



THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT AND THE CITY PUBLIC WORKS AGENCY AT LEAST 48 HOURS (2 WORKING DAYS) PRIOR TO BEGINNING ANY EXCAVATION IN THE VICINITY OF UNDERGROUND FACILITIES.

95% CD Submittal

WAVECREST TRAIL PROJECT- PHASE 2

COASTSIDE LAND TRUST

June 23, 2023

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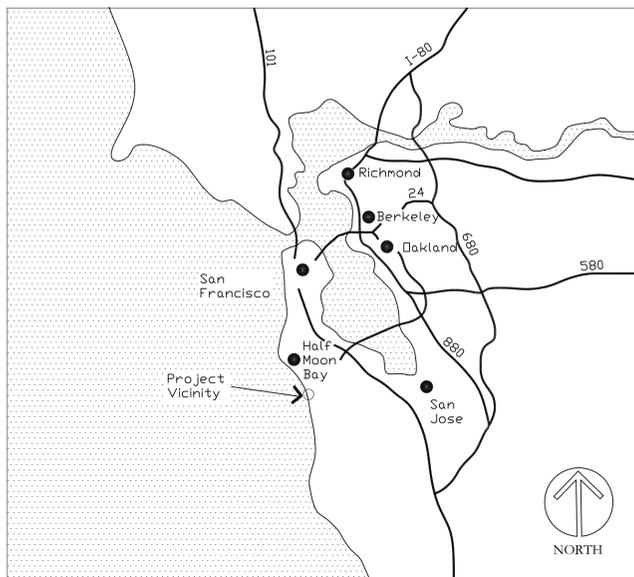
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Vicinity Map



Location Map

Coastside Land Trust

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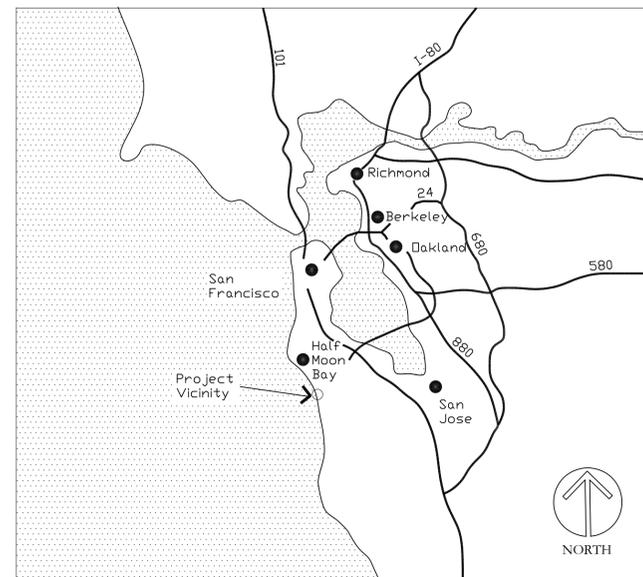


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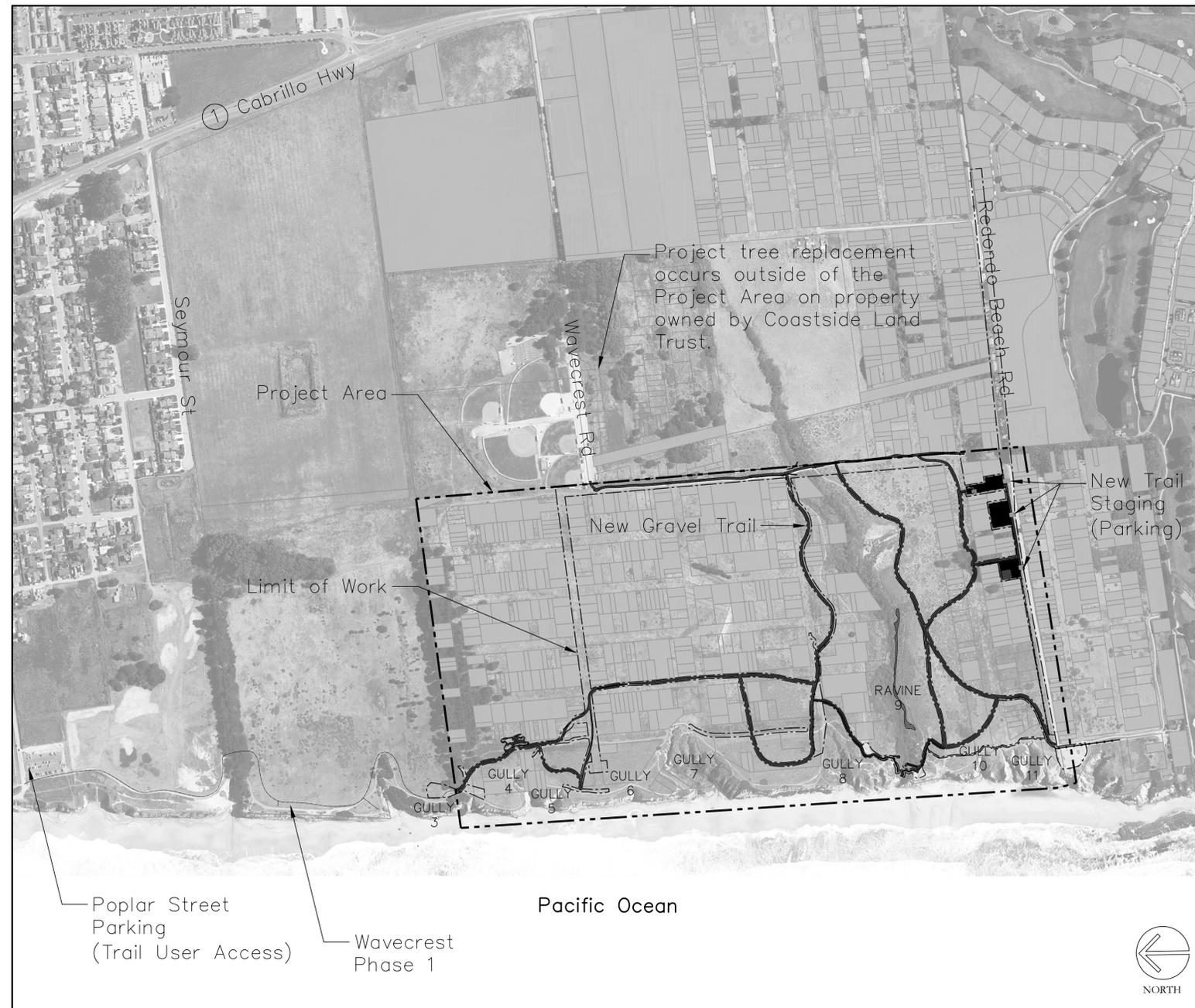
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GENERAL NOTES

- CONTRACTORS SHALL HAVE THE FOLLOWING INSURANCE:\$1 MILLION LIABILITY, \$1 MILLION WORKERS' COMPENSATION FOR CONTRACTORS, \$1 MILLION FOR AUTO, \$2 MILLION COMBINED AGGREGATE, IN THE "CERTIFICATE HOLDER" LOCATION, LIST THE CITY OF HALF MOON BAY, 501 MAIN STREET, HALF MOON BAY, CA 94019.
- OWNER'S REPRESENTATIVE TO OBSERVER ALL PUNcheon FOOTINGS AND OBSERVE AS NOTED BELOW.

DEMOLITION NOTES

- PRIOR TO THE START OF ANY WORK, THE CONTRACTOR SHALL CALL U.S.A. AT LEAST 48 HOURS IN ADVANCE AT (800) 227 2600. CONTRACTOR IS ALSO RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES IN POTENTIAL CONFLICT WITH THE WORK, INCLUDING SEWER LINE, AND VERIFYING DEPTHS. POTHOLE AS NECESSARY TO VERIFY.
- CONTRACTOR TO PROTECT FROM DAMAGE ALL STORM DRAINS, BURIED OR EXPOSED PIPES, UTILITY LINES, CULVERTS, FENCING, STRUCTURES AND ALL OTHER ITEMS TO REMAIN. SHOULD CONTRACTOR ENCOUNTER ABANDONED UTILITIES, IMMEDIATELY NOTIFY CITY FOR RESOLUTION.
- ALL MATERIALS NOT IDENTIFIED ON PLANS AS REMOVED OR TO BE STORED ON SITE FOR REUSE SHALL BE RECYCLED TO THE MAXIMUM EXTENT POSSIBLE.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A PERMIT FROM THE CITY OF HALF MOON BAY FOR REMOVAL OF HERITAGE TREES INDICATED ON SHEET LD5.

LAYOUT NOTES

- THIS PLAN IS BASED ON GIS DATA. A SURVEY HAS NOT BEEN OBTAINED.
- PRIOR TO CONSTRUCTION COASTSIDE LAND TRUST WILL OBTAIN A BOUNDARY SURVEY MARKING ALL SURVEY POINTS MARKED ON THE PLAN.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL BOUNDARY SURVEY MARKERS AND ENSURING TRAIL IS INSTALLED OUTSIDE OF PRIVATE PROPERTY.
- WETLANDS ARE TO BE LOCATED AND STAKED BY A BIOLOGIST PRIOR TO CONSTRUCTION.
- BASELINES ARE SET FROM BOUNDARY SURVEY STAKING. ALL DIMENSIONS ARE BASED ARE ON THESE BASELINES OR SET AT 90 DEGREE ANGLES FROM THESE BASELINES.
- ALL DIMENSIONS ARE MEASURED TO TRAIL CENTERLINE.
- CONTRACTOR SHALL VERIFY ALL GRADES, EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO COMMENCING WORK. ALL DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE FOR RESOLUTION.
- CONTRACTOR SHALL STAKE TRAIL, INCLUDING ANY MODIFICATIONS BASED ON SITE CONDITIONS, FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO THE START OF ANY EXCAVATION OR CONSTRUCTION.
- ALL CURVES AND TRANSITIONS BETWEEN CURVES AND STRAIGHT EDGES SHALL BE SMOOTH.
- TRANSITIONS BETWEEN CHANGES IN VERTICAL CURVATURE OF PAVING SHALL BE SMOOTH AND GRADUAL WITH NO SHARP OR ABRUPT CHANGES.
- PRIOR TO PLACING PAVING OR OTHER STRUCTURES BELOW DRIPLINE OF EXISTING TREES, CHECK EXCAVATION ZONE FOR THE EXISTENCE OF SURFACE ROOTS 1 1/2 INCHES IN DIAMETER OR LARGER, AND NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO CUTTING ROOTS.
- TO THE EXTENT FEASIBLE, THE TRAIL SHOULD AVOID AREAS OF PONDED WATER AND FALL LINE ORIENTATIONS (WHERE THE TRAIL DROPS DIRECTLY DOWN A FALL LINE OF THE HILLSIDE).

GRADING NOTES

- THE EXISTING CONTOURS AS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL NOT PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT OBSTRUCTIONS AND OR GRADE DIFFERENCES EXIST. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- NO CHANGE IN CONTRACT PRICE WILL BE ALLOWED FOR ACTUAL OR CLAIMED DISCREPANCY BETWEEN EXISTING GRADE AND THOSE SHOWN ON PLANS AFTER CONTRACTOR HAS ACCEPTED EXISTING GRADES AND MOVED ON TO THE SITE.
- THE CONTRACTOR SHALL STRIP AND REMOVE ALL VEGETATION, ROOTS, BRUSH, AND AND UNSUITABLE EARTH MATERIAL FROM TRAIL TREAD AND SHOULDERS. DEPTH OF STRIPPING IS ASSUMED 4 TO 6 INCHES BUT OVER EXCAVATION MAY BE REQUIRED IN LIMITED AREAS AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- EXISTING DRAINAGE PATTERNS SHALL BE MAINTAINED ACROSS THE SITE, EXCEPT IN AREAS SPECIFICALLY IDENTIFIED FOR REPAIR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MATCHING THE EXISTING SURROUNDING CONDITIONS WITH SMOOTH TRANSITION IN GRADING, PLANTING, ETC., AND SHALL AVOID ANY ABRUPT APPARENT CHANGES IN GRADES OR CROSS SLOPES, LOW SPOTS OR HAZARDOUS CONDITIONS.
- THE CONTRACTOR SHALL EXERCISE DUE CARE TO PRESERVE EXISTING VEGETATION OUTSIDE OF GRADING. NO MATERIAL SHALL BE UNNECESSARILY EXCAVATED.
- ALL EXCESS EARTH MATERIALS TO BE SPREAD ON-SITE TO REPAIR RUTS AND SUBSIDENCE AT EXISTING DISTURBED AREAS.
- ANY SOIL MATERIAL STORAGE OR STAGING SHOULD OCCUR 100 FEET MINIMUM DISTANCE FROM WETLANDS, DEFINED ON PLANS.

EROSION CONTROL NOTES

- CONTRACTOR IS TO PREPARE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR IS TO UPDATE, FILE AND IMPLEMENT THE SWPPP INCLUDING MONITORING, REPORTING, PREPARATION OF THE RAINFALL EVENT ACTION PLANS (REAP) THROUGH FINAL NOTICE OF COMPLETION. CONTRACTOR MUST HAVE QUALIFIED SWPPP PRACTITIONER (QSP) CERTIFICATION.
- DO NOT BEGIN CLEARING, GRADING, OR OTHER WORK INVOLVING DISTURBANCE OF GROUND SURFACE COVER UNTIL APPLICABLE PERMITS HAVE BEEN OBTAINED; FURNISH ALL DOCUMENTATION REQUIRED TO OBTAIN APPLICABLE PERMITS.
- THE CONTRACTOR IS TO OBTAIN AND PAY FOR PERMITS AND PROVIDE SECURITY REQUIRED BY AUTHORITY HAVING JURISDICTION.
- DUST CONTROL PLAN- THE PROPOSED PROJECT CONTRACTOR SHALL PREPARE A DUST CONTROL PLAN PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. THE DUST CONTROL PLAN SHALL INCLUDE ALL APPLICABLE MEASURES LISTED BELOW:
 - WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
 - GRADING AND CONSTRUCTION EQUIPMENT SHALL BE SHUT DOWN WHEN NOT IN USE.
 - CONSTRUCTION ACTIVITIES SHALL NOT OCCUR DURING WINDY PERIODS.
 - EXPOSED SOIL SHALL BE PERIODICALLY SPRINKLED TO RETARD DUST; NO CITY WATER SHALL BE USED FOR THIS.
 - WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
 - COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST 2 FEET OF SPACE FROM THE TOP OF THE HOLDING AREA.
 - APPLY WATER THREE TIMES DAILY ON ALL UNPAVED ACCESS ROADS AND STAGING AREAS AT CONSTRUCTION SITES.
 - SWEEP DAILY (PREFERABLY WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS, STAGING AREAS AT CONSTRUCTION SITES, AND ADJACENT PUBLIC STREETS IF SOIL MATERIAL IS VISIBLE.
 - HYDROSEED OR APPLY SOIL STABILIZERS (NON-TOXIC) TO INACTIVE CONSTRUCTION AREAS.
 - ENCLOSE, COVER, WATER TWICE DAILY, OR APPLY SOIL STABILIZERS (NON-TOXIC) TO EXPOSED STOCKPILES (DIRT, SAND, ETC.).
 - LIMIT TRAFFIC SPEEDS ON UNPAVED ROADS TO 15 MILES PER HOUR (MPH).
 - REPLANT VEGETATION IN DISTURBED AREAS AS QUICKLY AS POSSIBLE.
 - TO MINIMIZE COMBUSTIVE EMISSIONS FROM CONSTRUCTION EQUIPMENT, INTERNAL COMBUSTIVE ENGINES SHOULD BE IDLED AT A MINIMUM AND PROPERLY MAINTAINED AND OPERATED.
- EROSION CONTROL- THE FOLLOWING CONSTRUCTION BEST MANAGEMENT PRACTICES (BMPS) RECOMMENDED BY SAN MATEO COUNTY (AND OTHER BMPS REQUIRED BY THE HALF MOON BAY CITY ENGINEER) SHALL BE EMPLOYED:
 - USING (BUT NOT OVERUSING) RECLAIMED WATER FOR DUST CONTROL.
 - STABILIZING CONSTRUCTION SITES, INCLUDING ENTRANCES AND EXITS.
 - FOLLOWING CONSTRUCTION, STABILIZING DISTURBED SITES WITH NATIVE PLANT MATERIALS, HYDROSEEDING, OR SIMILAR MEASURES.
 - STORING STOCKPILED MATERIALS UNDER TARPS WHEN THEY ARE NOT ACTIVELY BEING USED.
 - BALANCING CUT AND FILL MATERIALS WHEN POSSIBLE.
 - DISPOSING ALL WASTES AND DEBRIS PROPERLY.
 - RECYCLING MATERIALS AND WASTES THAT CAN BE RECYCLED (SUCH AS AGGREGATE BASE MATERIALS, WOOD, ETC.).
 - INSPECTING VEHICLES AND EQUIPMENT FREQUENTLY FOR LEAKS AND REPAIRING PROMPTLY. USE DRIP PANS TO CATCH LEAKS UNTIL REPAIRS ARE MADE.
 - CLEANING UP SPILLS OR LEAKS IMMEDIATELY AND DISPOSING OF CLEANUP MATERIALS PROPERLY.

ENVIRONMENTAL NOTES

- CONTRACTOR TRAINING- PRIOR TO THE START OF GROUNDBREAKING ACTIVITIES, ALL CONSTRUCTION PERSONNEL WILL RECEIVE TRAINING ON LISTED SPECIES AND THEIR HABITATS BY A QUALIFIED BIOLOGIST HIRED BY THE OWNER.
- BIOLOGICAL MONITOR- (MM BIO-1B) THE OWNER WILL HIRE AND PROVIDE A BIOLOGICAL MONITOR TO BE ON-SITE TO ENSURE COMPLIANCE WITH ALL MINIMIZATION MEASURES. THE ON-SITE MONITOR(S) WILL REMAIN ON-SITE FOR THE DURATION OF THE PROPOSED PROJECT, INCLUDING VEGETATION REMOVAL, GRADING AND CLEANUP ACTIVITIES.
- STAGING AREAS- DESIGNATED CONSTRUCTION STAGING AREAS WILL BE UTILIZED AS THE STAGING AREAS FOR THE TRAIL CONSTRUCTION ACTIVITIES. ALL VEHICLES ASSOCIATED WITH PROJECT ACTIVITIES WILL BE CLUSTERED WITHIN THESE AREAS AT THE END OF EACH WORK DAY OR WHEN NOT IN USE TO MINIMIZE HABITAT DISTURBANCE AND WATER QUALITY DEGRADATION. FUELING AND MAINTENANCE OF EQUIPMENT WILL BE CONDUCTED OFF-SITE IF PRACTICABLE, AND AT LEAST 50 FEET FROM ANY WETLAND.
- TRASH- NO TRASH SHALL BE DEPOSITED ON THE SITE DURING CONSTRUCTION ACTIVITIES. ALL TRASH SHALL BE PLACED IN TRASH RECEPTACLES WITH SECURE LIDS STORED IN VEHICLES AND REMOVED NIGHTLY FROM THE PROJECT AREA.
- CONSTRUCTION TIMING- CONSTRUCTION, INCLUDING THE REMOVAL OF VEGETATION AND THE ARRIVAL OF MOTOR VEHICLES AND EQUIPMENT, SHALL OCCUR ONLY FROM SEPTEMBER 1 TO JANUARY 31 TO AVOID THE NESTING SEASON.
- SIGNAGE- POST 48"x36" SIGNS AT EACH TRAIL END AND ALONG TRAIL NEAR AREAS OF SENSITIVE HABITAT, MOUNTED AT EYE LEVEL ON REDWOOD POSTS, INFORMING VISITORS OF PROTOCOL AROUND SENSITIVE HABITAT AND TO STAY ON TRAIL
- PRECONSTRUCTION SURVEYS- CONTRACTOR TO COORDINATE WITH OWNER TO ENSURE NECESSARY PRECONSTRUCTION SURVEYS SHOULD BE SCHEDULED AND OCCUR WITHIN REQUIRED WINDOW BEFORE CONSTRUCTION BEGINS. SURVEYS WILL INCLUDE: CALIFORNIA RED LEGGED FROG (CRLF), SAN FRANCISCO GARNER SNAKE (SFGS), MONARCH BUTTERFLIES, SAN FRANCISCO DUSKY-FOOTED WOODRAT, WESTERN RED BAT, HOARY BAT, AND OTHER SPECIAL STATUS WILDLIFE AND PLANTS AS OUTLINED IN THE MMRP.
- NETTING- TO ENSURE THAT THE CRLF AND SFGS DO NOT GET TRAPPED, THE CONTRACTOR WILL USE ONLY TIGHTLY WOVEN FIBER NETTING OR SIMILAR MATERIAL FOR EROSION CONTROL OR OTHER PURPOSES. PLASTIC MONO-FILAMENT NETTING (EROSION CONTROL MATTING), ROLLED EROSION CONTROL PRODUCTS OR SIMILAR MATERIAL SHALL NOT BE USED IN THE PROJECT AREA BECAUSE CRLF, SFGS, AND OTHER SPECIES MAY BECOME ENTANGLED OR TRAPPED IN IT.
- WILDLIFE EXCLUSION FENCING-
 - CONTRACTOR TO ERECT AND MAINTAIN WILDLIFE EXCLUSION FENCING, INCLUDING THE PROJECT STAGING AREAS AND ACCESS ROUTE, TO PREVENT SFGS AND CRLF FROM ENTERING THE SITE. ANY WETLAND AREAS WITHIN THE LIMIT OF WORK WOULD ALSO BE PROTECTED BY WILDLIFE EXCLUSION FENCING. INSTALLATION OF THE FENCE WILL BE PERFORMED UNDER THE SUPERVISION OF A USFWS- AND CDFW-APPROVED BIOLOGIST. ONCE THE FENCING IS INSTALLED, WORKERS WILL CLEAR ALL VEGETATION WITHIN THIS AREA WITH BELT DRIVEN WEED WHACKERS OR OTHER HAND TOOLS TO A HEIGHT OF 4 TO 6 INCHES. VEGETATION REMOVED WILL BE PLACED DIRECTLY INTO A DISPOSAL VEHICLE AND REMOVED FROM THE SITE. VEGETATION WILL NOT BE PILED ON THE GROUND UNLESS IT IS LATER TRANSFERRED, PIECE BY PIECE, UNDER THE DIRECT SUPERVISION OF TRAINED BIOLOGICAL MONITOR. FOLLOWING THE REMOVAL OF VEGETATION, PRE-CONSTRUCTION SURVEYS WILL BE PERFORMED PRIOR TO THE START OF ANY GROUND BREAKING ACTIVITIES BY A USFWS-APPROVED BIOLOGIST. FENCING WILL BE EQUIPPED WITH ONE-WAY ESCAPE FUNNELS. FENCING WILL EXTEND A MINIMUM OF 36 INCHES ABOVE GROUND LEVEL AND WILL BE BURIED 4 TO 6 INCHES INTO THE GROUND. EXCLUSION FENCING WILL BE CHECKED DAILY PRIOR TO CONSTRUCTION WORK, BY A TRAINED BIOLOGICAL MONITORS PROVIDED BY CLT FOR THE DURATION OF THE PROJECT TO IDENTIFY PROBLEMS OR WEAKNESSES IN FENCE INTEGRITY AND FUNCTION, AND TO ENSURE THAT NO SFGS HAVE ENTERED THE AREA. CONTRACTOR WILL REPAIR OR REPLACE ALL COMPROMISED PORTIONS IMMEDIATELY.
 - UPON COMPLETION OF CONSTRUCTION AND RESTORATION, ALL FENCING MATERIAL WILL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.
- SFGS AND CRLF PROTECTION-
 - CULVERTS OR SIMILAR STRUCTURES THAT ARE STORED AT CONSTRUCTION SITE FOR ONE ORE MORE OVERNIGHT PERIODS WILL BE STORED IN STAGING AREA ENCIRCLED BY EXCLUSION FENCE AND EITHER SECURELY CAPPED PRIOR TO STORAGE OR THOROUGHLY INSPECTED BY BIOLOGIST BEFORE MOVED OR USED IN ANY WAY.
 - TO PREVENT INADVERTENT TRAPPING OF SFGS AND CRLF DURING CONSTRUCTION, CONTRACTOR SHALL ENSURE THAT ALL EXCAVATED, STEEP-WALLED HOLES OR TRENCHES MORE THAN 1 FOOT DEEP ARE COMPLETELY COVERED AT THE CLOSE OF EACH WORKING DAY BY PLYWOOD OR SIMILAR MATERIALS, OR PROVIDED WITH ONE OR MORE ESCAPE RAMPS CONSTRUCTED OF EARTH FILL OR WOODEN PLANKS AS DIRECTED BIO ON-SITE BIOLOGIST.
- DEVELOPMENT NEAR WETLANDS- MINIMIZE VEGETATION REMOVAL, CONFORM TO NATURAL TOPO, MINIMIZE EROSION, KEEP RUNOFF AND SEDIMENTATION FROM EXCEEDING PREDEVELOPMENT LEVELS, PLANT NON-INVASIVE NATIVES WHERE APPROPRIATE, PREVENT DISCHARGE OF TOXIC SUBSTANCES (IE. FERTILIZERS, PESTICIDES, ETC.)
- ESHA- RESTRICT SITE GRADING TO BETWEEN 5/1-12/31, INSTALL SILT FENCING ALONG ESHA (ENVIRONMENTALLY SENSITIVE HABITAT) PERIMETER, MINIMIZE SOIL DISTURBANCE, SOLID MATERIALS SHOULD NOT BE STORED NEAR WETLAND, FLUID MATERIALS SHOULD NOT BE SPILLED OR DISPOSED OF ON SITE, IN THE EVENT OF A SPILL, CLEAN AND DISPOSE OF PROPERLY TO RESTORE TO NATURAL CONDITION
- TEMPORARY DISTURBANCE- REDUCE CONSTRUCTION ACCESS DISTURBANCE TO SEASONAL WETLANDS, INSTALL METAL OR PLYWOOD CLEARSPAN, WHERE NECESSARY. RESEED WETLANDS FOLLOWING CONSTRUCTION TO ENSURE ONLY TEMPORARY DISTURBANCE
- PERMANENT DISTURBANCE- MINIMIZE PERMANENT IMPACTS TO SEASONAL WETLANDS BY CONSTRUCTING FORMAL TRAILS. FENCE, RIP AND SEED ABANDONED EXISTING TRAILS
- CULTURAL RESOURCES. IF AN ARCHAEOLOGICAL SITE(S), PALEONTOLOGICAL RESOURCES OR HUMAN REMAINS ARE FOUND ON SITE DURING EXCAVATION CONTRACTOR MUST STOP WORK AND NOTIFY OWNER'S REPRESENTATIVE FOR RESOLUTION.
- TRAFFIC CONTROL PLAN- CONSTRUCTION CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A TRAFFIC CONTROL PLAN (TCP) APPROVED BY THE CITY TRAFFIC ENGINEER, PRIOR TO THE START OF CONSTRUCTION. THE TCP SHALL INCLUDE TRAFFIC CONTROL MEASURES IN ORDER TO ENSURE TRAFFIC SAFETY DURING ALL CONSTRUCTION PHASES. THE TRAFFIC CONTROL DEVICES MAY INVOLVE SIGNAGE, USE OF DELINEATORS, FLASHING ARROWS, AND/OR TEMPORARY LANE LINES AT THE DISCRETION OF THE CITY TRAFFIC ENGINEER. THE TCP SHALL BE APPROVED BY THE CITY TRAFFIC ENGINEER. THE TCP SHALL INCLUDE PROVISIONS FOR ADVANCED NOTIFICATION (SIGNAGE) OF THE PROPOSED DETOUR ROUTES AND COORDINATION WITH EMERGENCY SERVICE PROVIDERS.
- TRAFFIC - THE PROJECT SHALL BE CONSTRUCTED IN A MANNER TO AVOID A SUBSTANTIAL INCREASE IN CONSTRUCTION-PERIOD TRAFFIC CONGESTION.
 - THE CONSTRUCTION ACCESS PLANS (CA1) IDENTIFY LOCATIONS FOR CONTRACTOR PARKING ON SITE FOR THE DURATION OF THE CONSTRUCTION PERIOD SO THAT PARKING DOES NOT AFFECT THE OPERATION ALONG LOCAL ROADS.
 - VEHICLE TRIPS TO AND FROM THE SITE FOR PURPOSES OF TRANSPORTING CUT AND FILL WOULD BE PROHIBITED DURING PEAK TRAFFIC AM AND PM PEAK HOURS.
 - IN THE EVENT OF LANE CLOSURES DUE TO DELIVERIES, ADEQUATE NUMBER OF FLAGGERS AND THE APPROPRIATE SIGNAGE WOULD BE REQUIRED TO ENSURE THE SAFE PASSAGE OF VEHICLES, BICYCLISTS, AND PEDESTRIANS.

PLANTING NOTES

- NO SUBSTITUTE PLANT MATERIALS WILL BE PERMITTED UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE.
- SEE' SPECS FOR SEED MIX AND SOIL PREPARATION INSTRUCTIONS
- THE OWNER WILL PROVIDE MAINTENANCE/ MONITORING PERIOD OF 1 YEAR FROM DATE OF PLANTING ACCEPTANCE. CONSTRUCTION ACCESS AND STAGING AREAS MUST HAVE A MINIMUM OF 50% ABSOLUTE PLANT COVER WITHIN ONE YEAR. IN ADDITION THESE AREAS MUST BE MONITORED BY THE CONTRACTOR TO ENSURE NO EXCESSIVE EROSION OCCURS WITHIN ONE YEAR OF COMPLETION OF RESTORATION ACTIVITIES. THE CONTRACTOR IS RESPONSIBLE FOR RESEEDING IN AREAS THAT DO NOT MEET THIS MINIMUM REQUIREMENT.



PROJECT TITLE:
Wavcrest Coastal Trail Phase 2
Coastside Land Trust

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DRAWING TITLE:
Notes

SCALE:

DATE: 6/23/23

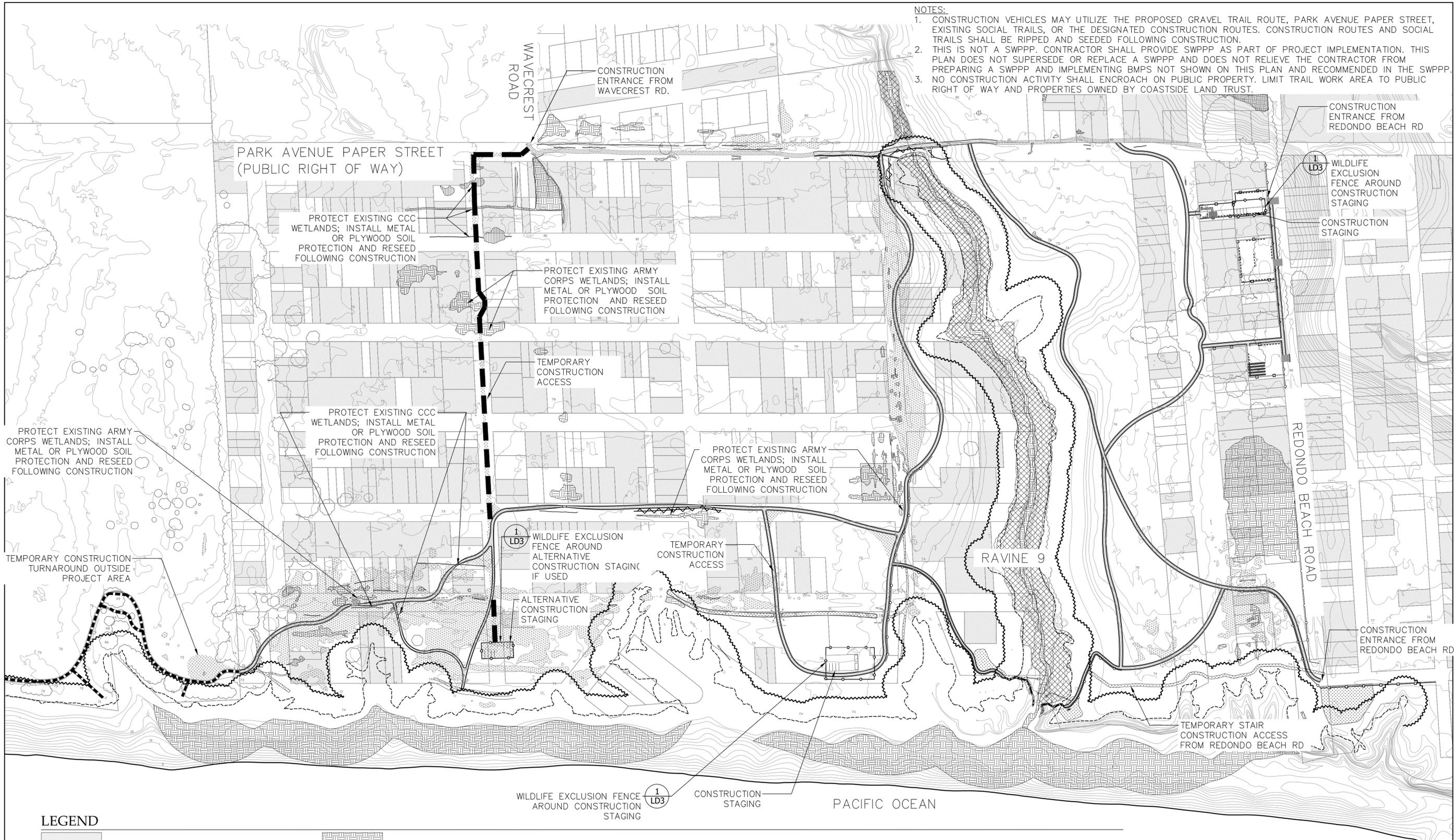
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DRAWING NO.:

T2

SHEET 2 OF 29 SHEETS

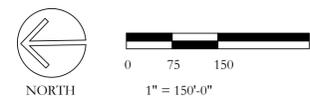


- NOTES:**
1. CONSTRUCTION VEHICLES MAY UTILIZE THE PROPOSED GRAVEL TRAIL ROUTE, PARK AVENUE PAPER STREET, EXISTING SOCIAL TRAILS, OR THE DESIGNATED CONSTRUCTION ROUTES. CONSTRUCTION ROUTES AND SOCIAL TRAILS SHALL BE RIPPED AND SEEDED FOLLOWING CONSTRUCTION.
 2. THIS IS NOT A SWPPP. CONTRACTOR SHALL PROVIDE SWPPP AS PART OF PROJECT IMPLEMENTATION. THIS PLAN DOES NOT SUPERSEDE OR REPLACE A SWPPP AND DOES NOT RELIEVE THE CONTRACTOR FROM PREPARING A SWPPP AND IMPLEMENTING BMPs NOT SHOWN ON THIS PLAN AND RECOMMENDED IN THE SWPPP.
 3. NO CONSTRUCTION ACTIVITY SHALL ENCROACH ON PUBLIC PROPERTY. LIMIT TRAIL WORK AREA TO PUBLIC RIGHT OF WAY AND PROPERTIES OWNED BY COASTSIDE LAND TRUST.

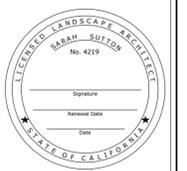
LEGEND

	PRIVATE PROPERTY (NO ACCESS)		ARMY CORPS WETLANDS		CONSTRUCTION ACCESS ROUTE; MAXIMUM 12' WIDTH		WILDLIFE EXCLUSION FENCING
	EXISTING CONTOUR (1' INTERVAL) CONTOURS AT BLUFF NOT SHOWN		CCC WETLANDS		ESTIMATED AREA OF NEW DISTURBANCE FROM CONSTRUCTION ACTIVITY. RIP AND RESEED FOLLOWING CONSTRUCTION		STRAW WATTLE
	EXISTING VEGETATION TO REMAIN		CDFW WETLANDS		EXISTING SOCIAL TRAILS OR DISTURBED AREAS THAT MAY BE USED FOR CONSTRUCTION: RIP AND SPREAD EXCESS EARTH MATERIAL TO MATCH GRADE FOLLOWING CONSTRUCTION, RESEED.		GRAVEL TRAIL
	EXISTING BLUFF EDGE		CHORIS' POPCORN FLOWER		PARK AVENUE "PAPER STREET" SERVICE ROAD IMPROVEMENTS		PUNCHEON (CONFIRM LIMIT WITH BIOLOGIST)
	60' BLUFF BUFFER				EXISTING TRAIL TO REMAIN		

SEE SHEET T2
FOR NOTES



PLACEWORKS
2040 BANCROFT WAY #400
BERKELEY, CA 94704
PHONE (510) 848-5315



PROJECT TITLE:
Wavecrest Coastal Trail Phase 2
Coastside Land Trust

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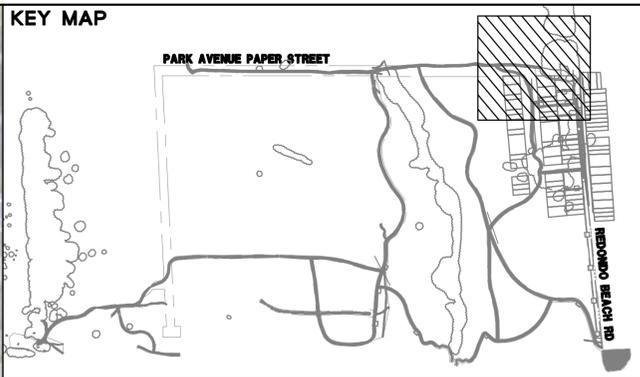
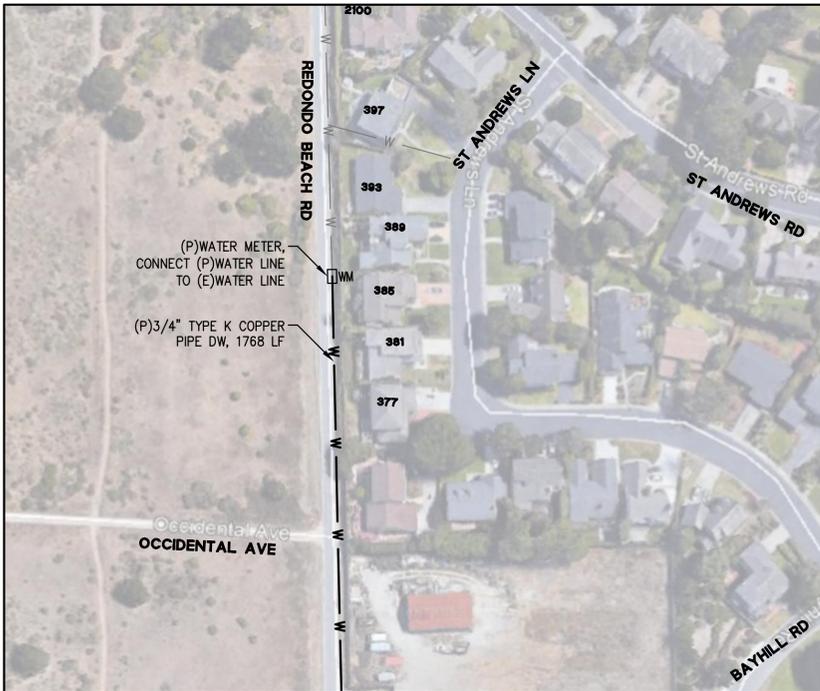
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Construction Access

SCALE: 1"=150'
DATE: 6/23/23

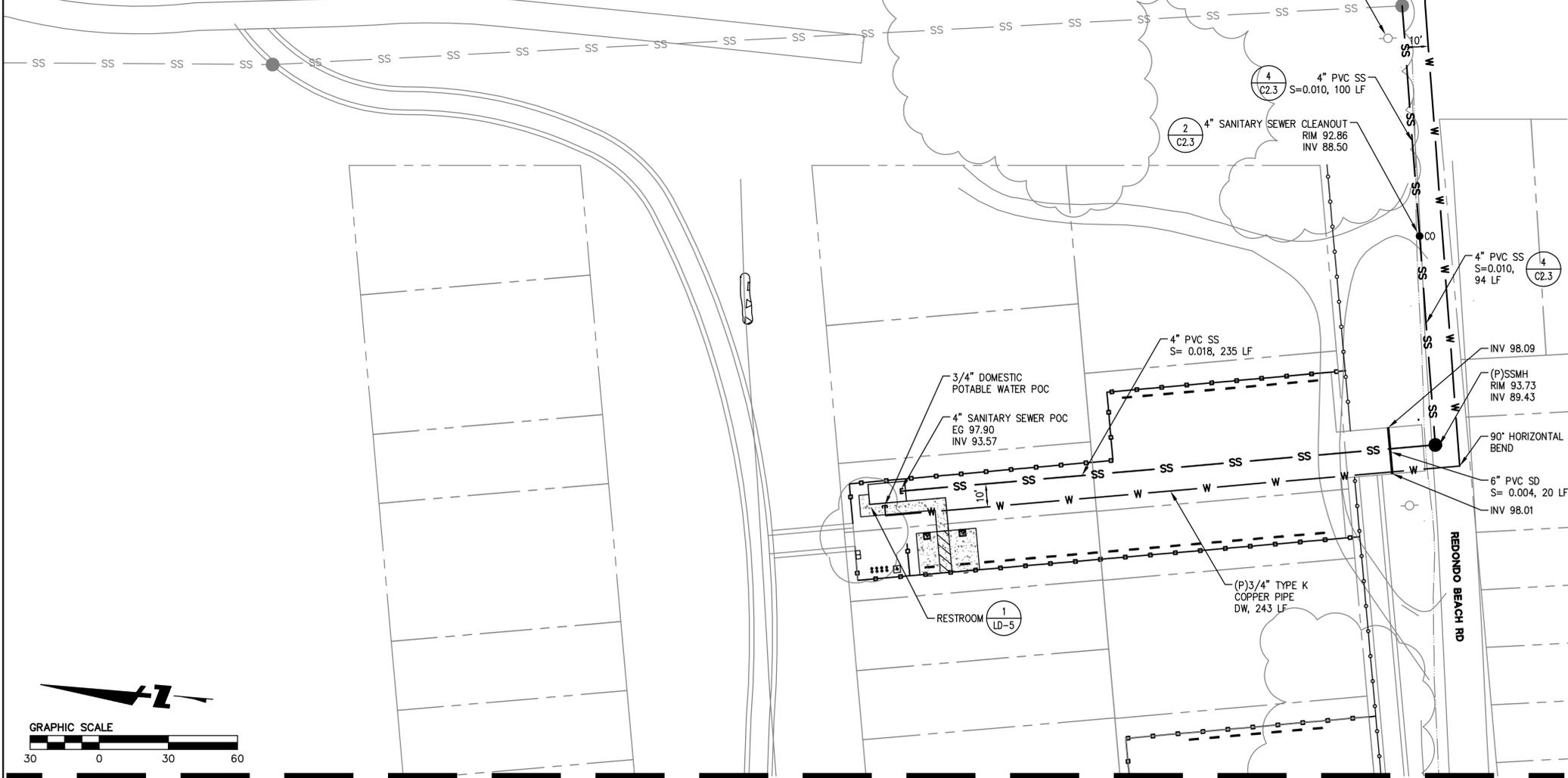
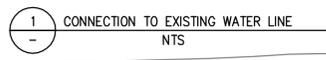
REVISIONS:
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DRAWING NO:
CA1
SHEET 3 OF 29 SHEETS

95% Submittal



- NOTES:**
- EXISTING WATER LINE ASSUMED TO BE WITHIN REDONDO BEACH ROAD, CONTRACTOR TO VERIFY IN FIELD PRIOR TO CONNECTING THE PROPOSED WATER LINE. CONTRACTOR TO TRENCH PER DISTRICT DETAIL AND REPAVE REDONDO BEACH ROAD AS NECESSARY.



GENERAL NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR THE INTENT OF THESE PLANS AND SHALL REPORT ANY DISCREPANCIES FOUND IN THEM TO THE DISTRICT PRIOR TO CONSTRUCTION.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE STANDARD PLANS, SPECIFICATIONS AND REQUIREMENTS SET FORTH IN THE CITY OF HALF MOON BAY ENGINEERING STANDARDS.
- EXISTING UTILITY INFORMATION SHOWN IS BASED ON UTILITY MAPS AND FIELD OBSERVATIONS CONTRACTOR TO VERIFY IN FIELD.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING/ REPLACING DAMAGED LANDSCAPING, FENCES, DRIVEWAYS, CURB, SIDEWALK AND PAVEMENT RESULTING FROM CONSTRUCTION OPERATIONS TO THE CONDITION IN WHICH THEY WERE, OR BETTER, PRIOR TO CONSTRUCTION. SEPARATE PAYMENT FOR RESTORATION OF EXISTING IMPROVEMENTS TO THEIR ORIGINAL CONDITION SHALL NOT BE MADE.
- NOT ALL EXISTING IMPROVEMENTS ARE SHOWN. CONTRACTOR SHALL INSPECT THE SITE IN ORDER TO SATISFY THEMSELVES OF THE ACTUAL CONDITIONS OF THE WORK.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING GRADES AND SITE CONDITIONS PRIOR TO CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES WITH THE APPROPRIATE UTILITY AGENCIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITY OWNERS 48 HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO THE UTILITY. CONTACT UNDERGROUND SERVICE ALERT (USA) AT 800-642-2444.
- THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE CONDITIONS FOR THE PROTECTION OF PROPERTY, AND FOR THE SAFETY OF PERSONS (WORKMEN AND THE GENERAL PUBLIC) THROUGHOUT THE COURSE OF CONSTRUCTION. THE CONTRACTOR SHALL INDEMNIFY AND DEFEND THE OWNER, CIVIL ENGINEER AND THEIR ASSIGNED AGENTS AND EMPLOYEES, FROM ANY LIABILITY CLAIMS, REAL OR ALLEGED, ARISING FROM THE PERFORMANCE OF THE WORK, EXCEPT IN THE CASE OF SOLE NEGLIGENCE BY THE OWNER, CIVIL ENGINEER AND THEIR ASSIGNED AGENTS OR EMPLOYEES.
- CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND UTILITY STRUCTURES WITHIN AND ADJACENT TO PROJECT AREAS. ANY DAMAGE TO UTILITIES OR UTILITY STRUCTURES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ENCROACHMENT, EXCAVATION, PLUMBING, ETC PERMITS NECESSARY PRIOR TO BEGINNING CONSTRUCTION.
- STORAGE OF CONSTRUCTION MATERIAL AND EQUIPMENT ON CITY STREETS OR ADJACENT PARK OR OPEN SPACE LANDS WILL NOT BE PERMITTED WITHOUT FIRST OBTAINING EXPRESS WRITTEN CONSENT.
- CONSTRUCTION EQUIPMENT, TOOLS, TRUCKS, ETC SHALL NOT BE CLEANED, RINSED, OR DISCHARGED INTO THE STREET, GUTTER OR STORM DRAIN.
- CONTACT SEWER AUTHORITY MID-COASTSIDE FORTY-EIGHT (48) HOURS PRIOR TO INSTALLATION OR CONNECTION FOR INSPECTION OF SANITARY SEWER LINES AND CONNECTIONS. FOR SANITARY LINE WORK IN THE PUBLIC RIGHT OF WAY CONTACT THE SEWER AUTHORITY MID-COASTSIDE FOR INSPECTION.
- CONTRACTOR MUST MAINTAIN EXISTING SANITARY SEWER FLOWS AT ALL TIMES DURING CONSTRUCTION. NOTIFY PUBLIC AND PRIVATE UTILITY OWNERS OF ANY INTERRUPTION OF SEWER SERVICES PRIOR TO ANY WORK ON EXISTING SEWER PIPES.
- CONTRACTOR SHALL MAKE ARRANGEMENTS WITH COASTSIDE COUNTY WATER DISTRICT AT LEAST TWO WORKING DAYS PRIOR TO ANY WATER LINE TIE-INS AND ANY TASK IN WHICH PARTICIPATION BY CITY FORCES IS NECESSARY.
- COORDINATE THE EXACT UTILITY POINT OF CONNECTION LOCATIONS WITH THE BUILDING LAYOUT PLAN, SEE LANDSCAPE PLANS.
- SEE LANDSCAPE PLANS FOR ADDITIONAL TRAIL IMPROVEMENT INFORMATION AND LAYOUT.
- CONTRACTOR TO VERIFY INVERT AT EXISTING SANITARY SEWER LINE CONNECTION AND NOTIFY ENGINEER IF ANY DISCREPANCIES ARE FOUND.
- CONTRACTOR TO COORDINATE INVERT OF THE SANITARY SEWER LINE AT THE RESTROOM WITH THE REQUIREMENTS DETERMINED BY THE RESTROOM MANUFACTURER.

ABBREVIATIONS:

AB	AGGREGATE BASE	JP	JOINT POLE	SF	SQUARE FEET
AC	ASPHALT CONCRETE	LF	LINEAR FEET	SL	STREET LIGHT
BFP	BACKFLOW PREVENTER	OH	OVERHEAD	SS	SANITARY SEWER
CSD	CITY STANDARD DETAIL	(P)	PROPOSED	SSMH	SANITARY SEWER MANHOLE
DW	DOMESTIC WATER	POC	POINT OF CONNECTION	W	WATER
(E), EX	EXISTING	PVC	POLYVINYL CHLORIDE	WM	WATER METER
EP	EDGE OF PAVEMENT	S	SLOPE	WV	WATER VALVE
FL	FLOW LINE	SD	STORM DRAIN	VIF	VERIFY IN FIELD
GR	GRATE ELEVATION	SDAD	STORM DRAIN AREA DRAIN		
HDPE	HIGH DENSITY POLYETHYLENE	SDDI	STORM DRAIN DRAINAGE INLET		
INV	INVERT				

LEGEND:

	EXISTING	PROPOSED
SANITARY SEWER	—SS—SS—	—SS—SS—
WATER	—W—W—	—W—W—
FENCE	—X—X—X—	—X—X—X—
PROPERTY LINE	— — — — —	— — — — —
FLOWLINE	— — — — —	— — — — —
DRAINAGE SWALE	— — — — —	— — — — —
CLEANOUT		● CO
POC		□ WM
WATER METER		●
STREET LIGHT	☆	☆
JOINT POLE	○	○
SSMH	●	●
SURFACE FLOW	0.0%	0.0%



MATCHLINE SEE C1.1

95% Submittal

DRAWING NAME: \\Bkf-rc\vol14\2018\181554\Wavcrest-Trai\ENG\SHETS\C1_0-Util.dwg PLOTTED BY: cent 10-24-22

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REGISTERED PROFESSIONAL ENGINEER
JASON CONRAD MANFRED
No. C 59567
EXP. 12-31-23
CIVIL
STATE OF CALIFORNIA

PROJECT TITLE:
Wavcrest Coastal Trail Phase 2
Coastside Land Trust

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DRAWING TITLE:
Utility Plan

SCALE: AS SHOWN

DATE: 10/21/22

REVISIONS:

DRAWING NO:
C1.0

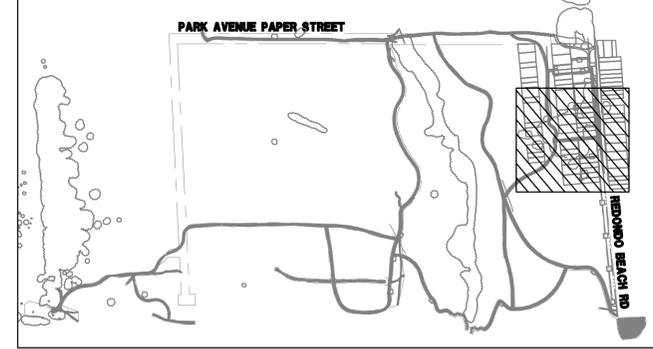
SHEET 3 OF 41 SHEETS

DRAWING NAME: \\Bkf-rc\vol4\2018\181554.Wavecrest-Trai\ENG\SHETS\C1.0-Util.dwg
 PLOT DATE: 10-24-22 PLOTTED BY: cent

MATCHLINE SEE C1.0



KEY MAP



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DRAWING TITLE:
Utility Plan

SCALE: AS SHOWN

DATE: 10/21/22

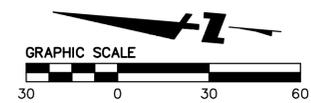
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DRAWING NO:

C1.1

SHEET 4 OF 41 SHEETS



DRAWING NAME: \\Bkf-trc\vol14\2018\181554\Wavcrest-Trai\ENG\SHETS\C2.0-Detail1.dwg
 PLOT DATE: 10-24-22 PLOTTED BY: cent

PARKING LOT 1 DRAINAGE FLOWS (i = 2.14 IN/HR)

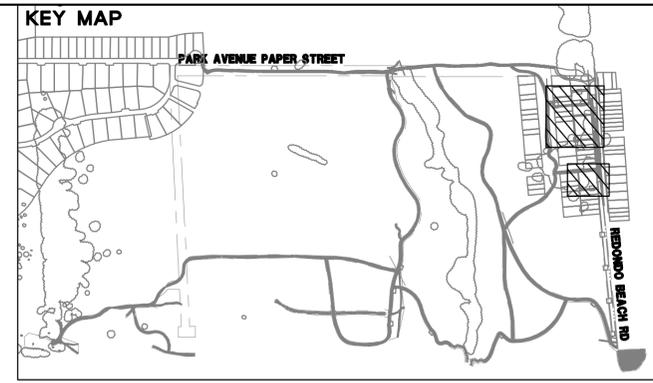
	TOTAL AREA (ACRE)	RUNOFF COEFFICIENT	FLOW 10-YEAR (CFS)
EXISTING	17,330	0.10	0.085
PROPOSED	17,330	0.34	0.289

PARKING LOT 2 DRAINAGE FLOWS (i = 2.14 IN/HR)

	TOTAL AREA (ACRE)	RUNOFF COEFFICIENT	FLOW 10-YEAR (CFS)
EXISTING	17,020	0.10	0.084
PROPOSED	17,020	0.36	0.301

PARKING LOT 3 DRAINAGE FLOWS (i = 2.14 IN/HR)

	TOTAL AREA (SF)	RUNOFF COEFFICIENT	FLOW 10-YEAR (CFS)
EXISTING	12,555	0.10	0.062
PROPOSED	12,555	0.37	0.228

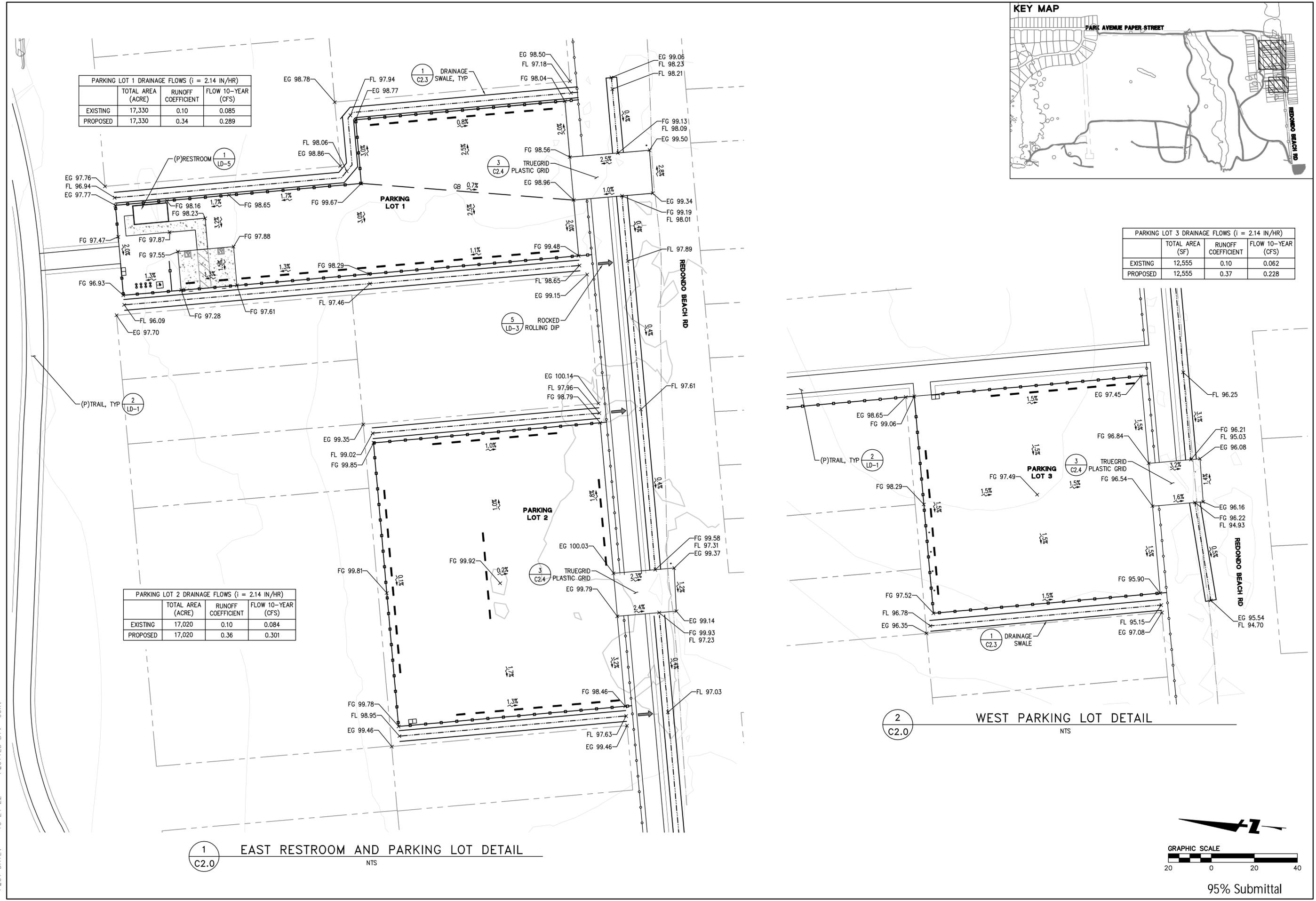


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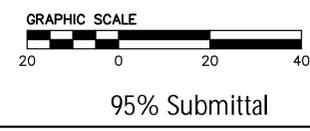
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Parking Lot 1, 2, & 3 Grading Detail

SCALE: AS SHOWN
 DATE: 10/21/22
 REVISIONS:
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 DRAWING NO:
C2.0
 SHEET 5 OF 41 SHEETS

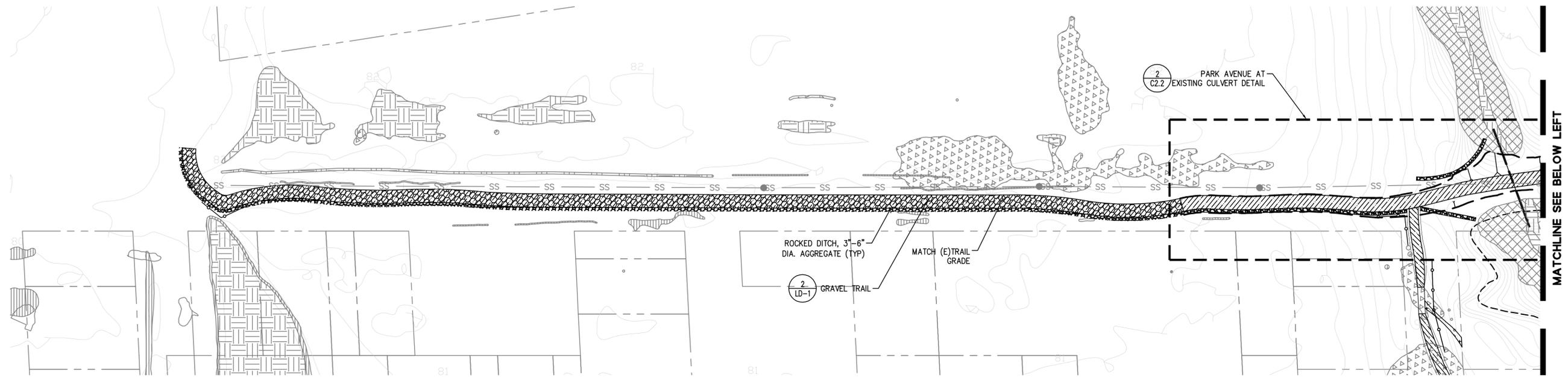


1 EAST RESTROOM AND PARKING LOT DETAIL
 C2.0 NTS

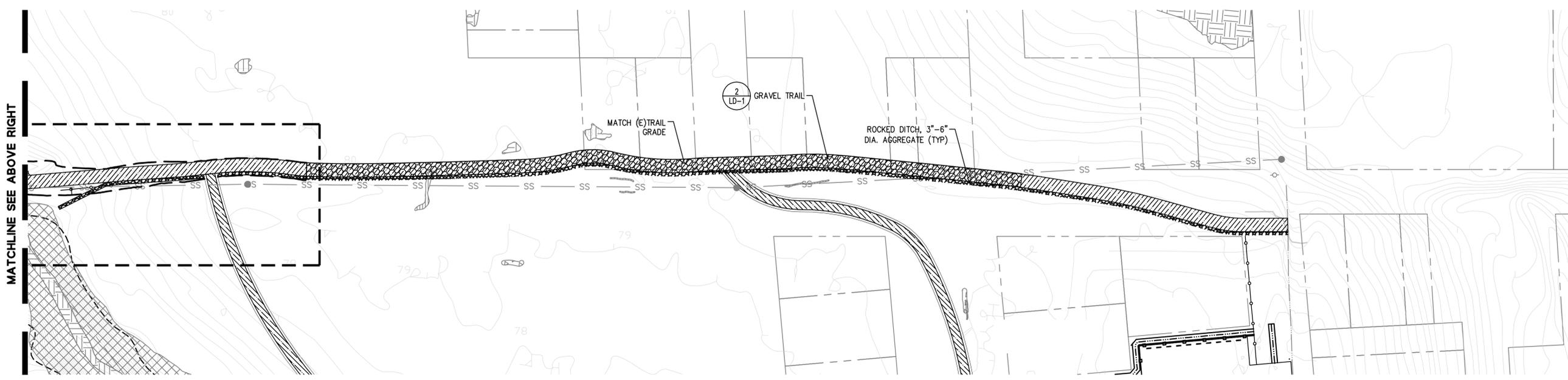
2 WEST PARKING LOT DETAIL
 C2.0 NTS



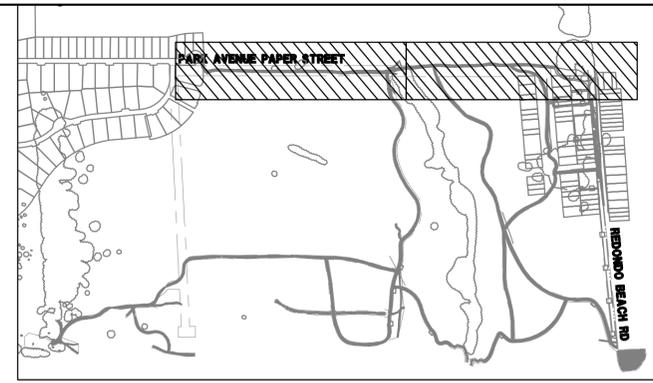
DRAWING NAME: \\Bkf-rc\vol14\2018\181554.Wavecrest-Trai\ENG\SHEETS\C2.0-Detail1.dwg
 PLOT DATE: 10-24-22 PLOTTED BY: cent



1 PARK AVENUE IMPROVEMENTS
 C2.1 NTS



2 PARK AVENUE IMPROVEMENTS
 C2.1 NTS



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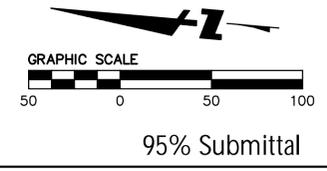
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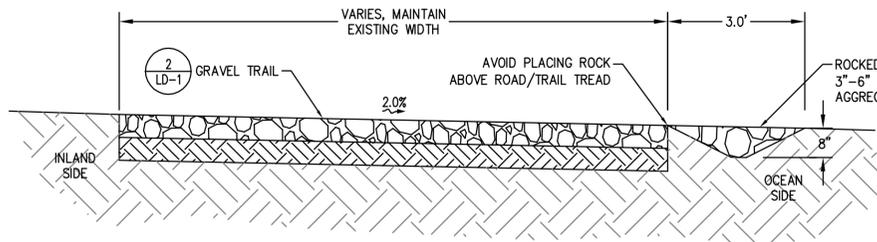
DRAWING TITLE:
Park Avenue Improvements

SCALE: AS SHOWN
 DATE: 10/21/22
 REVISIONS:
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DRAWING NO:
C2.1
 SHEET 6 OF 41 SHEETS

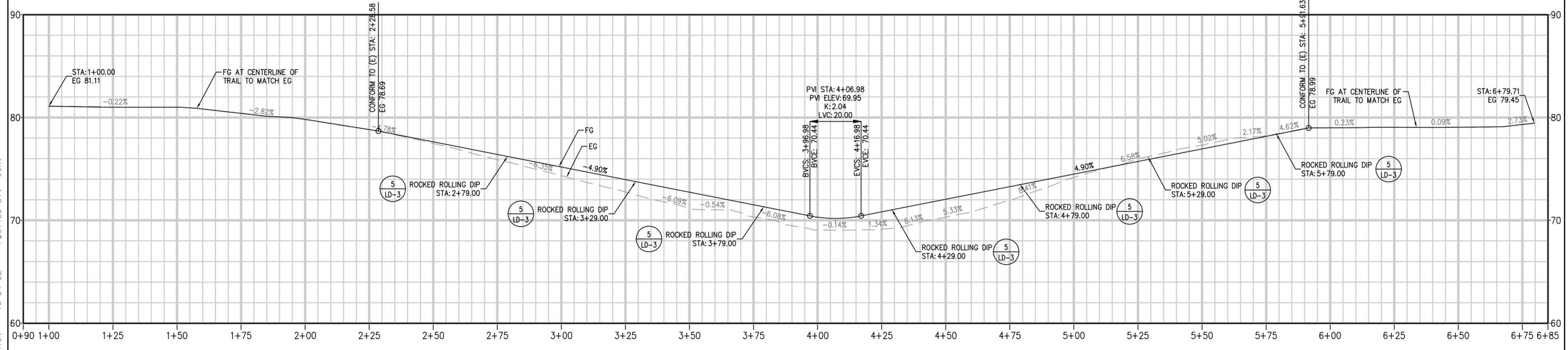
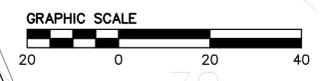
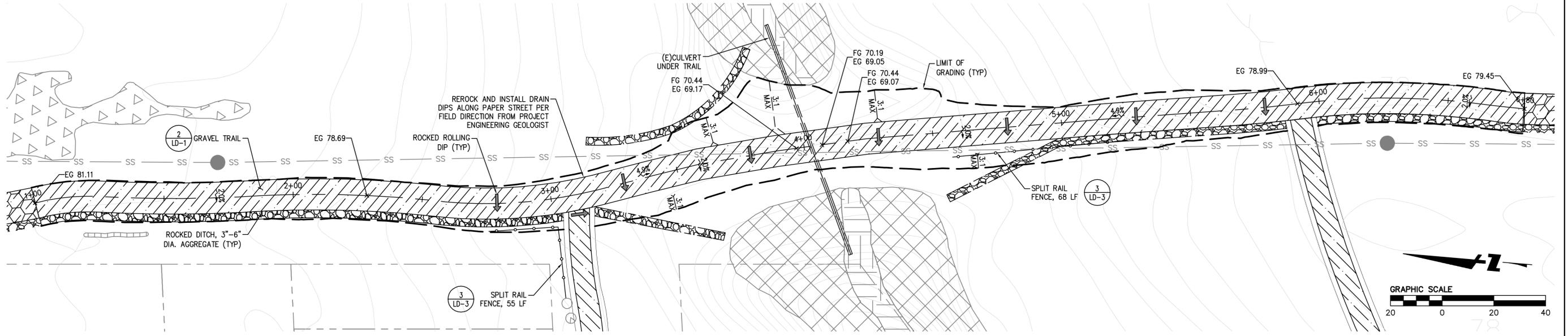
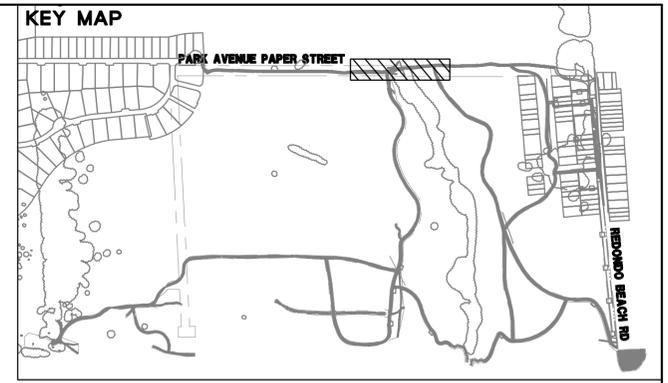
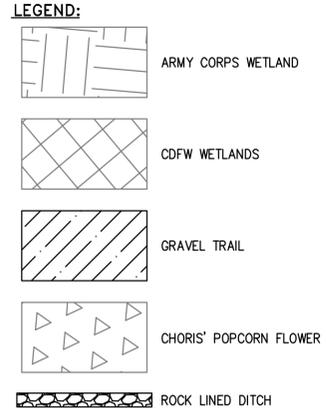


DRAWING NAME: \\Bkf-trc\vol14\2018\181554\Wavcrest-Trai\ENG\SHETS\C2.0-Details.dwg
 PLOT DATE: 10-24-22
 PLOTTED BY: cent



- NOTES:
1. SLOPE DITCH TO DRAIN 3% MIN
 2. ARMOR DITCH WHERE SPECIFIED BY CONSULTANT IN FIELD.
 3. DRAIN DITCH TO EXISTING CULVERT OUTLET AS SPECIFIED BY CONSULTANT IN FIELD.

1 PARK AVENUE IMPROVEMENTS TYPICAL SECTION
 C2.2 NTS



PROFILE
 SCALE: 1" = 20' HORIZ.
 1" = 4' VERT.

95% Submittal

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PROJECT TITLE:
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 Coastside Land Trust

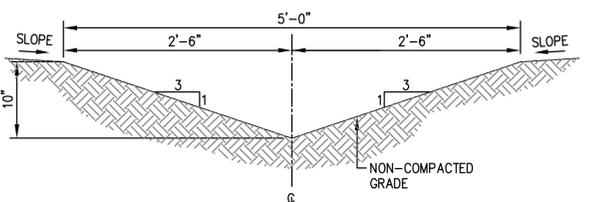
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DRAWING TITLE:
Park Avenue Grading Detail

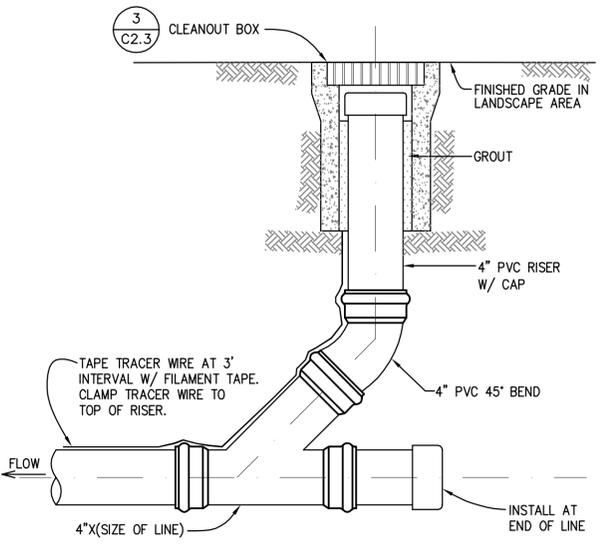
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 DATE: 10/21/22
 REVISIONS:

DRAWING NO:
C2.2
 SHEET 7 OF 41 SHEETS

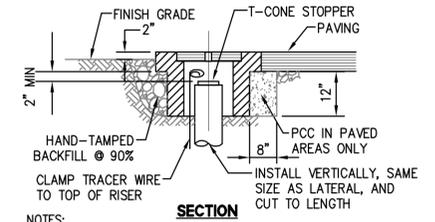
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 PLOTTED BY: cent



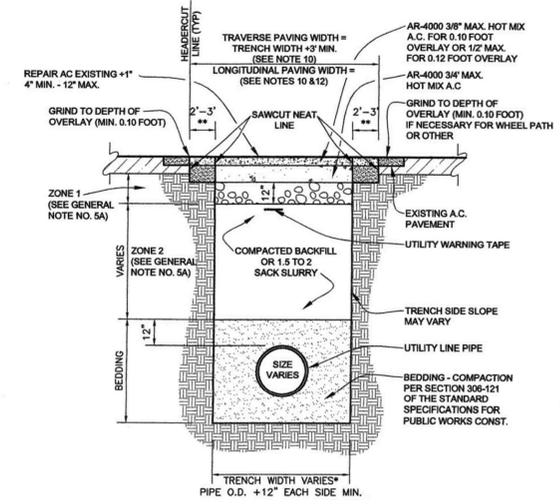
1
C2.3
DRAINAGE SWALE
NTS



2
C2.3
SEWER CLEANOUT DETAIL
NTS



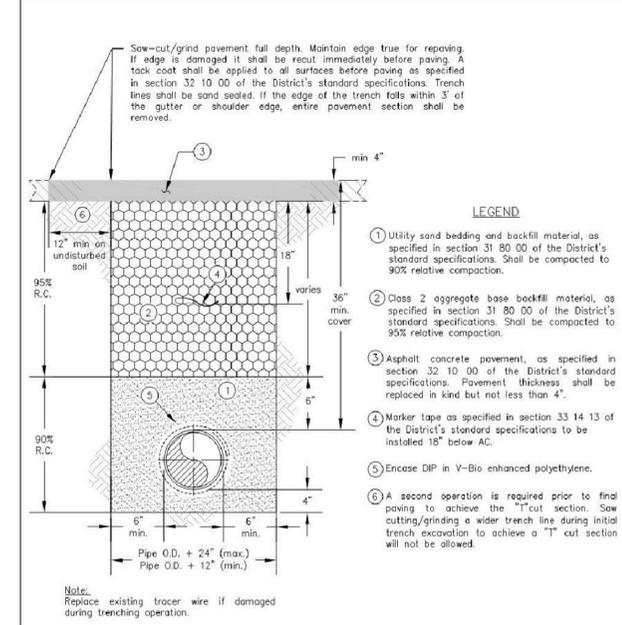
3
C2.3
CLEANOUT BOX
NTS



*NOTE: ACTUAL TRENCH WIDTH TO BE AT ENGINEER'S DISCRETION. SEE SHEETS 2 AND 3 OF 3 FOR GENERAL NOTES.
 **NOTE: ACTUAL GRINDING WIDTHS TO BE DETERMINED BY AGE OF PAVEMENT AND LOCATION OF TRENCH TO VEHICLE PATH. FULL DEPTH +1" A.C. REPAIR 2" WHEN < 42" DEPTH 3" WHEN > 42" DEPTH

4
C2.3
SEWER TRENCH SECTION FOR WORK WITHIN COUNTY OF SAN MATEO RIGHT OF WAY

- NOTES:**
- ALL EXCAVATION WITHIN THE CITY OF HALF MOON BAY RIGHT-OF-WAY REQUIRES AN EXCAVATION PERMIT FROM THE ENGINEERING DEPARTMENT.
 - UNDERGROUND SERVICE ALERT SHALL BE NOTIFIED 2 WORKING DAYS PRIOR TO START OF WORK 1-800-227-2800.
 - ALL EXCAVATIONS SHALL BE MADE, PROTECTED, AND SUPPORTED AS REQUIRED FOR SAFETY AND IN THE MANNER SET FORTH IN THE OPERATIONS RULES, ORDERS, AND REGULATIONS PRESCRIBED BY THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY.
 - COMPACTION OF BACKFILL SHALL BE VERIFIED BY A GEOTECHNICAL ENGINEER FOR THE CONTRACTOR AND APPROVED BY CITY ENGINEER PRIOR TO THE PLACING OF PERMANENT PAVEMENT.
 - A) BACKFILL ZONE 1 SHALL CONSIST OF CLASS II CRUSHED AGGREGATE OR MISCELLANEOUS BASE COMPACTED TO 95% OF RELATIVE COMPACTION, IN MAXIMUM LIFTS OF 6" AND CERTIFIED. B) BACKFILL IN ZONE 2 SHALL CONSIST OF CLASS II CRUSHED AGGREGATE BASE COMPACTED TO 90% OF RELATIVE COMPACTION, IN MAXIMUM LIFTS OF 12" AND CERTIFIED. IN SOME CASES NATIVE MATERIAL MAY BE ACCEPTABLE IF APPROVED BY THE CITY ENGINEER AND THE NATIVE MATERIAL MEETS CALTRANS SPECIFICATIONS FOR TRENCH BACKFILL.
 - BEDDINGS SHALL BE PER PLANS AND SPECIFICATIONS, AND SHALL ONLY EXTEND 12" ABOVE THE TOP OF THE PIPELINE OR CONDUIT. NO JETTING OF BACKFILL MATERIAL WILL BE ALLOWED.
 - A MINIMUM 2-INCH THICKNESS OF TEMPORARY ASPHALT PAVING SHALL BE PLACED WITHIN THE TRENCH AREA IMMEDIATELY UNTIL PERMANENT REPAIR IS COMPLETED. THE TEMPORARY PAVING SHALL BE PLACED AND COMPACTED IN SUCH A MANNER AS TO PROVIDE A SAFE AND SMOOTH TRAVELED SURFACE, FLUSH WITH THE SURROUNDING PAVEMENT. PERMITTEE SHALL MAINTAIN THE TEMPORARY PAVING IN A SAFE AND SMOOTH CONDITION UNTIL PERMANENT PAVING IS IN PLACE.
 - PRIOR TO PLACEMENT OF PERMANENT PAVING, EXISTING PAVING SHALL BE GROUND TO THE APPROPRIATE HEADER CUT WIDTH. PAVEMENT CRACKED ADJACENT TO THE TRENCH SHALL BE REMOVED.
 - ALL EDGES OF EXISTING PAVEMENT BEING JOINED AND SURFACE BEING OVERLAPD SHALL RECEIVE A TACK COAT OF ASPHALT EMULSION.
 - TRENCHES OF 300 FEET OR MORE SHALL BE PAVED WITH A SELF-PROPELLED PAVING MACHINE.
 - ANY STREET PAVED WITH ASPHALTIC CONCRETE IN THE PREVIOUS 60 MONTHS OR RESURFACED WITH AN ASPHALTIC EMULSION (SLURRY AND CAPE SEALS) IN THE PREVIOUS 36 MONTHS, WHERE THE TRENCH EXTENDS FROM THE CURB MORE THAN 5 FEET (INCLUDING SERVICE CONNECTIONS AND METER INSTALLATIONS) OR IS IN A TRAVELED LANE, WILL REQUIRE AN OVERLAY OR SLURRY SEAL 8 FEET IN BOTH DIRECTIONS FROM THE CENTERLINE OF THE TRENCH. OTHER TRENCHES LESS THAN 5 FEET FROM CURB OR WITHIN A STREET THAT WAS LAST PAVED LATER THAN 60 MONTHS OR RESURFACED WITH AN ASPHALTIC EMULSION (SLURRY AND CAPE SEAL) IN THE PREVIOUS 36 MONTHS, SPECIFICALLY AT THE LIMITS OF PAVING, APPROPRIATE HEADER CUTS (3" TO 5" MINIMUM WIDTHS) SHALL BE USED.
 - THE CITY OF HALF MOON BAY MAY HAVE ADDITIONAL REQUIREMENTS, PLACED ON THE PERMIT, FOR EXCAVATIONS WITHIN MAIN STREET, KELLY AVENUE AND OTHER STREETS WITHIN THE BUSINESS DISTRICT.

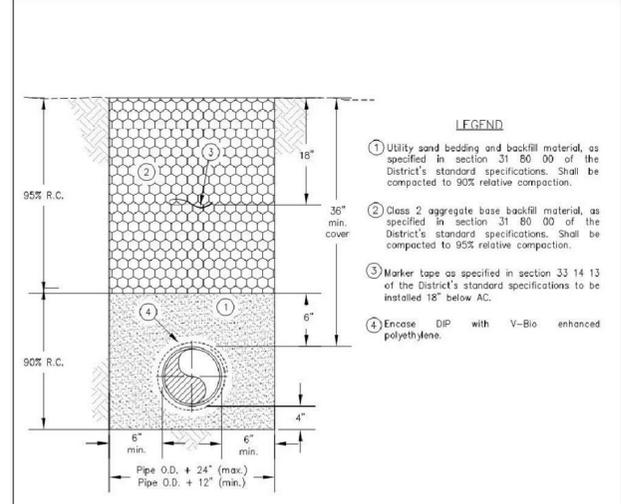


TRENCH SECTION - TYPE A PAVED SURFACES
REV. 05/2018

COASTSIDE COUNTY WATER DISTRICT
 766 MAIN STREET
 HALF MOON BAY, CA

Approved by:
 David Dickson, General Manager

STD. NO. CC-01

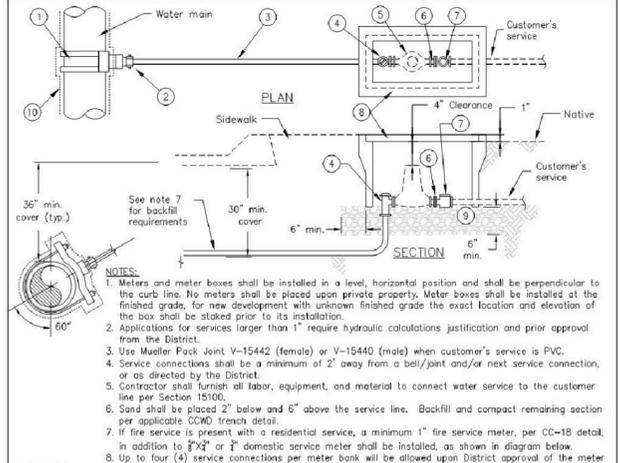


TRENCH SECTION - TYPE B GRAVELED AREAS / ROAD SHOULDERS
REV. 05/2018

COASTSIDE COUNTY WATER DISTRICT
 766 MAIN STREET
 HALF MOON BAY, CA

Approved by:
 David Dickson, General Manager

STD. NO. CC-02

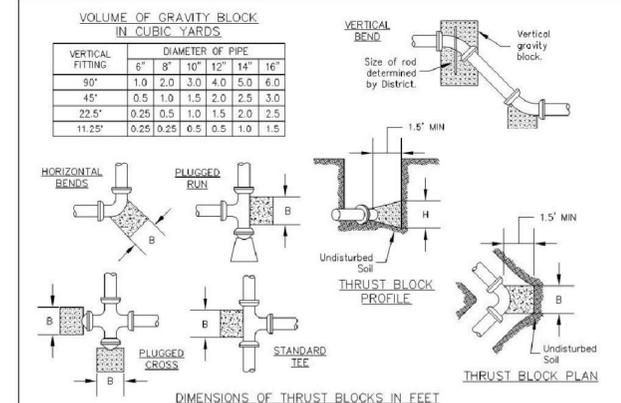


3/4" OR 1" SERVICE CONNECTION
REV. 05/2018

COASTSIDE COUNTY WATER DISTRICT
 766 MAIN STREET
 HALF MOON BAY, CA

Approved by:
 David Dickson, General Manager

STD. NO. CC-06



THRUST RESTRAINT - THRUST BLOCK DETAILS
REV. 05/2018

COASTSIDE COUNTY WATER DISTRICT
 766 MAIN STREET
 HALF MOON BAY, CA

Approved by:
 David Dickson, General Manager

STD. NO. CC-22

BKF ENGINEERS
 235 SHORELINE DRIVE
 REDWOOD CITY, CA 94065
 (650) 482-6300
 www.bkf.com

REGISTERED PROFESSIONAL ENGINEER
 JASON CONRAD MANFIELD
 No. C 59567
 EXP. 12-31-23
 CIVIL
 STATE OF CALIFORNIA

PROJECT TITLE:
Wavecrest Coastal Trail Phase 2
 Coastside Land Trust

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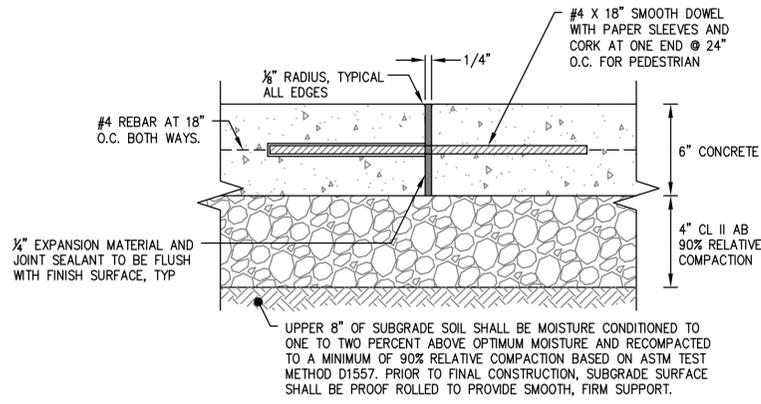
DRAWING TITLE:
Construction Details

SCALE: AS SHOWN
 DATE: 10/21/22
 REVISIONS:
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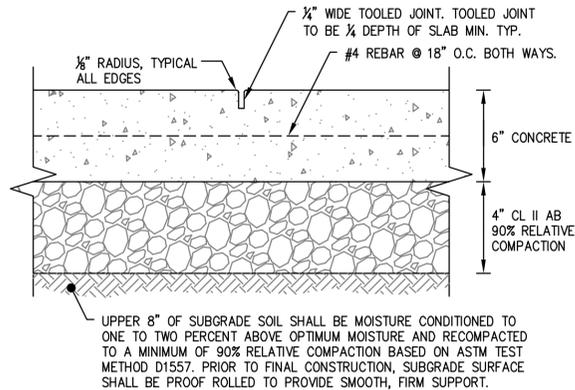
DRAWING NO.:
C2.3
 SHEET 8 OF 41 SHEETS

95% Submittal

DRAWING NAME: \\BKF-trc\vol14\2018\181554.Wavecrest-Trai\ENG\SHETS\C2.0-Details.dwg
 PLOT DATE: 10-24-22
 PLOTTED BY: cent



EXPANSION JOINT (EJ)

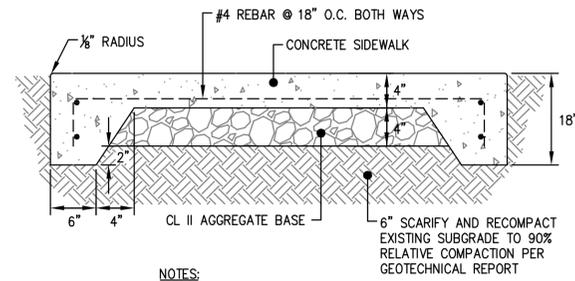


SCORE JOINT (SJ)

NOTES:

1. INTERRUPT REINFORCING STEEL AT EXPANSION JOINT.
2. LOCATE COLD JOINTS ONLY AT EXPANSION JOINT OR SCORE JOINT LOCATIONS AS INDICATED ON LAYOUT PLAN. LOCATE COLD JOINTS AT EXPANSION JOINTS WHERE POSSIBLE. IF COLD JOINTS ARE LOCATED AT SCORE JOINT LOCATIONS AS SHOWN ON LAYOUT PLAN, REBAR CAN BE EXTENDED THROUGH THE JOINT AND STEEL DOWELS CAN BE ELIMINATED.

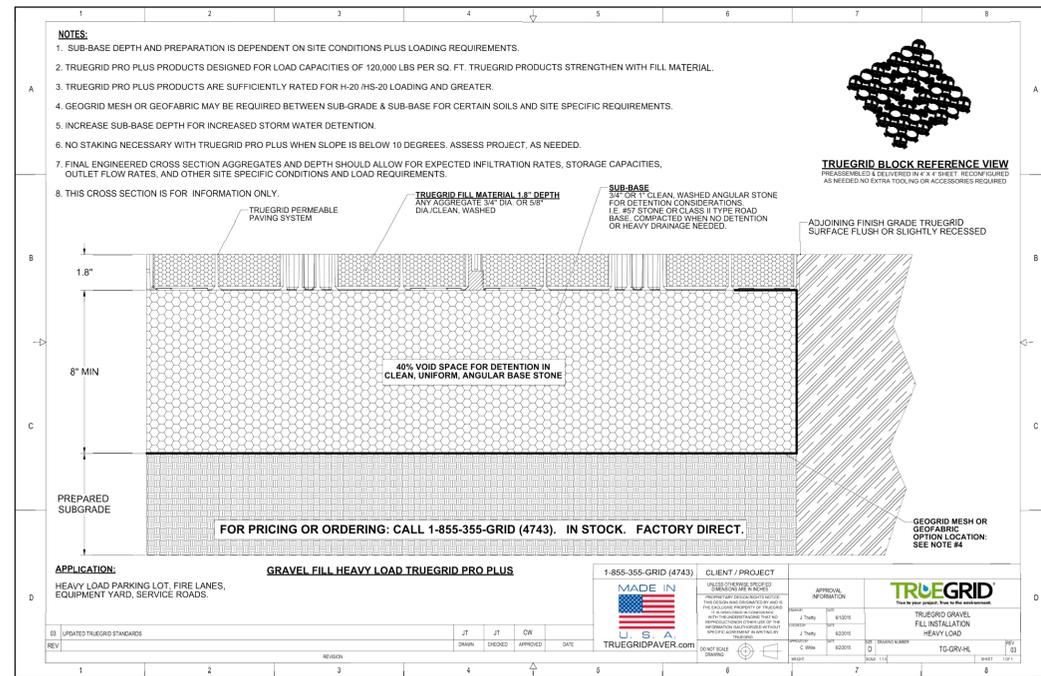
1 CONCRETE PAVEMENT
 C2.4 NTS



NOTES:

1. PROVIDE EXPANSION JOINT AT ALL VERTICAL SURFACES AND BACKS OF CURB.

2 PEDESTRIAN PATHWAY CONCRETE
 C2.4 NTS



3 TRUEGRID PLASTIC GRID
 C2.4 NTS



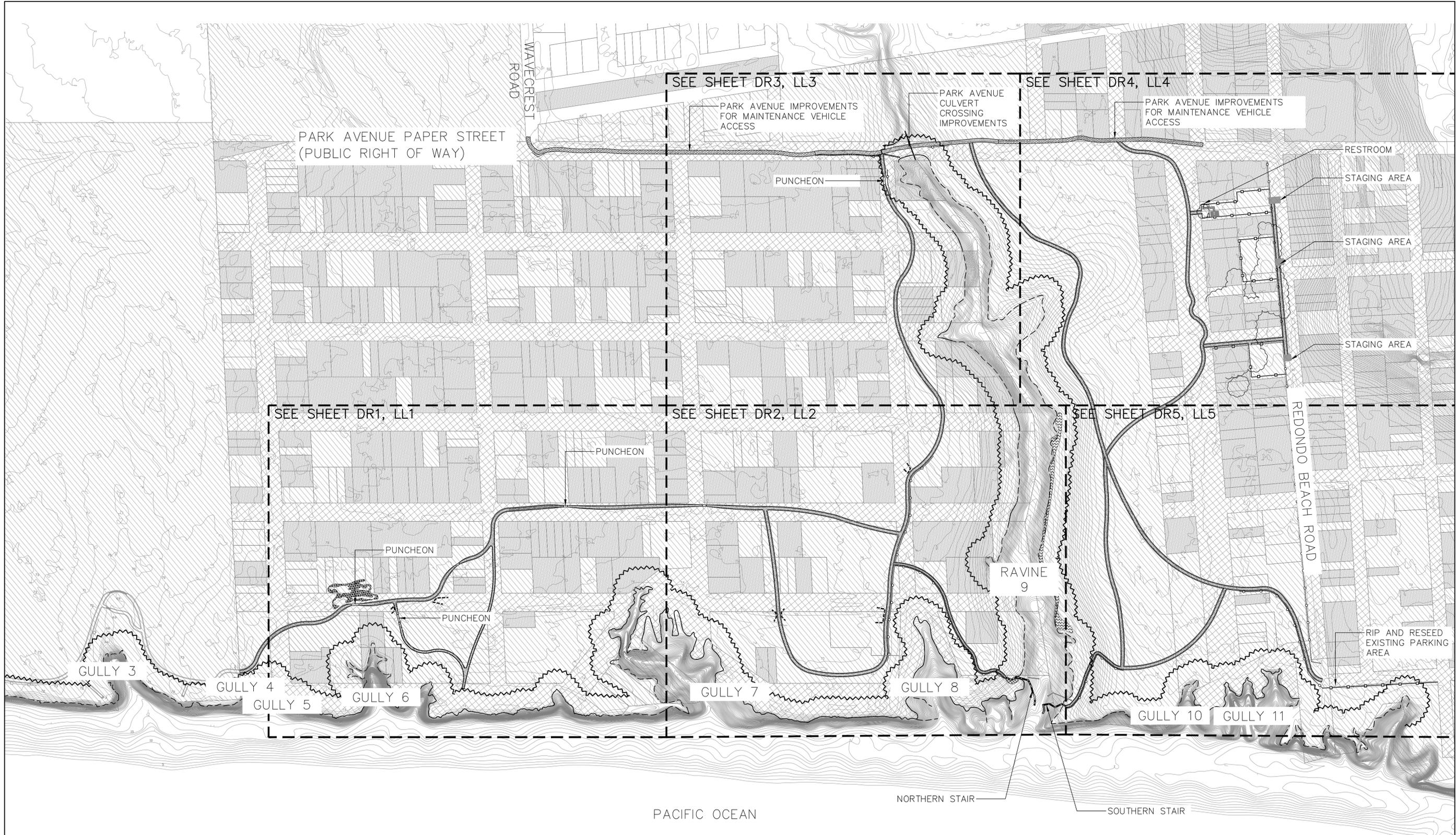
PROJECT TITLE:
Wavecrest Coastal Trail Phase 2
 Coastside Land Trust

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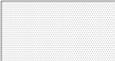
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Construction Details

SCALE: AS SHOWN
 DATE: 10/21/22
 REVISIONS:
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DRAWING NO:
C2.4
 SHEET 9 OF 41 SHEETS

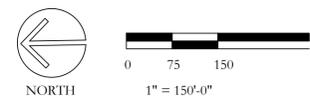


LEGEND

-  PRIVATE PROPERTY (NO ACCESS)
-  COASTSIDE LAND TRUST / PENINSULA OPEN SPACE TRUST PARCELS
-  HALF MOON BAY PROPERTY

-  GRAVEL TRAIL
-  PUNCHEON
-  SPLIT RAIL FENCE 3 LD2
-  CONCRETE SPLIT RAIL FENCE 5 LD4
-  TEMPORARY PROTECTIVE FENCING OR LOG BARRIER

-  EXISTING CONTOUR (1' INTERVAL)
CONTOURS AT BLUFF NOT SHOWN
-  EXISTING BLUFF EDGE
-  60' BLUFF BUFFER



PLACEWORKS
 2040 BANCROFT WAY #400
 BERKELEY, CA 94704
 PHONE (510) 848-5815



PROJECT TITLE:
Wavcrest Coastal Trail Phase 2
 Coastside Land Trust

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DRAWING TITLE:
Project Overview

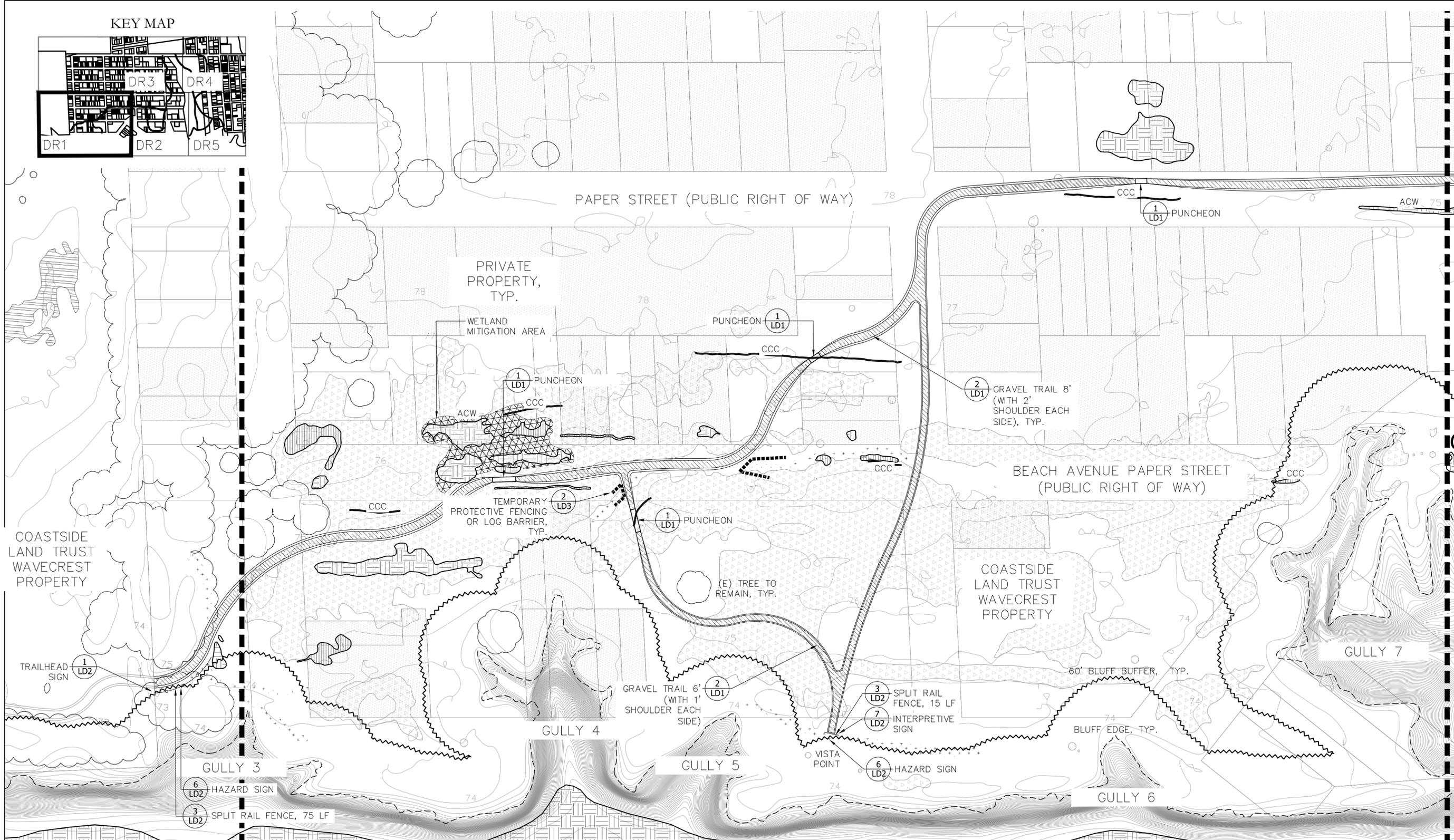
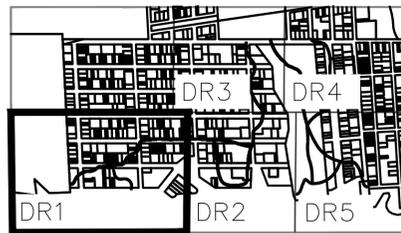
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 DATE: 6/23/23

REVISIONS:
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DRAWING NO:
DR0
 SHEET 11 OF 29 SHEETS

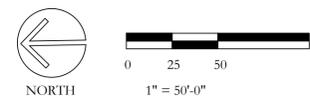
95% Submittal

KEY MAP



LEGEND

	PRIVATE PROPERTY (NO ACCESS)		ARMY CORPS WETLANDS (ACW)		EXISTING BLUFF EDGE		MATCHLINE		WETLAND MITIGATION AREA (0.1 ACRES) - GRADE TO ELEVATION OF SURROUNDING WETLAND WITH A 3:1 SLOPE AT OUTER EDGES, PLANT PLUGS OF SPIKE RUSH (ELEOCHARIS MACROSTACHYA), POPCORN FLOWER (PLAGIOBOTHRYUS CHORISIANUS), BROWN HEADED RUSH (JUNCUS PHAEOCEPHALUS), AND TALL CYPERUS (CYPERUS ERAGROSTIS) APPROXIMATELY SPACED 9" ON CENTER IN A TRIANGULAR PATTERN
	EXISTING CONTOUR (1' INTERVAL)		CCC WETLANDS		60' BLUFF BUFFER		GRAVEL TRAIL		PUNCHEON (CONFIRM LIMIT WITH BIOLOGIST)
	EXISTING VEGETATION		CDFW WETLANDS		EXISTING SOCIAL TRAILS OR DISTURBED AREAS: RIP AND SPREAD EXCESS EARTH MATERIAL TO MATCH GRADE, RESEED		SPLIT RAIL FENCE		CHORIS' POPCORN FLOWER
					TEMPORARY PROTECTIVE FENCING OR LOG BARRIER				



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 BERKELEY, CA 94704
 PHONE (510) 848-3815



PROJECT TITLE:
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 Coastside Land Trust

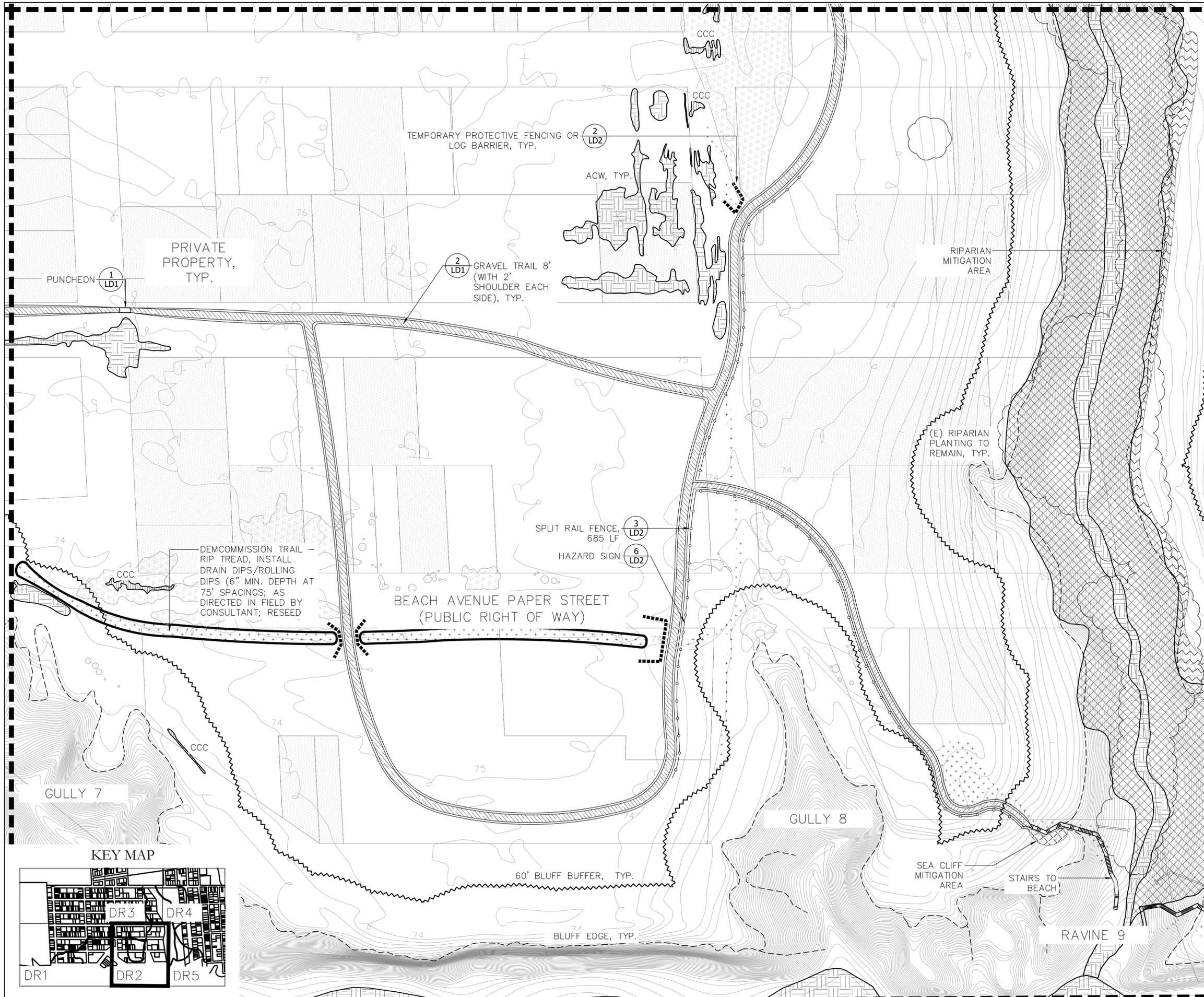
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DRAWING TITLE:
**Detail Reference/
 Planting Plan**

SCALE: 1"=50'
 DATE: 6/23/23

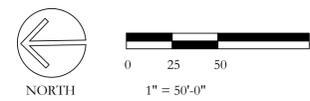
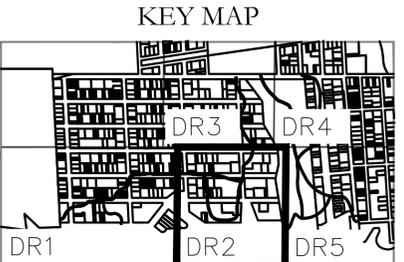
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DRAWING NO:
DR1
 SHEET 12 OF 29 SHEETS



LEGEND

- PRIVATE PROPERTY (NO ACCESS)
- ARMY CORPS WETLANDS
- CCC WETLANDS
- CDFW WETLANDS
- EXISTING CONTOUR (1' INTERVAL)
- EXISTING VEGETATION
- EXISTING BLUFF EDGE
- 60' BLUFF BUFFER
- MATCHLINE
- GRAVEL TRAIL
- PUNCHEON (CONFIRM LIMIT WITH BIOLOGIST)
- SPLIT RAIL FENCE
- EXISTING SOCIAL TRAILS OR DISTURBED AREAS: RIP AND SPREAD EXCESS EARTH MATERIAL TO MATCH GRADE, RESEED
- TEMPORARY PROTECTIVE FENCING OR LOG BARRIER
- CHORIS' POPCORN FLOWER
- RIPARIAN MITIGATION AREA (0.2 ACRES) - PLANT WITH 1-GALLON ARROYO WILLOW (SALIX LASIOLEPSIS) SPACED 10' ON CENTER IN A TRIANGULAR PATTERN
- SEA CLIFF MITIGATION AREA (0.01 ACRES) - STABILIZE AND REGRADE TO PREVENT EROSION; SEED WITH NATIVE PLANT SEED USED FOR RESEEDING SOCIAL TRAILS



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PROJECT TITLE:
Wavcrest Coastal Trail Phase 2
 Coastside Land Trust

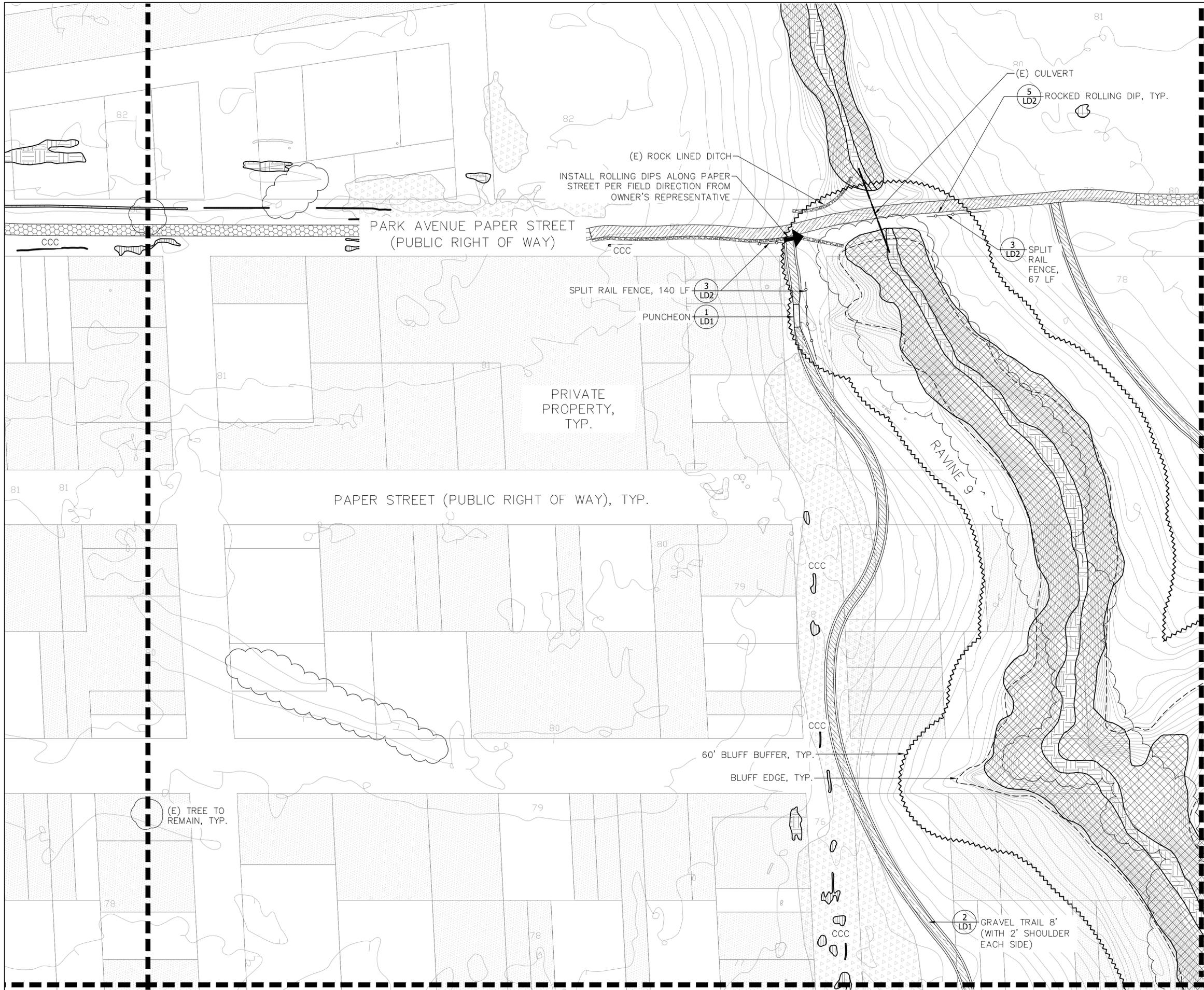
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DRAWING TITLE:
**Detail Reference/
 Planting Plan**

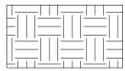
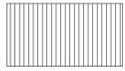
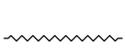
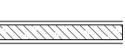
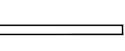
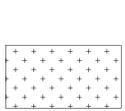
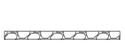
SCALE: 1"=50'
 DATE: 6/23/23

REVISIONS:
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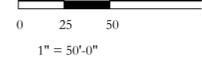
DRAWING NO:
DR2
 SHEET 13 OF 29 SHEETS



LEGEND

-  PRIVATE PROPERTY (NO ACCESS)
-  ARMY CORPS WETLANDS
-  CCC WETLANDS
-  CDFW WETLANDS
-  EXISTING CONTOUR (1' INTERVAL)
-  EXISTING VEGETATION
-  EXISTING BLUFF EDGE
-  60' BLUFF BUFFER
-  MATCHLINE
-  GRAVEL TRAIL
-  PUNCHEON (CONFIRM LIMIT WITH BIOLOGIST)
-  SPLIT RAIL FENCE
-  EXISTING SOCIAL TRAILS OR DISTURBED AREAS: RIP AND SPREAD EXCESS EARTH MATERIAL TO MATCH GRADE, RESEED
-  TEMPORARY PROTECTIVE FENCING OR LOG BARRIER
-  CHORIS' POPCORN FLOWER
-  ROCK LINED DITCH
-  ROCKED ROLLING DIP

KEY MAP



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Wavcrest Coastal Trail Phase 2
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DRAWING TITLE:
**Detail Reference/
 Planting Plan**

SCALE: 1"=50'

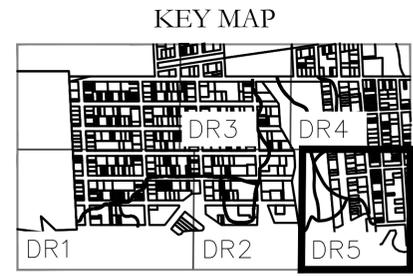
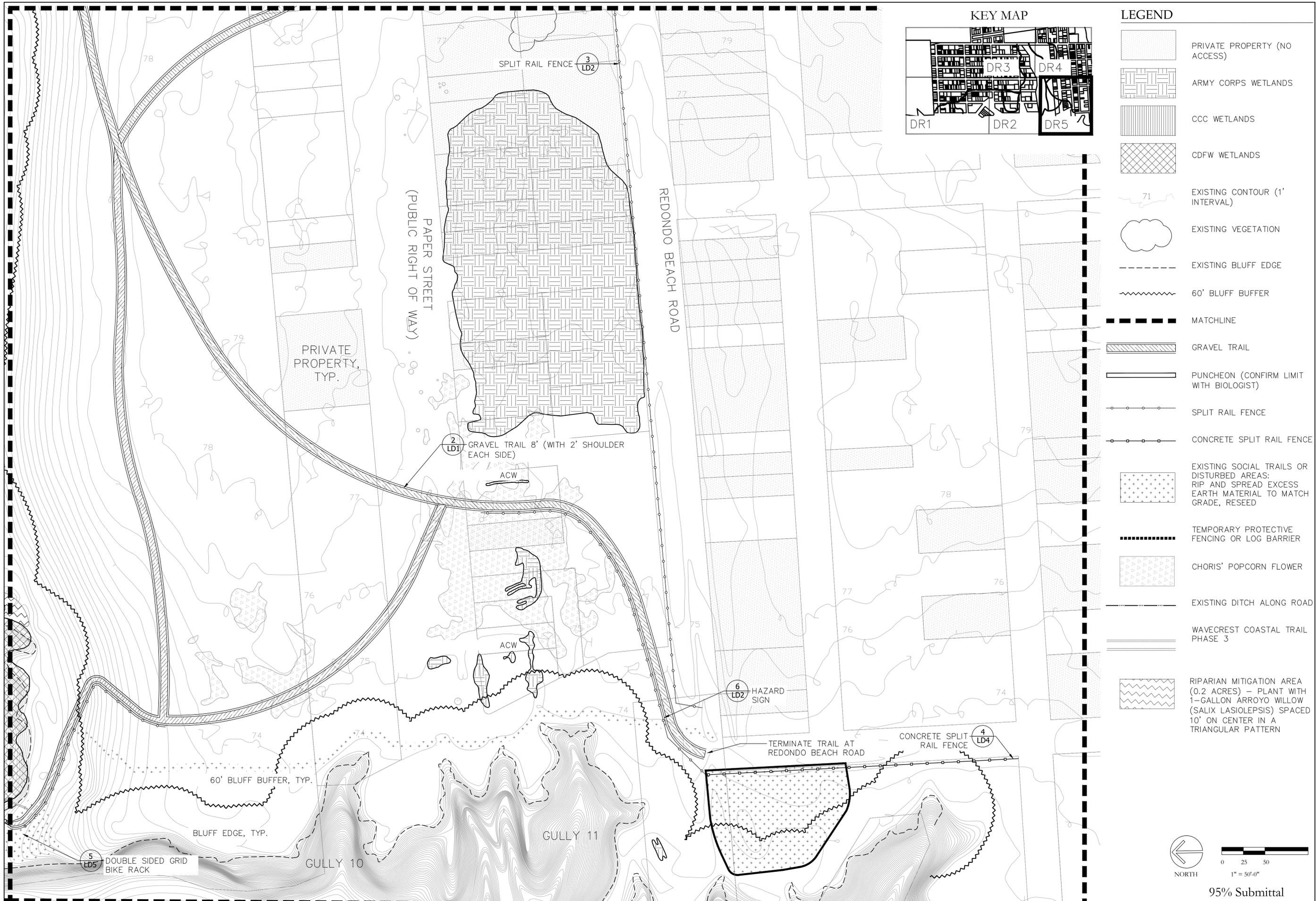
DATE: 6/23/23

REVISIONS:

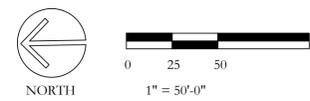
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DRAWING NO:
DR3

SHEET 14 OF 29 SHEETS



LEGEND	
[Stippled pattern]	PRIVATE PROPERTY (NO ACCESS)
[Cross-hatched pattern]	ARMY CORPS WETLANDS
[Vertical line pattern]	CCC WETLANDS
[Diagonal line pattern]	CCFW WETLANDS
[Dashed line]	EXISTING CONTOUR (1' INTERVAL)
[Cloud shape]	EXISTING VEGETATION
[Dashed line]	EXISTING BLUFF EDGE
[Wavy line]	60' BLUFF BUFFER
[Thick dashed line]	MATCHLINE
[Hatched line]	GRAVEL TRAIL
[Thin solid line]	PUNcheon (CONFIRM LIMIT WITH BIOLOGIST)
[Line with circles]	SPLIT RAIL FENCE
[Line with squares]	CONCRETE SPLIT RAIL FENCE
[Patterned area]	EXISTING SOCIAL TRAILS OR DISTURBED AREAS: RIP AND SPREAD EXCESS EARTH MATERIAL TO MATCH GRADE, RESEED
[Dotted line]	TEMPORARY PROTECTIVE FENCING OR LOG BARRIER
[Triangle pattern]	CHORIS' POPCORN FLOWER
[Dashed line]	EXISTING DITCH ALONG ROAD
[Double line]	WAVECREST COASTAL TRAIL PHASE 3
[Wavy line pattern]	RIPARIAN MITIGATION AREA (0.2 ACRES) – PLANT WITH 1-GALLON ARROYO WILLOW (SALIX LASIOLEPSIS) SPACED 10' ON CENTER IN A TRIANGULAR PATTERN



2040 BANCROFT WAY #400
BERKELEY, CA 94704
PHONE (510) 848-3815

SARAH SUTTON
No. 4219
Signature
Professional Seal
Date

PROJECT TITLE:

Wavcrest Coastal Trail Phase 2

Coastside Land Trust

DRAWING TITLE:

**Detail Reference/
Planting Plan**

SCALE: 1"=50'

DATE: 6/23/23

REVISIONS:

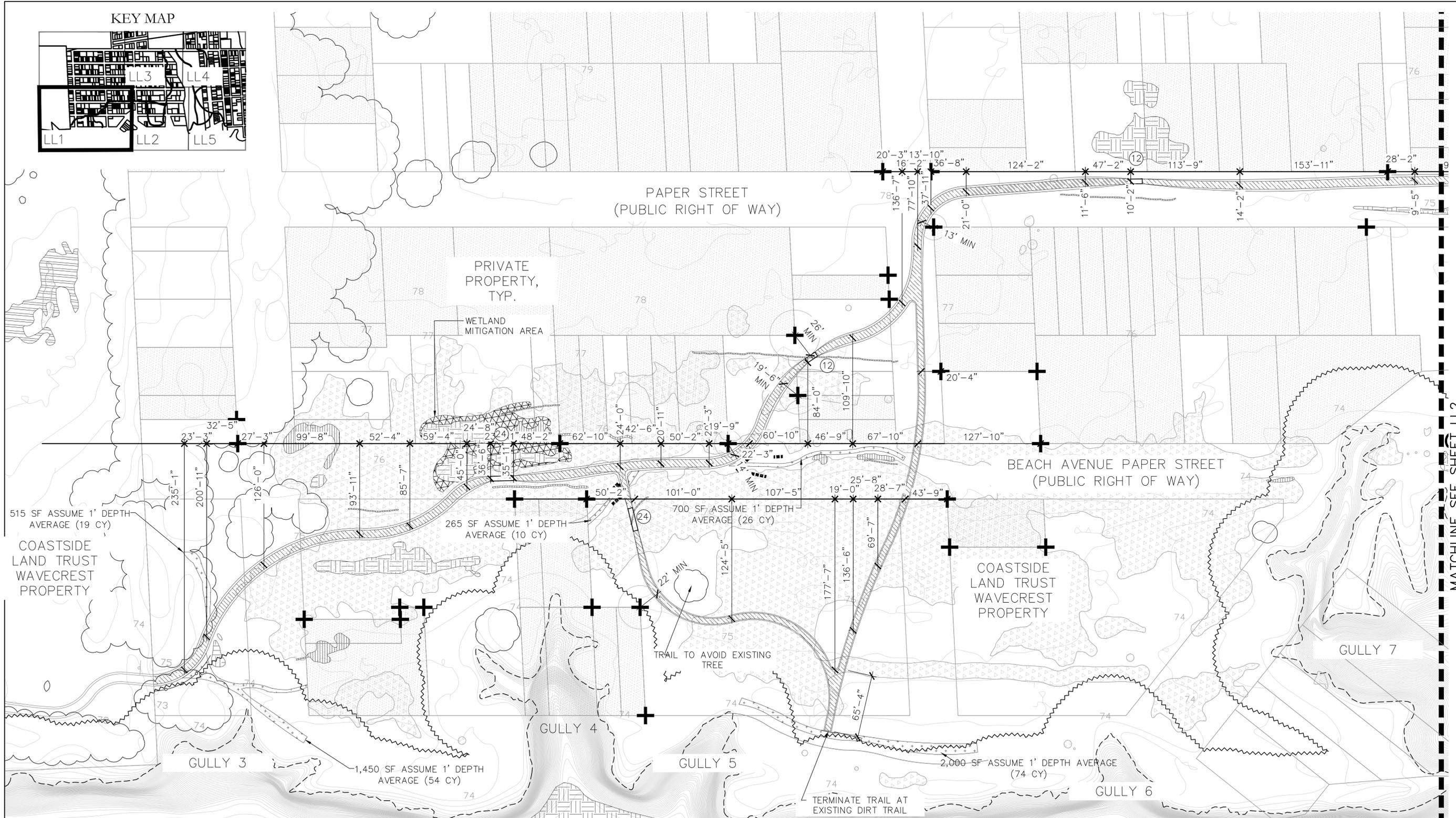
DRAWING NO:

DR5

SHEET 16 OF 29 SHEETS

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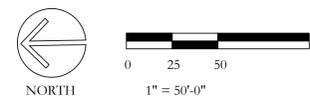
KEY MAP



LEGEND

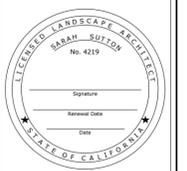
	PRIVATE PROPERTY (NO ACCESS)		ARMY CORPS WETLANDS		WETLAND MITIGATION AREA (0.1 ACRES) - GRADE TO ELEVATION OF SURROUNDING WETLAND WITH A 3:1 SLOPE AT OUTER EDGES, PLANT PLUGS OF SPIKE RUSH (ELEOCHARIS MACROSTACHYA), POPCORN FLOWER (PLAGIOBOTHRYUS CHORISIANUS), BROWN HEADED RUSH (JUNCUS PHAEOCEPHALUS), AND TALL CYPERUS (CYPERUS ERAGROSTIS) APPROXIMATELY SPACED 9" ON CENTER IN A TRIANGULAR PATTERN		EXISTING BLUFF EDGE		MATCHLINE		= LENGTH IN FEET
	EXISTING CONTOUR (1' INTERVAL)		CCC WETLANDS				60' BLUFF BUFFER		GRAVEL TRAIL		
	EXISTING VEGETATION		CDWF WETLANDS				EXISTING SOCIAL TRAILS OR DISTURBED AREAS: RIP AND SPREAD EXCESS EARTH MATERIAL TO MATCH GRADE, RESEED.		PUNCHEON (CONFIRM LIMIT WITH BIOLOGIST)		SPLIT RAIL FENCE
	SURVEY POINT						TEMPORARY PROTECTIVE FENCING OR LOG BARRIER		CHORIS' POPCORN FLOWER		

SEE SHEET T2 FOR NOTES



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PROJECT TITLE:
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DRAWING TITLE:
Layout Plan and Grading

SCALE: 1"=50'
 DATE: 6/23/23

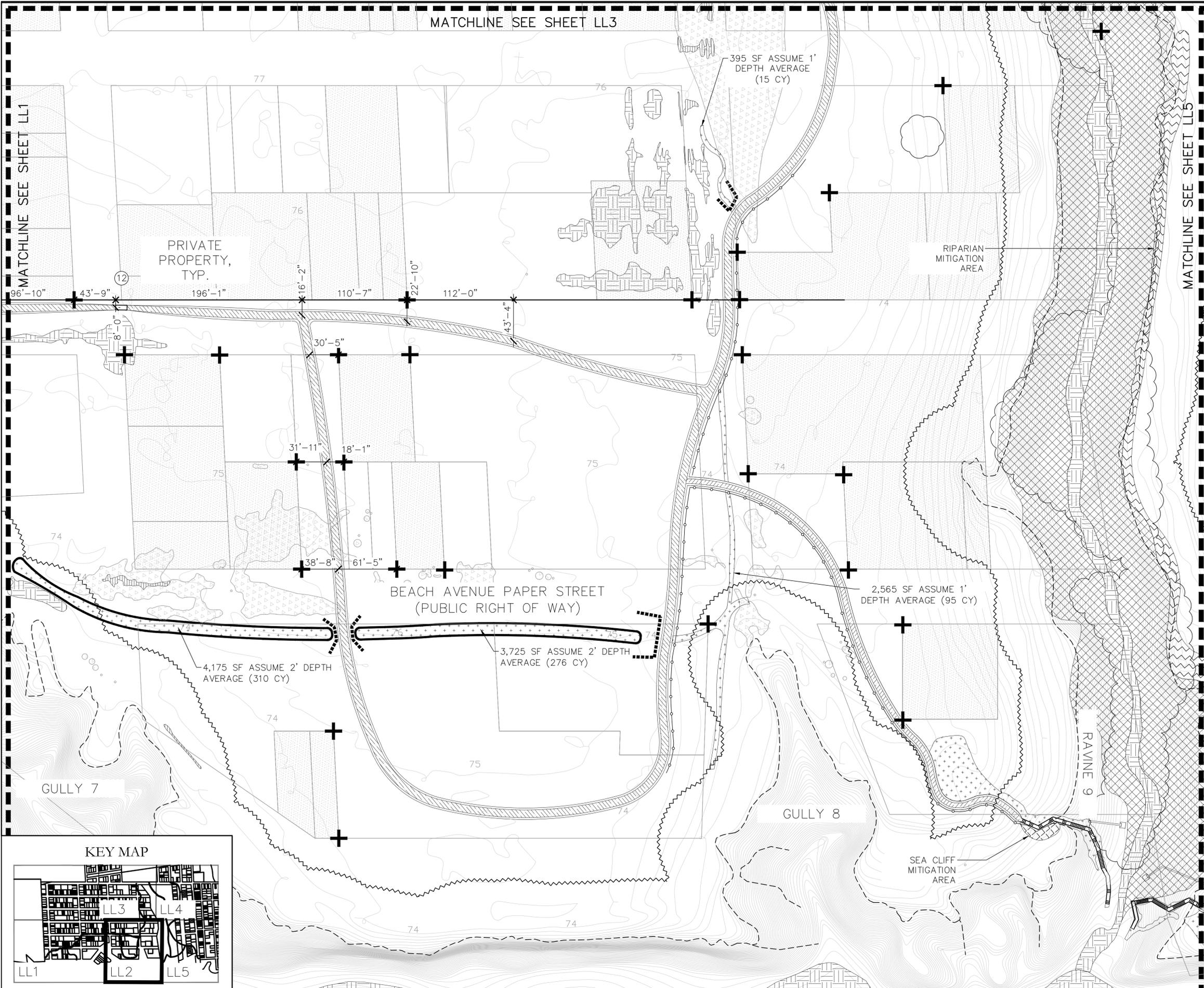
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DRAWING NO:
LL1
 SHEET 17 OF 29 SHEETS

MATCHLINE SEE SHEET LL3

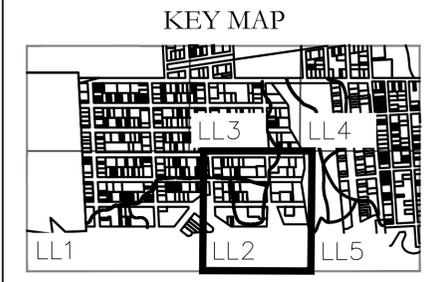
MATCHLINE SEE SHEET LL1

MATCHLINE SEE SHEET LL5

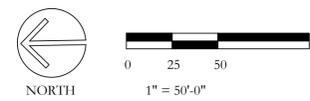


LEGEND

- PRIVATE PROPERTY (NO ACCESS)
- ARMY CORPS WETLANDS
- CCC WETLANDS
- CDFW WETLANDS
- EXISTING CONTOUR (1' INTERVAL)
- EXISTING VEGETATION
- EXISTING BLUFF EDGE
- 60' BLUFF BUFFER
- MATCHLINE
- GRAVEL TRAIL
- PUNCHON (CONFIRM LIMIT WITH BIOLOGIST)
⑫ = LENGTH IN FEET
- SPLIT RAIL FENCE
- EXISTING SOCIAL TRAILS OR DISTURBED AREAS: RIP AND SPREAD EXCESS EARTH MATERIAL TO MATCH GRADE, RESEED.
- TEMPORARY PROTECTIVE FENCING OR LOG BARRIER
- CHORIS' POPCORN FLOWER
- SURVEY POINT
- RIPARIAN MITIGATION AREA (0.2 ACRES) - PLANT WITH 1-GALLON ARROYO WILLOW (SALIX LASIOLEPSIS) SPACED 10' ON CENTER IN A TRIANGULAR PATTERN
- SEA CLIFF MITIGATION AREA (0.01 ACRES) - STABILIZE AND REGRADE TO PREVENT EROSION; SEED WITH NATIVE PLANT SEED USED FOR RESEEDING SOCIAL TRAILS



SEE SHEET T2 FOR NOTES



95% Submittal



PROJECT TITLE:
Wavcrest Coastal Trail Phase 2
 Coastside Land Trust

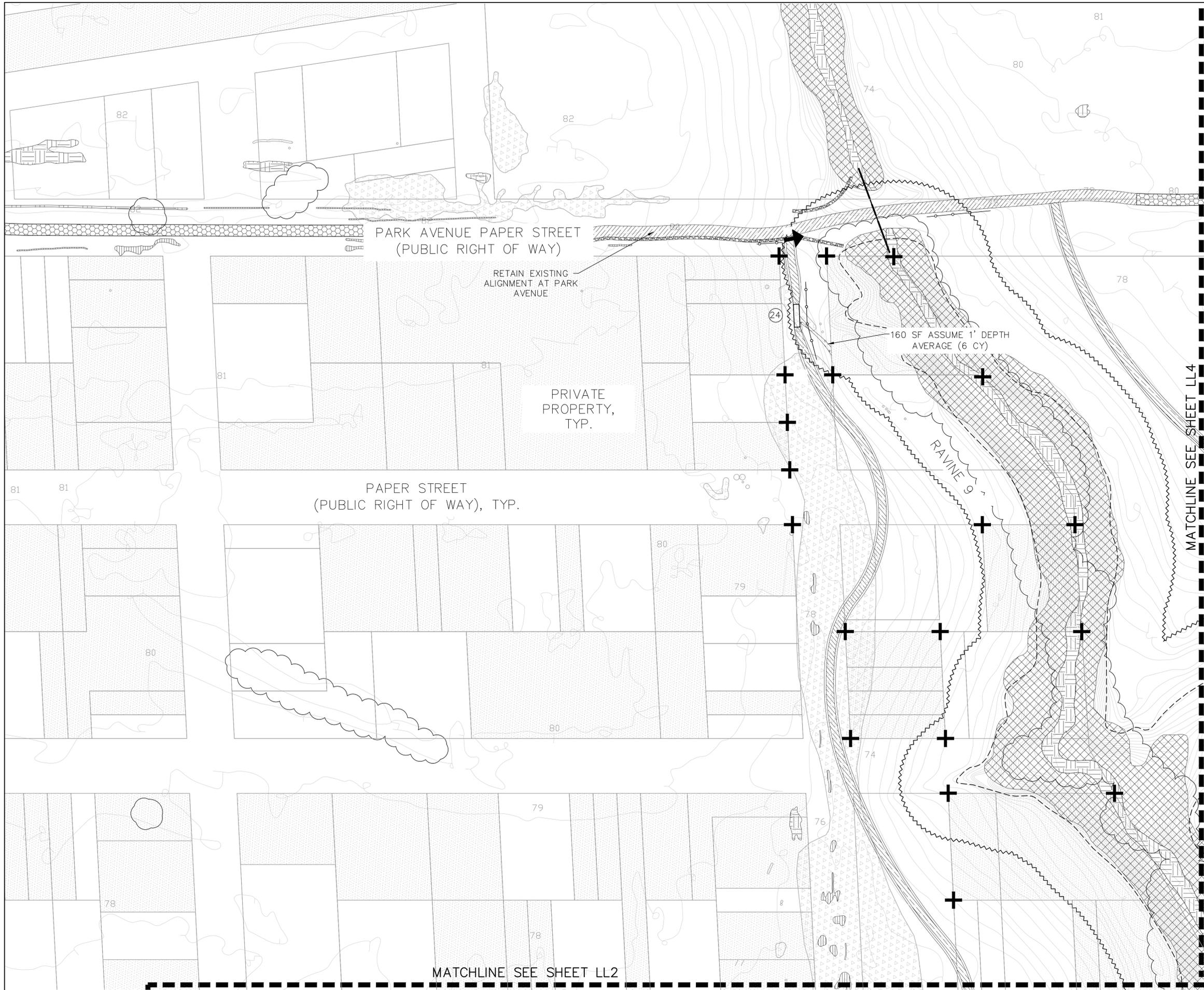
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DRAWING TITLE:
Layout Plan and Grading

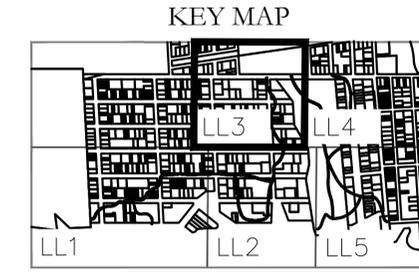
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 DATE: 6/23/23

REVISIONS:
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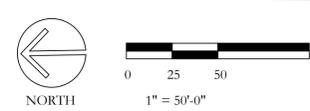
DRAWING NO:
LL2
 SHEET 18 OF 29 SHEETS



- LEGEND**
- PRIVATE PROPERTY (NO ACCESS)
 - ARMY CORPS WETLANDS
 - CCC WETLANDS
 - CDFW WETLANDS
 - EXISTING CONTOUR (1' INTERVAL)
 - EXISTING VEGETATION
 - EXISTING BLUFF EDGE
 - 60' BLUFF BUFFER
 - MATCHLINE
 - GRAVEL TRAIL
 - PUNCHEON (CONFIRM LIMIT WITH BIOLOGIST)
⑫ = LENGTH IN FEET
 - SPLIT RAIL FENCE
 - EXISTING SOCIAL TRAILS OR DISTURBED AREAS: RIP AND SPREAD EXCESS EARTH MATERIAL TO MATCH GRADE, RESEED.
 - TEMPORARY PROTECTIVE FENCING OR LOG BARRIER
 - CHORIS' POPCORN FLOWER
 - ROCK LINED DITCH
 - ROCKED ROLLING DIP
 - SURVEY POINT



SEE SHEET T2 FOR NOTES



95% Submittal



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SCALE: 1"=50'

DATE: 6/23/23

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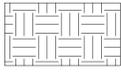
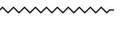
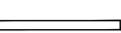
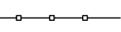
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LL3

SHEET 19 OF 29 SHEETS

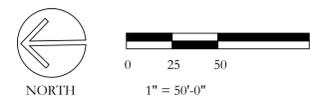
KEY MAP



LEGEND

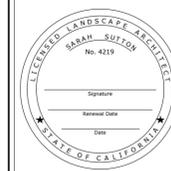
-  PRIVATE PROPERTY (NO ACCESS)
-  ARMY CORPS WETLANDS
-  CCC WETLANDS
-  CDFW WETLANDS
-  EXISTING CONTOUR (1' INTERVAL)
-  EXISTING VEGETATION
-  EXISTING BLUFF EDGE
-  60' BLUFF BUFFER
-  MATCHLINE
-  GRAVEL TRAIL
-  PUNCHEON (CONFIRM LIMIT WITH BIOLOGIST)
⑫ = LENGTH IN FEET
-  SPLIT RAIL FENCE
-  CONCRETE SPLIT RAIL FENCE
-  EXISTING SOCIAL TRAILS OR DISTURBED AREAS: RIP AND SPREAD EXCESS EARTH MATERIAL TO MATCH GRADE, RESEED.
-  TEMPORARY PROTECTIVE FENCING OR LOG BARRIER
-  CHORIS' POPCORN FLOWER
-  SURVEY POINT
-  ROCKED ROLLING DIP
-  GRADE BREAK
-  EXISTING DITCH
-  PEDESTRIAN CONCRETE PAVING

SEE SHEET T2 FOR NOTES



95% Submittal

PLACEWORKS
2040 BANCROFT WAY #400
BERKELEY, CA 94704
PHONE (510) 848-3815



PROJECT TITLE:
Wavcrest Coastal Trail Phase 2
Coastside Land Trust

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DRAWING TITLE:
Layout Plan and Grading

SCALE: 1"=50'
DATE: 6/23/23

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DRAWING NO:
LL4
SHEET 20 OF 29 SHEETS



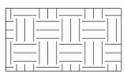
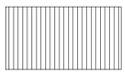
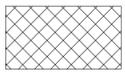
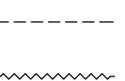
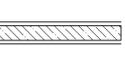
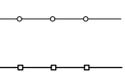
MATCHLINE SEE SHEET LL4

MATCHLINE SEE SHEET LL2

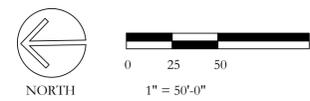
KEY MAP



LEGEND

-  PRIVATE PROPERTY (NO ACCESS)
-  ARMY CORPS WETLANDS
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-  EXISTING CONTOUR (1' INTERVAL)
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-  CHORIS' POPCORN FLOWER
-  SURVEY POINT
-  GRADE BREAK
-  EXISTING DITCH
-  WAVECREST COASTAL TRAIL PHASE 3
-  RIPARIAN MITIGATION AREA (0.2 ACRES) - PLANT WITH 1-GALLON ARROYO WILLOW (SALIX LASIOLEPSIS) SPACED 10' ON CENTER IN A TRIANGULAR PATTERN

SEE SHEET T2 FOR NOTES



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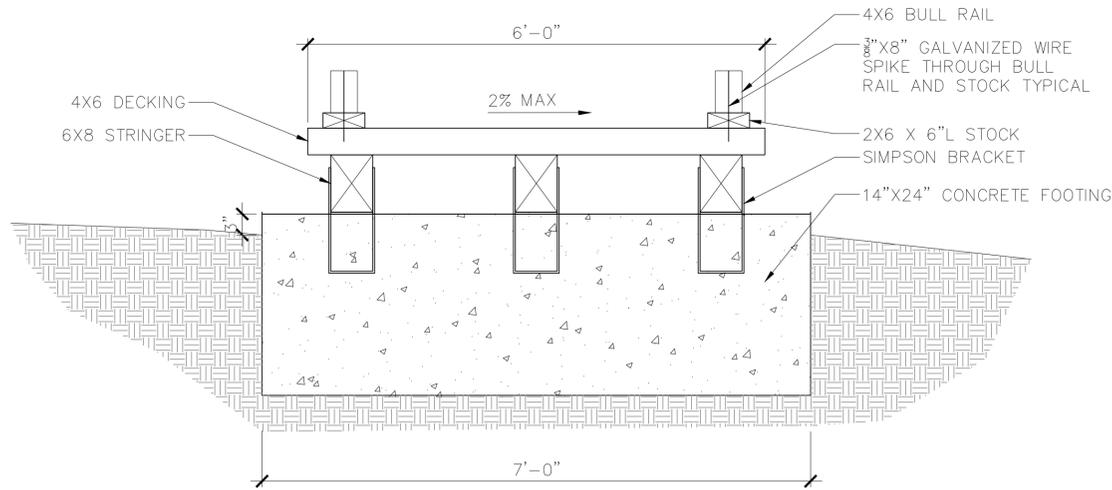
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DATE: 6/23/23

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DRAWING NO:
LL5
SHEET 21 OF 29 SHEETS

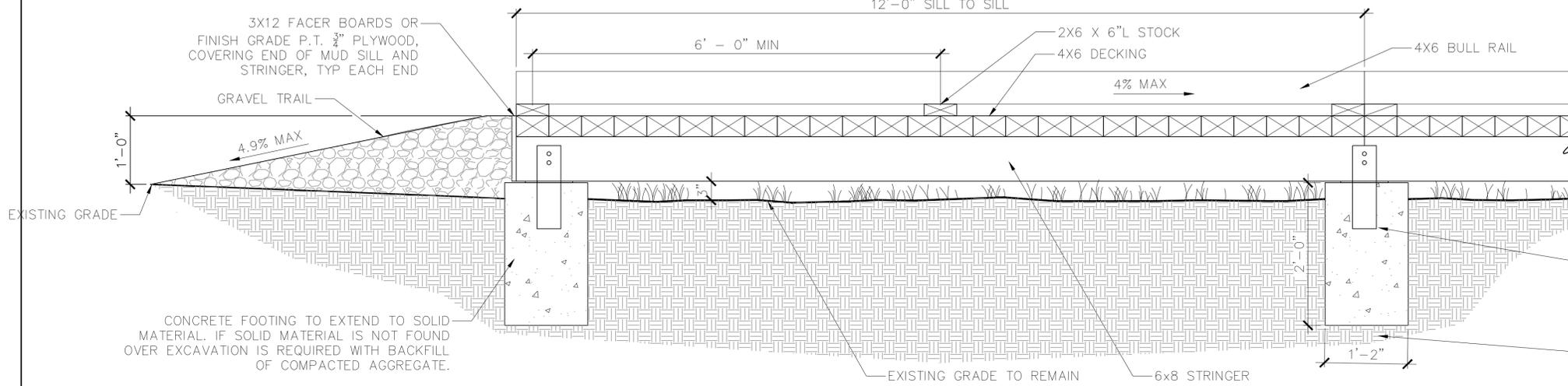
NOTES:

- 1) DECKING SHALL BE CON HEART REDWOOD.
- 2) ALL HARDWARE SHALL BE GALVANIZED.
- 3) FRAMING LUMBER SHALL BE DOUGLAS FIR LARCH No. 1.
- 4) PRE-DRILL HOLES AT SPIKES.
- 5) SET HEIGHT OF PUNCHEON AS CLOSE TO FINISH GRADES AS POSSIBLE WHILE STILL ALLOWING POSITIVE DRAINAGE OF EXISTING FINISH GRADE BELOW.
- 6) GRADES UNDER AND AROUND PUNCHEON TO CONFORM TO NATURAL TOPOGRAPHY SO THAT ADJACENT WETLANDS NOT BE DISTURBED



NOTES:

- 1) DECKING SHALL BE CON HEART REDWOOD.
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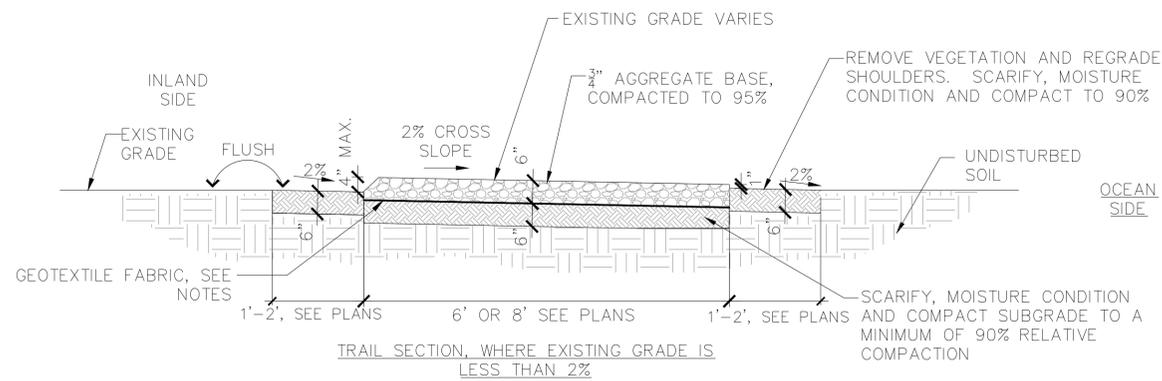


ATTACH STRINGER TO CONCRETE FOOTING USING SIMPSON STRONG TIE MODEL # CB68 7 GAUGE 6X8 COLUMN BASE

SCARIFY, MOISTURE CONDITION AND COMPACT TO 90% A MINIMUM OF 6" BENEATH CONCRETE FOOTINGS

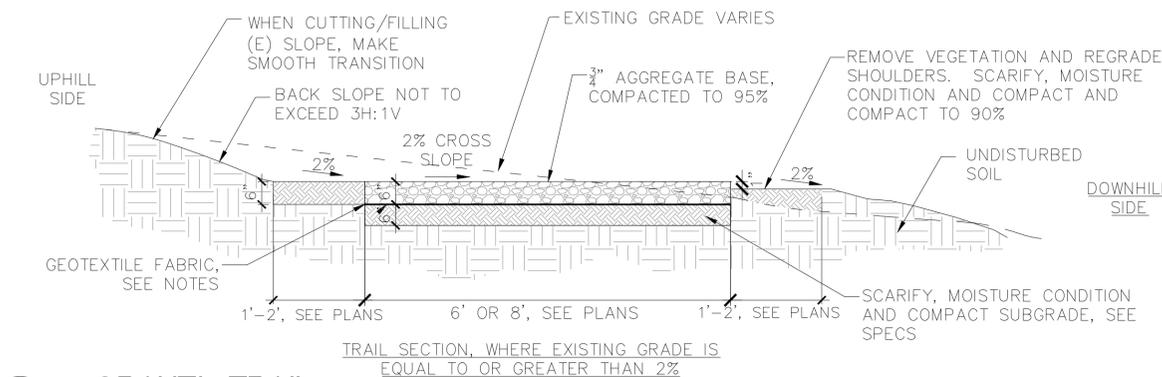
1 PUNCHEON

SCALE: 1" = 1'-0"



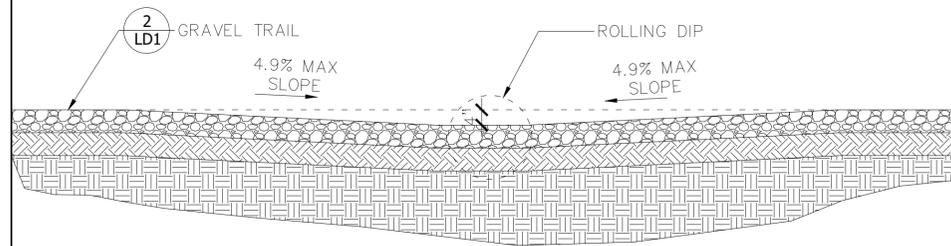
NOTES:

1. REDUCE COMPACTED SHOULDER TO 12" ON 6' SPUR TRAILS PER PLANS.
2. MAXIMUM TRAIL LONGITUDINAL SLOPE TO BE 5%, MAXIMUM TRAIL CROSS SLOPE TO BE 2% WITH 3-5% ALLOWED AT TRAIL DIPS PER US ACCESS BOARD FINAL GUIDELINES FOR OUTDOOR DEVELOPED AREAS (SEPTEMBER 26, 2013)
3. INCLUDE NATURAL OR CONSTRUCTED ROLLING DIPS PER DETAIL 4/LD3 AT 50' ON CENTER AS DETERMINED IN THE FIELD.
4. IN AREAS WHERE EXPANSIVE SUBGRADE IS ENCOUNTERED THE SUBGRADE SHALL BE MOISTURE CONDITIONED TO BETWEEN 2 AND 4 PERCENT OVER OPTIMUM MOISTURE.
5. OVER-EXCAVATION MAY BE REQUIRED IN LIMITED AREAS TO OBTAIN THE REQUIRED COMPACTION.
6. THE CONTRACTOR SHALL EXERCISE DUE CARE TO PRESERVE EXISTING VEGETATION OUTSIDE OF GRADING.
7. ALL EXCESS EARTH MATERIALS TO BE SPREAD ON-SITE TO REPAIR RUTS AND SUBSIDIENCE AT EXISTING DISTURBED AREAS.
8. 3/4" CLASS II LIME TREATED AGGREGATE BASE AVAILABLE FROM STEVENS CREEK QUARRY INC 12100 STEVENS CANYON RD. CUPERTINO, CA 95014 PH 408 253 2512 WWW.SCQINC.COM
9. GEOTEXTILE FABRIC TO BE MIRAFI 500X OR APPROVED EQUAL AVAILABLE FROM WWW.TENCATE.COM CONTRACTOR TO INSTALL MOCK-UP OF TRAIL SURFACE PRIOR TO CONSTRUCTION FOR APPROVAL BY OWNER. SURFACE MUST BE FIRM AND SMOOTH TO MEET REQUIREMENTS OF THE US ACCESS BOARD FINAL GUIDELINES FOR OUTDOOR DEVELOPED AREAS (SEPTEMBER 26, 2013)
- 9.1. SURFACE OF TRAILS, PASSING SPACES, AND RESTING INTERVALS TO BE FIRM AND STABLE. A FIRM TRAIL SURFACE RESISTS DEFORMATION BY INDENTATIONS. A STABLE TRAIL SURFACE IS NOT PERMANENTLY AFFECTED BY EXPECTED WEATHER CONDITIONS AND CAN SUSTAIN NORMAL WEAR AND TEAR FROM THE EXPECTED USES BETWEEN PLANNED MAINTENANCE. THE GUIDELINES ALSO REQUIRE THAT OPENINGS IN TRAIL SURFACES, SUCH AS GRATES, BE NO MORE THAN 1/2-INCH AND THAT 2 INCH VERTICAL OBSTACLES ARE ALLOWED SURFACES OTHER THAN ASPHALT AND CONCRETE.
- 9.1. ALSO PER 2013, THE U.S. FOREST SERVICE DEVELOPED THE ACCESSIBILITY GUIDEBOOK ON OUTDOOR RECREATION AND TRAILS FOR AREAS WITHIN THE NATIONAL FOREST SYSTEM THE MOCK UP MUST RESIST IMPRINTS FROM A NARROW TIRED BICYCLE AND AN UMBRELLA STROLLER WITH 35 LBS OF WEIGHT APPLIED.

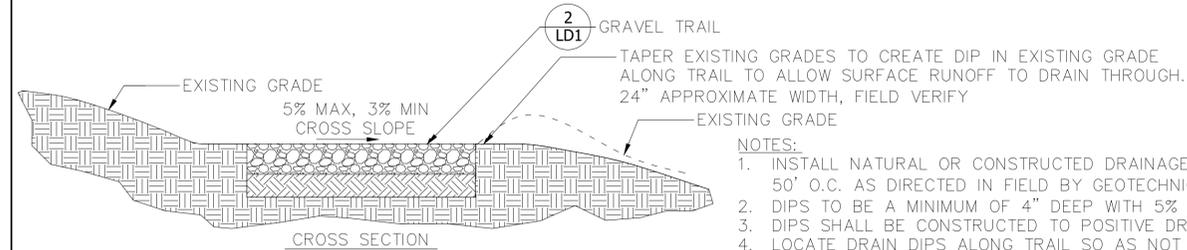


2 GRAVEL TRAIL

SCALE: 1/2" = 1'-0"



LONGITUDINAL SECTION



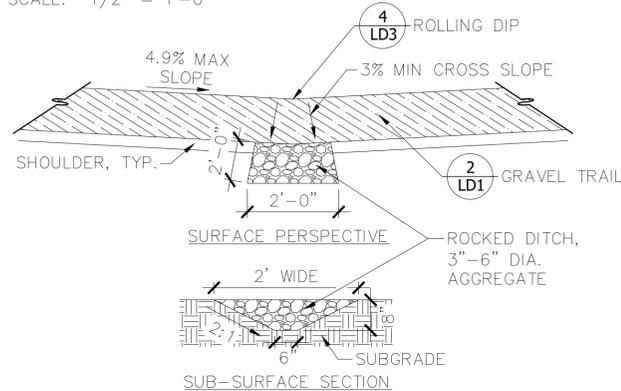
CROSS SECTION

NOTES:

1. INSTALL NATURAL OR CONSTRUCTED DRAINAGE DIPS AT APPROX. 50' O.C. AS DIRECTED IN FIELD BY GEOTECHNICAL CONSULTANT.
2. DIPS TO BE A MINIMUM OF 4" DEEP WITH 5% MAX APPROACH.
3. DIPS SHALL BE CONSTRUCTED TO POSITIVE DRAINAGE.
4. LOCATE DRAIN DIPS ALONG TRAIL SO AS NOT TO DRAIN ON PRIVATE PROPERTY

4 ROLLING DIP

SCALE: 1/2" = 1'-0"

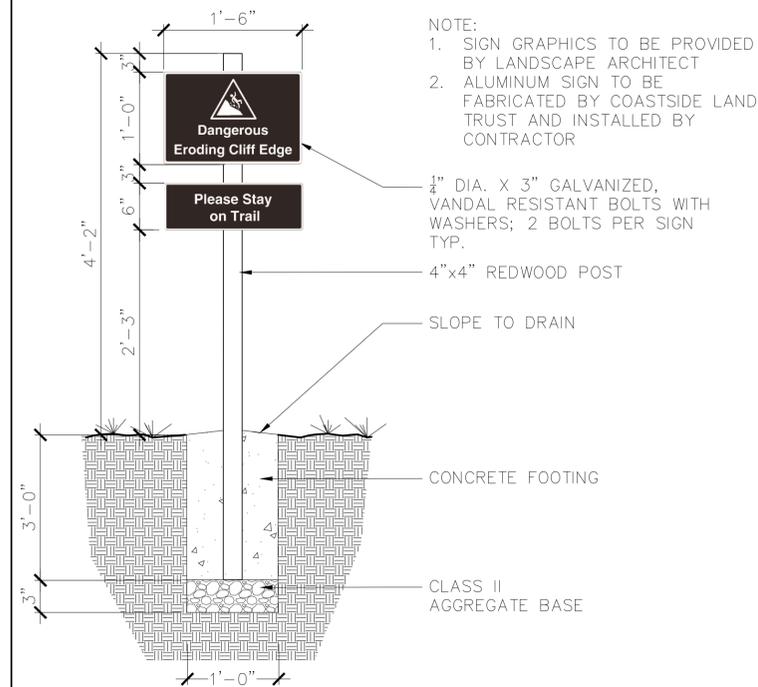


NOTES:

1. INSTALL ROCKED ROLLING DIP AS DIRECTED IN FIELD BY GEOTECHNICAL CONSULTANT OR PER POLICY

5 ROCKED ROLLING DIP

SCALE: 1/2" = 1'-0"



NOTE:

1. SIGN GRAPHICS TO BE PROVIDED BY LANDSCAPE ARCHITECT
2. ALUMINUM SIGN TO BE FABRICATED BY COASTSIDE LAND TRUST AND INSTALLED BY CONTRACTOR



CHPL
1/2" THICK
FULL COLOR CHPL
GRAPHIC

BLACK POWDER
COATED ALUMINUM
FINISH
IN-GROUND
MOUNT

SINGLE POST PEDESTAL
MRF: FOSSIL INDUSTRIES, INC.
44 JEFRYN BOULEVARD
DEER PARK, NY 11729
PHONE: 1.800.244.9809
WEB: WWW.FOSSILGRAPHICS.COM

MODEL: E12-06-T4 AND SP1212
DIM: 24"x36"

7 INTERPRETIVE SIGN

SCALE: NTS

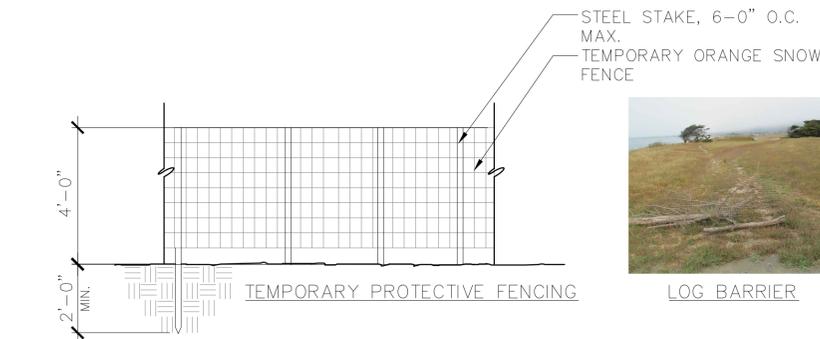


NOTE:

1. GRAPHIC PROVIDED BY COASTAL CONSERVANCY INFORMATION TO INCLUDE:
 - 1.1. TRAIL SURFACE IS COMPACTED AGGREGATE
 - 1.2. TYPICAL TRAIL WIDTH IS 8' WITH 6' AT SPUR TRAILS AND 5' AT BOARDWALKS
 - 1.3. TYPICAL RUNNING SLOPE IS LESS THAN 2% WITH A MAXIMUM OF 5% ADJACENT TO BOARDWALKS
 - 1.4. TYPICAL CROSS SLOPE 2% WITH A MAXIMUM OF 5% WHERE NEEDED FOR TRAIL DRAINAGE
 - 1.5. EQUESTRIAN USE: YES
 - 1.6. QR CODE FOR MORE INFORMATION AND AUDIO VERSION OF SIGNAGE.
3. ALUMINUM SIGN TO BE FABRICATED BY COASTSIDE LAND TRUST
4. SIGN TO BE INSTALLED BY CONTRACTOR.
5. HEIGHT OF SIGN TO MATCH SIGN INSTALLED AT TRAIL ADJACENT TO SMITH FIELDS

1 TRAILHEAD SIGN

SCALE: NTS

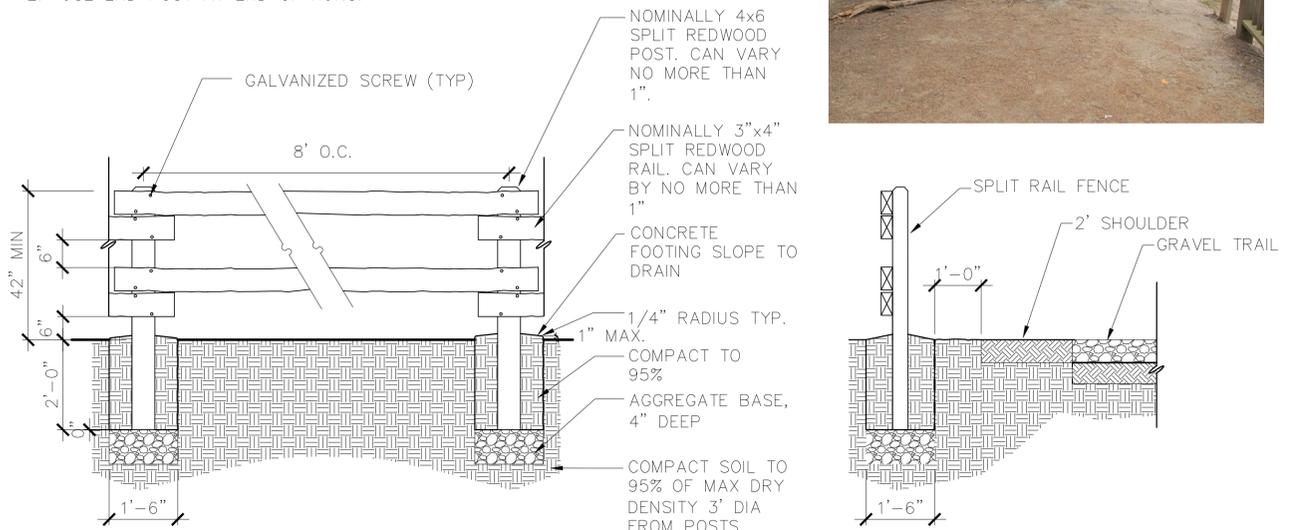


2 TEMPORARY PROTECTIVE FENCING OR LOG BARRIER

SCALE: 3/8" = 1'-0"

NOTE:

1. ALL MEMBERS TO BE FREE OF PEELING WOOD AND LARGE SPLINTERS. SUBMIT SAMPLE FOR APPROVAL.
2. USE END POST AT END OF RUNS.



3 SPLIT RAIL FENCE

SCALE: 1/2" = 1'-0"

6 HAZARD SIGN

SCALE: NTS

WILDLIFE EXCLUSION FENCE NOTES

1.0 GENERAL

1.1 SUBMITTALS

B. (1) FABRICATED PROTOTYPE FOR EXIT FUNNEL

1.2 QUALITY ASSURANCE

A. ACCEPTANCE CRITERION FOR MATERIALS AND WORKMANSHIP: THE BIOLOGIST SHALL INSPECT ALL MATERIALS AND WORKMANSHIP FOR COMPLIANCE WITH THE PLANS AND SPECIFICATIONS. ACCEPTANCE OF ALL MATERIALS AND WORKMANSHIP IS AT THE DISCRETION OF THE BIOLOGIST.

2.0 PRODUCTS

2.1 MANUFACTURERS

A. TEN CATE MIRAFI GEOSYTHETICS, OR APPROVED EQUAL.

B. ERTEC ENVIRONMENTAL SYSTEMS

2.2 MATERIALS AND FABRICATION

A. WILDLIFE FENCE FABRIC: WHERE THE WILDLIFE FENCE IS ALSO A SILT FENCE, THE FABRIC FOR THE WILDLIFE FENCE SHALL BE MIRAFI FW700 WOVEN GEOTEXTILE, OR APPROVED EQUAL. WHERE THE WILDLIFE FENCE IS FOR WILDLIFE EXCLUSION ONLY AND NOT FOR EROSION CONTROL, THE CONTRACTOR MAY INSTALL ERTEC E-FENCE WITH CLIMBER BARRIER. ERTEC E-FENCE SHALL BE INSTALLED PER MANUFACTURERS DETAILS.

B. STAPLES: STAPLES USED TO ATTACH THE WILDLIFE FENCE FABRIC TO THE STAKES AND EXIT FUNNELS TO THE PANELS SHALL NOT BE LESS THAN ONE AND THREE QUARTERS (1-3/4) INCHES AND SHALL BE FABRICATED FROM 14-GAUGE WIRE.

C. EXIT FUNNEL: SHALL BE MADE OF 1/10 INCH OR SMALLER MESH HARDWARE CLOTH.

D. WIRE: SHALL BE 16-GAUGE GALVANIZED WIRE.

E. EXIT FUNNEL TRAP DOOR: SHALL BE MADE OF MYLAR. (SEE 3.E BELOW)

3.0 INSTALLATION

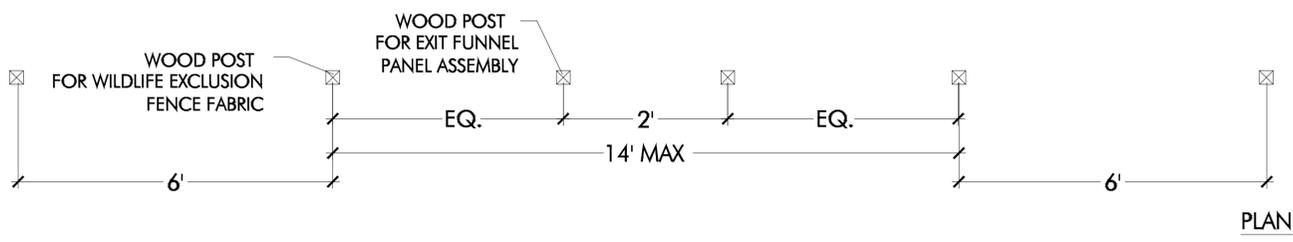
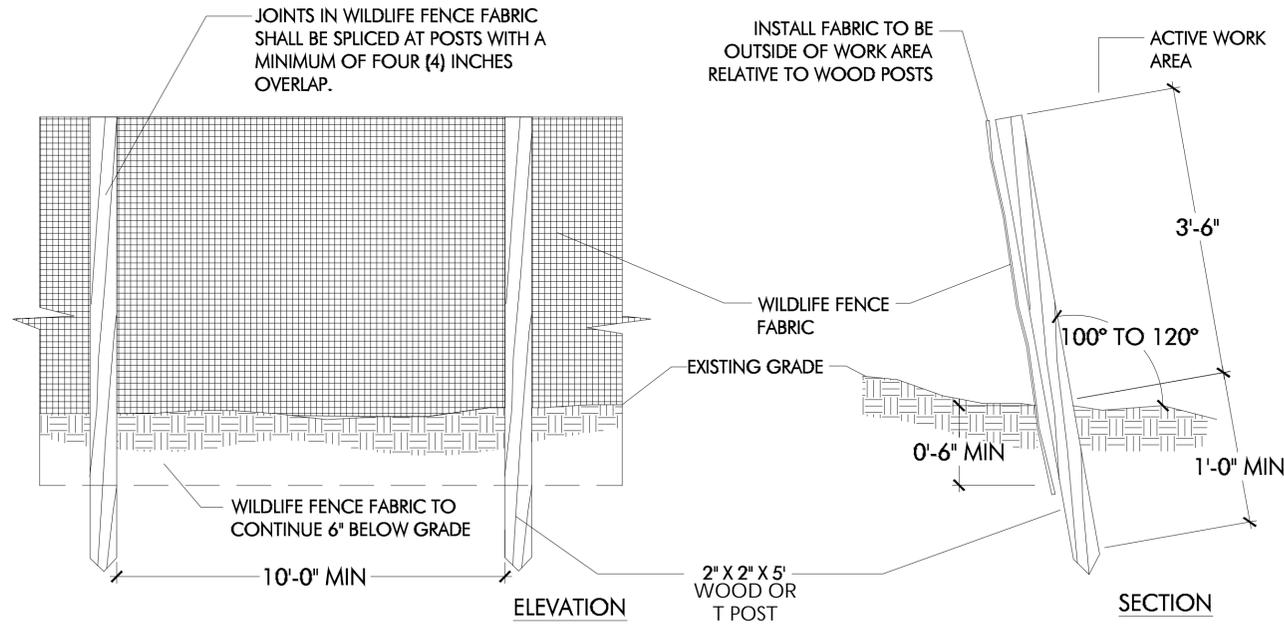
A. INSTALL WILDLIFE EXCLUSION FENCE: WILDLIFE EXCLUSION FENCE SHALL BE 2 FEET BEYOND THE LIMIT OF GRADE, UNLESS OTHERWISE SPECIFIED BY THE BIOLOGIST, AND SHALL FORM A PERIMETER AROUND THE ACTIVE WORK AREA. THE SEQUENCE OR PHASING OF FENCE INSTALLATION SHALL BE AS DIRECTED BY THE BIOLOGIST. ANY CHANGES OR NEW AREAS OF WORK SHALL ALSO BE PROTECTED. THE FABRIC SHALL BE SECURED TO EACH STAKE WITH FOUR (4) STAPLES. THE STAKES SHALL BE ON THE CONSTRUCTION SIDE OF THE FENCE. NATIVE FILL FOR TRENCH BACKFILL SHALL BE TAMPED AND BACKFILL SHALL MATCH EXISTING GRADE ELEVATION.

B. ACCESS AND STREAM LOCATIONS: ANYWHERE THAT THE SNAKE FENCE ALIGNMENT INTERSECTS AN EXISTING ROAD OR STREAM, A GAP SHALL BE LEFT IN THE WILDLIFE EXCLUSION FENCE TO ALLOW TRAFFIC OR WATER TO MOVE UNIMPEDED. THE SIZE OF GAP SHALL BE APPROVED IN THE FIELD BY THE BIOLOGIST. TRAPS SHALL BE INSTALLED AT EACH END OF THE GAP BY THE BIOLOGIST.

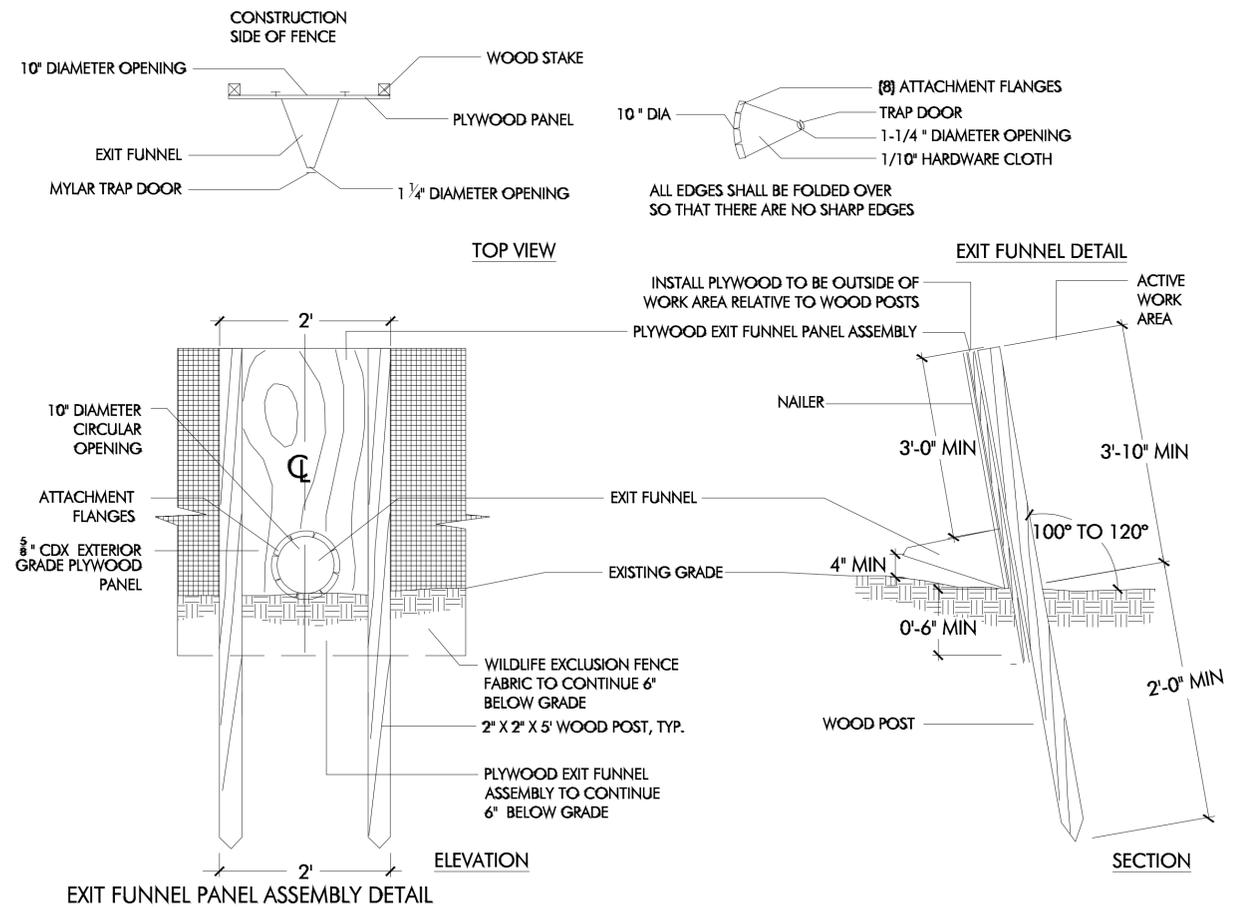
C. INSTALL EXIT PANEL ASSEMBLIES: EXIT FUNNEL PANEL ASSEMBLY SHALL BE FABRICATED AS SHOWN IN THE DETAILS. THE CONTRACTOR SHALL FABRICATE ONE EXAMPLE EXIT FUNNEL PANEL ASSEMBLY FOR REVIEW AND APPROVAL BY THE BIOLOGIST AND PROJECT ENGINEER PRIOR TO COMMENCING WILDLIFE EXCLUSION FENCE INSTALLATION.

D. ONE EXIT FUNNEL PANEL ASSEMBLY SHALL BE INSTALLED EVERY 100 LINEAR FEET OF WILDLIFE EXCLUSION FENCE.

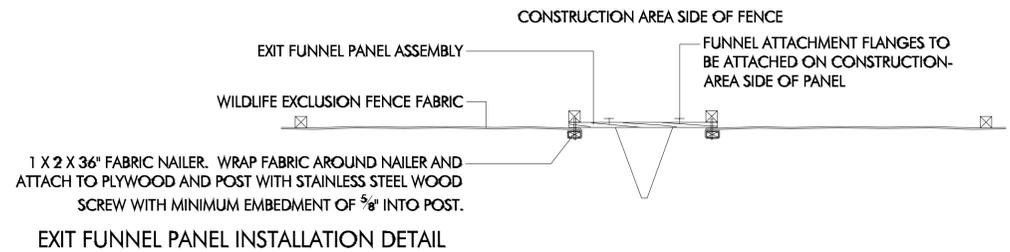
E. EXIT FUNNELS SHALL BE CONSTRUCTED BY ROLLING HARDWARE CLOTH INTO A CONE SHAPE WITH SPECIFIED END DIAMETERS AND CLOSING WITH TWISTED WIRE. EXIT FUNNEL ATTACHMENT FLAPS SHALL BE ATTACHED TO THE PANEL WITH STAPLES. A MYLAR TRAP DOOR SHALL BE CUT TO COVER ENTIRE OPENING OF SMALLER END. THE TRAP DOOR SHALL BE INSTALLED ON THE OPEN SPACE SIDE OF THE FUNNEL AND ATTACHED WITH ONE WIRE AT THE TOP. THE CONTRACTOR SHALL BE SUPPLIED WITH A SAMPLE TRAP DOOR.



EXIT FUNNEL PANEL INSTALLATION DETAIL - TYPICAL POST SPACING



EXIT FUNNEL PANEL ASSEMBLY DETAIL



EXIT FUNNEL PANEL INSTALLATION DETAIL

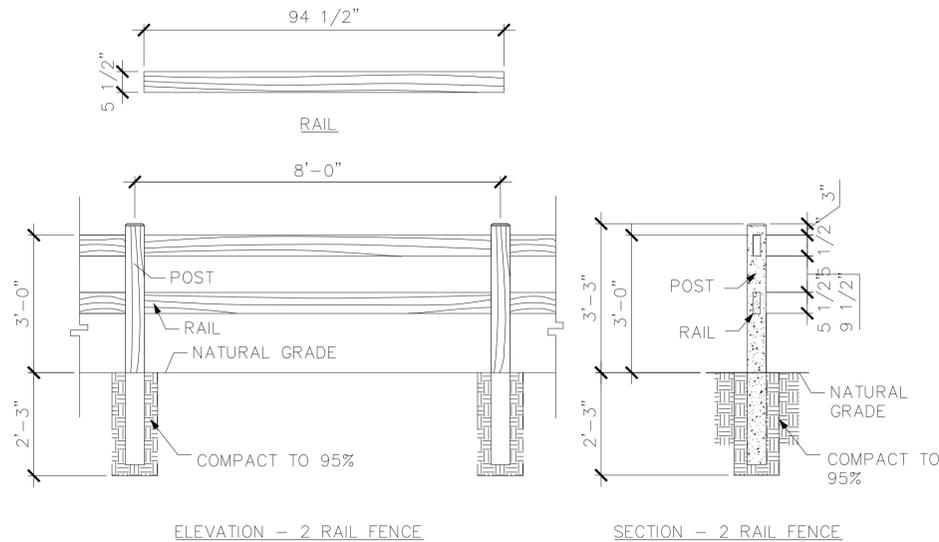
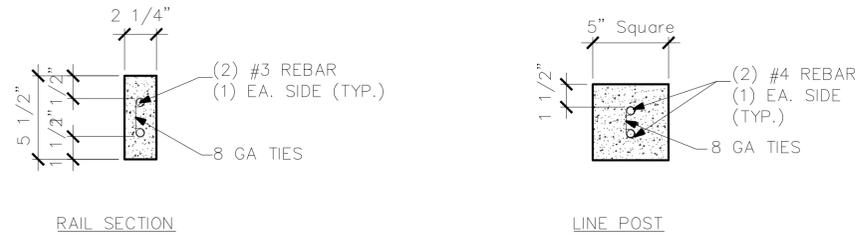
SIERRA II COMPACT DOUBLE-PUBLIC RESTROOM
 MANUFACTURER: ROMTEC
 MODEL #: 2016
 SIDING: CEDAR LAP SIDING
 ROOFING: CORRUGATED METAL
 INCLUDE ATTACHED WATER FOUNTAIN
 WEB SITE: WWW.ROMTEC.COM
 PH.: 541-496-3541



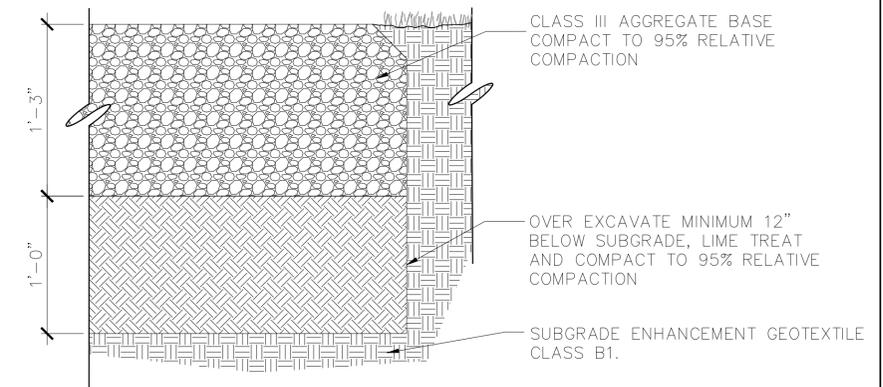
INSTALL FOUNDATION PER MANUFACTURER'S SPECIFICATIONS.

1 RESTROOM
 SCALE: N.T.S

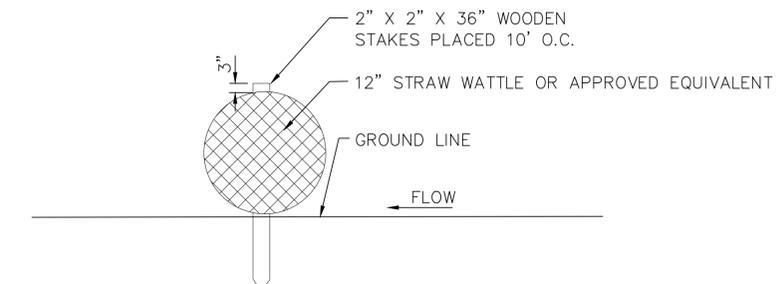
MANUFACTURER: AMERICAN PRECAST CONCRETE
 MODEL: WOODCRETE RANCH RAILS, 2 RAIL FENCE
 CONTACT: EMILY KREUGER
 WEB SITE: WWW.AMERICANPRECASTFENCES.COM
 PH: (626) 539-2547
 SEE MANUFACTURER SPECS AND NOTES FOR MORE INSTALLATION INFORMATION



4 CONCRETE SPLIT RAIL FENCE
 SCALE: 1/2" = 1'-0"



2 AGGREGATE BASE PARKING LOT
 SCALE: 1 1/2" = 1'-0"



3 STRAW WATTLE
 SCALE: 1" = 1'-0"

PLACEWORKS
 2040 BANCROFT WAY #400
 BERKELEY, CA 94704
 PHONE (510) 848-3815

LICENSED LANDSCAPE ARCHITECT
 SARAH SUTTON
 No. 4219

Signature _____
 Business Date _____
 Date _____

STATE OF CALIFORNIA

PROJECT TITLE:
Wavcrest Coastal Trail Phase 2
 Coastside Land Trust

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DRAWING TITLE:
Details

SCALE: As Shown

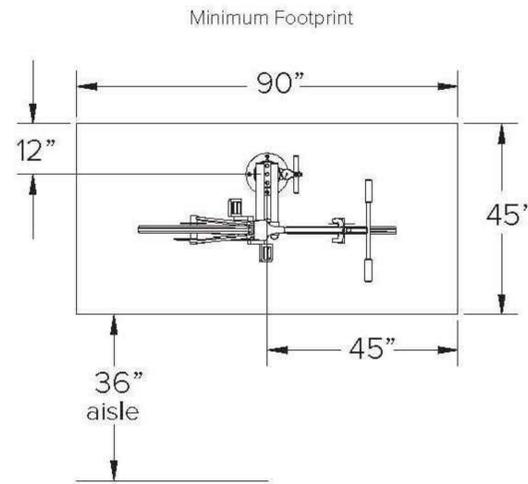
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REVISIONS:

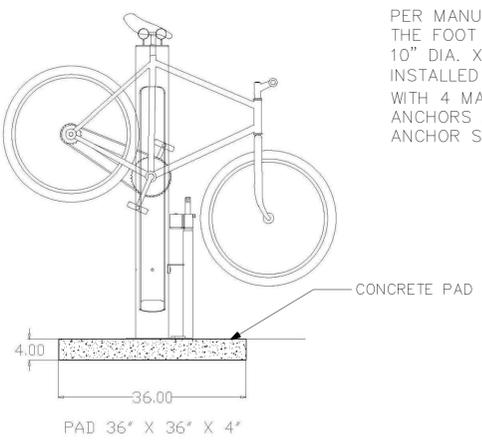
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DRAWING NO:
LD4

SHEET 25 OF 29 SHEETS

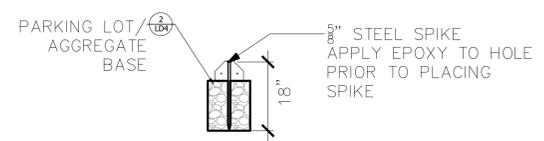
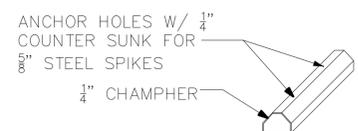
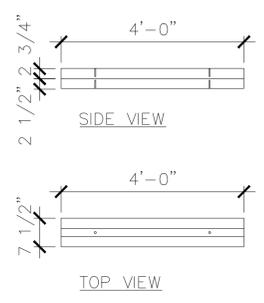


FIXIT BICYCLE REPAIR STAND
 MANUFACTURER: DERO
 MODEL #: FIXIT
 WEB SITE: WWW.DERO.COM
 PH.: 612-359-0689
 FINISH: POWDER COAT - HUNTER GREEN



PER MANUFACTURER SPECIFICATIONS, THE FOOT MOUNTED FIXIT HAS ONE 10" DIA. X .25" PLATE THAT IS INSTALLED ONTO A CONCRETE BASE WITH 4 MASONRY ANCHORS. 3/8" ANCHORS ARE THE STANDARD ANCHOR SHIPPED WITH THIS RACK.

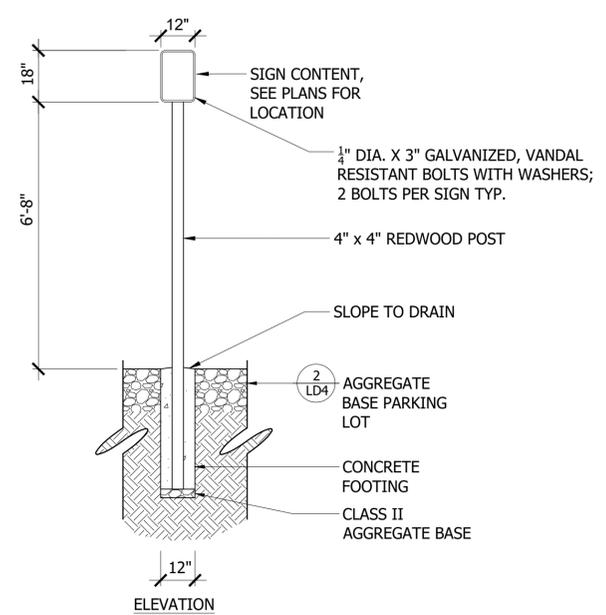
3 BIKE SERVICE STATION
 SCALE: N.T.S



GRID BIKE RACKS DOUBLE SIDED
 MANUFACTURER: BELSON OUTDOORS
 MODEL #: CBBR-18DG-SV | POWDER COAT SILVER
 WEB SITE: WWW.BELSON.COM
 PH.: 1-800-323-5664

C:\Users\ldgomez\Downloads\CBBR-18DG-SV-001-G.jpg

4 4'-0" LONG WHEEL STOP
 SCALE: 1/2" = 1'-0"

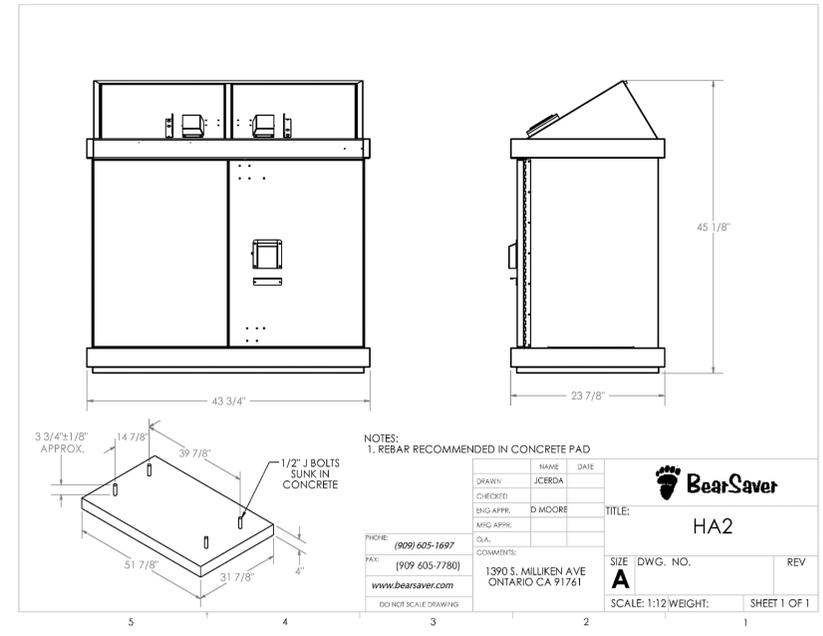


SIGN CONTENT

6 HORSE TRAILER PARKING SIGN
 SCALE: 3/8" = 1'-0"

5 DOUBLE SIDED GRID BIKE RACK
 SCALE: N.T.S

1 TRASH RECEPTACLE
 SCALE: N.T.S



NOTES:
 1. REBAR RECOMMENDED IN CONCRETE PAD

NAME	DATE
DRAWN: J.CERDA	
CHECKED: D. MOORE	
ENG. APPR.: D. MOORE	
MFG. APPR.:	
DATE:	

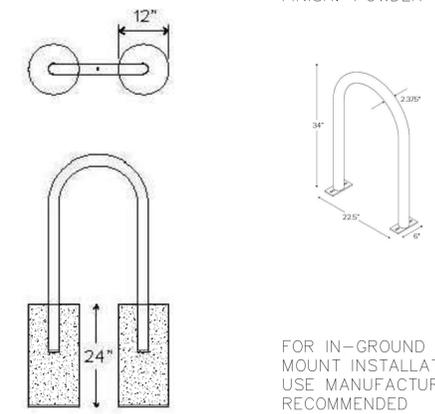
PROJECT INFORMATION:
 PHONE: (909) 605-1697
 FAX: (909) 405-7780
 WWW.BEARSAYER.COM
 DO NOT SCALE DRAWINGS

COMMENTS:
 1390 S. MILLIKEN AVE
 ONTARIO CA 91761

SCALE: 1:12 WEIGHT: SHEET 1 OF 1

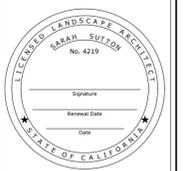
HOOP RACK HEAVY DUTY
 MANUFACTURER: DERO
 MODEL #: HOOP RACK
 WEB SITE: WWW.DERO.COM
 PH.: 612-359-0689
 FINISH: POWDER COAT - HUNTER GREEN

IN-GROUND MOUNT



FOR IN-GROUND MOUNT INSTALLATION, USE MANUFACTURER RECOMMENDED SPECIFICATIONS.

2 BIKE RACK
 SCALE: N.T.S



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DRAWING TITLE:
Details

SCALE: As Shown

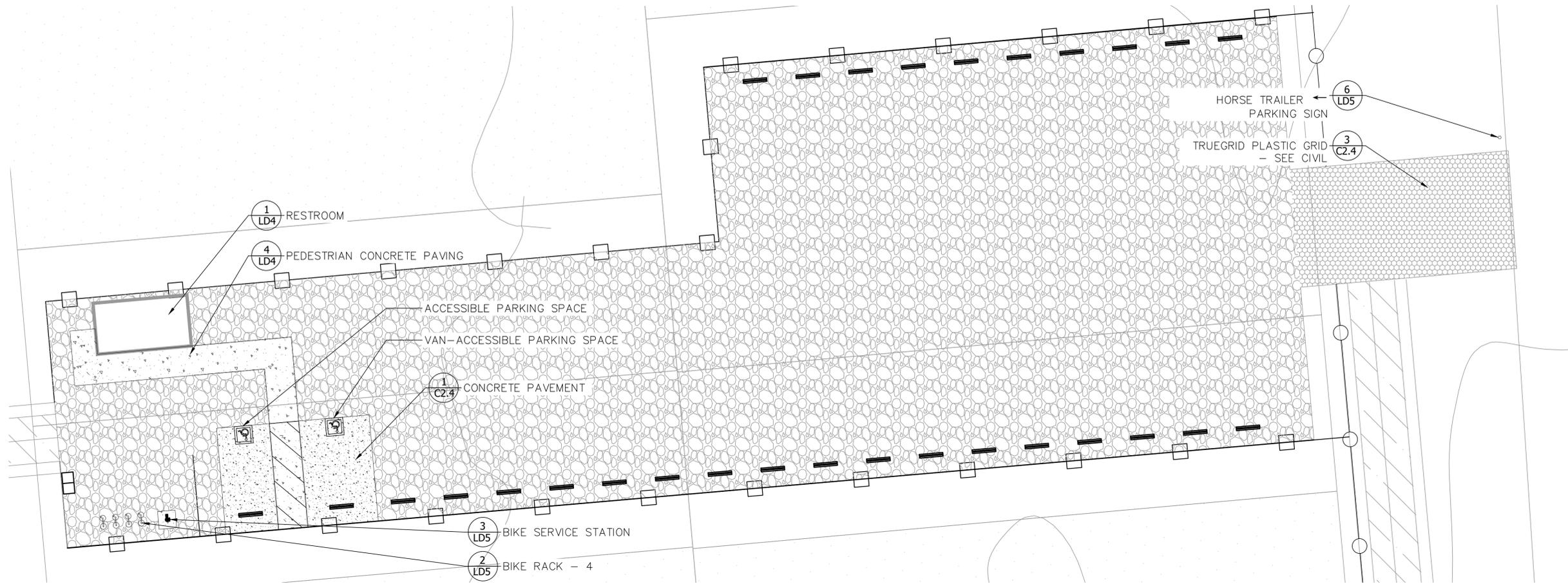
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REVISIONS:

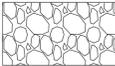
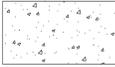
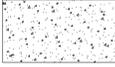
- △
- △
- △

DRAWING NO.:
LD5

SHEET 26 OF 29 SHEETS



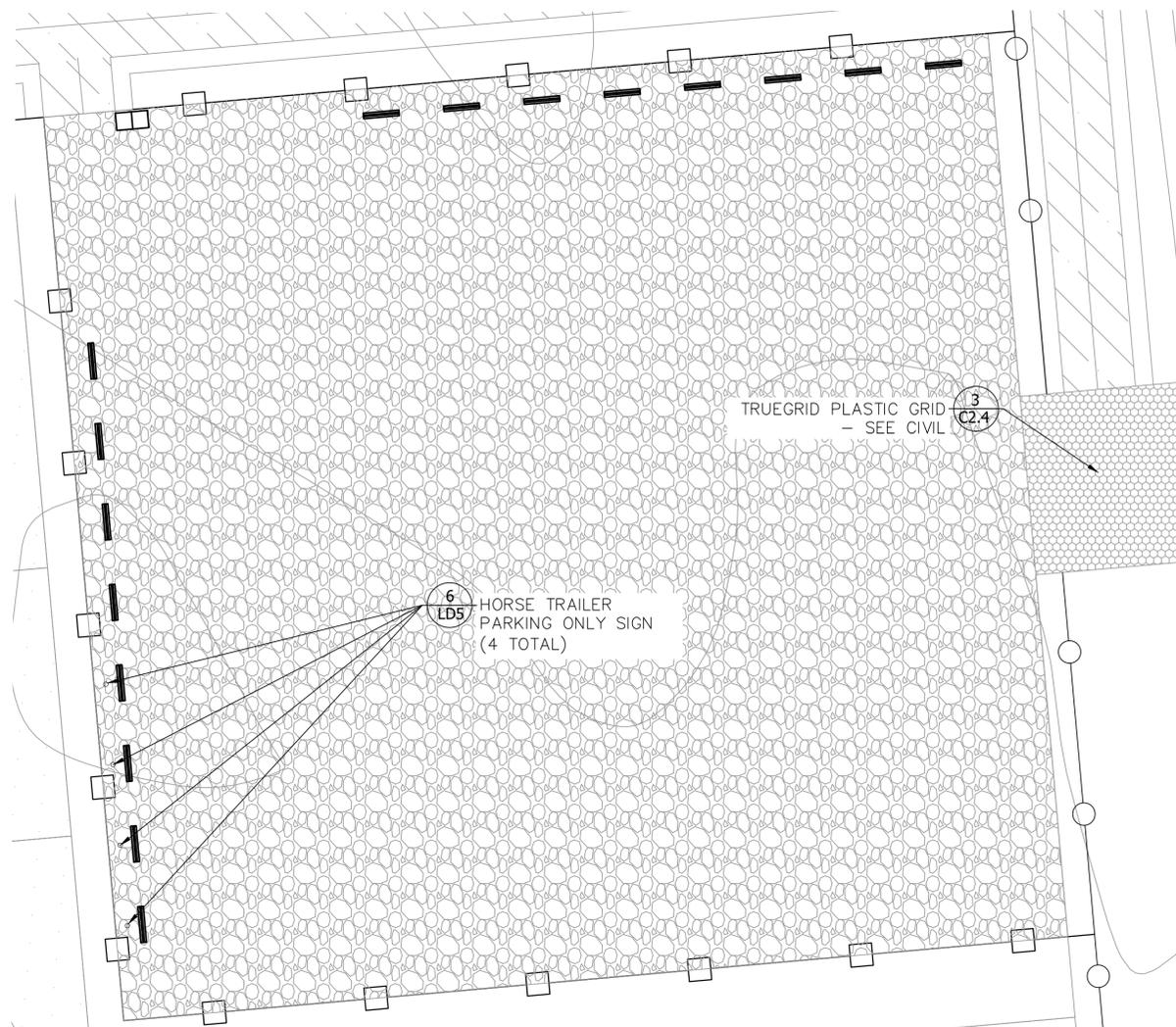
LEGEND

	AGGREGATE BASE PARKING LOT 2 LD4		SPLIT RAIL FENCING 3 LD2		TRASH RECEPTACLE 1 LD5
	PEDESTRIAN PATHWAY CONCRETE 2 C2.4		CONCRETE SPLIT RAIL FENCING 4 LD4		BIKE RACK 2 LD5
	CONCRETE PAVEMENT 1 C2.4		HORSE TRAILER PARKING SIGN 6 LD5		BIKE SERVICE STATION 3 LD5
	GRAVEL TRAIL		4'-0" LONG WHEEL STOP 4 LD5		

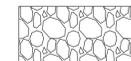
NOTE:
 1. SEE TREE REMOVAL PLAN ON LD8 FOR EXISTING TREE LOCATIONS
 2. 29 TOTAL PARKING STALLS IN MAIN STAGING AREA
 2 ADA PARKING STALLS

1 PARKING LOT 1 - MAIN STAGING AREA
 SCALE: 1:10

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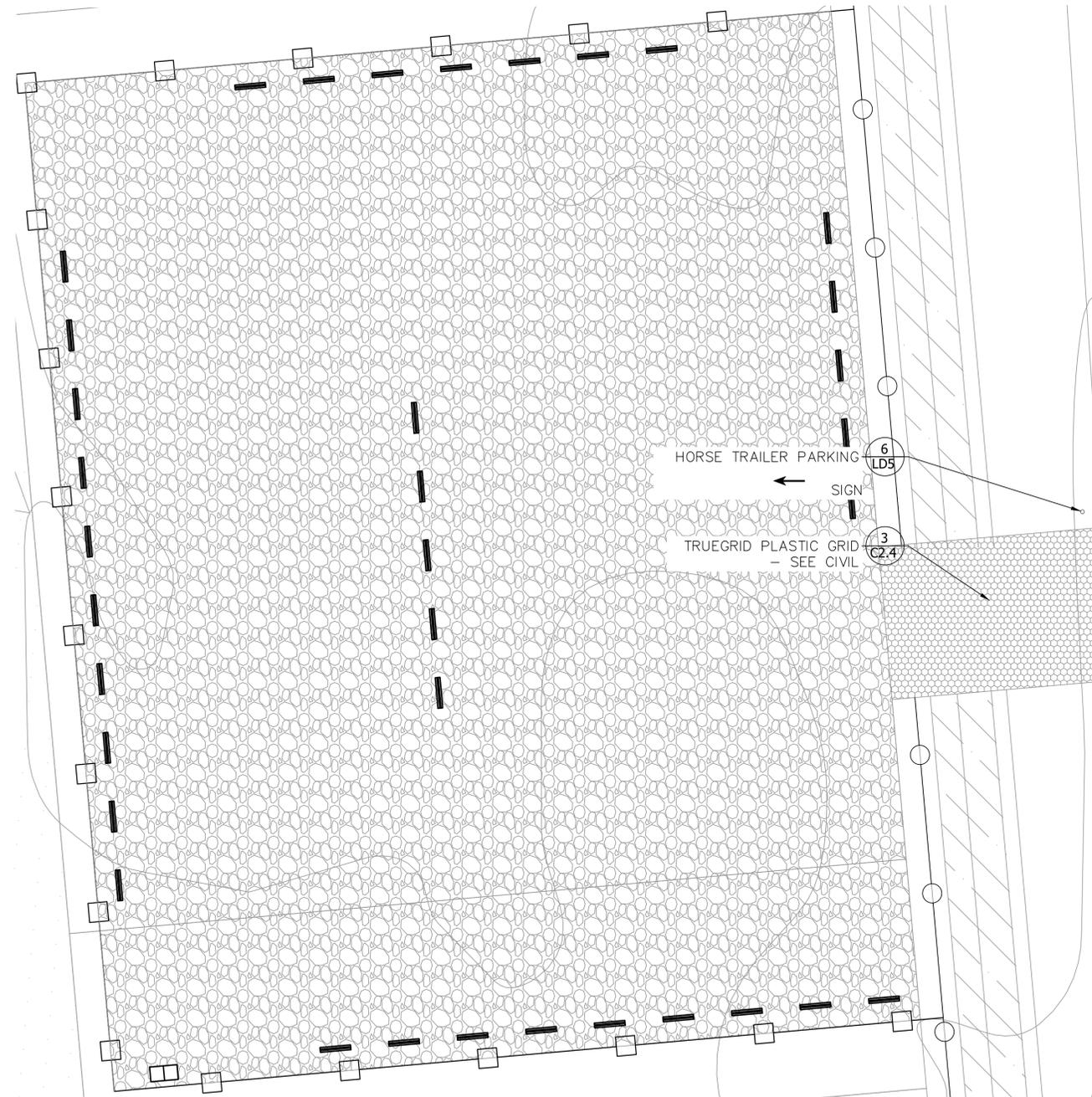


LEGEND

-  AGGREGATE BASE PARKING LOT **2 LD4**
-  GRAVEL TRAIL
-  TRASH RECEPTACLE **1 LD5**
-  4'-0" LONG WHEEL STOP **4 LD5**
-  SPLIT RAIL FENCING **3 LD2**
-  CONCRETE SPLIT RAIL FENCING **4 LD4**
-  HORSE TRAILER PARKING ONLY SIGN **6 LD5**

- NOTE:**
- SEE TREE REMOVAL PLAN ON LD8 FOR EXISTING TREE LOCATIONS
 - 16 TOTAL PARKING STALLS IN OVERFLOW STAGING AREA 2
4 EQUESTRIAN PARKING STALLS

2 **PARKING LOT 3 - OVERFLOW STAGING AREA**
SCALE: 1:10

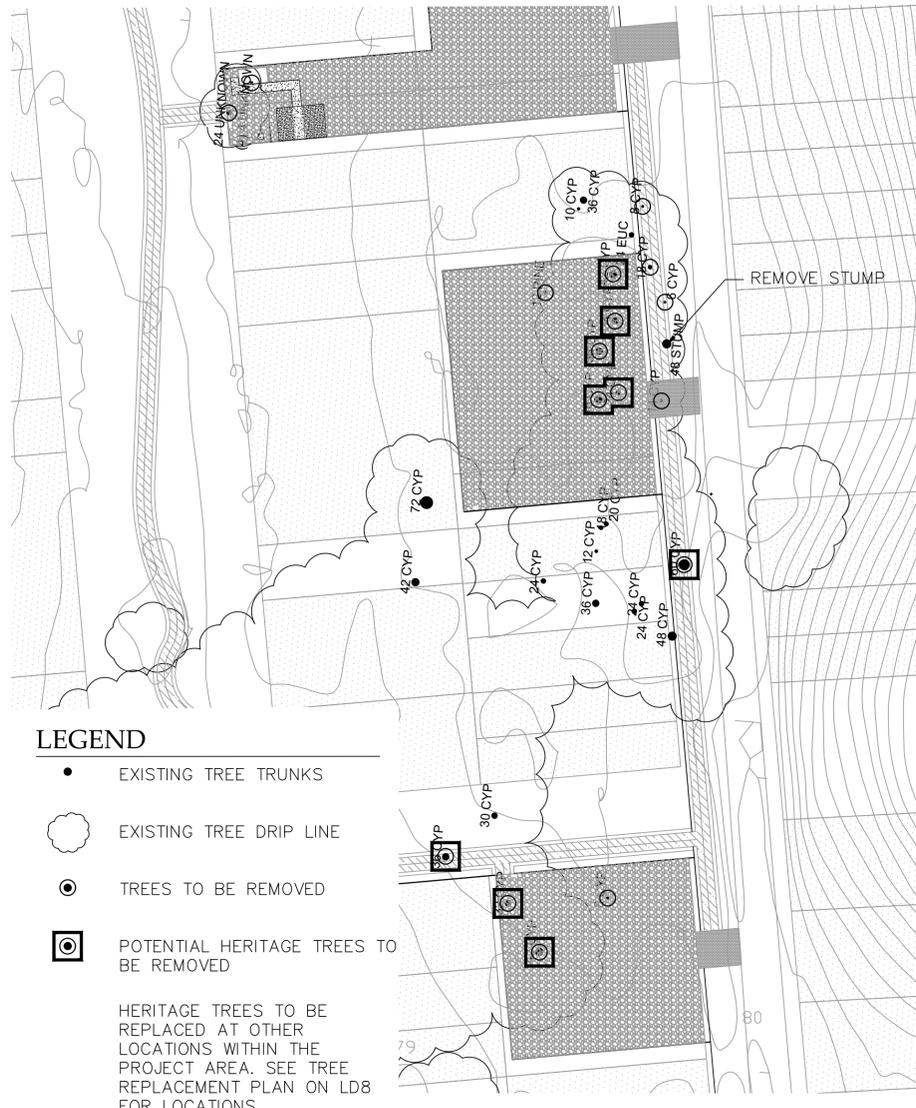


LEGEND

-  AGGREGATE BASE PARKING LOT **2 LD4**
-  GRAVEL TRAIL
-  TRASH RECEPTACLE **1 LD5**
-  SPLIT RAIL FENCING **3 LD2**
-  CONCRETE SPLIT RAIL FENCING **4 LD4**
-  HORSE TRAILER PARKING ONLY SIGN **6 LD5**
-  4'-0" LONG WHEEL STOP **4 LD5**

- NOTE:**
- SEE TREE REMOVAL PLAN ON LD8 FOR EXISTING TREE LOCATIONS
 - 36 TOTAL PARKING STALLS IN OVERFLOW STAGING AREA 1

1 **PARKING LOT 2 - OVERFLOW STAGING AREA**
SCALE: 1:10



- LEGEND**
- EXISTING TREE TRUNKS
 - EXISTING TREE DRIP LINE
 - ⊙ TREES TO BE REMOVED
 - ⊠ POTENTIAL HERITAGE TREES TO BE REMOVED

HERITAGE TREES TO BE REPLACED AT OTHER LOCATIONS WITHIN THE PROJECT AREA. SEE TREE REPLACEMENT PLAN ON LD8 FOR LOCATIONS.

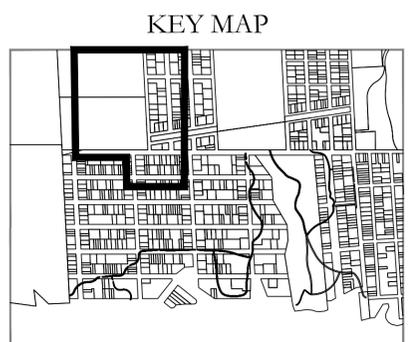
2 TREE REMOVAL PLAN
SCALE: 1"=50'



LEGEND

- ⊙ QUERCUS AGRIFOLIA (COAST LIVE OAK)

- NOTE:**
1. TREE REPLACEMENT SHALL TAKE PLACE OUTSIDE OF THE PROJECT AREA ON LAND OWNED BY COASTSIDE LAND TRUST AND CONSIDERED TO BE MORE APPROPRIATE FOR TREE PLANTING AND NOT PART OF THE COASTAL PRAIRIE RESTORATION EFFORT.
 2. ALL TREES SHALL BE PLANTED AS 24" BOX.



1 TREE REPLACEMENT PLAN
SCALE: 1"=100'

95% Submittal



THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT AND THE CITY PUBLIC WORKS AGENCY AT LEAST 48 HOURS (2 WORKING DAYS) PRIOR TO BEGINNING ANY EXCAVATION IN THE VICINITY OF UNDERGROUND FACILITIES.

95% CD Submittal

WAVECREST TRAIL PROJECT- PHASE 2

COASTSIDE LAND TRUST

June 23, 2023

Sheet Index

1. C1 Cover Sheet
2. C2 Overview Map
3. C3 South Step Layout Plan
4. C4 North Step Layout Plan
5. C5 North Step Layout Plan
6. C6 South Step Profiles
7. C7 North Step Profiles - Left
8. C8 North Step Profiles - Right
9. C9 South Step Sections 1 of 2
10. C10 South Step Sections 2 of 2
11. C11 North Step Sections 1 of 3
12. C12 North Step Sections 2 of 3
13. C13 North Step Sections 3 of 3
14. C14 Interlocking Crib Step Details
15. C15 West Gully Stabilization Details
16. C16 Ditch and Slope Drain Details
17. C17 Stair Notes
18. S1 Structural Details for Interlocking Crib Steps
19. S2 Structural Details for Handrail, Guard, & Landing
20. S3 Structural Details for Timber Crib Wall
21. S4 Structural Plan for Crib Wall and General Notes

CONTACTS

OWNER

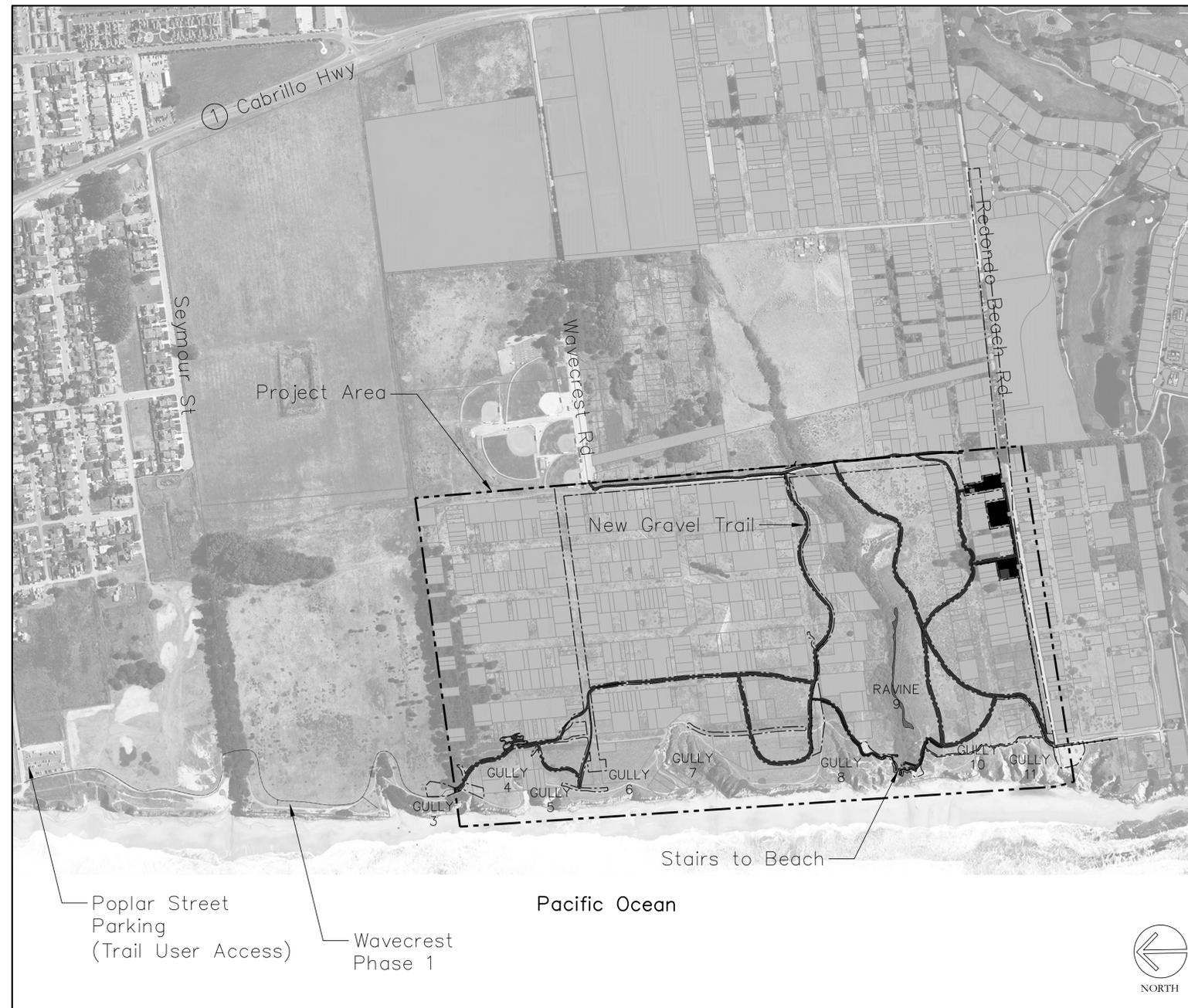
COASTSIDE LAND TRUST
788 MAIN STREET
HALF MOON BAY, CA 94019
(650) 726-3056

ENGINEERING AND GEOLOGIST - PLAN PREPARER

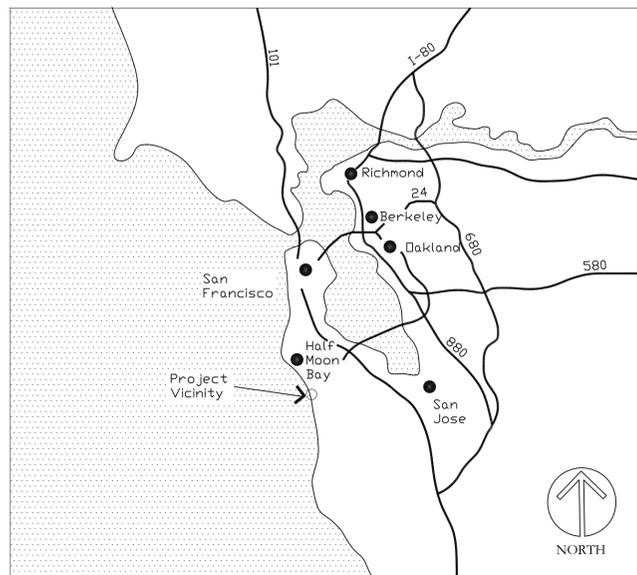
TIMOTHY C BEST, CEG
1002 COLUMBIA STREET
SANTRA CRUZ, CA 95060
(831) 425-5832 (831) 332-7791 - CELL
CONTACT: TIM BEST (timbest@coastgeo.com)

GEOTECHNICAL ENGINEER

HARO, KASHUNICH AND ASSOCIATES. INC
116 EAST LAKE AVE
WATSONVILLE, CA 95076
(831) 722-4175 ((831) 247-5466 CALL
CONTACT: JOHN KASUNICH

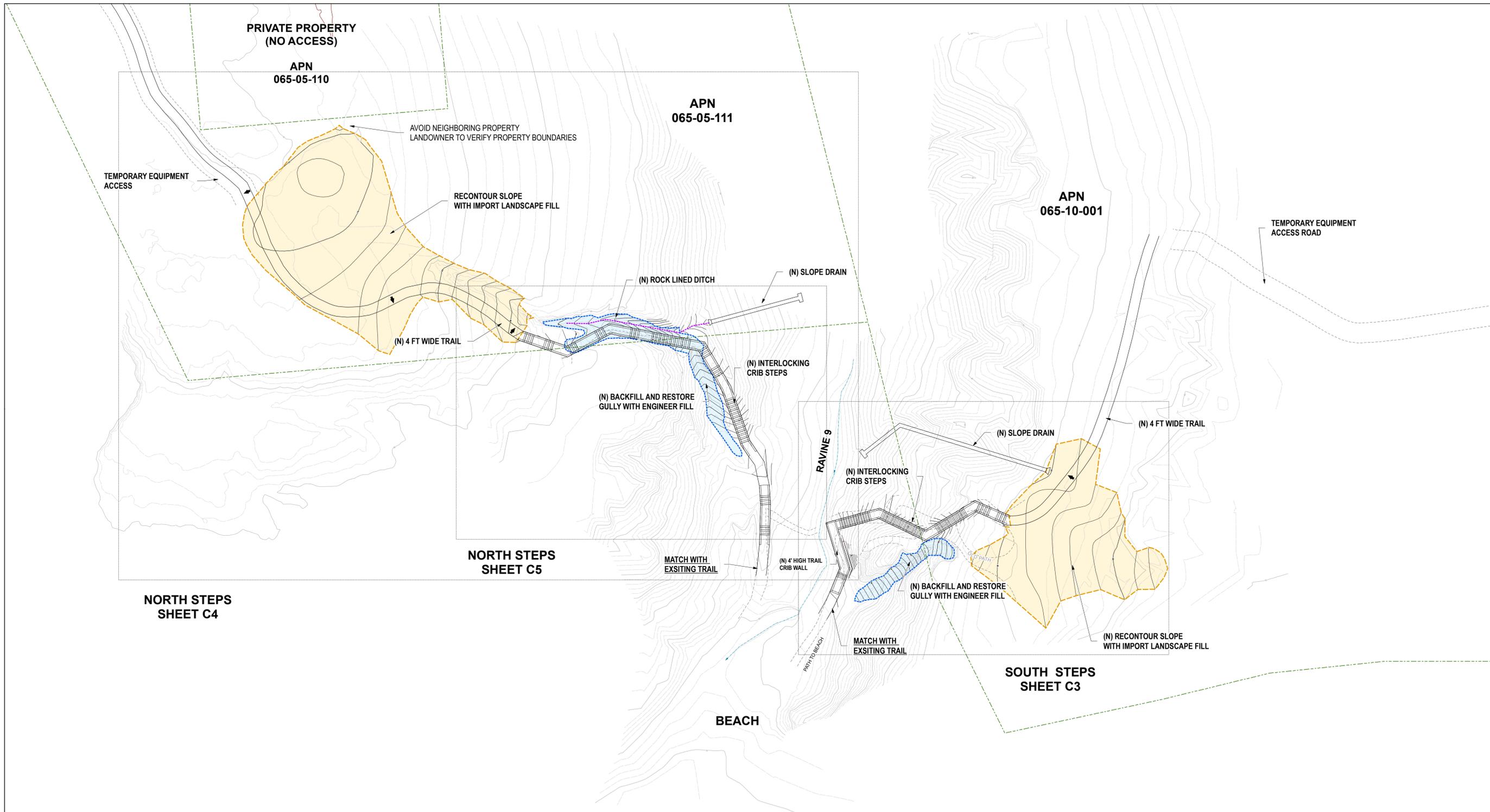


Location Map



Vicinity Map

NOTE:
PLANS FOR STAIRS TO BEACH ARE INCLUDED IN SEPARATE DRAWING SET COMPLETED BY COASTGEO AND MAYONE STRUCTURAL ENGINEERING, INC.



LEGEND	
	(N) 4-FOOT WIDE TRAIL
	(N) INTERLOCKING CRIB STEPS
	(N) TIMBER CRIB WALL
	(N) ROCK LINED DITCH
	(N) BACKFILL GULLY WITH IMPORT ENGINEER FILL
	(N) RECONTOUR SLOPE WITH IMPORT LANDSCAPE FILL
	(N) REVERSE GRADE DIP
	(N) SLOPE DRAIN
	EDGE OF EXISTING PATH
	DRAINAGE PATH
	PROPERTY BOUNDARY / APPROXIMATE
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR

65% CONSTRUCTION DOCUMENTS
 SUBJECT TO REVISION
 NOT FOR CONSTRUCTION

TOPOGRAPHIC SURVEY
 MODIFIED FROM:
 - BOWMAN & WILLIAMS, INC.
 3949 RESEARCH PARK COURT
 SOQUEL, CA 95073
 (831) 426-3560
 JOB NO: 27340

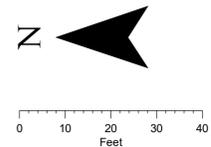
 - TIMOTHY C. BEST, CEG
 1002 COLUMBIA STREET
 SANTA CRUZ, CA 95060

 - 2016 USGS WEST COAST EL-NINO LIDAR
https://coast.noaa.gov/htdata/raster2/elevation/West_Coast_El_Nino_DEM_2016_6260

BASIS OF ELEVATIONS (BENCHMARK)
 ELEVATIONS FOR THIS SURVEY ARE BASED ON A TIE TO THE NATIONAL GEODETIC SURVEY (NGS) BENCHMARK PID-HT1455 (DESIGNATION - MOON 2), BENCHMARK ELEVATION 73.00 (NAVD88)

BOUNDARY NOTE
 THERE WAS NO BOUNDARY DETERMINATION AS PART OF THIS STUDY

STATE LANDS NOTE
 ALL PORTIONS OF THIS SURVEY ARE ABOVE THE MEAN HIGH TIDE LINE, BEING THE STATE LANDS BOUNDARY



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SCALE: 1"=20'

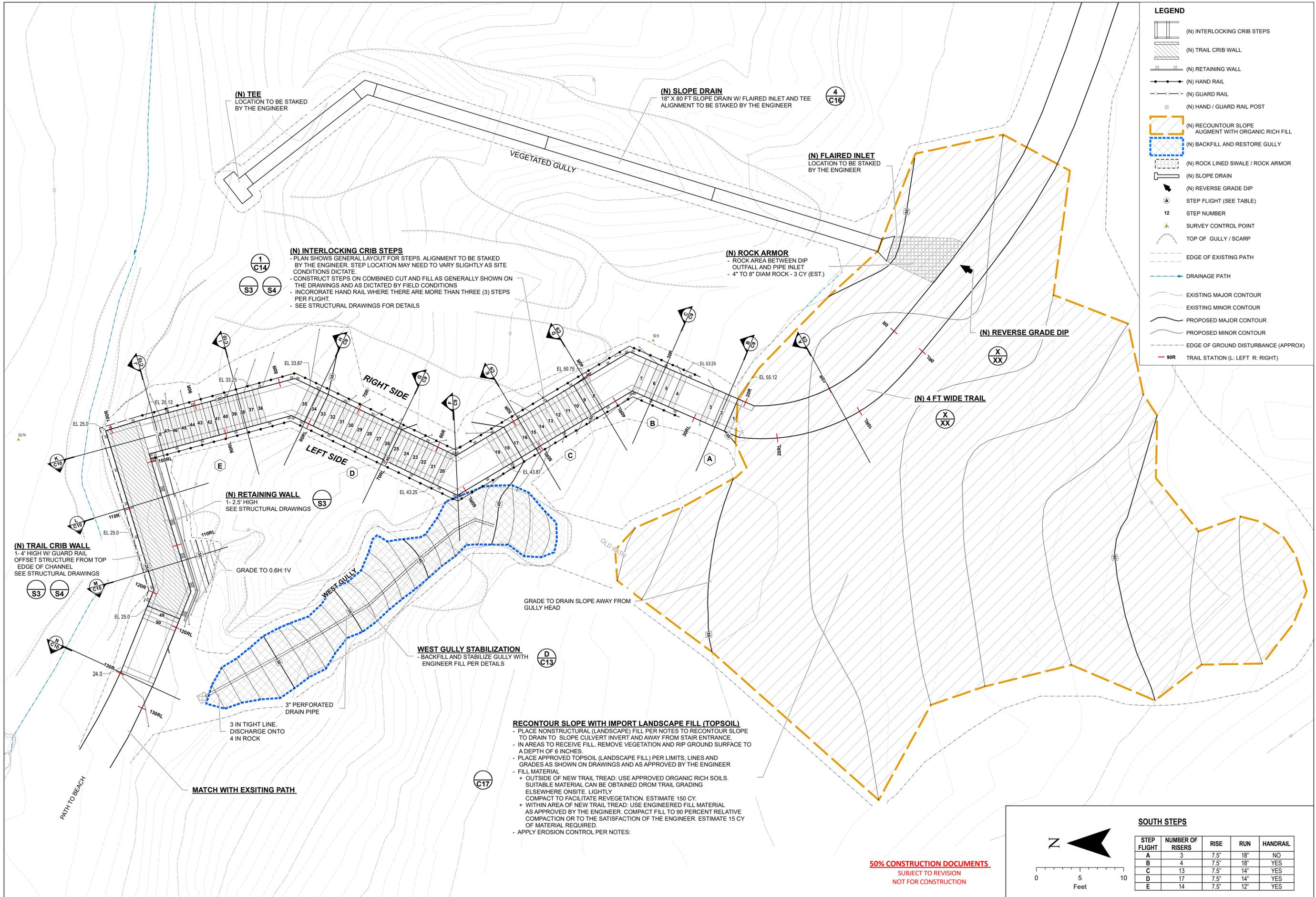
DATE: 3/18/2020

REVISIONS:

DRAWING NO:

C2

SHEET ___ OF ___ SHEETS



(N) TEE
LOCATION TO BE STAKED BY THE ENGINEER

(N) SLOPE DRAIN
18" X 80 FT SLOPE DRAIN W/ FLAIED INLET AND TEE ALIGNMENT TO BE STAKED BY THE ENGINEER

4
C16

(N) FLAIED INLET
LOCATION TO BE STAKED BY THE ENGINEER

(N) INTERLOCKING CRIB STEPS
- PLAN SHOWS GENERAL LAYOUT FOR STEPS. ALIGNMENT TO BE STAKED BY THE ENGINEER. STEP LOCATION MAY NEED TO VARY SLIGHTLY AS SITE CONDITIONS DICTATE.
- CONSTRUCT STEPS ON COMBINED CUT AND FILL AS GENERALLY SHOWN ON THE DRAWINGS AND AS DICTATED BY FIELD CONDITIONS.
- INCORPORATE HAND RAIL WHERE THERE ARE MORE THAN THREE (3) STEPS PER FLIGHT.
- SEE STRUCTURAL DRAWINGS FOR DETAILS.

(N) ROCK ARMOR
- ROCK AREA BETWEEN DIP OUTFALL AND PIPE INLET
- 4" TO 8" DIAM ROCK - 3 CY (EST.)

(N) REVERSE GRADE DIP

(N) 4 FT WIDE TRAIL

(N) RETAINING WALL
1- 2.5' HIGH
SEE STRUCTURAL DRAWINGS

(N) TRAIL CRIB WALL
1- 4' HIGH W/ GUARD RAIL
OFFSET STRUCTURE FROM TOP EDGE OF CHANNEL
SEE STRUCTURAL DRAWINGS

WEST GULLY STABILIZATION
- BACKFILL AND STABILIZE GULLY WITH ENGINEER FILL PER DETAILS

RECONTOUR SLOPE WITH IMPORT LANDSCAPE FILL (TOPSOIL)
- PLACE NONSTRUCTURAL (LANDSCAPE) FILL PER NOTES TO RECONTOUR SLOPE TO DRAIN TO SLOPE CULVERT INVERT AND AWAY FROM STAIR ENTRANCE.
- IN AREAS TO RECEIVE FILL, REMOVE VEGETATION AND RIP GROUND SURFACE TO A DEPTH OF 6 INCHES.
- PLACE APPROVED TOPSOIL (LANDSCAPE FILL) PER LIMITS, LINES AND GRADES AS SHOWN ON DRAWINGS AND AS APPROVED BY THE ENGINEER
- FILL MATERIAL
+ OUTSIDE OF NEW TRAIL TREAD: USE APPROVED ORGANIC RICH SOILS. SUITABLE MATERIAL CAN BE OBTAINED FROM TRAIL GRADING ELSEWHERE ONSITE. LIGHTLY COMPACT TO FACILITATE REVEGETATION. ESTIMATE 150 CY.
+ WITHIN AREA OF NEW TRAIL TREAD: USE ENGINEERED FILL MATERIAL AS APPROVED BY THE ENGINEER. COMPACT FILL TO 90 PERCENT RELATIVE COMPACTION OR TO THE SATISFACTION OF THE ENGINEER. ESTIMATE 15 CY OF MATERIAL REQUIRED.
- APPLY EROSION CONTROL PER NOTES.

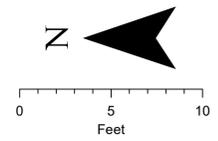
MATCH WITH EXSITING PATH

50% CONSTRUCTION DOCUMENTS
SUBJECT TO REVISION
NOT FOR CONSTRUCTION

- LEGEND**
- (N) INTERLOCKING CRIB STEPS
 - (N) TRAIL CRIB WALL
 - (N) RETAINING WALL
 - (N) HAND RAIL
 - (N) GUARD RAIL
 - (N) HAND / GUARD RAIL POST
 - (N) RECONTOUR SLOPE AUGMENT WITH ORGANIC RICH FILL
 - (N) BACKFILL AND RESTORE GULLY
 - (N) ROCK LINED SWALE / ROCK ARMOR
 - (N) SLOPE DRAIN
 - (N) REVERSE GRADE DIP
 - STEP FLIGHT (SEE TABLE)
 - STEP NUMBER
 - SURVEY CONTROL POINT
 - TOP OF GULLY / SCARP
 - EDGE OF EXISTING PATH
 - DRAINAGE PATH
 - EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - EDGE OF GROUND DISTURBANCE (APPROX)
 - 90R TRAIL STATION (L: LEFT R: RIGHT)

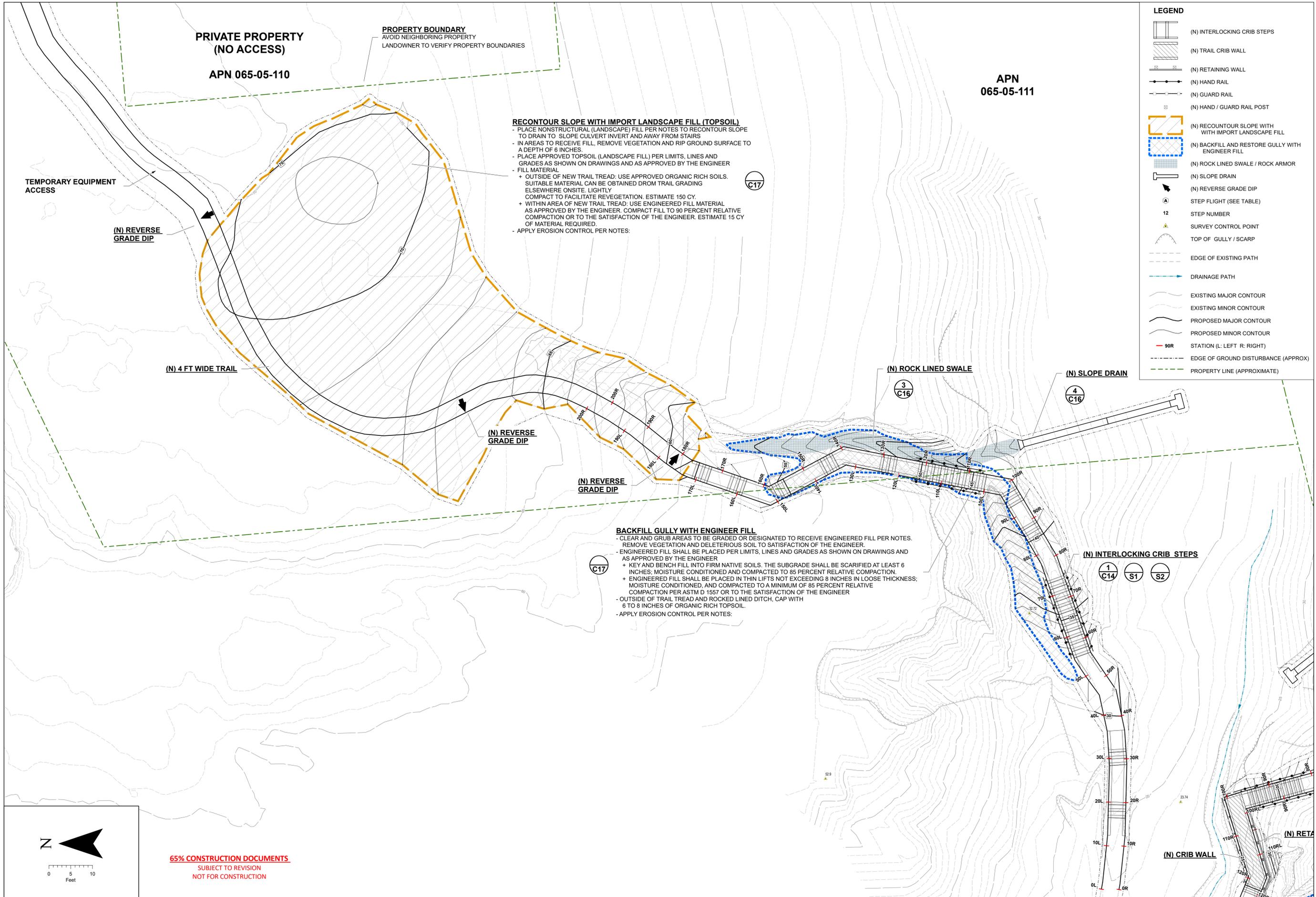
SOUTH STEPS

STEP FLIGHT	NUMBER OF RISERS	RISE	RUN	HANDRAIL
A	3	7.5"	18"	NO
B	4	7.5"	18"	YES
C	13	7.5"	14"	YES
D	17	7.5"	14"	YES
E	14	7.5"	12"	YES



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SCALE: 1"=5'
DATE: 3/18/2020
REVISIONS:



**PRIVATE PROPERTY
(NO ACCESS)**
APN 065-05-110

PROPERTY BOUNDARY
AVOID NEIGHBORING PROPERTY
LANDOWNER TO VERIFY PROPERTY BOUNDARIES

**APN
065-05-111**

RECONTOUR SLOPE WITH IMPORT LANDSCAPE FILL (TOPSOIL)
- PLACE NONSTRUCTURAL (LANDSCAPE) FILL PER NOTES TO RECONTOUR SLOPE TO DRAIN TO SLOPE CULVERT INVERT AND AWAY FROM STAIRS
- IN AREAS TO RECEIVE FILL, REMOVE VEGETATION AND RIP GROUND SURFACE TO A DEPTH OF 6 INCHES.
- PLACE APPROVED TOPSOIL (LANDSCAPE FILL) PER LIMITS, LINES AND GRADES AS SHOWN ON DRAWINGS AND AS APPROVED BY THE ENGINEER
- FILL MATERIAL
+ OUTSIDE OF NEW TRAIL TREAD: USE APPROVED ORGANIC RICH SOILS. SUITABLE MATERIAL CAN BE OBTAINED FROM TRAIL GRADING ELSEWHERE ONSITE. LIGHTLY COMPACT TO FACILITATE REVEGETATION. ESTIMATE 150 CY
+ WITHIN AREA OF NEW TRAIL TREAD: USE ENGINEERED FILL MATERIAL AS APPROVED BY THE ENGINEER. COMPACT FILL TO 90 PERCENT RELATIVE COMPACTION OR TO THE SATISFACTION OF THE ENGINEER. ESTIMATE 15 CY OF MATERIAL REQUIRED.
- APPLY EROSION CONTROL PER NOTES:

BACKFILL GULLY WITH ENGINEER FILL
- CLEAR AND GRUB AREAS TO BE GRADED OR DESIGNATED TO RECEIVE ENGINEERED FILL PER NOTES. REMOVE VEGETATION AND DELETERIOUS SOIL TO SATISFACTION OF THE ENGINEER.
- ENGINEERED FILL SHALL BE PLACED PER LIMITS, LINES AND GRADES AS SHOWN ON DRAWINGS AND AS APPROVED BY THE ENGINEER
+ KEY AND BENCH FILL INTO FIRM NATIVE SOILS. THE SUBGRADE SHALL BE SCARIFIED AT LEAST 6 INCHES; MOISTURE CONDITIONED AND COMPACTED TO 85 PERCENT RELATIVE COMPACTION.
+ ENGINEERED FILL SHALL BE PLACED IN THIN LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS; MOISTURE CONDITIONED, AND COMPACTED TO A MINIMUM OF 85 PERCENT RELATIVE COMPACTION PER ASTM D 1557 OR TO THE SATISFACTION OF THE ENGINEER
- OUTSIDE OF TRAIL TREAD AND ROCKED LINED DITCH, CAP WITH 6 TO 8 INCHES OF ORGANIC RICH TOPSOIL.
- APPLY EROSION CONTROL PER NOTES:

LEGEND

- (N) INTERLOCKING CRIB STEPS
- (N) TRAIL CRIB WALL
- (N) RETAINING WALL
- (N) HAND RAIL
- (N) GUARD RAIL
- (N) HAND / GUARD RAIL POST
- (N) RECONTOUR SLOPE WITH IMPORT LANDSCAPE FILL
- (N) BACKFILL AND RESTORE GULLY WITH ENGINEER FILL
- (N) ROCK LINED SWALE / ROCK ARMOR
- (N) SLOPE DRAIN
- (N) REVERSE GRADE DIP
- STEP FLIGHT (SEE TABLE)
- STEP NUMBER
- SURVEY CONTROL POINT
- TOP OF GULLY / SCARP
- EDGE OF EXISTING PATH
- DRAINAGE PATH
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- STATION (L: LEFT R: RIGHT)
- EDGE OF GROUND DISTURBANCE (APPROX)
- PROPERTY LINE (APPROXIMATE)

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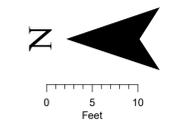
PROJECT TITLE:
Wavecrest Coastal Trail Phase 2
Coastside Land Trust

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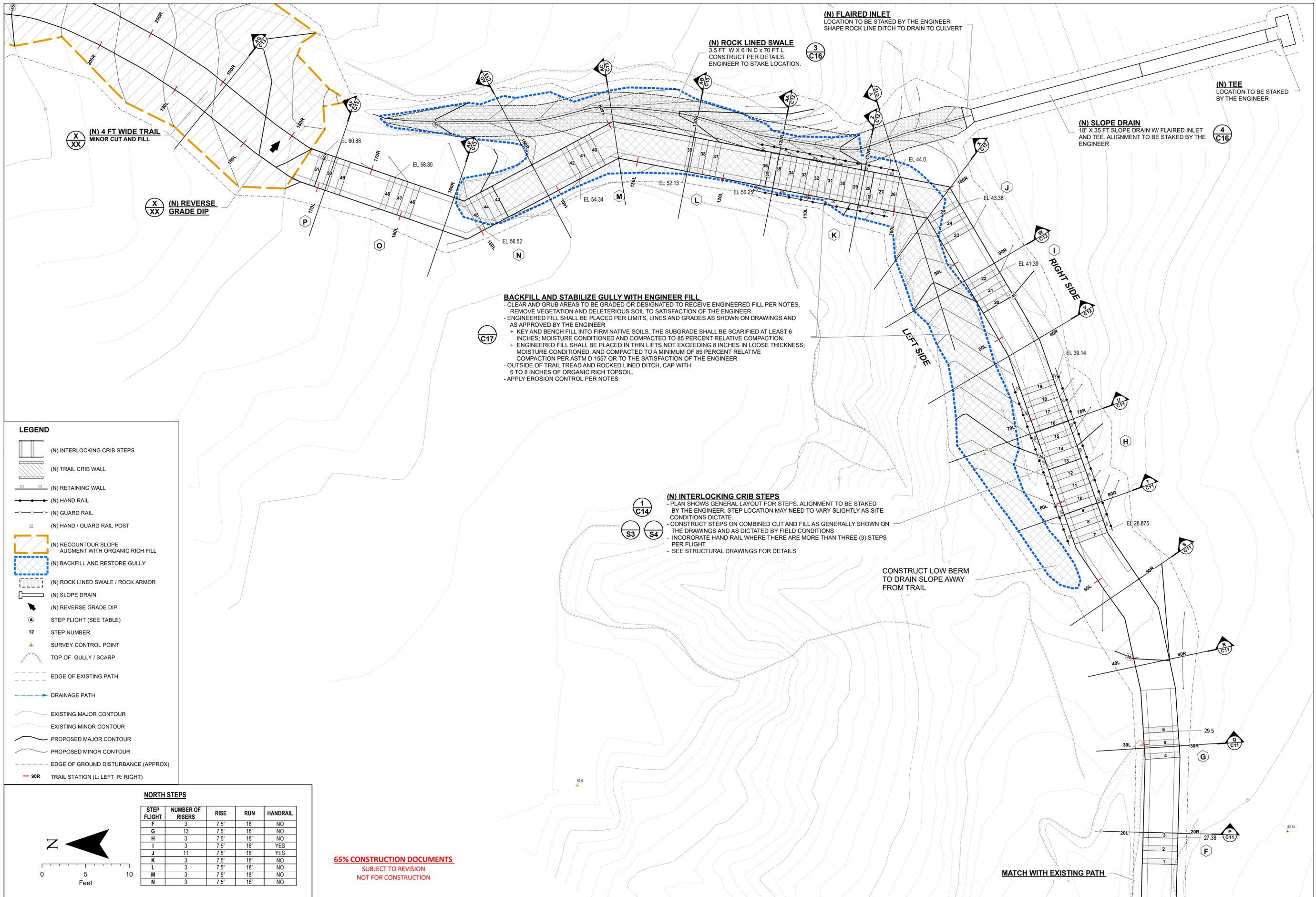
DRAWING TITLE:
**NORTH STEP
LAYOUT PLAN**

SCALE: 1"=10'
DATE: 3/18/2020
REVISIONS:

DRAWING NO:
C4
SHEET ___ OF ___ SHEETS



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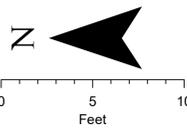


LEGEND

- (N) INTERLOCKING CRIB STEPS
- (N) TRAIL CRIB WALL
- (N) RETAINING WALL
- (N) HAND RAIL
- (N) GUARD RAIL
- (N) HAND / GUARD RAIL POST
- (N) RECOUNTOUR SLOPE AUGMENT WITH ORGANIC RICH FILL
- (N) BACKFILL AND RESTORE GULLY
- (N) ROCK LINED SWALE / ROCK ARMOR
- (N) SLOPE DRAIN
- (N) REVERSE GRADE DIP
- STEP FLIGHT (SEE TABLE)
- STEP NUMBER
- SURVEY CONTROL POINT
- TOP OF GULLY / SCARP
- EDGE OF EXISTING PATH
- DRAINAGE PATH
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EDGE OF GROUND DISTURBANCE (APPROX)
- 90R TRAIL STATION (L: LEFT R: RIGHT)

NORTH STEPS

STEP FLIGHT	NUMBER OF RISERS	RISE	RUN	HANDRAIL
F	3	7.5"	18"	NO
G	13	7.5"	18"	NO
H	3	7.5"	18"	NO
I	3	7.5"	18"	YES
J	11	7.5"	18"	YES
K	3	7.5"	18"	NO
L	3	7.5"	18"	NO
M	3	7.5"	18"	NO
N	3	7.5"	18"	NO



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DRAWING TITLE:
NORTH STEP LAYOUT PLAN

SCALE: 1"=5'
DATE: 3/18/2020
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DRAWING TITLE:
SOUTH STEP PROFILES

SCALE: 1"=5'

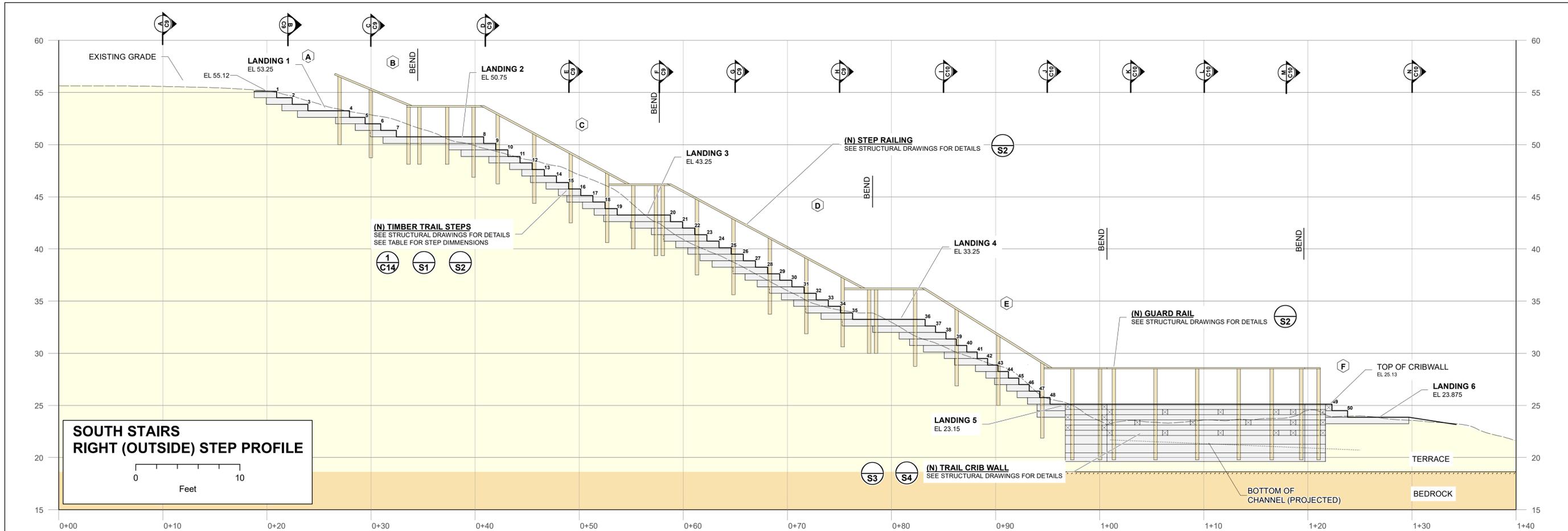
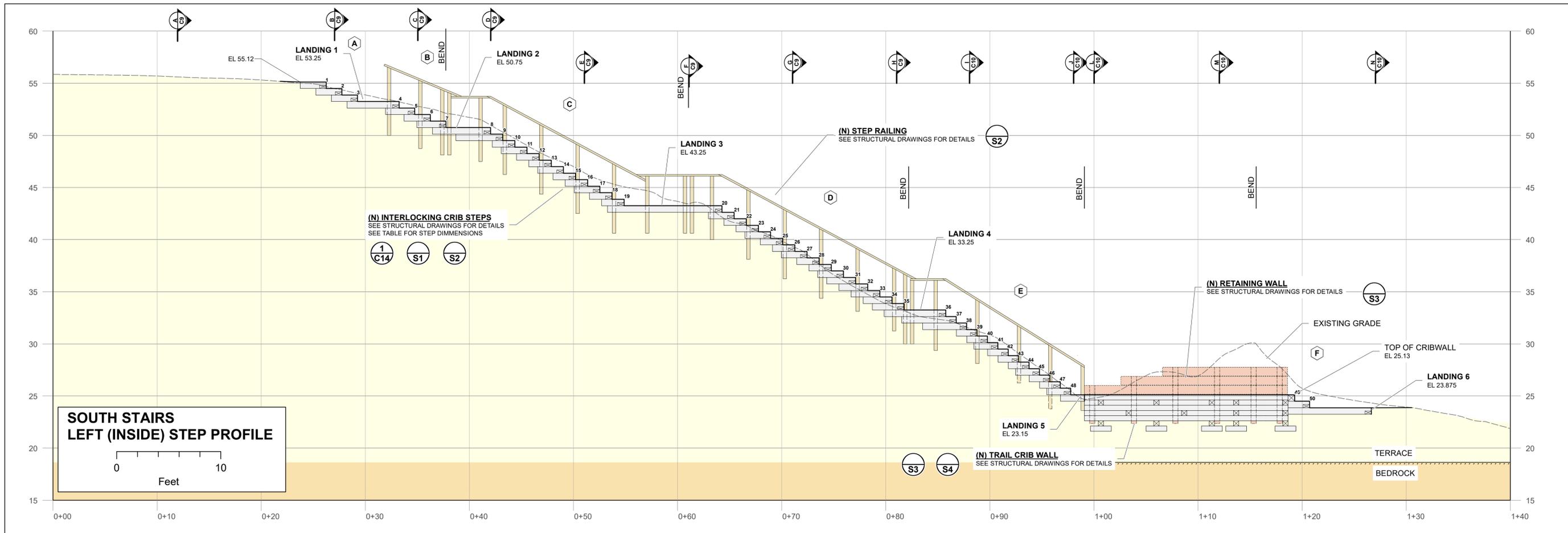
DATE: 3/18/2020

REVISIONS:

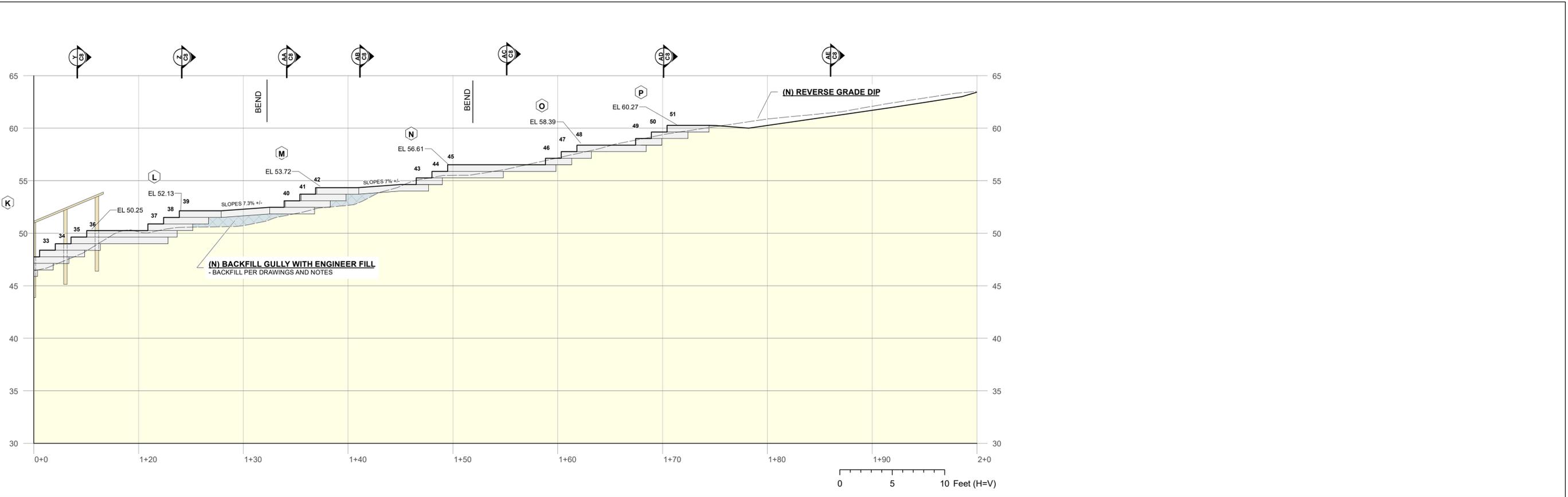
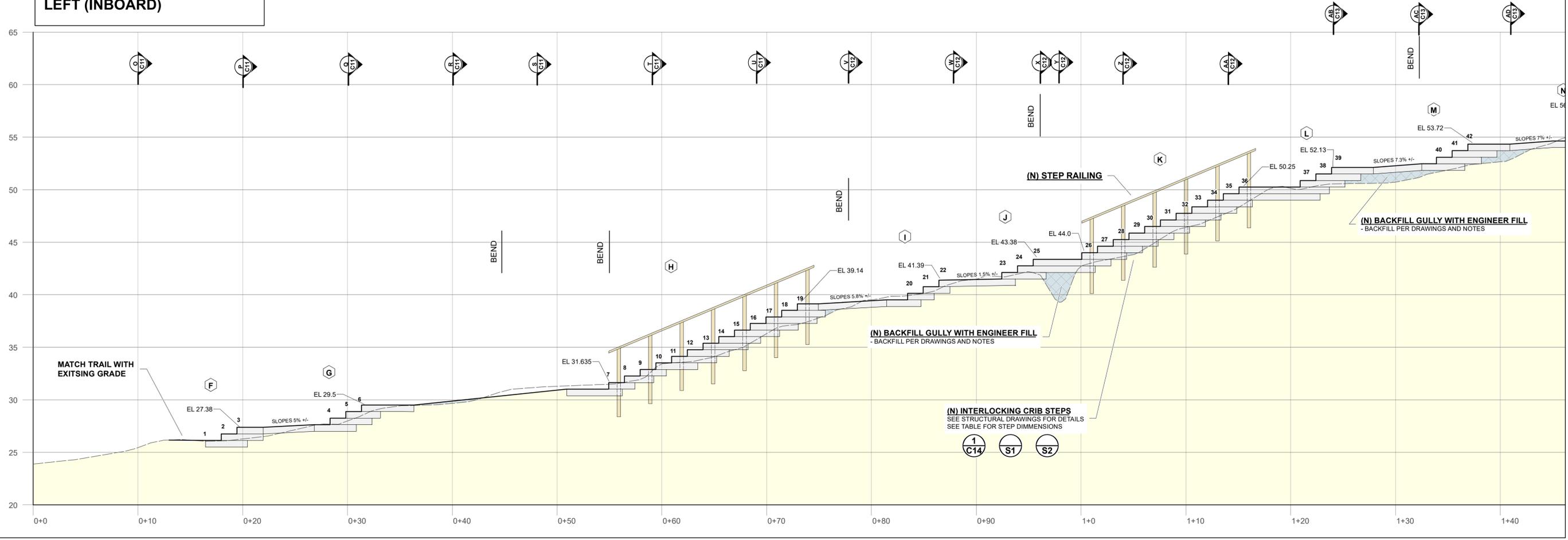
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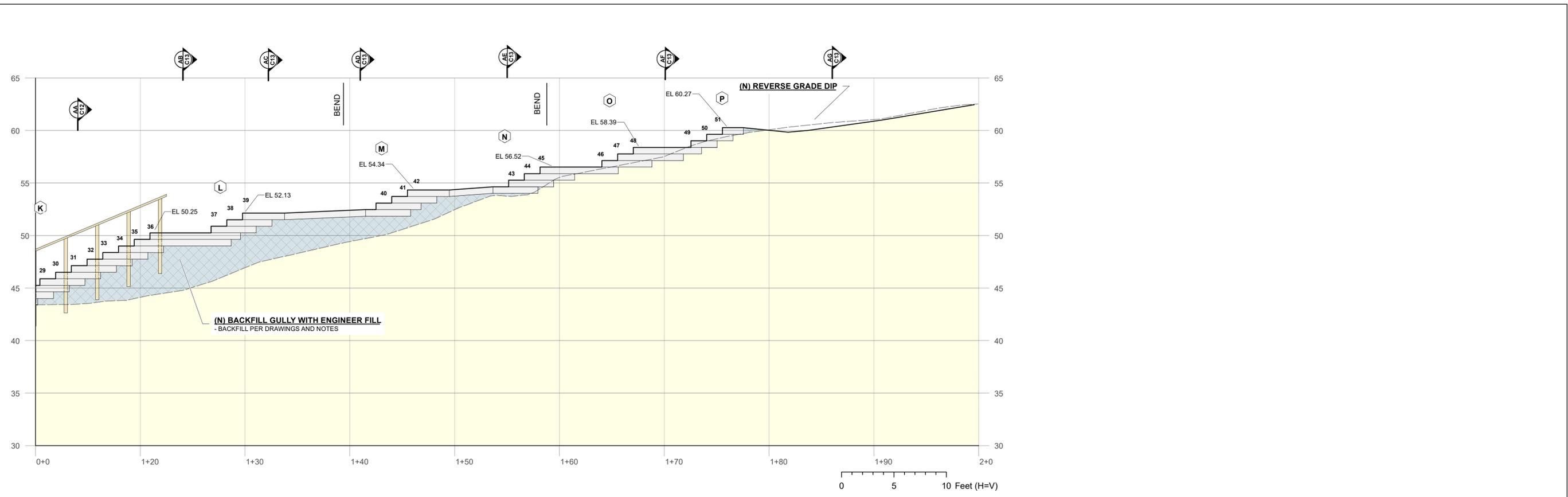
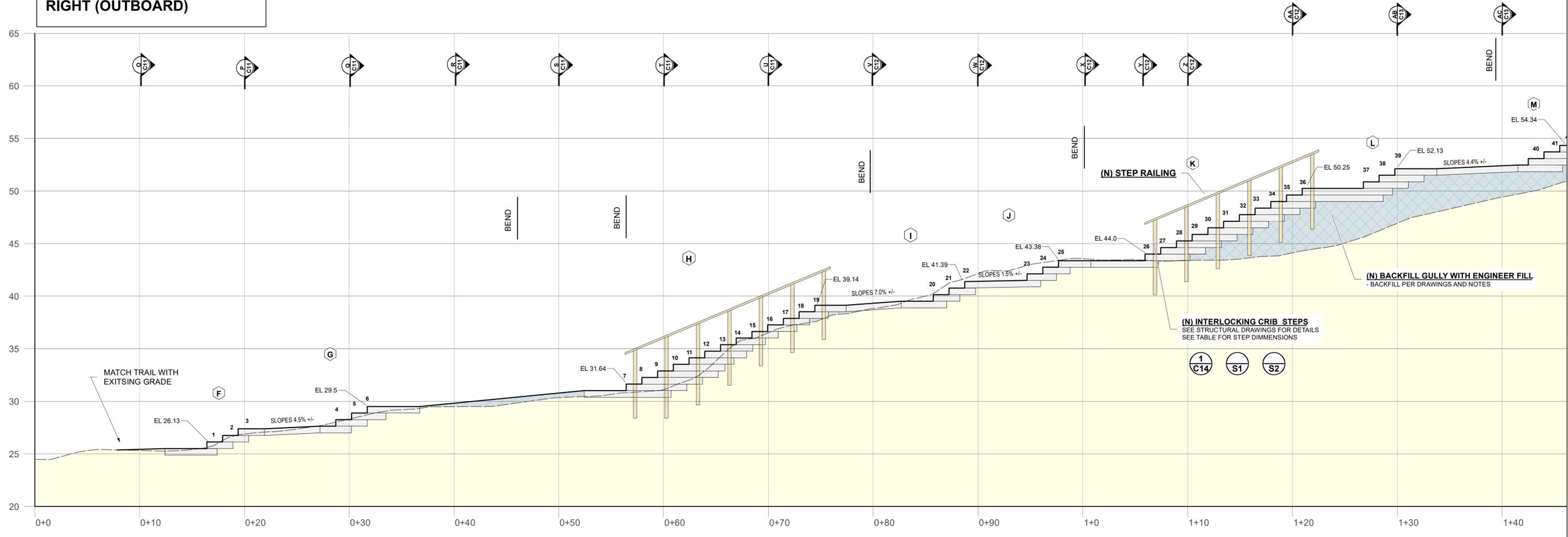
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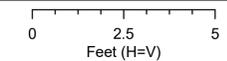
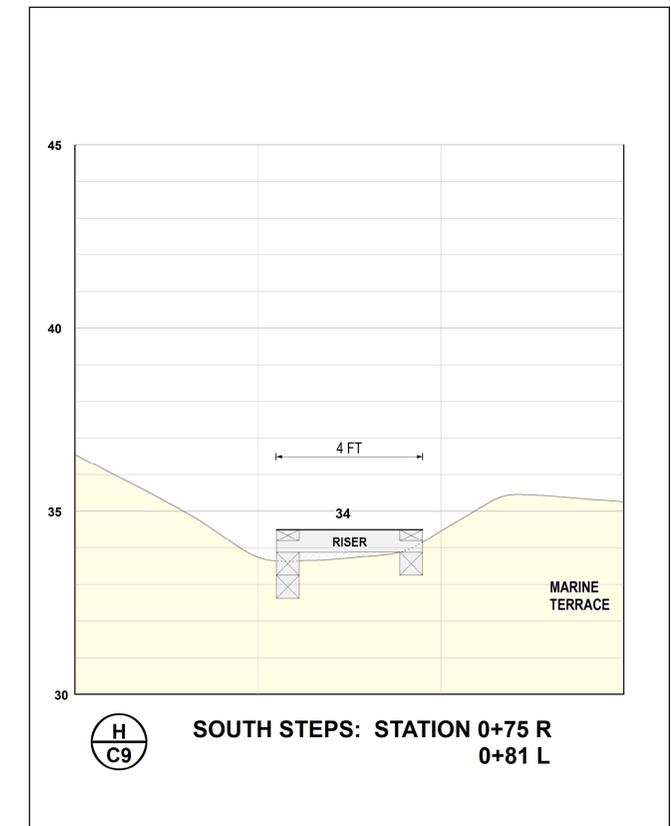
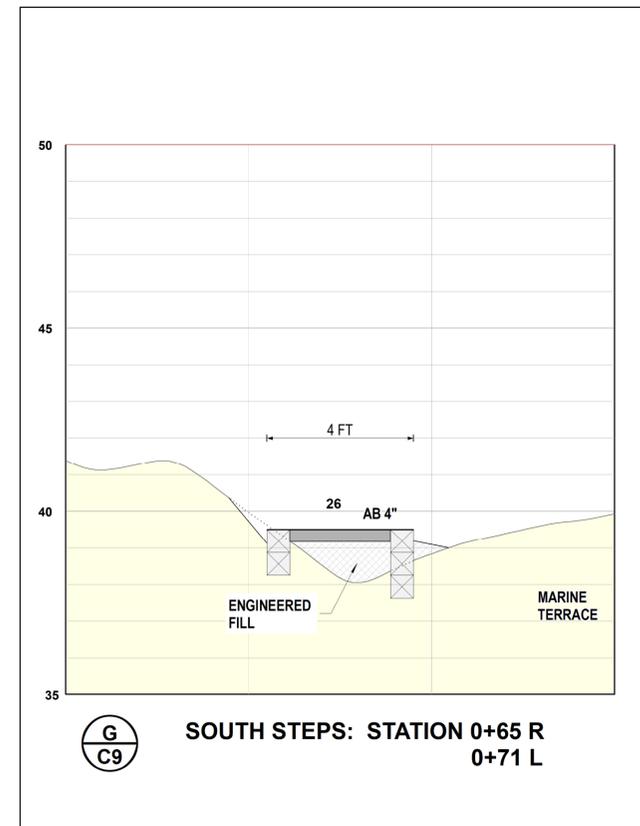
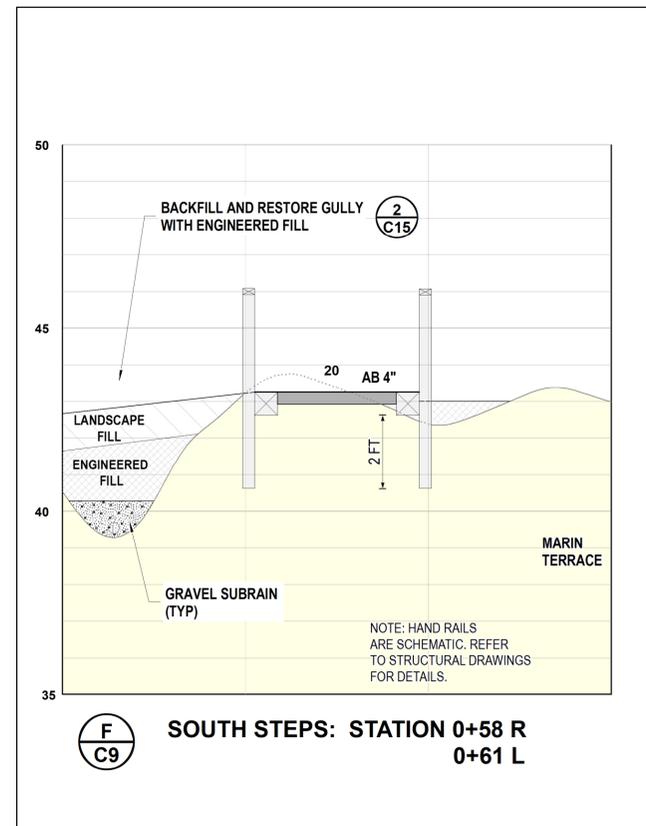
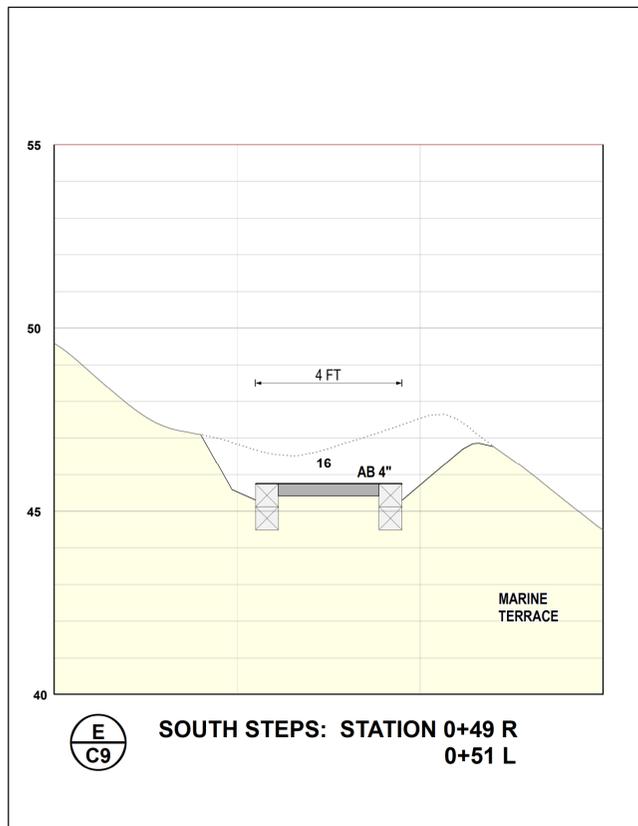
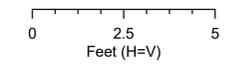
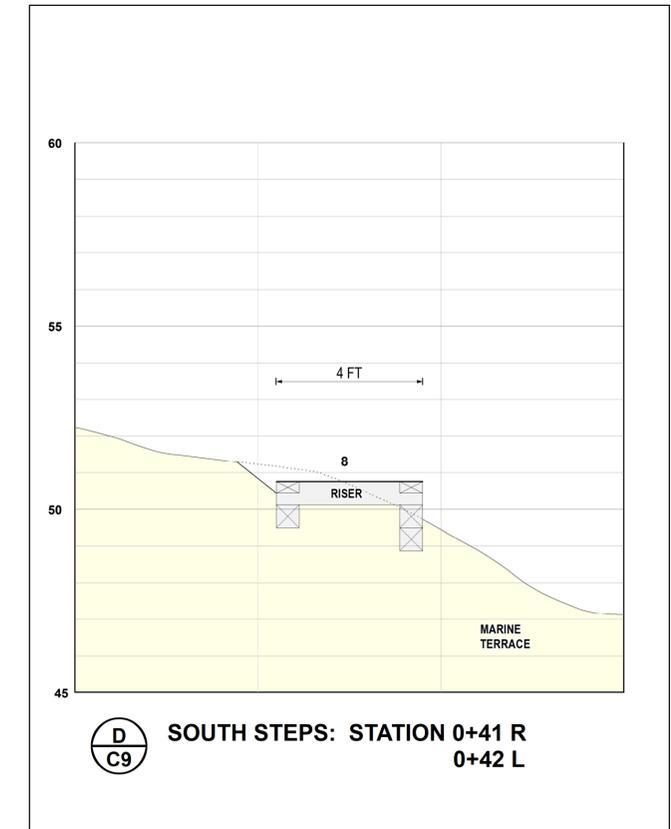
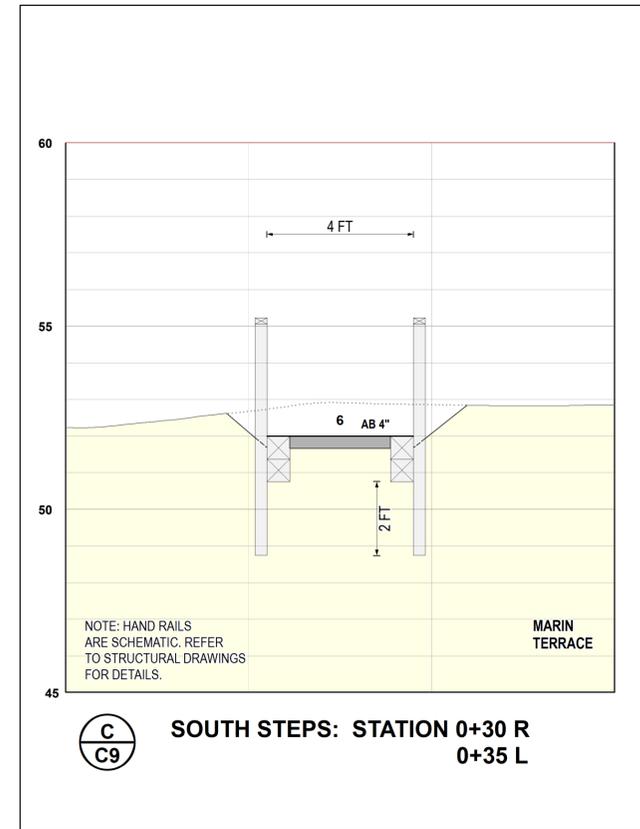
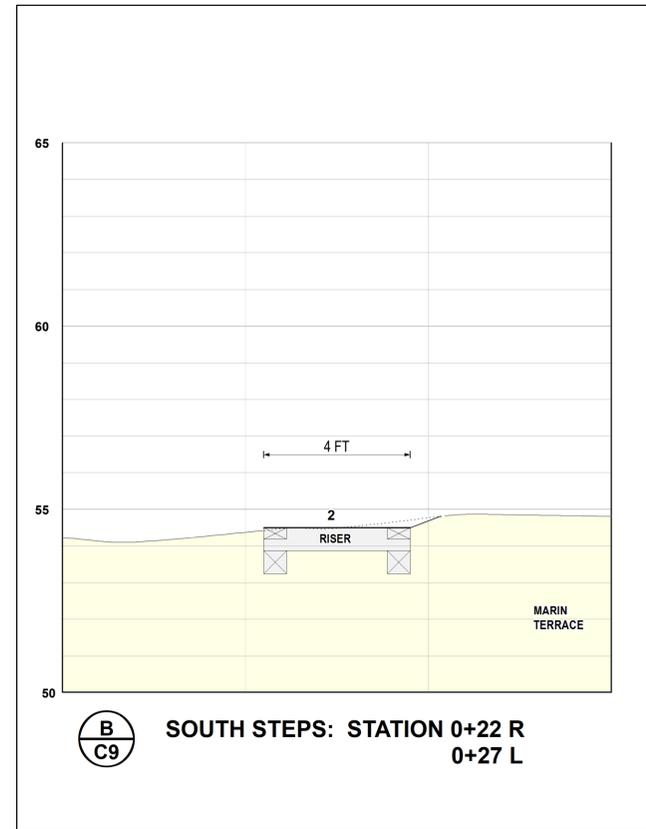
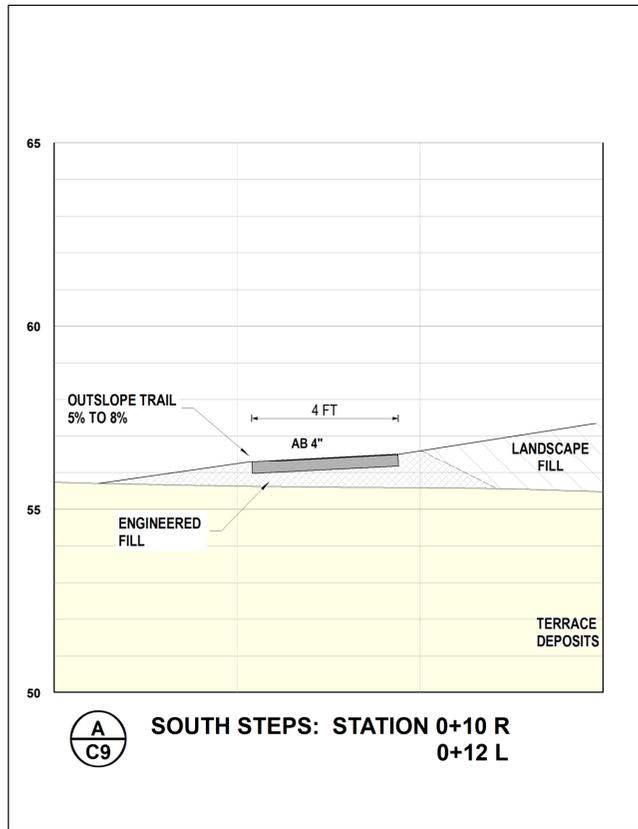


**NORTH STEP PROFILE
LEFT (INBOARD)**



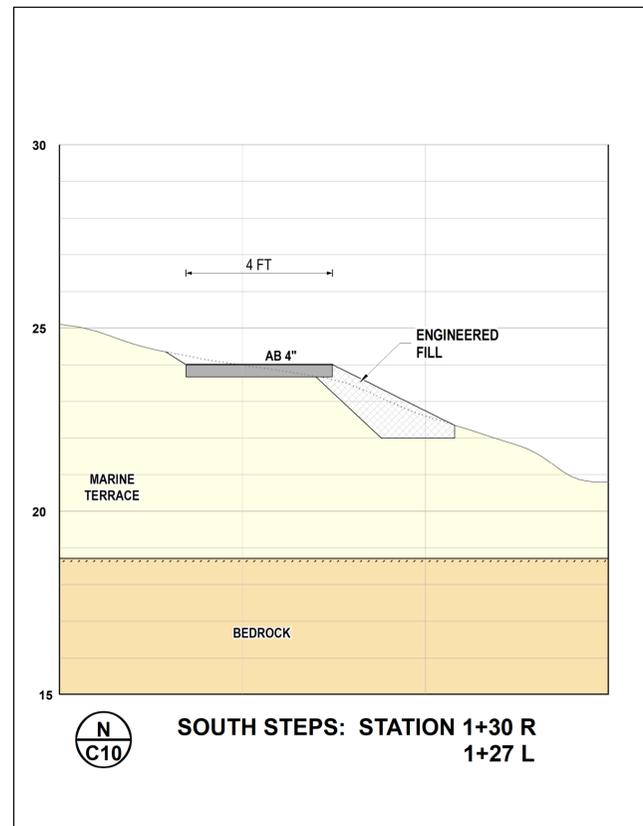
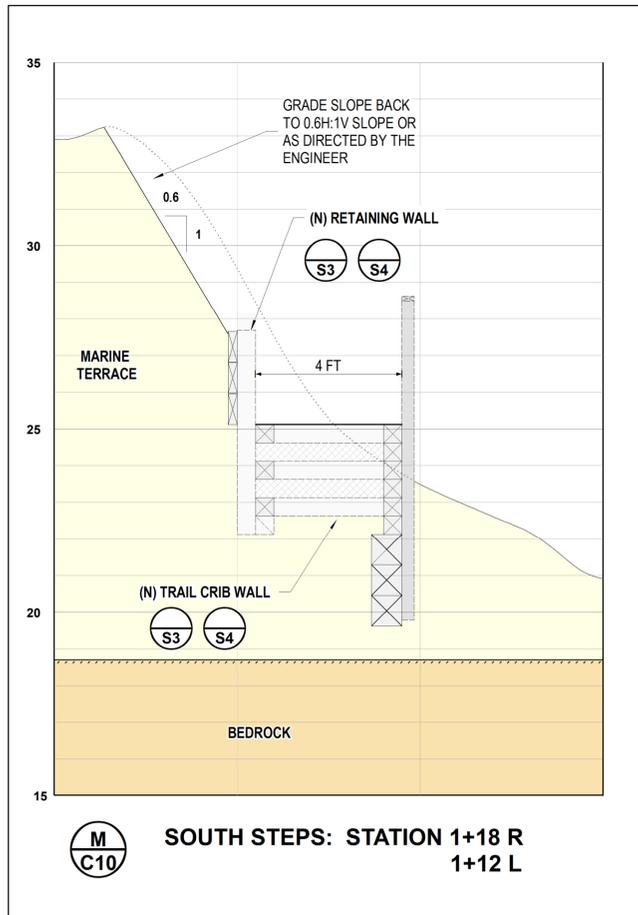
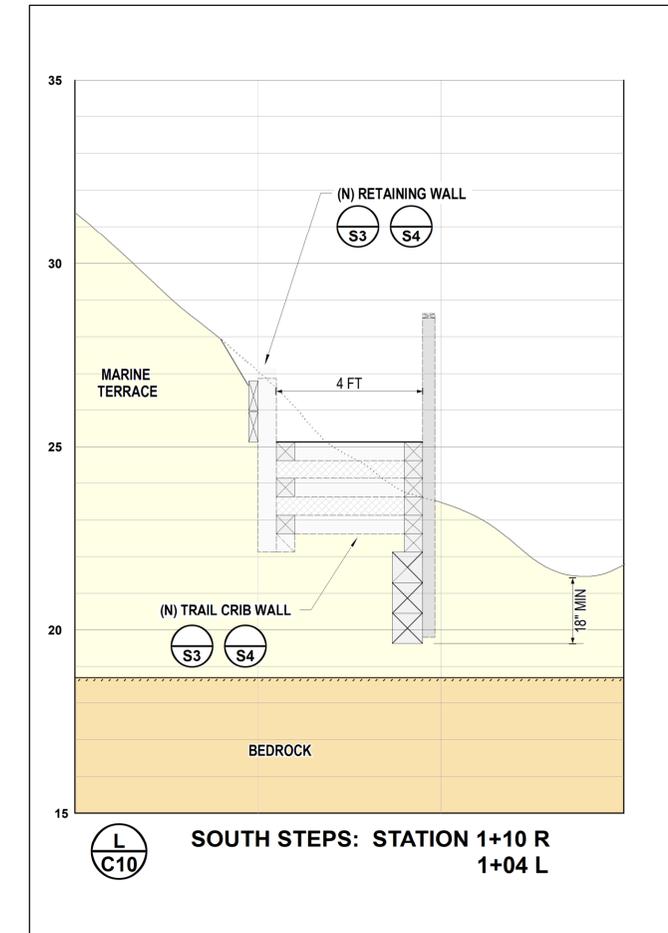
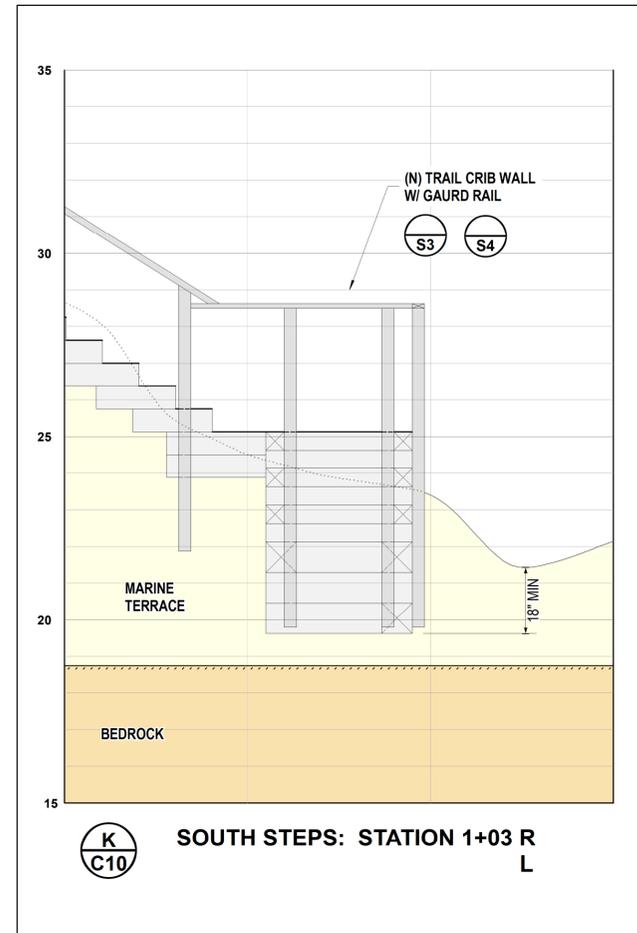
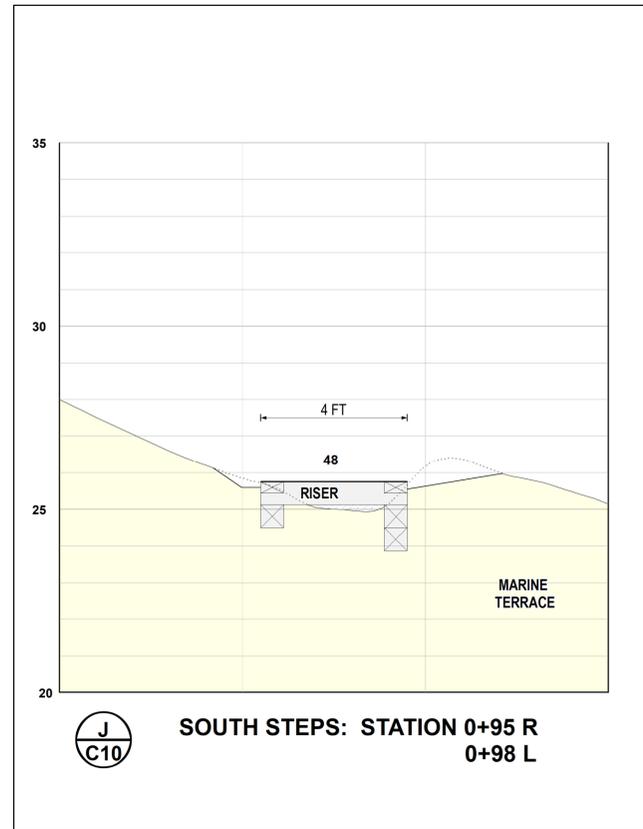
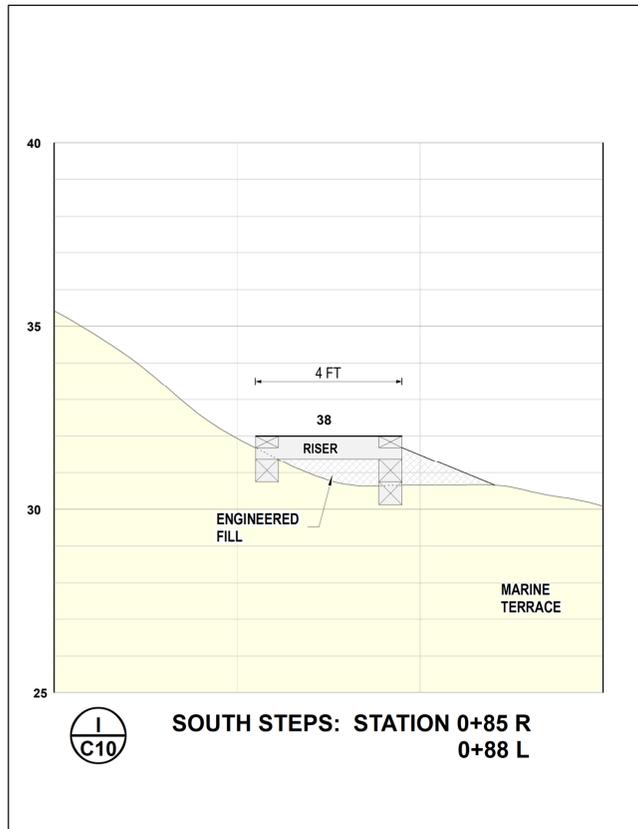
**NORTH STEP PROFILE
RIGHT (OUTBOARD)**





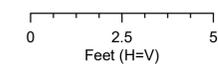
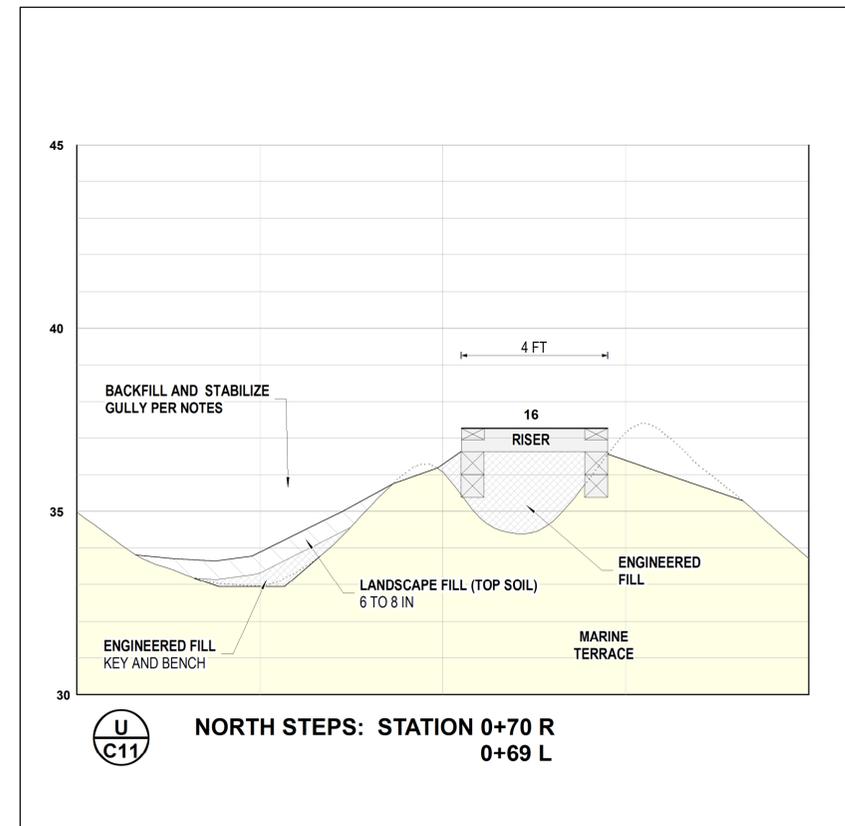
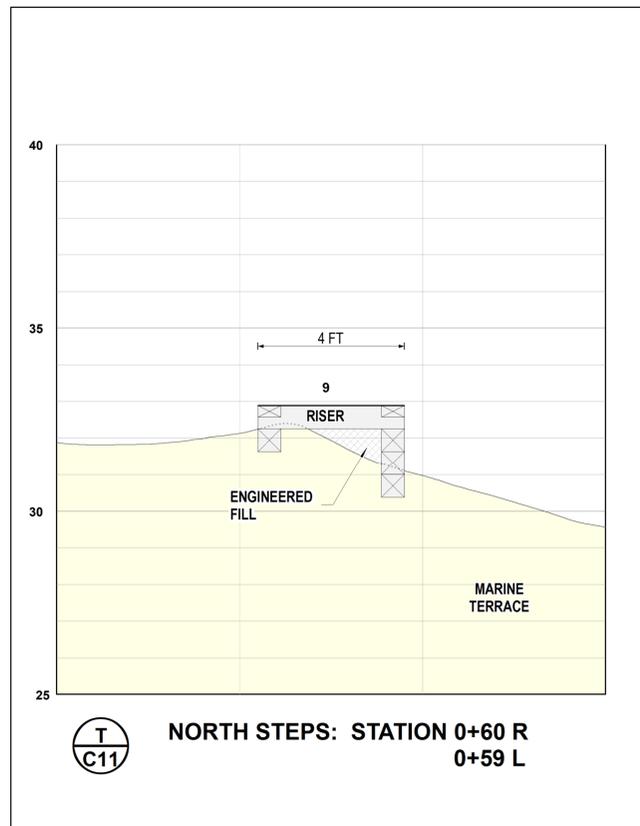
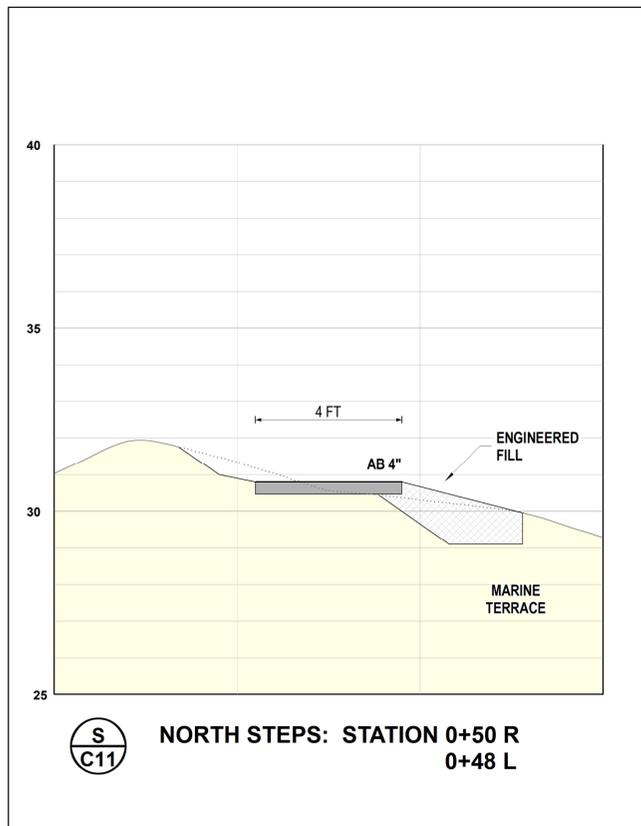
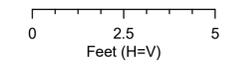
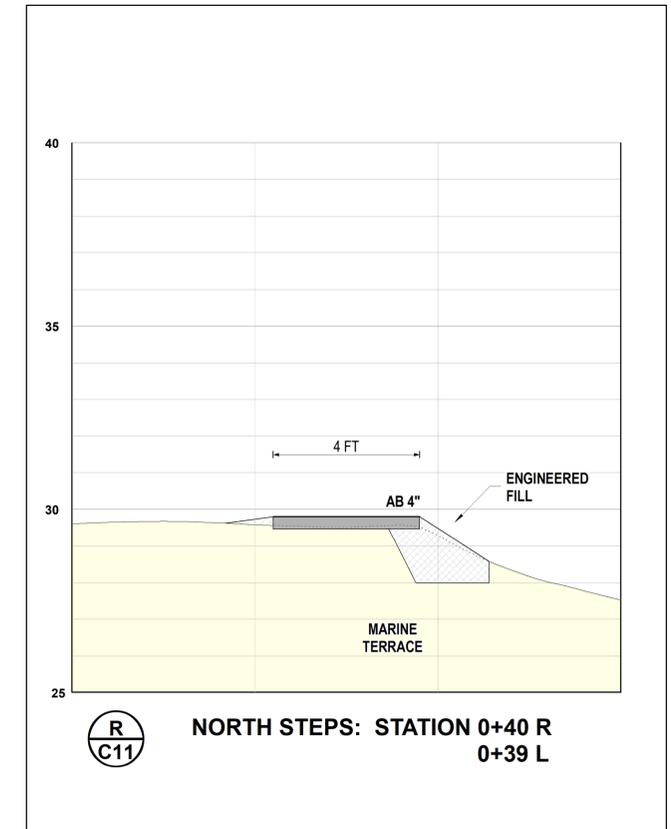
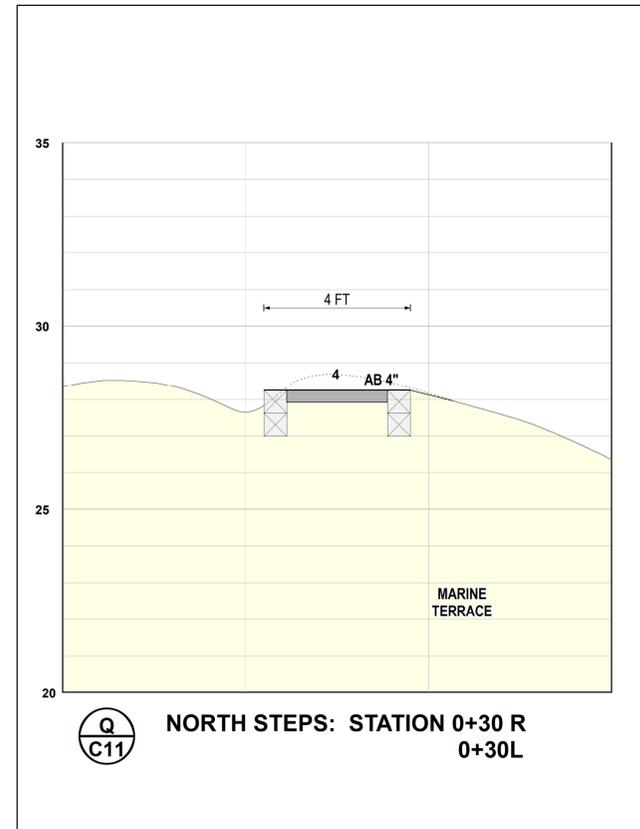
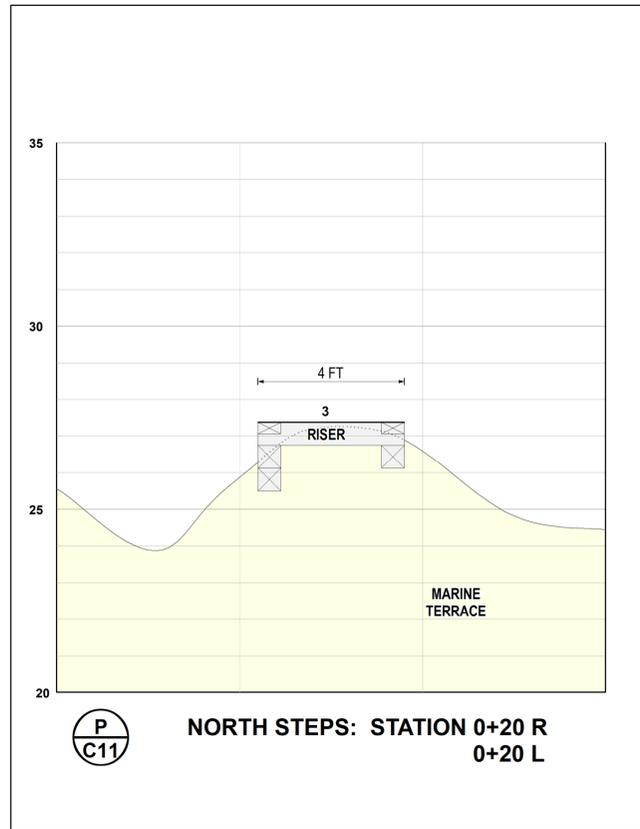
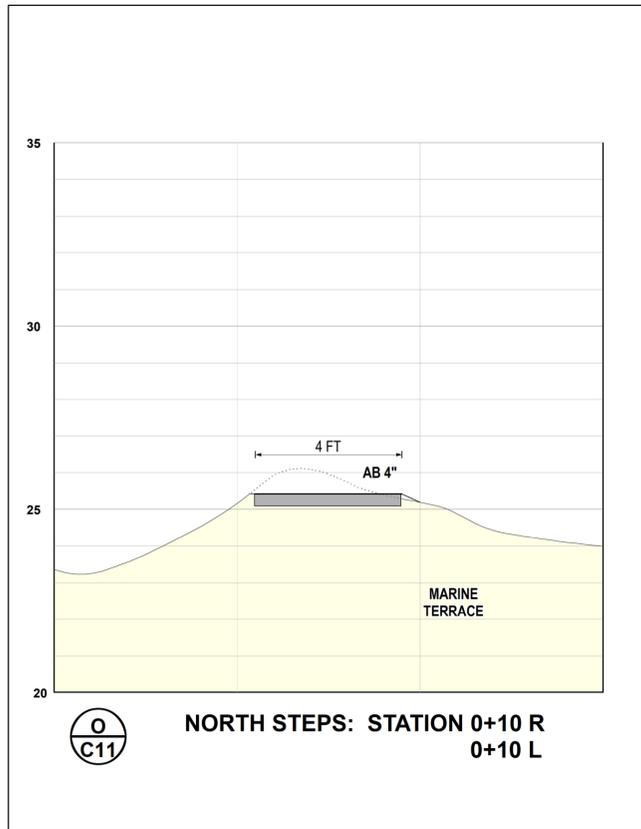
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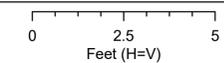
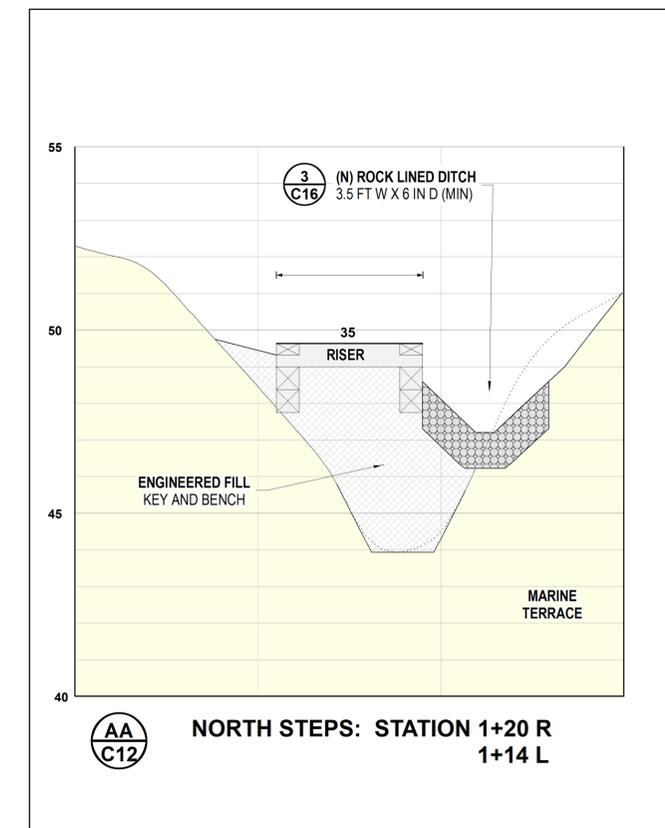
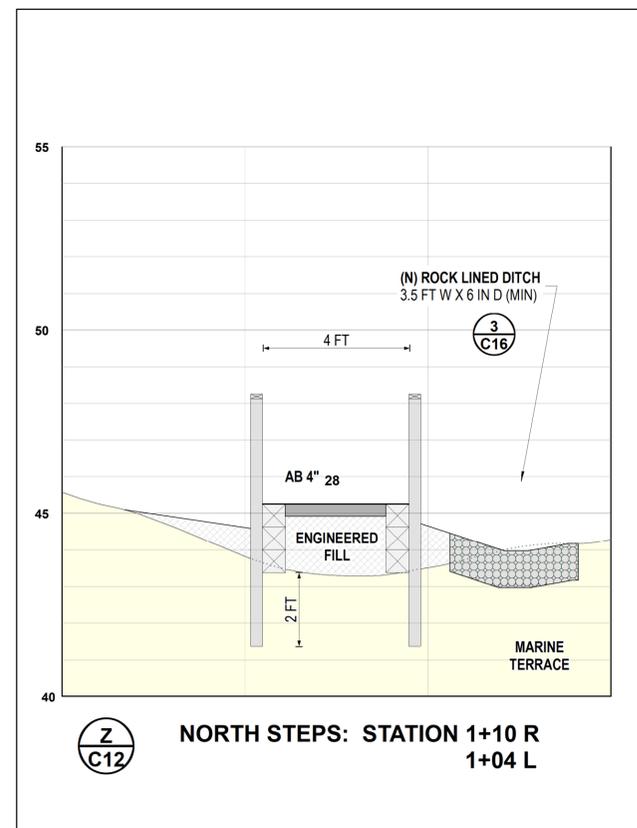
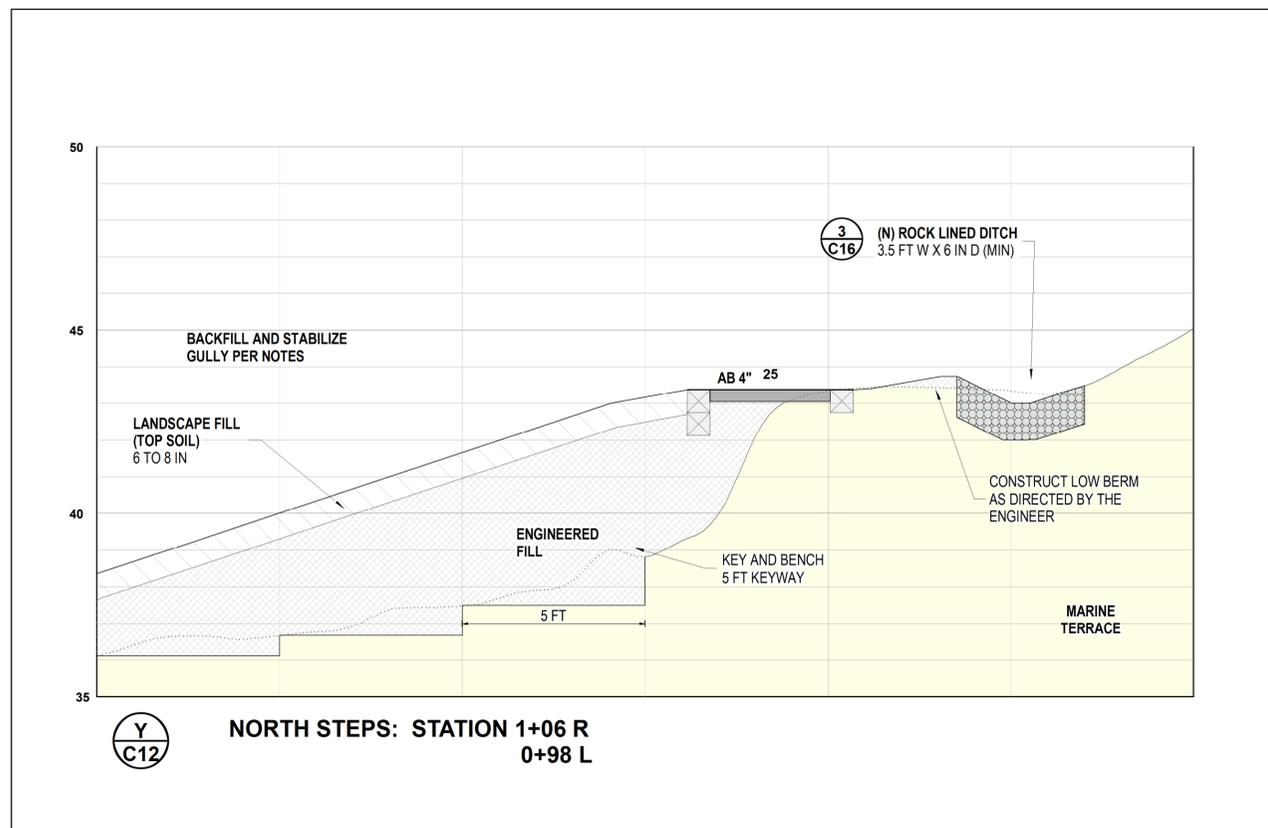
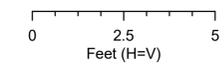
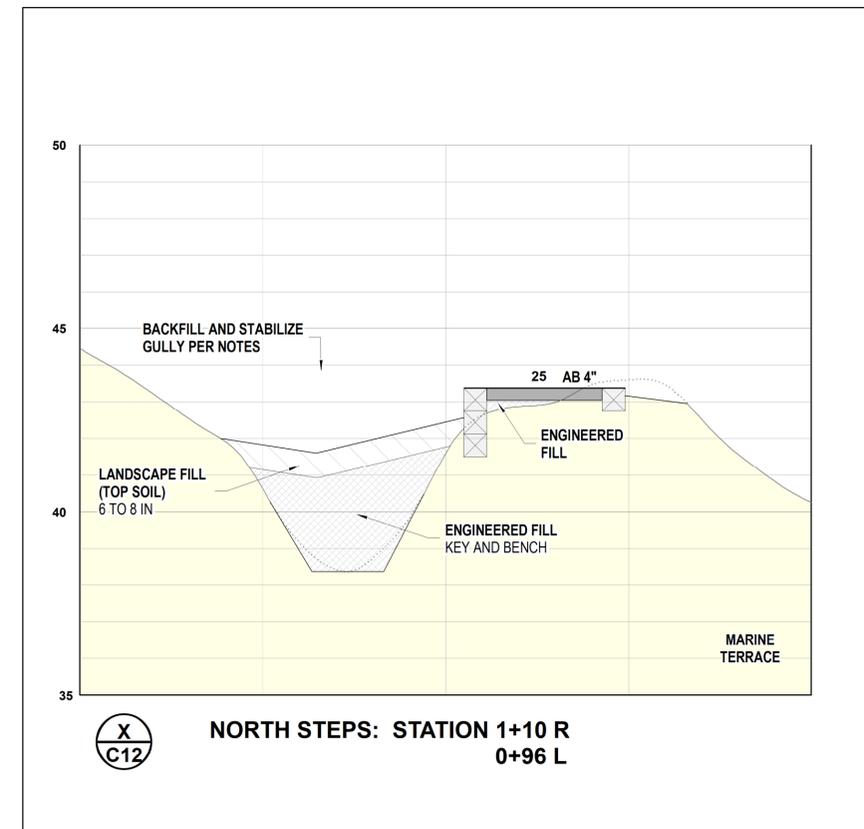
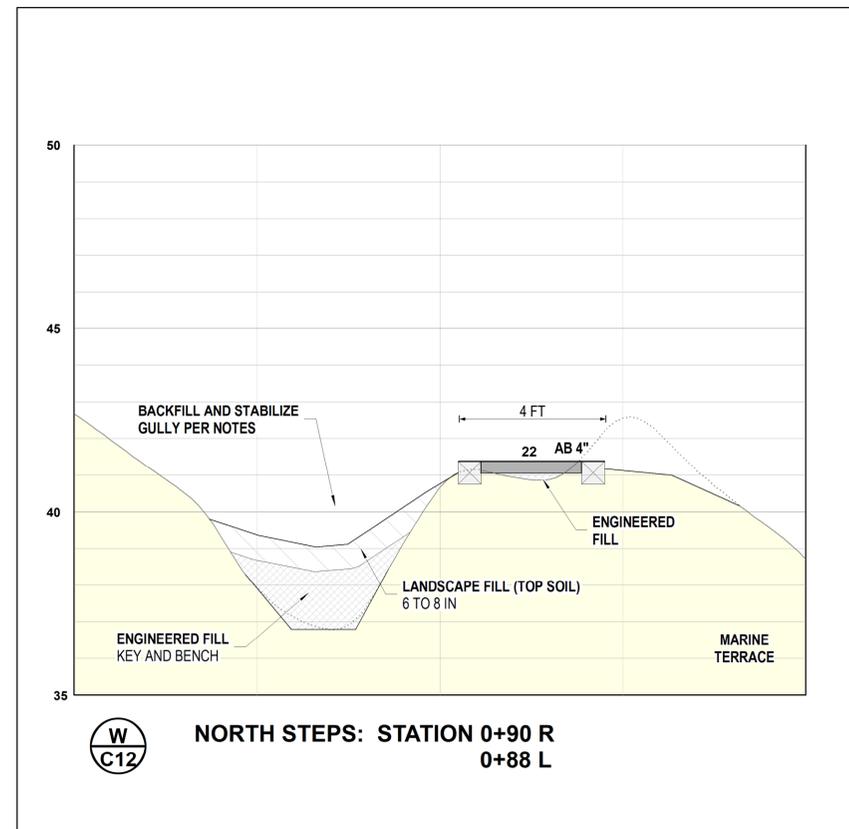
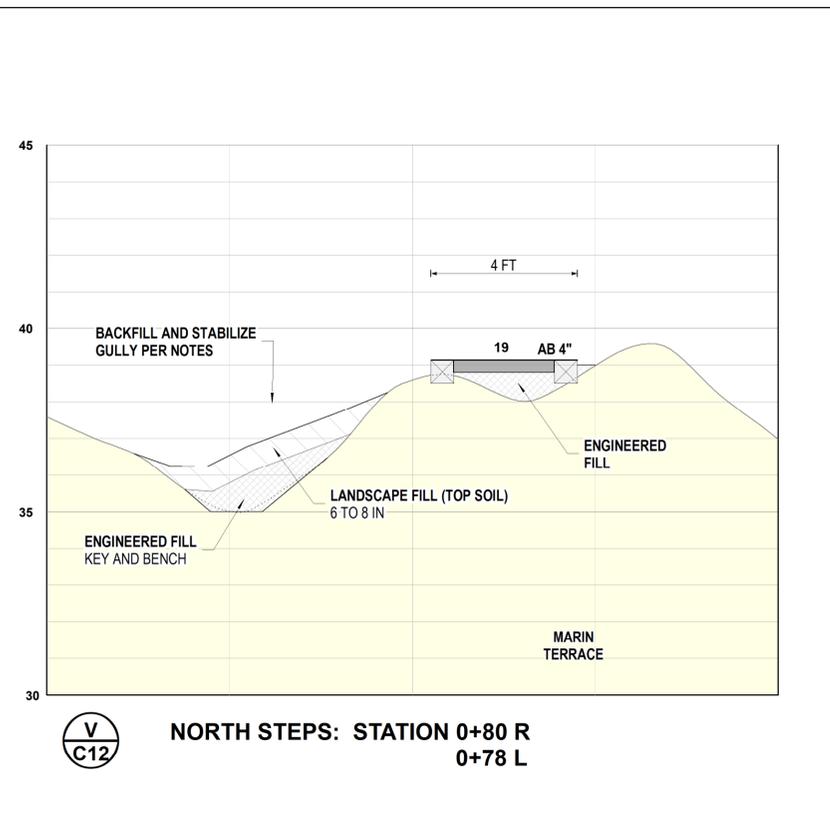
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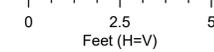
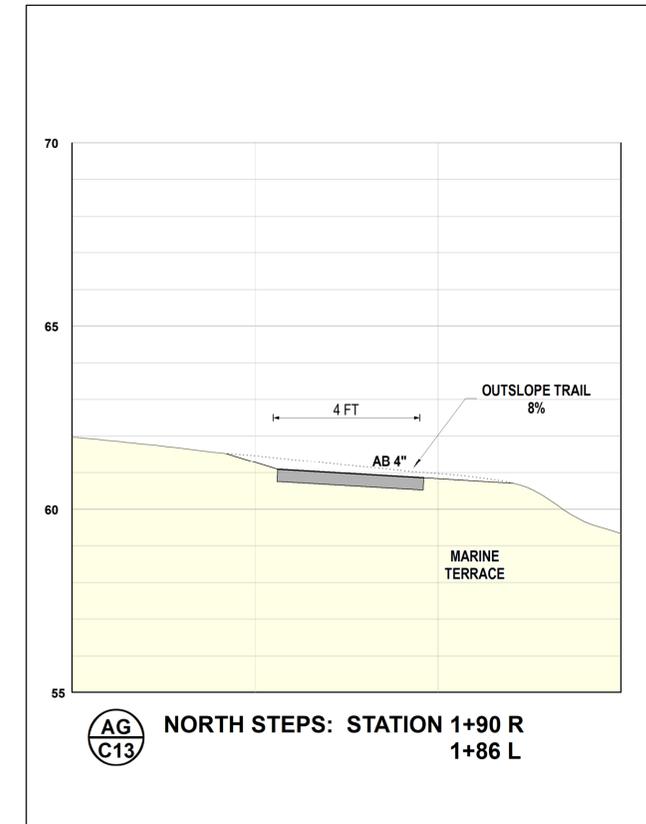
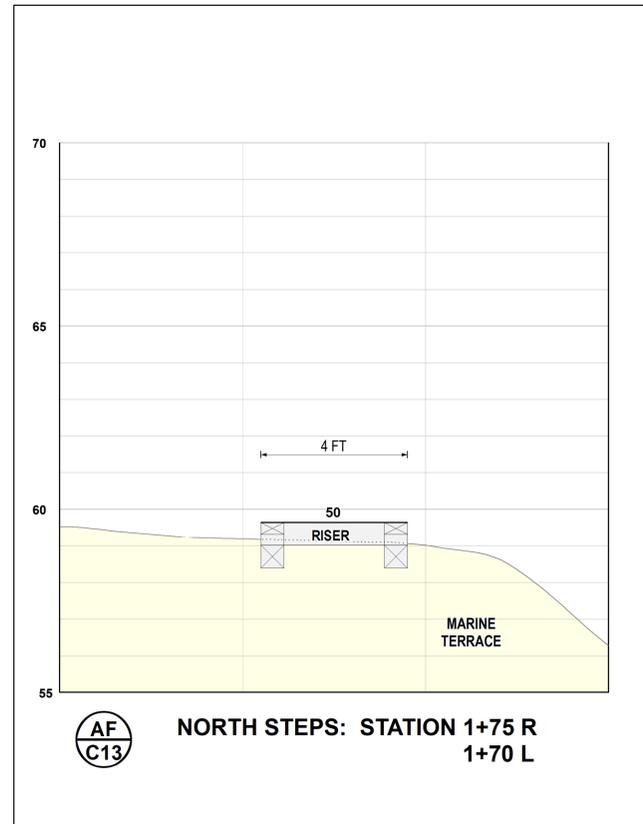
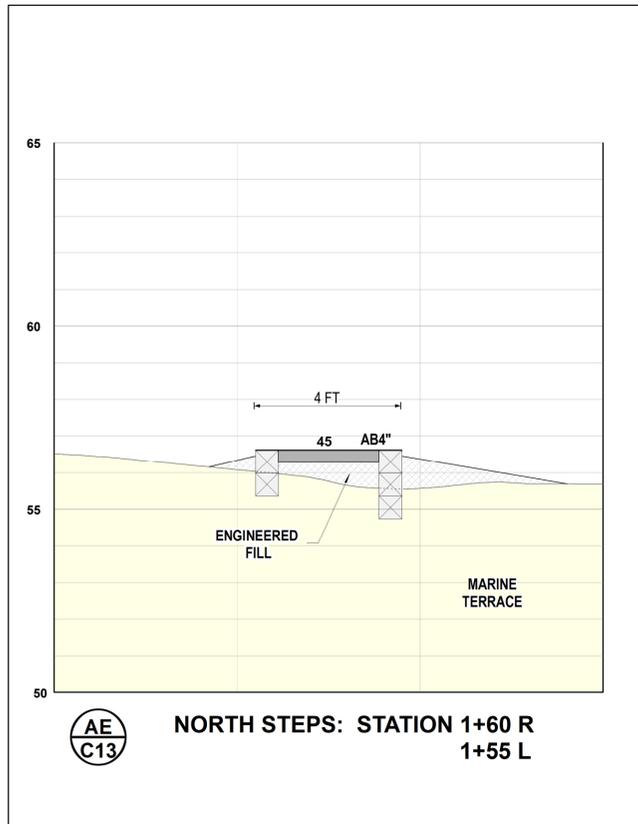
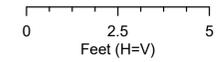
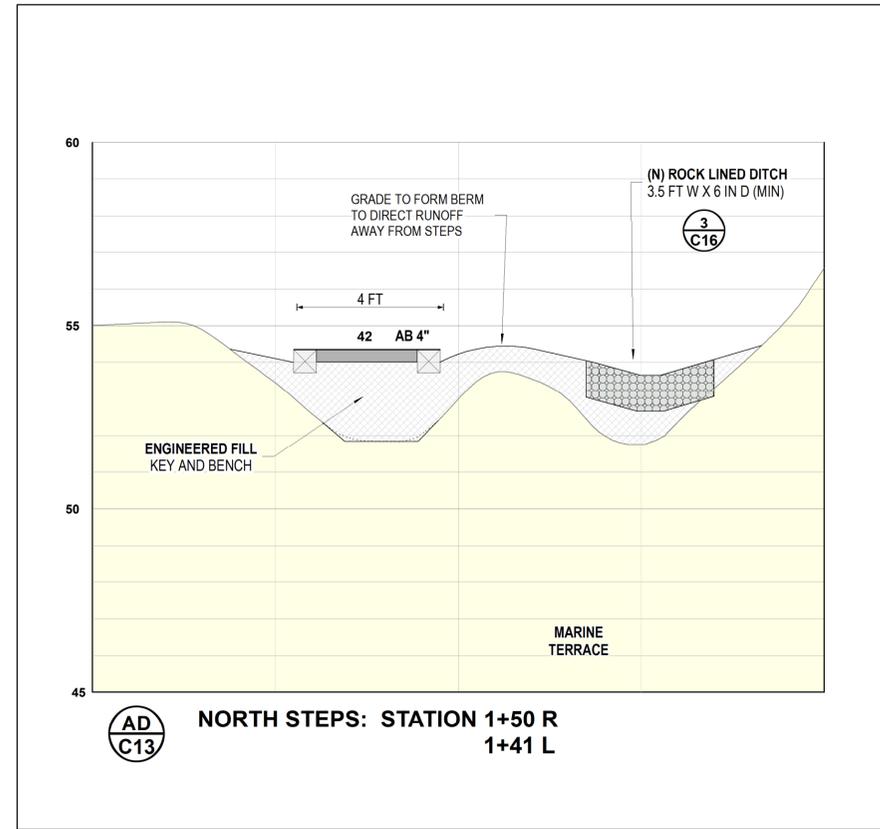
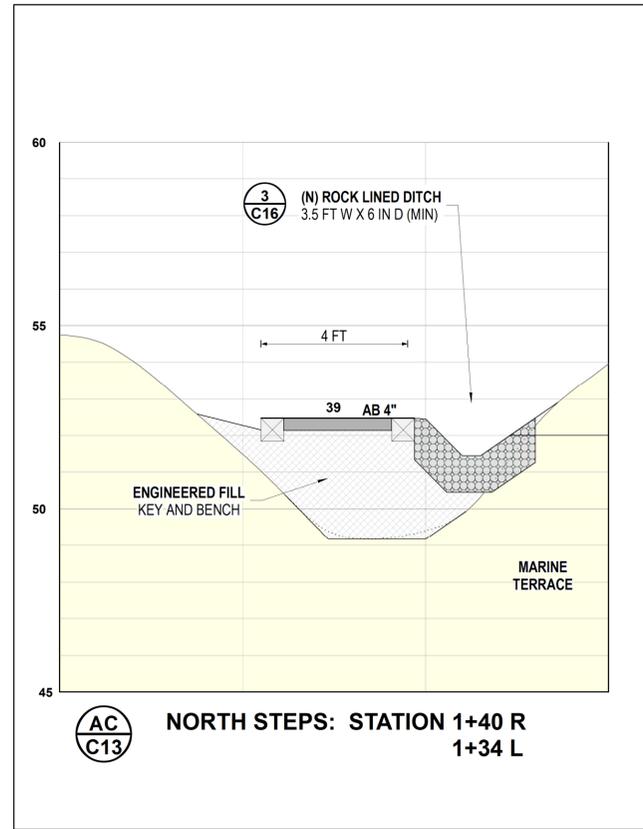
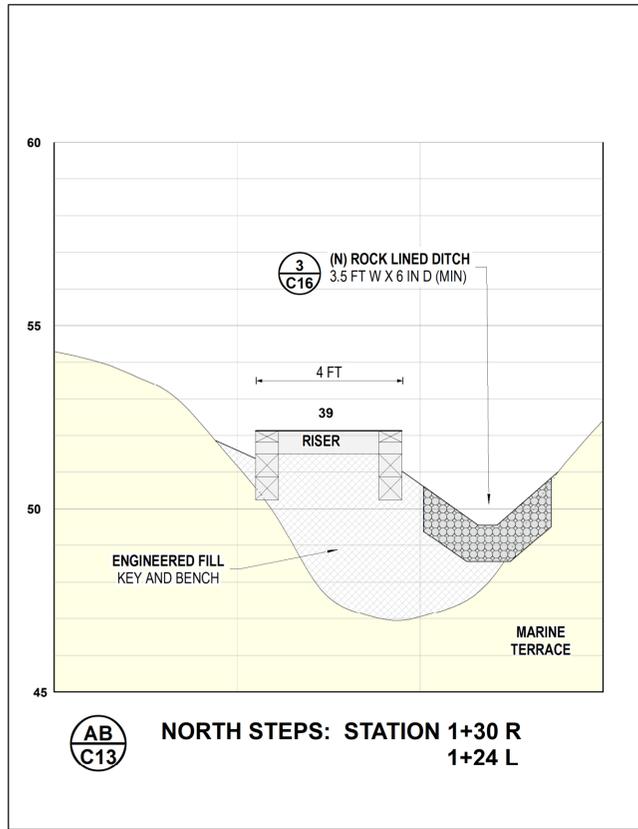


0 2.5 5
Feet (H=V)

0 2.5 5
Feet (H=V)

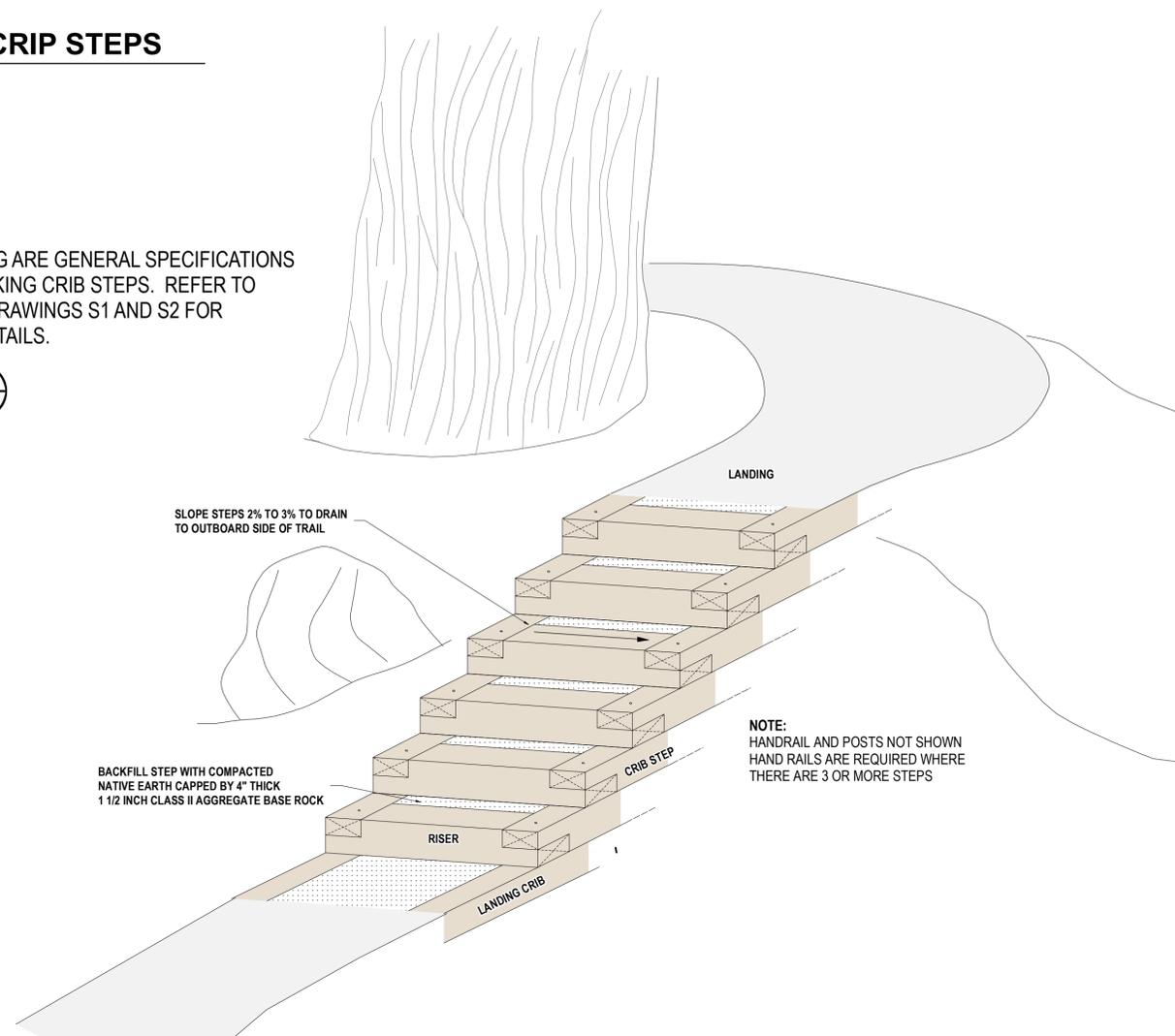






1 INTERLOCKING CRIP STEPS

NOTE
THE FOLLOWING ARE GENERAL SPECIFICATIONS FOR INTERLOCKING CRIP STEPS. REFER TO STRUCTURAL DRAWINGS S1 AND S2 FOR ADDITIONAL DETAILS.



SLOPE STEPS 2% TO 3% TO DRAIN TO OUTBOARD SIDE OF TRAIL

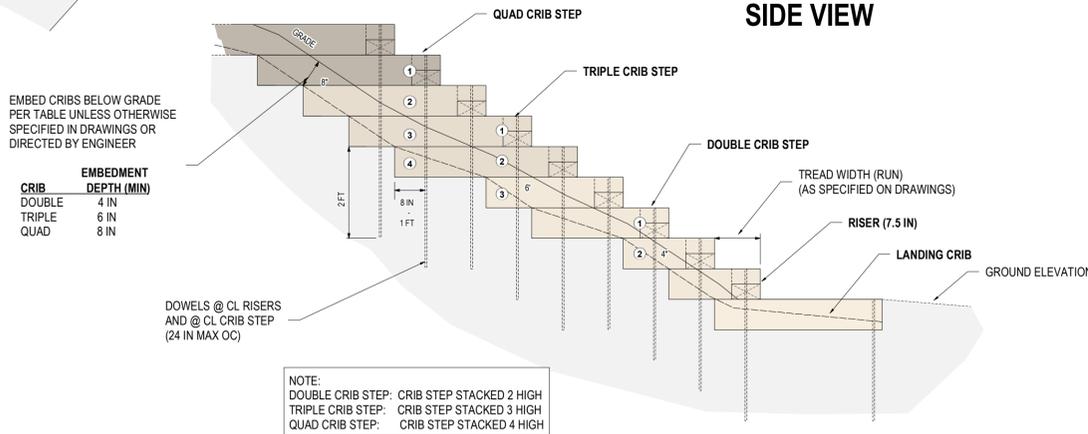
BACKFILL STEP WITH COMPACTED NATIVE EARTH CAPPED BY 4\"/>

NOTE:
HANDRAIL AND POSTS NOT SHOWN
HAND RAILS ARE REQUIRED WHERE THERE ARE 3 OR MORE STEPS

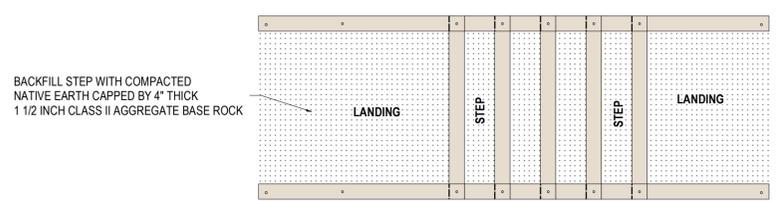
INTERLOCKING CRIP STEP NOTES

- GENERAL**
- INTERLOCKING CRIP STEPS ARE BUILT WITH A CRIP WALL OR WALLS THAT FRAME THE STEP TREAD. THE STEPS ARE INTERLOCKED AS THE CRIP WALL IS NOTCHED AND PINNED TO THE CRIP RISER. THE NOTCH DEPTH IS HALF THE 8-INCH (NOMINAL) HEIGHT OF THE STEP RISER AND THE 8-INCH (NOMINAL) HEIGHT OF THE CRIP WALL. WHEN NOTCHED IN THIS MANNER, THE CRIP WALL IS FLUSH WITH THE TOP OF THE STEP BELOW AND THE BOTTOM OF THE STEP ABOVE. A 9/16 INCH HOLE IS DRILLED THROUGH THE CENTER OF THE NOTCH AND THE STEP AND CRIPWALL AND ARE SECURED WITH SPECIFIED DOWEL.
 - ALL DETAILS, SECTIONS AND NOTES SHOWN ON DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO BEGINNING OF CONSTRUCTION. ACTUAL SITE DIMENSIONS SHALL TAKE PRECEDENCE OVER DIMENSIONS &/OR SCALE SHOWN ON DRAWINGS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
 - HANDRAIL REQUIRED WHERE THERE ARE MORE THAN THREE STEPS. REFER TO STRUCTURAL SHEETS FOR HAND RAIL DETAILS.
- REFERENCE STANDARDS**
- INTERLOCKING CRIP STEPS SHALL CONFORM TO STRUCTURAL DRAWINGS PREPARED BY MAYONE STRUCTURAL ENGINEERING. WHERE DISCREPANCIES EXIST BETWEEN THIS DETAIL AND THE STRUCTURAL DETAILS, THE STRUCTURAL DETAIL SHALL TAKE PRECEDENCE.
 - ALL CONSTRUCTION NOT SPECIFICALLY DETAILED SHALL BE BUILT TO CONFORM TO THE 2019 CALIFORNIA BUILDING CODE (IBC) AND ANY LOCAL ORDINANCES.
 - STEP DETAIL MODIFIED FROM CALIFORNIA STATE PARKS DRAFT TRAIL MANUAL (2018).
- MATERIALS**
- ENGINEERED FILL:** MATERIAL TO BE USED AS ENGINEERED FILL SHALL CONSIST OF NATURAL OR ARTIFICIALLY GRADED NON-ORGANIC GRANULAR SOIL THAT IS RELATIVELY FREE OF ORGANIC MATERIAL AND CONTAIN NO ROCKS OR CLODS GREATER THAN 6 INCHES IN DIAMETER, WITH NO MORE THAN 15 PERCENT LARGER THAN 4 INCHES. THE MATERIAL SHOULD BE PREDOMINATELY GRANULAR WITH A PLASTICITY INDEX LESS THAN 18, A LIQUID LIMIT LESS THAN 35, AND NOT MORE THAN 20 PERCENT PASSING THE #200 SIEVE. TO THE EXTENT THEY ARE NEEDED, ALL SUITABLE MATERIALS FROM THE SPECIFIED ON-SITE EXCAVATIONS SHALL BE USED IN THE CONSTRUCTION OF REQUIRED PERMANENT ENGINEERED FILL. THE SUITABILITY OF MATERIALS FOR SPECIFIC PURPOSES WILL BE SUBJECT SOLELY TO THE APPROVAL OF THE ENGINEER AND IN CONFORMANCE WITH THESE SPECIFICATIONS.
 - TIMBER:** CRIP TIMBER SHALL BE APPROVED PRESSURE TREATED DOUGLAS FIR #1 OR CON HEART REDWOOD. TIMBER USED FOR RAILINGS SHALL BE CON HEART REDWOOD. TIMBER GRADING SHALL BE WCLB STANDARD GRADING RULES FOR WEST COAST LUMBER.
 - HARDWARE:** ALL HARDWARE (BOLTS, NUTS, WASHERS, SCREWS, ETC.) SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL RATED FOR EXTERIOR USE UNLESS OTHERWISE SPECIFIED ON STRUCTURAL DRAWINGS.
 - DOWELS:** DOWELS SHALL BE ASTM A-615 DEFORMED, UNCOATED GRADE 60 (OR BETTER) STEEL REINFORCING BAR (REBAR) USE MINIMUM 5/8-INCH DIAMETER (#5) REBAR FOR ALL DOWELS. WHERE LONG REBARS ARE INSTALLED AND HAMMERING CAUSES DOWEL BUCKLING, IT IS RECOMMENDED TO INCREASE DOWELS TO 3/4 INCH DIAMETER (#6) OR LARGER.
 - AGGREGATE BASE:** SHALL BE CLASS 2 AGGREGATE BASE, 1-1/2 INCH MAXIMUM, CONFORMING TO CALTRANS STANDARD SPECIFICATIONS. AGGREGATE BASE SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
- EXECUTION**
- LOCATION:** STEPS SHALL BE CONSTRUCTED AT LOCATIONS SHOWN ON DRAWINGS AND AS STAKED IN THE FIELD BY THE ENGINEER.
 - CLEAR AND GRUBBING:** CONTRACTOR SHALL CLEAR AND GRUB TO A DEPTH NECESSARY TO REMOVE ALL VEGETATION, OBSTRUCTIONS, BURIED DEBRIS AND OTHER DELETERIOUS MATERIAL, UNLESS OTHERWISE SHOWN ON DRAWINGS OR DIRECTED BY THE ENGINEER. EXERCISE DUE CARE TO PRESERVE EXISTING VEGETATION OUTSIDE OF GRADING. EXCEPT AS HEREINAFTER SPECIFIED OR OTHERWISE INDICATED ON THE DRAWINGS, ALL LOGS, BRUSH, STRIPPINGS, SLASH, AND OTHER ORGANIC DEBRIS WHICH ARE THE PRODUCTS OF THE CLEARING AND GRUBBING OPERATIONS SHALL BE DISPOSED OF ON SITE AT LOCATIONS TO BE APPROVED BY THE ENGINEER.
 - EXCAVATION:** EXCAVATIONS SHALL EXTEND INTO FIRM, UNDISTURBED NATIVE SOILS TO ALLOW FOR REQUIRED DEPTH OF TIMBER EMBEDMENT AS SPECIFIED ON DRAWINGS, STRUCTURAL DETAILS, AND AS DIRECTED BY THE ENGINEER.
 - CONSTRUCTION:** INTERLOCKING CRIP STEPS SHALL BE CONSTRUCTED PER DIMENSIONS SHOWN ON DRAWINGS AND PER THESE DETAILS, STRUCTURAL DETAILS, AND TO THE SATISFACTION OF THE ENGINEER. MODIFICATIONS TO THE STEPS MAY BE REQUIRED AS SITE CONDITIONS DICTATE. DOWELS HAMMERED INTO TIMBER SHALL BE PLACED IN A TIGHT-FITTING PRE-DRILLED HOLE OF A DIAMETER NO GREATER THAN THAT OF THE DOWEL, WITH A SLIGHTLY SMALLER DIAMETER "SUB-DRILLED" HOLE PREFERRED.
 - ENGINEER FILL:** STEPS SHALL BE BACKFILLED WITH APPROVED ENGINEERED FILL AND COMPACTED TO A MINIMUM OF 90 PERCENT RELATIVE COMPACTION PER ASTM D 1557. ON-SITE SOILS MAY BE USED FOR ENGINEERED FILL AS APPROVED BY THE ENGINEER.
 - AGGREGATE BASE:** CAP STEP TREAD WITH 1 1/2 INCH MINUS CLASS II AGGREGATE BASE, 4-INCHES DEEP. COMPACT TO MINIMUM 90 PERCENT.
 - HAND RAIL:** CONSTRUCT HAND RAIL BOTH SIDES OF STEPS WHERE THERE ARE 3 OR MORE STEPS. CONSTRUCT HAND RAILS PER STRUCTURAL DETAILS.
 - DRAINAGE:** STEPS SHALL BE SLOPED 2% TO 3% TO DRAIN TO OUTSIDE (DOWNSLOPE) SIDE OF TRAIL.
- INSPECTIONS**
- PROJECT ENGINEER SHALL OBSERVE EXCAVATION AND PLACEMENT OF CRIBS, STEP RISERS AND DOWELS, AND HAND RAILS.

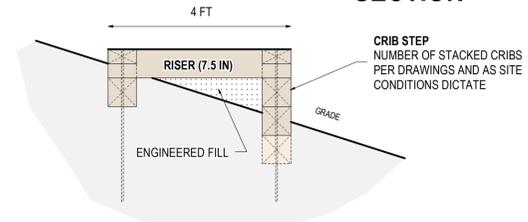
SIDE VIEW



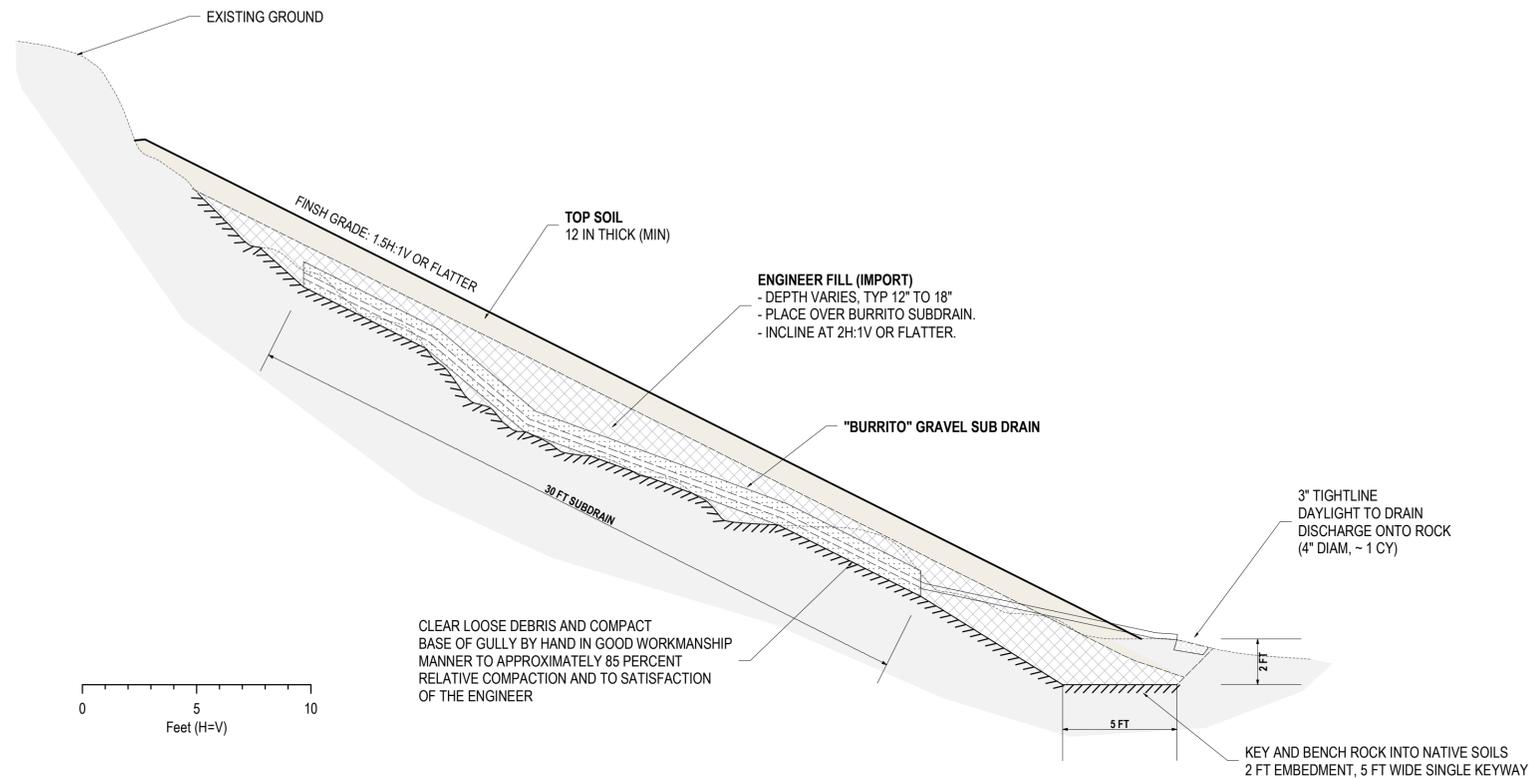
TOP VIEW



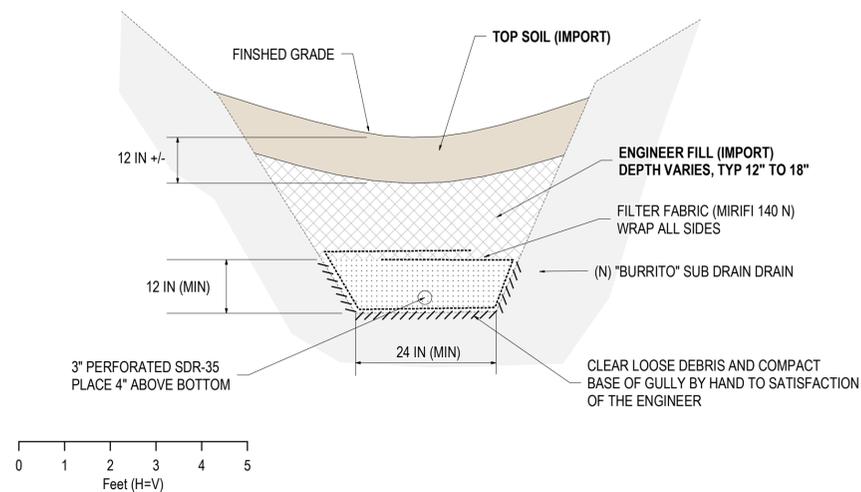
SECTION



2 WEST GULLY STABILIZATION: PROFILE (TYPICAL)
C15 SCALE: 1/4" = 1'



2B WEST GULLY STABILIZATION: SECTION (TYPICAL)
C15 SCALE: 1/2" = 1'



WEST GULLY STABILIZATION NOTES

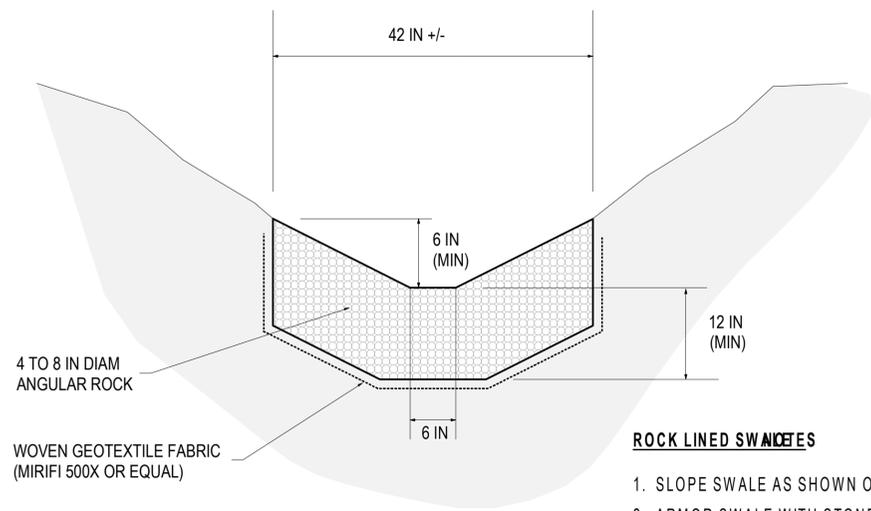
MATERIALS

1. **IMPORT ENGINEERED FILL:** MATERIAL TO BE USED AS ENGINEERED FILL SHALL CONSIST OF NATURAL OR ARTIFICIALLY GRADED NON-ORGANIC GRANULAR SOIL THAT IS RELATIVELY FREE OF ORGANIC MATERIAL AND CONTAIN NO ROCKS OR CLODS GREATER THAN 6 INCHES IN DIAMETER, WITH NO MORE THAN 15 PERCENT LARGER THAN 4 INCHES. THE MATERIAL SHOULD BE PREDOMINATELY GRANULAR WITH A PLASTICITY INDEX LESS THAN 18, A LIQUID LIMIT LESS THAN 35, AND NOT MORE THAN 20 PERCENT PASSING THE #200 SIEVE.
2. **TOPSOIL:** APPROVED TOPSOIL SHALL CONSIST OF ORGANIC RICH SOILS OBTAINED FROM GRADING OF THE TRAIL ELSEWHERE ON THE PROPERTY.
3. THE SUITABILITY OF MATERIALS FOR SPECIFIC PURPOSES WILL BE SUBJECT SOLELY TO THE APPROVAL OF THE ENGINEER AND IN CONFORMANCE WITH THESE SPECIFICATIONS.

EXECUTION

4. **CLEAR AND GRUBBING:** IN AREAS TO BE GRADED OR DESIGNATED TO RECEIVE ENGINEERED FILL, ALL LOOSE SOIL, OLD LOGS AND OTHER UNSUITABLE MATERIAL MUST BE SUBEXCAVATED TO ITS FULL DEPTH. EXISTING DEPRESSIONS OR VOIDS CREATED DURING SITE CLEARING SHOULD BE BACKFILLED WITH ENGINEERED FILL. EXERCISE DUE CARE TO PRESERVE EXISTING VEGETATION OUTSIDE OF GRADING. EXCEPT AS HERINAFTER SPECIFIED OR OTHERWISE INDICATED ON THE DRAWINGS, ALL LOGS, BRUSH, STRIPPINGS, SLASH, AND OTHER ORGANIC DEBRIS WHICH ARE THE PRODUCTS OF THE CLEARING AND GRUBBING OPERATIONS SHALL BE DISPOSED OF ON SITE AT LOCATIONS TO BE APPROVED BY THE ENGINEER.
5. **ENGINEERED FILL:**
 - a. ENGINEERED FILL SHALL BE PLACED PER LIMITS, LINES AND GRADES AS SHOWN ON DRAWINGS AND AS APPROVED BY THE ENGINEER.
 - b. THE SUBGRADE SHALL BE SCARIFIED AT LEAST 6 INCHES; MOISTURE CONDITIONED AND COMPACTED TO 85 PERCENT RELATIVE COMPACTION.
 - c. ENGINEERED FILL SHALL BE PLACED IN THIN LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS; MOISTURE CONDITIONED, AND COMPACTED TO A MINIMUM OF 85 PERCENT RELATIVE COMPACTION PER ASTM D 1557 OR TO THE SATISFACTION OF THE ENGINEER, UP TO DESIRED GRADE. DURING PLACEMENT AND COMPACTION OF FILL, THE MOISTURE CONTENT OF THE MATERIALS BEING PLACED SHALL BE ADJUSTED AND MAINTAINED AS NECESSARY.
 - d. THE TOE OF THE FILL EMBANKMENT SHALL BE KEYED AND BENCHED A MINIMUM OF 2 FEET FILL INTO FIRM NATIVE MATERIALS PER DRAWINGS. KEYWAY SHALL BE A MINIMUM OF 5 FEET WIDE.
 - e. ENGINEERED FILL SLOPES SHOULD BE INCLINED NO STEEPER THAN 1.5:1 (HORIZONTAL TO VERTICAL) AND NOT GREATER THAN 60 FEET IN HEIGHT WITHOUT APPROVAL OF THE ENGINEER. WHERE SHOWN ON PLANS AT THE TRANSITIONS TO EXISTING SLOPES THAT ARE STEEPER GRADIENTS, FILL SLOPES MAY BE BLENDED WITH NATURAL GRADES.
6. **"BURRITO" SUBDRAIN**
 - a. CONSTRUCT "BURRITO" SUBDRAIN ALONG THE AXIS OF THE GULLY BOTTOM PRIOR TO PLACEMENT OF ENGINEERED FILL.
 - b. SUBDRAIN SHALL CONSIST OF 3/4" INCH DIAMETER ANGULAR DRAIN ROCK WRAPPED ON ALL SIDES WITH FILTER FABRIC (MIRIFI 140N OR EQUAL). ALTERNATIVELY CLASS 2 CALTRANS PERMEABLE DRAIN ROCK MAY BE USED. THE SUBDRAIN SHALL INCORPORATE A 3 INCH DIAMETER PERFORATED PVC PIPE (PERFORATIONS DOWN) PLACED IN THE AXIS OF THE DRAIN, 3 INCHES FROM ITS BASE. PERFORATED PIPE SHALL BE CONNECTED TO A 3 INCH DIAMETER SOLID TIGHT LINE THAT CARRIES WATER TO THE BASE OF THE FILL SLOPE AND DISCHARGED IN A REASONABLE AND CONTROLLED MANNER AT A LOCATION TO BE DETERMINED IN THE FIELD AND TO THE SATISFACTION OF THE ENGINEER.
7. **TOPSOIL**
 - a. CAP ENGINEER FILL WITH 12 INCHES OF APPROVED ORGANIC TOP SOIL OBTAINED ELSEWHERE ONSITE.
 - b. AVOID OVER-COMPACTING TOPSOIL.
 - c. BLEND TOPSOIL WITH NATIVE GROUND TO PROVIDE A "NATURAL" LOOKING SETTING.
8. **TOPSOIL**
 - a. APPLY EROSION CONTROL PER NOTES AND TO SATISFACTION OF THE ENGINEER.

3 **ROCK LINED DITCH**
C16 SCALE: 1" = 1'



- ROCK LINED SWALES**
1. SLOPE SWALE AS SHOWN ON PLANS
 2. ARMOR SWALE WITH STONE AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER
 3. SWALE DEPTH AND WIDTH VARY AS SITE CONDITIONS DICTATE. ENGINEER MAY SPECIFY VARIED SWALE DIMENSIONS IN FIELD

50% CONSTRUCTION DOCUMENTS
 SUBJECT TO REVISION
 NOT FOR CONSTRUCTION

PLACEWORKS
 1625 SHATTUCK
 AVENUE, STE. 300
 BERKELEY, CA 94709
 (510) 848-3815 PHONE
 (510) 848-4315 FAX

PROJECT TITLE:
Wavcrest Coastal Trail Phase 2
 Coastside Land Trust

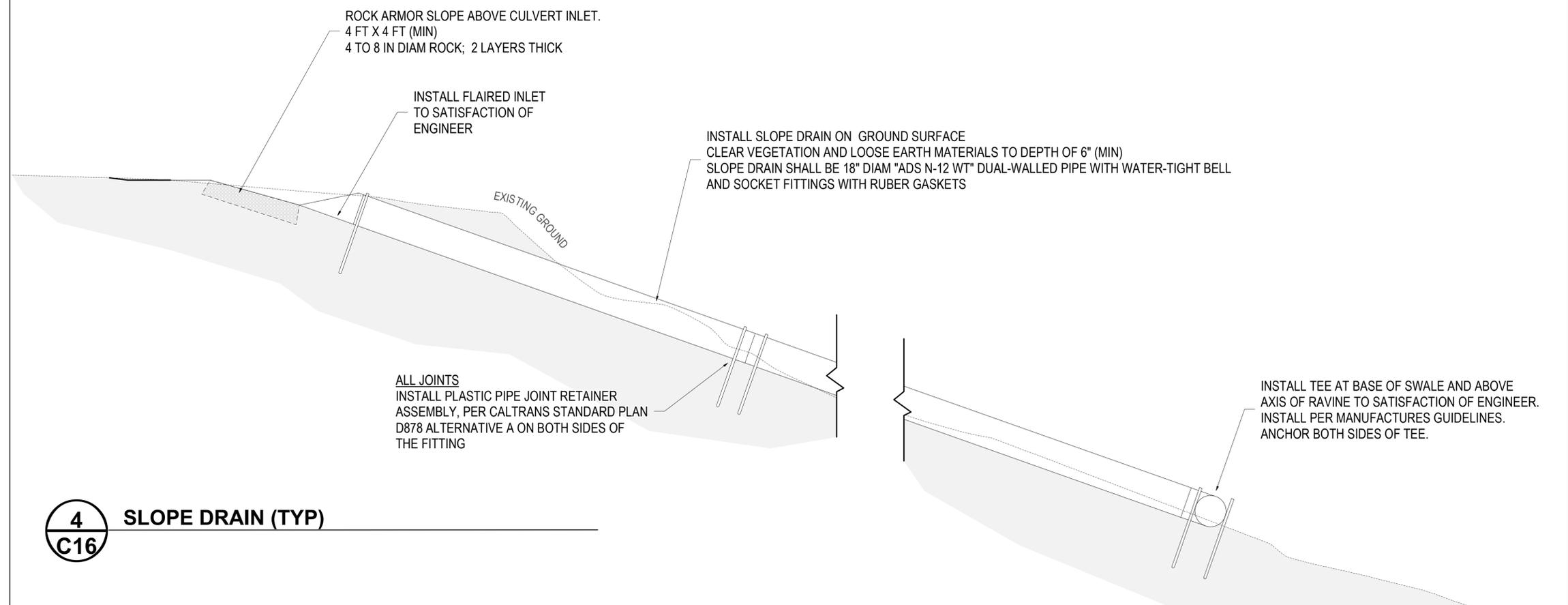
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DRAWING TITLE:
DITCH AND SLOPE DRAIN DETAILS

SCALE: AS SHOWN
 DATE: 3/18/2020
 REVISIONS:

DRAWING NO:
C16
 SHEET ___ OF ___ SHEETS

4 **SLOPE DRAIN (TYP)**
C16



ALL JOINTS
 INSTALL PLASTIC PIPE JOINT RETAINER ASSEMBLY, PER CALTRANS STANDARD PLAN D878 ALTERNATIVE A ON BOTH SIDES OF THE FITTING

INSTALL SLOPE DRAIN ON GROUND SURFACE
 CLEAR VEGETATION AND LOOSE EARTH MATERIALS TO DEPTH OF 6" (MIN)
 SLOPE DRAIN SHALL BE 18" DIAM "ADS N-12 WT" DUAL-WALLED PIPE WITH WATER-TIGHT BELL AND SOCKET FITTINGS WITH RUBER GASKETS

INSTALL TEE AT BASE OF SWALE AND ABOVE AXIS OF RAVINE TO SATISFACTION OF ENGINEER.
 INSTALL PER MANUFACTURES GUIDELINES.
 ANCHOR BOTH SIDES OF TEE.

GENERAL NOTES

DEFINITIONS

1. THE "CLT" SHALL BE COASTSIDE LAND TRUST, THE "ENGINEERING GEOLOGIST" SHALL BE TIMOTHY C. BEST, THE "GEOTECHNICAL ENGINEER" SHALL BE HARO, KASUNICH AND ASSOCIATES, THE "STRUCTURAL ENGINEER" SHALL BE MAYONE STRUCTURAL ENGINEERING, THE "CONTRACTOR" SHALL BE AN INDEPENDENT CONTRACTOR SELECTED BY CLT TO PERFORM THE WORK DESCRIBED HEREIN.
2. ON THESE PLANS "ENGINEER" REFERS TO "ENGINEERING GEOLOGIST". THE FIRST POINT OF CONTACT FOR QUESTIONS REGARDING THESE PLANS SHALL BE THE ENGINEER (TIMOTHY C. BEST)

GENERAL

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETION OF ALL ITEMS SHOWN ON THE PLANS AND SPECIFICATIONS AND SHALL BE RESPONSIBLE FOR ANY DEVIATION FROM THESE PLANS AND ASSOCIATED RISK AND EXPENSE.
2. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE DRAWINGS SPECIFICATIONS, CURRENT EDITION OF STATE OF CALIFORNIA STANDARD SPECIFICATION ISSUED BY THE DEPARTMENT OF TRANSPORTATION, AND APPLICABLE LOCAL ORDINANCES, CODES, AND REQUIREMENTS.
3. ALL WORK SHALL BE IN CONFORMANCE WITH APPLICABLE OCCUPATION SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS AS SET FOR BY THE FEDERAL DEPARTMENT OF LABOR AND/OR THE STATE OF CALIFORNIA
4. THE CONTRACTOR SHALL KEEP THEMSELVES FULLY INFORMED OF ALL APPLICABLE CODES, LAWS, ORDINANCES AND REGULATIONS OF ANY JURISDICTION OR AUTHORITY, AND SHALL ADHERE STRICTLY THERETO. COMPLIANCE WITH ALL LAWS, ORDINANCES AND REGULATIONS OF FEDERAL, STATE, COUNTY AND LOCAL AGENCIES SHALL TAKE PRECEDENCE OVER ALL OTHER CONTRACT DOCUMENTS.
5. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND CLT WITH THE NAME AND TELEPHONE NUMBER OF THE RESPONSIBLE PERSON TO CONTACT, WITH REGARD TO THIS PROJECT, 24 HOURS A DAY.
6. CLT SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL PROPERTY LINES AND EASEMENT AREAS.

EXAMINATION OF JOB SITE, PLANS AND SPECIFICATIONS

1. THE DOCUMENTS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE PROJECT DOCUMENTS WITH CONDITIONS FOUND AT THE SITE AND SHALL VERIFY EXISTING GRADES, ELEVATIONS AND CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK. ANY DEVIATION, SUBSTITUTION OR ALTERATION TO THE WORK SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL EXAMINE CAREFULLY THE SITE OF WORK AND THE PLANS AND SPECIFICATIONS. THE SUBMISSION OF A BID SHALL BE CONCLUSIVE EVIDENCE THAT THE CONTRACTOR HAS INVESTIGATED AND IS SATISFIED AS TO THE CONDITIONS TO BE ENCOUNTERED, AS TO THE CHARACTER, QUALITY, AND SCOPE OF WORK TO BE PERFORMED, THE QUANTITIES OF MATERIALS TO BE FURNISHED AND AS TO THE REQUIREMENTS OF THIS INVESTIGATION AND THE PLANS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL RECOGNIZE THAT THE PLANS USED FOR THE DRAWINGS OF THE WORK MAY DIFFER FROM THE ACTUAL PHYSICAL SITE. BEFORE PROCEEDING WITH THE WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHECK THE SITE IN RELATION TO THE DRAWINGS AND SPECIFICATIONS. REPORT ANY DISCREPANCIES TO THE OWNER AND THE ENGINEER.
5. ANY DISCREPANCIES BETWEEN THE PERMITS AND PLANS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION TO ENABLE THE ENGINEER TO ADDRESS THE NEED FOR PLAN MODIFICATIONS.
6. IN THE EVENT THAT ANY UNUSUAL CONDITIONS NOT COVERED BY THE DRAWINGS AND SPECIFICATIONS ARE ENCOUNTERED DURING THE WORK, THE ENGINEER SHALL BE IMMEDIATELY CONTACTED FOR DIRECTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERY OF ANY CONFLICTS BETWEEN DRAWINGS AND FIELD CONDITIONS.
7. THE CONTRACTOR SHALL BE REQUIRED TO ATTEND A PRE-CONSTRUCTION MEETING WITH THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE PURPOSE OF THIS MEETING IS SO THE CONTRACTOR MAY ASK QUESTIONS CONCERNING THE WORK AND TO MAKE SURE THE CONTRACTOR UNDERSTANDS THE SCOPE OF WORK, PERMIT CONDITIONS AND ENVIRONMENTAL CONSTRAINTS.
8. AT ALL TIMES DURING PROJECT CONSTRUCTION ACTIVITIES, COPIES OF THE APPROVED FINAL PLANS, COPIES OF PERMITS, AND A COPY OF THE GEOTECHNICAL REPORT SHALL BE MAINTAINED AT THE CONSTRUCTION JOB SITE (WHERE SUCH COPIES SHALL BE AVAILABLE FOR PUBLIC REVIEW) AND ALL PERSONS INVOLVED WITH THE CONSTRUCTION SHALL BE BRIEFED ON THE CONTENT AND MEANING OF EACH PRIOR TO COMMENCEMENT OF CONSTRUCTION

EXISTING UNDERGROUND UTILITIES

1. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR LOCATION AND AVOIDANCE OR REPAIR OF ALL UTILITIES, INCLUDING, BUT NOT LIMITED TO WATER LINES. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES WHETHER SHOWN ON THE DRAWINGS OR NOT. IF THE CONTRACTOR FAILS TO ADEQUATELY PROTECT THE UTILITIES, ANY RESULTING DAMAGE SHALL BE REPAIRED AT CONTRACTOR'S COST.
2. THE CONTRACTOR, AND ANY SUBCONTRACTOR, IS REQUIRED TO NOTIFY U.S.A. FORTY-EIGHT HOURS IN ADVANCE OF PERFORMING EXCAVATION WORK, BY CALLING THE TOLL FREE NUMBER (800) 642-2444.

PROPERTY BOUNDARIES

1. CLT SHALL IDENTIFY AND MARK THE PROPERTY BOUNDARY PRIOR TO CONSTRUCTION

STAGING AREAS AND ACCESS

1. STAGING AREA
 - A. CONTRACTOR IS ADVISED OF THE NECESSITY TO RESTRICT HIS/HER ACTIVITIES TO EXISTING ROADS AND ONLY TO THOSE STAGING AREAS AND WORK AREAS SHOWN ON THE PLANS, OR OTHERS PROPOSED BY CONTRACTOR, AND APPROVED IN ADVANCE BY THE CLT. ALTERNATIVE STAGING AREAS MAY BE ALLOWED PENDING REVIEW BY THE ENGINEER PRIOR TO COMMENCEMENT OF WORK. GRADING WILL NOT BE PERMITTED TO CREATE ENLARGED STAGING AREAS. ALL DISTURBED AND DAMAGED AREAS MUST BE REPAIRED BY CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.
 - B. NO AREA WITHIN THE CONTRACT LIMITS IS AVAILABLE FOR THE EXCLUSIVE USE OF CONTRACTOR. USE OF CONTRACTOR'S WORK AREAS AND ANY MOBILIZATION AREAS SHALL BE AT CONTRACTOR'S OWN RISK, AND CLT SHALL NOT BE HELD LIABLE FOR ANY DAMAGE OR LOSS OF MATERIALS OR EQUIPMENT LOCATED WITHIN SUCH AREAS.
2. ACCESS
 - A. IMPACTS TO THE ACCESS ROUTE MUST BE MINIMIZED AND DISTURBANCE ALONG THE ACCESS ROUTE MUST BE RESTORED TO PRE-CONSTRUCTION CONDITIONS UPON PROJECT COMPLETION TO THE SATISFACTION OF THE ENGINEER.
 - B. THE CONTRACTOR SHALL CAREFULLY PRESERVE THE SURROUNDING PROPERTY BY CONFINING OPERATIONS WITHIN THE LIMITS OF WORK. CONSTRUCTION WORK OR EQUIPMENT OPERATIONS SHALL NOT BE CONDUCTED OUTSIDE THE DESIGNATED WORK AREA BOUNDARY WITHOUT APPROVAL OF THE ENGINEER.
 - C. CONSTRUCTION AREA CLOSURE SIGNS SHALL BE FURNISHED, INSTALLED, MAINTAINED, AND REMOVED BY THE MCOSED WHEN NO LONGER REQUIRED.

HOUSEKEEPING

1. THE CONSTRUCTION SITE SHALL MAINTAIN GOOD CONSTRUCTION SITE HOUSEKEEPING CONTROLS AND PROCEDURES (E.G., CLEAN UP ALL LEAKS, DRIPS, AND OTHER SPILLS IMMEDIATELY; KEEP MATERIALS COVERED AND OUT OF THE RAIN (INCLUDING COVERING EXPOSED PILES OF SOIL AND WASTES); DISPOSE OF ALL WASTES PROPERLY, PLACE TRASH RECEPTACLES ON SITE FOR THAT PURPOSE, COVER OPEN TRASH RECEPTACLES DURING WET WEATHER, REMOVE ALL CONSTRUCTION DEBRIS FROM THE SITE.

HAZARDOUS MATERIALS CONTROL AND SPILL PREVENTION PLAN

1. CONTRACTOR SHALL BE RESPONSIBLE FOR HAZARDOUS MATERIALS CONTROL AND SPILL PREVENTION
2. CONTRACTOR SHALL PROVIDE STAGING AND STORAGE AREAS FOR EQUIPMENT, AS REQUIRED TO CONTAIN CONTAMINANTS AWAY FROM WATERCOURSES. PROVIDE A CONTAINED, LOCKED STORAGE FACILITY FOR FUELS, LUBRICANTS, CONSTRUCTION

CHEMICALS AND OTHER HAZARDOUS MATERIALS AND SUPPLIES STORED AT SITE.

3. CONTRACTOR SHALL CLEAN AND MAINTAIN EQUIPMENT TO PREVENT ANY LEAKAGE OF FUEL AND LUBRICANTS. ESTABLISH A DESIGNATED EQUIPMENT REFUELING AREA. ALL FUELING AND MAINTENANCE OF VEHICLES AND OTHER EQUIPMENT AND STAGING AREA SHALL OCCUR AT LEAST 75 FEET FROM ANY RIPARIAN HABITAT OR WATER BODY.
4. ISOLATE WORK AREAS DURING IN-WATER CONSTRUCTION ACTIVITIES BY USING OIL CONTAINMENT BOOMS. MAINTAIN A SUPPLY OF OIL BOOMS, SORBENT PADS AND OTHER SUPPLIES TO CONTAIN AND CLEAN SPILLS. CLEAN UP ANY SPILLS ON A DIRT AREA BY DIGGING UP AND PROPERLY DISPOSING OF CONTAMINATED SOIL AT AN APPROPRIATE FACILITY.

EARTH WORK GRADING

1. CLEARING AND GRUBBING
 - A. VEGETATION SHALL BE CLEARED AND GRUBBED ONLY WITHIN THE GRADING AREA TO THE SATISFACTION OF ENGINEER. CARE SHALL BE MADE TO AVOID DAMAGE TO TREES OUTSIDE THE WORK AREA. THE GROUND SHALL BE CLEARED AND GRUBBED TO A DEPTH NECESSARY TO REMOVAL ALL TREES, STUMPS, ROOTS, DOWN TIMBER, SNAGS, VEGETATION, LOGS, BURIED LOGS, OLD PILING, STONE, CONCRETE RUBBLE, AND OTHER OBJECTIONABLE DEBRIS, UNLESS OTHERWISE SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER..
 - B. EXCEPT AS HEREINAFTER SPECIFIED OR OTHERWISE INDICATED ON THE DRAWINGS, ALL LOGS, BRUSH, STRIPPINGS, SLASH, AND OTHER ORGANIC DEBRIS WHICH ARE THE PRODUCTS OF THE CLEARING AND GRUBBING OPERATIONS SHALL BE DISPOSED OF ON SITE AT LOCATIONS TO BE APPROVED BY THE ENGINEER. ALL GARBAGE, CONCRETE, PIPING, OR OTHER NON- ORGANIC MATERIALS SHALL BE DISPOSED OFF-SITE BY THE CONTRACTOR AT LOCATIONS TO BE ARRANGED AND PAID FOR BY THE CONTRACTOR.
2. EXCAVATION / CUTS
 - A. EXCAVATIONS SHALL BE TO DEPTH AND GRADE SHOWN ON PLANS AND/OR AS DIRECTED BY THE ENGINEER.
 - B. EXCAVATIONS SHALL EXTEND INTO FIRM, UNDISTURBED NATIVE SOILS UNLESS OTHERWISE SPECIFIED OR DIRECTED. IN THE EVENT THAT ORGANIC MATERIALS, YIELDING SUB-GRADE (PUMPING) OR OTHER DELETERIOUS MATERIALS ARE ENCOUNTERED DURING FOUNDATION EXCAVATIONS, THEY SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
 - C. TEMPORARY CUTS MAY BE MADE AT 0.5:1 GRADIENT TO A HEIGHT OF 6 FEET AND 1:1 UNLESS OTHERWISE REVIEWED AND APPROVED BY THE ENGINEER.
 - D. THE CONTRACTOR SHALL BE AWARE THAT SLOPE HEIGHT, INCLINATION, OR EXCAVATION DEPTHS (INCLUDING UTILITY TRENCH EXCAVATIONS) SHOULD IN NO CASE EXCEED THOSE SPECIFIED IN LOCAL, STATE OR FEDERAL SAFETY REGULATIONS, I.E. OSHA HEALTH AND SAFETY STANDARDS FOR EXCAVATIONS, 29 CFR PART 1926 SUBPART P, OR SUCCESSOR REGULATIONS. CUT SLOPES EXCEEDING MINIMUM STANDARDS MUST BE INSPECTED AND EVALUATED BY THE GEOTECHNICAL ENGINEER OR REPRESENTATIVE BEFORE EXCAVATION COMMENCES.
 - E. THE CONTRACTOR SHALL EXERCISE DUE CARE TO PRESERVE EXISTING VEGETATION OUTSIDE OF THE GRADED AREA.
3. ENGINEERED AND NON-STRUCTURAL FILL
ENGINEERED AND NON-STRUCTURAL FILL SHALL BE PLACED PER LIMITS, LINES AND GRADES AS SHOWN ON DRAWINGS AND AS APPROVED BY THE ENGINEER. THE FINISHED GRADES SHALL TRANSITION NATURALLY INTO ADJACENT EXISTING GRADES TO PROVIDE A FUNCTIONAL AND NATURALISTIC FINISHED SURFACE.
 - A. ENGINEERED FILL
 - i) AREAS TO RECEIVE STRUCTURAL FILL SHALL BE STRIPPED TO REMOVE ALL VEGETATION, ROOTS, BRUSH, HIGHLY ORGANIC SOILS AND OTHER UNSUITABLE FILL MATERIAL (~ 4" DEPTH).
 - ii) STRUCTURAL BACKFILL SHALL CONSIST OF APPROVED IMPORT FILL OR ONSITE SOILS DERIVED FROM EXCAVATIONS. ALL SOILS, BOTH EXISTING ON-SITE AND IMPORTED, TO BE USED AS ENGINEERED FILL, SHALL CONTAIN LESS THAN 3 PERCENT ORGANICS AND BE FREE OF DEBRIS AND COBBLES OVER 3 INCHES IN MAXIMUM DIMENSION. UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE ENGINEER, THE MATERIAL SHALL BE PREDOMINATELY GRANULAR WITH A PLASTICITY INDEX LESS THAN 18, A LIQUID LIMIT LESS THAN 35, AND NOT MORE THAN 20 PERCENT PASSING THE #200 SIEVE.
 - iii) ENGINEERED FILL SHALL BE PLACED IN THIN LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS; MOISTURE CONDITIONED, AND COMPACTED TO A MINIMUM OF 90 PERCENT RELATIVE COMPACTION PER ASTM D 1557, UP TO DESIRED GRADE, UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS OR APPROVED BY THE ENGINEER.
 - iv) FILL EMBANKMENTS SITUATED ON SLOPES 20% OR STEEPER IN GRADIENT SHALL BE KEYED AND BENCHED INTO FIRM NATIVE MATERIAL. ALL KEYS AND BENCHES SHALL BE DRAINED PER DRAWINGS AND AS DIRECTED BY THE ENGINEER.
 - v) ENGINEERED FILL SLOPES SHALL BE INCLINED NO STEEPER THAN 1.5:1 (HORIZONTAL TO VERTICAL) WITHOUT APPROVAL OF THE ENGINEER.
 - vi) ENGINEERED FILL SLOPES SHALL BE DRESSED BY OVER-BUILDING AND CUTTING BACK TO THE REQUIRED GRADE. THE CONTRACTOR MAY COMPACT THE SHOULDER OF EACH LIFT DURING THE PLACEMENT OF FILL MATERIALS TO ASSIST IN THE SUBSEQUENT DRESSING OF THE SLOPES.
 - B. NON STRUCTURAL FILL
 - i) SURPLUS, DETERIOUS AND/OR ORGANIC RICH EARTH MATERIALS DERIVED FROM EXCAVATIONS MAY BE SPREAD AND COMPACTED ONSITE AT APPROVED LOCATIONS AND TO THE SATISFACTION OF THE ENGINEER.
 - ii) WHERE SPECIFIED ON DRAWINGS, ENGINEER FILL SHALL BE CAPPED BY APPROVED ORGANIC TOPSOIL.

DRAINAGE

1. PROPER DRAINAGE IS KEY TO THIS PROJECT. SURFACE DRAINAGE PROVISIONS ARE TO BE INSTALLED AS DEPICTED ON PLANS AND AS DIRECTED BY THE ENGINEER.
2. CONTROL OF RUNOFF FROM THE SLOPES ABOVE; CONTROL OF INFILTRATION AND PONDING ADJACENT TO THE EDGE OF THE ROAD; AND CONTROL OF SUBSURFACE SEEPAGE IS CRITICAL. DISCHARGE COLLECTED WATER IN A WAY SO AS NOT TO CAUSE EROSION. RUNOFF AND DISCHARGE MUST NOT BE ALLOWED TO SPILL OVER GRADED SLOPES. WATER SHALL BE DIRECTED TO DRAIN INLETS CONNECTED TO A DRAINAGE SYSTEM THAT DISCHARGES AT APPROVED LOCATIONS AND IN A MANNER AS NOT TO INDUCE EROSION.
3. ROLLING DIPS, KNICKS, WATERBARS AND DITCH RELIEF CULVERTS SHALL BE INSTALLED AS SPECIFIED ON PLANS. ROAD PRISM SHALL BE RESHAPED AS NECESSARY TO DRAIN TO DIPS AND CULVERTS.
4. ROAD TREAD SHALL BE INSLOPED/OUTSLOPED/CROWNED AT 8% UNLESS OTHERWISE SPECIFIED

EROSION CONTROL, WATER POLLUTION PREVENTION

1. TEMPORARY EROSION CONTROL
 - A. DURING PROJECT CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING APPROPRIATE AND NECESSARY EROSION CONTROL MEASURES TO MINIMIZE STORM WATER RUNOFF FROM THE CONSTRUCTION SITE, PURSUANT TO APPLICABLE REGULATIONS AND PERMITS.
 - B. ALL TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AS WELL AS AT THE END OF EACH WORK DAY. AT A MINIMUM, SILT FENCES, OR EQUIVALENT APPARATUS, SHALL BE INSTALLED AT THE PERIMETER OF THE CONSTRUCTION SITE TO PREVENT CONSTRUCTION RELATED RUNOFF AND/OR SEDIMENT FROM ENTERING INTO THE WATERCOURSES UNLESS OTHERWISE DIRECTED BY PROJECT ENGINEER OR DESIGNEE.
 - C. TEMPORARY EROSION CONTROL MEASURES MUST BE MAINTAINED DURING CONSTRUCTION

2. PERMANENT EROSION CONTROL
 - A. EXPOSED MINERAL SOILS OUTSIDE OF THE TRAIL RUNNING SURFACE GREATER THAN 50 SQUARE FEET (SF) AND WITH EXPOSED SLOPE DISTANCE EXCEEDING 10 FEET AND WITH LESS THAN 80% GROUND COVERAGE OF NATURAL VEGETATION SHALL BE SEEDED AND MULCHED IN ORDER TO REDUCE THE POTENTIAL FOR SHORT-TERM SHEET AND RILL EROSION.
 - B. SEED: NATIVE GRASS SEED MIX (TO BE APPROVED BY CLT). SPREAD SEED MIX AFTER ALL GRADING HAS BEEN COMPLETED, BEFORE SPREADING STRAW OR MULCH ON THE SITE. FINISHED GRADING SHALL LEAVE TRACTOR CLEAT MARKS, PREFERABLY PERPENDICULAR TO SLOPE. SEED MIX SHOULD BE SPREAD AT A RATE OF 40 LBS/ACRE. LIGHTLY RAKE SEED INTO SOIL AND COVER WITH 1 TO 2 INCHES OF STRAW. SEED MAY NOT BE APPLIED UNTIL LATE SEPTEMBER OR OCTOBER TO PROMOTE SUCCESSFUL GERMINATION.
 - C. MULCHING: USE NATIVE MULCH WHERE FEASIBLE. WHERE NATIVE MULCH IS UNAVAILABLE AND/OR AS DIRECTED BY THE ENGINEER OR DESIGNEE, MULCH USING 1'-1/2" TO 2" OF APPROVED CERTIFIED WEED-FREE STRAW MULCH.
 - D. EROSION CONTROL BLANKET: EXPOSED SLOPES GREATER THAN 2H:1V WITH THE EXPOSED SLOPE DISTANCE EXCEEDING 20 LF IN A DOWNSLOPE DIRECTION SHALL BE COVERED WITH APPROVED EROSION CONTROL BLANKET (TENSAR ROLLMAX C125BN OR EQUIVALENT) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS DIRECTED BY THE CEG OR DESIGNEE. THIS SPECIFICATION DOES NOT APPLY TO EXPOSED SLOPES THAT ARE SHORTER THAN 20 LF IN A DOWNSLOPE DIRECTION
 - E. STRAW ROLL: WHERE THE EXPOSED SLOPE EXCEEDS 20 LF IN DOWNSLOPE DIRECTION, INSTALL STRAW ROLL(S) AT 15' O.C. PER STANDARD SPECIFICATIONS. USE BIO-12 STRAW WATTLES BY CALIFORNIA STRAW WORKS OR EQUIVALENT.
3. EROSION CONTROL TIMING
 - A. ALL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED BY OCTOBER 15 OR PRIOR TO INCLEMENT WEATHER, WHICHEVER COMES FIRST.
 - B. THE SITE SHALL BE INSPECTED NO MORE THAN 14 DAYS AFTER THE FIRST RAIN. IF THE INSPECTION REVEALS THAT THE SLOPES NEED TO BE REPAIRED BECAUSE THE SEED HAS NOT TAKEN OR EROSION HAS TAKEN PLACE, THE SLOPES SHALL BE RE-SEEDED AND/OR REPAIRED. THE PERMITEE IS RESPONSIBLE TO RETAIN A CIVIL ENGINEER OR AN AUTHORIZED INDIVIDUAL FOR INSPECTION AND MODIFICATION OF THE EROSION CONTROL DEVICES, AS NECESSARY DURING THE RAINY SEASON
 - C. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED & MAINTAINED CONTINUOUSLY DURING CONSTRUCTION
4. EROSION CONTROL MAINTENANCE
 - A. AFTER CONSTRUCTION INSPECT AND CLEAN THE DRAINAGE SYSTEMS AS NEEDED AND AT LEAST ONCE A YEAR PRIOR TO THE RAINY SEASON. PERFORM PERIOD INSPECTIONS DURING THE WINTER SEASON AND REMOVE ANY DEBRIS THAT IS BLOCKING OPERATION OF THE DRAINAGE SYSTEM. LOOK FOR DEBRIS OR SOIL THAT IS BLOCKING RUNOFF FLOW OR PLUGGING INLETS AND REMOVE. CHECK ENERGY DISSIPATORS FOR EVIDENCE OF BLOCKAGE AT THE ADJACENT STORM DRAIN PIPE OUTLET AND UNPLUG AS NEEDED. CHECK THE GROUND SURFACE IN THE VICINITY OF THE ENERGY DISSIPATORS FOR EVIDENCE OF EROSION AND REPAIR AS NEEDED.

TRAIL CRIB STEPS AND RETAINING WALLS

1. TRAIL CRIB STEPS AND RETAINING WALLS SHALL BE CONSTRUCTED PER CIVIL AND STRUCTURAL ENGINEERING DRAWINGS.
2. CONTROL OF RUNOFF FROM THE SLOPES ABOVE; CONTROL OF INFILTRATION AND PONDING ADJACENT TO THE EDGE OF THE ROAD; AND CONTROL OF SUBSURFACE SEEPAGE IS CRITICAL. DISCHARGE COLLECTED WATER IN A WAY SO AS NOT TO CAUSE EROSION. RUNOFF AND DISCHARGE MUST NOT BE ALLOWED TO SPILL OVER GRADED SLOPES. WATER SHALL BE DIRECTED TO DRAIN INLETS CONNECTED TO A DRAINAGE SYSTEM THAT DISCHARGES AT APPROVED LOCATIONS AND IN A MANNER AS NOT TO INDUCE EROSION.
3. ROLLING DIPS, KNICKS, WATERBARS AND DITCH RELIEF CULVERTS SHALL BE INSTALLED AS SPECIFIED ON DRAWINGS. TRAIL PRISM SHALL BE RESHAPED AS NECESSARY TO DRAIN TO DIPS.

CONSTRUCTION OBSERVATION SCHEDULE

4. REVIEW, OBSERVATION AND TESTING
 - A. THE PROJECT ENGINEER SHALL BE PROVIDED AN OPPORTUNITY TO REVIEW PROJECT PLANS WITH THE CONTRACTOR DURING THE PRE-CONSTRUCTION MEETING TO EVALUATE IF RECOMMENDATIONS HAVE BEEN PROPERLY INTERPRETED. THE ENGINEER SHALL ALSO PROVIDE EARTHWORK OBSERVATIONS AND TESTING DURING CONSTRUCTION. THIS ALLOWS THE ENGINEER TO CONFIRM ANTICIPATED SOIL CONDITIONS AND EVALUATE CONFORMANCE WITH RECOMMENDATIONS AND PROJECT PLANS TO CONFIRM THAT DRAINAGE RECOMMENDATION HAVE BEEN PROPERLY IMPLEMENTED.
 - B. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND GEOTECHNICAL ENGINEER A MINIMUM OF 7 DAYS PRIOR TO COMMENCEMENT OF WORK AND A MINIMUM OF 4 WORKING DAYS PRIOR TO ANY INSPECTIONS.
 - C. REGULATORY AGENCIES MAY REQUIRE A FINAL GRADING COMPLIANCE LETTER. WE CAN ONLY OFFER THIS LETTER IF WE ARE CALLED TO THE SITE TO OBSERVE AND TEST. AS NECESSARY, ANY GRADING AND EXCAVATION OPERATIONS FROM THE START OF CONSTRUCTION. WE CANNOT PREPARE A LETTER IF WE ARE NOT AFFORDED THE OPPORTUNITY OF OBSERVATION FROM THE BEGINNING OF THE GRADING OPERATION. THE CONTRACTOR MUST BE MADE AWARE OF THIS AND EARTHWORK TESTING AND OBSERVATION MUST BE SCHEDULED ACCORDINGLY.

ITEM	REQUIRED	REMARKS
PRECONSTRUCTION	X	PRIOR TO CONSTRUCTION
KEYWAYS AND DRAINS FOR TRAIL STEPS, RETAINING WALLS, GULLY REPAIRS, AND EMBANKMENT CONSTRUCTION	X	CONTINUOUS
TRAIL STEP AND RETAINING WALL CONSTRUCTION	X	CONTINUOUS
SLOPE DRAINS	X	CONTINUOUS
FINAL GRADING AND EROSION CONTROL	X	CONTINUOUS AND FINAL

SAFETY

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL SAFETY DURING CONSTRUCTION. ALL WORK SHALL CONFORM TO PERTINENT SAFETY REGULATIONS AND CODES. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR FURNISHING, INSTALLING, AND MAINTAINING ALL WARNING SIGNS AND DEVICES NECESSARY TO SAFEGUARD THE GENERAL PUBLIC AND THE WORK, AND PROVIDE FOR THE PROPER AND SAFE ROUTING OF VEHICULAR AND PEDESTRIAN TRAFFIC DURING THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF OSHA IN THE CONSTRUCTION PRACTICES FOR ALL EMPLOYEES DIRECTLY ENGAGED IN THE CONSTRUCTION OF THIS PROJECT.
2. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTION LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL. NEITHER THE PROFESSIONAL ACTIVITIES OF CONSULTANT NOR THE PRESENCE OF CONSULTANT OR HIS OR HER EMPLOYEES OR SUB-CONSULTANTS AT A CONSTRUCTION SITE SHALL RELIEVE THE CONTRACTOR AND ITS SUBCONTRACTORS OF THEIR RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING OR COORDINATING ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND APPLICABLE HEALTH OR SAFETY REQUIREMENTS OF ANY REGULATORY AGENCY OR OF STATE LAW.
3. CONTRACTOR IS REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
4. THE CONTRACTOR SHALL CONFORM TO THE RULES AND REGULATIONS OF THE CONSTRUCTION SAFETY ORDERS OF THE CALIFORNIA DIVISION OF OCCUPATIONAL SAFETY AND HEALTH PERTAINING TO EXCAVATION AND TRENCHES THE CALIFORNIA CODE OF REGULATIONS TITLE 8, SUBCHAPTER 4 CONSTRUCTION SAFETY ORDERS, ARTICLE 6 EXCAVATION.



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PROJECT TITLE:
Wavcrest Coastal Trail Phase 2
Coastside Land Trust

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DRAWING TITLE:

STAIR NOTES

SCALE: AS SHOWN

DATE: 3/18/2020>

REVISIONS:

DRAWING NO:

C17

SHEET ___ OF ___ SHEETS

50% CONSTRUCTION DOCUMENTS
SUBJECT TO REVISION
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Wavcrest Coastal Trail Phase 2
Coastside Land Trust
788 Main Street
Half Moon Bay, CA

Redondo Beach
Access Trail Project

MSE Project Number 13-023.14
DRAWN BY S C MAYONE
DATE 3-18-2020
Revision Date

PRINT DATE: 3-18-2020

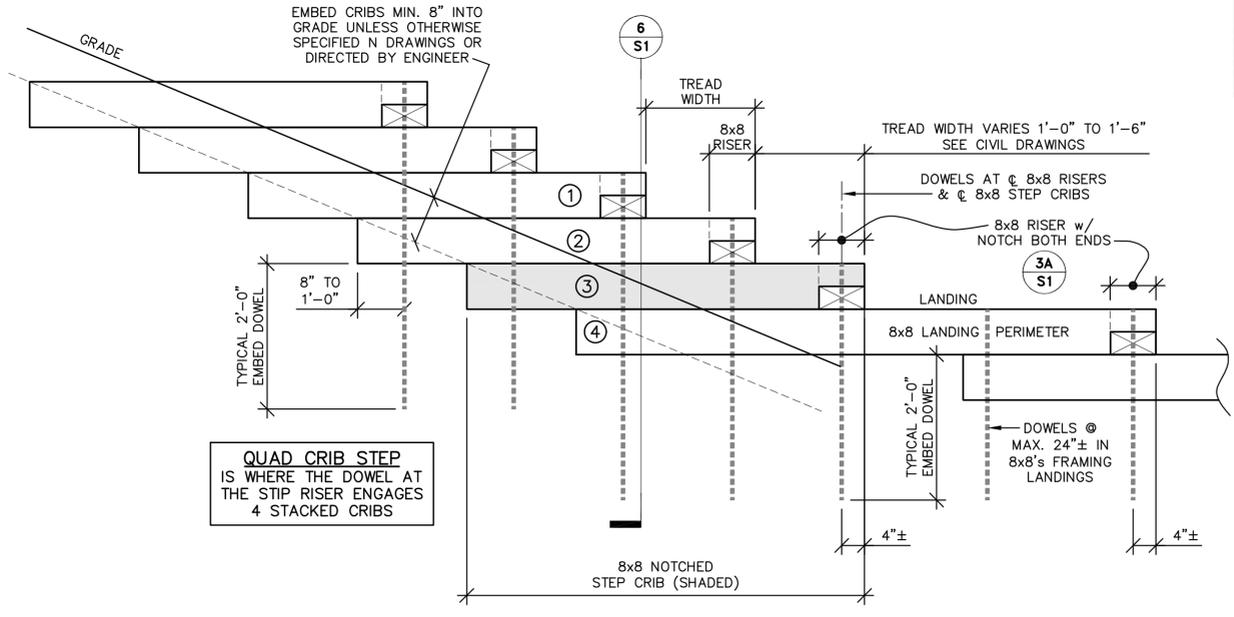
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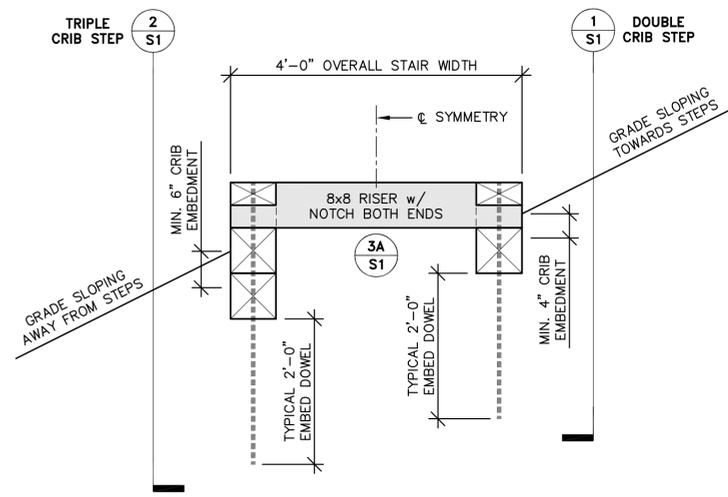
Structural Details for Interlocking Crib Steps

Sheet Number Of

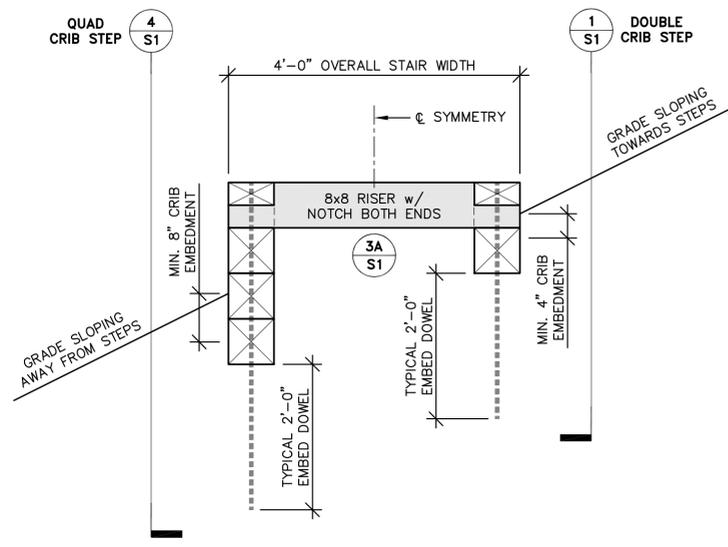
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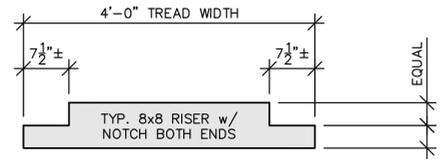
4
S1
QUAD CRIB STEP
EMBED CRIBS MINIMUM 8" INTO GRADE
SCALE: 3/4" = 1'-0"



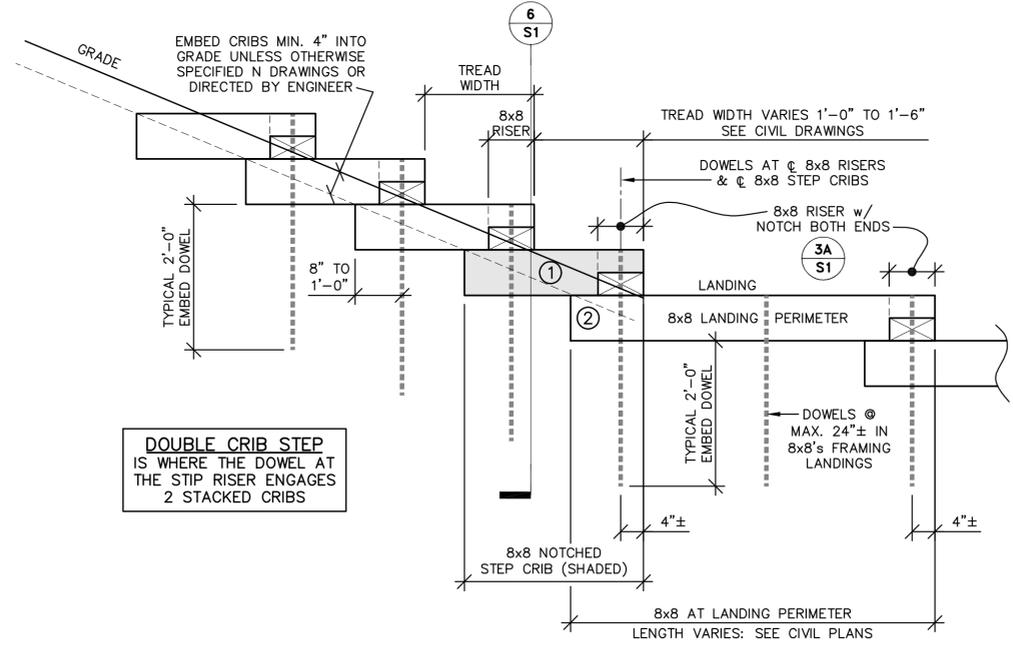
5
S1
TRIPLE CRIB STEP
EMBED CRIBS MINIMUM 6" INTO GRADE
SCALE: 3/4" = 1'-0"



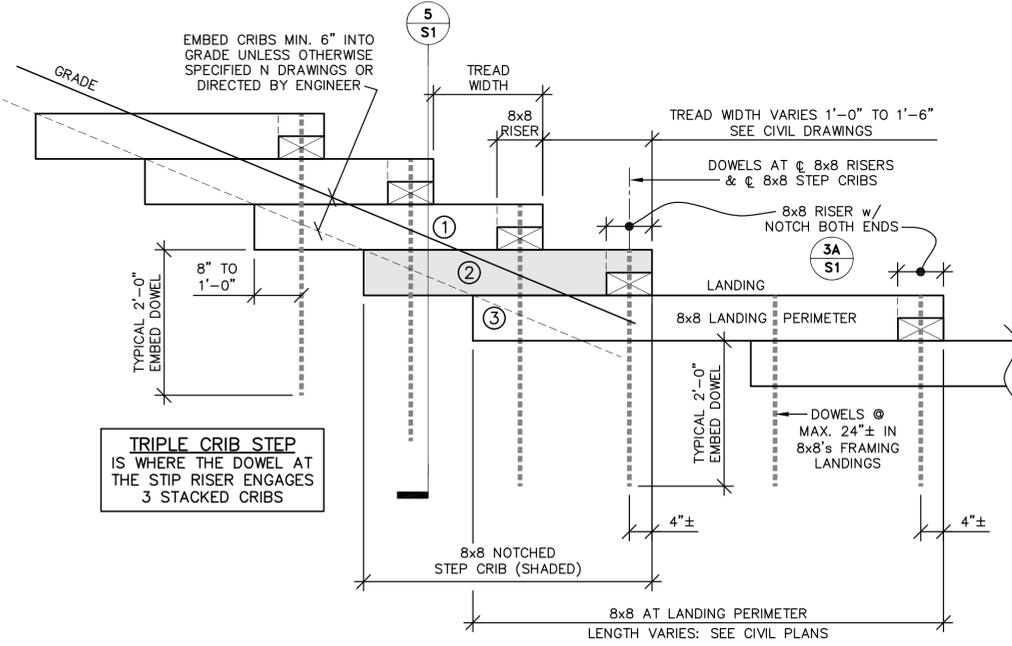
6
S1
SECTION AT STEPS ON CROSS-SLOPE w/ QUAD CRIB STEP
SCALE: 3/4" = 1'-0"



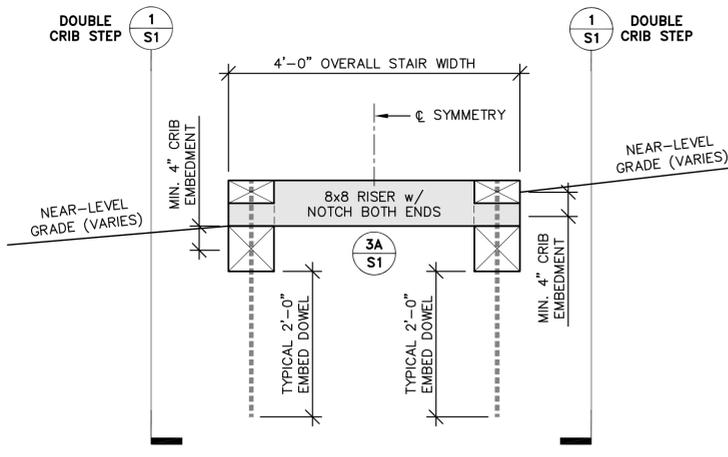
3A
S1
NOTCHED 8x8 RISER
SCALE: 3/4" = 1'-0"



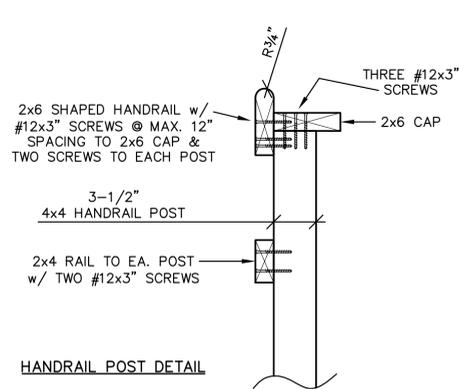
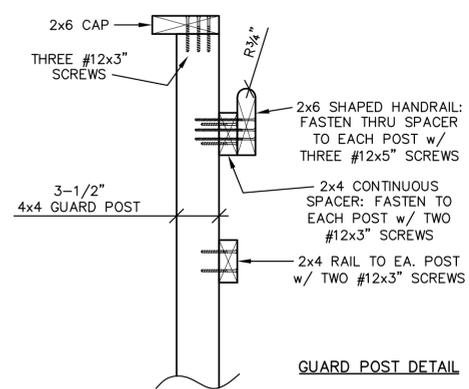
1
S1
DOUBLE CRIB STEP
EMBED CRIBS MINIMUM 4" INTO GRADE
SCALE: 3/4" = 1'-0"



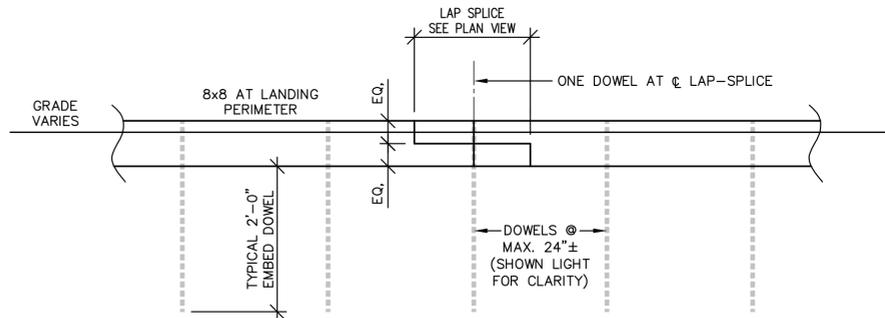
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S1
TRIPLE CRIB STEP
EMBED CRIBS MINIMUM 6" INTO GRADE
SCALE: 3/4" = 1'-0"



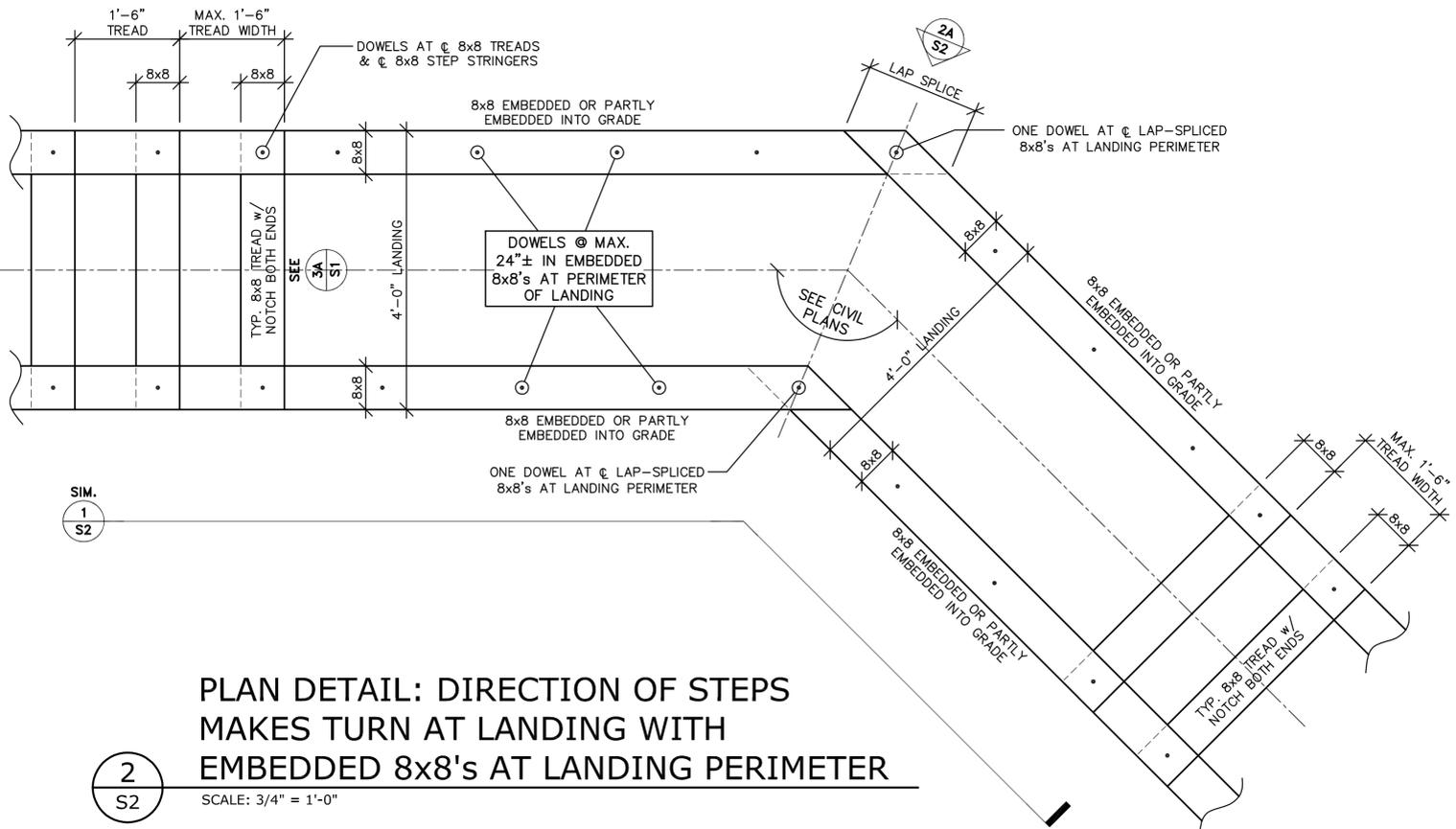
3
S1
SECTION AT STEPS ON NEAR-LEVEL GRADE w/ DOUBLE CRIB STEP
SCALE: 3/4" = 1'-0"



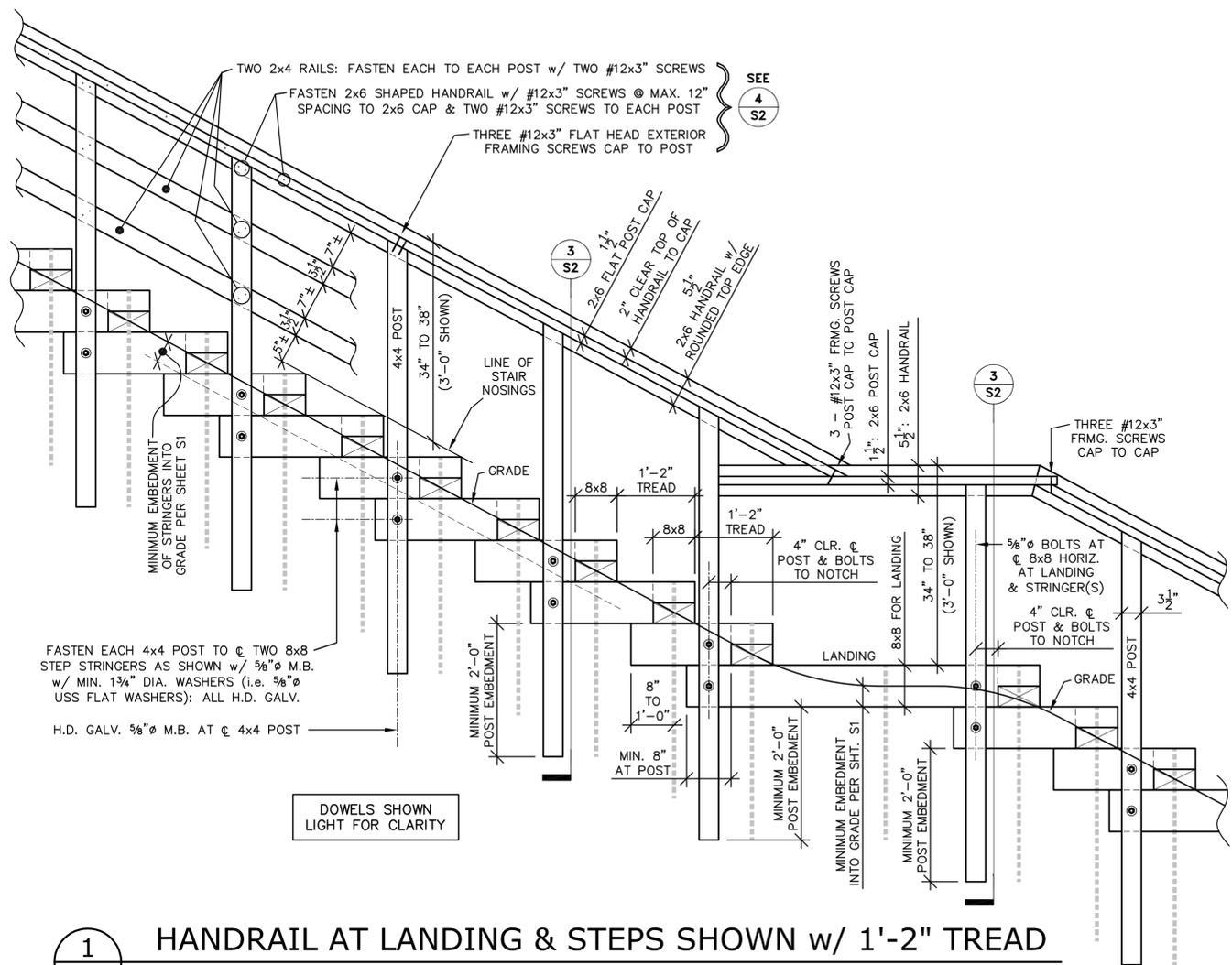
4
S2
ENLARGED DETAIL AT TOP OF 4x4 POSTS FOR HANDRAIL & GUARD
SCALE: 1-1/2" = 1'-0"



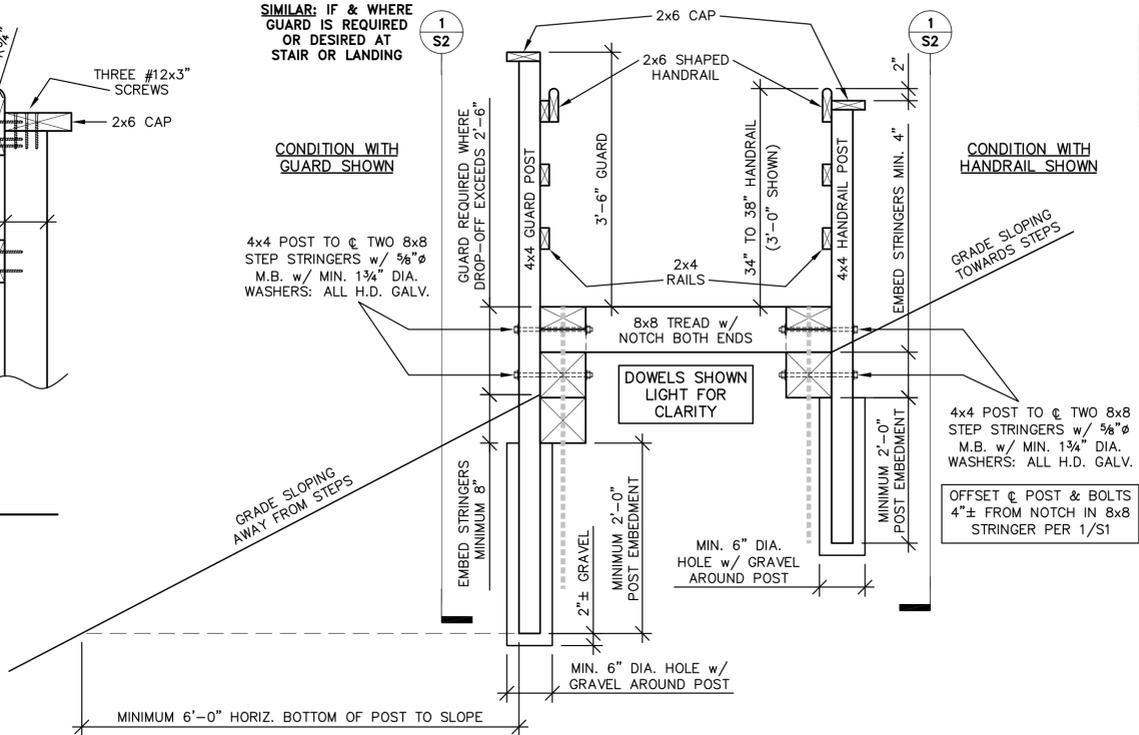
2A
S2
SIDE ELEVATION OF ANGLED LAP SPICE: EMBEDDED 8x8's AT LANDING PERIMETER
SCALE: 3/4" = 1'-0"



2
S2
PLAN DETAIL: DIRECTION OF STEPS MAKES TURN AT LANDING WITH EMBEDDED 8x8's AT LANDING PERIMETER
SCALE: 3/4" = 1'-0"



1
S2
HANDRAIL AT LANDING & STEPS SHOWN w/ 1'-2\"/>



3
S2
SECTION AT STEPS OR LANDING w/ POSTS FOR HANDRAIL & GUARD WHERE OCCURRING
SCALE: 3/4" = 1'-0"

SIMILAR: IF & WHERE GUARD IS REQUIRED OR DESIRED AT STAIR OR LANDING

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788 Main Street
Half Moon Bay, CA

Redondo Beach Access Trail Project
MSE Project Number 13-023.14
DRAWN BY S C MAYONE
DATE 1-27-2020
Revision Date

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Sheet Title
Structural Details for Handrail, Guard & Landing
Sheet Number S2 of

STRUCTURAL ENGINEERING NOTES & SPECIFICATIONS

1. ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH 2018 INTERNATIONAL BUILDING CODE AS AMENDED BY 2019 CALIFORNIA BUILDING CODE.

INTERLOCKING CRIB STEPS, CRIB WALL, HAND RAIL AND GUARD RAIL TO BE CONSTRUCTED AS SHOWN ON THE CIVIL DRAWINGS. REFER TO CIVIL DRAWINGS FOR ADDITIONAL DETAILS.

2. CARPENTRY AND TIMBER:

- A. TIMBER GRADING SHALL BE WCLB STANDARD GRADING RULES FOR WEST COAST LUMBER.
- B. ALL TIMBER SHALL BE CONSTRUCTION GRADE REDWOOD OR BETTER. USE FULL-DIMENSION, ROUGH-SAWN FOR STEPS, CRIBS AND LANDINGS. GUARD FRAMING CAN BE S4S OR FULL-DIM., ROUGH-SAWN AT OWNER'S CHOICE.
- C. DOWELS HAMMERED INTO REDWOOD SHALL BE PLACED IN A TIGHT-FITTING PRE-DRILLED HOLE OF DIAMETER NO GREATER THAN THAT OF THE DOWEL, WITH SLIGHTLY SMALLER DIAMETER "SUB-DRILLED" HOLES PREFERRED.
- D. ALL TIMBER FASTENERS SHALL BE AS SPECIFIED IN THE STRUCTURAL DRAWINGS. ALL FASTENERS SHALL BE RATED FOR EXTERIOR USE AND AS SPECIFICALLY NOTED.

3. **STEEL DOWELS** SHALL BE ASTM A-615 DEFORMED, UNCOATED GRADE 60 (OR BETTER) STEEL REINFORCING BAR (REBAR). USE MINIMUM 5/8-INCH DIAMETER (#5) REBAR FOR ALL DOWELS. WHERE LONG DOWELS ARE INSTALLED AND HAMMERING CAUSES DOWEL BUCKLING, IT IS RECOMMENDED TO INCREASE DOWELS TO 3/4-INCH DIAMETER (#6) REBAR OR LARGER.

4. **INSTALL GRAVEL CURTAIN DRAIN PER DRAWINGS.** SUBDRAINS SHALL CONSIST OF 3/4-INCH DIAMETER ANGULAR DRAIN ROCK WRAPPED ON ALL SIDES WITH FILTER FABRIC (MIRAFI 140N OR EQUAL). ALTERNATELY CLASS 2 CALTRANS PERMEABLE DRAIN ROCK MAY BE USED. THE SUBDRAIN SHALL INCORPORATE A 3-INCH DIAMETER PERFORATED PVC PIPE (PERFORATIONS DOWN) PLACED IN THE AXIS OF THE DRAIN, 3-INCHES FROM ITS BASE. PERFORATED PIPE SHALL BE CONNECTED TO A 3-INCH DIAMETER SOLID TIGHT LINE THAT CARRIES WATER TO THE BASE OF THE FILL SLOPE AND DISCHARGED IN A REASONABLE AND CONTROLLED MANNER AT A LOCATION TO BE DETERMINED IN THE FIELD AND TO THE SATISFACTION OF THE ENGINEER.

5. **BACKFILL BEHIND CRIB WALL AND INTERLOCKING CRIB STEPS WITH APPROVED ENGINEERED FILL.** ENGINEERED FILL SHALL BE PLACED IN THIN LIFTS NOT EXCEEDING 8-INCHES IN LOOSE THICKNESS; MOISTURE CONDITIONED, AND COMPACTED TO A MINIMUM OF 90-PERCENT RELATIVE COMPACTION PER ASTM D 1557 OR TO THE SATISFACTION OF THE ENGINEER, UP TO DESIRED GRADE. DURING PLACEMENT AND COMPACTION OF THE FILL, THE MOISTURE CONTENT OF THE MATERIALS BEING PLACED SHALL BE ADJUSTED AND MAINTAINED AS NECESSARY.

6. **ENGINEER OF RECORD (EOR)** SHALL OBSERVE EXCAVATION AND PLACEMENT OF CRIBS, STEP RISERS AND DOWELS. EOR SHALL ALSO OBSERVE INSTALLATION OF GUARD POSTS, CAP, AND HORIZONTALS; INSTALLATION OF TIMBER CRIB WALL WITH RETAINING WALL BEHIND; AND ALL FASTENERS.



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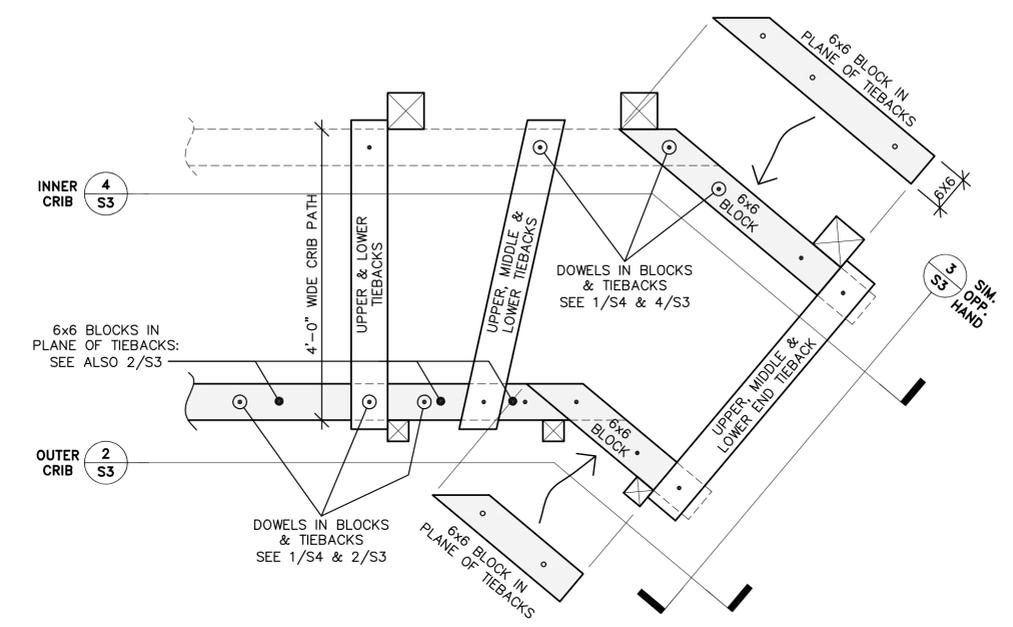
MSE Project Number 13-023.14

DRAWN BY S C MAYONE

DATE 3-18-2020

Revision Date

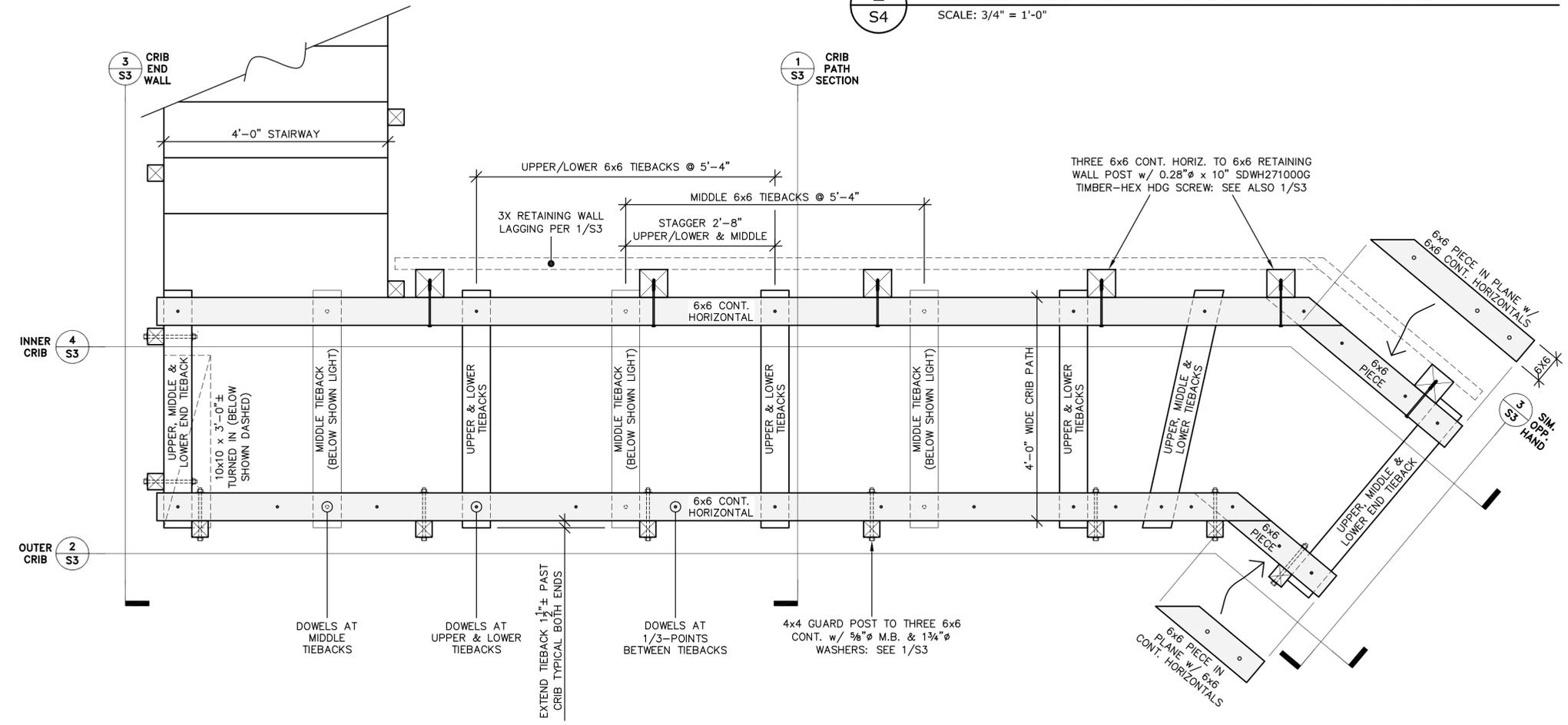
PRINT DATE: 3-18-2020



PARTIAL PLAN SECTION: TIMBER CRIB WALL TIEBACKS & BLOCKS AT CORNER

2
S4

SCALE: 3/4" = 1'-0"



1
S4

PLAN VIEW: TIMBER CRIB WALL

SCALE: 3/4" = 1'-0"

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Sheet Title

Structural Plan for Crib Wall & General Notes

Sheet Number Of

S4