



SM ROCHA, LLC

TRAFFIC AND TRANSPORTATION CONSULTANTS

December 30, 2019

Jason DeYoung
Proof Civil
800 W 8th Avenue, Suite 104
Denver, CO 80204

**RE: Achieve Sports Center / Traffic Generation Analysis
Aurora, Colorado**

Dear Jason,

SM ROCHA, LLC is pleased to provide traffic generation information for the development entitled Achieve Sports Center. This development is located at the west corner of the intersection of S Gartrell Road with E Hinsdale Avenue in Aurora, 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.

The following is a summary of analysis results.

Site Description and Access

Land for the development is currently vacant. The proposed development consists of a new athletics and fitness club facility of approximately 37,700 square feet. The site is surrounded by a mix of residential, commercial, and retail land uses.

Primary access to the development is provided at the following location: one existing full-movement access onto E Hinsdale Avenue serving as an extension of S Ukraine Street (referred to as Site Access)

General site and access locations are shown on Figure 1.

A conceptual site plan, as provided by Proof Civil, is shown on Figure 2. This plan is provided for illustrative purposes.

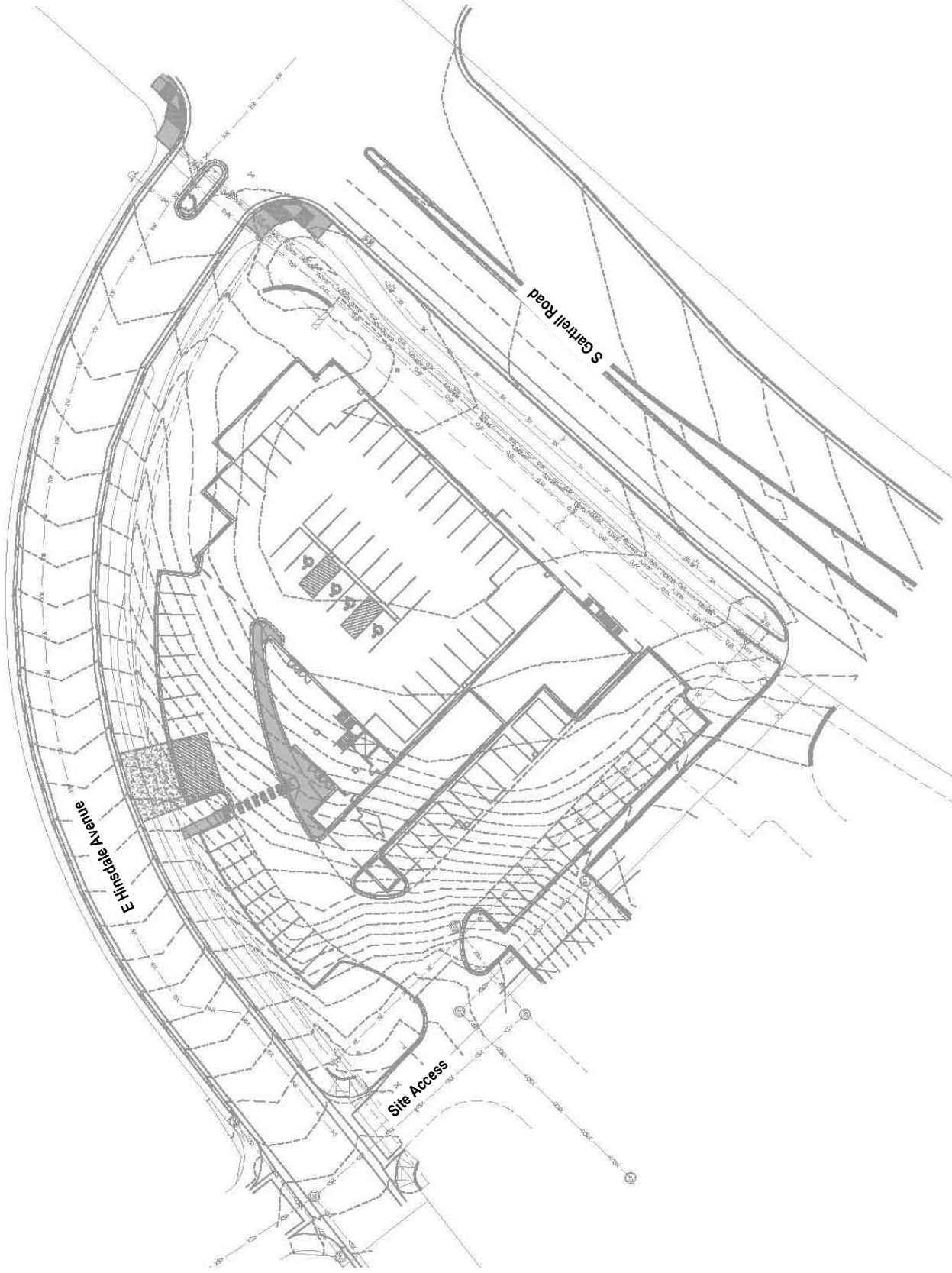


ACHIEVE SPORTS CENTER
Traffic Generation Analysis

Figure 1
SITE LOCATION

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Vehicle Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation, 10th Edition, was applied to the proposed land use 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.

The approved traffic study¹ for overall Saddle Rock East development used trip generation rates from ITE's Trip Generation, 6th Edition and included "Townhome and Retail" land uses in the same development area (Planning Area 1) as currently proposed with this project. To provide for equivalent comparison, these uses have been updated to use ITE 10th Edition values. Utilizing a floor area ratio (FAR) of 0.25 for retail as previously assumed in the approved study, a comparable square footage was estimated based on the site acreage.

Table 1 summarizes the projected average daily traffic (ADT) and peak hour traffic volumes likely generated by the land use area proposed and provides comparison to the original Saddle Rock East traffic study. ITE land use code 492 (Health/Fitness Club) was used for analysis because of its best fit to the proposed land use. It is noted that ITE does not provide 24-hour trip generation rates for this land use code. Therefore 24-hour trip generation was estimated based on a typical ratio between PM peak hour generation and 24-hour generation. This ratio assumes that PM peak hour trips represent approximately ten percent of the average daily traffic.

TABLE 1 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 Assumed</u>									
820	Shopping Center	18.1 KSF	682	11	6	17	33	36	69
<i>Previously Assumed Total:</i>			682	11	6	17	33	36	69
<u>Site Development - Proposed</u>									
492	Health/Fitness Club	48.6 KSF	1,675	32	31	64	95	72	168
<i>Proposed Total:</i>			1,675	32	31	64	95	72	168
Build-Out Total:			993	22	25	47	62	36	99

Key: KSF = Thousand Square Feet Gross Floor Area.

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

As Table 1 shows, the proposed development area has the potential to generate approximately 1,675 daily trips with 64 of those occurring during the morning peak hour and 168 during the afternoon peak hour. Table 1 further shows how proposed development traffic volumes do exceed those originally assumed in the Saddle Rock East traffic study.

¹ Saddle Rock East: Traffic Impact Analysis Second Edition, Felsburg Holt & Ullevig, December 1998

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

Upon comparison of traffic volumes presented in Table 1 and generated traffic volumes presented in the previously approved traffic study, the proposed development presents a volume greater than the projected traffic volumes originally anticipated. These volumes may impact operations of E Hinsdale Avenue and other adjacent roadways or intersections. Further analysis may be necessary to determine the extent of these impacts.

Conclusion

This analysis assessed traffic generation for the Achieve Sports Center 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.

Based upon the analysis results, there is an increase in proposed site-generated traffic which may impact traffic operations for the surrounding roadway network and the existing site access. Additional analysis may be necessary to determine the extent of these impacts.

We trust that our findings will assist in the planning and approval of the Achieve Sports Center 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