



SM ROCHA, LLC

TRAFFIC AND TRANSPORTATION CONSULTANTS

April 27, 2022

See comment letter also.

Loren Morland
Classic SRJ Land, LLC
2138 Flying Horse Club Drive
Colorado Springs, Colorado 80921

**RE: Foursquare at Sterling Ranch East Preliminary Plan / Traffic Generation Analysis
El Paso County, Colorado**

Dear Mr. Moreland,

SM ROCHA, LLC is pleased to provide traffic generation information for the development entitled Foursquare at Sterling Ranch East Preliminary Plan. This development is located on the northwest corner of future Briargate Parkway and future Sterling Ranch Road intersection 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 defined in Sterling Ranch Sketch Plan Amendment and related traffic analysis¹, and consider potential impacts to the adjacent roadway network.

The following is a summary of analysis results.

This document has not been approved by El Paso County and cannot be relied upon for this conformance letter.

Site Description and Access

Land for the development is currently vacant and surrounded by an existing or proposed mix of light industrial, commercial, institutional, and residential land uses. The proposed development is understood to entail new construction accommodations for 158 residential dwelling units.

Proposed access to the development is provided at the following locations:

Briargate Parkway (West of Sterling Ranch Road)

- Full-movement intersection at Sterling Ranch Road,
- 3/4-movement (no left turn egress) access at Boulder City. This access is shared with the adjacent development of Sterling Ranch East Phase I.

¹ Sterling Ranch Sketch Plan Amendment, Traffic Generation Analysis, SM ROCHA LLC, April 25, 2022.

Sterling Ranch Road (North of Briargate Parkway)

- Full-movement access at Idaho Falls (easterly extension from Sterling Ranch East Phase I).

a portion of

General site location is shown on Figure 1.

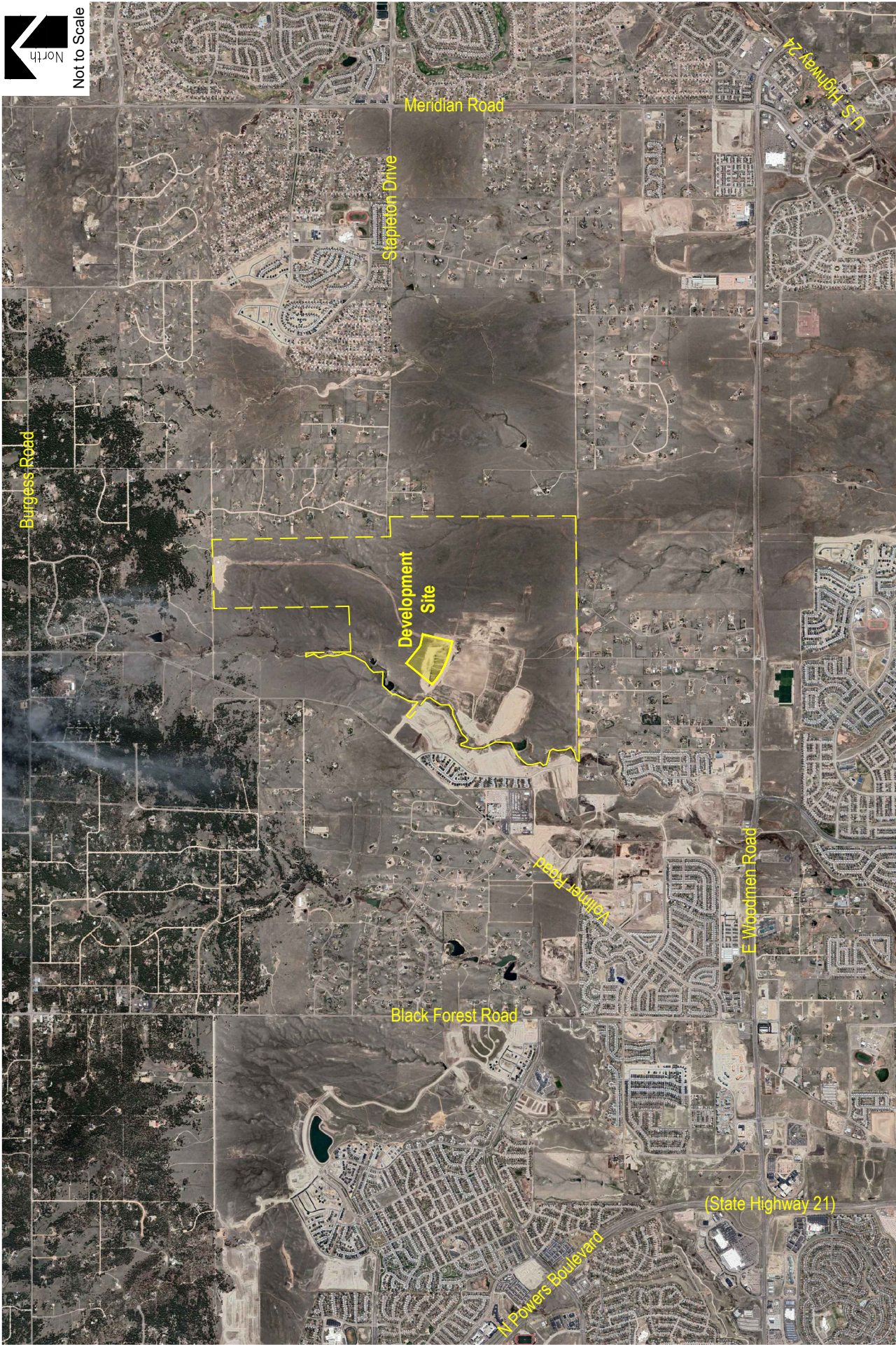
A conceptual site plan, as prepared by Classic Consulting, including proposed access locations is shown on Figure 2. This plan is provided for illustrative purposes.

The referenced Sketch Plan Amendment traffic analysis separated the proposed development area into traffic analysis zones (TAZs). The proposed development entails TAZ 20 from the Sterling Ranch Sketch Plan Amendment.

Figure 3, provided for reference, is a copy of the Sketch Plan Amendment TAZ figure which has been modified (highlighted) to illustrate the TAZ considered for the proposed development.



Not to Scale



FOURSQUARE AT STERLING RANCH EAST PRELIMINARY PLAN

Traffic Generation Analysis

SM ROCHA, LLC

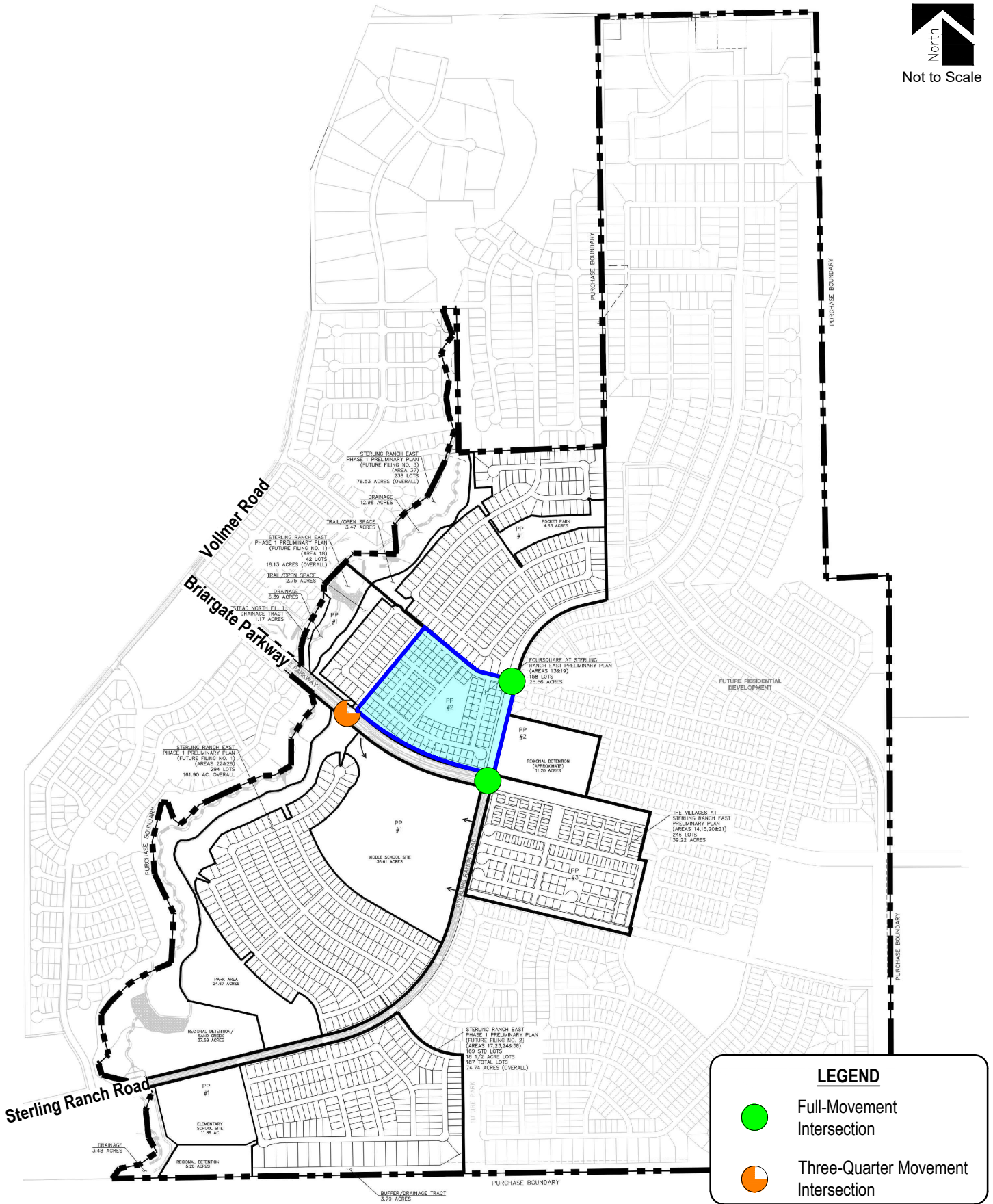
Traffic and Transportation Consultants

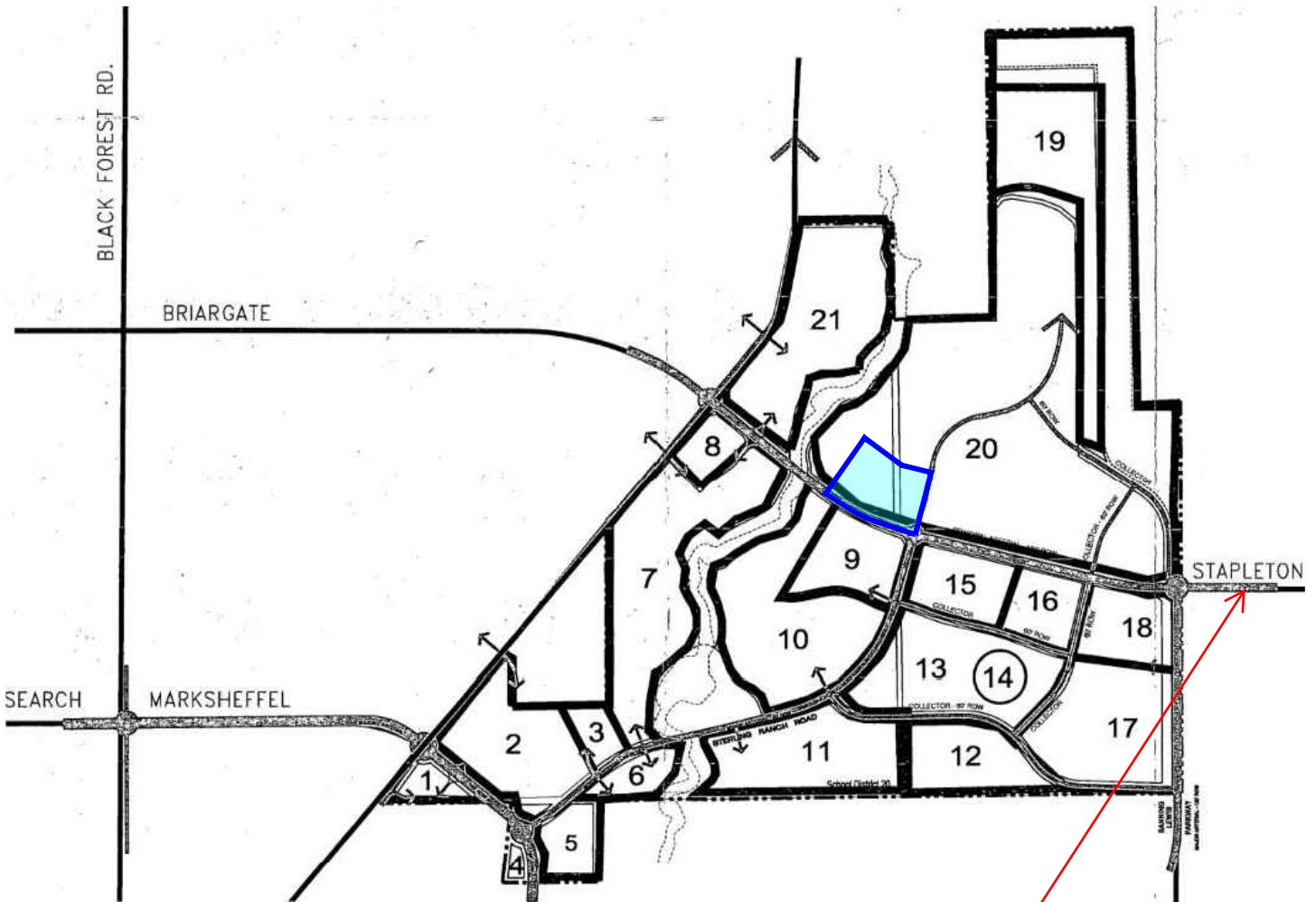
Figure 1
SITE LOCATION

April 2022

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Stapleton appears to be 1/2 mile north of Briargate at this section line.



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 development area proposed. Use of average trip generation rates presents a conservative analysis and is consistent with the referenced Sketch Plan Amendment and associated traffic analysis. ITE land use codes described below were used for analysis and comparison because of their best fit to the previously assumed and proposed land use.

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
210	Single-Family Detached Housing	DU	9.43	0.18	0.52	0.70	0.59	0.35	0.94
220	Multifamily (Low-Rise)	DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51

Key: DU = Dwelling Units.
 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, upon assumed build-out, and provides comparison to traffic volume estimates of assumed land uses and densities as described in the Sketch Plan Amendment.

Table 2 – Trip Generation Summary

ITE TAZ	CODE	LAND USE	SIZE	TOTAL TRIPS GENERATED						
				24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
					ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
<u>Sterling Ranch Sketch Plan Amendment **</u>										
20	220	Multifamily (Low-Rise)	184 DU	1,240	18	56	74	59	35	94
<i>Previously Assumed Total:</i>				1,240	18	56	74	59	35	94
<u>Foursquare at Sterling Ranch East - Proposed</u>										
20	210	Single-Family Detached Housing	158 DU	1,490	29	82	111	94	55	149
<i>Proposed Total:</i>				1,490	29	82	111	94	55	149
<i>Difference Total:</i>				250	11	26	37	35	20	55

Key: ** = Trip generation information from ITE's Trip Generation Manual, 11th Edition.
 Note: All data and calculations above are subject to being rounded to nearest value.

Daily: 250 vpd / 1240 vpd = 20% increase
 AM: 37 vph / 74 vph = 50% increase
 PM: 55 vph / 94 vph = 59% increase

As Table 2 shows for previously assumed land uses and densities, the proposed development has the potential to generate approximately 250 additional daily trips with 37 of those occurring during the morning peak hour and 55 during the afternoon peak hour.

50% or 60% is not minor in terms of Foursquare at Sterling Ranch East, but is minor in the overall context of Sterling Ranch.

Adjustments to Trip Generation Rates

A development of this type is not likely to attract trips from within area land uses nor pass-by or diverted link trips from the adjacent roadway system, therefore no trip reduction was taken in this analysis.

Development Impacts

As Table 2 shows, there is an increase in daily and peak hour traffic volumes anticipated for the proposed development. However, this increase is considered minor. These minor volumes are not anticipated to negatively impact projected operations of roadways and intersections, or roadway classifications, as previously planned and approved for the overall Sterling Ranch development area.

Street Classifications

Recommended classifications for proposed internal streets is a combination of urban local and urban local (low volume) as shown in the proposed preliminary plan document. Internal street intersections including site access intersections with Sterling Ranch Road and Briargate Parkway are proposed to operate under a stop-controlled condition. A stop-controlled intersection is defined as a roadway intersection where vehicle rights-of-way are controlled by one or more "STOP" signs.

Classifications for Sterling Ranch Road (2-lane urban non-residential collector with painted center median) and Briargate Parkway (4-lane urban principal arterial) are already determined. The intersection of Briargate Parkway and Sterling Ranch Road is envisioned to operate under traffic signal control.

Roadway Improvements

Consistent with roadway improvements recommended with adjacent development occurring along the Sterling Ranch Road and Briargate Parkway corridors, right-turn and left-turn deceleration lanes are recommended at proposed site accesses. These turn lanes, pursuant to County design standards along with referenced intersection control, are included in the street improvement plans² for Briargate Parkway currently under County review. No deviation to proposed street improvement plans for Briargate Parkway is recommended.

Additionally, the referenced street improvement plans propose full roadway width construction of Briargate Parkway from Sterling Ranch Road to Vollmer Road. However, there are no known construction plans prepared for Sterling Ranch Road north of Briargate Parkway.

It would be helpful to include relevant sheets as an attachment.

If there are no plans, can Foursquare at Sterling Ranch East rely on it for access?

² Sterling Ranch Road & Briargate Parkway Street Plans, JR Engineering, February 10, 2022.

needs to be included with this subdivision

Pursuant to County design standards, current roadway classification and established Sterling Ranch Road improvement plans, the continuation of similar design **is recommended** for Sterling Ranch Road north of Briargate Parkway.

How was this determined?

Pursuant to County design standards and the classification of Sterling Ranch Road as an urban non-residential collector, a northbound and southbound right-turn deceleration lane would be required at the future Idaho Falls intersection. These lanes should accommodate a **total length of 310 feet (150 feet deceleration with 160 feet of taper)**. The northbound left-turn lane can be accommodated by **re-stripe of the painted center median** envisioned for Sterling Ranch Road. No other auxiliary lanes are recommended for this future intersection at this time.

How long should this be?

Interim or ultimate roadway improvements, or fare share contribution, for Idaho Falls or Sterling Ranch Road **are to be later developed** through the Preliminary Plan review.

This needs to be included per ECM B.8

Conclusion

This analysis assessed traffic generation for the Foursquare at Sterling Ranch East Preliminary Plan, provided a traffic volume comparison to land use assumptions for the applicable Sketch Plan Amendment area, and considered potential impacts to the adjacent roadway network.

It is our professional opinion that the proposed site-generated traffic resulting from the proposed development is expected to create no negative impact to traffic operations for the surrounding roadway network (existing or proposed), nor cause change to previously approved roadway classifications or current roadway design plans. Analysis of site-generated traffic concludes that proposed development traffic volume is in compliance with that assumed in the Sketch Plan Amendment. All conclusions and recommendations presented in previously approved referenced studies or improvement plans remain valid. **These statements may need to be revised once turn lane length calculations are performed.**

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.

We trust that our findings will assist in the planning and approval of the Foursquare at Sterling Ranch East Preliminary Plan. Please contact us should further assistance be needed.

Sincerely,

SM ROCHA, LLC
Traffic and Transportation Consultants



Mike Rocha
Principal



Fred Lantz, PE
Traffic Engineer

Developer's Statement

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

Sign and Date

Developer

Date