Staff Report to the Zoning Administrator

Application Number: 231240

Applicant: William Kempf
Owner: Barbara Indra
APN: 052-291-24
Site Address: 71 Puffin Lane, Watsonville, CA 95076

Agenda Date: 10/18/2024
Agenda Item #: 1
Time: After 9:00 a.m.

Project Description: Proposal to convert a 70 square foot portion of the existing carport into habitable area, construct a 184 square foot addition to create an attached garage; construct a 62 square foot entry porch and a 92 square foot second story deck with access stairs; add new windows and doors and replace exterior finishes at an existing single-family dwelling. The project also includes recognition of existing unpermitted wooden retaining walls along both sides of the structure and 2,953 square feet of habitat enhancement and restoration.

Location: Project located on western side of Puffin Lane (71 Puffin Lane), approximately 110 feet northwest of the intersection of Puffin Lane and Shearwater Lane.

Permits Required: Requires a Coastal Development Permit and determination of that the project is exempt from further review under the California Environmental Quality Act (CEQA)..

Supervisorial District: 2nd District (District Supervisor: Zach Friend)

Staff Recommendation:

- Determine that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- Approval of Application 231240, based on the attached findings and conditions.

Project Description, Background & Setting

The proposed project is located within the Pajaro Dunes Subdivision, a gated community along a stretch of coastal dunes lying between Watsonville Slough to the northeast and the beach fronting the Pacific Ocean to the southwest.

With a unique development pattern and history, the single-family homes within Pajaro Dunes have all been custom designed and built by individual property owners. Therefore, they exhibit many different styles and include various two- and three-story structures that range from around 1,400 square feet to over 4,700 square feet in size. Despite the range of architectural styles and sizes, there is a sense of cohesiveness to the development due to the extensive use of wood shingles and dune-colored materials, especially on the older homes. The special character of the development

is further enhanced by the fact that the individual homes are all set within the rolling grassy dune landscape with no fences and are connected by a series of boardwalks and trails that link the entire community.

Vehicular access to the development is via Rio Boca Road, which runs along the inland edge of the area, adjacent to Watsonville Slough. From this main artery, there are a series cul-de-sacs and parking areas that branch off into the development. Homes that have frontage onto these roads and cul-de-sacs include on-site parking; however, many of the homes in Pajaro Dunes, particularly those located directly adjacent to the beach, include off-site parking within designated parking areas and can only be reached via pedestrian trails. The subject property fronts onto Puffin Lane, which provides direct vehicular and pedestrian access to the property.

The Pajaro dunes development was approved under a Planned Unit Development (PUD), Permit 74-400-PUD, which adopted specific site and development standards for the subdivision. This includes either specific setbacks from the property lines or building envelopes, depending on the location of the property within the subdivision. For the subject property, special setbacks were adopted, and these are detailed in the following section.

The parcel is currently developed with a 2,132 square foot single-family dwelling and attached 462 square foot carport that was built in 1969 per Assessor's Records. In the 1980s, two approximately 3-foot 8-inch unpermitted wood retaining walls were constructed alongside the parking area and dwelling to provide access along the sides of the structure; these retaining walls were repaired between 2007 and 2016. No other major changes to the property have occurred.

As proposed for this project, a 70 square foot portion of the existing carport will be converted to habitable area and a 184 square foot addition will be constructed to create an attached garage. Other proposed changes to the dwelling include the addition of a 62 square foot entry porch and a 92 square foot second story deck with access stairs. The entire structure will also be remodeled, including the addition of new windows and doors and an upgrade to the exterior finishes. In addition, the unpermitted retaining walls will be recognized, a new paved walkway will be added to the new main entry and porch, and a 3 foot 4-inch tall landscape wall will be constructed to enclose the rear patio. Further, the project includes over 2,953 square feet of habitat restoration and enhancement on the property, including the removal of invasive ice plant and re-planting native dune species. Because the property is located on a coastal dune area, within the appeals jurisdiction of the Coastal Zone, a Coastal Development Permit is required.

Zoning & General Plan Consistency

The subject property is a 10,204 square foot lot located in the SU (Special Use) zone district, a designation which allows residential uses. The proposed additions and modifications to the single-family dwelling are allowed within the zone district and the SU zoning is consistent with the site's R-UL (Urban Residential – Low Density) General Plan designation. Applicable site and development standards as specified for the Pajaro Dunes PUD for this property are outlined in the table below, which includes a summary of the required, existing, and proposed site and development standards relevant to the project:

Development Standards	District (pajaro dunes)	Existing	Proposed
Front Setback	20 feet	46 feet 10 inches	39 feet 2 inches
Side Setbacks	North side: 5 feet South side: 7 feet	Northern side: 5 feet South side: 5 feet 10 inches*	North side: 5 feet South side: 5 feet 10 inches*
Rear Setback	50 feet	45 feet 11 inches	45 feet 11 inches
Maximum Height	30 feet	23 feet 1 inch	23 feet 1 inch
Maximum Number of Stories	2	2	2
Garage Entrance Setback	20 feet	46 feet 10 inches	39 feet 2 inches
Required Number of Parking Spaces	2 (3 bedrooms)	2	2
Maximum Floor Area Ratio	50%	24%	26%
Maximum Lot Coverage	45%	20.5%	24%

*Because the dwelling is not oriented parallel to the property line, this nonconformity affects only a small area at the rear.

Additional code sections and standards apply to the proposed project, including the following:

SCCC 13.10.262, Nonconforming Structures

Structural alterations may be made to an existing nonconforming structure without additional permit requirements, provided that such modifications do not constitute reconstruction. Reconstruction is defined by SCCC 13.10.262(B)(6) as modifications that alter 65% or more of the major structural components and that do not increase the non-conformity. For projects that do increase the nonconforming dimensions of the structure, a Variance or Minor Exception are required per County Code standards. For the proposed project, a Modification Worksheet was submitted by the project architect, indicating that 19% of the major structural components of the existing single-family dwelling will be altered and no nonconforming additions are proposed. Therefore, the proposed remodel of the existing dwelling does not constitute a reconstruction and no additional approvals are required.

SCCC 16.10.040, Geologic Hazards

The property is located within the VE, wave run-up flood zone, which is subject to the floodplain

management regulations and substantial improvement criteria. Per SCCC 16.13.160-S, Substantial Improvement is defined as "any reconstruction, rehabilitation, addition, or other improvement of a building or structure, or the cumulative total of such activities as defined in this section, the cost of which equals or exceeds 50 percent of the market value of the building or structure before the start of construction of the improvement." To determine whether the proposed additions and remodel would constitute substantial improvement, the project was reviewed by the Environmental Planning section. As a result of this review, it was determined that the proposed improvements would result in less than 50% increase in the market value of the structure; therefore, no flood mitigation is required as part of this project.

Pajaro Dunes Special Community

The Pajaro Dunes subdivision is developed in accordance with Permit 74-400-PUD (Ordinance 2089, adopted February 28, 1975), which approved a 262-unit Planned Unit Development (PUD) with associated service and recreational facilities. This PUD amended previous Use Permits, 2331-U, 2550-U, 2751-U, 3134-U and 3301-U -approved between 1965 and 1973, which had previously authorized a PUD for a 400-unit development with commercial and recreational facilities. Subsequently, on December 3, 1975, Coastal Commission Permit, 239-75, was approved by the California Coastal Commission, to recognize the Pajaro Dunes development as approved by 74-400-PUD. Application 74-400-PUD was later amended (Ordinance 2329, adopted August 17, 1976) to allow the developer to maintain a real estate sales office in the "existing offices for the sale, resale or rental of properties within the Pajaro Dunes developments, and to allow meeting, seminar or assembly uses conducted by the Pajaro Dunes Association." While the existing dwelling is legal nonconforming with respect to the specified setbacks for the parcel as approved by the PUD, the proposed additions align with the PUD standards and fit well within the surrounding neighborhood.

Local Coastal Program Consistency

The proposed additions and modifications to the existing nonconforming single-family dwelling are in conformance with the County's certified Local Coastal Program. The structure is sited and designed to be visually compatible and in scale with the character of the surrounding neighborhood. The proposed sand-colored stucco and existing roofline that slopes away from the public beach, results in a dwelling that blends into the surrounding dunes. This structure has the lowest profile compared to its adjacent neighbors and therefore complies with Coastal Design Criteria. Developed parcels in the area contain one-, two-, and three-story single-family dwellings. Size and architectural styles vary in the area, and the design submitted for the remodeled home is consistent with the existing range of styles.

The project site is located between the shoreline and the first public road; however, the additions to the dwelling will not be significantly visible from the beach since the proposed additions are located along the front and sides of the dwelling, away from the coastline. Further, the proposed restoration of native habitat will improve the appearance of the property in public views from the adjacent State beach. Further, the proposed remodeled single-family dwelling will not interfere with public access to the beach, ocean, or other nearby body of water, which is provided nearby at Palm State Beach on West Beach Road, about three quarters of a mile northwest of the project site. While there is a 10-foot common access parcel located along the southeastern side property line, it is not an actively used as beach access and does not have an established trail to the beach. The

area around and within Pajaro Dunes Subdivision is not identified as a priority acquisition site in the County's Local Coastal Program.

Sensitive Habitat

The Pajaro Dunes subdivision is located within an environmentally sensitive habitat area, specifically, it lies within a protected coastal dune habitat. Therefore, the project was reviewed by Environmental Planning staff, and a Biotic Report Review (REV231089) was completed prior to the plans being deemed complete for this application. In accordance with the findings of the Biotic approval, the project has been designed to include all conditions intended to prevent any significant impacts to sensitive resources. As proposed, the additions to the dwelling, new paving and existing retaining walls that are to be recognized, are all located in areas that are either already developed or that had previously been taken over by invasive ice plant. Furthermore, as part of the proposed project, conditions will be implemented to ensure protection of special-status species and sensitive dune habitat during and after project construction. Restoration of 2,953 square feet of dune habitat within the property boundaries will occur as well as a plan for removal of non-native species and a management strategy to control re-establishment of invasive non-native species on the remainder of the parcel. These conditions will ensure that the existing native habitat is protected and expanded that, that invasive species are removed, and that impacts to protected species are avoided. To further protect and preserve the dune habitat during construction, the project has been conditioned to require that construction fencing be erected around the entire building site, with the location not to exceed 6 feet measured horizontally from the outer walls of the proposed additions.

Environmental Review

The proposed additions to the existing dwelling will be constructed within an area designated for residential uses and the project will conform to all required site and development standards for the Pajaro Dunes Planned Unit Development. In addition, as designed, the project includes conditions to ensure protection of special-status species and sensitive dune habitat during and after the project implementation including restoration of 2,953 square feet of dune habitat within the property boundaries, and removal and ongoing management of invasive non-native species on the remainder of the parcel. Furthermore, the proposed additions and remodel to the existing dwelling do not constitute substantial improvement within the wave run-up zone. It has therefore been determined that the proposed project qualifies for an exemption under the California Environmental Quality Act (CEQA) consistent with the CEQA guidelines in Sections 1, Existing Facilities (15301). A Notice of Exemption for this project is included with this report.

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

- Determine that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.

- **APPROVAL** of Application Number **231240,** 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 Division, 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.sccoplanning.com

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Exhibits

A. Categorical Exemption (CEQA determination)
B. Findings
C. Conditions
D. Project plans
E. Native Coastal Dune Scrub Revegetation and Enhancement Plan
F. Assessor's, Location, Zoning and General Plan Maps
G. Parcel information
H. Report review letters
   a. Soils Report
   b. Biotic Report

CALIFORNIA ENVIRONMENTAL QUALITY ACT
NOTICE OF EXEMPTION

The Santa Cruz County Planning Division 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: 231240
Assessor Parcel Number: 052-291-24
Project Location: 71 Puffin Lane Watsonville CA 95076

Project Description: Proposal to construct minor additions and remodel an existing single family dwelling, add a pedestrian walkway and recognize the construction of retaining walls, together with habitat restoration of 2,953 square feet.

Person or Agency Proposing Project: William Kempf

Contact Phone Number: 831-459-0951

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).

E. X Categorical Exemption

Specify type: Class 1 – Existing Facilities (Section 15301)

F. Reasons why the project is exempt:

The proposed development on the garage and new second floor deck and entry way with porch are minor additions. Minor improvements are allowed under Class 1, Existing Facilities. In addition, the proposed 2,953 square feet of habitat restoration on the property will result in significant habitat benefits.

In addition, none of the conditions described in Section 15300.2 apply to this project. All mitigations to potential impacts to surrounding sensitive habitat area have been included in the project, in accordance with the approved Biotic Report, ensuring that there will be no significant impacts.

_____ Date:_____

Alexandra Corvello, Project Planner

EXHIBIT A

Coastal Development Permit Findings

(A) That the project is a use allowed in one of the basic zone districts that are listed in LCP Section 13.10.170(D) as consistent with the LCP Land Use Plan designation of the site.

This finding can be made, in that the property is zoned SU (Special Use), a designation which allows residential uses. The proposed additions and remodel at an existing single-family dwelling are permitted by right within the zone district, and the zoning is consistent with the site's R-UL (Urban Residential – Low Density) General Plan designation.

(B) 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 no such easements or restrictions are known to encumber the project site.

(C) That the project is consistent with the design criteria and special use standards and conditions of this chapter pursuant to SCCC 13.20.130 and 13.20.140 et seq.

This finding can be made, as the development is consistent with the surrounding neighborhood in terms of architectural style, featuring natural colors that complement the site's coastal dunes. The size and architectural styles vary in the area, and the submitted design is consistent with this existing range of styles. The sand-colored stucco and roofline that slopes away from the public beach help the dwelling blend seamlessly into the surrounding dunes. Additionally, the structure has the lowest profile of the surrounding developed lots.

(D) That the project conforms with the public access, recreation, and visitor-serving policies, standards and maps of the LCP Land Use Plan, including Chapter 2: Section 2.5 and Chapter 7.

This finding can be made, in that the project site is not identified as a priority acquisition site in the County Local Coastal Program. Public beach access is available at Palm Beach (APN 052-161-13), located about three quarters of a mile northwest of the project site, which has 100-space paved parking facility to promote public beach access that was installed by the Pajaro Dunes Subdivision.

(E) That the project conforms to all other applicable standards of the certified LCP.

This finding can be made as the remodeled structure is sited and designed to be visually compatible and integrated with the character of the surrounding neighborhood. Additionally, residential uses are allowed uses in the SU (Special Use) zone district, as well as the General Plan and Local Coastal Program land use designation. The developed parcels in the area contain single-family dwellings. Size and architectural styles vary in the area, and the design submitted is consistent with the pattern of development within the surrounding neighborhood.

The project also conforms to SCCC 13.10.262, nonconforming structures, and SCCC 16.13, floodplain management regulations, as the proposed changes do not modify the structure more than 65% and 50%, respectively.

(F) If the project is located between the nearest through public road and the sea or the shoreline of any body of water located within the Coastal Zone, that the project conforms to the public access and public recreation policies of Chapter 3 of the Coastal Act.

This finding can be made, in that although the project site is located between the nearest through public road and the Pacific Ocean and is also located close to the shoreline of the Pajaro River, the project will not interfere with public access to either of these bodies of water. This is because the site is not located near a public beach access area. Public beach access is provided nearby at Palm State Beach on West Beach Road, about three quarters of a mile northwest of the project site. Further, the project site is not identified as a priority acquisition site in the County Local Coastal Program.

(G) In the event of any conflicts between or among the required findings, required findings in subsections (E) and (F) of this section shall prevail.

This finding can be made, in that there are no conflicts among the required Coastal Development Permit findings.

Discretionary Permit Findings

(a) Health and Safety. The proposed location of the project and the conditions under which it would be developed, 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 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. Construction will comply with prevailing building technology, the California Building Code, and the County Building ordinance to ensure that the project 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 be materially injurious to properties or improvements in the vicinity.

(b) Zoning Conformance. The proposed location of the project and the conditions under which it would be developed, operated, or maintained will be in substantial conformance with the intent and requirements of all pertinent County ordinances and the purpose of the zone district in which the site is located.

This finding can be made as the proposed location of the single-family dwelling and the conditions under which it would be operated or maintained will in substantial conformance with all pertinent County ordinances and the purpose of the SU (Special Use) zone district. The primary use of the property will be one single-family dwelling with an attached garage that meets all current site standards for the zone district.

Per SCCC 13.10.262, Nonconforming structures, the structural alterations may be made to an existing non-conforming structure without additional permit requirements, provided such modifications do not constitute reconstruction. Reconstruction defined by SCCC 13.10.262(B)(6) as modifications that alter 65% or more of the major structural components—and do not increase the non-conformity. For the proposed project a Modification Worksheet was submitted by the project architect indicates that 19% of the major structural components of the existing single-family dwelling will be altered. Therefore, the proposed remodel of the existing dwelling does not constitute a reconstruction.

The property and structure are in 100-year flood zone (VE), which is subject to the floodplain management regulations and substantial improvement criteria. Per SCCC 16.13.160-S, substantial improvement "means any reconstruction, rehabilitation, addition, or other improvement of a building or structure, or the cumulative total of such activities as defined in this section, the cost of which equals or exceeds 50 percent of the market value of the building or structure before the start of construction of the improvement." The proposed project was reviewed by Environmental Planning and found to be less than 50% of the market value. Therefore, no flood mitigation is needed as part of this project and it conforms to SCCC 16.13.

(c) General Plan Conformance. The proposed project is in substantial conformance with the intent, goals, objectives, and policies of all elements of the County General Plan and any specific plan which has been adopted for the area.

This finding can be made, in that the proposed residential use is in substantial conformance with the use and density requirements specified for the R-UL (Urban Residential – Low Density) land

use designation in the County General Plan.

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

(d) CEQA Conformance. The proposed project complies with the requirements of the California Environmental Quality Act (CEQA) and any significant adverse impacts on the natural environment will be mitigated pursuant to CEQA.

This finding can be made, in that the proposed development has been determined to be exempt from further review under the California Environmental Quality Act, as indicated in the Notice of Exemption for this project. In addition, the proposed project includes removal of invasive ice plant and restoration of 2,953 square feet of the undeveloped site area to extend and protect areas of native habitat.

(e) Utilities and Traffic Impacts. The proposed use will not overload utilities, result in inefficient or wasteful use of energy, or generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made, in that the proposed additions to the single-family dwelling will not intensify the use of the existing development on the lot. The expected level of traffic generated by the proposed project is anticipated to continue to be only 1 peak trip per day, which will not be increased. As such, the proposed project will not adversely impact existing roads or intersections in the surrounding area. Further, all construction will comply with prevailing building technology, the California Building Code, and the County Building ordinance to ensure that the project will not overload utilities or otherwise result in an inefficient or wasteful use of energy.

(f) Neighborhood Compatibility. The proposed use will be compatible with the existing and proposed land uses, land use intensities, and dwelling unit densities of the neighborhood, as designated by the General Plan and Local Coastal Program and implementing ordinances.

This finding can be made, in that the proposed additions and remodel, together with the restoration and expansion of native habitat, results in a project that is consistent with the land use intensity and density of the neighborhood as designated by the General Plan and implementing ordinances.

(g) Local Coastal Program Consistency. For proposed projects located within the coastal zone, the proposed project is consistent with the provisions of the certified Local Coastal Program.

This finding can be made, in that the required Coastal Development Permit findings have been made for this project and the project is consistent with the provisions of the certified Local Coastal Program.

Conditions of Approval

Exhibit D: Project plans, prepared by Bayless Architecture, dated 7/3/2024.

I. This permit authorizes conversion of a 70 square foot portion of the existing carport into habitable area, construction of a 184 square foot addition to create an attached garage; a 62 square foot entry porch with an approximately 4 foot walkway from the driveway, and a 92 square foot second story deck with access stairs, together with remodeling of the existing dwelling that includes the addition of new windows and doors and replacing exterior finishes. This permit also authorizes also recognition of existing unpermitted wooden retaining walls along both sides of the structure and 2,953 square feet of native habitat restoration, all as indicated on the approved Exhibit "D" for this permit. 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 Santa Cruz County Planning 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 Santa Cruz County Planning 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 any permits and/or reviews from California State Parks, as required for the restoration of native habitat adjacent to the southwest property line where work will be carried out within State Park property.

II. Prior to issuance of a Building Permit the applicant/owner shall:

A. Submit final architectural plans for review and approval by Santa Cruz County Planning. The final plans shall be in substantial compliance with the plans marked Exhibit "D" on file with Santa Cruz County Planning. Any changes from the approved Exhibit "D" 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. A copy of the text of these conditions of approval incorporated into the full size sheets of the architectural plan set.

2. One elevation shall indicate materials and colors as they were approved by this Discretionary Application.

3. Grading, drainage, and erosion control plans, as required.

4. Show on the site plan any adjustments to the approved restoration plan as required based on conversations with the California State Parks.

5. Details showing compliance with fire department requirements. If the proposed structure(s) are located within the State Responsibility Area (SRA) the requirements of the Wildland-Urban Interface code (WUI), California Building Code Chapter 7A, shall apply.

B. Meet all requirements of the County Department of Public Works, Stormwater Management. Drainage fees will be assessed on the net increase in impervious area.

1. The discretionary application has not been reviewed for compliance with Part 3 of the County Design Criteria. Prior to issuance of a building, grading, or other permit, final Stormwater Management documents shall be submitted for review and approval by Stormwater Management Section that adhere to the County Design Criteria and County Code 7.79.

2. Pre-development runoff patterns and rates shall be maintained, and safe stormwater overflow shall be incorporated into the project design.

3. New and/or replaced impervious and/or semi-impervious surface area shall not exceed 5,000 square feet.

C. Meet all requirements of the Environmental Planning section of Santa Cruz County Planning.

a. A copy of the approved soils report shall be submitted with the building permit application materials.

b. Building permit application plans shall reference the soils report and update(s), include contact information for the geotechnical engineer, and include a statement that the project shall conform to the recommendations of the geotechnical engineer.

c. A copy of the substantial improvement form, including the contractor affidavit and owner affidavit, together with cost estimates based on the final building permit plan sheets, must be submitted prior to issuance of the building permit.

d. A note shall be included on the building permit plans stating any change orders submitted must be evaluated by environmental planning to determine whether the revised project constitutes substantial improvement.

e. The proposed building permit plans shall comply with the conditions of approval found in the Biotic Report and the acceptance

letter dated January 9, 2024.

f. Recommended Avoidance and Minimization measures BIO-1, BIO-3, BIO-5, BIO-6 and BIO-7 of the attached Biotic Report dated October 2023 prepared by Dawn Reis Ecological Studies for shall be adhered to.

g. Prior to commencement of construction, high visibility fencing and/or flagging shall be installed with the assistance of a qualified biologist to indicate the designated limits of work and prevent inadvertent grading, equipment staging, vehicular access, or other disturbance within the adjacent sensitive habitat areas (see also BIO-1).
   i. Intact native dune plants on the parcel shall be protected as sensitive habitat and avoided during construction to the maximum extent possible.
   ii. No work-related activity including equipment staging, vehicular access, grading and/or vegetation removal shall be allowed outside the designated limits of work.
   iii. Special-status plants located near or within the project impact area shall be identified, protected with high visibility fencing, and avoided during construction.
   iv. The fencing/flagging shall be inspected and maintained daily until project completion.

h. The project shall comply with all standard best management practices for outdoor lighting. No outdoor lighting shall shine into the sky, onto sensitive dune areas, or toward the beach.

i. To compensate for impacts to Coastal Dune habitat, and habitat for special-status species, and to comply with the Santa Cruz County General Plan Policy 5.1.12, the project proposes restoration of degraded sensitive habitat on site at a 3:1 ratio of restoration to permanent impacts and at a 1:1 ratio for temporary impacts as outlined in the attached Native Coastal Dune Scrub Revegetation and Enhancement Plan that was prepared and submitted as part of the project scope.

j. A Habitat Restoration Plan prepared by a qualified biologist or restoration professional shall be included with the building permit application submittal and approved by the Restoration Coordinator prior to issuance of the building permit. The elements of the restoration plan are listed in the biotic report acceptance letter

D. Meet all requirements and pay any applicable plan check fee of the Pajaro Fire Protection District.

E. All exterior finishes and materials, including windows and deck railings, shall be

non-reflective and must blend into the surrounding natural landscape.

F. Submit copies of plan review letters prepared and stamped by the project Geotechnical Engineer.

G. Pay the current fees for Parks mitigation as appropriate. Currently, these fees are $4.51 per square foot for single family dwellings, based upon any additional habitable floor area.

H. Pay the current fees Child Care mitigation as appropriate. Currently, these fees are $0.85 per square foot for single family dwellings, based upon any additional habitable floor area.

I. Provide required off-street parking for 2 cars. Parking spaces must be 8.5 feet wide by 18 feet long and must be located entirely outside vehicular rights-of way. Parking must be clearly designated on the plot plan.

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. Pursuant to Sections 16.40.040 and 16.42.080 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 16.42.080, 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. All exterior finishes and materials, including windows and deck railings, shall be non-reflective and must blend into the surrounding natural landscape. All colors

and materials shall blend into the surrounding natural landscape.

C. The habitat restoration and native habitat must be maintained in perpetuity.

D. All restoration efforts must adhere to the ongoing maintenance and removal protocols outlined in the Habitat Restoration Report and Biotic Report Review, as well as any subsequent updates related to this property.

V. Indemnification

The applicant/owner shall indemnify, defend with counsel approved by the COUNTY, and hold harmless the COUNTY, its officers, employees, and agents from and against any claim (including reasonable attorney's fees, expert fees, and all other costs and fees of litigation), against the COUNTY, its officers, employees, and agents arising out of or in connection to this development approval or any subsequent amendment of this development approval which is requested by the applicant/owner, regardless of the COUNTY's passive negligence, but excepting such loss or damage which is caused by the sole active negligence or willful misconduct of the COUNTY. Should the COUNTY in its sole discretion find the applicant's/owner's legal counsel unacceptable, then the applicant/owner shall reimburse the COUNTY its costs of defense, including without limitation reasonable attorney's fees, expert fees, and all other costs and fees of litigation. The applicant/owner shall promptly pay any final judgment rendered against the COUNTY (and its officers, employees, and agents) covered by this indemnity obligation. It is expressly understood and agreed that the foregoing provisions are intended to be as broad and inclusive as is permitted by the law of the State of California and will survive termination of this development approval.

A. The COUNTY shall promptly notify the applicant/owner of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. The COUNTY shall cooperate fully in such defense.

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 applicant/owner shall not be required to pay or perform any settlement unless such applicant/owner has approved the settlement. When representing the COUNTY, the applicant/owner 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. The "applicant/owner" shall include the applicant and/or the owner and the successor'(s) in interest, transferee(s), and assign(s) of the applicant

and/or the owner.

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 three 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 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: _____

_____
Deputy Zoning Administrator

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.

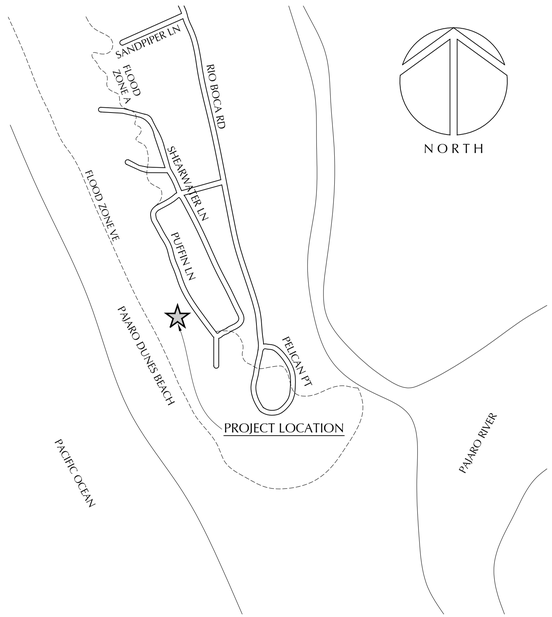
RESIDENTIAL ADDITION FOR:

THE INDRA FAMILY

71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

052-291-24

VICINITY MAP



CONSULTANTS

ARCHITECT:	WILLIAM C. KEMPF, ARCHITECT 105 LOCUST STREET, SUITE B SANTA CRUZ, CA 95060 BILL KEMPF: 831 459-0951
SURVEYOR:	ALPHA LAND SURVEYS, INC. 4444 SCOTTS VALLEY DR #6, SCOTTS VALLEY, CA 95066 J.P. HAPPEE: 831 438-4453
BIOLOGICAL MONITOR:	ECOLOGICAL STUDIES 38 LOWER CUTTER DRIVE WATSONVILLE, CA 95076 DAWN REIS: 831 588-7550
RESTORATION DIRECTOR:	WATSONVILLE WETLANDS WATCH PO BOX 1239 FREEDOM, CA 95019 JONATHAN PILCH: (831) 728-4106

PROJECT DATA

OWNER:	BARBARA INDRA
APN:	052-291-24
PROJECT ADDRESS:	71 PUFFIN LANE WATSONVILLE, CA 95076
ZONING:	SU - SPECIAL USE
LOT AREA:	10,204 S.F.
CONSTRUCTION TYPE:	TYPE V-B (NON-SPRINKLED)
OCCUPANCY:	R-3 / U
PROJECT DESCRIPTION:	GROUND FLOOR ADDITION/CONVERSION OF EXISTING CARPORT INTO ADDITIONAL LIVING SPACE AND ATTACHED GARAGE, NEW ENTRY PORCH, NEW EXTERIOR FINISHES AND WINDOWS, AND NEW OUTDOOR DECK FOR AN EXISTING ONE-STORY SINGLE FAMILY RESIDENCE. INCLUDES LEGALIZATION OF EXISTING WOOD RETAINING WALLS CONSTRUCTION IN 1980's.
REFERENCE CODES:	2019 CALIFORNIA BUILDING CODE, 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE, 2019 CMC, 2019 CPC, 2019 CFC, 2019 CALIFORNIA ELECTRICAL CODE, 2019 CALIFORNIA ENERGY CODE

BUILDING AREAS:		
	EXISTING FIRST FLOOR:	1,524 S.F.
	EXISTING SECOND FLOOR:	711 S.F.
	EXISTING CARPORT :	463 S.F.
	TOTAL EXISTING:	2,698 S.F.
	PROPOSED FIRST FLOOR:	1,625 S.F.
	PROPOSED SECOND FLOOR:	711 S.F.
	PROPOSED GARAGE:	538 S.F.
	TOTAL :	2,874 S.F.
	EXISTING COVERED PATIO:	114 S.F.
	NEW UNCOVERED DECK:	91 S.F.
	NEW COVERED PORCH:	63 S.F.

SHEET INDEX

ABBREVIATIONS & SYMBOLS

&	AND
@	AT
Ø	DIAMETER
A.B.	ANCHOR BOLT
ALUM.	ALUMINUM
APPROX.	APPROXIMATE
BD.	BOARD
BLKG.	BLOCKING
BM.	BEAM
BOT.	BOTTOM
CAB.	CABINET
C.J.	CONTROL JOINT
CLG.	CEILING
CLR.	CLEAR
C.M.U.	CONCRETE MASONRY UNIT
COL.	COLUMN
CONC.	CONCRETE
CONT.	CONTINUOUS
DBL.	DOUBLE
DTL.	DETAIL
DIM.	DIMENSION
DN.	DOWN
D.F.	DOUGLAS FIR
DR.	DOOR
D.W.	DISHWASHER
EA.	EACH
EL.	ELEVATION
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXIST.	EXISTING
(E)	EXISTING
EXT.	EXTERIOR
FDN.	FOUNDATION
F.O.__	FACE OF ___
F.O.B.	FACE OF BLOCK
F.O.C.	FACE OF CONCRETE
F.O.F.	FACE OF FINISH
F.O.S.	FACE OF STUD
FT.	FOOT OR FEET
FTG.	FOOTING
GA.	GAUGE
GALV.	GALVANIZED
G.I.	GALVANIZED IRON
G.L.B.	GLUE LAM BEAM
H.C.	HOLLOW CORE
HDR.	HEADER
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
HT.	HEIGHT
I.D.	INSIDE DIAMETER
IN.	INCHES
INSUL.	INSULATION
INT.	INTERIOR
JT.	JOINT
K.D.	KILN DRIED
LAM.	PLASTIC LAMINATE
LAV.	LAVATORY
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MAT.	MATERIAL
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN.	MINIMUM
M.O.	MASONRY OPENING
MTL.	METAL
(N)	NEW
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O/	OVER
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OPNG.	OPENING
P.A.F.	POWDER ACTUATED FASTENER
PL.	PLATE
PLYWD.	PLYWOOD
(P)	PROPOSED
P.T.	PRESSURE TREATED
P.V.C.	POLY VINYL CHLORIDE
QTR.	QUARTER
R.	RADIUS
REF.	REFRIGERATOR
REINF.	REINFORCING
REQ'D.	REQUIRED
RM.	ROOM
RND.	ROUND
R.O.	ROUGH OPENING
RWD.	REDWOOD
S.B.	SOLID BLOCKING
S.C.	SOLID CORE
SIM.	SIMILAR
SPEC.	SPECIFICATION
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STL.	STEEL
STRUC.	STRUCTURAL
T.E.N.	TYPICAL EDGE NAILING
T&G	TONGUE & GROOVE
THK.	THICK
T.O.__	TOP OF ___
T.O.C.	TOP OF CONCRETE
T.O.P.	TOP OF PLATE
T.O.S.	TOP OF SLAB
T.O.W.	TOP OF WALL
T.S.F.	TOP OF SUB-FLOOR
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
VERT.	VERTICAL
W/	WITH
W.C.	WATERCLOSET
WD.	WOOD
W.H.	WATER HEATER
W/O	WITHOUT
WT.	WEIGHT
W.W.M.	WELDED WIRE MESH

WOOD TRIM
DIMENSIONAL LUMBER
WOOD BLOCKING
PLYWOOD
GYPSUM WALL BOARD
CONCRETE
CONCRETE BLOCK
BRICK
METAL
WALL
WALL TO BE REMOVED
24 — ROOM NUMBER
E — DOOR REFERENCE
36 — WINDOW REFERENCE
3 / A15 — DETAIL REFERENCE

PROJECT NOTES

1. ALL WINDOWS OR DECK RAILINGS VISIBLE FROM THE BEACH SHALL USE NON-GLARE BIRD SAFE MATERIALS

NOTE: NO OUTDOOR CONSTRUCTION SHALL OCCUR FROM MARCH 1 THROUGH SEPTEMBER 15

BAYLESS ARCHITECTURE
135 CLAREMONT TERRACE
SANTA CRUZ, CA 95060
831.316.4788 - todd@baylessarch.com

RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076
VICINITY MAP, PROJECT DATA, SHEET INDEX

DRAWING DATE: JULY 3, 2024
A.P.N. 052-291-24
CLIENT NAME: INDRA
PROJECT NAME: PUFFIN LANE

REVISIONS

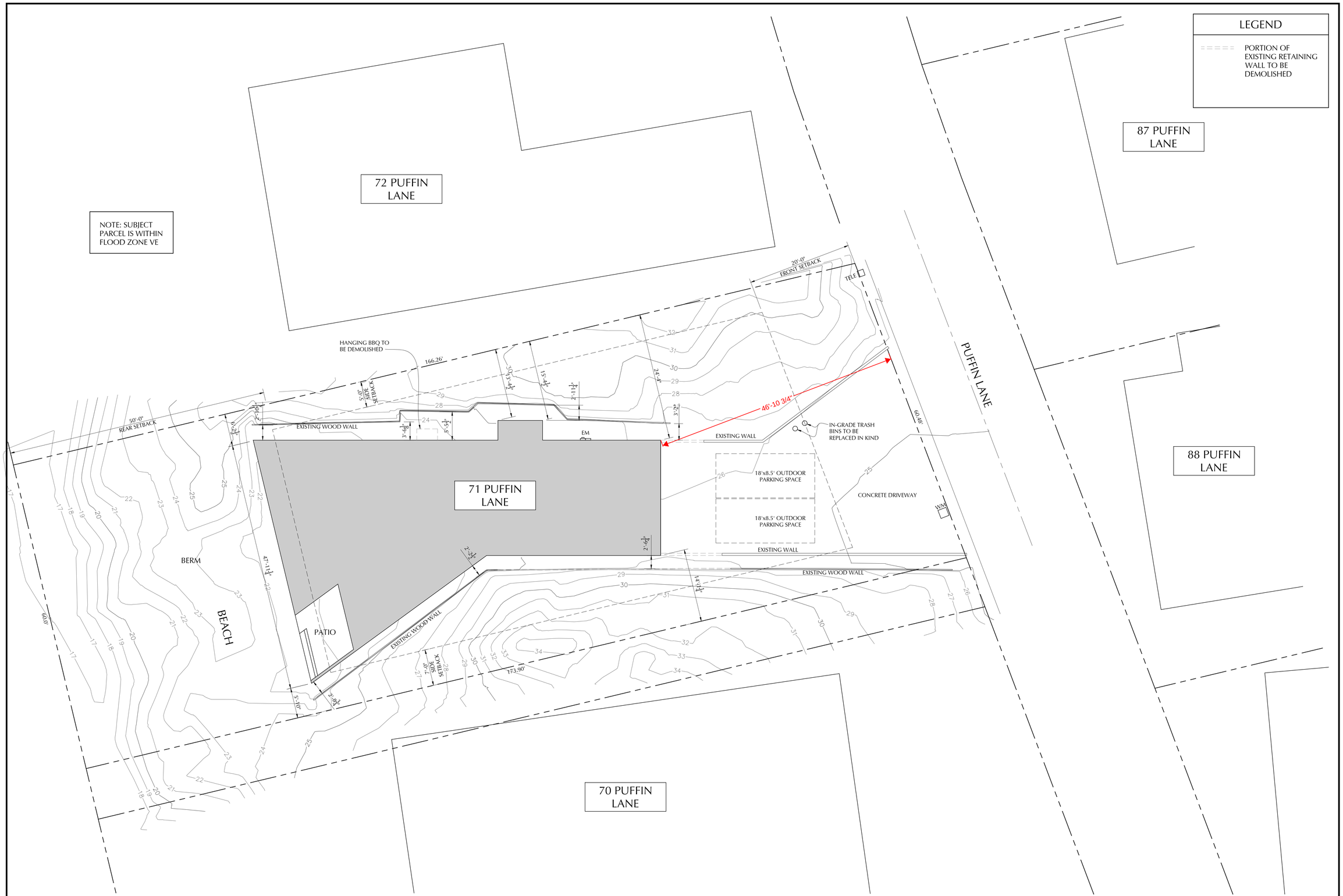
No.	DESCRIPTION	DATE

APPROVAL STAMP

STAMP

SHEET A1.1

EXHIBIT D



1 EXISTING SITE PLAN
SCALE: 1/8" = 1'-0"

BAYLESS ARCHITECTURE
135 CLAREMONT TERRACE
SANTA CRUZ, CA 95060
831.316.4788 - todd@baylessarch.com

RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

EXISTING/ DEMOLITION SITE PLAN

DRAWING DATE:	JULY 3, 2024
A.P.N.	052-291-24
CLIENT NAME:	INDRA
PROJECT NAME:	PUFFIN LANE

REVISIONS

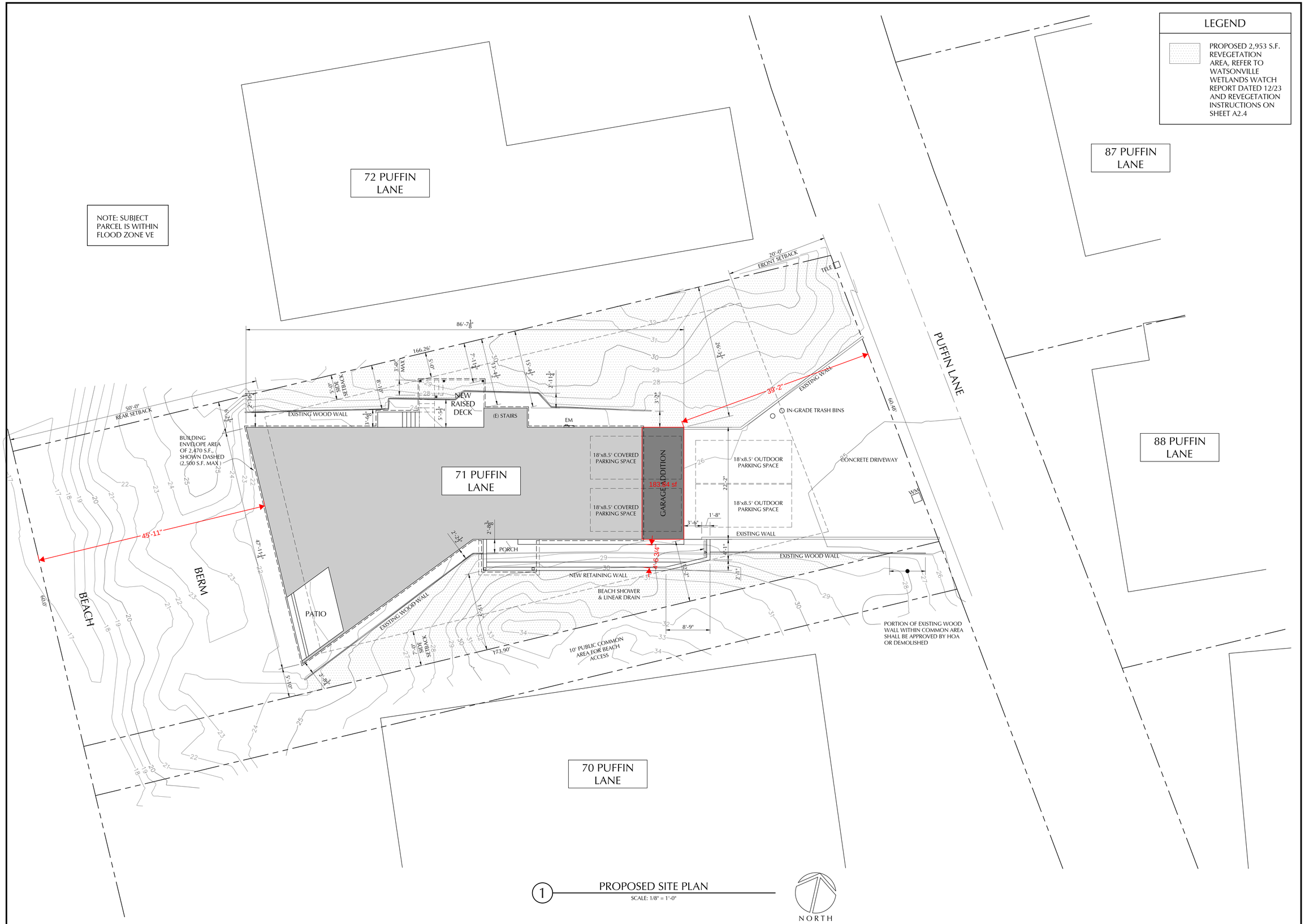
No.	DESCRIPTION	DATE

APPROVAL STAMP

STAMP

SHEET
A2.1

EXHIBIT D



1 PROPOSED SITE PLAN

SCALE: 1/8" = 1'-0"

BAYLESS ARCHITECTURE
135 CLAREMONT TERRACE
SANTA CRUZ, CA 95060
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RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

PROPOSED SITE PLAN

DRAWING DATE: JULY 3, 2024
A.P.N. 052-291-24
CLIENT NAME: INDRA
PROJECT NAME: PUFFIN LANE

REVISIONS

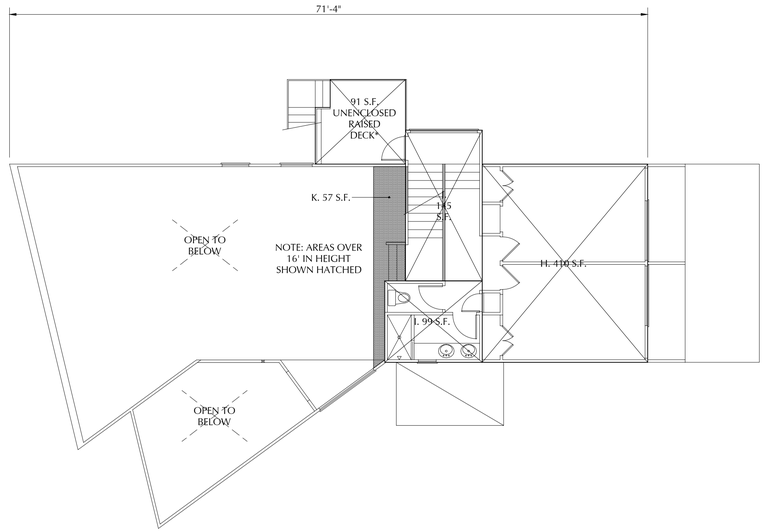
No.	DESCRIPTION	DATE

APPROVAL STAMP

STAMP

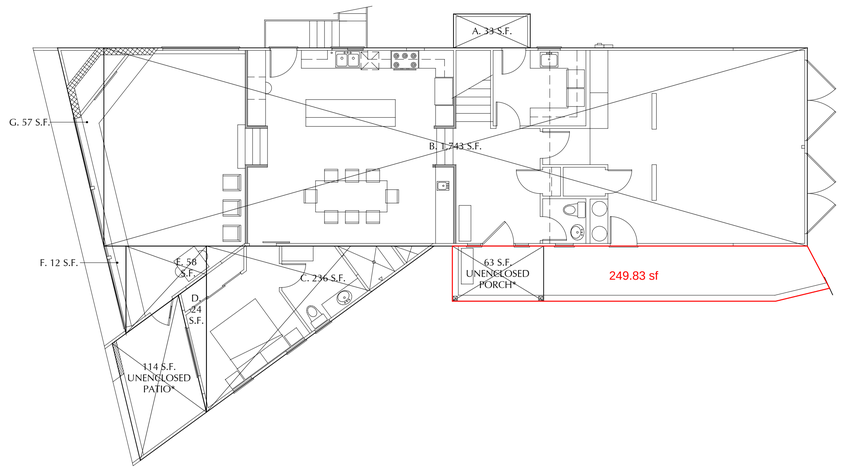
SHEET
A2.2

EXHIBIT D



2 UPPER FLOOR AREA PLAN

SCALE: 1/8" = 1'-0"



1 MAIN FLOOR AREA PLAN

SCALE: 1/8" = 1'-0"

FLOOR AREA RATIO

MAIN LEVEL:	
A.	33 S.F
B.	1,743 S.F.
C.	236 S.F.
D.	24 S.F.
E.	58 S.F
F.	12 S.F.
G.	57 S.F.
TOTAL:	2,163 S.F.
UPPER LEVEL:	
H.	410 S.F.
I.	99 S.F.
J.	145 S.F.
K.	57 S.F.
TOTAL:	711 S.F.
GARAGE EXEMPTION:	-225 S.F.
GRAND TOTAL:	2,649 S.F.

2,649 S.F. / 10,204 S.F. = 26%

LOT COVERAGE

MAIN LEVEL:	2,163 S.F.
FRONT PORCH:	63 S.F.
REAR PORCH:	114 S.F.
RAISED DECK:	91 S.F.
TOTAL:	2,431 S.F.

2,431 S.F. / 10,204 S.F. = 24%

BAYLESS ARCHITECTURE
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RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

FLOOR AREA ANALYSIS

DRAWING DATE:
JULY 3, 2024

A.P.N.
052-291-24

CLIENT NAME:
INDRA

PROJECT NAME:
PUFFIN LANE

REVISIONS

No.	DESCRIPTION	DATE

APPROVAL STAMP

STAMP

SHEET
A2.3

EXHIBIT D

Revegetation of native plant species and habitat enhancement measures are designed to support a self-sustaining natural plant community that approximates the plant diversity and cover of the undisturbed areas of mid-dune scrub in the Pajaro Dunes area. IActions to achieve this include:

- Removal of exotic plant species.
- Use of local and watershed specific plant material as a source for the revegetation effort and diversification of native plant species on site through revegetation efforts.
- Installation of native plants with the winter rains so as to allow the plants to establish with the correct seasonal timing.
- Monitoring of the plant establishment to measure the periodic progression toward percent cover and plant species diversity goals.
- Maintenance of the project site and adaptive management in support of habitat goals so that short- and long-term goals are met or exceeded and so than that no new colonies of non-native plants become established.

Site preparation

Prior to planting, site topography will be returned to the historic grade to the extent feasible and left so as to be consistent with the existing surrounding grade. All construction debris will be removed from the site. Non-native, invasive plant species within the restoration planting areas will be removed from the site and disposed of properly at the initiation of restoration activity. Iceplant (Carpobrotus edulis or Carpobrotus chilensis) will be removed by hand. European Dune Grass (Ammophila arenaria) will be removed to the extent possible, although its extensive root system may preclude complete eradication. European beach grass requires repeat spraying in the spring when shoot growth is most active. Herbicide applications of 4% or 10% Glyphosate (Roundup) with 0.5 % added surfactant have been shown to be effective at reducing cover by 90% or more (Bossard et al, 2000). Ammophila will be treated with herbicides by an experienced applicator who is familiar with both invasive plant control methods and native plant identification. Any native plants will be preserved on site.

Areas impacted by construction related activity will be restored to native dune habitat conditions and include the area within the construction fencing and all areas that will come in contact with construction related activity or equipment. In order to minimize impacts to habitat associated with construction related activity, a qualified biologist will survey these areas prior to initiation of construction and identify any sensitive native plants that would undergo significant damage during construction activity. Any native plants that meet these criteria will be dug up if appropriate or used as propagule material and propagated in a native plant nursery

to preserve them and replant them on site. If appropriate, native plants will be pruned back prior to construction in order to minimize damage. In order to ensure restoration is done in a satisfactory way, individual native plants will be counted prior to construction and post construction activity, and replanted as needed in the winter following construction.

Installation of Native Plants Associated with Impacts to Dune Habitat

Areas in which restoration will occur for compensation of dune removal activity, per Figure 1 will be planted with the following plant species identified in Table 1. below. Plants will be placed at the on-center spacing noted below and planted with the top of the rootball slightly below grade in the planting hole. Planting will be timed to coincide with the winter rains and can be initiated after the soil has been saturated to the depth of the rootball. Each plant will receive a deep watering the day planted. Winter rains will also be supplemented with irrigation as necessary. If needed, a temporary (on-surface) irrigation system will be placed throughout the planting areas. All native plants damaged during the construction process will be replaced in order to equal or exceed those present prior to construction. In addition to direct replacement of any native plants damaged or removed, all areas disturbed by construction will be restored to native Central Dune Scrub. Native plants will be sourced from local geno-types and collected on site if possible or within the watersheds of the Monterey Bay if on-site seed collection is not available. If native plants are unavailable in those quantities identified below, appropriate adjustments can be made within the species listed in Table 2. Planting List, below. To the extent feasible, a contract for native plants will be initiated at least 5 months prior to planting, in order to provide sufficient time for native plant material production.

Table 3. Restoration Planting List

Species	**Common Name**	**Qty**	**Spacing in feet**
Artemisia pycnocephala	Dune Sagewort	40	3
Calystegia soldanella	Beach Morning Glory	15	2
Camissoniopsis cheiranthifolia	Beach Primrose	60	2
Carex pansa	Dune Sedge	90	2
Dudleya caespitosa	Sea Lettuce	8	2
Elymus mollis	American Dunegrass	68	2
Ericameria ericoides	Mock Heather	50	3
Erigeron glaucus	Seaside Daisy	38	2
Eriogonum latifolium	Coast Buckwheat	75	2
Eriophyllum staechadifolium	Lizardtail	50	3
Eschscholzia californica	California Poppy	15	2
Fragaria chiloensis	Beach Strawberry	23	2
Lupinus chamissonis	Silver Lupine	20	3
	Total	**552**	

Pre-construction Survey

Prior to ground disturbance, a qualified biologist or botanist will conduct focused surveys for native and rare plants. The locations of native plants will be identified, particularly rare species such as Monterey Paintbrush (Castilleja latifolia), which is known to occur on the site. Each individual native plant will be located and tallied.

On-site Propagation and Sensitive Plants

Native plants that are disturbed, such as lupines, mock heather, and Monterey paintbrush, can be salvaged, cared for, and included in the replanting. If it is possible to salvage these plants they will be cared for in a nursery until it is time to replant them at the site. Larger and more established plants may not tolerate transplanting, but younger specimens should be able to thrive in a nursery setting and then be replanted.

Irrigation Plan

Container plants will be watered by hand with hoses, if possible. If that is not feasible, a temporary irrigation system will be installed, utilizing individual emitters for each plant. A battery-powered solenoid valve on a timer may be used to automatically control irrigation application if there is not an available connection point for a solenoid valve and timer.The resident will provide a point-of-connection to the existing water system. If necessary, multiple systems will be installed with their own point-of-connection, solenoid valve, and pressure reducer on each side of the house.

Maintenance

Maintenance will include removal of all non-native invasive plants during the establishment period for the native plantings. Specifically, Carpobrotus edulis (iceplant) and Ammophila arenaria (European beachgrass) will be removed from the site. Carpobrotus will be removed by hand pulling and the plant material removed from the project site. This plant can be stockpiled on site and allowed to dessicate prior to removal in order to reduce the cost to remove it if desired; however it must be maintained so as to not allow for re-rooting on site and removed from the site within 9 months of the initial removal. In the first three years after construction any new sprouts of iceplant will be removed with hand tools. The boundaries of the project will be clearly marked so the area can be maintained free of iceplant over time. To prevent iceplant from creeping over from neighboring properties during installation and maintenance it may be useful to install a fence and/or root barrier on the north and south boundaries of the project.

Ammophila arenaria has deep roots so cannot be controlled with hand pulling. This highly invasive dune grass forms a dense plant cover and has monopolized many acres of valuable coastal dune habitat to the north, reducing native species diversity while changing beach topography (Weidemann and Pickart, 1996). European beach grass requires repeat spraying in

the spring when shoot growth is most active. Herbicide applications of 4% or 10% Glyphosate (Roundup) with 0.5 % added surfactant have been shown to be effective at reducing cover by 90% or more (Bossard et al, 2000) Ammophila will be treated with herbicides by an experienced applicator who is familiar with both invasive plant control methods and native plant identification. During all non-native plant removal, care shall be taken to protect native plants. A buffer of at least 30 feet around each restoration planting will be established wherein Ammophila arenaria will be removed. This excludes the foredune area west of the house, unless it can be established that there are no sensitive species using that habitat (snowy plovers in particular).

Performance Standards and Reporting

Establishment Period and Performance Standards

The establishment period for native planting is planned for three years. Per the Santa Cruz County requirement, all restoration plantings, including those that are planted due to impacts within construction fencing, that do not persist will be replaced under the direction of a qualified biologist so as to ensure that there is 100% survival of native plants installed at the end of the first year after planting. After years 2-3 at least 90% survival is required, and at least 80% survival thereafter, or natural recruitment of native plants has been sufficient to provide for the equivalent number and quality of native plants within the planting areas. Percent cover of native plants within the revegetation area should equal or exceed 50% native cover and invasive plant cover should be no greater than 15% after 3 years. The 50% cover figure assumes the presence of some bare ground/ sand, which would typically be found within a healthy dune habitat.

Table 4. Performance Targets

Project Year	Plant Survival	Native Cover	Invasive Cover
1	100%	n/a	n/a
2	90%	n/a	n/a
3	90%	>50%	<15%
4	80%	>50%	<15%

Reporting

The project will be surveyed annually for plant survival and ground cover values. This will entail counting the surviving plants and surveying established transects for plant cover. Annual habitat monitoring reports shall be submitted to the Santa Cruz County Planning Department by December 31 of each monitoring year.

BAYLESS ARCHITECTURE
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RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

REVEGETATION INSTRUCTIONS

DRAWING DATE:
JULY 3, 2024

A.P.N.
052-291-24

CLIENT NAME:
INDRA

PROJECT NAME:
PUFFIN LANE

REVISIONS

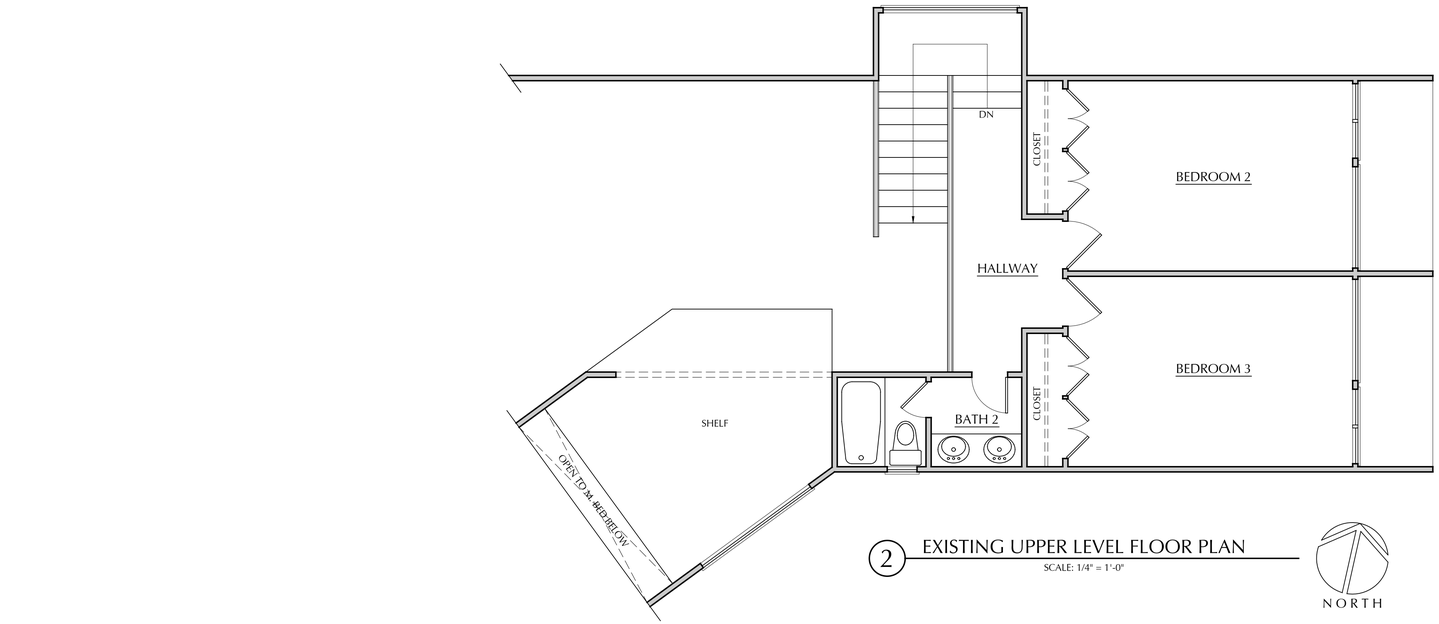
No.	DESCRIPTION	DATE

APPROVAL STAMP

STAMP

SHEET
A2.4

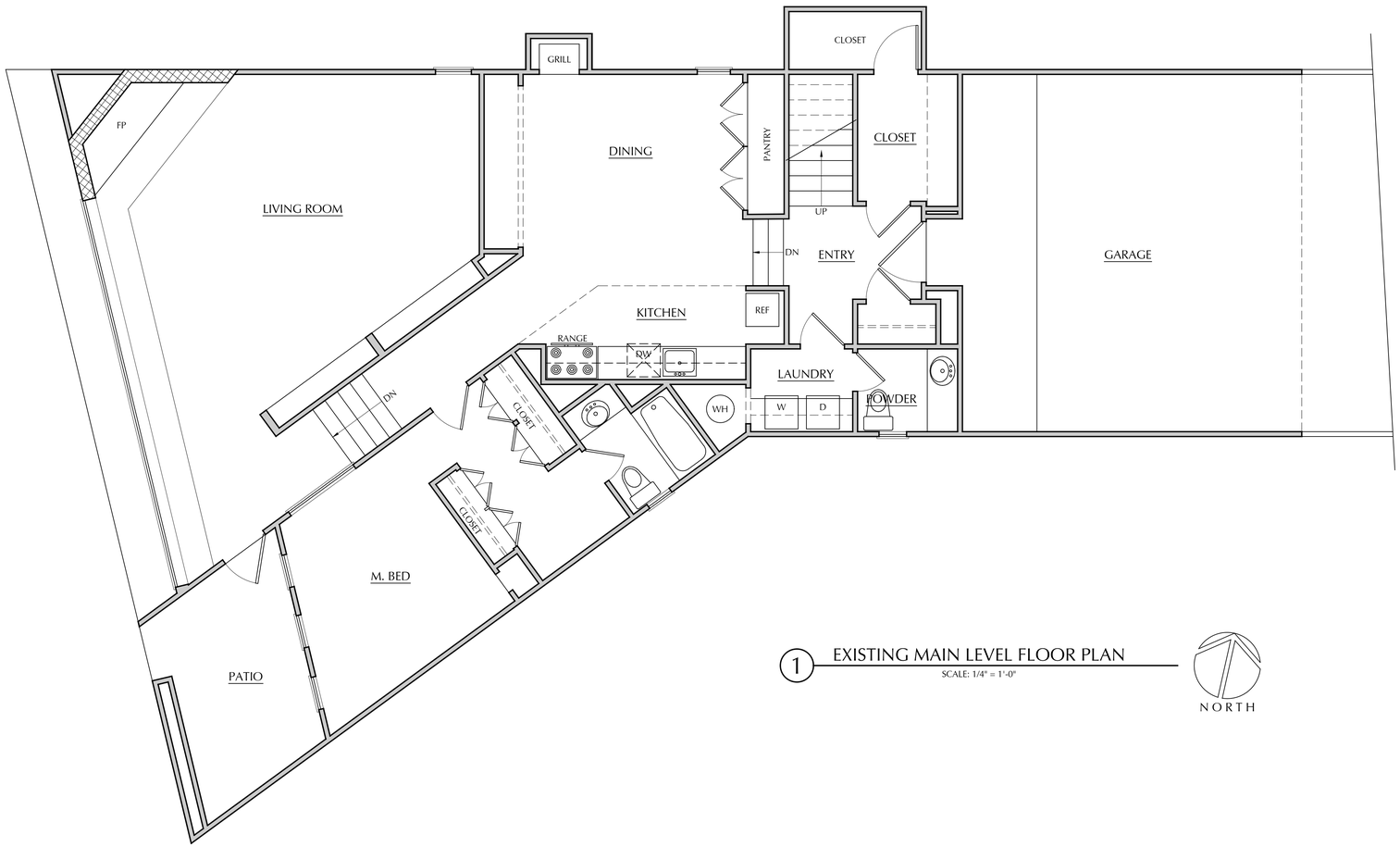
EXHIBIT D



2 EXISTING UPPER LEVEL FLOOR PLAN

SCALE: 1/4" = 1'-0"

NORTH



1 EXISTING MAIN LEVEL FLOOR PLAN

SCALE: 1/4" = 1'-0"

NORTH

LEGEND

- EXISTING 2x4 STUD WALL
- NEW 2x4 WOOD STUD WALL
- EXISTING CONCRETE WALL

BAYLESS ARCHITECTURE
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RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

EXISTING FLOOR PLANS

DRAWING DATE: JULY 3, 2024
A.P.N. 052-291-24
CLIENT NAME: INDRA
PROJECT NAME: PUFFIN LANE

REVISIONS

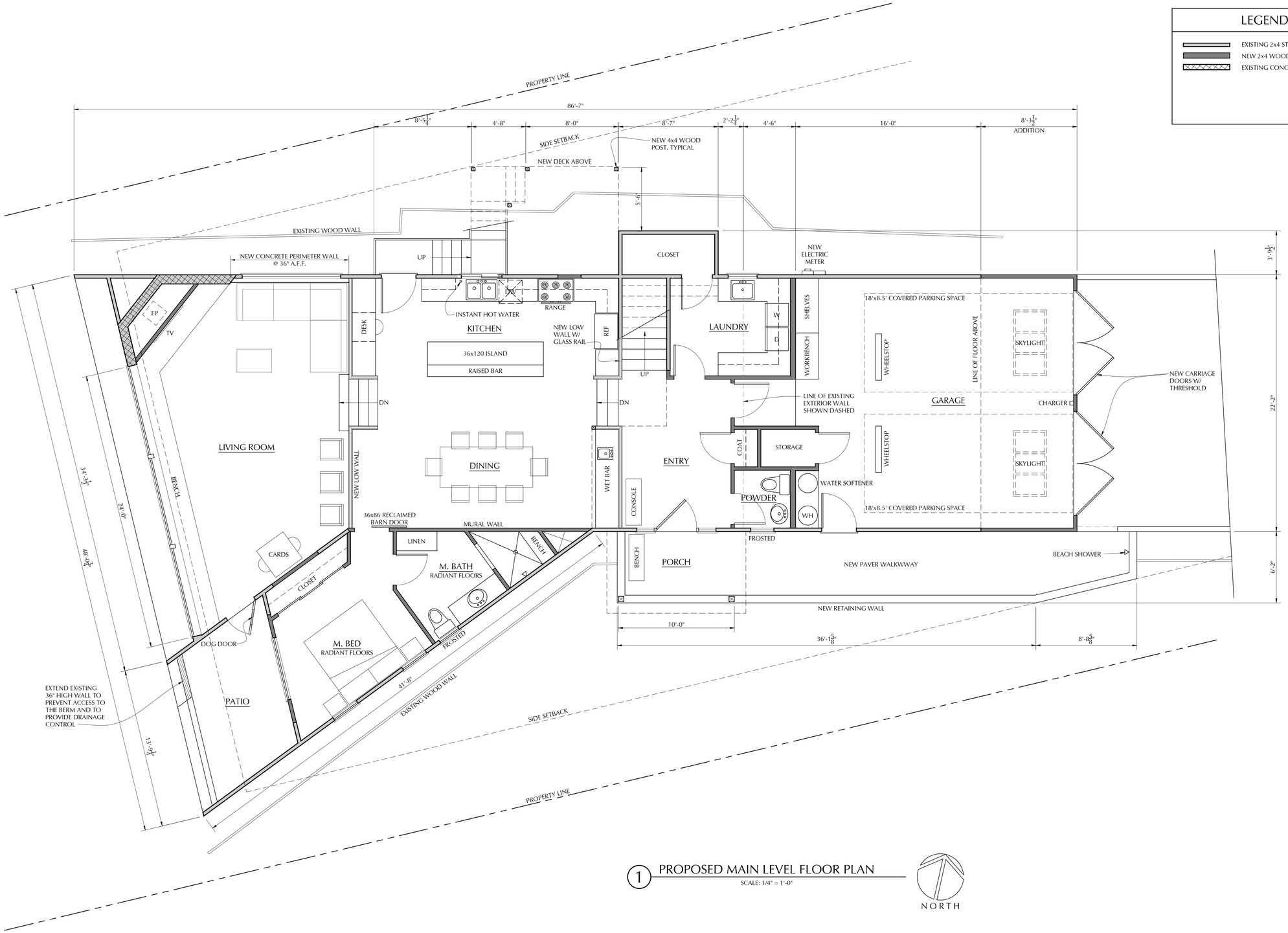
No.	DESCRIPTION	DATE

APPROVAL STAMP

STAMP

SHEET A3.1

EXHIBIT D



1 PROPOSED MAIN LEVEL FLOOR PLAN

SCALE: 1/4" = 1'-0"

NORTH

BAYLESS ARCHITECTURE
135 CLAREMONT TERRACE
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RESIDENTIAL REMODEL FOR

THE INDRA FAMILY

71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

PROPOSED MAIN LEVEL FLOOR PLAN

DRAWING DATE:	JULY 3, 2024
A.P.N.	052-291-24
CLIENT NAME:	INDRA
PROJECT NAME:	PUFFIN LANE

REVISIONS

No.	DESCRIPTION	DATE

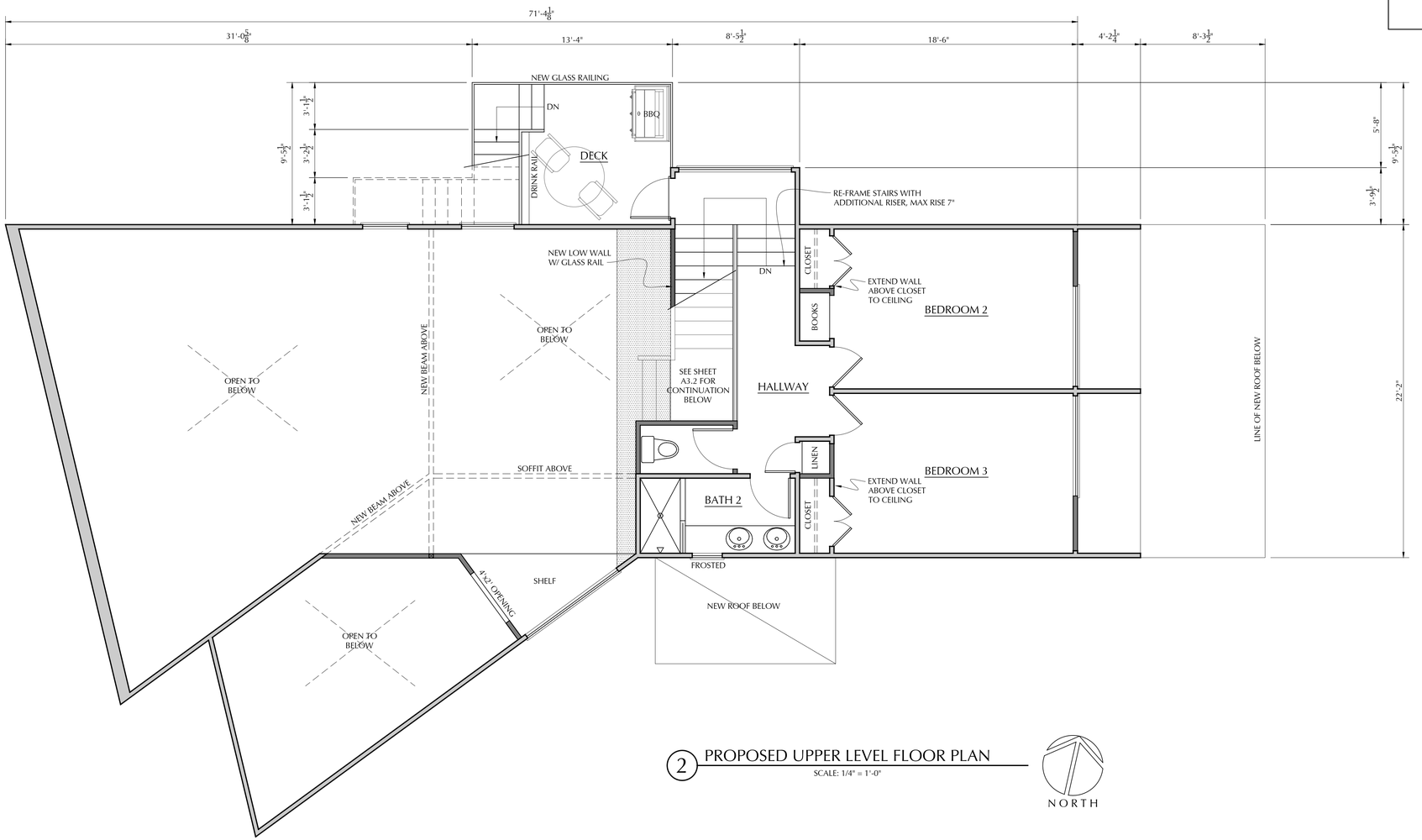
APPROVAL STAMP

STAMP

SHEET

A3.2

EXHIBIT D



LEGEND

- EXISTING 2x4 STUD WALL
- NEW 2x4 WOOD STUD WALL
- EXISTING CONCRETE WALL
- CEILING AREAS OVER 16' HIGH

2 PROPOSED UPPER LEVEL FLOOR PLAN

SCALE: 1/4" = 1'-0"

NORTH

BAYLESS ARCHITECTURE
135 CLAREMONT TERRACE
SANTA CRUZ, CA 95060
831.316.4788 - todd@baylessarch.com

RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

PROPOSED UPPER LEVEL FLOOR PLAN

DRAWING DATE:	JULY 3, 2024
A.P.N.	052-291-24
CLIENT NAME:	INDRA
PROJECT NAME:	PUFFIN LANE

REVISIONS

No.	DESCRIPTION	DATE

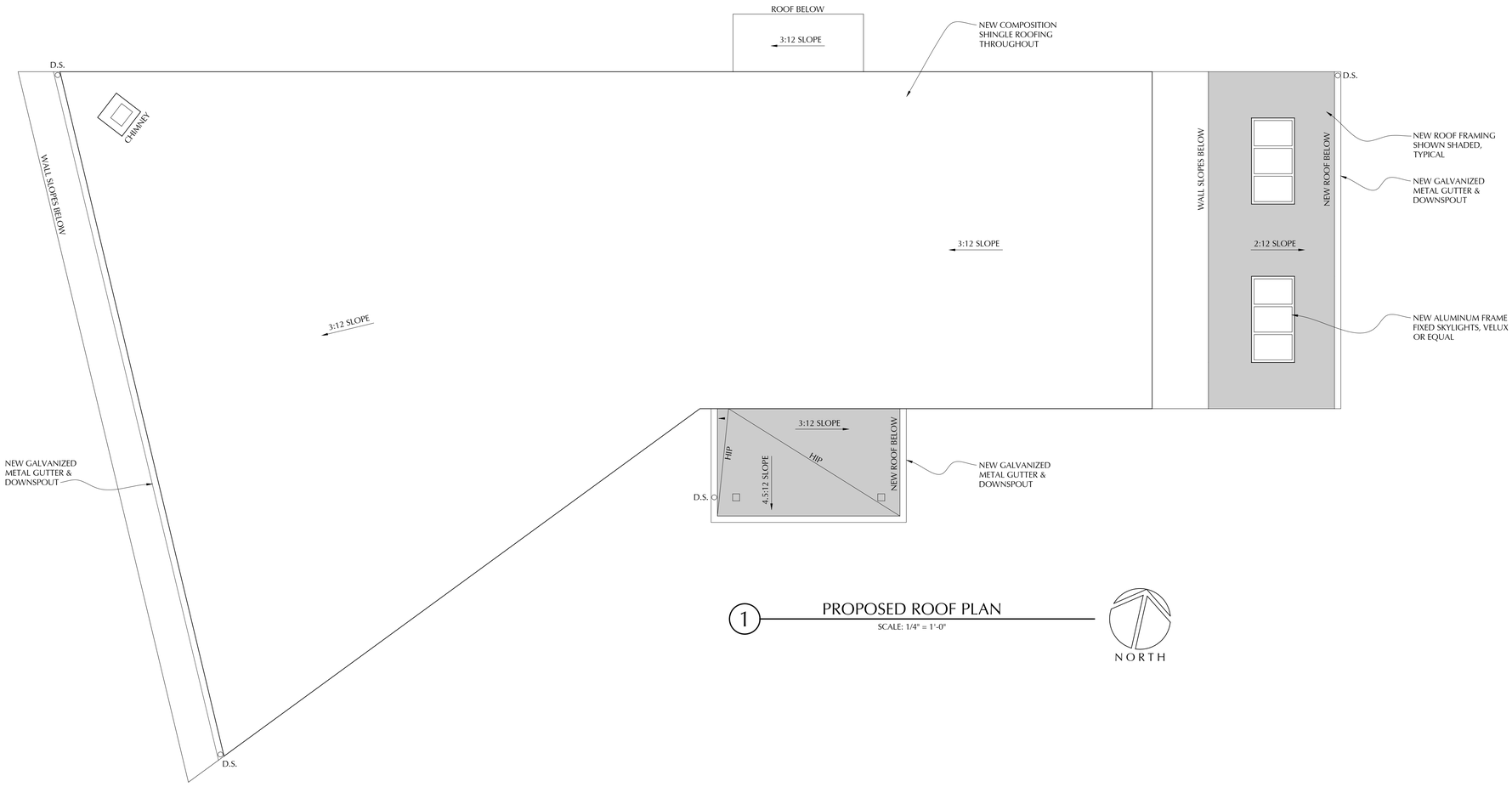
APPROVAL STAMP

STAMP

SHEET

A3.3

EXHIBIT D



1 PROPOSED ROOF PLAN

SCALE: 1/4" = 1'-0"

NORTH

BAYLESS ARCHITECTURE
135 CLAREMONT TERRACE
SANTA CRUZ, CA 95060
831.316.4788 - todd@baylessarch.com

RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

PROPOSED ROOF PLAN

DRAWING DATE: JULY 3, 2024

A.P.N. 052-291-24

CLIENT NAME: INDRA

PROJECT NAME: PUFFIN LANE

REVISIONS

No.	DESCRIPTION	DATE

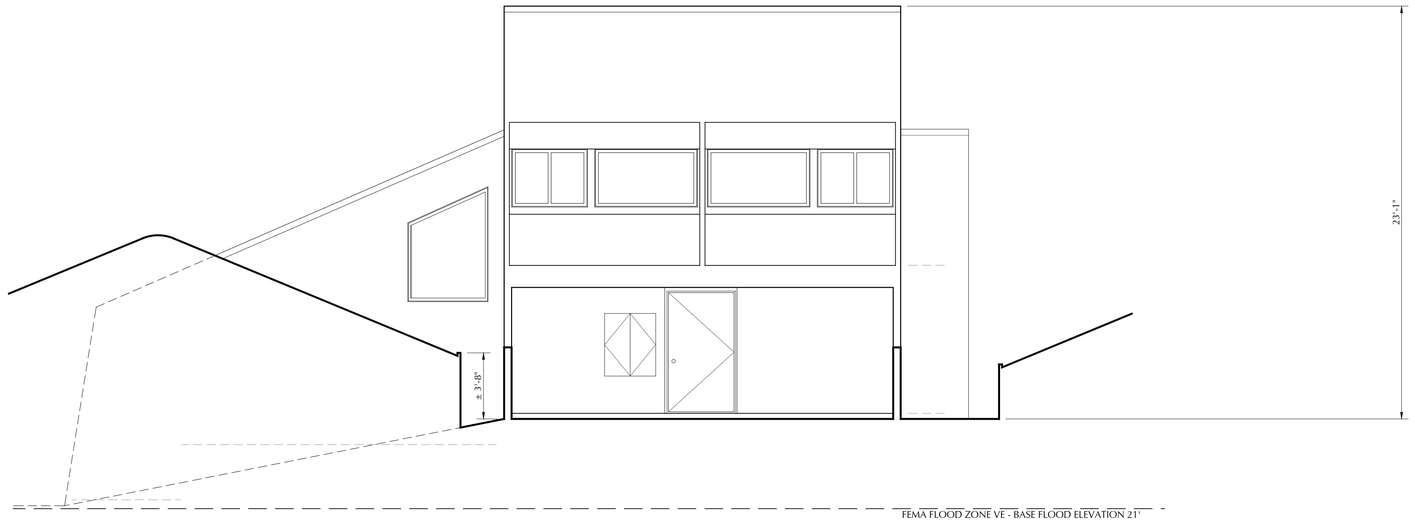
APPROVAL STAMP

STAMP

SHEET

A3.4

EXHIBIT D



1 EXISTING FRONT ELEVATION (EAST)

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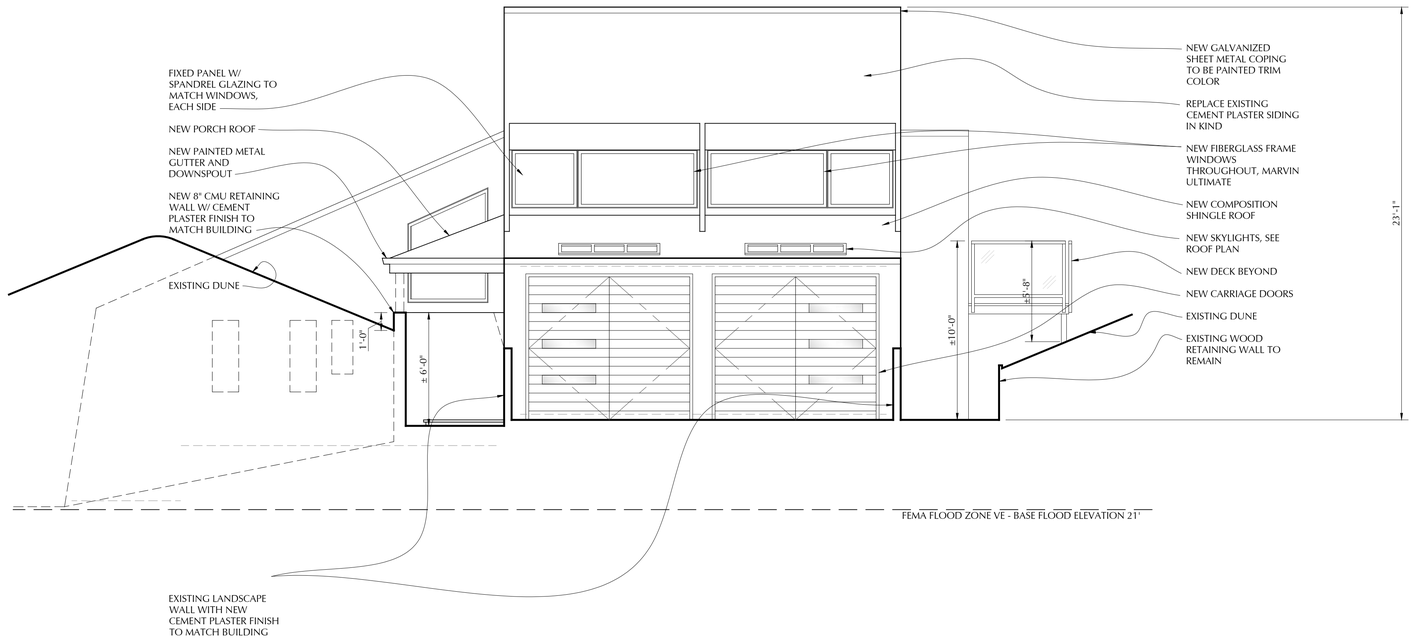

2 PROPOSED FRONT ELEVATION (EAST)

SCALE: 1/4" = 1'-0"

BAYLESS ARCHITECTURE
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SANTA CRUZ, CA 95060
831.316.4788 - todd@baylessarch.com

RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

EXTERIOR ELEVATIONS

DRAWING DATE: JULY 3, 2024

A.P.N. 052-291-24

CLIENT NAME: INDRA

PROJECT NAME: PUFFIN LANE

REVISIONS

No.	DESCRIPTION	DATE

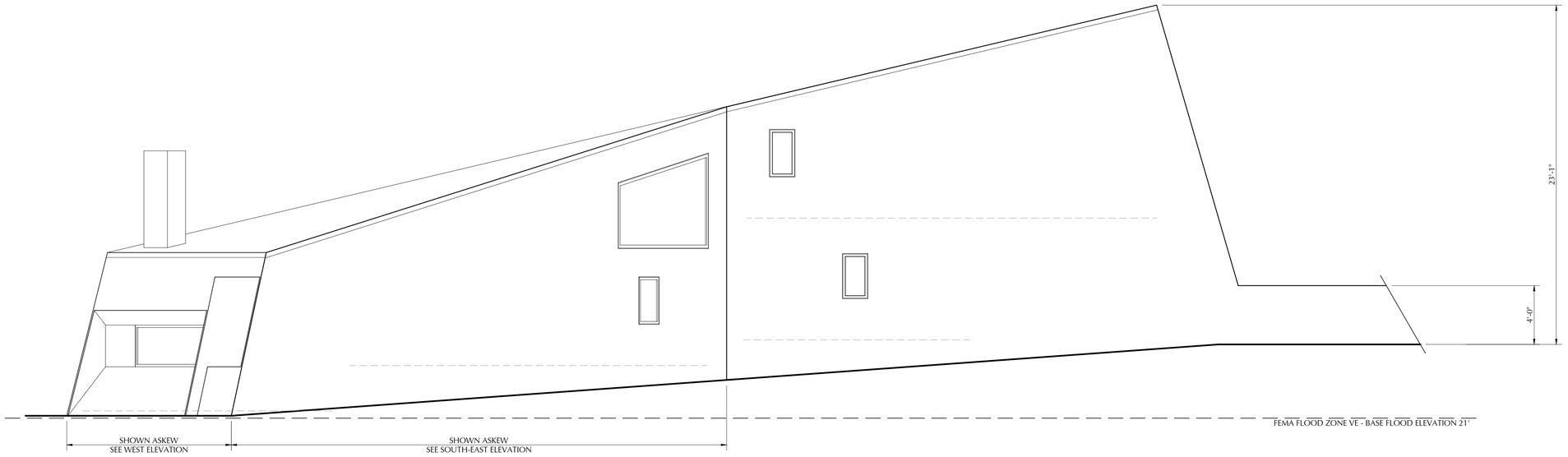
APPROVAL STAMP

STAMP

SHEET

A5.1

EXHIBIT D



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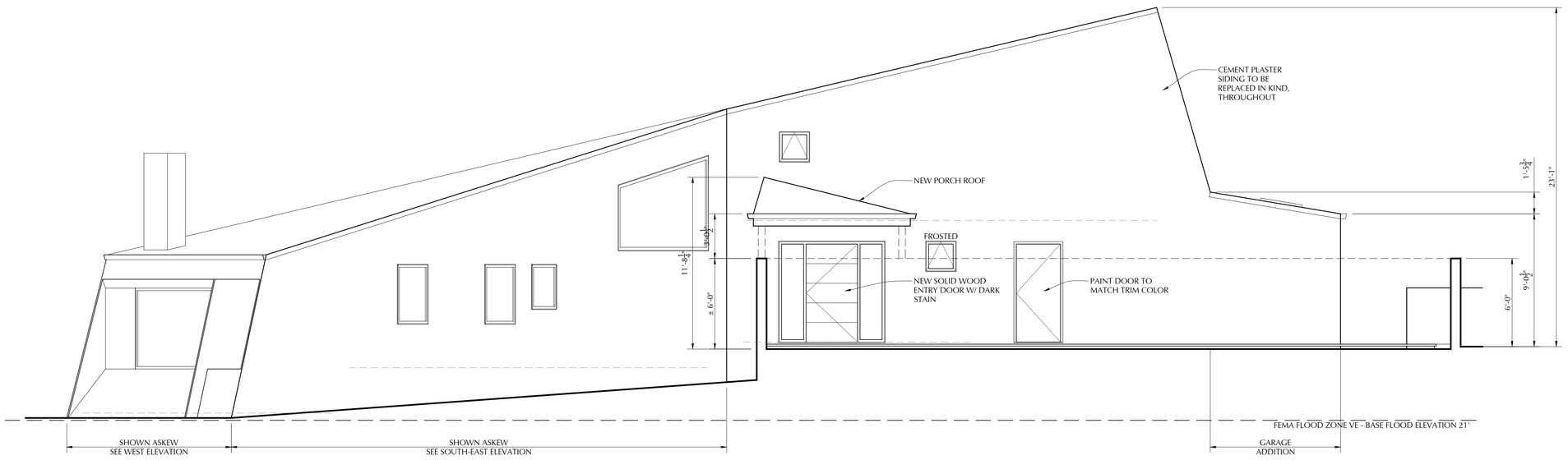


4 PROPOSED LEFT ELEVATION (SOUTH)

SCALE: 1/4" = 1'-0"

BAYLESS ARCHITECTURE
135 CLAREMONT TERRACE
SANTA CRUZ, CA 95060
831.316.4788 - todd@baylessarch.com

RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

EXTERIOR ELEVATIONS

DRAWING DATE:	JULY 3, 2024
A.P.N.	052-291-24
CLIENT NAME:	INDRA
PROJECT NAME:	PUFFIN LANE

REVISIONS

No.	DESCRIPTION	DATE

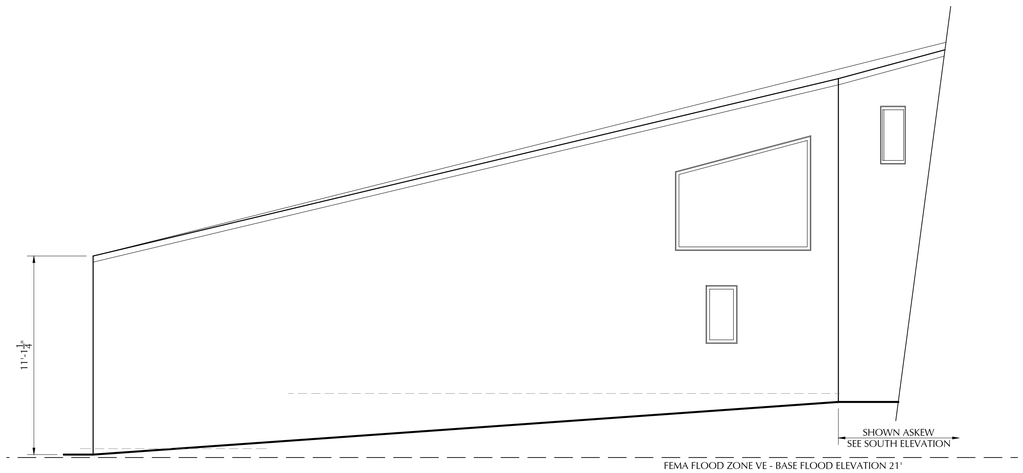
APPROVAL STAMP

STAMP

SHEET

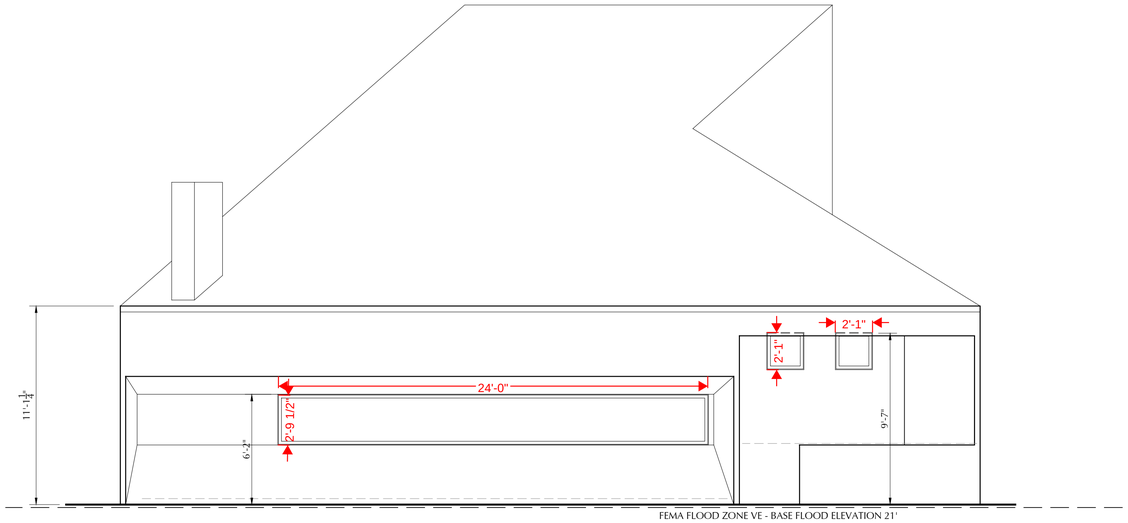
A5.2

EXHIBIT D



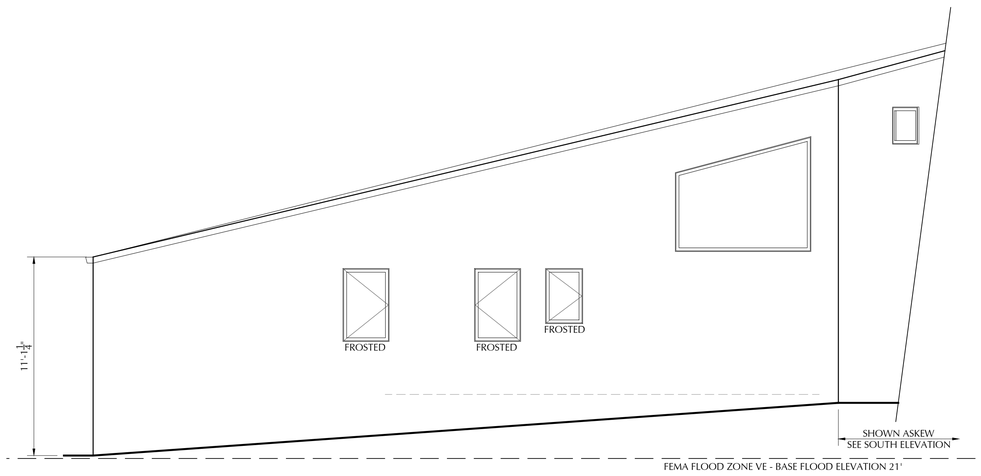
5 EXISTING SOUTH-EAST ELEVATION

SCALE: 1/4" = 1'-0"



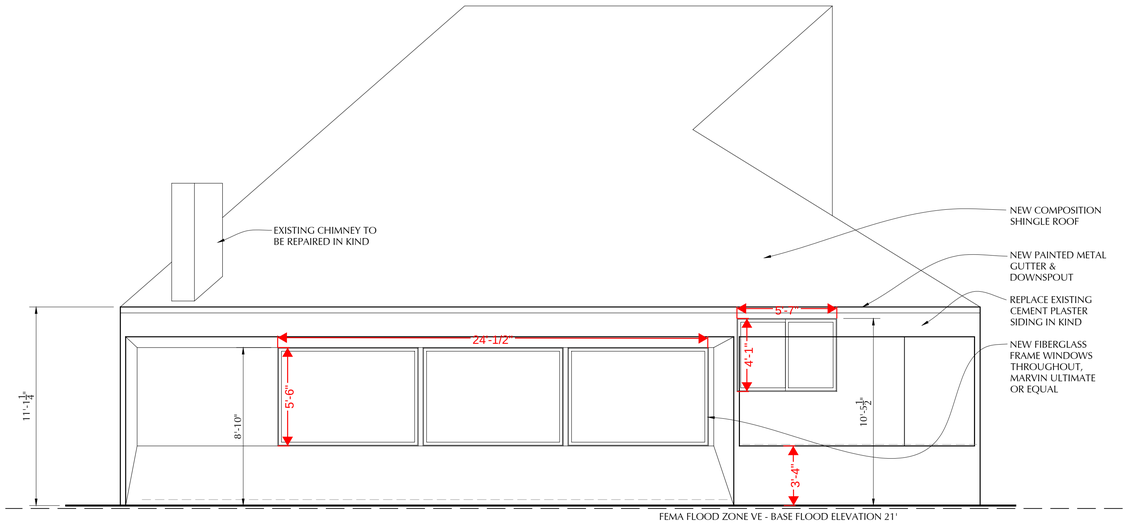
7 EXISTING REAR ELEVATION (WEST)

SCALE: 1/4" = 1'-0"



6 PROPOSED SOUTH-EAST ELEVATION

SCALE: 1/4" = 1'-0"



8 PROPOSED REAR ELEVATION (WEST)

SCALE: 1/4" = 1'-0"

BAYLESS ARCHITECTURE
135 CLAREMONT TERRACE
SANTA CRUZ, CA 95060
831.316.4788 - todd@baylessarch.com

RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

EXTERIOR ELEVATIONS

DRAWING DATE:
JULY 3, 2024

A.P.N.
052-291-24

CLIENT NAME:
INDRA

PROJECT NAME:
PUFFIN LANE

REVISIONS

No.	DESCRIPTION	DATE

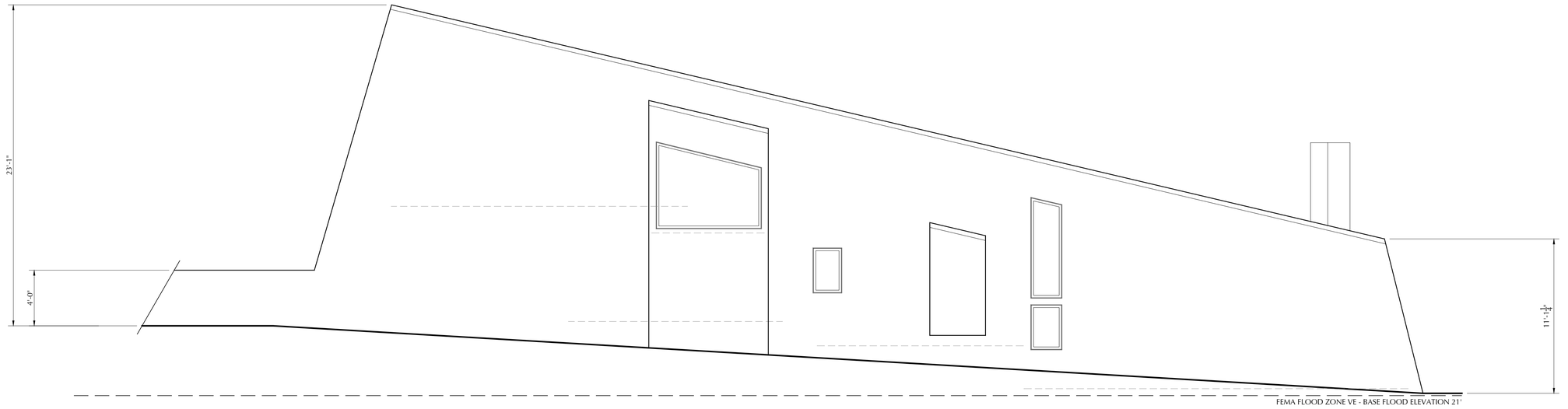
APPROVAL STAMP

STAMP

SHEET

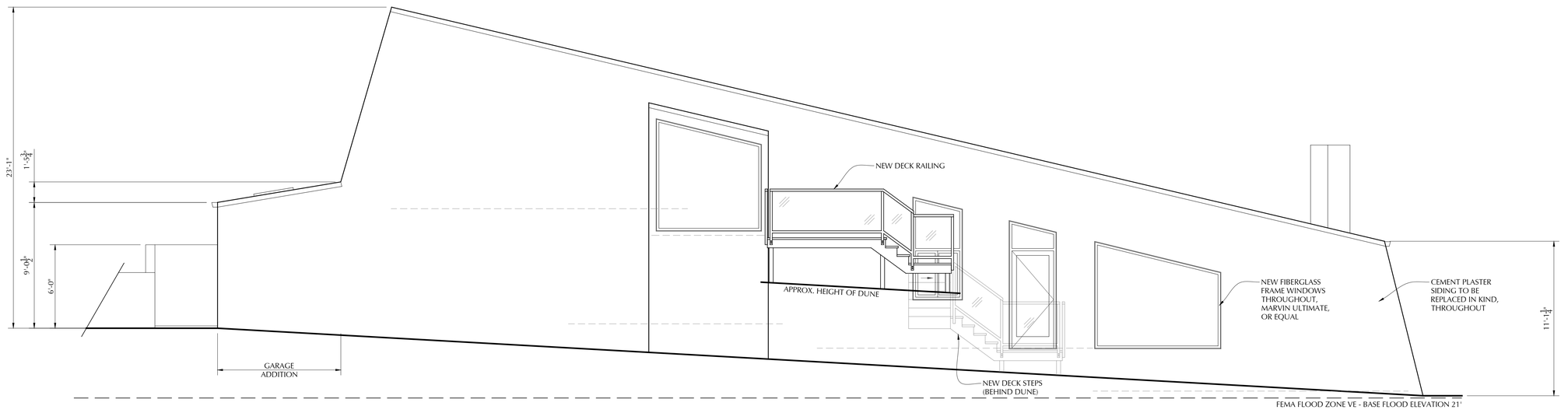
A5.3

EXHIBIT D



9 EXISTING RIGHT ELEVATION (NORTH)

SCALE: 1/4" = 1'-0"



10 PROPOSED RIGHT ELEVATION (NORTH)

SCALE: 1/4" = 1'-0"

BAYLESS ARCHITECTURE
135 CLAREMONT TERRACE
SANTA CRUZ, CA 95060
831.316.4788 - todd@baylessarch.com

RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

EXTERIOR ELEVATIONS

DRAWING DATE: JULY 3, 2024

A.P.N. 052-291-24

CLIENT NAME: INDRA

PROJECT NAME: PUFFIN LANE

REVISIONS

No.	DESCRIPTION	DATE

APPROVAL STAMP

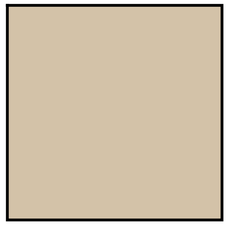
STAMP

SHEET

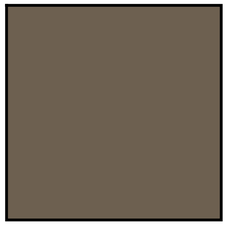
A5.4

EXHIBIT D

FINISH MATERIALS



BODY COLOR
BENJAMIN MOORE HC-45 SHAKER BEIGE
CEMENT PLASTER SIDING



TRIM COLOR
BENJAMIN MOORE 1001 NORTHWOOD BROWN
GUTTERS, DOWNSPOUTS, COPING, DOOR FRAMES, & DOORS

WINDOW FRAMES
MARVIN SIGNATURE ULTIMATE
BRONZE FIBERGLASS EXTERIOR FRAMES
GLAZING SHALL BE GLASPRO "BIRD SAFE ULTRAVIOLET REFLECTIVE" OR EQUAL

GARAGE DOORS & MAIN ENTRY DOOR
W/ DARK WOOD STAIN, MINWAX "DARK WALNUT 2716" OR SIMILAR,
BY CARRIAGE DOOR COMPANY, OR EQUAL

COMPOSITION DECKING
TREX "VINTAGE LANTERN" OR EQUAL

RAILINGS
CLEAR ALUMINUM BALUSTERS AND STAINED WOOD HANDRAIL WITH GLASSPRO "BIRDSAFE" UV GLASS PANES, BY VIEWRAIL OR EQUAL

COMPOSITION SHINGLE ROOFING
GAF TIMBERLINE HDZ
COLOR: GOLDEN AMBER

1 FRONT (GARAGE) RENDERING
SCALE: N.T.S.

2 LEFT SIDE (ENTRY) RENDERING
SCALE: N.T.S.

3 RIGHT SIDE (BALCONY) RENDERING
SCALE: N.T.S.

BAYLESS ARCHITECTURE
135 CLAREMONT TERRACE
SANTA CRUZ, CA 95060
831.316.4788 - todd@baylessarch.com

RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076
FINISH MATERIALS & EXTERIOR RENDERINGS

DRAWING DATE:	JULY 3, 2024
A.P.N.	052-291-24
CLIENT NAME:	INDRA
PROJECT NAME:	PUFFIN LANE

REVISIONS

No.	DESCRIPTION	DATE

APPROVAL STAMP

STAMP

SHEET
A5.5

EXHIBIT D

4 EXISTING PHOTO FROM BEACH EDGE
SCALE: N.T.S.

5 REAR RENDER @ MEAN HIGH TIDE LINE
SCALE: N.T.S.

6 REAR RENDER @ SOUTH PROPERTY LINE
SCALE: N.T.S.

BAYLESS ARCHITECTURE
135 CLAREMONT TERRACE
SANTA CRUZ, CA 95060
831.316.4788 - todd@baylessarch.com

RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

EXISTING PHOTO & EXTERIOR RENDERINGS

DRAWING DATE:	JULY 3, 2024
A.P.N.	052-291-24
CLIENT NAME:	INDRA
PROJECT NAME:	PUFFIN LANE

REVISIONS

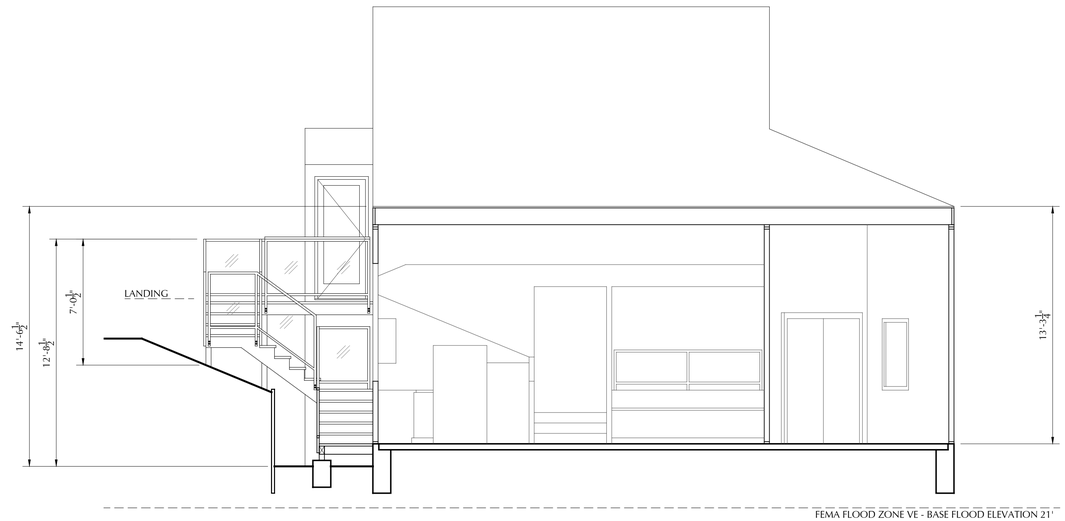
No.	DESCRIPTION	DATE

APPROVAL STAMP

STAMP

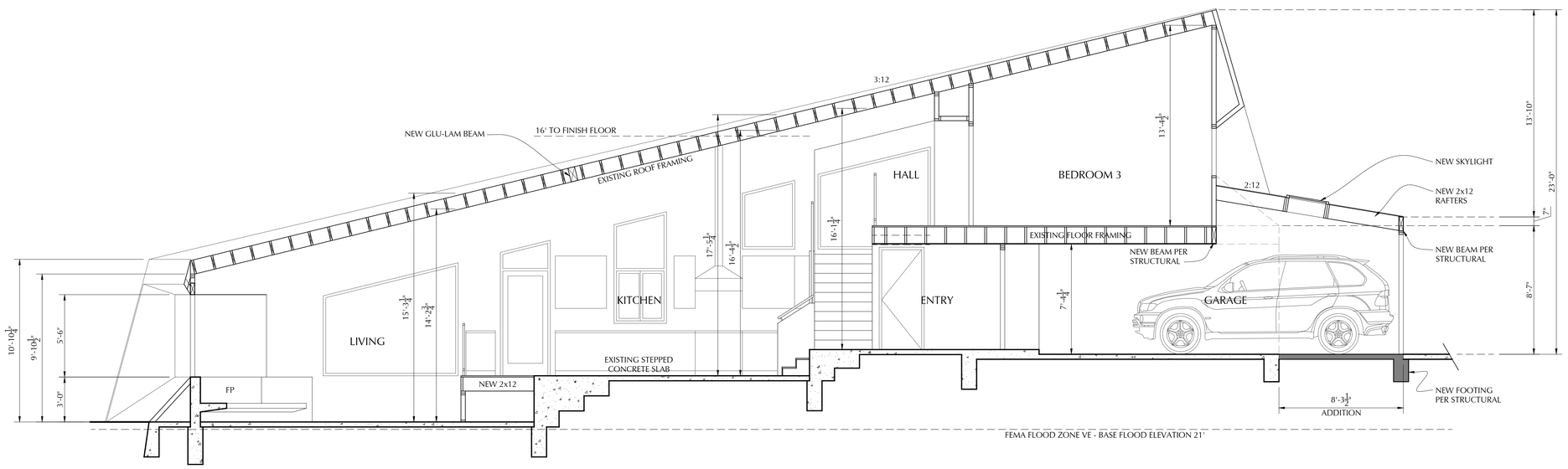
SHEET
A5.6

EXHIBIT D



2 BUILDING SECTION

SCALE: 1/4" = 1'-0"



1 BUILDING SECTION

SCALE: 1/4" = 1'-0"

BAYLESS ARCHITECTURE
135 CLAREMONT TERRACE
SANTA CRUZ, CA 95060
831.316.4788 - todd@baylessarch.com

RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

BUILDING SECTION

DRAWING DATE:	JULY 3, 2024
A.P.N.	052-291-24
CLIENT NAME:	INDRA
PROJECT NAME:	PUFFIN LANE

REVISIONS

No.	DESCRIPTION	DATE

APPROVAL STAMP

STAMP

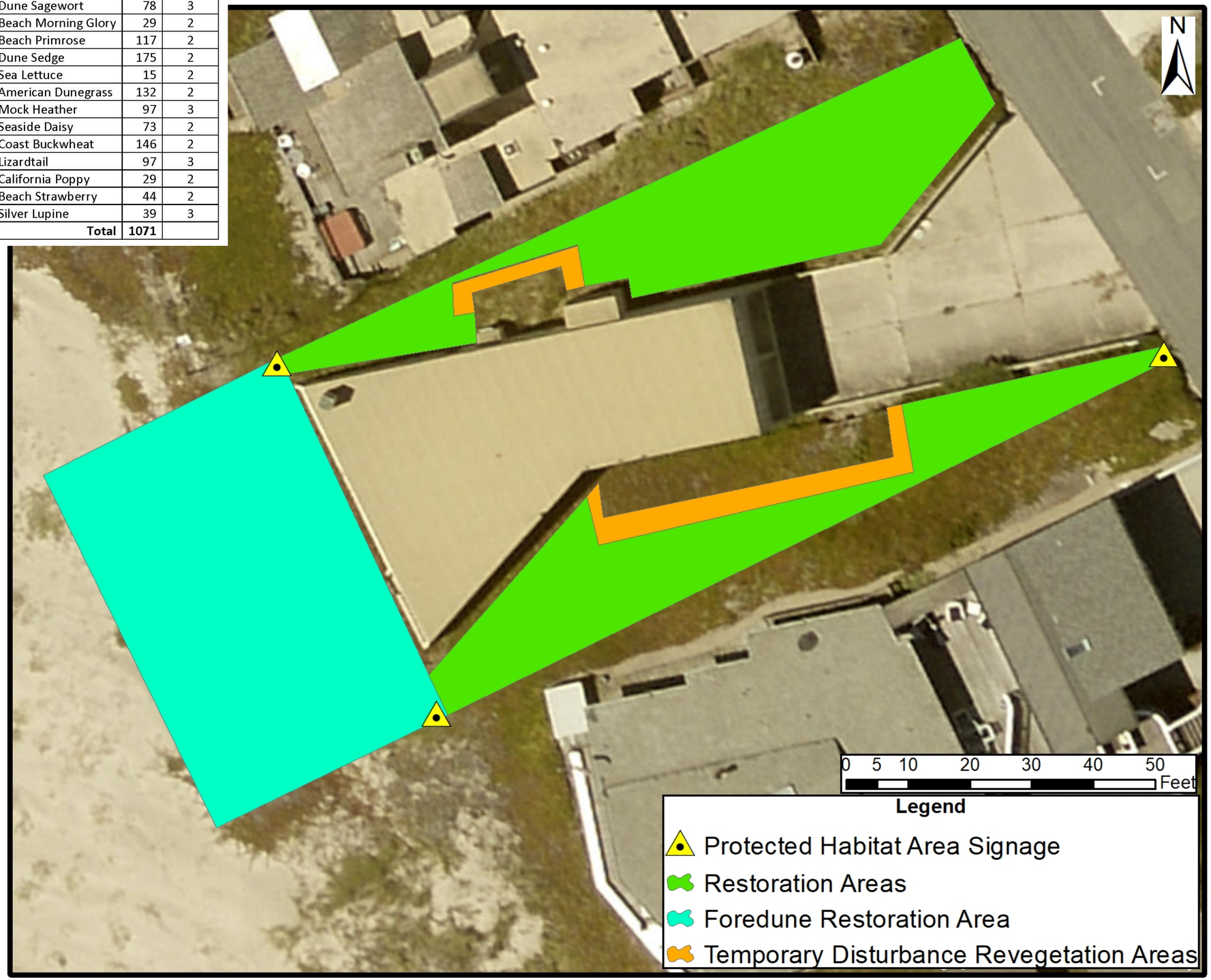
SHEET

A6.1

EXHIBIT D

71 Puffin Lane Proposed Revegetation Area

Species	Common Name	Qty	Spacing in feet
Artemisia pycnocephala	Dune Sagewort	78	3
Calystegia soldanella	Beach Morning Glory	29	2
Camissoniopsis cheiranthifolia	Beach Primrose	117	2
Carex pansa	Dune Sedge	175	2
Dudleya caespitosa	Sea Lettuce	15	2
Elymus mollis	American Dunegrass	132	2
Ericameria ericoides	Mock Heather	97	3
Erigeron glaucus	Seaside Daisy	73	2
Eriogonum latifolium	Coast Buckwheat	146	2
Eriophyllum staechadifolium	Lizardtail	97	3
Eschscholzia californica	California Poppy	29	2
Fragaria chiloensis	Beach Strawberry	44	2
Lupinus chamissonis	Silver Lupine	39	3
	Total	**1071**	



REVEGETATION PLAN PREPARED BY
WATSONVILLE WETLANDS WATCH
PO BOX 1239, FREEDOM CA 95019

RESIDENTIAL REMODEL FOR
THE INDRA FAMILY
71 PUFFIN LANE, WATSONVILLE, CALIFORNIA 95076

LANDSCAPE PLAN

DRAWING DATE: JULY 3, 2024
A.P.N. 052-291-24
CLIENT NAME: INDRA
PROJECT NAME: PUFFIN LANE

REVISIONS

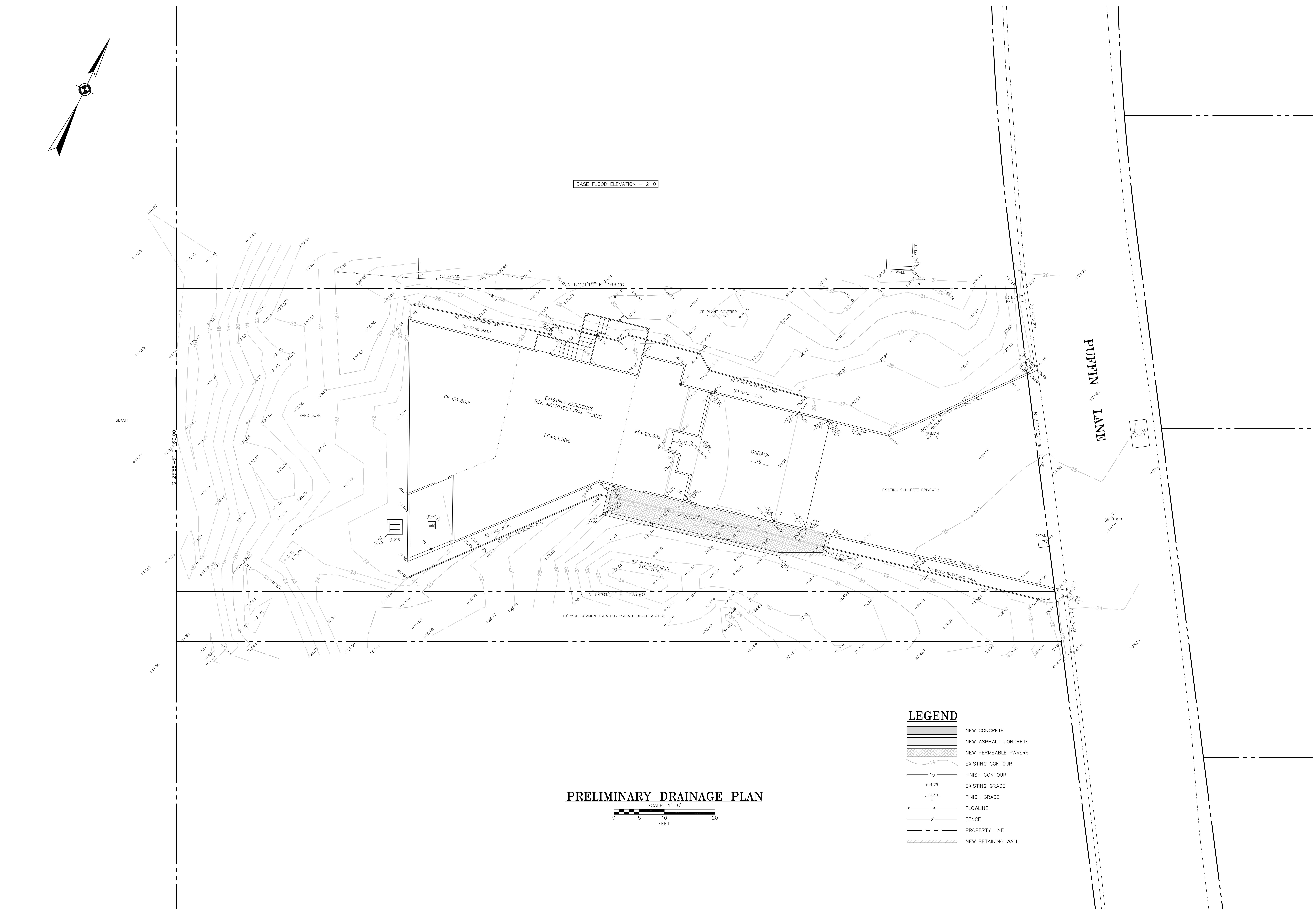
No.	DESCRIPTION	DATE

APPROVAL STAMP

STAMP

SHEET
L-1

EXHIBIT D



UNLESS SIGNED BY THE ENGINEER, THIS PLAN IS FOR REFERENCE ONLY. THE SIGNED PLAN IS THE ONLY PLAN TO BE USED FOR CONSTRUCTION.

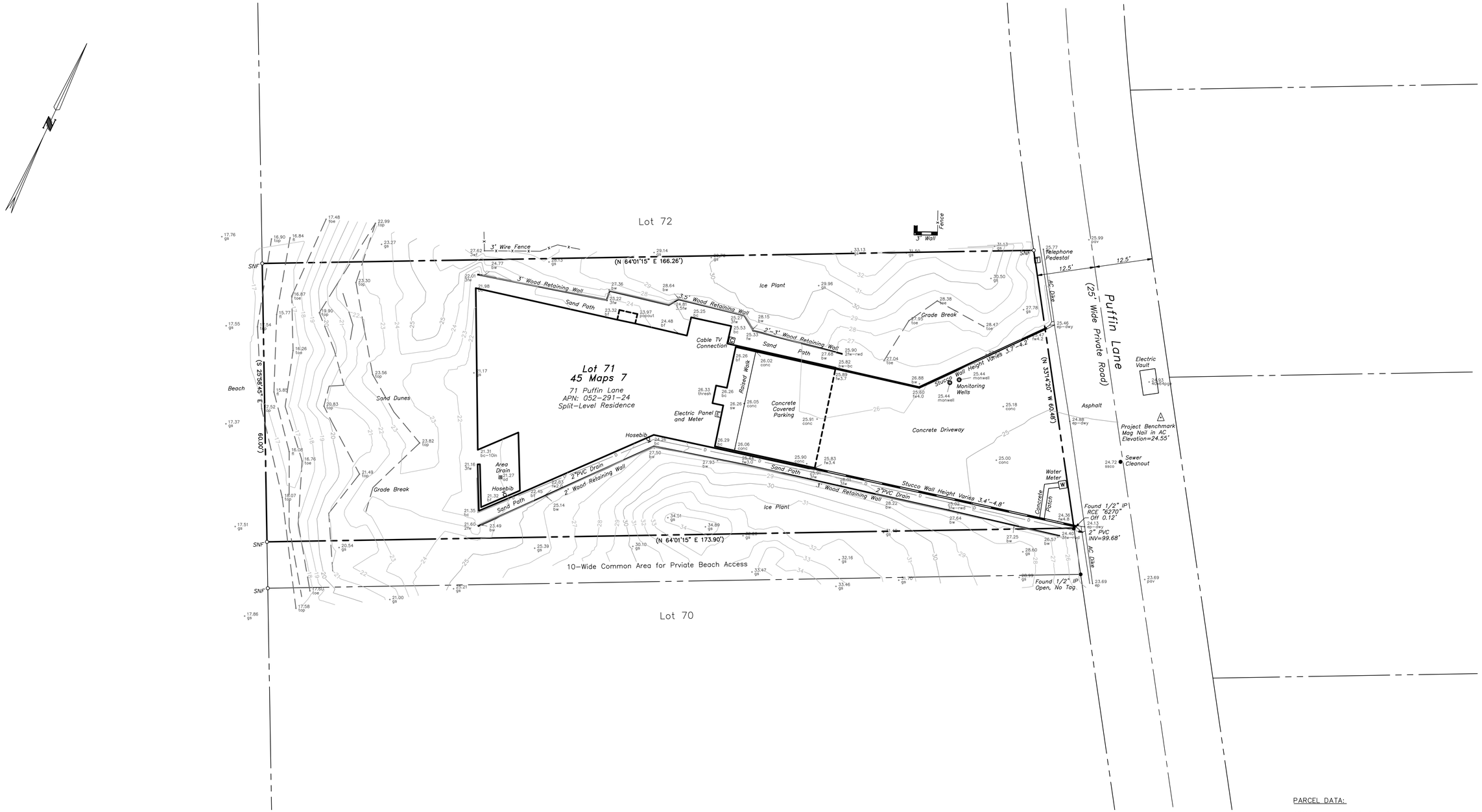
ROPER ENGINEERING
CIVIL ENGINEERING & LAND SURVEYING
48 MANN AVENUE CORRALITOS, CA 95076
(831) 724-5300 jeff@roperengineering.com

RESIDENTIAL REMODEL FOR BARBARA INDRA
71 PUFFIN LANE, PAJARO DUNES APN 052-291-24

PRELIMINARY DRAINAGE PLAN

SCALE:	AS NOTED
DESIGNED BY:	JR
DRAWN BY:	JR
DATE:	DEC. 21, 2022
REVISED:	JAN. 10, 2024
JOB NO.:	22061
SHEET	C1
OF	1 SHEETS

EXHIBIT D



PARCEL DATA:

APN: 052-291-24

AREA: 10,204 SF +/-

ELEVATION DATUM

ELEVATIONS ARE DERIVED FROM SANTA CRUZ COUNTY BENCHMARK 14A AND BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.

REFERENCES

(A) 45-MB-7

BASIS OF BEARINGS

BEARINGS ARE BASED UPON THE SOUTHWESTERN LINE OF PUFFIN LANE AS SHOWN ON THAT CERTAIN MAP RECORDED IN BOOK 45 OF MAPS AT PAGE 7, SANTA CRUZ COUNTY RECORDS

NORTH 38° 18' 02" EAST

NOTES

A TITLE REPORT WAS NOT PROVIDED FOR THIS SURVEY. EASEMENTS SHOWN, IF ANY, ARE COMPILED FROM RECORD MAPS AND THE CURRENT DEED FOR THE PROPERTY. THERE MAY BE ADDITIONAL EASEMENTS THAT BURDEN OR BENEFIT THE SUBJECT PROPERTY THAT WOULD ONLY BE REVEALED ON A TITLE REPORT.

SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft.

LICENSED LAND SURVEYOR JEAN-PAUL HAPPEE 8807 STATE OF CALIFORNIA

JEAN-PAUL HAPPEE, PLS 8807

ALPHA LAND SURVEYS, INC.			
4444 SCOTTS VALLEY DR. #7 SCOTTS VALLEY, CA 95066 (831) 438-4453	P.O. BOX 1146 MORGAN HILL, CA 95038 (831) 438-4453	TOPOGRAPHIC MAP OF 71 PUFFIN LANE WATSONVILLE SANTA CRUZ COUNTY	SHEET 1 OF ONE
1" = 10'	DATE: 8/26/22	JOB#: 2022-171	

EXHIBIT D

12/4/2023

Native Coastal Dune Scrub Revegetation and Enhancement Plan

71 Puffin Lane

Pajaro Dunes

Watsonville, CA 95076

APN : 052-291-24

Prepared By:

Watsonville Wetlands Watch

Contact: Cara Clark

Restoration Director

P.O. Box 1239 Freedom, Ca

95019

Contents

Project Description

This habitat enhancement and restoration plan has been created to address the anticipated disturbance to the Coastal Dune Scrub habitat during the proposed additions to 71 Puffin Lane. The existing building is a 1,524 square foot, two-story, single family dwelling, within a 10,204 square foot parcel.

Proposed construction will consist of the remodeling the existing 1,524 square foot house, and an addition of a new board walkway, outdoor shower, and covered porch totaling 288 square feet, as well as a new deck that will require 12 square feet for the deck footings. An existing retaining wall will be removed and a new one replaced further out on the south slope of the property.

Habitat restoration is required by the County of Santa Cruz due to impacts to existing dune habitat associated with proposed development activities. Revegetation shall consist of plants native to the Pajaro Dunes area and invasive plants shall be removed from the site as described in the habitat enhancement section below. This plan is written in accordance with the requirements outlined in the Biological Assessment produced by Dawn Reis Ecological Studies, dated November 21, 2022, and subsequent communication between the project proponent and the County of Santa Cruz Planning Department.

Existing Conditions

The project is located within the Pajaro Dunes South housing complex, just north of the estuary of the Pajaro River and its confluence with the 'Last Mile' of Watsonville Slough within a sand dune habitat area. The dune soils on site are derived mostly of quarzitic sand blown up from the beach. The soil is very permeable and runoff is slow. The hazard of water erosion is slight; however the hazard of wind erosion if the soil is not vegetated is high. The topography consists of hummocks and swales, with some steep slopes. The site elevation ranges from 16 to 30 feet.

On-site vegetation consists of a typical mid-dune scrub plant community that is heavily invaded by non-native species. The site is dominated by the invasive species Ammophila arenaria (European beachgrass) and Carpobrotus edulis (iceplant). Within these areas exist stands of native plant species such as Ericameria ericoides (mock heather), Lupinus arboreus (Bush Lupine), and Eriophyllum staechadifolium (Lizard Tail).

There are three rare native plant species which occur in the dune habitats of the region. Chorizanthe pungens var. pungens (Monterey spineflower) is listed as federally threatened, and is listed by the California Native Plant Society as significantly threatened. Erysimum ammophilum (sand-loving wallflower) is listed by the California Native Plant Society as moderately threatened. Chorizanthe robusta var. robusta (Robust spineflower), is federally listed endangered and listed by the California Native Plant Society as significantly threatened.

None of these species were observed on the project site. Also of interest is the presence of Eriogonum (buckwheat) species due to their association as a host plant or the Smiths Blue Butterfly (Euphilotes enoptes smithi), a federally listed endangered species. No Eriogonum species were observed on the property. The plants observed on the project site are listed below in Table 1. The initial list of plants is from the Biological Assessment conducted by Dawn Reis, dated November 21, 2022, and additional plants were added from a survey conducted by Cara Clark on March 23, 2023.

Table 1. Plants observed on the project site

	Species	**Common Name**
	Abronia latifolia	Yellow Sand Verbena
*	Ammophila arenaria	European Beachgrass
*	Anthriscus caucalis	Bur-chervil
	Atriplex leucophylla	Seascale
*	Bromus diandrus	Rip-gut Brome
*	Cakile maritima	Searocket
	Camissoniopsis cheiranthifolia	Beach Primrose
*	Carpobrotus edulis	Ice Plant
	Castilleja latifolia	Seaside Paintbrush
	Elymus mollis	American Dunegrass
	Ericameria ericoides	Mock Heather
	Eriophyllum staechadifolium	Lizard Tail
	Lupinus arboreus	Yellow Bush Lupine
	Lupinus chamissonis	Silver Lupine
	Pseudognaphalium stramineum	Cottonbatting Plant
*	Sonchus asper	Sow Thistle
*	indicates non-native species	

Habitat Impacts and Revegetation

The project will displace 885 sq ft of highly degraded Central Dune Scrub and temporarily impact 298 sq ft, but is proposing to restore 2953 sq ft of the degraded Central Dune Scrub through revegetation with native plants, thereby enhancing the Central Dune Scrub community on the parcel. This restored area constitutes a 3:1 ratio for permanent impacts and a 1:1 ratio for temporary impacts.

Table 2. Impact area and required mitigation area

Type of Impact	Area	Mitigation Ratio	Total Area
Permanent	885 ft2	3:1	2655
Temporary	298 ft2	1:1	298
		Sum Total Area:	2953

To compensate for disturbance of Sensitive Habitats, and to comply with the Santa Cruz County General Plan Policy 5.1.12, restoration of degraded Sensitive Habitat is required.

Figure 1. Proposed 2953 ft2 revegetation area

Revegetation of native plant species and habitat enhancement measures are designed to support a self-sustaining natural plant community that approximates the plant diversity and cover of the undisturbed areas of mid-dune scrub in the Pajaro Dunes area. IActions to achieve this include:

- Removal of exotic plant species.
- Use of local and watershed specific plant material as a source for the revegetation effort and diversification of native plant species on site through revegetation efforts.
- Installation of native plants with the winter rains so as to allow the plants to establish with the correct seasonal timing.
- Monitoring of the plant establishment to measure the periodic progression toward percent cover and plant species diversity goals.
- Maintenance of the project site and adaptive management in support of habitat goals so that short- and long-term goals are met or exceeded and so than that no new colonies of non-native plants become established.

Site preparation

Prior to planting, site topography will be returned to the historic grade to the extent feasible and left so as to be consistent with the existing surrounding grade. All construction debris will be removed from the site. Non-native, invasive plant species within the restoration planting areas will be removed from the site and disposed of properly at the initiation of restoration activity. Iceplant (Carpobrotus edulis or Carpobrotus chilensis) will be removed by hand. European Dune Grass (Ammophila arenaria) will be removed to the extent possible, although its extensive root system may preclude complete eradication. European beach grass requires repeat spraying in the spring when shoot growth is most active. Herbicide applications of 4% or 10% Glyphosate (Roundup) with 0.5 % added surfactant have been shown to be effective at reducing cover by 90% or more (Bossard et al, 2000). Ammophila will be treated with herbicides by an experienced applicator who is familiar with both invasive plant control methods and native plant identification. Any native plants will be preserved on site.

Areas impacted by construction related activity will be restored to native dune habitat conditions and include the area within the construction fencing and all areas that will come in contact with construction related activity or equipment. In order to minimize impacts to habitat associated with construction related activity, a qualified biologist will survey these areas prior to initiation of construction and identify any sensitive native plants that would undergo significant damage during construction activity. Any native plants that meet these criteria will be dug up if appropriate or used as propagule material and propagated in a native plant nursery

to preserve them and replant them on site. If appropriate, native plants will be pruned back prior to construction in order to minimize damage. In order to ensure restoration is done in a satisfactory way, individual native plants will be counted prior to construction and post construction activity, and replanted as needed in the winter following construction.

Installation of Native Plants Associated with Impacts to Dune Habitat

Areas in which restoration will occur for compensation of dune removal activity, per Figure 1 will be planted with the following plant species identified in Table 1. below. Plants will be placed at the on-center spacing noted below and planted with the top of the rootball slightly below grade in the planting hole. Planting will be timed to coincide with the winter rains and can be initiated after the soil has been saturated to the depth of the rootball. Each plant will receive a deep watering the day planted. Winter rains will also be supplemented with irrigation as necessary. If needed, a temporary (on-surface) irrigation system will be placed throughout the planting areas. All native plants damaged during the construction process will be replaced in order to equal or exceed those present prior to construction. In addition to direct replacement of any native plants damaged or removed, all areas disturbed by construction will be restored to native Central Dune Scrub. Native plants will be sourced from local geno-types and collected on site if possible or within the watersheds of the Monterey Bay if on-site seed collection is not available. If native plants are unavailable in those quantities identified below, appropriate adjustments can be made within the species listed in Table 2. Planting List, below. To the extent feasible, a contract for native plants will be initiated at least 5 months prior to planting, in order to provide sufficient time for native plant material production.

Table 3. Restoration Planting List

Species	**Common Name**	**Qty**	**Spacing in feet**
Artemisia pycnocephala	Dune Sagewort	40	3
Calystegia soldanella	Beach Morning Glory	15	2
Camissoniopsis cheiranthifolia	Beach Primrose	60	2
Carex pansa	Dune Sedge	90	2
Dudleya caespitosa	Sea Lettuce	8	2
Elymus mollis	American Dunegrass	68	2
Ericameria ericoides	Mock Heather	50	3
Erigeron glaucus	Seaside Daisy	38	2
Eriogonum latifolium	Coast Buckwheat	75	2
Eriophyllum staechadifolium	Lizardtail	50	3
Eschscholzia californica	California Poppy	15	2
Fragaria chiloensis	Beach Strawberry	23	2
Lupinus chamissonis	Silver Lupine	20	3
	Total	**552**	

Pre-construction Survey

Prior to ground disturbance, a qualified biologist or botanist will conduct focused surveys for native and rare plants. The locations of native plants will be identified, particularly rare species such as Monterey Paintbrush (Castilleja latifolia), which is known to occur on the site. Each individual native plant will be located and tallied.

On-site Propagation and Sensitive Plants

Native plants that are disturbed, such as lupines, mock heather, and Monterey paintbrush, can be salvaged, cared for, and included in the replanting. If it is possible to salvage these plants they will be cared for in a nursery until it is time to replant them at the site. Larger and more established plants may not tolerate transplanting, but younger specimens should be able to thrive in a nursery setting and then be replanted.

Irrigation Plan

Container plants will be watered by hand with hoses, if possible. If that is not feasible, a temporary irrigation system will be installed, utilizing individual emitters for each plant. A battery-powered solenoid valve on a timer may be used to automatically control irrigation application if there is not an available connection point for a solenoid valve and timer.The resident will provide a point-of-connection to the existing water system. If necessary, multiple systems will be installed with their own point-of-connection, solenoid valve, and pressure reducer on each side of the house.

Maintenance

Maintenance will include removal of all non-native invasive plants during the establishment period for the native plantings. Specifically, Carpobrotus edulis (iceplant) and Ammophila arenaria (European beachgrass) will be removed from the site. Carpobrotus will be removed by hand pulling and the plant material removed from the project site. This plant can be stockpiled on site and allowed to dessicate prior to removal in order to reduce the cost to remove it if desired; however it must be maintained so as to not allow for re-rooting on site and removed from the site within 9 months of the initial removal. In the first three years after construction any new sprouts of iceplant will be removed with hand tools. The boundaries of the project will be clearly marked so the area can be maintained free of iceplant over time. To prevent iceplant from creeping over from neighboring properties during installation and maintenance it may be useful to install a fence and/or root barrier on the north and south boundaries of the project.

Ammophila arenaria has deep roots so cannot be controlled with hand pulling. This highly invasive dune grass forms a dense plant cover and has monopolized many acres of valuable coastal dune habitat to the north, reducing native species diversity while changing beach topography (Weidemann and Pickart, 1996). European beach grass requires repeat spraying in

the spring when shoot growth is most active. Herbicide applications of 4% or 10% Glyphosate (Roundup) with 0.5 % added surfactant have been shown to be effective at reducing cover by 90% or more (Bossard et al, 2000) Ammophila will be treated with herbicides by an experienced applicator who is familiar with both invasive plant control methods and native plant identification. During all non-native plant removal, care shall be taken to protect native plants. A buffer of at least 30 feet around each restoration planting will be established wherein Ammophila arenaria will be removed. This excludes the foredune area west of the house, unless it can be established that there are no sensitive species using that habitat (snowy plovers in particular).

Performance Standards and Reporting

Establishment Period and Performance Standards

The establishment period for native planting is planned for three years. Per the Santa Cruz County requirement, all restoration plantings, including those that are planted due to impacts within construction fencing, that do not persist will be replaced under the direction of a qualified biologist so as to ensure that there is 100% survival of native plants installed at the end of the first year after planting. After years 2-3 at least 90% survival is required, and at least 80% survival thereafter, or natural recruitment of native plants has been sufficient to provide for the equivalent number and quality of native plants within the planting areas. Percent cover of native plants within the revegetation area should equal or exceed 50% native cover and invasive plant cover should be no greater than 15% after 3 years. The 50% cover figure assumes the presence of some bare ground/ sand, which would typically be found within a healthy dune habitat.

Table 4. Performance Targets

Project Year	Plant Survival	Native Cover	Invasive Cover
1	100%	n/a	n/a
2	90%	n/a	n/a
3	90%	>50%	<15%
4	80%	>50%	<15%

Reporting

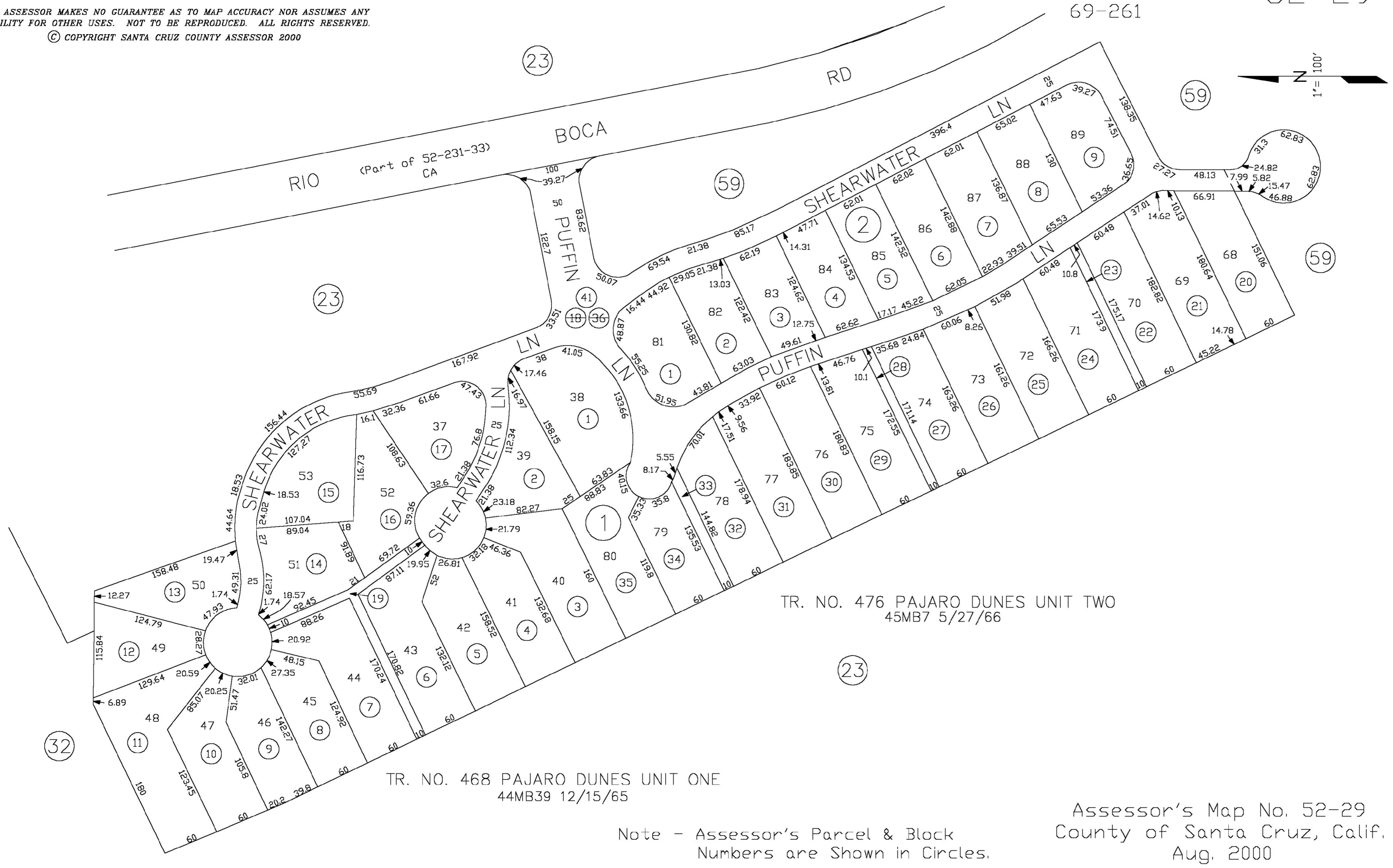
The project will be surveyed annually for plant survival and ground cover values. This will entail counting the surviving plants and surveying established transects for plant cover. Annual habitat monitoring reports shall be submitted to the Santa Cruz County Planning Department by December 31 of each monitoring year.

FOR TAX PURPOSES ONLY

POR. SEC. 25, T.12S., R.1E., M.D.B. & M.

Tax Area Code 69-261

52-29



Note - Assessor's Parcel & Block Numbers are Shown in Circles.

Assessor's Map No. 52-29
County of Santa Cruz, Calif.
Aug. 2000

Electronically redrawn 5/19/00 KSA
Rev. 8/19/00 KSA (Por. to Pg. 59)

Exhibit F

47

SANTA CRUZ COUNTY PLANNING DEPARTMENT

Parcel Location Map

Parcel: 05229124

- Study Parcel
- Assessor Parcel Boundary
- Existing Park

N

0 20 40
Feet

Map printed: 10 Oct. 2024

Exhibit F

SANTA CRUZ COUNTY PLANNING DEPARTMENT

Parcel General Plan Map

O-R

R-UL

052-291-24
(R-UL)

O-R

O-R *Parks, Recreation & Open Space*

R-UL *Res. Urban Low Density*

N

0 20 40
Feet

Exhibit F

SANTA CRUZ COUNTY PLANNING DEPARTMENT

Parcel Zoning Map

PR

SU

052-291-24
(SU)

PR

PR *Parks, Recreation, & Open Space*

SU *Special Use*

N

0 20 40
Feet

Exhibit F

Parcel Information

Services Information

Urban/Rural Services Line:	X Inside __ Outside
Water Supply:	Watsonville Water Service Area
Sewage Disposal:	Septic
Fire District:	Pajaro Fire Protection District
Drainage District:	Zone 7

Parcel Information

Parcel Size:	10,204 square feet
Existing Land Use - Parcel:	Single-family Residential
Existing Land Use - Surrounding:	Single-family Residential and Open Parks and Recreation
Project Access:	Puffin Lane
Planning Area:	San Andreas
Land Use Designation:	R-UL (Urban Residential – Low Density)
Zone District:	SU (Special Use)
Coastal Zone:	X Inside __ Outside
Appealable to Calif. Coastal Comm.	X Yes __ No

Technical Reviews: REV231088 Geotechnical Report Review
REV231089 Biotic Report Review

Environmental Information

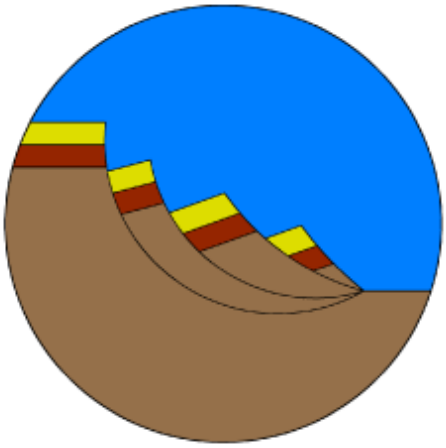
Geologic Hazards:	Not mapped/no physical evidence on site
Fire Hazard:	Not a mapped constraint
Slopes:	N/A
Env. Sen. Habitat:	Mapped sensitive habitat, no significant disturbance of habitat
Grading:	No grading proposed
Tree Removal:	No trees proposed to be removed
Scenic:	Mapped resource
Archeology:	Not mapped/no physical evidence on site

GEOTECHNICAL INVESTIGATION

71 Puffin Lane
Watsonville, Santa Cruz County, California

Submitted to:

Barbara Indra
71 Puffin Lane
Watsonville, California 95076



Prepared by:

CMAG ENGINEERING, INC.

Project No. 23-115-SC
May 10, 2023

CMAG ENGINEERING, INC.

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May 10, 2023
Project No. 23-115-SC

Barbara Indra
71 Puffin Lane
Watsonville, California 95076

SUBJECT: **GEOTECHNICAL INVESTIGATION**
Proposed Remodel of Existing Single Family Residence
71 Puffin Lane, Watsonville, Santa Cruz County, California
APN 052-291-24

Dear Ms. Indra:

In accordance with your authorization, we have completed a geotechnical investigation for the subject project. This report summarizes the findings, conclusions, and recommendations from our field exploration, laboratory testing, and engineering analysis. It is a pleasure being associated with you on this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office.

Sincerely,

CMAG ENGINEERING, INC.

Shannon Chome', PE
Senior Engineer
C 68398
Expires 9/30/23

Reviewed by:

Adrian L.Garner, PE, GE
Principal Engineer
C 66087, GE 2814
Expires 6/30/24

Distribution: Addressee (Electronic Copy)

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APPENDICES

1.0 INTRODUCTION

This report presents the results of our geotechnical investigation for the proposed remodel of the existing single family residence located at 71 Puffin Lane, in Watsonville, Santa Cruz County, California.

The purpose of our investigation was to provide information regarding the surface and subsurface soil conditions, and based on our findings, provide geotechnical recommendations for the design and construction of the proposed project. Conclusions and recommendations related to site grading, drainage, foundations, retaining walls, and slabs-on-grade are presented herein.

1.1 Terms of Reference

CMAG Engineering, Inc.'s (CMAG) scope of work for this phase of the project included site reconnaissance, subsurface exploration, soil sampling, laboratory testing, engineering analyses, and preparation of this report.

The work was undertaken in accordance with CMAG's *Proposal for Geotechnical Services* dated March 20, 2023.

The recommendations contained in this report are subject to the limitations presented in Section 8.0 of this report.

1.2 Site Location

The project site is located on the southwest side of Puffin Lane just northwest of its intersection with Shearwater Lane in Watsonville, Santa Cruz County, California. The site location is shown on the Site Location Map, Figure A-1, in Appendix A.

1.3 Surface Conditions

The subject property consists of a relatively flat to gently sloping 0.24 acre parcel located in a well-developed residential neighborhood within the Pajaro Dunes coastal community. An existing single family residence and attendant driveway occupy the site. Wood retaining walls, approximately 2 to 4 feet tall, have been constructed on the north and south sides of the residence. The southwest side of the property descends gently towards the beach and the Pacific Ocean. The area around the residence is vegetated with grasses and ice plant.

2.0 PROJECT DESCRIPTION

Based on our review of the preliminary plans, it is our understanding the proposed project consists of the remodel of the existing residence. The proposed remodel will incorporate a new raised deck on the north side of the residence, a 187 square foot enclosed garage

addition on the east side of the residence, and a new retaining wall and patio area on the south side of the residence. The central portion of the existing wood retaining wall on the south side of the residence will be demolished.

The local geologic map depicts the site as underlain by beach sand deposits with a "very high" potential for seismically induced liquefaction. Based on our discussion with the Santa Cruz County Environmental Planning Department, the scope of the proposed remodel will not require a geotechnical hazards investigation, including design requirements for liquefaction, coastal erosion, or wave runup. Our scope of services was limited to providing 2022 California Building Code seismic design parameters and has excluded an assessment of the geotechnical hazards associated with the subject site.

3.0 FIELD EXPLORATION AND LABORATORY TESTING PROGRAMS

Our field exploration program included drilling, logging, and interval sampling of 3 borings on May 1, 2023. Borings B-1 through B-3 were advanced to depths between 10± feet and 21.5± feet below the existing grades. Details of the field exploration program, including the Boring Logs, Figures A-4 through A-6, are presented in Appendix A.

Representative samples obtained during the field investigation were taken to the laboratory for testing to determine physical and engineering properties. Details of the laboratory testing program are presented in Appendix B. Test results are presented on the Boring Logs and in Appendix B.

4.0 SUBSURFACE CONDITIONS AND EARTH MATERIALS

4.1 General

The geologic map of Santa Cruz County (Brabb, 1989) depicts the subject property as underlain by Beach Sand (Qbs; Holocene) described as consisting of unconsolidated well-sorted sand. Locally contains layers of pebbles and cobbles.

The three borings were advanced adjacent to the existing residence. The subsurface profile encountered in our field exploration consisted of beach sand within the depths explored. Complete subsurface profiles are presented on the Boring Logs, Figures A-4 through A-6 in Appendix A. The boring locations are shown on the Boring Location Plan, Figure A-2.

4.2 Beach Sand - Qbs

Beach sand was encountered in all of our borings from the surface to the extent of our borings and generally consisted of moist, non plastic, poorly graded sand. The near-surface material was very loose to loose to a depth of approximately 7± feet below the existing grades, underlain by medium dense sand to the extent of our field

exploration. Based on our field exploration and laboratory testing, the near-surface poorly graded sand is considered to be highly compressible and has a very low expansion potential. Caving occurred consistently within the upper 2 to 3 feet of the beach sand deposits during our field investigation.

4.3 Groundwater

Groundwater was not encountered in any of our borings during our field exploration, however, the last sample within Boring B-1, at 20+ feet below the existing grade, was wet. It should be noted that groundwater conditions, perched or regional, may vary with location and may fluctuate with variations in rainfall, runoff, irrigation, and other changes to the conditions existing at the time our field investigation was performed.

4.4 Existing Foundation System

Based on the referenced plans (Garwood, 1968) and our observations during our field exploration, the existing residence is founded on a conventional shallow foundation system consisting of continuous perimeter and interior footings. The perimeter footings appear to be embedded approximately 18 inches below adjacent grades and are on the order of 12 inches wide. Based on our observations, the residential foundation system appears to be performing adequately.

5.0 2022 CALIFORNIA BUILDING CODE SEISMIC PROVISIONS

The County of Santa Cruz has adopted the seismic provisions set forth in the 2022 California Building Code (2022 CBC) to address seismic shaking. The seismic provisions in the 2022 CBC are minimum load requirements for the seismic design for the proposed structure. The provisions set forth in the 2022 CBC will not prevent structural and nonstructural damage from direct fault ground surface rupture, coseismic ground cracking, liquefaction and lateral spreading, seismically induced differential compaction, or seismically induced landsliding.

Table 1 has been constructed based on the 2022 CBC requirements for the seismic design of the proposed structure. The Site Class has been determined based on our field investigation and laboratory testing.

Table 1. Seismic Design Parameters - 2022 CBC

S_S	S_1	Site Class	F_a	F_v	S_{MS}	S_{M1}	S_{DS}	S_{D1}	PGA_M
1.821g	0.670g	D	1.0	Null*	1.821g	Null*	1.214g	Null*	0.823g

Notes: *Refer to Section 11.4.8 in ASCE 7-16.

The Site Class D, presented in Table 1 has been determined in accordance with Section 20.3 of ASCE 7-16 *Minimum Design Loads for Buildings and Other Structures*. The exception on page 203 of ASCE 7-16, states:

> *"For structures having fundamental periods of vibration equal to or less than 0.5 s, site response analysis is not required to determine spectral accelerations for liquefiable soils. Rather, a site class is permitted to be determined in accordance with Section 20.3 and the corresponding values of Fa and Fv determined from Tables 11.4-1 and 11.4-2."*

6.0 DISCUSSIONS AND CONCLUSIONS

The subsurface profile within the area of the proposed development generally consists of beach sand within the depths explored. Based on our field investigation and laboratory testing, the near-surface earth materials are considered highly compressible and have a very low expansion potential. Groundwater was not encountered during our field exploration.

As with all additions, it must be anticipated that new structurally attached additions will settle differentially, under static conditions, with respect to the existing structure which has already experienced its primary settlement. Furthermore, the potential for settlement to occur, under static conditions, is present where new loads are imposed on existing footings, particularly where the existing footings are founded on compressible soils.

The near-surface soils are extremely prone to caving. Near-vertical excavations made during construction will most likely have to be shored or cut back to a more stable slope angle. Excavations adjacent to existing footings must be supported in order to prevent undermining.

The existing residential footing dimensions discussed in Section 4.4 are somewhat conjectural and should be confirmed in the field during construction where structural considerations and building code specifications require a minimum footing width and/or embedment depth.

7.0 RECOMMENDATIONS

7.1 General

Based on the results of our field investigation, laboratory testing, and engineering analysis, it is our opinion, from the geotechnical standpoint, the subject site will be suitable for the proposed development provided the recommendations presented herein are implemented into the design and construction of the project.

We recommend that the proposed structurally attached additions to the existing single family residence be founded on conventional shallow foundations. In addition, where new loads are imposed on existing residential footings, new companion footings should be constructed. Refer to Section 7.3 for details.

The near-surface soils are considered highly compressible. Removal and recompaction of these soils will be required beneath new concrete slabs-on-grade. Refer to the Subsection 7.2.2 for details.

A new retaining wall is proposed on the south side of the residence. Refer to Section 7.4 for retaining wall recommendations.

Site drainage should be designed to collect and direct surface water away from the residence to approved drainage facilities per Subsection 7.2.7.

7.2 Site Grading

7.2.1 Site Clearing

Prior to grading, the areas to be developed for structures, pavements and other improvements, should be stripped of any vegetation and cleared of any surface or subsurface obstructions, including any existing foundations, utility lines, basements, septic tanks, pavements, stockpiled fills, and miscellaneous debris.

Surface vegetation and organically contaminated topsoil should be removed from areas to be graded. The required depth of stripping will vary with the time of year the work is done and should be observed by the Geotechnical Engineer. It is generally anticipated that the required depth of stripping will be 4 to 8 inches.

Holes resulting from the removal of buried obstructions that extend below finished site grades should be backfilled with compacted engineered fill compacted to the requirements of Subsection 7.2.2.

7.2.2 Preparation of On-Site Soils

In order to ensure uniform compression characteristics and to mitigate the potential for differential settlement, site preparation consisting of overexcavation and recompaction will be required beneath concrete slabs-on-grade. In addition, the soils directly beneath new conventional shallow foundations shall be reworked. The depths of overexcavation recommended herein are subject to review during grading.

For new slabs-on-grade, the native soil should be overexcavated a minimum of 1 foot below the bottom of the concrete. The exposed surface should then be scarified, thoroughly moisture conditioned, and compacted. The excavated material should then be placed as engineered fill compacted to a minimum of 90 percent relative compaction to finished subgrade.

For new conventional shallow foundations (including retaining wall footings), the exposed footing excavations should be scarified, thoroughly moisture conditioned, and compacted to a minimum of 90 percent relative compaction.

The on-site soils may be considered for use as engineered fill. Note: If this work is done during or soon after the rainy season, or in the spring, the soil may require significant drying prior to use as engineered fill. Regardless of the time of year, moisture conditioning the native soils to achieve moisture requirements should be anticipated. Moisture conditioning may include adding water or drying back the soil to achieve the required moisture. It is the contractors responsibility to adequately process the soil to achieve uniform moisture conditions of the material to be used as engineered fill. The soil should be verified by a representative of CMAG in the field during grading operations. All soils, both existing on-site and imported, to be used as fill, should contain less than 3 percent organics and be free of debris and gravel over 2.5 inches in maximum dimension.

Imported fill material should be approved by a representative of CMAG prior to importing. Soils having a significant expansion potential should not be used as imported fill. **The Geotechnical Engineer should be notified not less than 5 working days in advance of placing any fill or base course material proposed for import**. Each proposed source of import material should be sampled, tested, and approved by the Geotechnical Engineer prior to delivery of any soils imported for use on the site.

All fill should be compacted with heavy vibratory equipment. Fill should be compacted by mechanical means in uniform horizontal loose lifts not exceeding 8 inches in thickness. The relative compaction and required moisture content shall be based on the maximum dry density and optimum moisture content obtained in accordance with ASTM D1557. **The Geotechnical Engineer should observe the overexcavations, and placement of engineered fill.**

Any surface or subsurface obstruction, or questionable material encountered during grading, should be brought immediately to the attention of the Geotechnical Engineer for proper processing as required.

7.2.3 Cut and Fill Slopes

Cut and fill slopes are not anticipated for the project at this time. Recommendations for cut and fill slopes can be supplied upon request if project requirements change.

7.2.4 Utility Trenches

Bedding material should consist of sand with SE not less than 30 which may then be jetted.

The on-site soils may be utilized for trench backfill. See Subsection 7.2.2 for additional information regarding the use of the native soil for engineered fill. Imported fill should be free of organic material and gravel over 2.5 inches in diameter. Backfill of all exterior and interior trenches should be placed in thin lifts and mechanically compacted to achieve a relative compaction of not less than 95 percent in paved areas and 90 percent in other areas per ASTM D1557. Care should be taken not to damage utility lines.

Utility trenches that are parallel to the sides of a building should be placed so that they do not extend below a line sloping down and away at an inclination of 2:1 H:V (horizontal to vertical) from the bottom outside edge of all footings.

A 3 foot concrete plug should be placed in each trench where it passes under the exterior footings. Anti-seep collars (trench dams) should also be placed in utility trenches on steep slopes to prevent migration of water and sand.

Trenches should be capped with 1.5± feet of impermeable material. Import material should be approved by the Geotechnical Engineer prior to its use.

Trenches must be shored as required by the local regulatory agency, the State Of California Division of Industrial Safety Construction Safety Orders, and Federal OSHA requirements.

7.2.5 Vibration During Compaction

The on-site beach sand is highly susceptible to vibration induced settlements. It is extremely important for the contractor to take all precautionary measures to minimize vibration during grading operations. This may require that the engineered fill be placed in thin lifts using a static roller or hand operated equipment. It is the contractor's responsibility to ensure that the process in which the engineered fill is placed does not adversely affect the existing structure or neighboring parcels.

7.2.6 Excavating Conditions

We anticipate that excavation of the on-site soils may be accomplished with standard earthmoving and trenching equipment.

The near-surface soils are extremely prone to caving. Vertical and near vertical excavations adjacent to existing residential foundations must be shored or supported by other means during construction.

If grading commences during, or shortly after the rainy season, difficult construction due to saturated soil conditions should be anticipated.

7.2.7 Surface Drainage

Pad drainage should be designed to collect and direct surface water away from structures to approved drainage facilities. A minimum gradient of 2+ percent should be maintained and drainage should be directed toward approved swales or drainage facilities. Concentrations of surface water runoff should be handled by providing the necessary structures, paved ditches, catch basins, etc.

All roof eaves should be guttered with the outlets from the downspouts provided with adequate capacity to carry the storm water away from structures to reduce the possibility of soil saturation and erosion.

Drainage patterns approved at the time of construction should be maintained throughout the life of the structures. The building and surface drainage facilities must not be altered nor any grading, filling, or excavation conducted in the area without prior review by the Geotechnical Engineer.

Irrigation activities at the site should be controlled and reasonable. Planter areas should not be sited adjacent to walls without implementing approved measures to contain irrigation water and prevent it from seeping into walls and under foundations and slabs-on-grade.

The finished ground surface should be planted with erosion resistant landscaping and ground cover and continually maintained to minimize surface erosion.

7.3 Foundations

7.3.1 Conventional Shallow Foundations

The proposed structurally attached addition may be founded on a conventional shallow foundation system. In order to reduce the anticipated differential settlements to tolerable limits, it is our opinion that the foundation system should consist of continuous exterior and interior footings tied together to form a grid. New deck supports may consist of isolated pad footings.

In areas where the proposed remodel of the existing structure will impose larger loads on existing footings than the current loading conditions, and the bearing pressure beneath the existing footings is increased by more than 200 psf, new companion footings should be constructed.

All new footings (interior and exterior) shall be embedded a minimum of 18 inches below lowest adjacent grades and be founded on reworked and compacted soil per the recommendations in Subsection 7.2.2. Embedment depths should not be allowed to be affected adversely, such as through erosion, softening, digging, etc.

Footing widths should be based on the allowable bearing value but not less than 18 inches. Should local building codes require deeper embedment of the footings, or wider footings, the codes must apply.

For new footings, the allowable bearing capacities for continuous strip footings and pad footings are presented in Table 2. The allowable bearing capacity may be increased by one-third for short duration loads, such as those imposed by wind and seismic forces.

Table 2. Allowable Bearing Capacity

Footing Type	Footing Depth (in)	Footing Width (in)	Footing Length (in)	Allowable Bearing Capacity (psf)
Strip	18	18	-	1,000
Strip	18	24	-	900
Square	18	24	24	1,100
Square	18	36	36	1,000
Square	18	48	48	900

A passive pressure of 280 psf/ft (equivalent fluid pressure) may be assumed for design purposes. Neglect passive pressure in the top 12 inches of soil. Passive pressures may be increased by one-third for seismic loading. A friction coefficient of 0.35, between near surface soil and rough concrete may be assumed for design purposes. Where both friction and the passive resistance are utilized for sliding resistance, either of the values indicated should be reduced by one-third.

Footing excavations should be observed by the Geotechnical Engineer before steel reinforcement is placed and concrete is poured.

7.3.2 Concrete Slabs-on-Grade

We recommend that concrete slab-on-grade floors be founded on compacted engineered fill per Subsection 7.2.2. The subgrade should be proof-rolled just prior to construction to provide a firm, relatively unyielding surface, especially if the surface has been loosened by the passage of construction traffic.

The slab-on-grade should be underlain by a minimum 4 inch thick capillary break of clean crushed rock. It is recommended that neither Class II baserock nor sand be employed as the capillary break material. Where moisture sensitive floor coverings are anticipated or vapor transmission may be a problem, a vapor retarder should be

placed between the granular layer and the floor slab in order to reduce moisture condensation under the floor coverings. The vapor retarder should be specified by the slab designer. It should be noted that conventional slab-on-grade construction is not waterproof. Under-slab construction consisting of a capillary break and vapor retarder will not prevent moisture transmission through the slab-on-grade. CMAG does not practice in the field of moisture vapor transmission evaluation or mitigation. Where moisture sensitive floor coverings are to be installed, a waterproofing expert should be consulted for their recommended moisture and vapor protection measures.

7.3.3 Settlements

Total and differential settlements beneath the recommended conventional shallow foundation systems are expected to be within tolerable limits. Vertical movements are not expected to exceed 1 inch. Differential movements are expected to be within the normal range (½ inch) for the anticipated loads and spacings. These preliminary estimates should be reviewed by the Geotechnical Engineer when foundation plans for the proposed structures become available.

7.4 Retaining Structures

7.4.1 General

The proposed project includes a new retaining wall located on the south side of the residence. The proposed wall is approximately 55 feel long and on the order of 3 to 5 feet tall. Retaining walls may be founded on conventional shallow footings per Section 7.3.

7.4.2 Lateral Earth Pressures

The lateral earth pressures presented in Table 3 are recommended for the design of retaining structures with a backdrain and backfill consisting of the native soils.

Table 3. Lateral Earth Pressures

Soil Profile (H:V)	Equivalent Fluid Pressure (psf/ft)	
	Active Pressure	At-Rest Pressure
Level	35	55
4:1	41	68
3:1	44	72
2:1	53	79

Pressure due to any surcharge loads from adjacent footings, traffic, etc., should be analyzed separately. Refer to the Surcharge Pressure Diagram, Figure 1, for details. Pressures due to these loading conditions can be supplied upon receipt of the appropriate plans and loads.

7.4.3 Backfill

Backfill should be placed under engineering control. Backfill should be compacted per Subsection 7.2.2, however, precautions should be taken to ensure that heavy compaction equipment is not used immediately adjacent to walls, so as to prevent undue pressures against, and movement of, the walls.

It is recommended that granular, or relatively low expansivity, backfill be utilized, for a width equal to approximately 1/3 times the wall height, and not less than 2 feet, subject to review during construction. The permeable material used for the backdrain is suitable for use as backfill.

The granular backfill should be capped with at least 12 inches of relatively impermeable material.

The use of water-stops/impermeable barriers and appropriate waterproofing should be considered for any basement construction, and for building walls which retain earth.

7.4.4 Backfill Drainage

Backdrains should be provided directly behind retaining walls. Backdrains should consist of 4 inch diameter SDR 35 PVC perforated pipe or equivalent, embedded in Caltrans Class 1, Type A permeable drain rock.

The drain should be a minimum of 18 inches in width and should extend to within 12 inches from the surface. The upper 12 inches should be capped with soil if the drain is not located directly beneath concrete or pavement. Mirafi 140N or approved equivalent should be placed between the backfill and the drain rock. The pipe should be 4± inches above the trench bottom; a gradient of 2± percent being provided to the pipe and trench bottom; discharging into suitably protected outlets. Refer to the Typical Backdrain Detail, Figure 2, for recommendations.

Perforations in backdrains are recommended as follows: ½ inch diameter, in 2 rows at the ends of a 120 degree arc, at 5 inch centers in each row, staggered between rows, placed downward.

Backdrains should be observed by the Geotechnical Engineer after placement of bedding and pipe and prior to the placement of clean crushed gravel.

An unobstructed outlet should be provided at the lower end of each segment of backdrain. The outlet should consist of an unperforated pipe of the same diameter, connected to the perforated pipe and extended to a protected outlet at an approved location below the project area on a continuous gradient of at least 1 percent.

7.5 Plan Review

The recommendations presented in this report are based on preliminary design information for the proposed project and on the findings of our geotechnical investigation. When completed, the Grading Plans, Foundation Plans and design loads should be reviewed by CMAG prior to submitting the plans and contract bidding. Additional field exploration and laboratory testing may be required upon review of the final project design plans.

7.6 Observation and Testing

Field observation and testing must be provided by a representative of CMAG to enable them to form an opinion regarding the adequacy of the site preparation, the adequacy of fill materials, and the extent to which the earthwork is performed in accordance with the geotechnical conditions present, the requirements of the regulating agencies, the project specifications, and the recommendations presented in this report. Any earthwork performed in connection with the subject project without the full knowledge of, and not under the direct observation of CMAG will render the recommendations of this report invalid.

CMAG should be notified **at least 5 working days** prior to any site clearing or other earthwork operations on the subject project in order to observe the stripping and disposal of unsuitable materials and to ensure coordination with the grading contractor. During this period, a preconstruction meeting should be held on the site to discuss project specifications, observation and testing requirements and responsibilities, and scheduling.

8.0 LIMITATIONS

The recommendations contained in this report are based on our field explorations, laboratory testing, and our understanding of the proposed construction. The subsurface data used in the preparation of this report was obtained from the borings drilled during our field investigation. Variation in soil, geologic, and groundwater conditions can vary significantly between sample locations. As in most projects, conditions revealed during construction excavation may be at variance with preliminary findings. If this occurs, the changed conditions must be evaluated by the Project Geotechnical Engineer and the Geologist, and revised recommendations be provided as required. In addition, if the scope of the proposed construction changes from the described in this report, our firm should also be notified.

Our investigation was performed in accordance with the usual and current standards of the profession, as they relate to this and similar localities. No other warranty, expressed or implied, is provided as to the conclusions and professional advice presented in this report.

This report is issued with the understanding that it is the responsibility of the Owner, or of his Representative, to ensure that the information and recommendations contained herein are brought to the attention of the Architect and Engineer for the project and incorporated into the plans, and that it is ensured that the Contractor and Subcontractors implement such recommendations in the field. The use of information contained in this report for bidding purposes should be done at the Contractor’s option and risk.

This firm does not practice or consult in the field of safety engineering. We do not direct the Contractor's operations, and we are not responsible for other than our own personnel on the site; therefore, the safety of others is the responsibility of the Contractor. The Contractor should notify the Owner if he considers any of the recommended actions presented herein to be unsafe.

The findings of this report are considered valid as of the present date. However, changes in the conditions of a site can occur with the passage of time, whether they be due to natural events or to human activities on this or adjacent sites. In addition, changes in applicable or appropriate codes and standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, this report may become invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and revision as changed conditions are identified.

The scope of our services mutually agreed upon did not include any environmental assessment or study for the presence of hazardous to toxic materials in the soil, surface water, or air, on or below or around the site. CMAG is not a mold prevention consultant; none of our services performed in connection with the proposed project are for the purpose of mold prevention. Proper implementation of the recommendations conveyed in our reports will not itself be sufficient to prevent mold from growing in or on the structures involved.

REFERENCES

American Society of Civil Engineers (2016). *Minimum Design Loads for Buildings and Other Structures*. ASCE Standard 7-16.

ASTM International (2014). *Annual Book of ASTM Standards, Section Four, Construction*. Volume 4.08, Soil and Rock (I): D 420 - D 5876.

Brabb, E.E. (1989). *Geologic Map of Santa Cruz County, California*. U.S. Geological Survey Miscellaneous Investigation Series, Map I-1905, scale 1:62500.

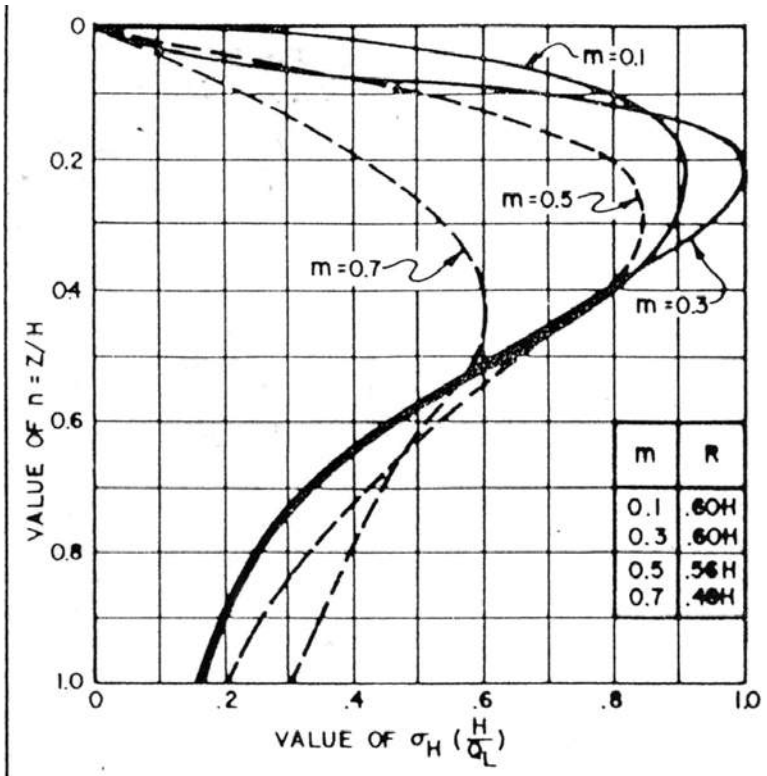
CMAG Engineering, Inc. (March 20, 2023). *Proposal for Geotechnical Services, Geotechnical Investigation, Proposed Remodel of Existing Single Family Residence, 71 Puffin Lane, Watsonville, Santa Cruz County, California APN 052-291-24.* Proposal No. P23-09.

International Code Council (2022). *California Building Code.* Volume 2.

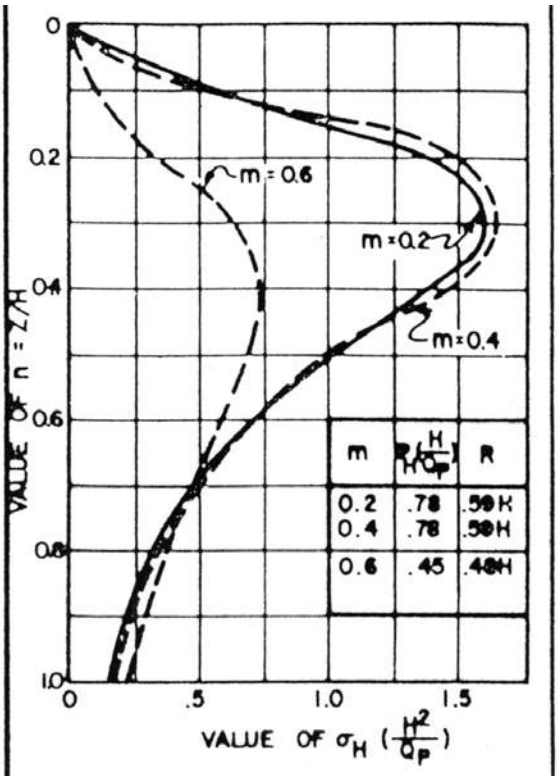
Roper Engineering (December 21, 2022). *Residential Remodel for Barbara Indra, 71 Puffin Lane, Pajaro Dunes, APN 052-291-24.* Sheet C1.

William C. Kempf Architects (December 7, 2022). *Residential Remodel for The Indra Family, 71 Puffin Lane, Watsonville, California, 95076, APN 052-291-24.* Sheets A1.1, A2.1, A3.1, A3.2, A3.3, A3.4, A5.1, A5.2, A5.3, A5.4, A6.1.

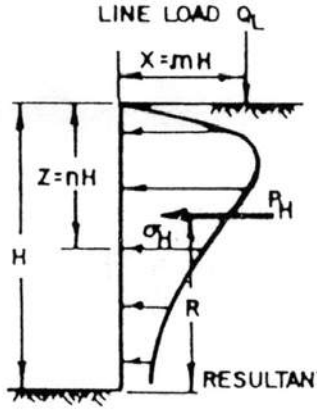
William Guy Garwood Architect (June 22, 1968). *Warriner Beach House, #71 Pajaro Dunes, Monterey Bay, California.* Sheets 1 through 16.



m	R
0.1	.60H
0.3	.60H
0.5	.56H
0.7	.48H



m	$\sigma_H(\frac{H}{H/Q_P})$	R
0.2	.78	.59H
0.4	.78	.59H
0.6	.45	.48H



FOR $m \leq 0.4$:

$$\sigma_H(\frac{H}{Q_L}) = \frac{0.20n}{(0.16+n^2)^2}$$

$$P_H = 0.55 Q_L$$

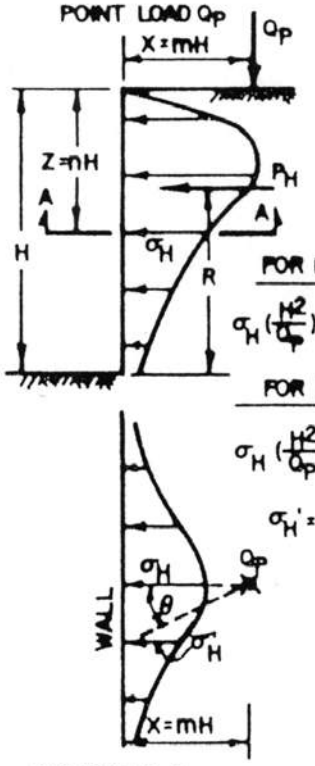
FOR $m > 0.4$:

$$\sigma_H(\frac{H}{Q_L}) = \frac{1.28m^2n}{(m^2+n^2)^2}$$

RESULTANT $P_H = \frac{0.64 Q_L}{(m^2+1)}$

PRESSURES FROM LINE LOAD Q_L

(BOUSSINESQ EQUATION MODIFIED BY EXPERIMENT)



FOR $m \leq 0.4$:

$$\sigma_H(\frac{H^2}{Q_P}) = \frac{0.28n^2}{(0.16+n^2)^3}$$

FOR $m > 0.4$:

$$\sigma_H(\frac{H^2}{Q_P}) = \frac{1.77m^2n^2}{(m^2+n^2)^3}$$

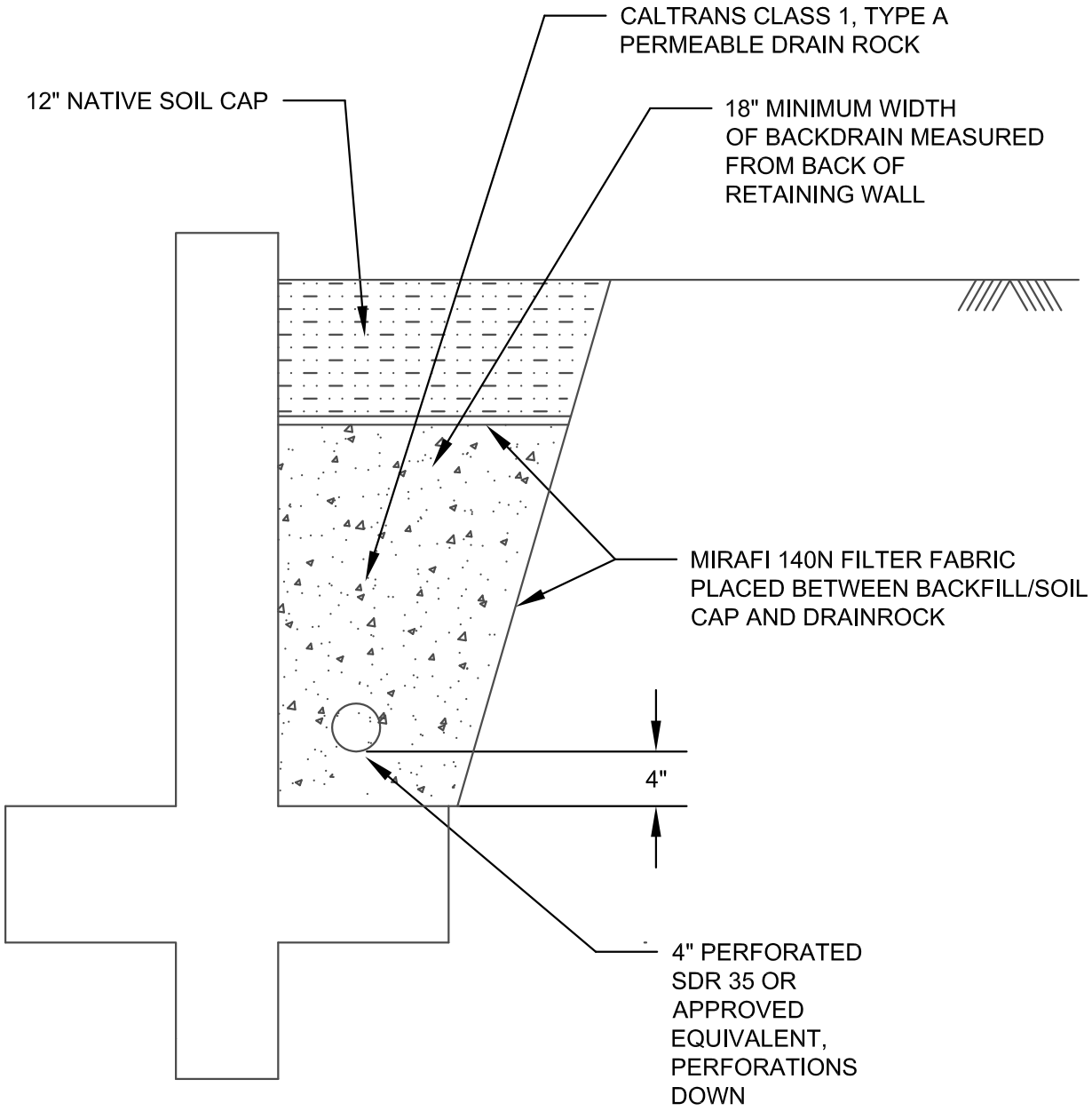
$$\sigma_H' = \sigma_H \cos^2(1.1\theta)$$

SECTION A-A

PRESSURES FROM POINT LOAD Q_P

(BOUSSINESQ EQUATION MODIFIED BY EXPERIMENT)

CMAG ENGINEERING	SURCHARGE PRESSURE DIAGRAM	FIGURE 1



NOTES:

1. DRAWING IS NOT TO SCALE
2. 2± PERCENT TO PIPE AND TRENCH BOTTOM
3. PERFORATED SDR 35 PVC PIPE, OR APPROVED EQUIVALENT, CONNECTED TO CLOSED CONDUITS THAT DISCHARGE TO AN APPROVED LOCATION
4. INSTALL CLEAN OUTS AT APPROVED LOCATIONS

CMAG ENGINEERING	TYPICAL BACKDRAIN DETAIL	FIGURE 2

APPENDIX A

FIELD EXPLORATION PROGRAM

FIELD EXPLORATION PROCEDURES

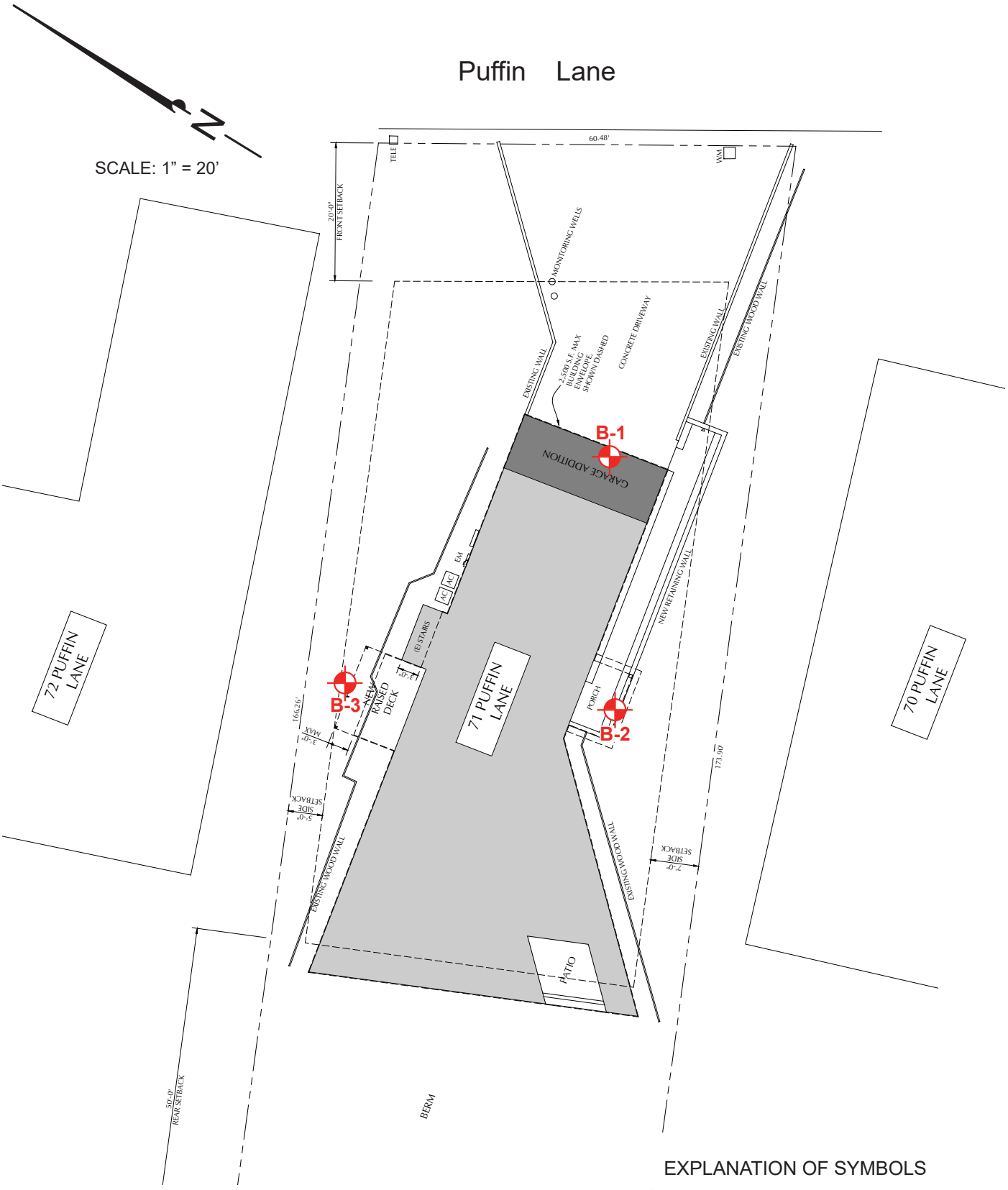
Subsurface conditions were explored by drilling 3 borings to depths between 10± and 21.5± feet below the existing grades. Boring B-1 was drilled with a truck mounted drill rig equipped with 8 inch diameter hollow stem augers. Borings B-2 and B-3 were drilled with a 3 inch hand auger. The Key to The Logs and the Logs of the Borings are included in Appendix A, Figures A-3 through A-6. The approximate locations of the borings are shown on the Boring Location Plan, Figure A-2.

The earth materials encountered in the borings were continuously logged in the field by a representative of CMAG. Bulk and relatively undisturbed samples were obtained for identification and laboratory testing. The samples were classified based on field observations and the laboratory test results. Classification was performed in accordance with the Unified Soil Classification System (Figure A-3).

Representative samples were obtained by means of a drive sampler. For Boring B-1, the hammer weight and drop being 140 lb and 30 inches, respectively. For Borings B-2 and B-3, the hammer weight and drop being 35 lb and 20 inches, respectively. These samples were recovered using a 3 inch outside diameter Modified California Sampler or a 2 inch outside diameter Terzaghi Sampler. The number of blows required to drive the samplers 12 inches are indicated on the Boring Logs. The penetration test data for the Terzaghi driven samples in Boring B-1 have been presented as N_{60} values. The N_{60} values are also indicated on the Boring Logs.

BASEMAP: DeLorme Topo USA®

CMAG ENGINEERING	SITE LOCATION MAP	FIGURE
	71 Puffin Lane	A-1



EXPLANATION OF SYMBOLS

B-1 APPROXIMATE LOCATION OF BORING

BASEMAP: William C. Kempf Architect (December 7, 2022). *Residential Remodel For The Indra Family, 71 Puffin Lane, Watsonville, California 95076, Site Plan*. Original Scale 1" = 8'. Sheet A2.1.

CMAG ENGINEERING	BORING LOCATION PLAN 71 Puffin Lane	FIGURE A-2

KEY TO LOGS

UNIFIED SOIL CLASSIFICATION SYSTEM

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS More than half of the material is larger than the No. 200 sieve	GRAVELS More than half of the coarse fraction is larger than the No. 4 sieve	CLEAN GRAVELS (Less than 5% fines)	GW	Well graded gravels, gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines
		GRAVEL WITH FINES	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines
	SANDS More than half of the coarse fraction is smaller than the No. 4 sieve	CLEAN SANDS (Less than 5% fines)	SW	Well graded sands, gravelly sands, little or no fines
			SP	Poorly graded sands, gravelly sands, little or no fines
		SAND WITH FINES	SM	Silty sands, sand-silt mixtures, non-plastic fines
			SC	Clayey sands, sand-clay mixtures, plastic fines
FINE GRAINED SOILS More than half of the material is smaller than the No. 200 sieve	SILTS AND CLAYS Liquid limit less than 50		ML	Inorganic silts and very fine sands, silty or clayey fine sands or clayey silts with slight plasticity
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS Liquid limit greater than 50		MH	Inorganic silts, micaceous or diatomacaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils

GRAIN SIZE LIMITS

SILT AND CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		
No. 200	No. 40	No. 10	No. 4	3/4 in.	3 in.	12 in.	

US STANDARD SIEVE SIZE

RELATIVE DENSITY	
SAND AND GRAVEL	BLOWS/FT*
VERY LOOSE	0 - 4
LOOSE	4 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

CONSISTENCY	
SILT AND CLAY	BLOWS/FT*
VERY SOFT	0 - 2
SOFT	2 - 4
FIRM	4 - 8
STIFF	8 - 16
VERY STIFF	16 - 32
HARD	OVER 32

MOISTURE CONDITION
DRY
MOIST
WET

BEDROCK
(GROUP SYMBOL)
Brackets Denote Bedrock

* Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1 3/8 inch I.D.) split spoon (ASTM D-1586).

CMAG ENGINEERING

FIGURE A-3

LOG OF EXPLORATORY BORING

Project No:	23-115-SC	Boring:	B-1
Project:	71 Puffin Lane	Date Drilled:	May 1, 2023
	Santa Cruz County, California	Logged By:	SSC
Drill Rig:	Truck Mounted Drill Rig, 8in. Hollow Stem Auger, 140lb. Safety Hammer		

Terzaghi Split Spoon Sample | 2" Ring Sample | 2.5" Ring Sample | S 3" Shelby Tube | Bulk Sample | Groundwater Elevation

Depth (ft.)	Soil Type	Description	Blows / Foot	N_{60}	Dry Density (pcf)	Moisture Cont. (%)	Other Tests
		4 in. Concrete					
1	SP	**Qbs:** Gray Poorly Graded SAND. Moist, Non Plastic. Sand - Fine Grained.				3.2	
2							
3	SP	Gray Poorly Graded SAND. Loose, Moist, Non Plastic. Sand - Fine Grained.	14		98.5	3.3	Particle Size F.C. = 1.3%
4	SP	Gray Poorly Graded SAND. Loose, Moist, Non Plastic. Sand - Fine Grained.	11	9		3.9	
5							
6	SP	Gray Poorly Graded SAND. Loose, Moist, Non Plastic. Sand - Fine Grained.	16		95.7	4.7	
7	SP	Gray Poorly Graded SAND. Medium Dense, Moist, Non Plastic. Sand - Fine Grained.	14	13		5.3	Particle Size F.C. = 1.7%
8							
9							
10							
11	SP	Gray Poorly Graded SAND. Medium Dense, Moist, Non Plastic. Sand - Fine Grained.	12	11		4.2	
12							
13							
14							
15							
16	SP	Gray Poorly Graded SAND. Medium Dense, Moist to Wet, Non Plastic. Sand - Fine Grained.	13	13		7.2	
17							
18							
19							
20							
21	SP	Dark Gray Poorly Graded SAND. Medium Dense, Wet, Non Plastic. Sand - Fine Grained.	19	20		15.8	
22		Boring Terminated at 21.5± ft. Groundwater Not Encountered. Boring Backfilled with Cuttings.					
23							
24							

CMAG ENGINEERING

FIGURE A-4

LOG OF EXPLORATORY BORING

Project No:	23-115-SC	Boring:	B-2
Project:	71 Puffin Lane	Date Drilled:	May 1, 2023
	Santa Cruz County, California	Logged By:	SSC
Drill Rig:	3in. Hand Auger, 35lb. Hand Hammer		

Terzaghi Split Spoon Sample | 2" Ring Sample | 2.5" Ring Sample | 3" Shelby Tube (S) | Bulk Sample | Groundwater Elevation

Depth (ft.)	Soil Type	Sample	Description	Blows / Foot	N_{60}	Dry Density (pcf)	Moisture Cont. (%)	Other Tests
1			**Qbs:**					
1			Caving Soils.					
2	SP		Gray Poorly Graded SAND. Very Loose, Moist, Non Plastic. Sand - Fine Grained.	6			3.5	
3								
4								
5								
6	SP		Gray Poorly Graded SAND. Loose, Moist, Non Plastic. Sand - Fine Grained.	23			4.2	
7								
8								
9								
10	SP		Material Consistent.					
11			Boring Terminated at 10± ft. Groundwater Not Encountered. Boring Backfilled with Cuttings.					
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

CMAG ENGINEERING

FIGURE A-5

LOG OF EXPLORATORY BORING

Project No:	23-115-SC	Boring:	B-3
Project:	71 Puffin Lane	Date Drilled:	May 1, 2023
	Santa Cruz County, California	Logged By:	SSC
Drill Rig:	3in. Hand Auger, 35lb. Hand Hammer		

Terzaghi Split Spoon Sample | 2" Ring Sample | 2.5" Ring Sample | 3" Shelby Tube (S) | Bulk Sample | Groundwater Elevation

Depth (ft.)	Soil Type	Sample	Description	Blows / Foot	N_{60}	Dry Density (pcf)	Moisture Cont. (%)	Other Tests
1			**Qbs:**					
2			Caving Soils.					
3	SP		Gray Poorly Graded SAND. Loose, Moist, Non Plastic. Sand - Fine Grained.	16			3.6	
4								
5								
6	SP		Gray Poorly Graded SAND. Loose, Moist, Non Plastic. Sand - Fine Grained.	27			4.7	
7								
8								
9								
10	SP		Material Consistent.					
11			Boring Terminated at 10± ft. Groundwater Not Encountered. Boring Backfilled with Cuttings.					
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

CMAG ENGINEERING

FIGURE A-6

APPENDIX B

LABORATORY TESTING PROGRAM

LABORATORY TESTING PROCEDURES

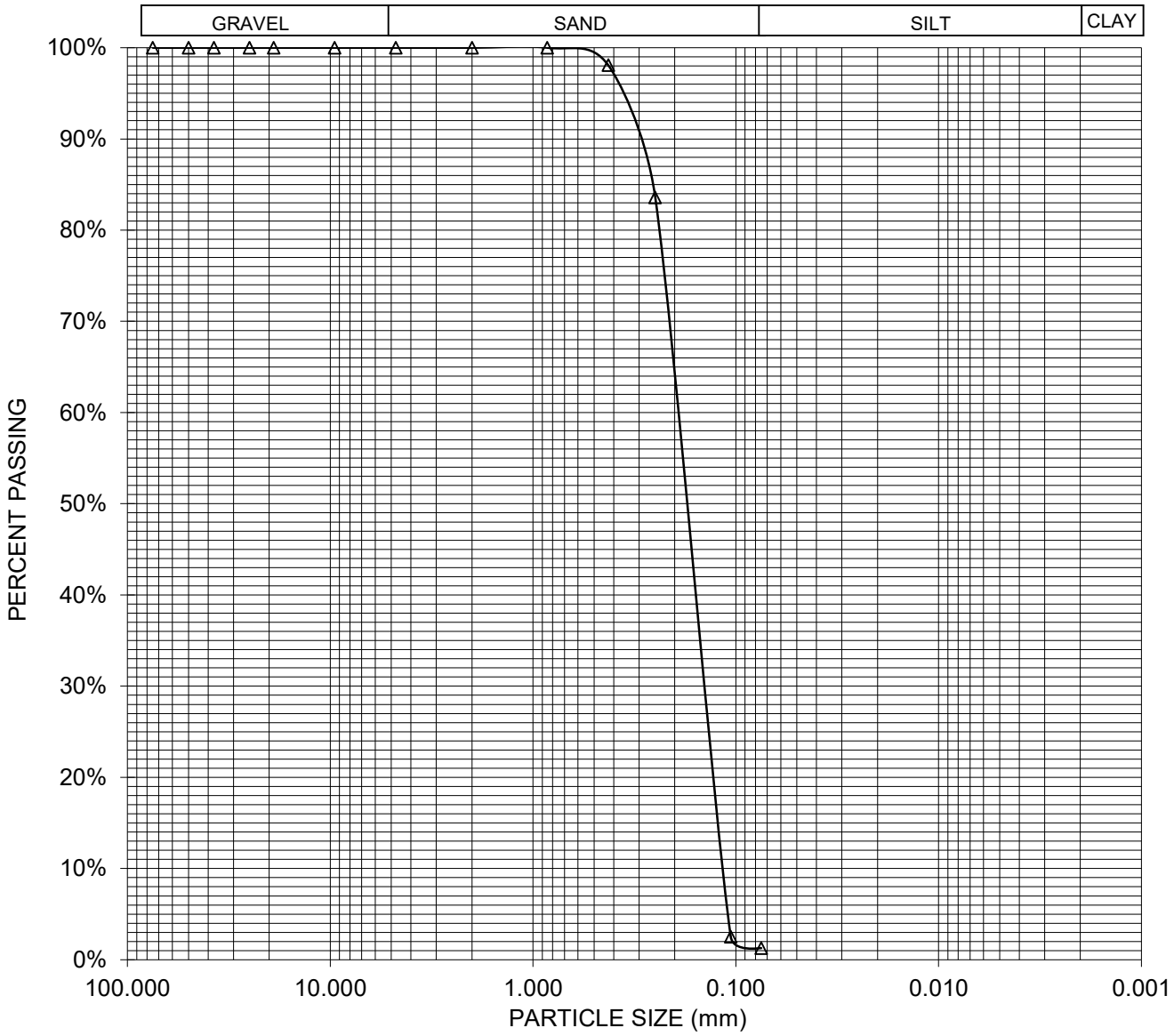
Classification

Earth materials were classified according to the Unified Soil Classification System in accordance with ASTM D 2487 and D 2488. See Figure A-3. Moisture content and dry density determinations were made for representative, relatively undisturbed samples in accordance with ASTM D 2216. Results of the moisture-density determinations, together with classifications, are shown on the Boring Logs in Appendix A.

Particle Size Distribution

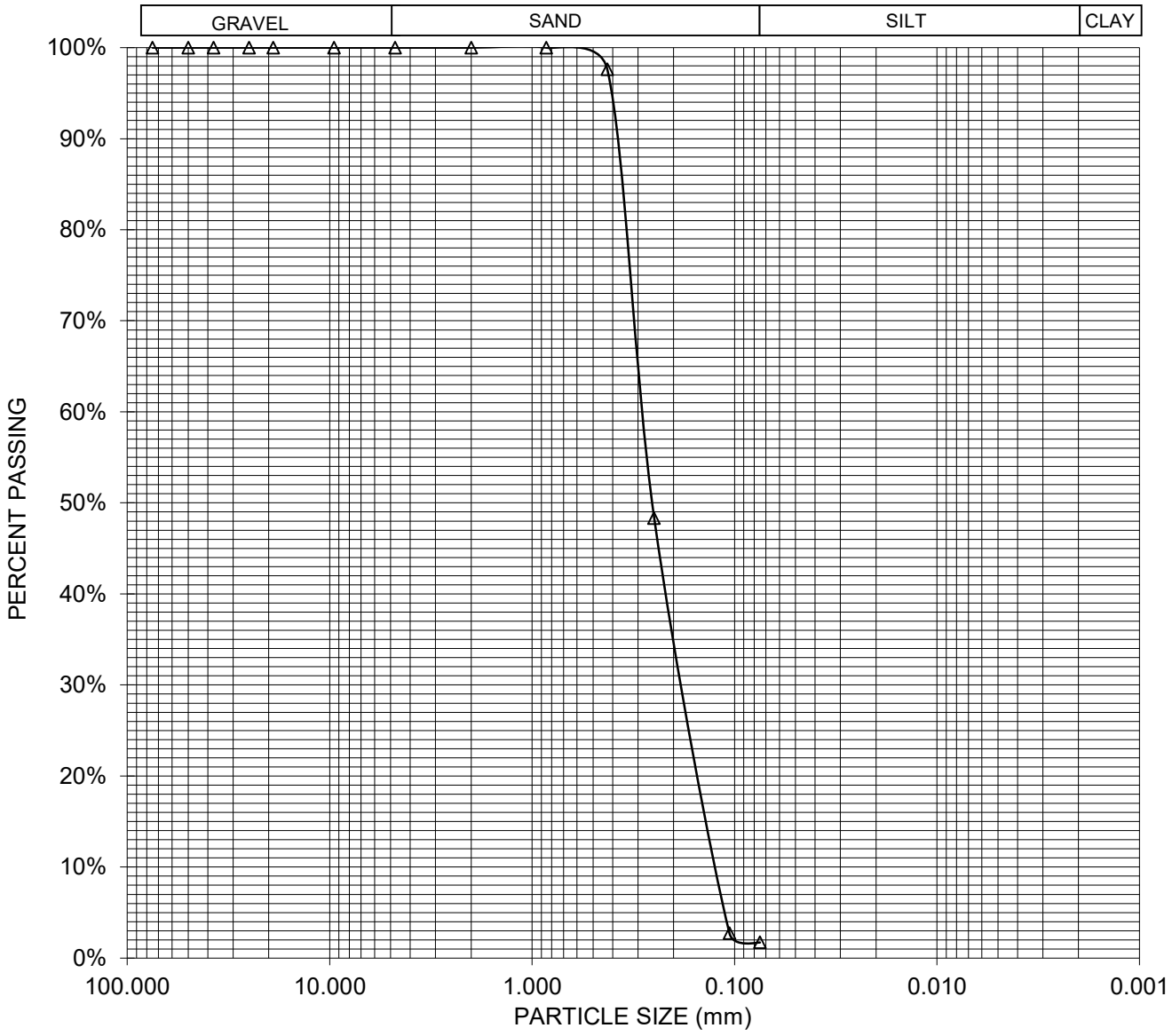
Particle size distribution tests were performed on representative samples of the on-site soils in accordance with ASTM D 422. The test results are presented on the Boring Logs and Figures B-1 and B-2.

BORING:	B-1	PERCENT	PERCENT
DEPTH (ft):	2	PASSING No. 4	PASSING No. 200
SOIL TYPE (USCS):	SP	100.0%	1.3%



CMAG ENGINEERING	PARTICLE SIZE DISTRIBUTION	FIGURE
	71 Puffin Lane	B-1

BORING:	B-1	PERCENT	PERCENT
DEPTH (ft):	6.5	PASSING No. 4	PASSING No. 200
SOIL TYPE (USCS):	SP	100.0%	1.7%



CMAG ENGINEERING	PARTICLE SIZE DISTRIBUTION	FIGURE
	71 Puffin Lane	B-2

County of Santa Cruz

DEPARTMENT OF COMMUNITY DEVELOPMENT AND INFRASTRUCTURE

701 OCEAN STREET, FOURTH FLOOR, SANTA CRUZ, CA 95060-4070
Planning (831) 454-2580 Public Works (831) 454-2160

Matt Machado, Deputy CAO, Director of Community Development and Infrastructure

Todd Bayless, Architect
William C. Kempf, Architects
105 Locust Street, Suite B; Santa Cruz, CA 95060
T: 831 459-0951
todd@wckempf.com

January 9, 2024

Subject: 71 Puffin Lane Remodel - Biotic Report Review and Conditioned Biotic Approval
APN: 052-291-24
Application #: REV231089

Attachment 1. Biological Assessment and Report
Attachment 2. Native Coastal Dune Scrub Revegetation and Enhancement Plan

Dear Mr. Bayless,

The Planning Division received and reviewed a Biological Assessment and Report dated October 2023 prepared by Dawn Reis Ecological Studies for 71 Puffin Lane (Attachment 1). The Biotic Report Review was required because of the potential for sensitive habitats and protected species on this parcel where remodeling an existing single-family residence with minor changes to the outdoor space is proposed. The project is located in the Pajaro Dunes gated community within the Coastal Zone.

The proposed project includes remodeling the interior of the existing house, extending the interior space within the footprint of the carport and driveway, adding a new front entry on the south side of the house with a covered porch and outdoor shower, and a new boardwalk walkway, as well as a new upper-level deck on the north side of the house. The project also includes restoration of approximately 2,953 square feet of degraded coastal dune habitat on the parcel. A Native Coastal Dune Scrub Revegetation and Enhancement Plan was prepared and submitted as part of the project scope (Attachment 2).

Two existing wood retaining walls run parallel along the north and south sides of the house. These walls hold back the sandy slopes and create narrow access paths around the house to allow for regular maintenance of the home. These walls were installed sometime in the past without proper permitting. The current proposal includes the area within these existing retaining walls (585 square feet) as part of project impact area to account for the permanent habitat loss associated with installation of the walls and continued use of these pathways. Approximately 48 feet of the existing wall along the south side would be removed and replaced with a concrete retaining wall further back into the slope to make room for the new pathway and front entry porch.

The existing development footprint on the parcel includes the existing driveway and residence. The area within the existing retaining walls is approximately 585 square feet. The new covered entry area with outdoor shower, new walkway, shading and footings from the new upper-level decking would total approximately 300 square feet. A total of 885 square feet of permanent impacts being evaluated in this Biotic Review.

Baseline Environmental Conditions

The Study Area covered in the biotic report includes the entire approximately 10,204 square foot parcel 052-291-24. The parcel is located on the Coastal Strand (beach and dunes), immediately adjacent to the beach and is currently developed with one single family home and a driveway. The Biotic Report identifies three natural community types on the parcel: Active Coastal Dunes, Northern Foredunes, and Central Dune Scrub.

The Active Coastal Dune and Northern Foredune habitats occur on the oceanfront side of the house and are dominated by a mosaic of native and non-native grasses and forbs. The remainder of the parcel, along the north and south sides of the house, contains degraded Central Dune Scrub habitat. Although a few native plant species persist in small patches, the Central Dune Scrub on the parcel is dominated by a thick mat of non-native ice plant and non-native beach grass which prevents the establishment and persistence of the native plant structure and species composition that would be found in a healthy coastal dune community.

The area immediately surrounding the existing development (within the wood retaining walls) is barren sand where only scattered herbaceous species are present. The photos in Figures 5-7 of the attached Biotic Report depict the nature and condition of the habitat types identified on the parcel.

Analysis

Coastal Dune Scrub, Dune Plant Habitat, and habitat for special-status species are considered sensitive under Santa Cruz County's Sensitive Habitat Protection ordinance (Chapter 16.32). The purpose of Chapter 16.32 is to minimize the disturbance of biotic communities which are rare or especially valuable because of their special nature or role in an ecosystem. The project site is located on a coastal dune and the entire parcel is considered sensitive habitat.

Biological Resources including special-status species and their habitats and other sensitive natural communities as identified by local policies, CDFW, or USFWS are also protected under the California Environmental Quality Act (CEQA). Additionally, Coastal Dune Scrub, Dune Plant Habitat, and habitat for special-status species are offered special protections under the California Coastal Act as Environmentally Sensitive Habitat Areas (ESHA). Santa Cruz County Code Section 13.20.130(B)(2) includes requirements for minimizing site disturbance associated with grading, earth moving, and removal of major vegetation in the Coastal Zone.

Appendix 3 of the attached Biotic Report gives an overview of the plant and animal species that were evaluated as part of this review. The parcel contains Coastal Dune Scrub habitat which has the potential to support several rare plant species protected by local, State, and Federal regulations. Focused rare-plant surveys were conducted during the evident and identifiable period for special-status plant species with potential to occur. No special-status plant species were detected within the project impact area. Impacts to special-status plants are not expected to occur.

The project site contains suitable habitat for Northern California legless lizard, a State Species of Special Concern. In addition, the dunes and beach immediately adjacent to the project site contain potential nesting habitat for Federally Threatened western snowy plover.

The property and surrounding areas also contain potential habitat for other nesting birds. Birds of prey and migratory birds are protected under the California Fish and Game Code, as well as the Federal Migratory Bird Treaty Act (MBTA). Under the MBTA, it is unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill" a migratory bird unless and except as permitted by regulations.

Conditions have been included below to ensure protection of special-status species and sensitive dune habitat during project implementation.

The project proposes to conduct habitat restoration on approximately 2,953 square feet of degraded coastal dune habitat on the parcel. The area proposed for restoration is depicted in the attached Native Coastal Dune Scrub Revegetation and Enhancement Plan. Additionally, a plan for removal of non-native species and a management strategy to control re-establishment of invasive non-native species on the remainder of the parcel is required in Condition IX below.

Conclusion

Dune habitat occurs throughout the property and cannot be avoided by an alternative project design. This project involves improvements to an existing structure with minor expansion of the existing development footprint totaling approximately 300 square feet. An additional 298 square feet of temporary impacts are expected to result from construction activities and access.

The anticipated impacts were minimized during project design by concentrating improvements within and directly adjacent to the existing developed areas. The narrow walkways within the existing retaining walls allow continued maintenance of the existing house without disturbing the adjoining dune habitat. The project proposes to conduct habitat restoration on approximately 2953 square feet of degraded coastal dune habitat on the parcel which is equivalent to a 3:1 ratio of restoration to permanent impacts.

There are sensitive habitat constraints on the project site associated with coastal dune scrub habitat, and special-status species that must be considered prior to and during project implementation. Conditions have been included below to ensure that project activities are consistent with County policies for protection of sensitive species and habitats.

If you have any questions regarding this letter, please feel free to contact me by email at Juliette.Robinson@santacruzcounty.us.

Sincerely,

Juliette Robinson
Resource Planner IV, Biologist

CC: Alexandra Corvello, Project Planner
Matt Johnston, Environmental Coordinator
Leah MacCarter, Area Resource Planner

Conditions of Approval

The Conditions of Approval below shall be incorporated into all phases of development for this project (2231240) and shall also apply to all future development activities proposed on the property. Adherence to these conditions will ensure that proposed development is consistent with County policies and will avoid and minimize impacts to sensitive habitats and special-status species.

Final approvals will occur during Environmental Planning review of the building permit application. Environmental Planning Staff will review the proposed project to ensure consistency with the Conditions below. A copy of this letter, including all attachments, must be submitted with any future permit applications.

I. Prior to any site disturbance, a pre-construction meeting shall be conducted. The purpose of the meeting will be to ensure that the conditions set forth in the proposed project description and Conditions of Approval are communicated to the various parties responsible for constructing the project. The meeting shall involve all relevant parties including the project proponent, construction supervisor, Environmental Planning Staff, and the project biologist.

II. Recommended Avoidance and Minimization measures BIO-1, BIO-3, BIO-5, BIO-6 and BIO-7 of the attached Biotic Report dated October 2023 prepared by Dawn Reis Ecological Studies for shall be adhered to.

III. Every individual working on the Project must attend biological awareness training prior to working on the job site. The training shall be delivered by a qualified biologist and shall include information regarding the location and identification of sensitive habitats and all special-status species with potential to occur in the project area (including legless lizard and snowy plover), the importance of avoiding impacts to special-status species and sensitive habitats, and the steps necessary if any special-status species is encountered at any time (see also BIO-6).

IV. Prior to commencement of construction, high visibility fencing and/or flagging shall be installed with the assistance of a qualified biologist to indicate the designated limits of work and prevent inadvertent grading equipment staging, vehicular access, or other disturbance within the adjacent sensitive habitat areas (see also BIO-1).

A. Intact native dune plants on the parcel shall be protected as sensitive habitat and avoided during construction to the maximum extent possible.

B. No work-related activity including equipment staging, vehicular access, grading and/or vegetation removal shall be allowed outside the designated limits of work.

C. Special-status plants located near or within the project impact area shall be identified, protected with high visibility fencing, and avoided during construction.

D. The fencing/flagging shall be inspected and maintained daily until project completion.

V. If a special-status animal is identified at any time prior to or during construction, work shall cease immediately in the vicinity of the individual. The animal shall either be allowed to move out of harm's way on its own or a qualified biologist shall move the animal out of harm's way to a safe relocation site (See also BIO-5).

VI. The project shall comply with all standard best management practices for outdoor lighting. No outdoor lighting shall shine into the sky, onto sensitive dune areas, or toward the beach.

VII. To avoid impacts to nesting birds, including western snowy plover, the following shall be adhered to:

A. Schedule construction during the non-nesting season (September 1st-February 1st) if possible. If commencement of project activity begins outside of the February 1st to August 31st nesting season, there will be no need to conduct a preconstruction survey for active nests.

B. If project activities are to commence between February 1st and August 31st, a survey for active bird nests shall be conducted by a qualified biologist within two weeks prior to the start of such activity. The survey area shall include the project area, and a survey radius around the project area of 50 feet for MBTA birds, 250 feet for birds of prey, and 500 feet for western snowy plover.

C. If no active bird nest is found, then no further avoidance and minimization measures are necessary.

D. If active nest(s) of western snowy plover are found within 500 feet of project construction, the County of Santa Cruz, California Department of Fish and Wildlife, and United States Fish and Wildlife Service shall be notified immediately for additional direction. Work activities shall not commence until guidance has been received from these three agencies.

E. If active nest(s) are found in the survey area (50 feet for MBTA birds and 250 feet for birds of prey), the biologist shall monitor the nest and advise the applicant when all young have fledged the nest. Commencement of work may begin only after fledging is complete.

F. If the biologist determines that a smaller avoidance buffer will provide adequate protection for nesting birds, a proposal for alternative avoidance/protective measures, potentially including a smaller avoidance buffer and construction monitoring, may be submitted to the County and CDFW for review and approval prior to removal of vegetation, use of heavy equipment, or other construction activities.

G. If construction activity stops for more than two weeks during the nesting season (February 1st - August 31st) a new survey shall be conducted prior to re-commencement of construction.

VIII. To compensate for impacts to Coastal Dune habitat, and habitat for special-status species, and to comply with the Santa Cruz County General Plan Policy 5.1.12, the project proposes restoration of degraded sensitive habitat on site at a 3:1 ratio of restoration to permanent impacts and at a 1:1 ratio for temporary impacts as outlined in the attached Native Coastal Dune Scrub Revegetation and Enhancement Plan that was prepared and submitted as part of the project scope.

IX. A Habitat Restoration Plan prepared by a qualified biologist or restoration professional shall be included with the building permit application submittal and approved by the Restoration Coordinator prior to issuance of the building permit.

Restoration activities shall be focused on restoring the native plant structure and species composition of local coastal dune habitat on the subject parcel. Designated restoration areas shall be considered Protected Habitat Areas. The Habitat Restoration Plan must include the following minimum elements:

A. A table with the proposed permanent and temporary impact calculations.

B. A map of all designated restoration areas including:

1. Identification of areas on site where temporary disturbance and re-establishment of native habitat shall occur at 1:1 ratio.
2. Identification of additional restoration areas intended to compensate for permanently impacted dune habitat at 3:1 ratio.
3. Additional locations on the remainder of the parcel where removal of non-native species and a management strategy to control re-establishment of invasive non-native species will occur.

4. The location of any existing special-status plant colonies on the property to be protected during and after construction and monitored for success.
5. The location of permanent protective signs used to delineate Protected Habitat Areas in the field.

C. Permanent protective signs shall be used to delineate Protected Habitat Areas in the field and prevent trespassing after construction is complete. The location and type of protective signs shall be confirmed by the biologist based on site conditions and maximum protection of these habitat areas.

D. Plan for removal of non-native species and a management strategy to control re-establishment of invasive non-native species on the remainder of the parcel to help prevent the spread and continued encroachment of invasive species into restored areas.

E. A planting plan with species, size, and locations of all restoration plantings. These plantings shall occur at sizes and ratios determined by the restoration specialist to adequately restore native habitat while maximizing plant health and survivability of individual plants.

F. Information regarding the methods of irrigation for restoration plantings.

G. The Habitat Restoration Plan shall include a 5-year Management Plan for maintenance and monitoring of restored areas, including a proposed mechanism for evaluating success. Annual reports outlining the progress and success of the restoration and monitoring shall be submitted to the County Restoration Coordinator restoration.coordinator@santacruzcountyca.gov by December 31 of each monitoring year.

H. In addition to the required 5-year annual monitoring and reporting, a 10-year monitoring report shall be prepared and submitted to the County Restoration Coordinator outlining the continued implementation and results of annual Coastal Dune Scrub Management over the 10-year period.

X. Any seed mix used for erosion control purposes on exposed soils shall be limited to seeds of native species common to the surrounding habitat and/or sterile seeds.

XI. The designated restoration areas on the parcel shall be preserved as Protected Habitat Areas through recording of a Declaration of Restriction on the parcel. The draft Declaration of Restriction shall be submitted with the building permit application and shall include the following details:

A. Identification of a “Protected Habitat Areas” where development shall not occur in the future.

B. Specific management strategies to ensure that the Protected Habitat Areas are properly managed to maintain quality native dune habitat.

C. Specific restrictions regarding activities that are not allowed within the Protected Habitat Areas in the future.

XII. Prior to final building inspection the following shall occur:

A. Establishment and planting of all restoration areas as outlined in the final approved Habitat Restoration Plan and placement of protective signs around the Protected Habitat Areas shall be inspected and approved by Environmental Planning staff.

B. Recording of the final Declaration of Restriction on the parcel shall be completed.

A copy of this biotic approval, including all attachments, should be submitted with any future permit applications.