



MEMORANDUM

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FROM: Paul Brown, PE, PTOE, Felsburg Holt & Ullevig

DATE: March 2, 2023

SUBJECT: El Paso County Development Reviews; PO # 8115428
Owl Place (Meridian) Storage Rezone Traffic Impact Study (CS224)
First Review

This memorandum presents traffic comments on the January 2023 Owl Place Storage Traffic Impact Study (TIS) prepared by Galloway & Company, Inc. for Meridian Storage, LLC. Our comments are based on requirements provided in the County's Engineering Criteria Manual (ECM), Appendix B.

Comments

Comments on the TIS are divided into general requirements to conform to ECM TIA report requirements and technical and report specific comments that request further clarification or missing information.

General Comments

The following general requirements need to be addressed in the Owl Place Commercial TIS to meet ECM requirements:

1. The TIS adequately describes the site, proposed access points, and anticipated site trip generation and distribution. It also includes a county-requested analysis of a maximum development scenario.
2. The study does not adequately describe or evaluate existing conditions per ECM Section B.3.1.
 - a. At the Meridian Road / Eastonville Road intersection, the traffic counts reflect a stop-controlled T intersection condition (per Appendix E), while the TIS evaluates a signalized 4-leg intersection. The study should either evaluate conditions when counts were collected or collect new counts reflecting the recent changes at this intersection. The TIS also needs to include appropriate geometric data for existing and future conditions.
 - b. The Meridian Road / Owl Place intersection exists today, and counts are available from previous studies, so an existing conditions analysis is required. This intersection is proposed to be closed in future scenarios. The TIS should evaluate how these existing trips will be served in the future since Owl Place is a cul-de-sac today. This evaluation should indicate when the intersection will be closed (background or total traffic scenarios, year 2024 or year 2040) and how existing trips are forecasted to travel after the closure.
 - c. The study should document the source of the existing traffic counts at the Meridian Park Drive / Bent Grass Meadow Drive intersection. The geometry included in the TIS also does not match available aerial photographs and should be confirmed.
 - d. Although much of the land use adjacent to the site is residential, areas immediately to the south include developing commercial areas. The text should note this.
 - e. The study should include existing and future ADT data and evaluate link threshold capacities per ECM Section B.3.1.C, particularly along Meridian Park Drive.

3. The applicant does not adequately describe or evaluate future conditions per ECM Section B.3.2.
 - a. The southerly access to Owl Place is clearly described, but how those trips will circulate past Owl Place is unclear. The site plan shows a future southerly connection to Eastonville Road that is briefly mentioned in Section IV of the TIS, but the timing, operations and responsibility for this connection are not described. This should be clarified.
 - b. There is no discussion of roadway classification for Meridian Park Drive through the site. Further, site traffic impacts and rerouted traffic impacts on the Meridian Park Drive roadway classification to the north and south are not discussed. These should be included.
 - c. Background forecasts are provided for two future years, 2024 and 2040. Cumulative development traffic has been accounted for and it has been adjusted to account for the Owl Place closure. However, the overall background growth rate is low when compared to the studies included in Appendix E. Background growth rates should be revised to match these studies, the 2045 Long Range Transportation Plan, the Major Transportation Corridor Plan, and other regional planning documents.
 - d. The study states that “all planned roadway improvements associated with the [pipeline] developments will be completed by 2024.” However, other text, Figure 4-5, and Figure 4-6 show a phasing plan for Falcon Marketplace. The study should not assume year 2040 Falcon Marketplace improvements are in place in the short-term horizon.
4. The operational analyses of existing, background, and total traffic conditions were conducted using accepted tools but do not meet the requirements of ECM Section B.3.1.B.
 - a. There is no documentation of peak hours used and related volume balancing. This is required since not all counts were acquired from the same source (see comment 2.c).
 - b. The peak hour factors should be developed and applied in accordance with the ECM.
 - c. LOS results and queuing for unsignalized intersections should be reported in accordance with HCM Chapter 20 guidance regarding major street and minor street movements.
5. The TIS does not include pedestrian or bicycle evaluation per ECM Section B.4.1.C. The planned land use is not expected to be a high pedestrian / bicycle traffic generator, but connectivity along Meridian Park Drive and proposed bicycle route(s) in the MCTP should be addressed.
6. No signal progression analysis along Meridian Road is provided, as required by ECM Section B.4.1.B.
7. A Recommended Improvements Summary Table and related improvement responsibilities have not been incorporated. These are required per ECM Section B.6, but the current study notes that no improvements are required. These items should be added if study updates result in improvements.
8. The Engineer’s Statement and Developer’s Statement have not been provided per ECM Section B.8

Technical Report Comments

Specific concerns with the technical report are as follows:

9. It would be helpful if the report pages (excluding appendixes) were numbered.
10. The signal timings presented in the appendixes should be refined.
 - a. Various customary minimums are not maintained in the future year synchro analysis, including minimum green times for left turn phases. The applicant should coordinate with El Paso County to determine appropriate values.
 - b. Software default Y+AR times have been used for the Meridian Road / Eastonville Road signal. Assuming the signal is now in operation, these values should be updated with data obtained from the County. If County data are not available, appropriate Y+AR times should be calculated and applied.
 - c. Optimized signal timings should be rounded to the nearest second.

- I 1. There are concerns in the queuing tables (Table 3-2, Table 4-2, Table 6-2) that require updates.
 - a. Contrary to the text, there are instances where 95th percentile queue lengths exceed the length of storage lanes. These spillbacks are operational concerns and should be addressed.
 - b. There are multiple instances where long through lane queues block access to turn lanes. These blockages are operational concerns and should be addressed.
 - c. The spacing along Eastonville Road between Meridian Road and the new roundabout at Meridian Park Drive is very limited, and some eastbound queue lengths presented in Table 4-2 and Table 6-2 exceed the available spacing. This implies queue spillback into the circulating roadway of the roundabout that should be addressed.

Conclusions

Based on the comments above, the subject report should be revised and resubmitted. Inclusion of a comment response letter with the revised traffic impact study would facilitate future reviews.