

DISABILITY AND COMMUNICATION ACCESS BOARD

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DOCUMENT REVIEW

12-06-2021

Public Service Building Fencing and Stairway - Birkhimer EOC

DCAB Job #: 2021-01533

Project #: CA-202107-C

Department/Agency: State Department of Defense

James Barbour

Design Firm: Bowers + Kubota Consulting

Mike Nishimura

Documents Reviewed: Documents received – 11-22-2021

Revised documents received – 12-03-2021 Document submittal date – 11-22-2021

As submitted, the document(s) reviewed appear(s) to meet the 2004 Americans with Disabilities Act Accessibility Guidelines (2004 ADAAG) and other applicable design standards, as required by Hawaii Revised Statues (HRS) 103-50 to the maximum extent feasible. Final responsibility to comply with HRS 103-50 rests with the State or County agency overseeing the project.

If any technical infeasibility, structural impracticability, historic preservation or other facility access review forms were submitted the determination of the limitations rests with the Department/Agency and design firm signing the form.

If the document(s) reviewed contained area(s) that were noted as "NIC" or "By Others" a review of those area(s) was not included as part of this document review. Those area(s), feature(s) or element(s)must be submitted for review to assess compliance with the 2004 Americans with Disabilities Act Accessibility Guidelines (2004 ADAAG) and other applicable design standards required by HRS 103-50.

Reviewed by:

Alan Tarumoto - Facility Access Specialist II

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INDEX TO DRAWINGS

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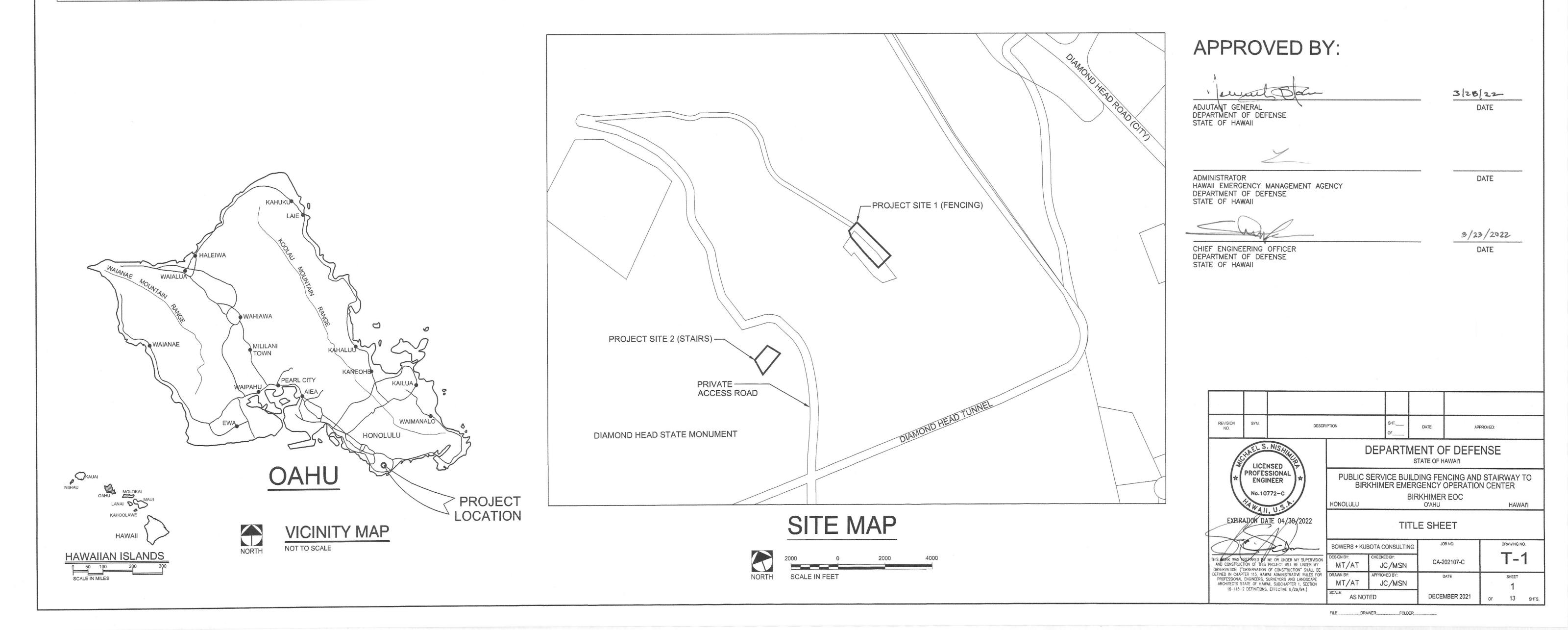
PUBLIC SERVICE BUILDING FENCING AND STAIRWAY TO BIRKHIMER EMERGENCY OPERATION CENTER

BIRKHIMER EOC, HONOLULU, O'AHU, HAWAI'I

JOB No. CA-202107-C

TMK: (1)3-1-042:006 AND 016 (PORTION OF EACH)
FOR THE

STATE OF HAWAI'I, DEPARTMENT OF DEFENSE (DOD)
HAWAII EMERGENCY MANAGEMENT AGENCY



CONSTRUCTION NOTES:

- 1. ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE 4. WITH THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION," SEPTEMBER 1986, AND "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION," SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU AND THE COUNTIES OF KAUA'I, MAUI, AND HAWAI'I
- 2. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE CONTRACTING OFFICER FROM HIS/HER SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE **NEW LINES.**
- NO CONTRACTOR SHALL PERFORM ANY CONSTRUCTION OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW INTO EXISTING CITY DRAINAGE SYSTEMS, OR ADJOINING PROPERTIES. STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER QUALITY AND WATER POLLUTION CONTROL STANDARDS CONTAINED IN HAWAI'I ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS," AND TITLE 11, CHAPTER 55, "WATER POLLUTION CONTROL," AS WELL AS CHAPTER 14 OF THE REVISED ORDINANCES OF HONOLULU, AS AMENDED. BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED AT ALL TIMES DURING CONSTRUCTION.
- CONFINED SPACE:

FOR ENTRY BY PERSONNEL, INCLUDING INSPECTORS, INTO A PERMIT CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING:

- I. ALL SAFETY EQUIPMENT REQUIRED BY THE CONFINED SPACE REGULATIONS APPLICABLE TO ALL PARTIES OTHER THAN THE CONSTRUCTION INDUSTRY, TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:
- a. FULL-BODY HARNESSES FOR UP TO TWO PERSONNEL
- b. LIFELINE AND ASSOCIATED CLIPS c. INGRESS/EGRESS AND FALL PROTECTION EQUIPMENT
- d. TWO-WAY RADIOS (WALKIE-TALKIES) IF OUT OF LINE-OF-SIGHT
- e. EMERGENCY (ESCAPE) RESPIRATOR (10 MINUTE DURATION).
- g. CONTINUOUS GAS DETECTOR (CALIBRATED) TO MEASURE OXYGEN, HYDROGEN SULFIDE, CARBON MONOXIDE AND
- FLAMMABLES (CAPABLE OF MONITORING AT A DISTANCE AT LEAST 20 FEET AWAY).
- h. PERSONAL MULTI-GAS DETECTOR TO BE CARRIED BY INSPECTOR.
- ENTRY CONDITIONS.

ONE ATTENDANT/RESCUE PERSONNEL TOPSIDE (TWO. IF CONDITIONS WARRANT IT).

- 6. PURSUANT TO CHAPTER 6E, HRS, IN THE EVENT ANY ARTIFACTS OR HUMAN REMAINS ARE UNCOVERED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND WORK AND NOTIFY THE NATURAL RESOURCES-HISTORIC PRESERVATION DIVISION.SHPD. (808.692.8015). IN ADDITION, FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL INFORM THE CIVIL ENGINEERING BRANCH, DEPARTMENT OF PLANNING AND PERMITTING (808.768.8084), OWNER AND CONTRACTING OFFICER.
- FOR BENCHMARK, REFER TO DRAWINGS C-1 AND C-2.

GRADING NOTES:

- ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH CHAPTER 14, ARTICLES 13, 14, 15 AND 16, AS RELATED TO GRADING, SOIL EROSION AND SEDIMENT CONTROL OF THE REVISED ORDINANCES OF HONOLULU, 1990, AS AMENDED.
- NO CONTRACTOR SHALL PERFORM ANY GRADING OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW ONTO ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.
- THE CONTRACTOR, AT HIS/HER OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS CONTAINED IN THE HAWAI'I ADMINISTRATIVE RULES, TITLE 11, CHAPTER 60.1, "AIR POLLUTION CONTROL."

GRADING NOTES (CONT):

- THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE CONTRACTING OFFICER FROM HIS/HER SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.
- 5. ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATERS FROM DAMAGING THE CUT FACE OF AN EXCAVATION OR THE SLOPED SURFACES OF A FILL. FURTHERMORE, ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE SITE
- ALL SLOPES AND EXPOSED AREAS SHALL BE SODDED OR PLANTED AS SOON AS FINAL GRADES HAVE BEEN ESTABLISHED. PLANTING SHALL NOT BE DELAYED UNTIL ALL GRADING WORK HAS BEEN COMPLETED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND ANY AREA WITHIN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED SHALL BE PLANTED.
- 7. FILLS ON SLOPES STEEPER THAN 5:1 SHALL BE KEYED (REFER TO DETAIL ON THIS SHEET).
- 8. THE CITY HALL BE INFORMED OF THE LOCATION OF THE BORROW/DISPOSAL SITE FOR THE PROJECT WHEN THE APPLICATION FOR A GRADING PERMIT IS MADE. THE BORROW/DISPOSAL SITE MUST ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE
- 9. NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE DIRECTOR, DPP. PROVIDED SUCH GRADING WORK IS ALSO IN CONFORMANCE WITH THE COMMUNITY NOISE CONTROL STANDARDS CONTAINED IN THE HAWAI'I ADMINISTRATIVE RULES, TITLE 11, CHAPTER 46, "COMMUNITY NOISE CONTROL."
- 10. THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.
- REQUIRED CONFINED SPACE AS DEFINED IN 29 CFR PART 1910.146(B), THE 11. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER QUALITY AND WATER POLLUTION CONTROL STANDARDS CONTAINED IN HAWAI'I ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS," AND TITLE 11, CHAPTER 55, "WATER POLLUTION CONTROL," AND IF APPLICABLE, THE NPDES PERMIT FOR THE PROJECT.
 - 12. WHERE APPLICABLE AND FEASIBLE THE MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY EARTH MOVING PHASE OF THE GRADING IS INITIATED.
 - 13. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED
 - f. CELLULAR TELEPHONE TO CALL FOR EMERGENCY ASSISTANCE. 14. TEMPORARY EROSION CONTROL PROCEDURES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO APPLICATION FOR GRADING PERMIT.
 - 15. IF THE GRADING WORK INVOLVES CONTAMINATED SOIL, THEN ALL GRADING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.
- II. CONTINUOUS FORCED AIR VENTILATION ADEQUATE TO PROVIDE SAFE 16. BUILDING PERMIT FOR RETAINING WALLS SHALL BE OBTAINED PRIOR TO COMMENCEMENT OF GRADING WORK ON SITE.
 - 17. FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEERING BRANCH, DPP AT 808.768.8084 TO ARRANGE FOR INSPECTION SERVICES AND SUBMIT TWO (2) SETS OF APPROVED CONSTRUCTION PLANS SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK. FOR CITY PROJECTS. THE CONTRACTOR SHALL COORDINATE INSPECTIONAL SERVICES WITH THE RESPONSIBLE CITY AGENCY.
- HONOLULU POLICE DEPARTMENT, THE STATE DEPARTMENT OF LAND AND 18. PURSUANT TO THE CHAPTER 6E, HRS, IN THE EVENT ANY ARTIFACTS OR HUMAN REMAINS ARE UNCOVERED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND WORK AND NOTIFY THE HONOLULU POLICE DEPARTMENT, THE STATE DEPARTMENT OF LAND AND NATURAL RECOURSES-HISTORIC PRESERVATION DIVISION (808.692.8015). IN ADDITION, FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL INFORM THE CIVIL ENGINEERING BRANCH, DPP (808.768.8084), AND OWNER AND CONTRACTING OFFICER; AND FOR CITY PROJECTS, NOTIFY THE RESPONSIBLE CITY AGENCY.
 - 19. FOR ALL PROJECTS, WHICH WILL DISTURB ONE (1) ACRE OR MORE OF LAND, THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL A NOTICE OF GENERAL PERMIT COVERAGE (NGPC) IS RECEIVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAI'I, AND HAS SATISFIED ANY OTHER APPLICABLE REQUIREMENTS OF THE NPDES PERMIT PROGRAM. ALSO, FOR NON-CITY PROJECTS AND OTHER NON-GOVERNMENTAL AGENCY PROJECTS, THE CONTRACTOR SHALL PROVIDE A WRITTEN COPY OF THE NGCP TO THE PERMITTING AND INSPECTION SECTION, CIVIL ENGINEERING BRANCH, DPP, AT LEAST SEVEN (7) CALENDAR DAYS BEFORE THE START OF THE CONSTRUCTION. FOR CITY OR OTHER GOVERNMENTAL PROJECTS, THE CONTRACTOR SHOULD PROVIDE A WRITTEN COPY OF THE NGCP TO THE APPROPRIATE CITY DEPARTMENT OR GOVERNMENTAL AGENCY PER THEIR REQUIREMENTS.

GRADING NOTES (CONT):

- 20. ALL GRADING AND CONSTRUCTION WORK SHALL IMPLEMENT MEASURES TO ENSURE THAT THE DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE WILL BE REDUCED TO THE MAXIMUM EXTENT PRACTICABLE AND WILL NOT CAUSE OR CONTRIBUTE TO AN EXCEEDANCE OF WATER QUALITY STANDARDS.
- 21. NON-COMPLIANCE TO ANY OF THE ABOVE REQUIREMENTS SHALL MEAN IMMEDIATE SUSPENSION OF ALL WORK, AND REMEDIAL WORK SHALL COMMENCE IMMEDIATELY. ALL COSTS INCURRED SHALL BE BILLED TO THE VIOLATOR. FURTHERMORE, VIOLATORS SHALL BE SUBJECTED TO ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES

= 0.22 ACRES

SUMMARY OF ESTIMATED EARTHWORK CALCULATIONS

ESTIMATED EXCAVATION 64 CY 24 CY ESTIMATED EMBANKMENT = 0.13 ACRES AREA TO BE GRADED

GENERAL NOTES:

DISTURBED AREA

- VERIFY AND CHECK ALL DIMENSIONS AND DETAILS ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER.
- WORK INCIDENTAL TO THE CONTRACT AND NECESSARY TO COMPLETE THE PROJECT, ALTHOUGH NOT SPECIFICALLY REFERRED TO ON THE CONTRACT DOCUMENTS, SHALL BE FURNISHED AND PERFORMED BY THE CONTRACTOR.
- IN PERFORMING ALL WORK, THE CONTRACTOR SHALL EXERCISE DUE CARE AND CAUTION NECESSARY TO AVOID ANY DAMAGE TO AND IMPAIRMENT IN THE USE OF ANY EXISTING UTILITY LINE. ANY DAMAGE INFLICTED ON EXISTING UTILITY LINES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE IMMEDIATELY REPAIRED OR RESTORED AS DIRECTED BY THE CONTRACTING OFFICER AT THE CONTRACTOR'S EXPENSE
- 4. THE CONTRACTOR AGREES THAT HE/SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY; AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND CONTRACTING OFFICER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR CONTRACTING OFFICER.
- THE CONTRACTOR, AT HIS/HER OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM RUBBISH, DUST, NOISE EROSION. ETC. THE WORK SHALL BE DONE IN CONFORMANCE WITH THE AIR AND WATER POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH
- 6. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM APPROPRIATE GOVERNMENT AGENCIES.
- 7. ALL CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS AND OTHER PROTECTIVE FACILITIES WHICH SHALL CONFORM WITH THE ADAAG.

PUBLIC HEALTH, SAFETY AND **CONVENIENCE NOTES:**

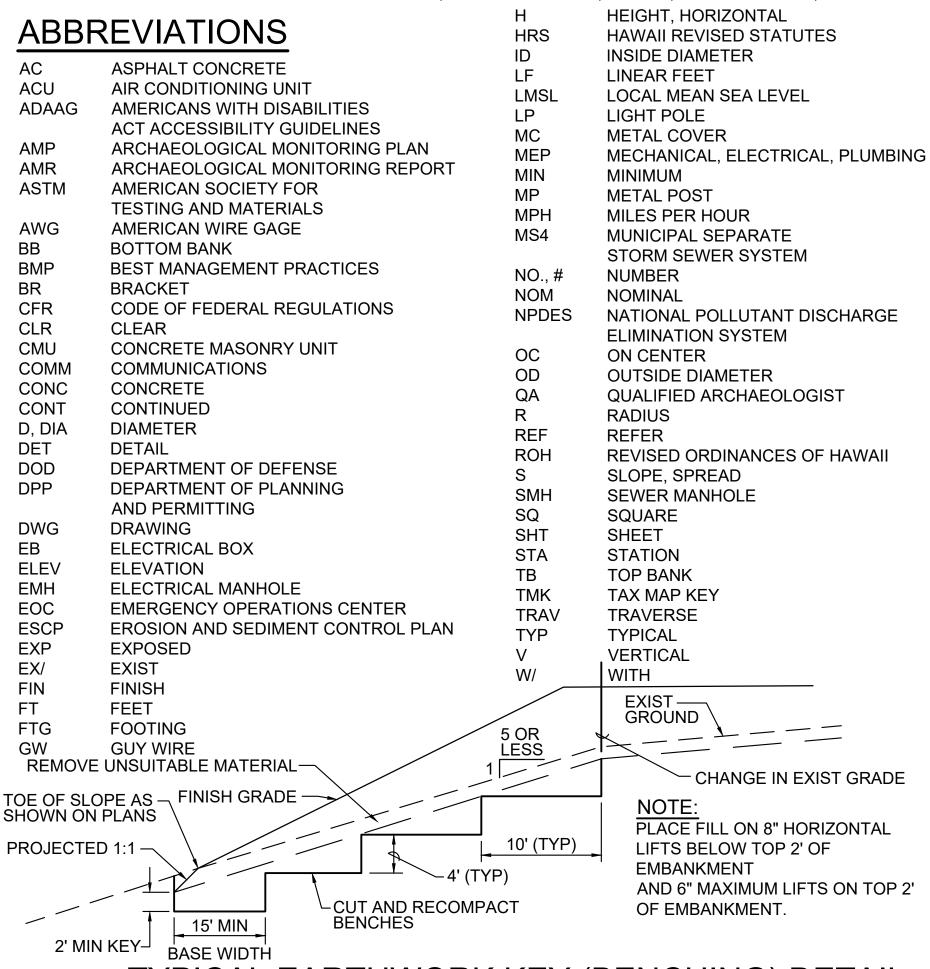
- THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF THE PUBLIC HEALTH AND SAFETY AND ENVIRONMENTAL QUALITY.
- THE CONTRACTOR, AT HIS/HER OWN EXPENSE SHALL KEEP THE PROJECT AND ITS SURROUNDING AREAS FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH THE CITY MAY REQUIRE SUPPLEMENTARY MEASURES AS NECESSARY.
- NO CONTRACTOR SHALL PERFORM ANY GRADING OPERATIONS SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW ONTO ADJOINING PROPERTIES, STREETS OR ADJOINING WATERCOURSES. IF SUCH VIOLATIONS OCCUR, THE COSTS INCURRED FOR ANY REMEDIAL ACTION BY THE DIRECTOR, DPP, SHALL BE PAYABLE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVENIENCE AND SAFETY OF THE PUBLIC. THE CONTRACTOR SHALL APPLY FOR A CONSTRUCTION PERMIT WITH A NOISE POLLUTION CONTROL PLAN.

ARCHAEOLOGICAL MONITORING **NOTES (ADDITIVE ALTERNATIVE 1):**

- THE CONTRACTOR SHALL PROCURE THE SERVICES OF A QUALIFIED ARCHAEOLOGIST (QA), WHO SHALL DEVELOP AN ARCHAEOLOGICAL MONITORING PLAN (AMP) FOR THE PROJECT AND PROCESS IT THROUGH THE SHPD PRIOR TO COMMENCING WORK, AND AN ARCHAEOLOGICAL MONITORING REPORT (AMR) FOR THE PROJECT AND PROCESS IT THROUGH THE SHPD UPON COMPLETION OF THEIR FIELDWORK.
- 2. THE CONTRACTOR SHALL ADHERE STRICTLY TO THE REQUIREMENTS OF THE PROJECT AMP AND WORK CLOSELY WITH THE QA TO COORDINATE AND PROVIDE FIELDWORK TO ACCOMMODATE QA REQUIREMENTS

TOPOGRAPHIC SURVEY NOTES

- 1. AZIMUTHS AND COORDINATES ARE REFERRED TO GOVENRMENT SURVEY TRIANGULATION STATION "DIAMOND HEAD (LEAHI)" ▲ . (PID: TU1336).
- 2. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY AND ARE BASED ON RECORD INFORMATION
- 3. ALL ELEVATIONS AND DISTANCES SHOWN ARE IN FEET
- 4. ELEVATIONS ARE REFERENCED TO PI STREET MONUMENT LOCATED AT THE INTERSECTION OF 22ND AVENUE AND MAKALIKE PLACE; ELEVATION = 99.18 FT (LMSL)
- 5. TOPOGRAPHIC SURVEY INFORMATION FROM GROUND SURVEYS BY TOWILL SHIGEOKA & ASSOCIATES, INC. TOPOGRAPHIC SURVEY ENTITLED "TOPOGRAPHIC SURVEY OF PORTION OF DIAMOND HEAD RESERVATION EXECUTIVE ORDER 1997 AT DIAMOND HEAD CRATER, HONOLULU O'AHU, HAWAI'I," DATED JUNE 28, 2021.

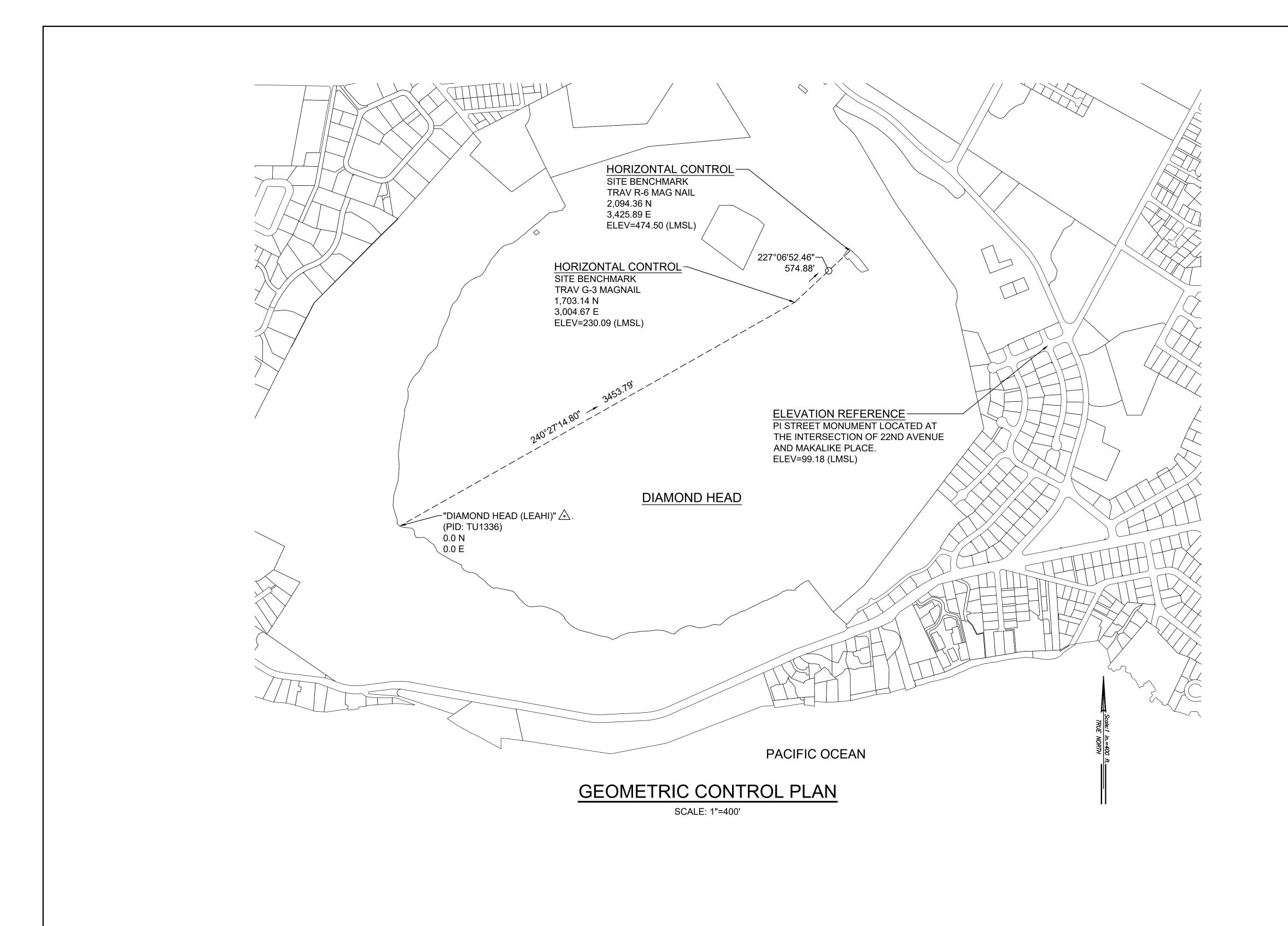


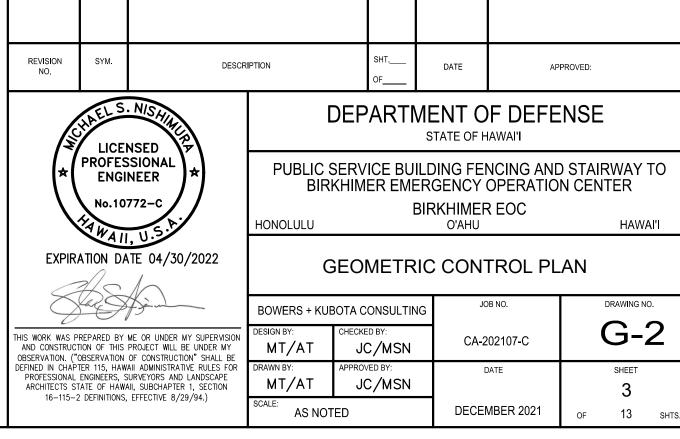
TYPICAL EARTHWORK KEY (BENCHING) DETAIL

NOT TO SCALE

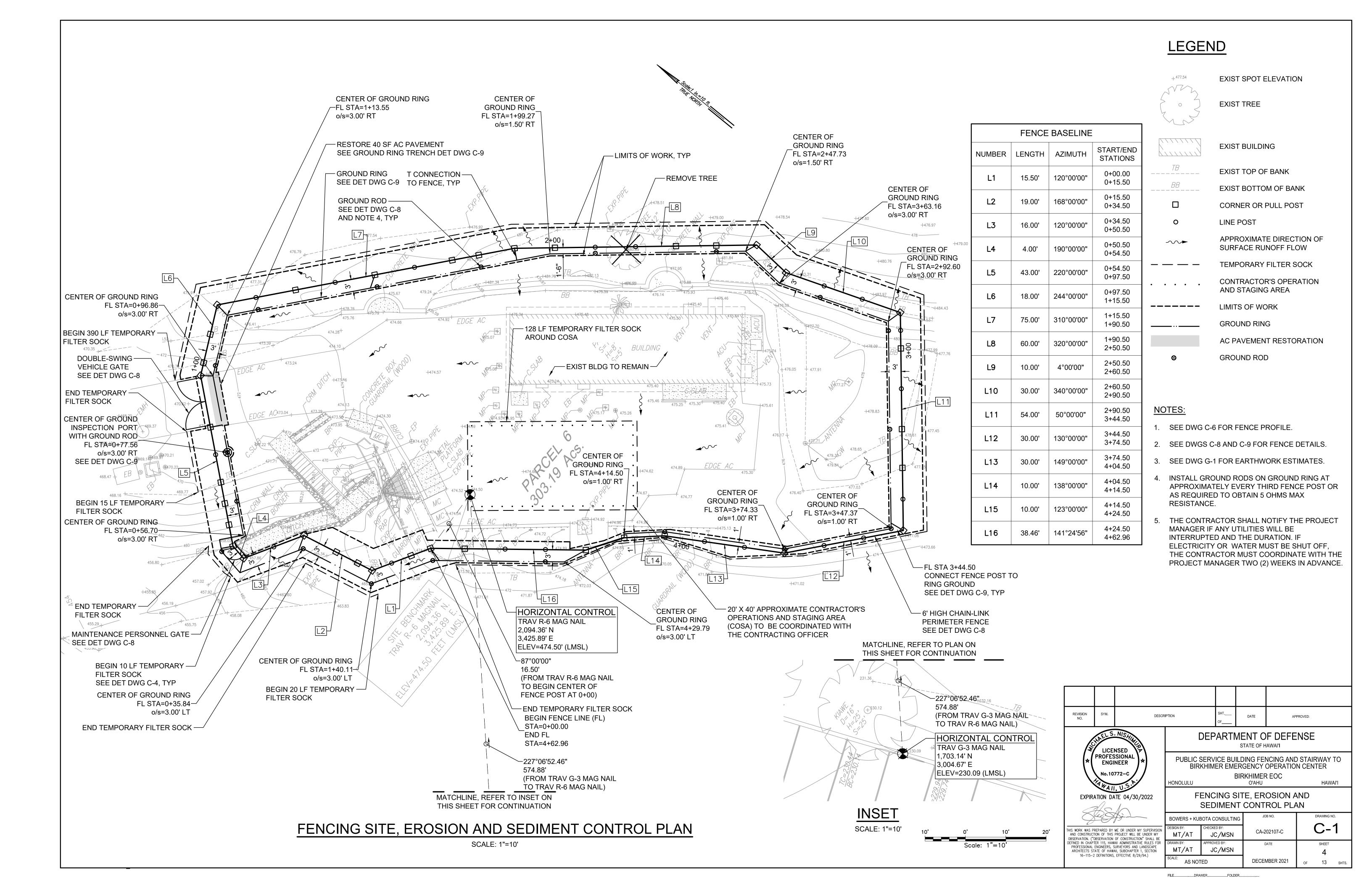
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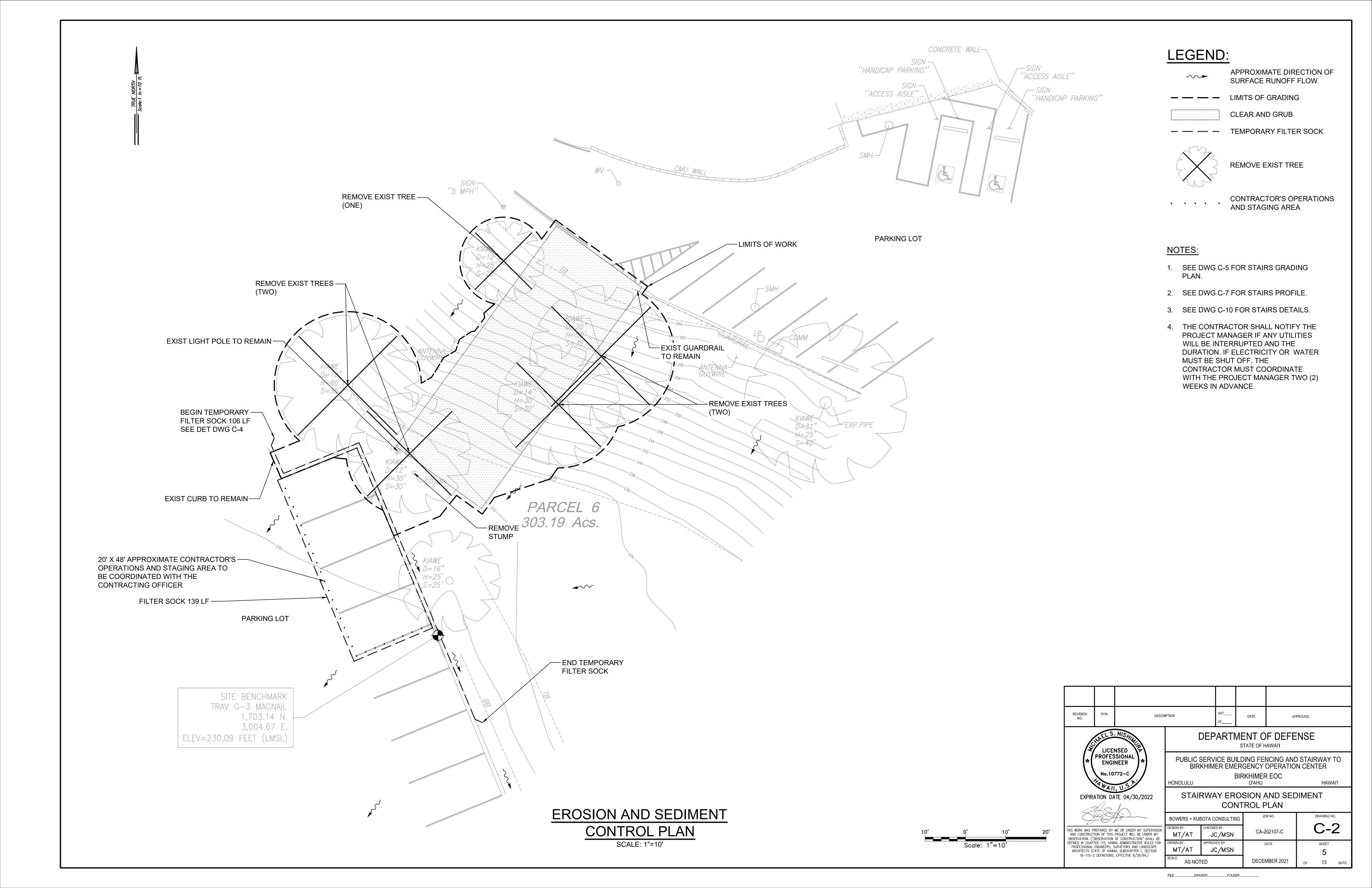
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Scale: 1"=400'





EROSION AND SEDIMENT CONTROL NOTES:

- 1. THE CONTRACTOR SHALL FOLLOW THE GUIDELINES IN THE CITY AND COUNTY OF HONOLULU'S "RULES RELATING TO WATER QUALITY."
- 2. MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY EARTHWORK IS INITIATED.
- REGULARLY INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROLS TO ENSURE CONTINUED PERFORMANCE.
- 4. SLOPE PROTECTION. SLOPE PROTECTION IS REQUIRED ON AREAS WITH SLOPES GREATER THAN 15% AND ON AREAS OF MODERATE SLOPE THAT ARE PRONE TO EROSION UNLESS THEY ARE BEING ACTIVELY WORKED. USE DIVERSION UPSTREAM OF SLOPE (DIKES, SWALES, SLOPE DRAINS) TO DIVERT WATER AROUND THE SLOPE. PROVIDE A 10-FT BUFFER ZONE AT THE TOE OF SLOPE. ONLY 5 ACRES MAY BE DISTURBED AT ANYTIME ON SLOPES GREATER THAN 15%.
- 5. TEMPORARY STABILIZATION. TEMPORARY STABILIZATION IS REQUIRED ON DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHEN THE DISTURBED AREA WILL NOT BE WORKED FOR 14 CONSECUTIVE DAYS OR MORE.
- 6. PERMANENT STABILIZATION. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED USING VEGETATIVE COVERING, PAVEMENT, OR EQUIVALENT, PRIOR TO REMOVING EROSION AND SEDIMENT MEASURES. TRAPPED SEDIMENT AND AREAS OF DISTURBED SOIL WHICH RESULT FROM THE REMOVAL OF THE TEMPORARY MEASURES SHALL BE IMMEDIATELY AND PERMANENTLY STABILIZED.
- 7. PRESERVE EXISTING VEGETATION. CLEARLY MARK THE AREAS TO BE PRESERVED WITH FLAGS OR TEMPORARY FENCING. WHERE TEMPORARY FENCING IS USED, FENCING MUST BE ADEQUATELY SUPPORTED BY POSTS AND MAINTAINED IN AN UPRIGHT POSITION.
- 8. MINIMIZE SOIL COMPACTION AREAS WHERE FINAL STABILIZATION OR INFILTRATION PRACTICES WILL BE INSTALLED SHALL BE PROTECTED FROM EXCESSIVE COMPACTION DURING CONSTRUCTION. VEHICLE AND EQUIPMENT USE SHALL BE RESTRICTED OR TECHNIQUES TO CONDITION THE SOILS TO SUPPORT VEGETATION SHALL BE IMPLEMENTED IN THE AREAS THAT HAVE BEEN COMPACTED AND ARE DESIGNATED TO REMAIN VEGETATIVE OR POST-CONSTRUCTION INFILTRATION AREAS. CLEARLY MARK THE AREAS TO BE AVOIDED WITH FLAGS OR TEMPORARY FENCING. WHERE TEMPORARY FENCING IS USED, FENCING MUST BE ADEQUATELY SUPPORTED BY POSTS AND MAINTAINED IN AN UPRIGHT POSITION.
- 9. PERIMETER CONTROLS. PERIMETER CONTROLS ARE REQUIRED DOWNSLOPE OF ALL DISTURBED AREAS. MAINTAIN DOWNSTREAM VEGETATED BUFFER AREA. STOCKPILES ARE NOT ALLOWED IN THE CITY RIGHT-OF-WAY.
- 10. INLET PROTECTION
 - ALL STORM DRAIN INLETS ONSITE AND THOSE OFFSITE WHICH MAY RECEIVE RUNOFF FROM THE SITE SHALL USE AN INLET PROTECTION DEVICE UNLESS THEY ARE DIRECTED TO A SEDIMENT BASIN.
 - SEDIMENT LEVELS MAY NOT EXCEED ONE THIRD OF THE HEIGHT OF A SEDIMENT BARRIER OR INLET PROTECTION DEVICE AT ANY POINT ALONG THE LENGTH OF THE SEDIMENT BARRIER OR THE INLET PROTECTION DEVICE.
 - SEDIMENT BARRIERS AND INLET PROTECTION DEVICES MUST BE UNCLOGGED AND CLEANED WHEN PERFORMANCE IS COMPROMISED.
 - TORN, WEATHERED OR SAGGING SEDIMENT BARRIERS OR INLET PROTECTION DEVICES MUST BE REPAIRED OR REPLACED IMMEDIATELY.
- 11. TRACKING CONTROL
 - MINIMIZE SEDIMENT TRACK-OUT ONTO OFF-SITE STREETS, OTHER PAVED AREAS, AND SIDEWALKS FROM VEHICLES EXITING THE CONSTRUCTION SITE BY RESTRICTING VEHICLE TRAFFIC TO PROPERLY DESIGNATED AREAS AND USING ADDITIONAL CONTROLS TO REMOVE SEDIMENT FROM VEHICLE TIRES PRIOR TO EXITING THE SITE.
 - VEHICULAR PARKING AND MOVEMENTS ON PROJECT SITES MUST BE CONFINED TO PAVED SURFACES OR PREDEFINED PARKING AREAS AND VEHICLE PATHS, WHICH SHALL BE MARKED WITH FLAGS OR BOUNDARY FENCING.
 - ALL POLLUTANTS AND MATERIALS THAT ARE DROPPED, WASHED, TRACKED, SPILLED, OR OTHERWISE DISCHARGED FROM A PROJECT SITE TO OFF-SITE STREETS, OTHER PAVED AREAS, SIDEWALKS OR THE MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) MUST BE CLEANED USING DRY METHODS SUCH AS SWEEPING OR VACUUMING.
 - WASHING POLLUTANTS AND MATERIALS THAT ARE DISCHARGED FROM THE PROJECT SITE TO THE MS4 INTO DRAIN INLETS OR CATCH BASINS IS PROHIBITED UNLESS THE MATERIAL IS SEDIMENT AND THE INLETS ARE DIRECTED TO A SEDIMENT BASIN OR SEDIMENT TRAP.
- 12. BEST MANAGEMENT PRACTICES (BMPS) SHALL NOT BE REMOVED UNTIL FINAL STABILIZATION IS COMPLETE FOR THAT PHASE.
- 13. REFER TO CITY AND COUNTY OF HONOLULU BEST MANAGEMENT PRACTICES MANUAL CONSTRUCTION, FOR MORE INFORMATION ON BMPS.
- 14. THE FOLLOWING BMPS WERE DETERMINED TO BE NOT APPLICABLE BASED ON THE SPECIFIC SITE CONDITIONS. AS CONSTRUCTION PROGRESSES, REVISIONS MAY BE NECESSARY AND WILL BE PROVIDED TO DPP INSPECTORS. A BRIEF EXPLANATION OF WHY EACH OMITTED BMP IS UNNECESSARY OR IMPRACTICAL FOR THE PROJECT HAS BEEN PROVIDED UNDER SEPARATE DOCUMENTATION TO DPP.
 - SEDIMENT TRAPS/BASINS
 - DIVERSEION BMPS TO DIVERT RUNOFF FROM UPSTREAM AREAS
 - DEWATERING OPERATIONS BMPS
 - VELOCITY DISSIPATION DEVICES
 - SEDIMENT BARRIERSBUFFERZONES

EROSION AND SEDIMENT CONTROL NOTES (CONT):

- 15. THE OWNER OF THE PROPERTY OR THEIR AUTHORIZED AGENT MUST DESIGNATE A PERSON RESPONSIBLE FOR IMPLEMENTING THE ESCP AT THE PROJECT SITE ("ESCP COORDINATOR") PRIOR TO PERMIT ISSUANCE USING THE FORM PROVIDED AS APPENDIX A TO THE RULES RELATING TO WATER QUALITY.
- 16. NOTIFY DPP IN WRITING OF PROJECT START DATE TWO WEEKS PRIOR TO STARTING WORK
- 17. PRACTICE GOOD HOUSEKEEPING MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.
- 18. INSPECTIONS WILL BE PERFORMED MONTHLY BY THE ESCP COORDINATOR.

GOOD HOUSEKEEPING BMPS:

MANDATORY GOOD HOUSEKEEPING PRACTICES INCLUDE, BUT ARE NOT LIMITED TO:

1. BMP AND SITE MAINTENANCE

GOOD HOUSEKEEPING PRACTICES MUST BE IMPLEMENTED AND MAINTAINED THROUGHOUT THE PROJECT DURATION TO ELIMINATE AND MINIMIZE POLLUTANT DISCHARGES TO THE MEP.

2. DUST CONTROL

WATER SPRAY (BY TRUCK OR TEMPORARY SPRINKLERS) SHALL BE APPLIED AS NEEDED TO MINIMIZE DUST. DO NOT OVERWATER.

3. MATERIALS DELIVERY, STORAGE, AND USE MANAGEMENT

PREVENT, REDUCE, OR ELIMINATE THE DISCHARGE OF POLLUTANTS FROM MATERIAL DELIVERY, STORAGE, AND USE TO THE STORM WATER SYSTEM OR WATERCOURSES BY MINIMIZING THE STORAGE OF HAZARDOUS MATERIALS ONSITE, STORING MATERIALS IN A DESIGNATED AREA, OR INSTALLING SECONDARY CONTAINMENT. CONSTRUCTION MATERIALS, WASTE, TOXIC AND HAZARDOUS SUBSTANCES, STOCKPILES, AND OTHER SOURCES OF POLLUTION SHALL NOT BE STORED IN BUFFER AREAS, NEAR AREAS OF CONCENTRATED FLOW, OR AREAS ABUTTING THE MS4, RECEIVING WATERS, OR DRAINAGE IMPROVEMENTS THAT DISCHARGE OFF-SITE. PRIMARY AND SECONDARY CONTAINMENT CONTROLS AND COVERS SHALL BE IMPLEMENTED TO THE MEP.

STOCKPILE MANAGEMENT

STOCKPILES SHALL NOT BE LOCATED IN DRAINAGE WAYS, WITHIN 50 FEET FROM AREAS OF CONCENTRATED FLOWS, AND ARE NOT ALLOWED IN THE CITY RIGHT-OF-WAY. SEDIMENT BARRIERS OR SILT FENCES SHALL BE USED AROUND THE BASE OF ALL STOCKPILES. STOCKPILES SHALL NOT EXCEED 15 FEET IN HEIGHT. STOCKPILES GREATER THAN 15 FEET IN HEIGHT SHALL REQUIRE 8 FOOT WIDE BENCHING IN ACCORDANCE WITH ROH CHAPTER 14, ARTICLE 15. STOCKPILES MUST BE COVERED WITH PLASTIC SHEETING OR A COMPARABLE MATERIAL IF THEY WILL NOT BE ACTIVELY USED WITHIN 7 DAYS.

5. SPILL PREVENTION AND CONTROL

CREATE AND IMPLEMENT SPILL PREVENTION AND RESPONSE PLANS TO ELIMINATE AND MINIMIZE THE DISCHARGE OF POLLUTANTS TO THE MS4 AND RECEIVING WATERS FROM LEAKS AND SPILLS BE REDUCING THE CHANCE FOR SPILLS, ABSORBING, CONTAINING, AND CLEANING UP SPILLS AND PROPERLY DISPOSING OF SPILL MATERIALS. AT A MINIMUM, ALL PROJECTS SHALL CLEANUP ALL LEAKS AND SPILL IMMEDIATELY.

6. SOLID WASTE MANAGEMENT

PREVENT OR REDUCE DISCHARGE OF POLLUTANTS TO THE LAND, GROUNDWATER, AND IN STORM WATER FROM SOLID WASTE OF CONSTRUCTION AND DEMOLITION WASTE BY PROVIDING DESIGNATED WASTE COLLECTION AREAS, COLLECT SITE TRASH DAILY, AND ENSURING THAT CONSTRUCTION WASTE IS COLLECTED, REMOVED, AND DISPOSED OF ONLY AT AUTHORIZED DISPOSAL AREAS.

7. HAZARDOUS MATERIALS

PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM HAZARDOUS WASTE THROUGH PROPER MATERIAL USE AND WASTE DISPOSAL. IN THE EVENT THAT HAZARDOUS MATERIALS ARE DISCHARGED TO THE MS4, THE PROPERTY OWNER OR ESCP COORDINATOR SHALL IMMEDIATELY NOTIFY THE DEPARTMENT OF FACILITIES MAINTENANCE, HONOLULU FIRE DEPARTMENT, AND HONOLULU POLICE DEPARTMENT OF THE DISCHARGE BY TELEPHONE. A WRITTEN REPORT DESCRIBING THE POLLUTANTS THAT WERE DISCHARGED, THE REASONS FOR THE DISCHARGE, AND THE MEASURES THAT HAVE BEEN TAKEN TO THE DIRECTOR NO LESS THAN 3 DAYS AFTER NOTIFICATION BY PHONE.

8. NON-HAZARDOUS MATERIALS

IN THE EVENT THAT NON-HAZARDOUS MATERIALS ARE DISCHARGED TO THE MS4, THE PROPERTY OWNER OR ESCP COORDINATOR SHALL NOTIFY THE CITY DEPARTMENT OF FACILITIES MAINTENANCE BY TELEPHONE NO LATER THEN THE NEXT BUSINESS DAY. A WRITTEN REPORT DESCRIBING THE POLLUTANTS THAT WERE DISCHARGED, THE REASONS FOR THE DISCHARGE, AND THE MEASURES THAT HAVE BEEN TAKEN OR WILL BE TAKEN TO PREVENT A REOCCURRENCE OF THE DISCHARGE SHALL BE SUBMITTED TO THE DIRECTOR NO LESS THAN 3 DAYS AFTER NOTIFICATION BY PHONE.

GOOD HOUSEKEEPING BMPS (CONT):

9. CONTAMINATED SOIL MANAGEMENT

AT MINIMUM, CONTAIN CONTAMINATED MATERIAL SOIL BY SURROUNDING WITH IMPERMEABLE LINED BERMS OR COVER EXPOSED CONTAMINATED MATERIAL WITH PLASTIC SHEETING. CONTAMINATED SOIL SHOULD BE DISPOSED OF PROPERLY IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

10. CONCRETE WASTE MANAGEMENT

PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM CONCRETE WASTE BY CONDUCTING WASHOUT OFFSITE OR PERFORMING ONSITE WASHOUT IN A DESIGNATED AREA CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS. PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MILLIMETER POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, AND OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL. CONTAINMENT AREAS OR DEVICES SHOULD NOT BE LOCATED WHERE ACCIDENTAL RELEASE OF THE CONTAINED LIQUID CAN DISCHARGE TO WATER BODIES, CHANNELS, OR STORM DRAINS. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75 PERCENT FULL. ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF AS SOLID WASTES.

11. SANITARY/SEPTIC WASTE MANAGEMENT

TEMPORARY AND PORTABLE SANITARY AND SEPTIC WASTE SYSTEMS SHALL BE MOUNTED OR STAKED IN, WELL-MAINTAINED, AND SCHEDULED FOR REGULAR WASTE DISPOSAL AND SERVICING. SOURCES OF SANITARY AND/OR SEPTIC WASTE SHALL NOT BE STORED NEAR THE MS4 OR RECEIVING WATERS.

12. LIQUID WASTE MANAGEMENT

LIQUID WASTE SHALL BE CONTAINED IN A CONTROLLED AREA SUCH AS A HOLDING PIT, SEDIMENT BASIN, ROLL-OFF BIN, OR PORTABLE TANK OF SUFFICIENT VOLUME TO CONTAIN THE LIQUID WASTES GENERATED. CONTAINMENT AREAS OF DEVICES MUST BE IMPERMEABLE AND LEAK FREE AND SHOULD NOT BE LOCATED WHERE ACCIDENTAL RELEASE OF THE CONTAINED LIQUID CAN DISCHARGE TO WATER BODIES, CHANNELS, OR STORM DRAINS.

13. <u>VEHICLE AND EQUIPMENT CLEANING</u>

ELIMINATE AND MINIMIZE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM VEHICLE AND EQUIPMENT CLEANING OPERATIONS BY USING OFF-SITE FACILITIES WHEN FEASIBLE, WASHING IN DESIGNATED, CONTAINED AREAS ONLY, AND ELIMINATING DISCHARGES TO THE STORM DRAIN SYSTEM BY EVAPORATING AND/OR TREATING WASH WATER AS APPROPRIATE, OR INFILTRATING WASH WATER FOR EXTERIOR CLEANING ACTIVITIES THAT USE WATER ONLY.

14. VEHICLE AND EQUIPMENT FUELING

PREVENT FUEL SPILLS AND LEAKS BY USING OFF-SITE FACILITIES, FUELING ONLY IN DESIGNATED AREAS, ENCLOSING OR COVERING STORED FUEL, AND IMPLEMENTING SPILL CONTROLS SUCH AS SECONDARY CONTAINMENT AND ACTIVE MEASURES USING SPILL RESPONSE KITS.

15. <u>VEHICLE AND EQUIPMENT MAINTENANCE</u>

ELIMINATE AND MINIMIZE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM VEHICLE AND EQUIPMENT OPERATIONS BY USING OFF-SITE FACILITIES WHEN FEASIBLE, PERFORMING WORK IN DESIGNATED AREAS ONLY, USING SPILL PADS UNDER VEHICLES AND EQUIPMENT, CHECKING FOR LEAKS AND SPILLS, AND CONTAINING AND CLEANING UP SPILLS IMMEDIATELY.

16. TRACKING CONTROL

POLLUTANTS FROM THE PROJECT SITE SHALL NOT BE TRANSPORTED OR DISCHARGED TO OFF-SITE AREAS. ALL POLLUTANTS DISCHARGED FROM CONSTRUCTION SITE TO OFF-SITE AREAS MUST BE SWEPT OR VACUUMED EACH DAY BEFORE LEAVING THE JOB SITE.

17. DEWATERING OPERATIONS

NON-STORM WATER FROM DEWATERING CANNOT BE DISCHARGED FROM THE SITE WITHOUT PRIOR NOTICE AND APPROVAL FROM THE DPP AND DEPARTMENT OF HEALTH. DEWATERING DISCHARGES SHALL BE KEPT ONSITE USING A SEDIMENT BASIN, SEDIMENT TRAP, WEIR TANK, DEWATERING TANK, FILTRATION SYSTEM, OR OTHER MANUFACTURED SYSTEM.

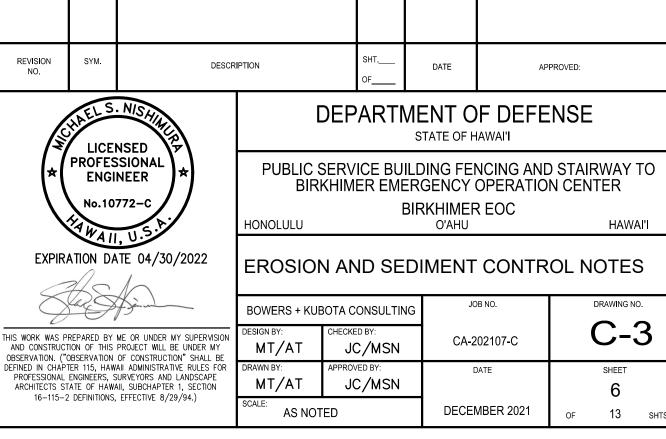
RAIN RESPONSE PLAN:

THE FOLLOWING WILL BE PERFORMED WHEN RAIN IS IMMINENT OR IS FORECASTED IN THE NEXT 48 HOURS:

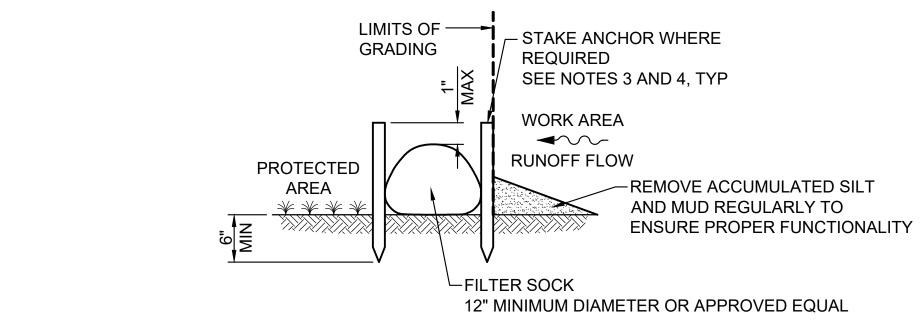
- TEMPORARY SUSPENSION OF GRADING/TRENCHING.
- 2. INSPECT ALL PERIMETER CONTROLS AND INLET PROTECTION DEVICES AND MAINTAIN AS NEEDED. REINSTALL ANY PERIMETER CONTROLS THAT WERE REMOVED DUE TO ACTIVE WORK IN THE AREA. IF A SEVERE STORM IS EXPECTED, REMOVE INLET PROTECTION DEVICES TO PREVENT FLOODING ON SURROUNDING STREETS.
- COVER OR RELOCATE MATERIAL STOCKPILES AND LIQUID MATERIAL CONTAINERS TO AVOID CONTACT WITH RAINWATER.
- PLACE SPILL PANS OR OIL-ONLY SPILL PADS UNDER CONSTRUCTION VEHICLES TO PREVENT RUNOFF FROM CONTACTING ANY SPILLED PETROLEUM PRODUCTS. PROPERLY DISPOSE OF ANY ACCUMULATED OILY WATER AFTER THE RAIN EVENT.
- RE-INSPECT AFTER THE RAIN EVENT AND REPLACE OR MAINTAIN BMPS AS NEEDED.

PROJECT SEQUENCE:

- INSTALL DRAIN INLET PROTECTION, PERIMETER CONTROLS, AND TEMPORARY FENCING FOR PROTECTED AREAS, CLEARING AND GRUBBING AS NECESSARY FOR THE INSTALLATION OF THESE BMPS
- PROCEED WITH CONSTRUCTION WITH LEAST POSSIBLE DISTURBANCE OF VEGETATIVE AREAS AND TEMPORARY STRUCTURES.
- 3. STABILIZE EXPOSED SOIL USING VEGETATION AS SOON AS POSSIBLE
- 4. REMOVE OR DISMANTLE TEMPORARY EROSION CONTROL STRUCTURES AFTER PERMANENT STABILIZATION.



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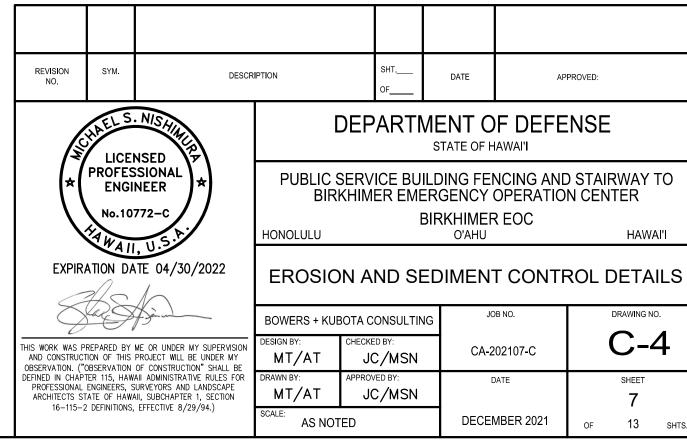
SECTION RUNOFF STAKE ANCHOR, -**WORK AREA** FILTER SOCK ∫ FLOW (TYP) SEE NOTE 3 TYP LIMITS OF GRADING ON > 2H:1V SLOPE STAKE ON WORK AREA SIDE TO BE INSTALLED IN CENTER 6" MIN STAKE ANCHOR SPACING OF FILTER SOCK OVERLAP SEE NOTE 4 **OVERLAP PLAN**

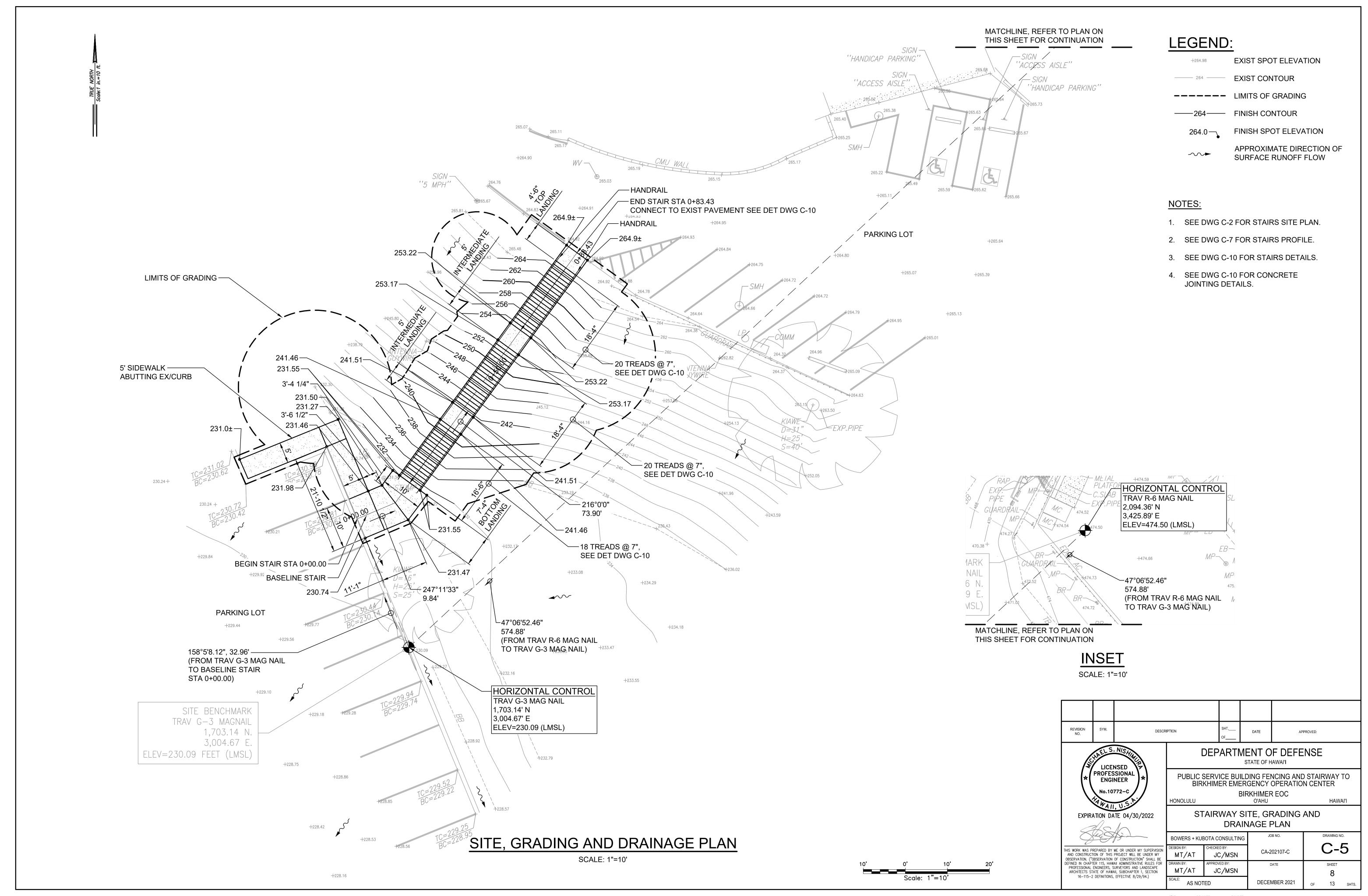
NOTES:

- 1. FILTER SOCK SHALL NOT CONTAIN BIOSOLIDS, SHALL BE BIO-DEGRADABLE AND SHALL COMPLY WITH EPA GUIDELINES AND BE CONSISTENT WITH THE CITY & COUNTY OF HONOLULU STORM WATER BEST MANAGEMENT PRACTICE MANUAL CONSTRUCTION, NOV. 2011.
- 2. REMOVE ACCUMULATED SEDIMENT FROM THE UPSLOPE SIDE OF THE FILTER SOCK REGULARLY TO ENSURE PROPER FUNCTIONALITY.
- 3. 3/4"x3/4"x16" MINIMUM WOODEN STAKE ANCHOR.
- 4. ON < 4H:1V SLOPE, NO STAKE ANCHOR REQUIRED. ON 4H:1V TO 3H:1V SLOPE, STAKE AT 10 FT ON CENTER. ON > 3H:1V TO 2H:1V SLOPE, STAKE AT 5 FT TO 10 FT ON CENTER. ON > 2H:1V SLOPE, STAKE AT 5 FT ON CENTER, STAKES ON WORK AREA SIDE SHALL BE INSTALLED IN CENTER OF FILTER SOCK.

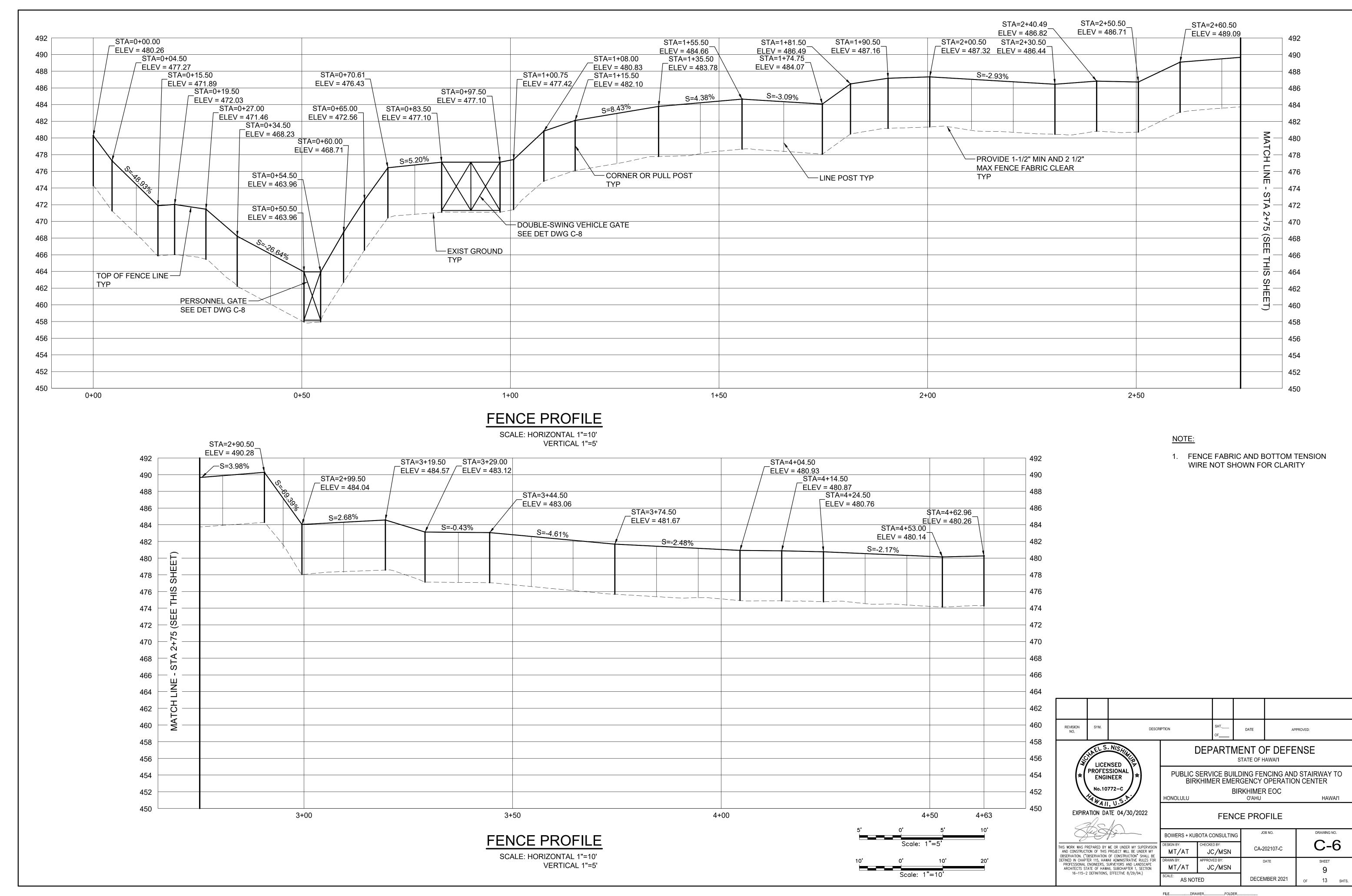
FILTER SOCK DETAIL

NOT TO SCALE



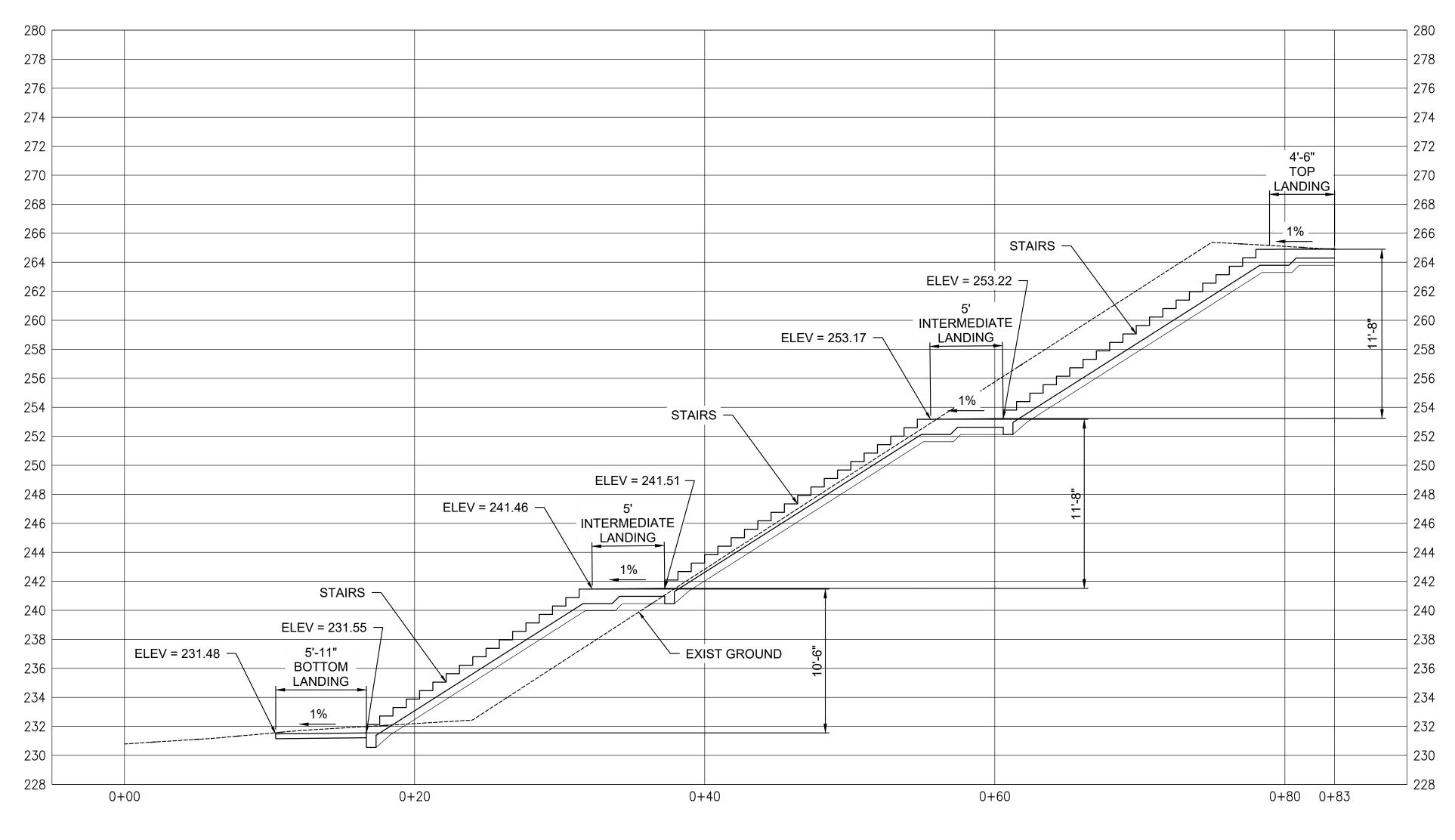


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NOTES:

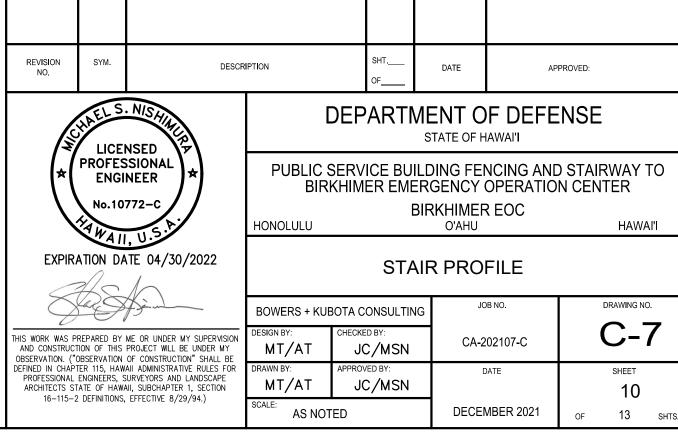
- 1. SEE DWG C-2 FOR STAIRS SITE PLAN.
- 2. SEE DWG C-5 FOR STAIRS GRADING PLAN.
- HANDRAIL NOT SHOWN FOR CLARITY;
 SEE DWG C-10 FOR DETAILS.

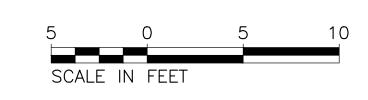


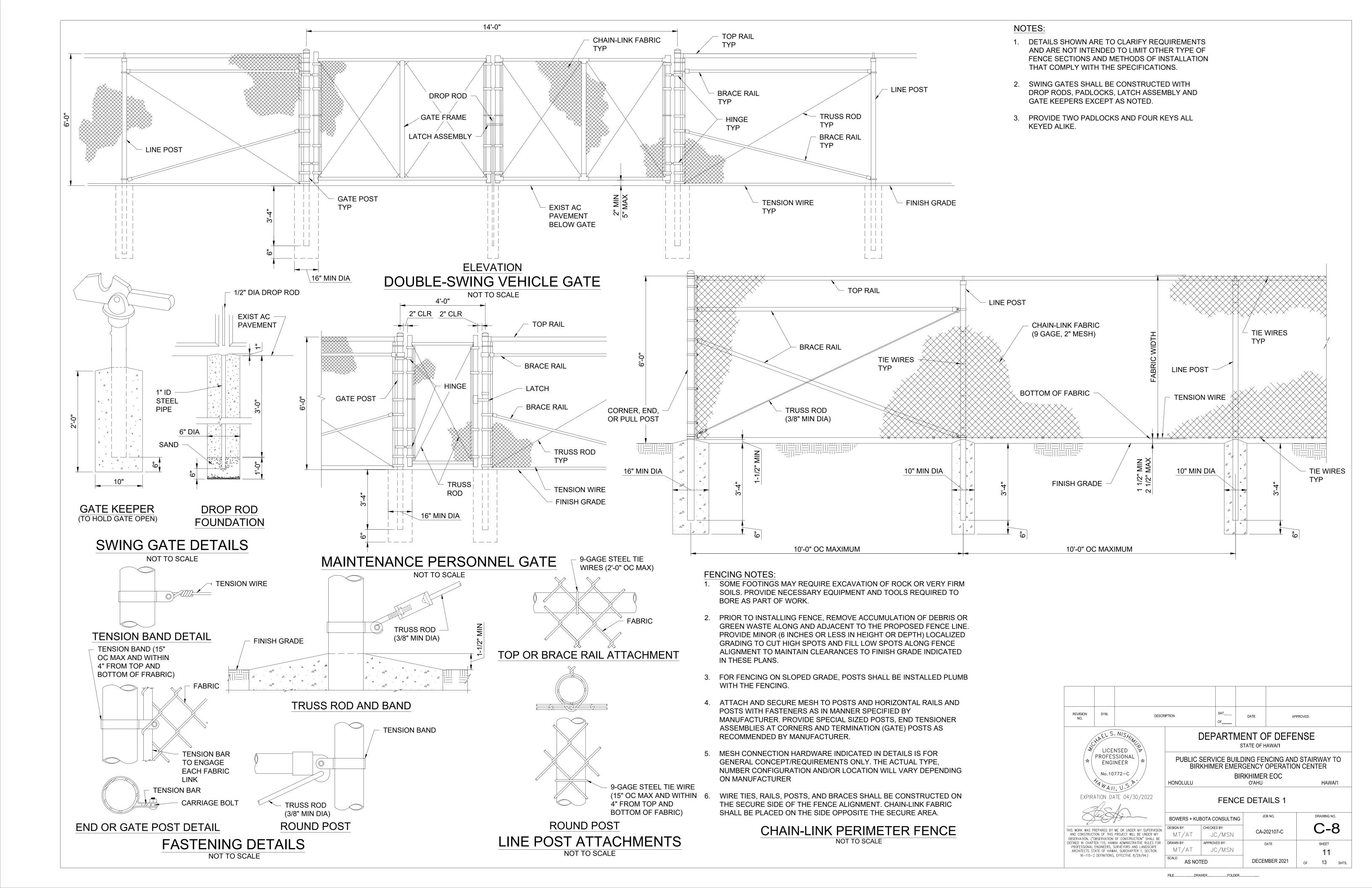
STAIR PROFILE

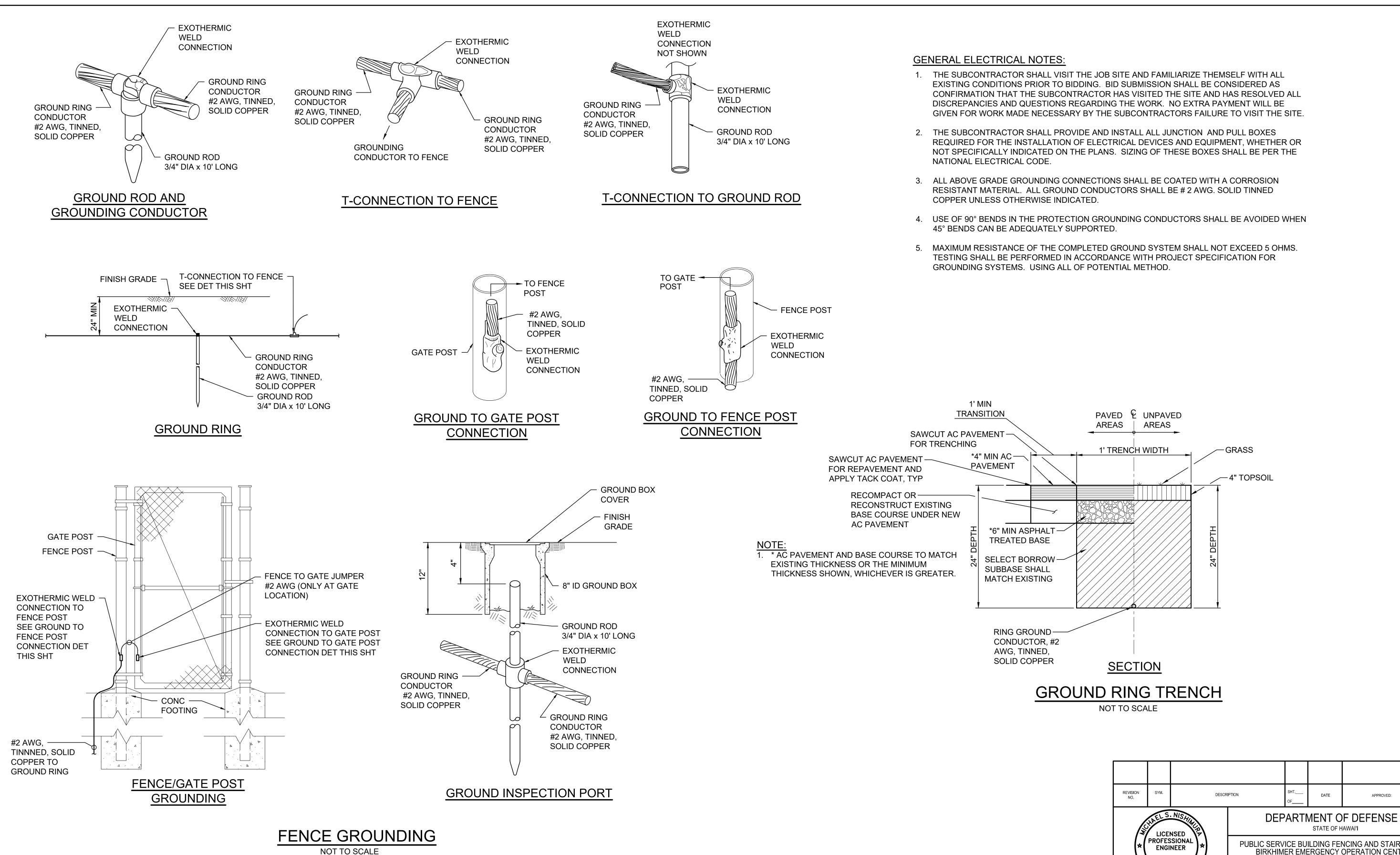
SCALE: HORIZONTAL 1"=5'

VERTICAL 1"=5'





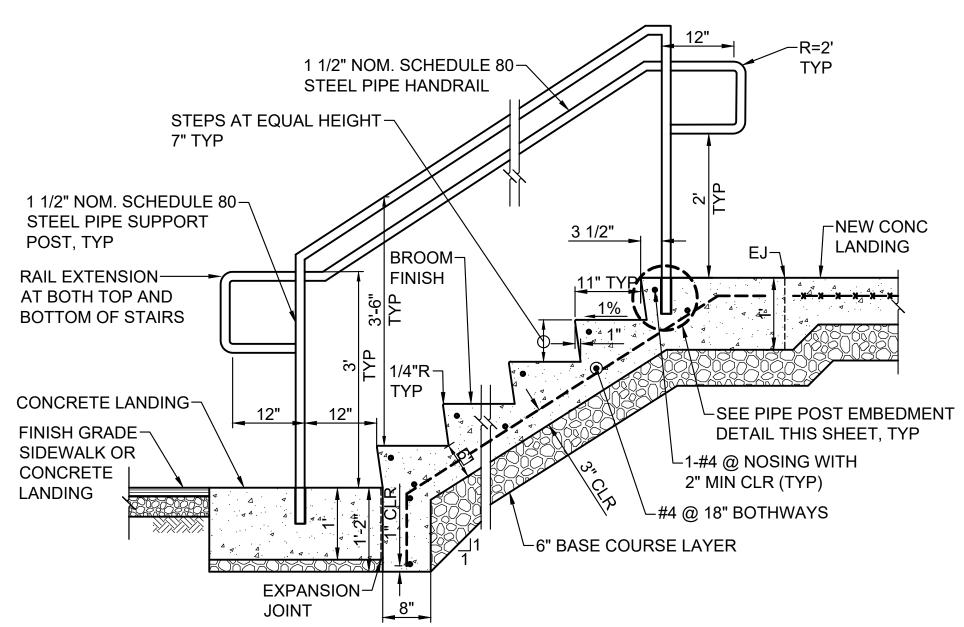




STATE OF HAWAI'I PUBLIC SERVICE BUILDING FENCING AND STAIRWAY TO **ENGINEER** BIRKHIMER EMERGENCY OPERATION CENTER No.10772-C BIRKHIMER EOC HONOLULU HAWAI'I EXPIRATION DATE 04/30/2022 FENCE DETAILS 2 **BOWERS + KUBOTA CONSULTING** C-9 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISIC AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY CA-202107-C JC/MSN OBSERVATION. ("OBSERVATION OF CONSTRUCTION" SHALL B DEFINED IN CHAPTER 115, HAWAII ADMINISTRATIVE RULES FO SHEET PROFESSIONAL ENGINEERS, SURVEYORS AND LANDSCAPE ARCHITECTS STATE OF HAWAII, SUBCHAPTER 1, SECTION MT/AT JC/MSN 16-115-2 DEFINITIONS, EFFECTIVE 8/29/94.) DECEMBER 2021 AS NOTED 13 shts

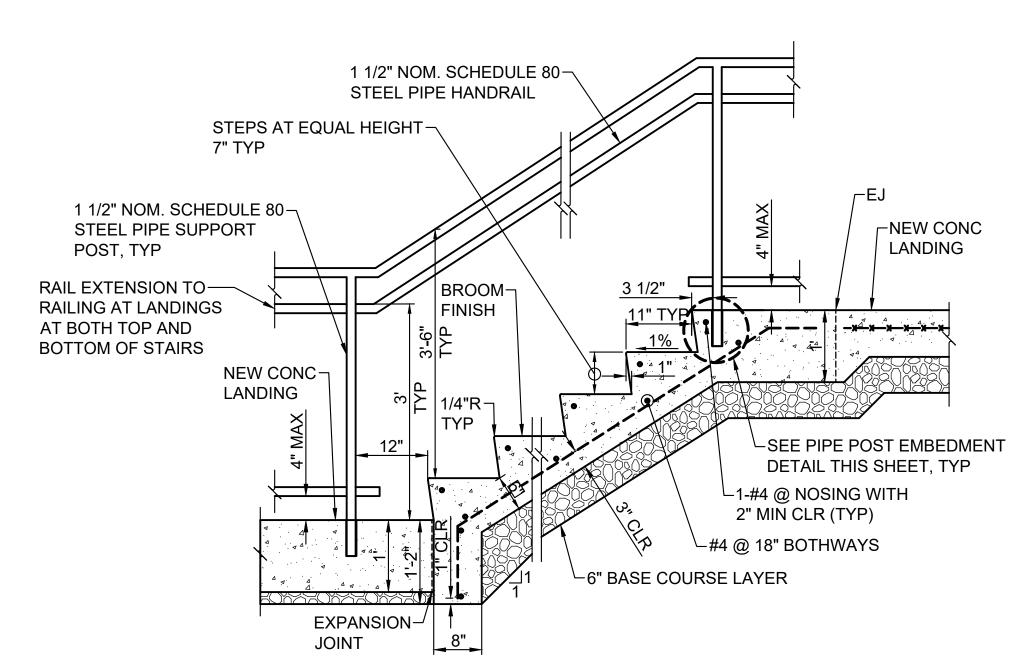
DATE

APPROVED:



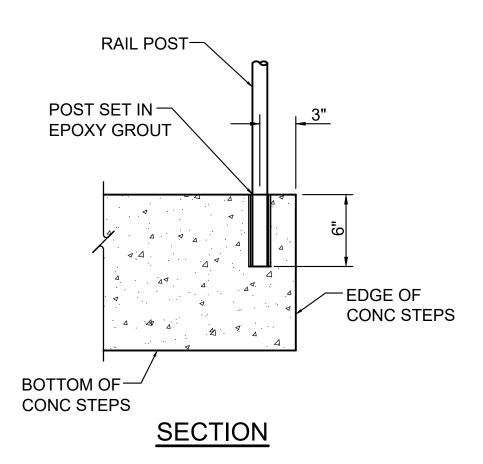
CONCRETE STAIR SECTION AT TOP AND BOTTOM LANDINGS

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



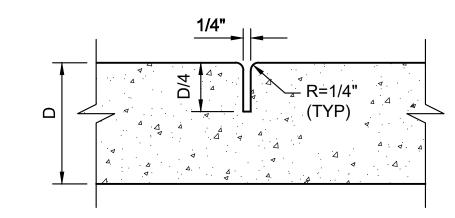
CONCRETE STAIR SECTION AT INTERMEDIATE LANDINGS

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

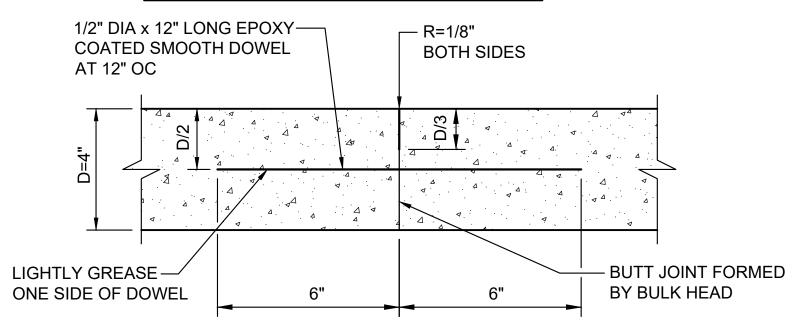


PIPE POST EMBEDMENT DETAIL

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



CONTRACTION (SCORES) JOINT



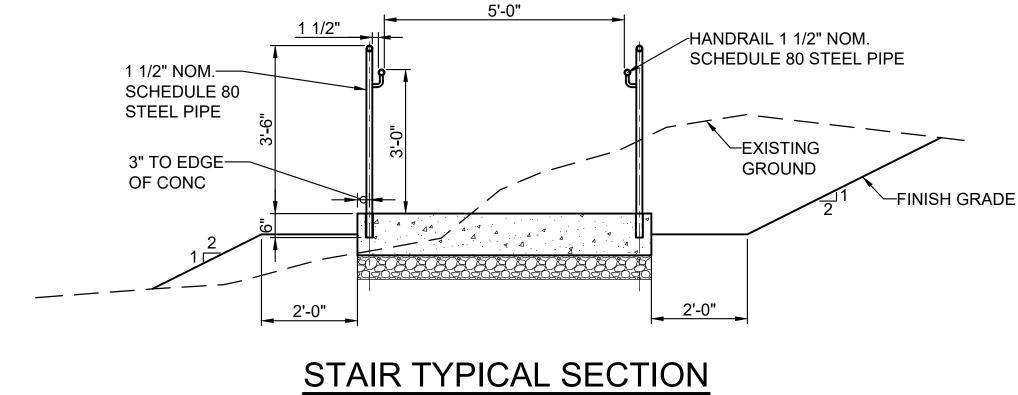
TRANSVERSE CONSTRUCTION JOINT

CONCRETE WALKWAY JOINT DETAILS

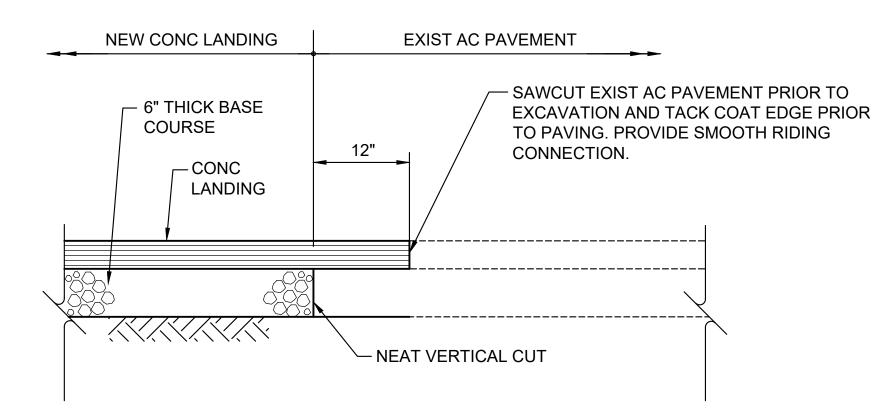
SCALE: 3"=1'-0"

NOTES:

- 1. PLACE CONSTRUCTION JOINTS AT INTERVALS NOT TO EXCEED 20 FEET O.C. MAXIMUM. 2. SPACE CONTRACTION JOINTS AT A DISTANCE EQUAL TO THE WALK WIDTH OR EQUAL SQUARES ON CENTER, WHICHEVER IS LESS.
- 3. PLACE ISOLATION JOINTS WHERE WALK BUTTS AGAINST EXISTING OR NEW WALK, STRUCTURES, PADS AND TRANSVERSE WALKS.
- 4. CONCRETE WALKWAY MUST BE BROOM FINISHED IN A DIRECTION TRANSVERSE TO THAT OF THE MAIN TRAFFIC.
- 5. CONCRETE MUST HAVE A MINIMUM COMPREHENSIVE STRENGTH OF 2500 PSI AT 28 DAYS AND SHALL CONFORM TO ASTM C94.

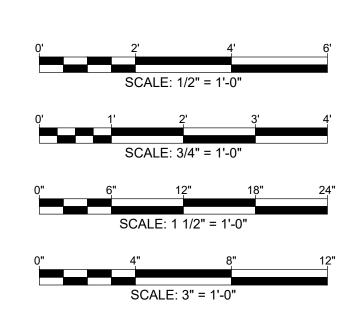


SCALE: 1/2"=1'-0"



PAVEMENT CONNECTION DETAIL SCALE: 3/4"=1'-0"





REVISION SYM. DESCRIPTION SHT DATE APPROVED:								
DESCRIPTION — DATE ADDROVED:								
NO. OF	APPROVED:							
DEPARTMENT OF DEFENSE STATE OF HAWAI'I								
PROFESSIONAL PUBLIC SERVICE BUILDING FENCING AND STAIRWAY TO BIRKHIMER EMERGENCY OPERATION CENTER BIRKHIMER EOC	BIRKHIMER EMERGENCY OPERATION CENTER BIRKHIMER EOC							
EXPIRATION DATE 04/30/2022 HONOLULU O'AHU HAWAI'I STAIRS DETAILS								
BOWERS + KUBOTA CONSULTING JOB NO. DRAWING NO.								
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. ("OBSERVATION OF CONSTRUCTION" SHALL BE MT/AT CHECKED BY: CA-202107-C CA-202107-C	C-10							
DEFINED IN CHAPTER 115, HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, SURVEYORS AND LANDSCAPE ARCHITECTS STATE OF HAWAII, SUBCHAPTER 1, SECTION MT/AT JC/MSN 13								
SCALE:	HTS.							

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