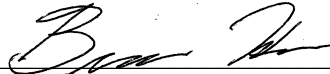


Traffic Engineer's Statement

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.



Brian Horan, 00553042

← Please provide P.E. stamp

8-23-24

Date

Developer's Statement

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



Brian Zuerk, Manager
Double Tree Ventures
PO Box 220 Scottsdale AZ 85252

8.22.24

Date

To: Elizabeth Nijkamp, PE
Public Works

From: Brian Horan, P.E., PTOE
Galloway

Date: February 16, 2024
Revised: August 22, 2024

Re: **Murphy Oil – El Paso County, CO
Traffic Conformance Letter**

INTRODUCTION

This memorandum provides the results of a traffic conformance analysis performed in support of an approximately 1.11-acre lot located in El Paso County, Colorado. The site is located north of Eastonville Road, west of Meridian Road and in the northeast quadrant of the Falcon Market Place/Eastonville Road roundabout and is currently vacant. The site location is shown on Figure 1.



Figure 1 – Site Location

BACKGROUND

The subject site was previously studied as a gas station with convenience store as part of a larger proposed development, Owl Place Commercial, which was supported by a Traffic Impact Study (TIS) dated April 9, 2024, by SM Rocha, LLC. The subject site was specifically studied as the southernmost use in the TIS and the overall development analyzed a mix of auto oriented uses. A snip of the site plan from the TIS is shown on Figure 2.

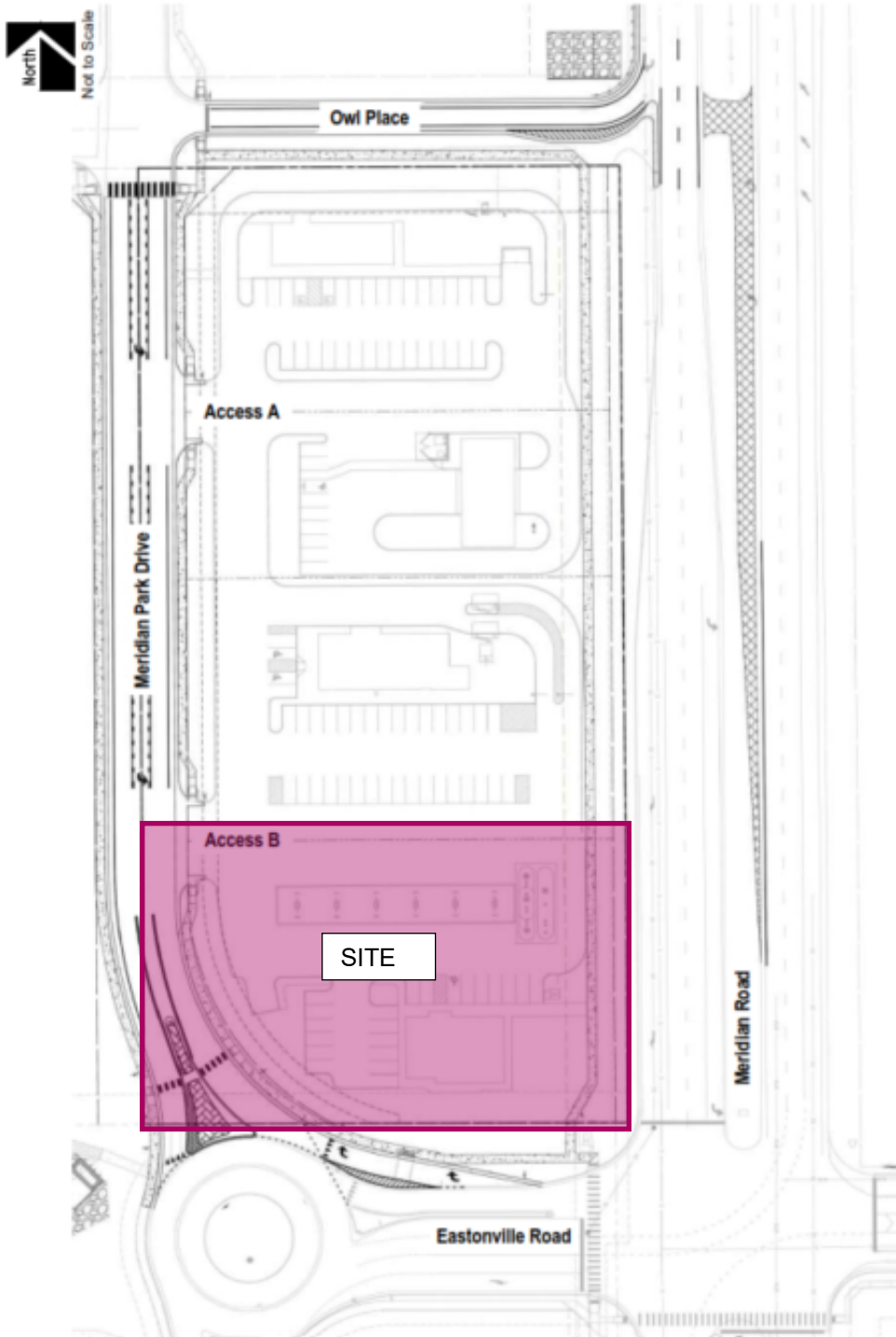


Figure 2 – Owl's Place Commercial

The TIS analyzed the area which encompasses the subject site with the following use:

- 5.3 KSF Gas Station & Convenience Store with 12 FP
- 3.4 KSF Fast Food Restaurant & Drive Through
- 2.0 KSF Coffee Shop & Drive Through
- 1 Tunnel Automated Car Wash

Excerpts from the TIS, including trip generation and ADT estimates, are included as Attachment I.

The Applicant, Murphy Oil, proposes to develop the subject site within the larger development with a gas station with convenience store use. Specifically, the Applicant is proposing a 2.6 KSF convenience store and 12 fueling position (FP) gas station use. A full-sized copy of the site plan is provided as Attachment II.

The following memorandum has been prepared for the County as required. The purpose is to confirm that the currently proposed gas station & convenience store use is in conformance with the approved TIS.

PROPOSED DEVELOPMENT

The Applicant is proposing a 2.6 KSF convenience store and 12 FP gas station use for the subject site in place of the previously assumed 5.3 KSF convenience store and 12 FP gas station use in the approved TIS. Additionally, during the course of review the original 3 accesses were consolidated to 2 as shown in Figure 2 to provide better access spacing to the other uses as well as the roundabout to the south. The proposed development represents fewer trips due to the smaller convenience store size as well as a better access configuration. A site distance exhibit was provided within the TIS to show how the currently proposed layout would meet sight distance and access spacing requirements. This is shown in Attachment I.

Table 2-35 of the Engineering Criteria Manual (ECM) states that the site distance requirement is 250' for this speed roadway. As shown in the attached site plan the access to the proposed development would have clear line of sight to the roundabout as well as 250' to the right. Sight distance will be maintained for the proposed access.

TIS RECOMMENDATIONS

The TIS concluded that “the site generated traffic is expected to create no negative impact upon consideration for, and application of, all applicable roadway and intersection improvements identified in the approved TIS. All conclusions and recommendations presented in the previous site traffic study remain valid.” Since the proposed development represents fewer site trips as well as an improved access condition, the conclusions and recommendations of the approved TIS would remain valid.

CONCLUSIONS

The conclusions of this analysis are as follows:

1. The subject site was previously contemplated as a single lot use within the larger Owl Place Commercial TIS.
2. According to the Owl Place Commercial Traffic Impact Study (TIS) dated April 9, 2024, by SM Rocha, LLC, the subject site was approved with the following use:
 - 5.3 KSF convenience store and 12 FP gas station use.
3. Improvements to the local network as recommended by the TIS have been or are being constructed by the overall developer.

Murphy Oil 99
El Paso County, CO

4. The Applicant, Murphy Oil, proposes to develop the subject site with a 2.6 KSF convenience store and 12 FP gas station use. Note that this use will have a road impact fee of \$22,880.
5. The project would consolidate access and share access with the use to the north to provide the greatest separation possible from the roundabout as well as to the accesses to the north.
6. Based on the reduction of convenience store size as well as the consolidation and improvement of access conditions, the proposed gas station & convenience store use would not negatively impact the conclusions of the TIS. The traffic impacts associated with the proposed use would be adequately accommodated by the constructed/proposed road network without the need for additional improvements.

We trust that the information contained herein satisfies the request of El Paso County, CO. If you have any questions or need further information, please contact Brian Horan at BrianHoran@gallowayus.com or 303-770-8884.

Attachment I
Owl Place Commercial – Traffic Impact Study dated April 9,
2024, by SM Rocha, LLC Excerpts



SM ROCHA, LLC

TRAFFIC AND TRANSPORTATION CONSULTANTS

April 9, 2024

Brian Zurek
Double Tree Ventures
4148 N Arcadia Drive
Phoenix, AZ 85018

**RE: Owl Place Commercial / Traffic Impact Study Addendum
El Paso County, Colorado**

Dear Brian,

SM ROCHA, LLC is pleased to provide traffic information for the development entitled Owl Place Commercial. This development is located at the northwest corner of the intersection of Meridian Road with Eastonville Road in El Paso County, Colorado.

This traffic impact study addendum has been updated to address County review comments regarding auxiliary lane criteria, access spacing and sight distance, and roadway improvements pursuant to the latest site plan.

The intent of this analysis is to present updated traffic impact analyses for short-term and long-term build-out scenarios pursuant to the latest proposed site plan, land uses, and access locations. This analysis is provided as an addendum to the previously approved Owl Place Commercial Traffic Impact Study¹.

The following is a summary of analysis results.

Site Description and Access

Land for the development is currently occupied by a single-family dwelling unit and is surrounded by a mix of residential, commercial, and open space land uses. The proposed development is understood to entail the new construction of two fast-food restaurants with drive-throughs totaling approximately 5,500 square feet, one quick lubrication vehicle shop approximately 2,500 square feet in size, and one 2,800 square foot gas station convenience store supporting 12 vehicle fueling positions.

¹ Owl Place Commercial Traffic Impact Study, SM Rocha LLC, April 2023.

Proposed access to the development is provided at the following locations: two full-movement accesses onto the planned extension of Meridian Park Drive (referred to as Access A and Access B). Access B is located approximately 200 feet north of the roundabout intersection of Eastonville Road and Meridian Park Drive, and approximately 270 feet south of Access A, measured from centerline to centerline. Access A is approximately 200 feet south of the westbound centerline of the intersection of Owl Place and Meridian Park Drive.

A conceptual sight distance exhibit, illustrating an approximate intersection sight distances triangle for site access, is included for reference in Attachment A. This two-dimensional exhibit does not consider potential landscaping or utility obstructions and is provided for illustrative purposes only.

General site and access locations are shown on Figure 1. A conceptual site plan, as prepared by Drexel, Barrell & Co., is shown on Figure 2. This plan is provided for illustrative purposes only.



Not to Scale



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Traffic Impact Study Addendum

Figure 1
SITE LOCATION

SM ROCHA, LLC
Traffic and Transportation Consultants

April 2024
Page 3





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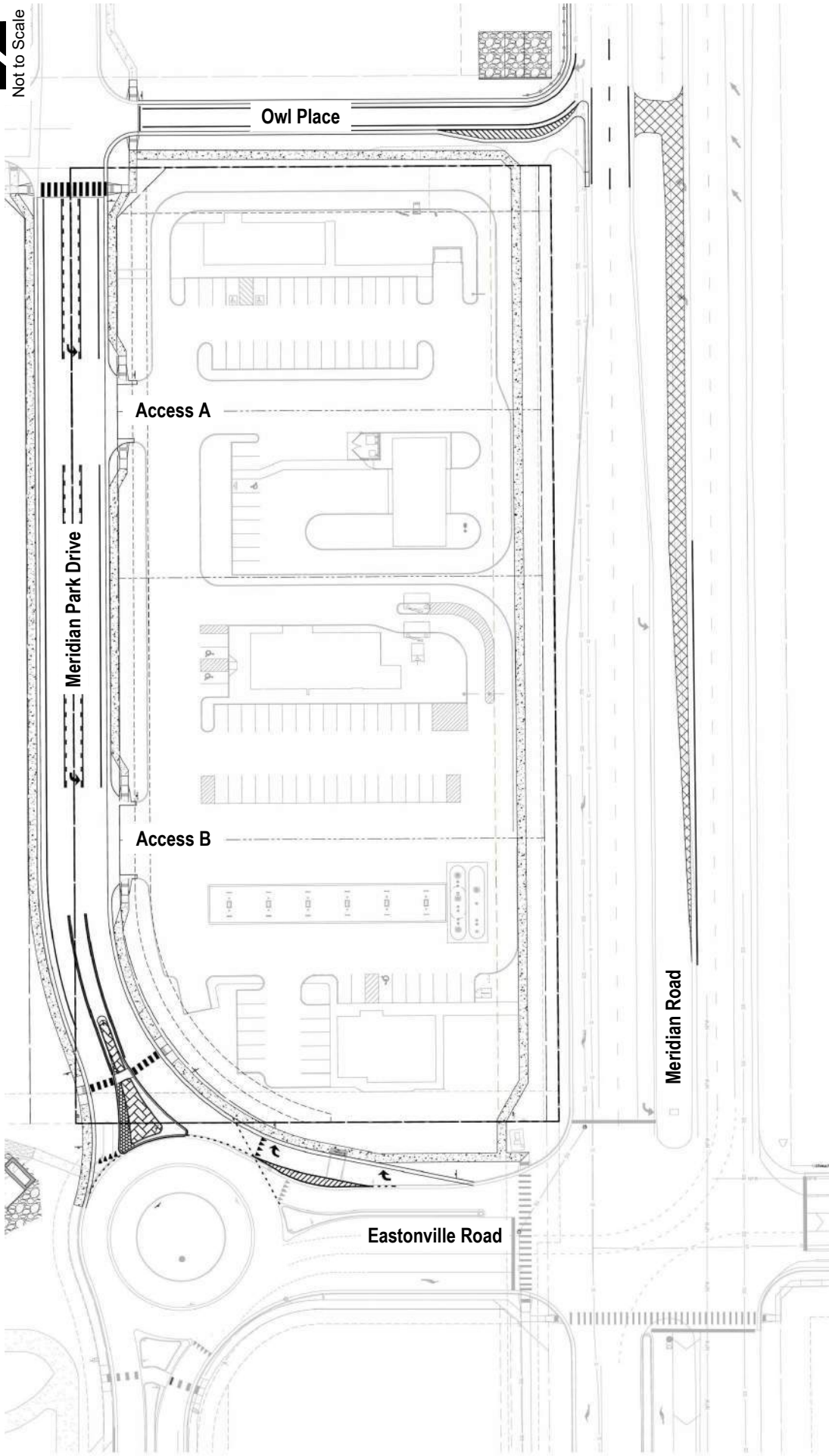


Figure 2
CONCEPTUAL SITE PLAN
 April 2024
 Page 4

OWL PLACE COMMERCIAL
 Traffic Impact Study Addendum

SM ROCHA, LLC
 Traffic and Transportation Consultants



Future Surface Transportation Network

As analyzed within the previously approved Owl Place Commercial Traffic Impact Study a brief description of the expected classification of future Meridian Park Drive is provided below:

Meridian Park Drive is a north-south roadway have two through lanes (one lane in each direction) with shared turn lanes within the study area. Meridian Park Drive is unclassified in the El Paso County 2016 Major Transportation Corridors Plan Update (MTCP)². However, per Standard Drawing 2-10 of County's Engineering Criteria Manual (ECM)³ and the roadway's estimated ROW width, Meridian Park Drive is assumed to be classified as a local roadway and provides a posted speed limit of 25 MPH. This assumption is also consistent with previously performed analyses for adjacent development areas. It is however noted that as future connection to Falcon Market Place occurs, Meridian Park Drive may also be classified as a non-residential collector depending on actual future daily volumes and ongoing area development.

Vehicle Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation Manual, 11th Edition, were applied to the previously approved and proposed land uses in order to estimate the average daily traffic (ADT) and peak hour vehicle trips. A vehicle trip is defined as a one-way vehicle movement from point of origin to point of destination.

Table 1 presents average trip generation rates for previously approved land uses and the proposed development areas. Use of average trip generation rates presents a conservative analysis. ITE land use codes 934 (Fast-Food Restaurant with Drive-Through Window), 937(Coffee/Donut Shop with Drive-Through Window), 941 (Quick Lubrication Vehicle Shop), 945 (Convenience Store/Gas Station), and 948 (Automated Car Wash) were used for analysis because of their best fit to the previously approved and proposed land uses.

² El Paso County 2016 Major Transportation Corridors Plan Update, Felsburg Holt & Ullevig, December 2016.

³ El Paso County Engineering Criteria Manual, El Paso County, July 2023.

Table 1 – Trip Generation Rates

ITE CODE	LAND USE	UNIT	TRIP GENERATION RATES						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
934	Fast-Food Restaurant w/DTW	KSF	467.48	22.75	21.86	44.61	17.18	15.85	33.03
937	Coffe/Donut Shop w/DTW	KSF	533.57	43.80	42.08	85.88	19.50	19.50	38.99
941	Quick Lubrication Vehicle Shop	KSF	69.57	4.35	1.45	5.80	3.65	5.05	8.70
945	Convenience Store/Gas Station	KSF	700.43	28.26	28.26	56.52	27.26	27.26	54.52
948	Automated Car Wash	CWT	775.00	*	*	*	38.75	38.75	77.50

Key: KSF = Thousand Square Feet Gross Floor Area. CWT = Car Wash Tunnel.
* = ITE does not report significant AM peak hour generation due to the nature of the buisness (ie. Operating hours typically open after AM peak)
Note: All data and calculations above are subject to being rounded to nearest value.

Table 2 summarizes the projected ADT and peak hour traffic volumes likely generated by the land use area proposed and provides comparison to traffic volume estimates for the previously approved land uses.

Table 2 – Trip Generation Summary

ITE CODE	LAND USE	SIZE	TOTAL TRIPS GENERATED						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
<u>Site Development - Previously Approved</u>									
934	Fast-Food Restaurant w/DTW	3.4 KSF	1,599	78	75	153	59	54	113
937	Coffe/Donut Shop w/DTW	2.0 KSF	1,067	88	84	172	39	39	78
945	Convenience Store/Gas Station	5.3 KSF	3,712	150	150	300	144	144	289
948	Automated Car Wash	1.0 CWT	775	*	*	*	39	39	78
<i>Previously Approved Total:</i>			<i>7,153</i>	<i>315</i>	<i>309</i>	<i>624</i>	<i>281</i>	<i>276</i>	<i>557</i>
<u>Site Development - Proposed</u>									
934	Fast-Food Restaurant w/DTW	5.5 KSF	2,562	125	120	244	87	87	174
941	Quick Lubrication Vehicle Shop	2.5 KSF	174	11	4	15	13	13	25
945	Convenience Store/Gas Station	2.8 KSF	1,982	80	80	160	77	77	154
<i>Proposed Total:</i>			<i>4,718</i>	<i>216</i>	<i>203</i>	<i>419</i>	<i>177</i>	<i>177</i>	<i>353</i>
<i>Difference Total:</i>			<i>-2,435</i>	<i>-100</i>	<i>-105</i>	<i>-205</i>	<i>-104</i>	<i>-100</i>	<i>-204</i>

Key: KSF = Thousand Square Feet Gross Floor Area. CWT = Car Wash Tunnel.
* = ITE does not report significant AM peak hour generation due to the nature of the buisness (ie. Operating hours typically open after AM peak)
Note: All data and calculations above are subject to being rounded to nearest value.

As Table 2 shows, the proposed development area has the potential to generate approximately 4,718 daily trips with 586 of those occurring during the morning peak hour and 528 during the afternoon peak hour. Table 2 further shows how proposed development traffic volumes do not exceed those approved in the Owl Place Commercial Traffic Impact Study.

Adjustments to Trip Generation Rates

A development of this type is likely to attract pass-by trips from the adjacent roadway system. ITE defines a pass-by trip as an intermediate stop on the way from an origin to a primary trip destination without a route diversion. Due to this behavior, pass-by trips are not considered as “new” traffic generated by the development since the trips are already present on the roadway network enroute to their primary destination.

Pass-by trips are especially to fast-food restaurant, coffee/donutshop, and gas station land uses given the convenience provided by these businesses on the way to another primary destination such as a place of work or home. As example, published ITE Pass-by and diverted link trip data indicates an average trip generation reduction rate of 49 percent during the AM peak traffic hour and 50 percent during the PM peak traffic hour as typical to fast-food restaurants with drive-through window.

Table 3 illustrates projected ADT, AM Peak Hour, and PM Peak Hour traffic volumes likely generated by the previously approved development and proposed development upon build-out with reductions applied due to pass-by trips. Average daily (24-Hour) pass-by trip percentages were estimated as the average between the AM and PM peak hour rates indicated by ITE.

Table 3 – Trip Generation Summary with Pass-By Trip Reductions

ITE CODE	LAND USE	SIZE	TOTAL NEW TRIPS GENERATED							
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR			
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL	
<u>Site Development - Previously Approved</u>										
		<i>Pass-By Trip Reduction:</i>	50%	49%	49%	49%	50%	50%	50%	
934	Fast-Food Restaurant w/DTW	3.4 KSF	807	40	38	78	29	27	56	
		<i>Pass-By Trip Reduction:</i>	60%	60%	60%	60%	60%	60%	60%	
937	Coffe/Donut Shop w/DTW	2.0 KSF	427	35	34	69	16	16	31	
		<i>Pass-By Trip Reduction:</i>	59%	62%	62%	62%	56%	56%	56%	
945	Convenience Store/Gas Station	5.3 KSF	1,522	57	57	114	64	64	127	
		<i>Pass-By Trip Reduction:</i>	0%	0%	0%	0%	0%	0%	0%	
948	Automated Car Wash	1.0 CWT	775	*	*	*	39	39	78	
		<i>Previously Approved Total:</i>	3,531	132	129	260	147	145	292	
<u>Site Development - Proposed</u>										
		<i>Pass-By Trip Reduction:</i>	50%	49%	49%	49%	50%	50%	50%	
934	Fast-Food Restaurant w/DTW	5.5 KSF	1,294	64	61	125	47	43	91	
		<i>Pass-By Trip Reduction:</i>	0%	0%	0%	0%	0%	0%	0%	
941	Quick Lubrication Vehicle Shop	2.5 KSF	174	11	4	15	9	13	22	
		<i>Pass-By Trip Reduction:</i>	59%	62%	62%	62%	56%	56%	56%	
945	Convenience Store/Gas Station	2.8 KSF	813	30	30	61	34	34	68	
		<i>Proposed Total:</i>	2,280	105	95	200	90	90	180	
		<i>Difference Total:</i>	-1,251	-27	-34	-60	-57	-55	-112	

Key: KSF = Thousand Square Feet Gross Floor Area. CWT = Car Wash Tunnel.
 * = ITE does not report significant AM peak hour generation due to the nature of the business (ie. Operating hours typically open after AM peak)
 Note: All data and calculations above are subject to being rounded to nearest value.

Upon build-out and with consideration for pass-by trip reductions, Table 3 illustrates that the proposed development has the potential to generate approximately 2,280 daily trips with 200 of those occurring during the morning peak hour and 180 during the afternoon peak hour. Furthermore, Table 3 continues to show how the proposed development does not exceed estimates originally anticipated in the previously approved traffic study.

Trip Distribution & Assignment

The overall directional distribution was previously established by the corresponding traffic impact study. However, due to the proposed changes in anticipated land uses, distribution and assignment of site-generated traffic has been updated. These updated trip distribution patterns to site-generated traffic provide the overall site-generated trips at study intersections upon build-out for Years 2024 and Year 2040, which are shown on Figure 3 and 4, respectively.

It is to be noted that the overall site-generated trip assignments shown on Figures 3 and 4 represent the combination of both primary trip generation and pass-by trips. Due to the application of pass-by trips, some negative site-generated trips are shown at the study intersections. These negative trips are the result of redistributing existing through volumes along Meridian Road to site-generated ingress volumes.

Owl Place – Interim Right-In Only Access

Pursuant to planned roadway improvements, as identified in the previously approved traffic impact study, it is anticipated that Meridian Road will be widened to six through lanes, and with completion of Falcon Market Place, the intersection of Owl Place and Meridian Road will be closed. However, until these improvements occur an interim condition may allow for continued use of the intersection as a restricted right-in only access as shown on Figure 2. Therefore, Year 2024 total traffic conditions analyze the access as a right-in only upon site development build-out. It is noted that this configuration can utilize the existing southbound right turn lane that begins at Bent Grass Meadows Drive until such time that roadway widening is required.

Total Traffic Analysis Results Upon Development Build-Out

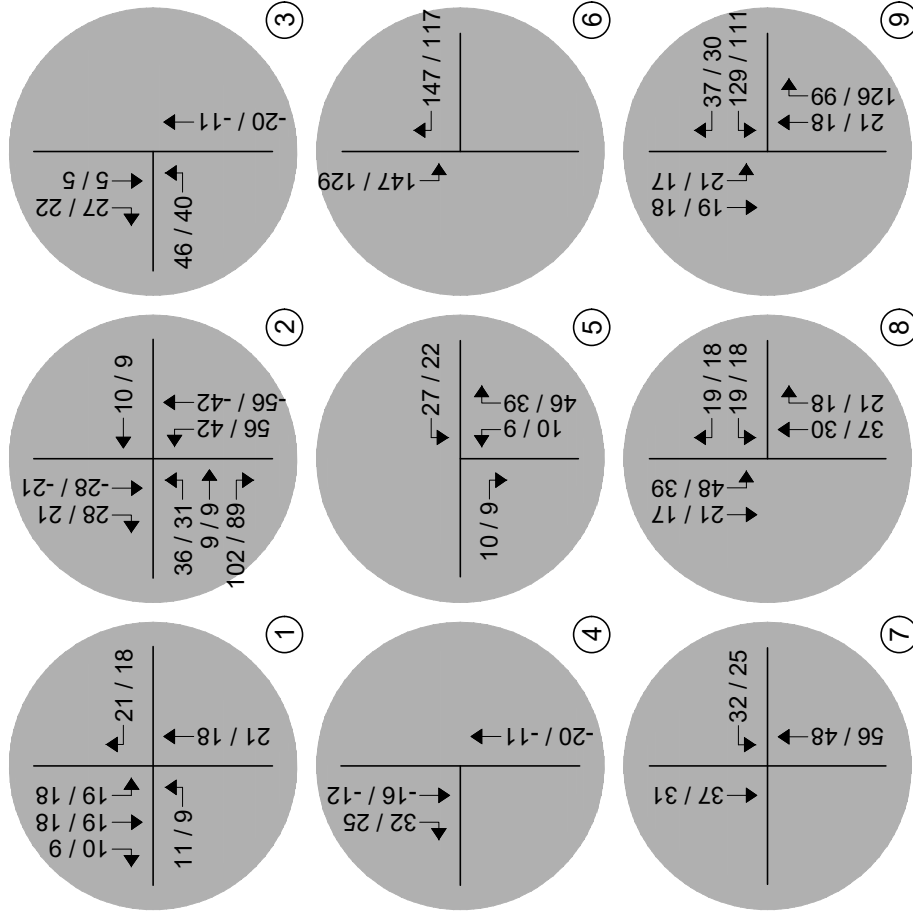
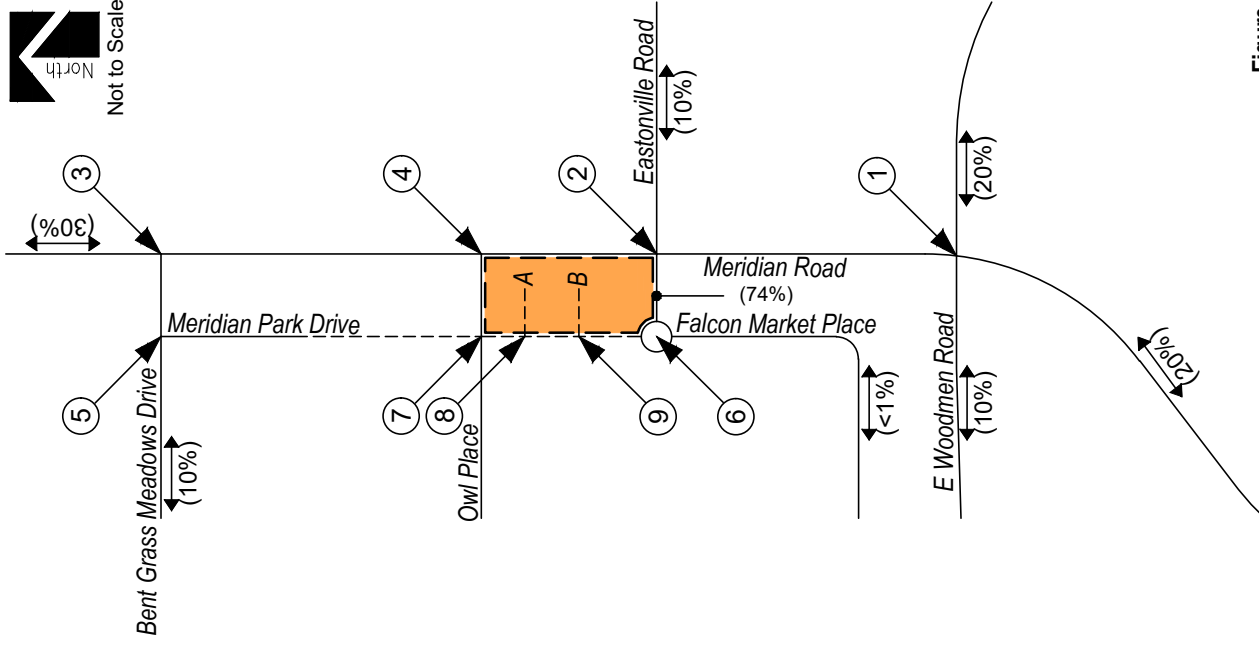
Total traffic is the traffic projected to be on area roadways with consideration of the proposed development. Total traffic includes background traffic projections for Years 2024 and 2040 as established within the Owl Place Commercial Traffic Impact Study, Figure 5 and 6, with consideration of the updated site-generated traffic.

Projected Year 2024 total traffic volumes and intersection geometry are shown in Figure 5 and Figure 6, respectively.

Figures 7 and 8 show the projected total traffic volumes and intersection geometry for Year 2040, respectively.



Not to Scale



LEGEND

- Study Intersection
- Development Site

Figure 3
SITE DEVELOPMENT DISTRIBUTION - YEAR 2024
 (%): Overall

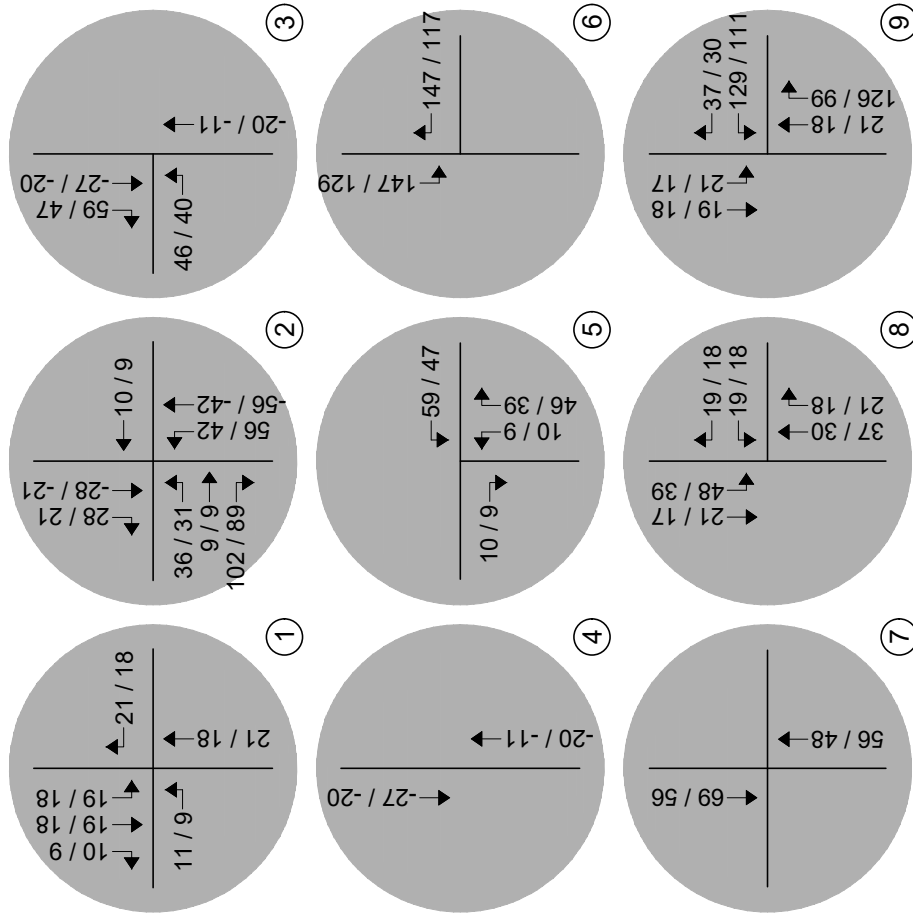
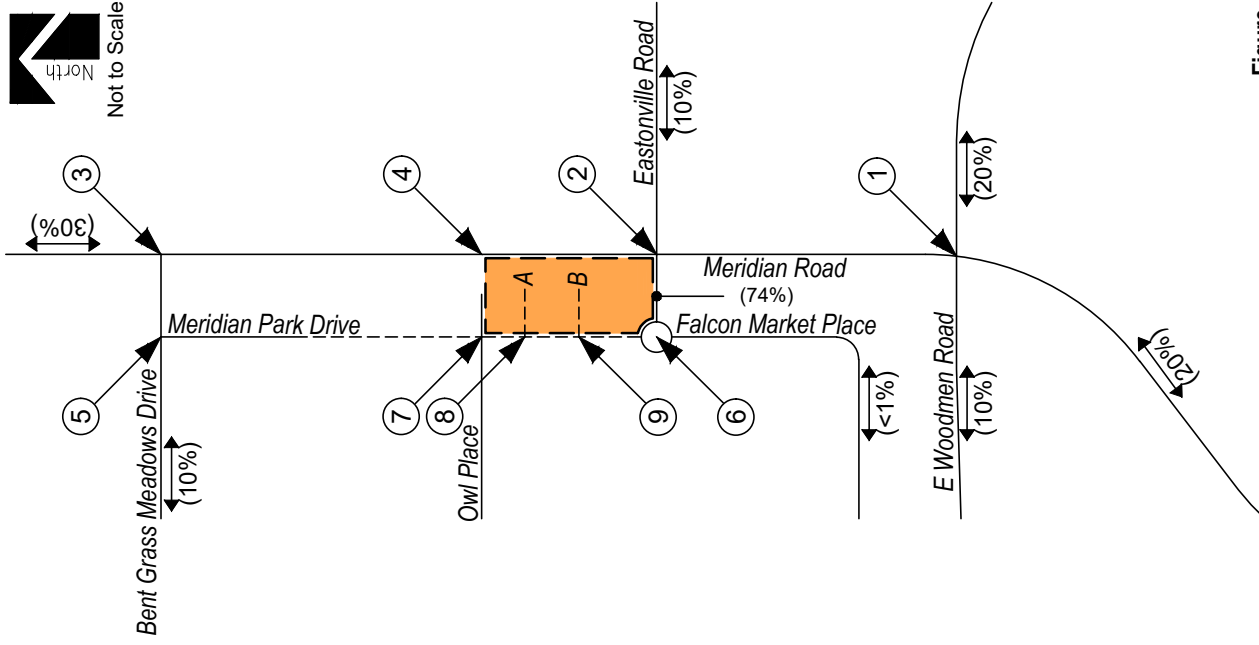
SITE-GENERATED
 AM / PM Peak Hour

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Not to Scale



LEGEND

- Study Intersection
- Volumes
- Development Site

Figure 4
SITE DEVELOPMENT DISTRIBUTION - YEAR 2040
 (%): Overall
SITE-GENERATED
 AM / PM Peak Hour

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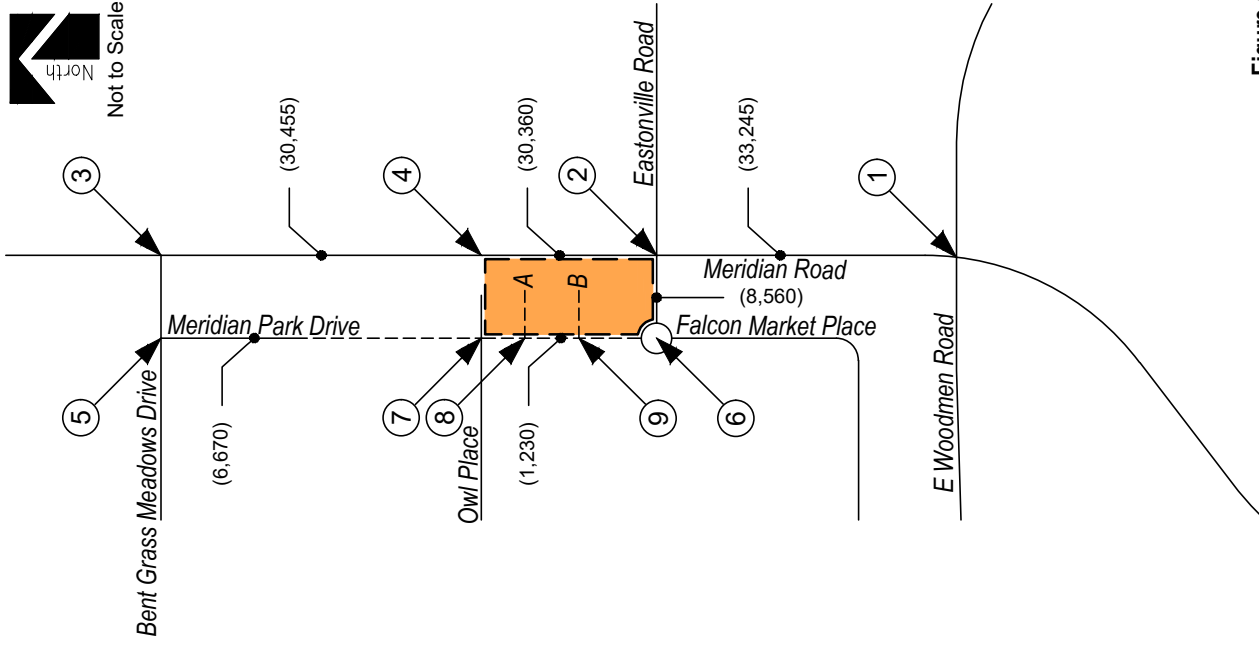
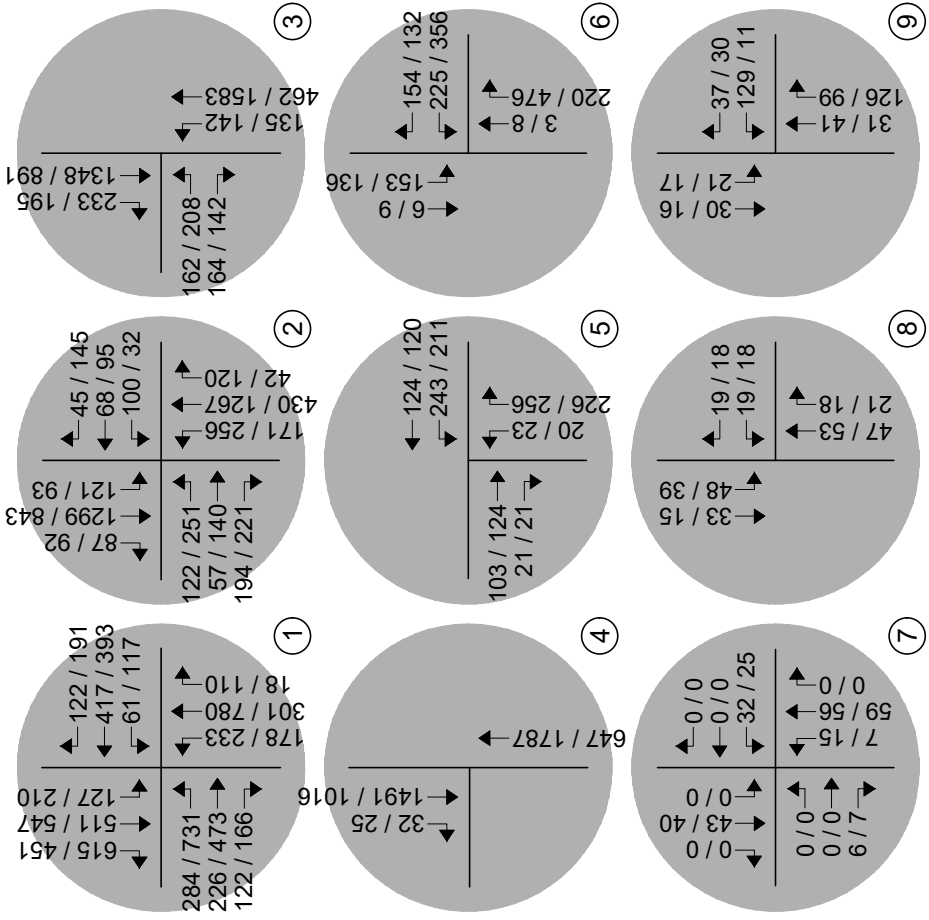


Figure 5
TOTAL TRAFFIC - YEAR 2024
 Volumes

AM / PM Peak Hour
 (ADT) : Average Daily Traffic



LEGEND

- Study Intersection
- Volumes
- Development Site

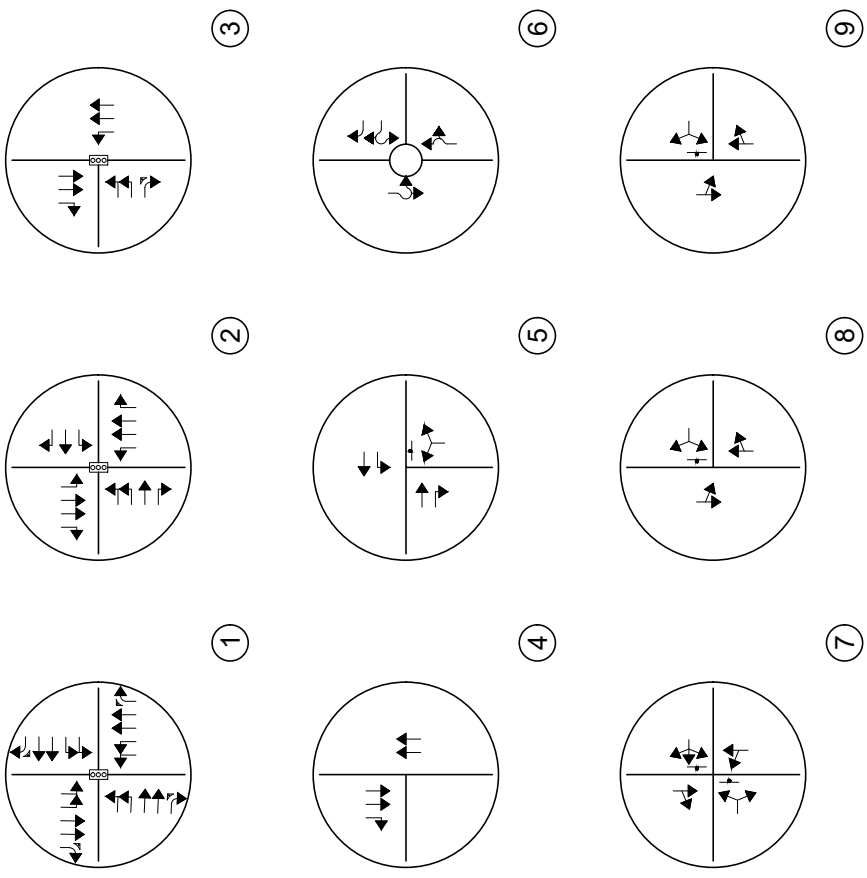
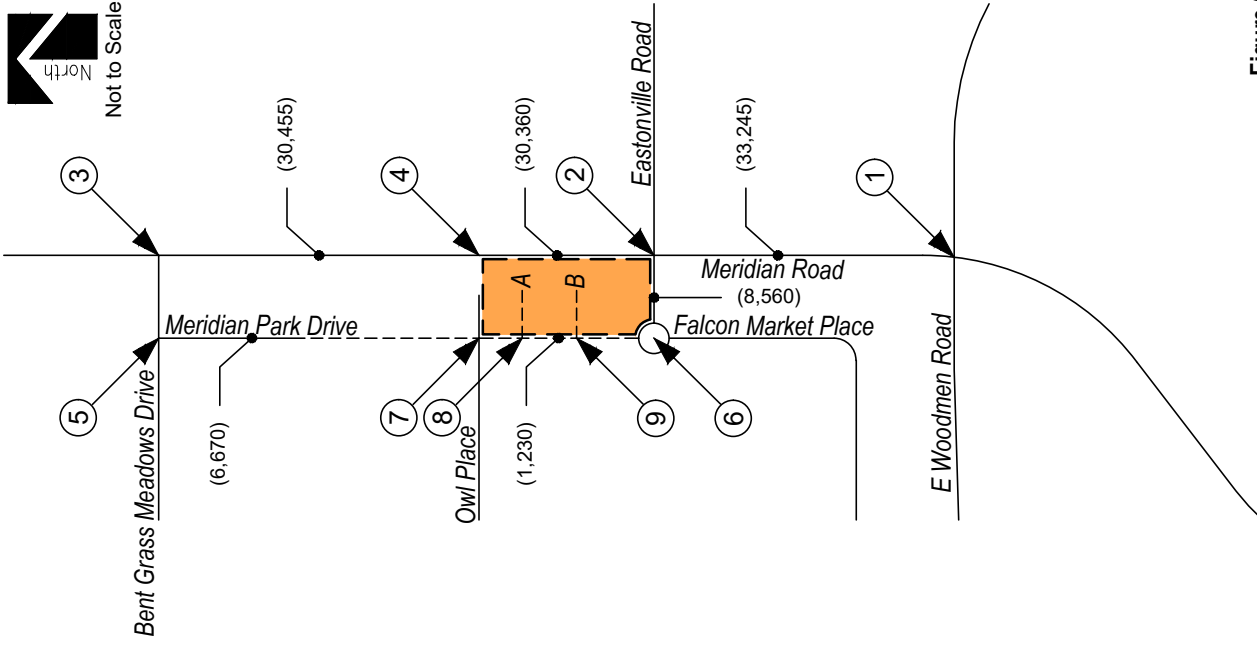
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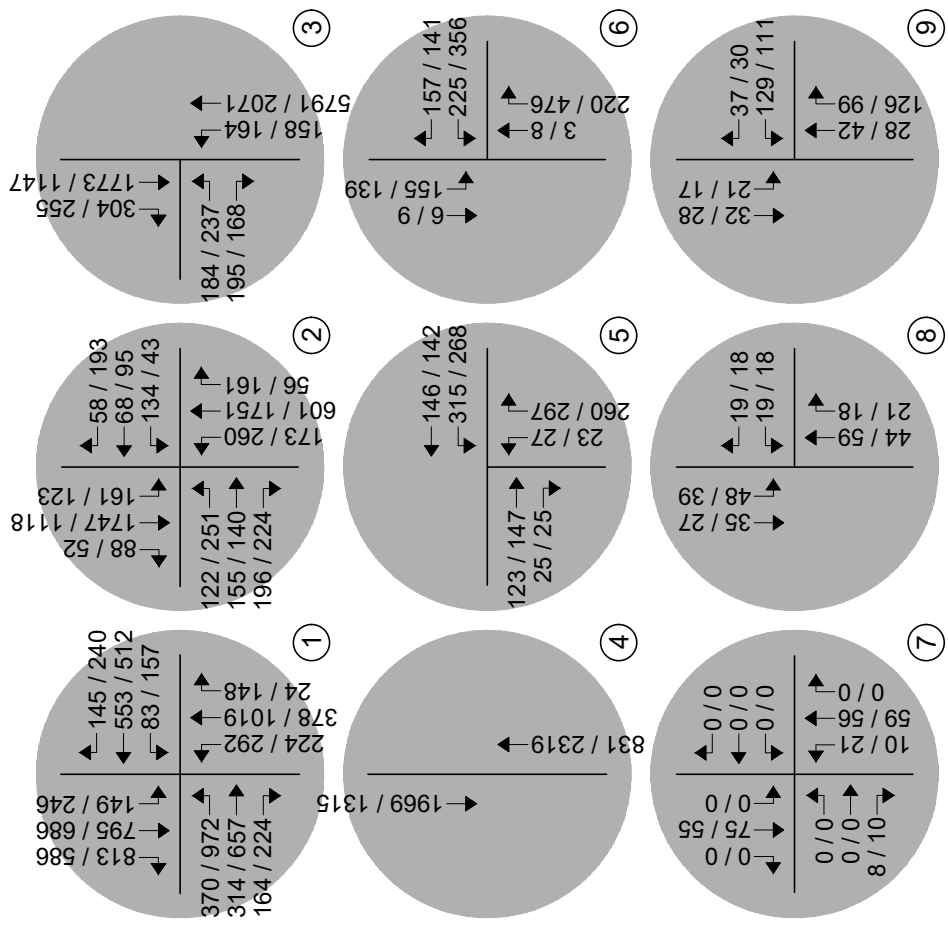
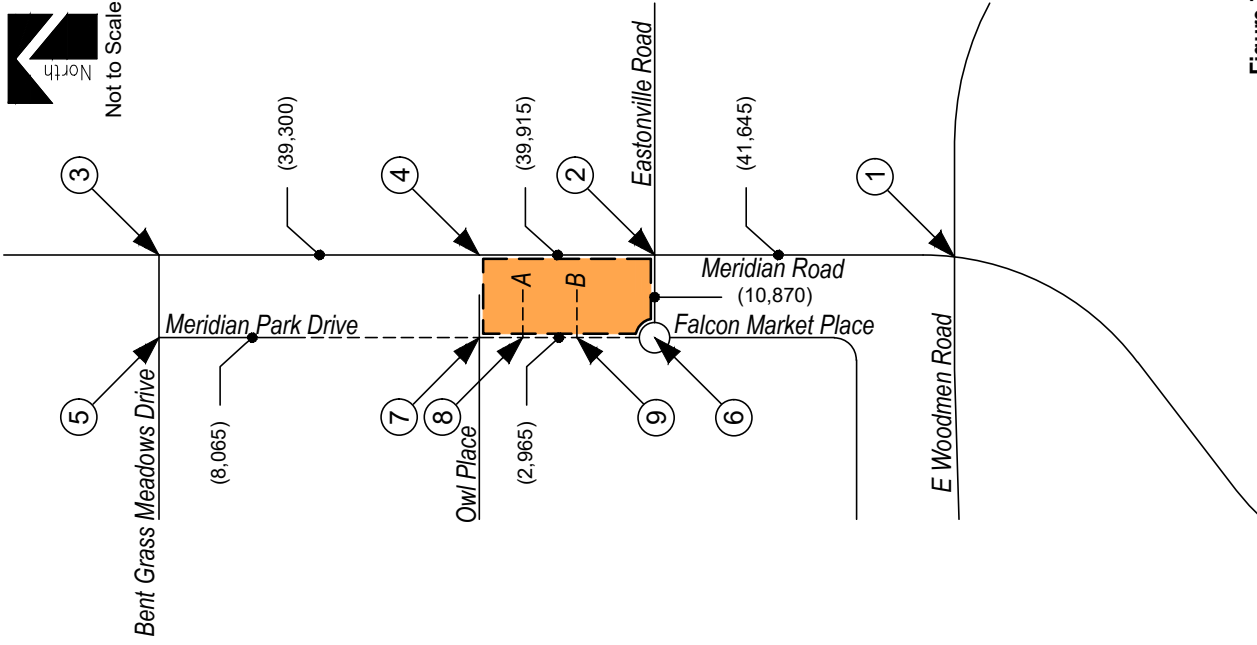
-  Study Intersection
-  Lane Geometry
-  Development Site

Figure 6
TOTAL TRAFFIC - YEAR 2024
 Intersection Geometry
 AM / PM Peak Hour
 (ADT) : Average Daily Traffic

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LEGEND

- Study Intersection
- Volumes
- Development Site

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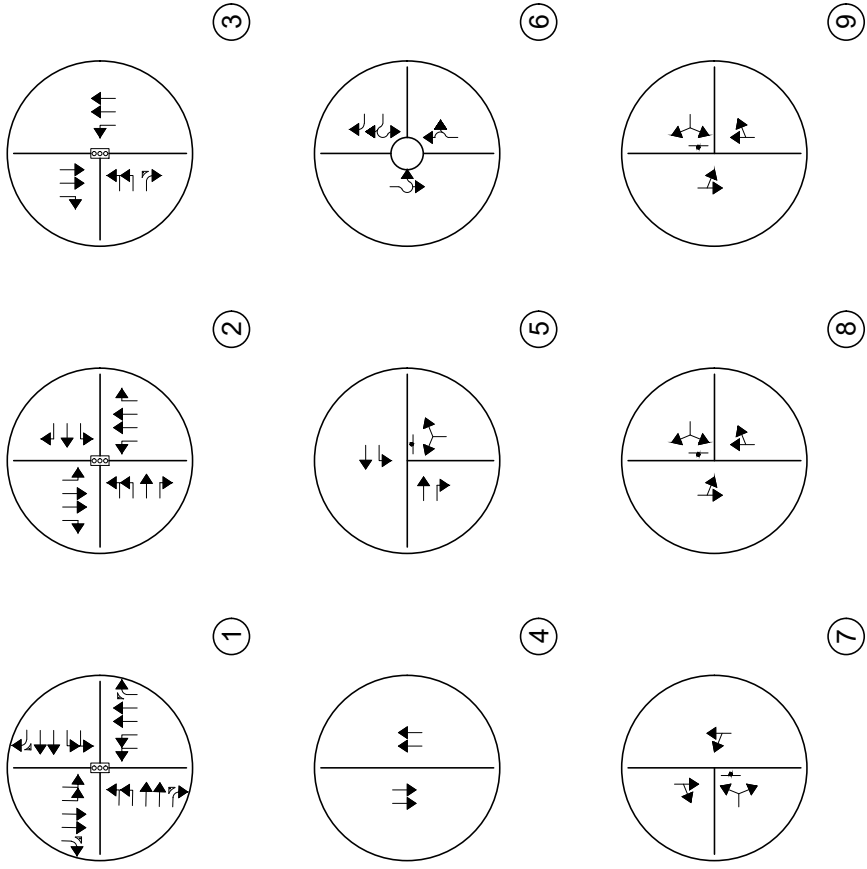
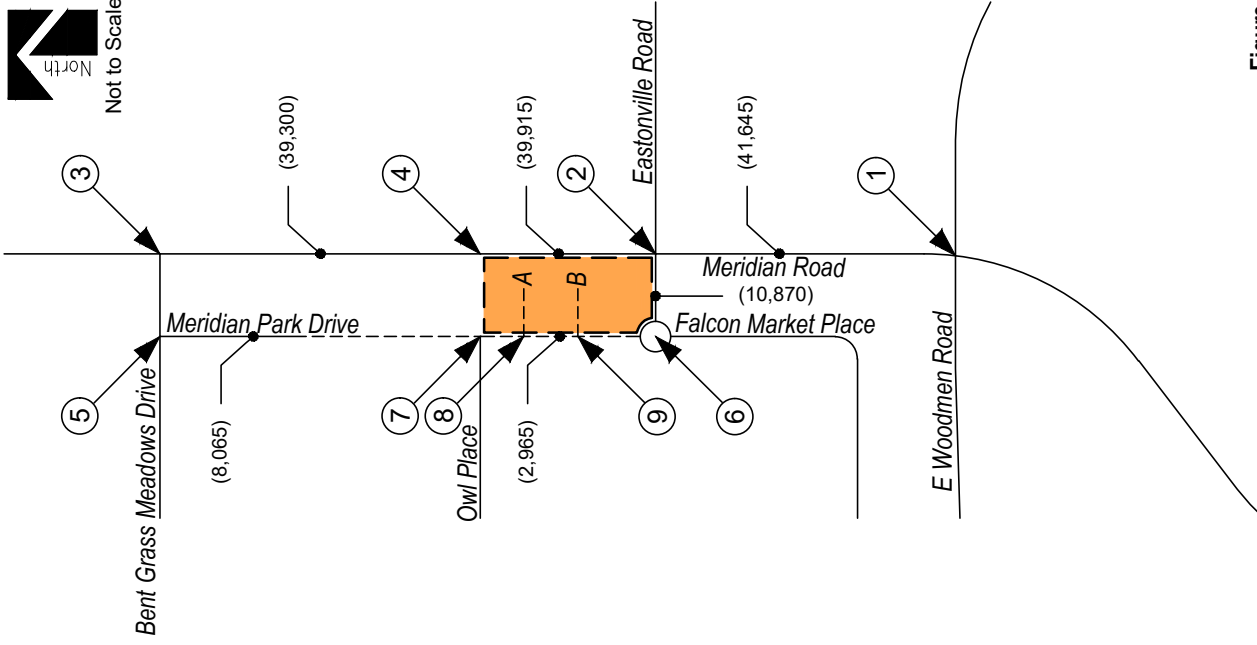


SM ROCHA, LLC
Traffic and Transportation Consultants

Figure 7
TOTAL TRAFFIC - YEAR 2040
Volumes
AM / PM Peak Hour
(ADT) : Average Daily Traffic



Not to Scale



LEGEND




-  Study Intersection
-  Lane Geometry
-  Development Site

Figure 8
TOTAL TRAFFIC - YEAR 2040
 Intersection Geometry
 AM / PM Peak Hour
 (ADT) : Average Daily Traffic

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Development Impacts & Peak Hour Intersection Levels of Service

The analyses and procedures described in this study were performed in accordance with the latest Highway Capacity Manual (HCM) and are based upon the worst-case conditions that occur during a typical weekday upon build-out of site development and analyzed land uses. Therefore, study intersections are likely to operate with traffic conditions better than those described within this study, which represent the peak hours of weekday operations only.

The operations of the study intersections were analyzed under projected total traffic conditions using the SYNCHRO computer program.

Total traffic level of service analysis results for Year 2025 and 2040 total traffic level of service analysis results are summarized in Table 4 and 5, respectively. Intersection capacity worksheets are provided in Attachment B.

Table 4 – Intersection Capacity Analysis Summary – Total Traffic – Year 2024

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
Meridian Road / E Woodmen Road (Signalized)	C (32.2)	D (46.3)
Meridian Road / Eastonville Road (Signalized)	C (28.4)	C (24.8)
Meridian Road / Bent Grass Meadows Drive (Signalized)	B (16.6)	A (9.4)
Bent Grass Meadows Drive / Meridian Park Drive (Stop-Controlled)		
Westbound Left	A	A
Northbound Left and Right	B	B
Eastonville Road / Falcon Market Place / Meridian Park Drive (Roundabout)		
Eastbound Left	A	A
Eastbound Right	A	A
Northbound Through and Right	A	A
Southbound Left and Through	A	A
Owl Place / Meridian Park Drive (Stop-Controlled)		
Eastbound Left and Right	A	A
Westbound Left, Through and Right	A	A
Northbound Left and Through	A	A
Southbound Through and Right	A	A
Access A / Meridian Park Drive (Stop-Controlled)		
Westbound Left and Right	A	A
Southbound Left and Through	A	A
Access B / Meridian Park Drive (Stop-Controlled)		
Westbound Left and Right	B	B
Southbound Left and Through	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/v eh)
 Stop-Controlled Intersection: Level of Service
 Roundabout Intersection: Level of Service

Table 5 – Intersection Capacity Analysis Summary – Total Traffic – Year 2040

INTERSECTION LANE GROUPS	LEVEL OF SERVICE	
	AM PEAK HOUR	PM PEAK HOUR
Meridian Road / E Woodmen Road (Signalized)	D (35.8)	E (78.2)
Meridian Road / Eastonville Road (Signalized)	D (43.3)	C (27.9)
Meridian Road / Bent Grass Meadows Drive (Signalized)	C (23.6)	B (13.6)
Bent Grass Meadows Drive / Meridian Park Drive (Stop-Controlled)		
Westbound Left	A	A
Northbound Left and Right	B	B
Eastonville Road / Falcon Market Place / Meridian Park Drive (Roundabout)		
Eastbound Left	A	A
Eastbound Right	A	A
Northbound Through and Right	A	A
Southbound Left and Through	A	A
Owl Place / Meridian Park Drive (Stop-Controlled)		
Eastbound Left and Right	A	A
Northbound Left and Through	A	A
Southbound Right and Through	A	A
Access A / Meridian Park Drive (Stop-Controlled)		
Westbound Left and Right	A	A
Southbound Left and Through	A	A
Access B / Meridian Park Drive (Stop-Controlled)		
Westbound Left and Right	B	B
Southbound Left and Through	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
 Stop-Controlled Intersection: Level of Service
 Roundabout Intersection: Level of Service

Total Traffic Analysis Results Upon Development Build-Out

Table 4 illustrates how, by Year and upon Development build-out, the signalized intersection of Meridian Road with E Woodmen Road shows an overall LOS D operation during the morning peak traffic hour and LOS E operation during the afternoon peak traffic hour. Operations of Meridian Road with E Woodmen Road are comparable to or better than those previously stated in the Owl Place Commercial Traffic Impact Study. All improvement recommendations made in the previous traffic impact study remain valid.

The signalized intersection of Meridian Road with Eastonville Road is projected to have morning peak traffic hour operations at LOS D during and LOS C during the afternoon peak traffic hour.

The signalized intersection of Meridian Road with Bent Grass Meadows Drive is projected to have morning and afternoon peak traffic hour operations at LOS C and B, respectively.

The stop-controlled intersection of Bent Grass Meadows Drive with Meridian Park Drive is projected to have turning movement operations at LOS B or better for both the morning and afternoon peak traffic hour.

The roundabout intersection of Eastonville Road with Meridian Park Drive and Falcon Market Place is projected to have turning movement operations at LOS A for both the morning and afternoon peak traffic hours.

The stop-controlled intersection of Owl Place with Meridian Park Drive is projected to have turning movement operations at LOS A for both the morning and afternoon peak traffic hours.

The stop-controlled intersections of site access A and B with Meridian Park Drive are projected to have turning movement operations at LOS B or better for both the morning and afternoon peak traffic hours.

Compared to analysis results originally presented within the Owl Place Commercial TIS, it is concluded that the LOS results stated above are generally better than, or comparable to, those previously presented. As such, all roadway improvements and intersection improvements identified in the previous Owl Place Commercial Traffic Impact Study remain valid.

Additional design detail, pursuant to the latest site plan as prepared by Drexel, Barrell & Co., for the Eastonville Road and Meridian Park Drive roundabout is provided for reference in Attachment C.

Queue Length Analysis

Queue lengths for the study intersections were previously assessed in the approved Owl Place Commercial Traffic Impact Study. This analysis provided queue length estimates using Year 2040 total traffic conditions. Queue analysis results yields estimates for 95th percentile queue lengths, which have only a five percent probability of being exceeded during the analysis time period. Projected queue lengths were updated using the latest trip generation estimates provided in Tables 2 and 3, with results being summarized in Table 6.

Table 6 – Queue Length Analysis

Intersection	Turn Movement	Existing Turn Lane Length (feet)	AM Peak Hour	PM Peak Hour	Recommended Turn Lane Length (feet)	
			95th Percentile Queue Length (feet)	95th Percentile Queue Length (feet)		
Signalized Intersections						
Meridian Road / E Woodmen Road	EB	L	720' x2	228'	646'	720' x2
		T	-	152'	326'	-
		R	635'	0'	0'	635'
	WB	L	440' x2	63'	103'	440' x2
		T	-	327'	387'	-
		R	210'	0'	89'	210'
	NB	L	420' x2	150'	212'	420' x2
		T	-	176'	636'	-
		R	330'	0'	0'	330'
	SB	L	460' x2	71'	207'	460' x2
		T	-	260'	386'	-
		R	575'	0'	0'	575'
Meridian Road / Eastonville Road	EB	L	100' x2	75'	152'	100' x2
		T	-	300'	238'	-
		R	100'	122'	68'	100'
	WB	L	100'	198'	66'	100'
		T	-	108'	144'	-
		R	100'	0'	39'	100'
	NB	L	100'	178'	102'	100'
		T	-	173'	216'	-
		R	400'	11'	1'	400'
	SB	L	375'	19'	174'	375'
		T	-	994'	600'	-
		R	400'	0'	0'	400'
Meridian Road / Bent Grass Meadows Drive	EB	L	160' X2	117'	144'	160' X2
		R	-	119'	68'	-
	NB	L	700'	176'	10'	700'
		T	-	175'	881'	-
	SB	T	-	777'	376'	-
		R	330'	36'	35'	330'
Stop-Controlled Intersections						
Bent Grass Meadows Drive / Meridian Park Drive	EB	T	-	0'	0'	-
		R	-	0'	0'	-
	WB	L	-	23'	20'	-
		T	-	0'	0'	-
	NB	L,R	-	53'	68'	-
Meridian Park Drive / Owl Place	EB	L,R	-	0'	0'	-
	NB	L,T	-	0'	0'	-
	SB	T,R	-	0'	0'	-
Meridian Park Drive / Access A	WB	L,R	-	3'	3'	-
	NB	T,R	-	0'	0'	-
	SB	L,T	-	3'	3'	-
Meridian Park Drive / Access B	WB	L,R	-	20'	18'	-
	NB	T,R	-	0'	0'	-
	SB	L,T	-	0'	0'	-
Roundabout Intersections						
Meridian Park Drive / Eastonville Road / Falcon Market Place	WB	L,R	-	25'	25'	-
		R	-	0'	0'	-
	NB	T,R	-	25'	50'	-
	SB	L,T	-	25'	25'	-

Note: Turn Lane Length does not include taper length.
Key: x2 = Dual Turn Lanes.

As Table 6 shows, updated queue analysis results remain comparable to, or better than those presented in the original Owl Place Commercial Traffic Impact Study. All previous assumptions and recommendations for potential roadway or intersection improvements remain valid.

Auxiliary Lane Analysis

An auxiliary lane analysis was done in the previously approved Owl Place Commercial Traffic Impact Study. An updated analysis was performed and provides similar results to those presented in the traffic study. As such all previous assumptions and recommendations for potential roadway or intersection improvements remain valid. These recommendations are as follows.

Auxiliary lanes for site development accesses are to be based on the County's Engineering Criteria Manual (ECM).

Considering development build-out, an evaluation of auxiliary lane requirements, pursuant to Section 2.3.7(D), of the County's ECM, reveals that exclusive left-turn and right-turn deceleration lanes are required at all study intersections along Meridian Road due to its roadway classification and corresponding CDOT State Highway Access Code (SHAC) designation. It is anticipated that auxiliary lanes at internal site accesses will include left-turn deceleration lanes along Meridian Park Drive due to the high left-turn ingress volumes. This may be accomplished through the use of a center two-way-left-turn-lane (TWLTL) and is consistent with the existing Falcon Market Place cross-section south of Eastonville Road.

Based on current access spacing, the proposed TWLTL provides approximately 106 feet of storage capacity for southbound left turns at Access A, and approximately 213 feet of storage capacity for southbound left turns at Access B. Pursuant to standard deceleration lane requirements as identified in the County's ECM, Table 2-26, left-turn deceleration lanes along Meridian Park Drive are recommended to provide at least 195 feet of total length, assuming a design speed of 25 MPH. This length includes an 80-foot bay taper and 115 feet of storage length. Based on the identified lengths provided by the proposed TWLTL, it is concluded that the capacity provided for Access B meets this requirement, whereas the capacity provided at Access A is less than the recommended length. However, it should be noted that in order to provide additional capacity at Access A it would be necessary to relocate the access further south thereby resulting in a reduction to access spacing. Such a reduction in spacing is considered likely to result in negative impacts to site circulation and is not recommended. Given the relatively low volume of opposing northbound through volumes on Meridian Park Drive as identified in Figure 7, and the lack of any significant queueing as shown in Table 6, it is believed that the capacity proposed by the TWLTL is adequate and does not present any negative impacts to roadway operations. Therefore, a deviation of 9 feet from the recommended storage capacity of 115 feet can be supported.

Additionally, right-turn deceleration lanes may also be necessary at site accesses along Meridian Park Drive pursuant to expected volumes and the future roadway classification. However, it is noted that provision of right-turn deceleration lanes is not consistent with the existing southern portion of Falcon Market Place and may not be feasible dependent on final access spacing and distance from the roundabout intersection at Falcon Market Place and Eastonville Road. Furthermore, operational assessment of site accesses without right-turn deceleration lanes as summarized in Table 5 indicates that a lack of right-turn deceleration lanes is not expected to result in any negative impacts with access levels of service being LOS B or better during peak hours. Table 6 also indicates that no significant vehicle queues are expected at site accesses. It is therefore concluded that right-turn deceleration lanes along Meridian Park Drive are not necessary to achieve acceptable roadway operations.

Pursuant to the posted speed limit along Meridian Road and a corresponding design speed as identified in the County's ECM, turn lane lengths along Meridian Road are expected to consist of a total length of 530 feet including a transition taper of 240 feet. An examination of existing auxiliary lanes provided indicates that no new modifications are needed, and all turn lanes on Meridian Road currently meet or exceed the ECM recommended length. Additionally, as site design is further developed, it is anticipated that applicable ROW dedication will be needed to accommodate relocation of existing auxiliary lanes along Meridian Road upon future planned widening to six through lanes.

Sight Distance Analysis

An assessment of sight distance was performed pursuant to Section 2.4, of the County's ECM, for proposed site accesses along Meridian Park Drive. Table 2-35 of the ECM further indicates that entering sight distance for access along a two-lane public roadway with posted speed limit of 25 MPH is identified as 325 feet.

In review of the current site plan, as shown in Attachment A, it is noted that there is some overlap of sight distance areas between the two accesses proposed. However, no other significant obstructions or hindrances to sight distance are identified. It is noted that pursuant to County criteria, access spacing should provide sufficient separation to accommodate the necessary sight distance areas. However, with consideration for the proximity of the roundabout intersection at Eastonville Road and the stop-controlled intersection at Owl Place along Meridian Park Drive, it is likely that additional access separation cannot be reasonably achieved without presenting significant impacts to the adjacent intersections. Furthermore, restriction or removal of access is not recommended as this is likely to negatively impact site circulation, emergency vehicle access, and access operations. With all other operational goals achieved pursuant to the performed analysis, it is believed that the access as proposed may be accommodated without any significant operational or safety concerns. It is understood that access locations may be subject to change upon further site plan development, and final access locations may require additional County approvals. A deviation request for reduced access spacing is anticipated to be coordinated with County Staff as may be required.

Recommended Improvements

Table 7 illustrates the recommended roadway and intersection control improvements associated with the proposed development and adjacent area.

Table 7 – Recommended Improvements Summary

IMPROVEMENT	TYPE	TIMING	RESPONSIBILITY
Conversion of Owl Place access intersection to Right-In only or Closure	Access	Upon completion of Falcon Market Place Extension	Applicant and/or Adjacent Development
Extension of Falcon Market Place north to Owl Place	Roadway Segment	With Final Plat Application(s)	Applicant
Extension of Meridian Park Drive south to Owl Place	Roadway Segment	With Final Plat Application(s)	Adjacent Development
Restriping of northbound left turn lane to support dual left turn at Eastonville Road ¹	Auxiliary Lane	When Warranted	Whoever warrants the need; i.e. County, City, or Developer
Construct southbound left turn lanes for site accesses along Meridian Park Drive	Auxiliary Lane	With Final Plat Application(s)	Applicant
Widen Meridian Road to six-lane cross-section	Roadway Segment	By 2060 based on Briargate Parkway CPP	Master planned
Widen E Woodmen Road to six-lane cross-section	Roadway Segment	Based on Expressway Classification per 2040 MTCP	Whoever warrants the need; i.e. County, City, or Developer
Construct an westbound right turn bypass at the roundabout on Eastonville	Auxiliary Lane	With Final Plat Application(s)	Applicant

¹ = It is to be noted that provision of dual left turn lanes will require two corresponding receiving lanes on Eastonville Road.

As Table 7 shows, these recommended improvements remain similar to those presented in the original Owl Place Commercial Traffic Impact Study. It is noted that a deviation request pursuant to County criteria for the non-standard cross-section of Meridian Park Drive is to be coordinated with County Staff as required.

Road Impact Fees

This site is subject to the El Paso County Road Impact Fee Program (Resolution 19-471), as amended and falls within the category of General Commercial. Pursuant to the latest proposed site plan and land use densities as previously described, it is anticipated that 10,810 square feet of on-site building area may be considered for determination of applicable fees. Based on this square footage, a resulting impact fee of \$64,469 is estimated. Obligation for payment will be selected at the final land use approval stage, which is understood to be concurrent with the site plan application.

Conclusion

This analysis assessed traffic generation for the Owl Place Commercial development, provided a traffic volume comparison to previous land use assumptions approved for the development site, and considered potential impacts to the adjacent roadway network.

It is our professional opinion that the proposed site-generated traffic is expected to create no negative impact upon consideration for, and application of, all applicable roadway and intersection improvements identified in the approved TIS. All conclusions and recommendations presented in the previous site traffic study remain valid.

We trust that our findings will assist in the planning and approval of the Owl Place Commercial development. Please contact us should further assistance be needed.

Sincerely,

SM ROCHA, LLC

Traffic and Transportation Consultants



Stephen Simon, EIT
Traffic Engineer



Fred Lantz, PE
Traffic Engineer

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.



Fred Lantz, P.E. #23410

04/09/2024

Date

Developer's Statement

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



Brian Zurek
CD Meridian & Owl X, LLC
1776 N Scottsdale Rd.
PO Box 220
Scottsdale, AZ 85257-2115

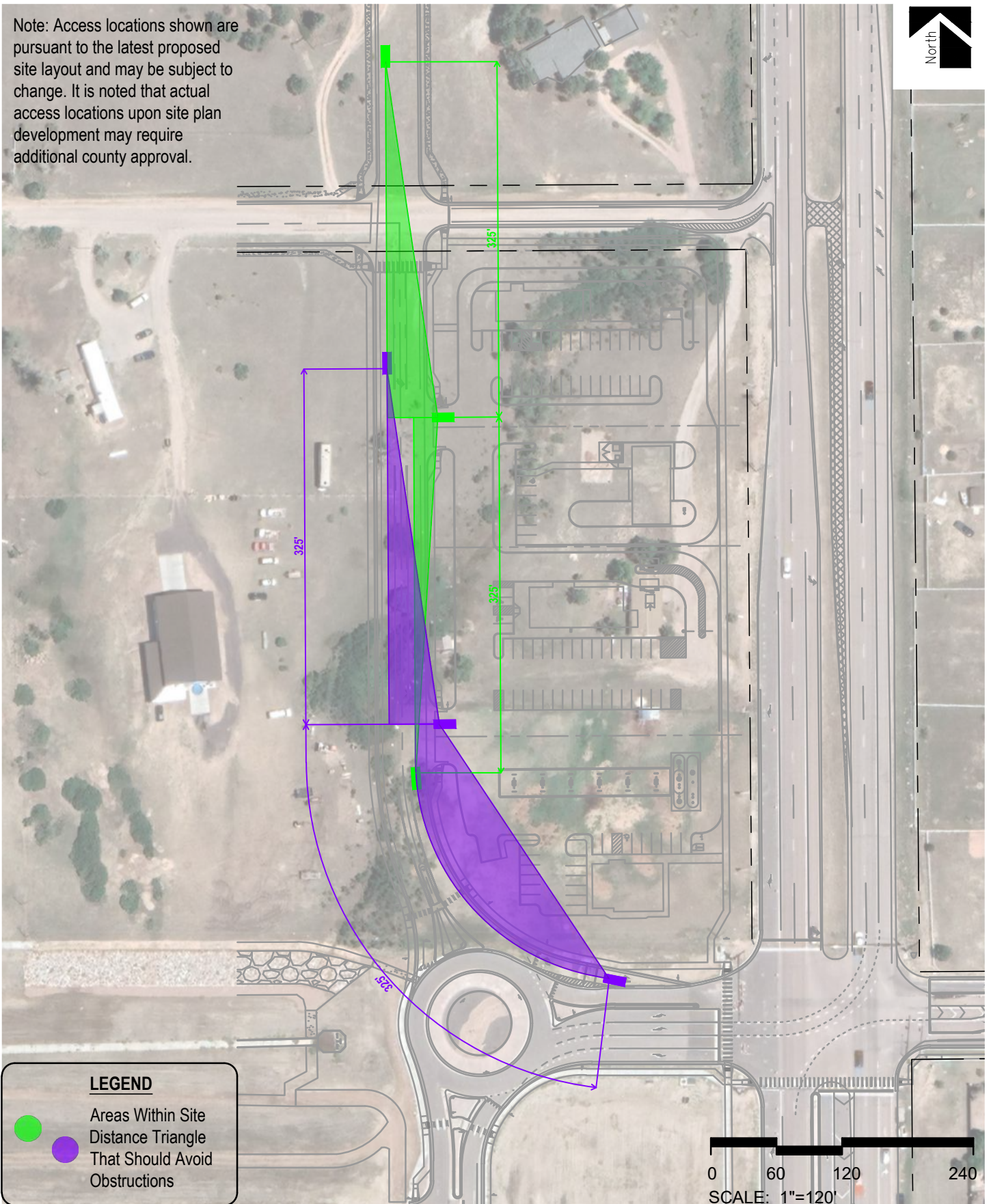
04/09/2024

Date

ATTACHMENT A

Sight Distance Exhibit

Note: Access locations shown are pursuant to the latest proposed site layout and may be subject to change. It is noted that actual access locations upon site plan development may require additional county approval.



Murphy Oil 99
El Paso County, CO

Attachment II

Site Plan

