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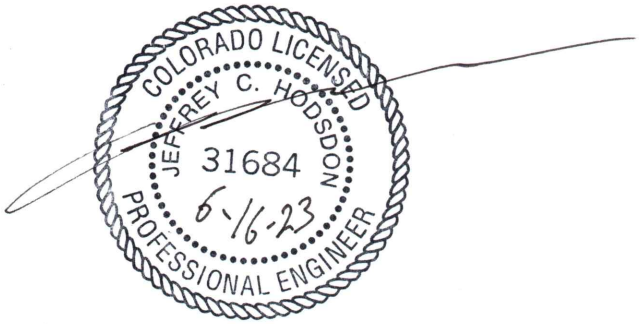
LSC Responses to TIS redline comments. [1]

Overlook at Homestead
Traffic Impact Study
(LSC #S234200)
June 16, 2023

Add PCD File P-235 [2]

Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

[3] _____

[4] _____
Date

LSC RESPONSES TO TIS REDLINE COMMENTS

Page: 1

Number: 1 Author: jchodsdon Subject: Text Box Date: 8/14/2023 3:57:07 PM

LSC Responses to TIS redline comments.

Number: 2 Author: lpackman Subject: Callout Date: 7/10/2023 9:21:04 AM

Add PCD File P-235

Author: jchodsdon Subject: Sticky Note Date: 8/14/2023 3:56:29 PM

LSC Response: Added as requested.

Number: 3 Author: Jeff Rice - EPC Engineering Review Date: 7/18/2023 2:39:17 PM

Number: 4 Author: Jeff Rice - EPC Engineering Review Date: 7/18/2023 2:39:19 PM

- Estimates of average weekday and weekday peak-hour trip generation for the proposed development and the estimated directional distribution of site-generated vehicle trips on roadways and intersections adjacent to and in the vicinity of the site;
- Projected site-generated and resulting total peak-hour intersection traffic volumes at the following study-area intersections:
    - Elbert Road/Apex Ranch Road
    - Elbert Road/proposed south access
- Projected total daily and peak-hour traffic volumes at the study-area intersections;
- Intersection level of service (LOS) analysis at the study-area intersections;
- Evaluation of short- and long-term projected intersection volumes to determine potential requirements for any auxiliary right-/left-turn lanes at the proposed site-access points, based on the criteria in El Paso County's *Engineering Criteria Manual (ECM)*. Also included are potential long-term lane requirements; and
- Findings and recommendations for submittal to El Paso County.

Refer to TIS for Apex Estates PCD File # SP07013. Discuss any changes or updates [1]

LIST OF OTHER TRAFFIC REPORTS USED IN THE PREPARATION OF THIS REPORT

The following previously-completed traffic reports were used to provide [illegible] background information for this study:

- None apply

LAND USE AND ACCESS

Proposed Land Use

Figure 1 shows the site location relative to the adjacent and nearby roadways. The Overlook at Homestead site would consist of 62 single-family dwelling units. The site is located about one-quarter mile northeast of the intersection of Sweet Road and Elbert Road.

The project is planned to be developed in phases. Figure 2 also shows the proposed phasing plan.

Proposed Site-Access Locations

Figure 2 contains the proposed site plan showing the proposed land use, on-site circulation, and proposed access points. Access to the site is proposed via the existing Elbert Road/Apex Ranch Road stop-sign-controlled intersection and a new public road connection to Elbert Road to be located 1,920 feet north of Sweet Road.

Explain that this new access will meet intersection spacing for Hodgen Rd extension to Elbert MTCP Project N3 [2]

INTERSECTION SIGHT DISTANCE

Intersection sight distance at the proposed site-access location on Elbert Road shown in the site plan must meet sight distance requirements in *ECM* Table 2-21. The lines of sight for both access

Discuss how parcels to the east will be afforded access as discussed during EA2350. 4100000251, 4126000004 [3]

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Number: 1 Author: eschoenheit Subject: Cloud+ Date: 8/1/2023 8:51:37 PM

Refer to TIS for Apex Estates PCD File # SP07013. Discuss any changes or updates

Author: jchodsdon Subject: Sticky Note Date: 8/14/2023 4:27:02 PM

LSC Response: Added as requested.

Number: 2 Author: eschoenheit Subject: Text Box Date: 8/1/2023 4:40:32 PM

Explain that this new access will meet intersection spacing for Hodgen Rd extension to Elbert MTCP Project N3

Author: jchodsdon Subject: Sticky Note Date: 8/14/2023 4:27:19 PM

LSC Response: Added as requested.

Number: 3 Author: eschoenheit Subject: Text Box Date: 8/1/2023 8:10:33 PM

Discuss how parcels to the east will be afforded access as discussed during EA2350. 4100000251, 4126000004

Author: jchodsdon Subject: Sticky Note Date: 8/14/2023 4:27:36 PM

LSC Response: Added as requested.

modifications would be required for the southbound approach on Elbert Road approaching Sweet Road.

Address the current width of Elbert Road around each intersection to be used by this development and whether pavement and shoulders need to be widened to meet the current classification. 1

ROADWAY CLASSIFICATIONS

Elbert Road

Per *ECM* Table B-1, the ADT threshold capacity for roads classified as Rural Minor Arterial is 10,000 vehicles per day. The projected ADT on Elbert Road in the vicinity of the site (between Hopper Road and Sweet Road) would be well below 10,000 vehicles per day for this classification. The 2040 Unimproved Roadway Analysis on MTCP Map 12 indicates that Elbert Road will be adequate, and the projected volumes in this report appear to be well under the capacity values shown in the latest *Road Impact Fee Study* for similar two-lane, unimproved roadways.

Internal Roadways

All proposed internal roadways within the 62-dwelling-unit residential development should be classified as Rural Local roadways. Based on buildout traffic volume estimates, the projected ADT on Apex Ranch Road and the proposed south access would be less than the EPC threshold of 750 vehicles per day for Rural Local roadways. Apex Ranch Road currently conforms to Rural Local roadway standards, so no modifications would be needed. The proposed south access roadway and other internal roadways should be constructed to Rural Local roadway standards.

ROADWAY IMPROVEMENTS

Based on the analysis herein, no off-site or adjacent arterial roadway improvements would be "triggered" by this development.

Elbert Road will need to be restriped to remove passing zone at proposed southern entrance 2

COUNTY ROAD IMPROVEMENT FEE PROGRAM

Transportation Impact Fees

Per *ECM* Appendix B: *State what the current applicable Transportation Impact Fees are and what option the developer will be selecting for payment*.

The applicant will be required to participate in this program. The PID option will be identified with a future Preliminary Plan/Plat submittal.

Page: 12

Number: 1 Author: Jeff Rice - EPC Engineering Review Subject: Callout Date: 7/18/2023 3:05:04 PM

Address the current width of Elbert Road around each intersection to be used by this development and whether pavement and shoulders need to be widened to meet the current classification.

Author: jchodsdon Subject: Sticky Note Date: 8/14/2023 4:28:16 PM

LSC Response: Added as requested.

Number: 2 Author: eschoenheit Subject: Text Box Date: 7/12/2023 11:57:40 AM

Elbert Road will need to be restriped to remove passing zone at proposed southern entrance

Author: jchodsdon Subject: Sticky Note Date: 8/14/2023 4:28:29 PM

LSC Response: Added as requested.

Reimbursable Improvements

The following roadway improvement projects have been identified as being needed by the year 2040 per Map 13 and Table 4 of El Paso County's 2016 *MTCP*:

- N3 – Hodgen Road from Eastonville Road to Elbert Road ($4,470,000)
- Existing conditions – does not exist
- Future conditions – 2-lane Rural Collector

See the attached *MTCP* maps for reference.

MULTI-MODAL TRANSPORTATION AND TDM OPPORTUNITIES

The following roadway improvement projects have been identified as being needed by the year 2040 per Map 15 and Table 5 of El Paso County's 2016 *MTCP*:

- M10 – Hodgen Road from Meridian Road to Elbert Road
    - Bicycle improvements (1.67 miles)

No public schools are located within a two-mile radius of the site.

DEVIATIONS

No deviations to *ECM* design criteria are proposed at the proposed study-area intersections.

FINDINGS AND CONCLUSIONS

- The site is projected to generate about 650 new driveway vehicle-trips on the average weekday.
- During the weekday morning peak hour of adjacent street traffic, 13 vehicles would enter the site while 36 vehicles would exit.
- During the weekday afternoon peak hour of adjacent street traffic, 40 vehicles would enter the site while 23 vehicles would exit.
- All individual approaches and turn lanes at both site-access intersections would operate at LOS B or better during both short-term and long-term peak hours, with or without the addition of site-generated traffic.
- Auxiliary left-turn and right-turn deceleration lanes would **not** be required at either of the site-access points, based on projected buildout traffic volumes. Please refer to the "Auxiliary Turn-Lane Analysis" section for evaluation of potential turn-lane needs.
- All internal site-access roadways are proposed to be public Rural Local roadways.
- No deviations are included with this submittal.

Summarize line of sight finding for existing and all proposed entrances/intersections
Provide line of sight exhibits. (missing) 1

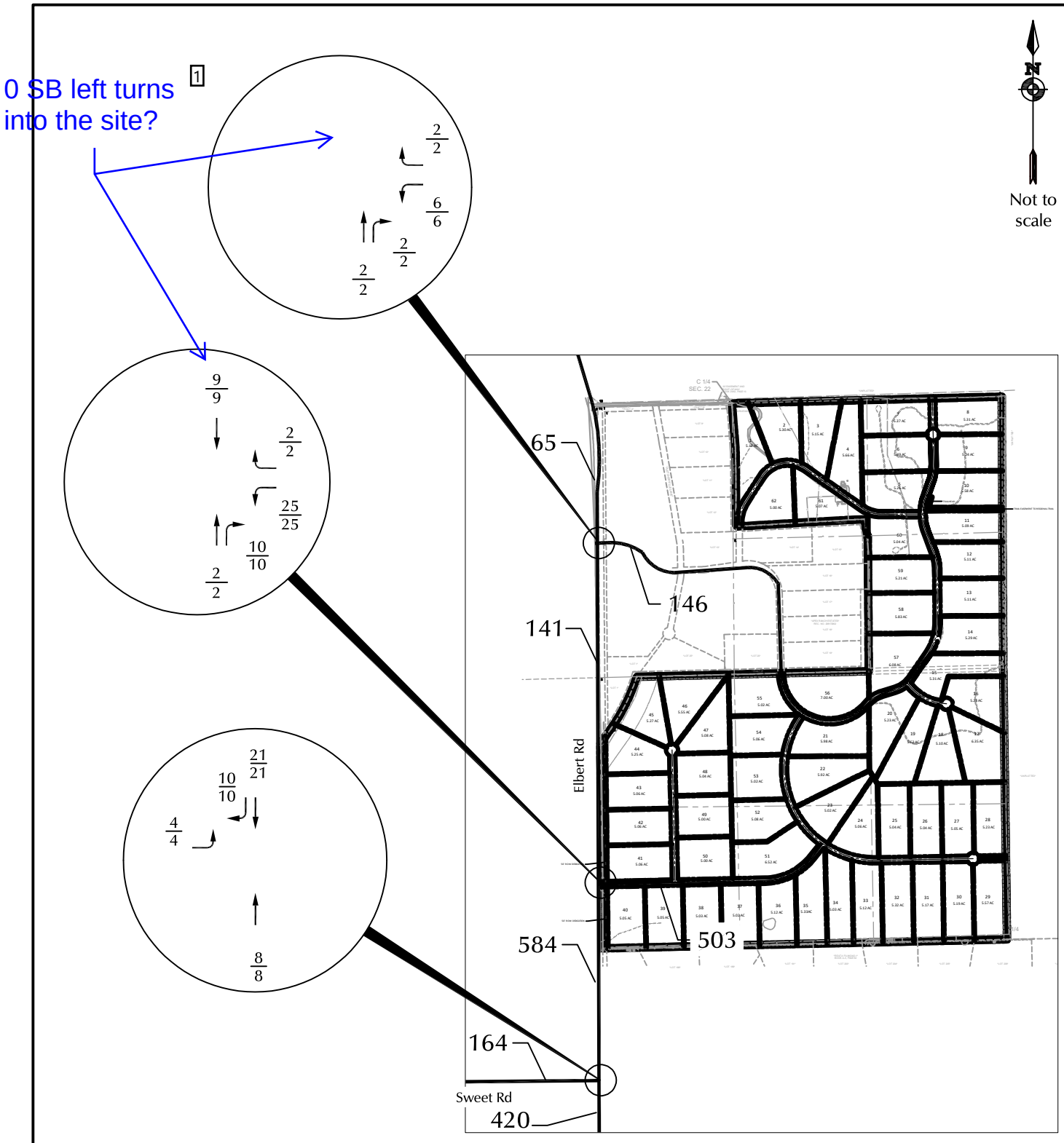
Page: 13

Number: 1 Author: eschoenheit Subject: Text Box Date: 7/13/2023 8:08:15 AM

Summarize line of sight finding for existing and all proposed entrances/intersectionsProvide line of sight exhibits. (missing)

Author: jchodsdon Subject: Sticky Note Date: 8/14/2023 4:31:51 PM

LSC Response: The sight distance findings have been added to the "INTERSECTION SIGHT DISTANCE" section of the report. Exhibits have been provided. A bullet has been added to this concluding section stating that ECM sight distance would be met along with a reference back to the sight distance section.



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XX / XX = AM Weekday Peak-Hour Traffic (Veh/Hour) / PM Weekday Peak-Hour Traffic (Veh/Hour)

X,XXX = Average Daily Traffic (Vehicles/Day)

Figure 5

Estimated Buildout Site-Generated Traffic

Overlook at Homestead (LSC #S234200)

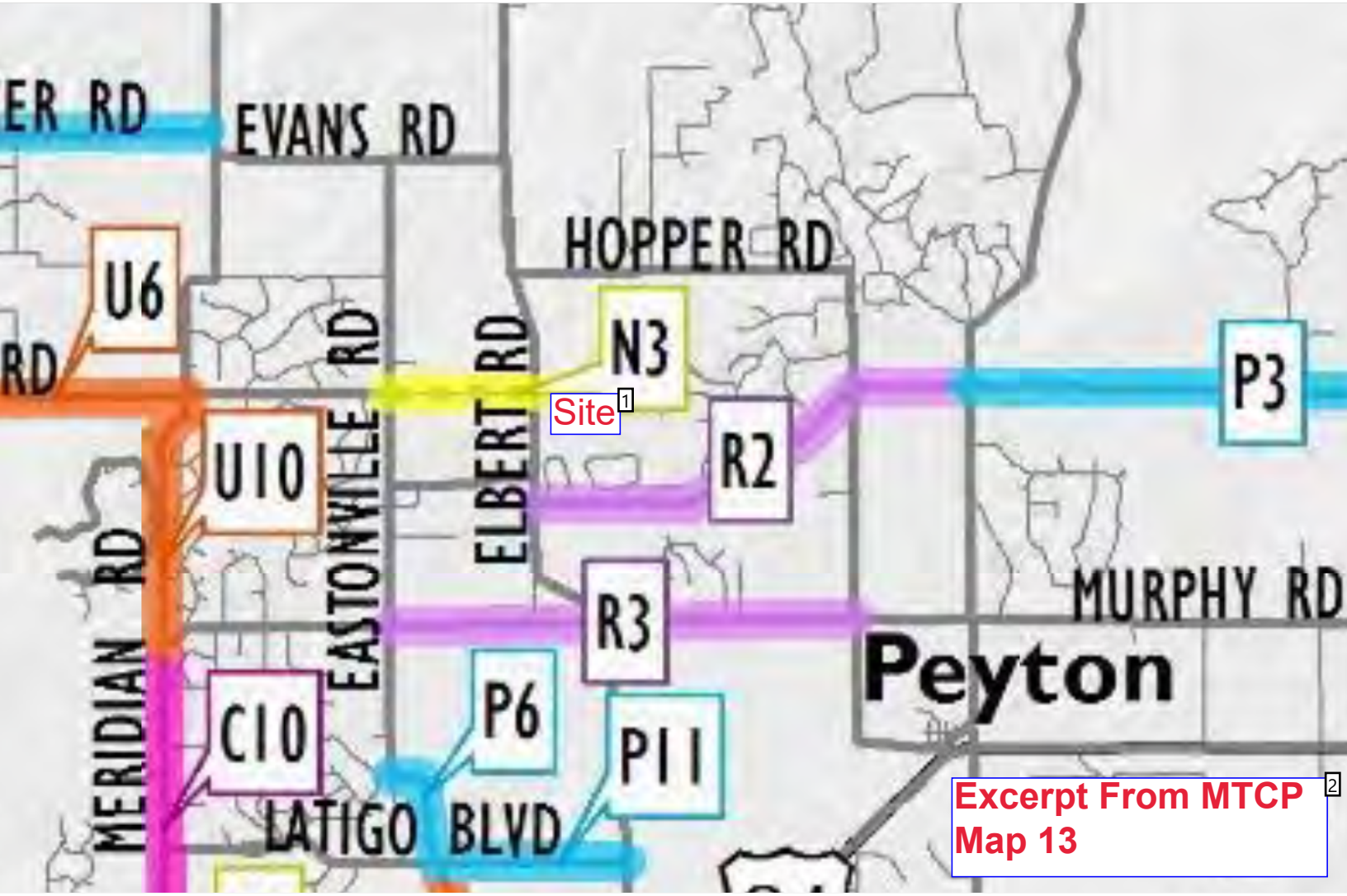
Page: 22

Number: 1 Author: Jeff Rice - EPC Engineering Review Subject: Callout Date: 7/18/2023 3:10:26 PM

0 SB left turns into the site?

Author: jchodsdon Subject: Sticky Note Date: 8/14/2023 4:34:01 PM

LSC Response: The figures (and corresponding level of service printouts) have been updated/ corrected.


ER RD
EVANS RD
HOPPER RD
U6
RD
EASTONVILLE RD
ELBERT RD
N3
Site
1
P3
U10
R2
MERIDIAN RD
R3
MURPHY RD
Peyton
C10
P6
P11
LATIGO BLVD
Excerpt From MTCP Map 13
2

Page: 61

Number: 1 Author: jchodsdon Subject: Text Box Date: 6/16/2023 12:23:30 PM

Site

Number: 2 Author: jchodsdon Subject: Text Box Date: 6/16/2023 12:25:18 PM

Excerpt From MTCP Map 13