

BOLINAS MESA ZONE 5 HAZARDOUS TREE REMOVAL AND RESTORATION

BOLINAS, CALIFORNIA



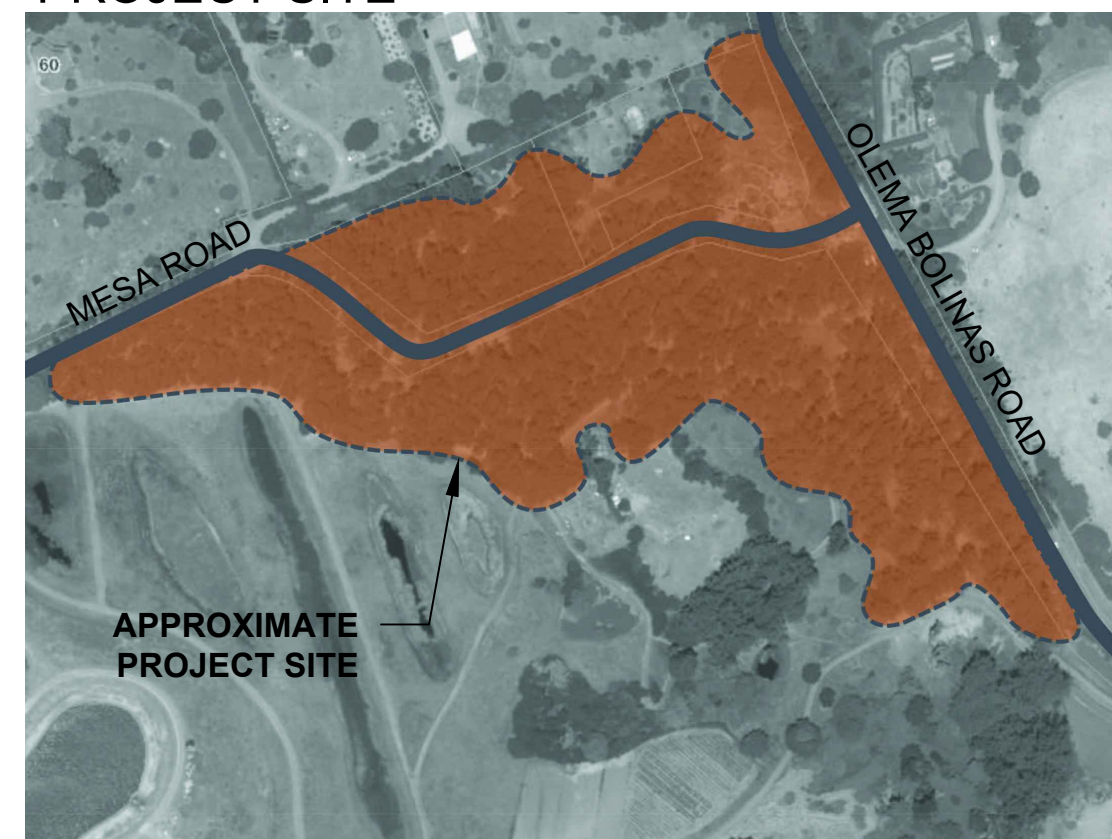
CONCEPTUAL CROSS SECTION

PROJECT DESCRIPTION

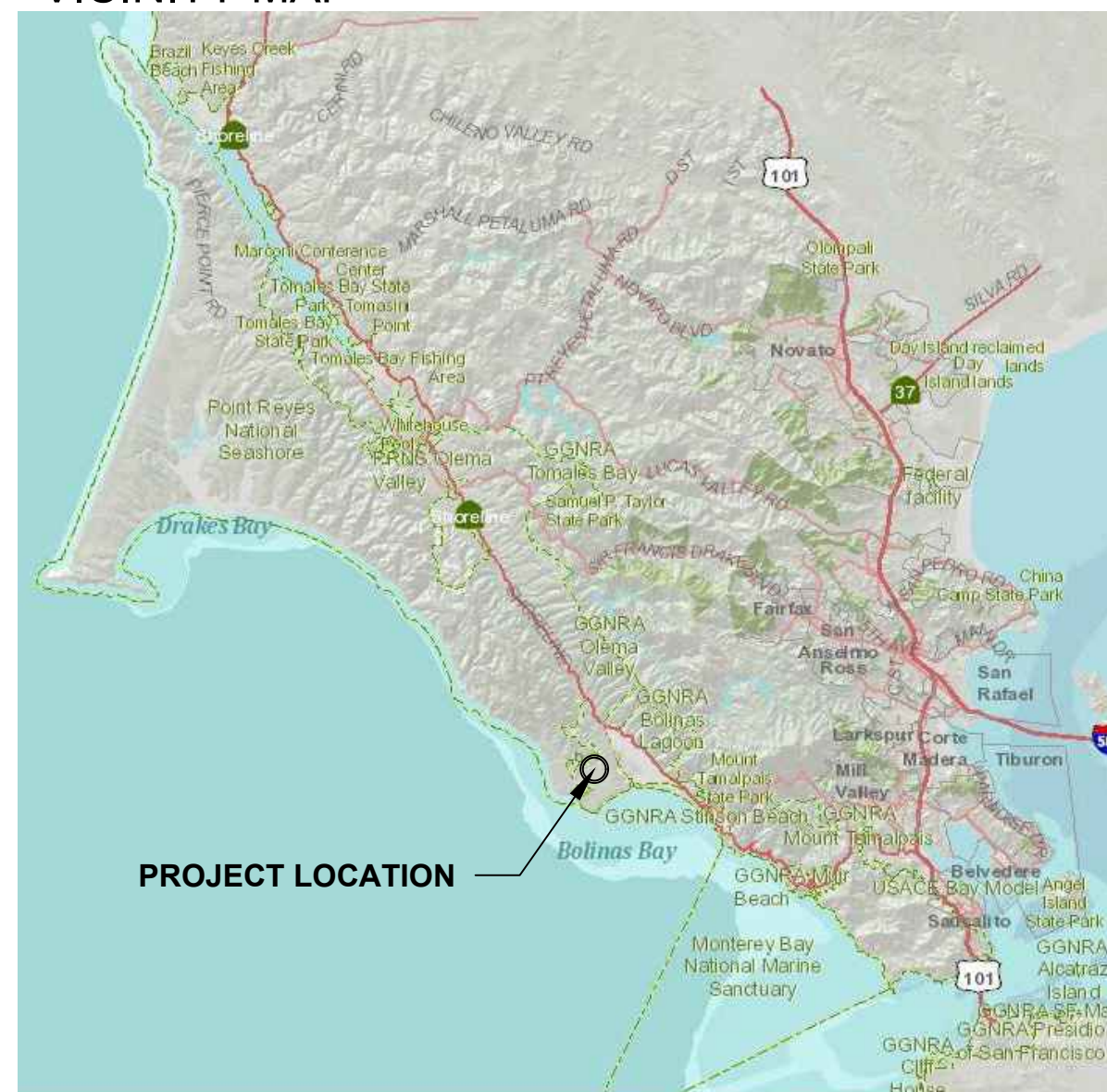
THE BOLINAS EUCALYPTUS PROJECT (BEP) AND BOLINAS COMMUNITY PUBLIC UTILITY DISTRICT (BCPUD) ARE WORKING TO ADDRESS HAZARDS POSED TO BOLINAS RESIDENTS AND VISITORS BY A LARGE DECLINING STAND OF ROADSIDE EUCALYPTUS NEAR THE INTERSECTION OF MESA ROAD AND OLEMA BOLINAS ROAD IN BOLINAS, CALIFORNIA. THE AGING TREES, MANY NOW MASSIVE, ARE FALLING AT AN INCREASING RATE. THE PROJECT'S PRIMARY OBJECTIVE IS TO INCREASE HUMAN SAFETY AND EMERGENCY ACCESS ALONG A MAJOR THOROUGHFARE AND PRIMARY EVACUATION ROUTE. SECONDARY OBJECTIVES INCLUDE IMPROVING THE ECOLOGICAL HEALTH OF THE SITE AND CREATING BENEFITS FOR MONARCH BUTTERFLIES AND OTHER IMPORTANT POLLINATORS.

SAFETY AND EMERGENCY ACCESS FOR THE COMMUNITY OF BOLINAS WILL BE IMPROVED BY REMOVING AILING EUCALYPTUS TREES FROM THE PROJECT SITE. IN ADDITION, THE PROJECT WILL RESTORE NATIVE ECOSYSTEMS ON THE SITE BY PLANTING APPROPRIATE NATIVE TREES, SHRUBS, WILDFLOWERS, AND GRASSES. THIS WILL ENHANCE HABITAT FOR NATIVE WILDLIFE, INCLUDING POLLINATORS AND BIRDS. LONG-TERM MONITORING AND ADAPTIVE MANAGEMENT STRATEGIES WILL ENSURE THE HEALTH AND SUCCESS OF THE RESTORED SITE.

PROJECT SITE



VICINITY MAP



SHEET INDEX

SEQUENCE	SHEET NUMBER	SHEET TITLE
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LOT AREA (SF)

APN	EXISTING	PROPOSED
193-020-61	65,284	NO CHANGE
193-020-41	35,640	NO CHANGE
193-020-25	64,964	NO CHANGE
193-030-38	4,151,268	NO CHANGE

ABBREVIATIONS

APN	ASSESSOR'S PARCEL NUMBER
DBH	DIAMETER AT BREAST HEIGHT
FT	FEET
NTS	NOT TO SCALE
SF	SQUARE FEET
TBD	TO BE DETERMINED
TPZ	TREE PROTECTION ZONE
TYP	TYPICAL

DIRECTIONS

FROM US HIGHWAY 1, TURN SOUTH ON OLEMA BOLINAS ROAD AND CONTINUE APPROXIMATELY 2 MILES TO THE INTERSECTION OF OLEMA BOLINAS ROAD AND MESA ROAD.

THE PROJECT SITE IS LOCATED ON THE WEST SIDE OF OLEMA BOLINAS ROAD AT THIS INTERSECTION.



H. T. HARVEY & ASSOCIATES
Ecological Consultants

DATE:

REVISIONS:

PLANNING PERMIT SET
NOT FOR CONSTRUCTION

PREPARED FOR:
Bolinas Eucalyptus Project
Bolinas, CA

PREPARED BY:
H. T. Harvey & Associates
Los Gatos, CA
(408) 458-3200

COVER SHEET

BOLINAS MESA ZONE 5 HAZARDOUS
TREE REMOVAL AND RESTORATION
Bolinas, CA

Submittal:
COASTAL PERMIT
Scale:
AS SHOWN Verify scale: 1"
Date:
23 JULY 2024
Drawn By:
DT, CS
Checked By:
JMH
File No.:
4803-01



SHEET **G1.0**
1 OF 7 SHEETS

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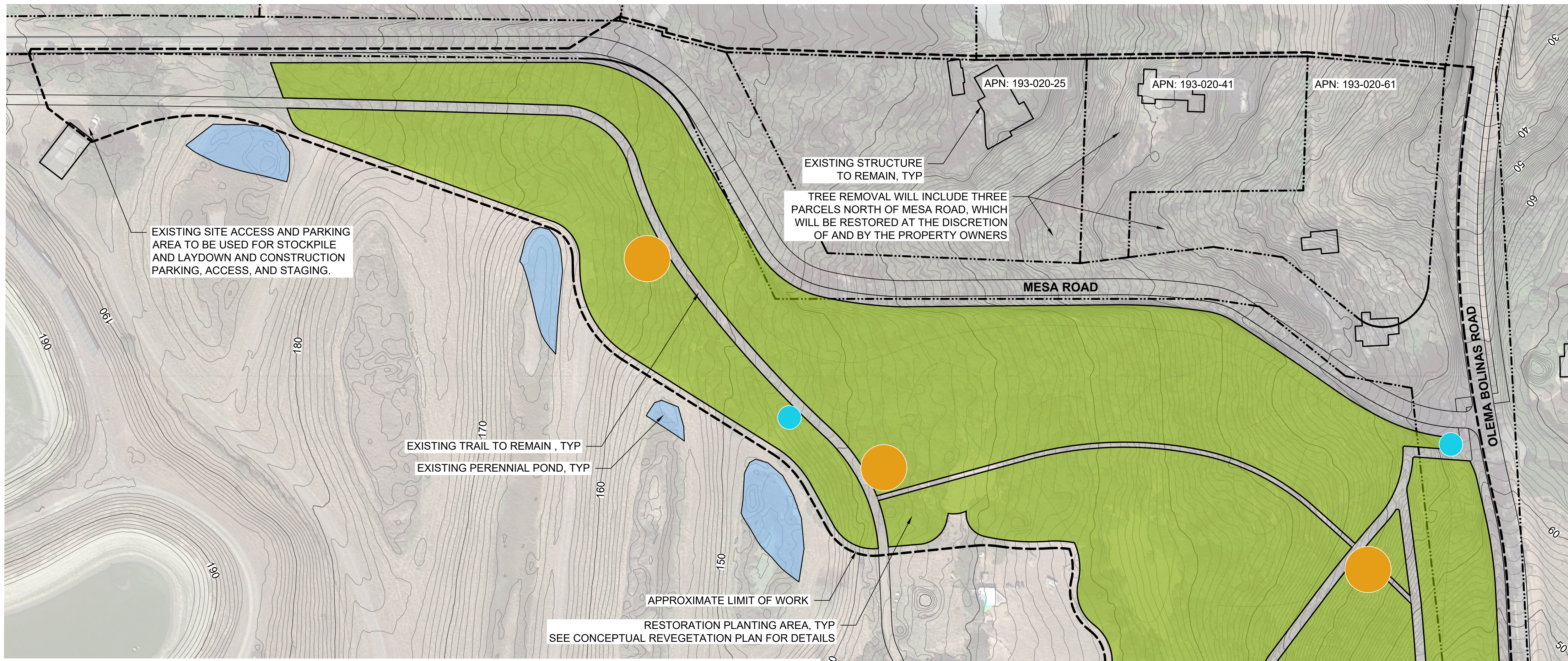
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CONCEPTUAL SITE PLAN

**BOLINAS MESA ZONE 5 HAZARDOUS
 TREE REMOVAL AND RESTORATION**
 Bolinas, CA

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SHEET **G1.1**
 2 OF 7 SHEETS



SITE ELEMENTS



Pause Points / Seating Areas

Strategically placed nodes throughout the site provide opportunities for users to rest, relax, and take in the sights and sounds of nature. These nodes also offer opportunities to incorporate community art, interpretation, and recognize donors and others who made this project possible.

Habitat Features (Locations TBD)

Existing trees may be girdled and left in place as standing snags or felled and placed throughout the site as coarse woody debris. Root balls may be used to create in-stream complexity as part of off-site stream restoration projects (by others).



Interpretive and Educational Elements

Signage, art, and other elements explain the project's history and the rationale for the removal of the Eucalyptus stand, and introduce the public to the plants and animals that benefit from the project.

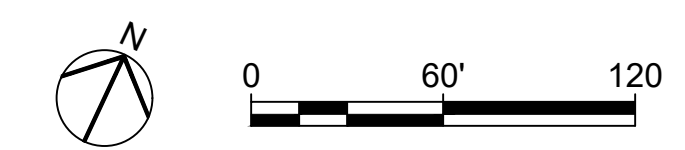


Eucalyptus Re-Use (Throughout the Site)

Material salvaged from the removed Eucalyptus can be re-used to create site furnishings like benches and fences, or mulched and spread throughout the site as a ground covering.

MAPPING NOTES:

1. PARCEL BOUNDARIES AND STRUCTURE LOCATIONS: MARIN COUNTY GIS DATABASE (ACCESSED APRIL 2024).
2. CONTOURS: ESRI'S GIS DATABASE (TERRAIN, ACCESSED APRIL 2024)
3. ROAD AND TRAIL LOCATIONS ARE APPROXIMATE.
4. AERIAL IMAGE: GOOGLE EARTH, 2024.
5. SEASONAL WETLAND, PERENNIAL PONDS, AND EPHEMERAL STREAM MAPPED BY WRA.



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CONSTRUCTION PROGRAM NOTES

- SEE SHEET G1.1 FOR STOCKPILE AND LAYDOWN, AND CONSTRUCTION PARKING, ACCESS, AND STAGING.
- DUST REDUCTIONS MEASURES WILL BE IMPLEMENTED, CONSISTENT WITH THE BAY AREA QUALITY MANAGEMENT DISTRICT'S BASIC CONTROL MEASURES.
- EROSION CONTROL BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED, INCLUDING THOSE DESCRIBED IN THE MARIN COUNTY STORMWATER POLLUTION PREVENTION PROGRAM FOR SMALL CONSTRUCTION PROJECTS (SEE MATRIX TO THE RIGHT).
- IF AND WHEN A SINGLE LANE CLOSURE IS REQUIRED FOR THE PROJECT (EITHER ON OLEMA BOLINAS ROAD OR MESA ROAD), FLAGGERS AND OTHER TRAFFIC CONTROL MEASURES WILL BE IMPLEMENTED TO ENSURE PUBLIC SAFETY.
- TREE REMOVAL SHALL BE COORDINATED WITH PG&E TO PROTECT EXISTING POWER LINES ALONG MESA ROAD AND OLEMA BOLINAS ROAD AND ENSURE THE SAFETY OF WORKERS AND THE PUBLIC.
- SEE SHEETS L.1.1 AND L.1.2 FOR TREE PROTECTION FENCING DESIGN AND LAYOUT.
- ALL TREE REMOVAL SHALL TAKE PLACE OUTSIDE OF NESTING BIRD SEASON TO MINIMIZE DISTURBANCE TO BIRDS.
- ALL WORK SHALL TAKE PLACE BETWEEN THE HOURS OF 8AM AND 5PM.
- THIS PROJECT DOES NOT INCLUDE ANY GRADING, INTERIOR WORK, SEPTIC, OR UTILITY INSTALLATION.

STORMWATER POLLUTION PREVENTION CONTROL MEASURES

Control Measure	General Description
Erosion Control Best Management Practices	
N/A	Scheduling Plan the project and develop a schedule showing each phase of construction. Schedule construction activities to reduce erosion potential, such as scheduling ground disturbing activities during the summer and phasing projects to minimize the amount of area disturbed. <i>For more info see the following factsheets: CASQA: EC-1; or Caltrans: SS-1.</i>
1	Preserve Existing Vegetation and Creek Setbacks Preserve existing vegetation to the extent possible, especially along creek buffers. Show creek buffers on maps and identify areas to be preserved in the field with temporary fencing. Check with the local Planning and Public Works Departments for specific creek set back requirements. <i>For more info see the following factsheets: CASQA: EC-2; or Caltrans: SS-2.</i>
2	Soil Cover Cover exposed soil with straw mulch and tackifier (or equivalent). <i>For more info see the following factsheets: CASQA: EC-3, EC-5, EC-6, EC-7, EC-8, EC-14, EC-16; or Caltrans: SS-2, SS-4, SS-5, SS-6, SS-7, SS-8.</i>
3	Soil Preparation/Roughening Soil preparation is essential to vegetation establishment and BMP installation. It includes soil testing and amendments to promote vegetation growth as well as roughening surface soils by mechanical methods (decompacting, scarifying, stair stepping, etc.). <i>For more info see the following factsheets: CASQA: EC-15.</i>
4	Erosion Control Blankets Install erosion control blankets (or equivalent) on disturbed sites with 3:1 slopes or steeper. Use wildlife-friendly blankets made of biodegradable natural materials. Avoid using blankets made with plastic netting or fixed aperture netting. See: http://www.coastal.ca.gov/nps/Wildlife-Friendly_Products.pdf . <i>For more info see the following factsheets: CASQA: EC-7; or Caltrans: SS-7.</i>
5	Revegetation Re-vegetate areas of disturbed soil or vegetation as soon as practical. <i>For more info see the following factsheets: CASQA: EC-4; or Caltrans: SS-4.</i>
Sediment Control Best Management Practices	
6	Tracking Controls Stabilize site entrance to prevent tracking soil offsite. Inspect streets daily and sweep street as needed. Require vehicles and workers to use stabilized entrance. Place crushed rock 12-inches deep over a geotextile, using angular rock between 4 and 6-in. Make the entrance as long as can be accommodated on the site, ideally long enough for 2 revolutions of the maximum tire size (16-20 feet long for most light trucks). Make the entrance wide enough to accommodate the largest vehicle that will access the site, ideally 10 feet wide with sufficient radii for turning in and out of the site. Rumble pads or rumble racks can be used in lieu of or in conjunction with rock entrances. Wheel washes may be needed where space is limited or where the site entrance and sweeping is not effective. <i>For more info see the following factsheets: CASQA: TC-1; TC-3; or Caltrans: TC-1; TC-3.</i>
7	Fiber Rolls Use fiber rolls as a perimeter control measure, along contours of slopes, and around soil stockpiles. On slopes space rolls 10 to 20 feet apart (using closer spacing on steeper slopes). Install parallel to contour. If more than one roll is used in a row overlap roll do not abut. J-hook end of roll upslope. Install rolls per either Type 1 (stake rolls into shallow trenches) or Type 2 (stake in front and behind roll and lash with rope). Use wildlife-friendly fiber rolls made of biodegradable natural materials. Avoid using fiber rolls made with plastic netting or fixed aperture netting. See: http://www.coastal.ca.gov/nps/Wildlife-Friendly_Products.pdf . Manufactured linear sediment control or compost socks can be used in lieu of fiber rolls. <i>For more info see the following factsheets: CASQA: SE-5 (Type 1); SE-12, SE-13; or Caltrans: SC-5 (Type 1 and Type 2).</i>
8	Silt Fence Use silt fence as a perimeter control measure, and around soil stockpiles. Install silt fence along contours. Key silt fence into the soil and stake. Do not use silt fence for concentrated water flows. Install fence at least 3 feet back from the slope to allow for sediment storage. Wire backed fence can be used for extra strength. Avoid installing silt fence on slopes because they are hard to maintain. Manufactured linear sediment control can be used in lieu of silt fences. <i>For more info see the following factsheets: CASQA: SE-1; SE-12; or Caltrans: SC-1.</i>
9	Drain Inlet Protection Use gravel bags, (or similar product) around drain inlets located both onsite and in gutter as a last line of defense. Bags should be made of a woven fabric resistant to photo-degradation filled with 0.5-1-in washed crushed rock. Do not use sand bags or silt fence fabric for drain inlet protection. <i>For more info see the following factsheets: CASQA: SE-10; or Caltrans: SC-10.</i>
N/A	Trench Dewatering Follow MCSTOPPP BMPs for trench dewatering. http://www.marincounty.org/depts/pw/divisions/mcstoppp/development/~media/Files/Departments/PW/mcstoppp/development/TrenchingSWReqMCSTOPPPFinal6_09.pdf . <i>For more info see the following factsheets: CASQA: NS-2; or Caltrans: NS-2.</i>
Good Housekeeping Best Management Practices	
10	Concrete Washout Construct a lined concrete washout site away from storm drains, waterbodies, or other drainages. Ideally, place adjacent to stabilized entrance. Clean as needed and remove at end of project. <i>For more info see the following factsheets: CASQA: WM-8; or Caltrans: WM-8.</i>
11	Stockpile Management Cover all stockpiles and landscape material and berm properly with fiber rolls or sand bags. Keep behind the site perimeter control and away from waterbodies. <i>For more info see the following factsheets: CASQA: WM-3 or Caltrans: WM-3.</i>
12	Hazardous Material Management Hazardous materials must be kept in closed containers that are covered and within secondary containment; do not place containers directly on soil. <i>For more info see the following factsheets: CASQA: WM-6; or Caltrans: WM-6.</i>
13	Sanitary Waste Management Place portable toilets near stabilized site entrance, behind the curb and away from gutters, storm drain inlets, and waterbodies. Tie or stake portable toilets to prevent tipping and equip units with overflow pan/tray (most vendors provide these). <i>For more info see the following factsheets: CASQA: WM-9; or Caltrans: WM-9.</i>
14	Equipment and Vehicle Maintenance Prevent equipment fluid leaks onto ground by placing drip pans or plastic tarps under equipment. Immediately clean up any spills or drips. <i>For more info see the following factsheets: CASQA: NS-8, NS-9, and NS-10; or Caltrans: NS-8, NS-9, and NS-10.</i>
15	Litter and Waste Management Designate waste collection areas on site. Use watertight dumpsters and trash cans; inspect for leaks. Cover at the end of each work day and when it is raining or windy. Arrange for regular waste collection. Pick up site litter daily. <i>For more info see the following factsheets: CASQA: WM-5; or Caltrans: WM-5.</i>

SOURCE: MARIN COUNTY STORMWATER POLLUTION PREVENTION PROGRAM; MINIMUM CONTROL MEASURES FOR SMALL CONSTRUCTION PROJECTS. <https://hx96b8.a2cdn1.secureserver.net/wp-content/uploads/2020/09/esc-measures-for-small-construction-projects.pdf>



H. T. HARVEY & ASSOCIATES
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PREPARED FOR:
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Bolinas, CA

PREPARED BY:
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PROJECT NOTES

**BOLINAS MESA ZONE 5 HAZARDOUS
TREE REMOVAL AND RESTORATION**
Bolinas, CA

Submittal:
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TREE REMOVAL LEGEND

- A21** TYPICAL TREE NUMBER (TREE GREATER THAN 20" DBH)
- x** TREE REMOVAL (GREATER THAN 20" DBH)
- TREE REMOVAL (SMALLER THAN 20" DBH)
- TREE PROTECTION FENCING
- PROPERTY LINE

TREE PROTECTION NOTES

EXISTING TREES

1. ALL TREE REMOVAL SHALL TAKE PLACE OUTSIDE OF NESTING BIRD SEASON TO MINIMIZE DISTURBANCE TO BIRDS.
2. TREE PROTECTION IS SHOWN FOR ALL TREES TO REMAIN WITH A DIAMETER AT BREST HEIGHT (DBH) OF 20 INCHES OR GREATER.
3. TREE INFORMATION IS DERIVED FROM DATA COLLECTED BY TOM GAMAN, REGISTERED PROFESSIONAL FORESTER #1776, AND INCLUDED IN THE BOLINAS EUCALYPTUS PROJECT INVENTORY: ZONE 5; A REPORT ON THE INVENTORY OF BOLINAS PUBLIC UTILITY DISTRICT AND ADJOINING TREES IN ZONE 5 (MARCH 2023).
4. NOTE THAT SOME TREES SHOWN ON THE PLANS MAY ALREADY HAVE BEEN REMOVED OR DOWNED DUE TO STORM DAMAGE, AND SOME MAY HAVE ADDITIONAL TREE TAG NUMBERS AS A RESULT OF MULTIPLE SURVEYS.
5. SPECIES INFORMATION IS NOT AVAILABLE FOR TREES SMALLER THAN 20 INCHES.

TREE PROTECTION MEASURES

6. WHILE ALL TREES SMALLER THAN 20" DBH ARE SHOWN TO BE REMOVED, REASONABLE EFFORTS WILL BE MADE TO PRESERVE ANY HEALTHY NATIVE TREES THAT ARE IDENTIFIED ON-SITE BY THE PROJECT ARBORIST.
7. TREE PROTECTION SHALL COMPLY WITH THE PROJECT PLANS AND SPECIFICATIONS. WHERE COUNTY REQUIREMENTS CONFLICT WITH THE CONSTRUCTION DOCUMENTS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
8. PRIOR TO THE START OF DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL MEET ON-SITE WITH THE PROJECT ARBORIST TO REVIEW ALL WORK PROCEDURES, ACCESS ROUTES, STORAGE AREAS, AND TREE PROTECTION MEASURES.
 - 8.1. PRIOR TO TREE REMOVAL, TREES TO BE PRESERVED SHALL BE FLAGGED AND APPROVED BY THE OWNER OR PROJECT ARBORIST.
 - 8.2. PRIOR TO THE START OF ANY DEMOLITION OR CONSTRUCTION, TREE PROTECTION ZONES (TPZS) OF ALL TREES TO REMAIN SHALL BE FENCED AS SHOWN ON THE PLANS AND DISCUSSED WITH THE PROJECT ARBORIST.
 - 8.3. FENCING SHALL ENCOMPASS THE ENTIRE TPZ UNLESS SPECIFICALLY APPROVED BY THE PROJECT ARBORIST.
 - 8.4. A TPZ SHALL BE REGARDED AS THE AREA BENEATH A TREE'S CANOPY, OR EXTENDING FROM THE FACE OF THE TRUNK TO TEN (10) TIMES THE TREE'S DIAMETER AT BREST HEIGHT (DBH), WHICHEVER IS GREATER.
9. AT NO TIME SHALL TREE PROTECTION FENCING BE MOVED OR MODIFIED TO FACILITATE CONSTRUCTION ACTIVITIES EXCEPT WITH PRIOR REVIEW AND APPROVAL BY THE PROJECT ARBORIST. CONTRACTOR SHALL MAINTAIN TREE PROTECTION ZONE FENCING IN GOOD CONDITION AS ACCEPTABLE TO THE PROJECT ARBORIST FOR THE DURATION OF CONSTRUCTION. THE TPZ MAY EXTEND BEYOND THE TREE PROTECTION FENCING, PER THE PLANS. ALL WORK RESTRICTIONS APPLY WITHIN THE ENTIRE TPZ, INCLUDING THOSE AREAS OUTSIDE OF THE TREE PROTECTION FENCING.
- 10.

TREE REMOVAL

11. A NUMBER OF THE TREES TO BE REMOVED SHALL BE SALVAGED FOR COARSE WOODY DEBRIS OR OTHER HABITAT FEATURES TO BE DISTRIBUTED THROUGHOUT THE SITE OR DONATED TO OTHER LOCAL PROJECTS. THE REMAINING TREES TO BE REMOVED SHALL BE CHIPPED AND THE RESULTING MULCH WILL BE SPREAD THROUGHOUT THE SITE.

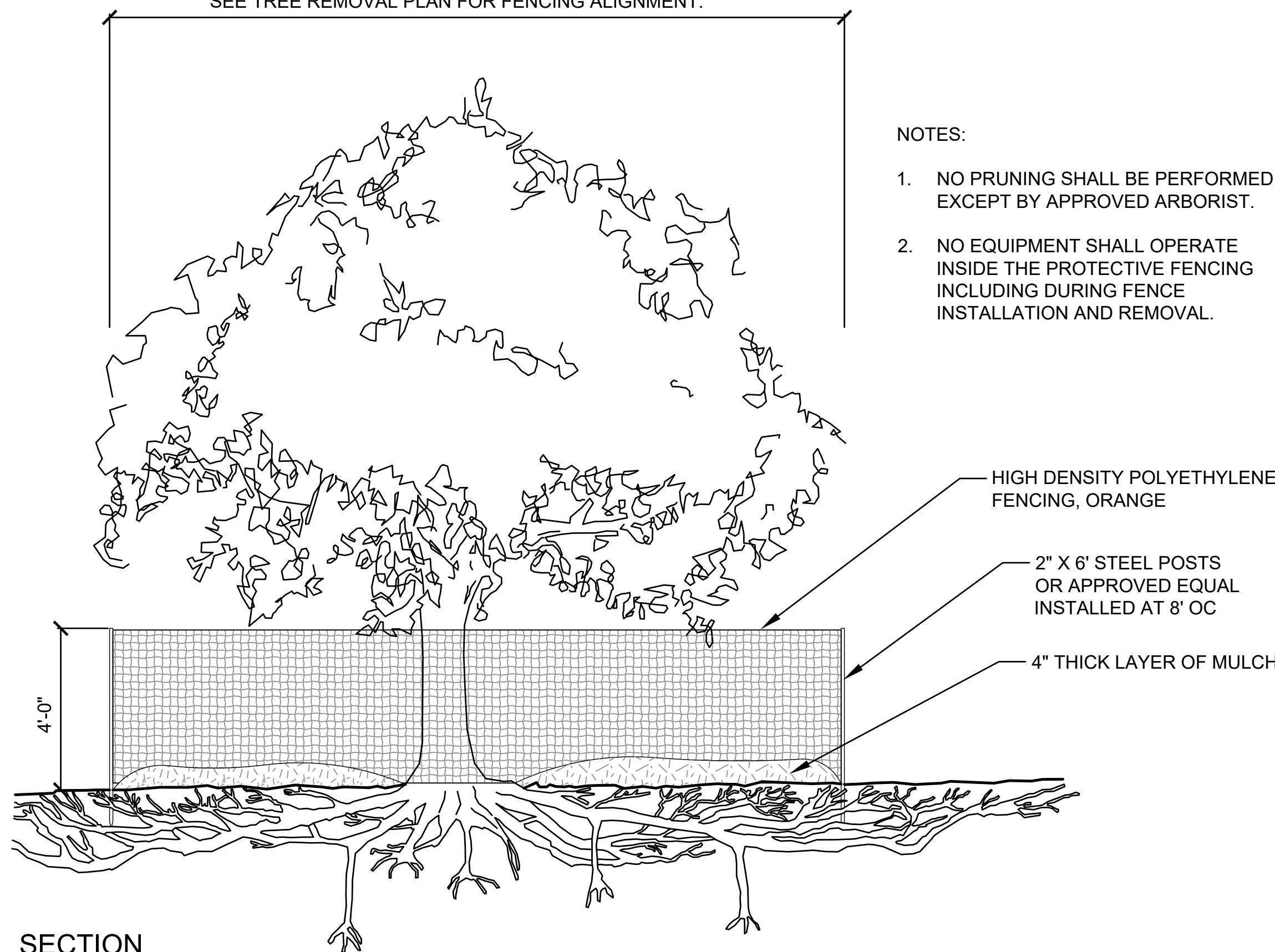
TREE REMOVAL WITHIN SENSITIVE AREAS

12. ALL TREES REMOVED FROM THE EXISTING EPHEMERAL STREAM AND SEASONAL WETLAND SHALL BE REMOVED USING MEASURES TO MINIMIZE OR AVOID SOIL DISTURBANCE. STUMPS SHALL BE CUT TO 6" ABOVE GRADE AND LEFT IN PLACE.
13. USE OF HEAVY MACHINERY WITHIN THE EXISTING EPHEMERAL STREAM AND EXISTING WETLAND IS PROHIBITED.

DEMOLITION AND CONSTRUCTION AT EXISTING TREES

14. ALL WORK APPROVED BY THE PROJECT ARBORIST WITHIN THE TPZ SHALL BE PERFORMED BY HAND AND/OR AIR SPADE, INCLUDING CLEARING AND GRUBBING.
15. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL REVIEW ALL RELEVANT ITEMS OF WORK THAT MAY REQUIRE GRADING AND TRENCHING, INCLUDING BUT NOT LIMITED TO IRRIGATION AND ELECTRICAL LINES, BOXES, METERS AND VAULTS. WHERE SUCH ITEMS ARE PROPOSED WITHIN TPZS, THE CONTRACTOR SHALL WORK WITH THE PROJECT ARBORIST TO IDENTIFY SUITABLE ALTERNATIVES.
16. THE FOLLOWING SHALL NOT OCCUR WITHIN TPZS, UNLESS OTHERWISE PERMITTED BY THE PROJECT ARBORIST:
 - 16.1. FOOT TRAFFIC.
 - 16.2. TRENCHING AND GRADING.
 - 16.3. OPERATION OR STORAGE OF VEHICLES, AND/OR EQUIPMENT.
 - 16.4. STORAGE OF CONSTRUCTION MATERIALS, TRASH, DEBRIS, OR EXCAVATED MATERIAL.
 - 16.5. MIXING, DUMPING, RUNOFF, WASHOUT OR SPILLAGE OF LIQUIDS OTHER THAN CLEAN, POTABLE WATER FOR IRRIGATION.
 - 16.6. DEWATERING OPERATIONS THAT CAUSE PONDING, ERODING, OR EXCESSIVE WETTING.
 - 16.7. TREE PRUNING, INCLUDING ROOT AND CROWN PRUNING.
 - 16.8. ATTACHMENT OF SIGNS TO, OR WRAPPING MATERIALS AROUND, TREES OR PLANTS.
17. DO NOT DIRECT VEHICLE OR EQUIPMENT EXHAUST TOWARD TREE PROTECTION ZONES OR FOLIAGE.
18. ALL EXISTING, UNUSED LINES OR PIPES BENEATH THE CANOPIES OF TREES TO REMAIN SHALL BE ABANDONED OR CUT OFF AT EXISTING SOIL GRADE.
19. GRADING SHALL NOT SIGNIFICANTLY ALTER DRAINAGE TO OR FROM TPZS.
20. CONTRACTOR SHALL COORDINATE WITH PROJECT ARBORIST PRIOR TO GRINDING STUMPS WITHIN TPZS.
21. NO PLANTING OR IRRIGATION SHALL BE INSTALLED WITHIN 6 FEET OF TRUNKS OF TREES TO REMAIN UNLESS OTHERWISE INDICATED ON PLANS AND APPROVED BY PROJECT ARBORIST.

CROWN DRIP LINE OR OTHER LIMIT OF TREE PROTECTION ZONE. SEE TREE REMOVAL PLAN FOR FENCING ALIGNMENT.



NOTES:

1. NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST.
2. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.

SECTION

1 TREE PROTECTION FENCING
 NTS

TREE-PROTECTION POLYETHYLENE_32



H. T. HARVEY & ASSOCIATES
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TREE REMOVAL NOTES AND SCHEDULE

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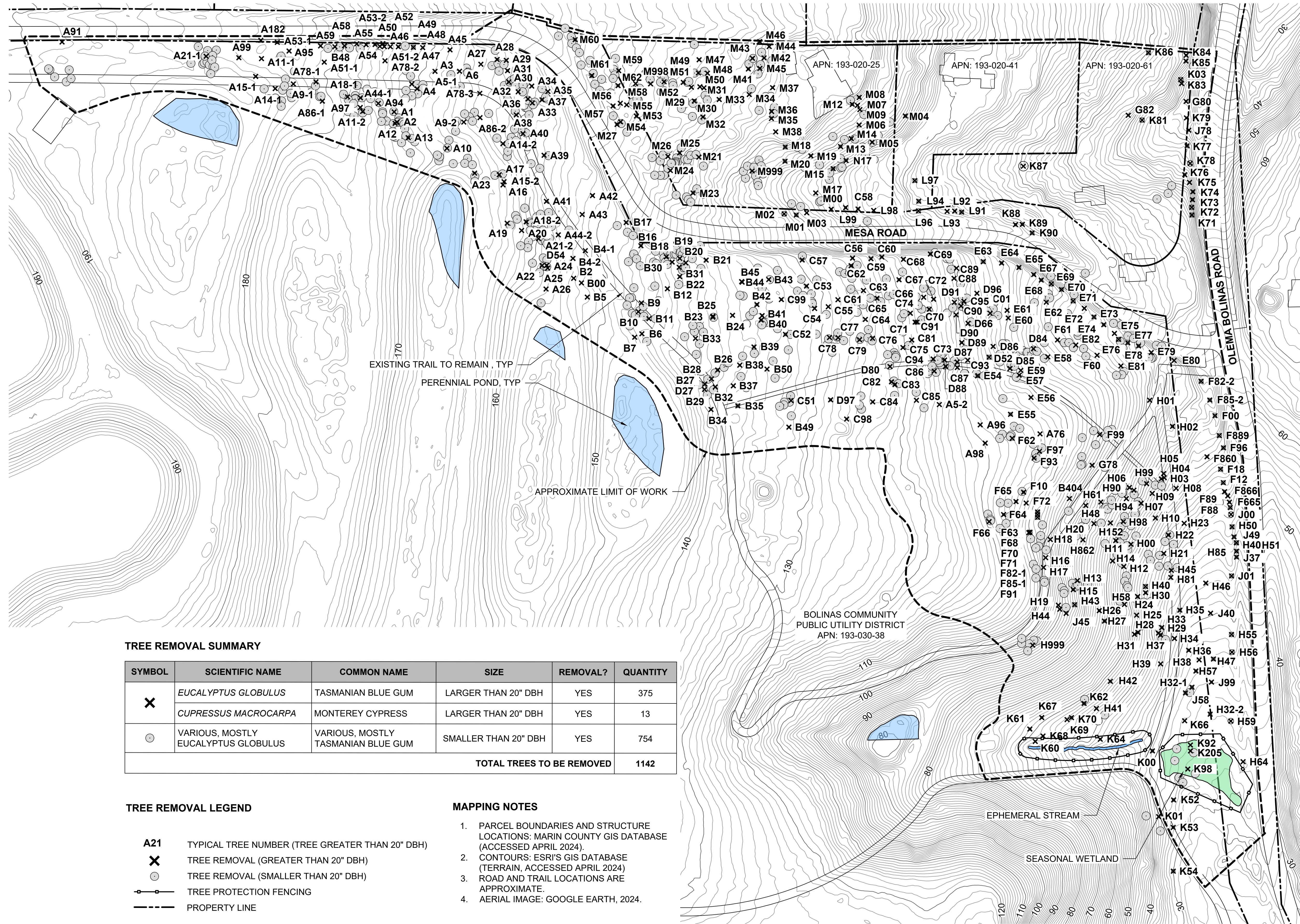
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TREE REMOVAL PLAN

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SHEET **L1.1**
 5 OF 7 SHEETS



TREE REMOVAL SUMMARY

SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	REMOVAL?	QUANTITY
✕	<i>EUCALYPTUS GLOBULUS</i>	TASMANIAN BLUE GUM	LARGER THAN 20" DBH	YES	375
	<i>CUPRESSUS MACROCARPA</i>	MONTEREY CYPRESS	LARGER THAN 20" DBH	YES	13
⊙	VARIOUS, MOSTLY <i>EUCALYPTUS GLOBULUS</i>	VARIOUS, MOSTLY TASMANIAN BLUE GUM	SMALLER THAN 20" DBH	YES	754
TOTAL TREES TO BE REMOVED					1142

TREE REMOVAL LEGEND

- A21** TYPICAL TREE NUMBER (TREE GREATER THAN 20" DBH)
- ✕ TREE REMOVAL (GREATER THAN 20" DBH)
- ⊙ TREE REMOVAL (SMALLER THAN 20" DBH)
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- - - PROPERTY LINE

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OAK SAVANNA/GRASSLAND

SYMBOL	BOTANICAL NAME	COMMON NAME	CONTAINER TYPE	NATIVE?*	HEIGHT AT MATURITY (FT)	ON CENTER SPACING	QUANTITY
	TREES						
	AESCULUS CALIFORNICA	CALIFORNIA BUCKEYE	TREEPOT-4	MARIN	20-40	24	53
	QUERCUS AGRIFOLIA	COAST LIVE OAK	TREEPOT-4	MARIN	40-80	32	83
	QUERCUS CHRYSOLEPIS	GOLD CUP LIVE OAK	TREEPOT-4	MARIN	30-80	24	11
	QUERCUS LOBATA	VALLEY OAK	TREEPOT-4	MARIN	60-100	34	5
	SHRUBS						
	CERCOCARPUS BETULOIDES	MOUNTAIN MOHAGONY	TREEPOT-4	MARIN	8-20	25	7
	FRANGULA CALIFORNICA	COFFEEBERRY	1 GALLON	MARIN	6-15	25	12
	HETEROMELES ARBUTIFOLIA	TOYON	TREEPOT-4	MARIN	6-30	25	12
	RIBES SANGUINEUM	FLOWERING CURRANT	1 GALLON	MARIN	6-12	25	7

OAK WOODLAND

SYMBOL	BOTANICAL NAME	COMMON NAME	CONTAINER TYPE	NATIVE?*	HEIGHT AT MATURITY (FT)	ON CENTER SPACING	QUANTITY
	TREES						
	ACER NEGUNDO	BOX ELDER	TREEPOT-4	MARIN	35-65	14	102
	AESCULUS CALIFORNICA	CALIFORNIA BUCKEYE	TREEPOT-4	MARIN	20-40	12	92
	QUERCUS AGRIFOLIA	COAST LIVE OAK	TREEPOT-4	MARIN	40-80	14	306
	QUERCUS LOBATA	VALLEY OAK	TREEPOT-4	MARIN	60-100	14	34
	SHRUBS						
	BACCHARIS PILULARIS	COYOTE BRUSH	1 GALLON	MARIN	2-10	6	74
	CEANOTHUS THYRSIFLORUS	BLUE BLOSSOM	TREEPOT-4	MARIN	10-30	12	18
	CORYLUS CORNUTA	BEAKED HAZELNUT	TREEPOT-4	MARIN	10-25	8	42
	FRANGULA CALIFORNICA	COFFEEBERRY	1 GALLON	MARIN	6-15	6	74
	GARRYA ELLIPTICA	COAST SILK TASSEL	1 GALLON	MARIN	6-15	10	27
	HETEROMELES ARBUTIFOLIA	TOYON	1 GALLON	MARIN	15-30	6	74
	LONICERA INVOLUCRATA	COAST TWINBERRY	TREEPOT-4	MARIN	10-15	8	42
	MORELLA CALIFORNICA	CALIFORNIA WAX MYRTLE	TREEPOT-4	MARIN	15-30	16	10
	RHODODENDRON OCCIDENTALE	WESTERN AZALEA	TREEPOT-4	MARIN	10-15	10	27
	ROSA CALIFORNICA	CALIFORNIA ROSE	1 GALLON	MARIN	8-10	4	166
	RUBUS URSINUS	CALIFORNIA BLACKBERRY	1 GALLON	MARIN	4-6	4	166
	SAMBUCUS RACEMOSA	RED ELDERBERRY	TREEPOT-4	MARIN	10-20	8	62

COASTAL SCRUB

SYMBOL	BOTANICAL NAME	COMMON NAME	CONTAINER TYPE	NATIVE?*	HEIGHT AT MATURITY (FT)	ON CENTER SPACING	QUANTITY
	SHRUBS						
	ARTEMISIA CALIFORNICA	COASTAL SAGE BRUSH	TREEBAND-4	MARIN	2-8	5	308
	BACCHARIS PILULARIS VAR. 'PIGEON POINT'	DWARF COYOTE BRUSH	TREEBAND-4	CA	1-5	6	192
	CEANOTHUS THYRSIFLORUS	BLUE BLOSSOM	TREEBAND-4	MARIN	10-30	12	48
	DIPLACUS AURANTIACUS	STICKY MONKEY FLOWER	TREEBAND-4	MARIN	4-5	5	277
	ERIOGONUM NUDUM	NUDE BUCKWHEAT	TREEBAND-4	MARIN	0.5-1	2	1731
	ERIOPHYLLUM CONFERTIFLORUM	YELLOW YARROW	TREEBAND-4	MARIN	2	3	769
	LEPECHINIA CALYCINA	WHITE PITCHER SAGE	TREEBAND-4	MARIN	5-8	6	385
	LUPINUS ALBIFRONS VAR. ALBIFRONS	SILVER BUSH LUPINE	TREEBAND-4	MARIN	3-5	4	433
	LUPINUS ARBOREUS	COASTAL BUSH LUPINE	TREEBAND-4	MARIN	4-6	4	433
	RIBES MENZIESII	GOOSEBERRY	TREEBAND-4	MARIN	7-10	8	108

POLLINATOR PRAIRIE

SYMBOL	BOTANICAL NAME	COMMON NAME	CONTAINER TYPE	NATIVE?*	HEIGHT AT MATURITY (FT)	ON CENTER SPACING	QUANTITY
	SEED						
	SEED MIX TO BE DETERMINED AT A LATER DATE						
	SHRUBS						
	BACCHARIS PILULARIS	COYOTE BRUSH	1 GALLON	MARIN	2-10	6	41
	BACCHARIS GLUTINOSA	SALTMARSH BACCHARIS	1 GALLON	MARIN	4-7	6	41
	DIPLACUS AURANTIACUS	STICKY MONKEY FLOWER	TREEBAND-4	MARIN	4-5	4	179
	FRANGULA CALIFORNICA	COFFEEBERRY	1 GALLON	MARIN	6-15	4	41
	LUPINUS ALBIFRONS VAR. ALBIFRONS	SILVER BUSH LUPINE	TREEBAND-4	MARIN	3-5	8	373
	LUPINUS ARBOREUS	COASTAL BUSH LUPINE	TREEBAND-4	MARIN	4-6	0	280
	SAMBUCUS NIGRA SSP. CAERULEA	BLUE ELDERBERRY	TREEPOT-4	MARIN	15-30	0	70

WILLOW THICKET

SYMBOL	BOTANICAL NAME	COMMON NAME	CONTAINER TYPE	NATIVE?*	HEIGHT AT MATURITY (FT)	ON CENTER SPACING	QUANTITY
	TREES						
	SALIX LASIOLEPIS	ARROYO WILLOW	TREEPOT-4	MARIN	10-35	12	22
	SALIX LAEVIGATA	RED WILLOW	TREEPOT-4	MARIN	30-50	12	10

WETLAND/WET MEADOW

SYMBOL	BOTANICAL NAME	COMMON NAME	CONTAINER TYPE	NATIVE?*	HEIGHT AT MATURITY (FT)	ON CENTER SPACING	QUANTITY
	SHRUBS/PERENNIAL FORBS						
	CAREX BARBARAE	VALLEY SEDGE	STUB	MARIN	2-3	3	139
	ELEOCHARIS MACROSTACHYA	SPIKE RUSH	STUB	MARIN	2-3	3	76
	ELYMUS TRITICOIDES (YOLO BYPASS ECOTYPE)	BEARDLESS WILD RYE	STUB	MARIN	2-4	3	51
	JUNCUS EFFUSUS	COMMON RUSH	STUB	MARIN	5-7	3	139
	JUNCUS XIPHIODES	IRIS-LEAVED JUNCUS	STUB	MARIN	1-3	3	101
	SEED						
	ARTEMISIA DOUGLASIANA	CALIFORNIA MUGWORT	--	MARIN	6-8	--	--
	CYPERUS ERAGROSTIS	TALL FLATSEDGE	--	MARIN	3	--	--
	DESCHAMPSIA CESPITOSA	TUFTED HAIR GRASS	--	MARIN	3	--	--
	ELYMUS TRITICOIDES (YOLO BYPASS ECOTYPE)	BEARDLESS WILD RYE	--	MARIN	2-4	--	--
	EUTHAMIA OCCIDENTALIS	WESTERN GOLDENROD	--	MARIN	4-6	--	--
	HORDEUM BRACHYANTHERUM	MEADOW BARLEY	--	MARIN	2-3	--	--
	SYMPHYOTRICHUM CHILENSE	PACIFIC ASTER	--	MARIN	1-3	--	--

- NOTES:
1. PLANT PALETTES ARE PRELIMINARY AND WILL BE REFINED THROUGHOUT THE DESIGN PROCESS.
 2. PLANTING AREAS WILL BE IRRIGATED USING A TEMPORARY IRRIGATION SYSTEM THAT WILL BE REMOVED OR ABANDONED AFTER THREE TO FIVE YEARS.



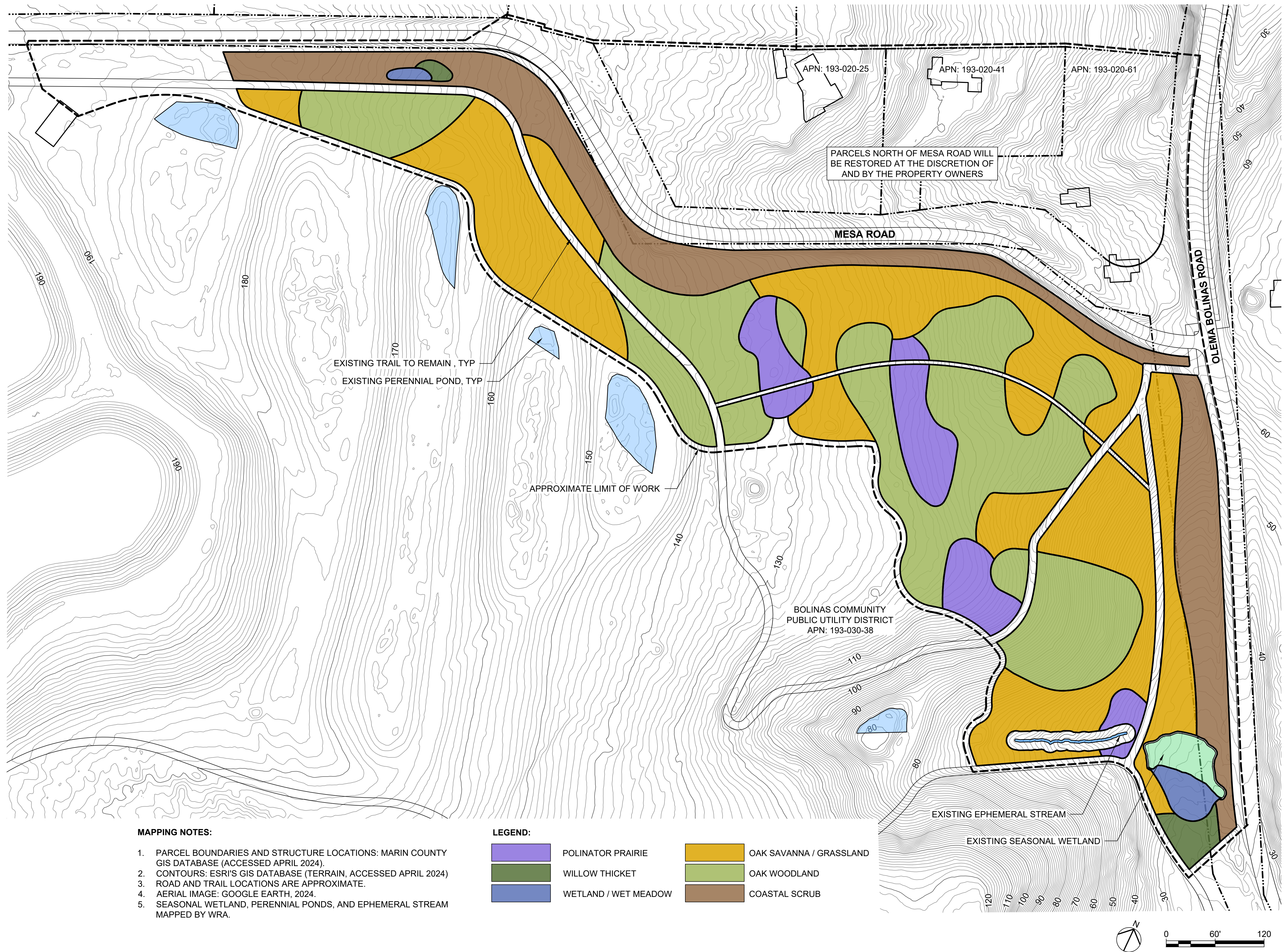
REVISIONS:
 DATE:
 PLANNING PERMIT SET
 NOT FOR CONSTRUCTION

PREPARED FOR:
 Bolinas Eucalyptus Project
 Bolinas, CA
 PREPARED BY:
 H. T. Harvey & Associates
 Los Gatos, CA
 (408) 458-3200

PLANT SCHEDULES
 BOLINAS MESA ZONE 5 HAZARDOUS
 TREE REMOVAL AND RESTORATION
 Bolinas, CA

Submittal:
 COASTAL PERMIT
 Scale: AS SHOWN Verify scale: 1"
 Date: 23 JULY 2024
 Drawn By: DT, CS Checked By: JMH
 File No.: 4803-01

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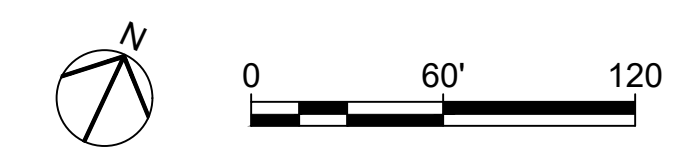


MAPPING NOTES:

1. PARCEL BOUNDARIES AND STRUCTURE LOCATIONS: MARIN COUNTY GIS DATABASE (ACCESSED APRIL 2024).
2. CONTOURS: ESRI'S GIS DATABASE (TERRAIN, ACCESSED APRIL 2024)
3. ROAD AND TRAIL LOCATIONS ARE APPROXIMATE.
4. AERIAL IMAGE: GOOGLE EARTH, 2024.
5. SEASONAL WETLAND, PERENNIAL PONDS, AND EPHEMERAL STREAM MAPPED BY WRA.

LEGEND:

	POLINATOR PRAIRIE		OAK SAVANNA / GRASSLAND
	WILLOW THICKET		OAK WOODLAND
	WETLAND / WET MEADOW		COASTAL SCRUB



H. T. HARVEY & ASSOCIATES
 Ecological Consultants

DATE:

REVISIONS:

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**CONCEPTUAL
 REVEGETATION PLAN**

**BOLINAS MESA ZONE 5 HAZARDOUS
 TREE REMOVAL AND RESTORATION**
 Bolinas, CA

Submittal:
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 Scale: AS SHOWN Verify scale: 1"
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SHEET **L2.1**
 7 OF 7 SHEETS