SANTA CLARA VALLEY
HABITAT AGENCY

MEMORANDUM

As-built Documentation:
Pajaro River Riparian Habitat Restoration Project

Date: **September 27, 2024**
To: Kim Sanders, Central Coast Regional Water Quality Control Board
Sarah Firestone, U.S. Army Corps of Engineers
Ricka Stoelting & Melany Wood, California Department of Fish and Wildlife

From: Nathan Hale, Santa Clara Valley Habitat Agency

CC: Joseph Terry, U.S. Fish and Wildlife Service
Joel Casagrande, National Oceanic and Atmospheric Administration
Rachel Clemons & Aaron Hébert, Santa Clara Valley Open Space Authority

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This memo provides context for the as-built documentation of the Pajaro River Habitat Restoration Project (See Attachment A for As-Built plans).

Project Overview:
The Pajaro River Habitat Restoration Project is a project implemented to help fulfill the goals of the Conservation Strategy of the Santa Clara Valley Habitat Plan (VHP) (ICF 2012). The project focuses on enhancement, restoration, and preservation of jurisdictional habitats including streams, coastal and valley freshwater marsh, and various riparian woodland habitat along the Santa Clara County side of the Pajaro River, located within the Pajaro River Agricultural Preserve (PRAP), which is a property of the Santa Clara Valley Open Space Authority ("OSA"). The project site is along the right (northwest) bank of the Pajaro River downstream from Fraizer Lake Road, and south of Bloomfield Avenue in southern Santa Clara County. The project is further described in the Pajaro River Riparian Habitat Restoration Project Mitigation and Monitoring Plan (MMP) (ICF 2022). The MMP also describes the performance and final success criteria for the project.

The Santa Clara Valley Habitat Agency (Habitat Agency) is in the process of establishing a Conservation Easement over the footprint of the Pajaro River Habitat Restoration Project within the property, which is owned as a mixed-use property (i.e., organic agriculture and habitat preservation) by OSA. The total area of the project footprint (i.e., proposed CE) is approximately 5 acres. The project received permits for construction within jurisdictional habitats from the U.S.

Army Corps of Engineers (USACE) (Section 404 Regional General Permit), the Regional Water Quality Control Board (RWQCB) (Section 401 Water Quality Certification), and California Department of Fish and Wildlife (CDFW) (Lake and Streambed Alteration Agreement [LSAA]). The project permit numbers are as follows:

- USACE SPN-2021-00269 (File No. SPN-2020-00269)
- Central Coast RWQCB Cert. No. 34322WQ05
- CDFW LSAA No. EPIMS-SCL-29372-R3

The project design was prepared by ICF in consultation with Triangle Properties, Inc. ("Triangle"). The project was constructed by Triangle Properties, Inc. ("Triangle") with planting and maintenance implemented by Triangle and Point Blue Conservation Science ("Point Blue"). Upland planting of the riparian forest habitat was initiated as a pilot project by Point Blue in 2021 and 2022. Construction of the wetland bench, riparian bank, and grading of the spoils into the future riparian woodland was implemented by Triangle from August to September 2023. Seeding and erosion control—in conformance with a project-specific SWPPP—was installed in September 2023. Planting of locally sourced native plants was completed between January 2021 through August 2023 by Point Blue and between November 2023 through May 2024 by Point Blue and Triangle. Adjustments to irrigation and installation of plant protection materials occurred intermittently through the spring and summer 2024.

Adjustments from Original Plan:
The project was built as planned; however, slight variations were executed during implementation. Variations included the following categories (refer to Attachment A for detail):

- Adjustments to the plant species and numbers based on the results of the Phase I upland pilot plant suitability study and nursery stock availability.
- Adjustments to the seed mix.
- Removal of a project staging area from the exterior of the project site. The project was staged in phases within the footprint of the eventual restoration area, maintaining compliance with SWPPP conditions and organic farming regulations.
- Addition of low elevation areas (i.e., no fill) in riparian setback areas to ensure sheet flow from farm fields could flow into the riparian area without farm field ponding.
- Slight variation in exact alignment of farm road and edge of spoils placement.
- Removal of irrigation controller setup and sub-surface irrigation lines to utilize recently upgraded farm field well, and application of irrigation with an above-ground temporary irrigation distribution setup and movable overhead spray in the wetland bench (to promote summer wetland establishment of new seedlings)

Summary of Compliance with Permit Conditions:
The project's construction and all associated wildlife construction monitoring that occurred complied with requirements of all state and federal agency permits. Pre-construction surveys were conducted by qualified and CDFW-approved personnel from ICF and the Habitat Agency on August 3 and 7, 2023. No active nests or other special status species were observed. Project construction staff were trained received biological, cultural, phytophthora, and permit condition training on July 7, 2023. Project soil construction was implemented under a SWPPP to ensure compliance with the

Construction General Permit of the State Water Resources Control Board (Site WDID No. 343C401494).

The project was out-of-compliance with one specific 404 permit condition. The project was out of compliance with the USACE's Regional General Permit 18 verification, which included the condition:

> 4. To minimize potential impacts to cultural resources, the permittee shall contact the Amah Mutsun Tribal Band and work with the Tribe to establish a Tribal Monitoring Agreement and Treatment Plan. A copy of this agreement, signed by both the permittee and the Tribe, shall be mailed to the Army Corps of Engineers prior to the start of any ground-disturbing activities. The permittee shall comply with all conditions of the Tribal Monitoring Agreement, and the agreement shall be incorporated by reference into this permit (USACE file # SPN-2021-00269).

For the express purpose of attempting to comply with this condition, between February 7, 2023, and August 8, 2023, Habitat Agency's project manager, Nathan Hale, emailed members of the Amah Mutsun Tribal Band (AMTB) on thirteen (13) occasions and called the chairman of the AMTB (Val Lopez) three (3) times, receiving a return call on June 5, 2023, after the second call attempt. The other calls were not answered or returned. During the call, Chairman Lopez asked that VHA include a tribal monitoring coordinator (Teresa Vallez) in the email and to also continue to copy him in future communications. USACE Scientist, Sarah Firestone, was copied for 8 of the 13 emails. Due to a lack of response to the request to contract with the AMTB for preparation of a Tribal Monitoring Agreement and Treatment Plan and the shortening time prior to planned project construction, the Habitat Agency contracted Archaeological Resource Management (ARM)to prepare a treatment plan and to implement the plan including onsite monitoring of all earth moving activities. This plan was provided to the AMTB, but there was no response. Archaeologist Doug Jones, of ARM, was onsite during soil construction and implemented monitoring in accordance with the plan. Mr. Jones provided as-needed training for any staff that were added to the project team after the initial training.

The Habitat Agency reported back to Chairman Lopez that the project was implemented, a cultural resources plan was in place, a trained cultural monitor was onsite for all soil disturbances (i.e., all but finish grading), and that no culturally sensitive objects were discovered. Chairman Lopez thanked us for that information and for confirming that no cultural resources were observed or harmed. The Habitat Agency has also offered an open invitation to the AMTB to visit the site during the maintenance monitoring period and beyond, given that the AMTB was included in initial project planning related to culturally important plants.

Summary of Project Timing:
Project construction began on August 9, 2023. Grading was completed on September 20, 2023. Drill seeding with native seed mixes within all disturbed soils was implemented between September 21-27, 2023 (Figure 1). Sediment control fiber rolls that were installed at the toe of the Pajaro riverbank during construction (i.e., a SWPPP requirement to protect the riverbed during construction) were removed following seeding, and new, permanent fiber rolls were installed immediately following seeding. Seed was subsequently irrigated until the start of the wet season to

increase the speed and cover of germination and revegetation, and to reduce soil movement due to winter precipitation. Container plant installation within the created wetland marsh habitat occurred on November 8, 2023, January 11, 2024, and February 29, 2024, consistent with nursery availability of contract grown plants. Planting within the newly built riparian bank began on December 1, 2023, and was completed on February 29, 2024. Planting within the upland buffer began prior to permitting for this project to assess species suitability to site conditions. A small number of plants were installed within a 0.54-acre portion of the site starting in winter of 2021-2022 and again in the spring and summer of 2023. This pilot planting was completed above the top of bank. The remaining riparian buffer planting was implemented after grading, largely with the support of organized student volunteers—coordinated by Point Blue Conservation Science—between December 1, 2023, and April 26, 2024. Irrigation driplines were installed to all plants planted in the created bank and above the top-of-bank between April 22-25, 2024.
Project install was completed roughly in May-June 2024 with the completion and tune-up to irrigation lines; however, corrections to irrigation and shrub protection tubes were implemented over the next 1.5 months. For all intents and purposes, the project was accepted as fully constructed and installed by August 15, 2024.

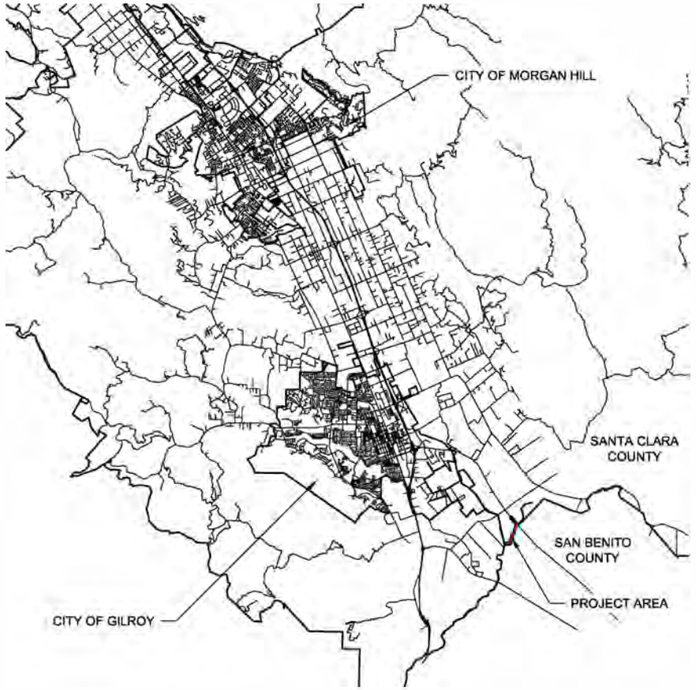
Photo Documentation:
A sample of photo documentation showing project conditions is included in Appendix B.

Attachment A: As-built Record Drawings

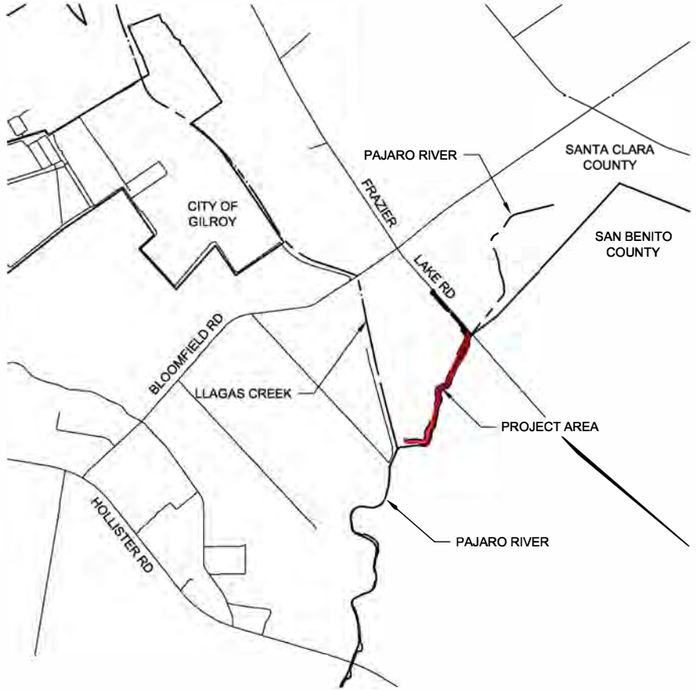
PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT

SANTA CLARA VALLEY HABITAT AGENCY

RECORD DRAWINGS



LOCATION MAP



VICINITY MAP

SHEET INDEX

KRISTIN LANTZ — [STATE] LICENSED LANDSCAPE ARCHITECT NO. [5400] — DATE

RACHEL KAMMAN — [STATE] REGISTERED PROFESIONAL ENGINEER NO. [######] — DATE

PREPARED FOR:

SANTA CLARA VALLEY HABITAT AGENCY
535 ALKIRE AVENUE
MORGAN HILL, CA 95037
ATTN: NATHAN HALE
408-888-7271

PREPARED BY:

ICF
980 9TH STREET, SUITE 1200
SACRAMENTO, CA 95814
ATTN: HARRY OAKES
916-752-7938

REVISIONS
DESCRIPTION | DATE | MADE BY

DRAWN BY: K. LANTZ
CHECKED BY: K. MACKAY

FILENAME: COVER.DWG
PLOTTED BY: CZYZYK, KELSEY

PLOT DATE: 8/6/2024
PLOT TIME: 5:00 PM

SHEET 1 OF 16

PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT
60% DRAFT SUBMITTAL

SANTA CLARA VALLEY HABITAT AGENCY

GENERAL NOTES

1. THE TOPOGRAPHY, EXISTING GROUND PROFILES, AND EXISTING GROUND SECTIONS ILLUSTRATED IN THIS PLAN SET ARE COMPILED FROM LIDAR (2020) AND GROUND SURVEY EQUIPMENT SURVEY (2020) DATA. DISCREPENCIES EXIST BETWEEN THESE TWO DATA SETS. DESIGN PROFILES WERE CREATED USING THE GROUND SURVEY (2017) WHERE SURVEY DATA WAS AVAILABLE. GRADING AND EARTHWORK CALCULATIONS WERE ACCOMPLISHED USING LIDAR TOPOGRAPHY (2020). REPRESENTATIONS OF BOTH DATA SETS ARE DEPICTED WITHIN THE PLAN SET WHEN POSSIBLE.
2. HORIZONTAL DATUM: STATE PLANE COORDINATE SYSTEM, CALIFORNIA ZONE III, NAD83/91, US SURVEY FEET.
3. VERTICAL DATUM: NAVD88, FEET.
4. ELEVATIONS AND DISTANCES SHOWN ARE IN FEET AND DECIMALS WITH CONTOUR INTERVALS AT ONE FOOT INCREMENTS.
5. ALL CONSTRUCTION SHALL BE CLOSELY COORDINATED WITH THE ENGINEER.
6. ALL EROSION CONTROL PROCEDURES AT ALL THE CONTRACTOR'S WORK AND STAGING AREAS SHALL CONFORM TO PROJECT PERMITS, AND THE APPROVED TEMPORARY EROSION AND SEDIMENTATION CONTROL (TESC) PLAN.
7. PREVENT THE SILTING OF STREAMS DURING CONSTRUCTION AND CONTROL WATER POLLUTION DURING THE LIFE OF THE CONTRACT THROUGH THE USE OF SEDIMENT TRAPS, FILTER FABRIC FENCES, PLASTIC FENCES, MULCHING, COVERING STORED PILES OF SOIL AND BACKFILL, AND OTHER CONTROL DEVICES OR METHODS. RETAIN AND PROTECT ALL NATURAL VEGETATION UNLESS REMOVAL IS INDICATED.
8. HAVE BACK-UP EQUIPMENT READILY AVAILABLE IN CASE EMERGENCY EROSION/POLLUTION SITUATIONS ARISE. IN ADDITION, HAVE A STOCKPILE OF EXTRA EROSION CONTROL MATERIALS SUCH AS MULCH AND SILT FENCE FOR EMERGENCY SITUATIONS.
9. SEQUENCE CONSTRUCTION TO LIMIT AMOUNT OF EXPOSED SOILS AT ANY GIVEN TIME.
10. MAINTAIN ALL SEDIMENT CONTROL DEVICES ON A REGULAR BASIS.

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNITS	QTY
1	EXCAVATION (29 CY FILL, 5,520 CY CUT)	CY	5,491
2	FIBER ROLL	LF	2,807
3	IRRIGATION	LS	1
4	PLANT - CUTTING	EA	229
5	PLANT - PLUG	EA	5,138
6	PLANT - 1-GAL	EA	1,125
7	PLANT - TP4	EA	49

SEE FINAL PLANT QUANTITIES ON SHEET L1

REVISIONS

DESCRIPTION	DATE	MADE BY

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SHEET 2 OF 16

PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT
60% DRAFT SUBMITTAL

SANTA CLARA VALLEY HABITAT AGENCY

PLOT DATE: 8/6/2024
PLOT TIME: 5:00 PM

FILENAME: COVER.DWG
PLOTTED BY: CZYZYK, KELSEY

DRAWN BY: K. LANTZ
CHECKED BY: K. MACKAY

GENERAL NOTES & QUANTITIES
G2

ICF

300 0 300 600 900

SCALE OF FEET

N

SITE ACCESS AND STAGING

G3

REVISIONS

DESCRIPTION	DATE	MADE BY

DRAWN BY: K. LANTZ
CHECKED BY: K. MACKAY

FILENAME: COVER.DWG
PLOTTED BY: CZYZYK, KELSEY

PLOT DATE: 8/6/2024
PLOT TIME: 5:00 PM

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SHEET 3 OF 16

PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT
60% DRAFT SUBMITTAL

SANTA CLARA VALLEY HABITAT AGENCY
—

ICF

REVISIONS

DESCRIPTION	DATE	MADE BY

ASBUILT FARM ROAD

ASBUILT LIMIT OF SURVEY

ASBUILT SURVEY AERIAL IMAGERY

DIRT FARM ACCESS RD

ASBUILT LIMIT OF WORK

ASBUILT LOW POINT (DRAINAGE SWALE)

ASBUILT END OF RIPARIAN WOODLAND/UPLAND BUFFER PLANTING ZONE

ASBUILT LOW POINT (DRAINAGE SWALE)

PLACE SILT FENCE AT EDGE OF WORK AT TOP OF BANK

AREA OF SOIL PLACEMENT

PROPOSED DIRT FARM ROAD ALIGNMENT

LIMIT OF WORK

16'

50'

PAJARO RIVER

MATCHLINE - SEE SHEET C2

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

LEGEND

- ASBUILT FARM ROAD
- SPOILS AREA
- PHASE 1 PLANTING AREA

40 0 40 80 120
SCALE OF FEET

N

GRADING PLAN
C1

PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT
60% DRAFT SUBMITTAL

SANTA CLARA VALLEY HABITAT AGENCY

SHEET 4 OF 16

DRAWN BY: K. LANTZ
CHECKED BY: K. MACKAY

FILENAME: GRADING.DWG
PLOTTED BY: CZYZYK, KELSEY

PLOT DATE: 8/6/2024
PLOT TIME: 5:01 PM

REVISIONS
DESCRIPTION
DATE
MADE BY

MATCHLINE - SEE SHEET C1

MATCHLINE - SEE SHEET C3

ASBUILT LIMIT OF SURVEY

ASBUILT SURVEY AERIAL IMAGERY

ASBUILT FARM ROAD

AREA OF SOIL PLACEMENT

ASBUILT LOW POINT (DRAINAGE SWALE)

PLACE SILT FENCE AT EDGE OF WORK AT TOP OF BANK

PROPOSED DIRT FARM ROAD ALIGNMENT

LIMIT OF WORK

DIRT FARM ACCESS RD

ASBUILT LIMIT OF WORK

ASBUILT LOW POINT (DRAINAGE SWALE)

ASBUILT TOP OF BANK

ASBUILT TOE OF BANK

PHASE 1 PLANTING AREA

PAJARO RIVER

16.0'

50.0'

4:1

LEGEND
ASBUILT FARM ROAD
SPOILS AREA
PHASE 1 PLANTING AREA

40 0 40 80 120
SCALE OF FEET

N

GRADING PLAN CONT.
C2

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SHEET 5 OF 16

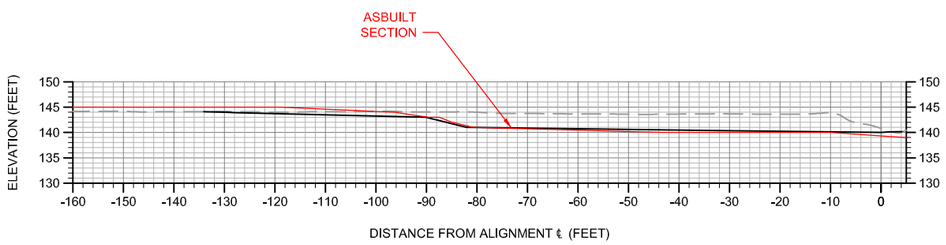
PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT
60% DRAFT SUBMITTAL

SANTA CLARA VALLEY HABITAT AGENCY

DRAWN BY: K. LANTZ
CHECKED BY: K. MACKAY

FILENAME: GRADING.DWG
PLOTTED BY: CZYZYK, KELSEY

PLOT DATE: 8/6/2024
PLOT TIME: 5:02 PM



SECTION 36+50

MATCHLINE - SEE SHEET C2

ASBUILT SURVEY AERIAL IMAGERY

ASBUILT LIMIT OF SURVEY

PROPOSED STAGING AREA WAS NOT USED ~~TEMPORARY STAGING AREA~~

DIRT FARM ACCESS RD

PROPOSED DIRT FARM ROAD ALIGNMENT

LIMIT OF WORK

ASBUILT LOW POINT (DRAINAGE SWALE)

ASBUILT LIMIT OF WORK

ASBUILT FARM ROAD

ASBUILT TOE OF SLOPE

ASBUILT TOP OF SLOPE

36+50 -160.00'

ASBUILT LOW POINT (DRAINAGE SWALE)

PLACE SILT FENCE AT EDGE OF WORK AT TOP OF BANK

AREA OF SOIL PLACEMENT

16.0'

50.0'

4:1

50.0'

BAJARO RIVER

FRAZIER LAKE RD

LEGEND
ASBUILT FARM ROAD
SPOILS AREA
PHASE 1 PLANTING AREA

40 0 40 80 120
SCALE OF FEET

N

GRADING PLAN CONT.
C3

REVISIONS
DESCRIPTION
MADE BY
DATE

DRAWN BY: K. LANTZ
CHECKED BY: K. MACKAY

FILENAME: GRADING.DWG
PLOTTED BY: CZYZYK, KELSEY

PLOT DATE: 8/7/2024
PLOT TIME: 8:50 AM

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SHEET 6 OF 16

PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT
60% DRAFT SUBMITTAL

SANTA CLARA VALLEY HABITAT AGENCY

PAJARO RIVER RIPARIAN RESTORATION ASBUILT PLANT PROGRAM

PLAN VIEW SYMBOL	PLANTING ZONE	SPECIES NAME BOTANICAL	SPECIES NAME COMMON	AVERAGE PLANT SPACING (FEET ON-CENTER)	% OF PLANT PALETTE	PROPAGULE/ CONTAINER SIZE	QUANTITY MMP	QUANTITY INSTALLED	PLANTING NOTES
	RIPARIAN WOODLAND / UPLAND BUFFER	ARTEMISIA DOUGLASIANA	CA MUGWORT	2' O.C. WITHIN CLUSTERS; 15' O.C. BETWEEN CLUSTERS	20	PLUG	562	634	PLANT IN CLUSTERS OF 5
		ASCLEPIAS FASCICULARIS	NARROW LEAF MILKWEED	3' O.C. WITHIN CLUSTERS; 20' O.C. BETWEEN CLUSTERS	25	1-GAL	237	238	PLANT IN CLUSTERS OF 3
		DISTICHLIS SPICATA	SALTGRASS	1' O.C. WITHIN CLUSTERS; 15' O.C. BETWEEN CLUSTERS	35	PLUG	984	984	PLANT IN CLUSTERS OF 5
		ELYMUS TRITICOIDES	CREEPING WILD RYE	2' O.C. WITHIN CLUSTERS; 15' O.C. BETWEEN CLUSTERS	20	PLUG	562	205	PLANT IN CLUSTERS OF 5
		ACER NEGUNDO	BOXELDER	20'	15	1-GAL	48	92	
		ARTEMISIA CALIFORNICA	CA SAGEBRUSH	8'	5	1-GAL	99	99	
		ATRIPLEX LENTIFORMIS	BIG SALTBUSH		5	1-GAL	99	100	
		BACCHARIS SALICIFOLIA	MULEFAT		10	1-GAL	198	324	
		ERIOGONUM FASCICULATUM	CA BUCKWHEAT		10	1-GAL	198	230	
		FRANGULA CALIFORNICA	CA COFFEEBERRY		5	1-GAL	99	13	
		HETEROMELES ARBUTIFOLIA	TOYON		5	1-GAL	99	115	
		ROSA CALIFORNICA	CA WILD ROSE	3' O.C. WITHIN CLUSTERS; 20' O.C. BETWEEN CLUSTERS	10	1-GAL	95	80	PLANT IN CLUSTERS OF 3
		RUBUS URSINUS	CA BLACKBERRY		5	1-GAL	48	48	PLANT IN CLUSTERS OF 3
		SALIX EXIGUA	SANDBAR WILLOW	10' O.C. WITHIN CLUSTERS; 100' O.C. BETWEEN CLUSTERS	5	CUTTING	16	16	PLANT IN CLUSTERS
		SALIX LASIOLEPIS	ARROYO WILLOW		5	CUTTING	16	16	
		SALVIA MELLIFERA	BLACK SAGE	8'	5	1-GAL	99	108	
		SAMBUCUS NIGRA	ELDERBERRY	20'	15	1-GAL	48	114	
	FLOODPLAIN BENCH	BACCHARIS GLUTINOSA	MARSH BACCHARIS	20'	30	CUTTING	180	180	
		CAREX BARBARAE	VALLEY SEDGE	2' O.C. WITHIN CLUSTERS; 15' O.C. BETWEEN CLUSTERS	10	PLUG	300	300	PLANT IN CLUSTERS OF 5
		CYPERUS ERAGROSTIS	TALL FLATSEDGE		5		150	150	
		DISTICHILIS SPICATA	SALTGRASS	1' O.C. WITHIN CLUSTERS; 15' O.C. BETWEEN CLUSTERS	10		300	300	
		ELEOCHARIS MACROSTACHYA	COMMON SPIKERUSH	2' O.C. WITHIN CLUSTERS; 15' O.C. BETWEEN CLUSTERS	5		150	150	
		ELYMUS TRITICOIDES	CREEPING WILD RYE		5		150	0	
		FRANKENIA SALINA	ALKALI HEATH		15		450	450	
		HORDEUM BRACHYANTHERUM	MEADOW BARLEY		10		300	300	
		JUNCUS BALTICUS	BALTIC RUSH		5		150	150	
		JUNCUS EFFUSUS	SOFT RUSH		15		450	450	
		JUNCUS XIPHIOIDES	IRISLEAF RUSH		15		450	450	
	RIPARIAN BANK SLOPE	CAREX BARBARAE	VALLEY SEDGE	2' O.C. WITHIN CLUSTERS; 15' O.C. BETWEEN CLUSTERS	30	PLUG	55	55	PLANT IN CLUSTERS OF 5
		DISTICHILIS SPICATA	SALTGRASS	1' O.C. WITHIN CLUSTERS; 15' O.C. BETWEEN CLUSTERS	40	PLUG	70	70	
		ELYMUS TRITICOIDES	CREEPING WILD RYE	2' O.C. WITHIN CLUSTERS; 15' O.C. BETWEEN CLUSTERS	30	PLUG	55	617	
		ACER NEGUNDO	BOXELDER	20'	5	TP4	1	3	
		BACCHARIS GLUTINOSA	MARSH BACCHARIS		10	CUTTING	2	2	
		BACCHARIS SALICIFOLIA	MULEFAT		15	CUTTING	3	10	
		POPULUS ~~FREMONTII~~ TRICHOCARPA	~~FREMONT~~ BLACK COTTONWOOD		10	CUTTING	2	2	
		ROSA CALIFORNICA	CA WILD ROSE	3' O.C. WITHIN CLUSTERS; 20' O.C. BETWEEN CLUSTERS	10	1-GAL	6	6	SLOPES, PLANT IN CLUSTERS OF 3
		SALIX EXIGUA	SANDBAR WILLOW	20'	10	CUTTING	2	0	BENCH AND BOTTOM 1/4 OF SLOPE
		SALIX LASIOLEPIS	ARROYO WILLOW		20	CUTTING	4	21	SLOPES
		SALIX LAEVIGATA	RED WILLOW		20	CUTTING	4	21	BENCH AND BOTTOM 1/4 OF SLOPE

ASBUILT SEED MIXES

AREA#1 - PAJARO WETLAND BENCH SEED MIX ~1.0 ACRE

COMMON NAME	BOTANICAL NAME	PLS LBS/ACRE	TOTAL LBS	SOURCE
MARSH BACCHARIS	*BACCHARIS GLUTINOSA*	0.5	**0.5**	ALAMEDA
CREEPING WILD RYE	*ELYMUS TRITICOIDES (YOLO BYPASS ECOTYPE)*	6	**6**	YOLO
WESTERN GOLDENROD	*EUTHAMIA OCCIDENTALIS*	0.5	**0.5**	ALAMEDA
ALKALI HEATH	*FRANKENIA SALINA*	0.5	**0.5**	ALAMEDA
MEADOW BARLEY	*HORDEUM BRACHYANTHERUM*	10	**10**	SAN MATEO
TOTALS		21	**21**	

AREA#2 - PAJARO RIPARIAN UPLAND SEED MIX ~1.0 ACRE

COMMON NAME	BOTANICAL NAME	PLS LBS/ACRE	TOTAL LBS	SOURCE
CALIFORNIA BROME	*BROMUS CARINATUS*	10	**10**	SANTA CLARA
BLUE WILDRYE	*ELYMUS GLAUCUS*	6	**6**	BERKELEY
CREEPING WILDRYE	*ELYMUS TRITICOIDES*	6	**6**	YOLO
SMALL FESCUE	*FESTUCA MICROSTACHYS*	4	**4**	SAN MATEO
PURPLE NEEDLEGRASS	*STIPA PULCHRA*	2	**2**	SAN MATEO
TOTALS		29	**29**	

AREA#3 - PAJARO SPOIL PLACEMENT SEED MIX ~5.0 ACRES

COMMON NAME	BOTANICAL NAME	PLS LBS/ACRE	TOTAL LBS	SOURCE
CALIFORNIA BROME	*BROMUS CARINATUS*	14	**42**	SANTA CLARA
BLUE WILDRYE	*ELYMUS GLAUCUS*	10	**30**	BERKELEY
SMALL FESCUE	*FESTUCA MICROSTACHYS*	8	**24**	SAN MATEO
TOTALS		32	**96**	

GENERAL PLANTING NOTES

1. SEE TECHNICAL SPECIFICATIONS AND GENERAL NOTES FOR ADDITIONAL INFORMATION TO CONSIDER IN PLANTING INSTALLATION INCLUDING INFRASTRUCTURE AND UTILITIES PROTECTION AND REPAIR INFORMATION.
2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES, AND FURNISHING AND INSTALLING ALL PLANTS AND MATERIALS SHOWN ON THE PLANS AND AS REQUIRED BY THESE CONTRACT DOCUMENTS.
3. ALL PLANTS SHALL BE SOURCED FROM THE PAJARO RIVER WATERSHED FIRST OR SANTA CLARA COUNTY IF MORE LOCALLY SOURCED MATERIAL IS NOT AVAILABLE.
4. ALL PLANTS SHALL BE SOURCED FROM A NURSERY EMPLOYING BEST MANAGEMENT PRACTICES TO REDUCE THE RISK OF PHYTOPHTHORA FUNGUS.
5. PLANTS SHALL BE IN PRIME CONDITION WHEN ACCEPTED AND INSTALLED. ROOTS SHALL BE FULLY ROOTED WITHIN THE DESIGNATED CONTAINER SIZE BUT NOT ROOT BOUND. SEE PLANTING SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING QUALITY, TRANSPORTATION, PLANTING, ETC.
6. INSPECTION OF ALL PLANTS WILL BE DONE BY THE RESTORATION ECOLOGIST AND CONTRACTOR AT THE PROJECT SITE PRIOR TO INSTALLATION.
7. ALL CUTTINGS SHALL BE COLLECTED FROM A LOCATION ADJACENT TO THE PROJECT SITE APPROVED BY THE RESTORATION ECOLOGIST.
8. WHERE IRRIGATION SYSTEMS ARE INSTALLED, THEY SHALL BE IN PLACE, FULLY OPERATIONAL, AND APPROVED BY ENGINEER PRIOR TO PLANTING AND SEEDING.
9. PLANTING SHALL ONLY OCCUR WHEN ENVIRONMENTAL CONDITIONS ARE FAVORABLE FOR SUCH ACTIVITIES, BASED ON STANDARD HORTICULTURAL PRACTICES. PLANTING SHALL NOT TAKE PLACE IF TEMPERATURES ARE UNSEASONABLY HIGH OR IF THE SITE IS EXCESSIVELY WET OR MUDDY.
10. ALL CONTAINER PLANTS MUST BE PLANTED WITHIN 3 WORKING DAYS FOLLOWING DELIVERY TO THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING AND PROTECTING ALL PLANTS AND MATERIALS STORED ON-SITE.
11. CONTRACTOR SHALL MAINTAIN ALL PLANTING WORK FOR A PERIOD OF 120 CONTINUOUS CALENDAR DAYS (PLANT ESTABLISHMENT PERIOD). THE 120 DAY PLANT ESTABLISHMENT PERIOD SHALL BEGIN IMMEDIATELY FOLLOWING THE FINAL ACCEPTANCE OF THE INSTALLATION.
12. ALL SITE PREPARATION AND SOIL AMENDMENTS SHALL BE COMPLETED AND APPROVED BY THE RESTORATION ECOLOGIST PRIOR TO INITIATING PLANTING.
13. TREE SPECIES SHALL NOT BE PLANTED WITHIN 5 FEET OF A WATER MAIN AS MEASURED FROM THE EDGE OF THE TRUNK.
14. PRIOR TO PLANTING THE CONTRACTOR SHALL PLACE COLOR-CODED PIN FLAGS OF EACH SPECIES IN SAMPLE PLOTS (500 FT X 500 FT) WITHIN EACH ZONE; REFER TO DETAIL FOR SAMPLE LAYOUT. SAMPLE PLOTS MUST BE APPROVED BY THE RESTORATION ECOLOGIST PRIOR TO PLANT INSTALLATION.
15. CONTAINER PLANTS AND CUTTINGS SHALL BE PLANTED PER DETAIL(S), AND SHALL BE WATERED IN THOROUGHLY IMMEDIATELY AFTER BEING PLANTED.
16. PROTECT ALL EXISTING PLANT MATERIAL TO REMAIN, INCLUDING ANY INDICATED TREES AS INDICATED ON THE PLAN SHEETS, IN THE CONTRACT DOCUMENTS OR FLAGGED/FENCED ON SITE. THE CONTRACTOR SHALL REPLACE, AT NO COST TO OWNER, PLANT MATERIAL INDICATED AS EXISTING ON PLANS THAT IS DAMAGED OR ALLOWED TO DIE AS A RESULT OF THE NEGLIGENCE OF THE CONTRACTOR.

PLANTING PROGRAM & NOTES

L1

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SHEET 7 OF 16

PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT
60% DRAFT SUBMITTAL

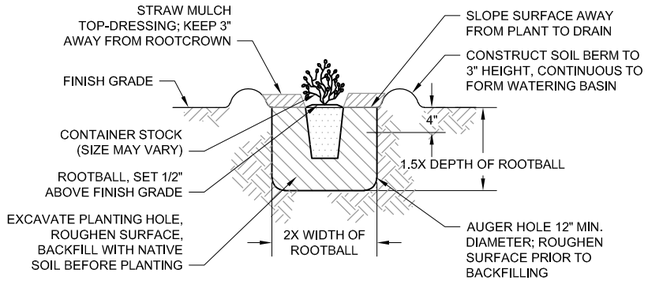
SANTA CLARA VALLEY HABITAT AGENCY

REVISIONS
DESCRIPTION
DATE
MADE BY

DRAWN BY: K. LANTZ
CHECKED BY: K. MACKAY

FILENAME: PLANTING.DWG
PLOTTED BY: CZYZYK, KELSEY

PLOT DATE: 8/7/2024
PLOT TIME: 8:41 AM

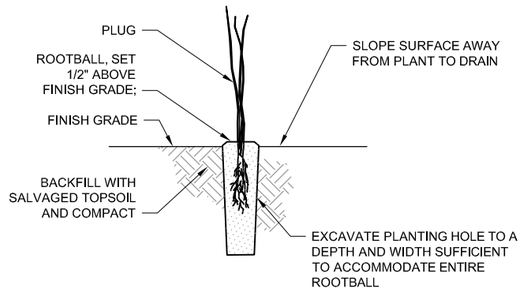


NOTE

1. PROVIDE WEED FREE ZONE AROUND PLANTING SITE ACCORDING TO THE SPECIFICATIONS.

1 / L2 ***1-GALLON AND TREEPOT 4 PLANTING***

NOT TO SCALE

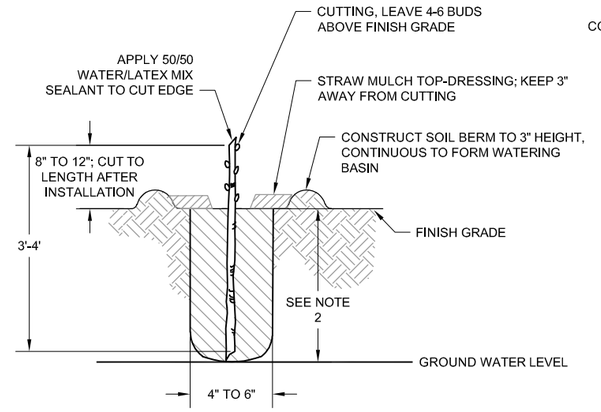


NOTE

1. PROVIDE WEED FREE ZONE AROUND PLANTING SITE ACCORDING TO THE SPECIFICATIONS.

2 / L2 ***PLUG PLANTING***

NOT TO SCALE

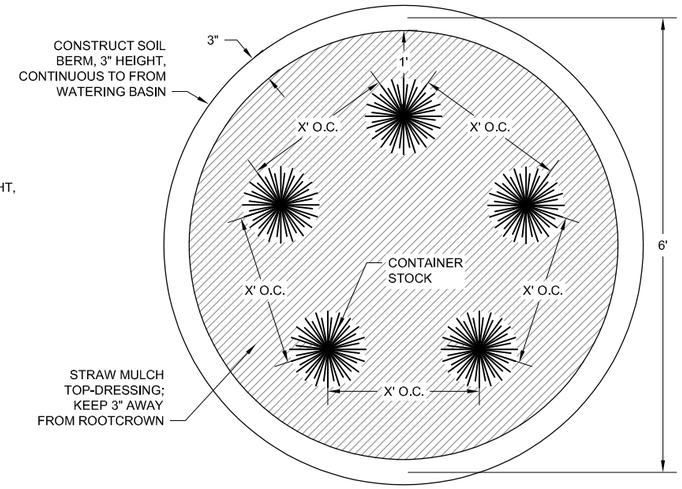


NOTES

1. CUTTING DIAMETER: 1/2" TO 1"
2. AUGER HOLE TO A MINIMUM DEPTH OF 4.5' OR TO SATURATED SOIL, WHICHEVER IS LESS.
3. CUTTING TO BE PLACED WITH SMALL TAPERED END ABOVE GROUND; BUDS TO BE POINTING UP.
4. THOROUGHLY HAND WATER EACH PLANTING HOLE AFTER INSTALLATION TO INCREASE SOIL TO STEM CONTACT.
5. PROVIDE WEED FREE ZONE AROUND PLANTING SITE ACCORDING TO THE SPECIFICATIONS.

3 / L2 ***CUTTING***

NOT TO SCALE

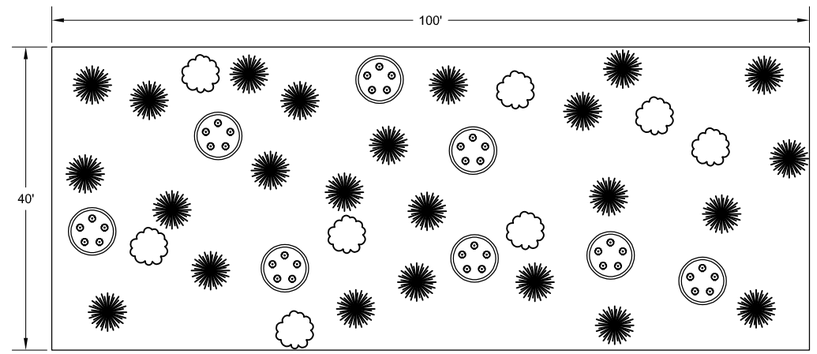


NOTES

1. CLUSTER PLANTINGS SHALL HAVE INDIVIDUAL BASINS AROUND EACH PLANT.
2. REFER TO PLANT PROGRAM FOR ON-CENTER SPACING REQUIREMENTS.
3. APPLY STRAW MULCH TOP-DRESSING TO ALL BASINS, KEEP 3" FROM ROOTCROWNS.
4. PLANT QUANTITIES AND SPACING VARIES BY SPECIES.
5. PROVIDE WEED-FREE ZONE AROUND PLANTING SITE AND WITHIN EACH PLANTING CLUSTER ACCORDING TO THE SPECIFICATIONS.

4 / L2 ***CLUSTER PLANTING***

NOT TO SCALE



NOTES

1. RANDOMIZE PLANT LAYOUT; DO NOT PLACE PLANTS IN LINEAR ROWS.
2. AVERAGE ON-CENTER SPACING FOR INDIVIDUAL PLANTS AND BETWEEN CLUSTERS IS USED AS A GUIDE FOR DETERMINING QUANITIES; DISTANCES BETWEEN CLUSTERS AND BETWEEN INDIVIDUAL PLANTS MAY VARY.
3. ALL PLANT LOCATIONS SHALL BE FLAGGED AND APPROVED BY THE ENGINEER PRIOR TO PLANTING.

5 / L2 ***GENERIC RANDOM PLANT LAYOUT***

NOT TO SCALE

REVISIONS
DESCRIPTION | DATE | MADE BY

DRAWN BY: K. LANTZ
CHECKED BY: K. MACKAY

FILENAME: PLANTING.DWG
PLOTTED BY: CZYZYK, KELSEY

PLOT DATE: 8/6/2024
PLOT TIME: 5:03 PM

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SHEET 8 OF 16

PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT
60% DRAFT SUBMITTAL

SANTA CLARA VALLEY HABITAT AGENCY

PLANTING DETAILS
L2

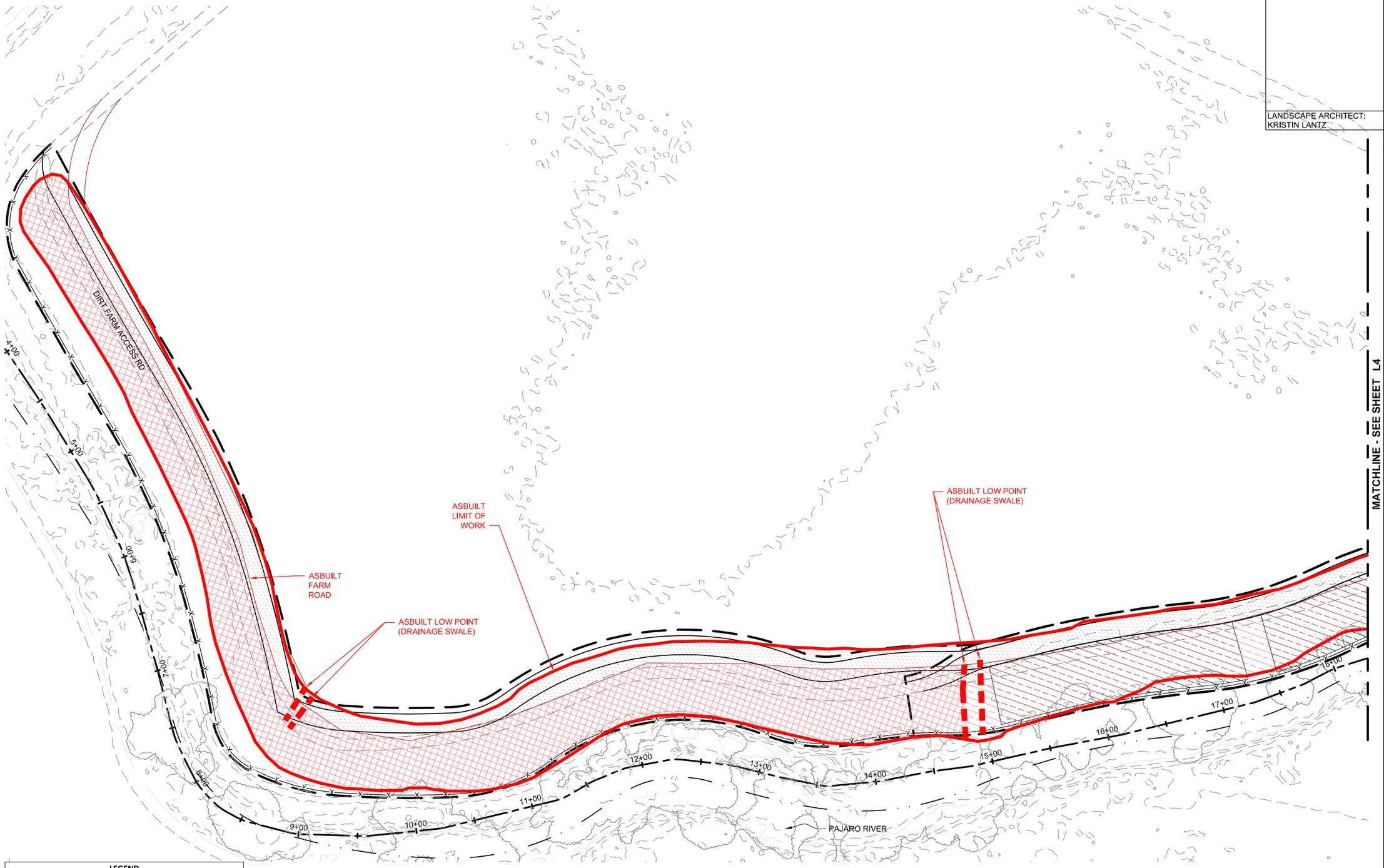
REVISIONS

DESCRIPTION	DATE	MADE BY

DRAWN BY: K. LANTZ
CHECKED BY: K. MACKAY

FILENAME: PLANTING.DWG
PLOTTED BY: CZYZYK, KELSEY

PLOT DATE: 8/6/2024
PLOT TIME: 5:03 PM



LEGEND
ASBUILT FARM ROAD
RIPARIAN WOODLAND/UPLAND BUFFER
RIPARIAN BANK SLOPE
FLOODPLAIN BENCH
SPOILS AREA SEEDING

40 0 40 80 120
SCALE OF FEET

N

PLANTING PLAN
L3

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SANTA CLARA VALLEY HABITAT AGENCY

PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT
60% DRAFT SUBMITTAL

SHEET 9 OF 16

MATCHLINE - SEE SHEET L3

MATCHLINE - SEE SHEET L5

ASBUILT FARM ROAD

ASBUILT LOW POINT (DRAINAGE SWALE)

DIRT FARM ACCESS RD

ASBUILT LIMIT OF WORK

ASBUILT LOW POINT (DRAINAGE SWALE)

ASBUILT TOP OF BANK

ASBUILT TOE OF BANK

PHASE 1 PLANTING AREA

PAJARO RIVER

19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00

LEGEND
ASBUILT FARM ROAD
RIPARIAN WOODLAND/UPLAND BUFFER
RIPARIAN BANK SLOPE
FLOODPLAIN BENCH
SPOILS AREA SEEDING

40 0 40 80 120
SCALE OF FEET

N

PLANTING PLAN CONT.
L4

REVISIONS

DESCRIPTION	DATE	MADE BY

DRAWN BY: K. LANTZ
CHECKED BY: K. MACKAY

FILENAME: PLANTING.DWG
PLOTTED BY: CZYZYK, KELSEY

PLOT DATE: 8/6/2024
PLOT TIME: 5:03 PM

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SHEET 10 OF 16

PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT
60% DRAFT SUBMITTAL

SANTA CLARA VALLEY HABITAT AGENCY

ICF

REVISIONS

DESCRIPTION	MADE BY	DATE

MATCHLINE - SEE SHEET L4

ASBUILT FARM ROAD

ASBUILT LOW POINT (DRAINAGE SWALE)

ASBUILT LIMIT OF WORK

ASBUILT TOE OF SLOPE

ASBUILT TOP OF SLOPE

ASBUILT LOW POINT (DRAINAGE SWALE)

PROPOSED STAGING AREA WAS NOT USED

DIRT FARM ACCESS RD

32+00

33+00

34+00

35+00

36+00

36+50 +160.00'

36+50 -160.00'

37+80

38+00

39+00

40+00

41+00

41+41

PAJARO RIVER

FRAZIER LAKE RD

LEGEND

- ASBUILT FARM ROAD
- RIPARIAN WOODLAND/UPLAND BUFFER
- RIPARIAN BANK SLOPE
- FLOODPLAIN BENCH
- SPOILS AREA SEEDING

40 0 40 80 120

SCALE OF FEET

N

PLANTING PLAN CONT.
L5

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SHEET 11 OF 16

PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT
60% DRAFT SUBMITTAL

SANTA CLARA VALLEY HABITAT AGENCY

DRAWN BY: K. LANTZ
CHECKED BY: K. MACKAY

FILENAME: PLANTING.DWG
PLOTTED BY: CZYZYK, KELSEY

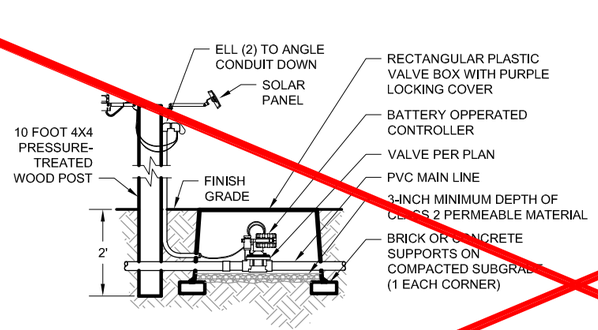
PLOT DATE: 8/7/2024
PLOT TIME: 8:49 AM

IRRIGATION LEGEND

DETAIL REFERENCE	PLAN VIEW SYMBOL	APPURTENANCE	MODEL NUMBER	MANUFACTURER/ MODEL
	W	IRRIGATION POINT OF CONNECTION		WATER STORAGE TANK CONNECTED TO AGRICULTURAL IRRIGATION; SOLAR PUMP TO BE INSTALLED.
1/I1	A	BATTERY OPERATED CONTROLLER WITH SOLAR PANEL AND RAIN SENSOR	NODE-100 (1 STATION)	HUNTER, BATTERY OPERATED CONTROLLER; INSTALL IN GRADE LEVEL ENCLOSURE WITH LOCKING COVER DIRECTLY ADJACENT TO CONTROL VALVE BOX; INSTALL WITH SPNODE KIT; INSTALL HUNTER MINI-CLIK RAIN SENSOR.
6/I2	NOT SHOWN	QUICK COUPLING VALVE	33-DN	RAIN BIRD, 3/4" QUICK COUPLING VALVE, OR APPROVED EQUAL, WITH LOCKING COVER IN ROUND VALVE BOX; INTSALL AT 100' INTERVALS
5/I2		CONTROL VALVE WITH FILTER	XCZ-100-PRB-COM	RAINBIRD, 1" WATER CONTROL VALVE, WITH RAINBIRD 1" PRESSURE REGULATING BASKET FILTER; INSTALL DC LATCHING SOLENOID (RAINBIRD TBOSPSOL) TO CONNECT TO HUNTER BATTERY OPERATED CONTROLLER, WITH LOCKING COVER IN RECTANGLE VALVE BOX
2/I1		BALL VALVE		KING BROTHERS, LO-TORQUE BALL VALVE WLT SERIES OR APPROVED EQUAL, SAME SIZE AS REDUCED SUPPLY LINE, WITH LOCKING COVER IN ROUND BOX OR IN BOX WITH OTHER EQUIPMENT
3/I1		MAINLINE , RIGID	SCH40	IRRIGATION MAINLINE, SCH 40 PIPE, 2" SIZE THROUGHOUT, INSTALL ON GRADE, ANCHOR WITH REBAR "J" HOOKS, SPRAY PAINT WITH WHITE ACRYLIC OR LATEX PAINT COMPATIBLE WITH SCH 40 AS PER MANUFACTURE, COVER WITH MINIMUM 4" MULCH LAYER
3/I1		LATERAL, RIGID	SCH40	IRRIGATION LATERAL, SCH 40 PIPE, 2" SIZE THROUGHOUT, INSTALL ON GRADE, ANCHOR WITH REBAR "J" HOOKS, SPRAY PAINT WITH WHITE ACRYLIC OR LATEX PAINT COMPATIBLE WITH SCH 40 AS PER MANUFACTURE, COVER WITH MINIMUM 4" MULCH LAYER
3/I1	NOT SHOWN	DRIP DISTRIBUTION TUBING	XT-700	RAINBIRD XT-700, TUBING SHALL BE LAID OUT SO AS TO NOT LOSE MORE THAN 5 PSI PER RUN (2.75 GPM MAX), ALL TERMINAL ENDS SHALL RECEIVE A RAINBIRD, MDCF-CAP, FLUSH CAP, COVER WITH MINIMUM 4" MULCH LAYER
4/I1	NOT SHOWN	DRIP EMITTER	XB-10PC	RAINBIRD XERI-BUG EMITTER WITH BARBED INLET, 1.0 GPH, INSTALL DIRECTLY INTO DISTRIBUTION TUBING, 2 PER PLANT/CUTTING, 1 PER PLANT IN CLUSTER
	A00 | 450 1" | 15 GPM	VALVE NUMBER # OF PLANTS SERVICED BY VALVE APPROXIMATE FLOW THROUGH VALVE SIZE OF VALVE		

GENERAL IRRIGATION NOTES

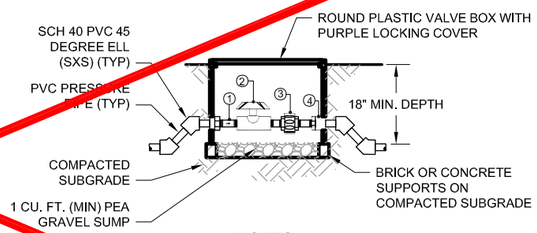
1. SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION TO CONSIDER IN IRRIGATION SYSTEM INSTALLATION INCLUDING INFRASTRUCTURE AND UTILITIES PROTECTION AND REPAIR INFORMATION.
2. IRRIGATION MAINLINE AND EQUIPMENT ARE SHOWN DIAGRAMMATICALLY TO CONVEY INSTALLATION INTENT WITH GRAPHIC CLARITY. THE CONTRACTOR SHALL NOT INSTALL THE IRRIGATION SYSTEM AS DIAGRAMMATICALLY SHOWN IF OBSTRUCTIONS, INFRASTRUCTURE, GRADE CHANGES, OR OTHER BARRIERS EXIST IN THE FIELD THAT MIGHT NOT HAVE BEEN FORESEEN, CONSIDERED, OR IN EXISTENCE DURING IRRIGATION DESIGN. NOTIFY ENGINEER IF THE INSTALLATION OF THE SYSTEM IS NOT FEASIBLE AS DIAGRAMMATICALLY SHOWN PRIOR TO PROCEEDING. IF CONFLICTS ARE NOT REPORTED TO THE ENGINEER, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY NECESSARY CHANGES REQUIRED TO MAKE THE SYSTEM FULLY FUNCTIONAL AT NO ADDITIONAL COST TO THE OWNER.
3. CONTRACTOR SHALL VERIFY STATIC WATER PRESSURE AT ALL POINTS OF CONNECTION PRIOR TO INSTALLING IRRIGATION SYSTEM. SHOULD STATIC WATER PRESSURE BE LESS THAN 30 PSI AT EITHER POC, CONTRACTOR SHALL NOTIFY ENGINEER FOR INSTRUCTIONS PRIOR TO PROCEEDING WITH INSTALLATION. THE SYSTEM DESIGN IS BASED ON 15 GPM BEING AVAILABLE AT THE POINTS OF CONNECTION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THESE REPORTED READINGS PRIOR TO CONSTRUCTION AND SHALL CEASE CONSTRUCTION ACTIVITY AT ONCE IF AVAILABLE WATER PRESSURE AND VOLUME VARY FROM PREVIOUSLY REPORTED FIGURES. IF WATER PRESSURE AND VOLUME DISCREPANCIES ARE NOT REPORTED TO THE ENGINEER PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY NECESSARY CHANGES REQUIRED TO MAKE THE SYSTEM FULLY FUNCTIONAL AT NO ADDITIONAL COST TO OWNER.
4. MAXIMUM WIRE RUN DISTANCE BETWEEN BATTERY CONTROLLER AND CONTROL VALVE SHALL BE 100 FEET USING 18 AWG WIRE.
5. CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING WATER MAIN PRIOR TO CONSTRUCTION.
6. FOLLOW ALL LOCAL CODES WHEN INSTALLING IRRIGATION SYSTEM. FOLLOW MANUFACTURER'S SPECIFICATIONS DURING INSTALLATION. NOTIFY ENGINEER OF ANY CODE CONFLICTS WITH THE DESIGN PRIOR TO STARTING WORK.
7. ALL MATERIALS AND EQUIPMENT SHALL BE NEW. THE CONTRACTOR SHALL INSTALL MATERIALS AND EQUIPMENT TO PROVIDE THE MOST EFFICIENT AND OPTIMUM OPERATING SYSTEM. FIELD ADJUSTMENTS MAY BE REQUIRED.
8. CONTRACTOR SHALL PRESSURE AND LEAK TEST IRRIGATION LINES PRIOR TO COVERING. CONTROLLER WIRING TO VALVES SHALL BE TESTED PRIOR TO COVERING. THE CONTRACTOR SHALL MAKE ANY ADJUSTMENTS REQUIRED TO SYSTEM TO ENSURE OPERABILITY PRIOR TO COVERING PIPES.
9. THE CONTRACTOR SHALL PROVIDE THE ENGINEER TWO SETS OF LOCKING COVER KEYS AND ONE HOSE SWIVEL FOR QUICK COUPLING VALVES.
10. THE FINAL LOCATION OF THE BATTERY OPERATED CONTROLLER SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
11. OPERATE IRRIGATION CONTROLLER BETWEEN THE HOURS OF 5:00 PM AND 7:00 AM.
12. PRIOR TO TRENCHING, CONTACT DIGALERT AT 811 OR DIGALERT.ORG FOR UTILITY LOCATION SERVICES.



NOTES

1. INSTALL SOLAR PANEL OUTSIDE OF SHADED AREAS.
2. REFER TO DETAIL 5/I2 FOR PVC LINE TRANSITIONS.
3. INSTALL ALL EQUIPMENT AND RELATED APPURTENANCES PER MANUFACTURES RECOMMENDATIONS

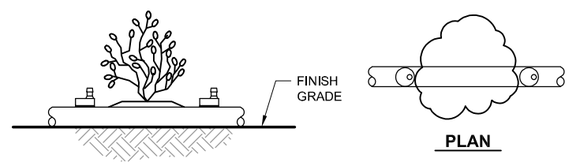
1/I1 BATTERY OPERATED CONTROLLER WITH SOLAR KIT AND RAIN SENSOR
NOT TO SCALE



NOTES

1. SHORT SCH 80 PVC NIPPLE (LENGTH AS REQ'D) (TYP)
2. BALL VALVE
3. PVC SCH 40 UNION
4. SCH 40 PVC FEMALE ADAPTER (TYP)

2/I1 BALL VALVE
NOT TO SCALE



NOTES

1. RIGID PIPE AND DISTRIBUTION TUBING SHALL BE STAKED TO BARE GROUND; REMOVE ANY HERBACEOUS MATERIAL OR MULCH BETWEEN TUBING AND BARE GROUND.
2. INSTALL J-HOOKS 3" CLEAR OF ALL FITTINGS.
3. J-HOOK LENGTH SHALL BE 2 FOOT MINIMUM; MINIMUM 18 INCHES SHALL EXTEND INTO SOIL.

3/I1 ON-GRADE RIGID PIPE AND DISTRIBUTION TUBING STAKING
NOT TO SCALE

NOTES

1. INSTALL 2 EMITTERS PER CONTAINER PLANT ON OPPOSITE SIDES OF PLANT; INSTALL ON UPHILL SIDES OF PLANT IF ON SLOPE.
2. INSTALL 3 EMITTERS PER CLUSTER.
3. REFER TO DETAIL 3/I1 FOR DISTRIBUTION TUBING STAKING.

4/I1 DRIP EMITTER
NOT TO SCALE

NOTE: ALL INSTALLED IRRIGATION IS ABOVE GROUND PVC AND TEMPORARY.

IRRIGATION LEGEND, NOTES & DETAILS
I1

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SHEET 12 OF 16

PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT
60% DRAFT SUBMITTAL

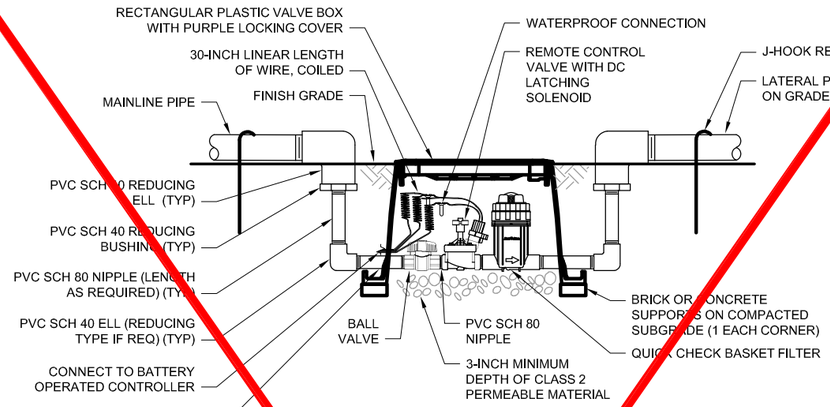
SANTA CLARA VALLEY HABITAT AGENCY

REVISIONS
DESCRIPTION
DATE
MADE BY

DRAWN BY: K. LANTZ
CHECKED BY: K. MACKAY

FILENAME: IRRIGATION.DWG
PLOTTED BY: CZYZYK, KELSEY

PLOT DATE: 8/6/2024
PLOT TIME: 5:03 PM

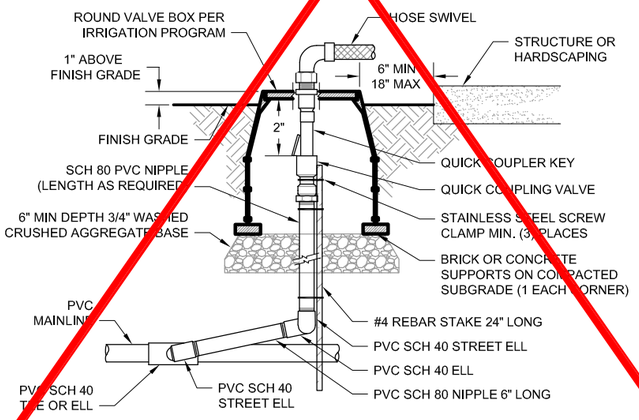


NOTES

1. INSTALL MAINLINE AND LATERAL PIPE ON GRADE.
2. REFER TO DETAIL 3/I1 FOR RIGID PIPE STAKING.
3. MAINLINE PIPE CONNECTION BETWEEN GROUPED CONTROL VALVES MAY BE PLACED BELOW GRADE.

1/I2 ***CONTROL VALVE WITH FILTER AND BALL VALVE***

NOT TO SCALE



1. REFER TO IRRIGATION LEGEND FOR MANUFACTURERS AND MODELS.
2. INSTALL QUICK COUPLING VALVE IN PLANTING BEDS WHEREVER POSSIBLE.
3. INSTALL VALVE BOX SO THAT TOP OF BOX IS FLUSH WITH ADJACENT HARDSCAPE.
4. USE TEFLON TAPE ON ALL THREADED FITTINGS.
5. PLACE 3/4" DRAIN ROCK PRIOR TO INSTALLING VALVE BOX.
6. REFER TO SPECIFICATIONS AND PLAN SHEETS FOR ADDITIONAL INFORMATION.

2/I2 ***QUICK COUPLING VALVE***

NOT TO SCALE

NOTE: ALL INSTALLED IRRIGATION IS ABOVE GROUND PVC AND TEMPORARY.

REVISIONS

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CHECKED BY: K. MACKAY

FILENAME: IRRIGATION.DWG
PLOTTED BY: CZYZYK, KELSEY

PLOT DATE: 8/6/2024
PLOT TIME: 5:03 PM

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SHEET 13 OF 16

PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT
60% DRAFT SUBMITTAL

SANTA CLARA VALLEY HABITAT AGENCY

IRRIGATION DETAILS CONT.
I2

PLOT DATE: 8/6/2024 PLOT TIME: 5:03 PM	FILENAME: IRRIGATION.DWG PLOTTED BY: CZYZYK, KELSEY	DRAWN BY: K. LANTZ CHECKED BY: K. MACKAY	REVISIONS DATE	DESCRIPTION	MADE BY

IRRIGATION PLAN

I3

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SANTA CLARA VALLEY HABITAT AGENCY	PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT	SHEET 14 OF 16
---	60% DRAFT SUBMITTAL	

MATCHLINE - SEE SHEET I3

ASBUILT IRRIGATION SURVEY POINTS, TYP.

ASBUILT MAINLINE

DIRT FARM ACCESS RD

Valve

Point of Connection

Irrigation Filter

10,000 GALLON TANKS

PAJARO RIVER

MATCHLINE - SEE SHEET I5

40 0 40 80 120

SCALE OF FEET

N

IRRIGATION PLAN CONT.
I4

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SHEET 15 OF 16

PAJARO RIVER RIPARIAN HABITAT
RESTORATION PROJECT
60% DRAFT SUBMITTAL

SANTA CLARA VALLEY HABITAT
AGENCY

REVISIONS

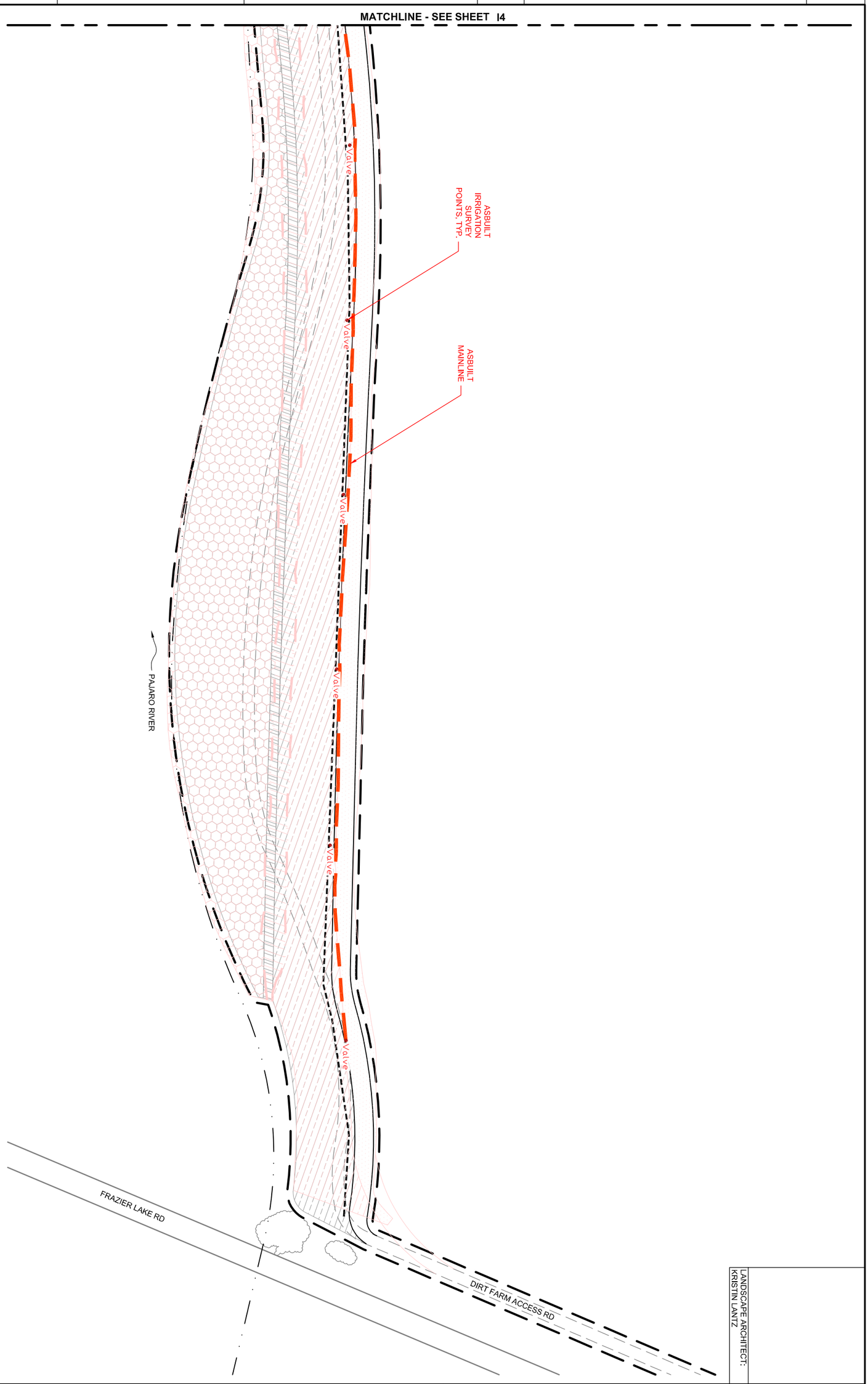
DESCRIPTION	DATE	MADE BY

DRAWN BY: K. LANTZ
CHECKED BY: K. MACKAY

FILENAME: IRRIGATION.DWG
PLOTTED BY: CZYZYK, KELSEY

PLOT DATE: 8/6/2024
PLOT TIME: 5:04 PM

PLOT DATE: 8/6/2024 PLOT TIME: 5:03 PM	FILENAME: IRRIGATION.DWG PLOTTED BY: CZYZYK, KELSEY	DRAWN BY: K. LANTZ CHECKED BY: K. MACKAY	REVISIONS DATE	DESCRIPTION	MADE BY



IRRIGATION PLAN CONT.

15

LANDSCAPE ARCHITECT:
KRISTIN LANTZ

SANTA CLARA VALLEY HABITAT AGENCY	PAJARO RIVER RIPARIAN HABITAT RESTORATION PROJECT	SHEET 16 OF 16
---	60% DRAFT SUBMITTAL	

Attachment B: Pajaro River Restoration Project, Photo Documentation

Pre-project:

July 2023

View looking downstream. Recent farm field setback established to approximately 50-feet. Non-native weeds dominated setback area had recently been mowed. Organic farm adjacent to future restoration site.

Apr. 2023

Ruderal field (fallow farm field) pre-project before creation of freshwater marsh and seasonal wetland habitat adjacent to existing marsh habitat in Pajaro River channel.

Aug. 2023

Just before the first scoop of upland to convert ruderal/fallow field to freshwater marsh, seasonal wetland, and riparian woodland habitat. No excavation in the bed of the Pajaro, but the banks were laid back to create a shallow riparian bench and riparian bank. Extant freshwater marsh habitat is dominating Pajaro channel on right side of image with a notable dearth of woody riparian vegetation.

During Construction Drone shot:

Aug. 2023

Laying back of the bank and lowering of the floodplain for approximately 1,000 LF of Pajaro River's right bank. No creek bed impacts.

Immediately after grading:

Sept. 2023

Bank laid back (center of screen, downslope from line of biodegradable fiber rolls). Site about to be seeded. Riparian upland buffer ready to plant. Organic compost incorporated into upland buffer.

After Seeding, before seed establishment, and during riparian bank planting:

Nov. 2023

Extant Marsh habitat in background along Pajaro low-flow channel. Marsh habitat intended to expand northward transitioning to seasonal wetland habitat before transitioning to riparian woodland habitat as part of project development.

Late into planting drone shot:

Feb. 2024

Pajaro flowing with saturated created wetland areas/floodplain.

First growing season drone shot:

June 2024

Wetland species (marsh and seasonal wetland) developing in early stages of establishment and site management.

Aug. 2024

Early riparian woodland buffer planting. Plants vary in age from 9 to 4 months from date of planting. Early marsh habitat is in background.

Paired pre- & post-construction project photos of the Pajaro River Restoration Project.

Point 1. Looking downstream

December 5, 2022 (above); July 9, 2024 (below)

Point 2. Looking upstream

December 5, 2022 (above); July 9, 2024 (below)

Point 3. Looking downstream

December 5, 2022 (above); July 9, 2024 (below)

Point 4. Looking upstream

December 5, 2022 (above); July 9, 2024 (below).
Both photos taken after a pilot planting trial had been started in this area

Point 5. Looking downstream

December 5, 2022 (above); July 9, 2024 (below)

Point 6. Looking upstream

December 5, 2022 (above); July 9, 2024 (below)

Point 7. Looking downstream

December 5, 2022 (above); July 9, 2024 (below)