

HUMBOLDT COUNTY DEPARTMENT OF PUBLIC WORKS
ROAD EVALUATION REPORT



PART A: *Part A may be completed by the applicant*

Applicant Name: Macras Land Co. Inc. APN: 317-033-008

Planning & Building Department Case/File No.: PLN-11099-CUP

Road Name: Stapp Road *(complete a separate form for each road)*

From Road (Cross street): County Maintained Stapp Road

To Road (Cross street): Property

Length of road segment: 2.9 miles Date Inspected: 9/4/2020, 9/22/2020

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. A map showing the location and limits of the road being evaluated in PART A is attached.

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: Stapp Road Date Inspected: 9/4/2020, 9/22/2020 APN: 317-033-008
 From Road: Stapp Road County Maintained (Post Mile _____) Planning & Building
 Department Case/File No.:
 To Road: Property, 2.9 miles (Post Mile _____) PLN-11099-CUP

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.) 3

ADT: 10 Date(s) measured: 9/4/20, 9/22/20 Method: Direct Observation

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

12-21-2020
 Date



21 Dec 2020

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

APN 317-033-008

September 2020

Prepared for:

Applicant-Macras Land Co. Inc.
PLN-11099-CUP
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1 INTRODUCTION

The proposed project on APN 317-033-008 is a Conditional Use Permit for existing outdoor and mixed-light cannabis cultivation. This road evaluation was developed as part of the proposed project application requirements. This road evaluation is meant to address the following:

- Humboldt County Department of Public Works Road Evaluation Report for Box 3. Box 3 is defined as the following, from the application:

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.

1.1 Roadway Design Standards

Roadway Category #4 Design Standard: The design standard for a Roadway Category #4, from Humboldt County Code Ordinance 2643, is:

- (1) Two lane – narrow roadway, low to moderate speed – 25-40 mph.
- (2) No parking on traveled way.
- (3) Serves a maximum of 100 parcels with no more than one dwelling unit per parcel.
- (4) *Urbanization situation.* Vicinity is beginning to undergo a transition from rural to urban.

Roadway Category #2 Design Standard: The design standard for a Roadway Category #2, from Humboldt County Code Ordinance 2643, is:

- (1) Single lane – with intervisible turnouts not to exceed ¼ mile spacing.
- (2) No parking on traveled way.
- (3) Rural area only.
- (4) Low speed – 25 mph.

2 ROAD LOCATION AND GENERAL DESCRIPTION

The access road to APN 317-033-008 is Stapp Road. Stapp Road begins from Showers Pass Road approximately 17.6 miles north-east from the town of Bridgeville. The first portion of Stapp Road is county maintained, approximately 3.25 miles. From the end of the county-maintained portion of Stapp Road to the subject parcel is approximately 2.9 miles; this 2.9-mile section of private road has been evaluated in this report. HumGIS property boundary information research reveals that the private portion of the road accesses a total of six parcels before entering the subject parcel. Humboldt County Planning Department indicated there are three other cannabis projects utilizing portions of the same roadway. The site terrain is mountainous.

The parcel and roadway are located on the Showers Mountain USGS 7.5-minute quadrangle map (2018). The road access point from Stapp Road is located at 40.6002 latitude and -123.7180 longitude. The assessed parcel size is 44 acres.

3 FIELD AND ASSESSMENT METHODS

The private portion of Stapp Road was inspected on September 4th & 22nd, 2020. GPS tracks and points were taken using a Garmin 650t unit and the Solocator application on handheld cellular units. Photographs, measurements and notes were also collected during the field visit. Measurements including width and incline of road were taken, at a minimum, every one-tenth of a mile to characterize and describe the roadway. Road and shoulder width were taken by tape measure and road incline was measured with a digital level. Additionally, coordinates and description were noted for all existing structures such as gates, culverts, rolling dips, water bars, turnouts, intersections and ditch relief culverts. Office analyses of aerial imagery obtained from Google Earth and HumGIS were also used in the generation of this report.

4 SITE INVENTORY

The private portion of Stapp Road was observed to generally be in conformity with Roadway Category #2 Design Standard. The road traveled way width is 10-12 feet, or greater, with 1-foot shoulders. The steepest grades were measured at 16% over short distances. Most of the road grades were measured below 10%. There are seven (7) existing turnouts along the access road. The road surface was observed as native gravel. The private portion of Stapp Road is drained by rolling dips, water bars, inside road ditches and ditch relief culverts. There are twenty existing stream crossings along the access road and two installed ditch relief culverts.

4.1 Traffic Volumes

Current Average Daily Traffic Estimate

During two field visits, the daily traffic was observed as less than ten (10) trips. The private portion of Stapp Road directly crosses six other parcels (Table 1). The average daily traffic estimate (ADT) is ten (10) daily trips. This estimate is based on direct observation, the number of parcels using the road and engineering judgement.

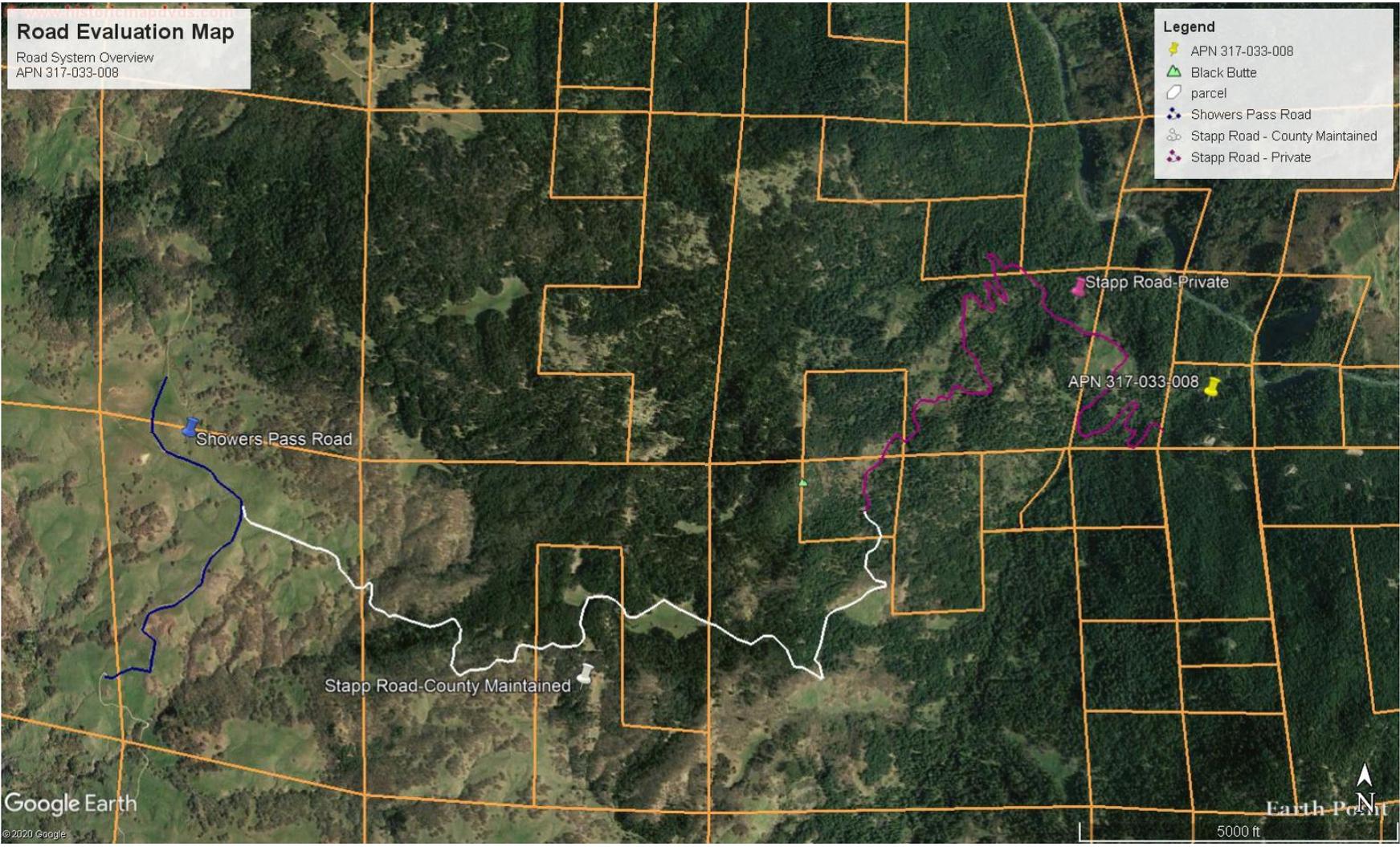
Anticipated Average Daily Traffic

The cannabis operations proposed on the subject parcel include cultivation of 17,262 square feet of existing outdoor and 6,861 square feet of existing mixed light. The traffic from the proposed commercial project is not expected to increase the ADT as the project operations are already existing. The site is expected to have 1-2 employees and no visitors per day. Humboldt County Planning Department indicated there are three other cannabis projects utilizing portions of the same roadway (see Table 1).

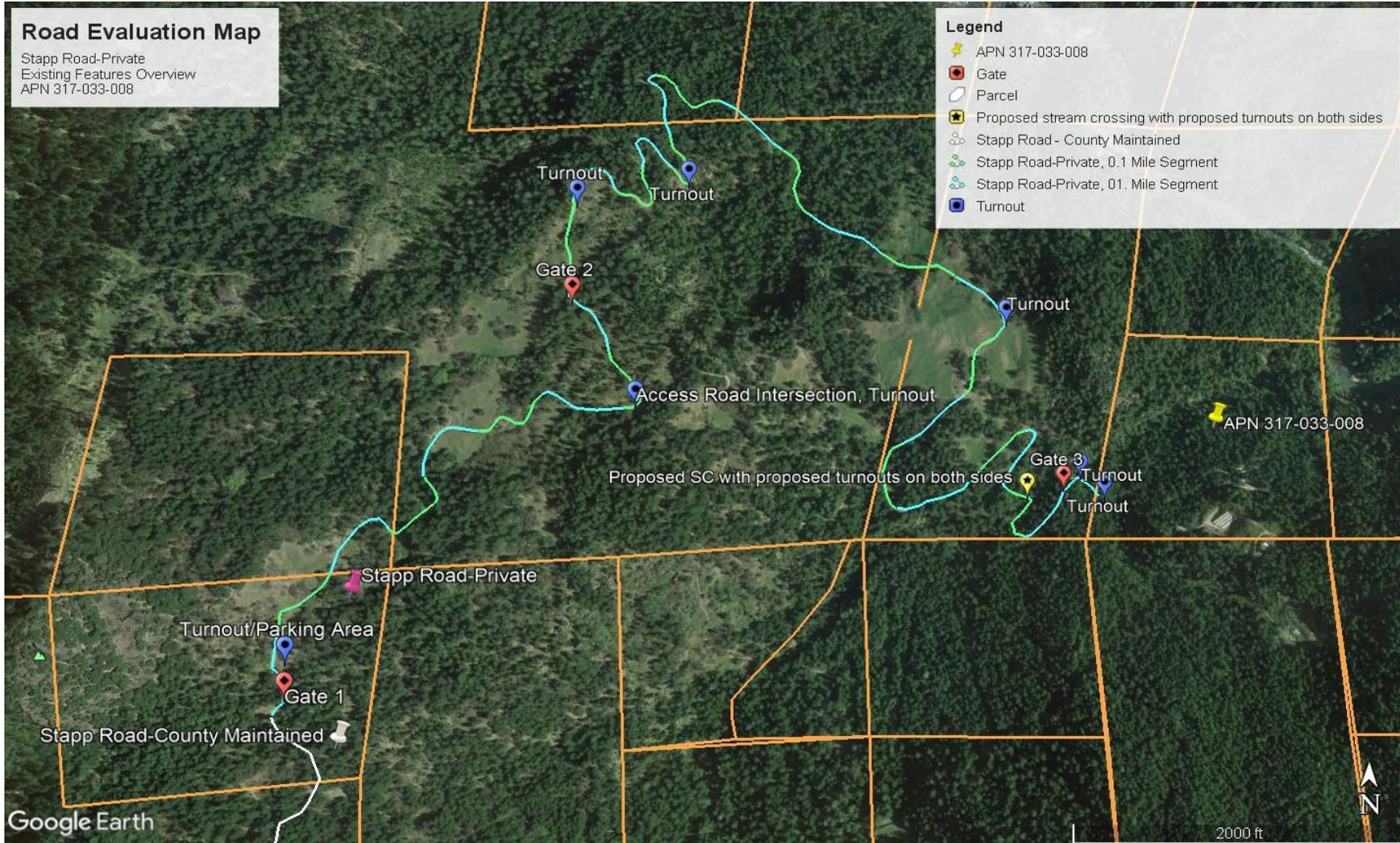
Table 1: Properties directly crossed by the private portion of Stapp Road and listed cannabis projects utilizing the roadway.

APN	Cannabis Project listed with Humboldt County (APPS #)	Type of Project	Permit Status (with Humboldt County Planning)
317-033-002	NA	NA	NA
317-032-004	NA	NA	NA
317-032-002	NA	NA	NA
317-032-003	NA	NA	NA
317-032-005	NA	NA	NA
317-181-005	NA	NA	NA
317-183-007	11911	Existing 22,000 sf outdoor	Post Approval Monitoring
317-182-021	12556	Existing 13,688 sf outdoor	In Referrals
317-182-020	11989	Existing 21,000 sf outdoor	With Consultant – Phase 2

4.2 Access Road Map



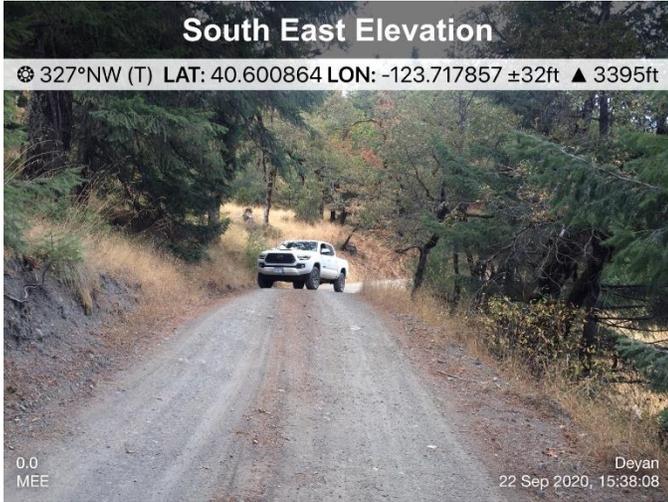
4.3 Road Evaluation Map- Existing Features



4.4 Road Segment Descriptions

The private portion of Stapp Road to the subject parcel is described in detail, below, in one-tenth of a mile increments.

Mile 0-0.1



Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
12	1	3	

Picture 1: Mile 0-0.1

Mile 0.1-0.2



Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
12	1	6	

Picture 2: Mile 0.1-0.2

Mile 0.2-0.3



Picture 3: Mile 0.2-0.3

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
10	1	11	

Mile 0.3-0.4



Picture 4: Mile 0.3-0.4

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
10	1	9	

Mile 0.4-0.5



Picture 5: Mile 0.4-0.5

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
12	1	15	

Mile 0.5-0.6



Picture 6: Mile 0.5-0.6

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
11	1	4	

Mile 0.6-0.7



Picture 7: Mile 0.6-0.7

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
11	1	10	

Segment recommendations:

- None

Mile 0.7-0.8



Picture 8: Mile 0.7-0.8

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
11	1	2	

Mile 0.8-0.9



Picture 9: Mile 0.8-0.9

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
11	1	3	

Mile 0.9-1.0



Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
11	1	4	

Picture 2: Mile 0.9-1.0

Mile 1.0-1.1



Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
12	2	4	

Picture 3: Mile 1.0-1.1

Mile 1.1-1.2



Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
11	1	3	

Picture 4: Mile 1.1-1.2

Mile 1.2-1.3



Picture 5: Mile 1.2-1.3

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
12	1	16	

Mile 1.3-1.4



Picture 6: Mile 1.3-1.4

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
10	1	8	

Mile 1.4-1.5



Picture 7: Mile 1.4-1.5

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
10	2	14	

Mile 1.5-1.6



Picture 8: Mile 1.5-1.6

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
12	1	12	

Mile 1.6-1.7



Picture 9: Mile 1.6-1.7

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
12	1	11	

Mile 1.7-1.8

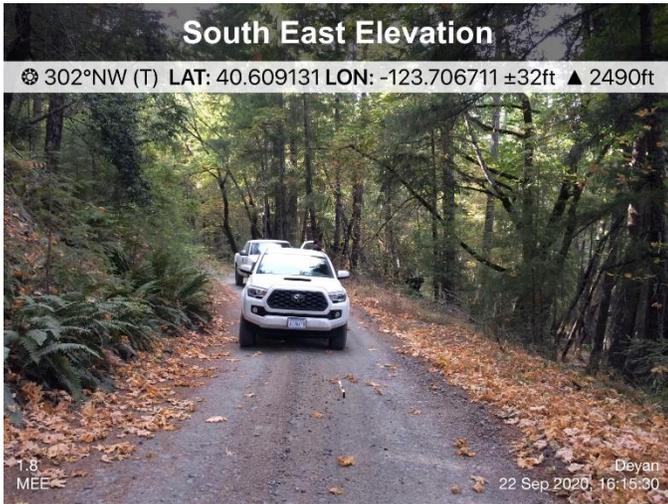


Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
12	1	12	

Picture 10: Mile 1.7-1.8

Mile 1.8-1.9



Picture 11: Mile 1.8-1.9

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
12	1	9	

Mile 1.9-2.0



Picture 12: Mile 1.9-2.0

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
15	1	5	

Mile 2.0-2.1

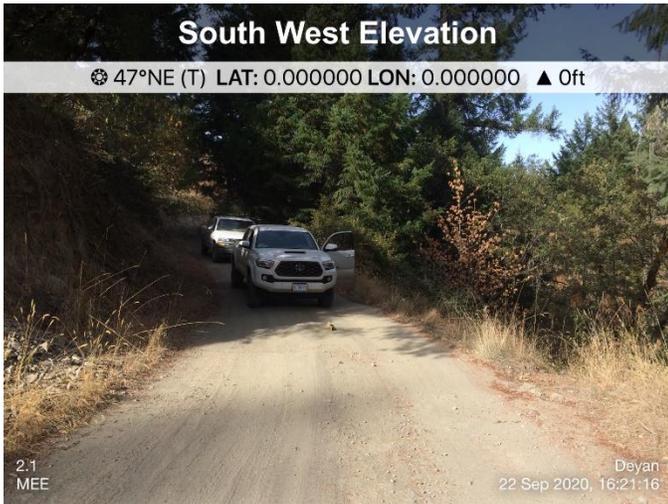


Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
12	1	6	

Picture 13: Mile 2.0-2.1, proposed water bar location

Mile 2.1-2.2



Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
10	1	3	

Picture 14: Mile 2.1-2.2

Mile 2.2-2.3



Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
11	1	10	

Picture 15: Mile 2.2-2.3

Mile 2.3-2.4

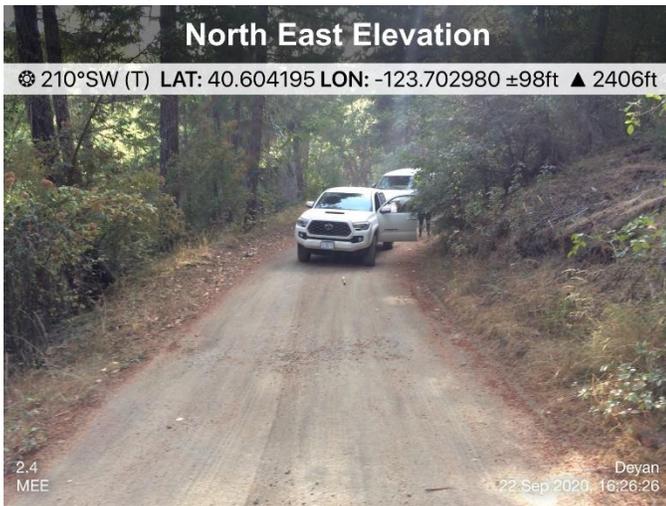


Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
13	1	12	

Picture 16: Mile 2.3-2.4

Mile 2.4-2.5



Picture 17: Mile 2.4-2.5

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
12	1	6	

Mile 2.5-2.6



Picture 18: Mile 2.5-2.6

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
13	1	10	

Mile 2.6-2.7



Picture 19: Mile 2.6-2.7

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
11	1	3	

Mile 2.7-2.8



Picture 20: Mile 2.7-2.8

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
13	1	6	Unimproved stream crossing needs approved crossing installed (Photo 21, Lat/Long 40.6038, -123.7014). Install turnouts on both sides of unimproved stream crossing Turnouts shall be intervisible with the stream crossing.



Figure 21. Unimproved stream crossing (Lat/Long 40.6038, -123.7014).

Mile 2.8-2.9



Picture 22: Mile 2.8-2.9

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
11	1	5	

Mile 2.9



Picture 23: Mile 2.9-3.0

Segment description:

Road Width (Ft)	Shoulder Widths (Ft)	Incline (%)	Notes
11	1	5	

5 SUMMARY OF RECOMMENDATIONS FOR ROAD ENHANCEMENTS

- Clear brush on both sides of roadway to maintain maximum intervisibility on roadway.
- Install an approved crossing at the existing unimproved stream crossing site, Lat/Long 40.6038, -123.7014 (Photo 21), see Section 4.3 Road Evaluation Map-Existing Features.
- Install turnouts on both sides of unimproved stream crossing (Lat/Long 40.6038, -123.7014). Turnouts shall be intervisible with the stream crossing.

6 CONCLUSION

The private portion of Stapp Road was observed to not be developed to the equivalent of Road Category 4 or better. With the recommendations for road enhancements (Section 5 of this report) the road will be able to support the intended purposes of the proposed commercial cannabis project.

REFERENCES

Google Earth. (1993). Image U.S. Geological Survey Image NASA.

USGS. (2018). Showers Mountain, CA. 7.5 Minute Series Quadrangle Map.

Humboldt County Code Ordinance 2599.

Title III Div, 2 APPENDIX Establishing Subdivision Design and Improvement Standards. Humboldt County.