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HABITAT RESTORATION PLAN

Mathews Residence
1725 Sunset Drive, Pacific Grove, CA
(APN 007-061-036)

Owners:

Bruce and Kim Mathews
11879 South Highway 99
Manteca, CA 95336

April 28, 2020

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I. INTRODUCTION

This report has been prepared in conjunction with a proposal to remodel an existing single-family residence located at 1725 Sunset Drive, Pacific Grove, California (Figures 1). In addition, the project proposes to add an exterior deck, patio and driveway extension and resurface all existing hardscape surfaces (Figures 2). Restoration of the native landscape is proposed on the undeveloped, open-space portion of the property, amounting to about 80 percent of the 0.78-acre property, and within the adjacent unimproved City right-of-way along Sunset Drive. The total area proposed for landscape restoration is, henceforth, referred to as the Project Area. This report describes the procedures and standards for restoring, monitoring, and maintaining the native dune habitat in the Project Area, as is required by the City of Pacific Grove Local Coastal Program Land Use Plan (Section 2.3.5.f.).

A botanical survey report was prepared on April 18, 2019. It provides a description of the existing vegetation and a list of recommendations for protecting and improving the native landscape, both during and following construction of the proposed remodel project. Significant populations of two rare plant species – Tidestrom's lupine and Monterey spineflower – occur in the Project Area. This Habitat Restoration Plan, in addition to providing specifications for replanting the common dune plants, will also provide directions for protecting and enhancing the rare plants.

II. RESTORATION GOAL AND OBJECTIVES

The goal of this Habitat Restoration Plan is to provide procedures and standards for successfully reestablishing and maintaining the indigenous landscape in the Project Area. Relatively undisturbed or "natural" examples of the native plant community that once covered the project site occur nearby in Asilomar State Beach and on several nearby private properties. A full complement of the native plant species that the Project Area could support can be seen on the adjoining properties along the north and east sides of the subject property. These off-site properties will serve as the primary reference model for restoration of the native landscape at 1725 Sunset Drive.

Specific objectives for accomplishing the project goal are as follows:

- Revegetate with an array of native species, establishing a landscape type that is self-sustaining and representative of the project site's native plant community, in terms of species composition, percent relative composition and total percent cover.
- Eradicate and control exotic vegetation.
- Protect, maintain and enhance populations of rare plants.
- Prohibit the use of any plants that are not indigenous to the Asilomar Dunes.

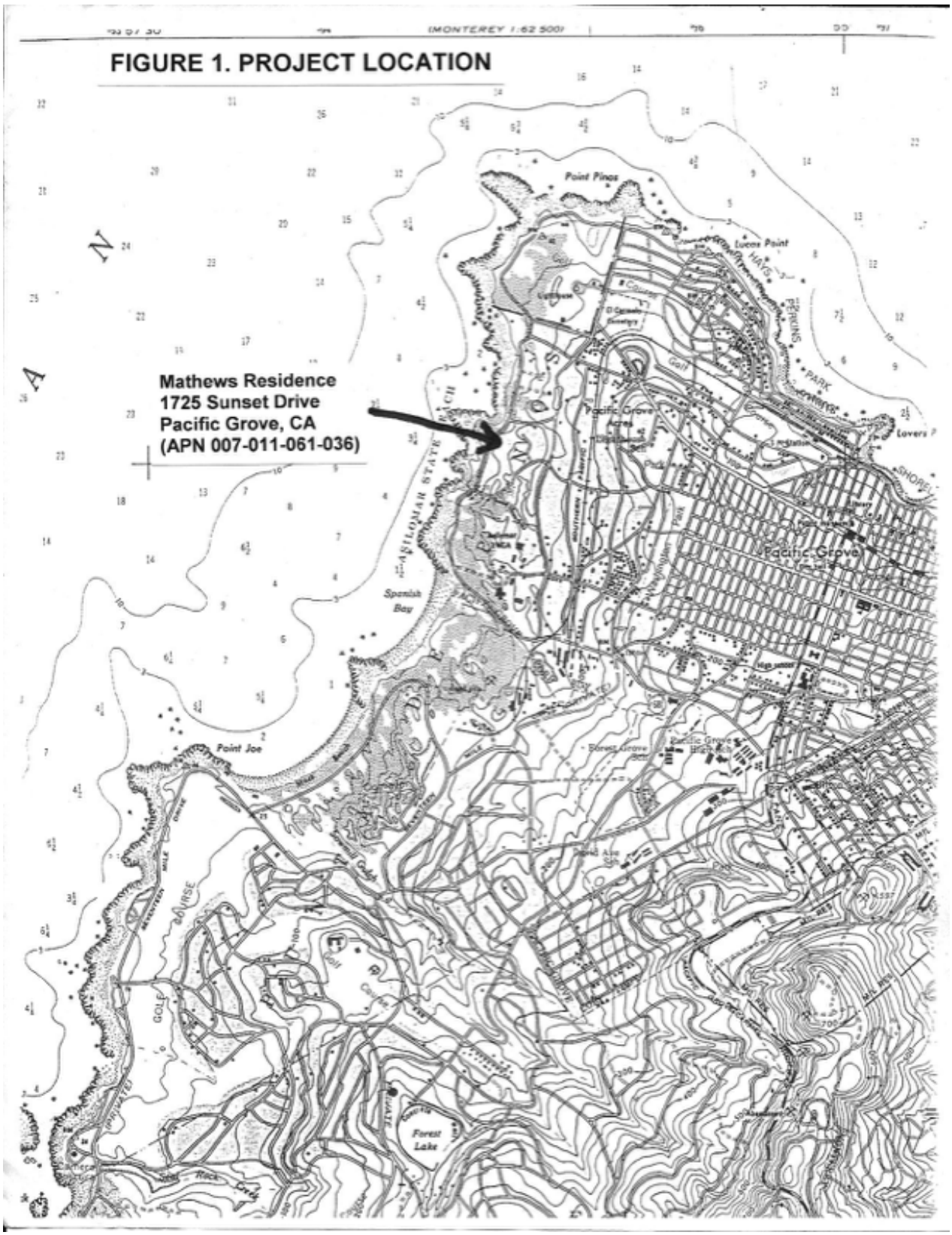


FIGURE 1. PROJECT LOCATION
Mathews Residence
1725 Sunset Drive
Pacific Grove, CA
(APN 007-011-061-036)
Point Pinos
Lucas Point
Pacific Grove
Spanish Bay
Point Joe
Forest Lake
Lovers
SHORE

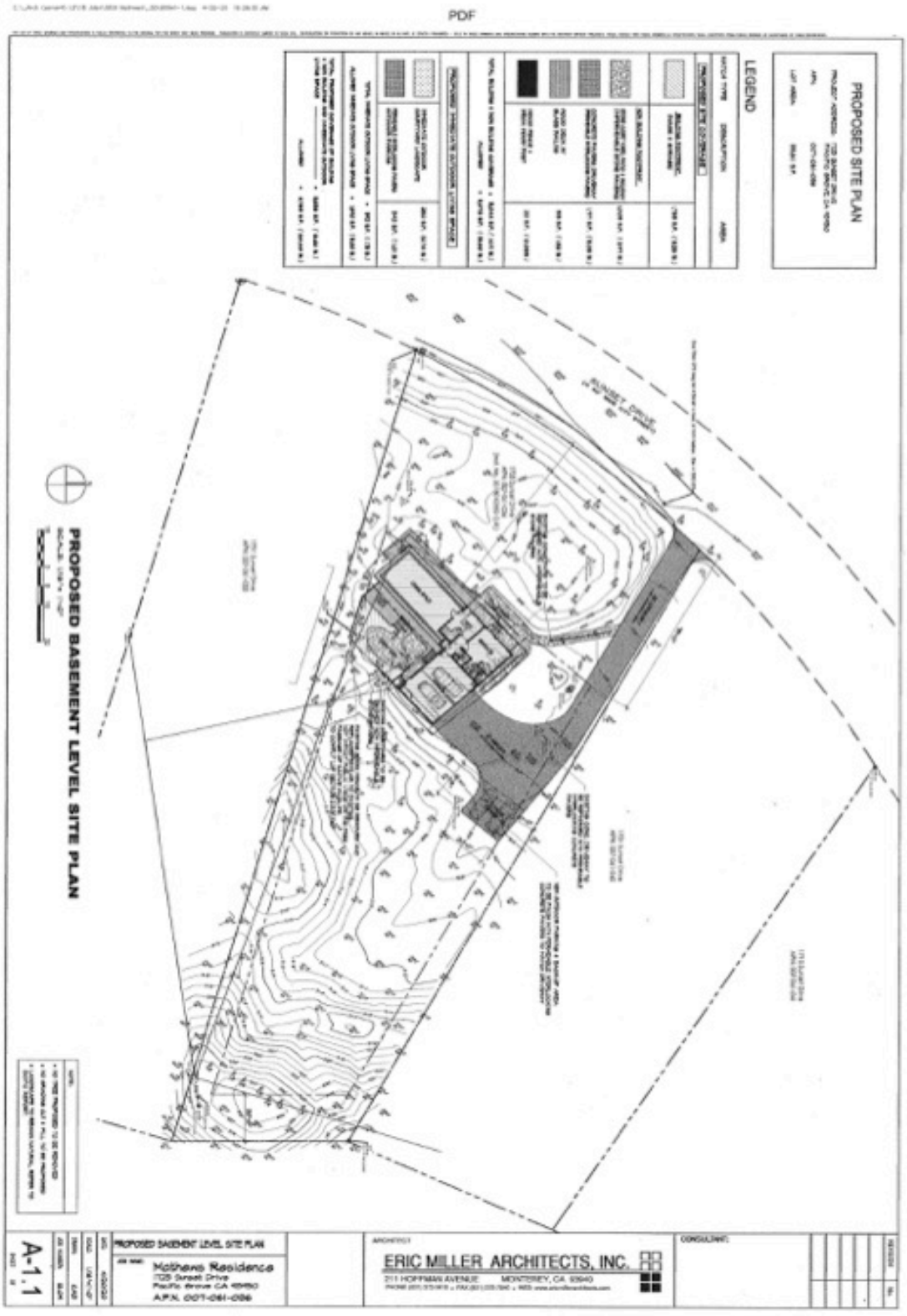


FIGURE 2. PROPOSED SITE PLAN (4-20-20)

- Prevent damage to the native landscape resulting from human and pet activity.
- Carryout a monitoring program based on quantitative and qualitative standards.
- Establish a long-term management program for maintaining and preserving the native dune landscape in a restored, natural state.

III. RESTORATION PROCEDURE

The following provides descriptions of specific management techniques that will be used to meet the objectives of this restoration project. Implementation of this project will be guided and monitored by a qualified biologist (Project Biologist) approved by the Pacific Grove Community Development Department.

Restoration will be accomplished in eight steps. Each step is described below and includes the following:

1. Native Seed Collection
2. Exotic Species Eradication
3. Rare Plant Protection
4. Sand Stabilization
5. Revegetation
6. Landscape Protection
7. Maintenance
8. Monitoring

1. Native Seed Collection

Plants of the same species can vary in color and form from one area to another, even over relatively short distances. Genetic variations occur in response to long-term adaptive changes by a species to the conditions of its immediate environment. Utilizing seeds from plants collected as near as possible to a restoration site is a wise revegetation strategy, since these plants possess the unique traits needed to ensure the long-term survival of their kind on the site.

In order to preserve the genetic integrity of the local flora, all seed for growing plants selected for use in this restoration project will be collected from areas as close as possible to the project site. The geographic limits of the seed collection area will be from Pt. Pinos to the north, Pt. Joe to the south, Asilomar Avenue to the east and the shoreline to the west. No seeds will be purchased from commercial seed suppliers. Permission to collect on public or private property will need to be obtained from the respective property owners. A total of approximately six pounds of seeds will be collected from 8 species, as listed in Table 1.

2. Exotic Species Eradication

Eradicating exotic plants – plants that are not indigenous to the Asilomar Dunes - and maintaining the native landscape in a weed-free condition are primary objectives of this habitat restoration project. Several particularly invasive, exotic species have been identified on the property, including Hottentot fig ice plant *(Carpobrotus edulis)*,

TABLE 1. SELECTED PLANT SPECIES FOR REVEGETATION

PARTIAL RESTORATION (WEST OF RESIDENCE)

Plant Name	Percent	Quantity	Spacing
Pink sand verbena *(Abronia umbellata)*	0	0	2 lbs. seeds
Thrift *(Armeria maritima)*	5	70	2’
Beach sagewort *(Artemisia pycnocephala)*	40	248	3’
Mock heather *(Ericameria ericoides)*	3	7	5’
Seaside daisy *(Erigeron glaucus)*	2	12	3’
Dune buckwheat *(Eriogonum parvifolium)*	5	31	3’
Beach aster *(Lessingia californica)*	30	186	3’
Deerweed *(Lotus scoparius)*	15	93	3’
Totals	**100**	**647**	

FULL RESTORATION (EAST OF RESIDENCE AND CONSTRUCTION ZONE)

Plant Name	Percent	Quantity	Spacing
Coyote brush *(Baccharis pilularis)*	3	21	5’
Beach sagewort *(Artemisia pycnocephala)*	60	1,173	3’
Monterey spineflower *(Chorizanthe pungens)*	0	0	0.2 lbs. seeds
Mock heather *(Ericameria ericoides)*	5	35	5’
Seaside daisy *(Erigeron glaucus)*	2	39	3’
Beach aster *(Lessingia californica)*	20	391	3’
Deerweed *(Lotus scoparius)*	10	196	3’
Totals	**100**	**1,855**	

Sydney golden wattle *(Acacia longifolia)*, Silver bush lupine *(Lupinus chamissonis)*, a non-local California native plant. These two species and other exotic plants, as listed in property's Biological Survey Report, will be eradicated at the start of the project and controlled over the longer term. Ice plant, Silver beach lupine, and Acacia are aggressive competitors with the native plants, and if not controlled will in time displace much of the native vegetation on the property. Failure to control these species and the other weeds will make efforts to restore the native plant community difficult, costly and unlikely to succeed in the long run.

All exotic vegetation in the Project Area will be eradicated prior to the start of any demolition or construction activity on the existing residence or exterior hardscape.

Several methods are available for eradicating the exotic plants. For this particular project, the most efficient method will be to initially treat the weeds with a suitable herbicide and then control new seedlings by hand pulling or spot spraying. Prior to using herbicide, ice plant will be removed from around all native plants, so as to avoid overspray damage during application of the herbicide. Over the longer term, it will be vital to the success of this landscape restoration project that exotic seedlings are pulled and removed each year before they flower and produce seeds.

Eradicating large Acacia shrubs will require cutting and immediate treatment of the stumps with a suitable herbicide; otherwise the plants will sprout new stems and quickly grow back.

3. Rare Plant Protection

Two protected plant species occur on the property - Tidestrom's lupine and Monterey spineflower. Significant numbers of Tidestrom's lupine plants occur on the western and eastern portions of the property. A number of Tidestrom's lupines grow right up to the edge of the entrance walkway and along the front of the house. Monterey spineflower, which is an annual plant (completes its life cycle in one year), occurs mostly on the western portion of the property. Larger numbers of this plant could also occur on the eastern part of the property, if the dunes were stable and not actively eroding.

Rare plants in the Project Area are threatened by ice plant, Silver bush lupine, and deer. Ice plant if not controlled can rapidly grow, cover and displace all other vegetation on the property, including the rare plants. Silver bush lupine also grows quickly and can cover large areas of the property's surface if not controlled. But, more significantly, Silver bush lupine has been found to hybridize with Tidestrom's lupine, producing great numbers of plants that sometimes can be difficult to distinguish as being either Tidestrom's lupine or hybrids between the two species. As such, Silver bush lupine represents a threat to the genetic integrity of Tidestrom's lupine and if not eliminated could eventually lead to the extinction of Tidestrom's lupine wherever the plants grow in proximity to each other. Deer browse on the Tidestrom's lupine plants, particularly during the time of year that the plants are growing and producing flowers. If not protected from the deer, all the plants will appear severely browsed by the end of each growing season and will not produce any seeds.

Although not a state or federally-listed plant, Dune buckwheat (Eriogonum parvifolium) is considered a species of special concern, because it is the host plant for the endangered Smith's blue butterfly *(Euphilotes enoptes smithii)*. As such, special mitigation measures will be taken to protect the buckwheats, especially from herbivory by the deer.

This habitat restoration project will help protect and promote the establishment of Tidestrom's lupine, Monterey spineflower, and Dune buckwheat in the Project Area by 1) eradicating the ice plant and Silver bush lupine, including the hybrids; 2) protecting individual Tidestrom's lupine and buckwheat plants from deer herbivory by placing and maintaining wire baskets over a minimum of 10 percent of the plants on both the western and eastern portions of the property; 3) restoring and maintaining the native plant community in a natural condition, and 4) reporting on the status of the rare plants in annual project monitoring reports during the first five years following implementation of this habitat restoration project and once every 10 years thereafter. Monitoring of the rare plant populations will be done only by a qualified biologist who has been certified by the City of Pacific Grove. The identification and removal of any hybrid lupines will be done only by a qualified biologist, as well.

4. Sand Stabilization

Where vegetation is absent or lacking on the property, measures will be taken to stabilize the sand (hold it in place), so as to prevent erosion by the wind while new plants are becoming established. Large areas of bare sand will be temporarily stabilized by mulching with organic material (i.e., dead ice plant and cut up limbs of acacia or other large brush). Wood chips will not be used. Spreading organic material over the ground is an effective sand stabilization method and will provide at least two years of erosion control. Plant cover should be adequate by the end of the second year to prevent dune erosion from reoccurring, provided that trampling or any other significant disturbance does not damage the plants.

Organic mulch material will be applied following seeding and replanting of the property.

5. Revegetation

A. Revegetation Guidelines

The undeveloped portion of the property and the adjacent unimproved City right-of-way, amounting to 27,350 square feet (SF) and approximately 350 SF, respectively, for a total of 27,585 SF, will be restored using native plants that are indigenous to the Asilomar Dunes, according to the specifications and standards defined in this Habitat Restoration Plan. Table 1 provides specifications for the quantities and spacing for each of the selected plants.

The kind and amount of plants selected for this project have been determined mainly from observations of the native plant cover on the adjacent properties – 1715

Sunset Drive and 368 Calle de los Amigos – both of which provide good examples of successful habitat restoration projects in the Asilomar Dunes.

Restoration of the native plant community in the Project Area will be aimed at bringing the landscape back to its “original” condition, as it generally appeared prior to development of the property and other human-related disturbance. Therefore, species composition, percent relative cover and total percent cover will not be manipulated to achieve a particular aesthetic quality or “unnatural” appearance to the landscape. In addition, non-local varieties of native dune plants that might have a more desirable plant form or flower color will not be introduced onto the project site. Native grasses that are not representative of the property’s native plant community will not be introduced, as well.

The intent of this landscaping project is to reestablish a dynamic, self-perpetuating native plant community, not to create a designed, static landscape of managed individual plants or groups of plants. Because of the nature of this type of landscaping project, it is not possible or desirable to show the precise location of each plant on a landscape drawing or plan, as is typically done for residential landscape projects. In order to accurately mimic and restore the native plant community requires that the selected plants be installed in a mixed, random pattern over the project site. Following planting, the plants will be allowed to spread or decline in coverage, depending on the suitability of the site for each species. During the first few years after planting, some refining of the landscape may be necessary in order to achieve the stated objectives of the project.

Several revegetation methods are available for establishing new populations and enhancing existing populations of native vegetation. Based on the relatively small size of the project, broadcasting some seeds by hand and planting nursery plants grown in small containers will be the revegetation methods used for this project.

The number of plants required and their spacing will vary, based on the condition of the existing native vegetation in the Project Area, which ranges from being absent in areas that are dominated by ice plant or bare sand to areas that contain some native plants. Where native plants are absent, various common dune species will be installed 2 to 5-ft centers, depending on the species. Where native species are present but lacking in density, percent cover or species composition, nursery stock will be planted to augment the existing plant cover. Planting will aim to achieve a density of about one plant per 9-square feet. A total of approximately 2,502 total plants will be required, as shown in Table 1.

The majority of the different plant species will be planted in a mixed, random pattern over the project site according to the amounts and spacing requirements indicated in Table 1. Plant spacing will vary by species and proximity to other species. Placement of the plants for planting will be done under the direction of the Project Biologist. Any adjustments to species composition and quantities will be at the discretion of the Project Biologist at the time of planting, depending on availability of plants and site conditions.

The plants for this project will be grown by a local nursery that specializes in growing native species. Most of the plants will be grown in 7 cubic inch containers, specifically, Ray Leach "cone-tainers" (super "stubby" cells). Seeds of selected species will be provided to the nursery no less than six months in advance of the scheduled planting.

No trees will be planted on the property.

Although planting can be done at any time of the year, ideally, it should be initiated in the fall following rainfall that is sufficient to wet the soil. When planting occurs at other times of the year, supplemental watering will be necessary to ensure successful plant establishment. If planting occurs between May and November, the plants may need to be watered several times per month until winter rains begin, depending on the weather and the condition of the plants.

Newly installed plants will be deep-watered immediately following planting using a hand-held hose with a spray nozzle attachment. Depending on weather conditions, periodic watering will be necessary during the first year. Watering should be discontinued after the first year, and the plants allowed to wither and die-back during the late summer. Sustained application of supplemental water will create conditions that attract various pests and diseases that can negatively affect the native vegetation. In particular, snails greatly benefit from excessive watering around residences, and can cause significant damage to native vegetation. Therefore, continued watering of any area on the property will be avoided. No irrigation system will be used for this project.

Implementation of this habitat restoration project will start immediately following receipt of an approved Coastal Development Permit from the California Coastal Commission or the City of Pacific Grove.

The restored landscape will be monitored and maintained to meet a set of minimum performance standards as listed in Section IV of this plan. Follow-up control of exotic plant seedlings, particularly during the first several years after construction, will be a high maintenance priority.

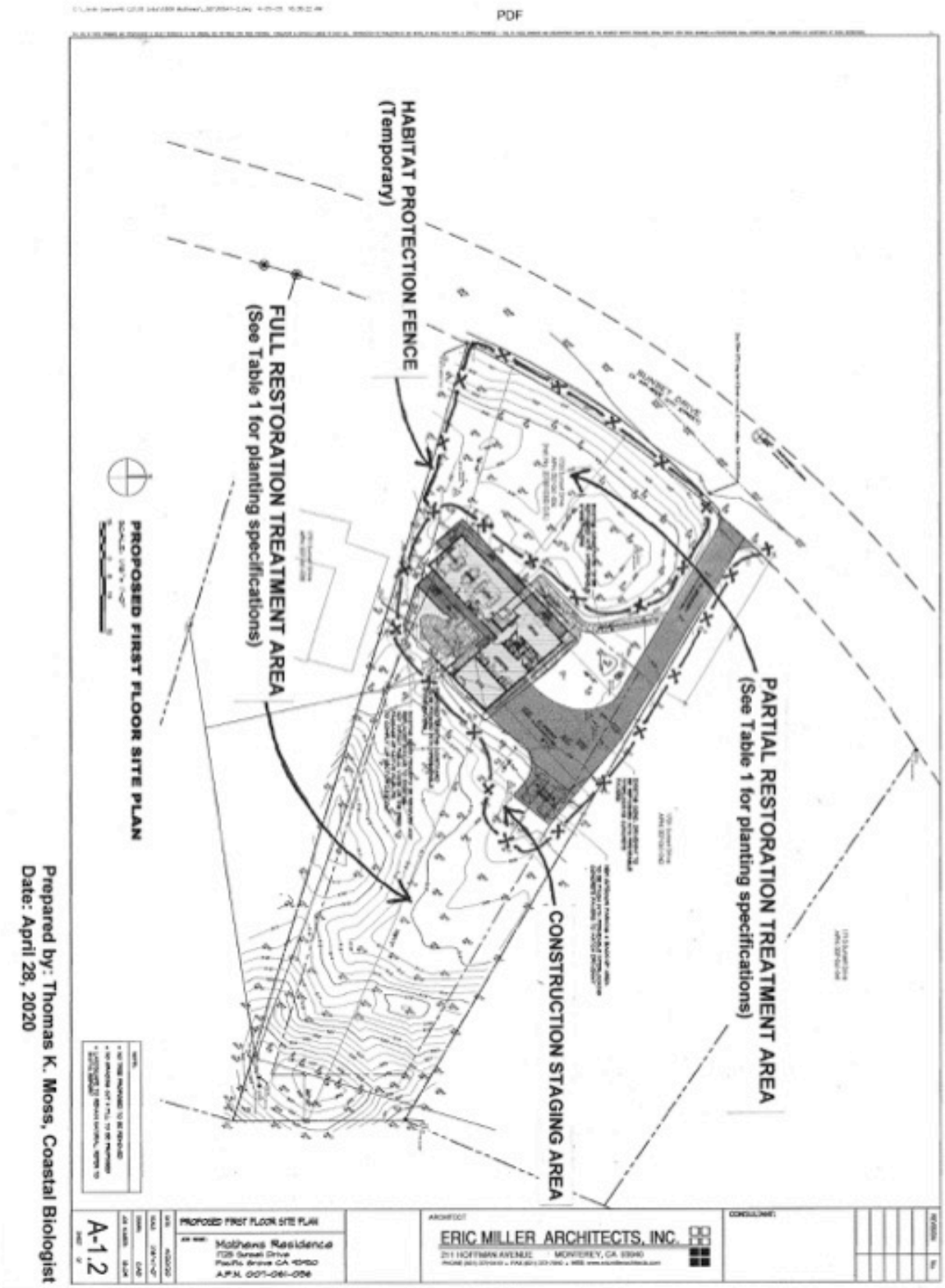
B. Landscape Treatment Areas

To facilitate planting of the landscape, the Project Area can be divided into two distinct landscape treatment areas – Full Restoration Treatment Area and Partial Restoration Treatment Area (Figure 3):

Full Restoration Treatment Area

This landscape treatment area primarily encompasses the eastern portion of the property. This treatment area represents approximately 65% (17,930 SF) of the Project Area, and includes areas of ice plant, bare sand, and a strip of sand on the immediate western side of the residence that will be impacted during construction. Full restoration will entail replanting this entire landscape treatment area with appropriate

FIGURE 3. LANDSCAPE PLAN



Prepared by: Thomas K. Moss, Coastal Biologist
Date: April 28, 2020

native dune plants, following eradication of the exotic plants and construction. Achieving a plant density goal of about one plant every 9-SF (3-ft spacing) will require planting a total of 1,855 plants in this area, as listed in Table 1. Ice plant will be left in place after being treated with an appropriate herbicide, followed by replanting with native plants. Strands of dead ice plant and cut branches of acacia and Silver bush lupine will be scattered over open sandy areas in the eastern portion of the Project Area after planting, to provide stabilization to the sand while the new plants are growing. Replanting of this area, except for areas affected by construction, can be completed prior to finishing the building project.

Partial Restoration Treatment Area

This landscape treatment area encompasses the western portion of the property, and includes a narrow strip of undeveloped public-right-of-way next to Sunset Drive. It covers approximately 35% (9,655 SF) of the Project Area. Although native plant cover is lacking, a complete complement of dune species occurs in this area. Patches of ice plant are overrunning the remaining native plants. A large number of Tidestrom's lupines and Monterey spineflowers occur here, too. Many Dune buckwheat plants also are growing here, which is an important host plant for the endangered Smith's blue butterfly.

Habitat restoration in this area will entail eradication of the ice plant and hybrid Tidestrom's lupines, followed by planting native dune species where plant cover is deficient. Approximately 35% of the area will need additional plants. Filling in the gaps between the existing plants will require planting an additional 647 plants in this area, in order to achieve a final plant density of at least one plant every 9-SF. Restoration of the native landscape in this area can be completed prior to finishing the building project.

6. Landscape Protection

The native landscape is very fragile and easily damaged by people and their pets. Indiscriminate walking in the restored habitat should be strictly limited and discouraged by the property owner at all times, except for periodic landscape and building maintenance purposes.

Small boulders have been placed along the edge of the property and Sunset Drive and on one side of the driveway, to effectively prevent damage to the dunes by vehicles. These boulders should be maintained in their present location and augmented with additional boulders if new damage is identified in these areas.

Specific measures for protecting the dunes during construction of the proposed project are required by the Pacific Grove Community Development Department and the California Coastal Commission as conditions of approval for the project. These protection measures include the installation of temporary fencing, pre-construction searching for black legless lizards, proper storage and disposal of construction materials, and regular compliance inspections by a qualified project environmental monitor (Project Biologist). Temporary habitat protection fencing, including orange

plastic, guildeline, and/or silt fencing will be installed by the Project Biologist, as shown in Figure 3, prior to the start of construction and removed by the Project Biologist at the conclusion of all construction on the site.

Permanent fences that do no provide for the free passage of light and movement of wildlife are not permitted in the Asilomar Dunes, per the Pacific Grove Local Coastal Program Land Use Plan. Fences that do not adversely affect light or exclude wildlife are typically open (more than 75% permeability) and low in height (36" or less). Any existing fences that do not meet these criteria will be required to be removed and not replaced.

Any new construction in the future that is not shown on the approved site plan – for example, additional walkways, patios, decks, stairs and fences; modification of the driveway and parking area, or; construction of retaining walls – shall require the review and approval of the California Coastal Commission or the City of Pacific Grove prior to the start of construction.

Measures will be taken to protect the Tidestrom's lupine and Dune buckwheat plants from herbivary by deer, by placing wire baskets over the individual plants, anchored into the ground with heavy gauged wire. The wire baskets will last for several years and will keep the deer from eating the plants, allowing them to flower, produce seeds and thrive on the property. Protecting the plants with wire baskets will need to be part of an ongoing maintenance effort on the property that is carried out every year along with other activities to maintain the landscape, like removing any exotic plant seedlings.

7. Maintenance

Maintenance refers to those activities that are necessary to ensure that the project objectives are achieved, including: 1) watering of plants until they are well-established; 2) periodic removal of invasive, exotic plants; 3) replanting of areas where damage has occurred or plant cover deficiencies are identified; 4) prevention of damage to plants from trampling, pets, vehicles, and deer, and; 5) repair or replacement of any plant protection structures (rare plant wire baskets).

Removal of exotic plants is essential for successful restoration of the native landscape. Of principal concern are various fast growing annual weeds that are common throughout the Asilomar Dunes residential area, especially ice plant, ripgut brome, sow thistle, foxtail grass, cranesbill geranium, pigweed, and bur clover. If not controlled, these weeds can greatly retard the growth and coverage of the native seedlings and jeopardize the success of this landscape restoration project.

Although a substantial portion of the property will be restored to a naturally functioning native landscape, care of this landscape will be ongoing, requiring a sustained, routine effort to meet the objectives and performance standards defined in this Habitat Restoration Plan over the longer term. During the first three years after new plants are installed, maintenance will be scheduled on a monthly basis to ensure maximum success of the restoration effort, requiring 4-6 hours of work each month. As

the landscape becomes established, the amount of time required for maintenance will diminish. Following the third year, it is anticipated that maintenance will entail minor weed control, adjusting or replacing wire baskets, and possibly a small amount of additional planting. At a minimum over the longer term, landscape inspections and maintenance should be scheduled on a quarterly basis each year, requiring approximately 4-6 days each year to complete all maintenance.

Pulled weeds should always be placed in plastic bags or directly into a trashcan, not on the ground. Removal of weeds should be done by hand and before they start to produce seeds.

Along with weed control, protecting rare plant populations will also continue to need routine attention each year. Removing any new hybrid lupines and maintaining a set of wire baskets over at least 10% of the Tidestrom's lupines on each of the eastern and western portions of the property will be ongoing activities that are key to perpetuating a healthy population of Tidestrom's lupines on the property over the long-term.

The aim of this restoration project is to reestablish a wild, self-sustaining landscape on the entire undeveloped portion of the property. Trimming plants, removing dead plants and flower-heads, and watering and fertilizing plants when they appear to be dying, are maintenance practices that are inconsistent, contrary and averse to achieving the project's goals and objectives. Such maintenance practices shall not occur on the property unless specifically recommended by a qualified coastal biologist.

8. Monitoring

Monitoring by the Project Biologist will occur during construction of the remodel project; during implementation of the habitat restoration project, and; following the construction project, to report on the condition of the landscape and identify any maintenance needs over the longer term. Monitoring is essential to ensure that restoration of the undeveloped portion of the property and the unimproved City right-of-way areas is achieved according to the specifications and standards of this Habitat Restoration Plan. Monitoring will range from informal observations based on frequent visits during construction to periodic, formal recording and reporting of landscape conditions over the longer term.

A qualified biologist will be retained by the property owner to guide and monitor all activities described in this Habitat Restoration Plan, with the most significant effort being focused on the first six years of the landscape restoration project, comprising the first-year implementation and a subsequent five-year monitoring period.

The California Coastal Commission and the City of Pacific Grove require that implementation of the habitat restoration project is completed, including eradication of all exotic plants, planting of native plants, and installation of habitat and rare plant protective measures, prior to approval of the final building inspection. Typically, it is not possible to complete this initial phase of the restoration project immediately

following the cessation of all construction activity on the property. Therefore, it is recommended that if a longer period of time is required to complete implementation of the restoration project, not to exceed one year from the time that construction is completed, the Project Biologist should prepare a letter outlining the project's implementation schedule, including the projected date of completion. The property owner should also sign the letter, to indicate their concurrence with the schedule and commitment to completing the habitat restoration project. Written notification will be provided by the Project Biologist to the Director of the Pacific Grove Community Development Department and the California Coastal Commission when initial implementation of the restoration project is completed.

A five-year monitoring program based on annual, springtime inspections and reporting, will begin when final building inspection approval is granted. Following the five-year monitoring program, the property will also be inspected once every ten years, according to the same procedures as described herewith.

Reporting the results of the monitoring program will entail preparation of a monitoring report by the Project Biologist. The report will consist of a form, called the Landscape Monitoring Report, and will be submitted by June 30th of each year during the five-year monitoring period. The report will document progress on achieving the project's goal and objectives during the five-year monitoring program and for every ten-year period thereafter. Photographs of the project area will be taken each year from the same locations and assembled into a Photo Report, which will be attached to each monitoring report. The Project Biologist will notify the property owner in writing prior to inspecting the landscape and preparing the monitoring reports. The reports will take 6-8 hours each time to complete. The completed reports will be submitted to the property owner, the Pacific Grove Community Development Department, and the California Coastal Commission. Any conditions that vary from the standards described in this Habitat Restoration Plan will be identified in the reports and corrected prior to the springtime inspection and preparation of the following year's report.

During inspections, the Project Biologist will assess such elements as: 1) plant composition, density and percent cover; 2) the condition of the plants, paying particular attention to plant mortality or any deficiency in the quality and quantity of the landscape; 3) the number (population size) of rare plants; 4) signs of damage to the plants from natural or human-related causes; 5) the status of exotic vegetation, and; 6) signs of erosion.

Following the initial five-year monitoring period, the property's landscape shall be inspected once every ten years, according to the same procedures as described above.

IV. MONITORING STANDARDS

Monitoring standards provide a means for assessing the relative success of the restoration project and identifying maintenance needs over time. For this project, monitoring will include quantitative and qualitative evaluations. Measurements, including plant density and percent coverage, will be done by estimation only.

However, if the monitor is unable to make coverage estimations with a high degree of certainty, then line transects shall be run across questionable areas and total percent coverage determined. Qualitative evaluations should also assess health and vigor of the vegetation. Photographs of the project site will provide additional documentation of progress toward accomplishing the project's objectives.

The restored landscape will meet the following success criteria (minimum performance standards):

- Density (Perennial native species only): Average 1 plant per 9-FT.
- Percent total cover (Perennial native species only): 1 year: 15%
2 years: 25%
3 to 5+ years: 40%
- Percent relative cover: All species are within normal range.
- Composition: At least 8 native, perennial species.
- Health and vigor: Plants are in good health, exhibit normal flowering, and damage from people, deer, pets, and vehicles is negligible.
- Erosion: Not evident.
- Exotic species: Non-indigenous plants do not exceed 5% of coverage in any 100 square feet (10x10-ft) of area on the property.
- Plant protection: Structures to prevent deer herbivary are in good condition and functioning as intended.
- Tidestrom's lupine hybrid plant: None are present.
- At a minimum, maintain population numbers of Tidestrom's lupine and Monterey spineflower plants as existed prior to the start of the project, based on the Biological Survey Report (August 18, 2019), totaling 342 Tidestrom's lupines and 150 Monterey spineflowers. Protect (wire basket) 10% of the Tidestrom's lupine population in the western portion of the property (total 26 baskets) and in the eastern portion of the property (10 baskets). (This standard may be adjusted by the Project Biologist in response to results obtained from annual surveys and 10-year monitoring reports.)
- Protect (wire basket) 20% of the Dune buckwheat population on the western portion of the property. (Actual number needs to be determined at start of restoration planting.)
- Erosion: Not evident.

If an area fails to meet the above stated revegetation standards, corrective actions will be identified in the annual report and enacted prior to the start of field surveys for the next annual report.

V. PROJECT IMPLEMENTATION AND MONITORING SCHEDULE

Landscape restoration and maintenance activities on the property and on the adjacent unimproved City right-of-way, comprising the Project Area, shall be carried out in accordance with this Habitat Restoration Plan and will be supervised and monitored by a qualified biologist.

Implementation of this habitat restoration project, including eradication of exotic species and installation of native plants, shall be completed prior to final building inspection approval. If it is not possible to complete the project in this timeframe, the Project Biologist should prepare a letter to the City of Pacific Grove and the California Coastal Commission, outlining the implementation schedule, including the projected date of completion. The property owner should also sign the letter, to indicate their concurrence with the schedule and commitment to completing the habitat restoration project.

When implementation of the project is completed, including eradication of all exotic plants and installation of native plants, the Project Biologist will provide a letter to the City of Pacific Grove and the California Coastal Commission certifying that the initial phase of the project has been satisfactorily completed.

A five-year monitoring program, consisting of annual inspections and reporting conducted during the springtime of each year, shall begin at the time that the final building inspection approval is granted by the City of Pacific Grove. Failure to submit the annual reports or to meet the performance standards defined in this plan could extend the annual reporting and monitoring period for additional years, as determined by the City of Pacific Grove and the California Coastal Commission.

As required by the project's Coastal Development Permit, a certified biologist will inspect the Project Area every ten years following completion of the five-year monitoring program. A monitoring report documenting the condition of the Project Area's natural habitat, as listed in the five-year monitoring program, will be submitted to the City of Pacific Grove and the California Coastal Commission immediately following each inspection.

Monitoring and maintenance of the landscape for the purpose of ensuring compliance with all conditions and requirements of the project permits will be the responsibility of the property owner. If the property should change ownership, future owners of the property will have the same obligation for preserving, maintaining and perpetuating the native landscape on the site as specified in this Habitat Restoration Plan.

Implementation of this Habitat Restoration Plan will be accomplished according to the schedule shown in Table 2.

Modification of the provisions of this Habitat Restoration Plan will be allowed only with written approval from the City of Pacific Grove and the California Coastal Commission.

Prepared By: *Thomas K. Moss* Date: *4-28-2020*

TABLE 2. IMPLEMENTATION SCHEDULE

TASKS	TIMING
Collect native plant seeds	April through November.
Grow native plants in nursery	April to February.
Establish photo sites and collect baseline comparative data	Prior to any manipulation of the existing landscape and construction.
Eradicate exotics and hybrid lupines	Prior to any construction activity and following receipt of permits.
Install temporary fences	Prior to start of construction.
Survey for black legless lizards	Immediately prior to start of any construction activity.
Monitor construction	Weekly until all construction is completed
Broadcast seeds and install nursery plants	Following receipt of permits, preferably December to May.
Remove temporary fences	Following completion of all construction and concurrence of Project Biologist.
Begin five-year monitoring program and notify (letter) the City of Pacific Grove and the Coastal Commission	Upon receipt of final building inspection approval and satisfactory completion of installation of the landscape, respectively.
Monitor and maintain landscape	Monthly during first three years, then quarterly each year for remaining three years of 5-year monitoring program. Recommend quarterly maintenance over the long-term.
Control exotics and hybrid lupines	Annually, as needed January to July.
Augment initial plants	Second and third years in January, if needed.
Monitor, prepare and submit Landscape Inspection Report	Annually for at least five years following final building inspection approval, submitting report by June 30th each year, and once every 10 years over the longer term.