

824-Acre Curtis Road Development Traffic Impact Analysis

(LSC #184750)

November 29, 2018

P-18-008

Professional Engineer's Statement

The traffic report and supporting information were prepared under my responsible charge and they conform 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

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


A handwritten signature in blue ink, likely of the Developer, written over a horizontal line.

11/29/2018

Date

Summary of Comments on Template (Entire file) - County Comments with LSC Responses.pdf

Page: 1

 Number: 1 Author: Steve Kuehster Subject: text box Date: 12/20/2018 10:54:09 AM

[P-18-008](#)

 Author: jchodsdon Subject: Sticky Note Date: 1/18/2019 2:38:24 PM
Added as requested

SITE LAND USE AND ACCESS

The 824-acre site is located south of Judge Orr Road, east of Curtis Road, and is planned to be developed with 2.5-acre single-family residential lots. Phase 1 would include 70 lots located on the north portion of the site, as shown in the site plan phasing in Figure 2. At buildout, the development would contain 227 single-family homes.

Five full-movement access points are planned: three on Judge Orr Road and two on Curtis Road. Access points on Judge Orr Road would be 1,225, 2,750, and 5,215 feet east of the intersection of Curtis Road/Judge Orr Road. Access points on Curtis Road would be 2,750 and 5,286 feet south of the Judge Orr Road/Curtis Road intersection, with the south access point 5,480 feet north of Falcon Highway. The site plan provides for a future local road connection to the parcel to the south of the site.

EXISTING ROADWAY AND TRAFFIC CONDITIONS


Area Roadways

The roadways in the study area are shown on Figure 1 and are described below.


- **US Highway (US) 24** is located about one mile north of the site (via Curtis Road) and about 1.5 miles west of the site (via Judge Orr Road). US Highway 24 is also accessible from the southwest corner of the site via Falcon Highway. The travel distance to/from the intersection of US Highway 24/Falcon Highway via Falcon Highway is about four miles.

This two-lane State Highway extends east/west across Colorado connecting the Buena Vista, Colorado Springs, and Limon areas. US 24 is planned to be widened to four lanes through the Falcon area and is classified as an Expressway by the Colorado Department of Transportation (CDOT) and the *El Paso County Major Transportation Corridors Plan (MTCP)*. The posted speed limit on US 24 in the vicinity of Judge Orr Road is 55 miles per hour (mph). A parallel frontage road is planned in the future on the east side of US 24 that would extend from Judge Orr Road to Curtis Road.

- **Judge Orr Road** is a two-lane roadway that extends east from Eastonville Road across most of El Paso County. It is shown on the *El Paso County 2040 Major Transportation Corridors Plan* and the *Preserved Corridor Network Plan* as a four-lane Minor Arterial adjacent to the site (and west of Curtis Road). Posted speed limits adjacent to the site range from 45 to 55 mph. West of Curtis Road, the speed limit is 45 mph, while it generally increases to 55 mph east of Curtis Road. The intersection of US 24/Judge Orr is currently signalized. Due to the oblique angle of this intersection, the eastbound and westbound approaches are split-phased. The US 24 Access Control Plan/PEL Study shows future plans for realignment of Judge Orr at US Highway 24 to improve the intersection and provide an intersection angle closer to 90 degrees. Please include what the classification of Judge Orr is proposed in the preserved corridor plan¹
- **Curtis Road** is a two-lane roadway that extends south from the intersection of US Highway 24/Stapleton Drive intersection to Drennan Road. It is shown as a two-lane, rural Principal Arterial on the 2040 El Paso County 2040 Major Transportation Corridors Plan and a four-lane Principal Arterial

 Number: 1 Author: Steve Kuehster Subject: text box Date: 1/18/2019 2:32:28 PM

Please include what the classification of Judge Orr is proposed in the preserved corridor plan







 Author: jchodsdon Subject: Sticky Note Date: 1/18/2019 2:38:15 PM

This was included, but we revised the wording in the updated report to be more clear.

Judge Orr Road/Site Access Intersections

All individual turning movements at the three site access point intersections on Judge Orr Road are projected to operate at LOS B or better during both the short- and long-term morning and evening peak hours, as shown in Table 8.

Table 8: LOS Analysis Results – Judge Orr Road/Site Access Intersections

Scenario	N Access (Left)			N Access (Middle)			N Access (Right)		
	Traffic Control	NB	WB	Traffic Control	NB	WB	Traffic Control	NB	WB
									
A.M. Peak Hour									
2018 Existing + Site	TWSC	A	A	TWSC	A	A	TWSC	A	A
2040 Background + Site		B			B			B	
P.M. Peak Hour									
2018 Existing + Site	TWSC	B	A	TWSC	A	A	TWSC	A	A
2040 Background + Site		B			B			B	
TWSC = two-way stop sign control									


FUTURE ROADWAY IMPROVEMENTS


- Table 10 presents the roadway improvement recommendations including auxiliary turn lane needs, traffic control, anticipated right-of-way dedication, and corridor preservation.
- Auxiliary turn lanes at the site access points will need to be phased with the development. Table 10 also includes potential additional turn lane needs at offsite intersections within the study area.
- US Highway 24/Stapleton is planned to be signalized. This project will likely need to escrow funds for this future signal on a pro-rata basis.

1 • Curtis Road, Judge Orr Road, and Stapleton Road north of Curtis Road are shown to need roadway upgrades on the 2040 MTCP based on anticipated growth in the general area and the Stapleton extension to Briargate Parkway.


- The intersections of Curtis/Judge Orr and Curtis/Falcon Highway may need to be upgraded to roundabout or traffic signal control by 2040 based on anticipated growth in the general area and the Stapleton extension to Briargate Parkway.

Note comments on page 11. Requires revision to improvements section and Table 10.

 Number: 1 Author: Steve Kuehster Subject: Highlight Date: 12/20/2018 12:24:36 PM

 Number: 2 Author: Steve Kuehster Subject: text box Date: 12/20/2018 12:30:38 PM

Note comments on page 11. Requires revision to improvements section and Table 10.

 Author: jchodsdon Subject: Sticky Note Date: 1/18/2019 4:07:28 PM

Noted.

Subdivision Roadway Classifications

All roadways within this subdivision should be classified as Rural Local.

El Paso County Road Impact Fee Program

This project will be subject to participation in the El Paso County Road Impact Fee Program.

* * * * *

Please contact me if you have any questions or need further assistance.

Sincerely,


LSC TRANSPORTATION CONSULTANTS, INC.

Jeffrey C. Hodsdon, P.E., PTOE
Principal


JCH:JAB/bjwb

Enclosures: Table 9 and Table 10
Figures 1-9
Traffic Count Reports
Level of Service Reports

Please revise improvements section and table 10 to indicate the following: ¹
It is anticipated that conditions will likely be made at the time of final platting to require the developer to construct improvements as outlined in table 10. The most likely improvements needing construction by the developer of this site will be the adjacent Curtis road widening and the turn lanes associated with both the Falcon Highway and the judge Orr Intersections. Additionally, this developer may be responsible for intersection construction if triggered by this development of either/or both adjacent intersections (Judge Orr/Curtis, Curtis/ Falcon Highway).

 Number: 1 Author: Steve Kuehster Subject: text box Date: 12/20/2018 12:56:07 PM

Please revise improvements section and table 10 to indicate the following: It is anticipated that conditions will likely be made at the time of final platting to require the developer to construct improvements as outlined in table 10. The most likely improvements needing construction by the developer of this site will be the adjacent Curtis road widening and the turn lanes associated with both the Falcon Highway and the judge Orr Intersections. Additionally, this developer may be responsible for intersection construction if triggered by this development of either/or both adjacent intersections (Judge Orr/Curtis, Curtis/ Falcon Highway).

 Author: jchodsdon Subject: Sticky Note Date: 1/18/2019 4:11:46 PM

The recommendations section and Table 10 have been updated to address this comment. Note: The language in the in the updated report incorporates proposed LSC revisions to Staff's language.

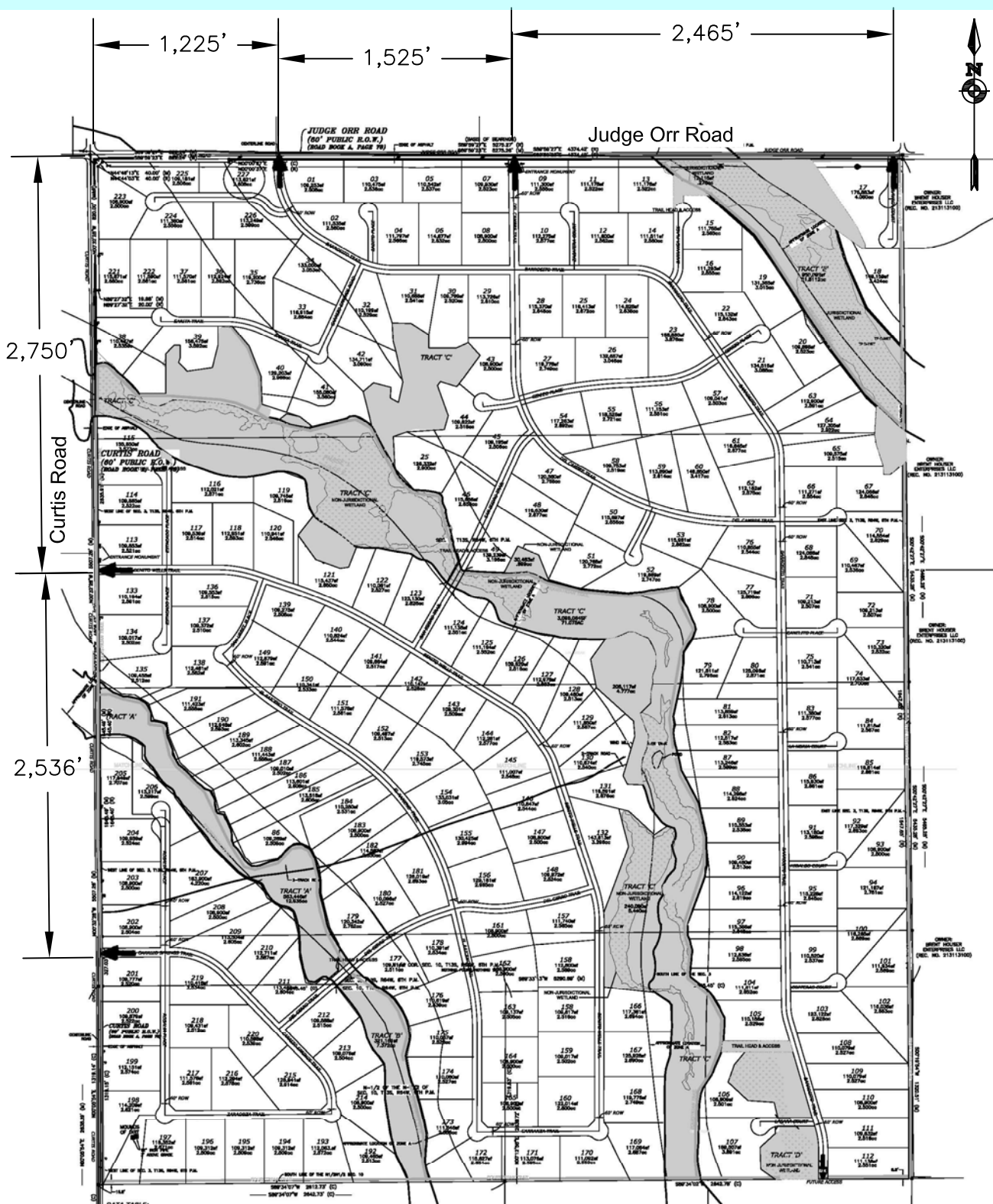




Figure 2
Site Plan

824-acre Curtis & Judge Orr Development (LSC #184750)



 Number: 1 Author: Steve Kuehster Subject: text box Date: 12/20/2018 1:06:35 PM

Requires the submittal/approval of a deviation request for intersection spacing.

 Author: jchodsdon Subject: Sticky Note Date: 1/18/2019 4:27:06 PM

This deviation has been prepared and submitted for the spacing just east of Curtis Road.

The easternmost roadway intersecting Judge Orr (shown as Lavaca Ct. on the plan included with the initial submittal) has been changed to a driveway to serve two lots. The equestrian trail has been shifted to the west side of this driveway and the driveway has been shown as close as possible to the property line. The intent is that once the property to the east develops, there would be the potential to include this driveway in the width of a future public road aligning with Elbert Road.

MEMORANDUM

DATE: December 20, 2018

TO: Nina Ruiz, PCD-Project Manager

FROM: Steve Kuehster/Jeff Rice, PCD-Engineering

SUBJECT: P-18-008 – 629 CO SPings
First Submittal

Engineering Division

Planning and Community Development (PCD)-Engineering reviews plans and reports to ensure general conformance with El Paso County standards and criteria. The project engineer is responsible for compliance with all applicable criteria, including other governmental regulations. Notwithstanding anything depicted in the plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code (LDC), the Engineering Criteria Manual (ECM), the Drainage Criteria Manual (DCM), and the Drainage Criteria Manual Volume 2 (DCM2). Any deviations from regulations and standards must be requested, and approved by the ECM Administrator, in writing. Any modifications necessary to meet overlooked criteria after-the-fact will be entirely the developer's responsibility to rectify.

A written response to all comments and return of any redlines is required for review of the re-submittal. The applicant may wish to arrange a meeting between the developer's team and County staff to review and discuss these comments and prepared revisions/responses prior to the next submittal.

Traffic Impact Study

1. Please revise improvements section and table 10 to indicate the following: It is anticipated that conditions will likely be made at the time of final platting to require the developer to construct improvements as outlined in table 10. The most likely improvements needing construction by the developer of this site will be the adjacent Curtis road widening and the turn lanes associated with both the Falcon Highway and the Judge Orr Intersections. Additionally, this developer may be responsible for intersection construction if triggered by this development of either/or both adjacent intersections (Judge Orr/Curtis, Curtis/ Falcon Highway).
LSC Response: See LSC Responses to TIS Redlines document
2. Additionally State in the study that the proposed intersection spacing for site access on Judge Orr Road will require the processing of a deviation request (upon sufficient justification) in order to be accepted.
LSC Response: This has been added to the updated TIS as requested.

Attachments/Electronic Files

1. TIS redlines
2. Engineering final submittals checklist.