



Review 2: Please submit the revised traffic study for review. What has been submitted is LSC's response sheets indicating that they have responded to the review 1 comments.

LSC TRANSPORTATION CONSULTANTS, INC.  
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Colorado Springs, CO 80909  
(719) 633-2868  
FAX (719) 633-5430  
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# Eagle Forest Traffic Impact Study (LSC #204230) June 5, 2020

Add PCD File No.  
PUDSP206

### Traffic Engineer's Statement

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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.

06/05/2020  
Date

# LSC Responses to TIS and Deviation Redline Comments - Eagle Forest

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Page: 1

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Number: 1 Author: Daniel Torres Subject: Text Box Date: 10/7/2020 06:41:18 -06'00'

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[Add PCD File No. PUDSP206](#)

Status

jabauer Completed 12/1/2020 17:39:42

 Author: jchodsdon Subject: Sticky Note Date: 1/25/2021 14:23:02

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LSC Response: Added to the report as requested.



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June 5, 2020

Mr. Ty Klikus  
7360 Shoup Road  
Colorado Springs, CO 80908

RE: Eagle Forest  
El Paso County, CO  
Traffic Impact Study  
LSC # 204230

Dear Mr. Klikus,

LSC Transportation Consultants, Inc. has prepared this traffic impact study for the proposed 10-lot Eagle Forest residential development located north of Shoup Road between Black Forest Road and Herring Road in El Paso County, Colorado (parcel number is 65000001357<sup>1</sup>ass shown in Figure 1. The development project would create a new subdivision for nine single family lots (one lot would be for the existing residence) and eight new single-family homes. One site access point is proposed to Shoup Road (Eagle Forest Drive, a proposed new public road). This report has been prepared for submittal to El Paso County.

## REPORT CONTENTS

This report is being prepared as part of a submittal to El Paso County and identifies the traffic impacts of the proposed development on Shoup Road and at the Shoup Road/Black Forest Road intersection.

The report contains the following:

- A determination of the existing roadway and traffic conditions adjacent to the site, including roadway widths, posted speed limits, traffic control, surface conditions, etc.
- Peak-hour traffic volumes on Shoup Road and at Shoup Road/Eagle Forest Drive (site access intersection)
- Projected average weekday and peak-hour trips to be generated by this development
- Assignment of that traffic to the Shoup Road/Black Forest Road and Shoup Road/Eagle Forest Drive intersections

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 Number: 1      Author: Daniel Torres      Subject: Highlight      Date: 10/7/2020 06:41:45 -06'00'

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Status

 jabauer Completed 12/1/2020 17:40:52

 Author: jchodsdon      Subject: Sticky Note      Date: 1/25/2021 14:25:02

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LSC Response: Spelling error has been corrected

it appears that the proposed roadway meets the intersection spacing requirements per ECM criteria (1/4 mile spacing). Please also state the distance of the proposed roadway to herring road and state that the location of the roadway meets ECM intersection spacing criteria.

- Projection of the future traffic volume
- Resulting traffic impacts which have been quantified by projecting the future intersection level of service at the Shoup Road/Eagle Forest intersection

The report also identifies if any speed change lanes are or are not required at the site access.

## LAND USE AND ACCESS

Figure 1 shows the site location relative to the adjacent and nearby roadways. As shown in Figure 2, there is one residence on the site with the rest consisting primarily of undeveloped land. Located north of Shoup Road about 3,100 feet east of Black Forest Road, the site is planned to be subdivided for a total of nine single-family homes (including the one single-family home already on the site). The only access to the site would be via a “replacement” full-movement access proposed to Shoup Road. This access would be the planned intersection of a new proposed public road (Eagle Forest Drive) and will be at a location just east of the current private driveway which would be closed. Also, this new public road is proposed to also provide access to one of the adjacent properties (as shown on the site plan).

## INTERSECTION SIGHT DISTANCE

Access points (planned public roadway intersections) must meet El Paso County’s *Engineering Criteria Manual* standards for sight distance. The site access point (Eagle Forest Drive) is proposed as a stop sign-controlled, full-movement intersection with Shoup Road. With a 45-mph posted speed limit on Shoup Road, the intersection sight distances for both approaches at the proposed site access/public road intersection location must meet the required 555-foot requirement for passenger vehicles (per Engineering Criteria Manual Table 2-21).

Looking east from the proposed site access (Eagle Forest Drive) on the north side of Shoup Road, the field-measured sight distance is 631 feet. Field-measured sight distance, looking west from the proposed site access, is 2,810 feet. Both of these sight distances would meet the minimum 555-foot sight distance requirement when looking east or west.

## ROAD AND TRAFFIC CONDITIONS

Figure 1 shows the streets and roads adjacent to and in the vicinity of the site. Roads serving the site are identified below, followed by a brief description of each:

**Shoup Road** is a two-lane paved rural Minor Arterial and is an important east/west route through the Black Forest area. The posted speed limit at the Shoup Road/Black Forest Road intersection is 30 miles per hour (mph). At the Shoup Road/site access intersection, the posted speed limit is 45 mph.

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Number: 1 Author: Daniel Torres Subject: Callout Date: 10/7/2020 09:38:56 -06'00'

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it appears that the proposed roadway meets the intersection spacing requirements per ECM criteria (1/4 mile spacing). Please also state the distance of the proposed roadway to herring road and state that the location of the roadway meets ECM intersection spacing criteria.

Status

jabauer Completed 12/1/2020 17:45:36

Author: jchodsdon Subject: Sticky Note

Date: 1/25/2021 14:26:06

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LSC Response: Added to the report as requested.

**Black Forest Road** is a two-lane, paved, rural Minor Arterial with a posted speed limit of 40 mph at the signalized intersection with Shoup Road. Black Forest Road extends north from Woodmen Road to County Line Road.

### Existing Traffic Volumes

Existing morning and evening weekday peak-hour traffic volumes at the proposed site access intersection to Shoup Road, as well as the estimated annual average daily traffic (AADT) volumes adjacent to the site, are shown in Figure 3. Raw count reports are attached.

**Note:** The Covid-19 pandemic is likely affecting the traffic volumes adjacent to the site. LSC incorporated any recent available traffic data on Shoup Road and estimated “typical” current volumes based on historical counts and estimated growth rates and/or projections from prior traffic studies, etc. This study contains estimates of current “short-term baseline” volumes. Traffic volume data from El Paso County’s 2016 *Major Transportation Corridors Plan* (MTCP) and previous nearby LSC traffic studies were used to estimate existing traffic volumes.

### TRIP GENERATION

Estimates of the vehicle-trips projected to be generated by Eagle Forest residential development have been made using the national data from *Trip Generation, 10<sup>th</sup> Edition, 2017* by the Institute of Transportation Engineers and use category “210 – Single-Family Detached Housing,” along with corresponding trip generation rates, have been used to develop the trip generation estimates for the site development.

Please provide a list of the nearby traffic studies used.

Eagle Forest residential development is projected to generate about 76 additional vehicle-trips on the average weekday during a 24-hour period, with approximately half entering and half exiting the site. During the morning peak hour, approximately 1 entering vehicles and 4 additional exiting vehicles would be generated by the project. Approximately 5 additional entering vehicles and 3 additional exiting vehicles would be generated by the project during the afternoon peak hour. Detailed trip generation estimates for the development, including ITE rates for the proposed land use, are presented in Table 2 (attached).

### TRIP DISTRIBUTION AND ASSIGNMENT

#### Trip Directional Distribution

An estimate of the directional distribution of site-generated vehicle-trips to the study area roads and intersections is a necessary component in determining the site’s traffic impacts. Figure 4 shows the directional distribution estimate for the site-generated trips. The figure shows the percentages of the site-generated vehicle-trips projected to be oriented to and from the site’s major approaches. Estimates have been based on the following factors: the proposed land use,

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Number: 1 Author: Daniel Torres Subject: Callout Date: 1/13/2021 16:53:02

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Please provide a list of the nearby traffic studies used.

Status

jabauer Completed 12/1/2020 17:51:23

Author: jchodsdon Subject: Sticky Note Date: 1/25/2021 14:22:42

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LSC Response: Added to the report as requested.



Planning and Community  
Development Department  
2880 International Circle  
Colorado Springs, Colorado 80910

# DEVIATION REQUEST AND DECISION FORM

Updated: 6/17/2019

Phone: 719.520.6300  
Fax: 719.520.6695  
Website www.elpasoco.com

This deviation request will be presented  
to the ECM administrator for a decision.

1

## PROJECT INFORMATION

Project Name : Eagle Forest Subdivision  
Schedule No.(s) : 5208000071  
Legal Description : TRACT IN W2SE4 SEC 8-12-65 AS FOLS, BEG AT PT ON N-S C/L OF SEC 8 WHICH IS 30 FT N OF S4 COR THEREOF, TH NLY ALG SD C/L 1953.29 FT, ANG R 89<09'23" ELY 1299.85 FT, ANG R 90<43'17" SLY 1247.98 FT, TH S 89<22'33" W 622.03 FT, N 39<59'42" W 60.0 FT, S 50<00'18" W 132.81 FT, TH ALG ARC OF CUR TO L HAVING A RAD OF 330.0 FT A C/A OF 50>00'00" AN ARC LENGTH OF 287.98 FT, S 00<00'18" W 422.97 FT, TO PT 30.0 FT N OF S LN OF SEC 8, TH ANG R 89<22'15" WLY PARA TO S LN OF SD SEC 422.17 FT TO POB

## APPLICANT INFORMATION

Company : Eagle Forest Development, LLC  
Name : Ty Klikus  
 Owner  Consultant  Contractor  
Mailing Address : 4920 Northpole Loop  
Colorado Springs, CO 80918  
Phone Number : 719-272-8044  
FAX Number : N/A  
Email Address : ty@qc2investments.com

## ENGINEER INFORMATION

Company : LSC Transportation Consultants, Inc.  
Name : Jeffrey C. Hodsdon  
Mailing Address : 2504 E. Pikes Peak Ave  
Suite 304  
Colorado Springs, CO 80909  
Phone Number : 719-633-2868  
FAX Number : 719-633-5430  
Email Address : Jeff@LSCtrans.com  
Colorado P.E. Number : 31684

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☰ Number: 1 Author: Daniel Torres Subject: Text Box Date: 10/7/2020 11:03:54 -06'00'

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[This deviation request will be presented to the ECM administrator for a decision.](#)

👤 Author: jchodsdon Subject: Sticky Note Date: 1/25/2021 14:28:56

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LSC Response: Comment noted. Also, the deviation has been updated to include the fire district endorsement letter.

**LIMITS OF CONSIDERATION**

(At least one of the conditions listed below must be met for this deviation request to be considered.)

- The ECM standard is inapplicable to the particular situation.
- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

Provide justification:

- No adjacent or connecting public road ROW available, except for Shoup Road;
- Limited frontage on Shoup Road;
- Only one street connection to Shoup Road allowed per ECM intersection spacing criteria;
- Eagle Forest Drive will be designed to ECM standards for a Rural Local road;
- Challenging topography on the north side of the property would require a curved alignment, resulting in additional length beyond what the length would be if Eagle Forest Drive was a straight north-south road. Even with a straight north-south road, Eagle Forest Drive would still exceed the 1,600 feet to reach those northern lots shown on the plan;
- Eight additional lots from this subdivision, and potentially a new driveway from an adjoining property, would access this proposed cul-de-sac roadway (Eagle Forest Drive). One lot (the lot to be created for the existing home on the site) would have frontage along Shoup Road. This would be below the 25 lots on a non-through street (LDC). The Land Development Code indicates, "A corner lot is not counted in the maximum number of lots on a dead-end road when the fire department determines that adequate emergency access is provided to the corner lot by an alternative road." None of these lots would have frontage along Shoup Road;
- The applicant is in the process of procuring an endorsement letter from the fire district.

Please attach this letter to the deviation request. As indicated in ECM 2.3.8.A, this deviation will not be considered unless an express written endorsement by the Fire District is provided. 1

**CRITERIA FOR APPROVAL**

Per ECM section 5.8.7 the request for a deviation may be considered if the request is not based exclusively on financial considerations. The deviation must not be detrimental to public safety or surrounding property. The applicant must include supporting information demonstrating compliance with **all of the following criteria**:

The deviation will achieve the intended result with a comparable or superior design and quality of improvement.

- The proposed subdivision roadway will be built to county standards.
- The proposed number of dwelling units (10 units) on a non-through street would not exceed the limit (25 units) established by the Land Development Code. Therefore, a waiver would not be necessary.

The deviation will not adversely affect safety or operations.

- The projected ADT of 94 vehicles/day (vpd) would be relatively low and significantly lower than the design ADT for a Rural Local road (750 vpd).

The deviation will not adversely affect maintenance and its associated cost.

- The deviation will not adversely affect maintenance cost, as Eagle Forest Drive will be built to county Rural Local roadway standards and a county-standard cul-de-sac "bulb" will be constructed at the terminus of the road (which will accommodate County maintenance vehicles and snow plows).

The deviation will not adversely affect aesthetic appearance.

- The roadway will be built to Rural Local roadway standards.
- The subdivision has been designed to work with the topography on the site, which will minimize the disturbance of natural features. Approval of the deviation will result in a more aesthetically appealing project, due to preservation of natural features.

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Number: 1 Author: Daniel Torres Subject: Callout Date: 10/7/2020 09:55:27 -06'00'

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Please attach this letter to the deviation request. As indicated in ECM 2.3.8.A, this deviation will not be considered unless an express written endorsement by the Fire District is provided.

Author: jchodsdon Subject: Sticky Note Date: 1/25/2021 14:29:40

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LSC Response: The deviation has been updated to include the fire district endorsement letter.

The deviation meets the design intent and purpose of the ECM standards.

- The intent can be met, given the relatively low traffic volume.
- The number of lots does not exceed the threshold number requiring a waiver of the Land Development Code.

**REVIEW AND RECOMMENDATION:**

**Approved by the ECM Administrator**

This request has been determined to have met the criteria for approval. A deviation from Section \_\_\_\_\_ of the ECM is hereby granted based on the justification provided.

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Please provide a response for the missing section regarding compliance with MS4 permit.

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**Denied by the ECM Administrator**

This request has been determined not to have met criteria for approval. A deviation from Section \_\_\_\_\_ of the ECM is hereby denied.

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**ECM ADMINISTRATOR COMMENTS/CONDITIONS:**

Please provide a response for the missing section regarding compliance with MS4 permit.

Status

jabauer Completed 12/1/2020 17:45:59

Author: jchodsdon Subject: Sticky Note

Date: 1/25/2021 14:31:59

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LSC Response: The deviation has been updated to include a response for this section.