SM ROCHA, LLC
TRAFFIC AND TRANSPORTATION CONSULTANTS

April 28, 2020

Eric Abeln
Heights Venture
111 N Loop West, Suite 800
Houston, TX 77008

RE: Smoky Hill Panda Express / Traffic Generation Analysis
Aurora, Colorado

Dear Eric,

SM ROCHA, LLC is pleased to provide traffic generation information for the development entitled Smoky Hill Panda Express. This development is located to the southwest of the intersection of Smoky Hill Road with Gun Club Road in Aurora, Colorado.

The intent of this analysis is to present traffic volume 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.

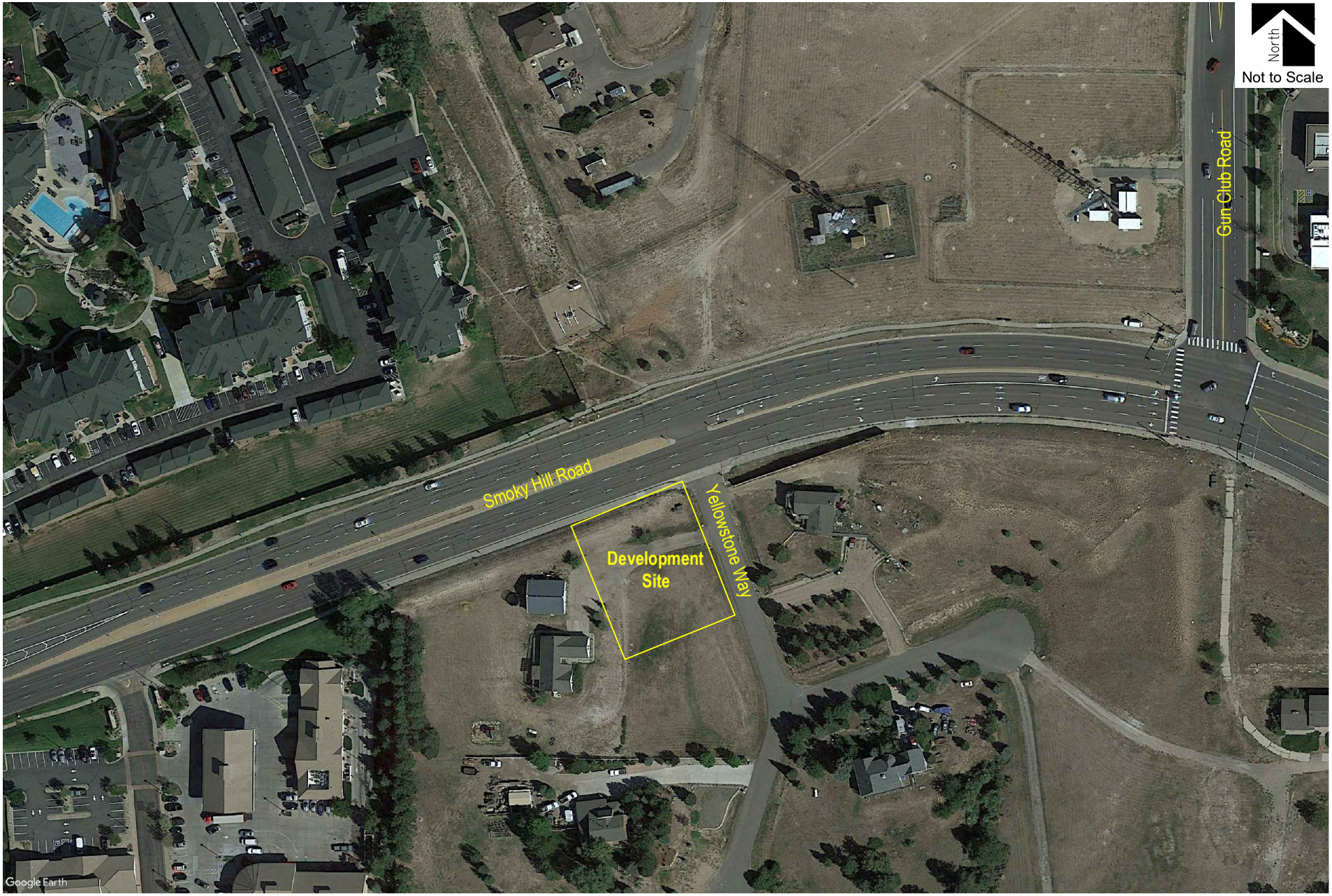
Site Description and Access

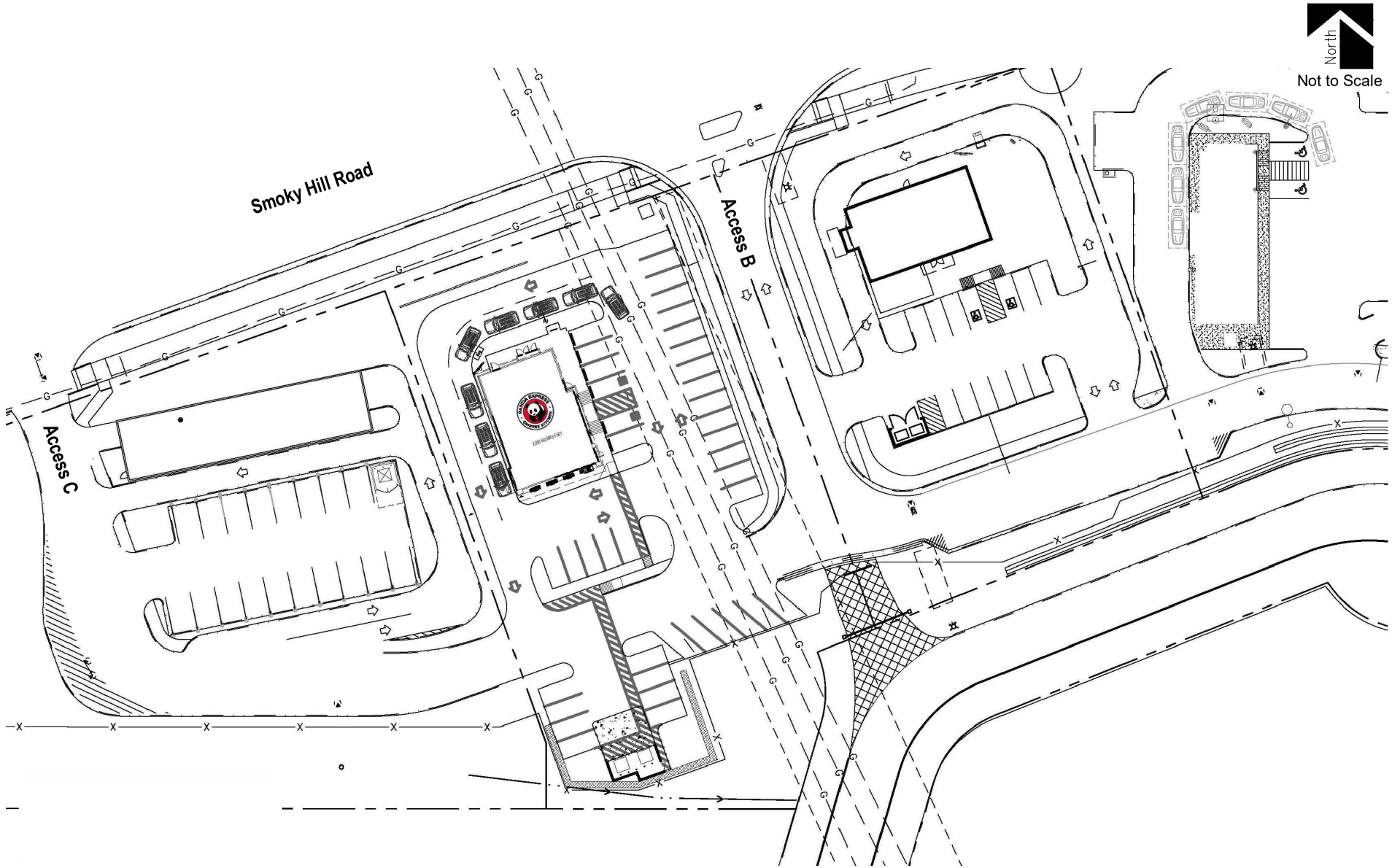
Land for the development is currently partially occupied by existing single-family residential. The proposed development is understood to consist of a fast-food restaurant with drive through window of approximately 2,300 square feet. The site is surrounded by a mix of residential and commercial land uses.

Proposed development site accesses as part of the overall Smoky Hill Commercial development include one full-movement access at the intersection of Smoky Hill Road with Gun Club Road (referred to as Access A), one three-quarter movement access onto Smoky Hill Road adjacent to the proposed development (referred to as Access B), and one right-in/right-out access onto Smoky Hill Road west of the site (referred to as Access C).

General site and access locations are shown on Figure 1.

A conceptual site plan, as prepared by Heights Venture, is shown on Figure 2. This plan is provided for illustrative purposes.


North
Not to Scale
Gun Club Road
Smoky Hill Road
Yellowstone Way
Development Site
Google Earth


North
Not to Scale
Smoky Hill Road
Access B
Access C

Vehicle Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation, 10th Edition, were 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.

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 Smoky Hill Commercial traffic study[1]. ITE land use code 934 (Fast Food with Drive-Through Window) was used for analysis because of its best fit to the proposed and previously assumed land use.

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
Site Development - Previously Assumed									
934	Fast Food Restaurant w/DTW	3.0 KSF	1,413	61	59	121	51	47	98
	Previously Assumed Total:		*1,413*	*61*	*59*	*121*	*51*	*47*	*98*
Site Development - Proposed									
934	Fast Food Restaurant w/DTW	2.3 KSF	1,083	47	45	92	39	36	75
	Proposed Total:		*1,083*	*47*	*45*	*92*	*39*	*36*	*75*
	Difference:		*-330*	*-14*	*-14*	*-28*	*-12*	*-11*	*-23*

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 1,083 daily trips with 92 of those occurring during the morning peak hour and 75 during the afternoon peak hour. Table 1 further shows how proposed development traffic volumes do not exceed that approved in the Smoky Hill Commercial traffic study.

Adjustments to Trip Generation Rates

While a development of this type is likely to attract trips from within area land uses as well as pass-by or diverted link trips from the adjacent roadway system, no trip reduction was taken in this analysis. This assumption provides for a conservative analysis.

[1] Smoky Hill Commercial: Traffic Impact Study, SM Rocha, LLC, July 2019.

As example, published ITE pass-by and diverted link trip data indicates an average trip generation reduction rate between 25 and 75 percent as typical to fast food restaurants with drive-through window. Considering the lowest reduction percentage, primary trip generation for the proposed development equates to three-quarter of trip generation volumes presented in Table 1. A primary trip is defined by ITE as a trip made for the specific purpose of visiting the destination generator.

Trip Generation Comparison and Development Impacts

Upon comparison of traffic volumes presented in Table 1 and generated traffic volumes presented in the July 2019 traffic study, the proposed development presents a volume in compliance with projected traffic volumes originally anticipated. These volumes are not anticipated to negatively impact operations of Smoky Hill Road nor other adjacent roadways or intersections.

Conclusion

This analysis assessed traffic generation for the Smoky Hill Panda Express 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 to traffic operations for the surrounding roadway network and proposed site accesses and is in compliance with the original Smoky Hill Commercial traffic study.

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