ATTACHMENT 4F

Road Evaluation Report

by

Omsberg & Preston

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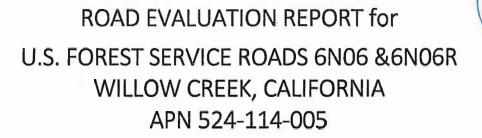
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Cannabis Svcs.





Prepared for: Northern Central Valley Farms, LLC

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> > July 23, 2019 (Job. No. 19-2133)

Stephen G. Nesvold, P.E. R.C.E. 25681



Introduction:

The subjects of this road evaluation are US Forest Service Roads 6N06 and 6N06R, located just past Willow Creek in Humboldt County, CA. Evaluation of the access road leading to APN 524-114-005 was conducted on July 11th, 2019 by Stephen G. Nesvold, P.E. and Ben Voelz, Engineering Technician, of Omsberg & Preston. This evaluation was undertaken to determine if the road network used to access the project site is at the County's Road Category 4 standard or equivalent.

Background:

USFS Road 6N06, accessed from Friday Ridge Road (County Road #8L100), is a paved road used to access Forest Service land and many privately-owned parcels in the Willow Creek area and is managed by the US Forest Service. USFS Road 6N06R is a dirt/gravel road that is accessed from USFS Road 6N06. USFS Road 6N06R is used to access two private parcels (including Mr. Holcomb's parcel) and land within the Six River's National Forest. The evaluation is carried out for 6.0 miles from the intersection of Friday Ridge Road and USFS Road 6N06 to the intersection of USFS Road 6N06 and USFS Road 6N06R. The evaluation then continues for 1.7 miles along USFS Road 6N06R to the property line of APN 524-114-005. Mile Post (MP) markers will be referenced, with MP 0.0 being the intersection of Friday Ridge Road and USFS Road 6N06 or the intersection of USFS Roads 6N06 and 6N06R. An aerial photo of the road evaluation route can be seen in Figure 1.

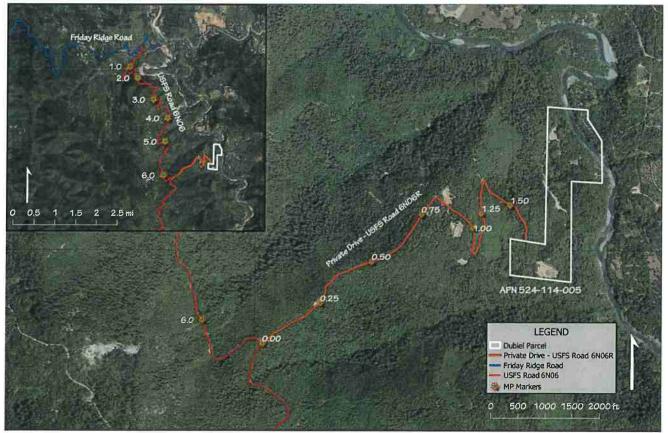


Figure 1: Route Map showing the road network used to access APN 524-115-005.

Findings:

The ADT for both Road 6N06 and 6N06R is less than 400 vehicles per day.

<u>USFS Road 6N06</u>: Sight distance is adequate throughout the evaluated length of the road. Turnouts are adequately placed every 0.25 miles, more or less.

Drainage control along Road 6N06 is adequate with insignificant evidence of erosion taking place.

<u>USFS Road 6N06R</u>: Road width from intersection of Road 6N06 and 6N06R varies from 15-20ft wide. Sight distance is adequate for the majority of Road 6N06R with turnouts observed roughly every 0.1-0.25 miles. However, the stretch or road bracketed by the two hair-pin curves at MP 1.1 and 1.4 have areas with inadequate site distance due to vegetation leaning into the roadway.

Drainage control, in the form of rolling dips (RD's), is adequately distributed every 0.1 miles, roughly. However, most of the existing RD's need maintenance to continue operating as intended. Many of them have deteriorated and are allowing runoff to flow down wheel-ruts in the road.

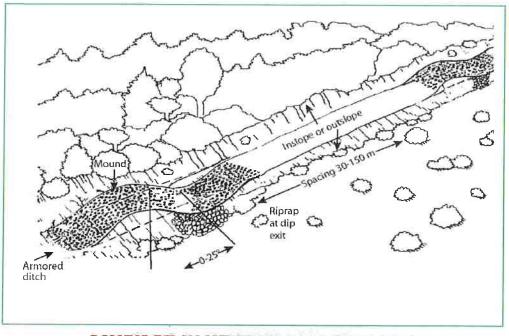
Assessment of culverts and/or stream crossings was not part of our road evaluation.

Recommendations:

The existing rolling dips on Road 6N06R are not functioning as intended, causing minor erosion in the roadway. Maintenance of the existing rolling dips is needed and shall be undertaken prior to the onset of the 2019/2020 winter rains. Standard rolling dip construction dimensions can be seen in Figures 2 and 3 below. Site distance from MP 1.1-1.4 on Road 6N06R is inadequate and is in need of vegetation clearing, this should also be carried out prior to the onset of the 2019/2020 winter rains.

Conclusion:

The road network leading to the subject parcel (APN 524-114-005) will be equivalent to Road Category 4, given the adequate distribution of turnouts and low ADT. Road functionality will be further improved provided the previously mentioned recommendations are carried out.



ROLLING-DIP ON OUT-SLOPED ROAD DETAIL (TYP.) NOT TO SCALE

Figure 2: Design specifications for a rolling dip, looking perpendicular to the road.

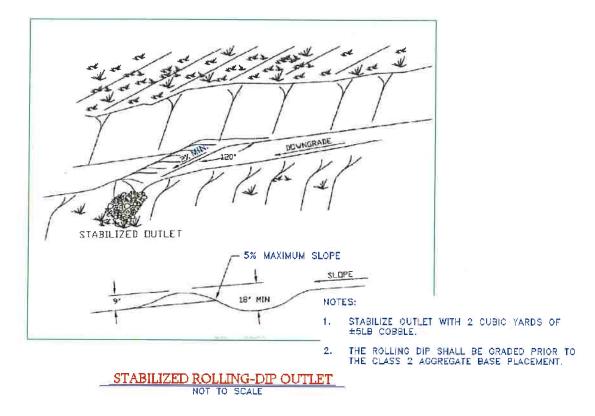


Figure 3: Design specifications for a rolling dip outlet.

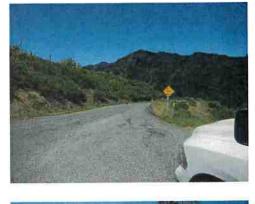
Road Evaluation – Supporting Information (Imagery)

Forest Service Roads 6N06 & 6N06R

July 11th, 2019 Steven Nesvold, P.E. and Ben Voelz

Mile 0.0 (Friday Ridge and USFS Road 6N06 Intersection): 12+18+0=30ft wide road prism; Good visibility and sight distance. 12ft LH turnout, 85ft paved apron. Forward

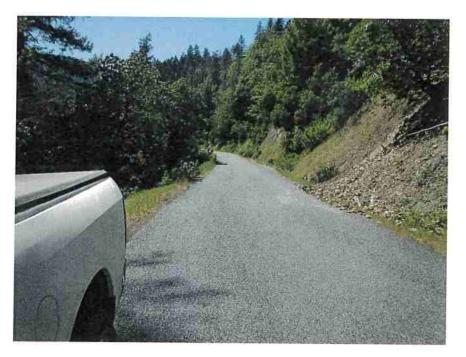






Mile 0.5 (USFS Road 6N06): 7+27+0=34ft wide road prism; Good visibility and sight distance; Turnouts forward and backward.

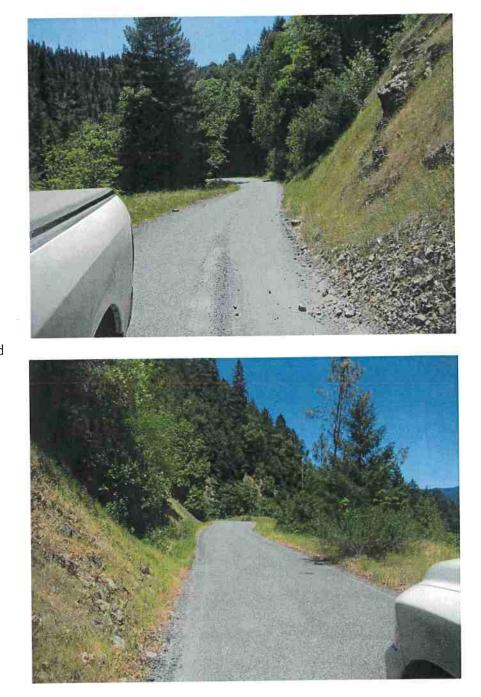
Forward





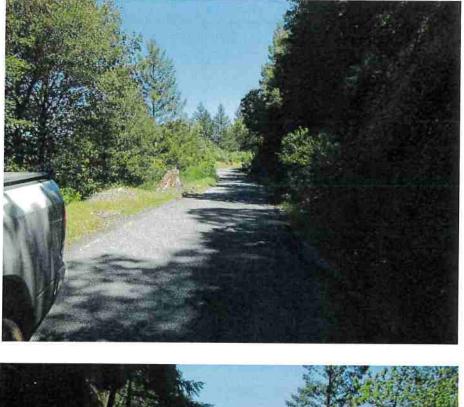
Mile 1.0 (USFS Road 6N06): 0+14+0=14ft wide road prism; Narrow section of road, turnout forward.

Forward



Mile 1.5 (USFS Road 6N06): 0+16+0=16ft wide road prism; Good visibility and sight distance; No shoulder.

Forward

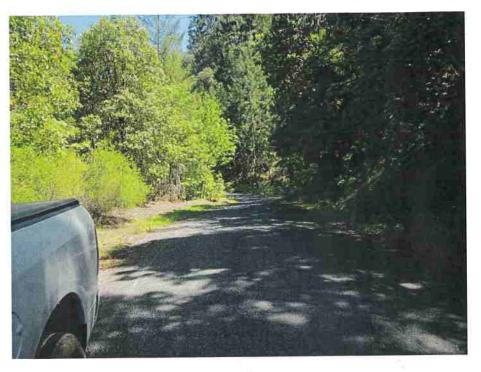


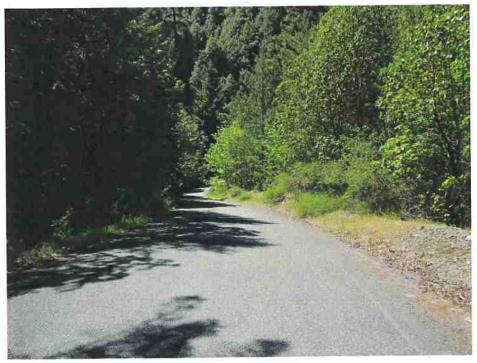




Mile 2.0 (USFS Road 6N06): 5+24+0=29ft wide road prism; Good visibility and sight distance; Turnouts forwards and backwards.

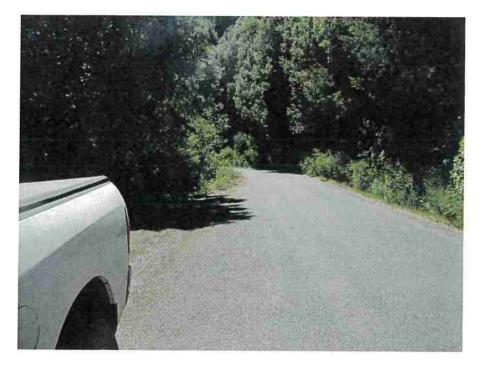
Forward





Mile 2.5 (USFS Road 6N06): 4+25+0=29ft wide road prism; Good visibility and sight distance; Turnouts forward and backward.

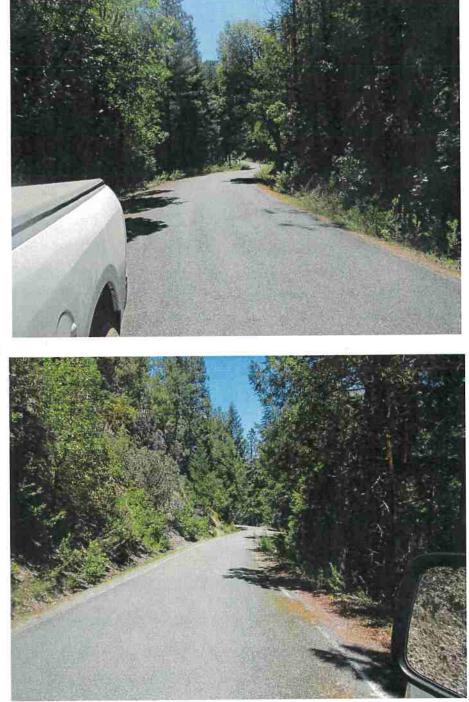
Forward





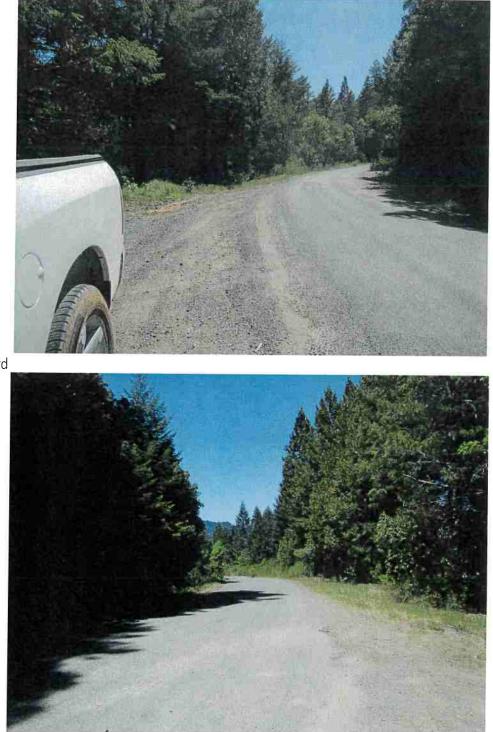
Mile 3.0 (USFS Road 6N06): 4+22+0=26ft wide road prism; Good visibility and sight distance; Turnouts forward and backward.

Forward



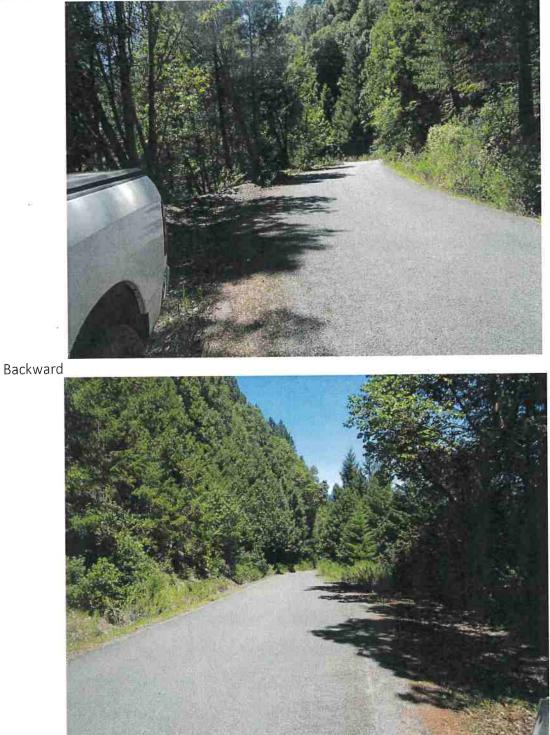
Mile 3.5 (USFS Road 6N06): 16+20+0=36ft wide road prism; Good visibility and sight distance; 16ft LH turnout.

Forward



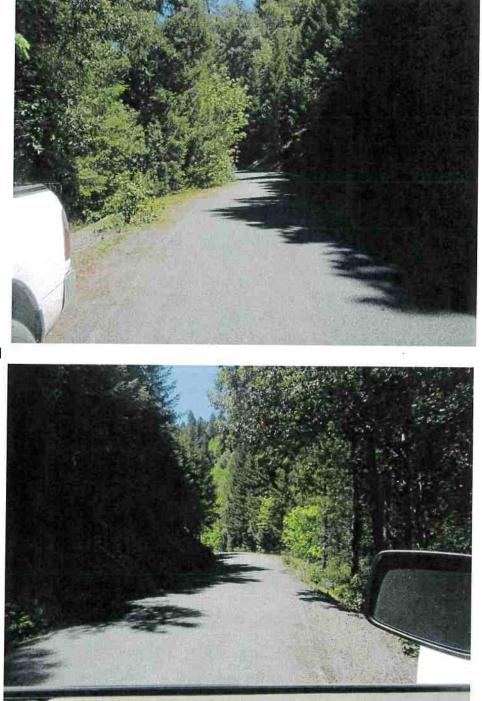
Mile 4.0 (USFS Road 6N06): 15+18+0=33ft wide road prism; Good visibility and sight distance; 15ft LH turnout.

Forward



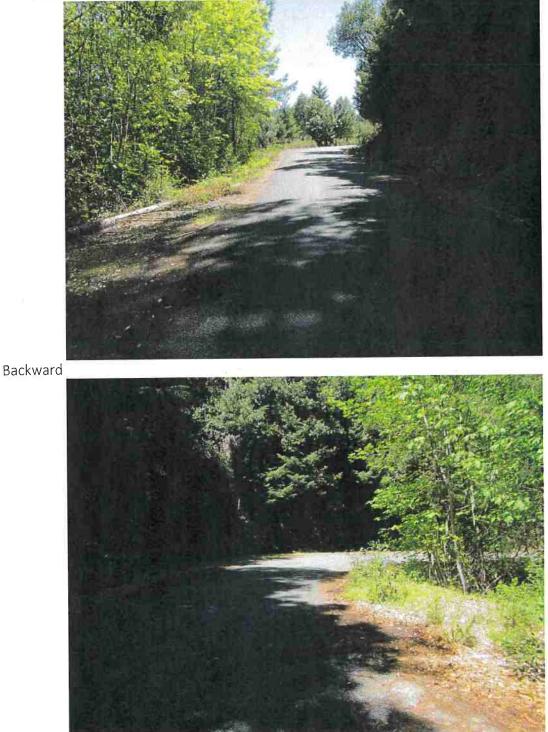
Mile 4.5 (USFS Road 6N06): 13+18+0=31ft wide road prism; Good visibility and sight distance; 13ft LH turnout.

Forward



Mile 5.0 (USFS Road 6N06): 12+17+0=29ft wide road prism; Good visibility and sight distance; 12ft LH turnout.

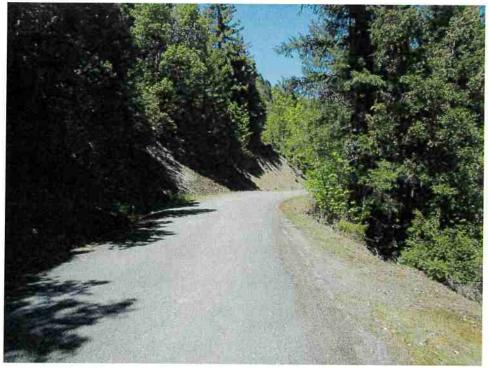
Forward



Mile 5.5 (USFS Road 6N06): 8+16+0=24ft wide road prism; Good visibility and sight distance; 8ft LH turnout.

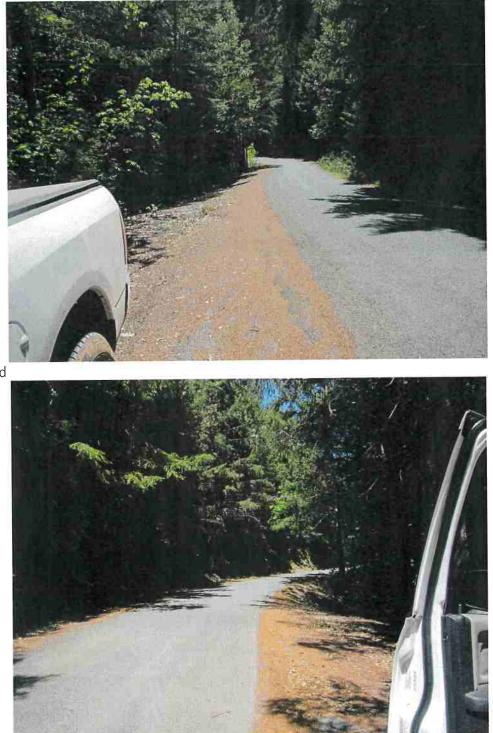
Forward





Mile 6.0 (USFS Road 6N06): 15+18+3=33ft wide road prism; Good visibility and sight distance; 15ft LH turnout.

Forward



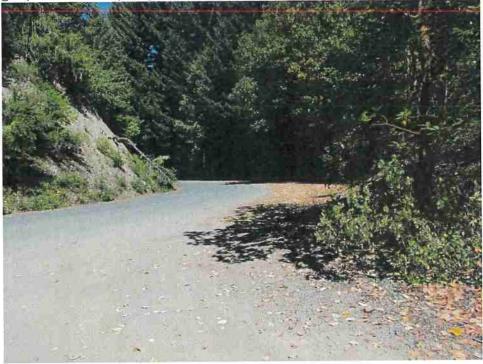
Mile 0.0 (USFS Road 6N06 and 6N06R intersection): 0+15+0=15ft wide travel way; Good visibility and sight distance; 60ft wide apron.

Forward





Looking Right (Towards Friday Ridge Road)

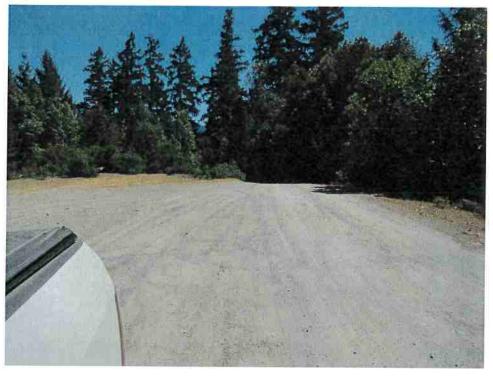


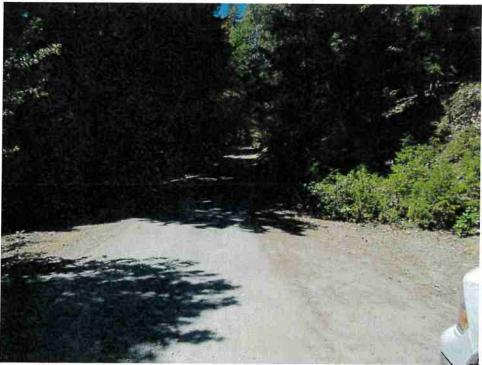
Looking Left (Away from Friday Ridge Road)



Mile 0.2 (USFS Road 6N06R): NA+20+5=25ft wide road prism; Good visibility and sight distance; Large LH turnout.

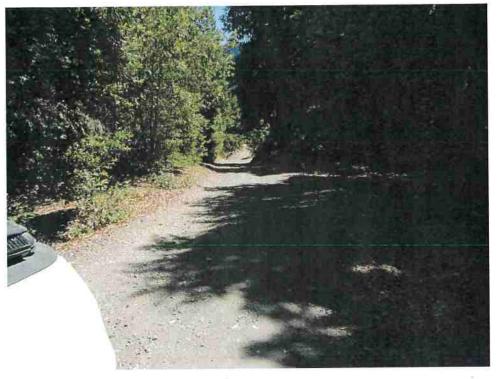
Forward

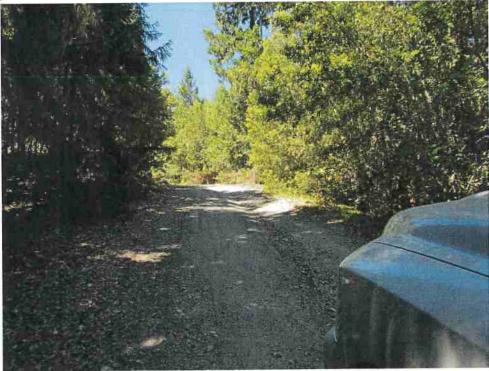




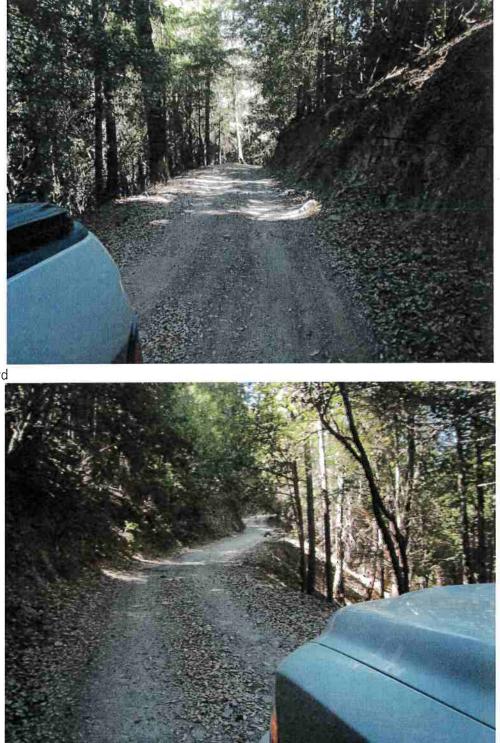
Mile 0.4 (USFS Road 6N06R): 0+15+0=15ft wide travel way; Good visibility and sight distance; 10ft RH turnout.

Forward



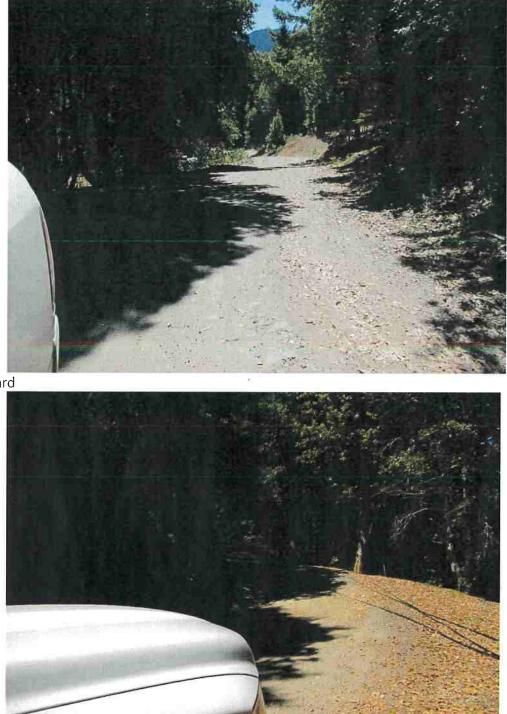


Mile 0.6 (USFS Road 6N06R): 0+18+0=18ft wide travel way; Good visibility and sight distance. Forward



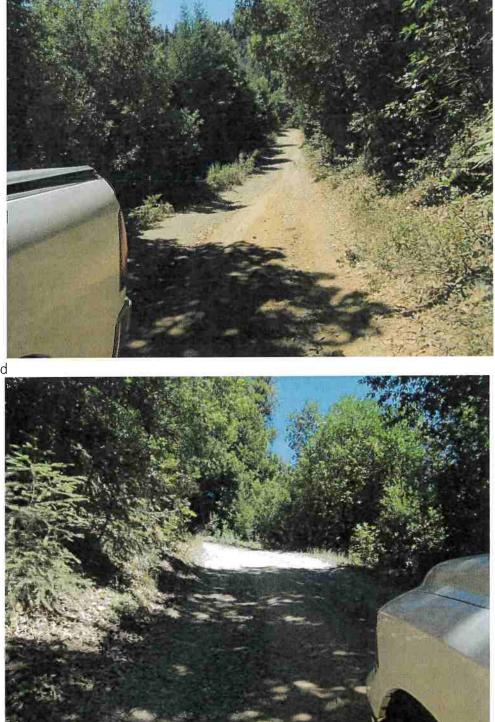
Mile 0.8 (USFS Road 6N06R): 0+18+0=18ft wide travel way; Good visibility and sight distance; 17ft LH turnout.

Forward

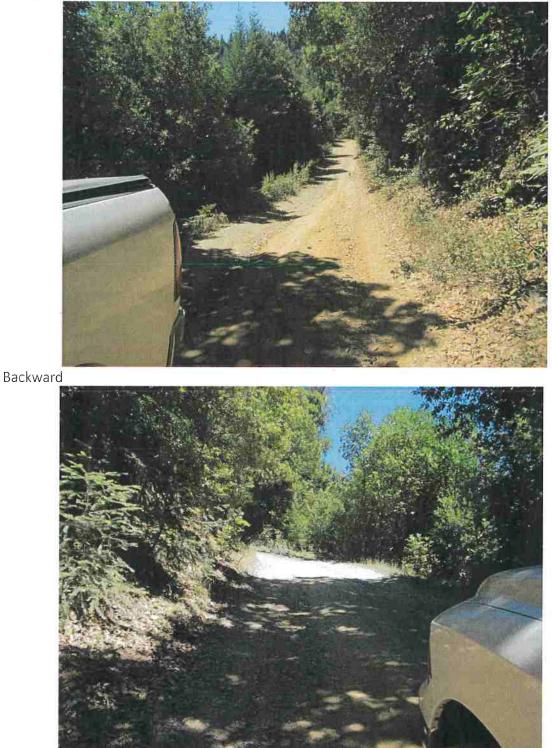


Mile 1.0 (USFS Road 6NO6R): 0+15+0=15ft wide travel way; Good visibility and sight distance; 17ft LH turnout.

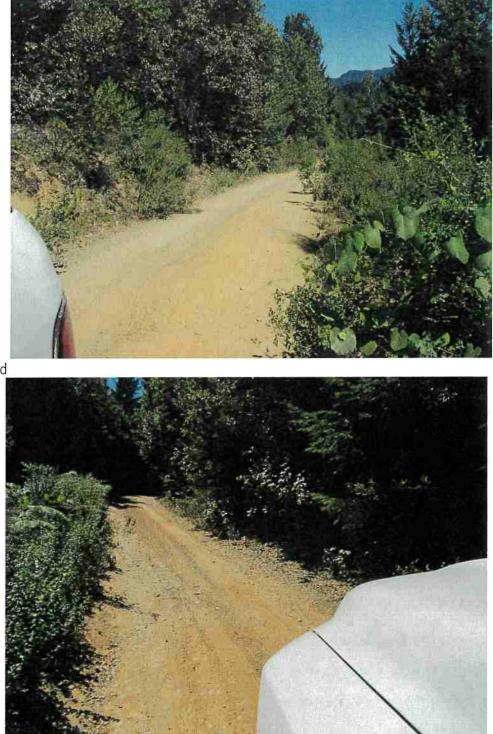
Forward



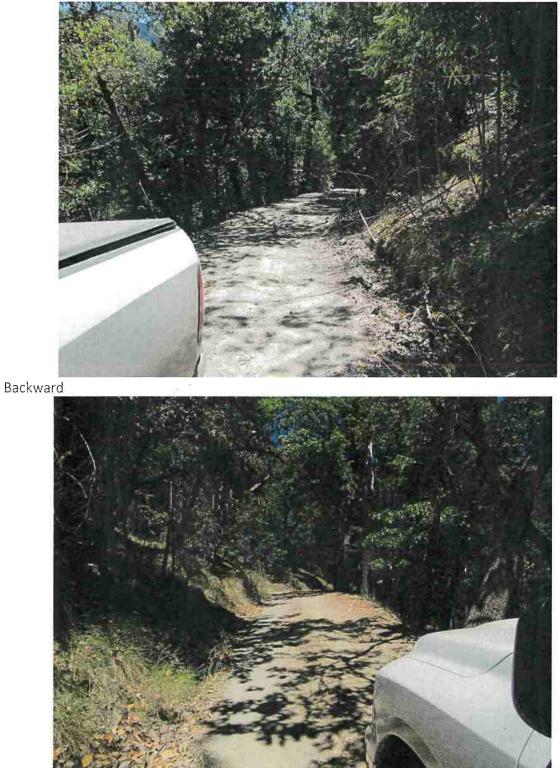
Mile 1.2 (USFS Road 6N06R): 0+14+0=14ft wide travel way; Good visibility and sight distance. Forward



Mile 1.4 (USFS Road 6N06R): 0+14+0=14ft wide travel way; Good visibility and sight distance. Forward



Mile 1.6 (USFS Road 6N06R): 0+15+0=15ft wide travel way; Good visibility and sight distance. Forward



Mile 1.7 (Property Entrance - USFS Road 6N06R): 0+15+0=15ft wide travel way; Good visibility and sight distance.

Forward

