

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

Streets and roadways serving the site are described below:

- **State Highway (SH) 83** extends from Colorado Springs north to Parker and areas of southeast Denver. In the vicinity of the site, State Highway 83 is classified as a Regional Highway (R-A). At this location, State Highway 83 is a two-lane rural highway with two- to four-foot shoulders and a speed limit of 60 miles per hour (mph). The intersection with Hodgen Road (signalized) is approximately 0.6 miles north of the site.
- **Benet Lane** is a two-lane, rural, paved private road (listed with an administrative class “8 - an open public road not Maintained by County”) that extends west from State Highway 83 to Rieden Road (also private), where it continues for approximately 0.5 miles further west to its terminus. Benet Lane is about twenty-feet wide. The posted speed limit on Benet Lane is 20 mph and its intersection with State Highway 83 is two-way stop-sign-controlled (TWSC). There is no direct access to State Highway 83 from Rieden Road or from Benet Lane to Roller Coaster Road further the west.

Are there improvement recommendations to Benet Lane?

Existing Traffic Volumes

Vehicular turning movement counts were conducted at the intersection of Benet Lane/State Highway 83 at the following times:

- Wednesday, March 21, 2018 from 4:00 p.m. to 6:00 p.m.
- Thursday, March 22, 2018 from 6:30 a.m. to 8:30 a.m.

Turning movement volumes are shown in Table 1. These volumes are primarily estimates by LSC based on the peak-hour counts. Raw count data is attached. Based on the peak-hour count data collected, the estimated current average daily traffic (ADT) on Benet Lane is about 100 to 150 vehicles per day.

Summary of Comments on Benet Hill Monastery -- EDARP comments.pdf

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☰ Number: 1 Author: Steve Kuhster Subject: text box Date: 10/15/2019 1:05:33 PM -06'00'

[Are there improvement recommendations to Benet Lane?](#)

👉 Author: jchodsdon Subject: Sticky Note Date: 12/19/2019 11:54:42 AM

LSC Response: No. This is addressed in the Conclusions & Recommendations section of the updated report.

- The eastbound approach on Benet Lane is projected to operate at LOS E in the long-term morning peak hour upon site buildout.
- Despite operating at LOS E, the volume-to-capacity (v/c) ratio for the eastbound single-lane approach is projected to remain well under 1.0 upon site buildout during the long-term morning peak-hour scenario. A traffic signal volume warrant would not be met at this intersection.

Auxiliary Turn Lane Needs Analysis/CDOT Permitting

- Section 3.8(5) of the State Highway Access Code states that *“a left turn deceleration lane with taper and storage length is required for any access with a projected peak hour left ingress turning volume greater than 10 vph. The taper length will be included within the required deceleration length.”* The projected turning volume is 13 vehicles per hour during the afternoon peak hour. Therefore, a northbound left-turn lane is required by code (and already exists).
- The existing northbound left-turn lane on Highway 83 at Benet Lane is approximately 570 feet (including about a 150-foot transition taper). Based on the Access Code, a deceleration distance of 700 feet (including taper) is required for a 60-mph posted speed limit. As the northbound grade is greater than five percent, an adjustment factor of 0.8 percent applies. Therefore, the adjusted total deceleration distance required is 560 feet. The lane must include stacking distance of 25 feet. Therefore, the total required lane length is 585 feet.
- No other auxiliary turn lanes are required based on the Access Code criteria.
- A southbound right-turn deceleration lane on Highway 83 at Benet Lane would not be required based on the Access Code criteria and the turning volume estimates in this report. However, the applicant would like to install a southbound right-turn deceleration lane on SH 83 if project funding allows for this option.
- CDOT will require the submittal of a Colorado State Highway Access Permit application.

Benet Lane

- Benet Lane should be classified as a Rural Local Roadway. The roadway ADT would be less than 750 vehicles per day. The roadway does not currently meet ECM Rural Local Roadway standards and would need to be upgraded to ECM Rural Local roadway standards unless a deviation for a reduced cross section is submitted and approved.

Please indicate improvements to Benet Lane if needed or indicate it is adequate as is. Not sure what the conclusion/recommendation is here, it is already a private road.

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☰ Number: 1 Author: Steve Kuehster Subject: text box Date: 10/15/2019 1:19:48 PM -06'00'

Please indicate improvements to Benet Lane if needed or indicate it is adequate as is. Not sure what the conclusion/recommendation is here, it is already a private road.

↩ Author: jchodsdon Subject: Sticky Note Date: 12/19/2019 11:55:25 AM

LSC Response: This comment has been address in the Conclusions & Recommendations section of the updated report.