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November 7, 2019

Mr. Aaron Thompson  
Aperio Property Consultants, LLC  
4032 Defoe Street  
Strasburg, CO 80136

Re: 3550 Chambers Road Development  
Aurora, Colorado

Dear Mr. Thompson:

I have completed the preparation of the traffic letter for the proposed 3550 Chambers Road commercial development. This revision has been prepared to respond to comments from the City of Aurora. The proposed 3550 Chambers Road commercial development is approximately 3.53 acres in size and is located southeast of the intersection of East 35<sup>th</sup> Avenue and Chambers Road. Figure 1 depicts the location of the proposed commercial development with respect to the surrounding area.

Figure 2 depicts the preliminary site plan where the proposed commercial development is to be located. The site plan is currently under review by the City of Aurora and could change as a result of staff review. The site is bounded by Chambers Road on the west, East 35<sup>th</sup> Avenue on the north, East 33<sup>rd</sup> Place on the south, and Helena Street on the east. The site has commercial activity on three of the four sides. The north side is currently vacant.

The site will be served by two, full movement accesses (Access A and Access B). Access A is located along East 33<sup>rd</sup> Place and Access B is located along East 35<sup>th</sup> Avenue. Access A is located approximately 350 feet from the center of Chambers Road to center of Access A. Access B is located approximately 305 feet east of the center of Chambers Road to the center of Access B. Figure 3 depicts the existing traffic control and lane geometry for the two existing intersections along East 35<sup>th</sup> Avenue and East 33<sup>rd</sup> Place between Chambers Road and Helena Street as well as the proposed traffic control and lane geometry for the two planned intersections between Chambers Road and Helena Street, one along East 35<sup>th</sup> Avenue and one along East 33<sup>rd</sup> Place. The intersection of Chambers Road and East 35<sup>th</sup> Avenue is a restricted access. The westbound left-turn and southbound left-turn traffic movements are not permitted



at this intersection. Both of the existing intersections along Helena Street are unsignalized with stop-control on East 35<sup>th</sup> Avenue at Helena Street while the intersection of East 33<sup>rd</sup> Place and Helena Street has yield-control on Helena Street. The two proposed site accesses are planned to be full movement, unsignalized intersections with stop-control on the site accesses.

No traffic counts were taken along Chambers Road, East 35<sup>th</sup> Avenue, and Helena Street. However, the Denver Regional Council of Governments (DRCOG) has two traffic counts along Chambers Road near the proposed commercial development. One is located south of East 32<sup>nd</sup> Avenue and the other is located south of East 38<sup>th</sup> Avenue. There is also a count along East 32<sup>nd</sup> Avenue east of Chambers Road. Figure 4 depicts these existing traffic counts along with the Year 2040 forecast for Chambers Road. DRCOG is forecasting this roadway will grow at an annual rate of about two percent. By the Year 2040, Chambers Road is expected to have a daily traffic volume of 31,000 ADT north of Smith Road, 34,000 ADT north of East 33<sup>rd</sup> Place, and 39,000 ADT south of East 38<sup>th</sup> Avenue.

Chambers Road is a six-lane arterial roadway that begins on the north at East 56<sup>th</sup> Avenue and ends on the south at Parker Road. It has a posted speed limit of 40 mph near the proposed commercial development. There are no plans to improve this roadway in the vicinity of the proposed 3550 Chambers Road commercial development. The intersections of East 35<sup>th</sup> Place and East 32<sup>nd</sup> Avenue are controlled by a traffic signal. East 35<sup>th</sup> Place is located approximately 410 feet north of East 35<sup>th</sup> Avenue while East 32<sup>nd</sup> Avenue is located approximately 0.25 miles south of East 35<sup>th</sup> Avenue. East 35<sup>th</sup> Avenue is a two-lane local roadway that begins on the west at Chambers Road and ends on the east at Laredo Street. There are no plans to widen this roadway. Helena Street is a two-lane local roadway that begins on the north at East 38<sup>th</sup> Avenue and ends on the south at East 33<sup>rd</sup> Avenue. There are no plans to widen this roadway. East 33<sup>rd</sup> Place is a two-lane local roadway that begins on the west at Abilene Street and ends on the east at Jasper Street. There are no plans to widen this roadway.

The amount of traffic that will be generated by the proposed 3550 Chambers Road commercial development has been estimated based upon trip generation rates published by the Institute of Transportation Engineers (ITE) in the 10<sup>th</sup> Edition, 2017, of *Trip Generation*. The results of the analysis are shown in Table 1 which gives the average number of weekday daily and AM and PM peak-hour trips that the proposed commercial development is expected to generate. As illustrated in Table 1, the proposed 3550 Chambers Road commercial development is expected to generate 298 daily vehicle-trips with 43 vehicle-trips occurring during the AM peak-hour (38 vehicles entering and five vehicles leaving the site) and 38 vehicle-trips occurring during the PM

peak-hour (five vehicles entering and 33 vehicles leaving the site). The permitted uses in an M-1 zone district are outlined in Table 6-2 (see attached table) in Section 146-602 of the Building and Zoning code. The permitted uses are office, some retail sales on less than 20 percent of floor area, general commercial uses, light manufacturing, and warehouse. The selection of general light industrial is based on the planned use for the site.

If the assumption is made that 50 percent of the traffic to the proposed 3550 Chambers Road commercial development will come from the north using Chambers Road and the remaining 50 percent will access the site from the south using Chambers Road, the proposed commercial development will add less than 0.2 percent to the existing daily traffic volumes on Chambers Road.

The location of the driveway access along East 33rd Avenue is approximately 250 feet from flowline along the east side of Chambers Road to the center of Access A while the access along East 35<sup>th</sup> Avenue is 195 feet from the flowline along the east side of Chambers Road. I contacted staff from the City of Aurora and was told that this distance must be at least 75 feet for local roadways. Therefore, the location meets the standards set by the City of Aurora for the locations of Access A and Access B.

Figure 2 depicts the preliminary site plan where the proposed commercial development is to be located. The site plan is currently under review by the City of Aurora and could change as a result of staff review. The site is bounded by Chambers Road on the west, East 35<sup>th</sup> Avenue on the north, East 33rd Place on the south, and Helena Street on the east. The site has commercial activity on three of the four sides. The north side is currently vacant.

Based on the information provided in this letter report, the traffic impacts from the proposed 3550 Chambers Road commercial development are considered to be minor and can be handled by the existing roadway network.

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I trust that this information will assist in the planning for the proposed 3550 Chambers Road commercial development. Please call me if I can be of further assistance.

Respectfully submitted,

DB Enterprise, LLC

By:

Dave Ruble, Jr., P.E.



DLR/bar

Enclosures: Figures 1 through 4  
Table 1  
Table 6-2 (Building and Zoning Code)

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Approximate Scale  
Scale: 1" = 205'

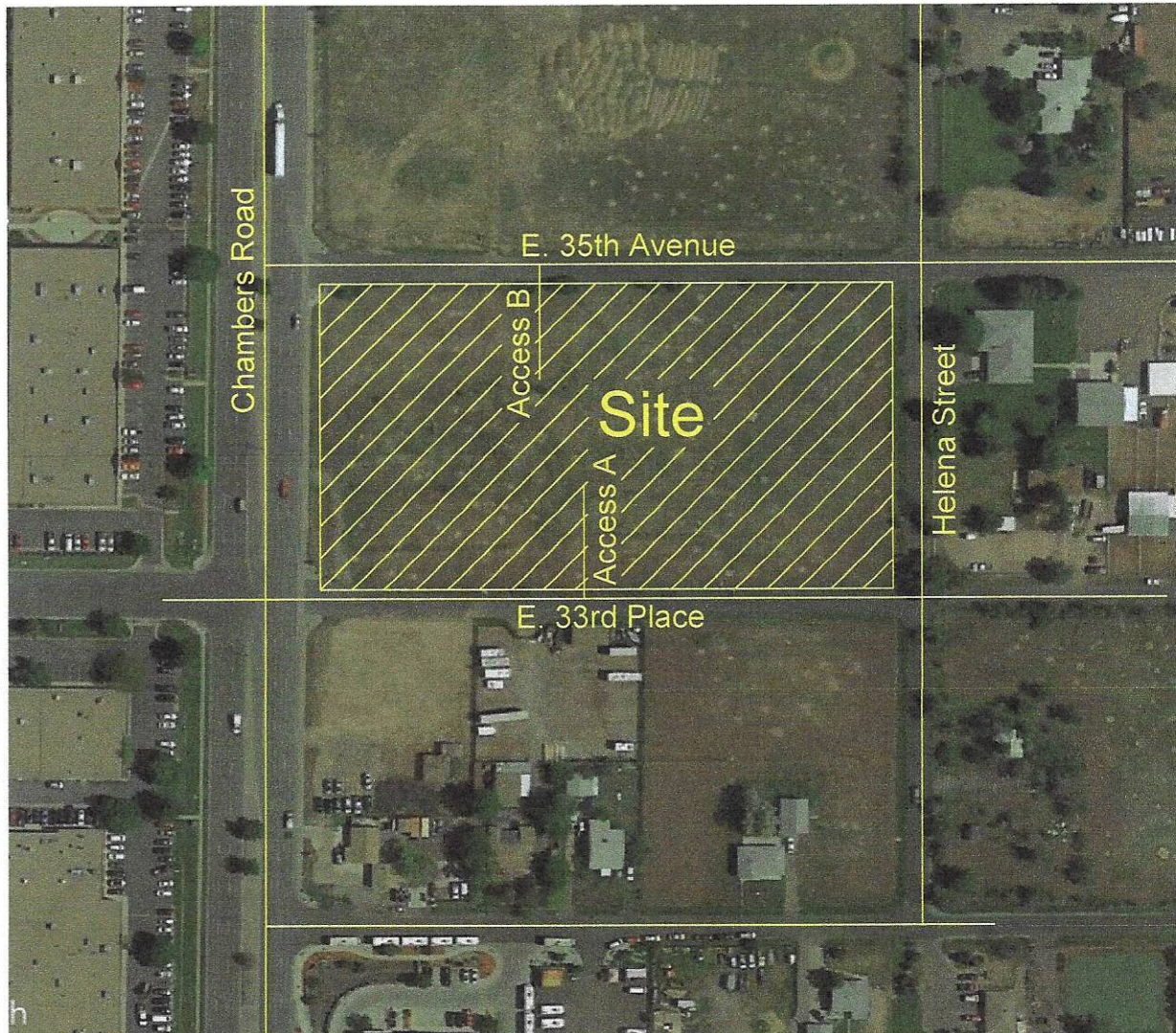


Figure 1  
Vicinity Map





Approximate Scale  
Scale: 1" = 100'

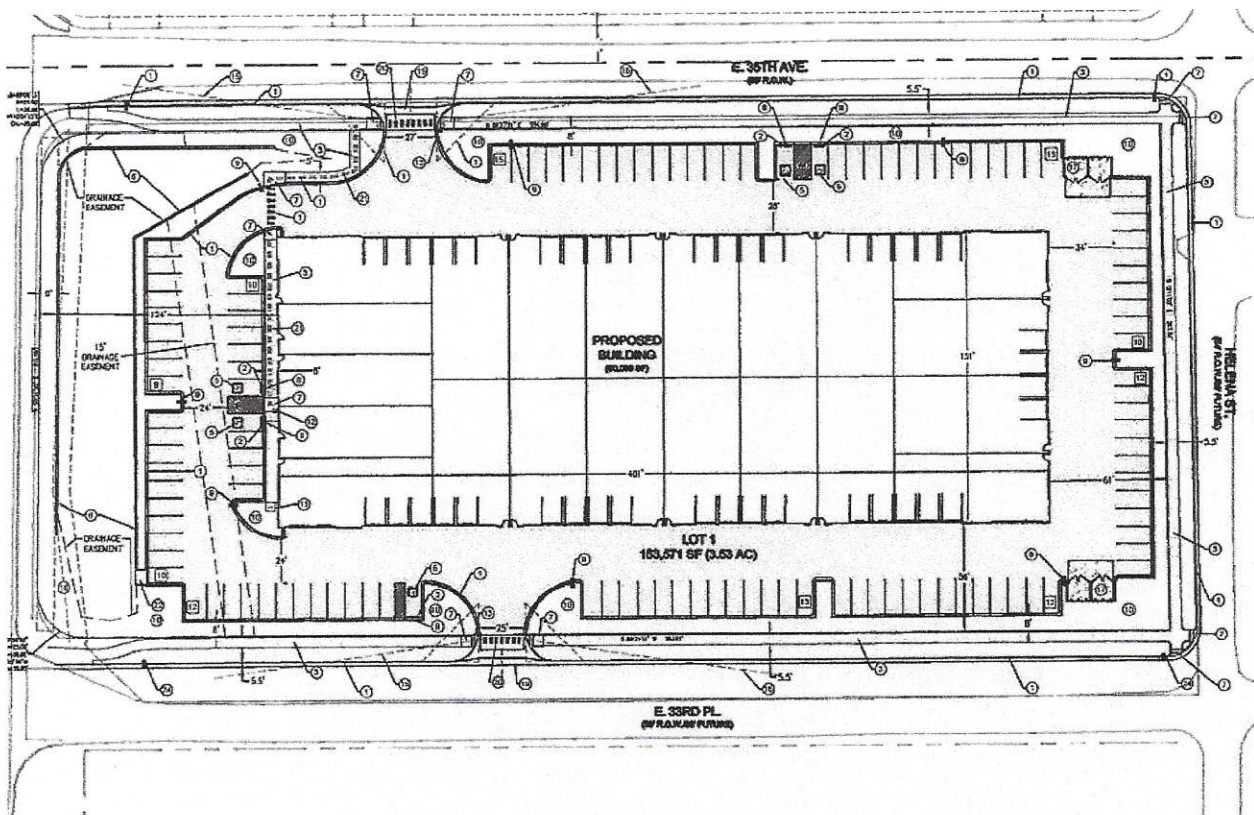
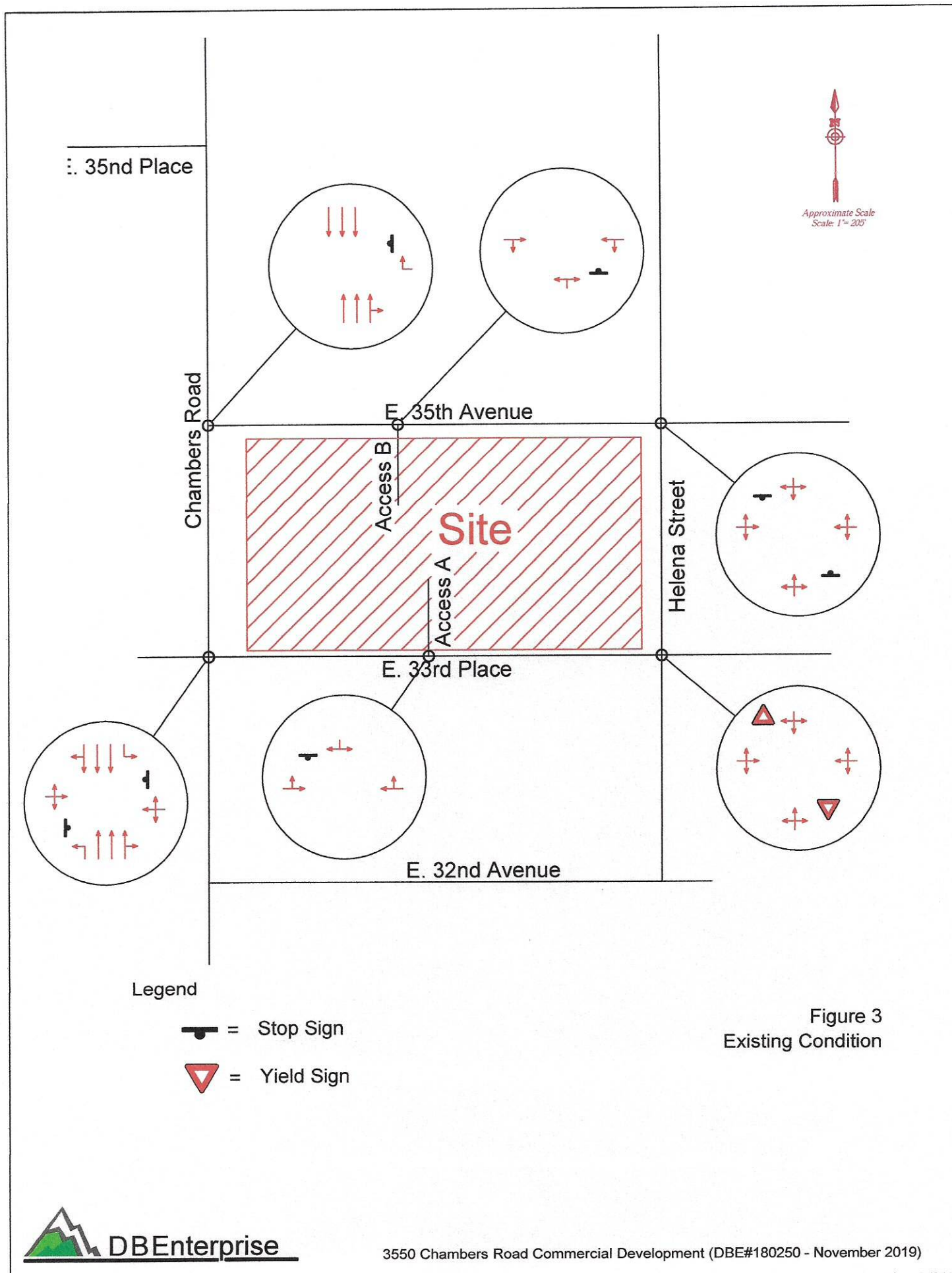


Figure 2  
Site Plan



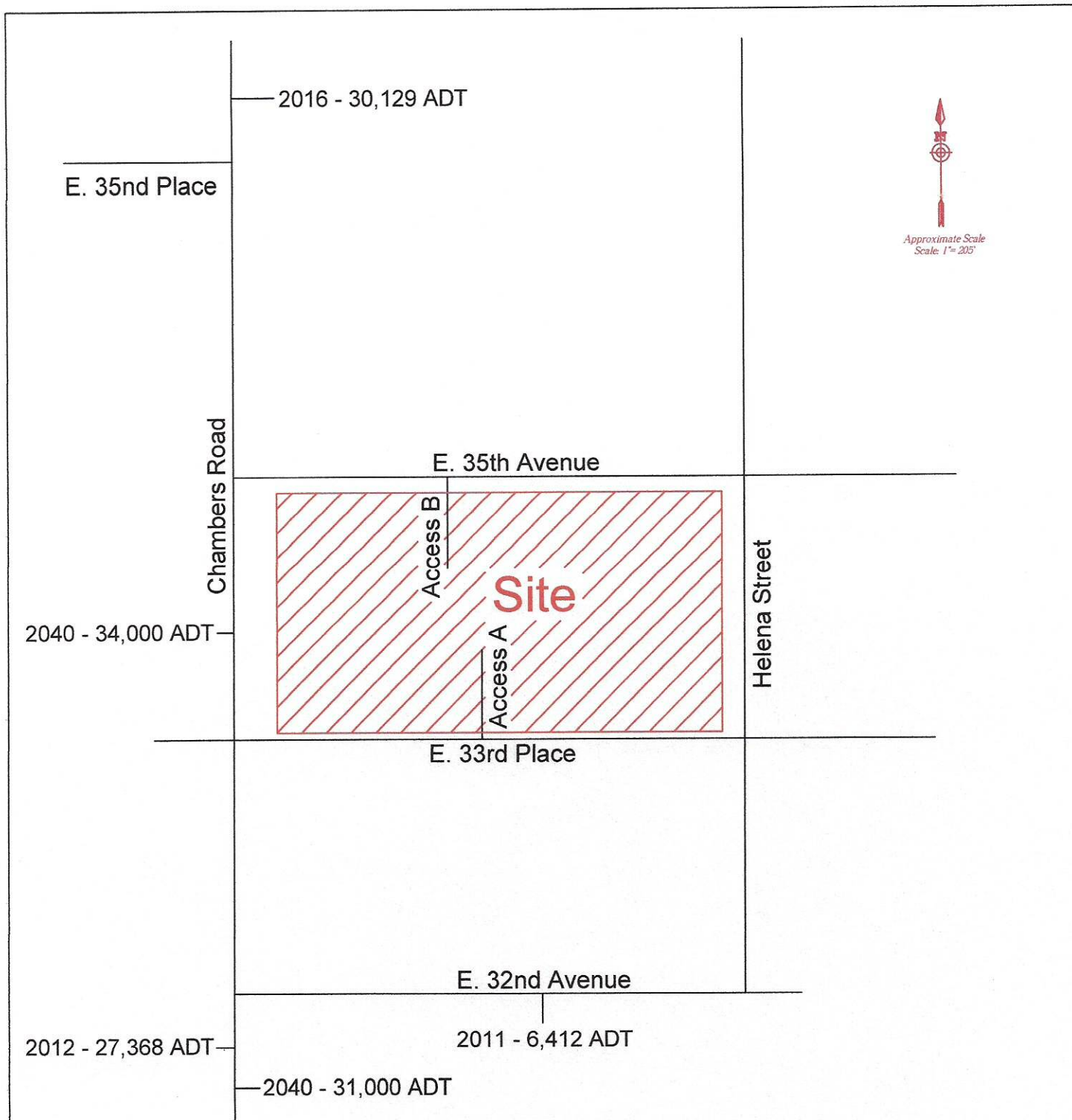


Figure 4  
Traffic Conditions



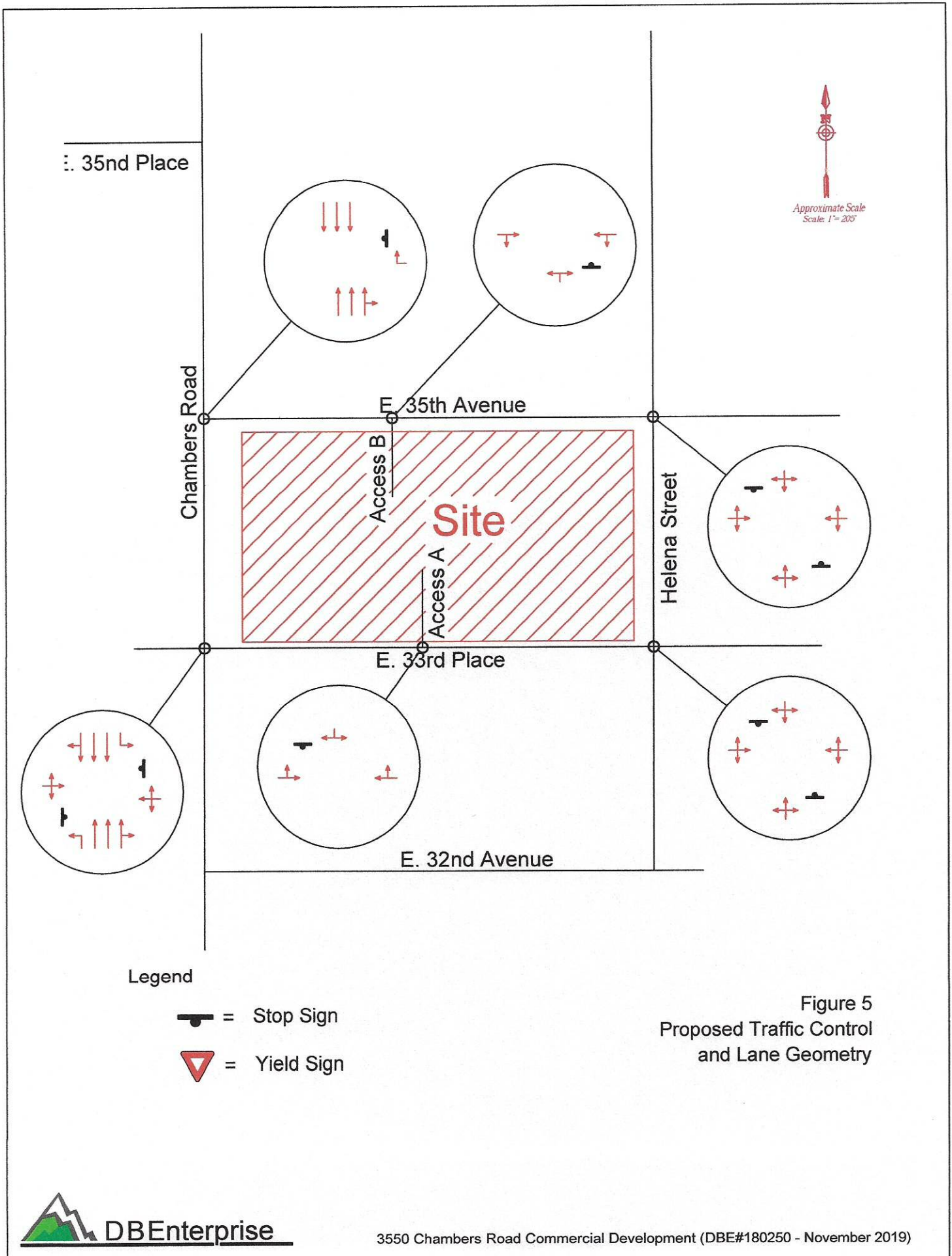


Table 1

Estimated Vehicle Trip Generation  
3550 Chambers Road Commercial Development  
Aurora, Colorado  
(DBE #180250; November 2019)

ITE Category	Quantity	Trip Generation Rates (1)				Total Vehicle Trips Generated					
		Average Weekday	AM Peak-Hour In	Out	PM Peak-Hour In	Out	Average Weekday	AM Peak-Hour In	Out	PM Peak-Hour In	Out

110	General Light Industrial	60.0 KSF (2)	4.96	0.62	0.08	0.08	0.55	298	38	5	5	33
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## Notes:

(1) Source: "Trip Generation", Institute of Transportation Engineers, 10th Edition, 2017.

(2) Based on calculation below



Table 6.2 Industrial Zoning Districts Uses Schedule of Permitted Land Uses

Uses	Zoning Districts			
	(A)	(B)	(C)	(D)
	M-O	M-1	M-2	M-3
P=Permitted C=Conditional Use NP=Not Permitted				
1 Agricultural uses 1	NP	P	P	P
2 Ambulance service	P <sub>5</sub>	P <sub>5</sub>	P <sub>5</sub>	P <sub>5</sub>
3 Animal feedlots	NP	NP	NP	NP
4 Blueprinting services	NP	P	P	NP
5 Cemeteries and mortuaries	P	P	P	NP
6 Child care centers	NP	P	P	P
7 Christmas tree sales	P	P	P	NP
8 Clubs, lodges, fraternal, and service organizations	P	P	P	P
9 Commercial transit facility	NP	NP	C	P
10 Composting dumps	NP	P	P	P
11 Kennels	NP	NP	NP	P
12 Electric power generator station	NP	C	NP	NP
13 Horse stable	P	P	P	NP
14 Indoor and outdoor recreational facilities	P	P	P	P
15 Laboratory	NP	P	P	P
16 Manufacturing, processing and fabrication not including uses 17-50 in this table below:	NP	NP	P	P
17 Animal food manufacturing	NP	NP	NP	P
18 Animal products	NP	NP	NP	NP
19 Animal slaughtering	NP	NP	NP	P
20 Breweries	NP	NP	P	P
21 Cement and concrete products	NP	NP	NP	P
22 Basic chemical manufacturing	NP	C	P	P
23 Clay products and refractory manufacturing	NP	P	P	P
24 Computer and electronic product manufacturing	NP	C	P	P
25 Converted paper products manufacturing	NP	NP	NP	P
26 Distilleries	NP	NP	P	P
27 Electrical equipment, appliance and component manufacturing	NP	NP	NP	NP
28 Explosives	NP	P	P	P
29 Fabricated metal products	NP	NP	P	P
30 Furniture and related product manufacturing	NP	NP	NP	NP
31 Pesticide, fertilizer and other agricultural chemical manufacturing	NP	NP	NP	P
32 Glass and glass products (except packing containers) made in glass making plants	P	P	P	NP
33 Junior colleges, technical trade schools, business schools, and computer and management training	NP	NP	NP	P
34 Glass container manufacturing	NP	P	P	P
35 Glass products (except packing containers) made from purchased glass	NP	NP	NP	P
36 Grain and oil seed milling	NP	NP	NP	P
37 Primary metal manufacturing	NP	NP	NP	P
38 Leather and hide tanning and finishing	NP	NP	NP	P
39 Lime and gypsum products	NP	NP	P	P
40 Other non-metallic mineral products	NP	P	P	P
41 Paint, coating, and adhesive manufacturing	NP	NP	NP	P
42 Pulp, paper and paperboard mills	NP	NP	NP	P
43 Petroleum and coal products	NP	P	P	P
44 Pharmaceutical and medicine manufacturing	NP	NP	NP	NP
45 Radioactive products	NP	NP	NP	NP
46 Rendering and meat byproduct processing	NP	P	P	P
47 Resin, synthetic rubber, and artificial synthetic fiber and filaments manufacturing	NP	P	P	P
48 Rubber product manufacturing	NP	NP	NP	P
49 Sawmills and wood preservation	NP	P	P	P
51 Soap, cleaning compound and toilet preparation manufacturing	NP	P	P	P
52 Other chemical product and preparation manufacturing (except explosives)	NP	NP	NP	P
53 Sugar	NP	P	P	NP
54 Mini-warehouses and self-storage facilities	NP	P	P	P
55 Contractor yards for vehicles, equipment, materials, and supplies	NP	C	NP	NP
56 Motor vehicle repair, painting, and auto body uses adjacent to residential zones	P <sub>5</sub>	P <sub>5</sub>	P <sub>5</sub>	P <sub>5</sub>
57 Motor vehicle repair, service, fueling, sales, rental	NP	NP	NP	P
58 Motor vehicle salvage, wrecking, or dismantling	P	P	P	P
59 Office	P	P	P	P
60 Office-showroom	P	P	P	P
61 Office-warehouse	P	P	P	P
62 Outdoor storage	NP	P	P	P
63 Parking or storage of motor vehicles	NP	P	P	P
64 Places of worship	P	P	P	P
65 Plant nurseries	NP	P	P	P
66 Public facilities consistent with the character of uses permitted in the district	P	P	P	P
67 Public utilities	NP	NP	NP	NP
68 Radioactive, infectious, or hazardous waste storage and disposal	NP	P	P	P
69 Railroad track including main lead and spur track	NP	P	P	P
70 Recycling collection facilities and reverse vending machines	P	P	P	P
71 Equipment rental	P	P	P	P
72 Equipment repair	P	P	P	P
73 Restaurants	P	P	P	P
74 Retail sales on less than 20% of the total floor area of a building, tenant, or use	P	P	P	P
75 Retail sales on more than 20% of total floor area of a building, tenant, or use	NP	P	NP	NP
76 Sale of manufactured housing, recreation vehicles, or boats	NP	NP	NP	P
77 Sewage disposal plant	NP	P	P	P
78 Sexually oriented businesses 4	NP	P	P	P
79 Small animal hospitals and clinics	NP	NP	NP	P
80 Solid waste transfer	NP	P	P	P
81 Terminals for public transit vehicles	NP	P	P	P
82 Towing service	P	P	P	P
83 Wholesaling, storage, or warehousing except for the following:	NP	NP	NP	P
84 Aboveground bulk storage of flammable liquids or gases 3	NP	NP	NP	NP
85 Live animals	NP	P	P	P
86 Lumber and other construction materials	P	P	P	P
87 Microbreweries	P	P	P	P
88 Brewpubs	P	P	P	P
89 Breweries	NP	NP	P	P
90 Ozonation treatment of biomedical waste	NP	C	C	C
91 Crematoriums	NP	C	P	P
92 Motor freight terminals	NP	NP	C	P
93 Solid waste transfer stations	NP	P	P	P
94 Retail marijuana store	NP	P	P	P
95 Retail marijuana cultivation facility, retail marijuana product manufacturing facility, and the licensed premises for a marijuana transporter	P	P	P	P
96 Marijuana testing facility	P	P	P	P