



SM ROCHA, LLC

TRAFFIC AND TRANSPORTATION CONSULTANTS

May 7, 2025

Loren Moreland
Classic SRJ
2138 Flying Horse Club Drive
Colorado Springs, Colorado 80921

RE: Retreat at PrairieRidge Filing 1 / Transportation Memorandum
El Paso County, Colorado
PCD File No. 257

Dear Loren,

SM ROCHA, LLC is pleased to provide traffic generation information for the development entitled Retreat at PrairieRidge Filing 1. This development is located at the northwest corner of Vollmer Road and Dines Boulevard in El Paso County, Colorado.

The intent of this analysis is to present traffic volumes likely generated by the proposed development, provide a traffic volume comparison to previous land use assumptions approved for the development site, and consider potential impacts to the adjacent roadway network. This letter also serves as an update to the previously approved Retreat at PrairieRidge Filings 1-3 Preliminary Plan & Rezones Traffic Impact Study¹ prepared for the overall Preliminary Plan application, pursuant to Section B.1.2.C of El Paso County's Engineering Criteria Manual (ECM)².

The following is a summary of analysis results.

Site Description and Access

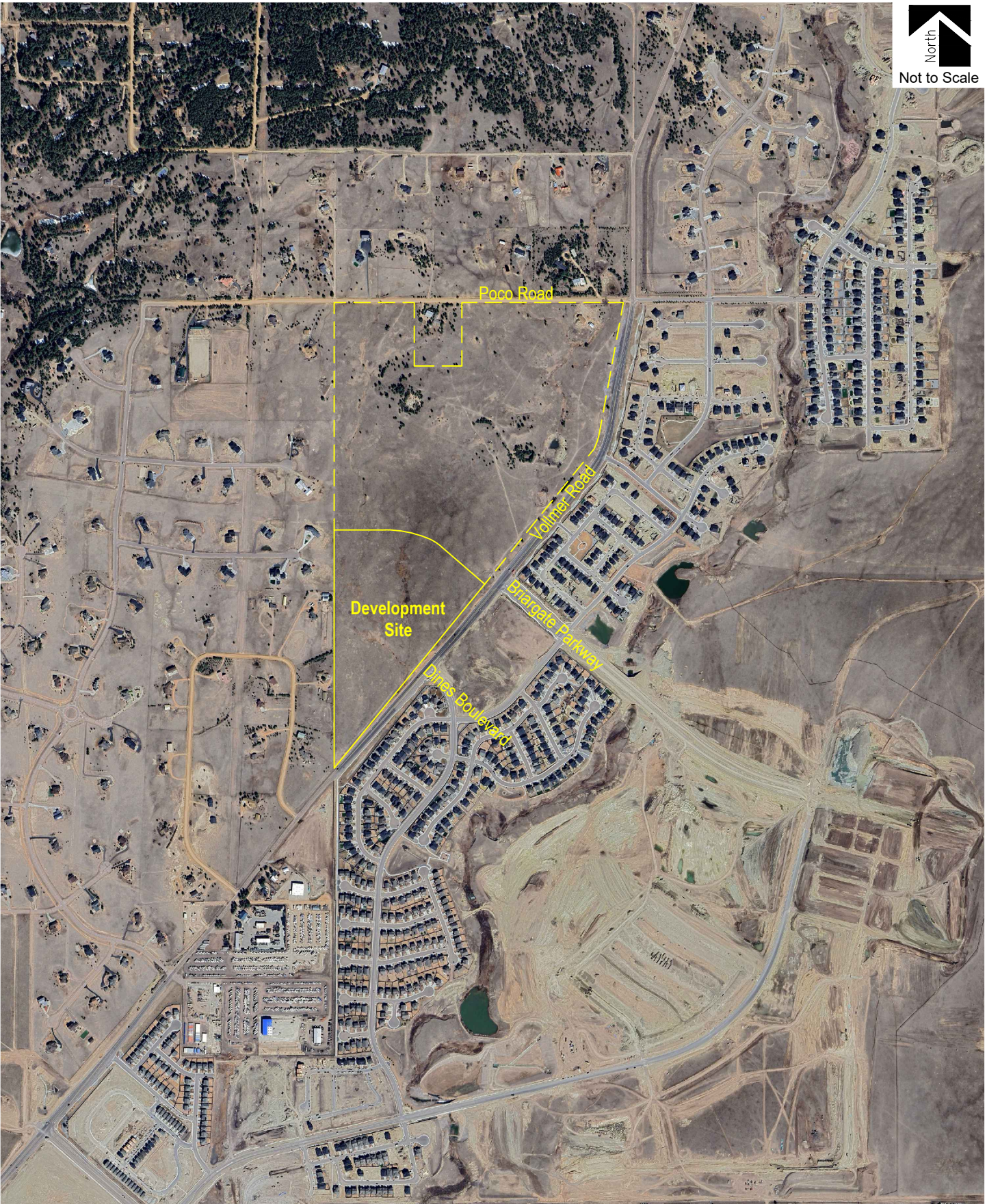
Land for the development is currently vacant and surrounded predominately by existing residential land uses. The proposed development is understood to entail the new construction of 46 single-family homes.

Proposed access to the development is generally provided along the Dines Boulevard extension west of Vollmer Road.

General site and access locations are shown on Figure 1. A preliminary plan, as prepared by Classic Consulting, is shown on Figure 2. This plan is provided for illustrative purposes only.

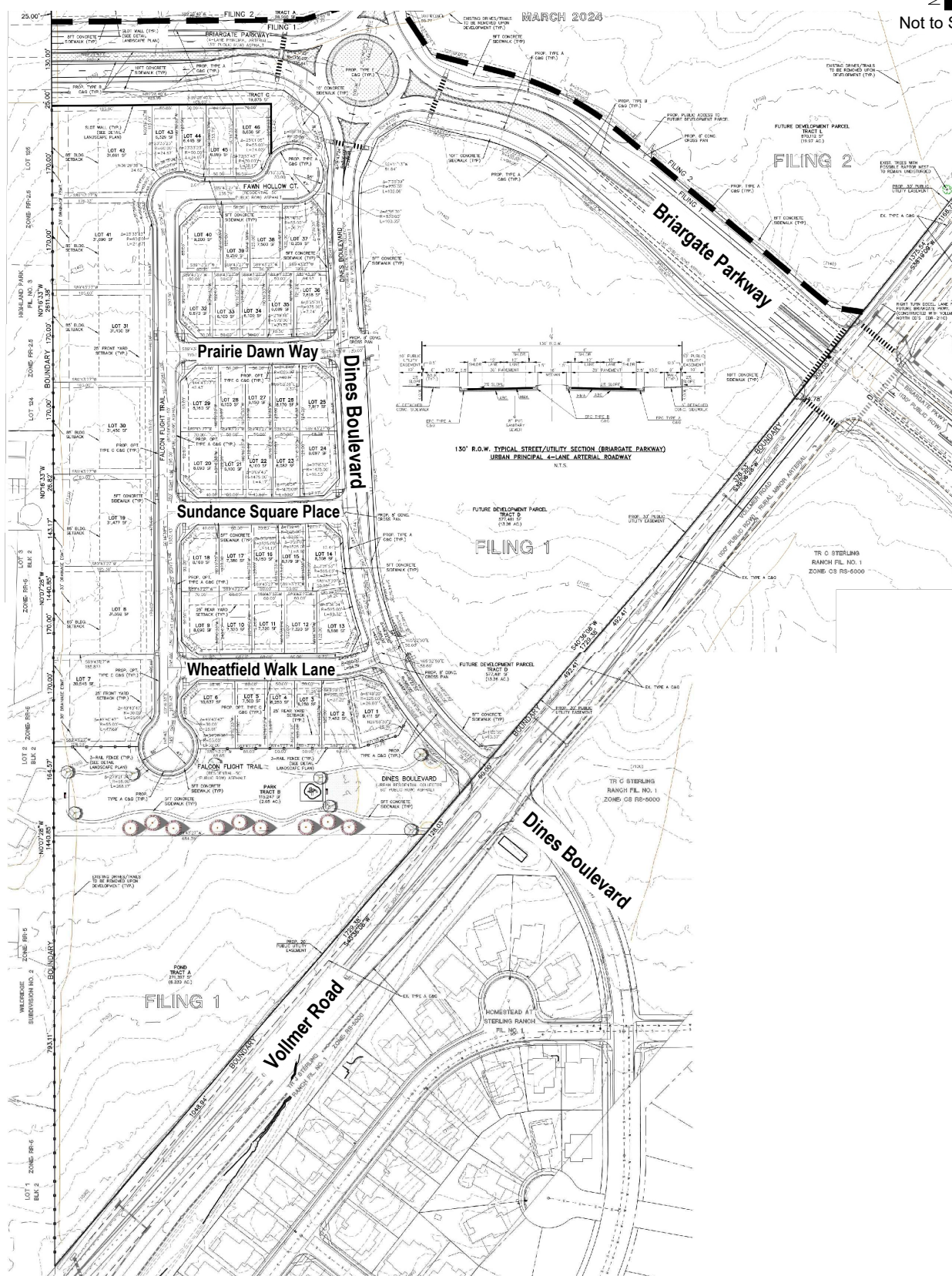
¹ Retreat at PrairieRidge Filings 1-3 Preliminary Plan & Rezones: Traffic Impact Study, SM ROCHA LLC, June 2024.

² El Paso County Engineering Criteria Manual, El Paso County, January 9, 2025.





Not to Scale



RETRAIT AT PRAIRIERIDGE FILING 1

Transportation Memorandum

SM ROCHA, LLC

Traffic and Transportation Consultants

Figure 2
PRELIMINARY PLAN

May 2025

Page 3

Existing and Committed Surface Transportation Network

Within the study area, Vollmer Road and Briargate Parkway are the primary roadways that will accommodate traffic to and from the proposed development. A brief description of each roadway, based on the County's Major Transportation Corridors Plan (MTCP)³ and ECM, as well as the City of Colorado Springs' Major Thoroughfare Plan⁴, is provided below:

Vollmer Road is a north-south, urban major collector roadway having four through lanes (two lanes in each direction) with shared turn lanes at the intersections within the study area. Vollmer Road provides a posted speed limit of 45 MPH.

Briargate Parkway is a future east-west, four-lane urban principal arterial roadway. Briargate Parkway design plans, for the portion east of Vollmer Road to Sterling Ranch Road, are understood to be under County review as of this study date. The Briargate Parkway extension west of Vollmer Road to Black Forest Road, and ultimately to N Powers Boulevard, will be completed through various future private development or public improvement projects. Pursuant to Section 2.3.2, Table 2-6, of the County's ECM, Briargate Parkway is envisioned to provide a posted speed limit of 45 MPH.

The study intersections along Vollmer Road currently operate under stop-controlled conditions. A stop-controlled intersection is defined as a roadway intersection where vehicle rights-of-way are controlled by one or more "STOP" signs.

Beyond that described in this section, no other regional or specific improvements for the above-described roadways are known to be planned or committed at this time.

³ El Paso County Major Transportation Corridors Plan, Felsburg Holt & Ullevig, July 18, 2024.

⁴ Major Thoroughfare Plan, City of Colorado Springs, August 2011.

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 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 the previously approved land uses and for the development area proposed. Use of average trip generation rates presents a conservative analysis. ITE land use codes 210 (Single-Family Detached Housing), 215 (Single-Family Attached Housing), and 822 (Strip Retail Plaza) were used for analysis because of their conservative rates and best fit to the proposed land uses.

Table 1 – Trip Generation Rates

ITE CODELAND USEUNIT			TRIP GENERATION RATES						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached	DU	9.43	0.18	0.52	0.70	0.59	0.35	0.94
215	Single-Family Attached	DU	7.20	0.15	0.33	0.48	0.32	0.25	0.57
822	Strip Retail Plaza	KSF	54.45	1.42	0.94	2.36	3.30	3.30	6.59

Key: DU = Dwelling Units. KSF = Thousand Square Feet Gross Floor Area.
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 from the previously approved Retreat at PrairieRidge Filings 1-3 Preliminary Plan & Rezones traffic study.

Table 2 – Trip Generation Summary

ITE CODELAND USESIZE				TOTAL TRIPS GENERATED						
				24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
					ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
<u>Site Development - Previously Approved</u> ¹										
210	Single-Family Detached	230	DU	2,169	42	119	161	136	80	216
215	Single-Family Attached	220	DU	1,584	33	73	106	71	54	125
822	Strip Retail Plaza	30.0	KSF	1,634	42	28	71	99	99	198
Previously Approved Total:				5,386	117	220	337	307	233	539
<u>Site Development - Filing 1</u>										
210	Single-Family Detached	46	DU	434	8	24	32	27	16	43
<u>Site Development - Filing 2</u> ²										
210	Single-Family Detached	141	DU	1,330	26	73	99	84	49	133
<u>Site Development - Filing 3</u> ³										
210	Single-Family Detached	6	DU	57	1	3	4	4	2	6
<u>Site Development - North PUD Preliminary Plan</u> ⁴										
210	Single-Family Detached	64	DU	604	12	33	45	38	22	60
215	Single-Family Attached	48	DU	346	7	16	23	16	12	27
<u>Site Development - Commercial</u>										
822	Strip Retail Plaza	30.0	KSF	1,634	42	28	71	99	99	198
Proposed Total:				4,403	96	177	274	267	200	467
Difference Total:				-984	-21	-43	-64	-40	-33	-73

Key: DU = Dwelling Units. KSF = Thousand Square Feet Gross Floor Area.

¹ Retreat at PrairieRidge Filings 1-3 Preliminary Plan & Rezones: Traffic Impact Study. SM ROCHA LLC, June 2024.

² Retreat at PrairieRidge Filing 2: Traffic Generation Analysis. SM ROCHA LLC, January 2025.

³ Retreat at PrairieRidge Filing 3: Traffic Generation Analysis. SM ROCHA LLC, January 2025.

⁴ Retreat at PrairieRidge North PUD Preliminary Plan: Traffic Generation Analysis. SM ROCHA LLC, April 2025.

Note: All data and calculations above are subject to being rounded to nearest value.

As Table 2 shows, the proposed Retreat at PrairieRidge Filing 1 development area has the potential to generate approximately 434 daily trips with 32 of those occurring during the morning peak hour and 43 during the afternoon peak hour. The overall Retreat at PrairieRidge development area has the potential to generate approximately 4,403 daily trips with 274 of those occurring during the morning peak hour and 467 during the afternoon peak hour. Compared to the previously approved land uses for the overall development area, this represents an overall decrease in site traffic generation for both daily and peak hour trips.

Adjustments to Trip Generation Rates

While a mixed-use development of this type is likely to attract trips from within area land uses as well as pass-by or diverted linked trips from the adjacent roadway system, no trip reduction was taken in this analysis. This assumption provides for a conservative analysis and is consistent with the previous traffic study approved for the overall development area.

Vehicle Trip Generation Comparison and Development Impacts

As Table 2 shows, the proposed development does not exceed traffic volumes approved for the area within the overall Retreat at PrairieRidge traffic study. Therefore, these volumes are not likely to negatively impact operations of adjacent roadways or intersections.

Traffic Signal Warrants

A signal warrant analysis, using background and total traffic volumes, was conducted for the Vollmer Road intersections with Briargate Parkway and Dines Boulevard in order to review potential for traffic signal control. Traffic volumes used for these analyses were referenced from the overall Retreat at PrairieRidge Filings 1-3 Preliminary Plan & Rezones traffic study and are provided for reference in Attachment A. As previously described, since the land uses and densities proposed with this development are in compliance with the overall Retreat at Prairie Ridge Filings 1-3 Preliminary Plan & Rezones traffic study, these referenced volumes are believed to provide for a conservative analysis.

Analysis results conclude that the Vollmer Road and Briargate Parkway intersection was found to be below the minimum vehicle volumes required to meet Warrant 3 – Peak Hour, from the Manual on Uniform Traffic Control Devices (MUTCD)⁵, for the installation of a traffic signal, under short term traffic conditions, both with and without the proposed development. Under Year 2040 traffic conditions, the Vollmer Road and Briargate Parkway intersection was found to be above the minimum vehicle volumes required to meet Warrant, both with and without the proposed development.

Under Year 2027 and 2040 background and total traffic conditions, the Vollmer Road and Dines Boulevard intersection was found to be below the minimum vehicle volumes required to meet Warrant 3, from the MUTCD, for the installation of a traffic signal. As such, Vollmer Road and Dines Boulevard was analyzed under a stop-controlled condition.

It is noted that Warrant 1 – Eight-Hour Vehicular Volume and Warrant 2 – Four-Hour Vehicular Volume, were considered for the above-described signal warrant analyses along Vollmer Road. However, since traffic volumes at the study intersections are unknown at this time due to future planned roadway improvements and extensions, it is believed that Warrant 3 is adequate at this time for determining when traffic signal control may be appropriate.

Warrant study worksheets are provided for reference in Attachment B.

Said intersections should be monitored further by County Staff as area development occurs to determine when or if signalization installation is appropriate.

⁵ Manual on Uniform Traffic Control Devices, 11th Edition, Federal Highway Administration, December 2023.

Levels of Service Analysis

Unresolved: Address LOS of internal roadways (Fawn Hollow Ct, Prairie Dawn Way & Wheatfield Walk Lane with Dines and with Falcon Flight Trail)

The previously approved traffic study prepared for the overall Retreat at PrairieRidge development area used the SYNCHRO computer program to analyze the study intersections for future traffic conditions upon full development buildout.

As discussed previously, and as shown in Table 2, there is a decrease in peak hour traffic volumes anticipated for the proposed development. As such, the proposed land uses and densities are in compliance with the Retreat at PrairieRidge traffic study and therefore no changes to the level of service results presented in the traffic study are expected.

Please reference the previously approved Retreat at PrairieRidge Filings 1-3 Preliminary Plan & Rezones traffic study for specific level of service (LOS) results.

In addition to the study intersections analyzed within the PrairieRidge Filings 1-3 Preliminary Plan & Rezones traffic study, projected LOS operations for the intersections along Dines Boulevard internal to the site were also considered. It is expected that internal intersection operations are to be comparable to, or better than, those projected for the study intersections along Vollmer Road which provide general access into the development site.

Auxiliary Lane Analysis

Provide turn analysis information in TIS to verify revisions and new Briargate configuration

Auxiliary lane requirements for the study intersections, upon development buildout, were analyzed within the Retreat at PrairieRidge traffic study prepared for the overall development area. Since the land uses and densities proposed within this transportation memorandum are in compliance with the Retreat at PrairieRidge traffic study, it is expected that the auxiliary lane analyses presented remain valid.

Sight Distance and Access Spacing

Pursuant to Section B.2.4.D of the County's ECM, an assessment of the appropriateness of proposed access locations was considered.

The preliminary plan prepared for the development provides an illustration of sight distance at the internal intersections along Dines Boulevard. With the assumption that this preliminary plan was prepared in accordance to Section 2.3.6 of the County's ECM and Section 9.5.3.2 of the American Association of State Highway and Transportation Officials' (AASHTO) A Policy on Geometric Design of Highway and Streets (Green Book)⁶, access spacing and sight distance along Dines Boulevard is not expected to be an issue.

⁶ A Policy on Geometric Design of Highways and Streets (7th Edition), American Association of State Highway and Transportation Officials, 2018.

Roadway Signage and Striping

Due to the future Dines Boulevard connection with Vollmer Road and future Briargate Parkway, Dines Boulevard is assumed to be classified as a collector roadway, with an assumed posted speed limit of 35 MPH. All other internal roadways internal to the development site are expected to be classified as local roadways.

It is therefore recommended that a 35 MPH speed limit sign be posted along Dines Boulevard, between Vollmer Road and Wheatfield Walk Lane, and be in accordance with Section 2B.21 of the MUTCD.

In accordance with Section 2.3.2, Table 2-7, of the County's ECM and considering the collector roadway classification of Dines Boulevard, parking along Dines Boulevard will be prohibited. As such, it is recommended that no parking signs be placed along Dines Boulevard.

Additionally, STOP signs should be installed for egress traffic, pursuant to Section 2B.04 of the MUTCD, at the intersections of Dines Boulevard with Wheatfield Walk Lane, Sundance Square Place, and Prairie Dawn Way.

Pedestrian and Bicycle Facility Assessment

In accordance with Section B.2.4.D of the County's ECM, an assessment to adequacy of pedestrian and bicycle facilities within the study area was considered.

It is noted that the proposed development plans to accommodate pedestrians and bicyclists by maintaining the County's planned pedestrian and bicycle facilities in the area.

Refer to Section VI of the previously approved Retreat at PrairieRidge traffic study for a more specific pedestrian circulation & safety analysis for the proposed development. As previously discussed, since traffic volumes proposed within this transportation memorandum do not exceed those outlined within the overall traffic study, it is believed that discussions provided within the traffic study on pedestrian and bicycle facilities remain valid.

Recommended Improvements

Table 3 illustrates the recommended roadway and intersection control improvements associated with the proposed Retreat at PrairieRidge Filing 1 development based on those provided within the approved Retreat at PrairieRidge Filings 1-3 Preliminary Plan & Rezones Traffic Impact Study.

Table 3 – Recommended Improvements Table

IMPROVEMENT	TYPE	TIMING	RESPONSIBILITY
Construct Dines Boulevard west of Vollmer Road	Roadway Segment	With Final Plat Application(s) / Site Development	Applicant / Developer
Construct Briargate Parkway west of Vollmer Road to Dines Boulevard	Roadway Segment	With Final Plat Application(s) / Site Development	Developer (subject to reimbursement under the County's Road Impact Fee Program) or PPRTA
Construct southbound right turn lane along Vollmer Road at Dines Boulevard	Auxiliary Lane	With final phasing of Site Development	Applicant / Developer (upon appropriate development phase)
Construct northbound left turn lane along Vollmer Road at Dines Boulevard	Auxiliary Lane	Construction estimated by 2023 / 2024	By Others (Sterling Ranch)

Recommended improvements, as shown in Table 3 above, which may be reimbursable under the County's MTCP include auxiliary lane improvements along Vollmer Road.

In addition to the above recommended improvements, and pursuant to traffic signal warrants provided in this memorandum, it is recommended that the intersection of Vollmer Road with Briargate Parkway be signalized by Year 2040. Additionally, the intersection of Vollmer Road with Dines Boulevard should continue to operate under two-way stop-controlled conditions.

The future Briargate Parkway intersection with Dines Boulevard is recommended to operate under roundabout control. This recommendation is consistent with analyses provided within the Retreat at PrairieRidge Filings 1-3 Preliminary Plan & Rezones traffic study and the Jayne's Property – Roundabout Consideration memorandum⁷ previously prepared for the Briargate Parkway and Dines Boulevard intersection. [Unresolved: Please provide final roundabout design report, as mentioned in the preliminary plan TIS.](#)

As discussed previously, due to the local roadway classifications of Wheatfield Walk Lane, Sundance Square Place, and Prairie Dawn Way, and the acceptable LOS operations expected at the Dines Boulevard intersections with these roadways, it is recommended that these intersections operate under two-way stop-controlled conditions.

⁷ Jayne's Property – Roundabout Consideration: Memorandum, SM ROCHA LLC, September 2023.

Conclusion

This analysis assessed traffic generation for the Retreat at PrairieRidge Filing 1 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 resulting from the development is expected to create no negative impact to traffic operations for the surrounding roadway network and proposed site accesses. Analysis of site-generated traffic concludes that proposed development traffic volumes are minor. All conclusions and recommendations presented in the Retreat at PrairieRidge Filings 1-3 Preliminary Plan & Rezones traffic study remain valid.

We trust that our findings will assist in the planning and approval of the Retreat at PrairieRidge Filing 1 development. Please contact us should further assistance be needed.

Sincerely,

SM ROCHA, LLC

Traffic and Transportation Consultants



Megan Bock, EIT
Traffic Engineer



Fred Lantz, PE
Traffic Engineer

Ensure report meets all the requirements of a Intermediate TIS. Per ECM Appendix B.1.2.C, a memo is not allowed as Briargate Parkway is classified greater than a minor collector.

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

05/07/2025

Date

Developer's Statement

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

Loren Moreland
Classic SRJ
2138 Flying Horse Club Drive
Colorado Springs, CO 80921

Date

ATTACHMENT A

**Retreat at PrairieRidge Filings 1-3 Preliminary Plan & Rezones TIS
Referenced Traffic Volumes**

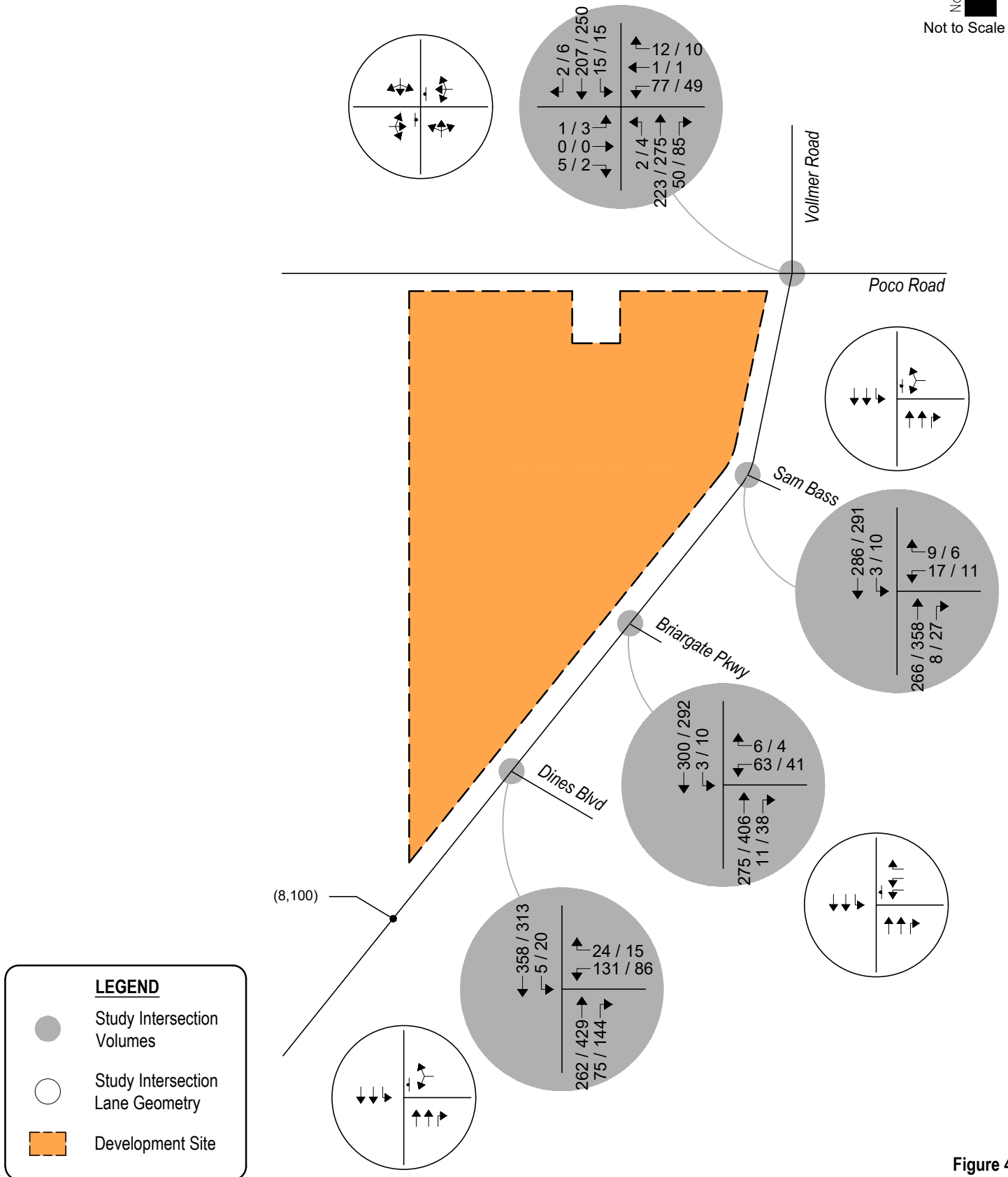


Figure 4
BACKGROUND TRAFFIC - YEAR 2027
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic



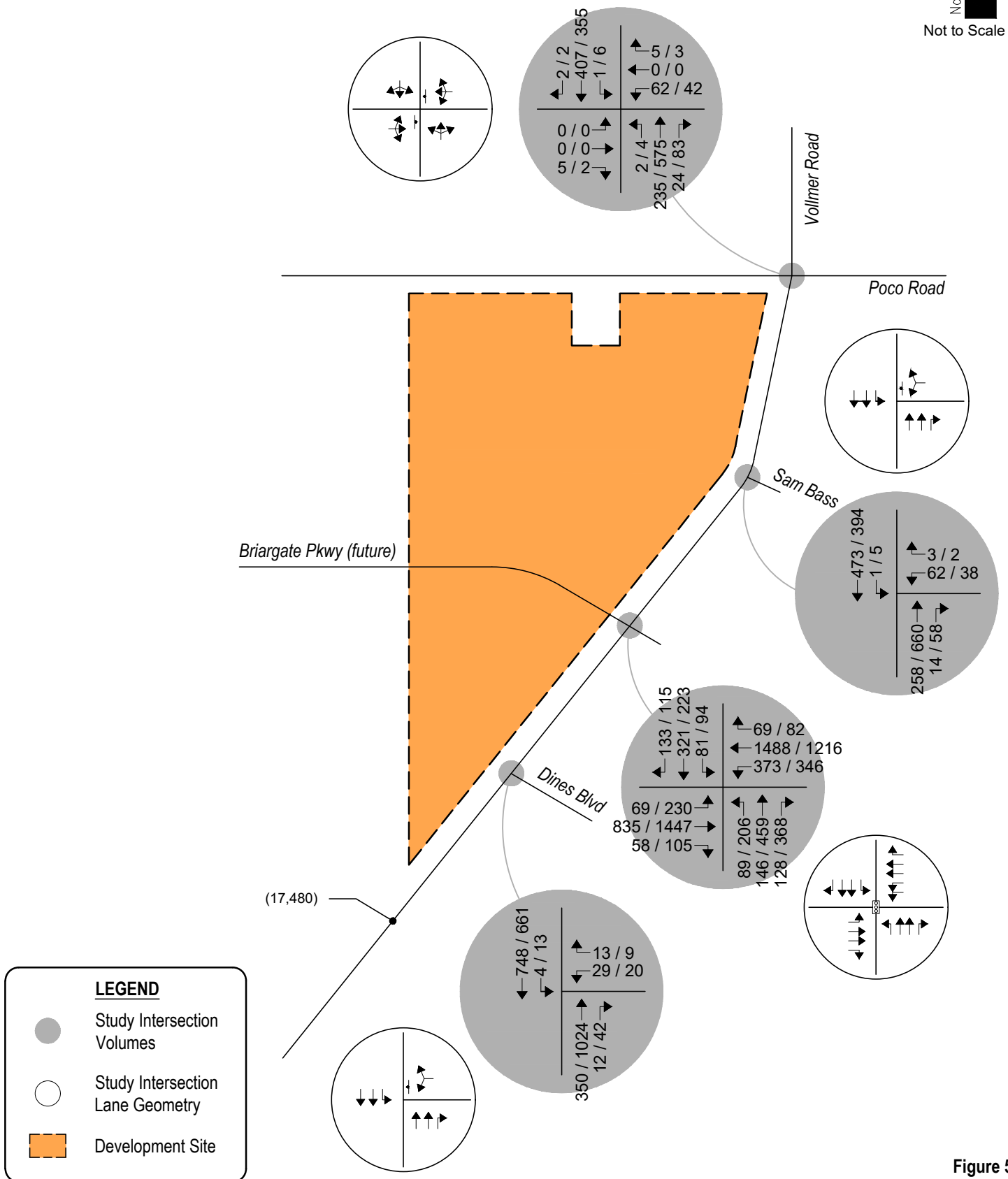


Figure 5
BACKGROUND TRAFFIC - YEAR 2040
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic



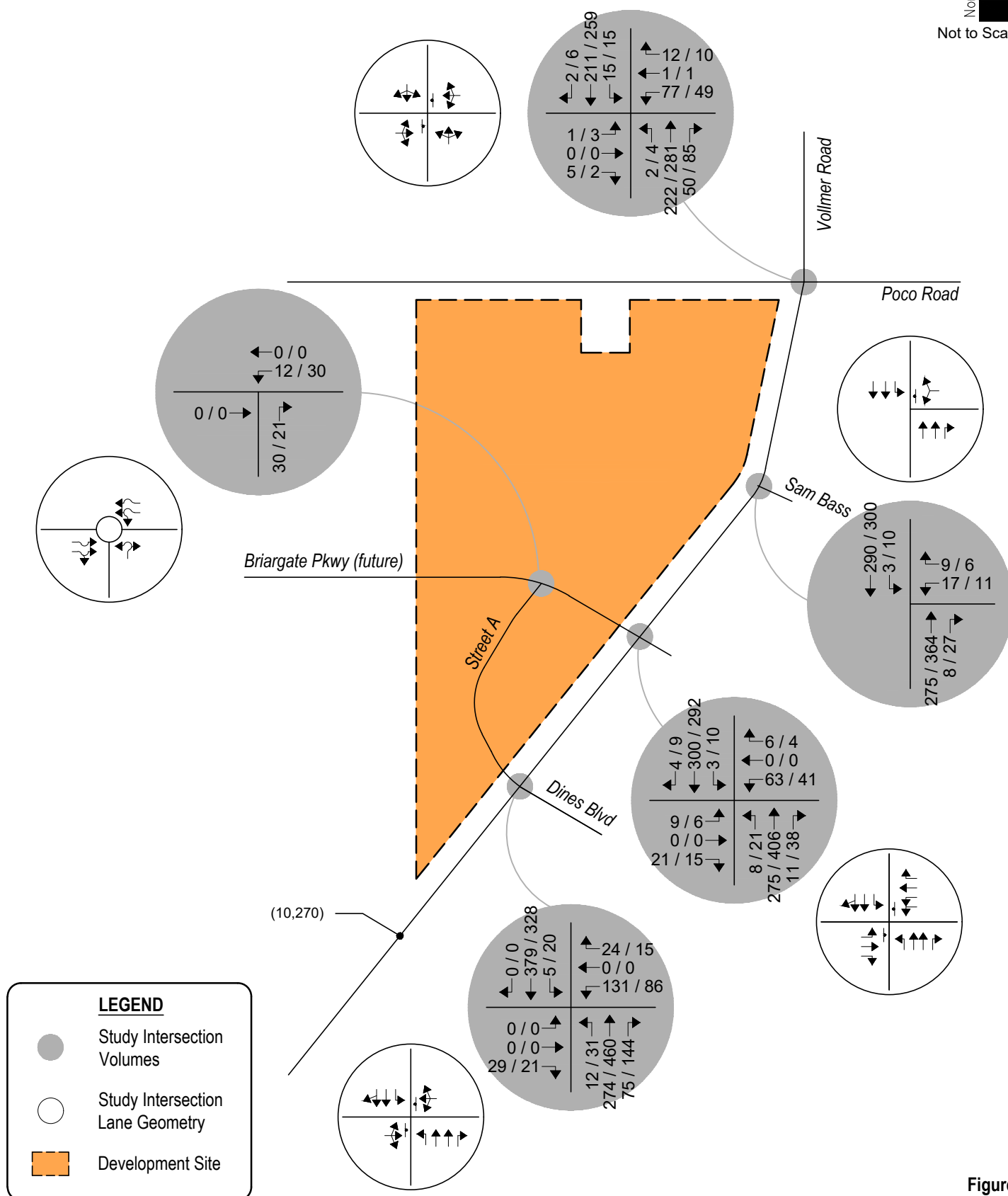


Figure 7
TOTAL TRAFFIC - YEAR 2027
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic



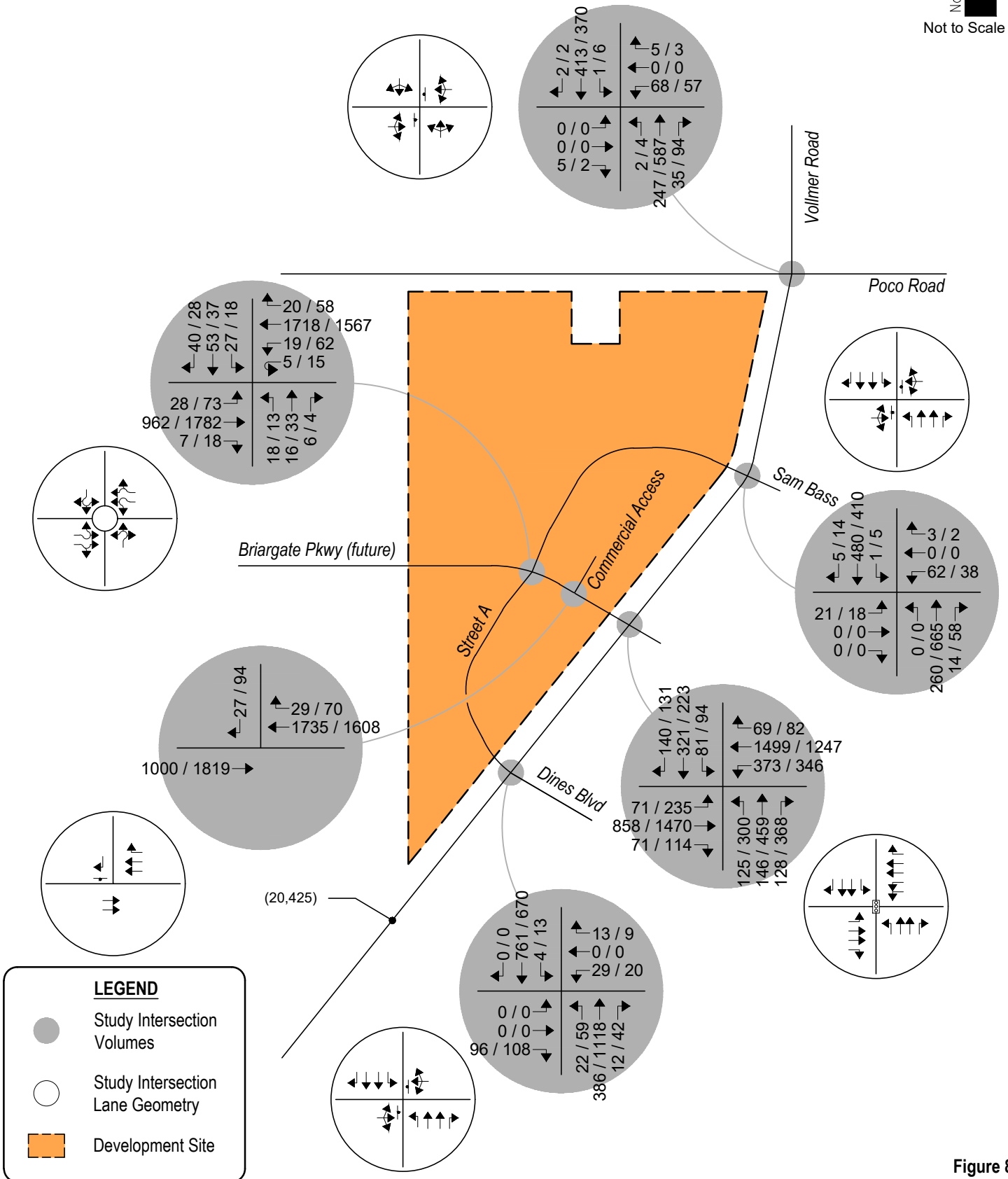


Figure 8
TOTAL TRAFFIC - YEAR 2040
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic



ATTACHMENT B

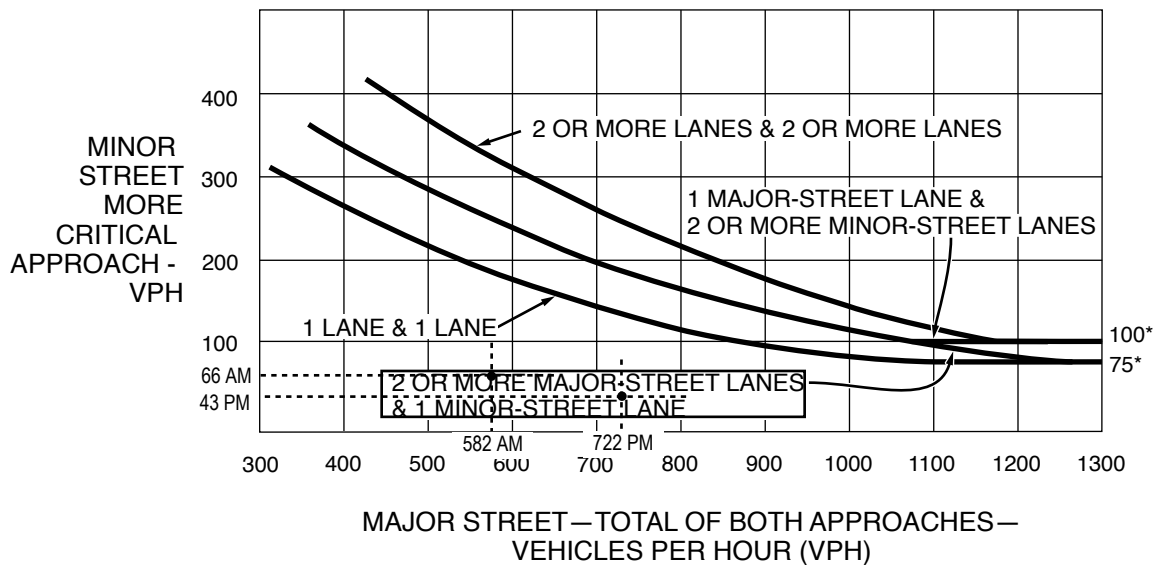
Warrant Analysis Forms

Figure 4C-3. Warrant 3, Peak Hour

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane

Note: 50% Right Turn Reduction

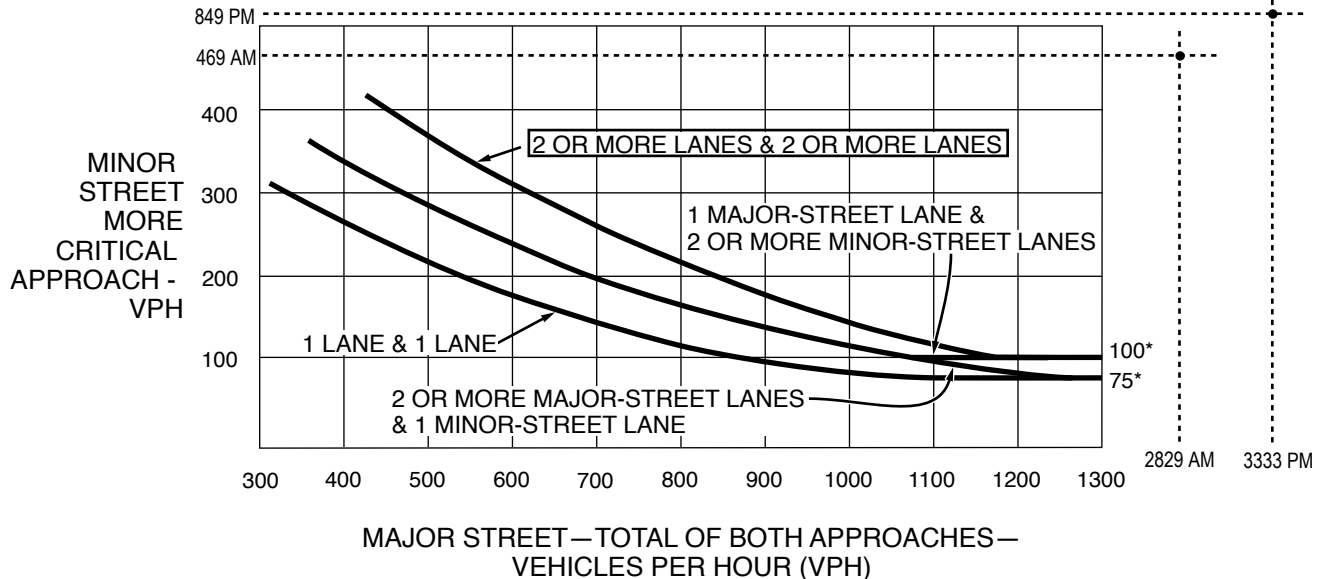
Vollmer Road (45 MPH)

Figure 4C-3. Warrant 3, Peak Hour

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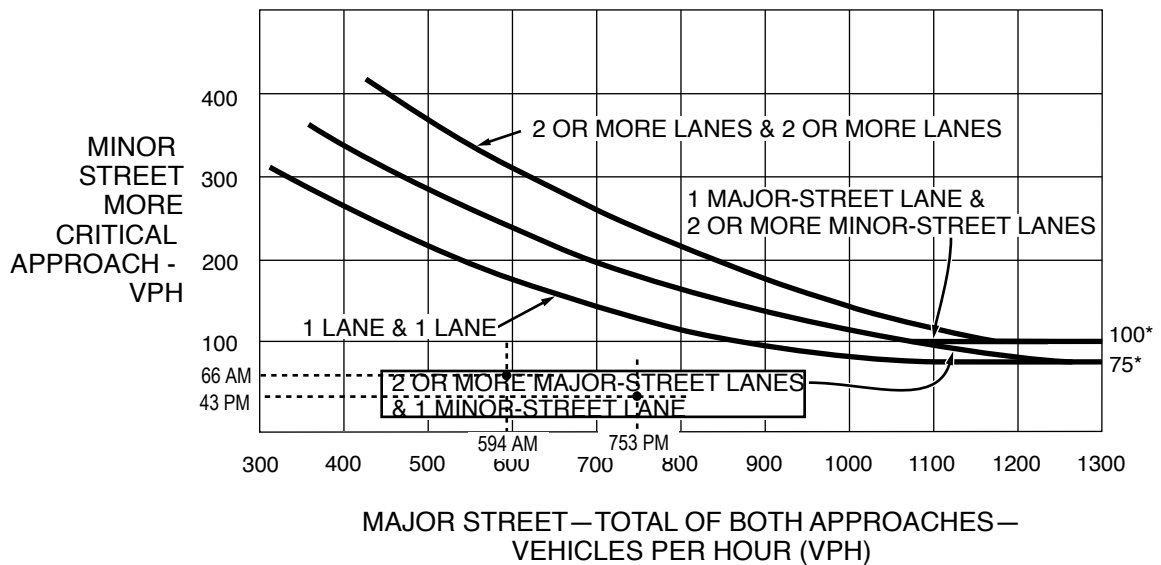
Briargate Parkway (45 MPH)

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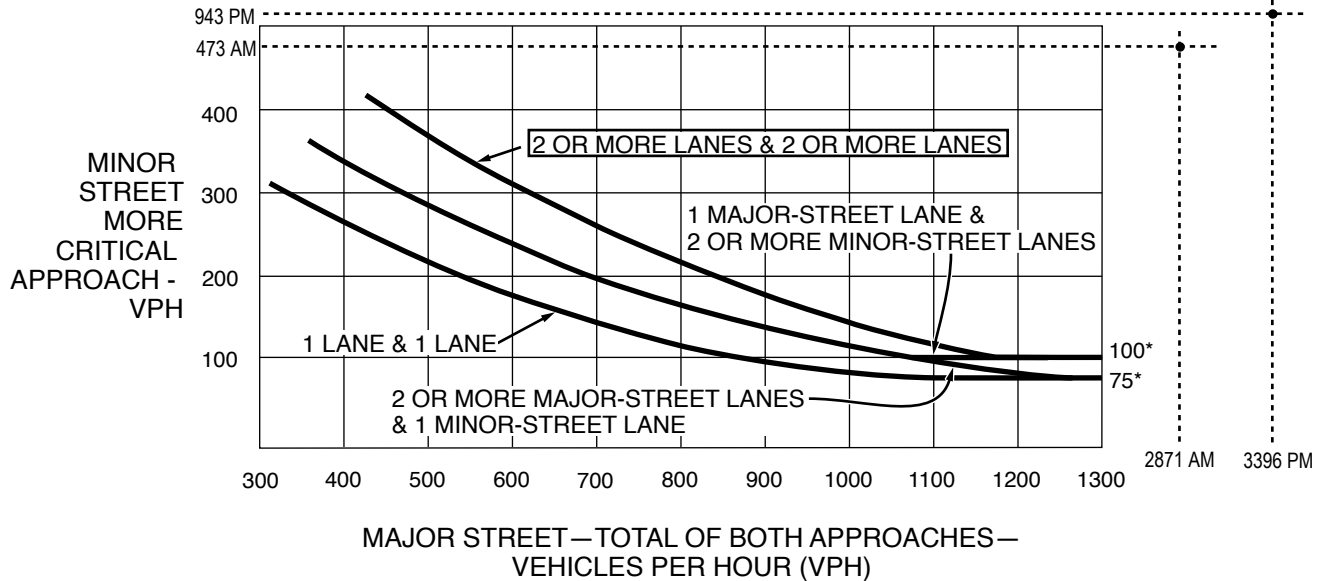
Vollmer Road (45 MPH)

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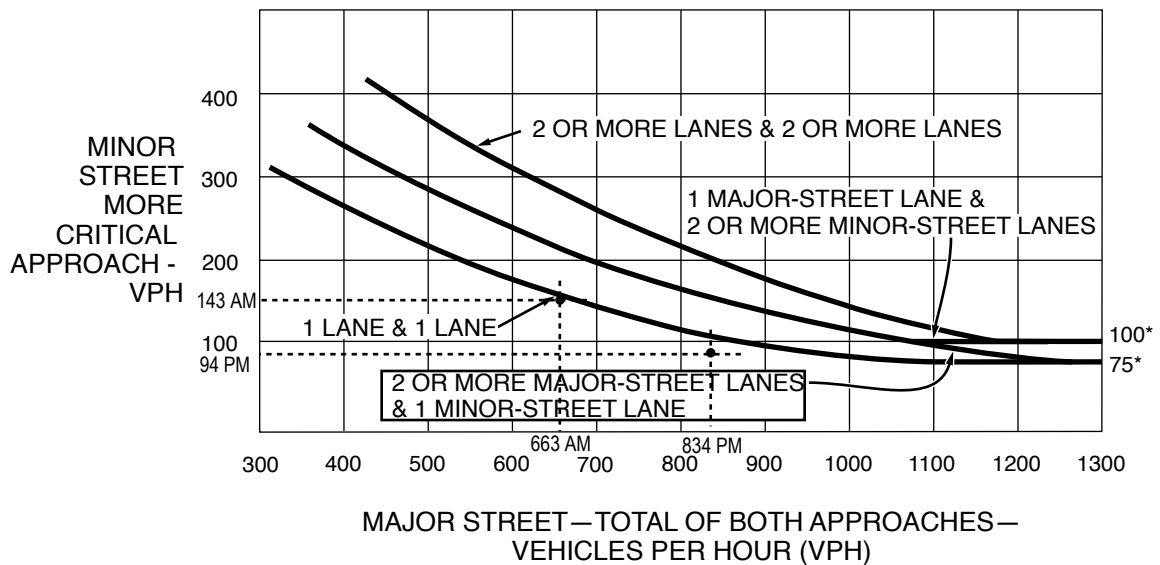
Briargate Parkway (45 MPH)

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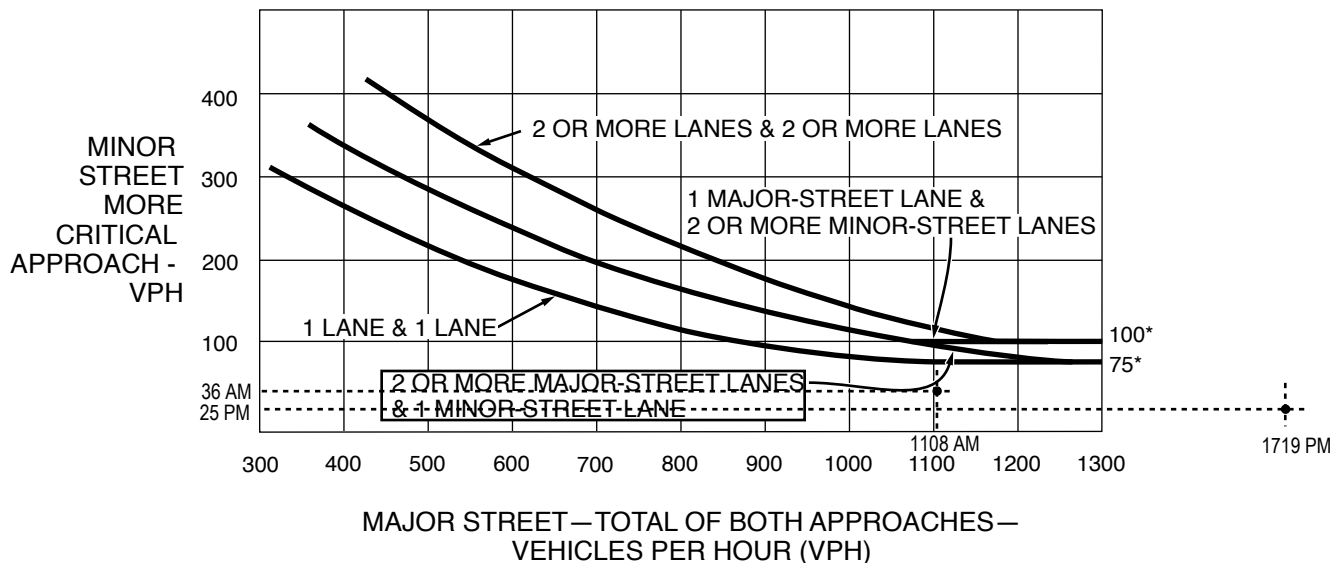
Vollmer Road (45 MPH)

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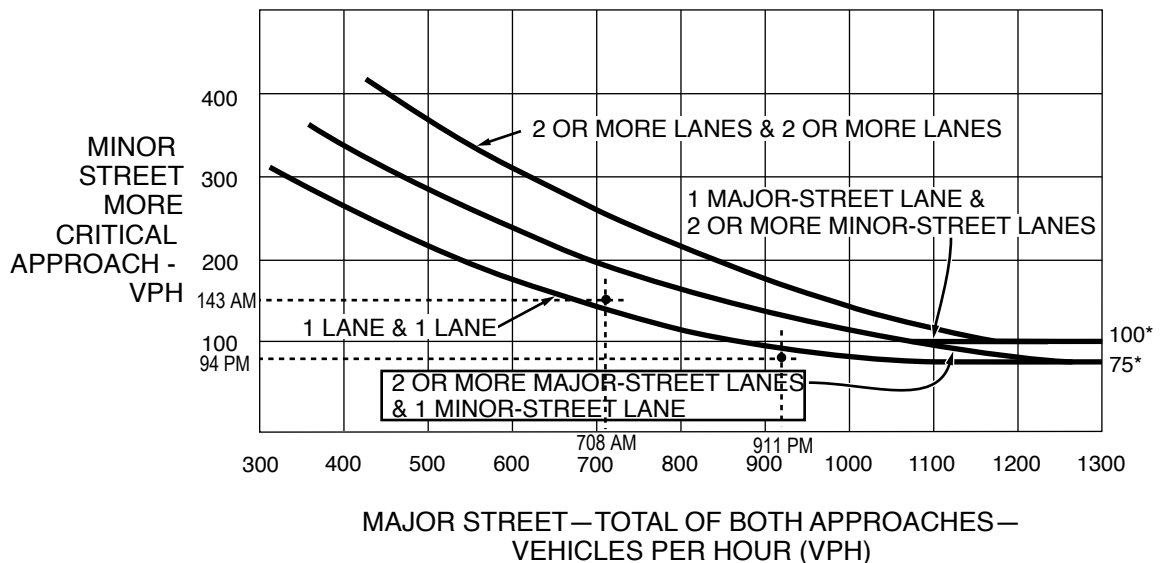
Vollmer Road (45 MPH)

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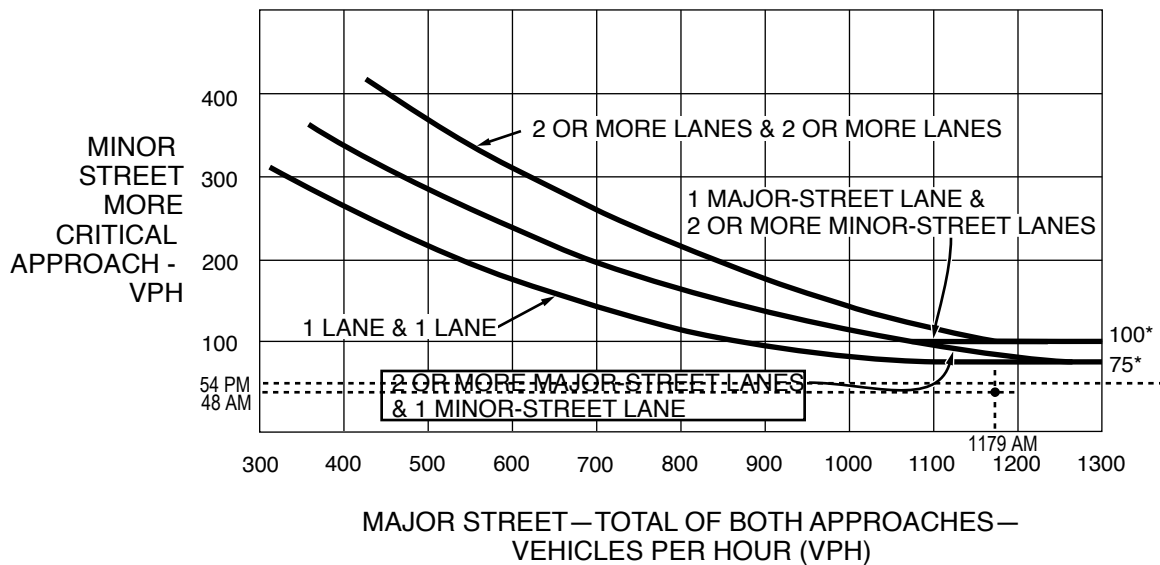
Vollmer Road (45 MPH)

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Vollmer Road (45 MPH)