



COUNTY OF MENDOCINO
DEPARTMENT OF PLANNING AND BUILDING SERVICES
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MEMORANDUM

DATE: MAY 26, 2022

TO: COASTAL PERMIT ADMINISTRATOR

FROM: JULIANA CHERRY, PLANNER III

SUBJECT: CDP 2020-0020 AND RECOMMENDATIONS TO AVOID GEOLOGIC HAZARDS

BACKGROUND:

In response to the May 18, 2021 comments from California Coastal Commission staff about the stability of coastal bluffs, an investigation was completed. Two geological reports are associated with the property:

- Engineering Geologic Reconnaissance, Bluff-top Property, A. P. No. 127-040-13, 2900 South Highway 1, Elk, Mendocino County, California. Brunsing Associates, Inc. June 6, 2018.
- Geotechnical Investigation proposed Hutchinson Residence 2900 South Highway 1, Elk, California. Brunsing Associates, Inc. March 11, 2022.

On March 17, 2022, a revised grading plan, revised site plan, and geotechnical investigation report were distributed to agencies for their review and comment. Note: the revised grading and site plan supersede Staff Report Exhibit E (Attachment A). On May 10, 2022, additional comments were received from California Coastal Commission staff (Attachment C) and on May 24, 2022, the applicant provided a response (Attachment D).

SUMMARY:

The revised and updated geotechnical recommendations cause minor clarifications to the published Staff Report and recommended conditions, specifically Conditions #11, #18, and #33. Additionally, the site plan and grading plan, or Staff Report Exhibit E, have been updated to incorporate the 2022 geotechnical recommendations (Attachment A). The following supplements specified sections of the May 2022 Staff Report. Attachment E includes clarifications and additions to the conditions recommended for project approval.

3. GRADING, EROSION, AND RUN OFF: Regarding MCC Chapter 20.492, the Geotechnical Investigation includes recommendations for site grading, foundation support, seismic design criteria, concrete slab-on-grade, retaining walls, the swimming pool, and site drainage. Staff recommends revising **Condition #11** to additionally reference this March 2022 report.

The agent requests phasing development, because of potential scheduling conflicts during the initial stages of project construction. Notably, site grading and preparation should be completed before it rains and testing water well yields is required prior to issuance of a building permit. Construction would commence after demonstration of a proof of water supply is made in accordance with the Mendocino Coastal Groundwater Study dated June 1982. The proposed phases are:

- a) Record the deed restriction (see Condition #10) and paying CDFW fees (see Condition #32);
- b) Apply for a grading permit and completing rough grading prior to the onset of autumn rains (see

Condition #11);

- c) Apply for a well permit and satisfying requirements of MCC Section 20.516.015(C) Water Supply; and
- d) Apply for building permits to construct the barn, residence, and guest cottage

Staff supports the request to phase development (see recommended **Condition #33**), noting that site grading would not vest this permit (see recommended Condition #1 about establishing a valid permit).

5. HAZARD MANAGEMENT: Regarding Section MCC 20.500.020(B) *Bluffs and Bluff Erosion*, the 2022 geotechnical investigation report recommends a more conservative building setback from the coast line: a 58-foot bluff setback and an 88-foot landslide setback. From Brunsing's report *Section 6.1 Setbacks* states:

Northwest Bluff: Based on our aerial photograph analysis, we have estimated a projected retreat of approximately 23 feet over the next 75 years. Using a safety factor of 2, (in consideration of the substantial bluff height) the resulting bluff setback would be 46 feet, plus 12 feet from our bluff stability analysis, for a total bluff setback of 58 feet.

Landslide Bluff: Based upon our analyses, we have estimated a projected bluff retreat of 35 feet over the next 75 years. Using a safety factor of 1.5, the resulting bluff setback, from the uphill extent of the incipient landslide is 53 feet. Adding the result of our stability analysis (35 feet) results in a total landslide setback of 88 feet.

These recommendations are reflected in the revised site plan and revised grading plan (Attachment A). Staff recommends revising **Condition #18**, as well, to reflect the March 2022 recommended bluff and landslide setbacks (Attachment E).

8. GROUND WATER RESOURCES: Shown on the site plan is an existing well; it is not a test well. Prior to 1989, this well was installed and until 2019, provided water to the residence on an adjoining lot. The County does not have a record of issuing a permit for this well. The rate of yield for this existing well may be tested without obtaining a Coastal Development Permit.

However, recommended Condition #27 would allow the property owner to test up to four locations for access to ground water. Similar to other residential projects, Condition #27 is recommended to allow the property owner every opportunity to satisfy MCC Section 20.516.015(B) water supply requirements.

RECOMMENDATION:

Accept the updated information as satisfying MCC Chapters 20.492 and 20.500 regulations; accept the Mitigated Negative Declaration; and approve the project with recommended findings and conditions, including revisions to conditions #11 and #18 and the additionally recommended Condition #33 authorizing phasing of the project (see Attachment E).

MEMORANDUM ATTACHMENTS:

- A. Revised Site Plan & Grading Plan dated March 2022. Replacing Staff Report Exhibit E.
- B. Email from Sylvia Targ, Coastal Program Analyst. Dated May 18, 2021.
- C. Email from Bente Jensen, Coastal Program Analyst. Dated May 10, 2022.
- D. Applicant's response to May 10, 2022 Coastal Commission Comments.
- E. Project Findings and Revised Conditions.

REVISED STAFF REPORT EXHIBIT E

Page A-2 March 14, 2022 Revised Site Plan Sheet A1.2
Page A-3 March 14, 2022 Revised Grading Plan Sheet A1.3

Re: CDP_2020-0020 Second Referral & Revised Project

From: Targ, Sylvia

Date: Tue 5/18/2021 3:43 PM

To: Juliana Cherry; Jennifer Garrison

Cc: Bob Merrill

Hi Juliana,

The proposed development raises several coastal resource issues, one of which is geologic stability. We offer the following preliminary comment on geotechnical concerns and will follow up with further comments on additional coastal resource issues before the end of the month.

Geotechnical Concerns:

The 2018 Brunsing geotechnical report is a "reconnaissance level" feasibility report. We consulted with our staff geologist, who concluded there are significant geologic and coastal hazards at the site that absolutely require a full, detailed analysis in a design-level geotechnical report. The missing necessary components include:

Subsurface investigation (e.g., borings) with collection and testing of samples.

Detailed geologic site map, including topography, location of bluff edge, and locations of known existing landslides.

Several geologic cross-sections spanning the portions of the site where new development is proposed

Bluff stability investigation, including quantitative slope stability analysis, for all portions of the site where new development is proposed.

Updated bluff retreat analysis:

Can the historical bluff retreat analysis be extended/refined through use of older available aerial photographs?

Update sea level rise and bluff retreat analysis factoring in 2018 CCC SLR Guidance and 2018 OPC SLR projections.

Revised/updated setback analysis factoring in updated bluff retreat and slope stability analyses

Seismic hazards assessment, including ground-shaking, liquefaction, settlement, seismically-induced landslide, and other hazards. The analysis should include calculation of design-basis ground-shaking magnitudes per 2019 CBC.

Evaluation of potential for erosion and bank retreat along the creek (if necessary, per development plan).

Consideration of infiltration capacity of thin terrace deposit layer -- can it accommodate and effectively treat fluid volumes coming from leachfield(s)?

Discussion of foundation options (if any) needed to address loose/weak top soils present at site.

Given the known slope stability issues at the site and the need to update the bluff retreat analysis, we are not confident that the proposed 54-ft setback will be sufficient. A full geotechnical analysis that includes the above items is necessary to determine what development and siting is appropriate for this parcel.

Thank you,
Sylvia Targ
Coastal Planner
California Coastal Commission
sylvia.targ@coastal.ca.gov
1385 8th Street, Suite 130, Arcata CA 95521

RE: CDP_2020-0020 Coastal Commission Comments re Geologic Hazards

From: Jansen, Bente

Date: Tue 5/10/2022 10:45 AM

To: Juliana Cherry

Cc: Kraemer, Melissa; Todd Newberger

Hello Juliana,

We received these comments from our geologist on 5/4. He reviewed the two geotechnical investigations from Brunsing, dated 3/11/2022 and 6/6/2018. Since the project has already been scheduled for hearing and it appears to be beyond the point where the County would ask the applicant for the additional information he's suggesting or be able to address his comments, we hesitated in sending them on. But in case there is a desire to further address these questions, here are his thoughts and recommendations...

Main Points

There is an existing, active landslide on the southern portion of the bluff. More information is needed to determine the cause of the landslide and whether geologic structures in the bluff (e.g., faults, fractures, joints, etc.) could promote further bluff instability at the site

The Brunsing slope stability analysis does not seem to accurately portray the active landslide (i.e., minimum static factor of safety is given as >1.0); this raises questions about the reliability of the overall slope stability analysis.

Historical bluff retreat at the site appears to have been relatively minor; Brunsing's estimated retreat rates are likely reasonable. Although the provided analysis of the effects of SLR is not as precautionary as the Commission would recommend, with the additional "buffers" recommended by Brunsing, the total setbacks (58 ft for main house, 88 ft for guest house) are likely adequate for the next 75 years, provided the issues with the slope stability analysis can be resolved (see below)

Special Conditions requiring the removal of development when threatened, no future shoreline protection devices, assumption of risk, etc., are strongly recommended.

Existing Landslide

The Brunsing reports identify an existing bedrock landslide on the bluff face on the southern portion of the site, affecting the portion of the property adjacent to the proposed guesthouse and barn (represented by cross-section B-B' in the geotech reports). The landslide predates 1972 (the earliest aerial photograph consulted by Brunsing) and also appears to be present in a 1963 photograph that I looked up for the site. Brunsing indicates that this landslide is active, having dropped vertically about 15 feet in historical time. Brunsing also identifies an active zone of slope creep ("incipient landslide") upslope and inland of the main landslide scarp. The landslide is moving slowly at present, and on its own would not pose a threat to new development with a sufficient setback. The existing landslide could be indicative of the potential for future bluff instability farther inland (in the area of proposed development), related to the geologic structure of the bluff, and it's unclear why the geotechnical reports do not address this possibility.

Suggest the County ask applicant to provide additional discussion of the potential for future landsliding at the site. This should include discussion of the factors contributing to the existing landslide (e.g., faulting, fractures or other planes of weakness within the Franciscan bedrock), and whether the intact, unfailed portions of the bluff farther inland possess adverse geologic structures that could promote further slope instability, especially during a strong earthquake.

Slope Stability Analysis

The 3/11/2022 Brunsing report contains slope stability analysis for two bluff cross-sections, one for the northwestern portion of the site (A-A'), the other for the southeastern portion of the site (B-B'). The analysis identifies modeled failure surfaces with the minimum factors of safety as well as the locations of the 1.5 (static)/1.1 (seismic) factor of safety surfaces. Along A-A', the 1.5 FS surface daylights on the bluff top about 12 feet inland of the bluff edge; along B-B', in the landslide area, the 1.5 FS line occurs about 36 feet inland of the bluff edge.

In the landslide area (section B-B'), the minimum calculated factor of safety was 1.12, occurring along a modeled failure surface in or near the existing landslide. This makes some intuitive sense, but what does not make sense to me is that the minimum FS is indicative of a marginally stable slope (FS > 1.0), not an active landslide. Brunsing has reported recent and on-going movement

of the landslide; by definition, this means that the bluff has a factor of safety below 1.0 (i.e., the forces causing failure are greater than the resisting forces). This suggests that there are problems or inaccuracies in Brunsing's characterization of the bluff in the slope stability analysis, and that the stability of the bluff, at least in the landslide area, may be overestimated. At the very least, the applicant should respond to these issues, and either provide a revision of the slope stability analysis that better accounts for the existing landslide or a detailed explanation of why the previous slope stability analysis is trustworthy.

Suggest the County ask the applicant to address why the slope stability analysis for Section B-B', which contains the active landslide, returns a minimum static factor of safety of greater than 1.0. Historical movement and on-going creep on the landslide indicate that the current minimum static factor of safety is less than 1.0. If necessary, provide a revised slope stability analysis, with adjusted strength parameters, that better accounts for the observed conditions.

Bluff Erosion and Retreat

It isn't clear how Brunsing arrived at the estimated bluff retreat rates of 2.5 in/yr (northern bluff) and 3 in/yr (southern bluff) given the self-described "qualitative" nature of their aerial photograph analysis. The 2018 Brunsing report states that "it appears possible that a localized bluff loss of up to 10 feet may have occurred" between the 1972 and 2013 oblique aerial photographs. (10 ft /41 years = 3 in/yr). How and why Brunsing's 2022 report revised this retreat rate downward, to 2.5 in/yr, for the northern part of the site is not explained. Reviewing the aerial photographs in question it appears that (a) there is little obvious sign of active, rapid bluff erosion, (b) large amounts of retreat have not occurred at the site over the ~50 years since 1972, (c) Brunsing's retreat rate estimates (0.2 – 0.25 ft/yr) are reasonable and probably precautionary for the site.

Bluff Retreat w/SLR

There's no explanation provided for the assumed relationship between SLR and the increment of increase in the erosion rate, nor why erosion rates are assumed not to increase until the (oddly specific) year of 2043. In aggregate, Brunsing is positing that SLR (medium-high risk aversion scenario, 6.9 ft by 2100) will increase bluff retreat rates by factors of 1.5 – 2 over the next 75 years. This is comparable, but lower, than CoSMoS projections elsewhere in the state, which for 2 m (6.6 ft) of SLR tend to predict bluff retreat rates will increase by factors of 2 – 3. If one adds in Brunsing's extra "factor of safety" buffer (not to be confused with the slope stability factor of safety), the total proposed setbacks (58 ft for the northern area/main residence and 88 ft for the southern area/guest house) should be adequate/protective for the next 75 years assuming the questions above about the slope analysis are adequately addressed.

Other Issues

Foundation types: As at many sites on the North Coast, the uppermost soil layers (upper 1-3 ft here) are not suitable to support structures, and require either (a) removal/replacement with compacted fill (which would then allow for conventional foundations) or (b) use of deepened foundations (drilled piers) to support the new buildings. According to the Brunsing report, either approach is feasible at this site. It may be preferable to use the "removal/replace with fill" option, as this would avoid the need for drilling piers into the bluff. These piers wouldn't act as shoreline or bluff protective devices, but there is some risk that they could be exposed on the bluff at some point in the future as bluff erosion/retreat proceeds. This would most likely be well beyond the 75 year project life, but the compacted fill/conventional foundation option would avoid any such future impact.

Special Conditions: Given that this project involves new development on an eroding bluff with known stability concerns, the County should impose special conditions requiring the removal of structures threatened in the future (which would protect against future unexpected hazards), waiving any right to shoreline protection devices ("no future seawalls" condition), providing notice of hazards to future owners (deed restriction), and requiring the applicant to assume the risks of developing at this site ("assumption of risk").

Best,
Bente

Bente Jansen (she/her)
Coastal Program Analyst
1385 8th Street, Suite 130. Arcata, CA 95521
Phone: (707) 826-8950 ext. 5 (currently teleworking; voice mail only)
Email: bente.jansen@coastal.ca.gov



Brunsing Associates, Inc.

5468 Skylane Blvd., Suite 201
Santa Rosa, CA 95403
707-528-6108
www.brunsing.com

May 24, 2022

12867.02

Lawrence and Barbara Hutchinson
C/o Todd Newberger
Newberger and Associates, Inc.
435 North Main Street
Fort Bragg, CA 95437

RE: Response to Comments, Planned Residence, 2900 South Highway 1, Elk, Mendocino County, California

This letter is in response to the comments transmitted from Bente Jansen of the California Coastal Commission to Juliana Cherry of the County of Mendocino. The main points of her comments and our responses are presented below.

Landslide Cause

The existing landslide headscarp appears to be an ancient fault, as shown on the attached Aerial Photo Geologic Map, Plate 1. The landslide slip plane (fault trace) is shown in Drone Photograph A, Plate 2. The slip plane is roughly subvertical instead of an arcuate feature which is more typical of landslide slip planes. The fault is likely providing seepage water to the lower portion of the landslide. Fault planes can be a conduit for fresh (based upon previous fault observations in a marine environment) water coming to the surface from greater depths.

The fault-related slip surface was not mentioned in our geotechnical investigation report since it is mostly based upon “educated speculation.” Close examination of the landslide/fault slip plane was not possible due to the steep slopes and dense brush over the landslide.

Except for the upper terrace deposits and weathered bedrock, the northeasterly side of the fault is mostly hard bedrock. The current bluff face near the building site is comprised of hard bedrock that was previously the northeasterly side of the fault. The possible, previous extent of the landslide on the southwest side of the fault is shown on Plate 1.

Landslide enlargement into the planned building area is considered unlikely due to the shallow, hard bedrock in that area.

Revised Retreat Rates

When we prepared our June 6, 2018 engineering geologic reconnaissance report, we were unaware of the specific building site location. We were mostly concerned about an adequate setback from the incipient landslide. We estimated a bluff retreat rate of 3 inches per year in the site area. We did not change our retreat rate for this area in our 2022 report. Our bluff setback was determined by this retreat rate plus 35 feet from our slope stability analyses for a total setback of 88 feet from the incipient landslide.

2900 South Highway 1, Elk

12867.02

May 24, 2022

Page 2

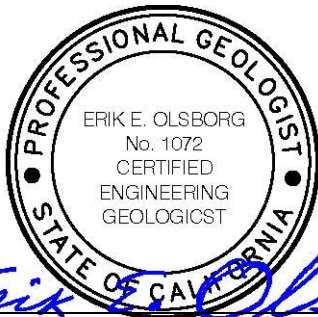
For the ocean bluff near the planned building site in our 2022 report, we estimated a bluff retreat rate of 2.5 inches per year, based upon the presence of hard rock in this area. Using this retreat rate, plus the possible effects of sea level rise, and a safety factor of 2, we determined a bluff setback of 46 feet. In addition, we added 12 more feet from our stability analyses, for a total setback of 58 feet.

Bluff Retreat with Sea Level Rise

Sea level rise will increase our estimated retreat rates as described in our 2022 report. As the ocean rises, the wave activity will encounter the same hard bedrock that is present in the current surf zone. Therefore, the bluff retreat rates, reflective of sea level rise, presented in our Tables 2 and 3 on Page 8 of our 2022 report appear reasonable.

Slope Stability Analysis

The landslide modeled along section B-B' for our slope stability has been modeled appropriately. The landslide is active with past minor movement; however, it is not moving under normal static conditions. With no movement under normal static conditions a factor of safety of slightly larger than 1.0 is appropriate. The slope stability modeled at section B-B' during a seismic event is less than 1.0. Movement along this active landslide would most likely occur during very large storm or minor seismic events, which are not normal static conditions.



Erik E. Olsborg
Erik E. Olsborg
Engineering Geologist - 1072



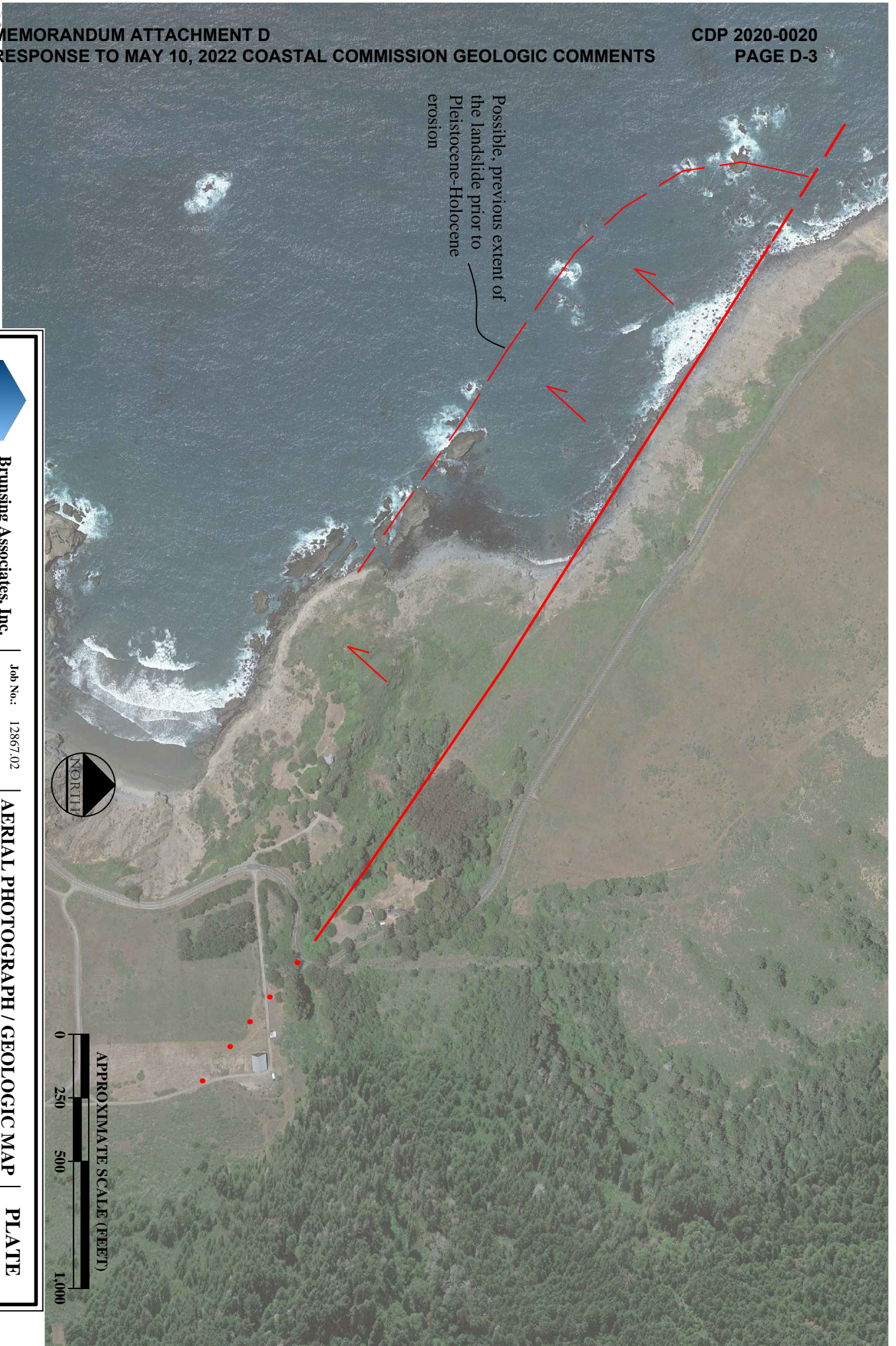
Keith A. Colorado
Keith A. Colorado
Geotechnical Engineer - 2894

EEO/mjc



**MEMORANDUM ATTACHMENT D
RESPONSE TO MAY 10, 2022 COASTAL COMMISSION GEOLOGIC COMMENTS**

REFERENCE:
Google Earth, image
dated 6/2/2021



Possible, previous extent of
the landslide prior to
Pleistocene-Holocene
erosion



Brunising Associates, Inc.
5468 Skyline Blvd., Suite 201
Santa Rosa, California 95403
Tel: (707) 528-6108

Job No.: 12867.02

Appr.: **BE0**

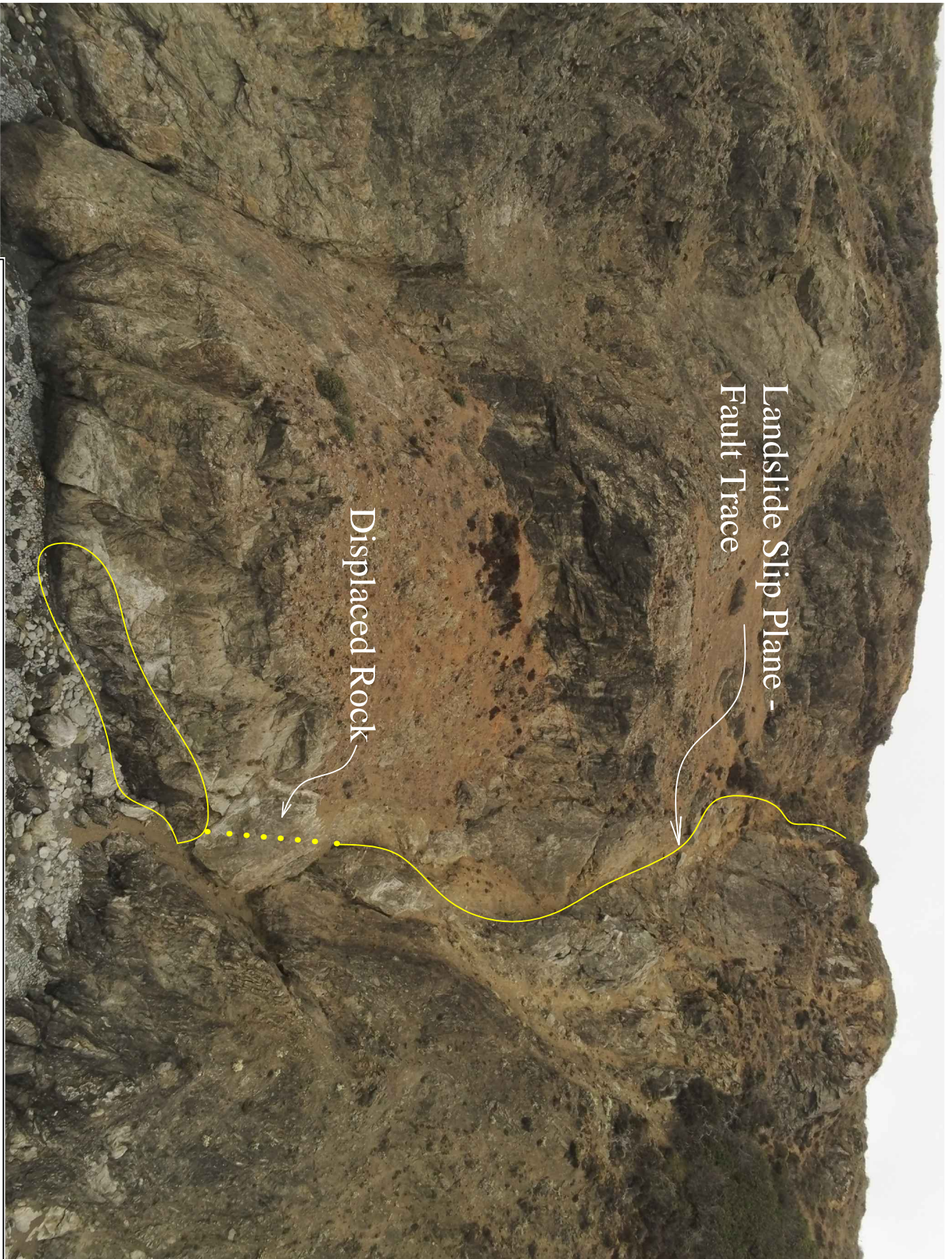
Date: 05/24/22

AERIAL PHOTOGRAPH / GEOLOGIC MAP

HUTCHINSON RESIDENCE
2900 South Highway 1
Elk, California



**PLATE
1**



Brunsing Associates, Inc.
5468 Skyline Blvd., Suite 201
Santa Rosa, California 95403
Tel: (707) 528-6108

Job No.: 12867.02

Appr.: **EE0**

Date: 05/24/22

DRONE PHOTOGRAPH A

HUTCHINSON RESIDENCE
2900 South Highway 1
Elk, California

PLATE

2

PROJECT FINDINGS AND REVISED CONDITIONS

MAY 26, 2022

Attachment E describes the recommended action, findings, and conditions, including revisions to Conditions #11 and #18, and recommended Condition #33. Noting ~~stricken~~ text indicates deletions; underlined text are additions.

Pursuant with the provisions of Chapter 20.532 and Chapter 20.536 of the Mendocino County Coastal Zoning Code, staff recommends the Coastal Permit Administrator adopt a mitigated negative declaration and approve CDP_2020-0020, an application to complete a Proof of Water Test; construct a barn and establish a *Light Agricultural* land use (e.g. grazing); and construct a single-family residence with attached garage and swimming pool and a detached guest cottage. The project includes protection of on-site sensitive habitat areas, a roof mounted solar array, on-site septic system, well and groundwater testing, water storage tank, propane tank, and driveway. The property is 3 .0 miles north of Elk and contiguous with the Peg and John Frankel Trail, on the west side of State Route 1, and located at 2900 S Hwy 1, Elk; APN: 127-040-13.

RECOMMENDED FINDINGS:

1. Pursuant with MCC Section 20.532.095(A)(1), Coastal Residential Land Use Types and Agricultural Land Use Types are principally permitted in the Range Lands classification; an agricultural barn, grazing horses, and single-family residential land uses conform to the goals and policies of the certified Mendocino coastal program, including policies identified in Coastal Element Chapters 3.4 (Hazards) to avoid bluff retreat; 3.6 (Coastal Access) as the Peg and John Frankel Trail is adjacent to the project site; and Chapter 4.10 (Navarro River to Mallo Pass Creek Planning Area); and
2. Pursuant with MCC Section 20.532.095(A)(2), the proposed residence would have access to on-site septic, leach fields, water well and 10,000 gallons of on-site water storage, PG&E service, and enjoys access to adequate utilities, and access roads, including State Route 1, and other necessary facilities; and the results from a Proof of Water Test will be reviewed by the Coastal Permit Administrator prior to issuance of a building permit; and
3. Pursuant with MCC Section 20.532.095(A)(3), Coastal Residential Land Uses and accessory buildings and uses, which are permitted in all zoning districts that allow a single-family residence (e.g. a detached guest cottage and a swimming pool), are principally permitted uses in the Range Lands District; the location of the agricultural barn and residential development meet or exceed MCC Chapter 20.368 standards; and the proposed project is consistent with the purpose and intent of the Range Lands District; and
4. Pursuant with MCC Section 20.532.095(A)(4), as conditioned with mitigation, the project will not have any significant adverse impacts on the environment and the project would not substantially alter natural land forms along bluffs; and as conditioned, the recommended habitat enhancement measures would restore the protective values of the environmentally sensitive habitat buffers; and
5. Pursuant with MCC Section 20.532.095(A)(5), the proposed would not have any adverse impact on any known archaeological or paleontological resources, as Standard Condition 8 is in place when archaeological sites or artifacts are discovered and the Archaeological Commission accepted the cultural report on December 9, 2020; and
6. Pursuant with MCC Section 20.532.095(A)(6), other public services are in place to serve the existing Agricultural and Residential Land Uses, including on-site solid waste and State Route 1 capacity, and these services are adequate; and

7. Pursuant to MCC Section 20.532.095(B)(1), the proposed development conforms to public access and public recreation policies of Coastal Element Chapter 3.6 of Mendocino County General Plan; shoreline access is available within walking distance of the residence, at Peg and John Frankel Trail; and
8. Pursuant to MCC Section 20.532.100(A)(1), the application includes protection of on-site sensitive habitat areas by encouraging grazing in areas that will not affect *Grand Fir Forest ESHA*; by limiting activities to allowed *Open Space Use Types* within ESHA and ESHA buffer areas; and on-site planting of regionally native vegetation; and
9. Pursuant to MCC Section 20.532.100(A)(2), the proposed *Light Agricultural* and residential land uses are permitted land use types in the Range Lands District, e.g. the horse barn and horse grazing; residential uses are compatible with the long-term protection of the surrounding resource lands; and the size of the 18.2-acre lot, which is considerably smaller than 160-acres, is consistent with Coastal Element Policy 2.2 that states, "the Range Lands classification includes ... intermixed smaller parcels and other contiguous lands, the inclusion of which is necessary for the protection and efficient management of range lands;" and
10. Pursuant with MCC Section 20.532.100(B)(3), no conversion of non-prime agricultural lands to a non-agricultural use is proposed, rather the project includes a *Light Agricultural* land use, e.g. stabling and grazing of horses, which is a permitted activity type within the Range Lands District.

REVISED RECOMMENDED CONDITIONS:

1. This action shall become final on the 11th day following the decision unless an appeal is filed pursuant to Section 20.544.015 of the Mendocino County Coastal Zoning Code. The permit shall become effective after the ten working-day appeal period to the Coastal Commission has expired and no appeal has been filed with the Coastal Commission. The permit shall expire and become null and void at the expiration of two years after the effective date except where construction and or use of the property in reliance on such permit has been initiated prior to its expiration. To remain valid, progress toward completion of the project must be continuous.
2. The use and occupancy of the premises shall be established and maintained in conformance with the provisions of Division II of Title 20 of the Mendocino County Code.
3. The application, along with supplemental exhibits and related material, shall be considered elements of this permit, and that compliance therewith is mandatory, unless an amendment has been approved by the Coastal Permit Administrator.
4. This permit shall be subject to the securing of all necessary permits for the proposed development from County, State and Federal agencies having jurisdiction.
5. The property owners shall secure all required building permits for the proposed project, as required by the Building Inspection Division of the Department of Planning and Building Services.
6. This permit shall be subject to revocation or modification upon a finding of any one or more of the following:
 - a. The permit was obtained or extended by fraud.
 - b. One or more of the conditions upon which the permit was granted have been violated.
 - c. The use for which the permit was granted is conducted so as to be detrimental to the public health, welfare or safety, or to be a nuisance.
 - d. A final judgment of a court of competent jurisdiction has declared one or more conditions to be void

or ineffective or has enjoined or otherwise prohibited the enforcement or operation of one or more such conditions.

7. This permit is issued without a legal determination having been made upon the number, size or shape of parcels encompassed within the permit described boundaries. Should, at any time, a legal determination be made that the number, size or shape of parcels within the permit described boundaries are different than that which is legally required by this permit, this permit shall become null and void.
8. If any archaeological sites or artifacts are discovered during site excavation or construction activities, the property owner shall cease and desist from all further excavation and disturbances within one hundred (100) feet of the discovery and make notification of the discovery to the Director of the Department of Planning and Building Services. The Director will coordinate further actions for the protection of the archaeological resources in accordance with Section 22.12.090 of the Mendocino County Code.
9. Any Building Permit request shall include all conditions of approval of Coastal Development Permit CDP_2020-0020. Conditions shall be attached to or printed on the plans submitted.
10. Prior to the issuance of a building permit, the property owner shall execute and record a deed restriction, in a form and content acceptable to the Coastal Permit Administrator and County Counsel. The deed restriction will include the following statements and exhibits:
 - a. The property owner understands that the site may be subject to extraordinary geologic (e.g. faults, shoreline bluffs, tsunamis, landslides, or erosion), fire, and flood hazards and the property owner assumes the risk from such hazards; and
 - b. The property owner agrees to indemnify and hold harmless the County of Mendocino, its successors in interest, advisors, officers, agents and employees against any and all claims, demands, damages, costs, and expenses of liability (including without limitation attorneys' fees and costs of the suit) arising out of the design, construction, operation, maintenance, existence or failure of the permitted project, including, without limitation, all claims made by any individual or entity or arising out of any work performed in connection with the permitted project; and
 - c. The property owner agrees that any adverse impacts to the property caused by the permitted project shall be fully the responsibility of the property owner; and
 - d. The property owner shall not construct any bluff or shoreline protective devices to protect the subject structures or other improvements in the event that these structures are subject to damage, or other erosional hazards in the future without first obtaining a coastal development permit or permit amendment; and
 - e. The property owner shall remove structures when bluff retreat reaches the point where the structures are threatened. In the event that portions of the structures, or other improvements associated with the structures, fall to the beach or ocean before they can be removed from the bluff-top, the property owner shall remove all recoverable debris associated with these structures from the beach and ocean and lawfully dispose of the material in an approved disposal site. The property owners shall bear all costs associated with such removal; and
 - f. The property owner agrees to limit activities within identified environmentally sensitive habitat areas and their buffers to *Coastal Open Space Use Types*, such as MCC Section 20.340.015 *Passive Recreation*, and other conditionally allowed *Coastal Open Space Use Types* in the Range Lands District (See MCC Chapter 20.368). Grazing livestock within 100 feet of the *Grand Fir Forest ESHA* shall be avoided; and
 - g. Pursuant to MCC Section 20.308.050(I), "Guest Cottage" means a detached building (not exceeding six hundred forty (640) square feet of gross floor area), of permanent construction,

- without kitchen, clearly subordinate and incidental to the primary dwelling on the same lot, and intended for use without compensation by guests of the occupants of the primary dwelling; and
- h. The conditions of Permit CDP_2020-0020 are imposed as covenants, conditions and restrictions on the use and enjoyment of the property; and
 - i. The document shall run with the land, bind all successors and assigns, and shall be recorded free of all prior liens and encumbrances, except for tax liens.
 - j. The adopted findings and conditions approving CDP_2020-0020 and the approved site plan (e.g. Sheets A1.2 and A1.3 stamped received Dec 04 2020) shall be attached as exhibits to the Deed Restriction; and
 - k. A figure showing the location of the environmentally sensitive habitat areas and their buffers shall be provided and accepted by the approving authority. The basis of this figure shall be Figure 2 from the June 3, 2020 Biological Scoping & Botanical Survey Report (or other figure requested by the Coastal Permit Administrator). The figure shall also identify the location of the approved bluff setback. This figure shall be attached as an exhibit to the Deed Restriction.
11. In accordance with **MCC Chapter 20.492**, all grading specifications and techniques shall follow the recommendations cited in the California Building Code; ~~the geotechnical engineer's report (e.g., Brunsing Associates June 6, 2018 Engineering and Geologic Reconnaissance, Bluff-top Property, A. P. No. 127-040-13, 2900 South Highway 1, Elk, Mendocino County, California); and~~ satisfy regulations stated MCC Chapters 20.492 *Grading, Erosion, and Runoff* and 20.500 *Hazard Areas*; and observe the recommendations included in the following reports that describe site grading, foundation support, seismic design criteria, concrete slab-on-grade, retaining walls, swimming pool, and site drainage (and where building siting would observe the more conservative setback from the bluff):
- a. Engineering Geologic Reconnaissance, Bluff-top Property, A. P. No. 127-040-13, 2900 South Highway 1, Elk, Mendocino County, California. Brunsing Associates, Inc. June 6, 2018.
 - b. Geotechnical Investigation proposed Hutchinson Residence 2900 South Highway 1, Elk, California. Brunsing Associates, Inc. March 11, 2022.
12. In accordance with **MCC Chapter 20.496**, sensitive habitat area buffer widths shall be as follows:
- a. *Sitka Willow Thicket ESHA* buffer shall be no less than 100-feet wide.
 - b. *North Coast Bluff Scrub ESHA* shall be no less than 100-feet wide, excepting pursuant to MCC Section 20.496.020(A)(1) a buffer reduction of 50-feet allows development under this permit to be located 50-feet or more from this sensitive habitat and as shown on Sheets A1.2 and A1.3.
 - c. *Coastal Silk Tassel Scrub ESHA* buffer shall be no less than 100-feet wide.
 - d. *Grand Fir Forest ESHA* buffer shall be no less than 100-feet wide. MCC Section 20.336.030(B) *Light Agriculture*, including grazing livestock, within 100 feet of the *Grand Fir Forest ESHA* shall be avoided.
 - e. The *Purple Checkerbloom ESHA* buffer shall be no less than 50-feet wide.
13. Mitigation measure. A Management and Monitoring Plan shall be submitted to California Department of Fish & Wildlife (CDFW) and a CNDDDB form shall be filed with same. Evidence of submittal should be provided to the County and CDFW within six months of the initial effective date of this Permit. Within six months of the effective date of this permit:
- a. The preliminary Management and Monitoring Plan (Plan) shall be finalized and accepted. The Plan

- shall outline successful management of the *Purple Checkerbloom* population, including promoting the survival and expansion of the population. The Plan should be guided by means and methods in primary literature for restoration/enhancement activities which will protect and/or expand the population. The Plan should provide monitoring methods and identify success criteria which will promote allow for the continuance and expansion of the population. The Plan should also identify allowable uses within the area of the population to prevent permanent impacts to the population. The Plan should be provided to CDFW for review and approval. Monitoring reports should be provided to the County, Coastal Commission, and CDFW by December 31 of monitoring years.
- b. A CNDDDB form should be filled out and submitted to CNDDDB to document the occurrence of Purple Checkerbloom within six months of approval of the CDP.
14. Mitigation Measure. If unanticipated impacts occur, then a Habitat Mitigation and Monitoring Plan (HMMP) shall outline the means and methods for restoration/enhancement efforts to impacted Sensitive Natural Communities.
15. Mitigation measure. The perimeter of *Grand fir forest ESHA* should be fenced with wildlife friendly fencing to prohibit entry by any domestic grazing animals. (To provide for forest expansion over time, a buffer from the edge of the forest may be included within the fenced area to expand.) Grazing within 100-feet of the *Grand Fir Forest ESHA* is prohibited (See Landscape plan sheet L1.1 Note 4). Within 100-feet of the *Grand Fir Forest ESHA*, low-stature fencing could direct grazing to areas outside of this ESHA and its buffer.
16. In accordance with **MCC Chapter 20.496** and as recommended in *Biological Scoping Survey and Botanical Survey Report for 2900 S Hwy 1, Elk APN: 127-040-13*. Wynn Coastal Planning & Biology. June 3, 2020, the measures identified therein shall be implemented to avoid and protect rare plant communities and rare plant ESHAs, including:
- a. Bird avoidance measures: Season avoidance of birds (report section 7.1.1); bird nest avoidance measures (report section 7.1.2), and construction activities restricted to daylight hours (report section 7.1.3).
 - b. Bat avoidance measures: Pre-construction surveys for bats (report section 7.2.1); and limiting light and noise disturbance, erosion of sediment and debris, and ground disturbance (report sections 7.2.2 and 7.3.2).
 - c. Amphibian avoidance measures: Reduce footprint of impact (report section 7.3.1); and limit ground disturbing construction to dry season (report section 7.3.3).
 - d. Soil and vegetation avoidance measures: Staging area plan (report section 7.4.1); Orange construction fencing (report section 7.4.2); and Purple checkerbloom management (report section 7.4.3).
 - e. Special status amphibians avoidance measures: Contractor education (report section 7.5.1); pre-construction search (report section 7.5.2); careful debris removal (report section 7.5.3); and no construction during rain even (report section 7.5.4).
17. Future development, beyond that approved by the subject Coastal Development Permit, may be exempt from the requirement of a new Coastal Development Permit, provided development meets the exemption requirements of MCC Section 20.532.020 and is located outside adopted Environmentally Sensitive Habitat Area (ESHA) buffers and ESHA resource areas. Future development located within ESHA buffers or ESHA resource areas requires a coastal development permit or permit amendment.
18. Due to potential settlement, the thickness and characteristics of the upper, weak top soils shall be determined by a geotechnical investigation using sampled test borings. In accordance with **MCC Section 20.500.020(B)**, a 54-foot bluff setback a 58-foot bluff setback and an 88-foot landslide setback

shall be established, as shown on the approved Site Plan.

19. In accordance with **MCC Section 20.500.020(E)**, a coastal development permit, or permit amendment, is required prior to constructing seawalls, breakwaters, revetments, groins, harbor channels and other structures altering natural shoreline processes or retaining walls. These structures shall not be permitted unless judged necessary for the protection of existing development, public beaches or coastal dependent uses. (Noting, a coastal development permit or permit amendment is required prior to maintaining the retaining wall that follows the easterly edge of the driveway.)
20. In accordance with **MCC Section 20.500.025** and prior to final inspection, field-inspections to verify the location of hydrants and turnabout minimum radius shall be completed.
21. In accordance with **MCC Section 20.504.015(C)(3)**, new development be subordinate to the natural setting, minimize reflective surfaces, and utilize building materials, including siding and roof materials, that blend in hue and brightness with their surroundings; therefore, the project shall utilize the proposed building materials and color palette as follows:
 - a. Roof material shall be CertainTeed composition shingles color Atlantic Blue (or similar material that is non-reflective and similar in hue and color). Metal materials shall blend in hue and brightness with their surroundings. Clear coat galvanized steel or other metallic finish are not permitted. Roof mounted solar panels shall not be a source of glare; non-reflective surfaces are encouraged.
 - b. Exterior finishes applied to the residence and guest cottage shall be as follows: siding and soffit painted Benjamin Moore 'Thunderbird Grey' (e.g. 2124-40); trim, gutters and downspouts painted Benjamin Moore 'Wolf Gray' (e.g. 2127-40); and entry doors clear oil finish Clear Redwood. Similar colors and finishes that blend in hue and brightness with their surroundings may be substituted.
 - c. The barn shall be finished with weathered Redwood or similar material sharing hue, color, and texture.
 - d. Window frames, light fixtures, and sliding glass door finish-color shall be dark-bronze or similar material, hue, and color. The windows shall be dual glaze and non-glare glass.
 - e. Stone veneer shall be 'Tehama Fieldstone,' a stone material from Sonoma County, or similar material sharing hue, color, texture, and representative of locally sourced stone.
22. In accordance with **MCC Section 20.504.015(C)(10)** and to maintain a visual buffer of the residence from public vantage points, vegetation maintenance and planting is required:
 - a. The existing Coyote Brush Scrub (*Baccharis pilularis*) located between the retaining wall and the Peg and John Frankel Trail on the west side of State Route 1 shall be maintained; and
 - b. Prior to final building inspection for the residence and as shown on the Landscape Plan, Coyote Brush Scrub, a Silk Tassel (*Garrya elliptica*), California Coffee Berry (*Frangula Californiana*), Wavy Leafed Ceanothus (*Ceanothus foliosus*), Pygmy Manzanita *Arctostaphylos nummularia* ssp. *Mendocino*), and California Wax Myrtle (*Morella Californica*) shall be planted and maintained.
23. In accordance with **MCC Section 20.504.015(C)(11)**, power transmission lines shall be located along established corridors and in locations where the corridors are not visually intrusive. The property owner may defer undergrounding overhead transmission lines.
24. In accordance with **MCC Section 20.504.015(C)(12)**, the property owner shall underground overhead power distribution lines.
25. In accordance with **MCC Section 20.504.015(C)(13)**, internal vehicle access routes shall be as shown on the site plan and the gravel color shall match existing conditions.

26. Prior to issuance of a Building Permit, the property owner shall furnish exterior lighting details to the satisfaction of the Director or their designee. In compliance with **MCC Section 20.504.035**, exterior lighting shall be kept to the minimum necessary for safety and security purposes and shall be downcast and shielded, and shall be positioned in a manner that will not shine light or allow light glare to extend beyond the boundaries of the parcel.
27. In accordance with **MCC Section 20.516.015(B)**, demonstration of proof of water shall be completed prior to issuance of a building permit and prior to the conclusion of the initial expiration date for CDP_2020-0020. On-site groundwater testing may be completed in four (4), or fewer, locations and one test well shall be converted to a production well.
28. In accordance with the 1982 *Mendocino County Coastal Ground Water Study* recommended water conservation measures, the project will incorporate proven water conservation technology in the construction of the project, including, but not limited to, low-flush toilets, flow-control inserts on showers (or similar), single-control faucets, water efficient dishwashers and clothes washers, and hot-water pipe insulation. The property owner may apply for a Coastal Development Permit to install grey-water recycling.
29. In accordance with the 1982 *Mendocino County Coastal Ground Water Study* recommended water conservation measures, the property owner will install and maintain water efficient irrigation systems that minimize runoff and evaporation, and maximize the water intended to reach plant roots. Drip irrigation, soil moisture sensors and automatic irrigation systems are methods of improving irrigation efficiency.
30. In accordance with the 1982 *Mendocino County Coastal Ground Water Study* recommended water conservation measures, the project will either keep rainwater on site in a retention basin to aid in ground water recharge, or where this is not feasible, the project shall be designed to reduce, retard, and disperse runoff. This may be accomplished by mulched and or terraced slopes to reduce erosion and retain rainfall, porous drain swales and paving materials for infiltration, out-sloped roads to spread runoff evenly down slope, and landscaping with suitable water-conserving erosion control plants that will protect the soil, facilitate infiltration of rainwater, and reduce runoff.
31. In accordance with the 1982 *Mendocino County Coastal Ground Water Study* recommended water conservation measures and to encourage ground water recharge, the project will preserve existing natural drainage areas and encourage the incorporation of natural drainage systems in the development of the site.
32. This entitlement does not become effective or operative and no work shall be commenced under this entitlement until the California Department of Fish and Wildlife filing fees required or authorized by Section 711.4 of the Fish and Game Code are submitted to the Mendocino County Department of Planning and Building Services. Said fee of \$ \$2598.00 shall be made payable to the Mendocino County Clerk and submitted to the Department of Planning and Building Services *within 5 days of the end of any appeal period*. Any waiver of the fee shall be on a form issued by the Department of Fish and Wildlife upon their finding that the project has “no effect” on the environment. If the project is appealed, the payment will be held by the Department of Planning and Building Services until the appeal is decided. Depending on the outcome of the appeal, the payment will either be filed with the County Clerk (if the project is approved) or returned to the payer (if the project is denied). Failure to pay this fee by the specified deadline shall result in the entitlement becoming null and void. The property owner has the sole responsibility to insure timely compliance with this condition.
33. Construction of the barn and residence with guest cottage may be phased, as follows:
 - a. Initially recording the deed restriction and paying CDFW fees.
 - b. Applying for a grading permit and completing rough grading prior to the onset of autumn rains.

- c. Applying for a well permit and satisfying requirements of MCC Section 20.516.015(C) Water Supply.
- d. Applying for building permits to construct the barn, residence, and guest cottage.