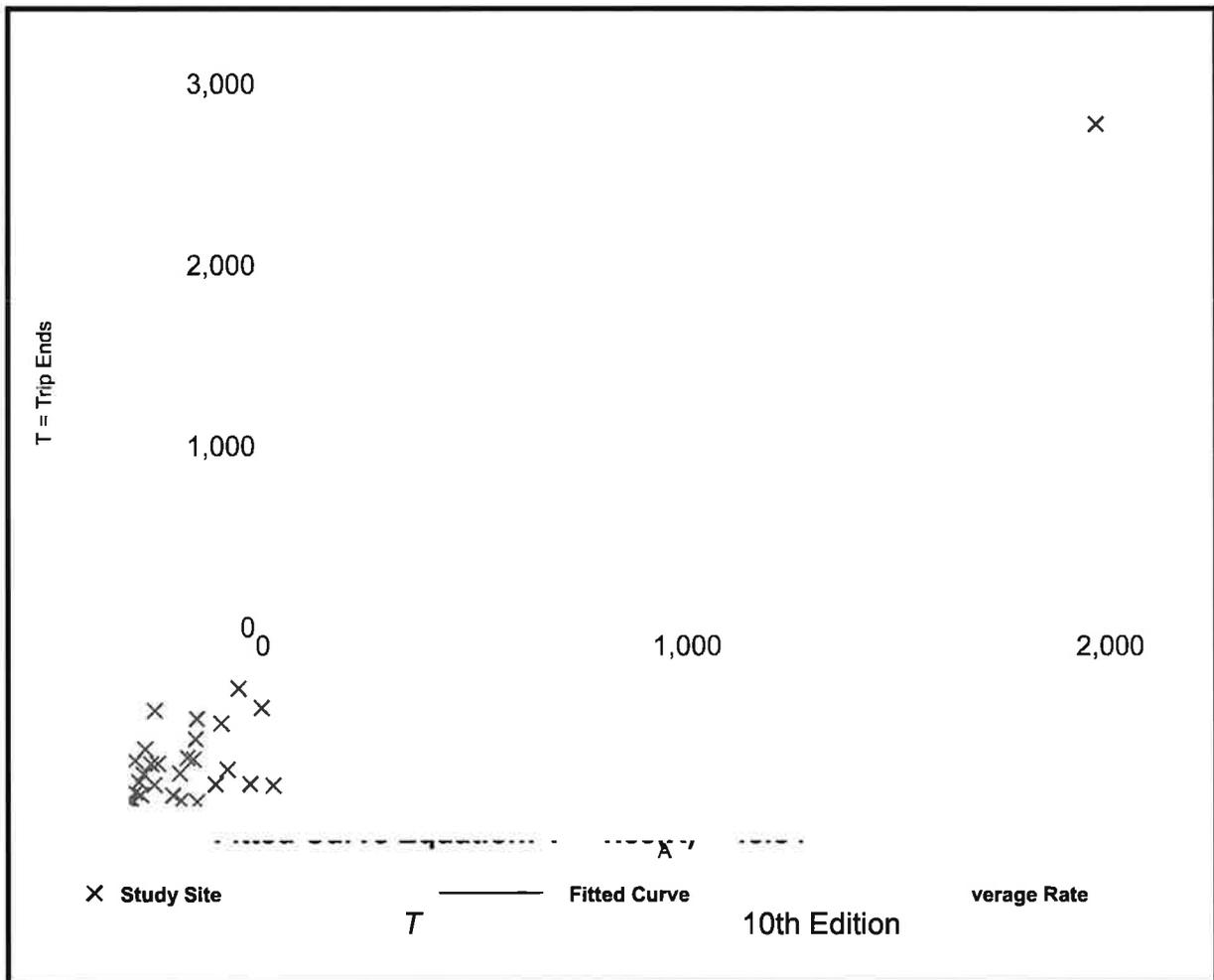
Warehousing Data Plot and Equation

Vehicle Trip Ends vs: **A**
Weekday

avg. 1000 Sq. Ft. GFA:

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate



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Warehousing (150)

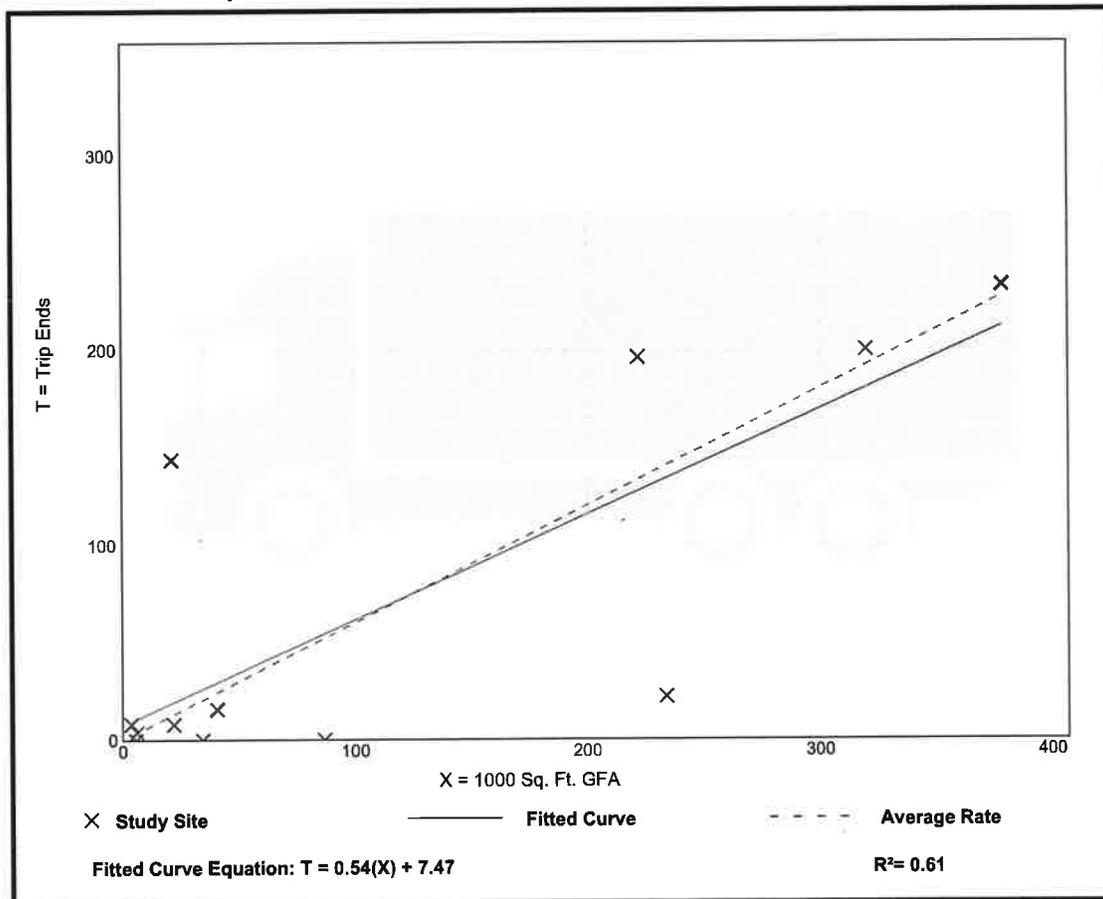
Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 12
Avg. 1000 Sq. Ft. GFA: 115
Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.60	0.00 - 6.66	0.86

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

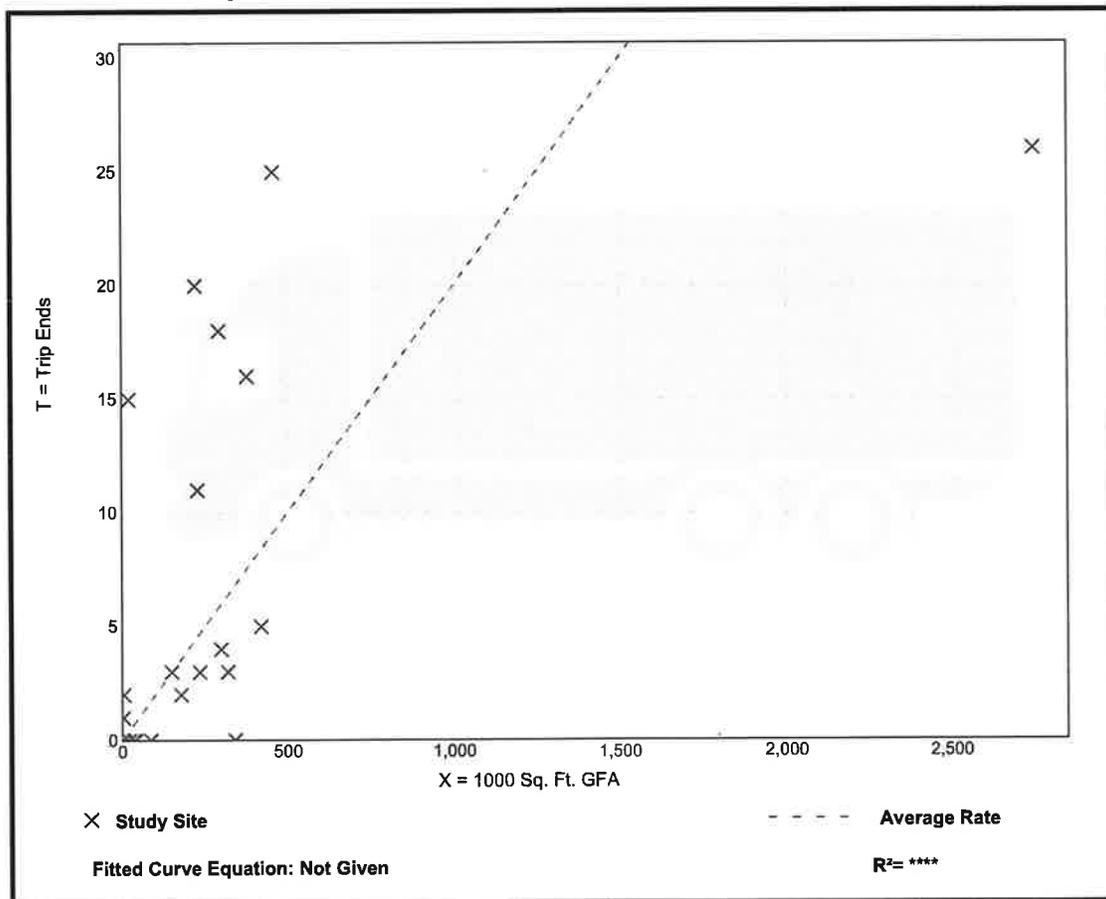
Warehousing (150)

Truck 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: 21
 Avg. 1000 Sq. Ft. GFA: 309
 Directional Distribution: 52% entering, 48% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.02	0.00 - 0.69	0.05

Data Plot and Equation



Warehousing (150)

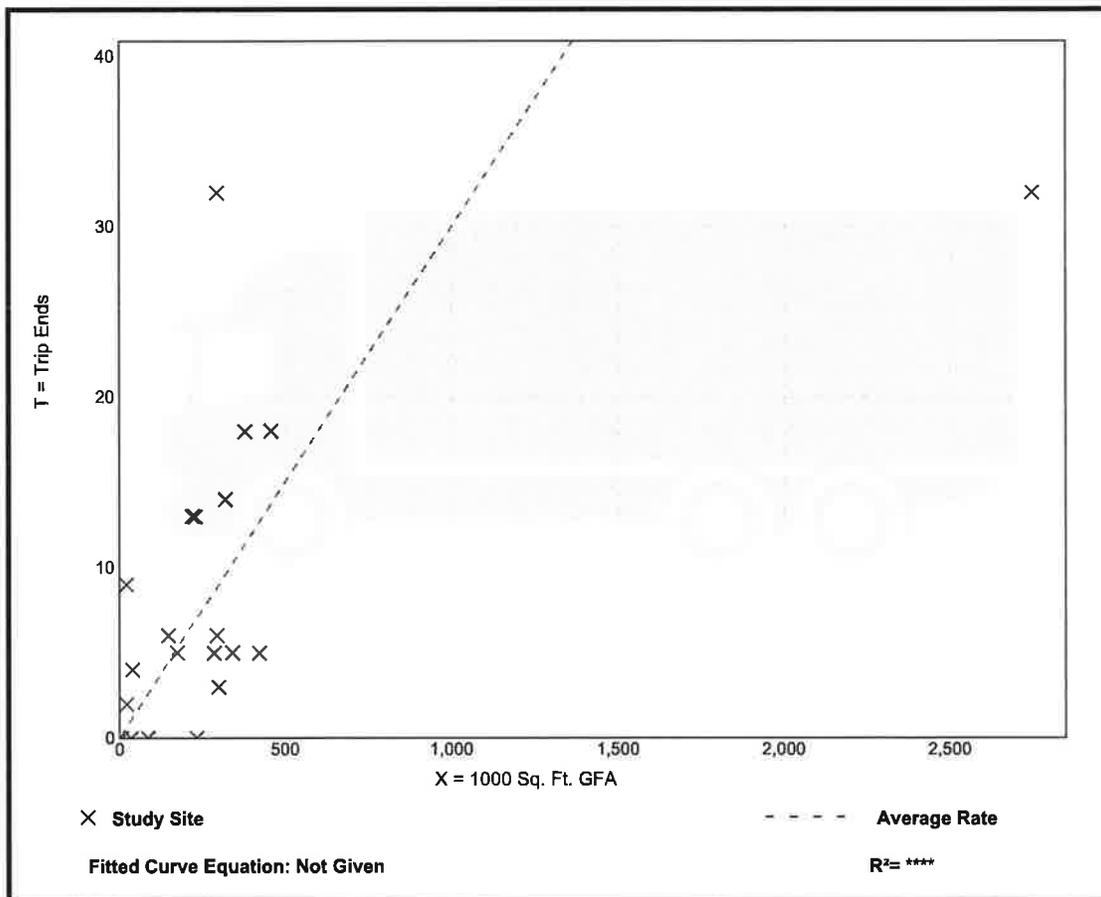
Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban
 Number of Studies: 23
 Avg. 1000 Sq. Ft. GFA: 308
 Directional Distribution: 52% entering, 48% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.03	0.00 - 0.42	0.03

Data Plot and Equation



Land Use: 710

General Office Building

Description

A general office building houses multiple tenants; it is a location where affairs of businesses, commercial or industrial organizations, or professional persons or firms are conducted. An office building or buildings may contain a mixture of tenants including professional services, insurance companies, investment brokers, and tenant services, such as a bank or savings and loan institution, a restaurant, or cafeteria and service retail facilities. A general office building with a gross floor area of 5,000 square feet or less is classified as a small office building (Land Use 712). Corporate headquarters building (Land Use 714), single tenant office building (Land Use 715), office park (Land Use 750), research and development center (Land Use 760), and business park (Land Use 770) are additional related uses.

If information is known about individual buildings, it is suggested that the general office building category be used rather than office parks when estimating trip generation for one or more office buildings in a single development. The office park category is more general and should be used when a breakdown of individual or different uses is not known. If the general office building category is used and if additional buildings, such as banks, restaurants, or retail stores are included in the development, the development should be treated as a multiuse project. On the other hand, if the office park category is used, internal trips are already reflected in the data and do not need to be considered.

When the buildings are interrelated (defined by shared parking facilities or the ability to easily walk between buildings) or house one tenant, it is suggested that the total area or employment of all the buildings be used for calculating the trip generation. When the individual buildings are isolated and not related to one another, it is suggested that trip generation be calculated for each building separately and then summed.

Additional Data

The average building occupancy varied considerably within the studies for which occupancy data were provided. The reported occupied gross floor area was 88 for general urban/suburban sites and 96 percent for the center city core and dense multi-use urban sites.

Time-of-day distribution data for this land use for a weekday, Saturday, and Sunday are presented in Appendix A. For the 16 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 7:30 and 8:30 a.m. and 4:30 and 5:30 p.m., respectively.

For the three general urban/suburban sites with person trip data, the overall highest volumes during the AM and PM on a weekday were counted between 8:45 and 9:45 a.m. and 12:45 and 1:45 p.m., respectively. For the three dense multi-use urban sites with person trip data, the overall highest volumes during the AM and PM on a weekday were counted between 8:30 and 9:30 a.m. and 4:45 and 5:45 p.m., respectively. For the four center city core sites with person trip data, the overall highest volumes during the AM and PM on a weekday were counted between 9:00 and 10:00 a.m. and 12:45 and 1:45 p.m., respectively.

The average numbers of person trips per vehicle trip at the eight center city core sites at which both person trip and vehicle trip data were collected were as follows:

- 2.76 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 2.90 during Weekday, AM Peak Hour of Generator
- 2.91 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 3.02 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 18 dense multi-use urban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.47 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.47 during Weekday, AM Peak Hour of Generator
- 1.46 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.53 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 23 general urban/suburban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.30 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.34 during Weekday, AM Peak Hour of Generator
- 1.32 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.41 during Weekday, PM Peak Hour of Generator

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Colorado, Connecticut, Georgia, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, Michigan, Minnesota, Missouri, Montana, New Hampshire, New Jersey, New York, Pennsylvania, Texas, Utah, Virginia, and Washington.

Source Numbers

161, 175, 183, 184, 185, 207, 212, 217, 247, 253, 257, 260, 262, 273, 279, 297, 298, 300, 301, 302, 303, 304, 321, 322, 323, 324, 327, 404, 407, 408, 418, 419, 423, 562, 734, 850, 859, 862, 867, 869, 883, 884, 890, 891, 904, 940, 944, 946, 964, 965, 972

General Office Building Data Plot and Equation

Vehicle Trip Ends vs: Weekday, A

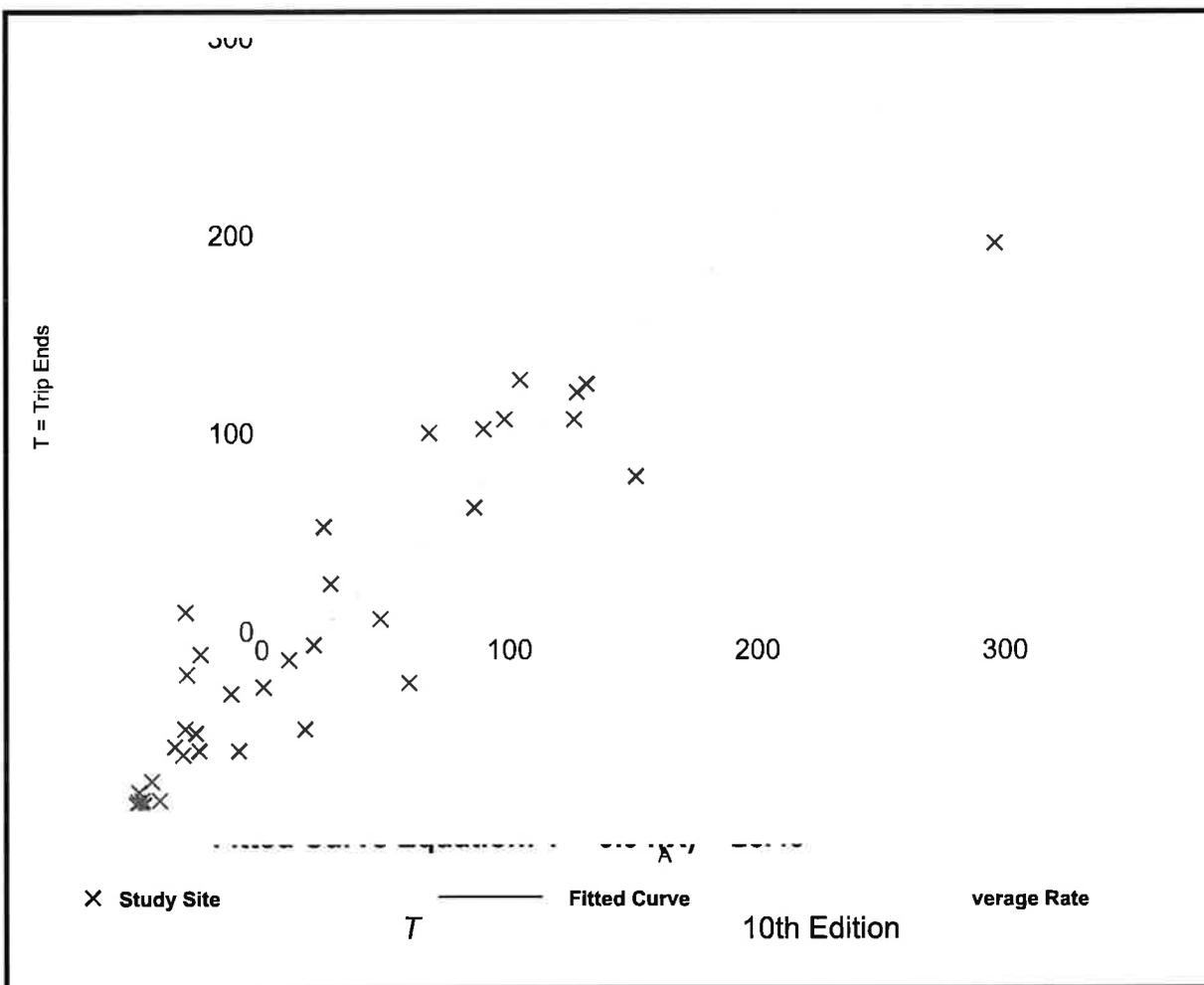
Traffic,

avg. 1000 Sq. Ft. GFA: 17

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate

used average rates, equations produced unrealistic results (small office building)

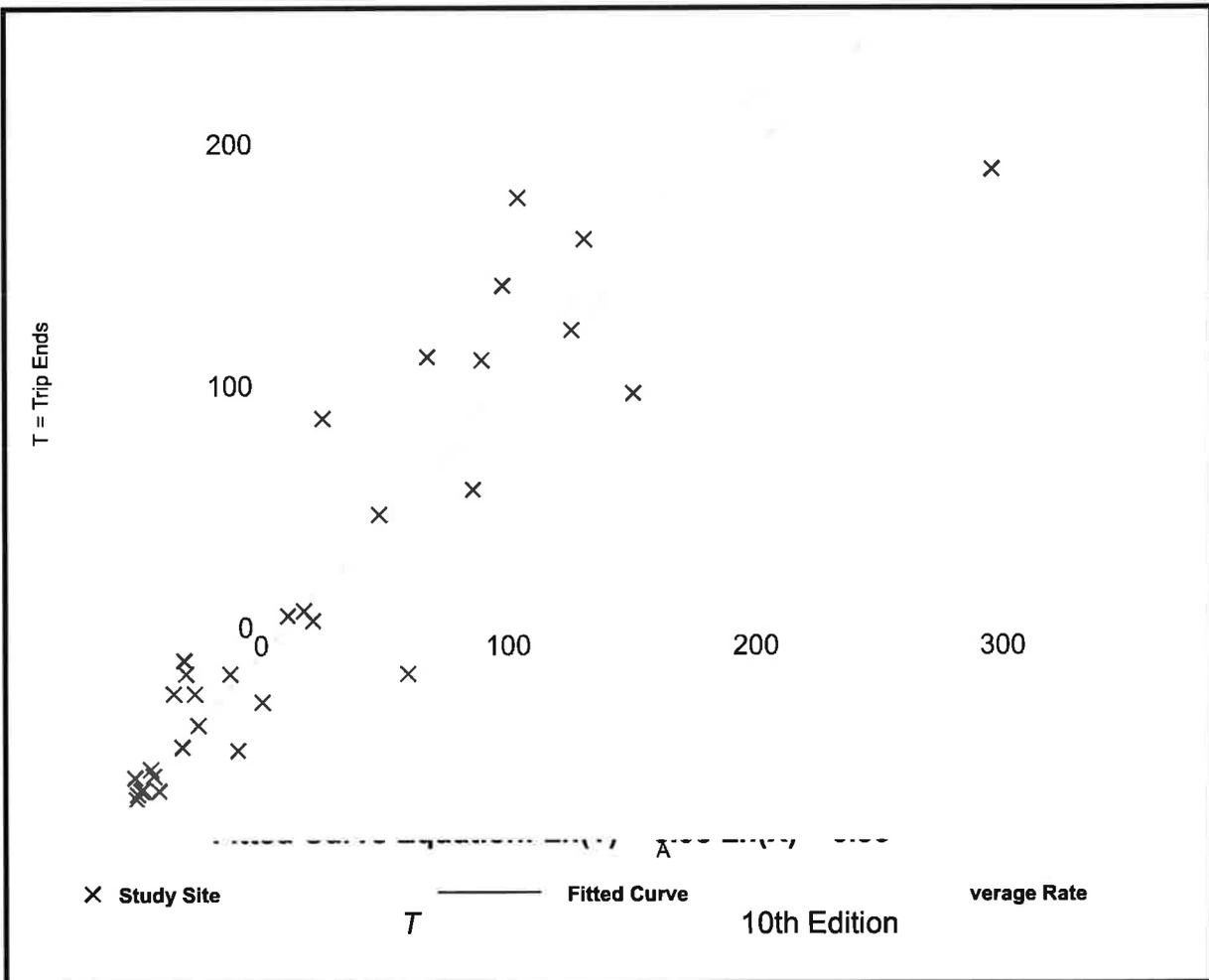


General Office Building Data Plot and Equation

Vehicle Trip Ends vs: Weekday Traffic

avg. 1000 Sq. Ft. GFA: 14

Vehicle Trip Generation per 1000 Sq. Ft. GFA
Average Rate



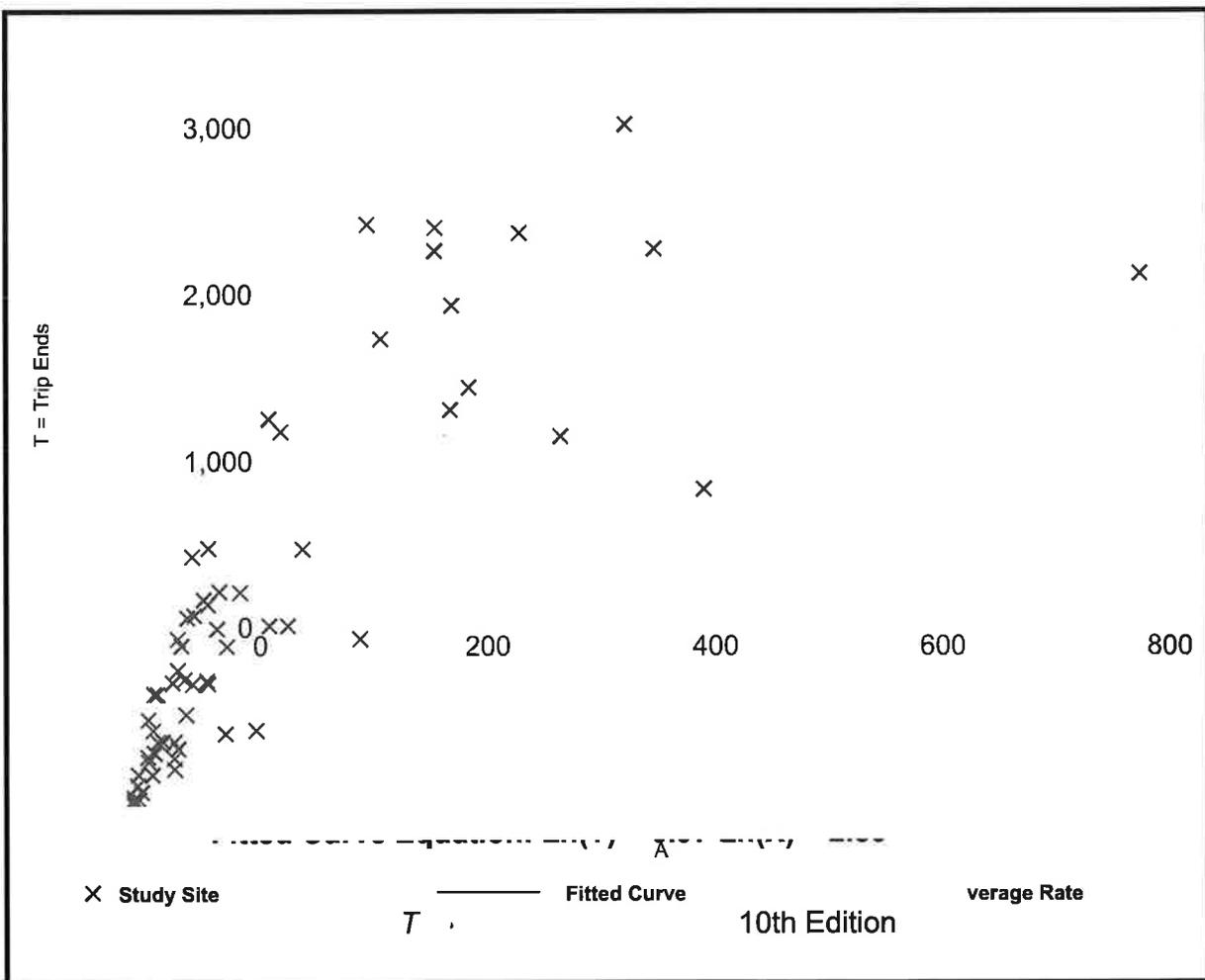
General Office Building Data Plot and Equation

Vehicle Trip Ends vs: **A**
Weekday

avg. 1000 Sq. Ft. GFA:

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate



General Office Building (710)

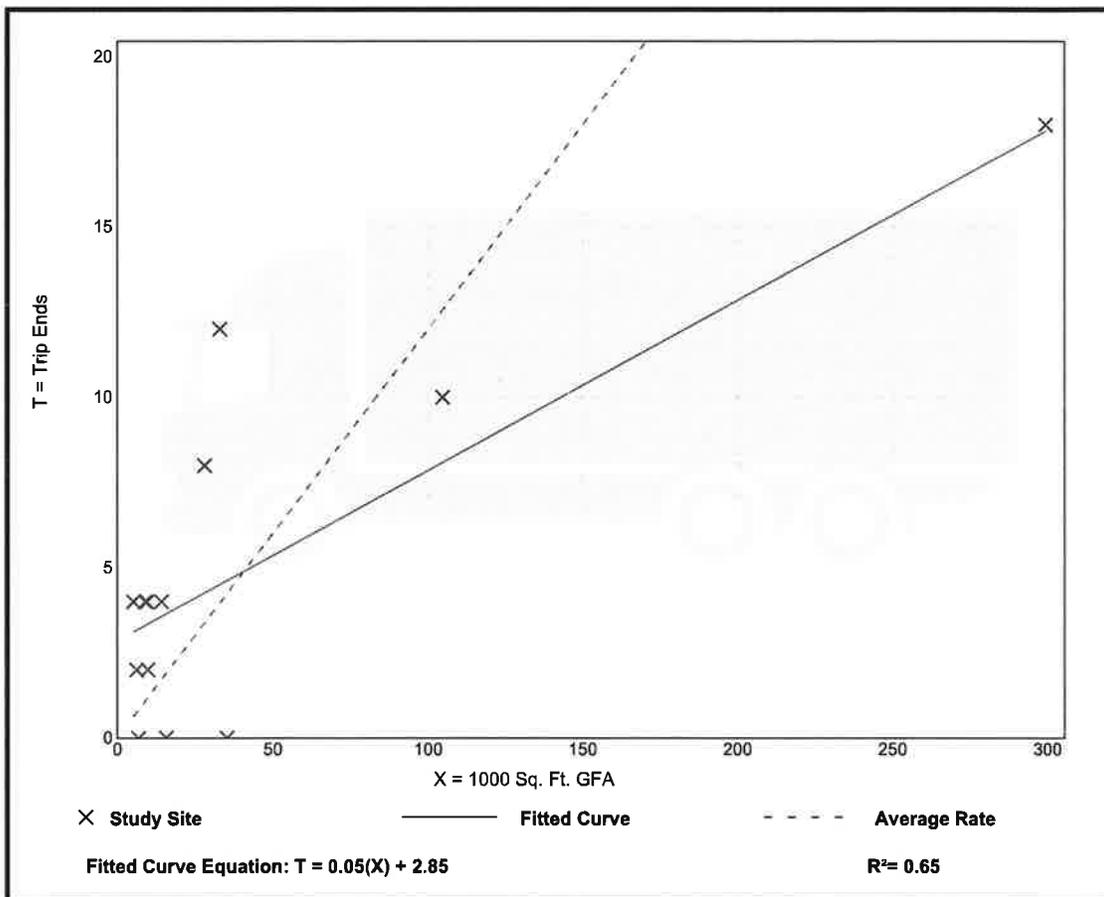
Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 13
Avg. 1000 Sq. Ft. GFA: 44
Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.12	0.00 - 0.76	0.13

Data Plot and Equation



General Office Building (710)

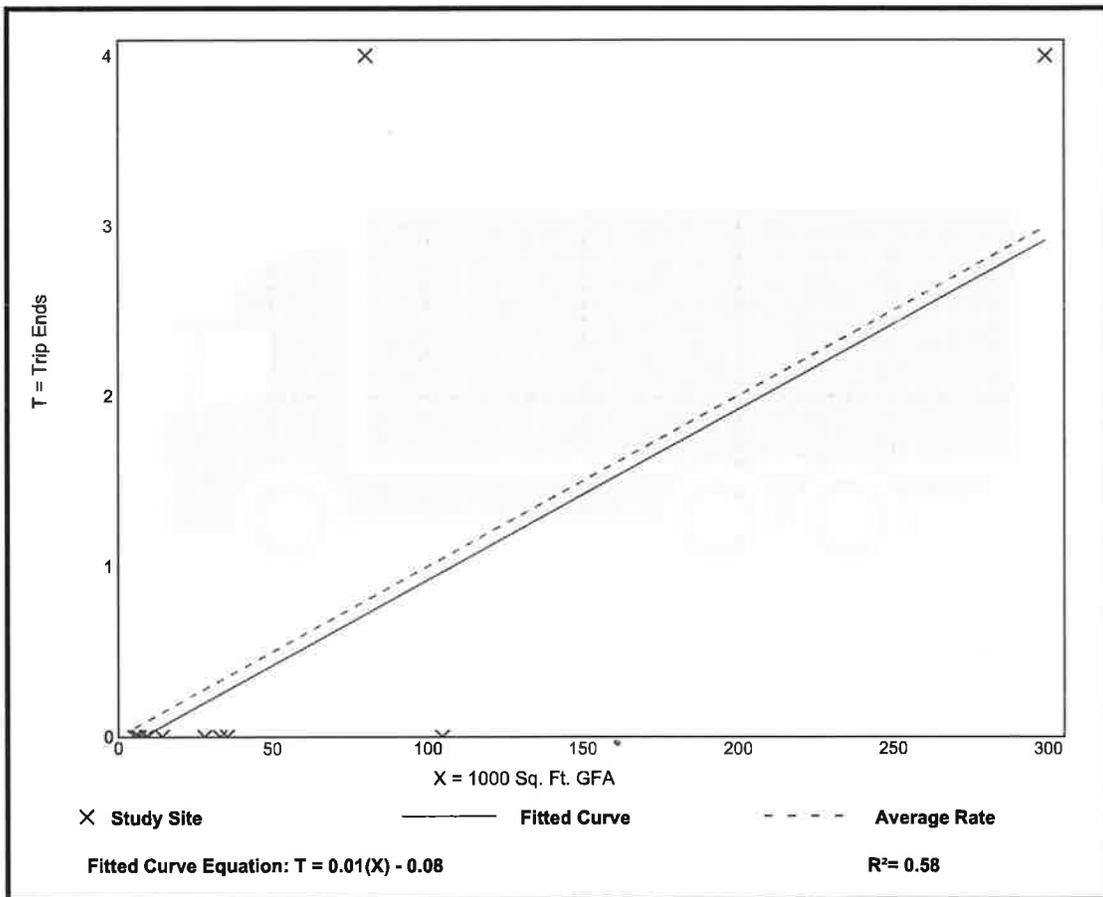
Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban
 Number of Studies: 12
 Avg. 1000 Sq. Ft. GFA: 53
 Directional Distribution: Not Available

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.01	0.00 - 0.05	0.02

Data Plot and Equation



General Office Building (710)

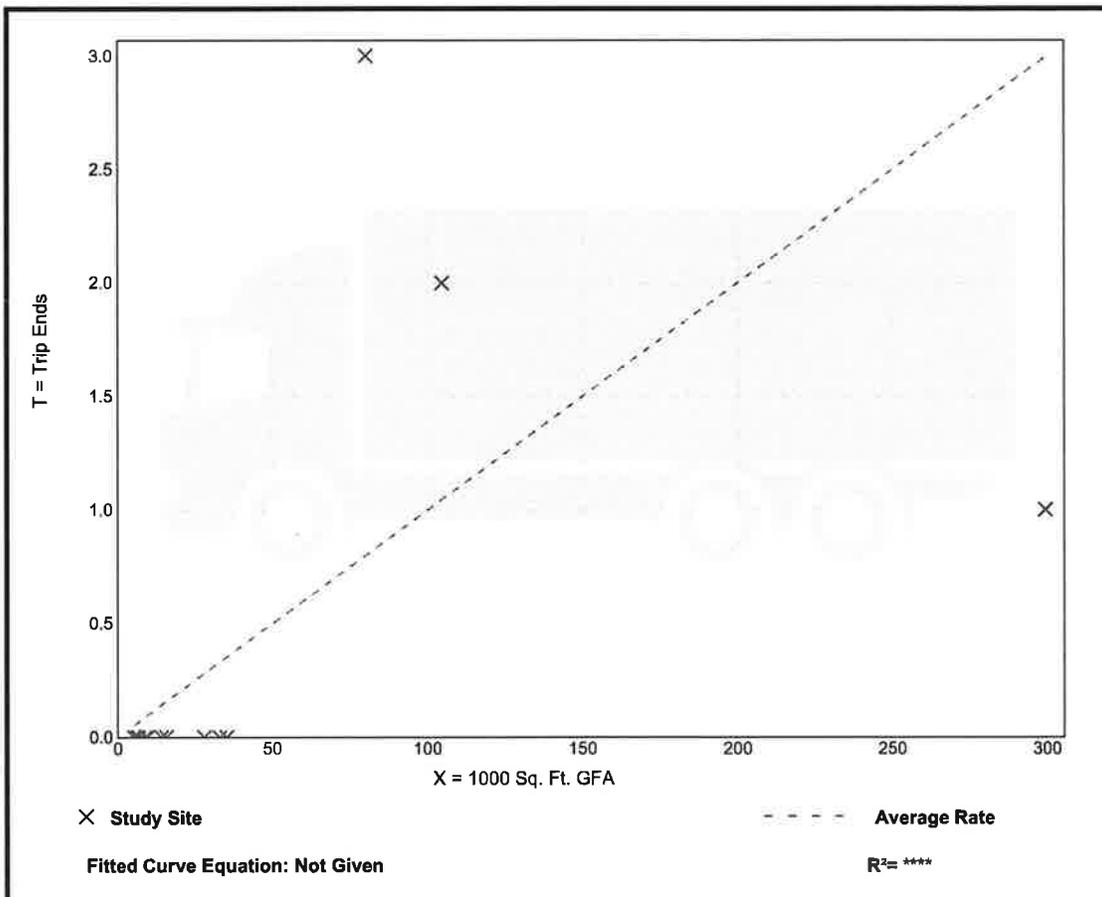
Truck Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban
 Number of Studies: 13
 Avg. 1000 Sq. Ft. GFA: 50
 Directional Distribution: 33% entering, 67% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.01	0.00 - 0.04	0.01

Data Plot and Equation



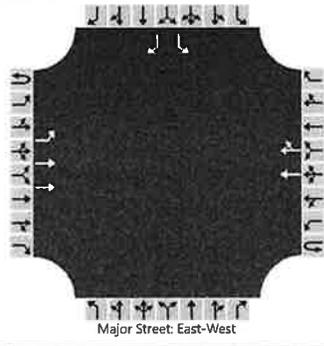
Appendix F

Capacity Analysis Worksheets

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	LMM	Intersection	Fabyan Pkwy / Dawn Blvd
Agency/Co.	GHA	Jurisdiction	KDOT
Date Performed	12/8/2020	East/West Street	Fabyan Pkwy
Analysis Year	2035	North/South Street	Dawn Blvd
Time Analyzed	Total - AM Peak	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	5769.900		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)	0	33	1283				571	14						4		10
Percent Heavy Vehicles (%)	0	9												0		20
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized														No		
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.28												6.80		7.30
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.29												3.50		3.50

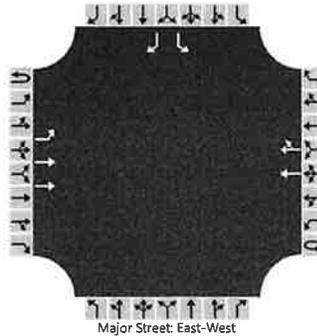
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		35												4		11	
Capacity, c (veh/h)		914												138		637	
v/c Ratio		0.04												0.03		0.02	
95% Queue Length, Q ₉₅ (veh)		0.1												0.1		0.1	
Control Delay (s/veh)		9.1												31.9		10.7	
Level of Service (LOS)		A												D		B	
Approach Delay (s/veh)		0.2												16.8			
Approach LOS														C			

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	LMM			Intersection	Fabyan Pkwy / Dawn Blvd		
Agency/Co.	GHA			Jurisdiction	KDOT		
Date Performed	12/8/2020			East/West Street	Fabyan Pkwy		
Analysis Year	2035			North/South Street	Dawn Blvd		
Time Analyzed	Total - PM Peak			Peak Hour Factor	0.95		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	5769.900						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)	0	13	765				1111	5						15		32
Percent Heavy Vehicles (%)	0	23												7		12
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized														No		
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.56												6.94		7.14
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.43												3.57		3.42

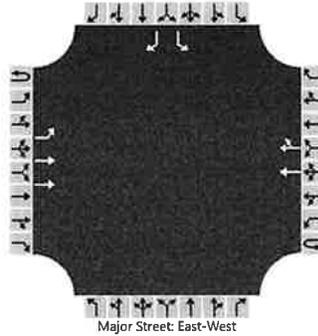
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		14												16		34	
Capacity, c (veh/h)		485												89		428	
v/c Ratio		0.03												0.18		0.08	
95% Queue Length, Q ₉₅ (veh)		0.1												0.6		0.3	
Control Delay (s/veh)		12.6												53.9		14.1	
Level of Service (LOS)		B												F		B	
Approach Delay (s/veh)		0.2												26.8			
Approach LOS														D			

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	LMM			Intersection	Fabyan Pkwy / Dawn Blvd		
Agency/Co.	GHA			Jurisdiction	KDOT		
Date Performed	12/8/2020			East/West Street	Fabyan Pkwy		
Analysis Year	2045			North/South Street	Dawn Blvd		
Time Analyzed	Total - AM Peak			Peak Hour Factor	0.95		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	5769.900						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)	0	33	1561				695	14						4		10
Percent Heavy Vehicles (%)	0	9												0		20
Proportion Time Blocked																
Percent Grade (%)																0
Right Turn Channelized																No
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1													7.5		6.9
Critical Headway (sec)		4.28													6.80		7.30
Base Follow-Up Headway (sec)		2.2													3.5		3.3
Follow-Up Headway (sec)		2.29													3.50		3.50

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		35													4		11
Capacity, c (veh/h)		813													90		575
v/c Ratio		0.04													0.05		0.02
95% Queue Length, Q ₉₅ (veh)		0.1													0.1		0.1
Control Delay (s/veh)		9.6													46.8		11.4
Level of Service (LOS)		A													E		B
Approach Delay (s/veh)		0.2													21.5		
Approach LOS															C		

HCS7 Two-Way Stop-Control Report

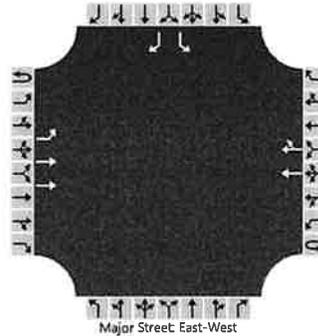
General Information

Analyst	LMM
Agency/Co.	GHA
Date Performed	12/8/2020
Analysis Year	2045
Time Analyzed	Total - PM Peak
Intersection Orientation	East-West
Project Description	5769.900

Site Information

Intersection	Fabyan Pkwy / Dawn Blvd
Jurisdiction	KDOT
East/West Street	Fabyan Pkwy
North/South Street	Dawn Blvd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		1	0	1
Configuration		L	T				T	TR						L		R
Volume (veh/h)	0	13	931				1350	5						15		32
Percent Heavy Vehicles (%)	0	23												7		12
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized														No		
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.56												6.94		7.14
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.43												3.57		3.42

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		14												16		34	
Capacity, c (veh/h)		379												52		352	
v/c Ratio		0.04												0.30		0.10	
95% Queue Length, Q ₉₅ (veh)		0.1												1.1		0.3	
Control Delay (s/veh)		14.9												102.1		16.3	
Level of Service (LOS)		B												F		C	
Approach Delay (s/veh)		0.2												43.7			
Approach LOS														E			