

Lenzi, Chelsea

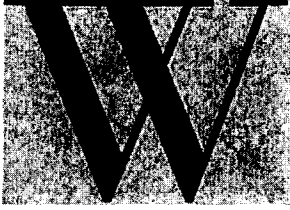
From: Howard Weinberg <howard@weinberglaw.la>
Sent: Monday, August 27, 2018 12:04 PM
To: sbcob
Cc: Villalobos, David; Lieu, Nicole; Black, Dianne; Wilson, Jeffrey; Janice Feldman Personal (janice@janicefeldman.com); Ann Douglass (ann@janicefeldman.com); Jennifer Siemens (Jennifer@siemensplanning.com); LynneDee Althouse (LynneDee@althouseandmeade.com); Alan Seltzer (alan@alanseltzerlaw.com); Williams, Das; Wolf, Janet; Hartmann, Joan; Adam, Peter; Lavagnino, Steve
Subject: RE: Agenda Item #6 (File 18-00648) - Appeal Hearing regarding 755 Sand Point Road
Attachments: Ltr - BOS - 755 Sand Point - 8-27-18.pdf

Clerk of the Board
Santa Barbara County Board of Supervisors

Please distribute the attached letter to the members of the Board. Please include this letter as part of the administrative record in this matter. We are aware that this page limit exceeds the permitted written documents at this late date, however, please read our request in the attached letter to have this document included in the record pursuant to a vote of the Board.

Best regards,

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August 27, 2018

Via Email and Hand Delivery

Das Williams, Chairman of the Board of Supervisors
Members of the Board of Supervisors
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Re: 755 Sand Point Road

Mr. Chairman and Members of the Board:

At the Board hearing scheduled for August 28, 2018, you will be hearing an appeal regarding a proposed residential project at 755 Sand Point Road, identified as Agenda Item #6 (Board File Number 18-00648) (the "Project").

On Friday, August 24, 2018, your Board received a last-minute filing of documents by appellant's counsel (the "Chyttilo Letter"). This data dump of arguments and information is counsel's failed attempt to bolster appellant's claim under the California Environmental Quality Act ("CEQA") that the Mitigated Negative Declaration (the "MND") prepared by your staff is inadequate. Almost five months have passed since the April 4, 2018, hearing before the Planning Commission. Our Supreme Court has disapproved appellant's "tactic of withholding objections, which could have been raised earlier in the environmental review process" (Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d. 553, 568). Every argument in the Chyttilo Letter could easily have been submitted weeks earlier, thus allowing us a reasonable time to respond and the Board a reasonable time to consider the information. Nonetheless, we are aware that appellant's procedural tactic is allowed under the Board's rules of procedure.

The Chyttilo Letter and his purported expert submissions fails to provide substantial evidence to support his claim that (notwithstanding the mitigation measures imposed on this Project) there remains a reasonable possibility that the Project will cause significant environmental impacts.

In the very short time afforded the applicant, we have obtained written evidence from experts demonstrating that Chyttilo's claims are speculative, remote and unsubstantiated. That written evidence is attached to this letter and is submitted to the Board at our earliest opportunity. In the interest of fairness and to fulfill the mandates of CEQA for a complete

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review of all issues presented, we ask that the Board consider the information in this letter and the attached expert submissions, and that the Board vote to accept it and as part of the record of this appeal at the hearing.

1. Staffs' Proposed Findings are Supported by Substantial Evidence and the Board Should Make all of these Findings.

a. The Seawall. The Chyttilo Letter asserts that the Board cannot make the administrative findings required for approval of the Project's CDP because of the presence of an unpermitted 1983 revetment along the entirety of Sand Point Road. This is incorrect. Contrary to Chyttilo's assertion, your staff supplemented its analysis of the seawall in an August 8, 2018, memorandum filed in this matter. The Staff memo confirms that no Notice of Violation for the sea wall has been issued. Moreover, as staff and the Planning Commission recognized, the California Coastal Commission's (the "CCC") August 27, 2015 letter was issued to the County and to Sandyland Protective Association, not to any individual property owner. The CCC letter was not a Notice of Violation and was not even directed to the applicant, Mrs. Feldman. This is understandable, as the seawalls were constructed by the County within an easement owned by the County, over which the applicant has no control. Further, as your staff has indicated, the County continues to work with the CCC to address the 1983 revetment. Resolution of the sea wall matter is a matter of speculation, and solutions may include relocation, redesign or removal of some or all of the 1983 seawall. Moreover, however resolution of the 1983 revetment matter may proceed, as the record in this case confirms, CCC staff agreed that no violation would be asserted against this Project if the applicant agreed to prepare a Sea Level Rise and Wave Uprush Study that assumed all of the seawalls on the subject property were removed.

The applicant prepared an extensive Sea Level Rise and Wave Uprush Study (the "Wave Study") that is part of the administrative record. The Wave Study has been peer reviewed and approved by the County and by the CCC staff. As a result of the Wave Study and the CCC requests, the original location of the residence has been set back more than fifteen feet behind the string line. The relocated residence is designed to withstand both projected sea level rise and wave uprush, even assuming both the 1983 and the 1964 rock revetments are removed. Thus, construction of the Project will not interfere with the potential future resolution between the County and Commission, regardless of whether that takes the form of relocation, redesign or removal of some or all of the 1983 seawall. One should note that the 1964 rock revetment is not subject to change based on the resolution of the 1983 seawall issue.

Therefore, these facts support the Board making the finding that the Project is in compliance with all laws, rules and regulations, as provided in CZO Section 35-169.5.1(c).

b. The Policy Consistency Finding. The Chyttilo Letter fails completely to make any cogent argument that the Board should not make the policy consistency findings recommended by your staff (CZO Section 35-169.5 1.a). We will not reiterate the substantial evidence in the record identified by your staff that properly support your staff's recommendation that the Board make a finding of Project consistency with the applicable Comprehensive Plan and Coastal Land Use Plan policies protecting environmental resources. As a general matter, Chyttilo lists three or four incorrectly claimed CEQA impacts (fully rebutted below in this letter)

and then attempts to bootstrap the argument that, because these alleged impacts exist, the Project would be inconsistent with several policies and thus the Board cannot make the required consistency finding. None of Chyttilo's assertions are correct, and even if some of the facts he refers to are correct, they do not cause the Project to have an unmitigated environmental impact. Moreover, Mr. Chyttilo attempts to create a portfolio of his own, alternative facts. For example, Mr. Chyttilo exaggerates the delta between the existing baseline improvements on the property and the proposed Project. He wrongly claims that the lower level would be 5,800 sq. ft. and that the 1,335 sq. ft. garage would be in addition to the lower level. He is mistaken. In fact, the 5,800 sq. ft. understory required by the County's Base Floor Elevation includes the 1,335 sq. ft. garage, and the entire understory sits beneath the habitable upper story. Mr. Chyttilo's exaggeration of the project size and incorrect assertion of impacts highlights a fundamental defect with his belated CEQA objections to the Project discussed below. Of course, CEQA only requires analysis of the impact caused by the net increase in development, and the Mitigation Measures are only required to address the impacts caused by the increase in development. This, of course, is provided in the MND and the Mitigation Measures.

Therefore, the Board can and should make the finding that the Project conforms to the applicable policies of the Comprehensive Plan, including the Coastal Land Use Plan, as provided in CZO Section 35-169.5.1(a).

2. The Mitigated Negative Declaration Complies with CEQA and Supports Approval by the Board of the Project.

The tardy Chyttilo Letter is an attempt to delay this project by forcing the County to prepare an EIR. However, because the County already has prepared an MND for this project, the appellant must demonstrate by substantial evidence that (i) the proposed mitigation measures are inadequate or (ii) there is a fair argument that the revised Project may still have significant adverse effects on the environment. (CEQA §21064.5.) Below, we examine each of the assertions made in part two of Mr. Chyttilo's letter. In summary, this letter and the attached expert testimony confirm that the MND mitigation measures are adequate and that CEQA does not require the preparation of an EIR for this Project.

a. There are no Potentially Significant Impacts to Biological Resources. The Chyttilo Letter fails provide any evidence that the Project will have a significant impact on Biological Resources. The entire thrust of this argument is that a small portion of the Project is closer than 100 feet to the on-site wetlands, and thus threatens the wetlands. While a few corners of the Project come within 73 feet to 81 feet of the wetlands, this limited intrusion into a buffer zone is not a significant environmental impact.

i. The 100-foot Buffer Area and the El Estero Exception. In general, there is a 100-foot buffer area required for construction near a wetland. As the Board knows, the Coastal Zoning Ordinances creates an exception to the 100-foot buffer policy for lots that abut El Estero. (Art. II, Section 35-97.4.) The Project is set back more than 100 feet from the Carpinteria Salt Marsh (CSM) on the south side of the berm that supports Sand Point Road. There is a small on-site wetland located on the 1.15-acre portion of the property that is between Sand Point Road and the ocean. The Project has been located such that most of the development

will be more than 100 feet from the on-site wetland, but there are a few corners of the residence that will be located within 73 feet to 81 feet of the on-site wetland. This development is permitted under the Coastal Zoning Ordinance, because the 100-foot buffer area is not required on the subject property. Nonetheless, the Project has been designed to respect the 100-foot buffer as much as possible, given the development constraints of the project site. Mr. Chyttilo acknowledges that the MND correctly describes the total permanent ground disturbance located less than 100 feet from the onsite wetland is limited to 2,732 sq. ft. (approximately 0.062 acres). Mr. Chyttilo relies on the Gonella Report he attaches to his letter to argue that the Project has the potential to have a significant biological impact. As explained in the letter from the applicant's biologist, Althouse and Meade (attached as Attachment #1), the Gonella Report fails in that regard.

ii. The Gonella Report. Mr. Gonella (at page 2 (item #1) of his report) makes the naked assertion that "proposed construction and permanent activities within this buffer still create a disturbance to the ecology of the wetland that may lead to significant negative impacts to native plant and animal species on-site, as well as the adjacent salt marsh ecosystem." This statement is unsubstantiated opinion. No facts are stated to support his conclusion. Based upon this unfounded opinion, Gonella concludes that more analysis of the onsite wetland is needed in order to determine if potential impacts may occur. This is not substantial evidence of an environmental impact, it is mere speculation. Mr. Gonella's speculations should have been informed by the evidence in the record. The delineation of the onsite wetland was the result of an extensive "Delineation of Potentially Jurisdictional Wetlands and Waters for 755 Sand Pont Road," prepared by Althouse and Meade, Inc., in 2013. Mr. Gonella has failed to review this study and his demand for more study is made in a vacuum.

Gonella also offers the unsubstantiated opinion on page 2 (item#2), alleging that the Project structures (all more than 73 feet away from the wetland) threaten the wetland's integrity. He incorrectly states that increased runoff will inundate the wetland. This is incorrect, as stated below in the discussion of stormwater and impermeable surface.

On Page 3, item #1, Gonella alleges that the duration of the construction period might create its own environmental impact. This is another unsubstantiated opinion, untethered to any facts. Moreover, Gonella's suggestion that new mitigation measures be developed to address a theoretical delay in construction is unreasonable and unnecessary. Gonella fails to consider the totality of the mitigation measures imposed to protect biological resources. Gonella acknowledges that the biological mitigation measures are adequate in MM-BIO-06 and MM-Noise-02. The Mitigation Measures are entirely adequate and appropriate, and they work together to provide significant protection of the wetlands. The existing mitigation measures include the following measures that are interrelated and extensive:

- the Best Management Practices and additional wetland protections required in MM-BIO-07, which include placing "[a] steel edge...along the wetland buffer side of the driveway to prevent discharge of gravel and run-off into the wetland buffer;"
- the construction staging, corridor and work area restrictions in MM-BIO-06;

- the Worker Training requirements of MM-BIO-03, which “will cover wetland and biological resources to be protected in the vicinity of the work area (both sides of Sand Point Road);”
- the effectiveness of the oversight of the Biological Monitor, who must be on-site during any ground disturbance within 100-feet of the on-site wetland as required by MM-BIO-04; and
- P&D compliance monitoring required by the Mitigation Measures in their entirety.

Mr. Gonella’s failure to address the adequacy of these mitigations measures taken together defeats his claim that they are inadequate to avoid potentially significant biological impacts. Mr. Chyttilo and Mr. Gonella ignore the Biological Monitor’s obligation and the County’s commitment to monitor construction activities to avoid impacts as required by the Mitigation Measures. In *Laurel Heights Improvement Association of San Francisco, Inc. v. Regents of the University of California* (1988) 47 Cal.3d 376, 412, the Supreme Court made clear that “an agency’s commitment to monitor the effects of its activities may be considered as evidence of mitigation.”

Mr. Gonella’s refers to federally endangered plants and animal species that are in the CSM on the northern side of Sand Point Road. What Mr. Gonella fails to address is that the CSM is hundreds of feet away from the Project site, across an elevated berm (that is Sand Point Road) and outside the development area of the Project. Mr. Gonella’s mere reference to their existence is inadequate to amount to substantial evidence of potentially significant biological impacts. In one instance, Gonella claims that construction activities on the Project site pose a significant threat to the Saltmarsh bird’s-beak’s fragile micro-habitat. This is mere speculation (unsubstantiated by any facts or study). This naked assertion is not only contrary to the fact that the CSM is far away, across the elevated roadway, it ignores the Mitigation Measures imposed that prohibit construction activities north of the road in their entirety. Similarly, his concern for the Belding’s savannah sparrow is unsubstantiated. Gonella concedes that their nests will not be disrupted by the new residence and construction activities (p.5, item #4). However, he muses that the net new increase in development might disrupt foraging, breeding and new nest selection. We have no information from him about why this might be so. The biology review for the Project that is already part of the record contradicts this statement and in any event construction of the Project will be far away from any such nests and no night work will occur.

Finally, his statement that increased hardscape and landscape irrigation will increase runoff into the on-site wetland and ultimately the CSM to “increase risks to rare species in the CSM” (p.5, item#5) has no supporting analysis. Gonella does not provide any analysis of existing condition run off, the new volume of runoff from the new Project, how this difference might find its way to the CSM, or how any such volume of runoff might in any way negatively impact the CSM, let alone provide substantial evidence of a potential significant impact to endangered species or their habitat. Moreover, all of these concerns relate to the CSM, which Gonella acknowledges are located outside the development area (and far away and across an elevated roadway). Gonella’s attenuated speculation and statement of general concerns here too

is not substantial evidence of any impact. Also, none of his argument or the analysis performed by Gonella even contemplate the proper CEQA analysis. Any impact that Gonella imagines, must be analyzed by considering how such impact is either created or made worse by the difference in conditions created by the Project, when compared to the baseline impacts that exist today from the existing conditions. This, Gonella does not even attempt in his letter.

Finally, Gonella offers his further speculation on possible cumulative impact issue. His suggestions are contrary to CEQA and not relevant. All of Gonella's cumulative impact discussions use the wrong test for identifying cumulative impacts, because he uses prior projects and speculative future projects. Please see the CEQA comment letter filed with this Board on August 23, 2018, as Attachment 1, setting the test for cumulative impacts at pp. 6-9.

b. Althouse and Meade Rebuttal Letter. In addition to all of the discussion above in this portion of the letter regarding biological impacts, we have had the applicant's biologist review Mr. Gonella's letter in its entirety. Althouse and Meade has provided their expert opinions regarding Gonella's letter. A copy of the Althouse and Meade rebuttal letter is attached to this letter. In summary, Althouse and Meade conclude that none of the arguments or speculation in the Gonella letter constitute substantial evidence of a fair argument that there are any potential biological impacts from the Project that are not already addressed in the MND and the applicable Mitigation Measures.

c. There are NO Potentially Significant Impacts to Coastal Resources. The Chyttilo Letter fails provide any evidence that the Project will have a significant impact on Coastal Resources. Chyttilo relies on a report from David Revell PhD (the "Revel Report") to make arguments about why the Wave Study is inadequate or incorrect. The Revell Report is not a complete wave uprush nor is it's a study of sea level rise ("SLR") or ocean wave and storm actions. It is not expert evidence of the impact of waves, storms or SLR. The Revell Report is NOT substantial evidence of any environmental impact by the Project; rather, the Revell Report is a collection of pot-shots, aspersions, and speculation, all suggesting that the Wave Study is somehow inadequate. While Revell makes a highly technical and dense argument, in essence he argues that the Wave Study used the wrong data set, was inadequate in its analysis, and reached incorrect conclusions.

First, we find this last-minute data dump of technical and extensive information about sea level rise and wave action to be inappropriate and unfair both to the applicant and the Board. Although when one culls all of the incorrect and speculative information in the Revell Report, there is no substantive challenge to the Wave Study. However, such conclusion requires a mighty effort in a very short time. Unfortunately, our hydrology expert (Greg Reid who prepared the Wave Study) was unavailable to prepare a point-by-point refutation of the Revell Report during the weekend and Monday before the Board Hearing. We hope to be able to deliver at the hearing a written response from our expert, that more completely and with technical reference explains why the Revell Report is neither correct and why it does not contain any substantial evidence in and of itself regarding any impacts of the Project on coastal resources. There is no reason that this Revell Report could not have been delivered weeks ago, allowing all parties to more thoughtfully and completely respond.

Second, the Revell Report make a fundamental error that is repeated throughout the Revell Report. The Revell Report uses NAVD vertical data, while the Wave Study uses NGVD29 vertical data. This is a critical error, because one must convert NAVD data into NGVD29 data to make sense of any height that is being discussed. For example, one wrong statement in the Revell Report is: *“However, the new production FEMA FIRMs have wave velocity VE zone elevations of 16’ NAVD for the base floor elevations... [and] should have been considered in the report and its implications analyzed in the MND.”* In fact, the Wave Study uses the future proposed FEMA Map flood elevations – apparently Revell either misunderstands that or ignores it. However, Revell refers to the 16 foot NAVD elevation as the “base flood elevation.” The Wave Study uses the exact same number, but it is expressed as a NGVD29 elevation (as are all other numbers in the Wave Study). 16 feet NAVD is equal to 13.4 feet NGVD29. (See the conversion calculation on Attachment #4 attached to this letter.) So, in this one example, Revell mistakenly assumes that the finished floor elevation for the Project in the Wave Study must go up in height, when in fact the 15.5 feet finished floor elevation in the Wave Study (see pages 18 and 19) already matches the new FEMA guidance elevations.

The applicant’s general response to the Revell Report and Chytillo’s Letter is that the Wave Study (i) uses the most current FEMA flood elevations, (ii) has been peer reviewed and approved by the County and by the CCC staff. The Wave Study follows the California Coastal Commission Sea Level Rise Policy Guidance and used sea level rise rates identified by the National Research Council (NRC) and equivalent USACE models. These included the NRC extreme projections and the USACE High Projection. The Wave Study was considered by the Planning Commission in granting its approval of the Project. Also, the Wave Study is substantial evidence that any potential impacts by the Project on coastal resources are either less than significant or, considering the Mitigation Measures, will be mitigated to a level that is less than significant. The Revell Report is not substantial evidence of any significant impact on coastal resources. At best, the Revell Report is speculation, opinion and theory.

i. No Impact on Coastal Flooding on Salt Marsh. Mr. Chytillo argues (at page 10) that the Revell Report concludes that the Project will have a significant impact by interfering with predicted future changes in the Salt Marsh. Of course, this is not substantial evidence of a significant impact for several reasons. First, and most importantly, The Revell Report does not identify one element of the Project that would interfere with the “transgression” of wetlands and beaches. Second, a CEQA impact is only based on the difference between baseline conditions and the conditions of the Project. If there is any element of the Project that could interfere with “transgression”, it is not any new element of the project compared to the baseline condition.

The Revell Report claims the following:

“The MND also does not consider the impact of coastal flooding on the Salt Marsh side to Environmentally Sensitive Habitats in the wetlands and beaches that will likely be affected by the development during the 75 year life of the project. As sea level rises, the wetlands and beaches will need to transgress (move up in elevation and inland) (Myers et al 2017, Rosecranz et al 2018). This development, particularly the western portion, will reduce the ability of the salt marsh habitats to transgress and evolve leading to an impact

to ESHA. The Santa Barbara Coastal Ecosystem Vulnerability Assessment states that says that in the Carpinteria Salt Marsh transition and high marsh converts to mid marsh with only ~10 inches of SLR, affecting 14 of the 16 species of Conservation concern in Carpinteria Salt Marsh (Myers et al 2017). With 5 feet of sea level rise, the marsh largely converts to open water and low mudflat habitats. *Beach loss from coastal squeeze will also occur as sea level drowns beaches backed by cliffs or coastal armoring* (Myers et al 2017).”

Revell fails to explain what part of the Project would “reduce the ability” of the salt marsh to transgress – or in what way it would interfere. Indeed, this statement is contrary to very definition of “transgression” (which is to move up in elevation and inland). If Revell is referring to El Estero, then his statement is simply incorrect, because the Project does not affect the estuary in any way. If Revell is referring to the onsite wetland, he is wrong. The Project is located at least 73 feet and in most cases more than 100 feet away from the onsite wetland. Any “transgression” that would occur inland – is toward the El Estero estuary, not toward the Project. Any “transgression” that would occur through increased elevation of the wetland is not affected by the Project. The wetland could increase in elevation substantially, and in fact spread across the entire buffer area, before coming in contact with the proposed Project. Moreover, the existing residence and topography of the site are the baseline conditions, and any effect from the proposed Project would only be the additional footprint of the Project, in excess of the existing residence. Of course, none of this is discussed in the Revell Report, so there is no substantial evidence in the Revell Report of any impact on some theoretical, long distant future increase in the elevation of the onsite wetland. The MND’s analysis of the wetland and its future survival is complete, wholly accurate, accepted by the County and substantial evidence that there is no significant impact from the Project on the onsite wetland. Moreover, the Mitigation Measures for this project include a substantial improvement of the onsite wetland and surrounding buffer area, including the removal of significant invasive species of vegetation.

ii. The Coastal Commission Letter Does Not Claim that the Project has Significant Impacts on the Wetlands. Mr. Chyttilo argues (at page 10) that the CCC letter to staff raises CEQA claims of impacts to the onsite wetlands. This is incorrect. As explained in our CEQA comment letter filed as Attachment 1 to our letter dated August 23, 2018, appellant attempts to leverage a general statement of concern by the CCC into a claim of significant impact. That is torturing the words of the CCC letter too much. Appellant insinuates that the Coastal Commission requires a smaller footprint for the residence, because the proposed project would result in a significant biological impact due to intrusion into the 100-foot buffer area. This is entirely incorrect. Coastal Commission staff’s letter did not identify any biological impact from development activities within the 100-foot buffer area. Rather, Coastal Commission staff requested the applicant to do a design analysis of a smaller house because such staff wanted to see if a smaller house would preserve the entire 100-foot buffer – even though the buffer does not apply to this Project. The CCC staff has an expressed preference for maintaining the 100-foot buffer area, but there are no identified policies or CCC regulations that require the 100-foot buffer, considering the express exemption for the Project site found in Art. II, Section 35-97.4. To be clear, the Coastal Commission staff letter does not state how the revised Project would have any significant impact on biological resources on the on-site wetland, nor did such staff

state or suggest that the Restoration Plan was ineffective to eliminate any adverse impacts to on-site wetlands.

Therefore, Chyttilo and Revell have failed to show that the MND is inadequate or that the applicable Mitigation Measures do not reduce any identified impact to less than significant. Neither do Chyttilo or Revell provide any substantial evidence of a significant impact to biological resources not otherwise considered in the MND and mitigated by the Mitigation Measures. CEQA does not require any alternatives analysis where there are no significant impacts to avoid or mitigate. (See CEQA Guideline §15126.6).

iii. There are no Potentially Significant Impacts to Coastal Waters. It cannot be overemphasized that the effects of the environment on the proposed project are not impacts to be analyzed under CEQA. Thus, CEQA does not require discussion of the impact of sea level rise (“SLR”) on the Project. (Ballona Wetlands Land Trust v. City of Los Angeles (2011) 201 Cal.App.4th 455, 473 [identifying effects on a project and its users of locating a project in a particular environmental setting is not a CEQA impact].) Mr. Chyttilo ignores this CEQA principle and instead asks the Board for additional delay and further environmental review. The Revell Report refers to post-Thomas Fire debris reports and FEMA maps, which is inconsistent with the Coastal Commission’s Policy Guidance for preparation of the SLR and Wave Uprush Study. As stated above, the Wave Study was based on all appropriate data, and was peer reviewed by engineers for the CCC and for the County. Based on Revell’s own data set, Revell concludes that the Project is “unusual[ly] vulnerable to both coastal hazards and fluvial hazards.” However, this is not a CEQA issue. Revell throws out the unsupported statement that these hazards “...will create a reasonable possibility that the project will result in significant environmental impacts;” yet Revell mentions none! Chyttilo speculates that breakaway wall might create an environmental hazard, but he is wrong. The record shows that the breakaway walls do not detach from the Project, but merely fold flat to the ground to allow seawater to rush over them. There is no hazard from floating debris from breakaway walls. This is confirmed in the MND and supported by the August 3, 2018 letter from Streamline West to County staff, which letter was attached as an exhibit to this firm’s August 23, 2018 letter to this Board.

d. There are no Potentially Significant Impacts from Impermeable Surface Increase.

Mr. Chyttilo acknowledges that the County has approved a Tier I Stormwater Control Plan prepared by Ashley & Vance for this Project as mitigation for potentially significant changes in percolation rates, drainage patterns or the rate and amount of surface water runoff.¹ The Project’s Stormwater Control Plan has been approved by the County Flood Control District and found in compliance with the County’s Project Clean Water Standards. Mr. Chyttilo’s attack on this mitigation is limited to his erroneous statement that the Plan has “no performance

¹ See MND, pp. 31. “(b.) ... a Tier I Stormwater Control Plan (Ashley Vance Engineering, March 14, 2014) prepared for the proposed project includes provisions for runoff to be captured and directed to vegetated areas through storm drain dissipaters.”

standards by which this mitigation measures effectiveness can be gauged.” Mr. Chyttilo is wrong.

The Project’s Stormwater Control Plan requires the installation of an underground storm water detention and dissipation system. This system includes an underground tank which collects surface water runoff and then redirects it to dissipaters that release the captured water at a metered rate less than the rate at which runoff occurs under existing conditions. The dissipaters direct the water from the cistern toward permeable landscaped areas. The design standards of the approved tank and dissipation system and the performance standards are summarized in the 2013 Project Memorandum from Ashley & Vance attached as Attachment #3. The performance standards for the storm water detention system are set forth in the table on the first page of Attachment #3. They show that the increase in post-project storm water runoff rates will not exceed pre-project storm water runoff rates. In addition, neither Mr. Chyttilo nor Mr. Gonella take into consideration the fact that the required Restoration Plan will create greater soil permeability in the landscaped areas by replacing shallow rooted ice plant with native plants that will provide better filtration from deeper roots.

e. There are no Potentially Significant Impacts to Cultural Resources.

i. Chyttilo Letter and Cultural Resources. The Chyttilo Letter (at page 13) refers to the Revell Report as indicating that there may be coastal erosion, exposing lower strata in the soil. This speculative statement is unsupported by any evidence, and is contrary to the Project details. There exist two seawalls as part of the baseline conditions; the 1964 seawall and the 1984 seawall. Neither seawall is anticipated to be removed (but see the discussion above about permitting), and certainly not changed as part of the Project. Accordingly, as part of the baseline conditions of the Project site, no coastal erosion is anticipated to occur. Perhaps the Revell Report did not understand that the Wave Study created a hypothetical circumstance that the seawalls would be eliminated, but only to calculate the effect of waves on an unprotected Project. In fact, the seawalls will remain. Thus, Mr. Revell’s musings about future coastal erosion are not evidence of future erosion, and they are not even speculation that has a basis in fact. This proposed reason for preparing an extended Phase I cultural resource survey is not compelling and not to be recognized under CEQA.

Also, the Chyttilo Letter (at page 13) refers to a study completed by Ferren in 1985 to suggest impacts on cultural resources at the Project. We have had our archaeologist, respond to this report in the letter from Brent Leftwich PhD, dated August 25, 2018, attached to this letter as Attachment #2 (the “Archeology Letter”). In the Archeology Letter, he explains that Ferren is a botanist, not an archaeologist, and that the Ferren Study was a work on the botanical resources of the salt marsh. The Ferren study is not substantial evidence of any cultural resources at the Project site.

ii. Julia Tumamait-Stensile Letter and Cultural Resources. The Board received a letter submitted by Julia Tumamait-Stensile (on behalf of the Chumash tribe), dated August 24, 2018. In her letter, she expressed concerns regarding the Project. The Archeology Letter refers to the Phase I archeology survey of the Project site that is part of this record, and also responds at great length to each concern expressed by Ms. Tumamait-Stensile. For

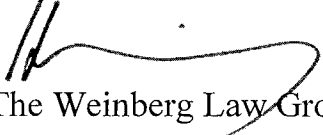
Das Williams, Chairman of the Board of Supervisors
August 27, 2018
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example, Dr. Leftwich explains that the ground moving activity to construct the Project is unlikely to reveal undiscovered cultural resources, because the soil contains several feet of fill dirt, and the original soil is below the level where grading will occur. Also, Dr. Leftwich explains that just because the recent Thomas fire exposed previously unknown native American sites, that does not imply that there are undiscovered native American cultural resources throughout Santa Barbara County, and in particular on the one acre of the Project site. In summary, the Archaeology Letter makes clear that none of the concerns or questions raised by Ms. Tumamait-Stensile are substantial evidence of a significant impact by the Project on cultural resources.

Conclusion

For all of the reasons set forth above, we urge the Board of Supervisors to deny the appeal by Mr. Chyttilo, make the findings recommended by staff, confirm the MND and the Mitigation Measures, and approve the Project.

Sincerely,



The Weinberg Law Group

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peter.adam@countyofsb.org
steve.lavagnino@countyofsb.org
Dianne Black, Director, P&D
Jeff Wilson
Alex Tuttle
Nicole Lieu

Das Williams, Chairman of the Board of Supervisors
August 27, 2018
Page 12

Attachment #1

Althouse and Meade Letter

{Attached}



ALTHOUSE AND MEADE, INC.
BIOLOGICAL AND ENVIRONMENTAL SERVICES

1602 Spring Street, Paso Robles, CA 93446
(805) 237-9626 • Fax (805) 237-9181 • www.althouseandmeade.com
LynneDee Althouse, M.S. • Cell: (805) 459-1660 • lynnede@althouseandmeade.com

August 27, 2018
AM Project #745

Howard Weinberg
The Weinberg Law Group
2550 Via Tejon, Suite 2B
Palos Verdes Estate, CA 90274

Email: Howard Weinberg <howard@weinberglaw.la>

Re: Feldman Residence 755 Sand Point Road; Response to Gonella Letter Regarding Wetland

Dear Mr. Weinberg:

I reviewed Dr. Gonella's letter regarding his concerns about protection of wetland habitat on the Feldman property. We are happy to provide you with evidence that the proposed project intends to protect and restore wetland habitat we investigated and observed over the last eight years.

Gonella mentions that proposed construction and permanent activities within this would disturb wetland ecology and lead to "*significant negative impacts to native plant and animal species on-site, as well as the adjacent salt marsh ecosystem.*" In fact, wetland habitat will be protected during and after construction, onsite drainage will be filtered and will be routed into the restoration area, not into the wetland. Currently, there is no stormwater treatment of runoff from the driveway and home. The few native plant species present in the buffer area will be restored, and pre-construction site inspections by biologists, onsite monitoring for presence native species will prevent potential impacts to nesting birds, or even rabbits that may enter the construction zone. Stormwater, dust, and debris will be prevented from entering the marsh by normal construction management protocols covered by the construction stormwater general permit, and monitored by local County and State authorities. There is no scientific basis for the assertion that a project of this nature and size relative to the resources in the Carpinteria Salt Marsh would have a significant negative impact to native plants, animals, or salt marsh habitat.

Gonella goes on to state that the "*100 foot buffer serves to safeguard the wetland habitats, in part, by preventing disturbance to the soil hydrology that maintains the wetland.*" He then speculates that the Feldman residence drains into the wetland, by stating that "*Hydric soils, underlying wetland vegetation, encompass an area extending beyond the perimeter of aboveground wetland vegetation. In other words, the 'watershed' and soils that maintain the Feldman's on-site wetland encompass an area significantly and measurably larger than [sic] the aboveground, visible portion of the wetland (the vegetation). Thus, the outline of the water-capture footprint of the vernal pool must be maintained to preserve the wetland in its present condition, and avoid significant reduction of its size.*" The Feldman residence is topographically separated by a berm in the buffer located south of the wetland, north of a community waterline utility located within the buffer. We did not detect hydric soils in the buffer south of the berm. It also important to note that the onsite

wetland is not a vernal pool, and contains no vernal pool indicator vegetation or characteristic rings of vegetation that form during the drying period of a vernal pool. It also does not contain a restrictive layer in the soil.

The onsite wetland is connected hydrologically to the Carpinteria Salt Marsh. We started our investigation of wetland habitat on site during an above-normal rainfall year in 2010. That year, Carpinteria's Fire Station reported 24.9 inches of rain with a 64-year average of 19.7 inches. We noticed when the Carpinteria Salt Marsh was inundated, the on-site wetland south of Sand Point Road was saturated, and when tide was low (and the salt marsh not inundated), the wetland soil was not saturated. We continued the investigation of wetland onsite during a below-average rainfall year and found persistent wetland conditions onsite between an onsite berm and Sand Point Road (Althouse and Meade 2013). Hydrologically, this site appears to be connected sub-surface to the Carpinteria Salt Marsh as mentioned in our 2013 report (section 1.4.4) as it relates to the shallow water table associated with the marsh. Soils in the wetland adjacent to Sandpoint Road were sand and sandy loam with a depleted matrix, indicating anoxic conditions between 6 and 13 inches deep. The low area is where salt marsh plants such as pickleweed, alkali heath, and fleshy jaumea occur.

During recent drought years, we observed ice plant encroachment into the wetland edge, a process that slowly compromises wetland integrity, changes the soil chemistry, increases microtopography by thatch (dead plant material) accumulation and by trapping airborne sand. This plant, alone, threatens the potential for the onsite wetland's long-term presence on site.

Gonella asserts that the proposed project will compromise the integrity of the wetland and will contribute to habitat fragmentation. In fact, the project will protect and enhance the onsite wetland. The restoration plan is designed by specialists familiar with this part of the Central Coast who specialize in coastal wetland and habitat restoration projects. We successfully restored pickleweed habitat across the marsh following floods in 1998 by working with Union Pacific Railroad and Wayne Ferren, manager of the Carpinteria Salt Marsh (now retired). We are currently working with the California Coastal Commission Staff and The Nature Conservancy on the Dangermond Preserve (Gaviota Coast). As part of our process with Coastal Commission staff, we are looking at alternatives to glyphosate appropriate for ice plant removal. Glyphosate was mentioned in the restoration plan as the third of three options, and one that must be approved for use in aquatic habitat. For this small site, we recommend solarization and hand-removal, as the priority approaches for ice plant removal. Our projects in the coastal zone rely on locally-sourced seed, especially for species that occur near the Carpinteria Salt Marsh. Landscape plans were prepared by a licensed landscape architect familiar with working in sensitive coastal areas, and with whom we have worked here in California for many years.

Sincerely,



LynneDee Althouse

Das Williams, Chairman of the Board of Supervisors
August 27, 2018
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Attachment #2

Brent Leftwich PhD Letter

{Attached}



Brent Leftwich, Ph.D., R.P.A.

236 Palo Alto Dr.

Goleta, CA 93117

805-964-5529

brent@leftwicharchaeology.com

www.leftwicharchaeology.com

August 25, 2018

Howard Weinberg, Esq.
The Weinberg Law Group
2550 Via Tejon, Ste. 2B
Palos Verdes Est., CA 90274

Re: Response to Comments, 755 Sand Point Road Project

Dear Mr. Weinberg:

I have reviewed Julia Tumamait-Stensile's August 24, 2018 letter in which she expressed concerns regarding the 755 Sand Point Road Project near Carpinteria, CA. I am familiar with Ms. Julia Tumamait-Stensile, although I have not directly met her. She is an established leader of the Chumash, and I will try to address her concerns for her cultural heritage with the appropriate level of respect.

I was retained to provide a Phase I Archaeological Report in order to assess the potential of the project area to contain cultural resources. This included Native American consultation as required by the Santa Barbara County *Fieldwork and Reporting Guidelines for Cultural Resources* (2018). As part of this process, I sent Ms. Tumamait-Stensile, together with several other individuals identified by the Native American Heritage Commission (NAHC), a letter on May 14, 2018, asking if she had any concerns involving the project at 755 Sand Point Road. The letter also requested a response about a similar but separate project located at 501 Sand Point Road. In accordance with standard procedures, I waited two weeks for a response. After two weeks passed, I had not received a response. I then attempted to reach Ms. Tumamait-Stensile via a phone, but I was unable to contact her. The only Native American response came from Patrick Tumamait, who called me in early June (after my Phase I report was submitted) requesting additional information about the project. He did not have any immediate concerns, but asked to be kept apprised should an unanticipated site be found during construction. No other individuals contacted via the May 18, 2108 letter or follow-up phone calls two weeks later responded.

As you requested, I will address some of the specific concerns posed in Ms. Tumamait-Stensile's August 24 letter. I will limit my responses only to issues involving cultural resources.

- 1. Familiarity with the Area.** Ms. Tumamait-Stensile complains that many of the archaeologists who she's encountered working in the area are not familiar enough with local archaeology or cultural history. As I previously stated, I have not met Ms. Tumamait-Stensile and thus I realize she may not be familiar with my qualifications. I have been working in Santa Barbara County for about 18 years. I am on the qualified / approved archaeologist list for both the City and County of Santa Barbara, as well as various other lists along the Central Coast. I have a PhD in the science from the University of California at Santa Barbara, working with the most respected individuals in local archaeology. Further, I have contributed to well over 100 Phase I reports. In short, I am amply qualified to conduct archaeological assessments of the project area.
- 2. Condition of the Sandyland Sand Spit.** As detailed in the Phase I report, the sand spit that comprises the Sandyland community along Sand Point Road has been substantially altered over the last 100 years. The original formation was significantly wider and contained dune formations. Most of that original formation was subsequently destroyed by the interruption of along shore currents caused by the 1929 construction of Santa Barbara Harbor. By 1943, over half the spit had disappeared, and portions of the wetlands were filled in response. To combat this erosion, a seawall revetment was constructed in 1954 (and a second revetment constructed in 1984, seaward of the first), and several feet of fill soil were placed onto the spit to raise its elevation. The fill soil was obtained from the western end of the marsh. This means that the original sand dune spit was partially eroded away and then mixed with imported fill. A Phase I assessment by Conejo Archaeological Consultants in 2000 (Maki 2000) estimated at least 5 feet of fill along the length of Sand Point Road. A subsurface geoprobe testing by Stone and Victorino (2010) at the terminus of Sand Point Road found at least 3.5 feet of fill. Therefore, there appears to be little original ground surface left. Ground disturbing activities associated with the proposed project, including grading, should be contained within the existing fill. The likelihood that significant, undiscovered cultural resources would be impacted is very low. Further, the mitigation measures recommended in the Phase I report includes language for unanticipated finds during construction activities, including stop work instructions and requiring the client to contact a qualified archaeologist, are part of the conditions of approval.
- 3. Ice Plant Coverage of the Site.** Ms. Tumamait-Stensile implied that the presence of ice plant at the property prevented a valid assessment of the parcel using a Phase I pedestrian survey. It is true that ice plant does cover much of the property. However, the visibility in the southern portion of the property, where project impacts will occur, proved to be good due to patchy vegetation. Ice plant coverage was thicker in the northern part of the project area. As I surveyed the northern part of the site, the ice plant was systematically pulled up, and the ground was scraped to

bring visibility to acceptable levels. Thus, overall visibility was sufficiently clear to allow for a valid and complete Phase I assessment. No midden soils or artifacts were observed that would indicate the presence or possible presence of a prehistoric habitation site. While some marine shell was present, it most likely originated from the salt marsh during previous fill episodes and is therefore not a component of a large archaeological site.

4. **Necessity of Extended Phase I Testing**, The letter states that Extended Phase I testing, involving shovel test pits (STPs), should have been conducted as part of the assessment. In my professional opinion, this is currently unwarranted. Extended Phase I projects are generally conducted when projects occur within or near the boundaries of a previously recorded site, to delineate the boundaries of a site, to assess the disturbance level of a site, or to test the presence / absence of cultural materials when a regular Phase I proves inconclusive or determines there is a significant probability of buried cultural deposits. Given the results of the current Phase I, the results of previous archaeological assessments in the vicinity, and the geomorphology of the property, an Extended Phase I project is not deemed necessary for the current project. Further, a typical STP extends to just over 3 feet in depth. The project area is estimated to sit on 5 feet of fill. Therefore, it is unlikely that extended Phase I testing using STPs would reach the native soil surface.
5. **Unrecorded Native American Sites**. Ms. Tumamait-Stensile is correct when she states in her letter that there are many unrecorded and unknown Native American sites in the Santa Barbara area. There have been Native Americans here for over 10,000 years, and I myself have recorded dozens of new sites during the course of my career. In her letter, Ms. Tumamait-Stensile states that Native Americans have lived all over the area, and infers if that is the case, they must have lived in the project area as well. Further, she cites new sites found during post-burn investigations of the Thomas Fire area as proof that prehistoric sites are located everywhere. While I respect Ms. Tumamait-Stensile's perspective, from a scientific standpoint, I have to disagree with this argument. Just because sites exist in the larger region, and indigenous people have lived in the area for thousands of years, does not mean that significant cultural resources exist within the precise boundaries of the project area. The Thomas Fire burn area is substantially removed from the Sandyland community, and the discovery of new sites there is immaterial to the existence of an unrecorded site in the project area. The Carpinteria Salt Marsh was indeed most likely utilized by indigenous people. In fact, a large habitation site, SBA-8, lies at the eastern end of the marsh. However, the Phase I assessment is focused on the potential for the precise project area to contain significant cultural resources. Given the history of ground disturbance, previous archaeological investigations in the area, and the results of a field analysis, the likelihood of such cultural resources being impacted is low.

In summation, I appreciate the opportunity to respond to Julia Tumamait-Stensile's comments regarding the project at 755 Sand Point Road. I understand that her main concern is protecting her cultural heritage. While I do not know her personally, I know she

has been an active participant in numerous archaeological projects as a representative of the Chumash, and I do respect her opinion. However, in terms of this specific project, it is my professional opinion that the Phase I Report has addressed many of her concerns. The evidence indicates the proposed project has a very low probability of impacting unrecorded, significant cultural deposits, and further testing is unlikely to alter this assertion.

I will also briefly address Mr. Chyttilo's August 24, 2018 letter to the Santa Barbara County Board of Supervisors, specifically the paragraph "Potentially Significant Impacts to Cultural Resources" on page 13. Mr. Chyttilo relies on the monograph *Carpinteria Salt Marsh: Environment, History, and Botanical Resources of a Southern California Estuary* by Wayne R. Ferren, Jr. (1985). The focus of this work is on the botanical resources of the marsh, and Ferren himself is a botanist. Ferren does spend several pages of the monograph discussing the prehistoric history of the Carpinteria area, and even though not an archaeologist himself, he does cite Larry Wilcoxon (an established and respected local archaeologist). However, counter to what Mr. Chyttilo implies, there is no specific discussion of indigenous occupation of the project area or sand spit. The text contains a very general, outdated description of Carpinteria prehistory, and page 43 cited by Chyttilo primarily discusses *Mishopshinow*, a large village site on the southeast side of the City of Carpinteria and several miles from the project area. Thus the Ferren citation is not germane to the current project, and it does not support the presence of buried cultural deposits. I have already addressed his claim concerning the necessity of additional extended Phase I testing above.

Identifying and mitigating impacts to significant, important cultural resources is precisely why the cultural resource management profession exists. Moreover, CEQA was enacted to create a framework and guidance for how one should identify resources, mitigate impacts, and, in this case, provide the County with guidance in assessing impacts to significant cultural resources. The goal of a Phase I evaluation is to ascertain the probability of significant cultural resources existing within a circumscribed area, given the context of the wider region. In this matter, regarding 755 Sand Point Road, the research conducted during the Phase I assessment indicated a very low probability that this specific project would impact significant cultural resources.

Thank you,



Brent Leftwich, Ph.D., R.P.A.
Owner and Principal Investigator
Leftwich Archaeology

Das Williams, Chairman of the Board of Supervisors
August 27, 2018
Page 14

Attachment #3

Ashley and Vance 2013 Storm Water System Memo

{Attached}

Project Memorandum

Project Name: **The Feldman Residence** Date: **4/23/2013**

Subject: **Preliminary Grading & Drainage Narrative** AV Job Number: **13144**

Attention: **Mark Johnson** **Jennifer Siemens**
Project Architect **Planner VI**
Jacobsen Architecture, LLC **Dudek**

As requested during our April 19, 2013 phone conversation, the following narrative describes the proposed drainage for the post project condition at 755 Sand Point Road as depicted on the attached Preliminary Grading & Drainage Exhibit, dated April 23, 2013.

Please contact me with any questions

Sincerely,



Jason J. Gotsis, P.E.
 Principal Engineer

jason@ashleyvance.com
 (805) 962-9966 ext 160

Underground storm water detention system to mitigate the following storm events:

Return Period (Years)	Pre-Project Runoff (CFS)	Post-Project Runoff (CFS)	Post-Project Routed through Detention (CFS)
2	0.12	0.12	0.12
5	0.27	0.38	0.24
10	0.40	0.51	0.32
25	0.58	0.68	0.47
50	0.72	0.82	0.68
100 ¹	0.86	0.96	0.88

1. Post project routing is slightly higher than pre-project runoff for 100 year return period, but this should not be an issue as the entire site will be submerged during a 100 year event (11.01 BFE provided by County of Santa Barbara Flood Control District.)

Site storm water runoff will be routed via area drain and pipes to an underground storm water detention system (see attached manufacturer's information) to mitigate post-project storm water runoff. The area drains and pipes along the southerly portion of the proposed structure will pick up runoff beneath the terrace that will be constructed with un-grouted joints. The storm water detention system allows for a portion of the runoff to infiltrate into rock voids and native soil. The overall dimensions of this underground storm water detention system is 22' long x 16' wide x 4' high with 12" minimum cover, in traffic condition,



per the manufacturer's recommendation. It is recommended the project Geotechnical Engineer review and approve this concept with respect to existing soil and ground water condition, and proximity to proposed structure.

Because the existing site is relatively flat to the north, the proposed detention system will be routed to a proposed pump system to convey the storm water runoff to a storm drain dispersion/dissipation device (see attached sketch) consisting of a perforated pipe in a rock filled trench. This storm water will be discharged in a non-erosive manner towards the northerly portion of the site consistent with the pre-project runoff pattern. A storm drain dispersion/dissipation device is also proposed to discharge a small portion of runoff at the westerly portion of the site in a non-erosive manner.

Surface runoff in the gravel driveway will be directed towards a proposed area drain. Since the driveway is to be a class 2 aggregate base, any hydrocarbons will most likely be absorbed into the surface prior to running off into the storm drain system.



Ashley Vance

CONSULTING ENGINEERS

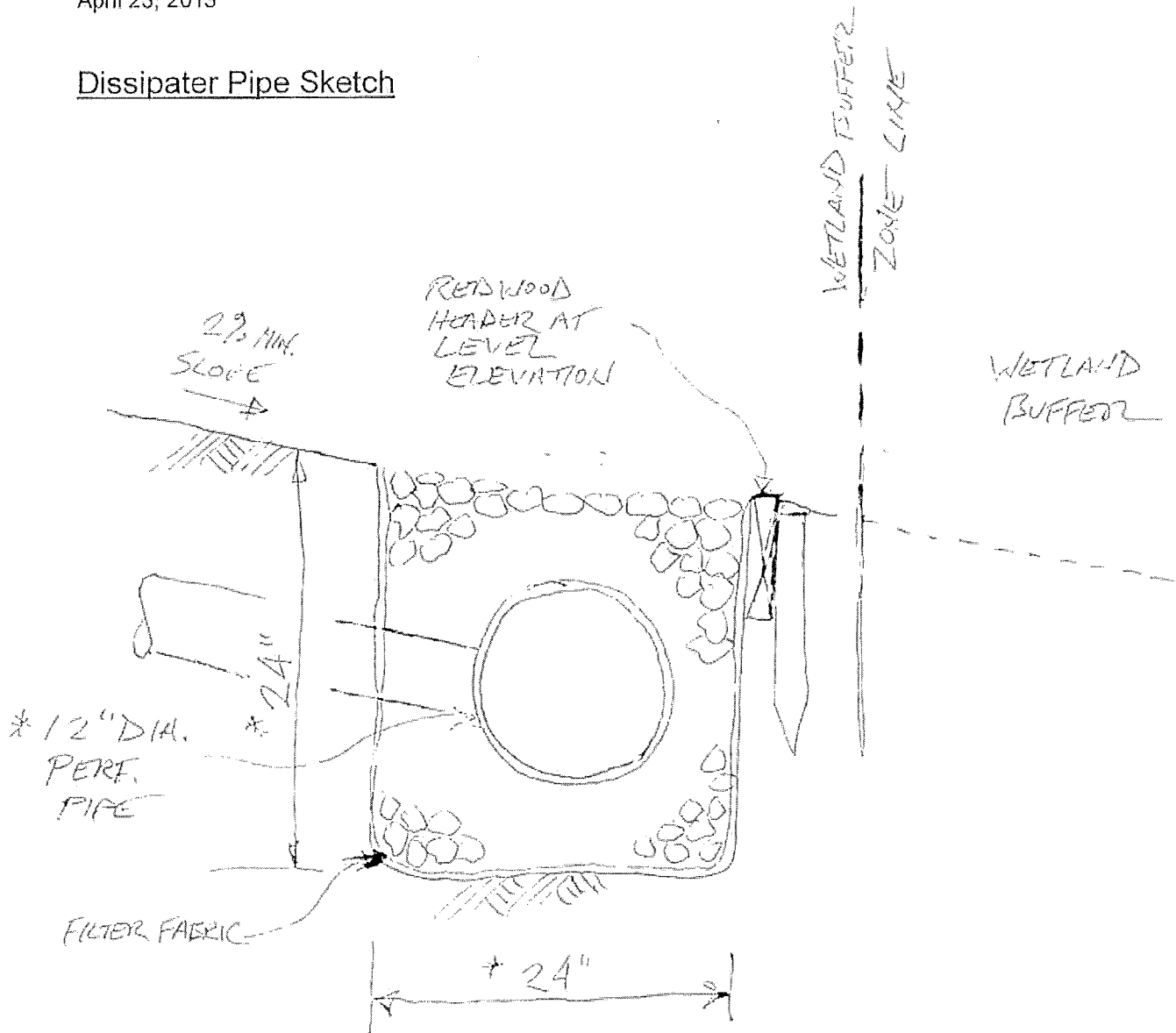
260 Walnut St., Suite C
San Luis Obispo, CA 93401

924 Carpola St., Suite D
Santa Barbara, CA 93101

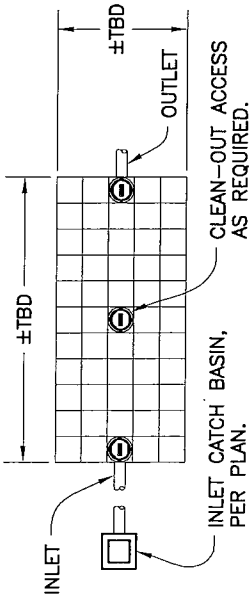
www.ashlyvance.com

April 23, 2013

Dissipater Pipe Sketch



* DIMENSIONS APPROXIMATE



PLAN VIEW

1 TO 4 MODULE STACKS
SCALE: NONE

COMPACTED SOIL AS APPROVED AND RECOMMENDED BY PROJECT GEOTECHNICAL ENGINEER.

BACKFILL, 12" MINIMUM ABOVE CUDO™ SYSTEM, COMPACTED AS REQUIRED BY PROJECT GEOTECHNICAL ENGINEER.
BACKFILL MATERIAL PER CUSTOMER BEDDING/BACKFILL SPECIFICATION.

PERMEABLE PAVEMENT OR PAVERS.

Ø24.00" MAINTENANCE/INSPECTION ACCESS COVERS TYPICAL FIELD Poured CONCRETE COLLAR REQUIRED, BY OTHERS.

TYPICAL CATCH BASIN OR OTHER INLET STRUCTURE PER PLAN.

INLET PIPE, Ø18.00" MAXIMUM, FOR CONNECTION CONFIGURATION REFERENCE CUDO-0008 & CUDO-PIPE-0001.

INLET CUDO™ SHOULD USE PERFORATED PARTITION PANELS ON THREE SIDES FOR OPTIONAL GROSS POLLUTANT FILTER (GPF).

GROSS POLLUTANT FILTER (GPF) OPTIONAL ON CUDO 2 THRU 4, NOT AVAILABLE IN CUDO™ 1 SYSTEMS.

SIDE PLUGS MAY BE SUPPLIED AS PERFORMED AT THE DISCRETION OF KRISTAR

NOTES:

1. INSTALL GEOGRID LAYER, (TENSAR™ BX1200 OR EQUIVALENT) IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
2. SYSTEM ENCASED ENTIRELY WITH 36 MIL REINFORCED POLYETHYLENE IMPERMEABLE LINER OR EQUIVALENT AS REQUIRED.
3. FIELD Poured CONCRETE COLLAR REQUIRED AROUND ALL ACCESS COVERS & HATCHES, BY OTHERS.
4. ALL EXTERNAL PIPING & ANGLES BY OTHERS. REFER TO PLANS.

OPTIONAL GEOGRID BI-AXLE ON GRAVEL OR SAND. (TENSAR™ BX1200 OR EQUIVALENT) 12" MAXIMUM BELOW FINISHED GRADE AT SHALLOWEST POINT. SEE NOTE 1.

3.00' [36.00"] MINIMUM GEOGRID MATERIAL FROM EDGES OF TANK.

12.00 MAXIMUM.

24.00 MINIMUM.

12.00 MINIMUM.

WRAP SIDES & BOTTOM OF SYSTEM WITH IMPERMEABLE LINER. SEE NOTE 2.

ONE TO FOUR MAXIMUM CUDO™ MODULE STACKS.

4.00 TO 6.00 MINIMUM.

OUTLET PIPE.

Ø18.00" MAXIMUM. FOR CONNECTION CONFIGURATION REFERENCE, CUDO-0008 & CUDO-PIPE-0001.

VARIABLE

12.00 MINIMUM

SECTION / CUTAWAY VIEW
SCALE: NONE

Kristar Enterprises, Inc.
360 Sulton Place, Santa Rosa, CA 95407
Ph: 800.579.8819, Fax: 707.524.8186, www.kristar.com

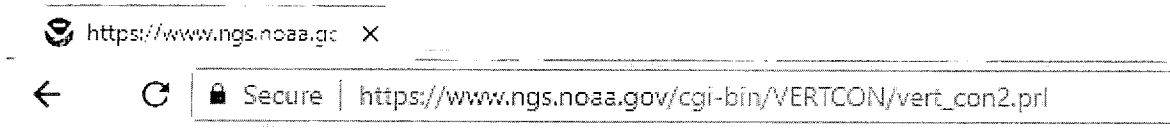
CUDO™ Stormwater Detention System
Typical Installation Detail
Permeable Pavement Area

KRISTAR'S STANDARD DETAILS DEMONSTRATE RECOMMENDATIONS FOR INSTALLATION AND USE. STANDARD DIMENSIONS OF KRISTAR PRODUCTS, KRISTAR'S DETAILS DO NOT SUPERSEDE ANY FEDERAL, STATE OR LOCAL AGENCY REGULATIONS. IT IS THE RESPONSIBILITY OF THE USER TO VERIFY ALL REGULATORY REQUIREMENTS. KRISTAR HAS NOT AUTHORIZED, AND IS NOT RESPONSIBLE FOR ANY ALTERATIONS BY OTHERS TO THE KRISTAR STANDARD DETAILS.

DRAWING NO. 0000 EGO
DATE: JPR 7/21/08
SCALE: NONE
DRAWN BY: JPR 3/20/12
CUDO-DT-0002
REV B
SHEET 1 OF 1

Attachment #4

Calculation of Vertical Datum Conversion



Questions concerning the VERTCON process may be mailed to [NGS](#)

Latitude: 34 24.5

Longitude: 119 41.1

NAVD 88 height: 16.0 FT

Datum shift(NAVD 88 minus NGVD 29): 2.644 feet

Converted to NGVD 29 height: 13.356 feet