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MEMORANDUM

TO: Mr. Kyle Killough

FROM: Lyle DeVries, Clay Gattey

DATE: February 10, 2020

SUBJECT: **Copart Development Traffic Memorandum**
FHU Project No. 119506-01

INTRODUCTION

Felsburg Holt & Ullevig has completed a transportation memorandum regarding the proposed development of a site in El Paso County, Colorado to become a Copart Vehicle Storage and Auction facility. The 80 acre site is located on approximately 160 acres in the southwest quadrant of Drennan Road (Rd) and Foreign Trade Zone Boulevard (Blvd) (currently closed to through traffic). **Figure 1** illustrates the location of the project site and the adjacent roadway network.

Vehicular access to the proposed development is planned to be provided via a full movement access to Foreign Trade Zone Boulevard near the southeast corner of the site. A second full movement access is proposed to be located 500 feet south of the main site access, to be gated and used for emergencies and maintenance only. Site access to the broader roadway network would be provided via the existing connection of Foreign Trade Zone Boulevard to Bradley Road, which extends east to and beyond Marksheffel Road and west to Powers Boulevard. The site plan depicting the proposed Copart Vehicle Storage and Auction facility and site access configuration is illustrated in **Figure 1**.

This document provides:

1. An assessment of required level of traffic analysis documentation per County Standards
2. Traffic analyses to address County review requirements
3. A summary of key findings and recommendations

Assessment of Required Documentation

The 2016 *El Paso County Engineering Criteria Manual* was referenced as compliance to these guidelines help to ensure a standard process is followed. Coordination phone calls with El Paso County Staff indicated that a Transportation Memorandum level traffic analysis would likely be required for the proposed development. According to Appendix B of the 2016 *El Paso County Engineering Criteria Manual* (*Appendix B*) a transportation memorandum is required when the following guidelines are met:

- **Vehicular Traffic:** Daily vehicle trip-end generation is less than or equal to 500, or the peak hour trip generation is between 21 and 50, and the proposed access is for local roadways or minor collector roadways only.

The project team estimated the number of vehicle-trips to be generated by the proposed development. According to *Appendix B*, vehicle-trip generation estimates shall be developed using the latest data contained within the Institute of Transportation Engineers' *Trip Generation Manual (Manual)*. The current version is the 10th Edition. *Appendix B* allows for other calculation methods when data are not available in the *Manual* for the proposed land use. Because the proposed Salvaged Vehicle Storage and Auction facility does not directly correspond to a use codified in the *Manual*, the project team used multiple methods to estimate vehicle-trip generation, then selected the most appropriate estimate for use in the analysis. Methods are described as follows:

Method 1: ITE Category. The proposed development can be most closely correlated to a Used Automobile Sales Facility, ITE Land Use Code 841. Information contained in the *Manual* was used to estimate vehicle-trips assuming ITE Land Use Code 841.

Method 2: Customized Calculation. It is our understanding that the proposed development will conduct daily operations out of an on-site operations office housing up to 20 employees. Up to 75 salvaged autos are expected to be delivered to and taken away from the site each day. Deliveries to the site are expected to occur on multiple-vehicle haulers holding up to 10 vehicles. For the purposes of this analysis it is assumed that haulers will carry 3 vehicles on average, and vehicles are expected to depart the site in similar fashion. It was assumed that the 20 employees would generate vehicle-trips in a fashion similar to the *Manual* Land Use Code 710, General Office. Employee and delivery trip generation estimates were added together to estimate total site trip generation.

Table 1 provides the resulting trip generation estimates by method. As shown, method 1 results in a greater number of estimated trips than the customized approach. To be conservative and provide an approach consistent with the *Manual*, method 1 estimates were selected for analysis.

Table 1. Vehicle-Trip Generation Estimates

Trip Generation Estimate Method	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Method 1: ITE Category[1]	250	18	6	24	16	18	34
Method 2: Customized	166	11	6	17	7	11	18
[1]ITE Land Use Code 841 – Used Automobile Sales facility							

The proposed development is estimated to generate approximately 250 vehicle-trips per day with 24 vehicle-trips during the AM peak hour, and 34 vehicle-trips during the PM peak hour. Of these trips, it is estimated that 25 car haulers per day would deliver cars to the site each day and an additional 25 haulers would remove cars from the site. This would equate to a total of 100 total daily truck trips in and out of the site.

- **Pedestrian Traffic:** Paved pedestrian facilities exist or will be constructed on, or adjacent to, the site; or, the proposed use will not generate an increase in new pedestrian traffic.

  The proposed use will not generate an increase in new pedestrian traffic. The proposed development is oriented to accommodate motorized traffic consisting of larger trucks delivering vehicles and employees traveling to and from work.

- **Bicycle Traffic:** Paved bicycle lanes or paths exist or will be constructed on, or adjacent to, the site; or, the proposed use will not generate an increase in new bicycle traffic.

  The proposed use will not generate an increase in new bicycle traffic. The proposed development is oriented to accommodate motorized traffic consisting of larger trucks delivering salvaged autos and employees traveling to and from work.

Analyses of vehicular, pedestrian and bicycle traffic indicate that the proposed development's traffic outcomes may be analyzed in a Transportation Memorandum per El Paso County standards.

Traffic Analyses

Analyses have been compiled in compliance with El Paso County Transportation Memorandum standards. Standards require traffic analyses of proposed site accesses to evaluate intersection Levels of Service and sight distance, along with evaluating roadway pavement markings and bicycle/pedestrian needs. The analyses need to also address the need for any additional intersection turn lanes.

This memorandum provides evaluations of the potential traffic impacts related to the development of the Copart facility. The analyses consider two scenarios:

- **Existing Conditions**. This scenario analyzes the current roadway network, pre-development.

- **Total Traffic Conditions**. This scenario analyzes traffic impacts the development of the 12,800 ksf vehicle storage and auction facility would have on the site access and the intersection of Foreign Trade Zone Blvd & Bradley Rd.

EXISTING CONDITIONS

Roadway System

This section describes the existing roadways within the study area.

- **Foreign Trade Zone Boulevard** – Foreign Trade Zone Blvd is a north-south road located in the southeast portion of the City of Colorado Springs. Foreign Trade Zone Boulevard connects to Drennan Road to the north and connects to Bradley Road to the south. Along its length it extends through both City and County jurisdictions. The *El Paso County Major Transportation Corridors Plan* shows a Minor Arterial Functional Classification for Foreign Trade Zone Boulevard for a short length north of Bradley Road. North of this portion, it is our understanding that the roadway is currently maintained by the City of Colorado Springs and its functional classification is unknown. There is no current posted speed limit on this roadway. Foreign Trade Zone Blvd is currently barricaded at the north end at Drennan Road and midway at the US Army Reserve Center. This section of the roadway does not currently permit through traffic. Due to the barricading of Foreign Trade Zone Blvd all traffic on Foreign Trade Zone Blvd must enter and exit via Bradley Rd to the south.

- **Bradley Road** – Bradley Rd is an east-west road located southeast of the City of Colorado Springs, Colorado. This road is functionally defined as a collector and two through lanes are provided in each direction. Bradley Road connects to S Powers Blvd to the west at a full movement T-intersection.

Traffic Volumes

Weekday AM and PM peak hour turning movement counts (TMCs) were collected Wednesday, November 6, 2019 at the intersection of Foreign Trade Zone Blvd and Bradley Rd. The peak hour traffic counts were collected in 15-minute intervals between the hours of 7:00 to 9:00 AM and 4:00 to 6:00 PM. **Appendix A** contains the TMCs and traffic volumes are shown on **Figure 2**.

Traffic Operations

Existing operational conditions were analyzed at the intersection of Foreign Trade Zone Blvd & Bradley Rd. The analysis is based on procedures documented in the *Highway Capacity Manual*. This analysis procedure provides a LOS, a qualitative measure based on the average delay per vehicle at a controlled intersection described by a letter ranging from "A" to "F." LOS A represents minimal delay, while LOS F represents excessive congestion and delay. The City uses a target LOS D (indicative of an average of 35 seconds or 55 seconds [or less] of delay for vehicles passing through an unsignalized intersection or a signalized intersection, respectively) during the peak hours to determine acceptable vehicular delays. The signalized intersection analysis reports a LOS rating for the entire intersection, while the unsignalized analysis reports a movement LOS for left-turn movements and stop-controlled movements. Trafficware's Synchro traffic analysis software (Version 10.3) was used to perform the LOS calculations.

All individual movements at the unsignalized study intersection of Foreign Trade Zone Blvd and Bradley Rd for the existing conditions operate with acceptable LOS (LOS D or better).

Figure 2 illustrates the LOS results for the existing condition.

TOTAL TRAFFIC CONDITIONS

Trip Distribution/Traffic Assignment

The estimated external trips generated by the site shown in **Table 1** were assigned to the study area roadway network using percentages of trips expected to travel in different directions of travel to and from the site. All site traffic is anticipated to travel to/from the south on Foreign Trade Zone Boulevard because of the current roadway closure north of the site. Trip distribution percentages for the proposed development were based on current travel patterns as reflected in the turning movements recorded at the Foreign Trade Zone Boulevard intersection with Bradley Road and an understanding of expected regional site travel patterns. The trip distribution is shown in **Figure 2** and described below.

- 35 percent to/from the east on Bradley Rd
- 65 percent to/from the west on Bradley Rd

As discussed in the trip generation calculations, an estimated 100 car hauler vehicle-trips per day would travel to and from the site. Truck traffic is expected to be directionally distributed with greater emphasis on travel to/from the west along Bradley Road. It is anticipated that more than 65 percent of such trips would utilize Bradley Road west of the site due to the greater regional highway connectivity available west of the site.

Total Traffic Volumes

The site-generated traffic volumes were added to the existing traffic volumes to calculate total traffic volumes. **Figure 4** presents the projected future total traffic volumes.

Total Traffic Operations

LOS analyses were conducted to compare the existing levels of service to the anticipated LOS with the addition of the site-generated traffic. Trafficware's Synchro traffic analysis software (Version 10.3) was used to perform the LOS calculations. **Figure 4** illustrates the LOS for the total buildout condition.
All individual movements at the unsignalized study intersections for the total buildout conditions are anticipated to operate with acceptable LOS (LOS D or better). This includes the intersection of Foreign Trade Zone Boulevard and Bradley Road as well as the anticipated two-way stop controlled intersection at the site access intersection with Foreign Trade Zone Boulevard.

Traffic Control and Turn Lane Needs

As addressed in the traffic operations analyses, acceptable movement LOS is anticipated to be achievable for all locations under STOP sign control with no need for new intersection turn lanes. No additional turn lanes are recommended to be installed with the proposed development.

SIGHT DISTANCE EVALUATION

A visit to the site location was conducted to perform an initial assessment of available intersection sight distance along Foreign Trade Zone Boulevard at the proposed site access location. Ground-level photos indicate ample available sight distance for entering traffic looking both directions from the access. It appears that the proposed development will not introduce any impediments to sight distance. However, it is recommended that site civil design efforts and design submittals to El Paso County include a full evaluation of sight distance and demonstrate that acceptable sight triangles/distance can be provided with development. The existing intersection of Foreign Trade Zone Boulevard with Bradley Road appears to possess acceptable intersection sight distance.

SIGNING AND PAVEMENT MARKINGS

Current signing and striping at the intersection of Foreign Trade Zone Boulevard with Bradley Road is in acceptable condition. There is currently no center striping or speed limit signage along Foreign Trade Zone Boulevard. It is not recommended at this time to add center striping or posted speed limit signs. However, it is recommended that such additions be made if the northern portion is reopened to vehicular traffic. At the proposed site access, it is recommended that a stop sign and stop bar pavement marking be provided approaching Foreign Trade Zone Boulevard. These measures would not be necessary as long as the northern portion of Foreign Trade Zone Boulevard remains closed to vehicular traffic.

MULTIMODAL EVALUATION

As mentioned previously, The proposed development site runs adjacent to Foreign Trade Zone Blvd. Due to both the remote location and lack of pedestrian and bicyclist activity, as seen within the TMC's, this roadway does not provide any pedestrian, bicyclist, or transit connectivity. The proposed development is not anticipated to increase pedestrian or bicyclist traffic along roadways external to the site. Therefore, no additional pedestrian or bicycle infrastructure is recommended to be installed with site development.

SUMMARY & RECOMENDATIONS

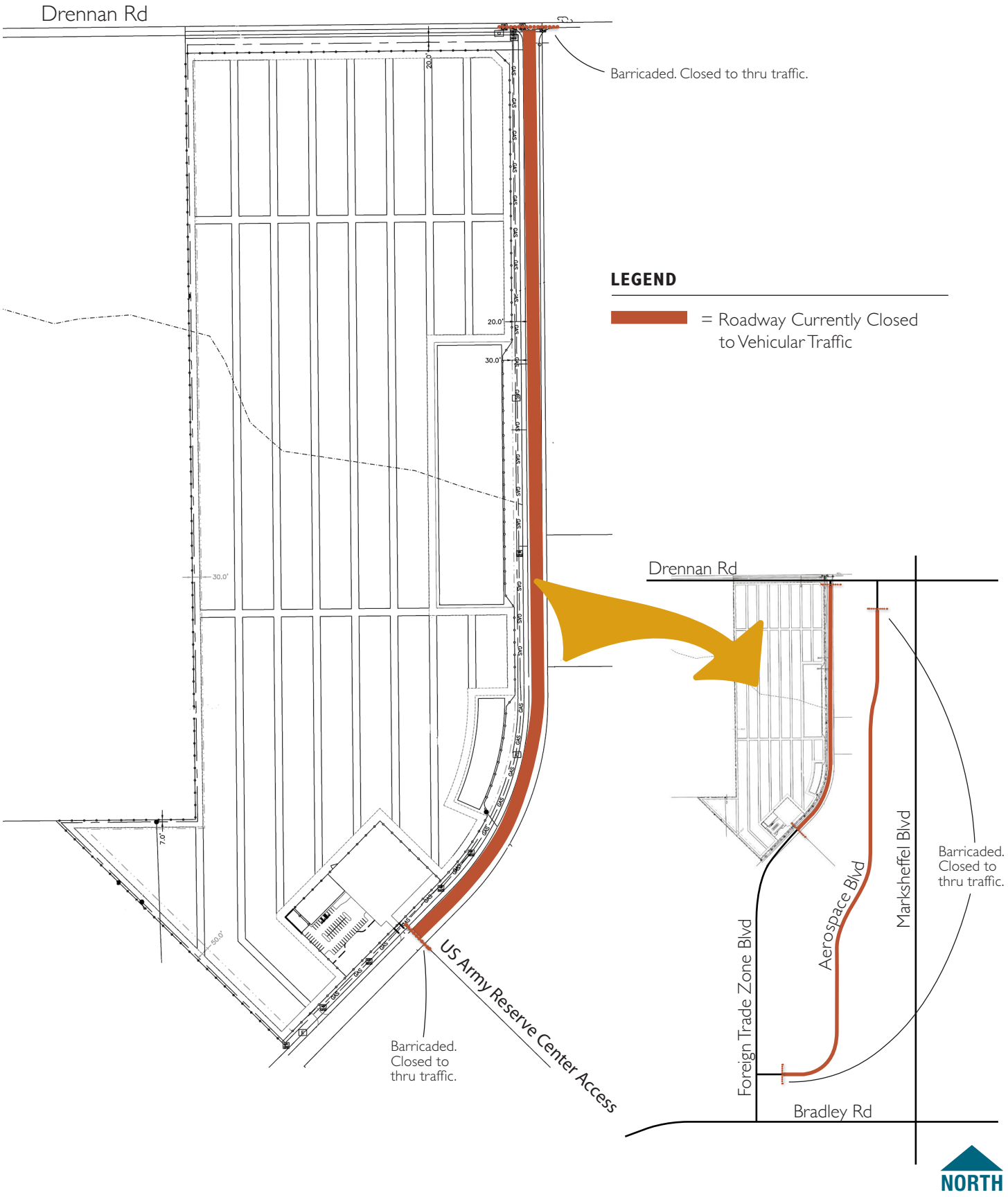
The proposed Copart development would create a new Vehicle Storage and Auction facility occupying 80 acres of an 160 total acres along the west side of Foreign Trade Zone Boulevard south of Drennan Road in El Paso County, Colorado. The proposed development would generate approximately 250 vehicle-trips per day with 24 vehicle-trips during the AM peak hour, and 34 vehicle-trips during the PM peak hour.

Based on the LOS analysis conducted for both the existing conditions and total buildout conditions no intersection modifications are recommended at this time. It is recommended that site civil design efforts and design submittals to El Paso County include a full evaluation of sight distance and demonstrate that acceptable sight triangles/distance can be provided with development at the proposed site access.

It is not recommended at this time to add center striping or posted speed limit signs along Foreign Trade Zone Boulevard. However, it is recommended that such additions be made if the northern portion is reopened to vehicular traffic. At the proposed site access, it is recommended that a stop sign and stop bar pavement marking be provided approaching Foreign Trade Zone Boulevard. These measures would not be necessary as long as the northern portion of Foreign Trade Zone Boulevard remains closed to vehicular traffic.

The following are attached to this memorandum:

Figure 1.	Site Plan
Figure 2.	Existing Traffic Conditions
Figure 3.	Site Generated Traffic Volumes
Figure 4.	Total Traffic Conditions
Attachment A.	Operational Analysis Worksheets



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Site Plan | FIGURE 1

Copart 19-506 1/30/19

FIGURE 2
Existing Traffic Conditions

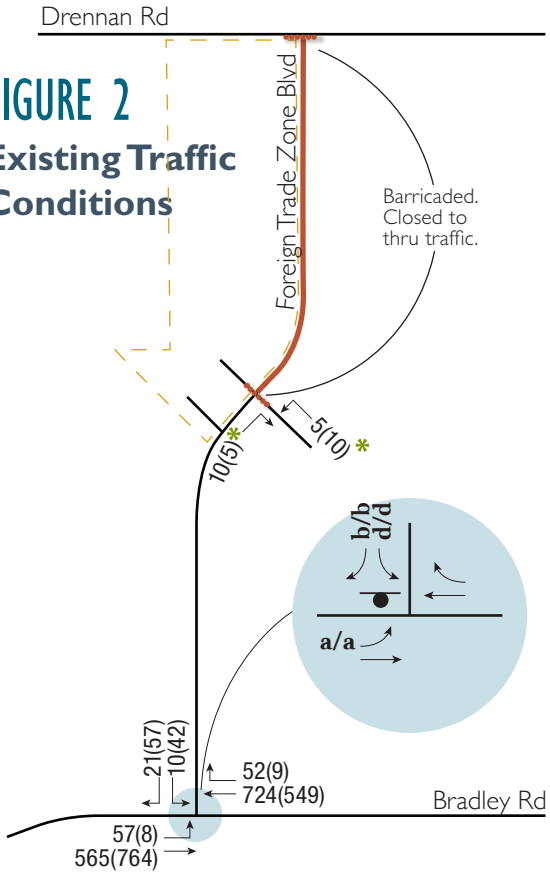


FIGURE 3
Site Generated Traffic Volumes

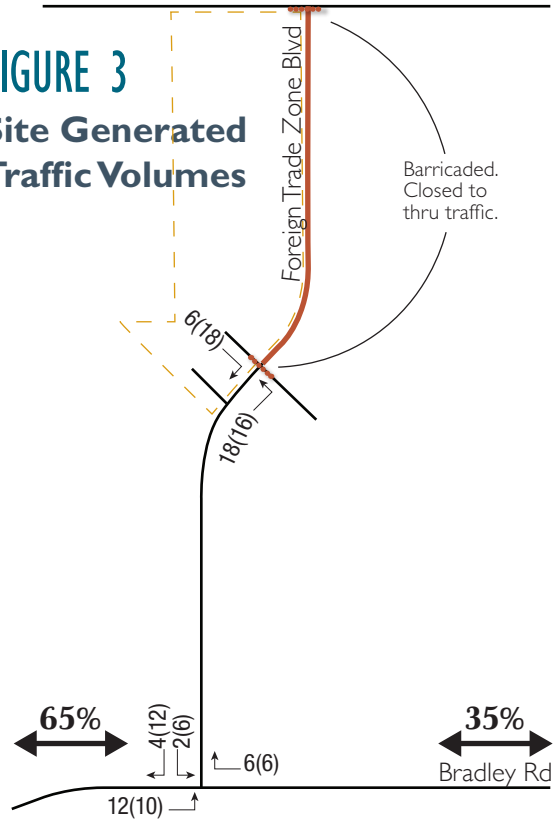
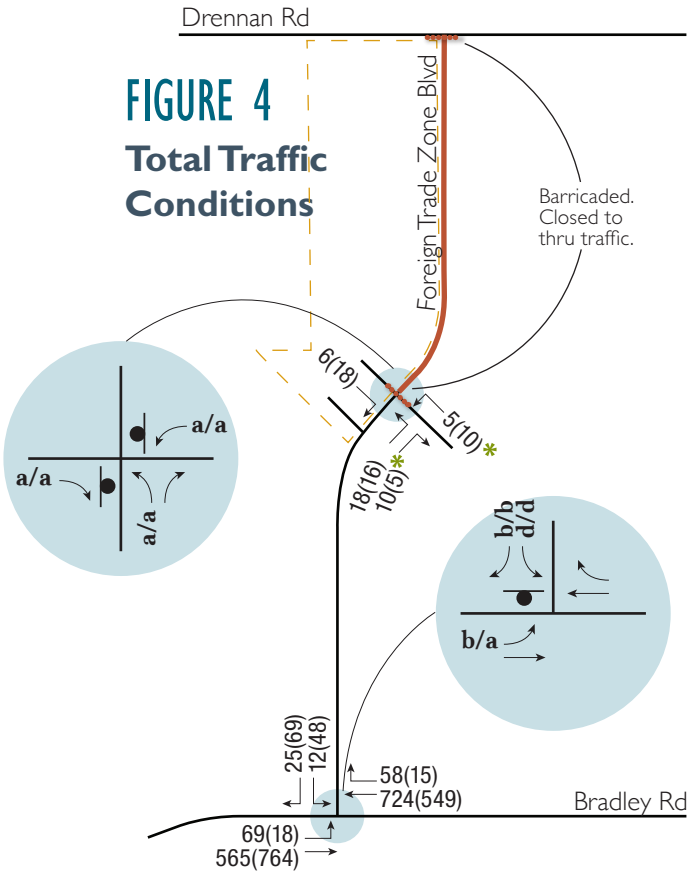


FIGURE 4
Total Traffic Conditions



LEGEND

NORTH

XXX(XXX)	=	AM(PM) Peak Hour Traffic Volumes
XX%	=	Site Trip Distribution
x/x	=	AM/PM Peak Hour Unsignalized Intersection Level of Service
*	=	Estimated Traffic Volumes
	=	Roadeay Currently Closed to Vehicular Traffic

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Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	57	565	724	52	10	21
Future Vol, veh/h	57	565	724	52	10	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	500	-	-	400	0	200
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	614	787	57	11	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	844	0	-	0	1218	394
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	431	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	788	-	-	-	173	605
Stage 1	-	-	-	-	409	-
Stage 2	-	-	-	-	623	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	788	-	-	-	159	605
Mov Cap-2 Maneuver	-	-	-	-	159	-
Stage 1	-	-	-	-	377	-
Stage 2	-	-	-	-	623	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	788	-	-	-	159	605
HCM Lane V/C Ratio	0.079	-	-	-	0.068	0.038
HCM Control Delay (s)	10	-	-	-	29.3	11.2
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.2	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	764	549	9	57	42
Future Vol, veh/h	8	764	549	9	57	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	500	-	-	400	0	200
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	830	597	10	62	46

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	607	0	-	0	1030	299
Stage 1	-	-	-	-	597	-
Stage 2	-	-	-	-	433	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	967	-	-	-	229	697
Stage 1	-	-	-	-	513	-
Stage 2	-	-	-	-	621	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	967	-	-	-	227	697
Mov Cap-2 Maneuver	-	-	-	-	227	-
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	621	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	19.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	967	-	-	-	227	697
HCM Lane V/C Ratio	0.009	-	-	-	0.273	0.065
HCM Control Delay (s)	8.8	-	-	-	26.7	10.5
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0	-	-	-	1.1	0.2

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	69	565	724	58	12	25
Future Vol, veh/h	69	565	724	58	12	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	500	-	-	400	0	200
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	614	787	63	13	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	850	0	-	0	1244	394
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	457	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	784	-	-	-	166	605
Stage 1	-	-	-	-	409	-
Stage 2	-	-	-	-	604	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	784	-	-	-	150	605
Mov Cap-2 Maneuver	-	-	-	-	150	-
Stage 1	-	-	-	-	370	-
Stage 2	-	-	-	-	604	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	17.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	784	-	-	-	150	605
HCM Lane V/C Ratio	0.096	-	-	-	0.087	0.045
HCM Control Delay (s)	10.1	-	-	-	31.3	11.2
HCM Lane LOS	B	-	-	-	D	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3	0.1

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	0	0	6	5	0	0	18	0	10	0	0	0
Future Vol, veh/h	0	0	6	5	0	0	18	0	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	7	5	0	0	20	0	11	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	47	52	1	51	47	6	1	0	0	11	0	0
Stage 1	1	1	-	46	46	-	-	-	-	-	-	-
Stage 2	46	51	-	5	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	954	839	1084	948	845	1077	1622	-	-	1608	-	-
Stage 1	1022	895	-	968	857	-	-	-	-	-	-	-
Stage 2	968	852	-	1017	895	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	945	829	1084	934	835	1077	1622	-	-	1608	-	-
Mov Cap-2 Maneuver	945	829	-	934	835	-	-	-	-	-	-	-
Stage 1	1010	895	-	956	847	-	-	-	-	-	-	-
Stage 2	956	842	-	1011	895	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.3	8.9	4.7	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	1084	934	1608	-	-
HCM Lane V/C Ratio	0.012	-	-	0.006	0.006	-	-	-
HCM Control Delay (s)	7.2	0	-	8.3	8.9	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	764	549	15	46	69
Future Vol, veh/h	18	764	549	15	46	69
Conflicting Peds, #/hr	0	0	0	0	48	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	500	-	-	400	0	200
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	830	597	16	50	75

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	613	0	-	0	1100	299
Stage 1	-	-	-	-	597	-
Stage 2	-	-	-	-	503	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	962	-	-	-	206	697
Stage 1	-	-	-	-	513	-
Stage 2	-	-	-	-	573	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	962	-	-	-	202	697
Mov Cap-2 Maneuver	-	-	-	-	202	-
Stage 1	-	-	-	-	502	-
Stage 2	-	-	-	-	573	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	17.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	962	-	-	-	202	697
HCM Lane V/C Ratio	0.02	-	-	-	0.248	0.108
HCM Control Delay (s)	8.8	-	-	-	28.6	10.8
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9	0.4

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	18	10	0	0	16	0	5	0	0	0
Future Vol, veh/h	0	0	18	10	0	0	16	0	5	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	20	11	0	0	17	0	5	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	38	40	1	48	38	3	1	0	0	5	0	0
Stage 1	1	1	-	37	37	-	-	-	-	-	-	-
Stage 2	37	39	-	11	1	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	967	852	1084	953	854	1081	1622	-	-	1616	-	-
Stage 1	1022	895	-	978	864	-	-	-	-	-	-	-
Stage 2	978	862	-	1010	895	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	959	843	1084	928	845	1081	1622	-	-	1616	-	-
Mov Cap-2 Maneuver	959	843	-	928	845	-	-	-	-	-	-	-
Stage 1	1011	895	-	967	854	-	-	-	-	-	-	-
Stage 2	967	853	-	992	895	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	8.9	5.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1622	-	-	1084	928	1616	-	-
HCM Lane V/C Ratio	0.011	-	-	0.018	0.012	-	-	-
HCM Control Delay (s)	7.2	0	-	8.4	8.9	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-