

HUMBOLDT COUNTY DEPARTMENT OF PUBLIC WORKS
ROAD EVALUATION REPORT



PART A: Part A may be completed by the applicant

Applicant Name: Organic Humboldt Inc. APN: 214-233-002

Planning & Building Department Case/File No.: Apps #12312

Road Name: Wood Ranch Road (complete a separate form for each road)

From Road (Cross street): Redwood Drive

To Road (Cross street): Subject Parcel (APN:214-233-002)

Length of road segment: 4.8 miles Date Inspected: 10/18/2018

Road is maintained by: County Other Private
(State, Forest Service, National Park, State Park, BLM, Private, Tribal, etc)

Check one of the following:

Box 1 The entire road segment is developed to Category 4 road standards (20 feet wide) or better. If checked, then the road is adequate for the proposed use without further review by the applicant.

Box 2 The entire road segment is developed to the equivalent of a road category 4 standard. If checked, then the road is adequate for the proposed use without further review by the applicant.

An equivalent road category 4 standard is defined as a roadway that is generally 20 feet in width, but has pinch points which narrow the road. Pinch points include, but are not limited to, one-lane bridges, trees, large rock outcroppings, culverts, etc. Pinch points must provide visibility where a driver can see oncoming vehicles through the pinch point which allows the oncoming vehicle to stop and wait in a 20 foot wide section of the road for the other vehicle to pass.

Box 3 The entire road segment is not developed to the equivalent of road category 4 or better. The road may or may not be able to accommodate the proposed use and further evaluation is necessary. Part B is to be completed by a Civil Engineer licensed by the State of California.

The statements in PART A are true and correct and have been made by me after personally inspecting and measuring the road.

Signature _____

Date _____

Name Printed _____

Important: Read the instructions before using this form. If you have questions, please call the Dept. of Public Works Land Use Division at 707.445.7205.

PART B: Only complete Part B if Box 3 is checked in Part A. Part B is to be completed by a Civil Engineer licensed by the State of California. Complete a separate form for each road.

Road Name: Wood Ranch Road Date Inspected: 10/18/2018 APN: 214-233-002
 From Road: Redwood Drive (Post Mile 0.33) Planning & Building
 To Road: Subject Parcel (Post Mile 4.8) Department Case/File No.:
App #12312

1. What is the Average Daily Traffic (ADT) of the road (including other known cannabis projects)?

Number of other known cannabis projects included in ADT calculations:
 (Contact the Planning & Building Department for information on other nearby projects.)

ADT: <400 Date(s) measured: n/a

Method used to measure ADT: Counters Estimated using ITE Trip Generation Book

Is the ADT of the road less than 400? Yes No

If YES, then the road is considered very low volume and shall comply with the design standards outlined in the American Association of State Highway and Transportation Officials (AASHTO) Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤400). Complete sections 2 and 3 below.

If NO, then the road shall be reviewed per the applicable policies for the design of local roads and streets presented in AASHTO A Policy on Geometric Design of Highways and Streets, commonly known as the "Green Book". Complete section 3 below.

2. Identify site specific safety problems with the road that include, but are not limited to: (Refer to Chapter 3 in AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤400) for guidance.)

A. Pattern of curve related crashes.

Check one: No. Yes, see attached sheet for Post Mile (PM) locations.

B. Physical evidence of curve problems such as skid marks, scarred trees, or scarred utility poles

Check one: No. Yes, see attached sheet for PM locations.

C. Substantial edge rutting or encroachment.

Check one: No. Yes, see attached sheet for PM locations.

D. History of complaints from residents or law enforcement.

Check one: No. Yes (check if written documentation is attached)

E. Measured or known speed substantially higher than the design speed of the road (20+ MPH higher)

Check one: No. Yes.

F. Need for turn-outs.

Check one: No. Yes, see attached sheet for PM locations.

3. Conclusions/Recommendations per AASHTO. Check one:

The roadway can accommodate the cumulative increased traffic from this project and all known cannabis projects identified above.

The roadway can accommodate the cumulative increased traffic from this project and all known cannabis projects identified above, if the recommendations on the attached report are done. (check if a Neighborhood Traffic Management Plan is also required and is attached.)

The roadway cannot accommodate increased traffic from the proposed use. It is not possible to address increased traffic.

A map showing the location and limits of the road being evaluated in PART B is attached. The statements in PART B are true and correct and have been made by me after personally evaluating the road.

Signature of Civil Engineer

Date

Andrew Sorber P.E. 3/27/19

Important: Read the instructions before using this form. If you have questions, please call the Dept. of Public Works Land Use Division at 707.445.7205.

Road Evaluation Documentation (APN:214-233-002) – Wood Ranch Road

1 Background & Information

On October 18th, 2018, OurEvolution Engineering, Inc. (OE) engineers performed a roadway evaluation for Organic Humboldt upon request from Humboldt County Public Works. The road evaluated was Wood Ranch Road, a private road beginning at its intersection with Redwood Drive, approximately 0.325 miles from Exit 642 of US Highway 101. The road has been divided into 11 road segments for the purposes of this analysis described by the table below.

RS #	Length (Miles)	STATION (FT)	
		Start	End
1	0.15	0+00	8+05
2	0.29	8+05	23+44
3	1.26	23+44	89+80
4	0.55	89+80	118+94
5	0.51	118+94	146+03
6	0.75	146+03	185+50
7	0.26	185+50	199+21
8	0.30	199+21	214+80
9	0.22	214+80	226+30
10	0.25	226+30	239+48
11	0.23	239+48	251+81

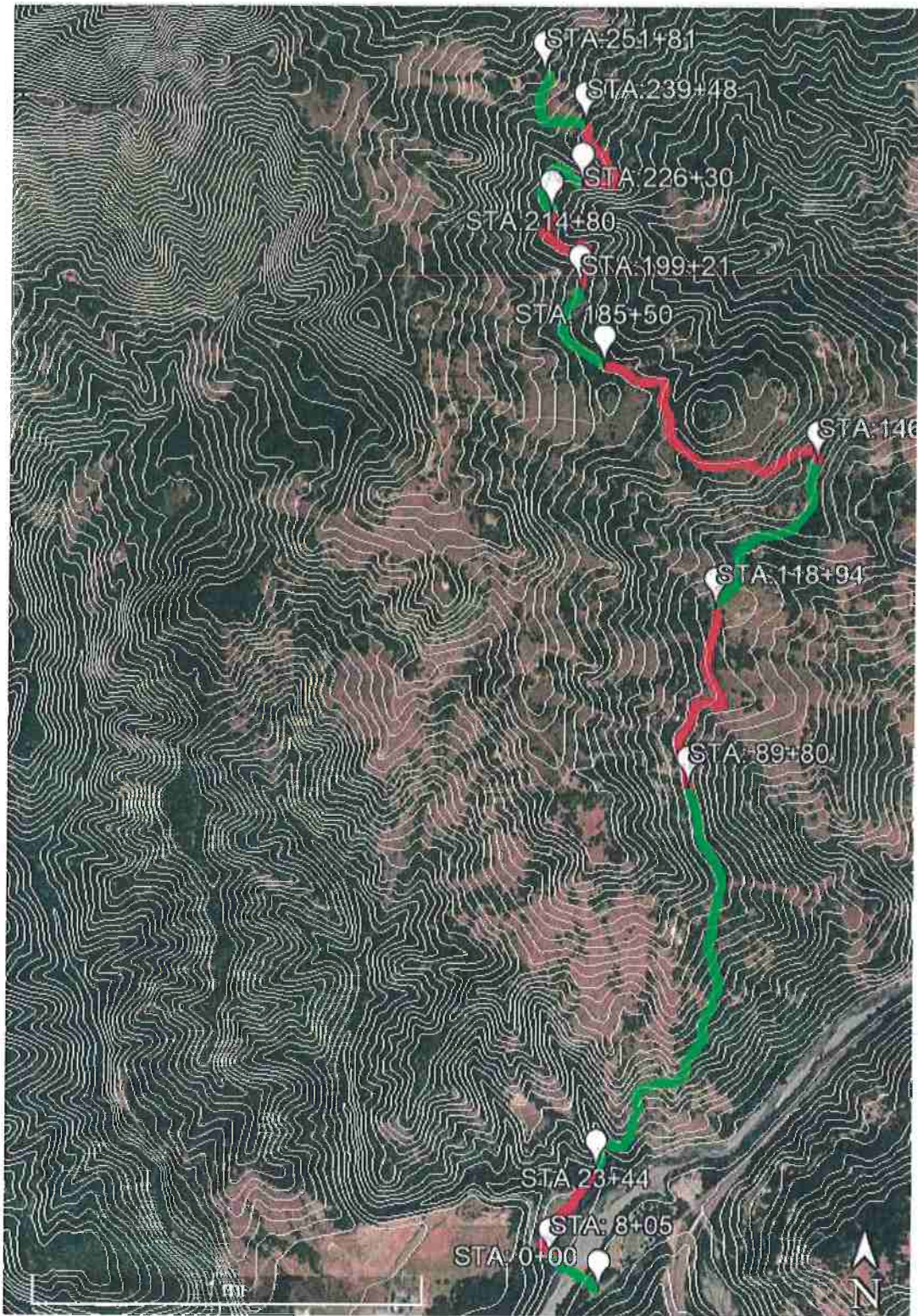


2 Executive Summary

The entire road section analyzed is approximately 4.8 miles pictured in the figure on the following page. The overall setting is extremely rural, low population density, and moderate to steep terrain. Road sections RS #1 through RS #6 meet the category 4 equivalent standard. The road sections are generally 20 feet in width except for occasional pinch points and vehicles routinely traverse the road in both directions without apparent issue.

Road sections RS #7 through RS #11 present varying degrees of difficulty with respect to the road category 4 standard. These issues are documented below. These road sections are generally single lane but there are islands of pass points located along the road as documented in the following sections. No change in road traffic load is proposed as part of this project and in fact, the permitted cannabis operation represents a reduction in the overall scope when compared to historical cannabis operations which have endured without known complaints. Due to the mountainous terrain, road length, and existing conditions, OE does not believe it is feasible to upgrade the road to a category 4 equivalent standard along these sections. To meet the requirements set forth by Humboldt County Public Works, a

Neighborhood Traffic Management Plan has been proposed to cover road use in the traffic control areas consisting of RS #7 through RS #11 (See Appendix A).



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3 Road Segments #1-6

Road segments #1-6 constitute what this report has deemed the “main branch” of Wood Ranch Road. These sections collect traffic from various residences and private drives, as well as several forks of Wood Ranch Road. The road surface is generally well graded and maintained gravel with few rills and potholes. The road width is generally 20 feet or greater with sufficient turnouts. The road travels through mountainous terrain and winding road with changes in elevation but typical grades below 16%. These road sections meet the category 4 equivalent standard.

Figure 1: Road section analyzed showing subsections

3.1 Road Segment #1



Figure 2: Aerial view RS #1.

Starting STA: 0+00
Ending STA: 8+05
Length: 0.15 miles
Typical Width: 20+ feet

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Average Grade: 2%

Turnouts: Present but not required.

Description:

Paved road with center divider, no substantial curves, meets category 4 standard.



Figure 3: RS #1 typical section.

3.2 Road Segment #2



Starting STA: 8+05
Ending STA: 23+44
Length: 0.29 miles
Typical Width: 20+ feet
Average Grade: 0%

Turnouts: Present and sufficient for one pinch point over a bridge.

Description: Gravel road in good condition, no substantial curves, meets category 4 equivalent standard.

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Figure 4: RS #2 typical section

3.3 Road Segment #3



Figure 5: RS#3 aerial view

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Starting STA: 23+44
Ending STA: 89+80
Length: 1.26 miles
Typical Width: 20+ feet
Average Grade: 10.5%

Turnouts: Several significant turnouts are present but not required to pass traffic. No notable pinch points.

Description:

Gravel road in good condition, generally gentle curves except for one curve with approximate a radius of approximately 40 feet; meets category 4 equivalent standard. This road section terminates at a fork in the road.



Figure 6:RS #3 Typical section.

3.4 Road Segment #4

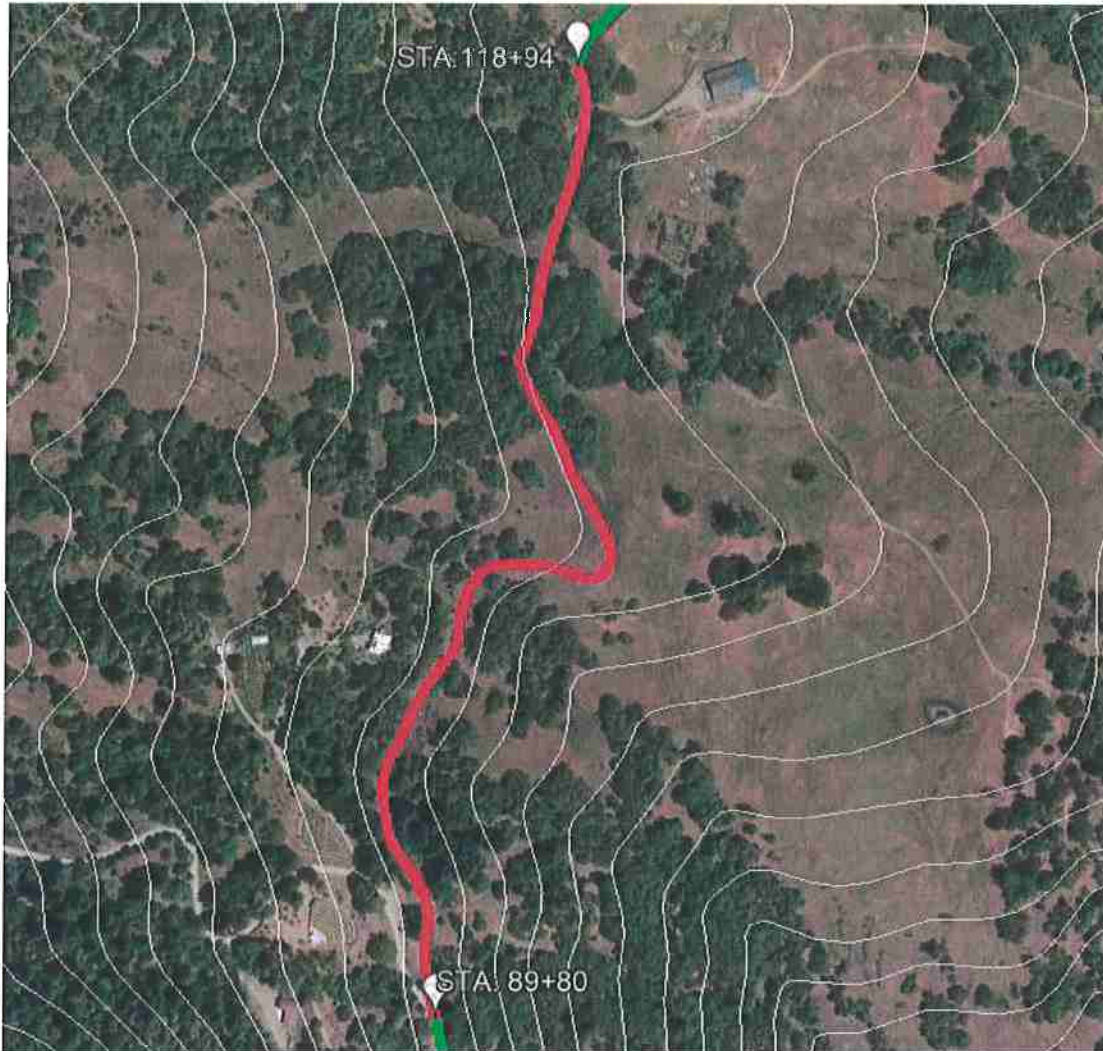


Figure 7: RS #4 aerial view

Starting STA: 89+80
Ending STA: 118+94
Length: 0.55 miles
Typical Width: 20+ feet
Average Grade: -1.5%

Turnouts: Several significant turnouts are present but not required to pass traffic. No notable pinch points.

Description: Gravel road in good condition, generally gentle curves except for one with minimum radius of approximately 50 feet, meets category 4 equivalent standard.

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Figure 8: RS #4 typical section

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3.5 Road Segment #5

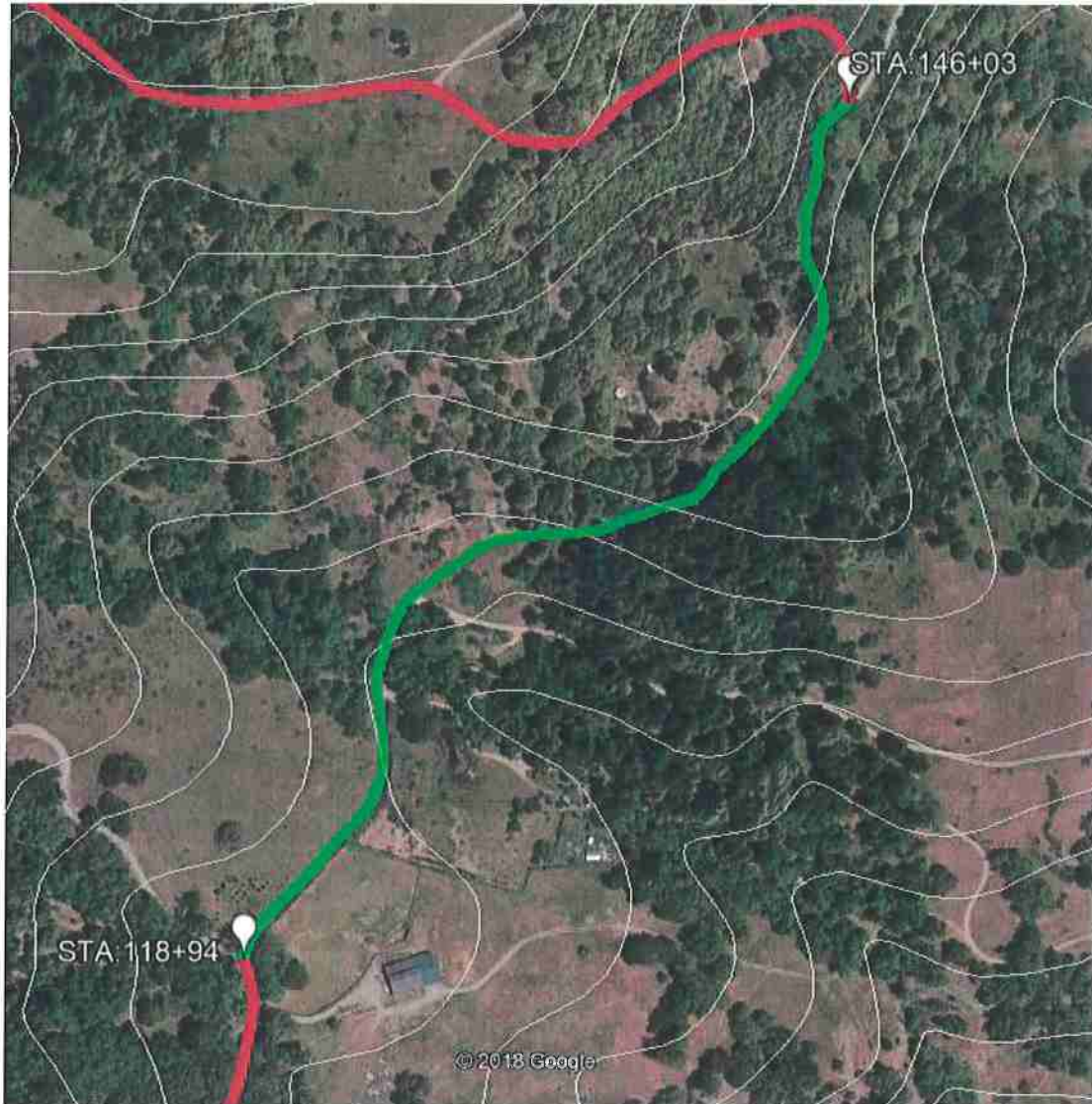


Figure 9: RS #5 aerial view

Starting STA: 118+94
Ending STA: 146+03
Length: 0.51 miles
Typical Width: 18-20 feet
Average Grade: 4.2%

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Turnouts: There are a few pinch points along the road with good visibility and nearby turnouts within visibility areas sufficient to allow vehicles to pass. The narrowest section pictured below at left shows straight line visibility in both directions to a turnout area to allow vehicles to pass.



Figure 10: Pinch point and turnout area along RS #5

Description: Gravel road in good condition, generally gentle curves minimum radius of approximately 100+ feet; meets category 4 equivalent standard despite pinch area. A typical section is pictured below.

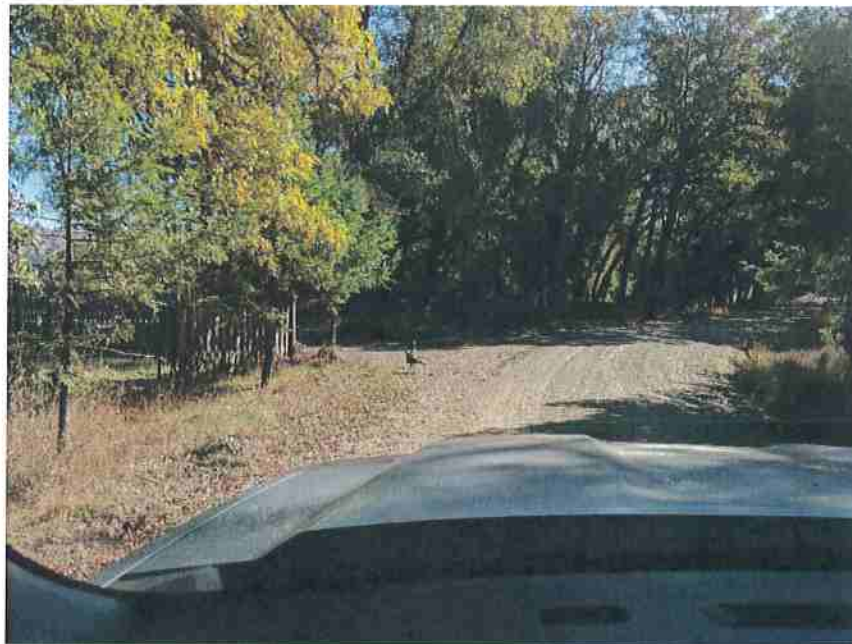


Figure 11: RS #5 typical section

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3.6 Road Segment #6



Figure 12: RS #6 aerial view

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Starting STA: 146+03

Ending STA: 185+05

Length: 0.75 miles

Typical Width: 16-20 feet

Average Grade: 9.2%

Turnouts: Several are present and there are a few significant pinch points along the road section. Existing turnouts appear adequate to allow vehicles to pass.

Description:

Gravel road in good condition, generally gentle curves with at least one with minimum radius of approximately 50 feet. Most of the road meets category 4 equivalent standard despite pinch areas. Pinch areas have nearby turnouts for vehicles to pass but brief sections of the pinch point lack ideal straight-line visibility. This section of road terminates at the branch point from the main branch of Wood Ranch Road with a locked gate.



Figure 13: RS #6 typical section

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4 Road Segments #7-11

These sections of the road are a branch of the main Wood Ranch Road and located behind a closed gate. These sections appear to serve the subject parcel and approximately 2-6 neighbors. The road passes through several adjacent parcels, however, it loops back to the main branch of Wood Ranch Road, and many of the parcels along this road appear to have access from the closer branch point off the main Wood Ranch Road. The road sections #7-11 are generally single lane ~12-14 feet in width with islands of turnouts that appear to allow vehicles to pass freely at the current and proposed vehicle loads. In the mapping below, pass-points, turnouts, and pull-outs have been mapped and are defined respectively as 20-foot road sections, locations where part of a vehicle may pull off the road to potentially allow vehicles to pass, and locations where the entire vehicle can pull off the road.

4.1 Road Segment #7



Figure 14: RS#7 aerial view

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Starting STA: 185+05
Ending STA: 199+21
Length: 0.26 miles
Typical Width: 12-14 feet
Average Grade: -1.9%

Description:

Gravel road in good condition intended for single vehicle travel. There are gentle curves and mild slopes with good visibility. There is one driveway present along the segment which provides access to a neighboring parcel. The road section does not meet the category 4 equivalent on the basis of insufficient average road width.

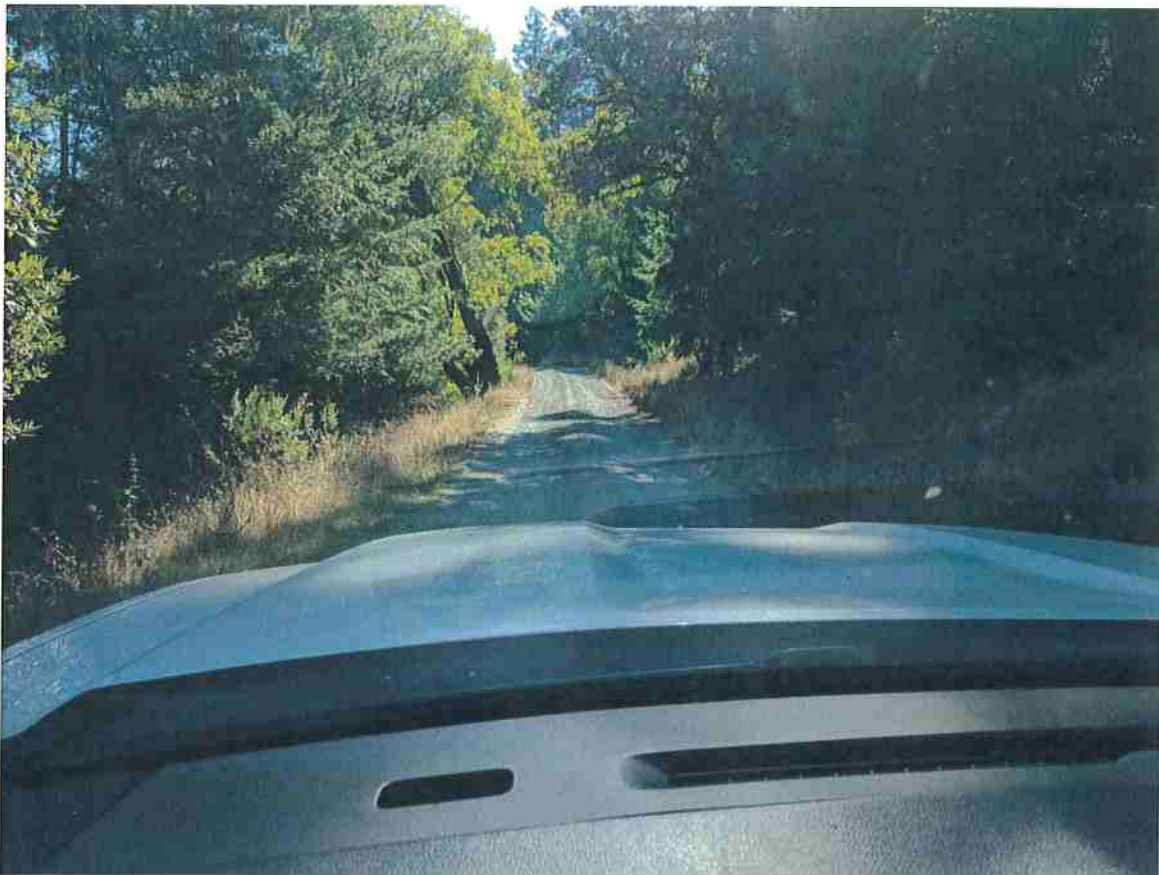


Figure 15: Road segment #7 typical section.

4.2 Road Segment #8

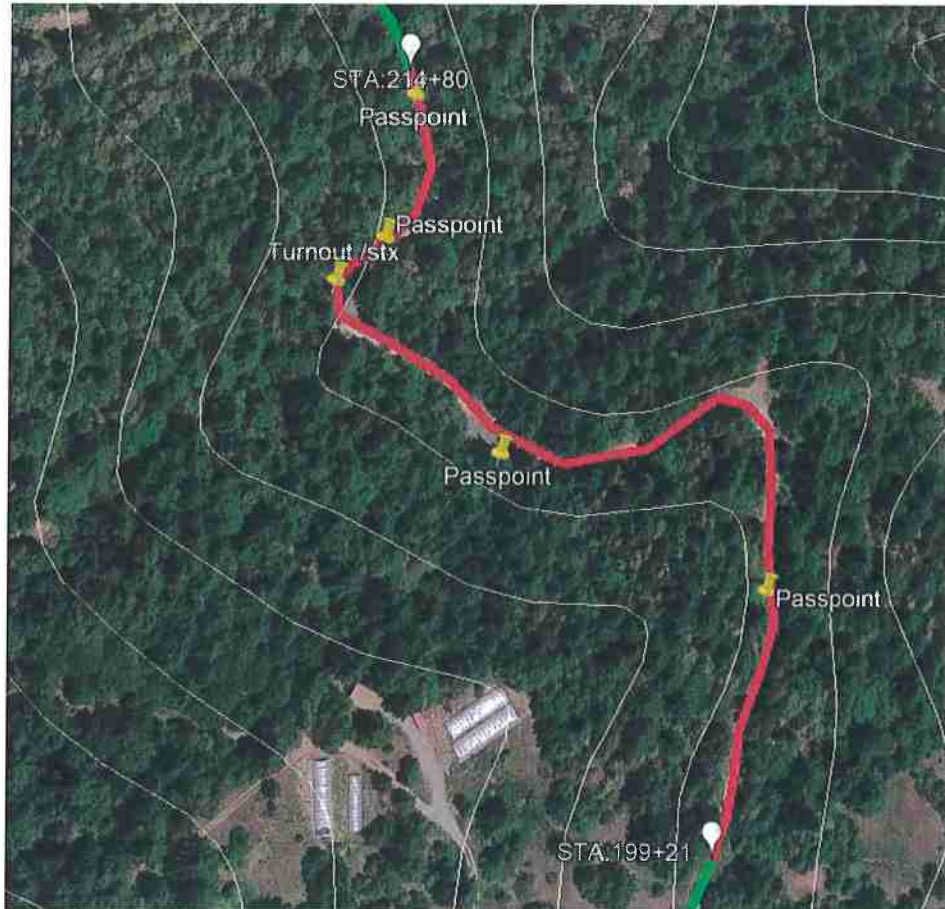


Figure 16: RS #8 aerial view

Starting STA: 199+21
Ending STA: 214+80
Length: 0.30 miles
Typical Width: 12-14 feet
Average Grade: 0%

Gravel road in good condition intended for single vehicle travel. There are several curves with minimum radii of approximately 50-feet and mild slopes with moderate visibility. There are 5 mapped locations which may allow vehicles to pass. There are no driveways which appear to be present along the segment and at least one culverted stream crossing. The road section does not meet the category 4 equivalent on the basis of insufficient average road width.



Figure 17: Road segment #8, typical section.

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4.3 Road Segment #9

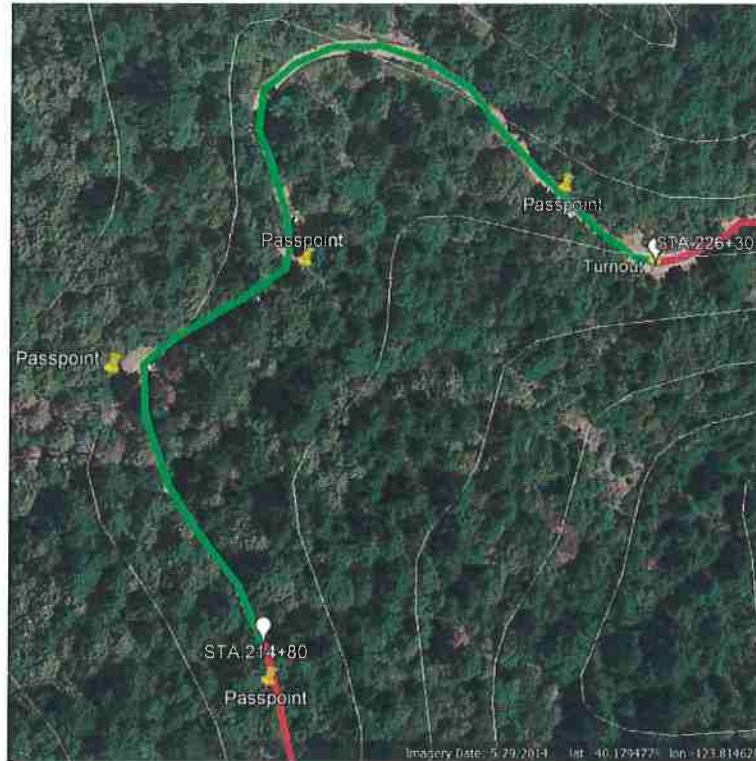


Figure 18: RS#9 aerial view

Starting STA: 214+80
Ending STA: 226+30
Length: 0.22 miles
Typical Width: 12-14 feet
Average Grade: -4.3%

Description:

Gravel road in good condition intended for single vehicle travel. There are three major curves with minimum radii of approximately 65-feet and mild slopes with good visibility. There are no driveways but 4 locations, mapped above present along the segment which may allow vehicles to pass. The road section does not meet the category 4 equivalent on the basis of insufficient average road width.



Figure 19: Road Segment #9, typical section with small turnout to the right which may allow vehicles to pass.

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4.4 Road Segment #10

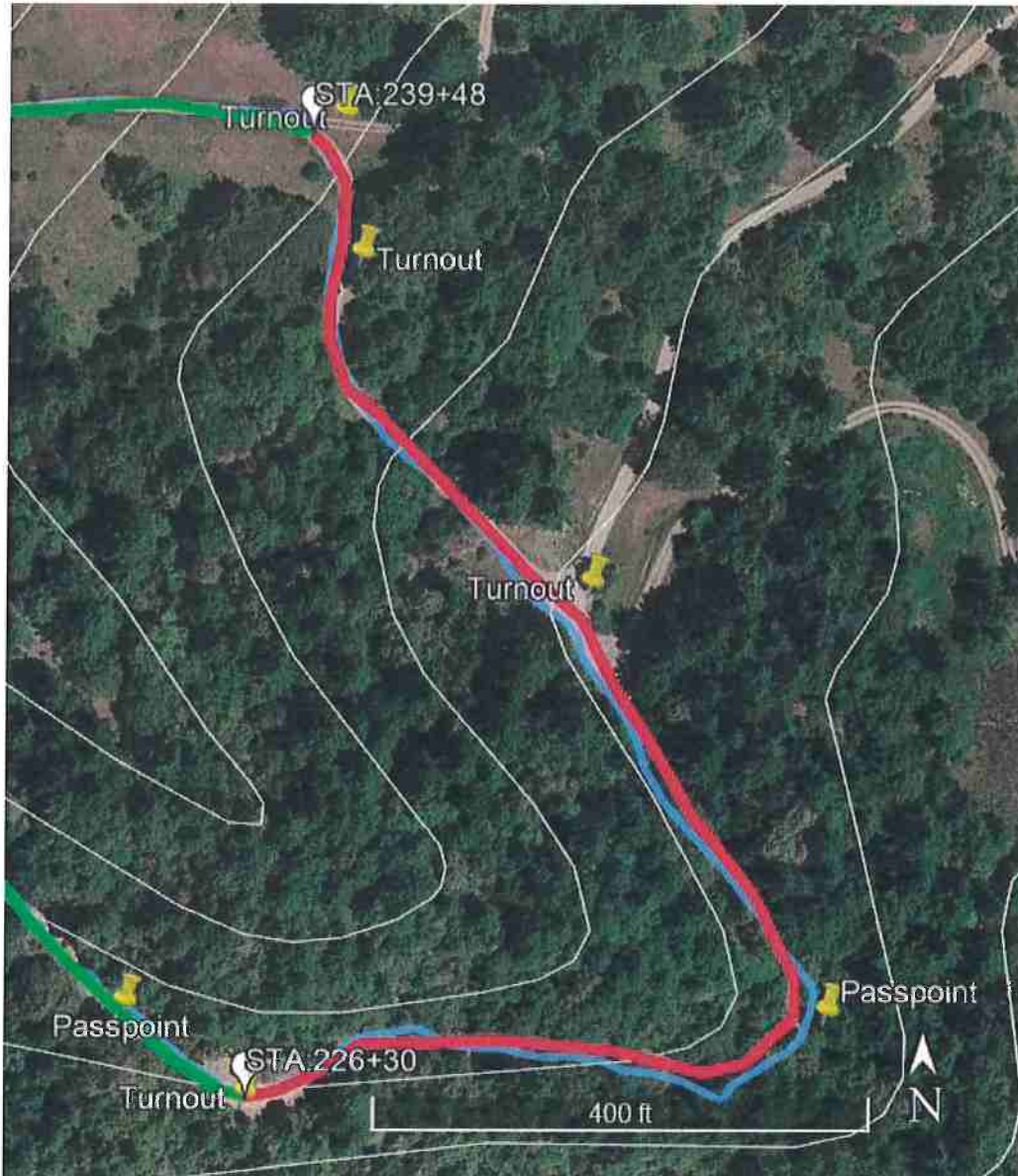


Figure 20: RS #10 aerial view

Starting STA: 226+30
Ending STA: 239+48
Length: 0.22 miles
Typical Width: 12-14 feet
Average Grade: -6.8%

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Description:

Gravel road in good condition intended for single vehicle travel. There are gentle curves with all over approximately 55-feet in radii and mild slopes with good visibility. There is are two driveways present along the segment which provide access to neighboring parcels. The road section does not meet the category4 equivalent on the basis of insufficient average road width.



Figure 21: Road segment #10 ground view heading South with turnout to the left.

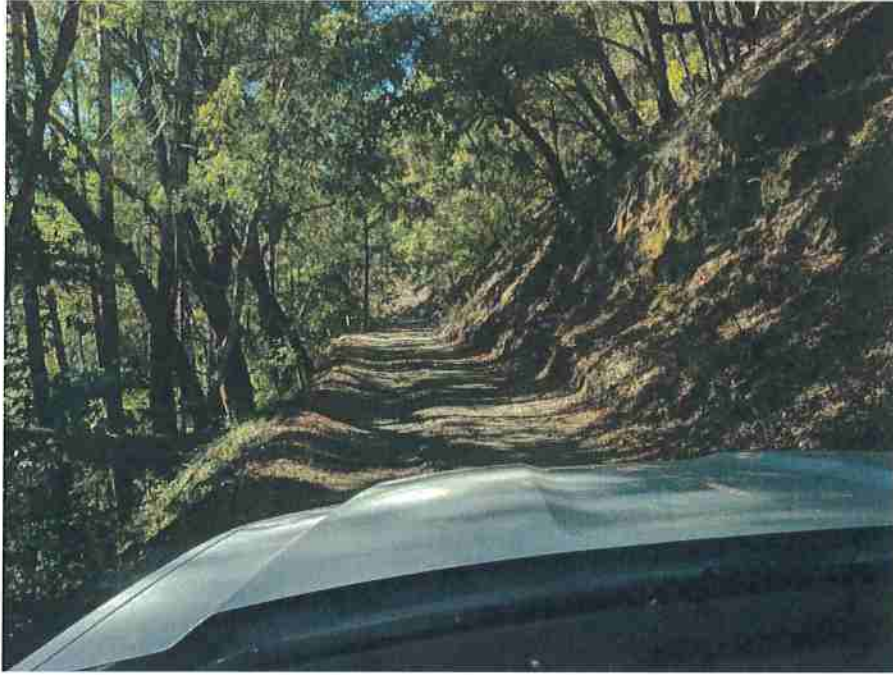
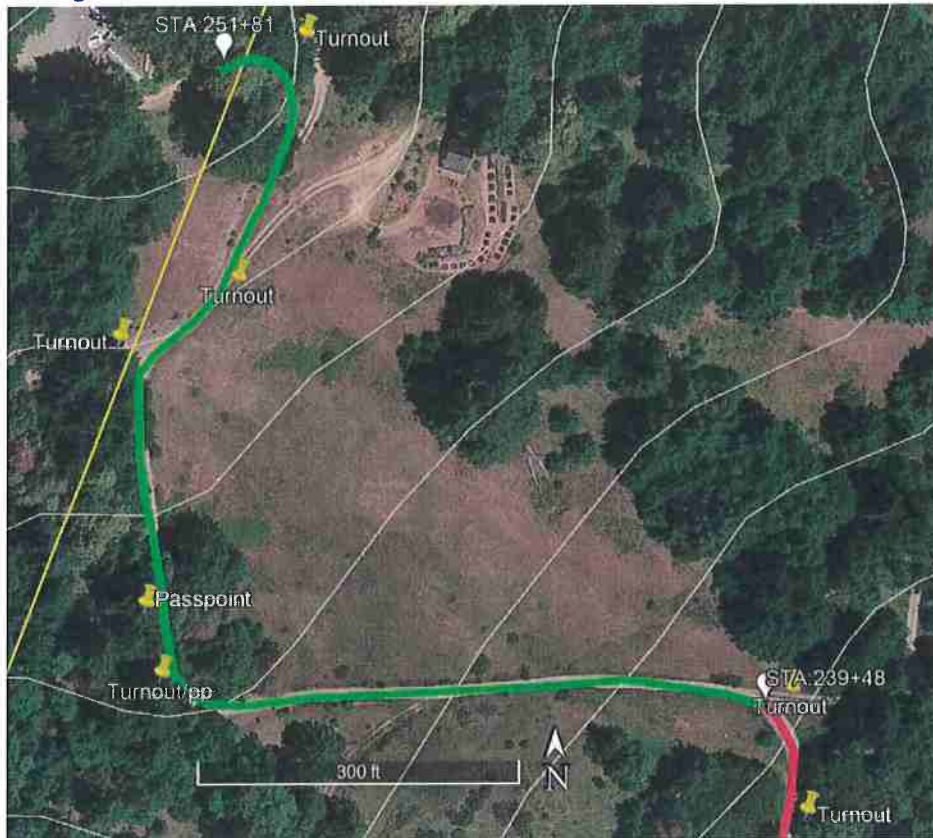


Figure 22: Road segment #10 with significant choke point for approximately 0.1 miles between the beginning of the segment station and the first pass-point.

4.5 Road Segment #11



Starting STA: 226+30
Ending STA: 239+48
Length: 0.22 miles
Typical Width: 12-14 feet
Average Grade: 17.7%

Gravel road in moderate condition intended for single vehicle travel. There are gentle curves and steep slopes with good visibility. The steep section has significant rilling and/or channelization and may present access issues for non 4WD vehicles, or those with inadequate clearance. There is one active driveway present along the segment which provides access to a neighboring parcel as well as one legacy driveway which does not appear to have been used for the last several years. The road section does not meet the category 4 equivalent on the basis of insufficient average road width, as well as the steep slopes involved.

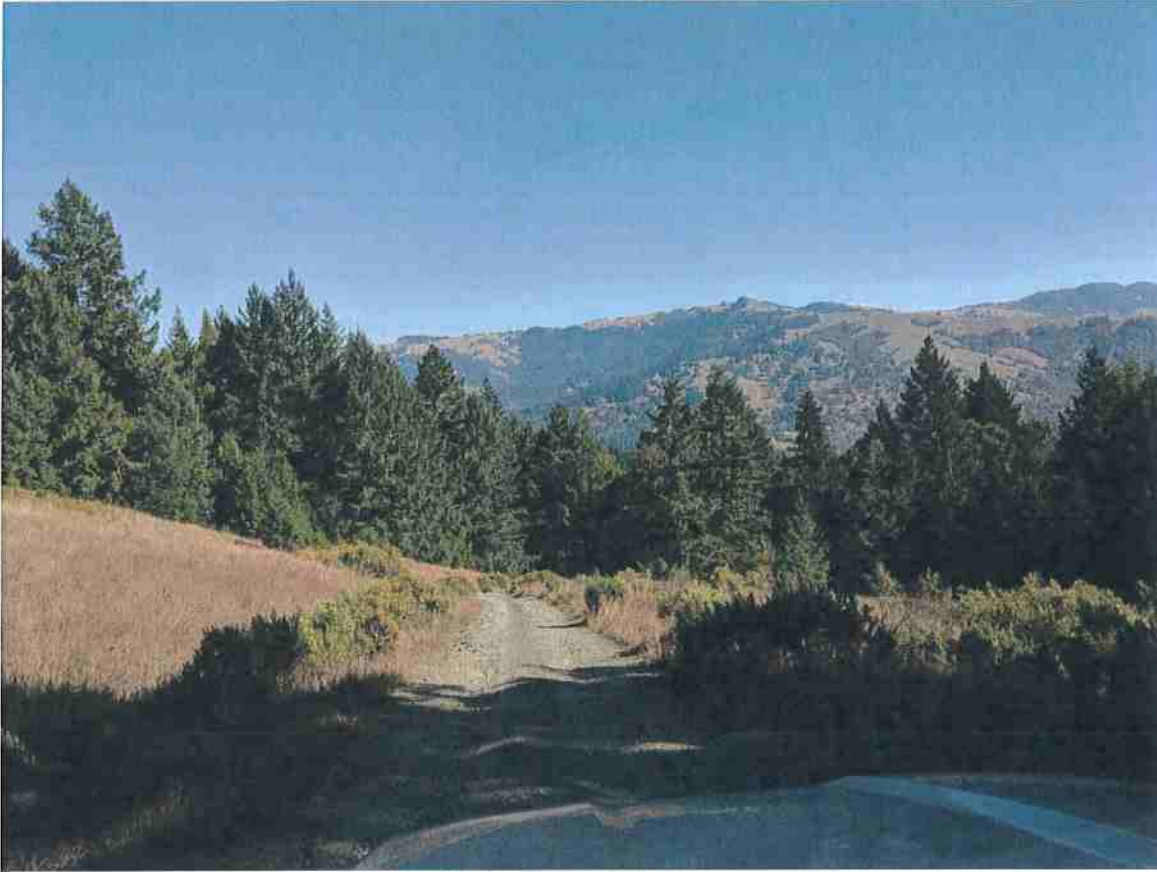


Figure 23: Road segment #11 typical section.

5 Appendix A: Neighborhood Traffic Management Plan

NEIGHBORHOOD TRAFFIC MANAGEMENT PLAN

1 INTRODUCTION

The results of a Road Evaluation completed by OurEvolution Engineering, Inc. (OE Engineers), for Wood Ranch Road, the access road serving permitted cannabis operations on APN 214-233-002 indicate that the road does not meet a Road Category 4 equivalency. This is largely due to the fact that the average road width is less than 20', there are an inadequate number, location and configuration of turnouts/pass points, and portions of the road have a grade of greater than 16%. Further, engineered solutions to repairing/improving the road are deemed technically, environmentally and economically infeasible due to the steep and forested terrain that borders the vast majority the road. Therefore, OE Engineers has developed the following Neighborhood Traffic Management Plan with the goal of minimizing the effect of the proposed cultivation operations on the very limited local traffic that utilizes this road.

2 SCHEDULING

Organic Humboldt Inc. will post a weekly schedule of planned road usage related to its proposed cultivation activities. This posting will be placed at the gate along Wood Ranch Road as it branches off the main branch of Wood Ranch Road in a weather proof package and will be sized so that it can be read from inside a passing vehicle. Any changes to the proposed schedule would need to be posted 3 days in advance of any changes to scheduled usage.

As possible, road usage associated with the cultivation operation will be restricted to 2 hours in the morning, 1 hour in the afternoon and 1 hour at the end of business the business day. Visitors to the operation will be advised of the schedule and will plan trips to the site accordingly.

3 COMMUNICATIONS

Organic Humboldt, Inc. will maintain a phone/contact list for all parcels that use the controlled section of Wood Ranch Road as access to their property and will provide a 24 hour contact number for neighbors to contact the cultivation operator regarding road usage, conditions or adverse situations. This contact number will be posted at the entrance to the gate on the schedule for travelers to call with questions or concerns. Any change in road use scheduling will be transmitted to the contact list at the earliest opportunity.

4 CONTIGENCY PLAN AND EXEMPTIONS

Vehicle operators are expected to comply with the provisions and protocols delineated above. However, there may be situations where two vehicles enter the Traffic Control Section simultaneously. Vehicle operators should drive with courtesy and extreme caution (<20 mph) and maintain a plan for deviation at any of the mapped turnout/pass points (See mapping in road segment individual sections, Road Evaluation Report) as they pass through Traffic Control Section.

The use of alternative vehicles should be encouraged when operating outside the posted road schedule. The following types of vehicles are exempted from the provisions and protocols listed above:

- Motorcycles
- ATV/Quad

- Side by Side ATV

5 CONCLUSION

Though Wood Ranch Road does not meet the Road Category 4 criteria after the branch point from the main branch, it is a very rural road, located in a low population density region which makes the average daily usage minimal. The proposed cannabis operation is actually reduced in scope compared to historic use as recent as 2015. Therefore, if the provisions and protocols delineated in this Neighborhood Traffic Management Plan are closed followed, Wood Ranch Road can be safely used as an access road for the proposed cultivation operation.