CALIFORNIA COASTAL COMMISSION
CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
PHONE: (831) 427-4863
FAX: (831) 427-4877
WEB: WWW.COASTAL.CA.GOV

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Th25a

Prepared February 10, 2016 for February 11, 2016 Hearing

To: Commissioners and Interested Persons

From: Susan Craig, District Manager
Ryan Moroney, Supervising Coastal Planner

Subject: STAFF REPORT ADDENDUM for Th25a
Coastal Development Permit Number 3-16-0011 (Big Creek Reserve Facilities Upgrade)

The purpose of this addendum is to address comments received in the time since the staff report was distributed, including new input and information from UC as well as a letter signed by four locally elected officials asking for certain modifications to proposed Special Condition 2 (i.e., the special condition regarding the Public Access Management Plan which, among other things, reiterates the commitment in the Access Plan to future California Coastal Trail (CCT) planning for this stretch of coast). Staff has carefully considered the input, and believes that there exists a common middle ground between staff's recommendation and the suggestions made in comments, and this addendum is intended to bridge any perceived gaps and to identify an outcome that all can support. In that context, staff is making certain refinements to the staff recommendation below regarding Special Condition 2; none of which change the basic staff recommendation for project approval.

As a preliminary matter, staff very much appreciates all of the public comment received in support of this item, as well as the comments identifying interest in, and potential concerns with, Special Condition 2 as originally proposed in the staff report. It is clear that there is a strong interest in participation in defining locations for the CCT in the Big Sur area. It is also equally clear that the Applicant, and the local community, have legitimate concerns with regard to how the CCT is developed and implemented through this spectacular coastal region. The CCT as it would apply in the Big Creek area (i.e., approximately 2 linear miles of coastal shoreline) is what is at issue in this particular item.

Despite some of what UC has indicated in their comments, the issue of the CCT as it relates to UCSC's Big Creek Reserve has been a fundamental point of discussion since the time that UC first approached staff regarding this proposed project. Indeed, this issue was identified in the initial pre-application meeting over a year ago, and it has since formed the basis for UCSC's current proposed Public Access Plan (initially modelled after UC's access plan for Younger Lagoon Reserve in the City of Santa Cruz that allows a beach closure but only subject to regular Coastal Commission reevaluation), and it was also the genesis for staff-recommended Special Condition 2. Staff and UC have to date been unable to reach mutual consensus as to how best

address potential CCT planning at Big Creek. At its core, UC's and Staff's positions can be characterized as a difference of opinion over how best to plan for future potential CCT options along this approximately 2 mile stretch of coast, with UC wanting to establish hard parameters for the CCT at Big Creek that would remain static (limiting any future CCT options to only controlled and docent-led trail access) on the basis of sensitive habitat onsite and its educational/research mission for the Big Creek Reserve, with staff wanting to acknowledge that much is not known about how the CCT might fit in at Big Creek consistent with sensitive habitat onsite and UCSC's educational/research mission, and further wanting to allow for ongoing local planning efforts and context to be brought to bear in the future to help define potential CCT options at that time. Either way, the issue is not about the CCT now so much as the CCT as it might exist in the future, given that the Special Condition provides a mechanism *future* trail planning, and is not about requiring any trail requirements now.

In that context, UC proposes a different version of Special Condition 2 than the version staff proposed in the original staff report. Staff believes that both versions of Special Condition 2 share a common goal of providing for public access at Big Creek, including CCT access, via a Public Access Management Plan structured to be re-reviewed at 5 year increments. However, there is a fundamental distinction between UC's proposed version and staff's; namely UC would limit any CCT trail access for all time to be "controlled" access (e.g., docent-led access), while staff acknowledges that CCT objectives (e.g., general, not strictly docent-led, access) may be achievable onsite in the future even considering UCSC's concerns and present site constraints. At the same time, staff acknowledges that it is not clear how CCT planning may ultimately play out at Big Creek. And that is the main point of Special Condition 2. We do not know where the CCT ought to be located and how it ought to be managed across the 2 miles of Big Creek. Nobody does at this point, and final decisions have not been made. Thus, the intent is to be able to provide a means to evaluate what might be appropriate in the future, and to provide a mechanism for developing and implementing solutions at that time at Big Creek. Again, at its core, Special Condition 2 is nothing more than a reevaluation tool designed to ensure effective ongoing public access as a condition of UC's development (including a process for implementing decisions regarding the CCT at Big Creek). Without Special Condition 2, or with the version proposed by UC, the possibility of general CCT connectivity through the Big Creek site will be determined without the benefit of any other input for this stretch of coast, including with respect to local community CCT trail planning efforts. Staff does not believe that is appropriate. Staff continues to believe that it is best to let the local community planning process play out, as advocated by both elected officials and the local community planning group, and to let CCT decisions as they apply to Big Creek occur through that process. Thus, although staff is amenable to making changes to proposed Special Condition 2 to address UC's proposal and comments received, the changes are intended to make clear that the Public Access Plan should be subject to review every five years to evaluate efficacy in achieving stated public access goals (such as CCT planning efforts), and Special Condition 2 should allow for a mechanism to rectify unmet objectives, including the ability to modify the Access Plan to achieve those objectives (see below).

At the same time, staff believes it important to correct certain misunderstandings that appear in correspondence received on the Staff Report. Most notably, some comments received allege that Special Condition 2 is designed to circumvent the local CCT planning process (replacing it with some sort of Commission staff process), and that it would interfere with local and regional CCT

planning efforts. These are not accurate statements. First, UC's proposed Access Plan itself, which is incorporated into the permit approval by Special Condition 1, explicitly commits UC to "participating in community and regional planning discussions centered on the Coastal Trail, in general, and specifically on the Big Creek Reserve" (see Exhibit 4 in the staff report). And staff concurs that this is appropriate. In addition, nothing in Special Condition 2 prohibits coordination with local and/or regional CCT planning efforts, or otherwise "exempts" UC from the local CCT planning process. Rather, as has long been staff's position, the local working group facilitates CCT processes, processes that staff has been participating in, which represent a critical means of developing input on the CCT, and which must necessarily conclude through a Monterey County LCP amendment. Although the role of the local working group process is clear, staff is willing to make this point even more explicit (see below). Second, issues have been raised regarding allowing the Executive Director to be the arbiter of changes to the Access Plan. It is worth noting (and as acknowledged in UCSC's version of Special Condition 2) that any modification to the Public Access Plan which would result in "development" as defined under the Coastal Act (such as a CCT connector trail, for example) would have to be approved by the Commission itself at a public hearing, and the Executive Director does not have the authority to unilaterally require that a CCT connector be built anyway.

To address concerns raised, staff has utilized UC's proposed Special Condition 2 as a starting point, and made minimal modifications to UC's version to make clear that the intent of the periodic revaluation is simply to ensure that future CCT planning efforts are actually implemented at Big Creek. Thus, the staff report is modified as shown below to replace staff's recommended Special Condition 2 with UCSC's proposed Special Condition 2, as modified accordingly (see staff report page 9). Staff's proposed modifications to UCSC's version of Special Condition 2 are shown in ~~strikethrough~~/underline:

> ***Public Access Management Plan.*** *Public access on the Reserve shall be provided to the general public consistent with, and pursuant to, a Public Access Management Plan (the "Access Plan"). The Access Plan is based on the best possible assessment of the capacity of the Reserve to sustain use and the level of intensity of such use in light of the fragility of the Reserve's ecological integrity and ongoing scientific research, and the Coastal Act's objective of maximizing public access.*
>
> *The Permittee shall submit a report ("Review Report") by December 31st of each 5th year (with the first Review Report due December 31, 2020) to be submitted to, ~~and~~ reviewed, and approved by~~,~~ the Coastal Commission's Executive Director. The Review Report should explain how the Permittee has been successful at achieving stated objectives of the Access Plan, including in terms of objectives associated with community and regional planning discussions for the California Coastal Trail (CCT), both in general and as specifically applicable to the Big Creek Reserve, and how Permittee can achieve any unmet objectives in the preceding five-year period. If the Executive Director, based on the Review Report, reasonably concludes that the Permittee's proposed method of achieving unmet objectives of the Access Plan needs revision, the Permittee shall submit a revised Review Report to the Coastal Commission staff that identifies feasible actions, including potential revisions to the Access Plan, to address deficiencies in meeting the objective of the Access Plan.*

3-16-0011 (Landels-Hill Big Creek Reserve) Addendum

The intent of the Review Report is 1) to evaluate the fulfillment of objectives under the Public Access Management Plan, 2) to facilitate local and regional CCT planning efforts, including in terms of helping to address north-south CCT connectivity through and in the vicinity of the Reserve, and ~~2~~3) to identify any potential modifications, proposed by either the Permittee, Coastal Commission staff, or both, that address how to achieve unmet objectives within the Access Plan, including with respect to potential CCT modifications based on the approved Review Report. Any revisions to the Access Plan requiring an intensification of use or enlargement of the access area shall require approval by ~~concurance of~~ the Commission.

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SANTA CRUZ, CA 95060
PHONE: (831) 427-4863
FAX: (831) 427-4877
WEB: WWW.COASTAL.CA.GOV

Th25a

Filed:	1/6/2016
Action Deadline:	7/4/2016
Staff:	Ryan Moroney - SC
Staff Report:	1/27/2016
Hearing Date:	2/11/2016

STAFF REPORT: CDP HEARING

Application Number:	3-16-0011
Applicant:	University of California
Project Location:	Landels-Hill Big Creek Reserve, 58801 Highway 1 in Big Sur, Monterey County.
Project Description:	Application of University of California to remodel the existing staff residence and construct new facilities, including a classroom, two residences and related facilities; after-the-fact approval for various development activities that have occurred between 1979 and 2012, including the "Terrace Camp" yurt and latrine, a storage shed located under the Big Creek Bridge, a flush toilet at the Gatehouse site, a generator shed, solar panels and water storage tanks at the Whale Point site.
Staff Recommendation:	Approval with Conditions.

SUMMARY OF STAFF RECOMMENDATION

The University of California (UC) proposes to construct new and upgraded facilities at the Landels-Hill Big Creek Reserve (Reserve) located on the Big Sur coast five miles north of the town of Lucia. The Reserve is an ecological reserve of approximately 4,000 acres administered by the UC's Natural Reserve System (NRS) and is managed by a resident director and steward working from the office of the Natural Reserves Director within the Division of Physical and

Biological Sciences of UC Santa Cruz. The Reserve serves the University as a natural laboratory and as an outdoor classroom, in which instruction and research take place and which serves the public through protection of coastal habitats.

The proposed project would remodel an existing staff residence and a construct a new approximately 1,400-square-foot classroom adjacent to the existing residence at the "Gatehouse" site. At a separate location, the "Coyote Creek" site, the project would construct two small residences and an attached garage workshop. The Application is also seeking after-the-fact approval for various development activities that have occurred between 1979 and 2012, including the "Terrace Camp" yurt and latrine, a storage shed located under the Big Creek Bridge, flush toilet at the Gatehouse site, as well as a generator shed, solar panels and water storage tanks at the "Whale Point" site.

As a whole, the project raises potential issues with respect to the public access, visual resource, water quality and environmentally sensitive habitat policies of the Coastal Act. Specifically, the proposed development in the Gatehouse area is located within the riparian area of Big Creek and is also potentially visible from Highway 1. However, the Applicant has worked closely with Commission staff to ensure that all new development in this area will be contained within an already disturbed footprint of existing development, and will not be visible from the Highway. Likewise, the Applicant has worked closely to ensure that the proposed new development at the Coyote Creek site will not be visible from any protected public viewing areas. To ensure these outcomes, staff is recommending special conditions to ensure that the proposed new development will be consistent with the Coastal Act resources issues identified above. Specifically, with respect to public access, staff has worked closely with the Applicant on developing an appropriate Public Access Plan for the site, which is part of the proposed project and will allow for more formalized public access to the site consistent with the scientific and educational purposes of the Reserve. **Special Condition 1** makes the Public Access Plan an enforceable aspect of this CDP, and **Special Condition 2** requires review and approval of the Public Access Management Plan every five years by the Executive Director in order to identify any potential desired modifications, including in terms of helping to address north-south California Coastal trail connectivity in the vicinity of the Reserve. With respect to visual resources, the proposed new development has been re-sited to ensure it will not be visible from Highway 1, and **Special Condition 3**, requires a post-construction evaluation of the new development to ensure such. Further, **Special Condition 5** requires post-construction "As-Built" plans identifying all approved development on the property. With respect to water quality, the **Special Conditions 6 and 7** ensure that the proposed septic systems meet all Monterey County requirements and will not impact adjacent water courses and that construction Best Management Practices be enforceable aspects of this permit. Finally, with respect to Environmentally Sensitive Habitat, the project is conditioned to require that all biological resources mitigation measures identified in the Initial Study/Mitigated Negative Declaration as enforceable requirements of this permit (**Special Condition 1**) and that appropriate raptor surveys and avoidance measure be implemented in the event that construction is required to take place during the nesting season for sensitive raptors (**Special Condition 8**).

Violations of the Coastal Act exist on the subject property including, but not limited to the "terrace camp" yurt and latrine, the Caltrans storage shed located under the Big Creek Bridge,

flush toilet at the Gatehouse site, a generator shed, solar panels and water storage tanks at the Whale Point site. With respect to the development that has occurred without the benefit of any permits, the Applicant has submitted information regarding the details of such development as well as a biotic survey to assess potential natural resource impacts that may have occurred associated with those development activities. As detailed below, only the Caltrans shed located under the Big Creek Bridge poses concerns with respect to both visual resource and environmentally sensitive habitat resource issues. **Special Condition 4** therefore requires that it be removed or relocated. Approval of this application pursuant to the staff recommendation, issuance of the permit, and the applicant's subsequent compliance with all terms and conditions of the permit will result in resolution of the above described violations.

As conditioned, Staff believes the proposed development can be found consistent with the Coastal Act. Accordingly, staff recommends that the Commission approve a conditioned CDP for the project. The motion to act on this recommendation is found on page 4 below.

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APPENDICES

EXHIBITS

I. MOTION AND RESOLUTION

Staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development. To implement this recommendation, staff recommends a **YES** vote on the following motion. Passage of this motion will result in approval of the CDP as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Motion: *I move that the Commission approve Coastal Development Permit Number 3-16-0011 pursuant to the staff recommendation, and I recommend a yes vote.*

Resolution to Approve CDP: *The Commission hereby approves Coastal Development Permit Number 3-16-0011 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.*

II. STANDARD CONDITIONS

This permit is granted subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment**. The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

1. Approved Project. Subject to these standard and special conditions (including modifications to the project and/or the project plans required by them), this CDP authorizes implementation of the Landels-Hill Big Creek Reserve Facilities Upgrade consisting of: remodeling of the existing staff residence and construction/installation of new facilities, including a classroom and related facilities at the Gatehouse site; construction of two residences and related facilities at the Coyote Creek site; after-the-fact (ATF) approval for the Terrace Camp yurt and latrine; ATF approval for a flush toilet at the Gatehouse site; ATF approval for the two cabins, a generator shed, workshop, solar panels and water storage tanks at the Whale Point site; removal or relocation of the Caltrans shed; and implementation of a Public Access Plan and the Mitigation Monitoring and Reporting Program approved as part of the Initial Study/Mitigated Negative Declaration for this project (State Clearinghouse No. 2014111034), all as more specifically described in the proposed project materials (see **Exhibit 2** (Project Plans), **Exhibit 3** (Detailed Project Description), **Exhibit 4** (Public Access Plan), and **Exhibit 5** (Mitigation Monitoring and Reporting Program). Minor adjustments to the Approved Project may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources.

2. Public Access Management Plan. Public access on the Reserve lands shall be provided to the general public consistent with, and pursuant to, a Public Access Management Plan for such access that is based on the best possible assessment of the capacity of the Reserve to sustain use and the level of intensity of such use when considered in light of the fragility of the Reserve's ecological integrity and ongoing scientific research, and the Coastal Act's objective of maximizing public access. The Public Access Management Plan shall be subject to Executive Director re-review at 5-year intervals.

The Access Plan submitted with the project application materials shall serve as the initial five-year Public Access Management Plan. After that, the Permittee shall submit a report by December 31st of each 5th year (with the first such report due December 31, 2020) explaining how the Public Access Management Plan has been successful at achieving the objectives identified in the Plan and how the Plan can be revised to achieve any unmet objectives in case they have not been fully met in the preceding five-year period. This report shall be subject to review and approval by the Executive Director, and if on the basis that the submitted report the Executive Director reasonably concludes that the Public Access Management Plan requires revisions to fully achieve its stated objectives, the Permittee shall submit a revised Public Access Management Plan to Coastal Commission staff and work with staff to identify and implement feasible revisions to address public access deficiencies.

The intent of the re-review is: to evaluate the efficacy of activities under the preceding 5-year plan; to identify any potential desired modifications by either the Permittee, Coastal Commission staff, or both to address public access deficiencies; and to facilitate regional trail planning, including in terms of helping to address north-south California Coastal Trail connectivity in the vicinity of the Reserve. Each subsequent 5-year plan shall be substantially in conformance with the preceding 5-year plan, while addressing the above requirements.

3. Post Construction Public View Protection Verification. This CDP does not authorize new development that is visible from Highway 1 or Highway 1 pullouts. WITHIN THREE MONTHS OF COMPLETION OF CONSTRUCTION, the Permittee shall submit a visual analysis that demonstrates that all new development at both the Gatehouse site and Coyote Creek is not visible from Highway 1, including the Big Creek Bridge, and associated public pullout areas, with the naked eye. In the event that the Executive Director determines that any development is impermissibly visible, the Permittee shall immediately submit a corrective action plan for Executive Director review and approval in order to eliminate such development from this protected public viewshed as quickly as possible.

4. Caltrans Shed Relocation/Removal. PRIOR TO ISSUANCE OF THIS CDP, the Permittee shall submit a shed relocation/removal plan to the Executive Director for review and approval. The relocation/removal plan shall provide for the relocation of the Caltrans shed from below the Big Creek Bridge to a new location that is: inland of the bridge, not located in an environmentally sensitive habitat area; and not visible from Highway 1 or Highway 1 pullout areas. The plan shall include evidence showing compliance with each of these three criteria. If no such location is available that meets all three criteria, then the existing shed shall be removed from the site and either properly disposed of or re-sited outside of the coastal zone. Prior to commencement of construction, the Caltrans shed shall be removed or relocated pursuant to the approved shed relocation/removal plan.

5. As-Built Plans. WITHIN THREE MONTHS OF COMPLETION OF CONSTRUCTION, the Permittee shall submit two copies of As-Built Plans (with site plan views and elevations) for Executive Director review and approval showing all development authorized by this CDP. The As-Built Plans shall be substantially consistent with the Approved Project defined in **Special Condition 1**, and shall include color photographs (in hard copy and jpg format) that clearly show all elements of the as-built project, and that are accompanied by a site plan that notes the location of each photographic viewpoint and the date and time of each photograph. Such photographs shall be at a scale that allows comparisons to be made with the naked eye between photographs taken in different years and from the same vantage points; recordation of GPS coordinates shall be provided for each photograph.

6. Wastewater Treatment.

a. **Monterey County Department of Environmental Health Authorization.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director for review a copy of the Monterey County Department of Environmental Health (MCDEH) authorizations for the approved project. Any changes to the approved project required by the MCDEH shall be reported to the Executive Director. No changes to the approved project shall occur without a Commission amendment to this CDP unless the Executive Director determines that no amendment is legally required.

b. **Water Quality Monitoring/Corrective Action Plan.** This CDP does not authorize new development that would cause adverse impacts to Big Creek water quality occurring as a result of the approved development. FOLLOWING COMPLETION OF CONSTRUCTION, the Permittee shall submit to the Executive Director for review and

approval quarterly water quality monitoring reports for Big Creek for two years (four times per year) after the project is completed, and annual water quality monitoring reports for Big Creek thereafter for the life of the project. The monitoring reports shall be designed to determine whether the approved septic system is impacting aquatic life and human health. Samples taken from Big Creek shall be evaluated for dissolved oxygen, salinity, pH, turbidity, analysis of nutrients, salts, metals, indicator bacteria and solids, temperature, as well as flow-discharge in cubic feet per second. If relevant thresholds as defined by MCDEH are exceeded and determined to be attributed to the septic system (and not attributed to natural fluctuation and variation), the Permittee shall prepare a Corrective Action Plan for Executive Director review and approval that modifies or adjusts the treatment system until such exceedances are eliminated.

7. Construction Plan. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit two copies of a Construction Plan to the Executive Director for review and approval. Minor adjustments to these requirements may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources. The Construction Plan shall, at a minimum, include the following:

a. Construction Areas. The Construction Plan shall identify the specific location of all construction areas, all staging areas, and all construction access corridors in site plan view. All such areas within which construction activities and/or staging are to take place shall be minimized to the maximum extent feasible in order to have the least impact on coastal resources, including by using alternative areas for staging and storing construction equipment and materials as feasible.

b. Construction BMPs. The Construction Plan shall specifically identify the type and location of all erosion control/water quality best management practices that will be implemented during construction to protect coastal water quality, including the following: (a) silt fences, straw wattles, or equivalent apparatus, shall be installed at the perimeter of the construction site to prevent construction-related runoff and/or sediment from discharging to the ocean or creek waters; (b) equipment washing, refueling, and/or servicing shall take place at least 50 feet from any water body. All construction equipment shall be inspected and maintained at an off-site location to prevent leaks and spills of hazardous materials at the project site; (c) the construction site shall maintain good construction housekeeping controls and procedures (e.g., clean up all leaks, drips, and other spills immediately; keep materials covered and out of the rain (including covering exposed piles of soil and wastes); dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather; remove all construction debris from the site); and (d) all erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each work day.

c. Construction Site Documents. The Construction Plan shall provide that copies of the signed coastal development permit and the approved Construction Plan be maintained in a conspicuous location at the construction job site at all times, and that such copies are

available for public review on request. All persons involved with the construction shall be briefed on the content and meaning of the coastal development permit and the approved Construction Plan, and the public review requirements applicable to them, prior to commencement of construction.

d. Construction Coordinator. The Construction Plan shall provide that a construction coordinator be designated to be contacted during construction should questions arise regarding the construction (in case of both regular inquiries and emergencies), and that his/her contact information (i.e., address, email, phone numbers, etc.) including, at a minimum, a telephone number and email address that will be made available 24 hours a day for the duration of construction, is conspicuously posted at the Reserve entrance gate, along with an indication that the construction coordinator should be contacted in the case of questions regarding the construction (in case of both regular inquiries and emergencies). The construction coordinator shall record the name, phone number, and nature of all complaints received regarding the construction, and shall investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry.

e. Notification. The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least three working days in advance of commencement of construction, and immediately upon completion of construction.

All requirements above and all requirements of the approved Construction Plan shall be enforceable components of this CDP. The Permittee shall undertake development in accordance with this condition and the approved Construction Plan. Minor adjustments to these requirements may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources.

8. Sensitive Bird Species. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES BETWEEN FEBRUARY 1 AND AUGUST 31st that have the potential for significant noise impacts, a qualified biologist shall conduct a pre-construction survey for the presence of nesting birds, including nocturnal owls, at the project site or in the Big Creek riparian corridor. If an active nest of a Federal or State-listed threatened or endangered bird species, bird species of special concern, or any species of raptor is identified during such preconstruction surveys, or is otherwise identified during construction, the Permittee shall notify all appropriate State and Federal agencies within 24 hours, and shall develop an appropriate action plan specific to each incident that shall be consistent with the recommendations of those agencies. The Permittee shall notify the Executive Director in writing within 24 hours and consult with the Executive Director regarding the determinations of the State and Federal agencies. At a minimum, if the active nest is located within 250 feet of construction activities (within 500 feet for raptors), the Permittee shall submit a report, for Executive Director review and approval, that demonstrates how construction activities shall be modified to ensure that nesting birds are not disturbed by construction-related noise.

At a minimum, nocturnal Owl surveys shall include the following protocols:

- The surveys shall use playbacks of recorded owl calls.
- The surveys shall consist of at least two visits spaced at least one week apart.

- The surveys shall consist of at least two hours on site beginning no earlier than one half hour after sunset and ending no later than midnight.
- Each survey interval should begin with an initial listening period of 5 minutes.
- Calls of the smallest owls should be played first in order not to frighten smaller species by first playing the calls of larger species.
- Nest searches, pellet searches, or other methods should augment the surveys using playbacks of owl calls.

9. Liability for Costs and Attorneys' Fees. By acceptance of this CDP, the Permittee acknowledges and agrees, on behalf of itself and all successors and assigns, to reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys' fees (including but not limited to such costs/fees that are: (1) charged by the Office of the Attorney General; and (2) required by a court) that the Coastal Commission incurs in connection with the defense of any action brought by a party other than the Permittee against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval or issuance of this CDP. The Permittee shall reimburse the Coastal Commission within 60 days of being informed by the Executive Director of the amount of such costs/fees. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission.

IV. FINDINGS AND DECLARATIONS

A. PROJECT LOCATION, DESCRIPTION AND BACKGROUND

Project Location

The Landels-Hill Big Creek Reserve (the Reserve) is an approximately 4,000-acre ecological reserve located on the Big Sur coast about five miles north of the town of Lucia. The Reserve is administered by the University of California's (UC's) Natural Reserve System (NRS) and is managed by a resident director and steward working from the office of the Natural Reserves Director within the Division of Physical and Biological Sciences of UC Santa Cruz. The Reserve serves the University as a natural laboratory and as an outdoor classroom for instruction and research, and serves the public through protection of coastal habitats.

The exposed shoreline of the Reserve property consists of small beaches interspersed with boulder fields and is bordered by vertical cliffs up to 300 feet high. Narrow ridges wind from the coastal headlands to the Santa Lucia crest, separating deep canyons with walls that rise steeply out from streamside terraces. The landscape, which includes mountains as well as coastal slopes, comprises seven major vegetation communities: riparian, coastal scrub, chamise chaparral, redwood forest, coastal grasslands, oak woodlands, and pine-oak forest. In addition, relatively pristine perennial freshwater creeks support southern steelhead populations and a wide variety of aquatic invertebrates. These creeks flow into a no-take State Marine Reserve and a limited-take State Marine Conservation Area in the Pacific Ocean.

The Application proposes new development at two locations on the Reserve: the Gatehouse area at the mouth of Big Creek canyon just east of Highway 1 and the Big Creek Bridge; and the

Coyote Creek area, near the southern boundary of the Reserve. The Gatehouse area is bounded on the north by the steep, rocky canyon wall, which rises to an elevation of about 400 feet, and on the south by Big Creek, which drains to the ocean about 580 feet to the southwest. The main Reserve road runs through the Gatehouse area, along the base of the northern canyon wall, and provides access to the rest of the Reserve. Existing facilities[1] at the Gatehouse area consist of a 902-square-foot staff residence located approximately 45 feet from Big Creek; a 412-square-foot multi-purpose building known as the Library; an outdoor shower and toilet for visitors; and two sheds that house a generator, tool storage, a work bench and fuel. Electricity is supplied by a photovoltaic array and a propane-fueled generator. Wood stoves are the only source of space heating for the existing buildings. Propane is used for cooking and domestic hot water. Potable water is supplied to the Gatehouse facilities from a spring located about 1,500 feet up the road from the Gatehouse area, via an above-ground water line along the road. Wastewater flows to a 1,000-gallon septic tank to the southwest of the Gatehouse area. An engineered earthen berm was constructed between the road and the Gatehouse area in 2010 to provide protection from rocks falling from the canyon wall.

The Coyote Creek site is a one-acre, relatively flat section of undeveloped land approximately 650 feet above sea level. The Reserve staff use the site for outdoor storage of maintenance materials, vehicles and equipment. According to the Applicant, the site has been historically maintained by mowing and clearing brush. An unpaved road provides access to this site from Highway 1 through a privately owned property to the south of the Reserve. This road also provides access, more circuitously, from the Coyote Creek site to other parts of the Reserve.

See **Exhibit 1** for a vicinity map of the site and aerial.

CDP History

In 1977, the Nature Conservancy (TNC) purchased 3,858 acres of the 3,978-acre Big Creek Ranch. A 120-acre parcel containing private cabins remained in the original owner's possession and continues to remain so today.

In 1977 the Commission authorized a subdivision (CDP P-77-1093) of the 3,858 TNC parcel into three parcels: Parcel A (± 2,000 acres), Parcel B (± 1,800 acres), and Parcel C (about 40 acres) with the understanding that all three parcels would be managed for educational and scientific use, and that Parcels A and B would be transferred to UC and would be recombined when the transfer to the University was completed. That transfer occurred in two phases between 1978 and 1980. TNC retained the 40-acre Parcel C with the intent to develop an interpretive center and trail to provide for public recreation, including hiking, bird watching and nature study. TNC and the University have a detailed agreement as to use and ownership of all three parcels.

[1] Much of this development, including the residence and other infrastructure, was present on the site prior to February 1, 1973, when coastal permitting requirements went into effect.

In 1978, the Commission granted UC a CDP (P-78-738) for minor improvements to the site to facilitate scientific and educational use, including forest camps, trails, an access road and road repair, parking spaces and an entrance gate.

In 1979, TNC applied for a CDP (P-79-121) to construct a 1,315-square-foot interpretive center and water storage tank on the 40 acres TNC retained at the confluence of Big Creek and Devil's Canyon. The interpretive center was intended to be open to the public on a controlled basis (i.e. with advance notification to the University) The Commission ultimately denied that permit application on the basis that, among other things, the proposed building appeared to be "overdesigned" for the stated limited use, and that an alternative building location would better protect sensitive resources on the site.

There is no record of other CDP application submittals or actions for the site between 1979 and 2012. In 2012, the Commission granted UC a CDP waiver (3-09-039-W) that allowed for reinforcement of an earthen berm for rock fall protection in the Gatehouse area of the site.

Project Description

Gatehouse Area

In the Gatehouse area, the proposed project includes remodeling the existing staff residence to create living space for up to five visiting researchers, and construction of a new 1,400-square-foot building adjacent to the existing staff residence building to create a 40-seat classroom. Project construction would consist of two components: 1) seismic retrofit and remodeling of the existing staff residence to create living space for visiting scientists; and 2) construction of a new classroom and office space for the Reserve Director adjacent to the remodeled staff residence. The project also includes landscaping and other improvements to support these two facilities. Work on the existing staff residence would consist of construction of a new perimeter foundation and the addition of shear walls to meet seismic safety standards, while improving thermal performance and excluding rodents, and also would include reconfiguration of the interior space to meet ADA standards. No exterior modifications to the staff residence would be done. The proposed classroom would be oriented adjacent to the existing staff residence structure and the earthen berm. This new 1,400-square-foot structure would be primarily hidden in the "view shadow" of the existing staff residence structure and associated vegetation to eliminate visibility from Highway 1. Outdoor space between and adjacent to the two structures would remain open. The classroom would accommodate lecture space for classes up to 40 students, and would also allow for small-group work at tables. The classroom structure would also include a small field-specimen work area, the Reserve Manager's office, restrooms, and mechanical space.

A new 1,500-gallon septic tank and leach field would be installed to the north of the new classroom building. Because of the proximity of the new leach field to Big Creek (65 feet), the septic system would include an enhanced on-site wastewater treatment system to meet County standards. Installation of the leach field would require re-locating an existing water line within the Gatehouse area. Wastewater from the existing staff residence building would flow to the new septic system. The project includes two 3,000-gallon water tanks (6,000 gallons total) that would be installed near the Library. Propane would be used for cooking and domestic hot water and as fuel for a new generator. Passive solar collection panels (up to 150 square feet) would be

included on the roof of the new classroom building to serve the classroom or would be added to (or replace) the existing solar array on the existing staff residence. These panels would largely minimize the need for mechanical heating. The new classroom would include a wood stove and a mechanical system for backup heating during cold weather.

Landscaping would be minimal, and would consist of native plants grown from seed collected on the Reserve. Pavement, or ADA approved permeable or non-permeable materials, would be provided only as necessary to provide accessible paths of travel within the Gatehouse site.

See **Exhibit 2** for proposed project plans and **Exhibit 3** for a detailed project description with photos of the site.

Coyote Creek

At the Coyote Creek site, the proposed project includes development of two new structures. One would be an approximately 1,600-square-foot one-story three-bedroom single-family residence designed to house the Resident Director or other full-time staff, and his/her family. A second, separate 2,050-square-foot building would provide housing for staff and/or visiting researchers (1,125 square feet) and would be attached to a garage structure (925 square feet) that would serve as a garage and workshop. The single-family residence would be located on the southern section of the slope, aligned with the slope contours. The secondary staff residence and garage/workshop would be located on the largest flat area of the site.

Water would be supplied from an existing spring box[2] and water line that currently serve a caretaker's house on an adjacent property, under an existing agreement. A new, above-grade water line serving the Coyote Creek site would be connected to the existing water line at a point approximately 500 feet east, and up to three 5,000-gallon water tanks would be installed to meet requirements for fire protection and domestic use. Wastewater treatment would be provided by a 2,000-gallon septic tank and a leach field located east of the new single-family residence. A solar array on the roof of the garage (or ground mounted) would be the primary source of power, and a propane-fueled generator would provide backup power. Propane would also be used for cooking and domestic hot water. A new telephone line would be installed in the road that leads to the site from Highway 1. The new residential buildings would be designed to minimize the need for mechanical heating, employing principals of "passive design," including proper window size and orientation, enhanced building-envelope design, and thermal mass for passive energy collection and re-radiation. Wood stoves would be included in both buildings for added comfort during cold weather.

[2] A spring box is a box made of concrete, fiberglass, galvanized steel, or other material approved to be in contact with potable water that collects spring water. It may be sealed and buried, or it may extend above grade and have access for inspection and disinfection. A spring box is engineered to make optimum use of a natural spring and functions to protect the spring water from contamination, which can result from surface runoff or contact with human and animals, and provides a point of collection and a place for sedimentation.

Again, landscaping would be minimal, and would consist of native plants grown from seed collected on the Reserve. Pavement, or ADA approved permeable or non-permeable materials, would be limited to that needed to provide fire access and accessible paths of travel within the site.

See **Exhibit 2** for project plans and **Exhibit 3** for a detailed project description and photos of the site.

Existing, Unpermitted Development

The Applicant is requesting after-the-fact authorization for the following developments that have been constructed or installed at the Reserve without the benefit of a CDP:

Terrace Camp Yurt and Latrine

The Terrace Camp area is located just up the road from the Gatehouse area. Terrace Camp is a level area in the Big Creek canyon that is accessed via a foot bridge over Big Creek. An approximately 300-square-foot canvas-walled yurt was installed at Terrace Camp in 2000. In addition a 365-square-foot covered deck was constructed off the rear of the yurt. The yurt holds tables and chairs for use by groups needing an indoor space. Initially, the yurt served as a classroom and museum for a K-12 teaching effort. The yurt has also been used as a teaching space for university-level courses from time to time, and has also served to accommodate researchers working on plant disease ecology (e.g., Sudden Oak Death), a sea otter population study, and numerous other small groups of researchers over the years.

In 2007 a self-contained latrine was placed at Terrace Camp. The latrine consists of an approximately 25-square-foot walled outhouse with a 500-gallon plastic tank. The tank can be emptied via a pump truck as needed.

See pages 8 and 9 of **Exhibit 3** for photos of the yurt and the latrine.

Caltrans Shed

The Caltrans shed was left onsite beneath the Big Creek Bridge after Caltrans completed bridge retrofitting in 1999. The Caltrans shed is approximately 160 square feet and is constructed of wood. The Caltrans shed provides covered secure storage for marine related equipment (e.g. boats, dive gear, etc.).

See page 10 of **Exhibit 3** for a photo of the Caltrans shed.

Restroom at Gatehouse

An approximately 36-square-foot structure that houses a flush toilet, a sink, and a holding tank was constructed in the late 1970's or early 1980's and then later connected to the Gatehouse septic system. The walls and floor were rebuilt on the same site in 2012.

See page 11 of **Exhibit 3** for a photo of the Gatehouse Restroom.

Whale Point Cabins[3]

Two residential cabin structures at the "Whale Point" site were developed prior to passage of the Coastal Act and were both destroyed by the 1985 "Rat Creek" wildfire. The upper of the two cabins, known as the "Steward Cabin," was reconstructed in 1986. The Steward Cabin is 1200 square feet with an open floor plan, a loft, and a 533-square-foot deck around two of its sides. The Steward Cabin serves as a residence for personnel and has primarily been occupied by a Reserve steward. The second cabin, known as the "Research Cabin" is the lower of the two cabins and was reconstructed by UC in 1995. The cabin is 1006 square feet and contains three bedrooms, two lofts, a bathroom, kitchen and main room. The Research Cabin is used as overnight researcher and student accommodation for the Reserve.

See page 7 of **Exhibit 3** for photos of these cabins.

Generator Shed and Workshop

A 75-square-foot generator shed and a 348-square-foot workshop serve the Whale Point facility. The original construction dates of the shed and workshop are unknown (potentially existing prior to enactment of the Coastal Act); however, sometime between 2002 and 2005 the foundation of the workshop was replaced and the shed was rebuilt.

See page 12 of **Exhibit 3** for photos of the generator shed and workshop.

Solar Array

A solar/battery system provides power for the Whale Point facility. The solar array sits on the south-facing slope below the cabins. The array is 538 square feet in size. The installation date of the solar array and conversion from a generator-powered system is unknown. Reassembly of the panels from railroad ties onto a modern rack system was completed in 2007.

See page 13 of **Exhibit 3** for a photo of the solar array.

Water Storage Tanks

In 2009, six 5,000-gallon water tanks, 6600 feet of underground pipe, a control valve and a perimeter of sprinkler risers around the research and stewardship facilities at Whale Point were

[3] The University's position is that the reconstruction of the Whale Point cabins did not require a Coastal Development Permit pursuant to Coastal Act Section 30610(g), which exempts the rebuilding of structures destroyed by natural disaster if they are replaced in the same location and are within 10% of the size of the destroyed structures, and also states that Commission staff authorized the reconstruction of these cabins. UC has submitted documentary evidence (in the form of letters written to Commission staff) to support this assertion. However, Commission staff has no official files that demonstrate that staff authorized redevelopment of these cabins. Accordingly, it is staff's recommendation that these developments be included as part of the Commission's consideration of the after-the-fact approval.

installed to serve as emergency water in the case of a wildfire.[4] One spring box was installed and plumbed with 4,750 feet of l-inch flexible high-density polyethylene pipe, which was trenched to 18 inches underneath an existing road to the site of the water tanks. A 4-inch PVC line was trenched 1,056 feet at a depth of 18 inches to a control valve at the facility at Whale Point. This controls two 2-inch PVC sprinkler lines (328 feet and 295 feet in length, respectively) and ten galvanized sprinkler risers that form a perimeter around the facilities. The sprinkler system can project a 40-foot radius of water for up to 8 hours, providing security for the Whale Point facilities in the event of a wildfire. Approximately 8,200 cubic feet of soil (304 cubic yards) was temporarily excavated to allow for placement of the water tanks and then about half of this soil was backfilled around the water tanks. The remaining soil (about 4,010 cubic feet) was spread thinly on the ground around the installed tanks. Trenches to accommodate water lines under the road were dug via the use of a mechanical trencher. Trenches for water lines in vegetated areas were dug by hand with picks and shovels. A 300-square-foot area around the tanks is regularly mowed to maintain low-fuel vegetation.

Spring water is used to fill the storage tanks. Once the tanks are full, the water line is closed to a minimum to allow the spring to overflow at its source. Thus, there is only a very small amount of water being used from the spring at any given time. The vast majority is returned to the ground at the site of the spring. If and when water from the tanks is used in case of a wildfire in the area, the control valve will be temporarily opened until the tanks are full again.

See page 14 of **Exhibit 3** for a photo of the water tanks.

B. STANDARD OF REVIEW

The site is located within the Landels-Hill Big Creek Reserve, which is owned by the University of California. Coastal Act Section 30519(b) provides that the Commission review in the first instance development proposals for any state university or college located in the coastal zone. Therefore the standard of review for this project is the Chapter 3 policies of the Coastal Act. As relevant, the County's certified LCP can provide non-binding guidance.

C. PUBLIC ACCESS AND RECREATION

Coastal Act Sections 30210, 30213, 30214, 30221 and 30223 specifically protect public access and recreation. In particular:

> ***30210.*** *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

[4] Wildfires are common in Big Sur and can cause significant damage. For example, the Basin Complex Fire of 2008 forced an eight-day evacuation of Big Sur and the closure of Highway 1. This fire, which began just before the July 4th holiday weekend, burned over 130,000 acres and destroyed 27 homes.

> ***30212. (****a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources …*
>
> ***30213.*** *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. …*
>
> ***30214****. (a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case … (c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques …*
>
> ***30221.*** *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*
>
> ***30223.*** *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

These overlapping policies protect public access and recreation opportunities for the public, particularly free and low-cost access.

Although not the enforceable standard of review for this project, it is worth noting that the Big Sur LCP likewise calls for public access to be protected, encouraged and enhanced, consistent with preservation of the natural environment:

> ***LUP Public Access Policy 6.1.3 - Key Policy.*** *The rights of access to the shoreline, public lands, and along the coast, and opportunities for recreational hiking access, shall be protected, encouraged and enhanced. Yet because preservation of the natural environment is the highest priority, all future access must be consistent with this objective. Care must be taken that while providing public access, the beauty of the coast, its tranquility and the health of its environment are not marred by public overuse or carelessness. The protection of visual access should be emphasized throughout Big Sur as an appropriate response to the needs of recreationists. Visual access shall be maintained by directing all future development out of the viewshed. The protection of private property rights must always be of concern.*

Analysis

As previously discussed, the project is located just north of Big Creek in the UC Landels-Hill Big Creek Reserve. Public access facilities are limited in this area and in southern Big Sur more generally, as a result of the dramatic landform and the fact that, with the exception of the Reserve, much of the property located along this segment of the Highway is under private ownership. Thus, Highway 1 is the primary public access facility at this location, and offers dramatic views of the mountains and ocean, and the interface between the two. The Caltrans

"Corridor Intrinsic Qualities Inventory: Recreational Qualities" prepared in conjunction with the Coast Highway Management Plan (CHMP) eloquently captures this point[5]:

> *The intrinsic recreational qualities along the Coast Highway are the result of the dramatic scenic landscape and inherent isolation of the Big Sur area. Recreation opportunities are defined by the elements of this spectacular setting: precipitous mountains rising straight from the sea, an often-inaccessible rocky shoreline, limited beach access, cold and dangerous surf, and challenging topography. For the majority of the Big Sur Coast, the roadway is the only continuously accessible route or feature. Supporting the vision to provide a continuous trail system along the coast, sections of the California Coastal Trail (CCT) are already in place along Highway 1. However, the trail presently contains numerous gaps along the Big Sur Coast, where the highway shoulder serves as the only means to span these gaps.* (pg. 3-1)

With respect to this particular segment of the Highway, the "Recreational Qualities Inventory" provides the following detail:

> *The Big Creek Coast is divided into private land in the southern section and a publicly owned, but restricted access ecological reserve in the north. The coastline in this area is rugged and inaccessible. Active recreation is limited, though touring vistas and nature study opportunities are plentiful. Lopez Point, Gamboa Point,* ***and the spectacular concrete arch Big Creek Bridge are the key sightseeing features****. The interim CCT continues to follow the Coast Ridge trail alignment, while the shoreline alternative follows the highway shoulder, from the Kirk Creek area to the Ventana Inn. [emphasis added]*
>
> ***
>
> *The northern half of the segment encompasses Big Creek Reserve, a unit of the University of California Natural Reserve System. Entry is by special permit, University Extension class enrollment, or Esalen seminar only. The plant life in this reserve epitomizes the exceptional diversity of vegetation in the Big Sur region. In a survey of only 4,000 acres in this reserve, 344 species of plants were found, representing 42 percent of all California plant families. An established trail system within the reserve leads to Devil's Canyon, Big Creek footbridge, Whale Hill and the ponderosa pine-covered ridge above Vicente Creek. There is no general public access to the beach at the mouth of Big Creek.* (pg. 3-11)

Thus, Highway 1 provides the primary access through this section of Big Sur, including pullouts along the shoulder of Highway 1 that provide limited opportunities for passive access to the area, i.e. views of the unique features present at this location, namely Big Creek, the historic Big

[5] In March 2004, the California Department of Transportation produced the Big Sur Coast Highway Management Plan (CHMP), in order to establish coordinated management of the Highway 1 corridor along this widely treasured coastline. The CHMP covers an area along Highway 1 from the Carmel River in Monterey County to San Carpoforo Creek in northern San Luis Obispo County. The CHMP it is being cited here to provide background context on public access in the vicinity (particularly, the California Coastal Trail) and is not the standard of review.

Creek Bridge (and related rock masonry parapet wall), as well as offshore features including sea stacks, kelp beds, and the marine inhabitants.

As discussed above, the 1977 CDP that provided for the subdivision of Big Creek Ranch envisioned public access at the TNC-retained 40-acre Parcel C, located at the confluence of Big Creek and Devil's Canyon, and acknowledged TNC's intent to develop an interpretive center and trail to provide for public recreation, including hiking, bird watching and nature study. In 1979, TNC applied for a CDP (P-79-121) to construct a 1,315-square-foot interpretive center and water storage tank on a portion of this 40-acre site. The interpretive center was intended to be open to the public on a controlled basis (i.e. with advanced notification to the University).[6] The Commission ultimately denied that permit application on the basis that, among other things, the proposed building appeared to be "overdesigned" for the stated limited use, and that an alternative building location would better protect sensitive resources on the site. The unfortunate result of this denial is that public access at this location was apparently never formalized.

With respect to the California Coastal Trail (CCT), the Reserve property represents a potential critical segment of the CCT. Policy makers and coastal managers have long planned for a continuous coastal trail in California.[7] The vision for CCT is a continuous interconnected public trail system along the California coastline. It is designed to foster appreciation and stewardship of the scenic and natural resources of the coast and serves to implement aspects of Coastal Act policies promoting non-motorized transportation. The trail system itself is envisioned to be located on a variety of terrain, including the beach, bluff edge, hillsides providing scenic vantage points, and within the highway right-of-way and may take many forms, including informal footpaths, paved sidewalks, and separated bicycle paths. When no other alternative exists, the CCT sometimes occupies the shoulder of the road. While primarily for pedestrians, the CCT also accommodates a variety of additional user groups, such as bicyclists, wheelchair users, equestrians, and others as opportunities allow. In general, the CCT is intended to be designed and implemented to achieve the following goals and objectives: provide a continuous walking and hiking trail as close to the ocean as possible; provide maximum access for a variety of non-motorized uses by utilizing parallel trail segments where feasible; maximize connections to existing and proposed local trail systems; ensure that the trail has connections to trailheads,

[6] Further, the Big Sur LCP states that "[s]ome trails are open to organized groups on a reservation basis only, such as the loop interpretive trail now owned by the State as part of Landels-Hill Big Creek Reserve. The plan proposes that this practice continue and be expanded as a means of ensuring protection of sensitive natural resources or avoiding undesirable conflicts with private uses while still accommodating public access."

[7] ln 1972, Proposition 20 (the "Save the Coast" initiative) provided that "a hiking, bicycle, and equestrian trails system be established along or near the coast" and that "ideally the trails system should be continuous and located near the shoreline." The CCT was designated California's Millennium Legacy Trail in 1999 by Governor Davis and the White House Millennium Trail Council encouraged federal agencies to assist in developing it. State Legislation in 2001 focused efforts to complete the Coastal Trail. Assembly Concurrent Resolution 20 (Pavely) declared the Coastal Trail is an official State Trail and urged the Coastal Commission and the Coastal Conservancy to work collaboratively to complete it. Senate Bill 908 (Chesboro) charged the Coastal Conservancy in 2001 to prepare a plan, in cooperation with the Coastal Commission and State Parks Department, describing how the Coastal Trail can be completed. This Plan was submitted in 2003 to the Legislature and is entitled "Completing the California Coastal Trail" and sets forth the goals and objectives of the CCT and includes a blueprint for how missing links can be connected. Finally, the California Legislature adopted Assembly Concurrent Resolution No. 153 proclaiming October 11, 2008 as California Coastal Trail Day.

parking areas, transit stops, inland trail segments, etc. at reasonable intervals; maximize ocean views and scenic coastal vistas; and, provide an educational experience where feasible through interpretive programs, kiosks, and other facilities. The CCT vision for this area is for a natural-surface hiking trail that provides continuity between the nearest trailhead on State lands to the north of the Reserve and the nearest trailhead on State lands to the south of the Reserve, well-separated from motor traffic but parallel to the coast, aligned to provide ocean vistas and enjoyment of natural habit areas wherever feasible. [8]

Currently there is no vertical access to a lateral CCT connection on the site because there is no through north-south trail connection due to private property located on both the northern and southern sides of the Reserve. In addition, UC has concerns about protecting its research and facilities in the area and would have concerns about unrestricted public access on the site. The University does presently allow for limited public access to the Reserve by application. Specifically, potential users are required to fill out applications for specific research, education, or outreach efforts. Specific examples of 'public services' include use of the Reserve by groups such as K-12 classes, workshops and meetings, as well as area hiking groups, non-profit conservation organizations, volunteers, and attendees to Reserve outreach events. Over the past five years 3,184 individuals within the "public services" user group (i.e. other than for research and college-level courses) have used Big Creek for a total of 6,285 user days. In terms of hiking opportunities, non-governmental organizations and non-profits (such as the Sierra Club, Esalen Institute, Save the Redwoods League, and Ventana Wilderness Association) have been allowed to hike on the Reserve, but only with advance notice and permission from UC Reserve staff.

Another form of public access provided by Big Creek Reserve is the annual open house event. This event, normally scheduled the second Saturday in May, is a day when the gate is open to the public. To attend the open house, one must register in advance for the event, and the total number of attendees allowed is approximately 150 people. Reserve staff, scientists, and volunteer hike-leaders are available to teach the public about UC's Natural Reserve System, the Landels-Hill Big Creek Reserve, and the research and stewardship work done on the site. Faculty, agency, and student researchers are on hand to demonstrate their research techniques and explain their findings to the public. Research materials and specimen collections are on display and the event is free of charge.

As part of this permit application process for new facilities at the Reserve, Commission staff has worked with University staff to further the UC's Reserve use policy in an innovative manner consistent with Coastal Act policies by providing enhanced public access opportunities to the Reserve. As a result of those collaborative efforts, UC has proposed a Public Access Management Plan (**Exhibit 4)** with the following three components: 1) formalize the existing public access program; 2) establish a free, monthly docent-led tour program to existing trails on the site and/or to Big Creek beach; and 3) a commitment to participation in the CCT planning effort as it relates to the Reserve property. UC further notes that these three components must be consistent with the mission of the NRS and the vision statement of the Reserve. They must also not violate the land deed or use language in existing legal documents.

[8] Further details on the CCT alignment principles, including continuity and proximity to the sea, may be found in the document "Completing the California Coastal Trail," prepared by the State Coastal Conservancy in 2001 pursuant to SB 908.

The proposed details of the docent-led tour program include:

> *A docent-led tour will be offered once a month and will be posted on the Big Creek website beginning each calendar year. Docents will be approved by the Big Creek Director and may consist of Big Creek staff, trained students, or members of the public. The route of the tour will involve all or a portion of the Interpretive Trail and/or the Big Creek beach but may vary depending upon weather conditions, academic use and natural activities occurring on the Reserve at the same time (e.g. the flow rate and position of Big Creek, nesting birds, use by marine mammals, research studies, course use, etc.), and other interpretive opportunities throughout the reserve. Additional locations may be available over time and will be determined by the Reserve Director. The tour will provide an interpretive experience for visitors that begins with an overview of the University of California Natural Reserve System, the history of Landels-Big Creek Reserve, a highlight of specific research projects and educational endeavors in habitats that will be observed on the walk (e.g. NOAA's steelhead research, kelp forest monitoring, long-term rockfish surveys, wildlife behavior, California sea otter population studies, redwood tree research, sudden oak death, fire ecology, etc.). This concept is modeled off of the program developed by Coastal Staff and UCSC at Younger Lagoon Reserve in Santa Cruz where docents provide detailed information about the flora and fauna of the reserve. Guided tours will be advertised via the Landels-Hill Big Creek Reserve website and filled via electronic reservation. All reservations will need to be completed at least one week prior to tour dates. Tours will be limited to twelve people and will be best suited for adults and children over 10 years of age. Tours may be cancelled if fewer than 5 people sign up one week prior. If there are fewer participants than required then the participants registered from that month will be moved to the next month and all other participants will be shifted to later dates in the order of their registration time. Educational tour members entering Landels-Hill Big Creek will be required to adhere to the UCNRS reserve use guidelines (e.g. no pets, UC no smoking policy, etc.) as well as sign a waiver of liability.*

Additionally, the proposed Access Plan commits the University to participation in the long-term planning effort for the CCT. The Commission is committed to providing public access to and along the California coast, consistent with State policy and direction by the State Legislature. An important part of this responsibility is the Commission's role, along with the Coastal Conservancy, for CCT planning for the entire coastline. A primary objective for the Commission is to ensure the selection of a continuous and coordinated trail alignment, which respects and protects natural resources in a manner consistent with the Coastal Act. These directives include but are not limited to the policies contained in Sections 30210-30214 of the California Public Resources Code. These policies mandate maximum opportunities for public access, consistent with the need to protect public safety, public rights, private property rights, and natural resource areas from overuse. Further, because the University of California constitutes a state agency, several additional Coastal Act sections apply. Coastal Act Section 30003 requires Coastal Act compliance by all agencies; Section 30402 requires all state agencies to carry out their duties and responsibilities in conformity with the Coastal Act, while Section 30401 states that Coastal Act requirements do not supersede the authority of any existing state agency except as specifically

provided by the Coastal Act; and, Section 30012 contains specific direction regarding public education programs that foster conservation and wise use of coastal and ocean resources.

Historically, the old Coast Trail provided continuity along the Big Sur Coast prior to the completion of today's State Highway Route 1. Both this trail, and the east-west Gamboa Trail crossed the property now comprising the Reserve. Today, the Gamboa Trail is truncated at the National Forest-Reserve boundary, and neither route is open to unescorted public access across the Reserve. Also, lands both to the north and south of the Reserve are in private ownership, and not open to public access. These circumstances notwithstanding, the Reserve represents a potential key segment of CCT. However, as has been explained by the Applicant, unregulated public access could potentially result in damage to natural resources, archaeological resources, and University facilities, as well as disrupt experiments in progress and the value of the Reserve as a scientific "control" site. Therefore, unregulated public access would potentially be in conflict with the mandated purposes of the Reserve and the UCNRS, as well as the land deed which provided the Reserve land to UC.

Considering the above, the three components of the Public Access Management Plan are intended to ensure that the project is consistent with the access and recreation policies of the Coastal Act while also accounting for protection of the fragile coastal resources on this site. Consistent with Section 30214(a) and (c) the Public Access Management Plan represents an innovative public access management approach undertaken by UC in consultation with the Commission that regulates the time, place, and manner of public access at the Reserve taking into account the biologically-sensitive nature of the site and the overarching educational research mission of the Reserve. With respect to Section 30210, maximum access and recreational opportunities will be provided for all the people consistent with public safety needs and natural resource areas of the Reserve. Likewise, the Access Plan will provide lower-cost visitor and recreational facilities consistent with Section 30213 and oceanfront and upland lands suitable for recreational use will be provided consistent with Sections 30221 and 30223. **Special Condition 1** identifies the Public Access Plan as part of the "approved project" and therefore an enforceable component of this CDP.

The one area where there is a question as to whether the Access Plan appropriately accounts for access is with respect to the CCT. Section 30212 requires that access along the coast be required as part of new development projects, although such access need not be required if it would be inconsistent with the protection of fragile coastal resources. While the Access Plan commits the University to the participation in the CCT planning process, it does not provide any formal commitment to establishing a North-South CCT connection through the Reserve property in the event that the long-term CCT planning efforts determine that such a segment could be developed while still protecting coastal resources. The Commission is mindful that any such CCT connection through the Reserve property would need to be consistent with the Reserve obligations of the University, the mission of the UCNRS, deed restrictions for the Big Creek Reserve property, and existing permits, as well as all applicable Federal and State law, including the resource protection policies of the Coastal Act.

Therefore, staff recommends that the Commission condition implementation of the Public Access Management Plan to require UC to coordinate long-term CCT planning effort with the Commission staff consistent with the Coastal Act mandates to maximize public access and that new development provide such access consistent with resource protection. However, to address

the University's resource and research concerns, staff recommends the Commission finds that such access is to initially be supervised access subject to a management plan that is reevaluated on a five-year cycle. The Management Plan would be based on the capacity of the Reserve to sustain use and the level of intensity of such use when considered in light of the Reserve obligations of the University, the mission of the UCNRS, deed restrictions for the Big Creek Reserve property and the Coastal Act requirement to maximize public access. For the first five-year cycle (i.e., until five years post-CDP approval), the Commission finds that access through the site is appropriate as provided in the proposed Access Plan in order to both protect Reserve property, to allow for implementation of an applied research program within the Reserve, and to allow baseline data and monitoring to occur over five-years to help determine the level of access that may be appropriate in the future. The Management Plan process would thus then recognize that different access supervision parameters, whether more or less restrictive, may be the outcome of any subsequent required five-year review. Accordingly, **Special Condition 2** is included to this effect.

As conditioned, the proposed project is consistent with the above-cited Coastal Act public access and recreation policies.

D. VISUAL RESOURCES

Coastal Act Section 30251 states:

> ***30251.*** *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

While the Coastal Act is the standard of review for the project, the Commission may also consider the policies of the Big Sur Land Use Plan (LUP), adopted by the County of Monterey for the Big Sur coast, as guidance. The Big Sur LUP identifies sightseeing and scenic driving as the major recreational activities for visitors to the region. Preservation of the region's scenic resources and, wherever possible, the restoration of the natural beauty of visually degraded areas, are among the five basic objectives of the Big Sur Land Use Plan. LUP Policy 3.2.1 prohibits all future public or private development visible from Highway 1 and major public viewing areas (the "critical viewshed"), and specifically states:

> ***LUP Scenic Resources Policy 3.2.1 – Key Policy.*** *Recognizing the Big Sur coast's outstanding beauty and its great benefit to the people of the State and Nation, it is the County's objective to preserve these scenic resources in perpetuity and to promote the restoration of the natural beauty of visually degraded areas wherever possible. To this end, it is the County's policy to prohibit all future public or private development visible from Highway 1 and major public viewing areas (the critical viewshed), and to condition all new development in areas not visible from Highway 1 or major public viewing areas*

on the siting and design criteria set forth in Sections 3.2.3, 3.2.4, and 3.2.5 of this plan. This applies to all structures, the construction of public and private roads, utilities, lighting, grading and removal or extraction of natural materials.

Analysis

The Big Sur Coast represents one of the State's most acclaimed scenic resources. Highway 1 in Monterey County along the Big Sur Coast is a designated State Scenic Highway, the first California highway to be so distinguished. In 1996, it became one of the nation's first "All American Roads," the highest designation offered by the Federal Highway Administration under the National Scenic Byways Program. The Big Sur Coast Highway provides the means by which millions of visitors per year enjoy this great scenic attraction. Thus, the project area is a highly scenic area within the meaning of Coastal Act Section 30251.

Gatehouse Area

The Gatehouse site lies within a narrow, steep-sided canyon. The existing facilities—the staff residence, the Library, restroom, and two sheds—are arranged informally around an open area that includes an unpaved parking area, a small lawn, and small garden areas. The area is bounded on the south by the steep, rocky canyon wall and to the north by the riparian vegetation along the creek, with views of the ridge beyond. To the east, the views from the Gatehouse area are entirely of forested canyon walls and the surrounding mountains. The residence existing prior to enactment of the Coastal Act is the only development in the Gatehouse area that is visible from the Big Creek Bridge on Highway 1.

As discussed above, the proposed development at the Gatehouse site includes remodeling the existing residence, construction of a new classroom, and related facilities (see **Exhibit 2** for project plans). While the residence existing prior to enactment of the Coastal Act is visible from the critical viewshed, the remodeling of the existing residence will take place within the footprint of the existing building and there will be no additional view impacts to Highway 1 from this component of the proposed project. The proposed septic system will be buried and will not be visible, and the proposed solar panels will be flush with the roof of either the existing staff residence building or the proposed classroom building.

Initially, UC tested the potential visibility of the proposed classroom building by erecting story poles with orange flagging to define the top elevation of the proposed structure. The poles were erected to represent the four perimeter corners and the highest elevation of the clerestory window of the proposed classroom. UC staff then took photographs from public viewing points (i.e. from the Big Creek Bridge on Highway 1) with sight lines toward the proposed classroom on the site. Commission staff inspected the site while the story poles and orange flagging were erected. The visibility test showed that the new classroom building would be visible from portions of the Big Creek Bridge. It would be most visible at the upcoast end of the bridge where a small portion of the south façade and the main roof would be seen behind the existing staff residence. At the middle of the bridge, the existing residence building and vegetation would obscure any view of the proposed classroom.

In response to this visibility test, UC revised the project plans and site layout for the proposed classroom to reduce the size of the building and locate the smaller building in the shadow of the existing Gatehouse staff residence to ensure that the classroom is not visible from the Big Creek

Bridge or Highway 1 in general. The proposed classroom building would not add new paving or outdoor lighting, and landscaping would be limited to native vegetation grown from seeds collected on the Reserve. The new classroom building will be oriented parallel to the creek bank (but would be located farther from the creek, behind the existing staff residence). The new development at the Gatehouse site will maintain the informal arrangement and character of the existing buildings and landscaping. However, in order to make absolutely certain that the new development is not visible from Highway 1 and nearby pullouts, **Special Condition 3** requires a post construction site assessment be conducted to ensure that no new development is visible from the Highway 1 critical viewshed.

Given all the above, the proposed classroom building and other proposed development in the Gatehouse area will protect public views consistent with Coastal Act Section 30251, and will ensure that new development is not visible from Highway 1, consistent with the guidance of LUP Scenic Resources Policy 3.2.1.

Coyote Creek Site

The Coyote Creek site is situated on a west-facing bench on the steep slope above Highway 1, at about 650 feet above sea level. To the east, the land rises steeply. Views of Highway 1 and the ocean are obscured by the dense chaparral surrounding the site, but there are limited views up and down the coast from the site. An unpaved road runs through the site, and most of the site is periodically mowed to accommodate storage of maintenance equipment.

As discussed above, the proposed development at the Coyote Creek site includes two new residences, a workshop and related improvements (see **Exhibit 2** for project plans). The proposed Coyote Creek development was also analyzed for potential visibility from public viewshed and the University worked closely with Commission staff on changes to the proposed project to ensure that the new developments would not be visible from Highway 1. In the first design change, the full-time staff residence was moved away from the edge of the slope and the buildings were clustered on the eastern edge of the site in order to eliminate any potential for visibility from Highway 1. This clustering also reduced the area of defensible space required for wildfires, thereby reducing the removal of shrubs along the edge of the slope. The current proposal further reduced the project's footprint by combining the garage/workshop and the staff residence into one structure, and moves all of the development as close as possible to the base of the slope at the eastern edge of the site. Thus, the structures will not be visible from Highway 1. However, in order to make absolutely certain that the new development is not visible from Highway 1 and nearby pullouts, **Special Condition 3** requires a post construction site assessment be conducted to ensure that no new development is visible from the Highway 1 critical viewshed.

The proposed project does not include new access roads and would not significantly alter any natural land forms. All utilities would be buried or laid on the ground (e.g. water lines) and obscured by vegetation. The project would rely primarily upon the natural topography and existing vegetation for visual screening. The proposed project would not add new paving, and landscaping would be limited to native vegetation grown from seeds collected on the Reserve. Although the project would alter the visual character of the site itself by constructing buildings on undeveloped land, the project would not have visual effects beyond the immediate vicinity of the development area itself, and the development would limit disturbance of the natural landscape.

Given all the above, the proposed development in the Coyote Creek area will protect public views consistent with Coastal Act Section 30251, and will ensure that new development is not visible from Highway 1, consistent with the guidance of LUP Scenic Resources Policy 3.2.1.

Unpermitted Development

The existing Terrace Camp yurt and latrine, the flush toilet at the Gatehouse site, and the generator shed, solar panels and water storage tanks at the Whale Point site are not visible from Highway 1 or any other public viewing areas. However, the Caltrans shed is located directly under the Big Creek Bridge and is visible from Highway 1 public pullout areas both upcoast and downcoast from the Bridge (see page 10 of **Exhibit 3** for a photo of the shed). The shed negatively impacts the scenic and visual qualities of this coastal area and has not been sited and designed to protect views to and along the ocean and scenic coastal areas, inconsistent with Section 30251. Nor is the shed visually compatible with the character of surrounding areas as required by Coastal Act Section 30251. While the University has made efforts to obscure the shed with camouflaged netting, it nevertheless detracts from the natural viewshed of the creek's riparian area and the spectacular concrete arch of Big Creek Bridge. The University has expressed its willingness to consider potential alternative sites for the shed outside the public viewshed, and, if necessary, remove it altogether if no other site can accommodate it. **Special Condition 4** makes this an enforceable condition of the CDP. Moreover, **Special Condition 5** requires the Applicant to submit "As-Built" Plans that include an aerial image of each developed area (i.e. Gatehouse, Terrace Camp, Whale Point, and Coyote Creek) followed by detailed plans (including site plan view and elevations) of all development (existing and proposed) at each site that depicts all approved development at the site for future reference.

The above measures will help to minimize and mitigate the visual impacts of the proposed development. Therefore, as conditioned, the project can be found consistent with Section 30251 of the Coastal Act and the guidance of LUP Scenic Resources Policy 3.2.1.

E. MARINE RESOURCES/WATER QUALITY

The Coastal Act protects the marine resources and habitat offshore of this site. Coastal Act Sections 30230 and 30231 provide:

> ***Section 30230.*** *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*
>
> ***Section 30231.*** *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats,*

and minimizing alteration of natural streams.

While the Coastal Act is the standard of review for the project, the Commission may also consider the policies of the Big Sur Land Use Plan (LUP), adopted by the County of Monterey for the Big Sur coast, as guidance. With respect to water quality, the LCP "Key Policy" provides:

> ***LUP Water Resources Policy 3.4.1 - Key Policy.*** *The protection and maintenance of Big Sur's water resources is a basic prerequisite to the protection of all other natural systems. Therefore, water resources will be considered carefully in all planning decisions and approvals. In particular, the County shall insure that adequate water is retained in the stream system to provide for the maintenance of the natural community of fish, wildlife, and vegetation during the driest expected year.*

Analysis

The offshore waters and intertidal zone downslope from the proposed project site are within the Monterey Bay National Marine Sanctuary (MBNMS) and the State Sea Otter Refuge. These reserves protect a variety of marine habitat features, including the rocky intertidal zone, offshore kelp forests, marine mammal haul-outs and seabird nesting and foraging areas, all of which are represented at the Reserve site.

New septic systems

The project proposes septic systems for the proposed new buildings at both the Gatehouse site and Coyote Creek site. Under a 1979 agreement between the County of Monterey and the Regional Water Quality Control Board, the Monterey County Health Department administers sewage disposal regulations under the California Water Code. Construction of the new septic systems would require a permit from the Monterey County Health Department.

Water quality monitoring in Big Creek is routinely conducted by UC and reported to the California Regional Water Quality Control Board's Central Coast Ambient Monitoring Program (CCAMP). The Applicant's consultant reviewed upstream and downstream levels of ammonia and fecal coliform to assess if the existing septic system at the Gatehouse site is impacting the water quality of Big Creek. Data collected from CCAMP from 2001 to 2012 and by UC in 2013 and 2014 showed ammonia and fecal coliform levels in Big Creek at or below background levels. Based on this testing, the existing septic system at the site does not appear to have a measurable impact on the water quality in Big Creek. However, the existing system does not conform to current local wastewater disposal requirements and will be replaced with an enhanced treatment system that will serve all facilities at the Gatehouse site.

For the Gatehouse site, a new 1,500-gallon septic tank and leach field will be installed to the north of the new classroom building. Because the new leach field to the creek will be set back less than 150 feet from Big Creek (approximately 65 feet at the closest location), the septic system would include an enhanced on-site wastewater treatment system to meet County standards. Installation of the leach field would require re-locating an existing water line within the Gatehouse area. Wastewater from the existing building would flow to the new septic system.

Under the proposed project description, UC or the Regional Water Quality Control Board would conduct quarterly water quality monitoring for two years (four times per year) after the project is completed and annual monitoring in Big Creek beyond the initial two-year testing period. The

on-site measurements would include monitoring of the required elements attributed to the septic system for protection of aquatic life and human health (e.g., a sample may include dissolved oxygen, salinity, pH, turbidity, analysis of nutrients, salts, metals, indicator bacteria and solids, temperature as well as flow-discharge in cubic feet per second). The results of the monitoring and the relevant thresholds for protection of aquatic life and human health would be available on demand from the Big Creek Natural Reserve office or posted on the Regional Water Quality Control board web site (www.ccamp.org). If relevant thresholds are exceeded and directly attributed to the septic system, above natural fluctuation and variation, the University will conduct monthly monitoring and consult the necessary experts and modify or adjust the treatment system until the exceedances are within the natural variation.

The Project would also install a new septic system at the Coyote Creek site. Based on the results of soil and percolation testing at that site, the site appears suitable for a leach field that meets the standards of the Monterey County Health Department.

Special Condition 6(a) requires that the Applicant obtain approval for the proposed septic systems from the County Department of Environmental Health and makes the proposed water quality monitoring of Big Creek an enforceable condition of this permit and that the results of such monitoring be submitted to the Executive Director for review. Moreover, in the event that the water quality monitoring shows impacts to the creek, **Special Condition 6(b)** further requires modification to the wastewater system, including the potential for eliminating the septic system and using a pump system if necessary.

Storm Water Management: Pre- and Post-Construction

The development would increase the area of impervious surface at both the Gatehouse and Coyote Creek sites; however, all runoff from the new development would be directed to vegetated swales and infiltration trenches, where most of it would infiltrate to the subsurface as under natural conditions.[9] Runoff from existing impermeable surfaces at the Gatehouse site percolates into the ground or, in large storm events, flows overland to Big Creek. The Coyote Creek site slopes toward the southwest, toward an unnamed drainage channel that flows to the ocean.

The Project is required to meet the requirements of the UC Santa Cruz Campus Standards (Section 2720) for post-construction management of storm water runoff. Moreover, the proposed project description includes mitigation measures (see **Exhibit 4**) requiring that the final project plans and specifications shall include documentation that the project design includes the following requirements:

- Site Design and Performance Requirements: design strategies such as directing runoff from roofs, sidewalks, walkways, and/or patios onto vegetated areas safely away from building foundations and footings; directing roof runoff into cisterns or rain barrels for reuse; constructing driveways, uncovered parking lots, walkways, and patios with permeable

[9] In addition, the proposed after-the-fact development, including the Terrace Camp yurt and latrine, and Whale Point water tanks, added some new impervious surfaces at these respective project sites. However, given that the areas around these limited developments consists of pervious land, these developments are unlikely to affect stormwater runoff in these otherwise undeveloped locations.

surfaces;

• Water Quality Treatment: Treatment of runoff using the following onsite measures, listed in order of preference: a) Low Impact Development (LID) systems (harvesting and use, infiltration, and evapotranspiration Storm Water Control Measures); b) biofiltration treatment systems that meet specified design parameters; or 3) non-retention-based treatment systems.

Special Condition 7 requires that the Construction Plan include construction methods typically required by the Commission to protect water quality and marine resources during construction, including maintaining good construction site housekeeping controls and procedures, the use of appropriate erosion and sediment controls, a prohibition on equipment washing, refueling, or servicing within 50 feet of any water body, etc. To further protect marine resources and offshore habitat, **Special Condition 7** also requires construction documents to be kept at the site for inspection, and also requires a construction coordinator to be available to respond to any inquiries that arise during construction. Thus, as conditioned, the project is consistent with Coastal Act Sections 30230 and 30231 and with LUP Water Resources Policy 3.4.1 regarding protection of marine and freshwater resources and offshore habitats.

F. ENVIRONMENTALLY SENSITIVE HABITAT

In addition to the sensitive marine and creek habitats identified above, sensitive species are known to occur in the immediate vicinity of the project. For such areas, relevant Coastal Act policies provide:

Section 30107.5: *"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.*

Section 30240: *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.* ***(b)*** *Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

While the Coastal Act is the standard of review for the project, the Commission may also consider the policies of the Big Sur Land Use Plan (LUP), adopted by the County of Monterey for the Big Sur coast, as guidance. In addition to the Coastal Act then, the LCP's "key policy" with respect to environmentally sensitive habitat areas (ESHA) provides:

LUP Environmentally Sensitive Habitats Policy 3.3.1 - Key Policy: *All practical efforts shall be made to maintain, restore, and if possible, enhance Big Sur's environmentally sensitive habitats. The development of all categories of land use, both public and private, should be subordinate to the protection of these critical areas.*

Analysis

A biological resources assessment was prepared for the project in August 2014 (Biotic

Resources Group 2014). Surveys were timed to include the blooming seasons of special status plants with the potential to occur in the area. A California Natural Diversity Database (CNDDB) online search for special status wildlife and plant species was performed on the Lopez Point quadrangle, which contains the project sites, as well as all adjacent quadrangles (Cone Peak, Cape San Martin, Junipero Serra Peak, Tassajara Hot Springs, Partington Ridge). Plant and wildlife species found in the database search were compiled and assessed with regard to their presence, or potential to occur, within the project areas. The assessment of the potential for each species to occur in the project areas was based on ongoing institutional species lists maintained by research biologists, continuous observations by resident staff biologists over the past several decades, and biological surveys conducted in preparation for the proposed project. In addition, the assessment incorporated data from botanical surveys of the project sites that were conducted by Reserve staff in January and May 2014. With respect to sensitive species, the assessment found:

> *There are eleven known sensitive species that are known to occur within approximately 5-km of the proposed project sites. These include Black swift, Monarch's butterfly, Smith's blue butterfly, steelhead trout, coast range newt, hoary bat, teardrop moss, pine rose, Hutchinson's larkspur, San Luis Obispo sedge, and bristlecone pine. Of these, only four are likely to actually occur within or near the project sites. These include:*
>
> *1. Coast range newt, which has the potential to travel through the project area.*
> *2. Smith's blue butterfly, due to suitable habitat adjacent to the Gatehouse.*
> *3. Steelhead trout, which are in the creek adjacent to the Gatehouse site.*
> *4. Hoary bat, which was observed foraging in Big Creek canyon (2 miles from the project site) in April 2001.*

Gatehouse and Coyote Creek
The Gatehouse site is near the mouth of Big Creek and at the base of a road that descends into the canyon from Highway 1. The site is developed with facilities to support research, education, and stewardship at the Reserve. Native coastal scrub species occur along the edge of project site and the area is adjacent to the riparian zone along Big Creek.

With respect to the Gatehouse area, the biological assessment states:

> *Areas adjacent to the Gatehouse consist primarily of coastal scrub and the adjacent riparian zone along Big Creek. Coastal scrub is dominated by lizard tail, poison oak, blackberry, morning glory, bee plant, hedge nettle, yarrow, coyote bush, and California sage. Some planted buckwheat plants exist along the road and on the berm. The riparian area consists primarily of willow, alder, California bay laurel, redwood, hedge nettle, thimbleberry, and seasonal creek-associated species.*
>
> *Plants*
> *A total of 36 species were identified in the proposed Project area. <u>No special-status plants were observed</u>; however, the adjacent berm contains several Eriogonum parviflorum, the host species for Smith's blue butterfly. These were planted in 2010 as*

> *part of a restoration project. Adjacent riparian areas contain sycamore, coast redwood, alder, maple, and willow.*
>
> *Wildlife*
> *No sensitive wildlife species were observed during the field surveys. Wildlife species that likely use this area include common coastal scrub and riparian passerine birds such as California towhee, spotted towhee, song sparrow, ash-throated flycatcher, bushtits, warblers, pacific-slope flycatcher, American robin, and black phoebe, as well as common reptiles such as gopher snake, southern alligator lizard, western fence lizard, and garter snakes. Small mammals that are commonly found in this type of habitat include deer mice, gophers, shrews, moles, and woodrat. (Emphasis added)*

The existing Gatehouse facilities (i.e. the staff residence, the Library, the restroom, and two sheds) are arranged informally around an open area that includes an unpaved parking area, a small lawn, and small garden areas. This development has degraded the area that immediately surrounds the existing development, and the proposed new development (i.e. the classroom and a new septic tank and leach field) will occur within this already disturbed area. Areas suitable for development in the Gatehouse area are significantly limited due to the high canyon walls that exist on either side of the canyon, by Big Creek itself, and by the access road that leads to the Gatehouse area from Highway 1.

Section 30240 of the Coastal Act does not specify a minimum setback for ESHA, but the Big Sur LCP (which is not the standard of review, but which the Commission may use as guidance in this case) calls for setbacks of 150 feet on each side of the Big Creek streambank "unless a narrower corridor can be demonstrated to be sufficient to protect existing vegetation and provide for restoration of previously disturbed vegetation." Portions of the proposed classroom will be located as close as 50 feet to Big Creek. However, the proposed classroom will be located in the shadow of the staff residence and away from Big Creek, i.e. the existing staff residence is located between the creek and the site of the proposed classroom (see **Exhibit 2** for project plans). The proposed septic tank and leach field will be located in a disturbed area, about 65 feet from Big Creek. Again, the area proposed for development of the new classroom and the proposed septic system is already disturbed by existing development, and an existing structure (the staff residence) will be located between the classroom and the creek. Furthermore, no riparian or other sensitive plant species will be removed to construct the classroom or install the septic system, and new landscaping around these areas will consist of native plants grown from seed collected on the Reserve. For these reasons, even though the Big Sur LCP calls for 150 foot setbacks, a reduced creek setback appears sufficient to protect existing vegetation given the current site conditions, thus ensuring consistency with Section 30240.

The Coyote Creek site is located near the southern border of the Reserve. The Coyote Creek site has historically been used for equipment storage and parking and has been mowed periodically over the past several decades according to the Applicant. Dominant vegetation consists of coyote brush, poison oak, non-native grasses, blue blossom, and a variety of native and non-native shrubs and forbs. For this site, the biological assessment states:

Plants
The site consists of coastal scrub species and reflects the history of mowing at the site (e.g. low growing poison oak and annual weeds). A total of 33 plant species were identified in the biotic survey area. Species were comprised of common coastal scrub species (e.g. ceonothus, beeplant, lizard tail, poison oak, coffee berry, California sage, coyote bush, and stinging nettle). No sensitive species were observed on site.

Wildlife
No sensitive wildlife species were observed during the field surveys. Wildlife species that likely use this area include common coastal scrub passerine birds such as California towhee, spotted towhee, song sparrow, ash-throated flycatcher, bushtits, as well as common reptiles such as gopher snake, southern alligator lizard, and western fence lizard. Small mammals that are commonly found in this type of habitat include deer mice, voles, gophers, shrews, and woodrats.

The proposed new residential structures at Coyote Creek will not result in impacts to any sensitive plant or animal species. Landscaping in the area would be minimal and consist of native plants grown from seed collected on the Reserve.

In addition, the Commission's Staff Biologist provided comments on the IS/MND and conducted a site visit and agrees that the proposed development in the Gatehouse and Coyote Creek areas should not have significant impacts on sensitive plant or animal species. However, she generally concurs with the mitigation measures adopted as part of the IS/MND to mitigate for identified potential construction impacts from the project to Smith's Blue Butterfly and the Coastal Range Newt, as well as other potential impacts from construction activities, including from erosion and potential sediment impacts to Big Creek. The IS/MND identified seven mitigation measures designed to avoid these impacts (see **Exhibit 5**). These include scheduling construction outside of nesting seasons, silt fence barriers around buckwheat plants, dust control measures, speed limits for construction vehicles, pre-construction inspections for Coastal Range Newts, and erosion and sediment control measures for construction near Big Creek. **Special Condition 1** identifies the all of these mitigation measures as part of the Approved Project, making them enforceable elements of this CDP to ensure consistency with Section 30240. In addition to these measures, the Commission's Staff Biologist determined that the proposed mitigations to protect nesting birds may not be adequate and recommends additional mitigation to protect nesting birds during construction activities. To address possible impacts to nesting birds, **Special Condition 8** requires a preconstruction bird survey. If special status birds are found to be nesting on or directly adjacent to the site, the Permittee is required to notify the appropriate Federal and State agencies and the Executive Director, and is also required to develop an appropriate response, consistent with the recommendations of these agencies and the Executive Director, to ensure that construction activities do not impact nesting birds.

As conditioned, the new development proposed for the Gatehouse and Coyote Creek sites are consistent with Coastal Act Section 30240 and LCP Policy 3.3.1.

Unpermitted Development

A Botanical Review was prepared by Biotic Resources Group in August of 2015 to assess potential impacts to environmentally sensitive habitat from the existing unpermitted development, including the Caltrans Shed, Whale Point development (including the solar array, shed and water tanks), and the Terrace Camp yurt and latrine.

As discussed in the project description, the Caltrans shed is located near the mouth of Big Creek, just above the high surf line of the Pacific Ocean, near the northernmost abutment of the Highway 1 Bridge that spans Big Creek. (See page 10 of **Exhibit 3**). The shed abuts coastal scrub and grassy vegetation and mixed riparian woodland grows along a portion of the access trail that leads to the shed. Santa Lucia bush mallow, which is a locally rare species (CNPS List 1B.2)), was observed near the shed in August 2015. Due to the presence of this species, the coastal scrub along the footpath would appear to meet the definition of ESHA. Based on this information, it appears that the Caltrans shed is located in an environmentally sensitive habitat area. Accordingly, **Special Condition 4** requires that the shed be relocated outside of ESHA (or eliminated from the site altogether). As conditioned, this aspect of the project is consistent with Section 30240 and LCP Policy 3.3.1.

With respect to the Whale Point development, which is located directly atop the downcoast ridge from the Gatehouse site (**see page 17, Exhibit 3**), the 2015 Botanical Review considered potential impacts from reconstruction of the two cabins as well as construction of the storage shed and the solar panel array, and concluded that "Construction of the cabins, solar panels and shed affected several hundred square feet of previously manipulated ground. Based on the previous site uses, it is unlikely that the area supported any species status plant species or sensitive habitat; therefore, impacts from these improvements are not deemed significant." The Botanical Review separately considered potential impacts from the water storage tanks and water line concluding that "[p]lacement of the water tanks and the underground water line affected a few hundred square feet of coastal scrub vegetation. Impacts to the coastal scrub are not deemed significant due to the lack of special status plant species expected at the site at the time of placement. In addition, areas disturbed by water line trenching have naturally recovered with coastal scrub vegetation."

Finally, with respect to the Terrace Camp development (**See Exhibit 3, pages 8-9**), the botanical survey did not address the yurt;[10] however, with respect to the Terrace Camp latrine, the 2015 Botanical Review found:

> *Construction of the latrine affected approximately 25 square feet of coastal scrub vegetation. Use of the facility, through maintenance of the foot path to the facility, affects approximately 10 additional square feet of scrub. Impacts to the coastal scrub from project construction and use are not deemed significant due to the lack of special status plant species and the lack of dune buckwheat (and therefore, the presumed absence of Smith's blue butterfly, an endangered species). Based on these findings, this coastal scrub area would not meet the definition of ESHA*

[10] Prior to installation of the yurt, a botanical survey was conducted by a local botanist (Grey Hayes) which concluded that no rare or endangered plants were present at the site, and that the project was unlikely to result in significant negative impacts to existing vegetation.

under the Monterey County's Big Sur Coast Land Use Plan and Local Coastal Program (LUP/LCP).

For the above-stated reasons, the Whale Point and Terrace Camp developments can be found consistent with Coastal Act Section 30240 and LCP Policy 3.3.1.

The Commission recognizes that there is some controversy regarding the proposed project (see **Exhibit 6**). Given this context, there remains a possibility that the Commission's approval of the project will be litigated. Toward that end, Coastal Act Section 30620(c)(1) authorizes the Commission to require applicants to reimburse the Commission for expenses incurred in processing CDP applications. Thus, the Commission is authorized to require reimbursement for expenses incurred in defending its action on the pending CDP application in the event that the Commission's action is challenged by a party other than the Applicant. Therefore, consistent with Section 30620(c), the Commission imposes **Special Condition 9** requiring reimbursement for any costs and attorneys' fees that the Commission incurs in connection with the defense of any action brought by a party other than the Applicant challenging the approval or issuance of this permit, the interpretation and/or enforcement of permit conditions, or any other matter related to this permit.

G. UNPERMITTED DEVELOPMENT

Violations of the Coastal Act exist on the subject property including, but not limited to, the "terrace camp" yurt and latrine, the Caltrans storage shed located under the Big Creek Bridge, flush toilet at the Gatehouse site, a generator shed, solar panels and water storage tanks at the Whale Point site.

The Applicant seeks to resolve the above described violations through this application and the permit is conditioned to bring the subject unpermitted development into compliance with the Coastal Act. Approval of this application pursuant to the staff recommendation, issuance of the CDP, and the Applicant's subsequent compliance with all terms and conditions of the CDP will result in resolution of the above described violations.

Although development has taken place prior to submission of this permit application, consideration of this application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Commission review and action on this permit does not constitute a waiver of any legal action with regard to the alleged violations, nor does it constitute an implied statement of the Commission's position regarding the legality of development, other than the development addressed herein, undertaken on the subject site without a coastal permit. In fact, approval of this CDP is possible only because of the conditions included herein and failure to comply with these conditions would also constitute a violation of this CDP and of the Coastal Act. Accordingly, the Applicant remains subject to enforcement action unless and until the conditions of approval included in this CDP are satisfied.

H. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment.

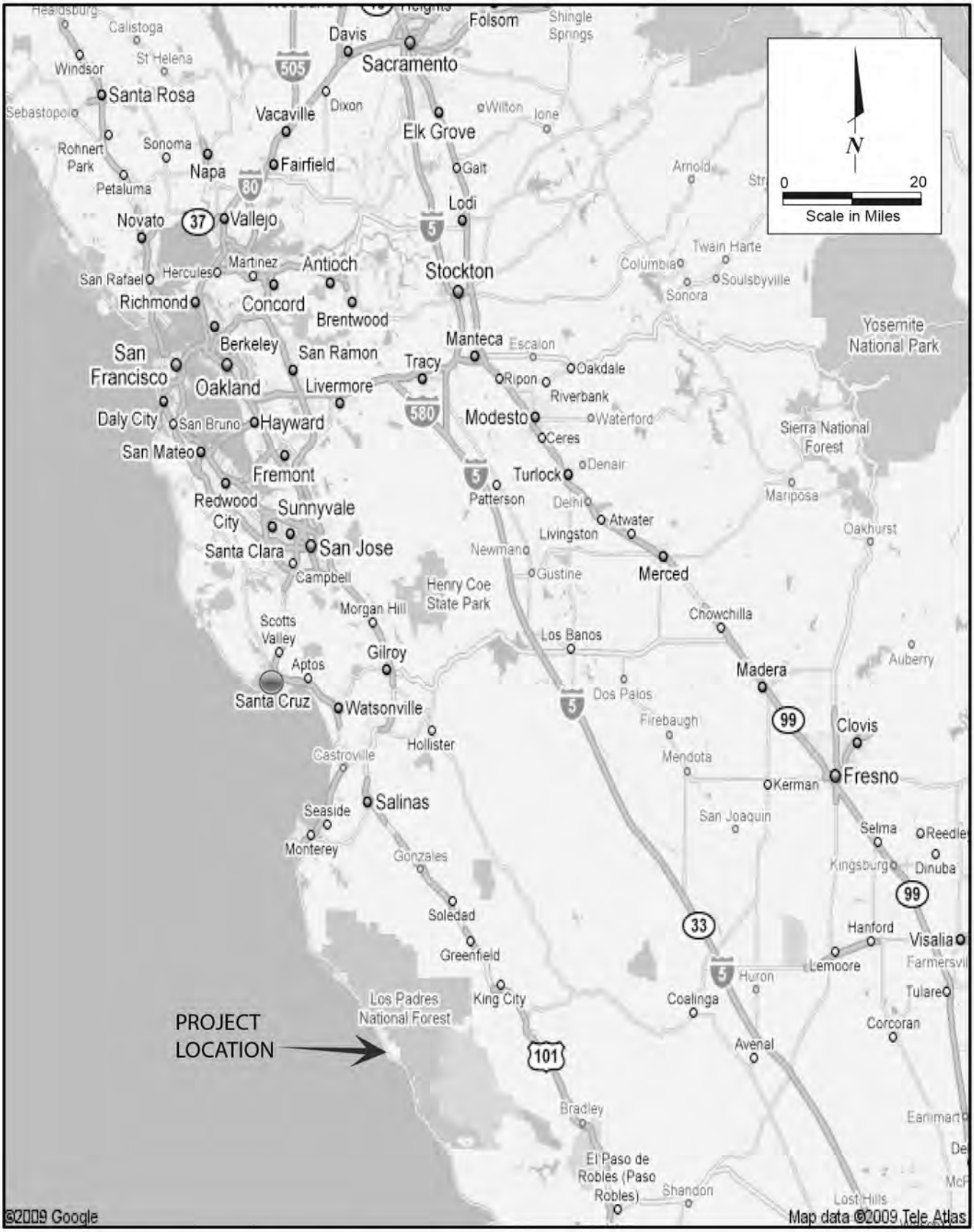
Pursuant to State law and University procedures for implementation of CEQA, the potential environmental impacts of the Landels Hill-Big Creek Natural Reserve Facility Project were analyzed in an Initial Study/Mitigated Negative Declaration (IS/MND). The University published a notice of intent to adopt the MND on November 13, 2014 and made the MND and Initial Study available for public review for 32 days from November 13, 2014 to December 15, 2014. The University received comment letters from the California Coastal Commission and the Monterey Bay Area Unified Air Pollution Control District and minor changes were made to the Initial Study in response to these comments. The Initial Study identified potentially significant impacts on scenic vistas and visual character and quality, and potentially significant construction-phase impacts on nesting birds, dune buckwheat (the host plant of Smith's blue butterfly, a federally listed endangered species), riparian vegetation and coastal scrub. These impacts were determined to be reduced to less-than-significant levels through mitigation measures requiring modifications to the siting and configuration of the proposed new buildings, pre-construction monitoring for nesting birds, and installation and maintenance of protective fencing and warning signs during construction. The IS/MND was adopted by the University on April 20, 2015 and included a detailed Mitigation Monitoring Program.

The Coastal Commission’s review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. The preceding coastal development permit findings discuss the relevant coastal resource issues with the proposal, and the permit conditions identify appropriate modifications to avoid and/or lessen any potential for adverse impacts to said resources, including, incorporating the mitigation measures identified in the IS/MND as enforceable components of this CDP. In addition, no formal public comments have been received at the time of the drafting of this report.

As such, there are no additional feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the proposed project, as conditioned, would have on the environment within the meaning of CEQA. Thus, if so conditioned, the proposed project will not result in any significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A)

APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

1. Original Grant Deeds
2. Management Agreement
3. Big Creek Site Analysis
4. February 4, 2015 Letter from UC to CALFIRE
5. August 2015 Public Access Plan
6. May 14, 2015 Wastewater Impact Assessment, Fall Creek Engineering
7. November 10, 2014 Water System Review, Fall Creek Engineering
8. February 2015 Final Initial Study and Negative Declaration
9. June 2, 2014 Facilities Development Biotic Study
10. August 17, 2015 Existing Facilities Botanical Review, Biotic Resources Group
11. July 4, 1999 Botanical Survey, Terrace Camp site, Grey Hayes.
12. August 29, 2014 Geotechnical Investigation, Kane Geotech, Inc.



LANDELS-HILL BIG CREEK RESERVE
FACILITIES IMPROVEMENT PROJECT

FIGURE 1, LOCATION MAP
FEBRUARY 2015

Exhibit 1
3-16-0011
2 of 2

SYMBOLS LEGEND

- BUILDING
- CLEANOUT
- FLOW DIRECTION
- PUMP
- CONTROL POINT
- (E) TREE
- WHARF FIRE HYDRANT
- SURFACE FLOW DIRECTION
- (E) ROCK WALL
- SAND BAGS
- STORM DRAIN INLET PROTECTION

CIVIL LINE TYPES

- (E) DOMESTIC WATER LINE
- DOMESTIC WATER LINE
- FIRE WATER LINE
- STORM DRAIN LINE
- GRAVITY SEWER LINE
- PRESSURIZED SEWER LINE
- LEACHFIELD
- LIMIT OF DISTURBANCE
- (E) ROAD
- (E) WATER LINE
- (E) STORM DRAIN LINE
- (E) GAS LINE
- TEMPORARY EROSION CONTROL BLANKET
- SILT FENCE
- RETAINING WALL
- STRAW WATTLE
- CREEK CENTERLINE (CL)

MATERIALS LEGEND

- COMPACTED EARTH
- EARTH
- VEGETATED SWALE
- ROCK ENERGY DISSIPATION SWALE
- DEMO
- GRAVEL/DRAIN ROCK
- CONCRETE
- FILTER MEDIA
- FILL
- HYDROSEED
- SEDIMENT
- GEOTEXTILE FABRIC

CIVIL SHEET INDEX

GENERAL NOTES

GENERAL NOTES

1. ALL MATERIALS SHOWN OR NOTED ON THE PLANS ARE NEW/PROPOSED UNLESS CALLED OUT OTHERWISE.
2. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS SHOWN OR DIMENSIONED HERE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF UNIVERSITY'S REPRESENTATIVE FOR RESOLUTION BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
3. ALL WORK SHALL COMPLY WITH THE CURRENT EDITION OF THE FOLLOWING LISTED CODES, AND ALL OTHERS HAVING JURISDICTION OVER THE WORK.
   - 2013 EDITION OF THE CALIFORNIA BUILDING CODE.
   - 2013 EDITION OF THE CALIFORNIA FIRE CODE.
   - 2013 EDITION OF THE CALIFORNIA ENERGY CODE.
   - 2013 EDITION OF THE CALIFORNIA ELECTRICAL CODE.
   - 2013 EDITION OF THE CALIFORNIA PLUMBING CODE.
   - CAL-OSHA - TITLE 8 REGULATIONS.
   - FEDERAL ACCESSIBILITY STANDARDS.
4. CONDUCT ALL WORK IN ACCORDANCE WITH THE LATEST SAFETY RULES AND REGULATIONS OF ALL AUTHORITIES AND AGENCIES HAVING JURISDICTION OVER THE WORK.
5. ALL WORK SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. WHERE DETAILED INFORMATION OR CLARIFICATION IS REQUIRED, THE MATTER SHALL BE REFERRED TO THE UNIVERSITY'S THROUGH A REQUEST FOR INFORMATION (RFI) TO THE REPRESENTATIVE FOR WRITTEN RESOLUTION.
6. THE CONTRACTOR SHALL NOT SCALE THE DRAWINGS, BUT SHALL RELY ONLY ON THE WRITTEN DIMENSIONS GIVEN. IF A DISCREPANCY OCCURS OR NO DIMENSION IS GIVEN, THE CONTRACTOR SHALL NOTIFY UNIVERSITY'S REPRESENTATIVE FOR WRITTEN CLARIFICATION BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
7. PROTECT TREE ROOTS PER SPECIFICATION SECTION 015639, HAND DIG IF NECESSARY.
8. THE BASIS OF THE DESIGN PRESENTED IN THESE PLANS INCLUDES THE FOLLOWING SOURCES:
   - 8.1. SITE VISITS BY FCE'S DESIGN TEAM;
   - 8.2. MEETINGS, CORRESPONDENCE, AND RECOMMENDATIONS FROM THE UNIVERSITY;
   - 8.3. A REVIEW OF MONTEREY COUNTY GUIDELINES FOR ON-SITE WASTEWATER SYSTEMS IN MONTEREY COUNTY CODE CHAPTER 15.20 SEWAGE DISPOSAL;
   - 8.4. A TOPOGRAPHIC SURVEY PREPARED BY BOWMAN & WILLIAMS, DATED MARCH 4, 2014; AND
   - 8.5. RECOMMENDATIONS FROM THE BIG SUR VOLUNTEER FIRE BRIGADE.

GENERAL PROVISIONS

1. NO PERSON SHALL CAUSE OR ALLOW THE CONTINUED EXISTENCE OF A CONDITION ON ANY SITE THAT IS CAUSING OR IS LIKELY TO CAUSE ACCELERATED EROSION AS DETERMINED BY THE UNIVERSITY. SUCH A CONDITION SHALL BE CONTROLLED AND/OR PREVENTED BY THE RESPONSIBLE PERSON BY USING APPROPRIATE MEASURES OUTLINED IN SUBSEQUENT SECTIONS OF THIS CHAPTER. ADDITIONAL MEASURES SHALL BE APPLIED IF NECESSARY BY THE RESPONSIBLE PERSON. SPECIFIC ADDITIONAL MEASURES MAY BE REQUIRED BY THE UNIVERSITY.

EROSION AND SEDIMENT CONTROL PLAN

1. THE PROJECT'S DISTURBANCE AREA, INCLUDING STAGING AND CONSTRUCTION ACCESS, WILL LIKELY EXCEED ONE ACRE AND WILL THEREFORE REQUIRE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHOULD BE PREPARED BY A QSP/QSD AND BE APPROVED BY THE UNIVERSITY.

2. PROJECTS OF ANY SIZE MUST HAVE AN EROSION AND SEDIMENT CONTROL PLAN (ESCP) SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE UNIVERSITY PRIOR TO BEGINNING GRADING OR SITE CLEARING OPERATIONS. THE ESCP SHOULD INDICATE PROPOSED METHODS FOR THE CONTROL OF RUNOFF, EROSION, AND SEDIMENT MOVEMENT. THE ESCP MUST, AT A MINIMUM, INCLUDE ALL BEST MANAGEMENT PRACTICES (BMP 'S) LISTED IN APPENDIX E, BEST MANAGEMENT PRACTICES FOR CONSTRUCTION PROJECTS LESS THAN 1 ACRE IN AREA INVOLVING SOIL DISTURBANCE GREATER THAN 50 CUBIC YARDS, WHICH ARE APPLICABLE TO THE PROJECT. ESCP 'S MAY ALSO BE REQUIRED BY THE UNIVERSITY FOR OTHER TYPES OF ACTIVITIES WHERE EROSION CAN REASONABLY BE EXPECTED TO OCCUR. THE ESCP MAY BE INCORPORATED INTO OTHER REQUIRED PLANS, PROVIDED IT IS IDENTIFIED AS SUCH. ESCP 'S SHALL INCLUDE, AS A MINIMUM, THE MEASURES REQUIRED UNDER SECTIONS 7, 8, 9 AND 10 OF THIS CHAPTER. ADDITIONAL MEASURES OR MODIFICATION OF PROPOSED MEASURES MAY BE REQUIRED BY THE UNIVERSITY PRIOR TO ACCEPTANCE OF EROSION CONTROL PLAN. NO GRADING OR CLEARING MAY TAKE PLACE ON THE SITE PRIOR TO ACCEPTANCE OF AN ESCP FOR THAT ACTIVITY. PROGRESS PAYMENTS, ACCEPTANCE OF PROJECT, AND/OR FINAL PAYMENT MAY BE DELAYED PENDING PROPER INSTALLATION OF MEASURES IDENTIFIED IN THE ACCEPTED ESCP.

3. THE ESCP SHOULD FOLLOW THE STANDARDS PRESENTED IN THE UNIVERSITY'S "CAMPUS STANDARDS HANDBOOK".

RUNOFF CONTROL

1. RUNOFF SHALL BE PROPERLY CONTROLLED TO PREVENT EROSION. THE CONTRACTOR SHALL FOLLOW THE MEASURES OUTLINED IN THE UNIVERSITY'S "CAMPUS STANDARDS HANDBOOK".

OVERALL RESPONSIBILITY

1. IT SHALL BE THE RESPONSIBILITY OF THE RESPONSIBLE PARTY TO ENSURE THAT EROSION DOES NOT OCCUR FROM ANY ACTIVITY DURING PROJECT CONSTRUCTION. ADDITIONAL MEASURES, BEYOND THOSE SPECIFIED HERE OR IN THE UNIVERSITY'S "CAMPUS STANDARDS HANDBOOK" MAY BE REQUIRED BY THE UNIVERSITY A DEEMED NECESSARY TO CONTROL ACCELERATED EROSION AND/OR SEDIMENTATION.

DRAWING NOTATIONS

- A / A1 — SECTION NUMBER / SHEET NUMBER
- 1 / A1 — DETAIL NUMBER / SHEET NUMBER
- X'-X" OR X.XX' — DIMENSION LINE FACE OF MATERIAL

ABBREVIATIONS

ABR	ANAEROBIC BAFFLED REACTOR
BS	BOLTED STEEL
BLDG	BUILDING
CONC	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
DG	DECOMPOSED GRANITE
DW	DOMESTIC WATER
(E)	EXISTING
EL	ELEVATION
FCE	FALL CREEK ENGINEERING
FF	FINISHED FLOOR
FM	FORCE MAIN
FW	FIRE WATER
G	GAS
GAL	GALLON
GPD	GALLONS PER DAY
HDPE	HIGH-DENSITY POLYETHYLENE
HWY	HIGHWAY
INV	INVERT
LF	LINEAR FEET
L	LEVEL
MAX	MAXIMUM
MIN	MINIMUM
NTS	NOT TO SCALE
OD	OUTER DIAMETER
PE	POLYETHYLENE
R	RADIUS
SF	SQUARE FOOT
SD	STORM DRAIN
SS	SANITARY SEWER
TBD	TO BE DETERMINED
TYP	TYPICAL
UCSC	UNIVERSITY OF CALIFORNIA SANTA CRUZ
W	WATER
WW	WASTEWATER

ESTIMATED GRADING VOLUMES

PRELIMINARY GRADING VOLUMES			
SITE	CUT	FILL	NET
COYOTE CREEK	464 CY	135 CY	329 CY CUT
GATEHOUSE	35 CY	231 CY	196 CY FILL
TOTAL	499 CY	366 CY	133 CY CUT

GRADING NOTES:
1. THESE GRADING VOLUMES ARE PRELIMINARY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALL QUANTITIES.
2. NO COMPACTION FACTOR HAS BEEN APPLIED TO THE FILL VOLUMES.
3. NO EXPANSION FACTOR HAS BEEN APPLIED TO THE CUT VOLUMES.
4. GRADING VOLUMES DO NOT ACCOUNT FOR PAVEMENT SECTIONS.
5. ALL CONSTRUCTED SLOPES SHALL NOT EXCEED 2:1 (H:V).
6. GRADING WILL BE ADJUSTED IN SUBSEQUENT SUBMITTALS TO BALANCE THE CUT AND FILL VOLUMES.

TECHNICAL REFERENCES

TECHNICAL REFERENCES

1. "BIG CREEK RESERVE GEOTECHNICAL INVESTIGATION" PREPARED BY KANE GEOTECH, INC, AUGUST 29, 2014.
2. "TOPOGRAPHIC MAP OF A PORTION OF THE BIG CREEK RESERVE" PREPARED BY BOWMAN & WILLIAMS, MARCH 4, 2014.
3. WATER SYSTEM REVIEW LETTER PREPARED BY FALL CREEK ENGINEERING, INC, FEBRUARY 2, 2015.
4. SUMMARY OF ALTERNATIVE ONSITE WASTEWATER SYSTEMS - GATEHOUSE SITE" LETTER PREPARED BY FALL CREEK ENGINEERING, INC., OCTOBER 9, 2014.
5. UCSC CAMPUS STANDARDS HANDBOOK

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Natural Reserve System

LEVY ART & ARCHITECTURE
1286 SANCHEZ ST SAN FRANCISCO CA 94114 INC.
www.levyaa.com
T 415.641.7320
F 415.641.1710

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Consulting Engineers
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1525 SEABRIGHT AVENUE
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TEL. (831) 426-9054 FAX (831) 426-4932

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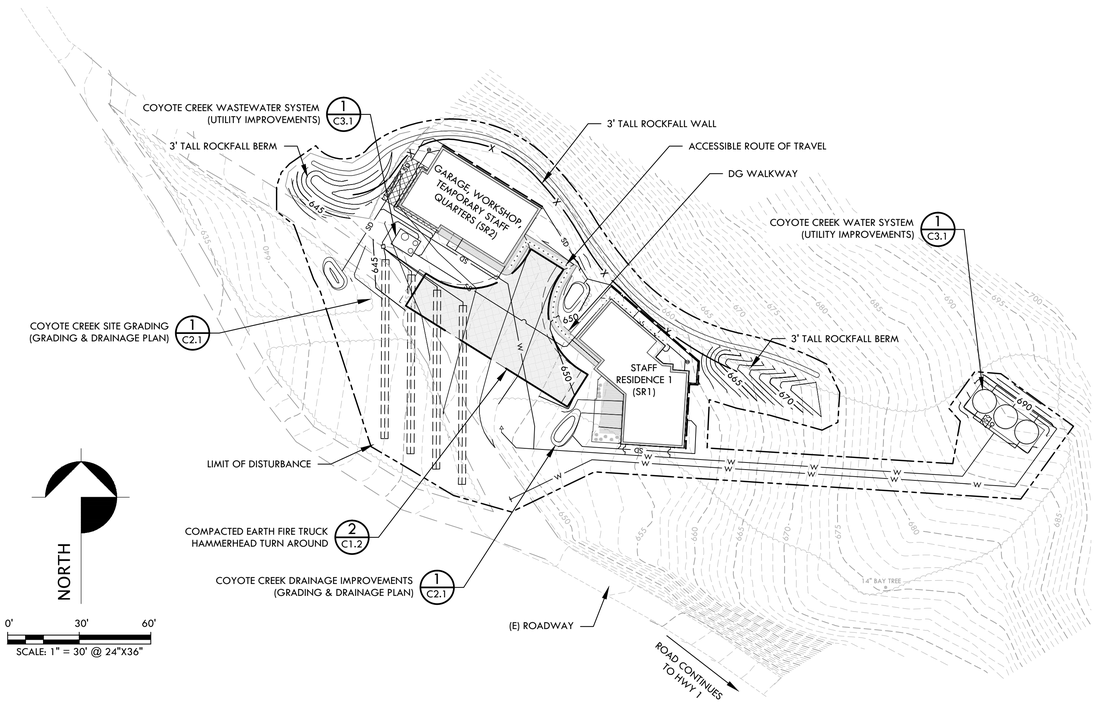
PROGRESS PRINT

CIVIL INFORMATION SHEET

Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

Description

Date:	04.24.2015
Scale:	AS NOTED
Drawn:	STAFF
Job	BigCreek
Sheet	C0.1



1 COYOTE CREEK SITE IMPROVEMENT PLAN OVERVIEW
1" = 30' @ 24"X36"

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COYOTE CREEK SITE IMPROVEMENTS LAYOUT

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UC Project# 12058
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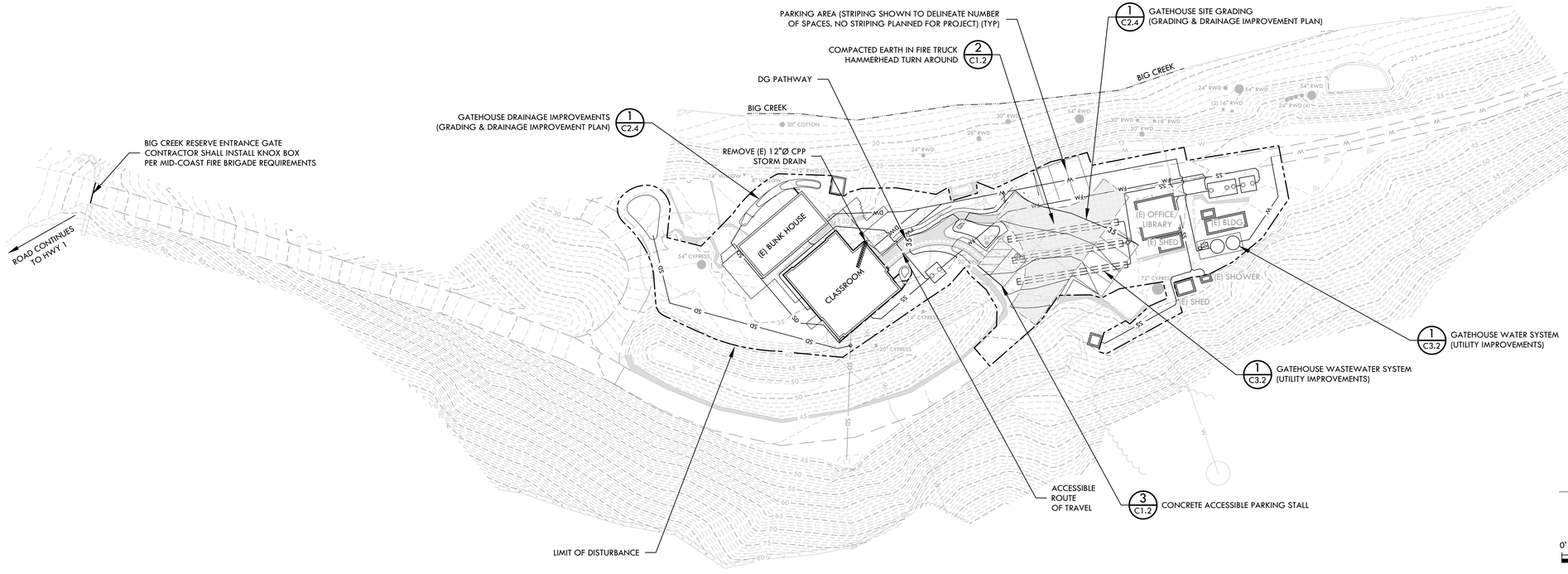
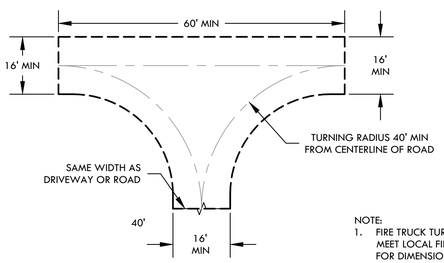
Big Sur, CA 93920

Description	CC IMPROVEMENTS PLAN
Date:	04.24.2015
Scale:	AS NOTED
Drawn:	STAFF
Job	BigCreek
Sheet	C1.1



1 GATEHOUSE SITE IMPROVEMENT PLAN OVERVIEW

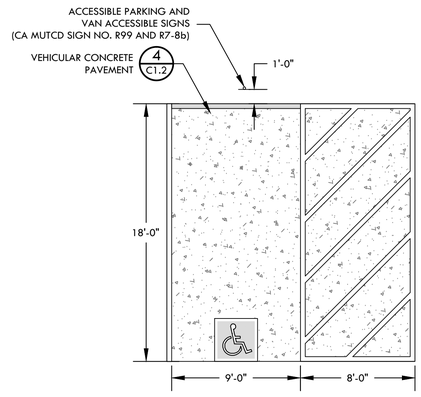
1" = 30' @ 24"X36"



NOTE:
1. FIRE TRUCK TURNAROUND SHALL MEET LOCAL FIRE JURISDICTION FOR DIMENSIONS AND SLOPES.

2 FIRE TRUCK HAMMERHEAD TURN AROUND

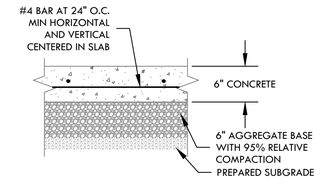
1" = 20' @ 24"X36"



NOTE:
1. PARKING SHALL MEET CURRENT ACCESSIBILITY GUIDELINES FOR DIMENSIONS AND SLOPES

3 TYPICAL ACCESIBLE MARKING STALL MARKINGS

PER UNIVERSITY CAMPUS STANDARD 02.5-80



4 TYPICAL VEHICULAR CONCRETE PAVEMENT SECTION

NTS

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T 415.641.7220
F 415.641.1710

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Consulting Engineers
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SANTA CRUZ, CA 95062
TEL. (831) 426-9054 FAX (831) 426-4932

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GATEHOUSE SITE IMPROVEMENTS LAYOUT

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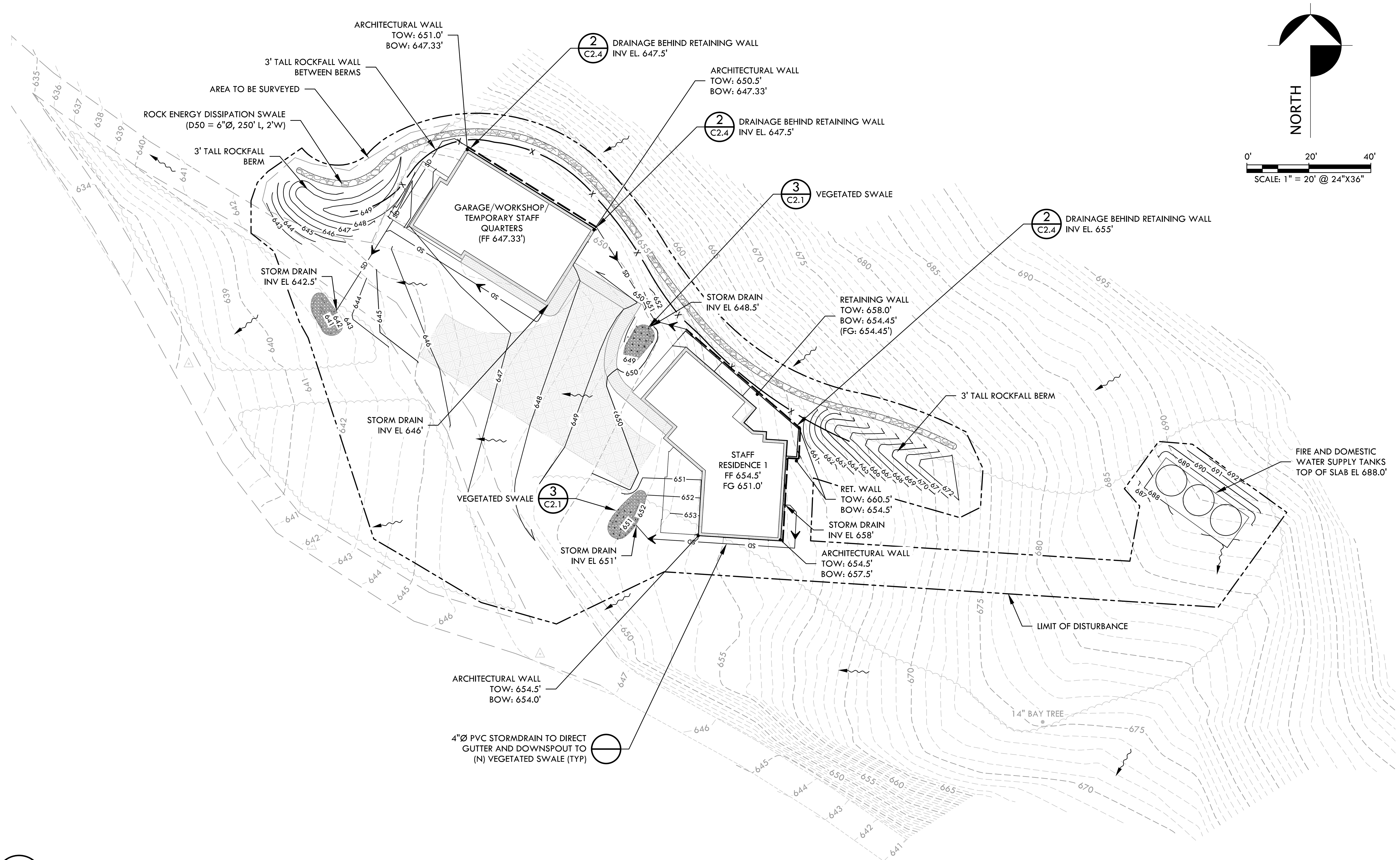
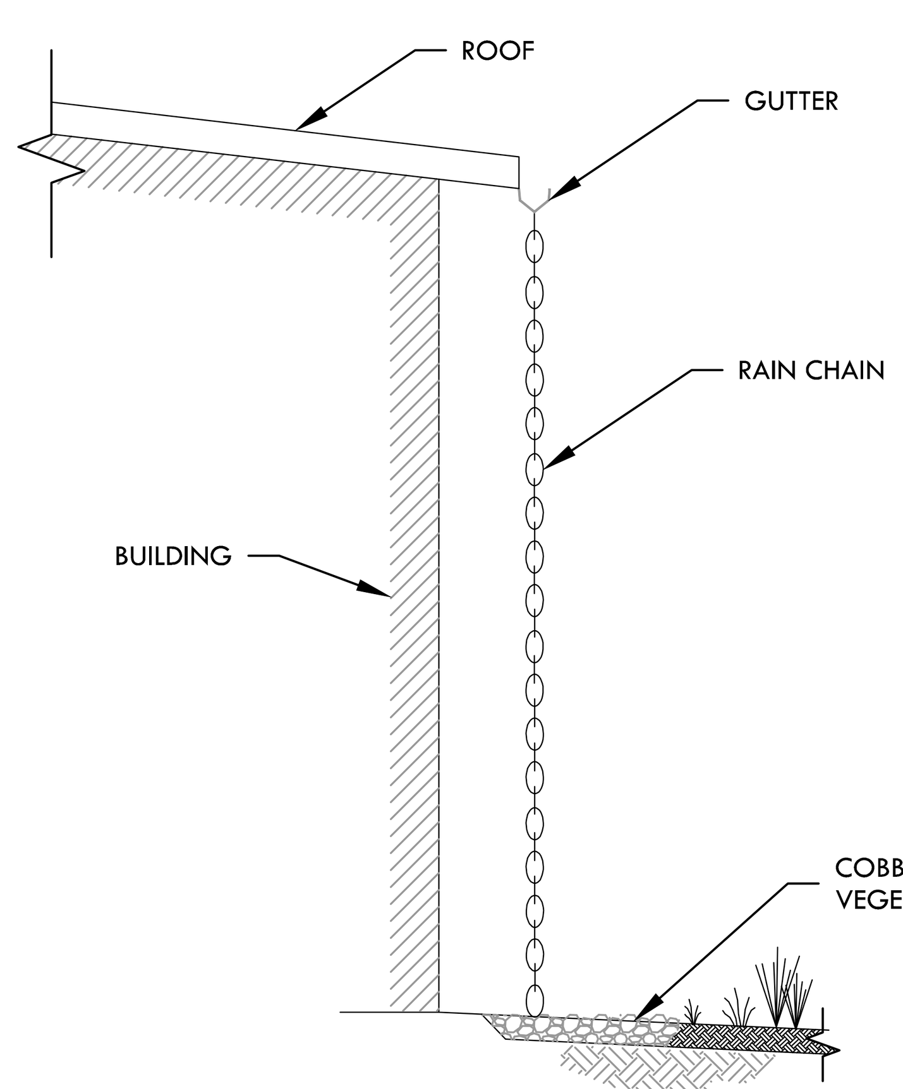
Big Sur, CA 93920

Description	GH IMPROVEMENTS PLAN
Date:	04.24.2015
Scale:	AS NOTED
Drawn:	STAFF
Job	BigCreek
Sheet	C1.2

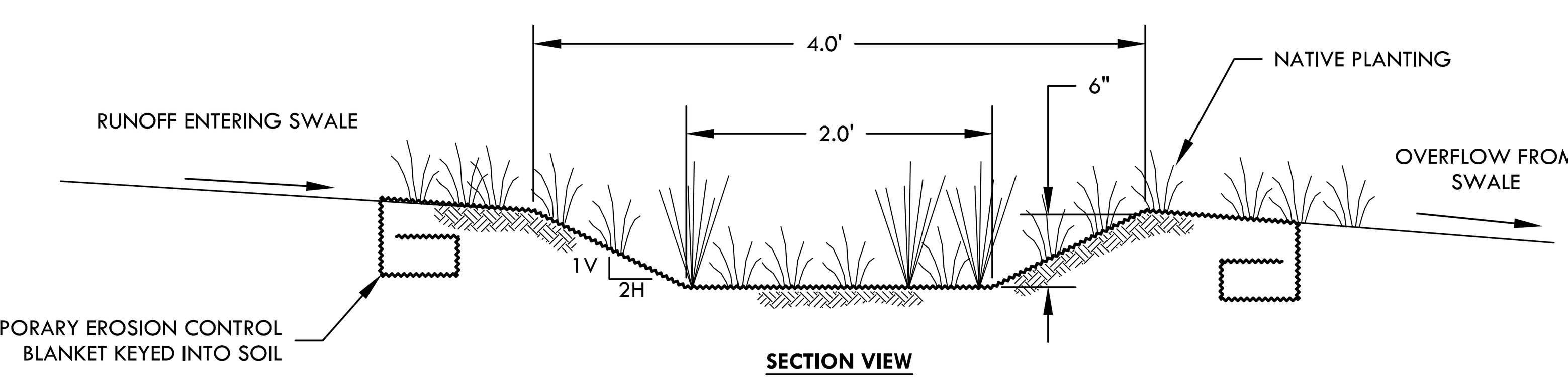


1 COYOTE CREEK GRADING AND DRAINAGE IMPROVEMENTS PLAN
1" = 20' @ 24"X36"

PRELIMINARY	
IMPERVIOUS AREA ANALYSIS	
No Existing Impervious Area	
Proposed	Area (sf)
Staff Residence #1	1,744
Staff Residence #2 and Workshop	1,318
Patio	250
ADA Parking and Pathway	571
Water Tanks	363
POST-CONSTRUCTION TOTAL IMPERVIOUS AREA	4,246



2 TYPICAL GUTTER AND RAIN CHAIN SCHEMATIC
1" = 2' @ 24"X36"



3 TYPICAL VEGETATED INFILTRATION SWALE SECTION
1" = 1' @ 24"X36"

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1525 SEABRIGHT AVENUE
SANTA CRUZ, CA 95062
TEL (831) 426-9054 FAX (831) 426-4932

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COYOTE CREEK GRADING AND DRAINAGE IMPROVEMENTS

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Date:	04.24.2015
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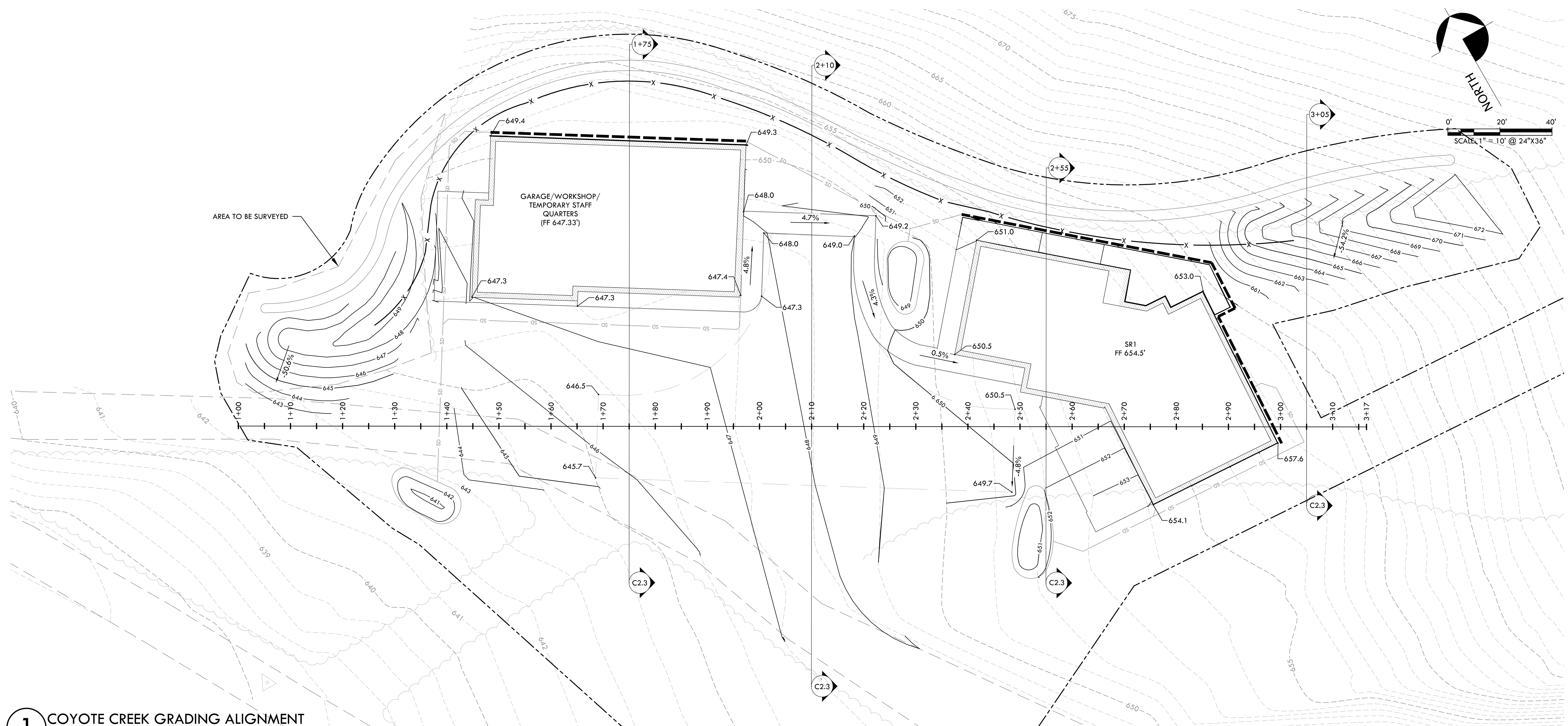
Drawn:	STAFF
Job	BigCreek
Sheet	C2.1

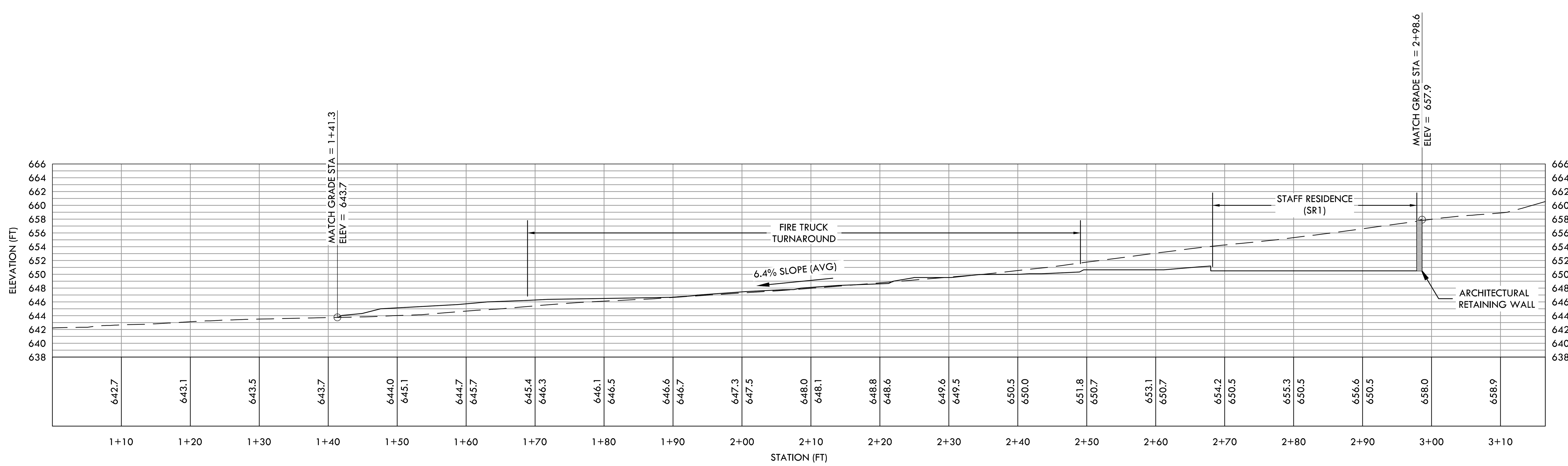


1 COYOTE CREEK GRADING ALIGNMENT

SCALE: 1" = 10' @ 24"X36"

ADA PATH GRADING

FG <5% RUNNING SLOPE
<2% CROSS SLOPE



2 COYOTE CREEK GRADING PROFILE

SCALE: 1" = 10' @ 24"X36"

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www.levyaa.com
T 415.641.7320
F 415.641.7710

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Consulting Engineers
Civil • Environmental • Water Resources
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COYOTE CREEK GRADING ALIGNMENT AND PROFILE

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Date: 04.24.2015
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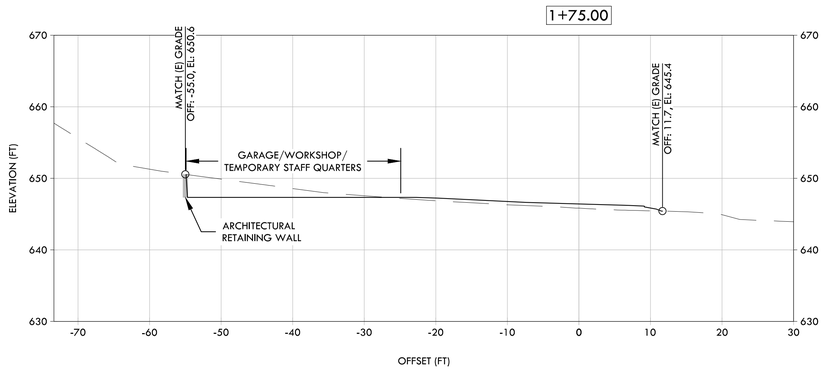
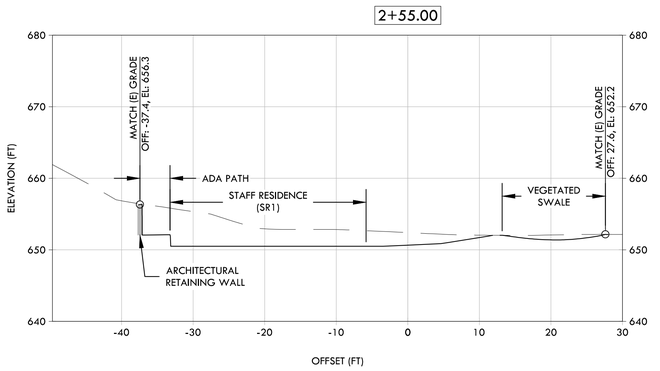
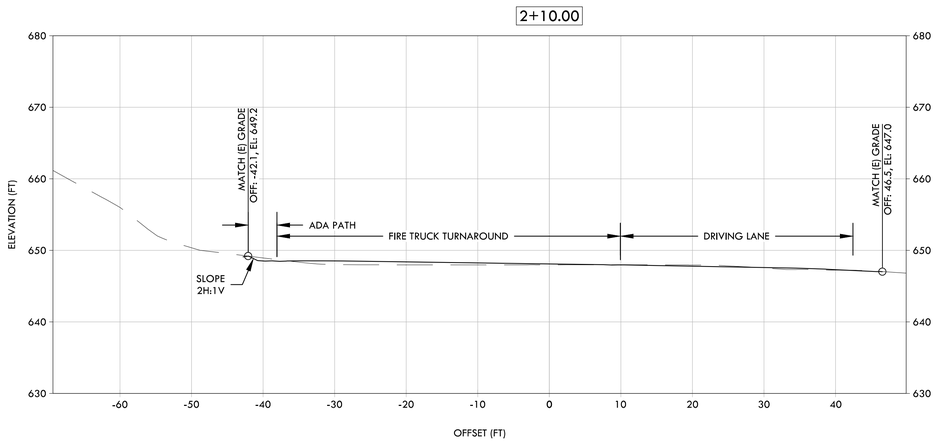
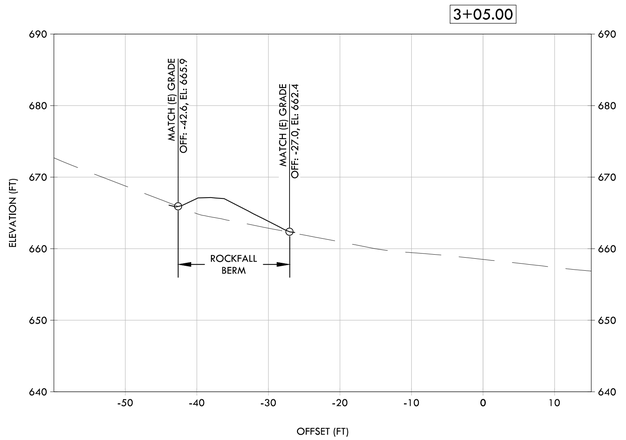
Job: BigCreek
Sheet: C2.2









0' 20' 40'
SCALE: 1" = 10' @ 24"X36"

1 COYOTE CREEK GRADING CROSS SECTIONS

1" = 10' @ 24"X36"

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T 415.641.7320
F 415.641.1710

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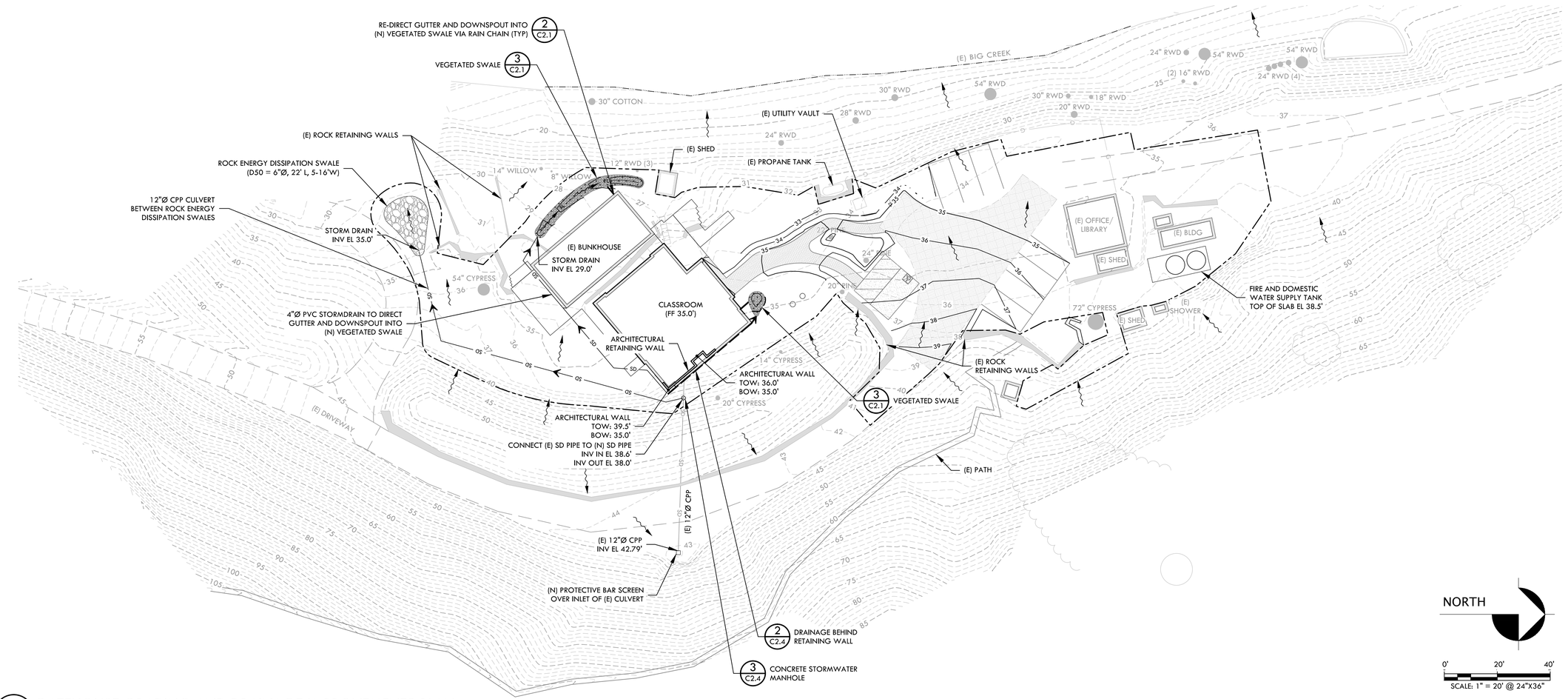
COYOTE CREEK GRADING CROSS-SECTIONS

Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

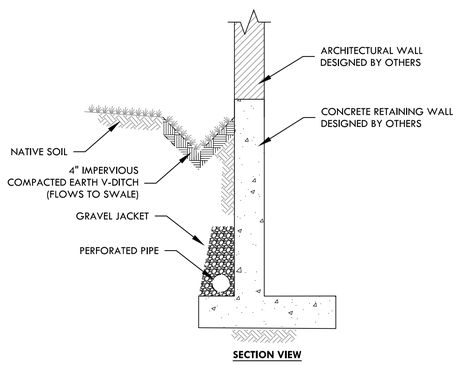
Description: CC GRADING & DRAINAGE
Date: 04.24.2015
Scale: AS NOTED
Drawn: STAFF
Job: BigCreek
Sheet: C2.3



1 GATEHOUSE GRADING AND DRAINAGE IMPROVEMENTS PLAN

1" = 20' @ 24"X36"

PRELIMINARY	
IMPERVIOUS AREA ANALYSIS	
Existing	**Area (sf)**
Bunk House	1,175
Shed #1	66
Shed #3	28
Stairs	23
Outhouse	42
Library/Office	410
Shed #3	104
Shed #4	74
Shed #5	22
Cabin	165
Shed #6	32
Total Existing Impervious Area	**2,141**
Proposed	**Area (sf)**
Classroom	1,641
Bunk House REV	1,218
Deck	560
ADA Parking and Pathway	410
WWTS	200
Water Tank	205
Total Proposed Impervious Area	**4,234**
POST-CONSTRUCTION TOTAL IMPERVIOUS AREA	**5,200**

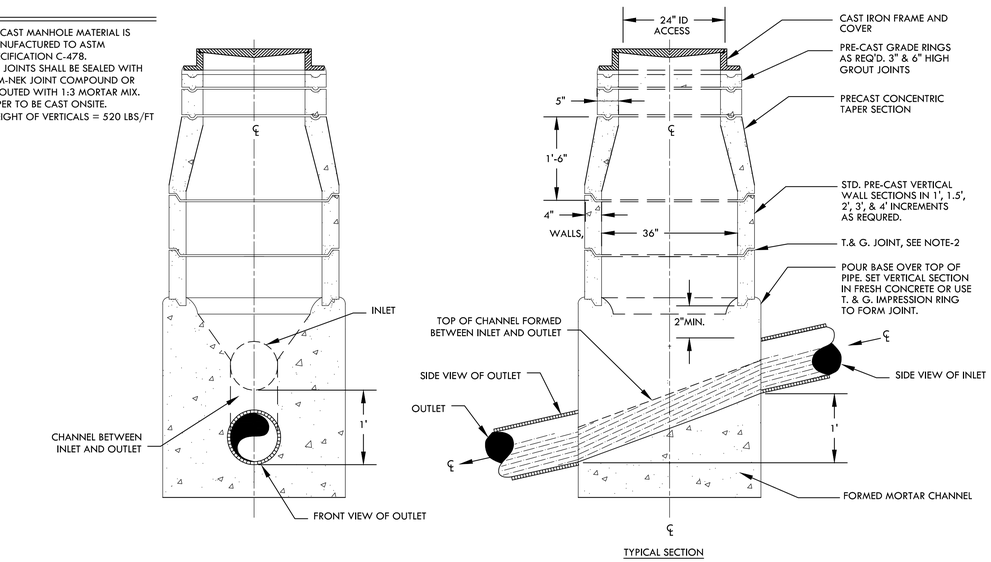


2 TYPICAL RETAINING WALL DRAINAGE

NTS

NOTES:

1. PRECAST MANHOLE MATERIAL IS MANUFACTURED TO ASTM SPECIFICATION C-478.
2. ALL JOINTS SHALL BE SEALED WITH RAM-NEK JOINT COMPOUND OR GROUTED WITH 1:3 MORTAR MIX.
3. TAPER TO BE CAST ONSITE.
4. WEIGHT OF VERTICALS = 520 LBS/FT



3 CONCRETE STORMWATER MANHOLE

NTS

REVISIONS	BY

UCSC

Landels Hill Big Creek Reserve

Natural Reserve System

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REGISTERED PROFESSIONAL ENGINEER PETER H. KISSLING NO. 05661 EXP. 12/31/16 CIVIL STATE OF CALIFORNIA

PROGRESS

GATEHOUSE GRADING AND DRAINAGE IMPROVEMENTS

Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

Description	GH GRADING & DRAINAGE
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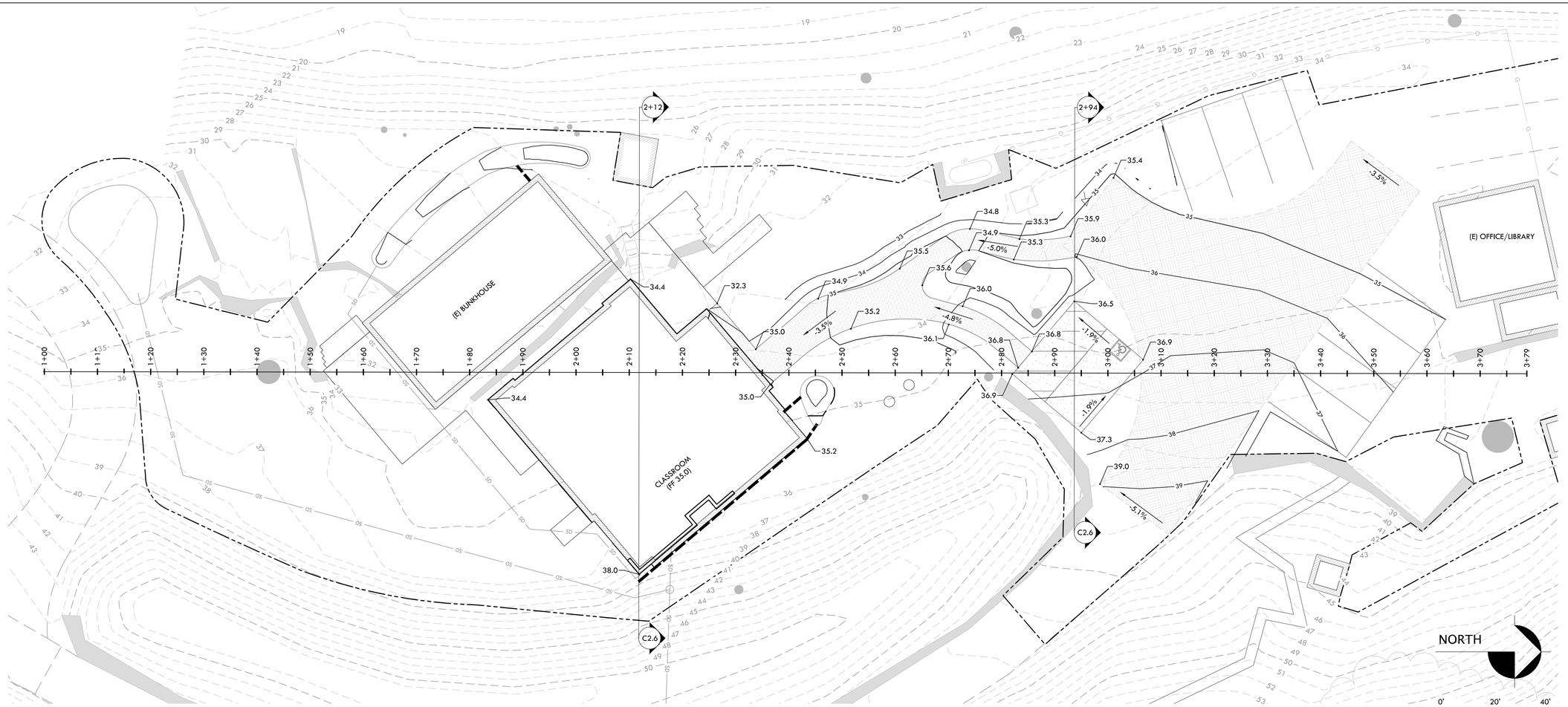
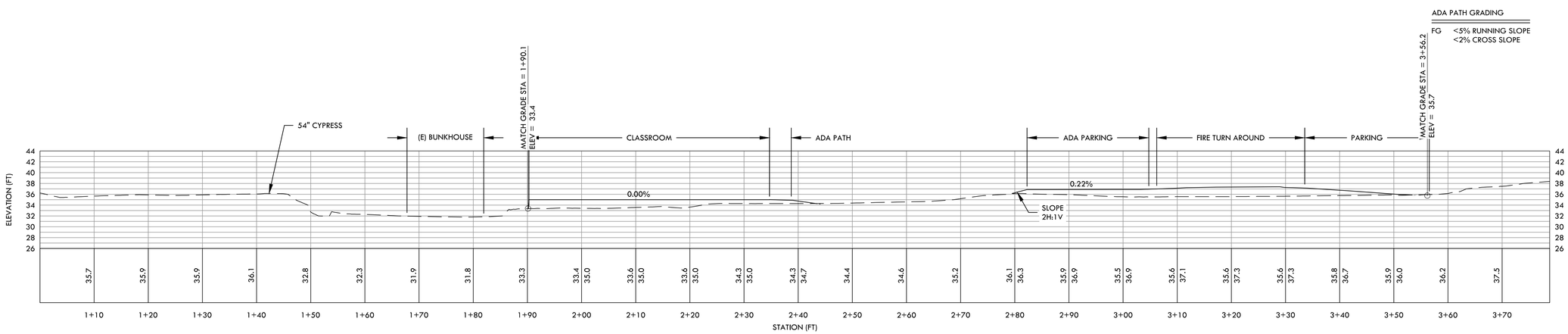
Scale:	AS NOTED
Drawn:	STAFF
Job	BigCreek
Sheet	C2.4



1 GATEHOUSE ALIGNMENT
1" = 10' @ 24"X36"



2 GATEHOUSE PROFILE
1" = 10' @ 24"X36"

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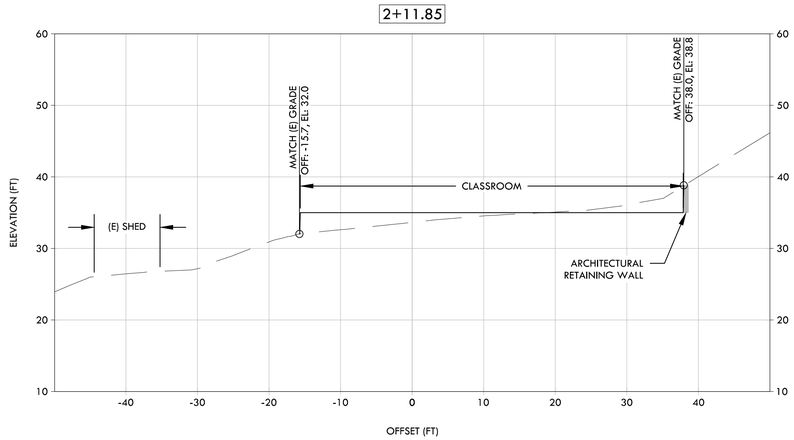
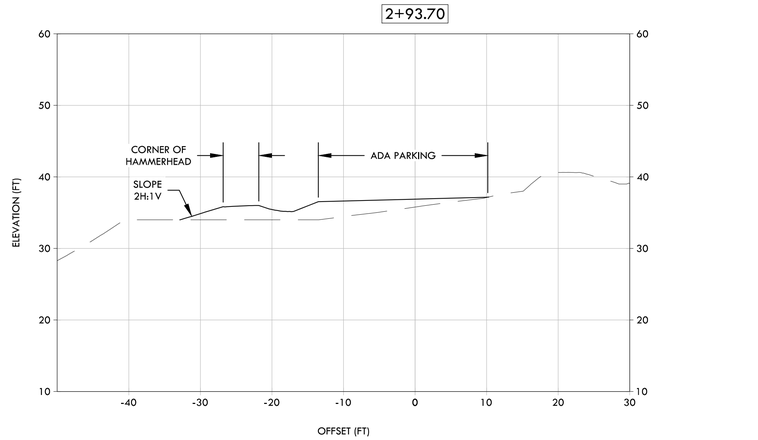
PROGRESS

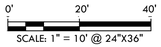
GATEHOUSE GRADING ALIGNMENT AND PROFILE

Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

Description	GH GRADING & DRAINAGE
Date:	04.24.2015
Scale:	AS NOTED
Drawn:	STAFF
Job	BigCreek
Sheet	C2.5







1 GATEHOUSE GRADING AND DRAINAGE IMPROVEMENTS PLAN
1" = 10' @ 24"X36"

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NO. 05661
EXP. 12/31/16
CIVIL
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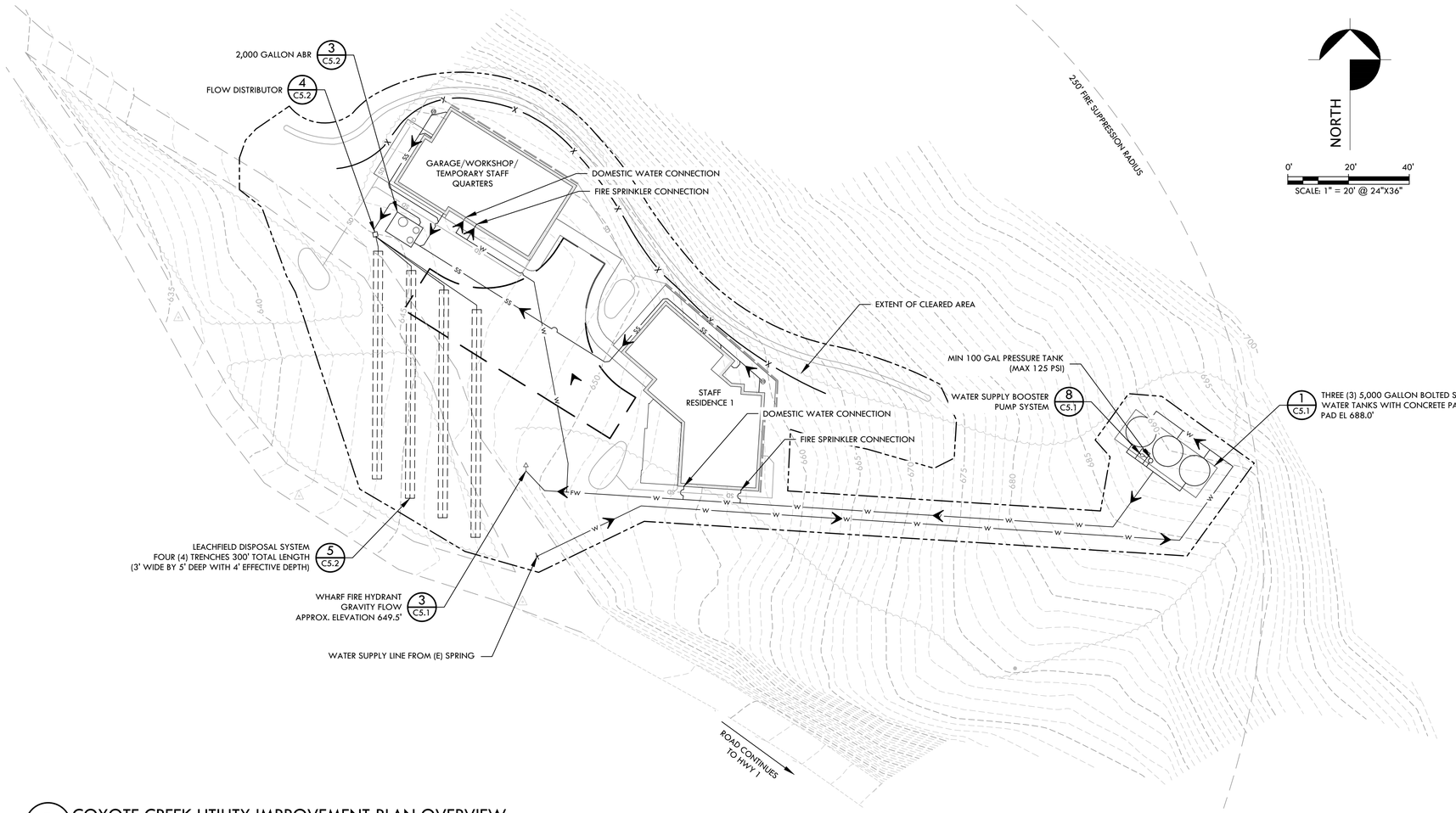
PROGRESS PRINT

GATEHOUSE GRADING
CROSS-SECTIONS

Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

Description	GH GRADING & DRAINAGE
Date:	04.24.2015
Scale:	AS NOTED
Drawn:	STAFF
Job	BigCreek
Sheet	C2.6

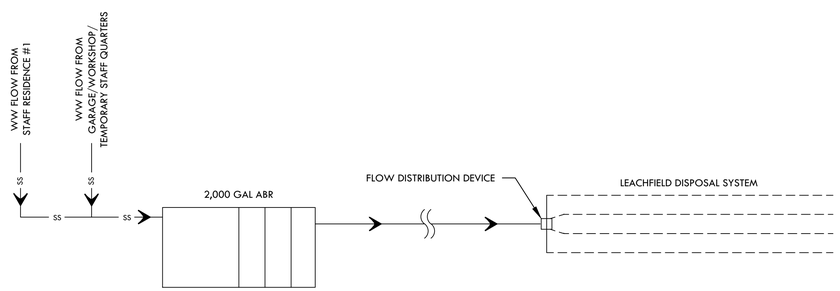


1 COYOTE CREEK UTILITY IMPROVEMENT PLAN OVERVIEW

1" = 20' @ 24"X36"

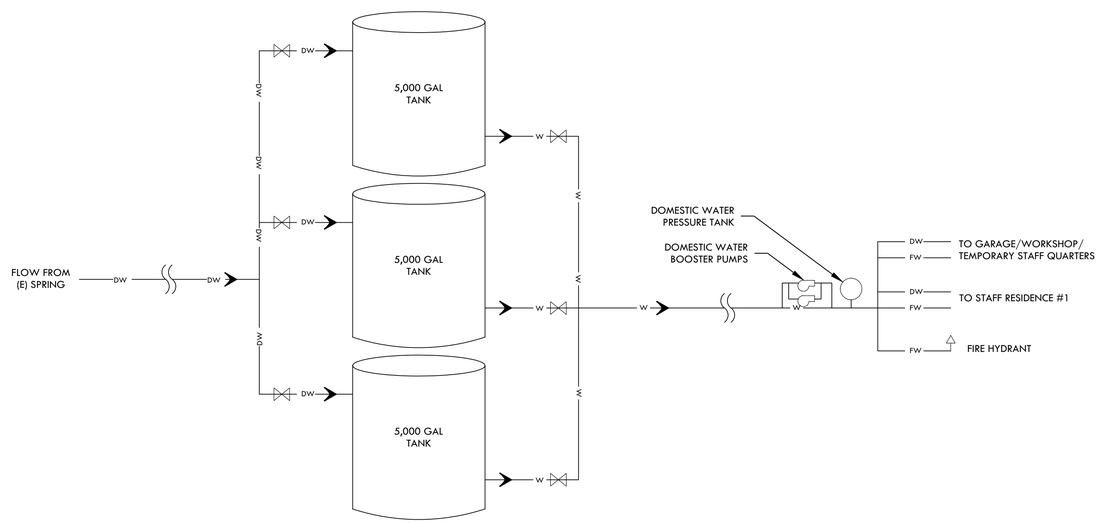
WASTEWATER DISPOSAL SYSTEM DATA

PARAMETER	VALUE
FLOW	490 GPD
SOIL APPLICATION RATE	0.3 GPD/SF
LEACHFIELD APPLICATION AREA	3300 SF
DISPOSAL CAPACITY	990 GPD
DISPOSAL CAPACITY	200%



2 COYOTE CREEK WASTEWATER SYSTEM SCHEMATIC

NTS



3 COYOTE CREEK WATER SYSTEM SCHEMATIC

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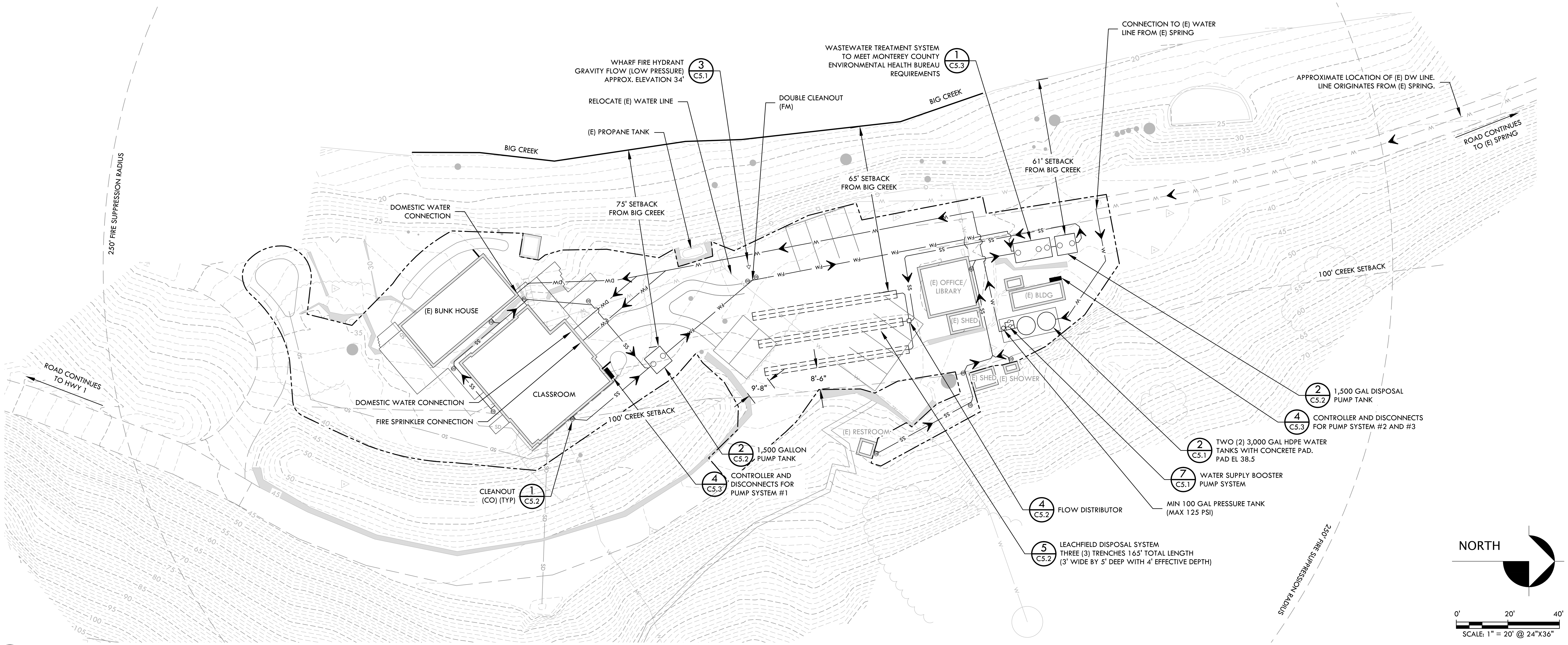
PROGRESS PRINT

COYOTE CREEK UTILITY IMPROVEMENTS

Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

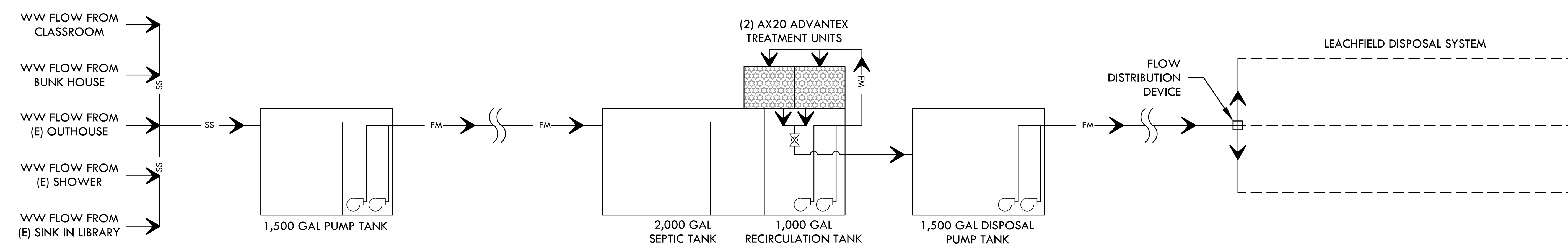
Description: CC UTILITY IMPROVEMENTS
Date: 04.24.2015
Scale: AS NOTED
Drawn: STAFF
Job: BigCreek
Sheet: C3.1



1 GATEHOUSE UTILITY IMPROVEMENT PLAN OVERVIEW

1" = 20' @ 24"X36"

WASTEWATER DISPOSAL SYSTEM DATA	
PARAMETER	VALUE
FLOW (AVG)	550 GPD
SOIL APPLICATION RATE	0.6 GPD/SF
LEACHFIELD APPLICATION AREA	1815 SF
DISPOSAL CAPACITY	1100 GPD
DISPOSAL CAPACITY	200%



2 GATEHOUSE WASTEWATER SYSTEM SCHEMATIC

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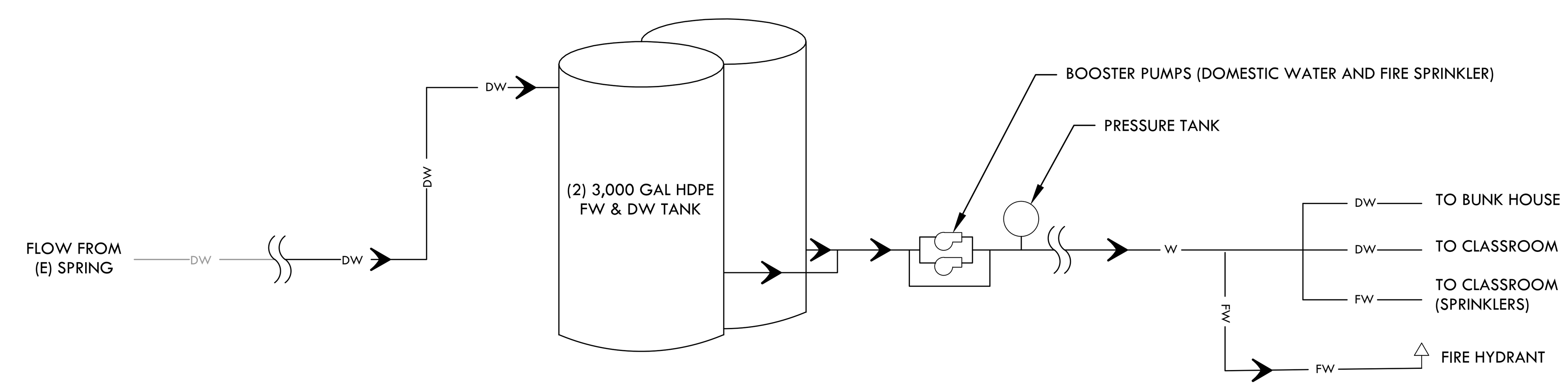

3 GATEHOUSE WATER SYSTEM SCHEMATIC

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SANTA CRUZ, CA 95062
TEL (831) 426-9054 FAX (831) 426-4932

REGISTERED PROFESSIONAL ENGINEER
PETER H. HAASE
NO. 056165
EXP. 12/31/16
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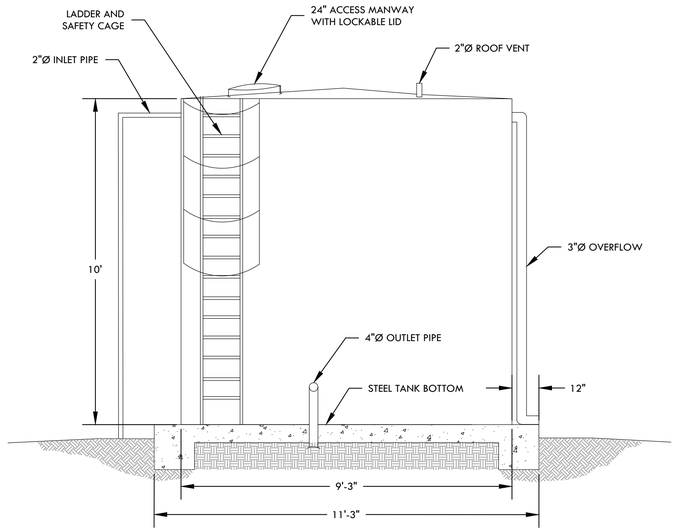
GATEHOUSE UTILITY IMPROVEMENTS

Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

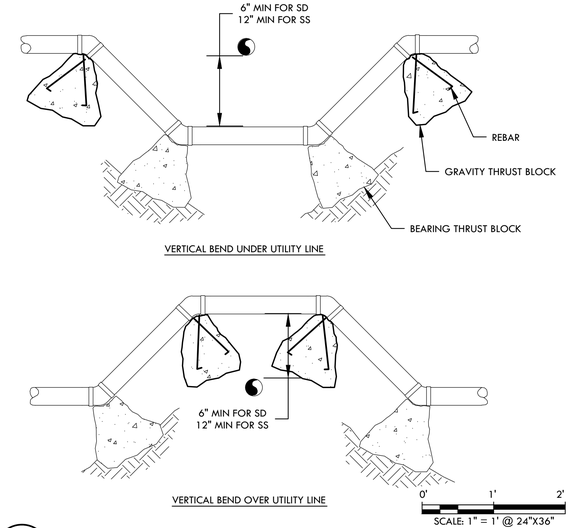
Description: GH UTILITY IMPROVEMENTS
Date: 04.24.2015
Scale: AS NOTED
Drawn: STAFF
Job: BigCreek
Sheet

C3.2



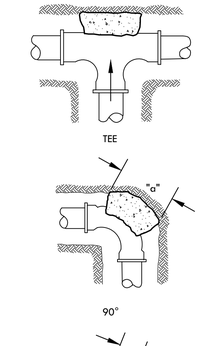
1 TYPICAL 5,000 GALLON STEEL WATER TANK (COYOTE CREEK)

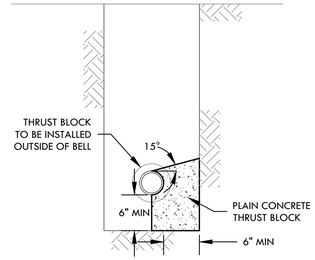
NTS



5 WATER SYSTEM PIPE CROSSINGS

1" = 1' @ 24"X36"





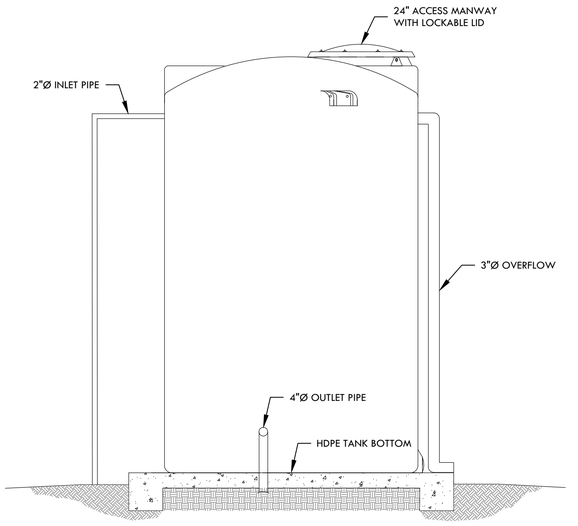
MINIMUM REQUIRED BEARING AREA AGAINST UNDISTURBED EARTH WALL					
PIPE SIZE	AREA IN SQUARE FEET OF FITTING				
	TEE	90°	45°	22.5°	11.25°
6	3	4	2	2	2
8	5	7	4	3	3
12	11.25	7	8.75	4.5	3

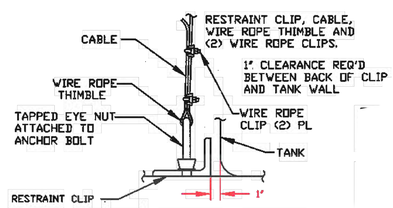
NOTES:

1. CAPS AND PLUGS SHALL HAVE THRUST BLOCKS WITH AREA AS SPECIFIED FOR TEES. CAPS & PLUGS SHALL BE COVERED WITH TAR PAPER BEFORE THRUST BLOCKS ARE POURED.
2. FOR USE WHERE DESIGN WORKING PRESSURE IS 200 PSI OR LESS AND ALLOWABLE SOIL PRESSURE IS 1500 PSF OR MORE.
3. THRUST BLOCKS MAY NOT BE REQUIRED WHEN MECHANICALLY DESIGNED RESTRAINED PIPING SYSTEMS ARE ALLOWED.

7 TYPICAL THRUST BLOCKS

PER UNIVERSITY CAMPUS STANDARD 02.6-01

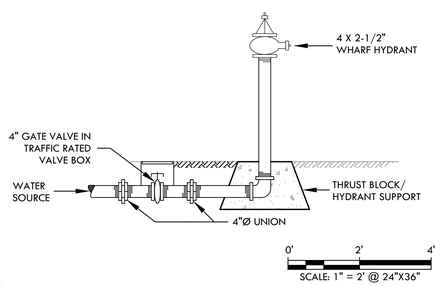




RESTRAINT CLIP (TYPICAL)
(TO BE DESIGNED BY OTHERS)

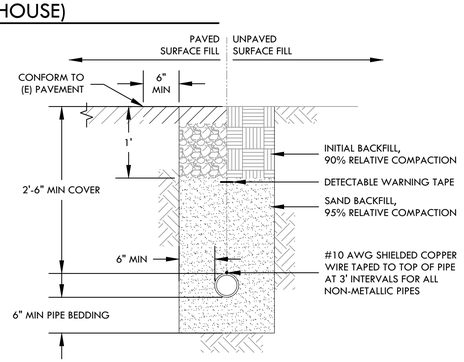
2 TYPICAL 3,000 GALLON HDPE WATER TANK (GATEHOUSE)

NTS



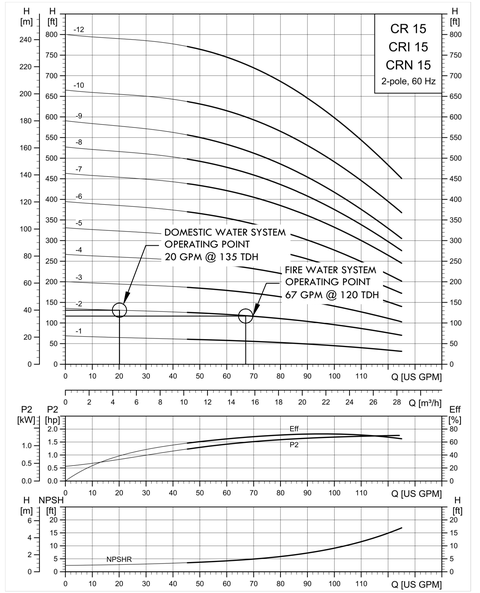
3 WHARF FIRE HYDRANT

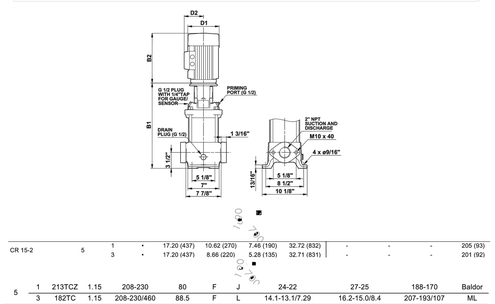
1" = 2' @ 24"X36"



4 TYPICAL TRENCH SECTION

PER UNIVERSITY CAMPUS STANDARD 02.2-00

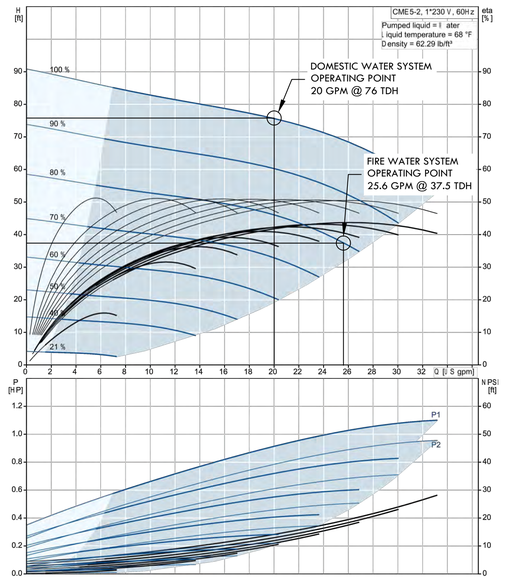


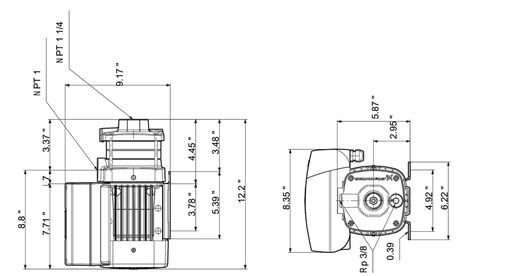


CR 15-2		5	1	•	17.20 (437)	10.62 (270)	7.46 (190)	32.72 (832)	-	-	-	205 (93)		
			3	•	17.20 (437)	8.66 (220)	5.28 (135)	32.71 (831)	-	-	-	201 (92)		
5	1	213TCZ	1.15	208-230	80	F	J	24-22	27-25	188-170	Baldor			
	3	182TC	1.15	208-230/460	88.5	F	L	14.1-13.1/7.29	16.2-15.0/8.4	207-193/107	ML			

6 GATEHOUSE DUPLEX BOOSTER PUMPS

GRUNDFOS VFD PUMP MODEL CR 15-2





MODEL	PHASE	RATED POWER [HP]	MAIN FREQUENCY [Hz]	RATED VOLTAGE [V]	RATED CURRENT [A]	RATED SPEED [RPM]	WEIGHT [LB]
CME5-2	1	1.5	60	1 x 200-240	6,70-5,60	360-4000	37.4

8 COYOTE CREEK DUPLEX BOOSTER PUMPS

GRUNDFOS VFD PUMP MODEL CME5-2

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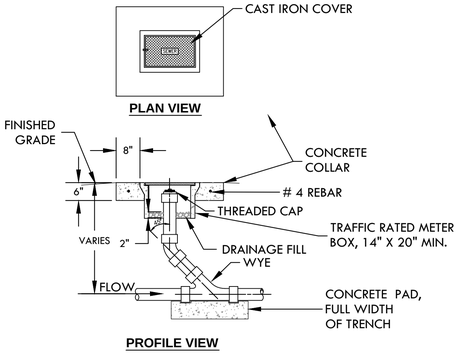
PROGRESS

WATER UTILITY IMPROVEMENT DETAILS

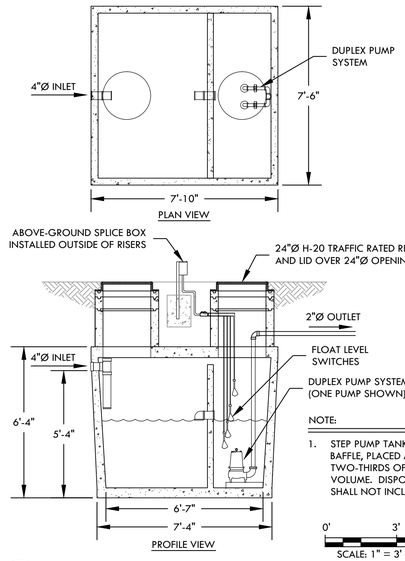
Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

Description: WATER SYSTEM DETAILS
Date: 04.24.2015
Scale: AS NOTED
Drawn: STAFF
Job: BigCreek
Sheet: C5.1



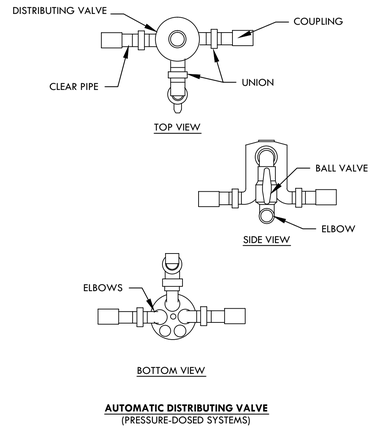
1 CLEANOUT

1" = 3' @ 24"X36"

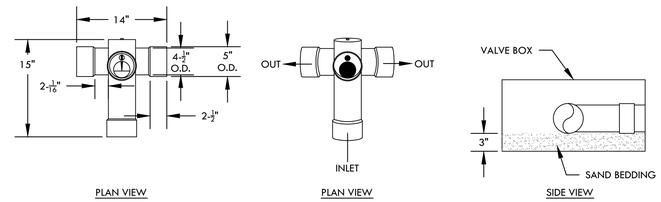


2 1,500 GALLON PUMP TANK

1" = 3' @ 24"X36"



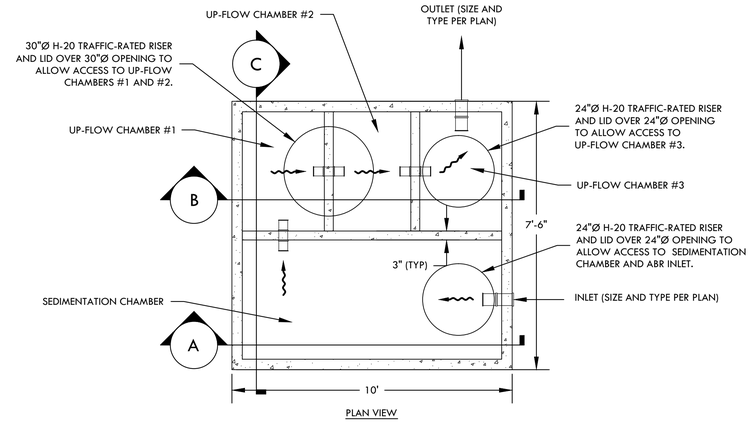
AUTOMATIC DISTRIBUTING VALVE
(PRESSURE-DOSED SYSTEMS)

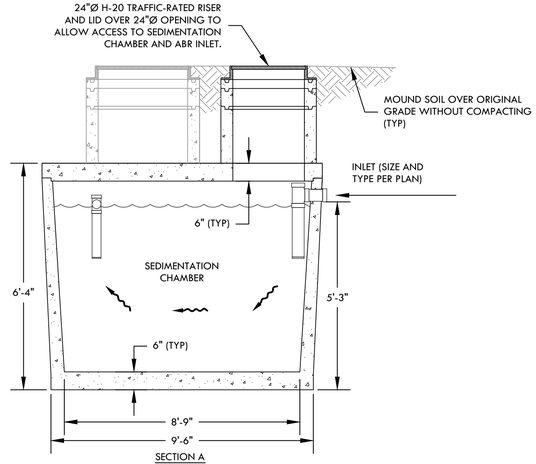


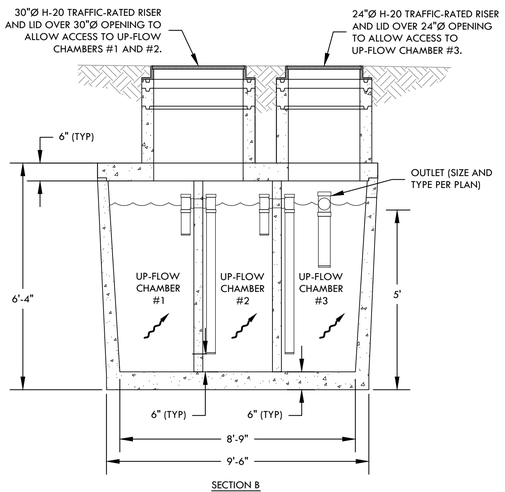
FLOW SPLITTER
(GRAVITY-DOSED SYSTEMS)

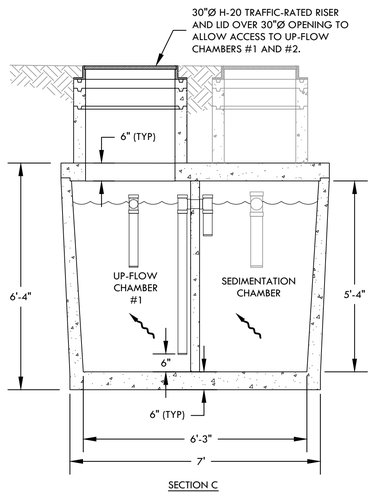
4 FLOW DISTRIBUTION DEVICE

NTS









NOTES:

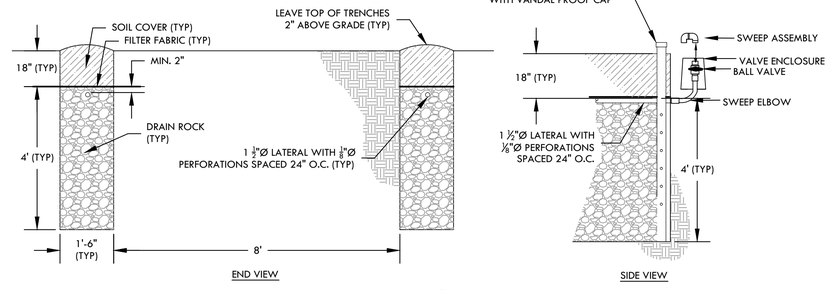
1. DIMENSIONS AND ORIENTATION OF ABR MAY VARY. THE TANK MUST BE SIZED SUCH THAT THE SEDIMENTATION CHAMBER HAS A VOLUME OF 750 GALLONS AND EACH UP-FLOW CHAMBER HAS A VOLUME OF 250 GALLONS WITH FITTINGS POSITIONED AS SHOWN TO ALLOW FOR MAXIMIZED TREATMENT THROUGH THE ABR. THE TANK MUST BE ORIENTED SUCH THAT THE SEDIMENTATION CHAMBER IS THE FIRST CHAMBER.
2. FITTINGS BETWEEN CHAMBERS SHALL BE 3"Ø SANITARY TEES.
3. RISERS SHALL BE POSITIONED TO ALLOW ACCESS TO EACH CHAMBER AS WELL AS THE INLET AND OUTLET PIPES.
4. CROSS-OVER TEES SHALL BE INSTALLED AT THE SAME ELEVATION

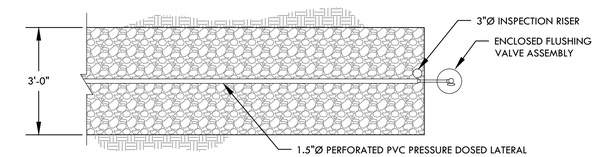
0' 2' 4'
SCALE: 1" = 2' @ 24"X36"

3 2,000 GALLON ABR

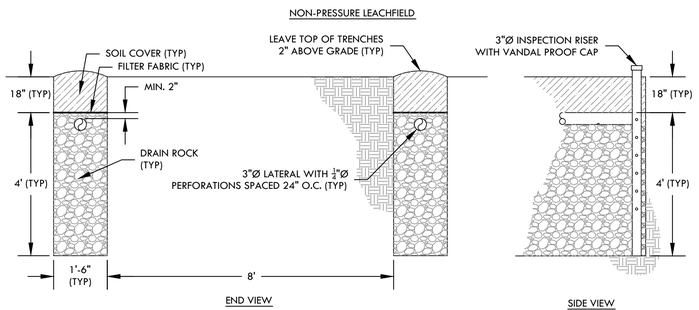
NTS

PRESSURIZED LEACHFIELD





NON-PRESSURE LEACHFIELD



5 LEACHFIELD DETAILS

NTS

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Natural Reserve System

LEVY ART & ARCHITECTURE, INC.
1286 SANCHEZ ST
SAN FRANCISCO CA 94114
www.levyaa.com
T 415.641.7220
F 415.641.1710

FALL CREEK ENGINEERING, INC.
Consulting Engineers
Civil • Environmental • Water Resources
1525 SEABRIGHT AVENUE
SANTA CRUZ, CA 95062
TEL. (831) 426-9054 FAX (831) 426-4932

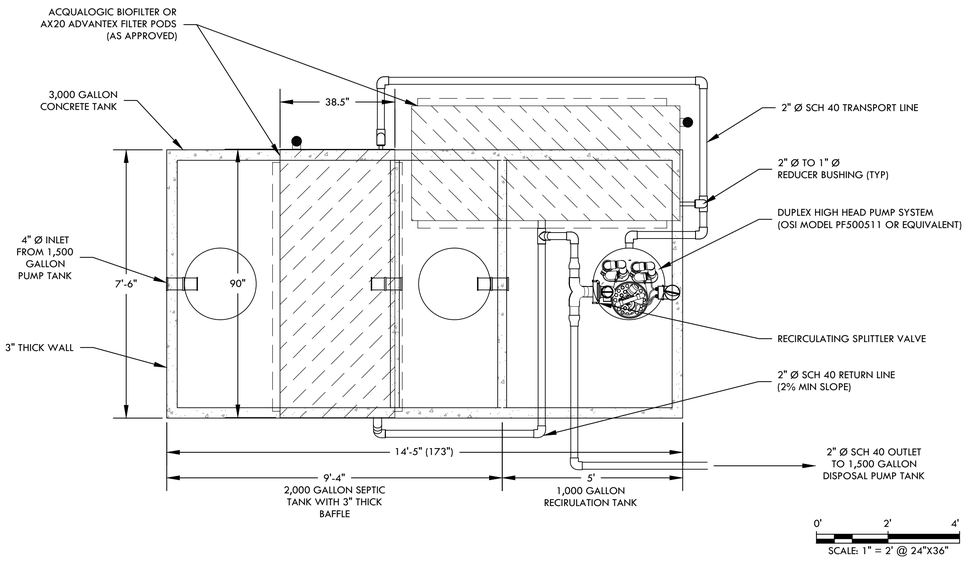
REGISTERED PROFESSIONAL ENGINEER PETER H. KANG NO. 05661 EXP. 12/31/16 CIVIL STATE OF CALIFORNIA

PROGRESS

WASTEWATER UTILITY IMPROVEMENT DETAILS

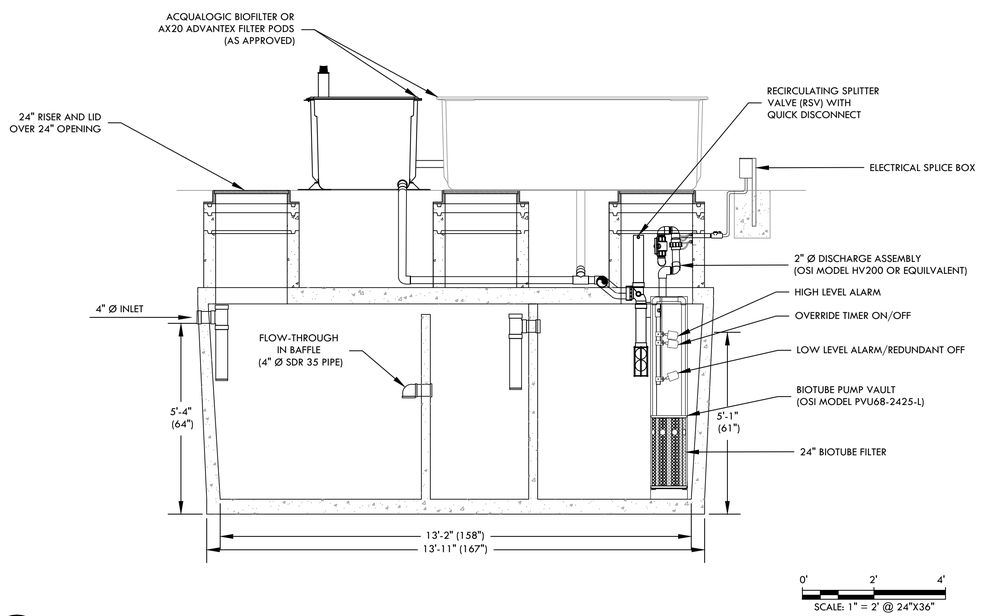
Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

Description	WASTEWATER SYS DETAILS
Date:	04.24.2015
Scale:	AS NOTED
Drawn:	STAFF
Job	BigCreek
Sheet	C5.2



1 PLAN VIEW WASTEWATER TREATMENT SYSTEM

1" = 2' @ 24"X36"



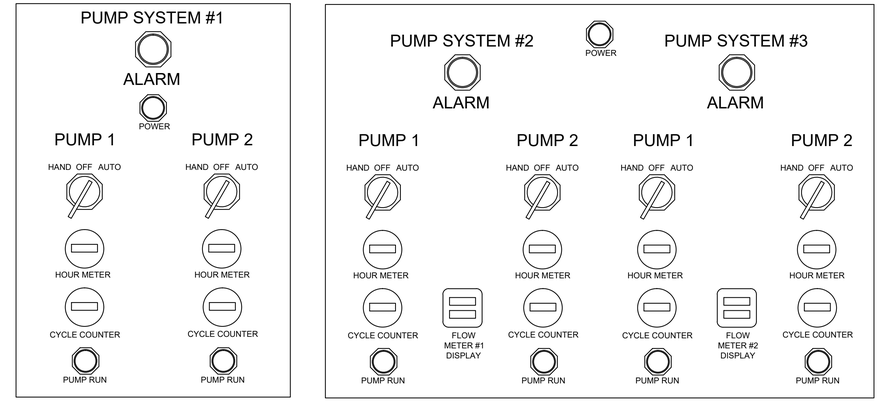
2 SECTION VIEW WASTEWATER TREATMENT SYSTEM

1" = 2' @ 24"X36"

PUMP SYSTEM SPECIFICATIONS			
PARAMETER	PUMP SYSTEM #1	PUMP SYSTEM #2	PUMP SYSTEM #3
DESCRIPTION	STEP PUMP SYSTEM	RECIRCULATION PUMP SYSTEM	DISPOSAL PUMP SYSTEM
NUMBER OF PUMPS IN SYSTEM	2	2	2
FLOW RATE (GPM)	20	62.3	13
TOTAL DYNAMIC HEAD (FT)	21	23.9	25
PHASE	1	1	1
VOLTAGE (V)	115	115	115
HORSEPOWER (HP)	0.5	0.5	0.5
TOTAL FULL LOAD AMPERAGE (AMPS)	9.8	12.1	9.0

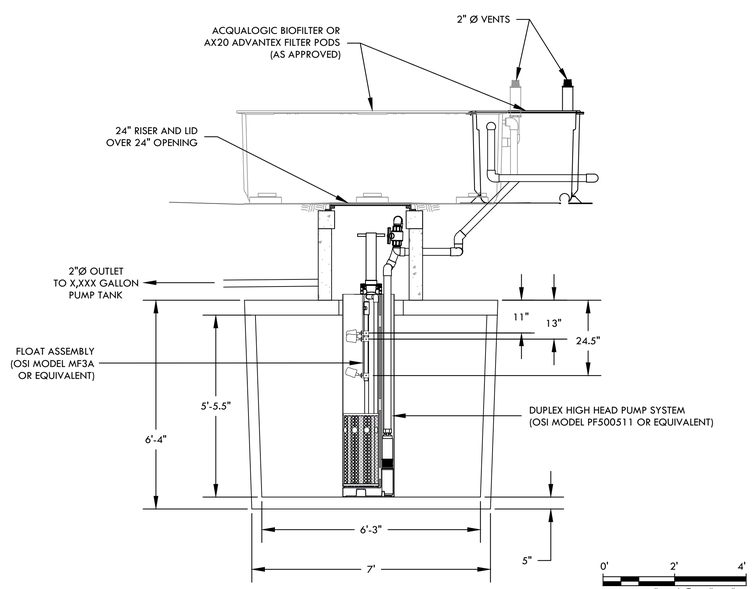
3 PUMP SYSTEM DETAILS

NTS



4 CONTROL FRONT PANELS

NTS



5 END VIEW WASTEWATER TREATMENT SYSTEM

1" = 2' @ 24"X36"

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1286 SANCHEZ ST
SAN FRANCISCO CA 94114
www.levyart.com
T 415-641-7220
F 415-641-1710

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TEL. (831) 426-9054 FAX (831) 426-4932

REGISTERED PROFESSIONAL ENGINEER PETER H. FALL
NO. 05661
EXP. 12/31/16
CIVIL
STATE OF CALIFORNIA

PROGRESS

WASTEWATER UTILITY IMPROVEMENT DETAILS CONTINUED

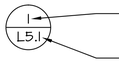
Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

Description: WASTEWATER SYS DETAILS
Date: 04.24.2015
Scale: AS NOTED
Drawn: STAFF
Job: BigCreek
Sheet

C5.3

LANDSCAPE ARCHITECTURAL REFERENCE SYMBOLS

LIMIT OF WORK (LANDSCAPE SCOPE)



DETAIL IDENTIFICATION

SHEET NUMBER

LANDSCAPE ARCHITECTURAL MATERIAL INDICATIONS

EDGE OF DETENTION BASIN

INTEGRAL COLOR CONCRETE

COMPACTED EARTH

DECOMPOSED GRANITE

BOARDWALK

14" BAY TREE — EXISTING TREE

EXISTING TREE CANOPY

LANDSCAPE ARCHITECTURAL ABBREVIATIONS

ALIGN	ALIGN
	CENTER LINE
(E)	EXISTING
(N)	NEW
TYP.	TYPICAL
EQ	EQUAL
CONT.	CONTINUOUS
N.I.C.	NOT IN CONTRACT
O.C.	ON CENTER
SIM.	SIMILAR
B.W.	BOTH WAYS
R	RADIUS
FFE	FINISH FLOOR ELEVATION
FG	FINISH GRADE (PLANTING AREA)
MIN.	MINIMUM
MAX.	MAXIMUM
P.A.	PLANTING AREA

LANDSCAPE SHEET INDEX

WATER USE STATEMENT

I HAVE COMPLIED WITH THE CRITERIA OF THE DESIGN STANDARDS AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN.

JONI L. JANECKI — CA RLA #3163

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Landels Hill Big Creek Reserve

Natural Reserve System

LEVY ART & ARCHITECTURE
1286 SANCHEZ ST SAN FRANCISCO CA 94114
www.levyart.com
T 415.641.7320 F 415.641.1710

REGISTERED LANDSCAPE ARCHITECT
J. L. JANECKI
No. 3163
Exp. 9/24/16
STATE OF CALIFORNIA

JONI L. JANECKI
ASLA LATA
515 SWIFT ST. SANTA CRUZ, CA 95060
PHONE 831.423.6040 I FAX 831.423.6054
EMAIL JL@JLIA.COM I WWW.JLIA.COM
California Landscape Architect License 3163

LANDSCAPE TITLE SHEET

Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

Description	LANDSCAPE PLAN - COYOTE CREEK
Date:	04.24.2015
Scale:	-
Drawn:	MO
Job	UCSC-BigCreek
Sheet	L0.1

TREE AND CHAPARRAL PROTECTION NOTES

1. REFER TO DIVISION 1, SECTION 01 56 39 TREE PROTECTION AND SECTION 02 01 10, EXISTING PLANTS TO REMAIN.
2. A TREE PRESERVATION ZONE (TPZ) SHALL BE ESTABLISHED AS SHOWN ON PLAN AND AS VERIFIED IN THE FIELD WITH THE UNIVERSITY ARBORIST.
3. CHAIN LINK FENCING - STAKE FENCING TO SECURE IN-PLACE. FENCE HEIGHT TO BE MINIMUM 6-FEET. PROVIDE ALL REFLECTIVE SIGNAGE AND/OR FLASHERS AS REQUIRED BY ALL CODES AND ORDINANCES AFFECTING BARRICADED PLANTING TO REMAIN. FENCE SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES ON SITE. ONCE IN PLACE, FENCING WILL NOT BE MOVED OR REMOVED WITHOUT THE CONSENT OF THE UNIVERSITY ARBORIST AND LANDSCAPE ARCHITECT.
4. NO STORAGE OF CONSTRUCTION EQUIPMENT, MATERIALS, TOOLS, DEBRIS OR EXCESS SOIL WILL BE ALLOWED WITHIN THE TPZ. SOLVENTS, LIQUIDS, CONCRETE WASH-OFF, OR ANY TYPE OF DEBRIS SHOULD BE DISPOSED OF PROPERLY, NEVER WITHIN THIS PROTECTED AREA.
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7. NATURAL GRADE AROUND TPZ SHALL BE MAINTAINED. NO ADDITIONAL FILL OR EXCAVATION WILL BE PERMITTED WITHIN AREAS OF TREE ROOT DEVELOPMENT UNLESS OTHERWISE APPROVED BY UNIVERSITY'S REPRESENTATIVE.
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9. PROVIDE TEMPORARY IRRIGATION TO ALL TREES WITHIN THE FENCED AREA. CONTRACTOR TO PROVIDE WATERING SCHEDULE FOR UNIVERSITY ARBORIST REVIEW AND APPROVAL. WATERING SCHEDULE TO BE SUBMITTED FOR APPROVAL WITHIN TEN (10) CALENDAR DAYS PRIOR TO CONSTRUCTION START DATE AND CONTINUE THROUGHOUT CONSTRUCTION UNTIL FINAL SIGN OFF BY CAMPUS ARBORIST.
10. TREE PROTECTION FENCING TO BE REMOVED BY CONTRACTOR AFTER COMPLETION OF CONSTRUCTION AND AS DIRECTED BY THE UNIVERSITY REPRESENTATIVE.

LEGEND

- 14" BAY TREE — EXISTING TREE
- EXISTING TREE CANOPY
- TREE PROTECTION FENCING SECTION 01 56 39

1 TREE PROTECTION PLAN
SCALE: 1/16"=1'-0"

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Natural Reserve System

LEVY ART & ARCHITECTURE INC
1286 SANCHEZ ST
SAN FRANCISCO CA 94114
www.levyaa.com
T 415.641.7220
F 415.641.1710

REGISTERED LANDSCAPE ARCHITECT
J. L. JANECKI
No. 3163
Exp. 9/24/16
STATE OF CALIFORNIA

JONI L. JANECKI
ARCHITECT
515 SWIFT ST. SANTA CRUZ, CA 95060
PHONE 831.423.6040 I FAX 831.423.6054
EMAIL JLJ@JLJA.COM I WWW.JLJA.COM
California Landscape Architect License 3163

COYOTE CREEK - TREE AND CHAPARRAL PROTECTION PLAN

Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

Description	LANDSCAPE PLAN - COYOTE CREEK
Date:	04.24.2015
Scale:	1/16"=1'-0"
Drawn:	MO
Job	UCSC-BigCreek
Sheet	L1.1

LEGEND

- INTEGRAL COLOR CONCRETE
- COMPACTED EARTH
- DECOMPOSED GRANITE
- BOARDWALK
- EXISTING TREE CANOPY
- 14" BAY TREE — EXISTING TREE

SWALE / STORMWATER MANAGEMENT AREA (1 GALLON):
- DESCHAMPSIA ELONGATA (SLENDER HAIRGRASS)
- FESTUCA IDAHOENSIS (IDAHO FESCUE)
- JUNCUS SPECIES (CALIFORNIA GREY RUSH)

REPAIR SEED MIX (LOCALLY COLLECTED SEED):
- BROMUS CARINATUS (CALIFORNIA BROME)
- STIPA PULCHRA (PURPLE NEEDLE GRASS)
- ELYMUS GLAUCUS (BLUE WILD RYE)

SCREENING PLANTING (MIX OF 5 AND 15 GALLON):
- ATRIPLEX LEUCOPHYLLA (BEACH SALT BUSH)
- GARRYA ELLIPTICA (COAST SILK-TASSEL)
- RIBES SANGUINEUM (FLOWERING CURRANT)

NATIVE GRASSES FOR OUTDOOR AREA (SEED, PLUGS, AND 1 GALLON):
- AGROSTIS PALLENS (WESTERN BENTGRASS)
- FESTUCA IDAHOENSIS (IDAHO FESCUE)

IRRIGATION

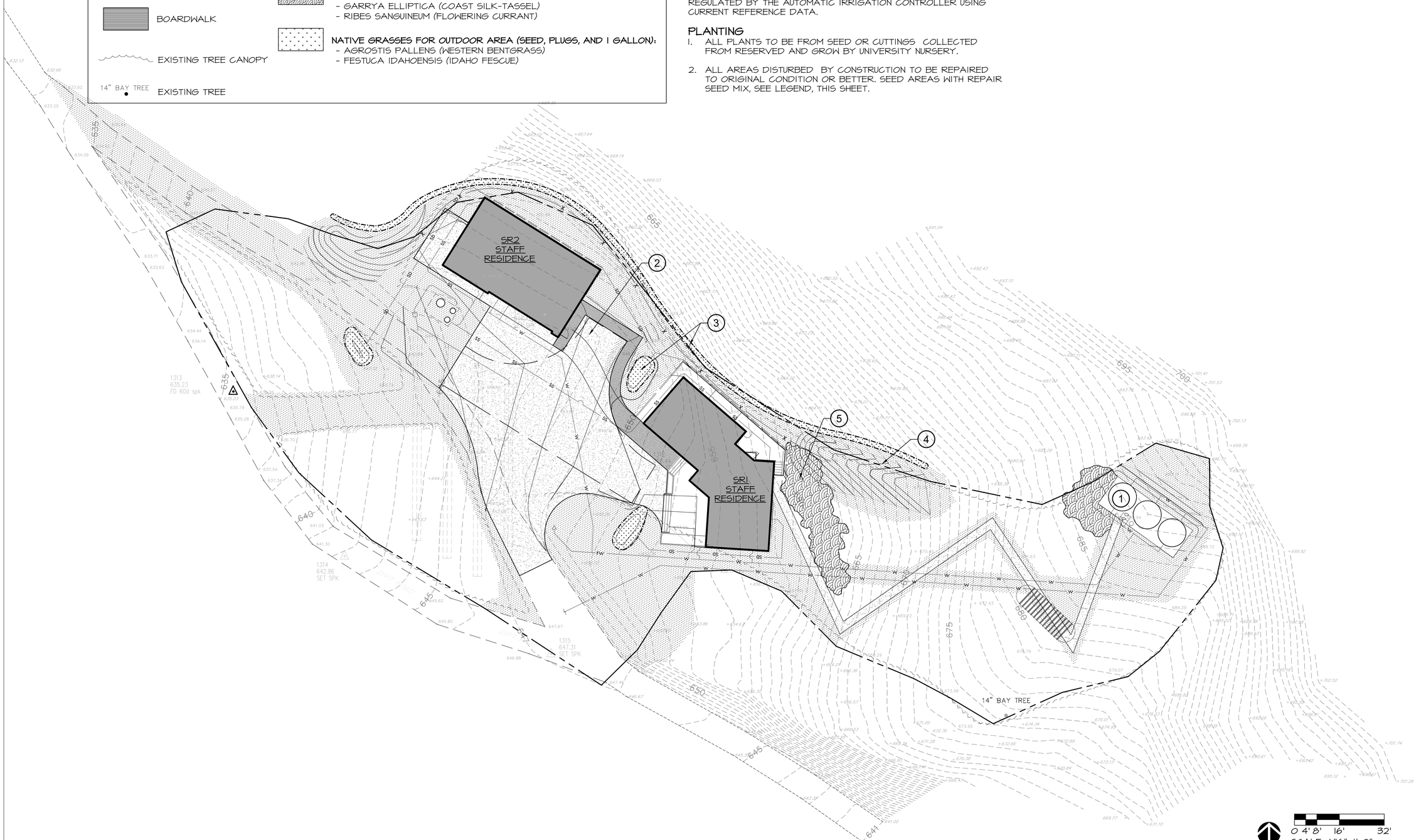
THE IRRIGATION SYSTEM WILL BE DESIGNED TO COMPLY WITH STATE AND LOCAL WATER EFFICIENT LANDSCAPE ORDINANCES AND TO USE THE MINIMUM AMOUNT OF WATER REQUIRED TO MAINTAIN GOOD PLANT HEALTH. TO ACCOMPLISH THIS, THE SYSTEM WILL INCLUDE AN AUTOMATIC WEATHER-BASED CONTROLLER, MANUAL SHUT-OFF VALVES, LOW-FLOW DRIP EMITTERS, PROPER SETBACK FROM NON-PERMEABLE SURFACES, AND SEPARATE VALVES FOR DIFFERENT HYDROZONE (PLANT TYPES); IT WILL BE DESIGNED TO PREVENT RUNOFF, LOW HEAD DRAINAGE, AND OVERSPRAY. THE IRRIGATION SYSTEM WILL INCLUDE WATERING SCHEDULES BASED ON LOCAL WATERING RESTRICTIONS AND REGULATED BY THE AUTOMATIC IRRIGATION CONTROLLER USING CURRENT REFERENCE DATA.

PLANTING

1. ALL PLANTS TO BE FROM SEED OR CUTTINGS COLLECTED FROM RESERVED AND GROW BY UNIVERSITY NURSERY.
2. ALL AREAS DISTURBED BY CONSTRUCTION TO BE REPAIRED TO ORIGINAL CONDITION OR BETTER. SEED AREAS WITH REPAIR SEED MIX, SEE LEGEND, THIS SHEET.

NOTES

1. THREE NEW WATER TANKS
2. EMERGENCY VEHICLE TURNAROUND
3. SWALE / STORMWATER MANAGEMENT AREA
4. NEW BERM
5. SHRUBS TO SCREEN WATER TANKS



1 PROPOSED COYOTE CREEK LANDSCAPE SITE PLAN

SCALE: 1/16"=1'-0"

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Natural Reserve System

LEVY ART & ARCHITECTURE
1286 SANCHEZ ST
www.levyart.com
SAN FRANCISCO CA 94114
T 415.641.7220
F 415.641.1710

REGISTERED LANDSCAPE ARCHITECT
J. L. JANECKI
No. 3163
Exp. 9/24/16
STATE OF CALIFORNIA

JONI L. JANECKI
ASSOCIATES
515 SWIFT ST. SANTA CRUZ, CA 95060
PHONE 831.423.6040 I FAX 831.423.6054
EMAIL JLJ@JLIA.COM I WWW.JLIA.COM
California Landscape Architect License 3163

COYOTE CREEK - LANDSCAPE SITE PLAN

Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

Description	LANDSCAPE PLAN - COYOTE CREEK
Date:	04.24.2015
Scale:	1/16"=1'-0"
Drawn:	MO
Job	UCSC-BigCreek
Sheet	L1.2

Exhibit 2
3-16-0011
17 of 20

TREE PROTECTION NOTES

1. REFER TO DIVISION 1, SECTION 01 56 39 TREE PROTECTION AND SECTION 02 01 10, EXISTING PLANTS TO REMAIN.
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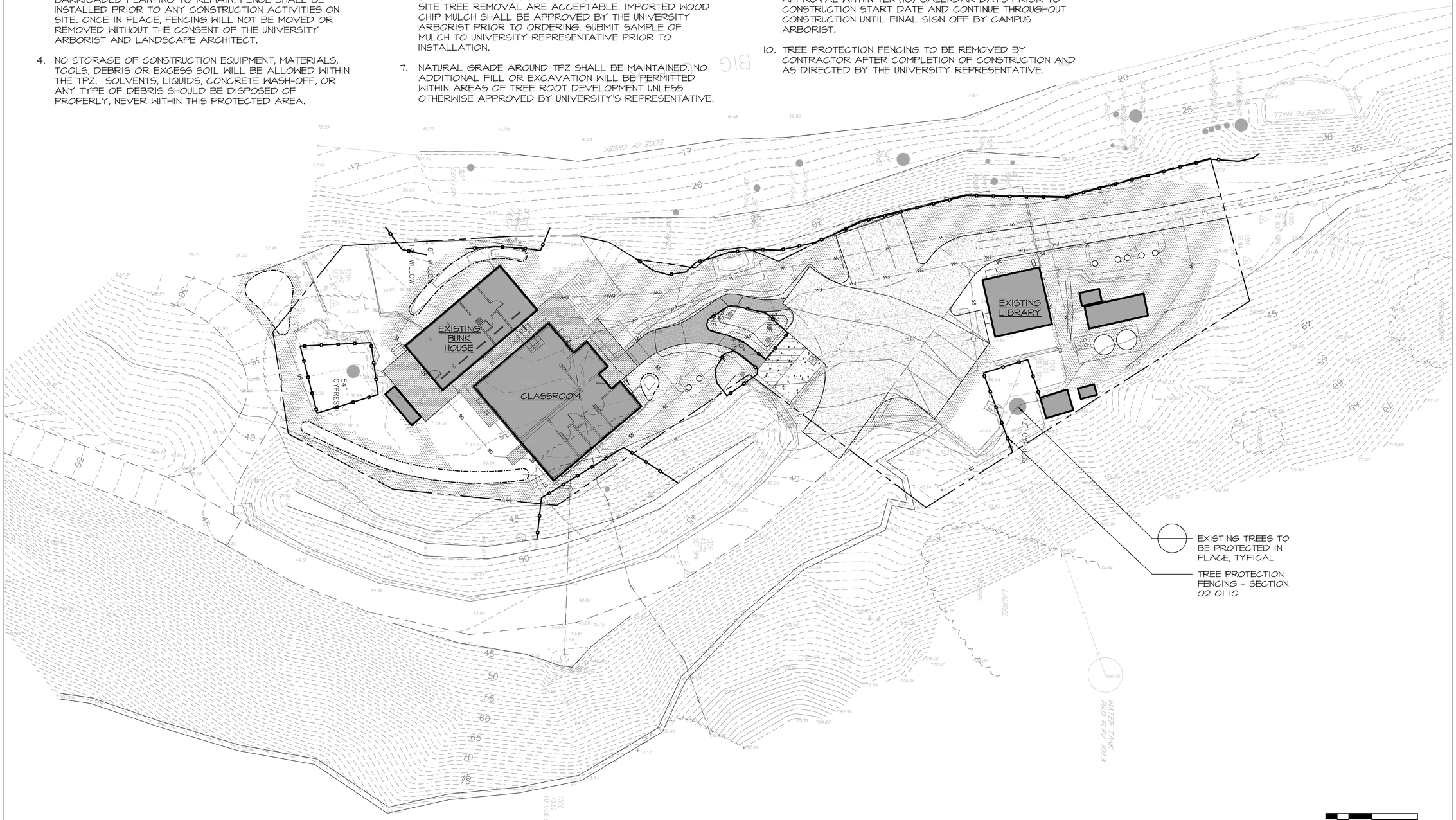
10. TREE PROTECTION FENCING TO BE REMOVED BY CONTRACTOR AFTER COMPLETION OF CONSTRUCTION AND AS DIRECTED BY THE UNIVERSITY REPRESENTATIVE.

LEGEND

- 8" WILLOW — EXISTING TREE
- EXISTING TREE CANOPY
- TREE PROTECTION FENCING SECTION 01 56 39



1 TREE PROTECTION PLAN
SCALE: 1/16"=1'-0"

0 4' 8' 16' 32'
SCALE: 1/16"=1'-0"

REVISIONS	BY

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Natural Reserve System

LEWY ART & ARCHITECTURE INC
1286 SANCHEZ ST
www.lewyart.com
SAN FRANCISCO CA 94114
T 415.641.7220
F 415.641.1710

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STATE OF CALIFORNIA

JONI L. JANECKI
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515 SWIFT ST. SANTA CRUZ, CA 95060
PHONE 831.423.6040 I FAX 831.423.6054
EMAIL JLJ@JLJA.COM I WWW.JLJA.COM
California Landscape Architect License 3163

GATEHOUSE -
TREE PROTECTION PLAN

Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

Description	LANDSCAPE PLAN - GATEHOUSE
Date:	04.24.2015
Scale:	1/16"=1'-0"
Drawn:	MO
Job	UCSC-BigCreek
Sheet	L1.3

LEGEND

- INTEGRAL COLOR CONCRETE
- COMPACTED EARTH
- DECOMPOSED GRANITE
- BOARDWALK
- EXISTING TREE CANOPY
- 8" WILLOW EXISTING TREE

SWALE / STORMWATER MANAGEMENT AREA (1 GALLON):
- DESCHAMPSIA ELONGATA (SLENDER HAIRGRASS)
- FESTUCA IDAHOENSIS (IDAHO FESCUE)
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REPAIR SEED MIX (LOCALLY COLLECTED SEED):
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- STIPA PULCHRA (PURPLE NEEDLE GRASS)
- ELYMUS GLAUCUS (BLUE WILD RYE)

SCREENING PLANTING (MIX OF 5 AND 15 GALLON):
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- RIBES SANGUINEUM (FLOWERING CURRANT)

NATIVE GRASSES FOR OUTDOOR AREA (SEED, PLUGS, AND 1 GALLON):
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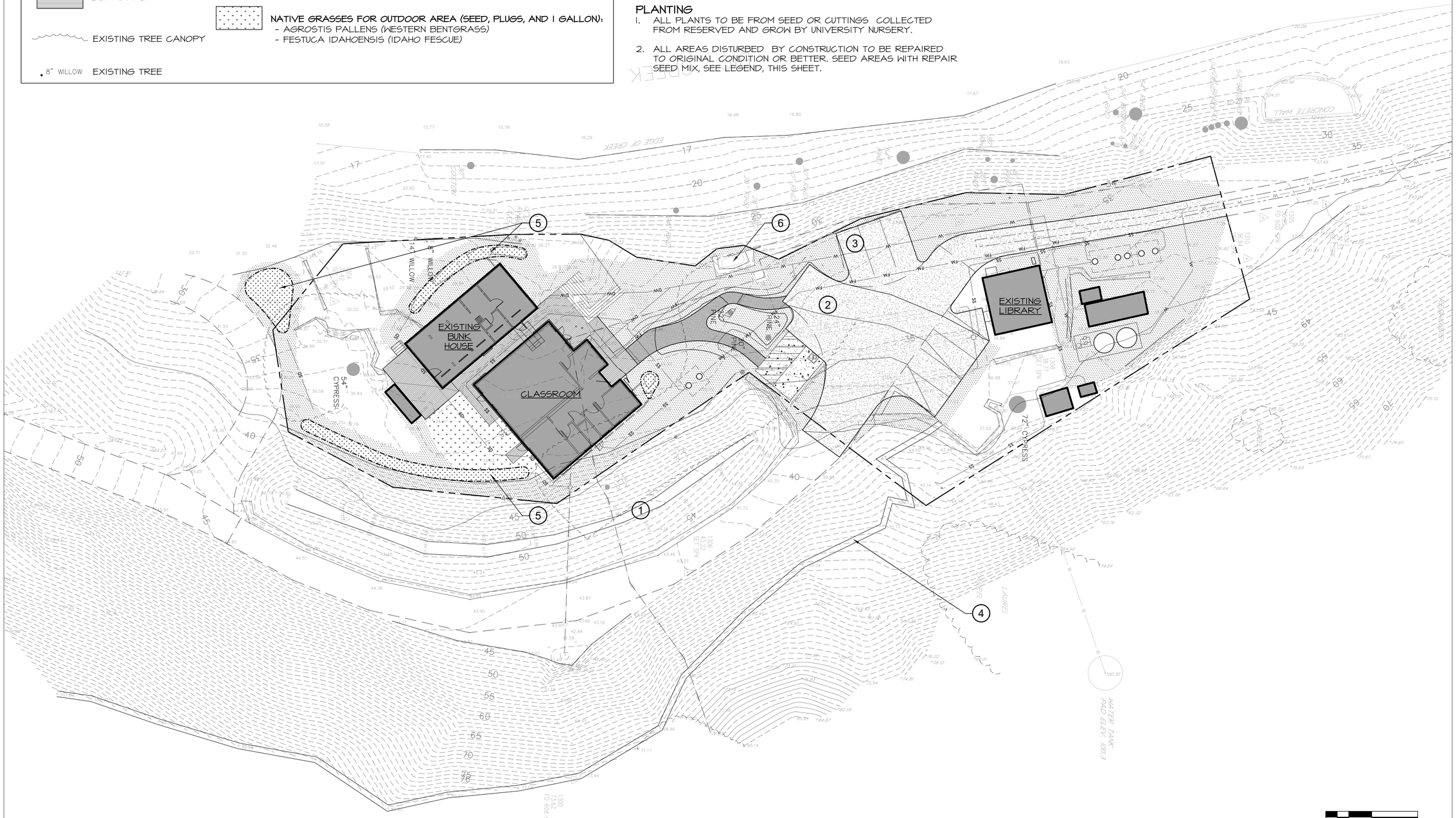
NOTES

1. EXISTING -COASTAL SCRUB -BERM - RETAIN ESTABLISHED BOULDER BERM WITH NATIVE PLANTING
2. EMERGENCY VEHICLE TURNAROUND
3. GUEST PARKING
4. TRAIL - MAINTAIN ACCESS TO EXISTING TRAIL
5. SWALE / STORMWATER MANAGEMENT AREA
6. EXISTING PROPANE TANK



0 4' 8' 16' 32'
SCALE: 1/16"=1'-0"

1 PROPOSED GATEHOUSE LANDSCAPE SITE PLAN

SCALE: 1/16"=1'-0"

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JONI L. JANECKI ARCHITECT
515 SWIFT ST. SANTA CRUZ, CA 95060
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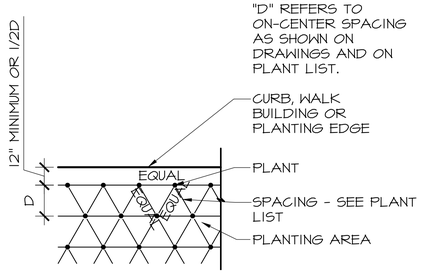
EMAIL JLJ@JLJA.COM I WWW.JLJA.COM
California Landscape Architect License 3163

GATEHOUSE - LANDSCAPE SITE PLAN

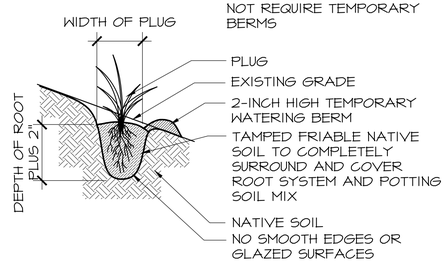
Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

Description	LANDSCAPE PLAN - GATEHOUSE
Date:	04.24.2015
Scale:	1/16"=1'-0"
Drawn:	MO
Job	UCSC-BigCreek
Sheet	L1.4



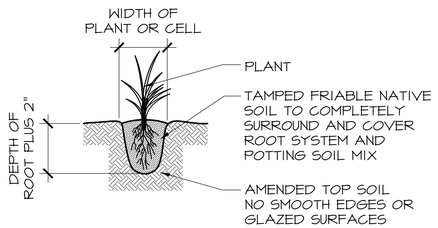
6 PLANT SPACING DETAIL

NOT TO SCALE



5 PLUG PLANTING ON SLOPE DETAIL

NOT TO SCALE



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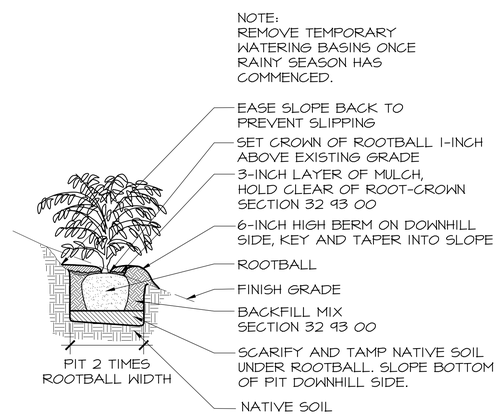
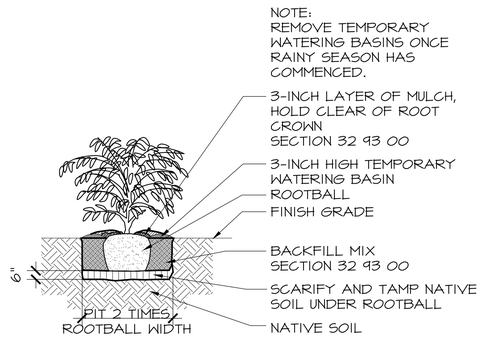


3 SHRUB PLANTING ON SLOPE DETAIL

NOT TO SCALE

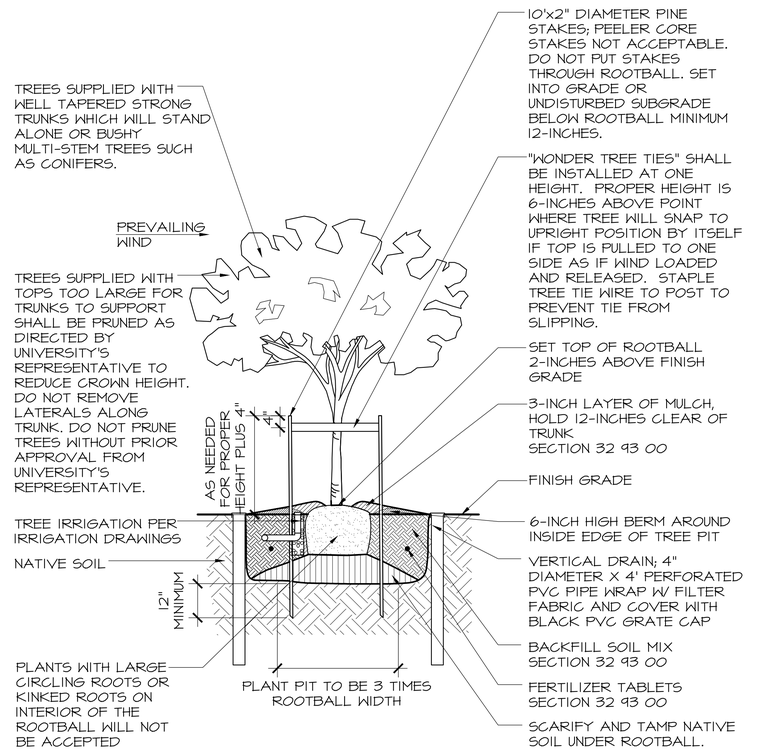


2 SHRUB PLANTING DETAIL

NOT TO SCALE

NOTES:

1. CONTRACTOR SHALL DOUBLE STAKE ALL 15 GALLON, 24-INCH AND 36-INCH BOX TREES.
2. CONTRACTOR SHALL REMOVE NURSERY STAKE(S) AND TAGS FROM TREES UPON COMPLETION OF STAKING.
3. REMOVE TEMPORARY WATERING BASINS ONCE RAINY SEASON HAS COMMENCED.
4. UNIVERSITY'S REPRESENTATIVE TO SELECT/TAG ALL PROJECT TREES AT NURSERY. CONTRACTOR TO COORDINATE.



1 TREE PLANTING DETAIL

NOT TO SCALE

REVISIONS	BY

UCSC

Landels Hill Big Creek Reserve

Natural Reserve System

LEVY ART & ARCHITECTURE
1256 SANCHEZ ST
SAN FRANCISCO CA 9114
www.levyaa.com
T 415.641.7320
F 415.641.1710

LANDSCAPE ARCHITECT
REGISTERED
J. L. JANECKI
No. 3163
Exp. 9/24/16
STATE OF CALIFORNIA

JONI L. JANECKI & ASSOCIATES
515 SWIFT ST. SANTA CRUZ, CA 95060
PHONE 831.423.6040 I FAX 831.423.6054
EMAIL JLJ@JLJA.COM I WWW.JLJA.COM
California Landscape Architect License 3163

PLANTING DETAILS

Big Creek - UCSC - NRS
UC Project# 12058
HC 67 Box 1679
Big Sur, CA 93920

Description	PLANTING DETAILS
Date:	04.24.2015
Scale:	AS NOTED
Drawn:	MO
Job	UCSC-BigCreek
Sheet	L5.1

PROJECT DESCRIPTION

Located on the Big Sur coast 5 miles north of the town of Lucia, the Landels-Hill Big Creek Reserve (the Reserve) is an ecological reserve of 4,200 acres. The Reserve is administered by the University of California's Natural Reserve System (NRS) and is managed by a resident director and steward working from the office of the Natural Reserves Director within the Division of Physical and Biological Sciences of UC Santa Cruz. It serves the University as a natural laboratory and as an outdoor classroom, in which instruction and research take place and which serves the public through protection of coastal habitats.

The exposed shoreline consists of small beaches interspersed with boulder fields and is bordered by vertical cliffs 200-300 ft. high. Narrow ridges wind from the coastal headlands to the Santa Lucia crest, separating deep V-shaped canyons with walls that rise steeply out from streamside terraces. The landscape, which includes mountains as well as coastal slopes, comprises seven major vegetation communities: riparian, coastal scrub, chamise chaparral, redwood forest, coastal grasslands, oak woodlands, and pine-oak forest. Perennial freshwater creeks in relatively pristine condition support southern steelhead populations and a wide variety of aquatic invertebrates. These creeks flow into a no-take State Marine Reserve and a limited-take State Marine Conservation Area.

Project construction is proposed at two locations on the Reserve: the Gatehouse area at the mouth of Big Creek canyon just east of Highway 1; and the Coyote Creek area, near the southern boundary of the Reserve. The construction of the Project may be phased depending on funding. The Gatehouse area is bounded on the north by the steep, rocky canyon wall, which rises to an elevation of about 400 feet, and on the south by Big Creek, which drains to the ocean about 580 feet to the southwest. The main Reserve road runs through the Gatehouse area, along the base of the northern canyon wall, and provides access to the rest of the Reserve. Existing facilities at the Gatehouse Area consist of a 902sq.ft. staff residence; a 412sq.ft. multi-purpose building known as the Library; an outdoor shower and toilet for visitors; and two sheds that house a generator, tool storage, a work bench and fuel. Electricity is supplied by a photovoltaic array and a propane-fueled generator. Wood stoves are the only source of space heating for the existing buildings. Propane is used for cooking and domestic hot water. Potable water is supplied to the Gatehouse facilities from a spring located about 1,500 feet up the road from the Gatehouse area, via an above-ground water line along the road. Wastewater flows to a 1,000 gallon septic tank to the southwest of the Gatehouse. An engineered earthen berm was constructed between the road and the Gatehouse in 2010 to provide protection from rocks falling from the canyon wall.

The Coyote Creek site is a 1-acre, relatively flat section of undeveloped land at elevation 650 feet above sea level. The Reserve staff use the site for outdoor storage of maintenance materials, vehicles and equipment. The site is occasionally maintained by mowing and clearing brush. An unpaved road provides access to this site from Highway 1 through a privately owned property to

the south of the Reserve. This road also provides access, more circuitously, from the Coyote Creek site to other parts of the Reserve.

In the Gatehouse area, the Project would remodel the existing staff residence to create living space for up to five visiting researchers. A new 1,400sq.ft. building would be constructed adjacent to the existing building to create a 40-seat classroom, an office for the Reserve Manager, and two restrooms. At the Coyote Creek site, the Project would construct two new buildings: a 1,600sq.ft. single family residence, and a 2,050 sf residence for staff and/or researchers with an attached a garage/workshop. At both sites, the Project would construct new septic systems and infrastructure to supply domestic and fire protection water from springs that are already used for water supply at existing facilities. Electricity would be provided by existing and new solar arrays and backup generators.

Gatehouse Area

Project construction in the Gatehouse area would consist of two components: 1) seismic retrofit and remodeling of the existing Gatehouse to create living space for visiting scientists; and 2) construction of a new classroom and office space for the Director adjacent to the remodeled Gatehouse. The Project also includes landscape and civil improvements to support these two facilities.

Work on the existing residence would consist of construction of a new perimeter foundation and the addition of shear walls to meet seismic safety standards, while improving thermal performance and excluding rodents; and reconfiguration of the interior space to meet ADA standards. No exterior modifications would be done.

The classroom would be oriented adjacent to the existing structure and the earth berm. This new 1,400sq.ft. structure would be primarily hidden in the "view shadow" of the existing structure and vegetation to minimize visibility from Highway 1. Outdoor space between and adjacent to the two structures would remain open. The classroom would accommodate lecture space for classes up to 40 students, and would also allow for small-group work at tables. The classroom structure would also include a small field specimen work area, the Reserve Manager's office, restrooms, and mechanical space.

A new 1,500-gallon septic tank and leach field would be installed to the north of the new classroom building. Because of the proximity of the new leach field to the creek, the septic system would include an enhanced on-site wastewater treatment system to meet County standards. Installation of the leach field would require re-locating an existing water line within the Gatehouse area. Wastewater from the existing building would flow to the new septic system. The University or the Regional Water Quality Control board would conduct quarterly water quality monitoring for two years (4 times per year) after the project is completed and annual monitoring (once per year) in Big Creek beyond that. The on-site measurements would include monitoring of the required elements attributed to the septic system for protection of aquatic life and human health (e.g., a sample may include dissolved oxygen, salinity, pH, turbidity, analysis of nutrients, salts, metals, indicator bacteria and solids, temperature as well as flow-discharge in

cfs). The results of the monitoring and the relevant thresholds for protection of aquatic life and human health would be available on demand from the Big Creek Natural Reserve office or posted on the Regional Water Quality Control board web site (www.ccamp.org). If relevant thresholds are exceeded and directly attributed to the septic system, above natural fluctuation and variation, the University will conduct monthly monitoring and consult the necessary experts and modify or adjust the treatment system until the exceedances are within the natural variation.

The project includes two 3,000-gallon water tanks (6,000 gallons) that would be installed near the Library. Propane would be used for cooking and domestic hot water and as fuel for the new generator. Passive solar collection panels (up to 150 sf) would be included on the roof of the new building at the Gate House site to serve the classroom or would be added to (or replacement of) the existing solar array on the existing Gate House. These panels would largely minimize the need for mechanical heating. The new classroom would include a wood stove and a mechanical system for backup heating during cold weather.

Landscaping would be minimal, and would consist of native plants grown from seed collected on the Reserve. Pavement, or ADA approved permeable or non-permeable materials, would be provided only as necessary to provide accessible paths of travel within the site.

Coyote Creek

At the Coyote Creek site, the Project would develop a complex of two new structures. One would be an approximately 1,600 sq.ft., one-story, three-bedroom, single-family residence designed to house the Resident Director or other full-time staff, and his/her family. A second, separate 2,050 square foot building would provide housing for staff and/or visiting researchers (1,125 square feet) and would be attached to a garage structure (925 sq.ft.) that would serve as a garage and workshop. The single family residence would be located on the southern section of the slope, aligned with the slope contours. The secondary staff residence and garage/workshop would be located in the largest flat area of the site. Three small storage sheds (440 sf) may be located adjacent to the workshop for tools, supplies and equipment. All structures would not be visible from Highway 1.

Water would be supplied to the Coyote Creek site from an existing spring box and water line that currently serve a caretaker's house on an adjacent property, under an existing agreement. A new, above-grade water line serving the Coyote Creek site would be connected to the existing water line at a point approximately 500 feet east, and up to three 5,000-gallon water tanks would be installed to meet requirements for fire protection and domestic use. Wastewater treatment would be provided by a 2,000-gallon septic tank and a leach field east of the new single family residence. A solar array on the roof of the garage (or ground mounted) would be the primary source of power, and a propane-fueled generator would provide backup power. Propane would also be used for cooking and domestic hot water. A new telephone line would be installed in the road from Highway 1. The new residential buildings would be designed to minimize the need for mechanical heating, employing principals of "passive design" including proper window size and orientation, enhanced building envelope design, and thermal mass for passive energy collection

and re-radiation. Wood stoves would be included in both buildings for added comfort during cold weather.

Landscaping would be minimal, and would consist of native plants grown from seed collected on the Reserves. Pavement, or ADA approved permeable or non-permeable materials, would be limited to that needed to provide fire access and accessible paths of travel within the site.

Whale Point

Development at Whale Point pre-dates the Coastal Act and two existing structures were rebuilt after a 1985 wildfire. No new development is proposed at this location.

Steward Cabin (pre-Coastal Act)

The upper of the two cabins at Whale Point serves as a residence for personnel. It has primarily been occupied by a reserve steward. One of the two "Marble Cabins" from circa 1930s, the steward's cabin was reconstructed in 1986 after it was burned in the 1985 Rat Creek fire. The cabin is 1200 sq.ft. with an open floor plan, a loft, and a 533 sq.ft. deck around two sides.

Research Cabin (pre-Coastal Act)

The research cabin was previously the guest house for the main Marble Cabin (see photo) and is the lower of the two cabins at Whale Point. It was reconstructed by UCSC in 1995 after it was burned in the 1985 Rat Creek fire. It is used as overnight researcher and student accommodation for the reserve. The cabin is 1006 sq.ft. and contains three bedrooms, two lofts, a bathroom, kitchen and main room.

Older photos of Whale Point Cabins

Upper photo shows both Whale Point cabins from above. Lower photo shows Steward Cabin close up (circa late 1970's).

Whale Point Cabin (now called Research Cabin) circa 1930.

Post 1986 fire reconstruction with recent images

After the Rat Creek fire, cabins were rebuilt. The Steward Cabin was rebuilt in 1986 shortly after the fire and the Researchers Cabin was rebuilt in 1994.

Top *photo of whale point taken at approximately the same location as late 1970 image above. "Research Cabin to the left.* ***Bottom*** *photo shows Steward Cabin (photo taken between two cabins).*

After the fact permit request items

Terrace Camp

Just across Big Creek from the entrance area, accessed via a foot bridge, is a level area that has been used by researchers and classes over the years. As there is no user accommodation or classroom in the canyon, this flat has served as a usable space for researchers and students working in the canyon or near the highway. Initially, it served as a classroom and museum for a K-12 teaching effort, led by a teacher at Pacific Valley School who was also the wife of a former Big Creek Reserve Director. It has also been used as a teaching space for university-level courses from time to time. Terrace Camp has also served to accommodate researchers working on disease ecology (Sudden Oak Death), a sea otter population study (UCSC, USGS, USFWS, Monterey Bay Aquarium), as well as provided short-term overflow for numerous other small groups of researchers over the years.

The canvas walled yurt was installed at Terrace Camp in 2000 and provides approximately 300 sq.ft. of covered area. It was installed to support the K-12 teaching program mentioned above. In addition there is a 365 sq.ft. covered deck off the rear of the yurt. The yurt holds tables and chairs for use by groups needing an indoor space.

Terrace Camp yurt

In 2007 a self-contained latrine was placed at Terrace Camp. The latrine consists of a walled outhouse approximately 25 sq.ft. with a 500 gallon plastic tank. The tank can be emptied via a pump truck as needed.

Terrace Camp pit toilet

Cal Trans Shed

The Cal Trans shed was left onsite beneath the Big Creek Bridge after bridge retrofitting in 1999. The shed is approximately 160 sq.ft. and constructed of wood. Since being left at Big Creek it serves an important function by providing covered secure storage for marine related equipment (e.g. boats, dive gear, etc.).

Cal Trans container used for boat storage.

Flush Toilet at Gatehouse

An approximately 36 sq ft. toilet was constructed as a latrine with a holding tank was constructed in the late 70's or early 80's (see Appendix 1 for relevant correspondence) and then later connected to the Gatehouse septic system. The walls and floor were rebuilt on the same site in 2012.

Toilet at entrance area.

Shed

There is a generator shed (75 sq.ft.) and a workshop (348 sq.ft.) that serve the Whale Point facility. Original construction date of the sheds are unknown (potential pre-Coastal Act), however the foundation of the workshop was replaced and the shed rebuilt between 2002-2005.

Whale Point workshop and shed

Solar Panels

Power for the Whale Point facility is provided by a solar/battery system. The solar array sits on the south facing slope below the cabins. The array is 538 sq.ft. Installation date and conversion from a generator-powered system is unknown. Reassembly of the panels from railroad ties onto a modern rack system was completed in 2007.

Whale Point solar panels

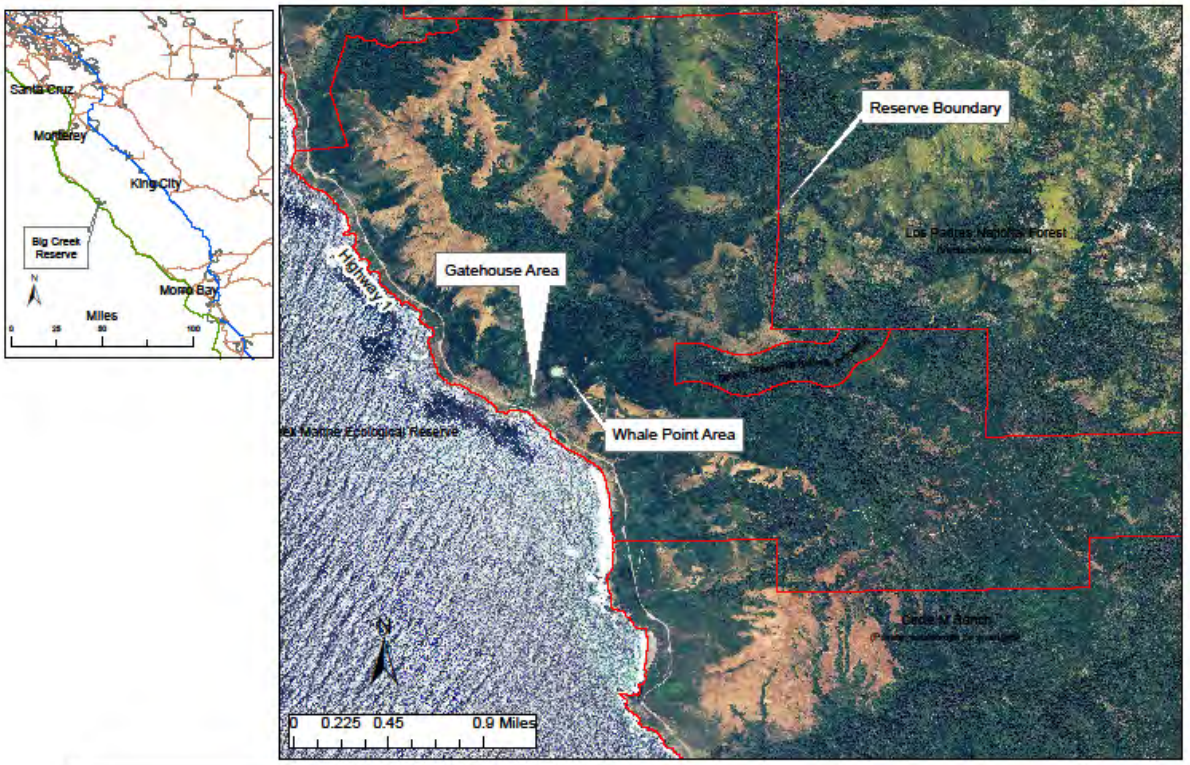
Water Storage Tanks

The project, completed in 2009, involved installing six 5,000 gallon water tanks, 6600 feet of underground pipe, a control valve and a perimeter of sprinkler risers around the research and stewardship facilities at Whale Point in order to serve as emergency water for wildfire emergencies. One spring box was installed and plumbed with 4,750 feet of 1-inch flexible HDPE pipe, which was trenched to 18 inches underneath an existing road to the site of the water tanks. A 4 inch PVC line was trenched 1,056 feet at a depth of 18 inches to a control valve at the facility at Whale Point. This controls two 2 inch PVC sprinkler lines (328 feet and 295 feet) and ten galvanized sprinkler risers that form a perimeter around the facilities. The sprinkler system projects a 40 foot radius of water over 8 hours, providing security for the Whale Point facilities during the event of a wildfire. Approximately 8,200 cu. ft. of soil (304 yards) was temporarily excavated and then replaced around the water tanks. The remainder (4,010 cu. ft.) was spread thinly around the tanks. Water lines under the road were made with a mechanical trencher. Water lines through vegetation were made by hand with picks and shovels. A 300 sq.ft. area around the tanks is mowed to maintain low-fuel vegetation.

Spring water is used to fill the storage tanks. Once the tanks are full, the water line is closed to a minimum to allow the spring to overflow at its source. Thus, there is only a very small amount of water being used from the spring at any given time. The vast majority is returned to the ground at the site of the spring. If and when water is used from the tanks, the valve is temporarily opened until the tanks are full again.

Water storage tanks.

Location Maps for After the fact permit request items



Landels-Hill Big Creek Reserve Facility Improvement
After-the-Fact Permit Items, Location Map

Gatehouse area and Terrace Camp

Landels-Hill Big Creek Reserve Facility Improvement, Site Map
After-the-Fact Permit Items, Gatehouse area and Terrace Camp

Whale Point facility area

Landels-Hill Big Creek Reserve Facility Improvement
Site Map After-the-Fact Permit Items, Whale Point Facility Area

Landels-Hill Big Creek Reserve Access Proposal
January 2016

Overview

Fifty years ago, the Regents ("The Regents") of the University of California ("University") established the Natural Reserve System ("UCNRS") for scientific study across a network of protected sites that would broadly represent California's rich ecological diversity. Today, the UCNRS is composed of 39 reserves that encompass more than 750,000 acres of protected natural land available for university-level instruction, research, and outreach. The UCNRS mission is "to *contribute to the understanding and wise management of the Earth and its natural systems by supporting university-level teaching, research, and public service at protected natural areas throughout California."* Controlled and managed access is critical to the mission of UCNRS. The UCNRS Reserves provide living laboratories and outdoor classrooms for the University and academic institutions worldwide. As such, these important sites are most valued when existing in their natural and protected states where researchers, today and in perpetuity, can conduct long-term research without the risk of the habitat or equipment being disturbed; where students can gain hands-on experiences conducting science in the field; and where a variety of other educational groups can learn about the natural environment. Today, this unique system of reserves is proving to be even more important as our population grows, anthropogenic impacts encroach, and climate change scientists look to natural areas as critical study sites.

Background

Landels-Hill Big Creek Reserve ("Big Creek Reserve") is applying for a Coastal Development Permit to develop staff housing and a teaching classroom. As part of this process, we have worked with Coastal Staff to discuss our overall access program and potential ways to add additional access within the applicable legal authority and constraints, including the Big Creek Reserve mission, deed restrictions, etc. Initial discussions on addressing access to the reserve resulted in the following three points of agreement needed for moving forward with the permit: 1) a summary of the current and historically recent public use of the reserve, 2) a proposal for what we will do going forward to address provide additional public access (i.e. docent program), and 3) a commitment to participate in the planning discussions for the California Coastal Trail.

The University is unlike any state or local agency that owns and manages property within the coastal zone, and, therefore, the University's access proposal is made within the context of significant legal and regulatory authority and constraints. The California Constitution established the University as a

public trust and vested The Regents with the responsibility to manage University property in accordance with that trust, including "full powers of organization and government" and "all the powers necessary or convenient for the effective administration of its trust…," The Regents thus have responsibility over University lands held or used for educational and research related purposes, and as such, have designated the Landels-Hill Big Creek Reserve as a reserve within the UCNRS. Moreover, the California Environmental Quality Act (CEQA) distinguishes the University as a "trustee agency" with regard to its UCNRS reserves and imposes a legal duty on the University to protect the reserves' natural resources. The following access plan is the result of numerous meetings with Coastal Staff over the past year and meets the University's responsibilities, particularly by providing a form of educational access through docent led visitation. In addition to meeting the requirements below, Big Creek staff is committed to meeting with Coastal Staff as needed and requested to provide updates on all components of this plan (e.g. providing use data, etc.).

1. **The Current And Historical Use Of The Reserve**.

   Due to the importance of maintaining a natural environment and protecting scientific studies and equipment, uncontrolled access to Big Creek is not allowed. Uncontrolled use of Big Creek would likely have a negative impact on native flora and fauna that inhabit the Reserve, hamper ongoing research and education programs, and impact the potential for future scientific and educational endeavors. Currently, rather than an open public access policy, users are required to complete applications for specific research, education, or outreach efforts. The application-based reserve use policy focusing on research and education is consistent with the UC NRS Administrative Handbook and the Vision Statement of Big Creek Reserve, which states:

   > 'The intact ecosystems and the aesthetic qualities of the Reserve will be fully protected for future generations of teachers and researchers. Its natural systems will be sustained to provide a benchmark against which to compare environmental changes elsewhere and through time. The reserve will be an access window through which nature can be investigated, observed and monitored, but not fundamentally altered. Human activities in the reserve will be managed so as to avoid disturbance to natural processes while providing a full program of investigation and teaching sufficient to support the UC and NRS missions. Students and faculty will conduct in-depth research about terrestrial and marine systems, acquiring knowledge that can be used to advance science and improve stewardship of natural communities and biological diversity. Investigators

supported on-site will exchange ideas and enthusiasm. The reserve will inspire students and teachers to appreciate the character and value of nature per se, and to seek ways to balance natural and human-dominated landscapes. Reserve staff will provide data, logistical support, and expertise to visiting researchers, students, and other persons engaged in studies of natural ecosystems. As feasible and appropriate the reserve will also provide public services to the greater community by supporting nature study, land management efforts, and environmental improvement.'

In the context of access, examples of 'Public service' include use by groups such as K-12 classes, UC Extension, workshops and meetings, as well as organized hiking groups, non-profit conservation organizations, volunteers, and attendees of Big Creek Reserve's research and education outreach events. Public service is the category in which we record the various forms of research and educational access other than research and college-level courses. Over the past five years 3,184 individuals within this user group have used Big Creek for a total of 6,285 user days. Appendix 1 shows the affiliations for all users during the past five years.

Another form of public access provided by Big Creek Reserve is the annual open house event. This event is normally scheduled the second Saturday in May. Reserve staff, scientists and volunteer hike-leaders educate the public about the UCNRS, Big Creek Reserve, and the research and stewardship work done on site. All visitors are checked in and out, which provides an additional opportunity to answer questions after visitors have experienced the reserve for the day. Faculty, agency and student researchers are on hand to demonstrate their research techniques and explain their findings to the public. Research materials and specimen collections are on display from the reserve library. The event is free of charge.

2. Proposed Controlled Public Access to the Big Creek Reserve

Access by the public must be consistent with the obligations of the University, the mission of the UCNRS, deed restrictions for the Big Creek Reserve property, and all existing permits. Importantly, to be consistent with all the above any access must be for research or educational purposes. To accomplish this, we propose that docent-led educational visits will be offered at least once a month, and up to two times a month if demand dictates. Docents will be approved by the Big Creek Director and may consist of Big Creek staff, trained students, or trained members

of the public. The route of the visits will involve all or a portion of the Interpretive Trail and/or the Big Creek beach (see Trail Map). The route and frequency of visits may vary depending upon seasonal weather conditions, academic use and natural activities occurring on the Reserve at the same time (e.g. the flow rate and position of Big Creek, nesting birds, use by marine mammals, research studies, course use, etc.). Alternate routes and locations may be available and will be determined by the Reserve Director based on potential educational opportunities to highlight research and other naturally occurring events (e.g. salmonid breeding, etc.). The visits will provide an educational interpretive experience that begins with an overview of the University of California Natural Reserve System, the history of Landels-Big Creek Reserve, a highlight of specific research projects and educational endeavors in habitats that will be observed on the walk (e.g. NOAA's steelhead research, kelp forest monitoring, long-term rockfish surveys, wildlife behavior, California sea otter population studies, redwood tree research, sudden oak death, fire ecology, etc.). This concept is modeled off of the program developed by Coastal Staff and UCSC at Younger Lagoon Reserve (UCSC CLRDP certified by the Coastal Commission in 2009) where docents provide detailed information about the flora and fauna of the reserve. These docent-led visits will be advertised via the Landels-Hill Big Creek Reserve website and filled via electronic reservation open to the general public. All reservations will need to be completed at least one week prior to tour dates. Visits will be limited to twelve people and will be best suited for adults and children over 10 years of age. While every effort will be made to complete reserved visits, they may be cancelled by the reserve staff due to environmental conditions and or safety concerns, or if fewer than 5 people sign up one week prior. If there are less participants than required then the participants registered from that month will be moved to the next month and all other participants will be shifted to later dates in the order of their registration time. Visitors entering Landels-Hill Big Creek will be required to sign a waiver of liability and adhere to the UCNRS reserve use guidelines (e.g. no pets, UC no smoking policy, etc.).

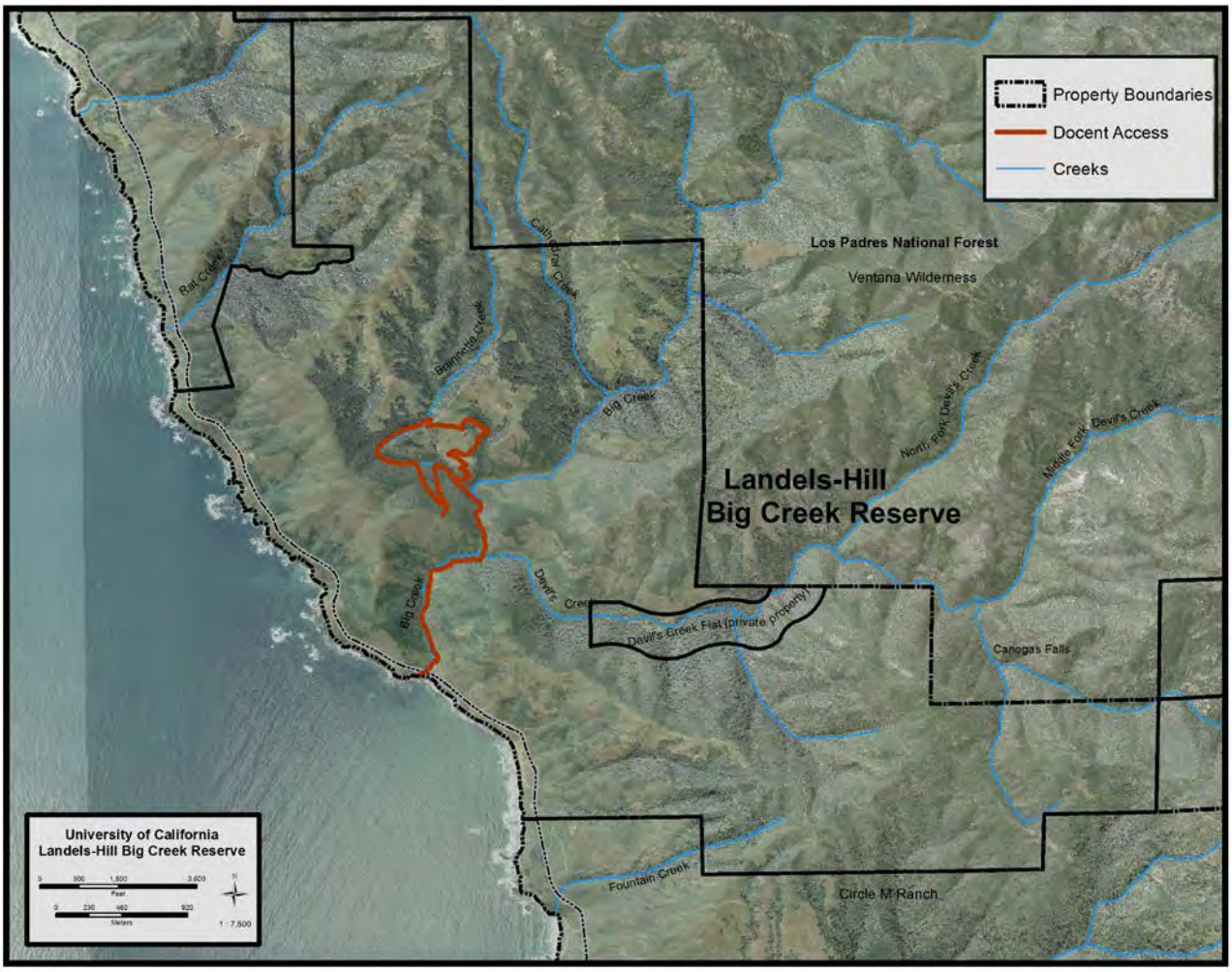
3. Planning Discussions For The California Coastal Trail

We recognize that there is an effort to designate a Big Sur section of the California Coastal Trail and the Coastal Commission's effort to explore potential routes through Big Creek in order to link segments together on adjacent lands. The University is committed to participating in community and regional planning discussions centered on the Coastal Trail, in general, and specifically on the Big Creek Reserve. All access to the reserve including as part of the Coastal Trail must be consistent with the obligations of the University, the mission of the UCNRS, deed restrictions for the Big Creek Reserve property, and existing permits, as well as all applicable State, Federal, and

local laws and policies. These conditions can be met by including Coastal Trail-related access within the parameters previously described for docent led visits. The University can add to the overall planning process by providing expertise in discussions regarding minimizing impact to Big Sur's environment and flora and fauna, supporting focused studies that examine potential impacts of increased use on natural resources, discussing feasibility and maintenance issues, management of public access (i.e. through seasonal use avoiding specific areas at certain times of year, application systems, etc.), budgetary and financial needs to meet various trail related efforts, invasive species management, mapping, etc.

Trail Map

Docent-led access to the beach and the Interpretive Trail departs from the Gatehouse near the entrance to Big Creek Reserve.



Appendix 1. Affiliations of each user group that visited Landels-Hill Big Creek Reserve during fiscal years 2010-2015.

FY 2010 - 2011 NRS Annual Report
PART 2. RESERVE USERS' AFFILIATIONS
Campus: UC Santa Cruz
Reserve: Landels-Hill Big Creek Reserve
Prepared by: Mark D Readdie

1. UC Santa Cruz

UC Santa Cruz

2. University of California Campus
UC Berkeley
UC Davis
UC Davis
UC Santa Barbara
UC Santa Cruz

3. California State University Campus
California Polytechnic State University San Luis Obispo
CSU Channel Islands
CSU Fullerton
CSU Monterey Bay
Humboldt State University
Moss Landing Marine Laboratories
San Diego State University
San Francisco State Universty

4. California Community College
Cabrillo Community College
Columbia College
Pasadena City College

5. Other California Campus
Claremont Colleges
Santa Clara University

6. Out of State College or University
Gonzaga University
Hendrix College
Middlebury College
University of North Carolina at Charlotte

7. Research Faculty
UC Santa Cruz

8. K-12 Instructor
Big Sur Charter School

Monterey Bay Charter School
Santa Cruz Waldorf School

2010 - 2011 Annual Report	Part 2: Reserve Users' Affiliations

NRS ANNUAL REPORT
PART 2. RESERVE USERS' AFFILIATIONS
Academic year: 2011-12

Campus: University of California, Santa Cruz
Reserve: Landels-Hill Big Creek Reserve

University of California
University of California, Berkeley
University of California, Davis
University of California, Riverside
University of California, San Diego
University of California, Santa Barbara
University of California, Santa Cruz

California State University System
California State University (CSU), Channel Islands
California State University (CSU), Fullerton
California State University (CSU), Monterey Bay
California State University (CSU), Moss Landing Marine Laboratories
Humboldt State University (CSU)
San Diego State University (CSU)
San Francisco State University (CSU)

California Community College
Cabrillo Community College
Columbia College
Cuesta College
DeAnza College
Irvine Valley College
Pasadena City College

California - Other University or College
Claremont Colleges
Stanford University

U.S. - University or College Outside of California
Middlebury College
University of Michigan

International University or College
University of Groningen
University of Sheffield

K-12 Education
Generic K-12 Education
K-12 Schools - Unspecified location
K-12 Schools Monterey
K-12 Schools Santa Cruz

Non-Governmental Organization or Non-Profit Entity
Audubon Society (National & Local)
California Institute of Integral Studies
Esalen Institute
Monterey Peninsula Regional Park District
Ventana Wilderness / Wildlife Associations

Governmental Agency or Entity
California Department of Fish and Game

Central Coast Regional Water Quality Control Board
Monterey Bay National Marine Sanctuary
NOAA (all units)
US Fish and Wildlife Service
US Geological Survey

Individual or Other Entity

Unaffiliated with any institution

NRS ANNUAL REPORT
PART 2. RESERVE USERS' AFFILIATIONS
Academic year: 2012-13

Campus: University of California, Santa Cruz
Reserve: Landels-Hill Big Creek Reserve

University of California
University of California (Generic)
University of California, Berkeley
University of California, Davis
University of California, Los Angeles
University of California, Merced
University of California, Office of the President
University of California, Riverside
University of California, Santa Barbara
University of California, Santa Cruz

California State University System
California Polytechnic State University San Luis Obispo (CSU)
CSU Fullerton
CSU Monterey Bay
CSU Moss Landing Marine Laboratories
Generic California State University
Humboldt State University (CSU)
San Diego State University (CSU)
San Jose State University (CSU)

California Community College
Cabrillo Community College
Columbia College
DeAnza College
El Camino College
Generic California Community College
Irvine Valley College
Pasadena City College
Saddleback College

California - Other University or College
Claremont Colleges
De Anza College
Generic California Other College or University
Stanford University

U.S. - University or College Outside of California
Generic Other U.S. College or University
George Mason University
Northern Arizona University
Ohio State University
Oregon State University
University of Arizona
University of Idaho
University of Texas
University of Washington

International University or College
Kobe University

K-12 Education

Generic K-12 Education
K-12 Schools Big Sur
K-12 Schools Davis
Ocean Grove

Non-Governmental Organization or Non-Profit Entity

Audubon Society (National & Local)
Esalen Institute
Generic Non-Governmental Organization
Monterey Peninsula Regional Park District
Sierra Club
Ventana Wilderness / Wildlife Associations
Ventana Wildlife Society

NRS ANNUAL REPORT
PART 2. RESERVE USERS' AFFILIATIONS
Academic year: 2013-14

Campus: University of California, Santa Cruz
Reserve: Landels-Hill Big Creek Reserve

University of California

University of California (Generic)
University of California, Berkeley
University of California, Davis
University of California, Irvine
University of California, Los Angeles
University of California, Merced
University of California, Office of the President
University of California, Riverside
University of California, San Diego
University of California, Santa Barbara
University of California, Santa Cruz

California State University System

California State University (CSU), Fullerton
California State University (CSU), Long Beach
California State University (CSU), Monterey Bay
California State University (CSU), Moss Landing Marine Laboratories
California State University (CSU), Northridge
Generic California State University (CSU)
Humboldt State University (CSU)
San Diego State University (CSU)
San Francisco State University (CSU)

California Community College

Cabrillo Community College
Columbia College
Cuesta College
DeAnza College
Generic California Community College
Irvine Valley College
Monterey Peninsula College
Pasadena City College
Riverside Community College
Sacramento City College
San Francisco City College
Solano Community College

California - Other University or College

Claremont Colleges
De Anza College
Generic California Other College or University
Naval Postgraduate School
Stanford University
University of Southern California (USC)

U.S. - University or College Outside of California

Generic Other U.S. College or University
Lewis and Clark College
North Carolina State University

Northern Arizona University
Ohio State University
Ohio University
Oregon State University
University of Arizona
University of Michigan
University of North Carolina
University of Wisconsin - Madison

International University or College

Generic International College or University
University of Algarve
University of Sheffield

K-12 Education

Fairmont Private Schools
Generic K-12 Education
K-12 Schools Davis
K-12 Schools Monterey
McCallie School
Scotts Valley Middle School

Non-Governmental Organization or Non-Profit Entity

Coastal Watershed Council
Desert Research Institute
Esalen Institute
Exploring New Horizons Outdoor School
Generic Non-Governmental Organization
Outside Now
Save the Redwoods League
Sierra Club
Ventana Wilderness / Wildlife Associations
Ventana Wildlife Society

Governmental Agency or Entity

California Department of Fish and Game
California Department of Fish and Wildlife
California Department of Fish and Wildlife
Central Coast Regional Water Quality Control Board
Generic Governmental Agency or Organization
Naval Research Laboratory
NOAA (all units)
US Department of Interior
US Geological Survey

Business Entity

Eco-Ascension Research and Consulting
Levy Art & Architecture
WildLight Pictures Inc.

Individual or Other Entity

Generic Individual or Other Entity
No Institution Selected
Professional Artist
Public
Royal Botanic Gardens, Kew
Unaffiliated with any institution

NRS ANNUAL REPORT
PART 2. RESERVE USERS' AFFILIATIONS
Academic year: 2014-15

Campus: University of California, Santa Cruz
Reserve: Landels-Hill Big Creek Reserve

University of California

Art Institute of California San Diego
Scripps Insitution of Oceanography
University of California (Generic)
University of California, Berkeley
University of California, Davis
University of California, Irvine
University of California, Los Angeles
University of California, Merced
University of California, Office of the President
University of California, San Diego
University of California, Santa Barbara
University of California, Santa Cruz

California State University System

California Polytechnic State University (CSU), San Luis Obispo
California State University (CSU), Channel Islands
California State University (CSU), Fullerton
California State University (CSU), Monterey Bay
California State University (CSU), Moss Landing Marine Laboratories
Generic California State University (CSU)
Humboldt State University (CSU)
San Diego State University (CSU)

California Community College

Cabrillo College
Cabrillo Community College
Columbia College
Cuesta College
DeAnza College
Generic California Community College
Irvine Valley College
Pasadena City College
Santa Barbara City College
West Valley College

California - Other University or College

Claremont Colleges
Generic California Other College or University
Naval Postgraduate School
Stanford University

U.S. - University or College Outside of California

Generic Other U.S. College or University
George Mason University
Missouri University of Science and Technology
North Carolina State University
Northern Arizona University
The University of Chicago
University of Arizona

University of Colorado
University of North Carolina
Washington State University

International University or College

Generic International College or University
Museo Nacional de Ciencias Naturales
University of Sheffield

K-12 Education

Big Sur Charter School
Fairmont Private Schools
Generic K-12 Education
K-12 Schools Big Sur
K-12 Schools Monterey
K-12 Schools Santa Cruz
Northland Preparatory Academy

Non-Governmental Organization or Non-Profit Entity

Bonny Doon Firesafe Councl
Coastal Watershed Council
Esalen Institute
Farallones Marine Sanctuary Association
Generic Non-Governmental Organization
Outside Now
Pacific Grove Museum of Natural History
Save the Redwoods League
Sierra Club
Ventana Wilderness / Wildlife Associations
Ventana Wildlife Society

Governmental Agency or Entity

California Department of Fish and Game
California Department of Fish and Wildlife
Central Coast Regional Water Quality Control Board
Generic Governmental Agency or Organization
Monterey Bay National Marine Sanctuary
NASA
NOAA (all units)
U.S. Navy
US Department of Interior
US Geological Survey

Business Entity

Condor Country Consulting, Inc.
Generic Business Entity
WildLight Pictures Inc.

Individual or Other Entity

Generic Individual or Other Entity
No Institution Selected
Professional Artist
Unaffiliated with any institution

Landels Hill Big Creek Natural Reserve Facility Improvement: Mitigation Monitoring and Reporting Program

Mitigation Measure	Monitoring and Reporting Procedure	Mitigation Timing	Mitigation Responsibility
Mitigation Measure AES-1: Building materials for the proposed classroom building and the siting and configuration of the building adjusted shall be selected to reduce the visibility of the structure from Highway 1 to the extent feasible. Additional visual simulations shall be prepared to demonstrate the reduction in visibility.	Prepare visual simulations with proposed materials for Design Development phase. Review and revise as warranted.	Before design approval	PP&C Project Manager
Mitigation Measure BIO-1. To avoid impacts to nesting birds vegetation removal, grading, and ground disturbing construction activities will be scheduled between September 1 and February 1, which is outside the bird nesting season for the central coast. If this is not possible, a qualified biologist shall conduct a preconstruction survey for nesting birds no more than two weeks prior to start of construction. If any bird nests are observed within or immediately adjacent to the work area, a buffer of 50 feet for migratory birds, or 250 feet for raptors, will be established where no construction will take place until the biologist has determined that all young have fledged the nest.	Biologist will conduct pre-construction surveys as specified. If active nests identified, install and maintain fencing or other protective measures consistent with biologist's recommendations. Avoidance provisions will be included in contract specifications. Biologist will monitor nests and inform project manager when protection may be removed, and document in monitoring report.	Conduct surveys no more than two weeks prior to commencement of construction activities	PP&C Project Manager
Mitigation Measure BIO-2. To avoid potential impacts to the Smith's blue butterfly's host plant (dune buckwheat), place silt fence or other suitable barrier between the access road and adjacent buckwheat plants. This should occur along the access road to the Gatehouse site and along the lowermost portion of the access road to the Coyote Creek Area (near Highway 1). This will prevent excess dust from settling on the plants (or on the butterfly adults if present)	Include requirement in contract Division 1.	Before project goes out to bid.	PP&C Project Manager

Mitigation Measure	Monitoring and Reporting Procedure	Mitigation Timing	Mitigation Responsibility
and provide a visual screen to alert the heavy equipment operators to avoid driving too close to the plants.			
Mitigation Measure BIO-3. To minimize potential impacts of dust to the Smith's blue butterfly or its host plant, dune buckwheat, implement dust control measures along the access roads and all construction sites at the Gatehouse Area project site. Dust control may include use of a water truck or for smaller areas, a back-pack water tank may be sufficient.	Include requirement in contract Division 1.	Before project goes out to bid.	PP&C Project Manager
Mitigation Measure BIO-4. To minimize potential impacts to the Smith's blue butterfly, limit the speed of construction vehicles to 5 mph on the access roads.	Include requirement in contract Division 1.	Before project goes out to bid.	PP&C Project Manager
Mitigation Measure BIO-5. To minimize potential impacts to the Smith's blue butterfly or its host plant, in addition to the dust-barrier fencing along the access roads, place highly visible flagging or orange construction fencing along the access road and edges of parking areas. Place clearly visible signs along the access road with the following warning: **SENSITIVE HABITAT – DO NOT ENTER** (or similar text). The Reserve Director shall also be responsible for informing the construction contractor and their employees of the importance of parking or placing materials only in designated areas, to avoid any impacts to buckwheat plants and any Smith's blue butterflies that may be present on the plants.	Include requirement in contract Division 1.	Before project goes out to bid.	PP&C Project Manager and Resident Director
Mitigation Measure BIO-6. To avoid impacts to individual coast range newts, a qualified monitor will check the Gatehouse construction site during rainy periods in the morning before the onset of activities. The monitor will relocate any coast newts to a forested area along Big Creek	Conduct survey and relocate newts as needed.	During construction	PP&C Project Manager (consult with Reserve Director)

Mitigation Measure	Monitoring and Reporting Procedure	Mitigation Timing	Mitigation Responsibility
that is outside of the construction area.			
Mitigation Measure BIO-7: The contractor shall be required to prepare and implement an Erosion and Sediment Control Plan as specified in Appendix D of the Campus Standards. To avoid impacts to the riparian woodland and water environment of Big Creek, implement riparian habitat protection measures prior to and during construction. Measures should include: o Install plastic mesh fencing at the perimeter of the work area to prevent impacts to the adjacent riparian woodland and in-stream habitat, and injury to adjacent native trees. Protective fencing shall be in place prior to ground disturbance and removed once all construction is complete. During construction, no grading, construction or other work shall occur outside the designated limits of work. o No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored outside the designated limits of work. o Implement standard erosion control BMP's to prevent construction materials from entering the creek and riparian woodland, such as perimeter silt fencing, straw wattles, and similar erosion control measures. o All staging of equipment and materials, and refueling of equipment, shall be located in	Include requirement in contract Division 1.	Before project goes out to bid.	PP&C Project Manager

Mitigation Measure	Monitoring and Reporting Procedure	Mitigation Timing	Mitigation Responsibility
existing roadways, driveways, and parking areas. The contractor shall prepare and implement a fuel spill prevention and clean-up plan.			
Mitigation Measure CULT-1A: If an archaeological resource is discovered during construction (whether or not an archaeologist is present), all soil disturbing work within 100 feet of the find shall cease. The Campus shall contact a qualified archaeologist to provide and implement a plan for survey, subsurface investigation as needed to define the extent of the deposit, and assessment of the remainder of the site within the project area to determine whether the resource is significant and would be affected by the project.	Include stop-work requirement in bid documents. In the event of a find, a qualified archaeologist will assess to determine extent and significance and will carry out data recovery.	Before Project goes out to bid, and during construction	PP&C
Mitigation Measure CULT-1B: In the event of a discovery of human bone, suspected human bone, or a burial, the Campus shall ensure that all excavation in the vicinity halts immediately and the area of the find is protected until a qualified archaeologist determines whether the bone is human. If the qualified archaeologist determines the bone is human, or if a qualified archaeologist is not present, the Campus will notify the Santa Cruz County Coroner of the find and protect the find without further disturbance until the Coroner has made a finding relative to PRC 5097 procedures. If it is determined that the find is of Native American origin, the Campus will comply with the provisions of PRC §5097.98 regarding identification and involvement of the Native American Most Likely Descendant (MLD).	Include stop-work requirement in bid documents. Halt excavation and follow notification procedures described in the event of a discovery of suspected human bone.	Before Project goes out to bid, and during construction	PP&C

Mitigation Measure	Monitoring and Reporting Procedure	Mitigation Timing	Mitigation Responsibility
Mitigation Measure HYD-1: The final Project plans and specifications shall include documentation that the Project design meets the requirements of Campus Standards Section 2720, including, as applicable: • Site Design and Performance Requirements: design strategies such as directing runoff from roofs, sidewalks, walkways, and/or patios onto vegetated areas safely away from building foundations and footings; directing roof runoff into cisterns or rain barrels for reuse; constructing driveways, uncovered parking lots, walkways, and patios with permeable surfaces • Water Quality Treatment: Treatment of runoff using the following onsite measures, listed in order of preference: a) Low Impact Development (LID) systems (harvesting and use, infiltration, and evapotranspiration Storm Water Control Measures); b) biofiltration treatment systems that meet specified design parameters; or 3) non-retention-based treatment systems. • Runoff Retention: Prevention of offsite discharge from events up to the 85th percentile 24-hour rainfall event, using storage, rainwater harvesting, infiltration, and/or evapotranspiration.	Review documentation provided by consultant.	Before Project goes out to bid.	PP&C

MARSHAL BACKLAR
780 Malcolm Avenue
Los Angeles CA 90024
424 273-1024
mbacklar@gmail.com

January 27, 2016

To: **The California Coastal Commission and its Members**
Re: Agenda Item No. **Th25a**

2016 - THE YEAR TO SAVE BIG CREEK

INTRODUCTION

The Big Creek Natural Reserve is imperiled. The University of California's construction and expansion proposal, If allowed to proceed, will negatively impact this Big Sur coastal land for the public, and this unique c. 4,000 acre parcel of land itself. Not only will this project corrupt this precious piece of coastal land, and be development inducing, but, in addition, it will contradict the University's first responsibility and commitment - **to protect and preserve this invaluable reserve and resource.**

In 1977, as an original Big Creek shareholder, I along with the other original shareholders made a gift (with nominal remuneration) to The Nature Conservancy for their acquisition of Big Creek, so that The Nature Conservancy would in turn transfer this land to the University of California. This transfer was predicated on the University assuming the responsibility and day to day management of this land with the obligation to maintain it in its natural, pristine state. This was the motivation and understanding of the Big Creek shareholders, as benefactors and guardians, and in turn Nature Conservancy's understanding and motivation, as benefactor and guardian, in transferring the land to the University of California.

The Nature Conservancy's agreement with the University of California states:

"Big Creek Ranch shall be managed and used exclusively as a natural reserve for the preservation of its ecological integrity and diversity and for educational and scientific purposes."

It is not by chance that **"natural reserve"** and **"preservation"** precede "educational and scientific purposes".

A **Reserve** is to **Preserve**. The University's more than doubling its footprint with new buildings, support equipment, and clearances on this Reserve does not preserve. Destroying nature in the name of education is a subtraction, not an addition to, this unique location and experience.

Therefore, let us not be confused by the UC's compliance with all the building and other codes as a validation or justification to destroy part of this irreplaceable Reserve land through more buildings and construction.It is also about a special experience in nature, removed from civilized development along other parts of the coast and UC campuses.

HISTORY

I am quite clear about our original agreement. In 1977 the Corporation, Big Creek, and its individual shareholders, were guaranteed that this "preservation" would be the dominant, overriding principle and philosophy for the future of Big Creek.

Nevertheless, in 1979, soon after the University received the gift of the Big Creek Reserve, the University proposed the development of a large Visitor Center, not visible from Highway 1, but over 2,000 square feet, at the confluence of Devil's Creek and Big Creek, because they had an individual's money. That project was defeated by the public and the Coastal Commission. Otherwise, if the University had been permitted to proceed with this precedent setting project, there would have been irreparable damage to the Reserve. We should never forget that when the University received this unique gift in 1977, there was no expression or interest by them in a Master Plan, or, to create a **mini-campus** by building and developing more buildings than currently existed in this nature Reserve.

In addition, subsequently, at Whale Point, the University constructed 3 buildings without permits, over two thousand square feet, on 3 plus acres; plus a clearance for solar panels positioned on the edge of a coastal bluff overlooking the coast.

Therefore, the reserve manager's, Mark Readdie's, statement in an article in the "Monterey Herald" on June 1, 2015 that: "We're using a property (Big Creek) that was donated almost 40 years ago, with facilities that were here at that time" is simply false.

And, now, the University wants to more than double their footprint with new buildings and new clearings.

When is enough, enough? And when is a convenience put forth as a need and necessity because it fulfills the wishes of the current University management team, who, also, have the funds to build and expand their footprint - too much? Their proposal is in direct contradiction of the intent and objective of the donors' gift to the University - to

educate and do research on this land **as is**; not to meet the interests and desires of each new management team, empowered by new sources of funding.

In sum, this land was acquired first and foremost for its preservation as a **'Natural Reserve'**.

IMPORTANT SUPPORTIVE QUOTATIONS

- From the University's Mission, Guiding Principle and Vision Statement:

"4. The reserve is not a park designed for human comfort and safety but a wilderness reserve in which humans are intruders."

- The University's expansion proposal is in direct contradiction to its own mission statement which states:

"The intact ecosystems and the aesthetic qualities of the Reserve will be fully protected for future generations of teachers and researchers."

- And,

"The guiding principle of the Landels-Hill Big Creek Reserve is to contribute to the understanding of ecological processes as they occur in intact, protected natural systems"…

- In addition, Kenneth S. Norris, the past Manager of The Big Creek Reserve, stated in his 1983 letter to The Devil's Creek owners and donors, the University's obligation:

"to conduct all educational and scientific activities on any part of the property so as not to degrade the integrity of the existing ecosystems."

- In the Monterey County's Big Sur Coast General Plan re Philosophy and Goals, it states:

"Land use planning and management policies should be directed towards maintenance and restoration of Big Sur's remaining rural and wilderness character."

"…"preservation of the land (Big Sur) is the highest priority"…

SOME POINTS RE THE UNIVERSITY'S PROPOSAL

- The following quote is from the University's "Project Description" re Big Creek

"An ecological reserve"

"It (Big Creek) serves the University as a natural laboratory and outdoor classroom…which serves the public through protection of coastal habitats."

This statement is quite different from the reality of the University's desire to more than double its existing footprint with new buildings and clearings, and create a **mini-campus** at Big Creek.

- The University has been quite conscientious in addressing all of the necessary building code requirements; and the issues of fire, water, power, seismic rules, etc.. But, these procedures and compliances completely miss the point.

Also, the University has covered the threat and impact to plants and all other growth, and the threats to animal life, with an enormous amount of self-evaluations of reducing the impacts to: " Less than significant level", or, "Less than significant with project level mitigation incorporated", "Mitigated negative declaration".

What about the impact on the human species, not only visually, but, also as a unique experience in mother nature; without further corrupting the experience with more buildings, cars, and equipment from the outside world?

So, suppose we add up all of the "less than significants", and "mitigated less than significants", does that give us some "significants"? And, if not, certainly "less than significant," with or without, "Mitigated" has a negative impact on the Reserve.

- In addition to more than doubling the existing footprint of buildings, the proposal includes — paved walkways - an additional 8 parking spaces - clearings and installation of solar panels, water storage tanks clearings and equipment - waste water equipment - generator sheds - electrical lines - latrines, etc.. So, much more than just the additional square footage of new buildings will be negatively impacting the Reserve.

- It is called the "University Improvement Project". But nature does not need to be improved upon. The comfort seeking, personal agenda prioritization of civilized man is driven to destroy nature for his/her own objectives, rather than adjust and adapt to nature. So which will it be? The University wants to destroy nature to meet its

interests. But we and they cannot have it both ways - **destroying nature and protecting nature.**

FACTS - THE UNIVERSITY'S PROPOSAL RE: **1.** COYOTE CREEK/SPRINGS & **2.** THE ENTRANCE/GATEHOUSE AREA

In the beginning, by entering into the agreement, the University and its representatives saw what they were getting into, and understood their responsibility and commitment. At that time they did not express any interest or desire to change or develop the Reserve gift.

To date, research and education have been successful. Adding more buildings and increasing the University's footprint, does not increase its inherent value and success. Two of three important research projects were initiated in the early 2000's, and one several years ago. They are continuing successfully.

This University's initiative is to create a **mini-campus** at Big Creek - with enclosed classrooms, enclosed garages, etc. disregarding the fact that UCSC has a campus just a few hours drive, where there are complete facilities for education. The distinction that must be drawn is that the University wishes that Nature becomes modified to accommodate its wishes vs. the University making the necessary adjustments to Nature, **for Nature to thrive and flourish without its destruction and modification.**

One of the key reasons the University puts forward for new construction is that some of the current buildings have aged and are in need of repair. Then why doesn't the University refurbish and renovate the existing structures, rather than build new structures?

Another University key reason is the need for enclosed classrooms. The result of this position, is the creation of a mini-campus at Big Creek. This was never the intention or plan. The existing main campus at Santa Cruz is where the teaching and research continues after the Big Creek experience. In addition, there is existing lodging where researchers can and do stay. The responsibility is on the University to use and modify their education preferences accordingly, as they have been doing for nearly 40 years.

Importantly, the "Key Policy" of the Big Sur LUP states:

"preservation of the natural environment is the highest priority"

In reviewing the University's proposal, which includes their own self-evaluation, the University is proposing new construction/development in two areas of the Reserve.

One of the areas, **Coyote Creek/Springs**, is an undisturbed, pristine area that has never been built upon. The fact that the University now parks equipment at this location since they cleared the area is also very questionable.

1. The development of **Coyote Creek/Springs** will dramatically alter the landscape in a remote part of the Reserve and fundamentally change the role of the Reserve Manager.

- The Coyote Creek proposal is to "develop a complex of 3 new structures" of approximately 1330 sq ft, 1050 sq ft and 500 sq ft. (I believe the University has modified the square footage of each structure to: 1,158 sq ft, 662 sq ft, 437 sq ft,), plus paving and additional clearing; including an area to park cars, to install solar panels, water tanks, etc.. Is building a new bunkhouse, a new manager's house, an equipment storage building, facilities for water and power, and clearing beyond construction, a good example of sound environmental practices at Big Creek and Big Sur? Currently, there are other buildings in other areas in Big Creek that serve as housing.

- Also, the University plans to develop the Coyote Creek water source. This untouched spring is what the University is supposed to protect, not develop for a housing project.

- It should be noted that in another area of Coyote Creek, there is the Packard house which is currently being leased by the University for the Manager's residence. It is my understanding that this building can continue to be leased by the University. Wouldn't this be a better solution than to build 3 new structures to include a Manager's residence in an undeveloped area of Coyote Creek?

Historically, the Manager's house has been at the main gate. In the past, the responsibilities of this position require the manager's presence at the entrance and exit to the Reserve.

2. **At the Entrance/Gatehouse area**, the footprint would be significantly increased by adding a new building of c. 1,537 sq ft. Additional equipment storage, additional parking and additional clearing also must be an additional square footage issue.

- The original University's justification for relocating the Reserve Manager's house was because of the danger of falling rocks from the hill in the area. That safety issue has been solved by the installation of a protective berm. So, although this issue has been successfully resolved, the management team still wishes to build a new house for the manager at a different location on the Reserve at Coyote Creek. Now, it is not about safety. It is about desire. Three new buildings in an undeveloped area are proposed which also increases human traffic.

- At present, in the Gatehouse area, there is the original manager's house of 902 sq ft., a library of 402 sq ft., 2 sheds, and a parking lot.

- In addition, a little beyond the Gatehouse, and across Big Creek, there is a cleared camping ground - one of three in Big Creek. Also a yurt and latrine are in the area.

- The proposed classroom would be "located within 150 feet of Big Creek but all disturbance would be outside the top of the bank." So, one would experience a c. 1,500 plus square foot building contiguous to this natural, beautiful creek.

The total square footage of just additional buildings would be nearly 4,000 sq ft. This excludes additional paving, clearing for cars, equipment, panels, tanks, latrines etc..

These two developments more than double **the footprin**t, the square footage of buildings and clearance that already exist at Big Creek.

ADDITIONAL IMPORTANT FACTS & WHALE POINT

In addition, at **Whale Point**, on 3 acres, the University has already constructed 3 buildings; one a residence of 1,043 sq ft that can sleep up to ten, a workshop of 348 sq ft, and a residence for the Reserve steward of c. 1,000 sq. ft.

The following excerpts from the University's Proposal should be noted.

- **"Based on information presented in this Initial Study, the project does have a potential to adversely affect wildlife on the habitat upon which wildlife depend. Therefore, a filing fee will be paid."**

- So, the University simply sweeps away the negative impact of the problem of adversely affecting wildlife and plant life on the Reserve by simply paying money to the powers that be.

- " The University has not prepared a long range Development Plan for the Big Creek Reserve."

- " Potential significant environmental impact not adequately addressed in initial report."

- (additional)" pavement would be provided as necessary to provide accessible paths of travel within the site."

Also, it should be noted that there would be the removal of pines and coastal scrub.

The issues I am raising are quite apart from any individuals or their ideas and intentions. However, the University is a large institution with its own agenda, priorities and objectives. Whether it be in the year 2016, or 2020, 2030 … some of its objectives and priorities may be in direct contradiction to its agreement with the benefactors, and therefore in contradiction to the integrity of this land itself, and to Big Sur.

The University has a commitment to the land, and to the benefactors, who gave over this land with a specific understanding and agreement. The main issue is about my, and hopefully our, overriding principle of protecting Big Creek from further development. And, whether or not, that development is in the noble name of 'research' - 'students' - 'special visitors' - 'greater community' - 'education' - 'University', it is still 'development' which erodes the integrity of this 'Natural Reserve' and Big Sur, and is in breach of the University's agreement.

Education is indispensable for a successful society. But, this does not mean that a university has a right, or should be given permission, to destroy nature in a natural reserve in the name of education. Each improvement diminishes one's appreciation for, and experience of, Big Creek.

And, if some of the existing structures are in need of repairs, then the University should make the repairs, but not use this as an excuse for further construction.

We must put on the brakes now. Because with each new management team the Reserve is and will continue to be diminished and compromised as a unique, pristine and precious coastal land that must never be compromised.

MISLEADING STATEMENTS IN THE 6/1/15 "MONTEREY HERALD" ARTICLE

"The reserve is the most beautiful part of campus" - Erika Zavaleta, Environmental Studies Professor

The reserve is not part of the UCSC campus. And, this Reserve is not a campus, and should not be described as "a part of campus". Her mindset is very disturbing. By definition, a 'campus' is: "the land on which a college or university and related institutional buildings are situated. "A modern campus is a collection of buildings that belong to a given institution." It is not, and should not be thought of or described as a "part of campus". By their statements, the University's representatives want to turn this

Reserve into a mini-campus. This is completely in contradiction to the preservation of this Reserve.

And, she also states:

"It's rare at the scale of the world. So it's just a unique diverse place."

So, Professor, more buildings and development make it more or less unique? More or less natural? Perhaps more of a campus and less of a reserve.

"Nature is the best classroom to teach ecology, but serious science requires indoor teaching." - Erika Zavaleta

Yes, and that is why we have college and university campuses that have buildings where the students are taught. The campus of UCSC is only a few hour drive from the Reserve.

"We're using property that was donated almost 40 years ago, with facilities that were here at that time…when its just a private ranch rather than a research station." - Mark Readdie, Reserve Director

False. On the Reserve, at Whale Point, in the 1980's and 90's the University built 3 buildings, close to 3,000 square feet, to include a building to lodge up to 10 researchers with a meeting room and kitchen, an additional house, an enclosed shed, and a cleared area overlooking the coast for solar panels.

In addition, for almost 40 years the University has been conducting successful research and education with the existing facilities, including camping sites. If any of the existing structures are in need of refurbishment or renovation, then that should be the University's priority, not of more than doubling their footprint on the land.

"When researchers visit they either have to camp or drive 30 minutes through an ecological sensitive area to reach a cabin." - Mark Readdie

- So it is OK to destroy and build on and in ecological sensitive areas and increase the human population of said areas, but not to occasionally drive through the areas, which the temporary residents and visitors would do to said sites?

CONCLUSION

The University is proposing a development which contradicts its core responsibility. For over 38 years the University has successfully carried out research and education on this Reserve. However, now, opportunism seems to rule the day. The University has funding for this expansion so they are motivated to spend the money, and their first and foremost responsibility, commitment and obligation - to preserve Big Creek in its natural state - is subordinated. **Trying to expand construction and increase their footprint does not change the inherent value of research and education. It diminishes it, and, robs future generations of experiencing a unique, precious location on the Big Sur Coast.**

The future of Big Creek is now. Do we and future generations wish to wake up in ten, or twenty, or thirty years from now when it is too late; and realize it has changed, through human development and human traffic?

But this is not just about me, the other original Big Creek shareholders, The Nature Conservancy, or Save the Redwoods. It is about the public, Big Sur and the future - to protect and sustain the land as a common heritage for all humankind. It is about, first and foremost, the preservation, not further contamination through development, of this unique and precious Reserve. The University is a great institution. It has an **obligation and priority to protect this Natural Reserve.**

And, beyond the University, we as a society have an historic choice to make and precedent to set with Big Creek, and the Big Sur Coast.

Should we set a precedent that allows the continuation of expansion and construction in one of the last unique areas of the Big Sur Coast, which further degrades the natural beauty, environment, and ecology of the area?

Or, should we stand up to protect and sustain this magnificent place? We cannot have both. Our choice in 2016 will tell us a lot about what Big Sur and Big Creeks future will be. And, a lot about who we are. Let us hope we choose wisely.

I simply want to guarantee that this precious land exists in perpetuity in all its natural, pure beauty. Please help. It represents your personal legacy - to Big Sur and to California.

Sincerely,

Marshal Backlar