



Onsite Relocation: Environmental Superiority Analysis and Remediation Plan

APN: 317-033-008

December 2020

Prepared for:

Macras Land Co., Inc.
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Prepared by:

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MEE Project #20007



**MOTHER EARTH
ENGINEERING**

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1 PROJECT LOCATION

APN: 317-033-008

Section 26, Township 3N, Range 4E

USGS 7.5 Minute Quad: Showers Mountain

HUC-12: 180101020401 – Bug Creek – Mad River

2 PROJECT DESCRIPTION

Macras Land Co., Inc. is currently permitted to cultivate 17,262 sq. ft. of existing outdoor and 6,861 sq. ft. of existing mixed light. In its current configuration the applicant is cultivating 15,930 square feet of existing outdoor cultivation and 6,848 square feet of existing mixed light cultivation at subject parcel 317-033-008 in the Pilot Ridge area of Humboldt County, CA. Two (2) of the existing sites, L and K (Map 1) were observed to have steep areas with slopes ranging from 22-33%. Macras Land Co., Inc. proposes to relocate cultivation from steep slopes to relocation sites Relo 1, Relo 2 and to site J (Map 1). This relocation will create 17,232 sq. ft. of outdoor cultivation on the site.

3 ENVIRONMENTAL SUPERIORITY OF THE RELOCATION SITES

Mother Earth Engineering (MEE) staff conducted a field visit on 12/7/20 to inspect existing conditions, relocation sites, and assess the parcel for overall compliance with Water Board, Humboldt County and California Department of Fish and Wildlife (CDFW) regulations. Based on the site investigation, the relocation sites at Relo 1, Relo 2, and site J was found to be environmentally superior to areas of the former cultivation sites at L and K. These relocation sites are on previously developed areas with slopes ranging from 3-13%, no new land disturbance will occur as a result of this relocation.

3.1 EXISTING CONDITIONS

On 12/7/20, MEE staff observed that areas of the former cultivation sites L and K that are proposed for relocation were fully revegetated with remnant cages on site. There was no evidence of legacy soil piles, spoils or current cultivation at these sites.

3.2 SUPERIOR SLOPES

Relo 1 is a previously developed legacy road feature between sites L and K. This site is approximately 901 square feet with 13% slopes. Relo 2 is also a previously developed road feature south and adjacent to Site L. This site is approximately 401 square feet with 3% slopes. The reduced slopes at these sites will reduce erosion risk, reduce potential sediment and nutrient runoff, and allow for stormwater runoff to attenuate and dissipate much more quickly and completely than areas with steeper slopes. Therefore, the relocation sites were found to be environmentally superior to cultivating at the existing sites L and K to the fullest extent.

3.3 PROPOSED GREENHOUSES

The Applicant is proposing moving a portion of existing full sun outdoor cultivation on sites I, J, & K into proposed greenhouses A, B, C, & D. These greenhouses will be constructed within the bounds of sites I, J, & K and will not result in any new ground disturbance. Proposed greenhouses will not require any increased generator use as no lights or plugin fans are proposed. Cultivation under the protection of greenhouse tarps will reduce nutrient runoff

from cultivation sites as stormwater will not be percolating through growing medium and contaminating stormwater runoff.

4 REMEDIATION AND MONITORING PROTOCOL

4.1 BEST MANAGEMENT PRACTICES (BMPs)

Best Management Practices for operations, work, construction, erosion control and other elements will be followed at all times as stipulated by:

1. Regional Water Board – Order R1-2015-0023, Appendix B
2. California Department of Fish and Wildlife
3. State Water Board Cannabis General Order

4.2 REMEDIATION

Currently, the former sites are well vegetated with a mix of native and nonnative species. However, growing cages were observed during the 12/7/20 site visit. Therefore, remediation efforts are to continue the clearance of former debris, including growing cages, from these sites.

4.3 REVEGETATION

Based on the 12/7/20 site visit, the former cultivation sites were well vegetated with a mix of native and nonnative species (Pictures 1-2). There are no recently disturbed areas that require revegetation. Therefore, revegetation efforts at these sites are not required.

6 PHOTOS



Pictures 1-2: View of the existing conditions at the former cultivation site with 22% slopes. Site is well revegetated with growing cages observed.



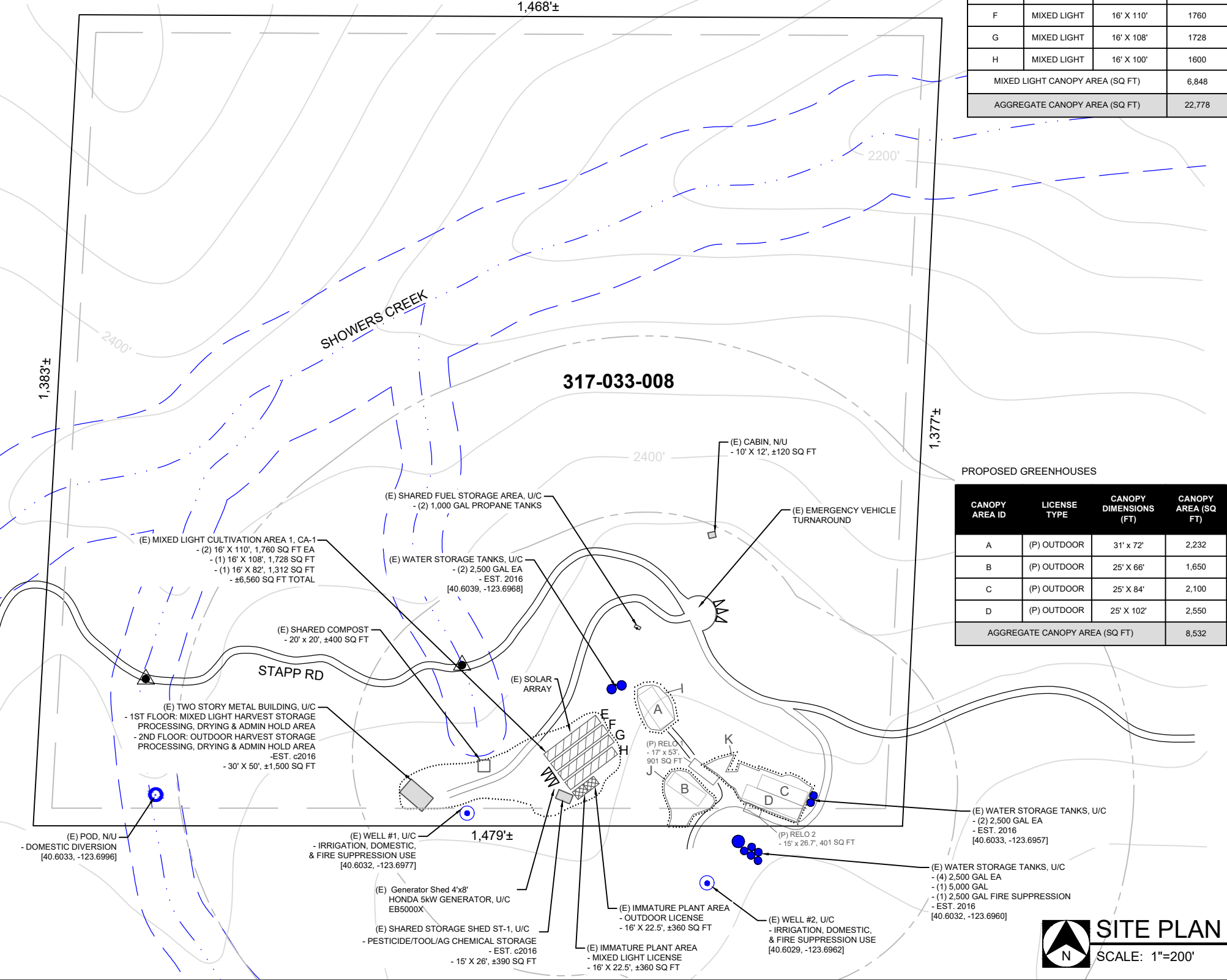
Picture 3: View of the relocations site, Relo 1. This site is a previously disturbed flat with 13% slopes.



Picture 4: View the relocation site, Relo 2. This site is also a previously disturbed flat with 3% slopes.

GENERAL NOTES:

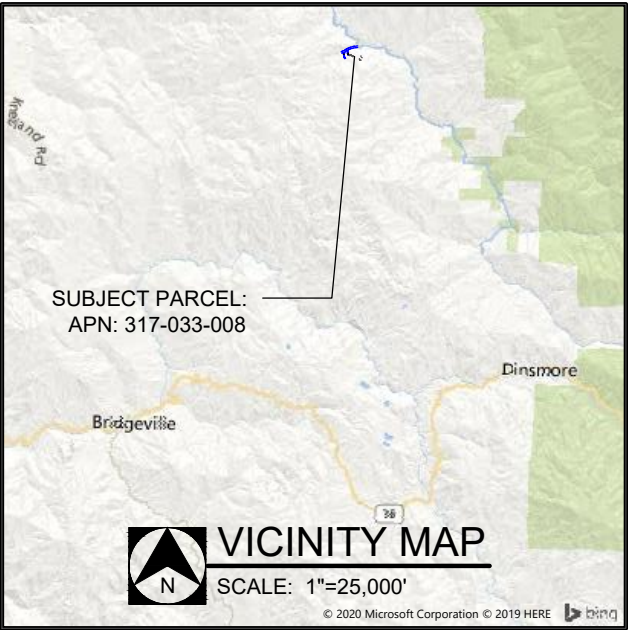
1. NO PROPOSED GRADING.
2. BUILDING, ROAD, AND FEATURE LOCATIONS ARE APPROXIMATE.
3. ALL CULTIVATION AREAS ARE SET BACK AT LEAST 30 FEET FROM PROPERTY LINES.
4. NO KNOWN RESIDENCES ON ADJACENT PARCELS WITHIN 300 FEET OF CULTIVATION AREAS.
5. NO KNOWN SCHOOLS, SCHOOL BUS STOPS, PLACES OF WORSHIP, PUBLIC PARKS, OR TRIBAL CULTURAL RESOURCES WITHIN 600 FEET OF CULTIVATION AREAS.
6. PROPERTY LINES ARE APPROXIMATE.
7. PROPOSED GREENHOUSES WON'T USE LIGHTS OR FANS, RESULTING IN NO NET INCREASE IN ENERGY USE OR NOISE GENERATION.



CANOPY AREA			
CANOPY AREA ID	LICENSE TYPE	CANOPY DIMENSIONS (FT)	CANOPY AREA (SQ FT)
I	(E) OUTDOOR	IRREGULAR	3,610
J	(E) OUTDOOR	IRREGULAR	4,550
K	(E) OUTDOOR	IRREGULAR	7,770
EXISTING OUTDOOR CANOPY AREA (SQ FT)			15,930
E	MIXED LIGHT	16' X 110'	1760
F	MIXED LIGHT	16' X 110'	1760
G	MIXED LIGHT	16' X 108'	1728
H	MIXED LIGHT	16' X 100'	1600
MIXED LIGHT CANOPY AREA (SQ FT)			6,848
AGGREGATE CANOPY AREA (SQ FT)			22,778

PROPOSED GREENHOUSES			
CANOPY AREA ID	LICENSE TYPE	CANOPY DIMENSIONS (FT)	CANOPY AREA (SQ FT)
A	(P) OUTDOOR	31' x 72'	2,232
B	(P) OUTDOOR	25' x 66'	1,650
C	(P) OUTDOOR	25' x 84'	2,100
D	(P) OUTDOOR	25' x 102'	2,550
AGGREGATE CANOPY AREA (SQ FT)			8,532

SITE PLAN
SCALE: 1"=200'



DIRECTIONS TO SITE

- FROM FRESHWATER, CA:
1. HEAD EAST ON KNEELAND RD, 16.5 MILES.
2. TURN LEFT ONTO SHOWERS PASS RD, 10.4 MILES.
3. SLIGHT LEFT ONTO STAPP RD, 1.0 MILES.
4. TURN LEFT TO STAY ON STAPP RD, 3.5 MILES.
5. PROPERTY ON THE RIGHT.

LEGEND

- PROPERTY LINE
- 40' CONTOUR (HUMGIS)
- 30' SETBACK FROM PROPERTY LINE
- 300' SETBACK FROM CULTIVATION AREAS
- 600' SETBACK FROM CULTIVATION AREAS
- CLASS II WATERCOURSE WITH 100 FT STREAM SIDE MANAGEMENT AREA BUFFER
- CLASS III WATERCOURSE WITH 50 FT STREAM SIDE MANAGEMENT AREA BUFFER
- ACCESS ROAD
- GRADED FLAT
- STRUCTURE
- MIXED LIGHT CULTIVATION AREA
- OUTDOOR CULTIVATION AREA
- NURSERY AREA
- WELL
- POINT OF DIVERSION
- STREAM CROSSING
- PARKING SPACE, 9'X18'
- EXISTING
- PROPOSED
- NOT USED FOR CULTIVATION
- USED FOR CULTIVATION

MOTHER EARTH
ENGINEERING

425 I STREET
ARCATA, CA 95521, 707-633-8321

MEE JOB NO: 20007			
REVISION SCHEDULE			
#	DATE	BY	DESCRIPTION
0	01/31/20		DRAFTED
1	9/22/20		REVISIONS
2	11/04/20		REVISIONS
3	01/18/21		REVISIONS
4			
5			

SITE PLAN

APN: 317-033-008
SITE ADDRESS: KNEELAND, CA

COUNTY CANNABIS PERMITTING

APPLICANT: MACRAS LAND CO. INC.
MAILING ADDRESS: 920 SAMOA BLVD STE 219, ARCATA CA 95521

SHEET NO:

1

GENERAL NOTES:

1.

NO PROPOSED GRADING.
2.

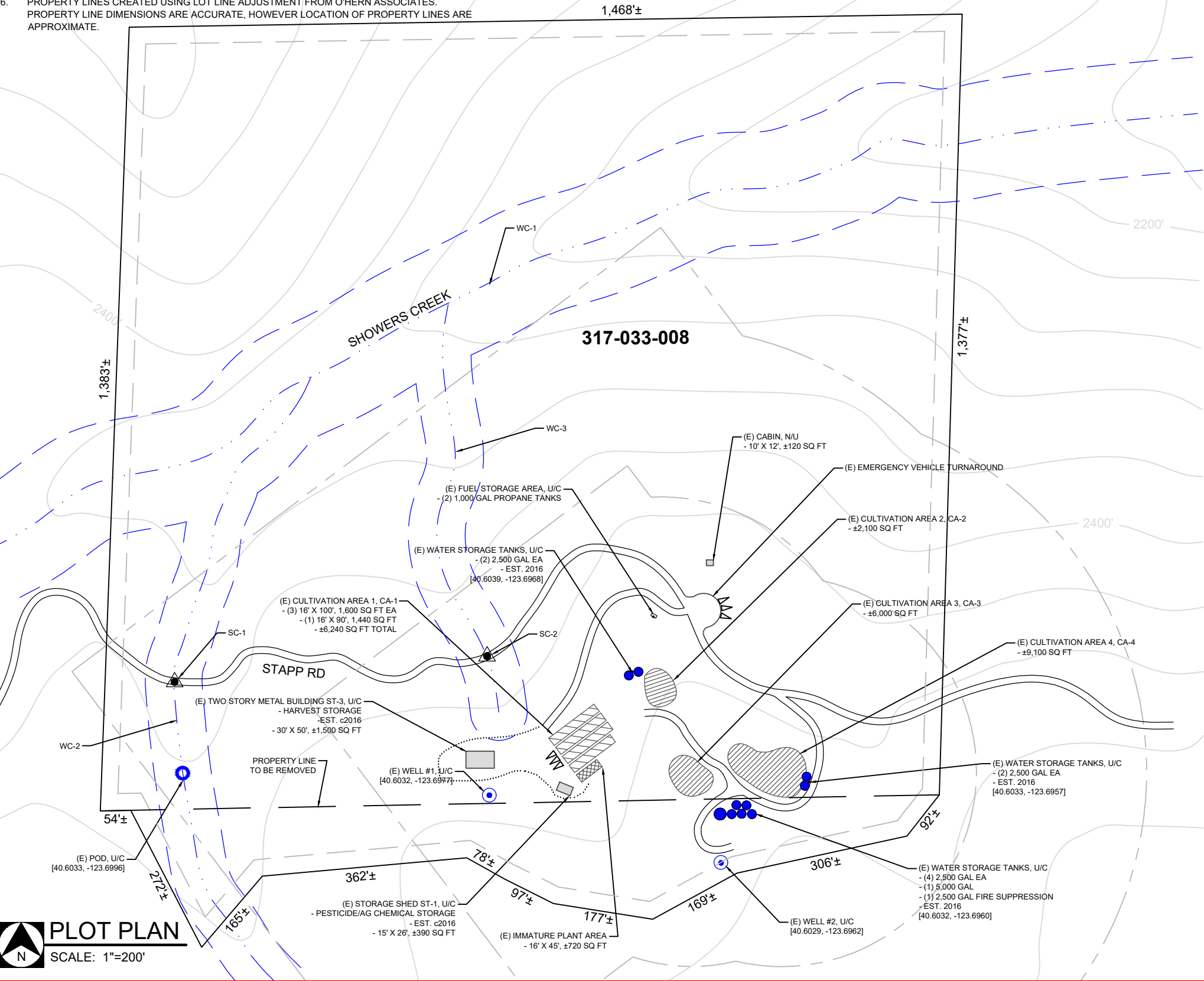
BUILDING, ROAD, AND FEATURE LOCATIONS ARE APPROXIMATE.
3.

ALL CULTIVATION AREAS ARE SET BACK AT LEAST 30 FEET FROM PROPERTY LINES.
4.

NO KNOWN RESIDENCES ON ADJACENT PARCELS WITHIN 300 FEET OF CULTIVATION AREAS.
5.

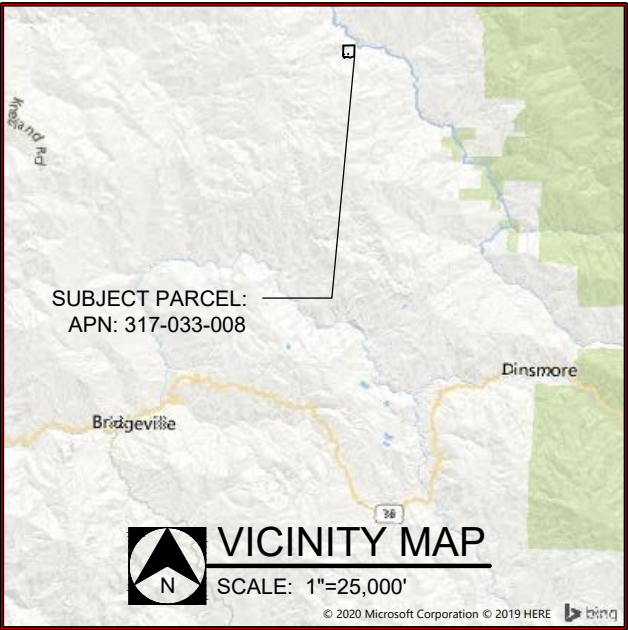
NO KNOWN SCHOOLS, SCHOOL BUS STOPS, PLACES OF WORSHIP, PUBLIC PARKS, OR TRIBAL CULTURAL RESOURCES WITHIN 600 FEET OF CULTIVATION AREAS.
6.

PROPERTY LINES CREATED USING LOT LINE ADJUSTMENT FROM O'HERN ASSOCIATES. PROPERTY LINE DIMENSIONS ARE ACCURATE, HOWEVER LOCATION OF PROPERTY LINES ARE APPROXIMATE.





PLOT PLAN
SCALE: 1"=200'



DIRECTIONS TO SITE

- FROM FRESHWATER, CA:
1.

HEAD EAST ON KNEELAND RD, 16.5 MILES.
2.

TURN LEFT ONTO SHOWERS PASS RD, 10.4 MILES.
3.

SLIGHT LEFT ONTO STAPP RD, 1.0 MILES.
4.

TURN LEFT TO STAY ON STAPP RD, 3.5 MILES.
5.

PROPERTY ON THE RIGHT.

LEGEND

- PROPERTY LINE
- PROPERTY LINE TO BE REMOVED BY LLA
- 30' SETBACK FROM PROPERTY LINE
- 300' SETBACK FROM CULTIVATION AREAS
- 600' SETBACK FROM CULTIVATION AREAS
- CLASS II WATERCOURSE WITH 100 FT STREAM SIDE MANAGEMENT AREA BUFFER
- CLASS III WATERCOURSE WITH 50 FT STREAM SIDE MANAGEMENT AREA BUFFER
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MEE JOB NO: 16024			
REVISION SCHEDULE			
#	DATE	BY	DESCRIPTION
0	01/31/20	JL	DRAFTED
1			
2			
3			
4			
5			

PLOT PLAN
APN: 317-033-008
SITE ADDRESS: KNEELAND, CA

SITE MANAGEMENT PLAN
APPLICANT: MACRAS LAND CO. INC.
MAILING ADDRESS: 920 SAMOA BLVD STE 219, ARCATA CA 95521

SHEET NO:

1

Map 2. Previous Site Map with former configuration.