

GENERAL NOTES

1. THE CONTRACTOR SHALL MAKE A DETAILED AND THOROUGH STUDY OF THESE PLANS IN THEIR ENTIRETY PRIOR TO ANY WORK ON THE JOBSITE. THE CONTRACTOR IS TO VERIFY ALL EXISTING CONSTRUCTION CONDITIONS AND IS TO CORRECT THE DRAWINGS WITH ALL OTHER TRADE DISCIPLINES FOR THE COMPLETED WORK. THE CONTRACTOR IS ALSO TO UNDERSTAND THAT ANY FEATURE OF CONSTRUCTION NOT FULLY SHOWN OR DETAILED SHALL BE OF THE SAME TYPE AS SHOWN FOR SIMILAR CONDITIONS.
2. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY DISCREPANCY OCCURRING ON THE DRAWINGS OR FOUND IN THE CHANGEMAN. THE CONTRACTOR SHALL APPROVED PLANS SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE PROJECT ENGINEER AND THE COUNTY OF SANTA CRUZ DEPARTMENT OF PUBLIC WORKS.
3. ANY REQUEST FOR ALTERATIONS OR SUBSTITUTIONS SHALL BE SUBMITTED DIRECTLY TO THE PROJECT ENGINEER, ACCOMPANIED BY A DETAILED SKETCH FOR REVIEW, BEFORE ANY APPROVAL WILL BE GIVEN AND BEFORE PROCEEDING WITH THE WORK. ABSOLUTELY NO ALTERATIONS OF THESE DOCUMENTS OF ANY KIND WILL BE APPROVED ON ANY SHOP DRAWINGS.
4. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS (CALTRANS), LATEST EDITION, THE COUNTY OF SANTA CRUZ DESIGN CRITERIA AND ALL APPLICABLE ORDINANCES AND ORDINANCES.
5. THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS WERE OBTAINED FROM RECORD DRAWINGS AND MAY NOT REPRESENT TRUE LOCATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND DEPTH OF THESE UTILITIES PRIOR TO CONSTRUCTION, AND TO NOTIFY THE PROJECT ENGINEER IN CASE OF CONFLICT.
6. THE CONTRACTOR SHALL SECURE ALL REQUIRED CONSTRUCTION PERMITS FROM THE COUNTY OF SANTA CRUZ PRIOR TO THE START OF WORK.
7. CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, 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 CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD PROJECT ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE PROJECT ENGINEER.
8. GRADING SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATIONS AND THE REQUIREMENTS OF THE COUNTY OF SANTA CRUZ.
9. THE CONTRACTOR SHALL NOTIFY THE COUNTY GRADING INSPECTOR, GEOTECHNICAL ENGINEER, THE CIVIL ENGINEER, & THE COUNTY CONSTRUCTION ENGINEER AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
10. WORK SHALL BE LIMITED TO 8:00 A.M. TO 5:00 P.M. WEEKDAYS. NON-NOISE PRODUCING ACTIVITIES, SUCH AS INTERIOR PAINTING, SHALL NOT BE SUBJECT TO THIS RESTRICTION.
11. ALL FIGURE (FIG.) REFERENCES, UNLESS OTHERWISE SPECIFIED, REFER TO STANDARD DRAWINGS IN THE CURRENT EDITION OF THE "COUNTY OF SANTA CRUZ DESIGN CRITERIA."
12. NO LAND CLEARING, GRADING OR EXCAVATING SHALL TAKE PLACE BETWEEN OCTOBER 15 AND APRIL 15 UNLESS THE PLANNING DIRECTOR APPROVES A SEPARATE WINTER EROSION CONTROL PLAN.
13. BETWEEN OCTOBER 15 AND APRIL 15, EXPOSED SOIL SHALL BE PROTECTED FROM EROSION AT ALL TIMES. DURING CONSTRUCTION SUCH PROTECTION MAY CONSIST OF MULCHING AND/OR PLANTING OF NATIVE VEGETATION OF ADEQUATE DENSITY. BEFORE COMPLETION OF THE PROJECT, ANY EXPOSED OR DISTURBED SLOPES SHALL BE PERMANENTLY PROTECTED FROM EROSION.
14. THE CONTRACTOR SHALL APPLY WATER TO ALL EXPOSED EARTH SURFACES AT INTERVALS SUFFICIENT TO PREVENT AIRBORNE DUST FROM LEAVING THE PROJECT SITE. ALL EXPOSED EARTH SHALL BE WATERED DOWN AT THE END OF THE WORK DAY.
15. WHILE IN TRANSIT TO AND FROM THE PROJECT SITE, ALL TRUCKS TRANSPORTING FILL SHALL BE EQUIPPED WITH TARPS.
16. PURSUANT TO SECTIONS 16.40.040 AND 16.42.100 OF THE COUNTY CODE, IF AT ANY TIME DURING SITE PREPARATION, EXCAVATION, OR OTHER GROUND DISTURBANCE ASSOCIATED WITH THIS DEVELOPMENT, ANY ARTIFACT OR OTHER EVIDENCE OF AN ARCHEOLOGICAL RESOURCE OR NATIVE AMERICAN BURIAL SITE IS DISCOVERED, THE RESPONSIBLE PERSONS SHALL IMMEDIATELY CEASE AND DESIST FROM ALL FURTHER EXCAVATION. THE DISCOVERY OF SUCH EVIDENCE AND THE DISCOVERY CONTAINS HUMAN REMAINS, OR THE PLANNING DIRECTOR IF THE DISCOVERY CONTAINS NO HUMAN REMAINS, THE PROCEDURES ESTABLISHED IN SECTIONS 16.40.010 AND 16.42.100, SHALL BE OBSERVED.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF CONSTRUCTION QUANTITIES PRIOR TO BIDDING ON ANY ITEM QUANTITY REFERENCES SHOWN ON THESE PLANS, OR ENGINEER'S ESTIMATES ARE FOR ESTIMATING PURPOSES ONLY AND SHALL NOT BE CONSIDERED AS A BASIS FOR CONTRACT PRICES. THE CONSULTANT SHALL NOT BE RESPONSIBLE FOR ANY FLUCTUATIONS IN SUCH QUANTITIES AND ESTIMATES.
18. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO, OR USES OF, THESE PLANS. ANY CHANGES MUST BE IN WRITING AND MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
19. UNDERGROUND UTILITY LOCATIONS SHOWN ARE COMPILED FROM INFORMATION SUPPLIED BY UTILITY AGENCIES, AND ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY LOCATIONS OF AFFECTED UTILITY LINES PRIOR TO ANY TRENCHING OR EXCAVATING AND POTENTIALLY THOSE AREAS WHERE POTENTIAL CONFLICTS EXIST OR WHERE DATA IS OTHERWISE INCOMPLETE, FOR LOCATION, CALL USA 1-800-624-1444.
20. ANY EXISTING UTILITIES THAT ARE REQUIRED TO BE RELOCATED AS A PART OF THIS CONSTRUCTION SHALL BE RELOCATED AT THE OWNER'S EXPENSE.

EARTHWORK AND GRADING

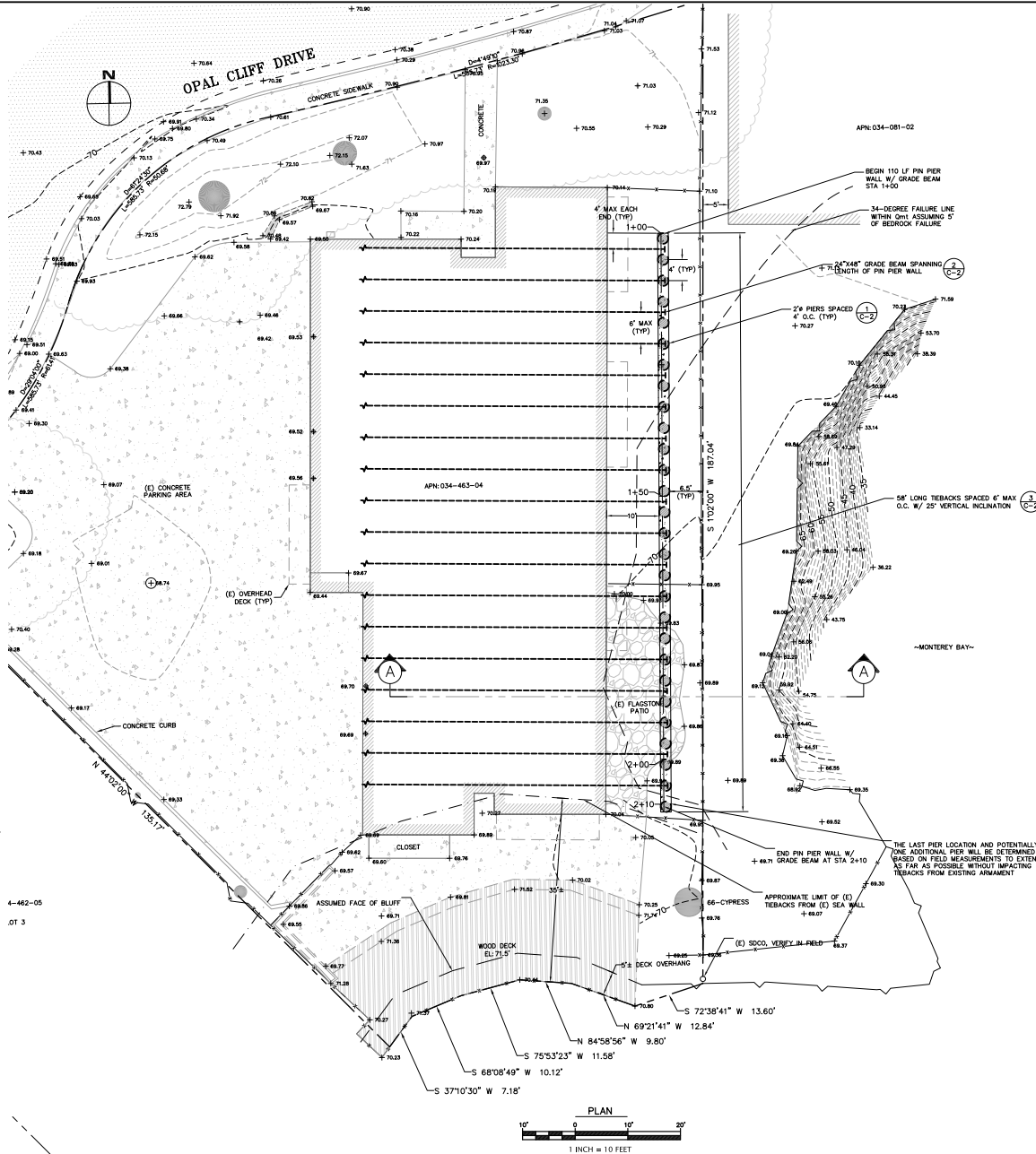
1. WORK SHALL CONSIST OF ALL CLEARING, GRUBBING, STRIPPING, PREPARATION OF LAND TO BE FILLED, EXCAVATION, SPREADING, COMPACTION AND CONTROL OF FILL, AND ALL SUBSIDIARY WORK NECESSARY TO CONSTRUCT THE PIN PIER WALL TO THE LINES, GRADES, AND SLOPES, AS SHOWN ON THE APPROVED PLANS.
2. ALL GRADING OPERATIONS SHALL CONFORM TO SECTION 19 OF THE CALTRANS STANDARD SPECIFICATIONS, AND SHALL ALSO BE DONE IN CONFORMANCE WITH THE REQUIREMENTS OF THE COUNTY OF SANTA CRUZ. THE MOST STRINGENT GUIDELINE SHALL PREVAIL.
3. REFERENCE IS MADE TO THE GEOTECHNICAL AND GEOLOGIC INVESTIGATIONS BY PACIFIC CREST ENGINEERING, INC., DATED "GEO-TECHNICAL AND GEOLOGIC STUDY, 4800 OPAL CLIFF DRIVE, CAPITOLA, CALIFORNIA, FOR OPAL CLIFF EAST HOMEOWNERS ASSOCIATION, CAPITOLA, CALIFORNIA," DATED NOVEMBER 2024. THE CONTRACTOR SHALL MAKE A THOROUGH REVIEW OF THIS REPORT AND SHALL FOLLOW ALL RECOMMENDATIONS THEREIN. THE CONTRACTOR SHALL CONTACT PACIFIC CREST ENGINEERING, INC. FOR ANY CLARIFICATIONS NECESSARY PRIOR TO PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL GRADE TO THE LINE AND ELEVATIONS SHOWN ON THE PLAN AND SHALL SECURE THE SERVICES OF A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER TO PROVIDE STAKES FOR LINE AND GRADE.
5. THE GEOTECHNICAL ENGINEER SHOULD BE NOTIFIED AT LEAST FOUR (4) DAYS PRIOR TO ANY SITE CLEARING AND GRADING OPERATIONS.

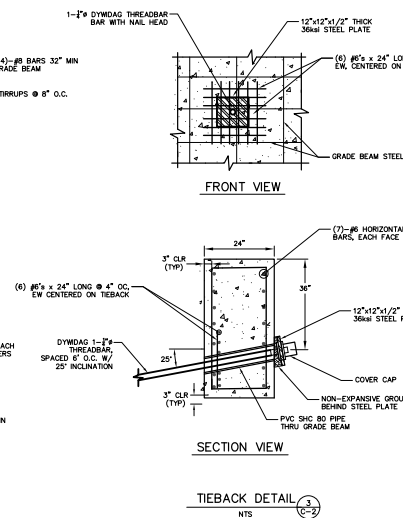
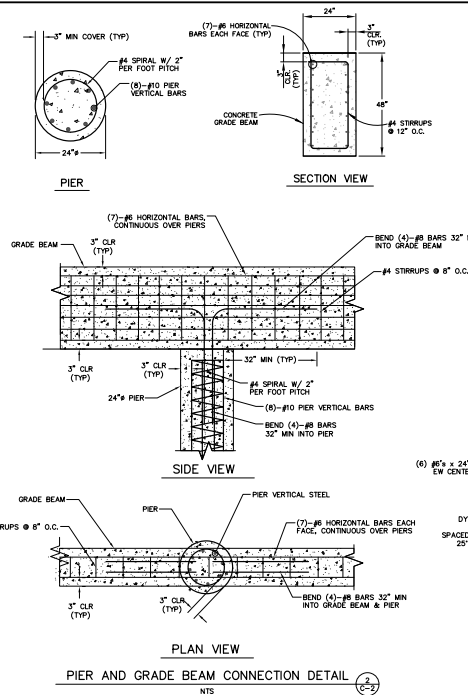
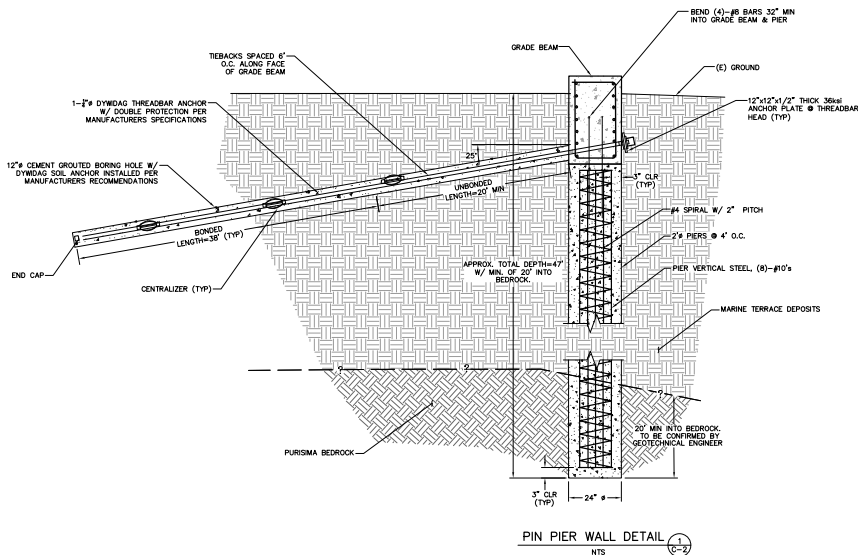
APPROXIMATE EARTHWORK QUANTITIES

	CUT	FILL
PIER & GRADE	160	0
BEAM EXCAVATION	160	0

NOTES:
1. EARTHWORK QUANTITIES ARE APPROXIMATE AND SHALL BE INDEPENDENTLY VERIFIED BY THE CONTRACTOR FOR BIDDING PURPOSES.

2. EXCESS SOIL SHALL BE HAULED OR PLACED IN A COUNTY APPROVED LOCATION.





TIEBACK ANCHOR TABLE

PRODUCT NAME	DESIGN LOAD	TEST LOAD	LOCK OFF LOAD	UNBONDED LENGTH (MINIMUM)	BONDED LENGTH	TOTAL LENGTH	TOTAL NUMBER OF TIEBACKS	TIEBACK HEAD
DYWIDAG 1-1/2" THREADED BAR	107,330 lbs	142,750 lbs	96,600 lbs	20 ft	38 ft	58 ft	18	12"x12"x2"

CONCRETE & GROUT

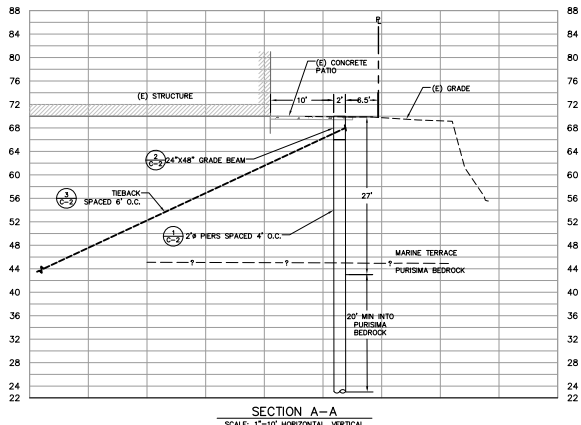
1. WORK DONE UNDER THIS SECTION SHALL CONFORM WITH THE APPLICABLE PORTIONS OF ACI 318, LATEST EDITION.
2. POURED IN PLACE CONCRETE SHALL BE CONSTRUCTED OF NORMAL WEIGHT, PORTLAND CEMENT CONCRETE, HAVING A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI. PORTLAND CEMENT CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ACI 318.
3. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, LATEST EDITION, THE CONCRETE SHALL BE PLACED WITH A MAXIMUM OF 312 POUNDS OF WATER PER CUBIC YARD, MAXIMUM SLUMP SHALL BE 4 INCHES. DO CORROSION INHIBITOR SHALL BE ADDED TO THE CONCRETE MIX WITH MINIMUM PROPORTION OF (2) gal/cy. THE USE OF ANY ADDITIONAL ADMIXTURE IN THE CONCRETE MUST BE APPROVED BY THE ENGINEER.
4. AGGREGATES, COARSE AGGREGATES SHALL CONFORM TO ASTM C33 SIZE 57 OR 67. PEA GRAVEL AGGREGATES SHALL NOT BE USED.
5. NEWLY PLACED CONCRETE SHALL BE CURED IN ACCORDANCE WITH THE PROVISIONS IN ACI 308, "STANDARD PRACTICE FOR CURING CONCRETE", LATEST EDITION, METHOD OF CURING SHALL BE AT THE OPTION OF THE CONTRACTOR WITH APPROVAL OF THE OWNER AND ENGINEER.
6. METAL ANCHORAGE DEVICES, ANCHOR BOLTS, ETC. SHALL BE SECURED IN PLACE AND INSPECTED PRIOR TO PLACING CONCRETE. MET SETTING EMBEDDED DEVICES ARE NOT ACCEPTABLE.
7. NON-EXPANSIVE GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.

REINFORCEMENT

- REINFORCING BARS SHALL BE EPOXY COATED DEFORMED BILLET-STEEL BARS FOR A CONCRETE REINFORCEMENT CONFORMING TO THE SPECIFICATIONS OF ASTM DESIGNATION A775. BARS SHALL BE GRADE 60.
- LAP SPICES AND TOLERANCES SHALL BE IN ACCORDANCE WITH ACI 318 UNLESS NOTED OTHERWISE IN THE PLANS. RELATIVE SPICE LOCATIONS SHALL BE STAGGERED UNLESS NOTED OTHERWISE.
- CARE SHALL BE USED TO PROTECT THE EPOXY COATING DURING HANDLING AND PLACING. AREAS OF DAMAGED EPOXY COATING SHALL BE TREATED WITH A BRUSH APPLIED EPOXY COATING REPAIR SOLUTION CONFORMING WITH ASTM A775 AND DONE IN ACCORDANCE WITH THE MATERIAL MANUFACTURER'S RECOMMENDATIONS. NO UNCOATED STEEL SHALL BE EMBEDDED IN THE CONCRETE. BARS SHALL BE TIED WITH PLASTIC, EPOXY, OR NYLON COATED THE WIRE, OR OTHER APPROVED MATERIALS.
- REINFORCING BARS SHALL BE ACCURATELY PLACED AS SHOWN ON THE PLANS AND SHALL BE FIRMLY AND SECURELY HELD IN POSITION BY WIRING AT INTERSECTIONS AND SPICES AND BY USING PRECAST MORTAR BLOCKS OR OTHER DEVICES APPROVED BY THE ENGINEER.
- SUPPORT REINFORCING BARS AT BOTTOM OF FOOTINGS ON MORTAR BLOCKS. MAINTAIN A MINIMUM OF 3 INCHES CLEARANCE BETWEEN REINFORCING BARS AND EARTH FOR ALL SURFACES POURED AGAINST EARTH AND 1-1/2 INCHES MINIMUM CLEARANCE ELSEWHERE UNLESS NOTED OTHERWISE IN THE PLANS.
- ALL REINFORCING BARS, ANCHOR BOLTS, METAL INSERTS, WATERSTOPES AND OTHER EMBEDMENTS SHALL BE SECURED IN PLACE AND INSPECTED PRIOR TO PLACING ANY CONCRETE OR GROUT. ALL REINFORCING BARS TO BE WELDED SHALL BE WELDED IN ACCORDANCE WITH A.W.S. D1-4 "WELDING REINFORCING STEEL, METAL INSERTS AND CONNECTIONS IN REINFORCED CONCRETE CONSTRUCTIONS".
- ALL REINFORCING BARS, ANCHOR BOLTS, METAL INSERTS AND OTHER EMBEDDED ITEMS SHALL BE SECURED IN PLACE AND INSPECTED PRIOR TO PLACING ANY CONCRETE OR GROUT.
- WORK DONE UNDER THIS SECTION SHALL CONFORM WITH THE APPLICABLE PORTIONS OF ACI 318.

TIEBACK SPECIFICATIONS

1. TIEBACKS SHALL BE INSTALLED AT AN INCLINATION OF ABOUT 25 DEGREES BELOW HORIZONTAL. WE RECOMMEND A MINIMUM UNBONDED LENGTH OF 20 FEET AND A MINIMUM BONDED LENGTH OF 38 FEET.
2. ALL SPOLS FROM THE TIEBACK DRILLING WORK SHALL BE REMOVED FROM THE SITE. TIEBACK SPOLS SHALL NOT BE CAST ONTO THE EXISTING BLUES.
3. THE COMPUTED BOND LENGTH OF THE TIEBACKS SHALL BE CONFIRMED BY A PERFORMANCE - AND PROOF TESTING PROGRAM PERFORMED UNDER THE OBSERVATION OF THE GEOTECHNICAL ENGINEER.
4. THE FIRST TWO PRODUCTION TIEBACKS AND TWO PERCENT OF THE REMAINING TIEBACKS SHALL BE PERFORMANCE TESTED TO 1.33 TIMES THE DESIGN LOAD. ALL OF THE REMAINING TIEBACKS SHALL BE CONFIRMED BY A PROOF-TEST TO 1.33 TIMES THE DESIGN LOAD.
 - A. DESIGN LOAD = 107,330 lbs
 - B. TEST LOAD = 142,750 lbs
5. THE GEOTECHNICAL ENGINEER WILL EVALUATE THE TIEBACK TEST RESULTS AND DETERMINE WHETHER THE TIEBACKS ARE ACCEPTABLE. TIEBACKS THAT FAIL TO MEET THE TEST CRITERIA MAY BE ASSIGNED A REDUCED CAPACITY OR REJECTED. ANY REJECTED TIEBACKS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. TIEBACKS SHOULD BE LOCKED OFF AT A VALUE OF AT LEAST 90 PERCENT OF THE DESIGN LOAD FOR THE TIEBACK ANCHOR, OR AS DETERMINED BY THE DESIGN ENGINEER.
7. TIEBACK DESIGN, CONSTRUCTION DETAILS AND CORROSION PROTECTION SYSTEMS MUST BE SUBMITTED FOR REVIEW BY THE CIVIL ENGINEER AND THE GEOTECHNICAL ENGINEER A MINIMUM OF THREE WEEKS IN ADVANCE OF THE COMMENCEMENT OF TIEBACK CONSTRUCTION.
8. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS, DETAILS AND STRUCTURAL CALCULATIONS FOR THE ITEMS PER THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND DESIGN CRITERIA.
 - A. DOCUMENTS FOR DEFERRED ITEMS SHALL BE SUBMITTED FOR REVIEW TO THE ARCHITECT AND ENGINEER-OF-RECORD.
 - B. THE ARCHITECT AND ENGINEER-OF-RECORD SHALL REVIEW ALL DEFERRED SUBMITTAL ITEMS, SIGN AND STAMP THEM AS APPROVED, AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING AND NO EXCEPTIONS ARE TAKEN.
 - C. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.



SECTION A-A
SCALE: 1"=10' HORIZONTAL, VERTICAL

REVISIONS PER CITY COMMENTS, 3/31/2025



R.I. Engineering, Inc.
303 Potrero St., Suite 42-202, Santa Cruz, CA 95060
831-425-3901 www.rengineering.com

PIER WALL AND DRAINAGE PLAN
FOR
OPAL CLIFF HOMEOWNERS ASSOCIATION
4820 OPAL CLIFF DRIVE
SANTA CRUZ, CA 95062
APR 03/24/2025 02:03:04

project no.
25-001-1
date
FEBRUARY 2025
scale
AS SHOWN
dwg name
CIVIL1.DWG

C-2

EMERGENCY PERMIT SUBMITTAL

TOTAL AREA OF DISTURBANCE = 0.02 ACRES
= 890 SF

SITE HOUSEKEEPING REQUIREMENTS

CONSTRUCTION MATERIALS

1. ALL LOOSE STOCKPILED CONSTRUCTION MATERIALS THAT ARE NOT ACTIVELY BEING USED (E.G., SOIL, SPILLS, AGGREGATE, FLY-ASH, STUCCO, HYDRATED LIME, ETC.) SHALL BE COVERED AND BARRIRED.
2. ALL CHEMICALS SHALL BE STORED IN WATER-TIGHT CONTAINERS (WITH APPROPRIATE SECONDARY CONTAINMENT TO PREVENT ANY SPILLAGE OR LEAKAGE) OR IN A STORAGE AREA DESIGNED TO PREVENT ANY SPILLAGE OR LEAKAGE.
3. EXPOSURE OF CONSTRUCTION MATERIALS TO PRECIPITATION SHALL BE MINIMIZED. THIS DOES NOT INCLUDE MATERIALS THAT ARE DESIGNED TO BE OUTDOORS AND EXPOSED TO ENVIRONMENTAL CONDITIONS (E.G., PILES, EQUIPMENT PADS, CARPETS, CONDUCTORS, INSULATORS, BRICKS, ETC.).
4. BEST MANAGEMENT PRACTICES TO PREVENT THE OFF-SITE TRACKING OF LOOSE CONSTRUCTION AND LANDSCAPE MATERIALS SHALL BE IMPLEMENTED.

LANDSCAPE MATERIALS

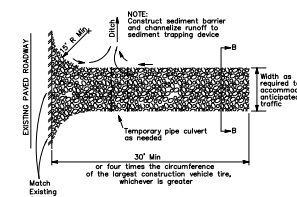
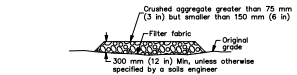
1. CONTAIN STOCKPILED MATERIALS SUCH AS MULCHES AND TOPSOIL WHEN THEY ARE NOT ACTIVELY BEING USED.
2. CONTAIN FERTILIZERS AND OTHER LANDSCAPE MATERIALS WHEN THEY ARE NOT ACTIVELY BEING USED.
3. DISCONTINUE THE APPLICATION OF ANY ERODIBLE LANDSCAPE MATERIAL WITHIN 2 DAYS BEFORE A FORECASTED RAIN EVENT OR DURING PERIOD OF PRECIPITATION.
4. APPLY ERODIBLE LANDSCAPE MATERIAL AT QUANTITIES AND APPLICATION RATES ACCORDING TO MANUFACTURE RECOMMENDATIONS OR BASED ON WRITTEN SPECIFICATIONS BY KNOWLEDGEABLE AND EXPERIENCED FIELD PERSONNEL.
5. STACK ERODIBLE LANDSCAPE MATERIAL ON PALLETS AND COVERING OR STORING SUCH MATERIALS WHEN NOT BEING USED OR APPLIED.

VEHICLE STORAGE AND MAINTENANCE

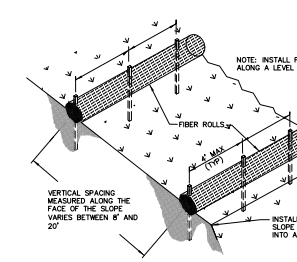
1. MEASURES SHALL BE TAKEN TO PREVENT OIL, GREASE, OR FUEL TO LEAK IN TO THE GROUND, STORM DRAINS OR SURFACE WATERS.
2. ALL EQUIPMENT OR VEHICLES, WHICH ARE TO BE FILLED, MAINTAINED AND STORED ON-SITE SHALL BE IN A DESIGNATED AREA FITTED WITH APPROPRIATE BMPs.
3. LEAKS SHALL BE IMMEDIATELY CLEANED AND LEAKED MATERIALS SHALL BE DISPOSED OF PROPERLY.

WASTE MANAGEMENT

1. DISPOSAL OF ANY RINSE OR WASH WATERS OR MATERIALS ON IMPERVIOUS OR PERVIOUS SITE SURFACES OR INTO THE STORM DRAIN SYSTEM SHALL BE PREVENTED.
2. SANITATION FACILITIES SHALL BE CONTAINED (E.G., PORTABLE TOILETS) TO PREVENT DISCHARGES OF POLLUTANTS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATER, AND SHALL BE LOCATED A MINIMUM OF 20 FEET AWAY FROM AN INLET, STREET OR DRIVEWAY, STREAM, RIPARIAN AREA OR OTHER DRAINAGE FACILITY.
3. SANITATION FACILITIES SHALL BE INSPECTED REGULARLY FOR LEAKS AND SPILLS AND CLEANED OR REPLACED AS NECESSARY.
4. COVER WASTE DISPOSAL CONTAINERS AT THE END OF EVERY BUSINESS DAY AND DURING A RAIN EVENT.
5. DISCHARGES FROM WASTE DISPOSAL CONTAINERS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATER SHALL BE PREVENTED.
6. STOCKPILED WASTE MATERIAL SHALL BE CONTAINED AND SECURELY PROTECTED FROM WIND AND RAIN AT ALL TIMES UNLESS ACTIVELY BEING USED.
7. PROCEDURES THAT EFFECTIVELY ADDRESS HAZARDOUS AND NON-HAZARDOUS SPILLS SHALL BE IMPLEMENTED.
8. EQUIPMENT AND MATERIALS FOR CLEANUP OF SPILLS SHALL BE AVAILABLE ON-SITE AND THAT SPILLS AND LEAKS SHALL BE CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY, AND CONCRETE WASHOUT AREAS AND OTHER WASHOUT AREAS THAT MAY CONTAIN ADDITIONAL POLLUTANTS SHALL BE CONTAINED SO THERE IS NO DISCHARGE INTO THE UNDERLYING SOIL AND ONTO THE SURROUNDING AREAS.

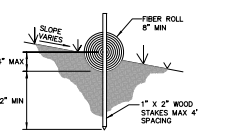


CONSTRUCTION ENTRANCE DETAIL



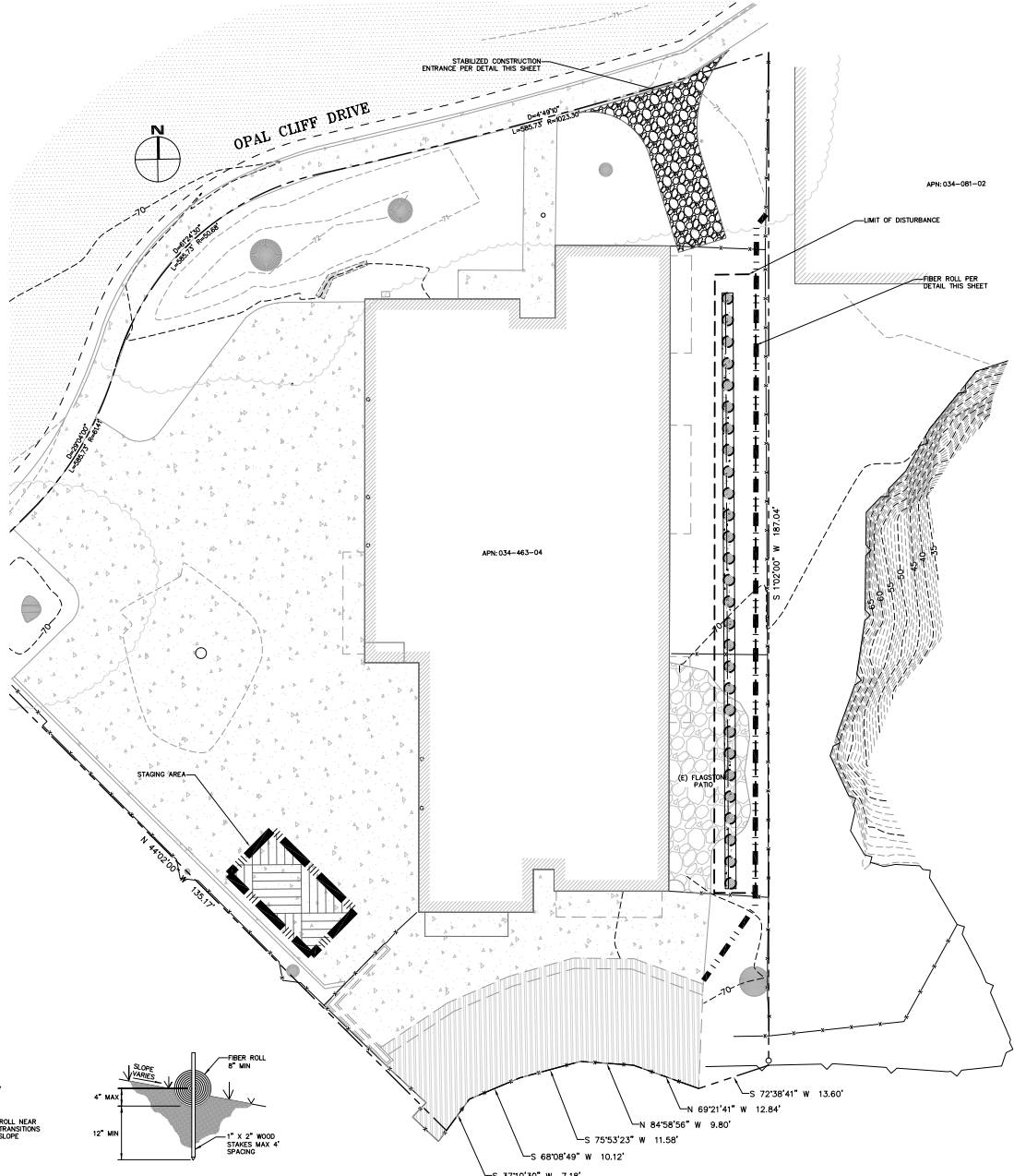
TYPICAL FIBER ROLL INSTALLATION

NTS



FIBER ROLL DETAIL IN SLOPE AREA

NTS



EROSION CONTROL MEASURES

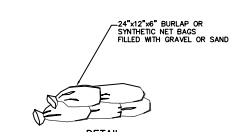
1. EROSION IS TO BE CONTROLLED AT ALL TIMES ALTHOUGH SPECIFIC MEASURES SHOWN ARE TO BE IMPLEMENTED AT A MINIMUM BY OCTOBER 15.
2. UNLESS SPECIFIC MEASURES ARE SHOWN OR NOTED ON THIS PLAN, ALL COLLECTED RUNOFF SHALL BE CARRIED TO DRAINAGE COURSES IN UNID CONDUITS. DISCHARGE SHALL BE IN THE LOCATIONS SHOWN ON THE PLANS.
3. THE DESIRED END RESULT OF THESE MEASURES IS TO CONTROL SITE EROSION AND PREVENT SEDIMENT TRANSPORT OFF THE SITE. IT SHALL BE THE DESIGNER'S RESPONSIBILITY TO SEE THAT ANY ADDITIONAL MEASURES NECESSARY TO MEET THIS GOAL ARE MAINTAINED. IF FEASIBLE, INSPECTIONS BY COUNTY STAFF SHOW THIS GOAL IS NOT BEING MET, ADDITIONAL MEASURES MAY BE REQUIRED.
4. ALL DISTURBED AREAS NOT CURRENTLY BEING USED FOR CONSTRUCTION SHALL BE SEED WITH THE FOLLOWING SEED MIXTURE:
WINTER BARLEY 25#/ACRE
5. AFTER SEEDING, STRAW MULCH WILL BE APPLIED IN 4" (AVG.) LAYERS.
6. AMMONIUM PHOSPHATE FERTILIZER, 6-3-3, SHALL BE APPLIED AT A RATE OF 30 LBS. PER ACRE. ON SLOPES GREATER THAN 20% EROSION CONTROL BLANKET (NORTH AMERICAN GREEN) SHALL BE APPLIED.
7. SILT BARRIERS SHALL BE PLACED END TO END AND STAKED DOWN ALONG THE BOTTOM OF ALL GRADED SLOPES.

EXPOSED SLOPE MEASURES

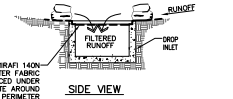
1. COVER ALL EXPOSED SLOPES
2. STRAW 2 TONS/ACRE ON SLOPES $\leq 20\%$ WITH SOIL BRIDGE
3. USE NORTH AMERICAN GREEN C125 OR EQUAL ON SLOPES $>20\%$

EROSION CONTROL LEGEND

- INSTALL FIBER ROLL PER DETAILS THIS SHEET
- INSTALL CATCH BASIN PROTECTION PER DETAIL THIS SHEET
- INSTALL STABILIZED CONSTRUCTION ENTRANCE PER DETAIL THIS SHEET
- PROPOSED SLOPE PROTECTION
- PROPOSED STOCKPILE AREA



DETAIL



SIDE VIEW



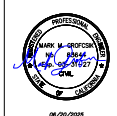
PLAN VIEW

GRAVEL BAG CATCH BASIN PROTECTION

NTS

EMERGENCY PERMIT SUBMITTAL

REVISIONS PER CITY COMMENTS, 3/31/2025



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831-425-3901 www.rienengineering.com

FOR PER WALL AND DRAINAGE PLAN
FOR
OPAL CLIFF HOMEOWNERS ASSOCIATION
4820 OPAL CLIFF DRIVE
SANTA CRUZ
CA 95060
APR 03/24/2025 02:03 & 04

STORMWATER POLLUTION
CONTROL PLAN

project no.
25-001-1
date
FEBRUARY 2025
scale
AS SHOWN
dwg name
CIVIL.DWG

C-3