Peerless Farms
Traffic Memorandum

El Paso County, Colorado

Add PCD File
No.SF242

Traffic Engineer's Statement

The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.

Jeffrey R. Planck, P.E., PE #53006

January 9, 2024
Date

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

Robert S. Williams
16975 Falcon Highway
Peyton, Colorado 80831-7906

Date

January 9, 2024

Robert S. Williams
16975 Falcon Highway
Peyton, Colorado 80831-7906

Re: Peerless Farms – Traffic Study Memorandum
16975 Falcon Highway
El Paso County, Colorado

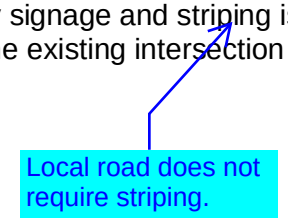
Dear Mr. Williams:

This Traffic Study Memorandum has been prepared for the proposed Peerless Farms development located at 16975 Falcon Highway in El Paso County, Colorado. A vicinity map illustrating the location of the property is attached as **Figure 1**. The site currently consists of one single family home and is expected to increase to a total of seven single family homes. The site currently has two accesses along the south side of Falcon Highway. With buildout of the Peerless Farms site, these two existing accesses will be closed and access for the project will be provided along the south side of Falcon Highway aligning with Sagecreek Road. This study also follows El Paso County guidelines to serve as a Traffic Memorandum based on the daily trip generation being less than 500 trips per day and the Sagecreek Road extension being a proposed roadway intersection to a minor arterial. A conceptual site plan of the property is attached.

EXISTING ROADWAY NETWORK

Falcon Highway is classified as a minor arterial in the El Paso County 2016 Major Transportation Corridors Plan Update and extends eastbound and westbound with one through lane of travel in each direction with a posted speed limit of 55 miles per hour. Sagecreek Road extends northbound and southbound as an unpaved road with the width provided for one through lane in each direction. Of note, no roadway improvements are identified in the El Paso County Major Transportation Corridors Plan in the site vicinity.

The unsignalized 'T'-intersection of Falcon Highway and Sagecreek Road operates with stop-control on the southbound Sagecreek Road approach. The eastbound Falcon Highway approach consists of a shared left turn/through lane while the westbound approach provides a shared through/right turn lane. The southbound Sagecreek Road approach consists of a shared left/right turn lane. It is believed that the existing roadway signage and striping is appropriate for this intersection. An aerial photo that illustrates the existing intersection configuration is below (north is up).



Falcon Highway & Sagecreek Road

The intersection lane configuration and control for this study area intersection is shown in attached **Figure 2**.

EXISTING AND FUTURE TRAFFIC VOLUMES

Existing vehicle turning movement counts were conducted at the Falcon Highway and Sagecreek Road intersection on Thursday, November 16, 2023 during the morning and afternoon peak hours. The counts were conducted during the morning and afternoon peak hours of adjacent street traffic in 15-minute intervals from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on this count date. The existing intersection traffic volumes are also shown in attached **Figure 3** with count sheets attached.

According to traffic projections provided in the El Paso County (EPC) 2016 Major Transportation Corridors Plan Update (MTCP), the surrounding street system is expected to have an annual traffic growth rate of approximately 3.48 percent. Therefore, an annual growth rate of 3.48 percent was used to calculate short-term 2026 and long-term 2045 background traffic projections. Traffic projection information and calculations are attached.

The 2026 and 2045 background traffic volumes are also shown in **Figure 4** and **Figure 5**, respectively.

MULTIMODAL FACILITY REVIEW

There are not any pedestrian or bicycle facilities along Falcon Highway or within the study area. This project is not anticipated to create the need for these alternate travel mode facilities. There is no public transportation service in this area. With the rural nature, it is believed that public transportation to serve this area is not feasible.

Also address proximity to any schools.

TRIP GENERATION

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual*[1] published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation Manual average rates that apply to Single-Family Detached Housing (ITE Code 210) for traffic associated with this development. The following **Table 1** summarizes the estimated trip generation for traffic associated with the development (calculations attached).

Table 1 – Peerless Farms Expansion Traffic Generation

Use	Weekday Vehicles Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Single Family Detached Housing (ITE 210) 7 Dwelling Units	68	1	4	5	4	3	7

As shown in the table and based on ITE Trip Generation calculations, Peerless Farms is expected to generate approximately 68 weekday daily trips, with five (5) of these trips occurring during the morning peak hour and seven (7) of these trips occurring during the afternoon peak hour.

TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, existing and anticipated surrounding employment, school, and attraction information, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. The traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1**. **Figure 6** illustrates the trip distribution, whereas **Figure 7** shows the traffic assignment for this project.

[1] Institute of Transportation Engineers, *Trip Generation Manual*, Eleventh Edition, Washington DC, 2021.

TOTAL (BACKGROUND PLUS PROJECT) TRAFFIC

Site traffic volumes were added to the background volumes to represent estimated total traffic conditions for the 2026 and 2045 horizons. These total traffic volumes for the study area are illustrated for the 2026 and 2045 horizon years in **Figures 8 and 9**, respectively.

TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn's analysis of traffic operations was conducted to determine potential capacity deficiencies at the Falcon Highway and Sagecreek Road intersection for the buildout 2026 year and long-term planning 2045 year. The acknowledged source for determining overall capacity is the Highway Capacity Manual[2]. Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). For intersections and roadways, standard traffic engineering practice recommends LOS D as the minimum threshold for acceptable operations for intersections and LOS E for movements. **Table 2** below shows the definition of level of service for unsignalized intersections.

Table 2 – Level of Service Definitions

Level of Service	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Transportation Research Board, *Highway Capacity Manual*, Sixth Edition, Washington DC, 2016.

[2] Transportation Research Board, *Highway Capacity Manual*, Sixth Edition, Washington DC, 2016.

there are no other internal roadways, remaining accesses are driveways.

Falcon Highway and Sagecreek Road

The unsignalized 'T'-intersection of Falcon Highway and Sagecreek Road operates with stop-control on the southbound Sagecreek Road approach. With project construction, a south leg is proposed at this intersection to provide access to the Peerless Farms development. When this access is constructed, it is recommended to consist of one shared lane for all movements and a R1-1 "STOP" sign be installed on the northbound approach of the access intersection. This access and all roadways internal to the project site will be classified as local roadways. **Table 3** provides the results of the level of service at this intersection (calculations attached).

Indicate if there is an existing stop sign on the south bound approach of the intersection.

Table 3 – Falcon Highway Peerless Farms Access LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2023 Existing				
Eastbound Left	7.7	A	7.4	A
Southbound Approach	9.5	A	9.9	A
2026 Background				
Eastbound Left	7.8	A	7.4	A
Southbound Approach	9.7	A	10.0	B
2026 Total #				
Northbound Approach	10.3	B	10.7	B
Eastbound Left	7.8	A	7.4	A
Westbound Left	7.4	A	7.7	A
Southbound Approach	9.7	A	10.3	B
2045 Background				
Eastbound Left	8.4	A	7.6	A
Southbound Approach	11.5	B	12.4	B
2045 Total #				
Northbound Approach	13.2	B	14.2	B
Eastbound Left	8.4	A	7.6	A
Westbound Left	7.5	A	8.3	A
Southbound Approach	11.6	B	13.3	B

= Stop Controlled Northbound Approach

As shown in the table above, the intersection movements currently operate acceptably with LOS A during the peak hours. With the addition of the proposed Peerless Farms development, all movements at this intersection are anticipated to continue to operate acceptably with LOS B or better during the studied peak hours throughout the 2045 horizon.

include section number

TURN LANE EVALAUTION

The El Paso County Engineering Criteria Manual (ECM) was used to determine if left and right turn lanes are warranted along Falcon Highway at the Peerless Farms access. El Paso County classifies Falcon Highway as a Minor Arterial roadway. According to El Paso County ECM guidelines for Minor Arterials, a left turn lane is required for any access with a projected peak hour left turning volume of 25 vehicles per hour or greater, a right turn lane is required for any access with a projected peak hour right turning volume of 50 vehicles per hour or greater, and a right turn acceleration lane is generally not required.

Based on Falcon Highway providing a posted speed limit of 55 miles per hour, the turn lane requirements are as follows:

Falcon Highway and Sagecreek Road:

- A westbound left turn lane **is not** warranted at this intersection based on projected 2045 total traffic volumes being one (1) westbound left turns during the peak hour and the threshold being 25 vehicles per hour.
- An eastbound right turn lane **is not** warranted at this intersection based on projected 2045 total traffic volumes being three (3) eastbound right turns during the peak hour and the threshold being 50 vehicles per hour.

SIGHT DISTANCE EVALUATION

A full movement project access is proposed along the south side of Falcon Highway that will align with Sagecreek Road. The project access will be located approximately 750 feet west of Peerless Farms Road (measured centerline to centerline).

It is recommended that sight triangles be provided at the site access point of Sagecreek Road and Falcon Highway to give drivers entering and exiting the site a clear view of oncoming traffic. Landscaping and objects within sight triangles must not obstruct drivers' views of the adjacent travel lanes. El Paso County Engineering Criteria Manual (ECM) design intersection sight distances for exiting left and right turn from stop, as well as entering left turn were evaluated at the south leg access at Sagecreek Road and Falcon Highway. The following identifies sight distance requirements for the acces associated with the project.

Posted speed is 55, check design speed for sight distance determination

According to Table 2-21 from ECM and a roadway design speed of 55 miles per hour (mph) along Falcon Highway, the intersection sight distance for a vehicle turning left and right from stop is 610 feet. It should be noted that this distance was extrapolated as the highest speed recorded in ECM Table 2-21 is 50 mph (sight distance of 555 feet) and every five (5) mph increases the sight distance by 55 feet. Therefore, all obstructions for left turning vehicles from stop should be clear to the right within the triangle created with a vertex point located 13 feet from the edge of the major road traveled way (typical position of the minor road driver's eye when stopped) and a line-of-sight distance of 610 feet located in the middle of the westbound through lane along Falcon Highway. Likewise, all obstructions for right turning vehicles from stop should be clear to the left within the triangle created with a vertex point located 13 feet from the edge of the major road traveled way and a line-of-sight distance of 610 feet located in the middle of the eastbound through lane along Falcon Highway.

Use AASHTO Greenbook Exhibit 9-55 to determine intersection sight distance for design speeds above 50 MPH Extrapolation from ECM table is not acceptable

According to Table 2-35 from ECM and a posted speed of 55 miles per hour along the Falcon Highway, the intersection sight distance for a left turning vehicle entering the south leg of the Falcon Highway and Sagecreek Road is 550 feet for a passenger car. all obstructions for left turning vehicles should be clear from the opposing lanes v distance.

Include figure for required intersection sight distance and required stopping sight distance

It is believed that appropriate sight distances are currently provided at the existin intersection of Falcon Highway and Sagecreek Road. It should be taken under consideration to field verify that these distances are currently be achieved at this intersection.

CONCLUSIONS

It is believed that the Peerless Farms project will be accommodated successfully on the surrounding street network. The following outlines the conclusions from the traffic analysis with the recommended geometry and control shown in **Figure 10**:

- With project construction, a south leg is proposed at the Falcon Highway and Sagecreek Road intersection to provide access to the Peerless Farms development. When this access is constructed, it is recommended to consist of one shared lane for all movements and a R1-1 “STOP” sign be installed on the northbound approach of the access intersection.

Please let us know if El Paso County would like any additional information. If you have any questions, please feel free to call me at (720) 943-9962.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Jeffrey R. Planck

Jeffrey R. Planck, P.E.
Project Traffic Engineer

Figures

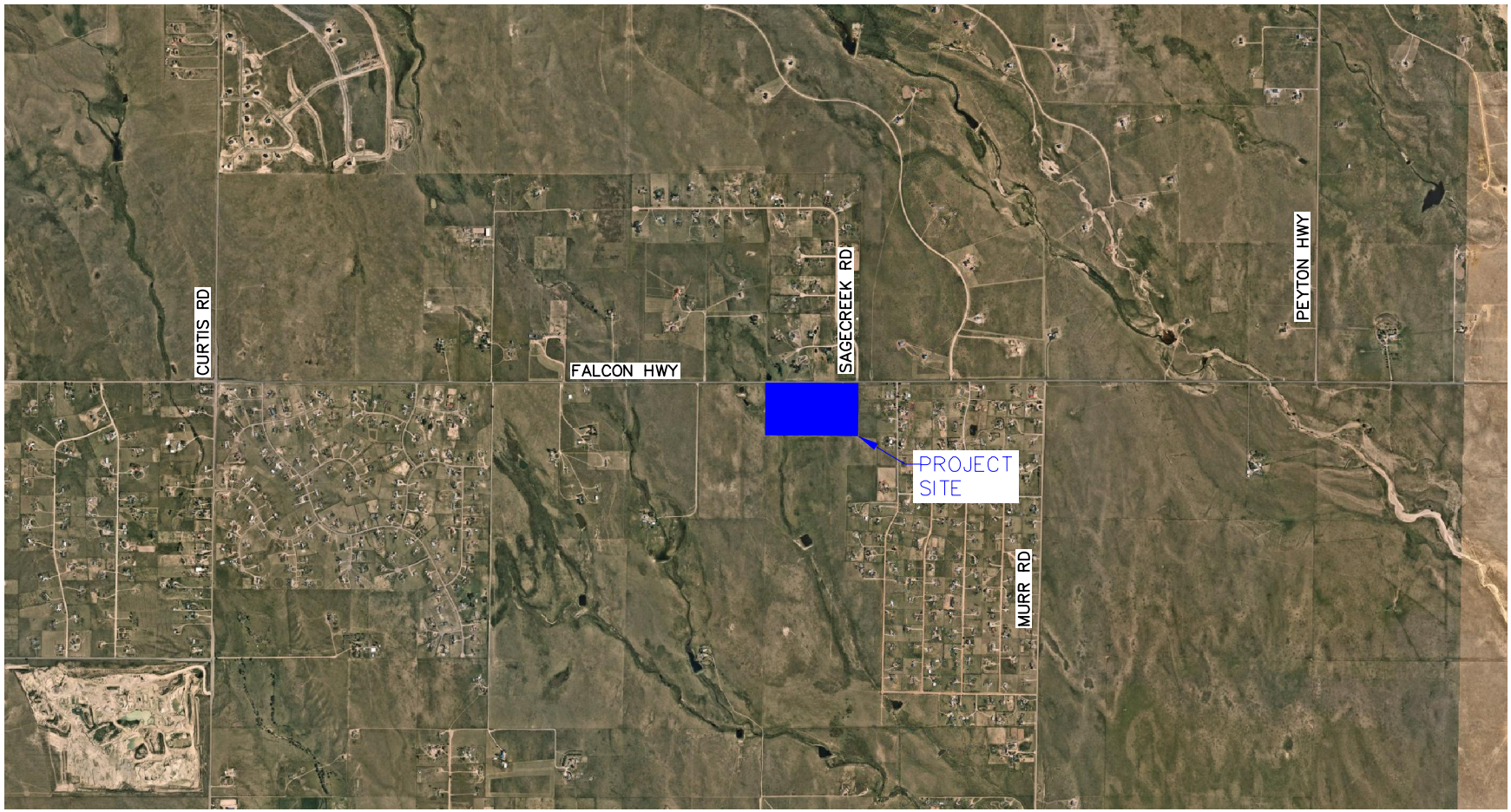
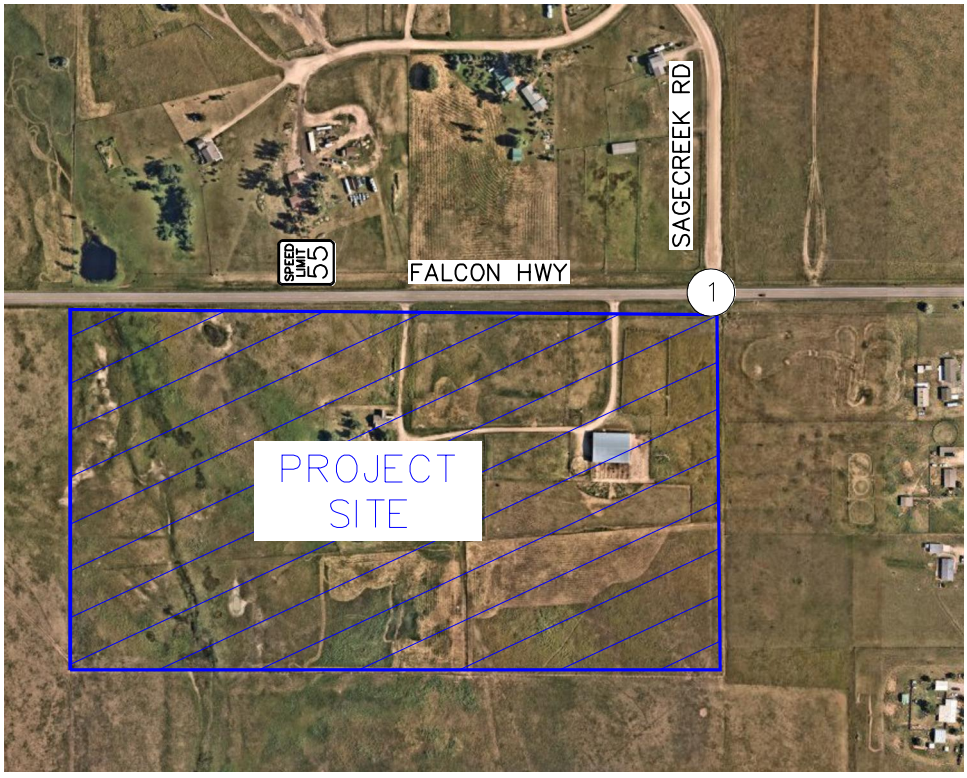
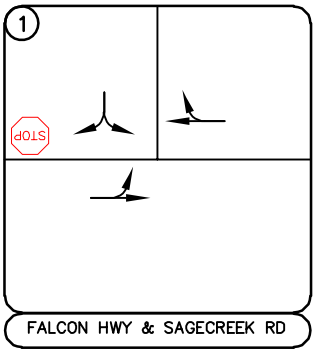


FIGURE 1
PEERLESS FARMS
EL PASO COUNTY, COLORADO
VICINITY MAP

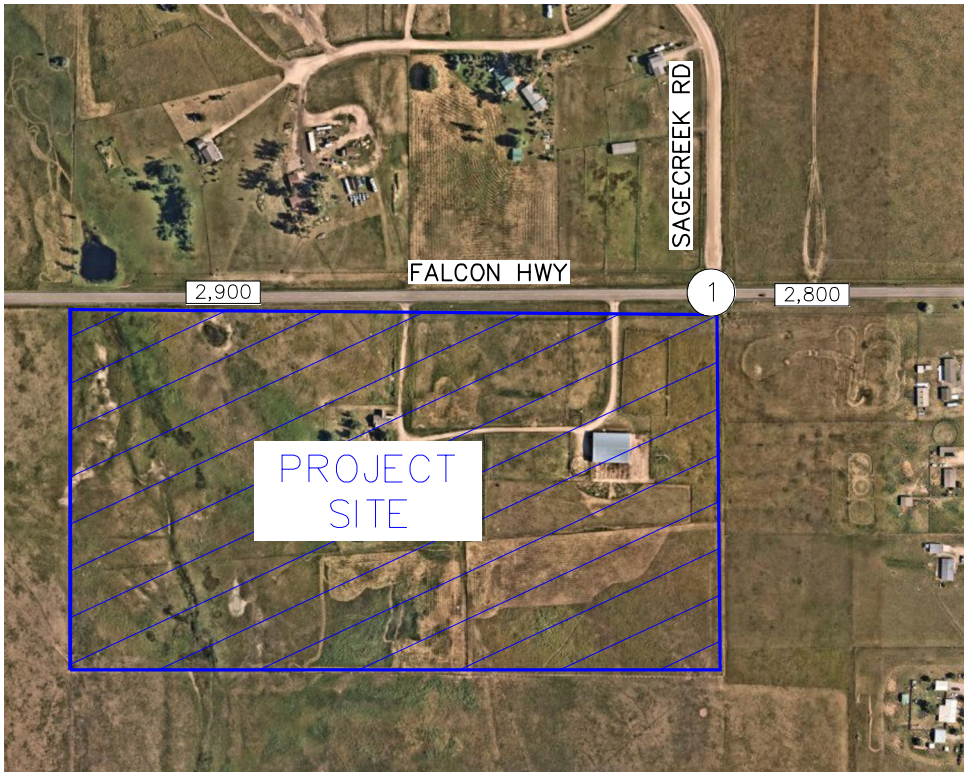


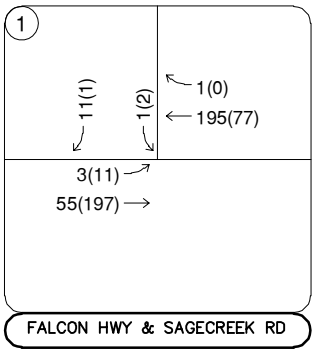


LEGEND
X Study Area Key Intersection
STOP Stop Controlled Approach
SPEED LIMIT XX Roadway Speed Limit

FIGURE 2
PEERLESS FARMS
EL PASO COUNTY, COLORADO
EXISTING GEOMETRY AND CONTROL

Kimley»Horn
NORTH
NTS 196114000





Thursday, November 16, 2023
7:00 to 8:00AM (4:30 to 5:30PM)

LEGEND

(X)	Study Area Key Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

FIGURE 3
PEERLESS FARMS
EL PASO COUNTY, COLORADO
2023 EXISTING TRAFFIC VOLUMES

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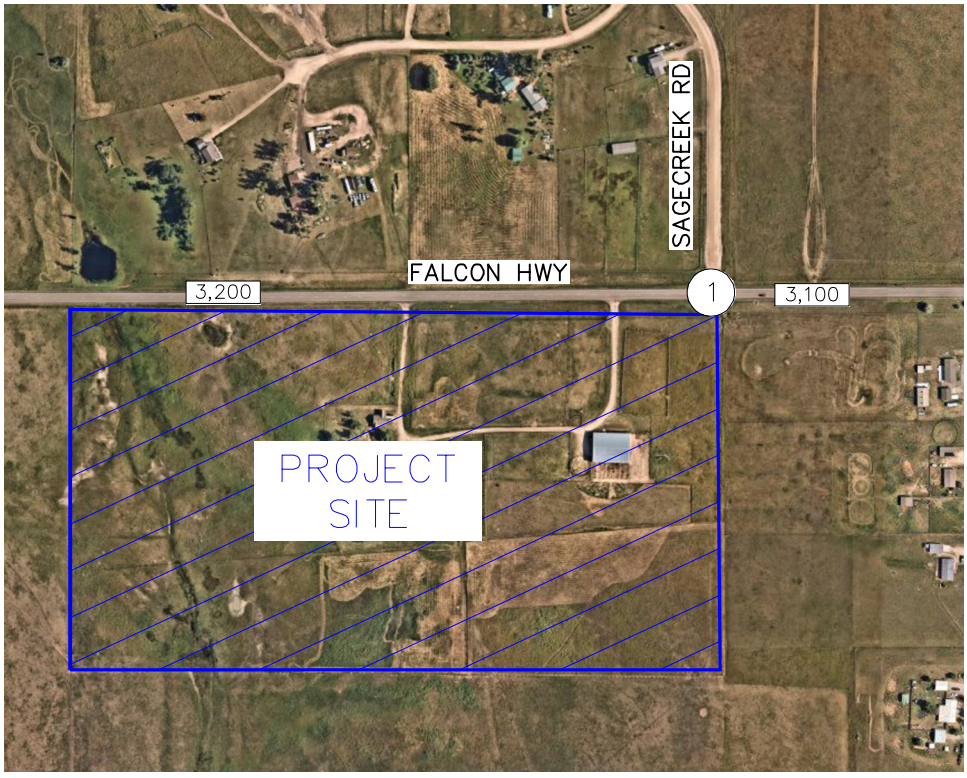
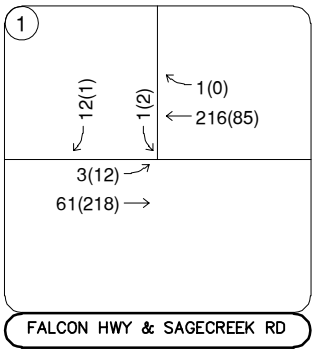




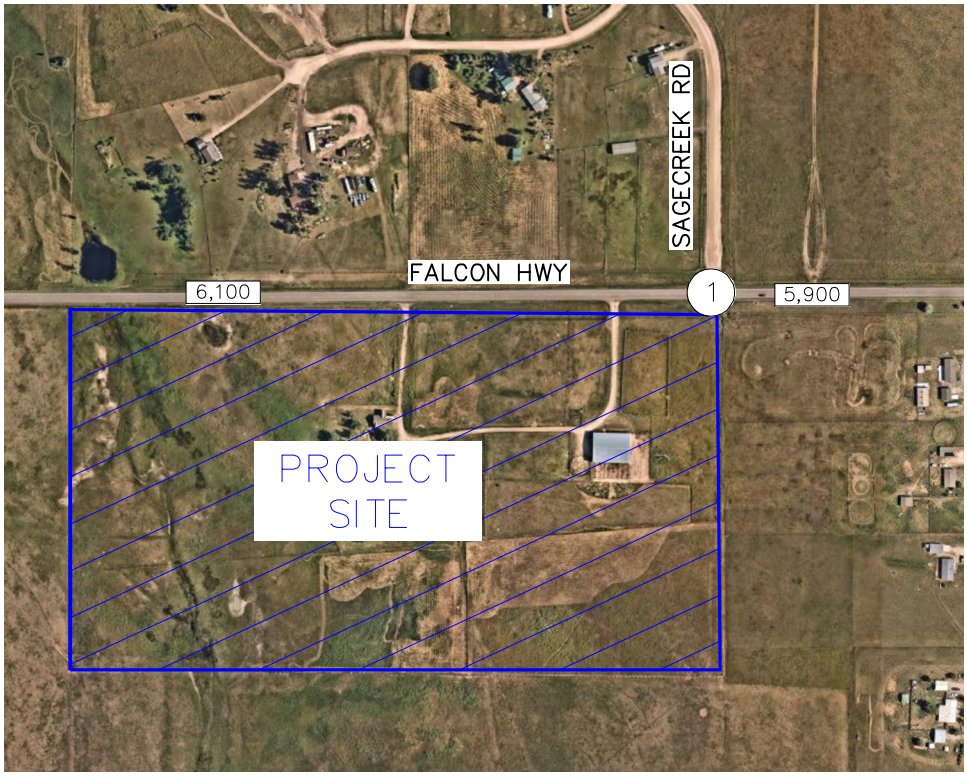
LEGEND

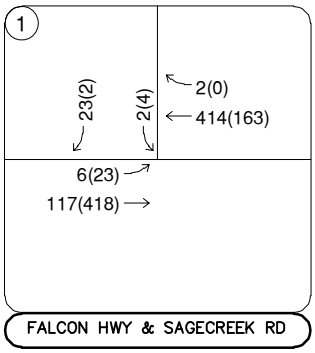
(X)	Study Area Key Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

FIGURE 4
PEERLESS FARMS
EL PASO COUNTY, COLORADO
2026 BACKGROUND TRAFFIC VOLUMES

Kimley»Horn

Kimley»Horn
NORTH
NTS 196114000



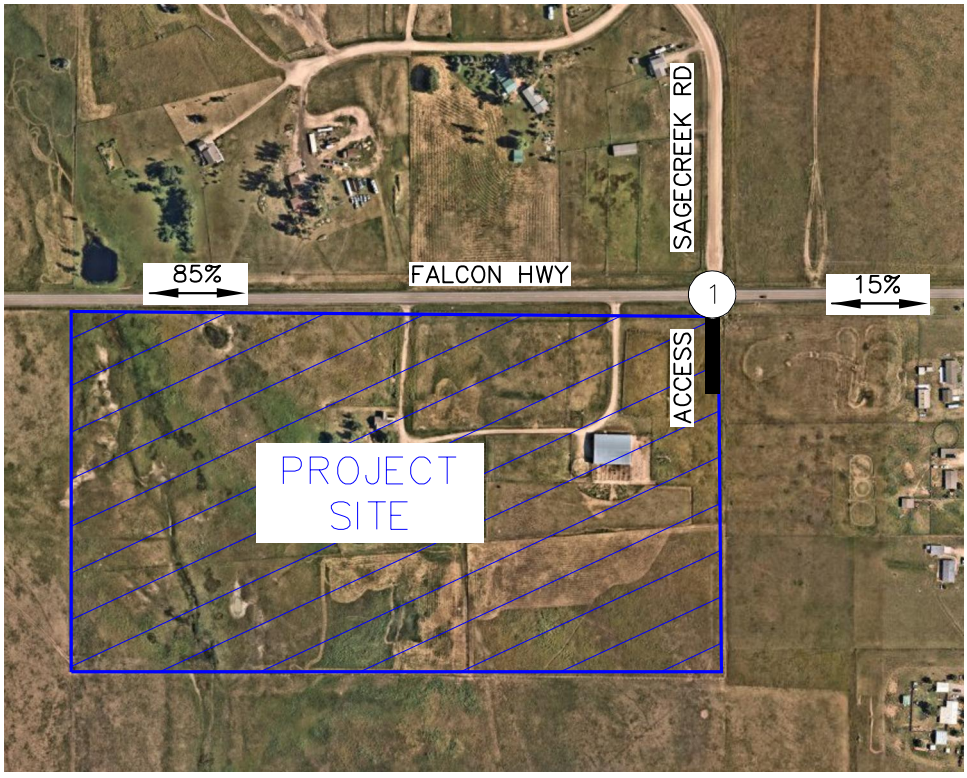


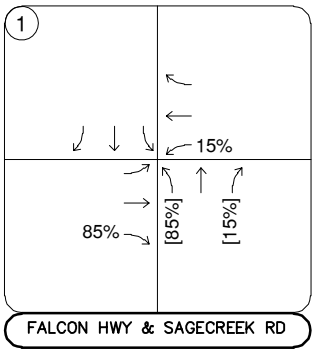
LEGEND

(X)	Study Area Key Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

FIGURE 5
PEERLESS FARMS
EL PASO COUNTY, COLORADO
2045 BACKGROUND TRAFFIC VOLUMES

Kimley»Horn





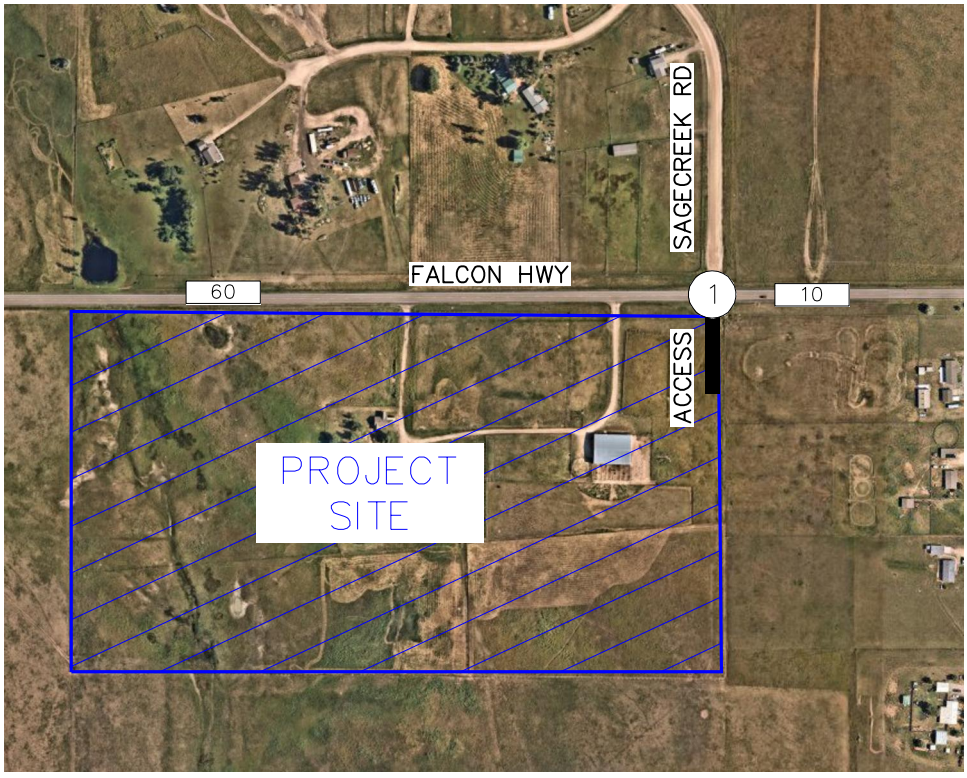
LEGEND

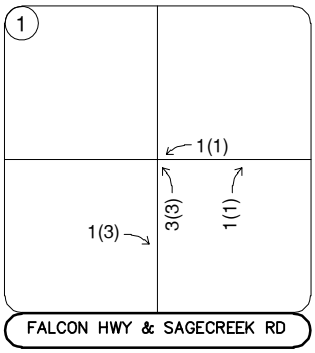
(X) Study Area Key Intersection

XX% External Trip Distribution Percentage

XX%[XX%] Entering[Exiting] Trip Distribution Percentage

FIGURE 6
PEERLESS FARMS
EL PASO COUNTY, COLORADO
PROJECT TRIP DISTRIBUTION





LEGEND

(X) Study Area Key Intersection

XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes

XX,X00 Estimated Daily Traffic Volume

FIGURE 7
PEERLESS FARMS
EL PASO COUNTY, COLORADO
PROJECT TRAFFIC ASSIGNMENT

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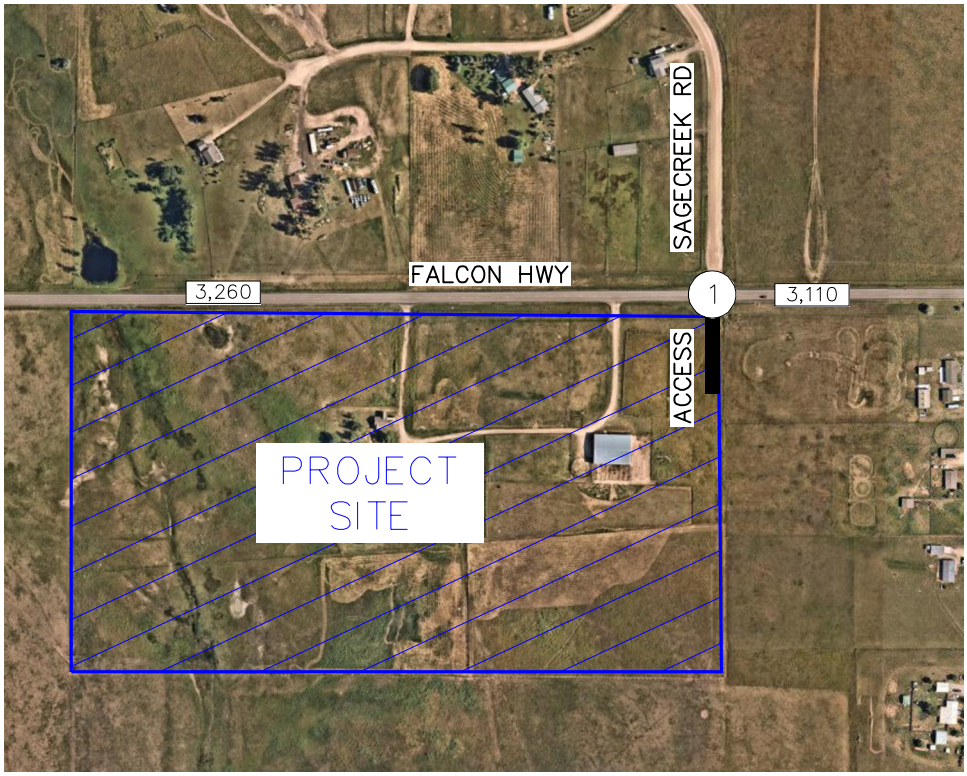
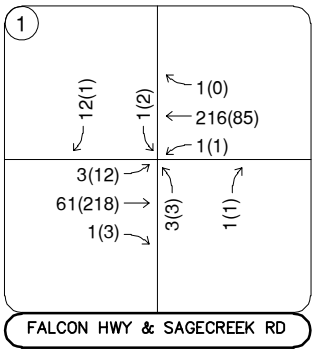


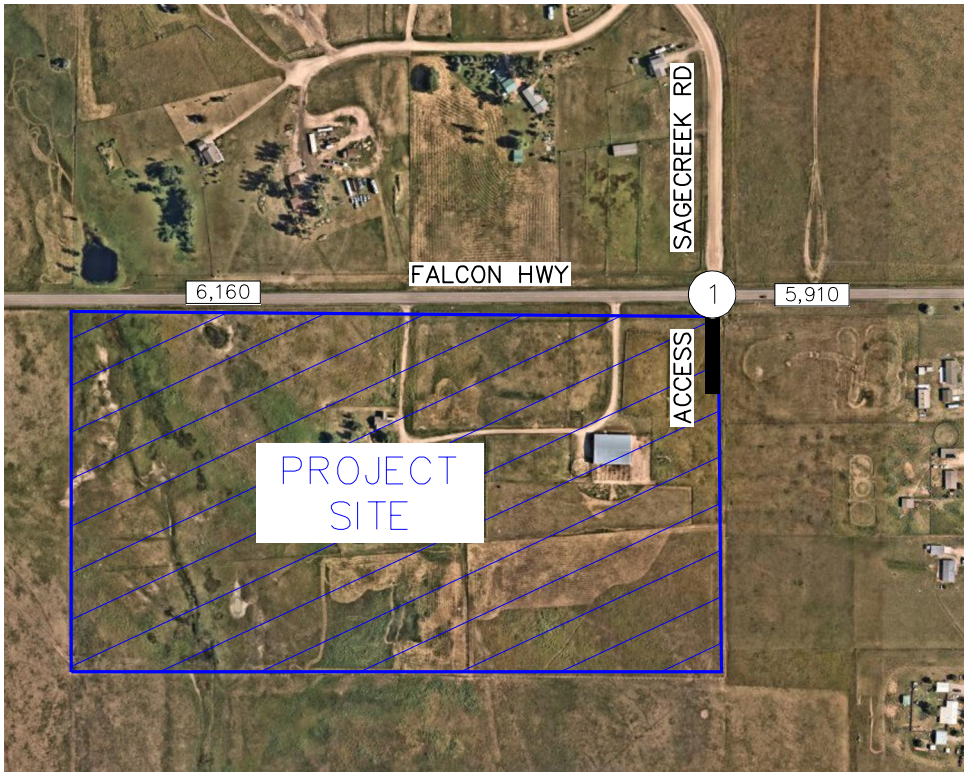


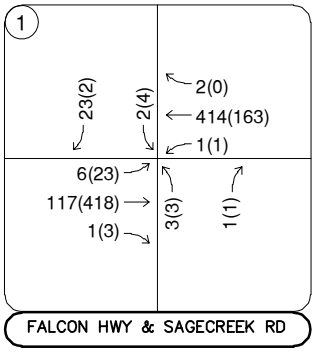
LEGEND

(X)	Study Area Key Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

FIGURE 8
PEERLESS FARMS
EL PASO COUNTY, COLORADO
2026 TOTAL TRAFFIC VOLUMES

Kimley»Horn





LEGEND

(X) Study Area Key Intersection

XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes

[XX,X00] Estimated Daily Traffic Volume

FIGURE 9
PEERLESS FARMS
EL PASO COUNTY, COLORADO
2045 TOTAL TRAFFIC VOLUMES

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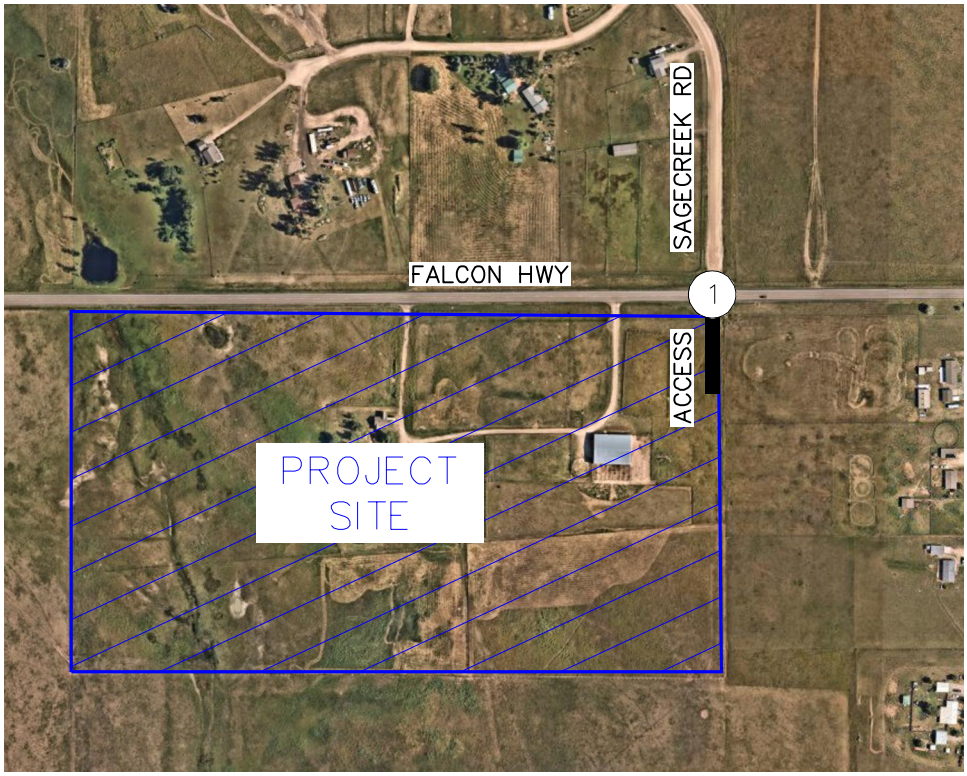
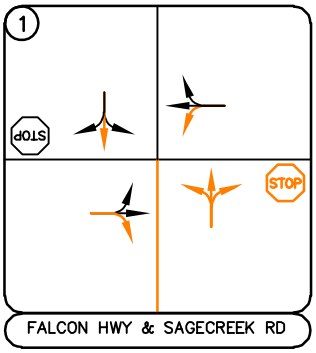
NORTH
NTS 196114000





LEGEND

X Study Area Key Intersection

STOP Stop Controlled Approach

Improvement

FIGURE 10
PEERLESS FARMS
EL PASO COUNTY, COLORADO
RECOMMENDED GEOMETRY & CONTROL

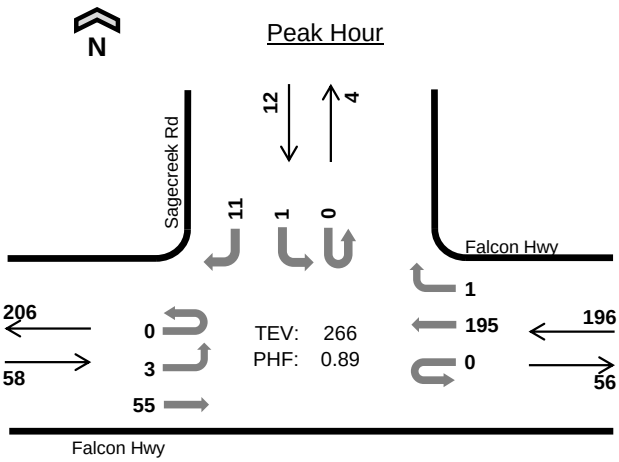
Kimley»Horn

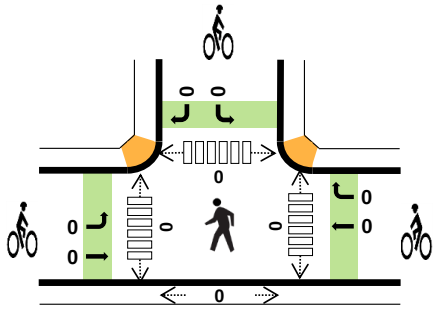
Intersection Count Sheets

Sagecreek Rd
Falcon Hwy

Date: 11/16/2023
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM

Peak Hour





	HV %:	PHF
EB	5.2%	0.63
WB	4.1%	0.82
NB	-	-
SB	0.0%	0.60
TOTAL	4.1%	0.89

Two-Hour Count Summaries

Interval Start		Falcon Hwy Eastbound				Falcon Hwy Westbound				n/a Northbound				Sagecreek Rd Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		**0**	**1**	**9**	**0**	**0**	**0**	**59**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**4**	**75**	0
7:15 AM		**0**	**0**	**11**	**0**	**0**	**0**	**50**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**63**	0
7:30 AM		**0**	**1**	**13**	**0**	**0**	**0**	**54**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**72**	0
7:45 AM		**0**	**1**	**22**	**0**	**0**	**0**	**32**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**56**	**266**
8:00 AM		0	2	12	0	0	0	51	0	0	0	0	0	0	0	0	1	66	257
8:15 AM		0	0	14	0	0	0	29	0	0	0	0	0	0	0	0	3	46	240
8:30 AM		0	0	12	0	0	0	38	0	0	0	0	0	0	0	0	2	52	220
8:45 AM		0	2	15	0	0	0	32	0	0	0	0	0	0	1	0	1	51	215
Count Total		0	7	108	0	0	0	345	1	0	0	0	0	0	2	0	18	481	0
Peak Hour	**All**	**0**	**3**	**55**	**0**	**0**	**0**	**195**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**11**	**266**	**0**
	HV	**0**	**0**	**3**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**
	HV%	**-**	**0%**	**5%**	**-**	**-**	**-**	**4%**	**0%**	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**0%**	**4%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	**1**	**2**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**1**	**3**	**0**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**3**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	1	1	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	2	1	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	6	14	0	0	*20*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hr	**3**	**8**	**0**	**0**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

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Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Falcon Hwy				Falcon Hwy				n/a				Sagecreek Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	0
7:15 AM	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	0
7:45 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**11**
8:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	10
8:15 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	8
8:30 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	7
8:45 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	9
Count Total	0	0	6	0	0	0	14	0	0	0	0	0	0	0	0	0	20	0
Peak Hour	**0**	**0**	**3**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	Falcon Hwy			Falcon Hwy			n/a			Sagecreek Rd			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

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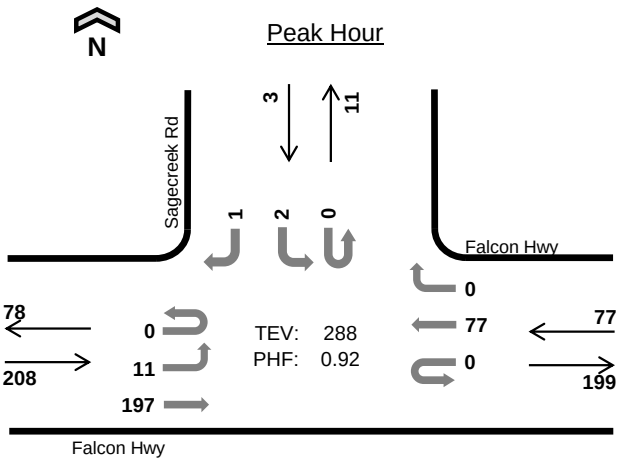
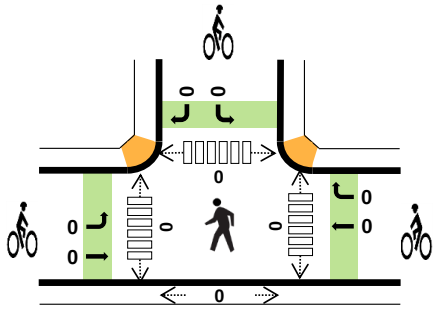
Sagecreek Rd
Falcon Hwy

Date: 11/16/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM

Peak Hour





	HV %:	PHF
EB	3.4%	0.98
WB	3.9%	0.69
NB	-	-
SB	0.0%	0.38
TOTAL	3.5%	0.92

Two-Hour Count Summaries

Interval Start	Falcon Hwy Eastbound				Falcon Hwy Westbound				n/a Northbound				Sagecreek Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	4	35	0	0	0	22	1	0	0	0	0	0	1	0	0	63	0
4:15 PM	0	3	43	0	0	0	10	1	0	0	0	0	0	0	0	1	58	0
4:30 PM	**0**	**2**	**48**	**0**	**0**	**0**	**28**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**78**	0
4:45 PM	**0**	**6**	**47**	**0**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**67**	266
5:00 PM	**0**	**2**	**50**	**0**	**0**	**0**	**20**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**72**	275
5:15 PM	**0**	**1**	**52**	**0**	**0**	**0**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**71**	**288**
5:30 PM	0	1	35	0	0	0	21	1	0	0	0	0	0	0	0	0	58	268
5:45 PM	0	3	53	0	0	0	18	0	0	0	0	0	0	0	0	0	74	275
Count Total	0	22	363	0	0	0	148	3	0	0	0	0	0	3	0	2	541	0
Peak Hour All	**0**	**11**	**197**	**0**	**0**	**0**	**77**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**288**	**0**
Peak Hour HV	**0**	**1**	**6**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**
Peak Hour HV%	**-**	**9%**	**3%**	**-**	**-**	**-**	**4%**	**-**	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**0%**	**3%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	1	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	3	0	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**2**	**2**	**0**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**3**	**1**	**0**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**2**	**0**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:30 PM	1	2	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	2	1	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	14	7	0	0	*21*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hr	**7**	**3**	**0**	**0**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

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Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Falcon Hwy				Falcon Hwy				n/a				Sagecreek Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
4:15 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
4:30 PM	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	0
4:45 PM	**0**	**1**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	13
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	11
5:15 PM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**10**
5:30 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	9
5:45 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	8
Count Total	0	1	13	0	0	0	7	0	0	0	0	0	0	0	0	0	21	0
Peak Hour	**0**	**1**	**6**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	Falcon Hwy			Falcon Hwy			n/a			Sagecreek Rd			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

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Traffic Projections

EPC MTCP Traffic Projections: Peerless Farms

Location	2013	2040	Growth Factor	Annual Growth
Falcon Hwy W/O Curtis Rd	4,800	12,100	2.52	3.48%

Trip Generation Worksheets

Kimley»Horn

Project	Peerless Farms				
Subject	Trip Generation for Single-Family Detached Housing				
Designed by	TES	*Date*	December 05, 2023	*Job No.*	196114000
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 11th Edition, Average Rate Equations

Land Use Code - Single-Family Detached Housing (210)

Independent Variable - Dwelling Units (X)

X = 7
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 220)

Average Weekday
(T) = 0.70(X)
(T) = 0.70 * (7.0)

Directional Distribution: 25% ent. 75% exit.
T = 5 Average Vehicle Trip Ends
1 entering 4 exiting

1 + 4 = 5

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 221)

Average Weekday
(T) = 0.94(X)
(T) = 0.94 * (7.0)

Directional Distribution: 63% ent. 37% exit.
T = 7 Average Vehicle Trip Ends
4 entering 3 exiting

4 + 3 = 7

Weekday (200 Series Page 219)

Average Weekday
(T) = 9.43(X)
(T) = 9.43 * (7.0)

Directional Distribution: 50% entering, 50% exiting
T = 68 Average Vehicle Trip Ends
34 entering 34 exiting

34 + 34 = 68

Intersection Capacity Analysis Outputs

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	55	195	1	1	11
Future Vol, veh/h	3	55	195	1	1	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	5	5	4	4	2	2
Mvmt Flow	3	62	219	1	1	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	220	0	-	0	288	220
Stage 1	-	-	-	-	220	-
Stage 2	-	-	-	-	68	-
Critical Hdwy	4.15	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.245	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1332	-	-	-	702	820
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	955	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1332	-	-	-	701	820
Mov Cap-2 Maneuver	-	-	-	-	701	-
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	955	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1332	-	-	-	809
HCM Lane V/C Ratio	0.003	-	-	-	0.017
HCM Control Delay (s)	7.7	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	197	77	0	2	1
Future Vol, veh/h	11	197	77	0	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	4	4	2	2
Mvmt Flow	12	214	84	0	2	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	84	0	-	0	322	84
Stage 1	-	-	-	-	84	-
Stage 2	-	-	-	-	238	-
Critical Hdwy	4.13	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.227	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1506	-	-	-	672	975
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	802	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1506	-	-	-	666	975
Mov Cap-2 Maneuver	-	-	-	-	666	-
Stage 1	-	-	-	-	931	-
Stage 2	-	-	-	-	802	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1506	-	-	-	745
HCM Lane V/C Ratio	0.008	-	-	-	0.004
HCM Control Delay (s)	7.4	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	61	216	1	1	12
Future Vol, veh/h	3	61	216	1	1	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	5	5	4	4	2	2
Mvmt Flow	3	69	243	1	1	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	244	0	-	0	319	244
Stage 1	-	-	-	-	244	-
Stage 2	-	-	-	-	75	-
Critical Hdwy	4.15	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.245	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1305	-	-	-	674	795
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	948	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1305	-	-	-	673	795
Mov Cap-2 Maneuver	-	-	-	-	673	-
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	948	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1305	-	-	-	784
HCM Lane V/C Ratio	0.003	-	-	-	0.019
HCM Control Delay (s)	7.8	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	218	85	0	2	1
Future Vol, veh/h	12	218	85	0	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	4	4	2	2
Mvmt Flow	13	237	92	0	2	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	92	0	-	0	355	92
Stage 1	-	-	-	-	92	-
Stage 2	-	-	-	-	263	-
Critical Hdwy	4.13	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.227	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1496	-	-	-	643	965
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	781	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1496	-	-	-	637	965
Mov Cap-2 Maneuver	-	-	-	-	637	-
Stage 1	-	-	-	-	923	-
Stage 2	-	-	-	-	781	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1496	-	-	-	718
HCM Lane V/C Ratio	0.009	-	-	-	0.005
HCM Control Delay (s)	7.4	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	61	1	1	216	1	3	0	1	1	0	12
Future Vol, veh/h	3	61	1	1	216	1	3	0	1	1	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	92	92	89	89	92	92	92	89	92	89
Heavy Vehicles, %	5	5	2	2	4	4	2	2	2	2	2	2
Mvmt Flow	3	69	1	1	243	1	3	0	1	1	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	244	0	0	70	0	0	328	322	70	322	322	244
Stage 1	-	-	-	-	-	-	76	76	-	246	246	-
Stage 2	-	-	-	-	-	-	252	246	-	76	76	-
Critical Hdwy	4.15	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.245	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1305	-	-	1531	-	-	625	595	993	631	595	795
Stage 1	-	-	-	-	-	-	933	832	-	758	703	-
Stage 2	-	-	-	-	-	-	752	703	-	933	832	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1305	-	-	1531	-	-	613	593	993	629	593	795
Mov Cap-2 Maneuver	-	-	-	-	-	-	613	593	-	629	593	-
Stage 1	-	-	-	-	-	-	931	830	-	756	702	-
Stage 2	-	-	-	-	-	-	739	702	-	930	830	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	10.3	9.7
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	678	1305	-	-	1531	-	-	779
HCM Lane V/C Ratio	0.006	0.003	-	-	0.001	-	-	0.019
HCM Control Delay (s)	10.3	7.8	0	-	7.4	0	-	9.7
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	218	3	1	85	0	3	0	1	2	0	1
Future Vol, veh/h	12	218	3	1	85	0	3	0	1	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	2	2	4	4	2	2	2	2	2	2
Mvmt Flow	13	237	3	1	92	0	3	0	1	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	240	0	0	360	359	239	359	360	92
Stage 1	-	-	-	-	-	-	265	265	-	94	94	-
Stage 2	-	-	-	-	-	-	95	94	-	265	266	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1496	-	-	1327	-	-	596	568	800	596	567	965
Stage 1	-	-	-	-	-	-	740	689	-	913	817	-
Stage 2	-	-	-	-	-	-	912	817	-	740	689	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1496	-	-	1327	-	-	590	562	800	590	561	965
Mov Cap-2 Maneuver	-	-	-	-	-	-	590	562	-	590	561	-
Stage 1	-	-	-	-	-	-	733	682	-	904	816	-
Stage 2	-	-	-	-	-	-	910	816	-	732	682	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	10.7	10.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	631	1496	-	-	1327	-	-	678
HCM Lane V/C Ratio	0.007	0.009	-	-	0.001	-	-	0.005
HCM Control Delay (s)	10.7	7.4	0	-	7.7	0	-	10.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	117	414	2	2	23
Future Vol, veh/h	6	117	414	2	2	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	5	5	4	4	2	2
Mvmt Flow	7	131	465	2	2	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	467	0	-	0	611	466
Stage 1	-	-	-	-	466	-
Stage 2	-	-	-	-	145	-
Critical Hdwy	4.15	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.245	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1079	-	-	-	457	597
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	882	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1079	-	-	-	454	597
Mov Cap-2 Maneuver	-	-	-	-	454	-
Stage 1	-	-	-	-	628	-
Stage 2	-	-	-	-	882	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1079	-	-	-	582
HCM Lane V/C Ratio	0.006	-	-	-	0.048
HCM Control Delay (s)	8.4	0	-	-	11.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	418	163	0	4	2
Future Vol, veh/h	23	418	163	0	4	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	4	4	2	2
Mvmt Flow	25	454	177	0	4	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	177	0	-	0	681	177
Stage 1	-	-	-	-	177	-
Stage 2	-	-	-	-	504	-
Critical Hdwy	4.13	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.227	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1393	-	-	-	416	866
Stage 1	-	-	-	-	854	-
Stage 2	-	-	-	-	607	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1393	-	-	-	406	866
Mov Cap-2 Maneuver	-	-	-	-	406	-
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	607	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1393	-	-	-	493
HCM Lane V/C Ratio	0.018	-	-	-	0.013
HCM Control Delay (s)	7.6	0	-	-	12.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	6	117	1	1	414	2	3	0	1	2	0	23
Future Vol, veh/h	6	117	1	1	414	2	3	0	1	2	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	92	92	89	89	92	92	92	89	92	89
Heavy Vehicles, %	5	5	2	2	4	4	2	2	2	2	2	2
Mvmt Flow	7	131	1	1	465	2	3	0	1	2	0	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	467	0	0	132	0	0	627	615	132	614	614	466
Stage 1	-	-	-	-	-	-	146	146	-	468	468	-
Stage 2	-	-	-	-	-	-	481	469	-	146	146	-
Critical Hdwy	4.15	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.245	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1079	-	-	1453	-	-	396	407	917	404	407	597
Stage 1	-	-	-	-	-	-	857	776	-	575	561	-
Stage 2	-	-	-	-	-	-	566	561	-	857	776	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1079	-	-	1453	-	-	377	404	917	401	404	597
Mov Cap-2 Maneuver	-	-	-	-	-	-	377	404	-	401	404	-
Stage 1	-	-	-	-	-	-	851	771	-	571	560	-
Stage 2	-	-	-	-	-	-	541	560	-	850	771	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	13.2	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	442	1079	-	-	1453	-	-	575
HCM Lane V/C Ratio	0.01	0.006	-	-	0.001	-	-	0.049
HCM Control Delay (s)	13.2	8.4	0	-	7.5	0	-	11.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	23	418	3	1	163	0	3	0	1	4	0	2
Future Vol, veh/h	23	418	3	1	163	0	3	0	1	4	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	2	2	4	4	2	2	2	2	2	2
Mvmt Flow	25	454	3	1	177	0	3	0	1	4	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	177	0	0	457	0	0	686	685	456	685	686	177
Stage 1	-	-	-	-	-	-	506	506	-	179	179	-
Stage 2	-	-	-	-	-	-	180	179	-	506	507	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1393	-	-	1104	-	-	362	371	604	362	370	866
Stage 1	-	-	-	-	-	-	549	540	-	823	751	-
Stage 2	-	-	-	-	-	-	822	751	-	549	539	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1393	-	-	1104	-	-	354	362	604	354	361	866
Mov Cap-2 Maneuver	-	-	-	-	-	-	354	362	-	354	361	-
Stage 1	-	-	-	-	-	-	536	527	-	803	750	-
Stage 2	-	-	-	-	-	-	819	750	-	535	526	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	14.2	13.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	395	1393	-	-	1104	-	-	441
HCM Lane V/C Ratio	0.011	0.018	-	-	0.001	-	-	0.015
HCM Control Delay (s)	14.2	7.6	0	-	8.3	0	-	13.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0

Conceptual Site Plan

PEERLESS FARMS

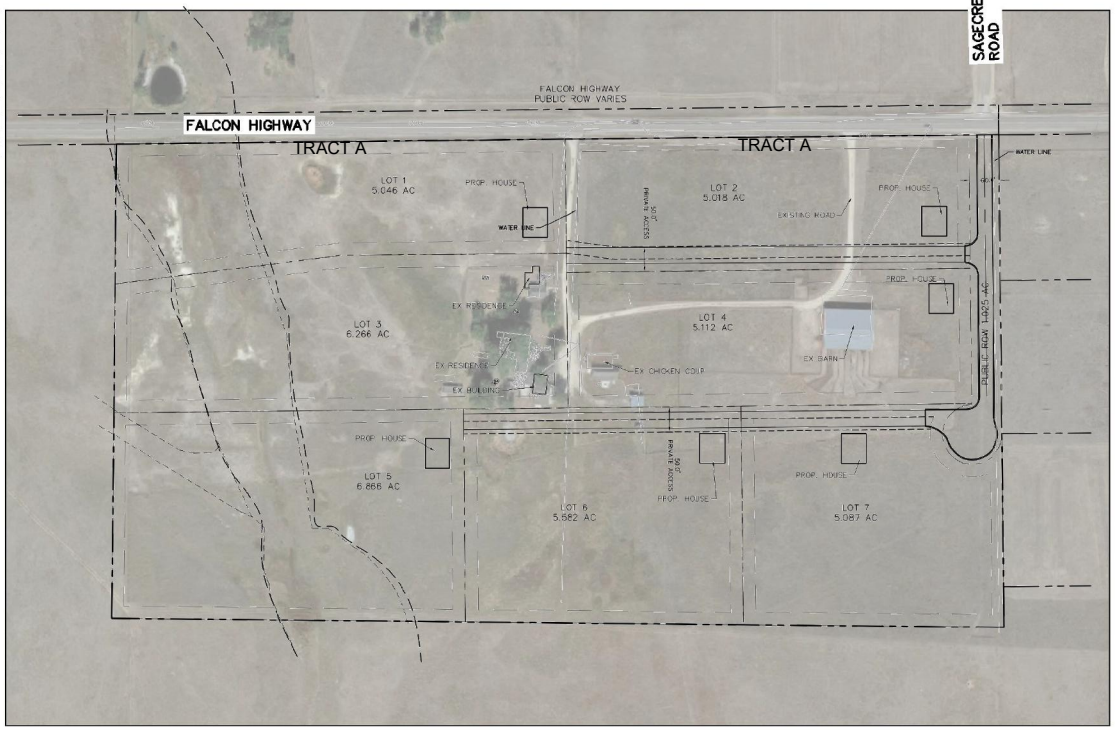
PRELIMINARY PLAN

16975 FALCON HIGHWAY, PEYTON, CO

SITUATED IN THE NORTHWEST QUARTER OF SECTION 13, TOWNSHIP 13 SOUTH, RANGE 64 WEST OF THE 6TH P.M., CITY OF COLORADO SPRINGS, COUNTY OF EL PASO, STATE OF COLORADO

LOT TABLE		
LOT NO.	SF/AC±	USE
1	219,785SF± / 5.046AC±	RESIDENTIAL
2	218,573SF± / 5.018AC±	RESIDENTIAL
3	272,926SF± / 6.266AC±	RESIDENTIAL
4	222,638SF± / 5.112AC±	RESIDENTIAL
5	289,089SF± / 6.866AC±	RESIDENTIAL
6	243,136SF± / 5.582AC±	RESIDENTIAL
7	221,582SF± / 5.087AC±	RESIDENTIAL

TRACT TABLE		
TRACT	SIZE SF/ACRES±	USE
A	44,668 SF / 1.025 AC±	PUBLIC RIGHT OF WAY/DRAINAGE/PUBLIC IMPROVEMENT/PUBLIC UTILITY/LANDSCAPING/SIDEWALKS & PEDESTRIAN EASEMENT



NORTH

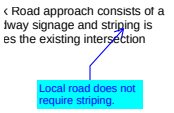
SCALE: 1" = 100'

Kimley»Horn

2 NORTH NEVADA AVENUE, SUITE 300
COLORADO SPRINGS, COLORADO 80903 (719) 453-0180

V1_Traffic Impact Study.pdf Markup Summary

Callout (2)



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Date: 3/25/2024 2:18:36 PM
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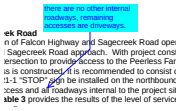
Local road does not require striping.



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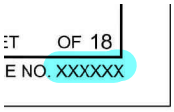
there are no other internal roadways, remaining accesses are driveways.

Engineer (7)



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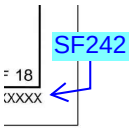

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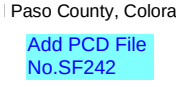
SF242



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Page Label: 1
Author: Bret
Date: 3/20/2024 11:35:15 AM
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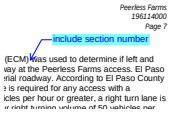
Add PCD File No.SF242



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Page Label: 7
Author: Bret
Date: 3/20/2024 1:40:52 PM
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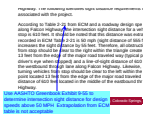
include section number



Subject: Engineer
Page Label: 7
Author: Bret
Date: 3/20/2024 4:06:40 PM
Status:
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Use AASHTO Greenbook Exhibit 9-55 to determine intersection sight distance for design speeds above 50 MPH Extrapolation from ECM table is not acceptable

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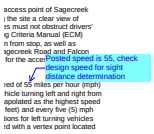

Subject: Engineer
Page Label: 7
Author: Bret
Date: 3/20/2024 4:05:53 PM
Status:
Color:
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Posted speed is 55, check design speed for sight distance determination

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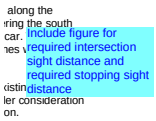

Subject: Engineer
Page Label: 8
Author: Bret
Date: 3/20/2024 4:17:27 PM
Status:
Color:
Layer:
Space:

Include figure for required intersection sight distance and required stopping sight distance

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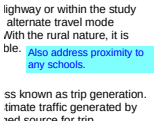
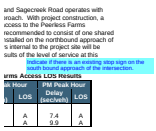
Text Box (2)



Subject: Text Box
Page Label: 4
Author: CDurham
Date: 3/25/2024 2:20:40 PM
Status:
Color:
Layer:
Space:

Also address proximity to any schools.



Subject: Text Box
Page Label: 6
Author: CDurham
Date: 3/25/2024 2:28:13 PM
Status:
Color:
Layer:
Space:

Indicate if there is an existing stop sign on the south bound approach of the intersection.