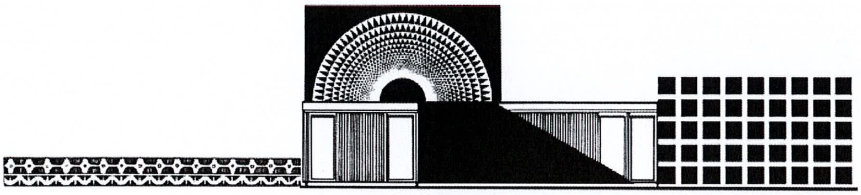

Schlosser, Newberger, ***Architects***

April 20, 2020

Sam "Vandy" Vandewater, Planner II County of Mendocino
Dept. of Planning and Building Services
860 N Bush Street
Ukiah, CA 95482

Subject: Commission staff comments regarding CDP Application No. 2019-0004 (Casserly) for proposed development at 16224 North Highway 1, Albion (APN: 017-400-09)

Dear Mr. Vandewater:

I am writing to address several issues that were raised in a letter dated March 13, 2020 from California Coastal Commission staff member Destiny Preston. The responses in this letter refer to the comment numbers in the original letter.

1. "New Development" versus "Repair and Maintenance"
Our original application was for a remodel that constituted new development. We have never claimed to be removing less than 50% of the original structure and we performed all the studies and submitted all the information that would be required of new construction.

When the Owners purchased the property, I did an Architectural inspection of the existing house and I found that the existing wood windows had deteriorated some time ago many were leaking at the

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sill. This caused damage to the wall framing under the windows and to the floor structure beneath them. The walls and floor need to be removed and replaced. It is my professional opinion there is no feasible way to correct the problems with the existing construction that would involve removing less than 50% of the structure. Consequently new development is our only option.

2. Geologic Hazards
Our Geologist, LACO and Associates, did additional analysis of the geology at the site to address the effects on sea level rise on the bluff retreat rate and concluded that the additional rise in sea level would not result in a bluff retreat which would affect the building during a 75 year lifespan. A copy of their report and analysis is included with this letter.

3. Environmentally Sensitive Habitat Areas
Our Botanist, Rincon and Associates, has concluded that the development we are proposing will have the least impact on Environmentally Sensitive Habitat Areas of any site on the property. Any alternative siting would have a more damaging affect on Environmentally Sensitive Habitat Areas than the one we are proposing. A letter from Rincon Associates stating this conclusion is included with this letter.

4. Visual Resources
When the Owner's acquired this property there was a Conservation Easement on the property that required the development on the property to remain identical to the original construction unless any changes to the design were specifically approved by the California Department of Parks and Recreation.

California State Parks owns the property to the north and south of the subject parcel and the appearance of the improvements on the property affect the State Parks more than any other property owner. We came up with plans for our proposed remodel and submitted them to State Parks for review. After reviewing our plans, the State Parks approved the remodel of the structure according to the plans currently submitted for our permit.

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The fact that the State Parks approved this proposal when they had an easement that would have allowed them to reject any change to the existing construction is evidence that the visual impact to the public has been evaluated by the State and found to be acceptable. The letter dated 5/23/17 from State Parks approving our proposed design is included with this submittal.

Please place this letter and the documents included with it in the public record for this permit. The information submitted provides evidence to address every issue raised in the Comment Letter referenced above. We believe our project is an improvement over the dilapidated house that is currently on the property and it deserves approval at this hearing.

Sincerely,

Robert Schlosser

Robert Schlosser

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LACO

April 20, 2020

Project No. 8009.02

California Coastal Commission
North Coast District Office
1385 8th Street, Suite 130
Arcata, California 95521

Dear Honorable Commissioners

Subject: Letter Addendum, Geotechnical Memorandum
Response to Staff Comments, California Coastal Commission Letter dated March 13, 2020, CDP Application 2019-0004
Casserly Residence, 16224 North Hwy 1, Caspar, CA (APN: 017-400-09)

This letter presents our responses to comments related to Item No. 2: Geologic Hazards presented in the California Coastal Commission (CCC) letter dated March 13, 2020, for the proposed development at 16224 North Highway 1, Casper, California. We previously performed a geotechnical exploration at the request of Schlosser Newberger Architects (Client) for the planned development and presented the results on a *Technical Memorandum*, dated July 17, 2018 (Report), that was submitted as part of a Coastal Development Permit. Our exploration included a subsurface exploration, laboratory testing, bluff face evaluation, and site stability analyses. Our evaluations yielded an estimated rate of bluff retreat over an anticipated 75-year life of the structure, which were used by Client to assess whether the existing setback of the structure from the bluff was adequately protective.

Comments in the CCC letter pertained to sea level rise and whether the effects of sea level rise over the 75-year life of the structure changed the estimated rate of bluff retreat. To prepare this letter addendum, we reviewed the results of our previous exploration, conducted a site visit, reviewed published data concerning sea level rise for the Mendocino coast and incorporated this new information into our previous results.

PROJECT DESCRIPTION

The project consists of an remodeling an existing residence. The residence is a single-story wood-frame structure of with raised wood floors, herein referred to as the "Site".

CLARIFICATION OF STATEMENTS

The bluff top edge setback of was established and summarized in the Report. The evaluations were based on guidelines set forth in California Coastal Commission Memorandum W11.5 (Johnsson 2003). The proposed building will occupy the approximate footprint of the existing structure. The foundation of the residence at its closest point is approximately 22 feet from the edge of the bluff. (The closest deck pier is approximately 12 to 13 feet from the existing bluff edge. The deck is not a structural part of or connected to the residence). The Report concluded that a conservative bluff retreat distance in 75 years is estimated to be approximately 6.3 feet, using an analysis of historical aerial photographs. We applied a factor of safety of 2.0 to yield a conservative retreat rate of

approximately 13 feet over the life span of the structure. Using this conservative retreat rate, the southwest corner of the deck might be at the edge of the bluff; however, at that point, the bluff edge would still be 10 feet from the residence foundation.

SEA LEAVEL RISE

LACO reviewed available data concerning local sea level rise and terrace uplift for the local Mendocino coastline. This data was then applied to the Site and evaluated as to whether it would have an impact on coastal bluff retreat. We obtained data for Sea level changes from the State of California Sea-Level Rise Guidance 2018 Update. Sea level rise data were available for the Arena Cove tide gauge (located approximately 40 miles south of the Site), which is presented in Table 7 of the State of California Sea-Level Rise Guidance 2018 Update, and is reproduced below.

TABLE 7: Projected Sea-Level Rise (in feet) for Arena Cove

Probabilistic projections for the height of sea-level rise shown below, along with the H++ scenario (depicted in blue in the far right column), as seen in the Rising Seas Report. The H++ projection is a single scenario and does not have an associated likelihood of occurrence as do the probabilistic projections. Probabilistic projections are with respect to a baseline of the year 2000, or more specifically the average relative sea level over 1991 - 2009. High emissions represents RCP 8.5; low emissions represents RCP 2.6.
Recommended projections for use in low, medium-high and extreme risk aversion decisions are outlined in red boxes below.

	Probabilistic Projections (in feet) (based on Kopp et al. 2014)					
	Median *50% probability sea-level rise meets or exceeds...*	Likely range *67% probability sea-level rise is between...*		1-in-20 chance *5% probability sea-level rise meets or exceeds...*	1-in-200 chance *0.5% probability sea-level rise meets or exceeds...*	H++ scenario (Sweet et al. 2017) *Single scenario
			Low-risk Aversion		Medium - High risk Aversion	Extreme-risk Aversion
High emissions 2030	0.3	0.2 -	0.5	0.5	0.7	1.0
2040	0.5	0.3 -	0.7	0.9	1.2	1.6
2050	0.7	0.5 -	1.0	1.2	1.8	2.6
Low emissions 2060	0.8	0.5 -	1.1	1.4	2.2	
High emissions 2060	1.0	0.6 -	1.3	1.7	2.5	3.7
Low emissions 2070	0.9	0.5 -	1.3	1.8	2.9	
High emissions 2070	1.2	0.8 -	1.7	2.2	3.3	5.0
Low emissions 2080	1.0	0.6 -	1.6	2.1	3.6	
High emissions 2080	1.5	1.0 -	2.2	2.8	4.3	6.4
Low emissions 2090	1.2	0.7 -	1.8	2.5	4.5	
High emissions 2090	1.8	1.1 -	2.6	3.4	5.4	8.0
Low emissions 2100	1.3	0.7 -	2.1	3.0	5.4	
High emissions 2100	2.1	1.3 -	3.1	4.1	6.7	9.9
Low emissions 2110	1.4	0.8 -	2.2	3.1	6.0	
High emissions 2110	2.3	1.5 -	3.2	4.2	7.0	11.6
Low emissions 2120	1.5	0.9 -	2.5	3.6	7.1	
High emissions 2120	2.6	1.8 -	3.8	5.0	8.2	13.9
Low emissions 2130	1.7	0.9 -	2.8	4.1	8.1	
High emissions 2130	2.9	1.9 -	4.3	5.7	9.7	16.2
Low emissions 2140	1.8	0.9 -	3.1	4.6	9.4	
High emissions 2140	3.2	2.1 -	4.8	6.5	11.1	18.7
Low emissions 2150	1.9	0.9 -	3.4	5.1	10.7	
High emissions 2150	3.6	2.3 -	5.4	7.3	12.6	21.5

This model projects sea level rise for two different greenhouse gas emission scenarios ("high" and "low" emissions) and three different risk aversion scenarios (low, medium/high, and extreme). Using an interpolated value between the "2090" and "2100"values to obtain a rate appropriate for a 75-year structure life, and using the highest likelihood of probability as well as considering the nature of the development, we used the low-risk aversion scenario with a 67 percent chance of occurrence. Given these factors, the likely rise is 1.95 feet (0.59 meters) or 2.85 feet (0.87 meters) depending on

emissions scenario with a 0.5 percent probability of sea level rise meeting or exceeding the range of 4.95 feet (1.5 meters) to 6.0 feet (1.82 meters).

LAND LEVEL RISE

As the Mendocino coast is in a complex and active geologic environment, we not only need to evaluation the changes in sea level over the 75-year timeframe, but the isoseismic land level changes as well. The Site is located south of the Mendocino Triple Junction, and very close to the San Andreas fault (offshore).

Local uplift rates have been calculated from 0.4mm/yr (Merritts and Bull, 1989) to 0.51mm/yr (Leibson, 2004) for an area near the Site, for a range of 30 mm to 38.25 mm over a 75-year period. This amounts to less than 1.5 inches over the 75-year economic life span of the residence. Given that this rate of land level rise is insignificant in comparison to the estimated rate of sea level rise for this portion of the California coastline, it is not included in our evaluation of the effect of sea level rise on bluff retreat.

EVALUATION OF SEA LEVEL RISE AND BLUFF RETREAT

After evaluating the sea level rise data for the Arena Cove area as discussed above, we incorporated it into our slope stability model and compared the result to our original bluff setback recommendations. We used a conservative sea level rise estimate of 2.85 feet.

The rate of coastal bluff retreat is controlled by the properties of the rock material and the physical forces acting on the bluff. Important rock properties include the hardness or degree of consolidation or cementation, the presence of internal weaknesses (e.g., fractures, joints, faults), and the degree of weathering (NRC 2012). Our Report concluded an average bluff retreat rate of 6.3 feet over the 75-year timespan of interest based on our review of historical aerial photographs spanning period of 1963-2013. This equates to a rate of 1 inch or 2.5 centimeters per year. This is below the average for sedimentary rocks in California of 15 to 30 centimeters per year (Griggs and Patsch, 2004).

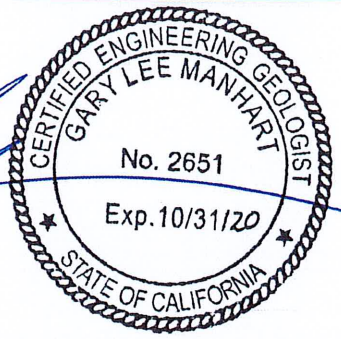
The top of the lower sandstone unit, labeled Material 3 in our Report, is located approximately 34 feet above the current sea level. Our Report described this unit as increasing in strength and hardness with depth, which correlated with a decrease in weathering and with drilling refusal in test borings at depths up to 14.5 feet below ground surface. Given these observations, in our opinion, the estimated 1 inch per year retreat rate with an adequate factor of safety is appropriate for this site.

Using the maximum project sea level rise at the site of 2.85 feet leaves approximately 31 feet of this unit above the project sea level in 75 years. This change in sea level does not significantly change the factor of safety for the static or pseudostatic slope stability. Our evaluations yielded a factor of safety in excess of 3 for both analyses, which is consisted with established Coastal Commission guidance, the LCP, and industry standard practices. Sea level rise will have a negligible effect on the slope stability over the economic lifespan of the residence.

Based on the results of our supplemental evaluations, we conclude that bluff retreat in the event of sea level rise will the same as or similar to that which was presented in the Report.

If you have any question, please contact me at manhartg@laocassociates.com or cal me at (707) 443-5054.

Sincerely,
LACO Associates



Gary L. Manhart, CEG 2651
Senior Engineering Geologist
Lic. No. 2651, Exp, 10/31/2020

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March 17, 2020
Project No: 18-05639

Greg Casserly
520 Newport Center Drive, 21st Floor
Newport Beach, California 92660
c/o Schlosser Newberger Architects
Via email: schlosser@lsndesign.com

Subject: **16224 North Highway 1 Residential Development Project Review of Alternate Project Site Locations on the Property**

Dear Mr. Casserly:

Rincon has reviewed the project site from the perspective of natural resources, having conducted two reconnaissance-level surveys, and a full floristic rare plant survey over the entire project site in the spring of 2019. Rincon has also reviewed the proposed project designs in the context of potential direct impacts to biological resources. As proposed the project would be developed on the existing foundation. The existing foundation represents the only area within the parcel that is previously developed (other than the existing driveway). Any development that occurs on any other portion would result in direct impacts (potentially to ESHA) and represent a more substantial direct impact to natural habitat than development on the existing foundation. Alternative development footprints would result in direct impacts to coastal prairie grassland or, less likely, northern coastal bluff scrub, as these are the only two communities on site that are of sufficient area to support the proposed development. When considering direct impacts to natural vegetation communities on site, development on the existing foundation represents the only alternative that would have no direct impacts to natural vegetation communities.

Sincerely,
Rincon Consultants, Inc.

David Daitch, Ph.D.
Principal/Senior Ecologist

May 23, 2017

Greg and Nola Casserly
520 Newport Center Drive, 21st Floor
Newport Beach, CA 92660

Re: Property Located at 16224 N. Coast Highway 1, Fort Bragg, CA (the "Property")
Parcel No. 017-400-09
Conservation Easement Recorded February 25, 1980 in the Official Records of Montecito County, Book 1248, Page 453
Notice of Consent to Reconstruct Residence

Dear Mr. and Mrs. Casserly:

In response to your letter dated December 20, 2016, in which you provided notice of your intent to replace the existing residence on the Property, the State of California Department of Parks and Recreation, for itself and on behalf of the State of California, consents to such replacement and new construction. The new residence must be consistent with the renderings and plans previously submitted by your architect, must be single story and constructed on substantially the same footprint as the existing residence, and must be constructed using natural materials.

Sincerely,

Loren M. Rex
Mendocino Sector Superintendent
California State Parks—Sonoma Mendocino Coast District
12301 North Hwy 1, Box 1 Mendocino, CA 95460
(707) 937-3118 (707) 937-2953 fax
Loren.Rex@parks.ca.gov