

LSC Responses to El Paso County Redline Comments

SIGHT DISTANCE ANALYSIS

Entering Sight Distance

Figures 3a and 3b also show the available intersection sight distance at the north and south site-access points, respectively. Based on a design speed of 45 miles per hour (mph) and the Town criteria (references are shown on the figures), the required intersection sight distance at the site-access points is 500 feet. The following are the existing sight-distance measurements. These measurements were conducted in the field by LSC. The measurements were taken from a driver's eye height of 3.5 feet to an approaching vehicle height of 3.5 feet.

- North Access:
 - 545 feet looking to the north
 - 600 feet looking to the south
- South Access:
 - Over 1,000 feet looking to the north
 - Over 1,000 feet looking to the south

Please refer to Figures 3a and 3b for details. The lines of sight for both access-point intersections will need to be kept clear of any sight-distance obstructions. This includes roadside vegetation, landscaping, signage, etc. proposed for the development.

Stopping Sight Distance

Figures 3a and 3b also show the required stopping sight distance at the north and south site-access points, respectively. Based on a design speed of 45 miles per hour (mph) and the Town criteria, the stopping sight distance at the site-access points is 360 feet (or adjusted for grade as noted in the figures). As shown in Figures 3a and 3b, this requirement is met at both of the site-access points.

ROAD AND TRAFFIC CONDITIONS AND MTCP CLASSIFICATION

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shows the roads adjacent to and in the vicinity of the site. Adjacent roads serving the site are identified below followed by a brief description of each. Copies of the *2016 El Paso County Major Transportation Corridors Plan (MTCP) 2040 Roadway Plan* and *2016 MTCP 2060 Corridor Preservation Plan (CPP)* with the site location identified on them have been attached to this report.


Old Denver Road extends north from Baptist Road to Santa Fe Avenue and then continues north as Beacon Lite Road. Old Denver Road has one through lane in each direction and a posted speed limit of 40 miles per hour (mph) adjacent to the site. Old Denver Road was recently designed and approved as a three-lane, Major Collector facility. North of the Baptist Road roundabout, Old Denver Road is controlled and maintained by the Town of Monument.

LSC Responses to El Paso County Redline Comments

Page: 6

Number: 1 Author: Jeff Rice - EPC Engineering Review Subject: Callout Date: 1/4/2024 4:21:12 PM

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 Author: kdferrin Subject: Sticky Note Date: 1/15/2024 2:04:01 PM
LSC Response: The text has been updated

roadways (due to the limited continuity of these roadways to the west, south, and north and due to the Pike National Forest, the Air Force Academy, etc.).

TRIP GENERATION

The site-generated vehicle trips for southern portion of the site have been estimated using the nationally published trip-generation rates for warehouses from *Trip Generation, 11th Edition, 2021* by the Institute of Transportation Engineers (ITE).

Two scenarios were analyzed to determine the worst-case trip-generation scenario for the northern portion of the site. The first scenario assumed the northern portion of the site is developed for RV/Boat Storage and the second scenario assumed the northern portion of the site is developed for outdoor contractor storage. ITE does not have trip-generation rates for either of these uses. The number of site-generated vehicles expected if the northern portion of the site is developed for Boat/RV storage was based on trip-generation studies completed by other transportation consultants for similar facilities. Please refer to Appendix A for details. The number of site-generated vehicles expected if the northern portion of the site is developed for outdoor contractor was based on a trip-generation study of similar sites in El Paso and Arapahoe County, Colorado conducted by LSC in October 2023. Please refer to Appendix B for details. Table 1 shows the trip-generation estimate. As shown in Table 1, the northern portion of the site is expected to generate more vehicle trips if it is developed for outdoor contractor storage than if it is developed for RV/Boat storage. Therefore, the second scenario was carried forward through this report.

If the northern portion of the site is developed for the worst-case scenario with outdoor contractor storage the entire site is expected to generate 194 vehicle trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about nine vehicles would enter and six vehicles would exit the site. During the afternoon peak hour, which generally occurs for one hour between 4:15 and 6:15 p.m., about nine vehicles would enter and eight vehicles would exit the site.

Provide analysis for the highest and best uses allowed by the proposed zoning. 1

TRIP DISTRIBUTION AND ASSIGNMENT

Figure 6 shows the distribution estimates for the site-generated trips. The trip distribution represents the percentages of site-generated traffic projected to be oriented to and from the major approaches to the site. The estimates are based on the following factors: the land use proposed for the site; the roadway system serving the site; the proposed access system for the site; the location of the site with respect to local area and regional residential, employment, commercial, and activity centers; the location of the site with respect to the Town of Monument, the Tri-Lakes region, and northern Colorado Springs; and recent traffic counts.

Provide analysis for the highest and best uses allowed by the proposed zoning.

 Author: kdferrin Subject: Sticky Note Date: 2/14/2024 1:27:04 PM

LSC Response: Following correspondence with staff, the text has been updated to indicate that should the site be developed with a different (a more trip-generation-intensive) land use, an updated traffic impact study will be required.

MULTI-MODAL TRANSPORTATION AND TDM OPPORTUNITIES

The New Sante Fe Regional Trail is located east of Old Denver Road in the vicinity of the site. No new improvement projects have been identified as being needed by the year 2040 per Map 15: Bicycle and Pedestrian Network Improvements and Table 5 Multi-modal Improvement Projects of El Paso County's 2016 *MTCP*.

IMPROVEMENTS SUMMARY TABLE

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Please refer to ¹, which presents a summary of improvements.


FINDINGS AND CONCLUSIONS

- The northern portion of the site is planned to be developed for either RV/Boat storage or outdoor contractor storage. The final use (one of these two) will be determined at the site development plan stage. If the northern portion of the site is developed for the worst-case scenario with outdoor contractor storage the entire site is expected to generate 194 vehicle trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about nine vehicles would enter and six vehicles would exit the site. During the afternoon peak hour, which generally occurs for one hour between 4:15 and 6:15 p.m., about nine vehicles would enter and eight vehicles would exit the site.
- Both site-access points are projected to operate at a satisfactory level of service as stop-sign-controlled intersections.
- Based on the Town criteria and the projected 2043 total traffic volumes shown in Figure 9, no auxiliary turn lanes would be required on Old Denver Road approaching the site-access points. When Old Denver Road is ultimately improved adjacent to the site, a striped center median for left turns will be provided.

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Number: 1 Author: Jeff Rice - EPC Engineering Review Subject: Callout Date: 1/4/2024 4:31:36 PM

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 Author: jchodsdon Subject: Sticky Note Date: 2/14/2024 1:42:24 PM

LSC Response: This section has been removed as the third bullet under "Findings and Conclusions" provides the necessary summary.