

## Roxann Hayes Consulting, LLC

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Public Works  
Traffic Division  
Brianna Medema  
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### **RE: Traffic Letter for Ohr Avner Synagogue, 1199 S Kingston St., Aurora, CO**

Dear Ms. Medema,

The Ohr Avner Synagogue (Project) is a new Synagogue building in Aurora, CO. The Project will access S. Kingston St. south of E. Mississippi Ave. The building will be an approximately 21,490 square foot steel framed structure. The Ohr Avner Synagogue is a Jewish Orthodox community, which does not permit the use of vehicles during the Sabbath or other religious holidays. Members must walk to services.

As requested in the pre-application meeting for the Project on May 6, 2021, this Traffic Letter will address the following:

1. Trip generation from the Project.
2. Site circulation plan.
3. Discussion of Pedestrian Safety measures.

### **TRIP GENERATION**

Typically, Project trip generation forecast is based on the Institute of Transportation Engineers Trip Generation Manual (11th Edition). Land Use Code 561 (Synagogue) was utilized in order to calculate the net increase in vehicular trips the development will generate during the Saturday peak hour generator.

The fitted curve equation was not given for this particular land use code/time period. Therefore, the average rate of 3.87 vehicle trip generation per 1000 square feet gross floor area was used for the Saturday peak hour generator. The Trip Generation Manual predicts that approximately 83 trips per hour will be generated by this use.

Information in Table 1 (below) also provides information for the AM and PM weekday peak hour generators as well, with 52 total trips predicted during the AM peak hour generator and 63 total vehicular trips predicted during the PM peak hour generator.

*Table 1: Trip Generation*

Data Source	Peak Period (Peak Hour Generator)	Average Rate	Trip Ends. Vs.		Fitted Curve Equation	% Entering	% Exiting	Project GFA	Peak Hour Trips		
				SF of GFA					In	Out	TOTAL
ITE Trip Generation 11th Edition - Land Use Code 561 (Synagogue)	AM	2.41	1000	SF of GFA	Not Given	63	37	21490	33	19	52
	PM	2.92	1000	SF of GFA	Not Given	57	43	21490	36	27	63
	Saturday (Peak Hour of Generator)	3.87	1000	SF of GFA	Not Given	42	58	21490	35	48	83

However, this land use was surveyed in the 2000s and 2010s in New York and Pennsylvania. It does not note if Jewish Orthodox synagogues were included in this survey.

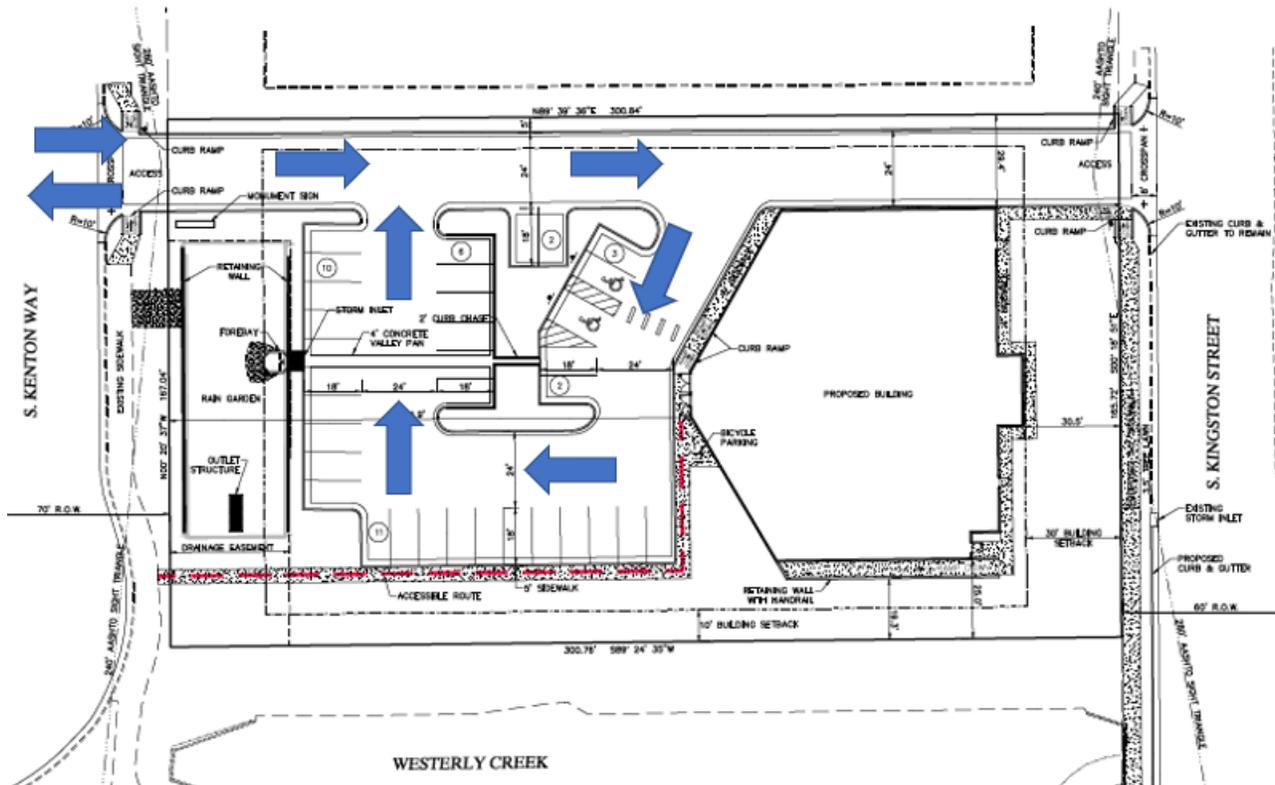
### **SITE CIRCULATION**

The proposed site circulation plan is shown in Figure 1.

The entrance to the site is located off of S. Kenton Way. This will be a full movement driveway. Vehicles will enter the site and proceed along the north boundary line.

- Vehicles that are parking can choose to turn south at any point along this driveway.
- Vehicles that are dropping off can proceed to the building, turn south, then proceed to the parking lot.
- A fire lane is provided along the entire perimeter of the property. Appropriate “no parking” signs will be placed to ensure vehicles will not park in that location.

Figure 1: Site Circulation Plan



### PEDESTRIAN SAFETY MEASURES

As members must walk to the Synagogue for Sabbath and other holidays, pedestrian crossings will be important, especially crossing E. Mississippi Ave.

The nearest signalized intersection is located at E Mississippi Ave./S. Kenton Way (approximately 375 feet to the west). Another signalized intersection is located at E Mississippi Ave./Moline (approximately 1600 feet to the east). Signalization to the south of the Project is more than 2500 feet away.

However, please note that Jewish Orthodox members are not permitted to press a pedestrian crossing button on the Sabbath. A hands-free pedestrian crossing may be considered.

Pedestrians will likely travel north or south from the Project.

Traveling to or from the south, most pedestrians will utilize S. Kingston. The Project may consider installing the following:

- Extension of the existing attached and detached sidewalk south of the Project along S. Kingston when crossing over the existing canal.

Traveling to or from the north, most pedestrians will eventually need to cross E. Mississippi Ave. The two closest crossings are:

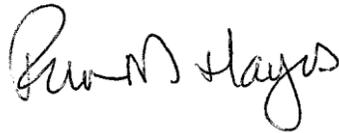
- To the west of the site along E. Mississippi Ave.: Existing traffic signal at S. Kenton Way and E. Mississippi Ave. (including enhanced crosswalks and pedestrian crossing buttons). This intersection is one block to the west of the Project.
- To the east of the site along E. Mississippi Ave.: Existing traffic signal at S. Moline St. and E. Mississippi Ave. (has enhanced crosswalks and pedestrian crossing buttons). This intersection is four blocks to the east of the Project.

Since there is an existing traffic signal at S. Kenton Way only one block to the west of the site, it is anticipated most members will utilize this signal to cross E. Mississippi Ave. The intersection may be evaluated to determine if upgrades are required, but it already appears to have the typical intersection improvements necessary including truncated domes, painted crosswalks, and pedestrian call buttons. The 2009 MUTCD does require a pedestrian countdown signal if the pedestrian change interval is 7 seconds or less.

City Staff has noted that the City will review the existing signalized intersection at E. Mississippi Ave./S. Kenton Way to determine if pedestrian head upgrades have been made recently.

Please let me know if you have any questions or concerns.

Sincerely,



Roxann M. Hayes, P.E.

