



## Staff Report to the Zoning Administrator

Application Number: **07-0382**

**Applicant:** Powers Land Planning c/o Ron Powers

**Agenda Date:** November 7, 2008

**Owner:** Roy & Penelope Lave

**Agenda Item #:** 6

**APN:** 052-321-20

**Time:** After 10:00 a.m.

**Project Description:** Proposal to construct a 2,900 square foot, three story single family residence in Pajaro Dunes, includes grading of approximately 100 cubic yards.

**Location:** Property located at 109 Willet Circle at about 300 feet west of the intersection with Cormorant Way (in Pajaro Dunes), in Watsonville, California.

**Supervisory District:** Second District (District Supervisor: Ellen Pirie)

**Permits Required:** Coastal Development Permit, Preliminary Grading Approval

**Technical Reviews:** Biotic Assessment and Soils Report Review

### Staff Recommendation:

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- Approval of Application 07-0382, based on the attached findings and conditions.

### Exhibits

- |   |    |   |
|---|----|---|
| A. Project plans  |    | dated 9/08/08   |
| B. Findings   | L. | Excerpts of Discussion, Conclusions and Recommendation from                                   |
| C. Conditions   |    | Geotechnical Investigation prepared   |
| D. Categorical Exemption (CEQA determination)                   |    | by Haro, Kasunich and Associates, Inc., dated January 2008 and July 15, 2008 (report on file) |
| E. Assessor's parcel map  |    |   |
| F. Zoning & General Plan map                                    |    |   |
| G. Location Map   | M. | Letter from Pajaro Dunes Association, dated 6/19/07   |
| H. Photo-simulation   |    |   |
| I. Printout, Discretionary application comments, dated 10/01/08 | N. | Biotic Assessment letter, dated August 13, 2007   |
| J. Urban Designer comments, dated 7/31/07                       | O. | Biotic Survey prepared by Biotic Resources Group, dated July 19, 2007                         |
| K. Geotechnical Report review letter,                           |    |   |

County of Santa Cruz Planning Department  
701 Ocean Street, 4<sup>th</sup> Floor, Santa Cruz CA 95060

P. Comments & Correspondence

**Parcel Information**

Parcel Size: 9,757 square feet  
Existing Land Use - Parcel: Vacant  
Existing Land Use - Surrounding: Residential  
Project Access: Willet Circle to walkway  
Planning Area: San Andreas  
Land Use Designation: R-UL (Urban Low Density Residential)  
Zone District: SU (Special Use)  
Coastal Zone: ☒ Inside ☐ Outside  
Appealable to Calif. Coastal Comm. ☒ Yes ☐ No

**Environmental Information**

Geologic Hazards: Flood Zone X  
Soils: 128 Dune Land  
Fire Hazard: Not a mapped constraint  
Slopes: N/A  
Env. Sen. Habitat: Mapped Biotic (Monterey Spineflower and black legless lizard)  
Grading: Grading proposed, less than 1,000 cubic yards  
Tree Removal: No trees proposed to be removed  
Scenic: Mapped resource  
Drainage: Existing drainage adequate  
Archeology: Not mapped/no physical evidence on site

**Services Information**

Urban/Rural Services Line: ☒ Inside ☐ Outside  
Water Supply: City of Watsonville  
Sewage Disposal: City of Watsonville  
Fire District: Santa Cruz County/CDF  
Drainage District: Zone 7

**History**

The property is a vacant parcel located within the Pajaro Dunes Planned Unit Development (74-400), which supercedes Use Permit Numbers 2331-U, 2550-U, 3134-U, 3301-U with revisions, and has delineated setbacks and lot coverage within the approved 50 foot by 50 foot building envelope.

**Project Setting**

The project is located on the west side of Rio Boca Road in the Pajaro Dunes Development at Lot 109 Willet Circle. The lot is a sand dune with varying topography that is located between a line of existing development on the west and Rio Boca Road on the east. The property is

surrounded by open space. Access to the home is by two pedestrian walkways, one from the north and the other from the east within 15 foot utility and access easements.

### **Zoning & General Plan Consistency**

The subject property is a 9,757 square foot lot in the Pajaro Dunes Planned Unit Development. The property is zoned Special Use (SU), a designation which allows residential uses. The proposed Single Family Dwelling, is a principal permitted use within the zone district and the project is consistent with the site's (R-UL) Urban Low Density Residential General Plan designation. The project is also consistent with the approved Permit 74-400 PUD, which supercedes Use Permit Numbers 2331-U, 2550-U, 3134-U, 3301-U with revisions, in meeting the required setbacks and lot coverage. Parcels are restricted to a 50 foot by 50 foot building envelope that can be completely built out and have a maximum allowed height of 35 feet.

### **Local Coastal Program Consistency**

The proposed Single Family Dwelling is in conformance with the County's certified Local Coastal Program, in that the structure is sited and designed to be visually compatible, in scale with, and integrated with the character of the surrounding neighborhood. Developed parcels in the area contain two and three story single family dwellings. Size and architectural styles vary widely in the area, and the design submitted is not inconsistent with the existing range of large and boxy homes with wood siding that is stained or painted in grey, tan, or blue tones. The project site is located between the shoreline and the first public road and is not identified as a priority acquisition site in the County's Local Coastal Program. Consequently, the proposed project will not interfere with public access to the beach, ocean, or other nearby body of water as there is public access through nearby Palm Beach State Park.

### **Geotechnical Engineering Report Review**

The project is located between the wave run hazard zone and the Pajaro River in Federal Emergency Management Agency (FEMA) X Zone. An existing sea wall provides coastal erosion protection, however there is concern that the seawall could deteriorate rapidly if subjected to the intensity of historic storms. The County Geologist reviewed and accepted the geotechnical engineering report on September 8, 2008 (see Exhibit K) assessing possible hazards. Due to the location of the property within the X Zone, no base flood elevation (BFE) is designated, however one is necessary for the construction of this property. Haro, Kasunich and Associates designated a BFE as 20 mean sea level for the site. They have designed the foundations to mitigate risks from liquefaction and seismic shaking but have declined to implement the full range of the recommendations of the County Geologist (Exhibit K). The proposal has been conditioned to require an engineered grading plan to meet recommendations of the technical reports, and record a geologic hazard declaration. In addition the County Geologist has recommended the lowest floor of the home should be designed to withstand wave action forces, owners should participate in the Geologic Hazards Abatement District and encourage the augmentation of the seawall to provide increased coastal erosion protection and that the lowest floor should be elevated to compensate for any uncertainty in the calculation of the BFE.

### Biotic Assessment

The subject property is mapped as biotic and an assessment was required due to the presence of the Monterey spineflower and the black legless lizard. The biotic assessment prepared by Biotic Resources Group and was accepted, with the conditions given in the Biotic Assessment letter (Exhibit N), specifically, an "Invasive Plant Eradication Plan" and a "Coastal Dune Restoration Plan" must be submitted for review and approval prior to building permit issuance. In addition, conditions of approval have been included as part of this permit that require a qualified botanist, familiar with the site and the Monterey spineflower, be present for all vegetation removal and ensure that protective fencing be in place prior to site disturbance, and a qualified wildlife biologist must also be present during grading and land clearing activities to handle and relocate any black legless lizards that may be present. A New Zealand Christmas tree was identified in the landscape plan, however the permit has been conditioned to substitute it with a Monterey Cypress of 15 gallon size or larger.

### **Design Review**

The proposed Single Family Dwelling complies with the requirements of the County Design Review Ordinance, in that the proposed project will incorporate site and architectural design features such as horizontal siding and stained hard shingles in natural wood tones, and angled roofs that will be constructed within the approved 50 foot by 50 foot building envelope. The Urban Designer has found the design and visual impact to the public beach viewshed to be in conformance with County Code 13.20.130.

The project was also reviewed by the Pajaro Dunes Association Design Committee and a letter has been attached (Exhibit M).

### **Conclusion**

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

### **Staff Recommendation**

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- **APPROVAL** of Application Number **07-0382**, based on the attached findings and conditions.

**Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.**

**The County Code and General Plan, as well as hearing agendas and additional information are available online at: [www.co.santa-cruz.ca.us](http://www.co.santa-cruz.ca.us)**

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## **Coastal Development Permit Findings**

1. That the project is a use allowed in one of the basic zone districts, other than the Special Use (SU) district, listed in section 13.10.170(d) as consistent with the General Plan and Local Coastal Program LUP designation.

This finding can be made, in that the property is zoned SU (Special Use), a designation which allows residential uses. The proposed single family dwelling, is a principal permitted use within the zone district, consistent with the site's (R-UL) Urban Low Density Residential General Plan designation.

2. That the project does not conflict with any existing easement or development restrictions such as public access, utility, or open space easements.

This finding can be made, in that the proposal does not conflict with any existing easement or development restriction such as public access or utility. Coastal access for the public is gained from Palm Beach State Park, adjacent to Pajaro Dunes. The proposed single family residence will be within an approved building envelope that does not conflict with any easements or development restrictions.

3. That the project is consistent with the design criteria and special use standards and conditions of this chapter pursuant to section 13.20.130 et seq.

This finding can be made, in that the development is consistent with the surrounding neighborhood in terms of architectural style; surrounding homes are two to three stories, wood siding with many decks; the colors shall be natural in appearance and complementary to the site; the development site is on a sand dune within the Pajaro Dunes development. The single family residence was reviewed by the County Urban Designer (Exhibit J) and found to be substantially consistent with County Code.

4. That the project conforms with the public access, recreation, and visitor-serving policies, standards and maps of the General Plan and Local Coastal Program land use plan, specifically Chapter 2: figure 2.5 and Chapter 7, and, as to any development between and nearest public road and the sea or the shoreline of any body of water located within the coastal zone, such development is in conformity with the public access and public recreation policies of Chapter 3 of the Coastal Act commencing with section 30200.

This finding can be made, in that the project site is located between the shoreline and the first public road. Consequently, the Single Family Dwelling will not interfere with public access to the beach, ocean, or any nearby body of water as public access is gained through Palm Beach State Park in the vicinity. Further, the project site is not identified as a priority acquisition site in the County Local Coastal Program.

5. That the proposed development is in conformity with the certified local coastal program.

This finding can be made, in that the single family residence is sited and designed to be visually compatible, in scale with, and integrated with the character of the existing home and surrounding

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neighborhood. The Pajaro Dunes Development (74-400 PUD) designated building envelopes, of which many have already been developed with single family dwellings, therefore the proposed single family dwelling complies with General Plan/Policy 5.10.7 which allows for infill development such as the proposed dwelling, when visible from a public beach when it is compatible with the pattern of existing development. Additionally, residential uses are allowed uses in the SU (Special Use) zone district of the area, as well as the General Plan and Local Coastal Program land use designation. Size and architectural styles vary widely in the area, and the design submitted is not inconsistent with the existing range of three story homes with wood siding and angled roofs. In accordance with General Plan/LCP policies 5.1.6 and 5.1.7 the proposed dwelling within a Sensitive Habitat will be constructed within an approved 50' by 50' building envelope and the permit has been conditioned to include an Invasive Plant Eradication Plan and Coastal Dune Restoration Plan.

## **Development Permit Findings**

1. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.

This finding can be made, in that the project is located in an area designated for residential uses and is not encumbered by physical constraints to development. Construction will comply with prevailing building technology, the California Building Code, and the County Building ordinance to insure the optimum in safety and the conservation of energy and resources. The proposed single family residence will not deprive adjacent properties or the neighborhood of light, air, or open space, in that the structure meets all current setbacks as established by Planned Unit Development (PUD) 74-400 and will ensure access to light, air, and open space in the neighborhood.

2. That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding can be made, in that the proposed location of the addition and remodel to the existing Single Family Dwelling and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the SU (Special Use) zone district in that the primary use of the property will be one Single Family Dwelling that meets all current site standards for the zone district as determined by the Planned Unit Development (PUD) 74-400.

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

This finding can be made, in that the proposed residential use is consistent with the use and density requirements specified for the Urban Low Density Residential (R-UL) land use designation in the County General Plan.

The proposed Single Family Dwelling will not adversely impact the light, solar opportunities, air, and/or open space available to other structures or properties, and meets all current site and development standards for the zone district as specified in Policy 8.1.3 (Residential Site and Development Standards Ordinance), in that the proposed residence will not adversely shade adjacent properties, and will meet current setbacks for the zone district as determined by 74-400 PUD that ensure access to light, air, and open space in the neighborhood.

The proposed Single Family Dwelling will not be improperly proportioned to the parcel size or the character of the neighborhood as specified in General Plan Policy 8.6.1 (Maintaining a Relationship Between Structure and Parcel Sizes), in that the proposed Single Family Dwelling will comply with the site standards for the SU zone district and design that could be approved on any similarly sized lot in the vicinity.



A specific plan has not been adopted for this portion of the County.

4. That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made, in that the proposed Single Family Dwelling is to be constructed on an existing undeveloped lot. The expected level of traffic generated by the proposed project is anticipated to be only one peak trip per day, such an increase will not adversely impact existing roads and intersections in the surrounding area.

5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This finding can be made, in that the proposed single family dwelling will complement and harmonize with the existing development. It is located in a neighborhood containing a variety of architectural styles, that include three stories, wood siding and angled roofs and the proposed Single Family Dwelling is consistent with the land use intensity and density of the neighborhood.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the proposed Single Family Dwelling will be of an appropriate scale and type of design that will enhance the aesthetic qualities of the surrounding properties and will not reduce or visually impact available open space in the surrounding area. The proposed residence is within the approved 50 by 50 foot building envelope and will not be taller than the allowed height of 35 feet. The materials proposed are cedar and doug fir stained siding and shingles that will blend with the existing environment.

## Conditions of Approval

Exhibit A: Project plans, seven sheets, prepared by Mogavero Notestine Associates, dated 7/15/07.  
Project plans, three sheets, prepared by Steve McGuirk, dated 11/7/05.  
Project plans, five sheets, prepared by Dunbar & Craig, dated May 2004, January 2002 and February 2008.

- I. This permit authorizes the construction of a three story Single Family Dwelling within the approved 50' by 50' building envelope. This approval does not confer legal status on any existing structure(s) or existing use(s) on the subject property that are not specifically authorized by this permit. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:
  - A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.
  - B. Obtain a Building Permit from the Santa Cruz County Building Official.
    1. Any outstanding balance due to the Planning Department must be paid prior to making a Building Permit application. Applications for Building Permits will not be accepted or processed while there is an outstanding balance due.
  - C. Obtain a Grading Permit from the Santa Cruz County Building Official.
- II. Prior to issuance of a Building Permit the applicant/owner shall:
  - A. Submit proof that these conditions have been recorded in the official records of the County of Santa Cruz (Office of the County Recorder).
  - B. Submit final architectural plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "A" on file with the Planning Department. Any changes from the approved Exhibit "A" for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the proposed development. The final plans shall include the following additional information:
    1. One elevation shall indicate materials and colors as they were approved by this Discretionary Application. If specific materials and colors have not been approved with this Discretionary Application, in addition to showing the materials and colors on the elevation, the applicant shall supply a color and material board in 8 1/2" x 11" format for Planning Department review and approval

2. Detailed engineered grading and drainage plans.
  3. Erosion and sediment control plan.
  4. The building plans must include a roof plan and a surveyed contour map of the ground surface, superimposed and extended to allow height measurement of all features. Spot elevations shall be provided at points on the structure that have the greatest difference between ground surface and the highest portion of the structure above. This requirement is in addition to the standard requirement of detailed elevations and cross-sections and the topography of the project site which clearly depict the total height of the proposed structure. Maximum height is 35-feet.
  5. Substitute a Monterey Cypress tree for the New Zealand Christmas tree identified on "Sheet L2". Tree must be 15 gallon or larger.
- C. Submit four copies of the approved Discretionary Permit with the Conditions of Approval attached. The Conditions of Approval shall be recorded prior to submittal, if applicable.
- D. Submit an Invasive Plant Eradication Plan by a qualified botanist or biologist for review and approval. The plan shall indicate the area to be cleared, the timing and technique for removal, and include plan for ongoing maintenance to keep the area free of non-native, invasive species.
- E. Submit a Coastal Dune Restoration Plan by a qualified botanist or biologist for review and approval. The plan shall indicate the area to be restored and shall include plan for ongoing monitoring and maintenance for at least three years, or until success criteria defined in the restoration plan are met.
- F. Meet all requirements of and pay Zone 7 drainage fees to the County Department of Public Works, Drainage. Drainage fees will be assessed on the net increase in impervious area.
- G. Meet all requirements and pay any applicable plan check fee of the Santa Cruz County Fire Protection District.
- H. Pay the current fees for Parks and Child Care mitigation for three bedroom(s). Currently, these fees are, respectively, \$1,000 and \$109 per bedroom.
- I. Pay the current fees for Roadside and Transportation improvements for one unit. Currently, these fees are, respectively, \$1,270 and \$3,810 per unit.
- J. Submit a written statement signed by an authorized representative of the school district in which the project is located confirming payment in full of all applicable developer fees and other requirements lawfully imposed by the school district.

- K. Complete and record a Declaration of Geologic Hazards. **You may not alter the wording of this declaration.** Follow the instructions to record and return the form to Environmental Planning.
- III. All construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the applicant/owner must meet the following conditions:
- A. All site improvements shown on the final approved Building Permit plans shall be installed.
  - B. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.
  - C. The project must comply with all recommendations of the approved soils reports.
  - D. The project geotechnical engineer, or a similar qualified testing laboratory, must be employed to provide inspection and test all the fill material placed on the site. The relative compaction tests location must be noted on a copy of the approved grading plans, and all related test data must be included in a table with a reference number that correlates the table data to the test location indicated on the grading plan. This testing includes the backfill to any retaining walls.
  - E. A letter from a qualified botanist, familiar with the site and the location of the Monterey spineflower on site, stating that she/he shall be present for all vegetation removal and shall ensure protective fencing is in place prior to disturbance.
  - F. A letter from a qualified wildlife biologist, stating that she/he shall be present during all grading and land clearing activities to handle and relocate any black legless lizards that may be encountered. An information sheet shall be provided to all workers on site that describes the listed species and what to do if any are encountered.
  - G. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.100, shall be observed.
- IV. Operational Conditions
- A. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the

- County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.
- B. A yearly vegetation restoration monitoring report shall be submitted to the Deputy Environmental Coordinator in Environmental Planning for review and approval.
- V. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, its officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.
- A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.
- B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:
1. COUNTY bears its own attorney's fees and costs; and
  2. COUNTY defends the action in good faith.
- C. Settlement. The Development Approval Holder shall not be required to pay or perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.
- D. Successors Bound. "Development Approval Holder" shall include the applicant and the successor(s) in interest, transferee(s), and assign(s) of the applicant.

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Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

**Please note: This permit expires two years from the effective date listed below unless a building permit (or permits) is obtained for the primary structure described in the development permit (does not include demolition, temporary power pole or other site preparation permits, or accessory structures unless these are the primary subject of the**

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**development permit). Failure to exercise the building permit and to complete all of the construction under the building permit, resulting in the expiration of the building permit, will void the development permit, unless there are special circumstances as determined by the Planning Director.**

Approval Date: \_\_\_\_\_

Effective Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

\_\_\_\_\_  
Don Bussey  
Deputy Zoning Administrator

\_\_\_\_\_  
Maria Perez  
Project Planner

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Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

# CALIFORNIA ENVIRONMENTAL QUALITY ACT

## NOTICE OF EXEMPTION

The Santa Cruz County Planning Department has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 07-0382  
Assessor Parcel Number: 052-321-20  
Project Location: 109 Willit Circle

**Project Description:** Proposal to construct a 2,900 square foot, three story single family dwelling.

**Person or Agency Proposing Project:** Powers Land Planning c/o Ron Powers

**Contact Phone Number:** 831-426-1663

- A. ☐ The proposed activity is not a project under CEQA Guidelines Section 15378.  
B. ☐ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).  
C. ☐ **Ministerial Project** involving only the use of fixed standards or objective measurements without personal judgment.  
D. ☐ **Statutory Exemption** other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).

Specify type:

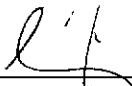
E. ☒ **Categorical Exemption**

Specify type: Class 3 -New Construction or Conversion of Small Structures (Section 15303)

F. **Reasons why the project is exempt:**

Construction of a single family residence.

In addition, none of the conditions described in Section 15300.2 apply to this project.

  
\_\_\_\_\_  
Maria Perez, Project Planner

Date: 10/1/00





**C O U N T Y   O F   S A N T A   C R U Z**  
**D I S C R E T I O N A R Y   A P P L I C A T I O N   C O M M E N T S**

**Project Planner:** Maria Perez  
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**Date:** October 1, 2008  
**Time:** 10:34:10  
**Page:** 1

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**Environmental Planning Completeness Comments**

===== REVIEW ON AUGUST 13, 2007 BY ROBERT S LOVELAND =====

1. A "Geological Hazards Assessment" (GHA) must be completed for this project. Please submit three copies of your topographic map ("Sheet 1" completed by Dunbar & Craig) and "Sheet A1" (completed by Mogavero Notestine Associates) to the Zoning Counter of the Planning Department and pay the required fees.

NOTE: Upon completion of the GHA, technical reports (geotechnical, geologic) may be required for submittal prior to deeming this application complete.

2. According to the completed biotic assessment, Monterey spineflower was identified. Please identify those areas on the grading plan. I highly recommend that the grading and drainage plan be completed by a licensed civil engineer. The grading work proposed appears to be excessive. Please look at ways to decrease site disturbance. If a mat type foundation is proposed for this project please include overexcavation/recompaction quantities. ===== UPDATED ON MARCH 26, 2008 BY ROBERT S LOVELAND =====

Comment 1 above: The soils report submitted (Haro, Kasunich & Associates, dated 1/08) has been reviewed but not accepted by the County Geologist. Please refer to the County Geologist's letter dated 3/20/08 for further information. NOTE: The County Geologist may determine upon receiving the information requested in his letter dated 3/20/08 that a GHA, geologic report or additional technical reports be submitted for review.

Comment 2 above: The biotic assessment has been completed. Please review the letter from the Deputy Environmental Coordinator (Matt Johnston) dated 8/13/08 for complete details.

**NEW COMMENTS (3/26/08):**

3. Submit an "Invasive Plant Eradication Plan" for review and approval. Please refer to biotic assessment letter dated 8/13/08 for details.

4. Submit a "Coastal Dune Restoration Plan" for review and approval. Please refer to biotic assessment letter dated 8/13/08 for details. ===== UPDATED ON AUGUST 13, 2008 BY ROBERT S LOVELAND =====

Comment 1 above: The additional information received from the project geotechnical engineer is in review status. NOTE: Additional comments maybe forthcoming.

Comment 3 above has been addressed.

Comment 4 above has been addressed. NOTE: Additional "Conditions of Approval" have been added based on the information received. ===== UPDATED ON SEPTEMBER 16, 2008 BY ROBERT S LOVELAND =====

Comments above have been addressed.

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## Discretionary Comments - Continued

Project Planner: Maria Perez  
Application No.: 07-0382  
APN: 052-321-20

Date: October 1, 2008  
Time: 10:34:10  
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### Environmental Planning Miscellaneous Comments

===== REVIEW ON AUGUST 16, 2007 BY ROBERT S LOVELAND =====

#### Conditions of Approval:

1. A qualified botanist, familiar with the site and the location of Monterey spineflower on site, shall be present for all vegetation removal and shall ensure protective fencing is in place prior to any site disturbance.
2. A qualified wildlife biologist shall be present during all grading and land clearing activities to handle and relocate any black legless lizards that may be encountered. An information sheet shall be provided to all workers on site that describes the listed species and what to do if any are encountered.
3. Monterey cypress (15 gal. size or larger) shall be substituted for the New Zealand Christmas trees identified on "Sheet L2".
4. The yearly vegetation restoration monitoring report shall be submitted to the Deputy Environmental Coordinator in Environmental Planning for review and approval.
5. Submit a detailed grading plan and obtain a grading permit.

### Dpw Drainage Completeness Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON AUGUST 8, 2007 BY GERARDO VARGAS ===== The proposed stormwater management plan is approved for discretionary stage Stormwater Management review. Please see miscellaneous comments for items to be addressed in the building application stage. ===== UPDATED ON MARCH 18, 2008 BY GERARDO VARGAS ===== The proposed stormwater management plan is approved for discretionary stage Stormwater Management review.

### Dpw Drainage Miscellaneous Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON AUGUST 8, 2007 BY GERARDO VARGAS ===== 1. Gutters into closed conduit for the purpose of removing water from the immediate vicinity of structure foundations are permissible. However methods other than hard piping must be given first consideration. (Site soils are mapped as having high infiltration capability). The discharge of downspouts to splash blocks is a beneficial measure to limit impacts, but may not be sufficient as the only means.

2. Provide construction details of all drainage features on site. Any drainage structure should be provided with drawn detail to facilitate accurate construction by the contractor, such that the structure functions as intended in its function.

Please note a drainage fee will be assessed on the net increase in impervious area

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## Discretionary Comments - Continued

**Project Planner:** Maria Perez  
**Application No.:** 07-0382  
**APN:** 052-321-20

**Date:** October 1, 2008  
**Time:** 10:34:10  
**Page:** 3

(i.e., roofs, paved areas, patios, walkways, driveway, etc.).

Please call the Dept. of Public Works, Stormwater Management Section, from 8:00 am to 12:00 noon if you have questions. ===== UPDATED ON MARCH 18, 2008 BY GERARDO VARGAS ===== NO COMMENT

### Dpw Road Engineering Completeness Comments

===== REVIEW ON AUGUST 7, 2007 BY ANWARBEG MIRZA =====  
NO COMMENT

### Dpw Road Engineering Miscellaneous Comments

===== REVIEW ON AUGUST 7, 2007 BY ANWARBEG MIRZA =====  
NO COMMENT

### Cal Dept of Forestry/County Fire Completeness Comm

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON AUGUST 7, 2007 BY COLLEEN L BAXTER =====  
DEPARTMENT NAME: CALFIRE

Add the appropriate NOTES and DETAILS showing this information on your plans and RESUBMIT, with an annotated copy of this letter:

Note on the plans that these plans are in compliance with California Building and Fire Codes (2001) as amended by the authority having jurisdiction.

Each APN (lot) shall have separate submittals for building and sprinkler system plans.

The job copies of the building and fire systems plans and permits must be onsite during inspections.

NOTE on the plans that the building shall be protected by an approved automatic fire sprinkler system complying with the currently adopted edition of NFPA 13D and Chapter 35 of California Building Code and adopted standards of the authority having jurisdiction.

NOTE that the designer/installer shall submit three (3) sets of plans and calculations for the underground and overhead Residential Automatic Fire Sprinkler System to this agency for approval. Installation shall follow our guide sheet.

NOTE on the plans that an UNDERGROUND FIRE PROTECTION SYSTEM WORKING DRAWING must be prepared by the designer/installer. The plans shall comply with the UNDERGROUND FIRE PROTECTION SYSTEM INSTALLATION POLICY HANDOUT.

Building numbers shall be provided. Numbers shall be a minimum of 4 inches in height on a contrasting background and visible from the street, additional numbers shall be installed on a directional sign at the property driveway and street.

NOTE on the plans the installation of an approved spark arrester on the top of the chimney. The wire mesh shall be 1/2 inch.

NOTE on the plans that the roof covering shall be no less than Class "B" rated roof.

NOTE on the plans that a 100 foot clearance will be maintained with non-combustible vegetation around all structures or to the property line (whichever is a shorter distance). Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided they do not form a means of rapidly transmitting fire from native growth to any structure are exempt.

Discretionary Comments - Continued

Project Planner: Maria Perez  
Application No.: 07-0382  
APN: 052-321-20

Date: October 1, 2008  
Time: 10:34:10  
Page: 4

SHOW on the plans, DETAILS of compliance with the driveway requirements. The driveway shall be 12 feet minimum width and maximum twenty percent slope. The driveway shall be in place to the following standards prior to any framing construction, or construction will be stopped:

- The driveway surface shall be "all weather", a minimum 6" of compacted aggregate base rock, Class 2 or equivalent certified by a licensed engineer to 95% compaction and shall be maintained.
- ALL WEATHER SURFACE: shall be a minimum of 6" of compacted Class II base rock for grades up to and including 5%, oil and screened for grades up to and including 15% and asphaltic concrete for grades exceeding 15%, but in no case exceeding 20%.
- The maximum grade of the driveway shall not exceed 20%, with grades of 15% not permitted for distances of more than 200 feet at a time.
- The driveway shall have an overhead clearance of 14 feet vertical distance for its entire width.
- A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length.
- Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures.
- All private access roads, driveways, turn-arounds and bridges are the responsibility of the owner(s) of record and shall be maintained to ensure the fire department safe and expedient passage at all times.
- The driveway shall be thereafter maintained to these standards at all times.

Plan check is based upon plans submitted to this office. Any changes or alterations shall be re-submitted for review prior to construction.

72 hour minimum notice is required prior to any inspection and/or test.

Note: As a condition of submittal of these plans, the submitter, designer and installer certify that these plans and details comply with the applicable Specifications, Standards, Codes and Ordinances, agree that they are solely responsible for compliance with applicable Specifications, Standards, Codes and Ordinances, and further agree to correct any deficiencies noted by this review, subsequent review, inspection or other source, and, to hold harmless and without prejudice, the reviewing agency.

When a fire alarm system is proposed in lieu of 110V/battery backup smoke detectors a separate fire alarm permit and fee is required by the fire department having jurisdiction. Fire Alarm plans (3 sets) shall be submitted and approved prior to commencing work.

Cal Dept of Forestry/County Fire Miscellaneous Com

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON AUGUST 7, 2007 BY COLLEEN L BAXTER =====

# INTEROFFICE MEMO

APPLICATION NO: 07-0382

Date: July 31, 2007

To: Steve Guiney, Project Planner

From: Larry Kasparowitz, Urban Designer

Re: Review of a new residence at Willet Circle, Pajaro Dunes (Watsonville)

## Design Review Authority

**13.20.130** The Coastal Zone Design Criteria are applicable to any development requiring a Coastal Zone Approval.

## Design Review Standards

**13.20.130** Design criteria for coastal zone developments

Evaluation Criteria	Meets criteria In code ( ✓ )	Does not meet criteria ( ✓ )	Urban Designer's Evaluation
<b>Visual Compatibility</b>			
All new development shall be sited, designed and landscaped to be visually compatible and integrated with the character of surrounding neighborhoods or areas	✓		
<b>Minimum Site Disturbance</b>			
Grading, earth moving, and removal of major vegetation shall be minimized.	✓		
Developers shall be encouraged to maintain all mature trees over 6 inches in diameter except where circumstances require their removal, such as obstruction of the building site, dead or diseased trees, or nuisance species.	✓		
Special landscape features (rock outcroppings, prominent natural landforms, tree groupings) shall be retained.	✓		

<b>Ridgeline Development</b>			
Structures located near ridges shall be sited and designed not to project above the ridgeline or tree canopy at the ridgeline			N/A
Land divisions which would create parcels whose only building site would be exposed on a ridgetop shall not be permitted			N/A
<b>Landscaping</b>			
New or replacement vegetation shall be compatible with surrounding vegetation and shall be suitable to the climate, soil, and ecological characteristics of the area			N/A

<b>Rural Scenic Resources</b>			
<b>Location of development</b>			
Development shall be located, if possible, on parts of the site not visible or least visible from the public view.			N/A
Development shall not block views of the shoreline from scenic road turnouts, rest stops or vista points			N/A
<b>Site Planning</b>			
Development shall be sited and designed to fit the physical setting carefully so that its presence is subordinate to the natural character of the site, maintaining the natural features (streams, major drainage, mature trees, dominant vegetative communities)			N/A
Screening and landscaping suitable to the site shall be used to soften the visual impact of development in the viewshed			N/A
<b>Building design</b>			
Structures shall be designed to fit the topography of the site with minimal cutting, grading, or filling for construction			N/A
Pitched, rather than flat roofs, which are surfaced with non-reflective materials except for solar energy devices shall be encouraged			N/A
Natural materials and colors which blend with the vegetative cover of the site shall be used, or if the structure is located in an existing cluster of buildings, colors and materials shall repeat or harmonize with those in the cluster			N/A

<b>Large agricultural structures</b>			
The visual impact of large agricultural structures shall be minimized by locating the structure within or near an existing group of buildings			N/A
The visual impact of large agricultural structures shall be minimized by using materials and colors which blend with the building cluster or the natural vegetative cover of the site (except for greenhouses).			N/A
The visual impact of large agricultural structures shall be minimized by using landscaping to screen or soften the appearance of the structure			N/A
<b>Restoration</b>			
Feasible elimination or mitigation of unsightly, visually disruptive or degrading elements such as junk heaps, unnatural obstructions, grading scars, or structures incompatible with the area shall be included in site development			N/A
The requirement for restoration of visually blighted areas shall be in scale with the size of the proposed project			N/A
<b>Signs</b>			
Materials, scale, location and orientation of signs shall harmonize with surrounding elements			N/A
Directly lighted, brightly colored, rotating, reflective, blinking, flashing or moving signs are prohibited			N/A
Illumination of signs shall be permitted only for state and county directional and informational signs, except in designated commercial and visitor serving zone districts			N/A
In the Highway 1 viewshed, except within the Davenport commercial area, only CALTRANS standard signs and public parks, or parking lot identification signs, shall be permitted to be visible from the highway. These signs shall be of natural unobtrusive materials and colors			N/A

<b>Beach Viewsheds</b>			
Blufftop development and landscaping (e.g., decks, patios, structures, trees, shrubs, etc.) in rural areas shall be set back from the bluff edge a sufficient distance to be out of sight from the shoreline, or if infeasible, not visually intrusive	✓		
No new permanent structures on open beaches shall be allowed, except where permitted pursuant to Chapter 16.10 (Geologic Hazards) or Chapter 16.20 (Grading Regulations)	✓		
The design of permitted structures shall minimize visual intrusion, and shall incorporate materials and finishes which harmonize with the character of the area. Natural materials are preferred	✓		





Pajaro Dunes Association

June 19, 2012

Mr and Mrs Roy Lave  
900 University Ave  
Los Altos, CA 94022

Dear Mr & Mrs. Lave:

The Design Committee has granted preliminary approval for your plans for a new home at 305 Willet Circle.

When you have obtained your permits from the County of Santa Cruz, please provide the Design Committee with three stamped copies, a copy of the permit, and coastal permit including all notes and requirements. Landscaping plans, color pallet, and a digital copy (hardcopy in pdf format) of the plans must be submitted for final approval. Please refer to the Design Committee Rules for specifics.

FOR THE DESIGN COMMITTEE

Sincerely,

Carol Turkey  
Member  
Pajaro Dunes Association

Jun 19, 2007

Mr and Mrs Roy Lave  
590 University Ave  
Los Altos, CA 94022

Dear Mr. & Mrs. Lave:

The Design Committee has granted preliminary approval for your plans for a new home at 109 Willet Circle.

When you have obtained your permit from the County of Santa Cruz, please provide the Design Committee with three stamped copies, a copy of the permit and coastal permit including all notes and requirements. Landscaping plans, color pallet, and a digital copy (preferably in pdf format) of the plans must be submitted for final approval. Please refer to the Design Committee Rules for specifics.

FOR THE DESIGN COMMITTEE

Sincerely,



Carol Turley  
Chairman



# COUNTY OF SANTA CRUZ

## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123  
TOM BURNS, PLANNING DIRECTOR

September 8, 2008

Roy and Penelope Lave  
C/o Ron Powers  
1607 Ocean Street, #8  
Santa Cruz, CA 95060

**Subject: Geotechnical Engineering Report** by Haro, Kasunich, and Associates  
January 2008, and July 15, 2008; Project Number SC9572,

Reference: **APN:** 052-321-20  
**APPL#:** 07-0382

Dear Applicant:

We have review the subject reports and have accepted these reports with regards to the Coastal Flooding and Erosion on Lot 9, Pajaro Dunes South and as designated as APN 052-321-30. The proposed home is located outside of Coastal High Hazards Zone in a gap between this zone and the Flood Zone for the Pajaro River. Before the construction of the seawall along the beach, historic accounts indicate that wave action has passed through this entire lot. The beach geomorphology appears to confirm that wave action has passed over the sand dunes.

The current sea wall provides significant coastal erosion protection, but there is some concern that the seawall could deteriorate rapidly during storms with intensity similar to those observed during historic storms.

The home will be built in a gap between the current wave action zone and the Pajaro River in a FEMA X Zone. No base flood elevation (hereafter BFE) has been designated for X Zones, but clearly one is required for the design of this home. Haro, Kasunich, and Associates have developed a BFE for this site to design the foundations. This BFE is significantly lower than that for the surrounding FEMA wave run-up zone, but the BFE is close to the regional base flood elevations.

The work completed by Haro, Kasunich, and Associates complies with Code, and the report is acceptable. The County would recommend, and not require, the following,

1. The home should be designed so that if in an intense storm the home is impacted by wave action or flood the lowest floor is designed to compensate for these forces without failure.

(over)

## Review of the Geotechnical Engineering

Appl # 07-0382

3/7

### **NOTICE TO PERMIT HOLDERS WHEN A SOILS ENGINEERING REPORT AND ENGINEERING GEOLOGY REPORT HAS BEEN PREPARED, REVIEWED AND ACCEPTED FOR THE PROJECT**

After issuance of the building permit, the County requires your soils engineer and engineering geologist to be involved during construction. Several letters or reports are required to be submitted to the County at various times during construction. They are as follows:

1. **When a project has engineered fills and / or grading,** letters from your soils engineer and engineering geologist must be submitted to the Environmental Planning section of the Planning Department prior to foundations being excavated. These letters must state that the grading has been completed in conformance with the recommendations of the reports. Compaction reports or a summary thereof must be submitted.
2. **Prior to placing concrete for foundations,** a letter from the soils engineer must be submitted to the building inspector and to Environmental Planning stating that the soils engineer has observed the foundation excavation and that it meets the recommendations of the soils report.
3. **At the completion of construction,** a *final letters* from your soils engineer and engineering geologist are required to be submitted to Environmental Planning that summarizes the observations and the tests made during construction. The final letter must also state the following: "Based upon our observations and tests, the project has been completed in conformance with our geotechnical recommendations."

If the *final letters* identify any items of work remaining to be completed or that any portions of the project were not observed by the consultant, you will be required to complete the remaining items of work and may be required to perform destructive testing in order for your permit to obtain a final inspection.

Return recorded form to:  
Planning Department  
County of Santa Cruz  
701 Ocean Street, 4<sup>th</sup> Floor

Attention: Joe Hanna  
County Geologist  
831-454-3175

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## Notice

THIS PAGE ADDED TO PROVIDE ADEQUATE SPACE FOR RECORDING INFORMATION (CALIFORNIA GOVERNMENT CODE §27361.6)

disclosed to the forgoing individuals. This declaration may not be altered or removed from the records of the County Recorder without the prior consent of the Planning Director of the County of Santa Cruz.

OWNER: \_\_\_\_\_  
Signature

OWNER: \_\_\_\_\_  
Signature

ALL SIGNATURES ARE TO BE ACKNOWLEDGED BEFORE A NOTARY PUBLIC. IF A CORPORATION, THE CORPORATE FORM OF ACKNOWLEDGEMENT SHALL BE USED.

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STATE OF CALIFORNIA, COUNTY OF SANTA CRUZ ss

On \_\_\_\_\_ before me \_\_\_\_\_,  
personally appeared

\_\_\_\_\_, personally  
known to me (or proved to me on the basis of satisfactory evidence) to be the  
person(s) whose name(s) is/are subscribed to the within instrument and  
acknowledged to me that he/she/they executed the same in his/her/their  
authorized capacity (ies), and that by his/her/their signature(s) on the instrument  
the person(s) or the entity upon behalf of which the person(s) acted, executed the  
instrument.

WITNESS my hand and official seal.

\_\_\_\_\_  
Notary Public in and for said County and State

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## DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our investigation, the proposed project appears compatible with the site, provided the following recommendations are incorporated into the design and construction of the proposed project.

Lot 109 is a vacant lot situated in the second row of homes from the beach. The topography of Lot 109 consists of undulating sand dunes with existing grades with the designated building envelope ranging from about 17 to 24 feet NGVD. Lot 109 is within a Federal Emergency Management Agency (FEMA) designated flood rate insurance Zone X. Properties in a FEMA Zone X are considered to be at moderate risk of flooding from the principal source of flood in the area under the National Flood Insurance Program. No BFE or depth of flooding has established by FEMA for the project site. It is our understanding that flood insurance is not required for properties in a FEMA designated Zone X. However, FEMA urges property owners to consider voluntary purchase of flood insurance because about 25% percent of all flood insurance claims are from buildings located in areas designated Zone X, outside of the identified high-risk flood hazard zones.

In the absence of a defined flood elevation at the project site, our firm established a minimum building pad elevation utilizing methodology outlined in the FEMA manual

titled Guidelines and Specifications for Wave Elevation Determination and V Zone Mapping. For the design and construction of the proposed residence, we recommend a minimum building pad elevation of 20 feet NGVD representing either the bottom of a raft/mat slab on grade type foundation system or the bottom of the crawlspace for a continuous spread footing grid type foundation system supporting the proposed residence. The foundation zones soils for a raft/mat slab on grade type foundation system are to be protected from coastal erosion down to at least 16 feet NGVD by use of gabion mattresses system circumventing the foundation perimeter. A continuous, interior and exterior, spread footing grid type foundation system should be protected from coastal erosion by extending the spread footings down to at least 16 feet NGVD. These building pad and foundation system recommendations in combination with the long term maintenance of the quarystone revetment by the Pajaro Dunes South Geologic Hazards Abatement District will provide the residence with a 100 year design life.

To mitigate the loose near surface sandy soils as well as the potential for seismically induced settlement, we recommend the proposed residence be founded upon either a raft/mat slab on grade or a reinforced, continuous spread footing grid bearing. Either foundation systems type must be reinforced to span a void of at least 10 feet in diameter occurring anywhere within the building envelope and bear upon an engineered soil mat consisting of compacted site soils. In the event of severe differential



settlement, the residence may be re-leveled by pressure grouting beneath the reinforced foundation system.

The following recommendations should be used as guidelines for preparing project plans and specifications:

**Site Grading**

1. The geotechnical engineer should be notified at least four (4) working days prior to any site clearing or grading so that the work in the field can be coordinated with the grading contractor and arrangements for testing and observation can be made. The recommendations of this report are based on the assumption that the geotechnical engineer will perform the required testing and observation during grading and construction. It is the owner's responsibility to make the necessary arrangements for these required services.
2. Where referenced in this report, Percent Relative Compaction and Optimum Moisture Content shall be based on ASTM Test Designation D1557- current.
3. Areas to be graded should be cleared of all obstructions including loose fill, clayey soil, trees not designated to remain, or other unsuitable material. Existing depressions or voids created during site clearing should be backfilled with engineered fill.

4. Cleared areas should then be stripped of organic-laden topsoil. Stripping depth should be from 2 to 4 inches. Actual depth of stripping should be determined in the field by the geotechnical engineer. Strippings should be wasted off-site or stockpiled for use in landscaped areas if desired.

5. Areas to receive engineered fill should be scarified to a depth of 6 inches, moisture conditioned, and compacted to at least 90 percent relative compaction. Portions of the site may need to be moisture conditioned to achieve suitable moisture content for compaction. These areas may then be brought to design grade with engineered fill.

6. Engineered fill should be placed in thin lifts not exceeding 8 inches in loose thickness; moisture conditioned, and compacted to at least 90 percent relative compaction

7. The onsite sandy soils generally appear suitable for use as engineered fill. Materials used for engineered fill should be free of organic material, and contain no rocks or clods greater than 6 inches in diameter, with no more than 15 percent larger than 4 inches.

8. We estimate shrinkage factors of about 15 percent for the onsite materials when used in engineered fills.
9. All permanent cut and fill slopes should be inclined no steeper than 2:1 (horizontal to vertical).
10. Following grading, all exposed slopes should be planted as soon as possible with erosion-resistant vegetation.
11. After the earthwork operations have been completed and the geotechnical engineer has finished his observation of the work, no further earthwork operations shall be performed except with the approval of and under the observation of the geotechnical engineer.

#### **Foundations**

12. A minimum building pad elevation of 20 feet NGVD has been established by our firm. The proposed Lave family residence may to be founded upon either a raft/mat slab on grade or a reinforced, continuous interior and exterior spread footing grid. The foundation zones soils must be protected from coastal erosion down to at least 16 feet NGVD by either deepening the spread footing grid or encompassing the perimeter of the raft or mat slab on grade foundation with a gabion mattress system. To mitigate the

loose near surface sandy soils as well as the potential for seismically induced settlement, either foundation system type must be reinforced to span a void of at least 10 feet in diameter occurring anywhere within the building envelope and bear upon an engineered soil mat consisting of site soils compacted to at least 90 percent relative compaction. The engineered fill soil mat should extend at least 3 feet horizontally beyond the perimeter of the foundation system. In the event of severe differential settlement, the residence may be re-leveled by pressure grouting beneath the reinforced foundation system.

13. Deep drilled piers or driven piles are also a possible, although cumbersome, option for supporting the residence. The depth of liquefaction at the project site extends to at least 47 feet below the recommend building pad elevation of 20 feet NGVD. Drilled piers or piles would need to achieve vertical and lateral bearing capacity below the defined liquefaction zone. Based on the anticipated depth of the piers or piles and the limited site access we have not provided deep foundation criteria in this report.

#### **Structural Concrete Mat or Raft Slab Design Criteria**

14. An appropriate foundation system to support the proposed residence may consist of a reinforced structural mat or raft slab on grade. It is suggested the structural engineer consider the installation mud jacking ports spaced throughout the slab as well as the use of cross beams to tie the structure together and aid in stress distribution if the structure settles due to liquefaction and needs to be re-leveled.

15. The coefficient of subgrade reaction depends upon underlying soil material strength as well as the stress history of the earth material. The mat slab is to be supported by at least 12 inches of engineered fill compacted to at least 90 percent relative compaction in order to provide a consistent bearing surface and an allowable bearing capacity of 1,200 pounds per square foot plus a  $1/3$  increase for short term loading. The project site near surface soils, consisting of silty sands are suitable for use as engineered fill provide when properly moisture conditioned. The engineered fill soil mat should extend at least 3 feet horizontally beyond the perimeter of the mat slab. We recommend a coefficient of subgrade reaction of 200 kips per cubic foot should be used for design of the slab.

16. The structural raft or mat slab should be designed to withstand to span a void of at least 10 feet in diameter occurring anywhere within the building envelope.

17. The structural raft or mat slab should be reinforced to withstand differential settlement of 1 inch in 25 feet.

18. Where floor dampness must be minimized or where floor coverings will be installed, concrete slabs on grade should be constructed on a capillary break at least 6 inches thick, covered with a membrane vapor barrier. The top 4 inches of the capillary break material should consist of free draining, clean gravel or rock, such as  $3/4$  inch

gravel. The gravel should be washed to remove fines and dust prior to placement on the slab subgrade. The top 4 inches of the capillary break gravel should be isolated from the underlying silty sand engineered fill by use of at least 2 inches of Caltrans Class I, Type A permeable material (reference Section 68.1.025 of the current Caltrans Specifications). The capillary break material should be mechanically compacted in two lifts prior to placement of the vapor barrier. The vapor retarder should be a high quality membrane at least 10 mil thick and puncture resistant. An acceptable product for use as a vapor retarder is the Stego Wrap 10-mil Class A vapor retarder system manufactured by Stego Industries, LLC. Provided the Stego Wrap system is installed per manufacturer's recommendations, the concrete may be poured directly upon the Stego Wrap Vapor Retarder. The primary considerations for installing the vapor retarder are: taping all seams; sealing all penetrations such as pipe, ducting, wire, etc; and repairing all punctures.

It should be clearly understood concrete slabs are not waterproof, nor are they vapor-proof. The aforementioned moisture retardant system will help to minimize water and water vapor transmission through the slab; however moisture sensitive floor coverings require additional protective measures. Floor coverings must be installed according to the manufacturer's specifications, including appropriate waterproofing applications and/or any recommended slab and/or subgrade preparation. Consideration should also be given to recommending a topical waterproofing application over the slab.

19. Lateral load resistance for the raft or mat slab bearing on the compacted granular material may be developed in friction between the slab bottom and the supporting subgrade. A conservative coefficient of friction of 0.25 is recommended for design of the structure in order to allow for loss of a portion of the supporting subgrade during a design seismic event. The liquefaction effects potentially compromising a portion of the supporting subgrade soils include sand boils or localized settlement creating void space beneath the mat slab.

20. The raft or mat slab should be supported by at least 12 inches of engineered fill compacted to at least 90 percent relative compaction forming an engineered fill soil mat. The project site near surface soils, consisting of silty sands are suitable for use as engineered fill provide when properly moisture conditioned. The engineered fill soil mat should extend at least 3 feet horizontally beyond the perimeter of the mat slab. The soil mat and underlying soils must be protected from coastal erosion down to at least 16 feet NGVD by use of a gabion mattress system. A gabion mattress system consists of welded or double woven wire mesh baskets filled with non-erodable aggregate and tied to one another. Typically a gabion mattress is 6 inches thick, 3 to 6 feet wide and 6 to 12 feet long. A geotextile filter fabric such as Marifi 700X shall be placed underneath the gabion mattresses to prevent loss of soil during hydraulic impact. The wire baskets are to be constructed of stainless steel or galvanized wire coated with PVC. The aggregate filled wire mesh baskets should extend horizontally from the mat slab

perimeter for 3 feet and then downward at a slope of 2:1(H:V) to 16 feet NGVD or below.

### Continuous Footing Grid

21. As an alternative to the structural raft or mat slab system, the proposed residence may be founded upon a continuous interior and exterior footing grid. The footing grid should be deepened to mitigate the potential coastal erosion. The footing grid should be reinforced to accommodate the potential effects of liquefaction including re-level the structure, if needed. The footing grid should bear upon at least 12 inches of engineered fill compacted to at least 90 percent relative compaction forming an engineered fill soil mat. The project site near surface soils, consisting of silty sands are suitable for use as engineered fill provide when properly moisture conditioned. The engineered fill soil mat should extend at least 3 feet horizontally beyond the perimeters of the interior and exterior spread footings. An allowable bearing capacity of 1,200 pounds per square foot plus a 1/3 increase for short term loading may be used for an engineered soil mat at least 12 inches thick and compacted to at least 90 percent relative compaction. An allowable bearing capacity of 1,800 pounds per square foot plus a 1/3 increase for short term loading may be used for an engineered soil mat at least 18 inches thick and compacted to at least 95 percent relative compaction.



22. The footing grid should extend down to at least 16 feet NGVD. Footing width should be determined by the structural designer. Lateral load resistance for the footing grid bearing on the compacted granular material may be developed in friction between the slab bottom and the supporting subgrade. A conservative coefficient of friction of 0.25 is recommended for design of the structure in order to allow for loss of a portion of the supporting subgrade during a design seismic event. The liquefaction effects potentially compromising a portion of the supporting subgrade soils include sand boils or localized settlement creating void space beneath the mat slab. If additional lateral capacity is needed, the footings could be embedded into the engineered fill soil mat below 16 feet NGVD for a passive resistance of 250 pcf per foot of embedment. If passive resistance along the face of the footings is utilized, the soil mat would need to be thickened to accommodate the minimum soil mat thickness for vertical bearing.

23. The continuous interior and exterior footing grid should be designed to withstand to span a void of at least 10 feet in diameter occurring anywhere within the building envelope.

24. The continuous interior and exterior footing grid should be reinforced to withstand differential settlement of 1 inch in 25 feet.

### **Exterior Slabs-on-Grade**

25. We recommend that any proposed exterior slabs-on-grade be supported on properly water conditioned and compacted soil subgrades. Exterior concrete slabs-on-grade should be founded on at least 6 inches of sandy soils compacted to at least 90 percent relative compaction. We recommend that consideration be given to a minimum slab thickness of 5 inches and steel reinforcement necessary to address temperature and shrinkage considerations. It is recommended that rebar in lieu of wire mesh be used for slab reinforcement. The steel reinforcement should be held firmly in the vertical center of the slab during placement and finishing of the concrete with pre-cast concrete dobies. The reinforcement should not be tied to the building foundations. These exterior slabs can be expected to suffer some cracking and movement. However, thickened exterior edges, a well prepared subgrade including pre-moistening prior to pouring concrete, adequately spaced expansion joints and good workmanship should minimize cracking and movement. Exterior slabs will be susceptible to the project site design coastal erosion and may need to be replaced during the design life of the residence.

### **Site Drainage**

26. Collected roof and hardscape runoff must not be allowed to sheet flow over graded slopes at the project site.

27. Surface drainage should include provisions for positive gradients so that surface runoff is not permitted to pond adjacent to foundations and pavements. Surface drainage should be directed away from the building foundation system.

28. Full roof gutters should be placed around all eaves. Discharge from the roof gutters should be conveyed away from the downspouts to an onsite storm runoff retention facility designed by the project civil engineer.

29. The migration of water or spread of extensive root systems below foundations or slabs may cause undesirable differential movements and subsequent damage to these structures. Landscaping should be planned accordingly.

#### **Plan Review, Construction Observation, and Testing**

30. Our firm should be provided the opportunity for a general review of the final project plans prior to construction so that our geotechnical recommendations may be properly interpreted and implemented. If our firm is not accorded the opportunity of making the recommended review, we can assume no responsibility for misinterpretation of our recommendations. We recommend that our office review the project plans prior to submittal to public agencies, to expedite project review. The recommendations presented in this report require our review of final plans and specifications prior to construction and upon our observation and, where necessary, testing of the earthwork

and foundation excavations. Observation of grading and foundation excavations allows anticipated soil conditions to be correlated to those actually encountered in the field during construction.

### LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that planned at the time, our firm should be notified so that supplemental recommendations can be given.
2. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are called to the attention of the Architects and Engineers for the project and incorporated into the plans, and that the necessary steps are taken to ensure that the Contractors and Subcontractors carry out such recommendations in the field. The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. No other warranty expressed or implied is made.
3. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or to the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or partially, by changes outside our control. Therefore, this report should not be relied upon after a period of three years without being reviewed by a geotechnical engineer.

APPENDIX

Site Location Map

CPT Location Plan

CPT Logs and Data Sheets

Revetment Section

FEMA FIRM

Liquefaction Analyses

- i) 6 May 1987;
- j) 12 April 1984;
- k) 26 March 1986; and
- l) 7 June 2007.

We have located and marked Lot 109 on each of the photos and also included the 2006 FEMA FIRMette from our January 2008 report for project site reference. The configuration of Watsonville Slough was used as a consistent topographic reference in the photo series.

As shown in the 1931 photo, a large oval race track was constructed between the slough and the sand dunes. The seaward portion of the race track parallels the existing Cormorant Way paved roadway with the Lave project site, Lot 109 situated near at the northwest corner of the race track.

Development of Pajaro Dunes South is not evident in the 1965 photo. Willet Circle and a number of beach homes are visible in the 1970 photo. Based on our measurements, we estimate 10 to 25 feet of fill materials were pushed seaward from the pre-1970 configuration of the shoreline. It is our opinion the fill materials were probably derived from the predevelopment sand dune field being situated between the slough and the shoreline. Also based on our measurements, it appears most if not all of the fill materials were lost during severe storm events from about 1978 through 1983. The existing quarrystones along the shoreline prevents us from determining absolutely if any fill materials remain within the existing revetment footprint.

7. Explain the new erosion control gabion mattresses' compliance with code. These gabion baskets meet the definition of Shoreline protection structures, which is any structure or material, including but not limited to riprap or a seawall, placed in an area where costal processes operate. The gabion baskets prevent coastal erosion of the soil around the foundations of the home, and therefore meet this definition. As "shoreline protection structures" they are allowed (16.20.115 and 16.10.070 h) only on parcels where both adjacent parcels are already similarly protected, or where necessary to protect existing structures from a significant threat, or on vacant parcels which, through lack of protection threaten adjacent developed lots, or to protect public works, public beaches, and coastal dependent uses. Our review of the application and the grading plan does not provide sufficient information to demonstrate the proposed gabion baskets meet any of the conditions that allow for the use of a shore line

protection structure. Evaluate County Code and clarify your reasoning for believing that these structures comply with Code.

HKA's Response:

We have developed new foundation recommendations for the proposed Lave residence in order to eliminate Planning Department concerns regarding the previous project plan set foundation system consisting of a mat/raft slab with an apron of gabion mattresses meeting the County codes definition of a shoreline protection structure.

8. Assuming that a seawall is allowed as analyzed under item 7:
  - a. Substantiate the erosion from the expected Base Flood will not undermine the foundations and will not alter drainage in a manner that will adversely affect neighboring properties.
  - b. Provide an alternatives analysis that demonstrates that the proposed shoreline protection structure and deepened spread footing is the foundation alternative that has the least environmental impact.

HKA's Response - a:

The revised foundation system as outlined in the attached schematic will be able to withstand undermining from overland flow from the adjacent FEMA VE Zone and its open foundation system will not deflect flood waters toward adjacent improvements.

HKA's Response - b:

We no longer recommend the gabion apron protected raft/mat slab or the deepened spread footing system be used to support the proposed project.

In our opinion, the only other alternative foundation system capable of protecting the proposed Lave residence from both liquefaction and overland flow of the accumulated wave runup, beyond our new foundation system consisting of a mat slab supporting short columns with a second mat slab supporting the residence, would be a pier and grade beam/mat slab foundation system. Pier drilling is very problematic at the project site due to access considerations and the depth of liquefiable soils.





# COUNTY OF SANTA CRUZ

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## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

**TOM BURNS, PLANNING DIRECTOR**

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Ron Powers, AICP  
Ron Powers Land Planning, Inc.  
1607 Ocean Street, Suite 8  
Santa Cruz, CA 95060

August 13, 2007

Re: APN 052-321-20, Lave property biotic assessment

Dear Mr. Powers:

We have received the completed biotic assessment for this property, prepared by Biotic Resources Group, and dated July 19, 2007. The assessment was required because of the presence Monterey spineflower and the black legless lizard, both species of special concern.

Regarding plants, the biologist observed patches of Monterey spineflower on the parcel, outside of the footprint of the proposed building. Construction activities have the potential to impact this plant and suitable measures to avoid impact must be observed.

Regarding animals, the assessment did identify suitable habitat for special status species. During the site visit by county staff, tracks of the legless lizard were observed in the sand along the edge of the parcel. The lizard is presumed present, and measures to avoid take of this reptile must be observed.

The following conditions will apply to any development that is proposed on this parcel:

1. Development shall be confined to the elements shown on the plot plan (Steve McGuirk, 7/6/07) in the location shown;
2. Prior to approval of building or development permits, an invasive plant eradication plan shall be submitted for review and approval. The plan shall indicate the area to be cleared, the timing and technique for removal, and include plan for ongoing maintenance to keep the area free of the non-native, invasive species;
3. Prior to approval of building or development permits, a restoration plan shall be submitted for review and approval. The plan shall indicate the area to be restored, and shall include plan for ongoing monitoring and maintenance for at least 3 years, or until success criteria, defined in the restoration plan, are met;
  - a. The two plans may be submitted as a single plan, provided they cover both eradication and restoration elements in the monitoring and maintenance program.

4. A qualified botanist, familiar with the site and the location of Monterey spineflower on site, shall be present for all vegetation removal and shall ensure protective fencing is in place prior to disturbance;
5. A qualified wildlife biologist shall be present during all grading and land clearing activities to handle and relocate any black legless lizards that may be encountered. An information sheet shall be provided to all workers on site that describes the listed species and what to do if any are encountered.

Please call me at 831-454-3201 if you have any questions. A copy of this letter will be sent to your project planner so that she or he is aware of the biotic conditions on the parcel.

Sincerely,

Matt Johnston  
Environmental Planning

For: Claudia Slater  
Principal Planner

CC: Robert Loveland, Resource Planner  
Steve Guiney, Project Planner

# Biotic Resources Group

Biotic Assessments ♦ Resource Management ♦ Permitting

July 19, 2007

Ron Powers, AICP  
Powers Land Planning, Inc.  
1607 Ocean Street, Suite 8  
Santa Cruz, CA 95060

**RE: Results of Biotic Survey, 109 Willet Circle, Pajaro Dunes South (APN 052-321-20)**

Dear Ron,

The Biotic Resources Group has completed a survey of the proposed development area at 109 Willet Circle at Pajaro Dunes. The survey was focused on the presence of special status plant species and potential habitat for black legless lizard. The findings of this survey are described herein.

## Project Description

The project site is located along the west side of Rio Boca Road within the Pajaro Dunes residential development. The site is accessed from a boardwalk from Sanderling Circle. The proposed project is to construct a residence, with related infrastructure, on the parcel. Vegetation outside the building envelope is to be retained, with the exception of invasive, non-native plant species, which will be removed and the area replanted with native dune species.

## Methods

A site survey was conducted on July 9, 2007 to assess the proposed development area and surrounding areas for potential rare plant habitat and habitat for black legless lizard. The proposed development area and surrounding portions of the property were traversed on foot to identify botanical resources and habitat conditions. Site features were recorded in a notebook. In addition, the California Natural Diversity Database, RareFind 2 (CNDDDB 2007) and the California Native Plant Society's (CNPS) Electronic Inventory (2007) were searched for records of special status species in the project vicinity. The field survey was conducted during the blooming/identification period for both Monterey and robust spineflower (two federally-listed plant species).

## Existing Habitat Types

The project site supports a mosaic of native and non-native plant species, all of which are growing on a stabilized sand dune. The vegetation of the parcel is dominated by dense stands of the non-native European dune grass (*Ammophila arenaria*). Other non-native plant species include iceplant (*Carpobrotus edulis*) and ripgut brome (*Bromus diandrus*). Native plant species occur in open sandy areas and include mock heather (*Ericameria ericoides*), beach primrose (*Camissonia cheiranthifolia*), telegraph weed (*Heterotheca grandiflora*), and bush lupine (*Lupinus arboreus*). Individuals of Monterey spineflower (*Chorizanthe pungens* var. *pungens*) were observed on the parcel during the July field survey. Several patches were observed in open, sandy areas in the northern portion of the parcel (outside the proposed residential development area). One small patch was located along the western property edge, also outside the proposed development area.

### Special Status Species

Species of concern include those listed by either the Federal or State resource agencies as well as those identified as rare by CNPS. Based on a search of the CNPS and CNDDDB inventories, the species of concern within the greater project area are Monterey spineflower, robust spineflower, and black legless lizard. All of these species can occur in sand dunes. The spineflower prefers open areas, whereas the black legless lizard prefers shrubby areas with loose sand for burrowing.

Patches of Monterey spineflower were observed in the open sandy areas in the northern and westernmost portions of the parcel. These patches are located outside the footprint of the proposed residence. The areas supporting shrubs and loose sandy soils may provide suitable habitat for black legless lizard.

### Summary of Potential Impacts to Special Status Species

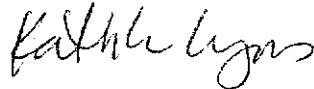
- ☒ The proposed project will remove a mixture of native and non-native dune scrub vegetation. Although the observed locations of Monterey spineflower are located outside the footprint of the proposed residence, the proposed removal of invasive plant species (European dune grass) may impact the patches of spineflower.
- ☒ Project development will result in the removal of stands of the non-native European dune grass and iceplant, which is a beneficial impact of the project.
- ☒ The project may affect some dune scrub areas that may be suitable for the black legless lizard, although the value of the site is moderated due to the dense growth of European dune grass.

### Recommendations

- ☒ Retain native dune scrub vegetation that is adjacent to the proposed development to the greatest extent feasible. Prior to any site activities, install orange construction fencing at the edge of grading to avoid inadvertent disturbance to dune scrub vegetation that is to remain. Develop and implement a revegetation plan to re-establish native dune scrub vegetation within disturbed areas, including areas where invasive, non-native plant species (i.e., European dune grass) have been removed. Collect all available Monterey spineflower seed and utilize this seed in the revegetation plan; hand broadcast seed of this annual species into designated open sandy areas. Retain a qualified botanist to monitor the progress of the revegetated areas (including Monterey spineflower revegetation) for a minimum of 3 years.
- ☒ Retain a qualified wildlife biologist to be on site during rough grading to handle and relocate any black legless lizards that may be encountered. Provide an information sheet to all site workers on the species and what to do if the species is encountered during construction.

Please call me if you have any questions on these findings.

Sincerely,



Kathleen Lyons  
Principal/Plant Ecologist

CC: Roy and Penelope Lave  
690 University Avenue  
Los Gatos, CA 94022