

STATE OF HAWAII
 DEPARTMENT OF LAND AND NATURAL RESOURCES
 ENGINEERING DIVISION

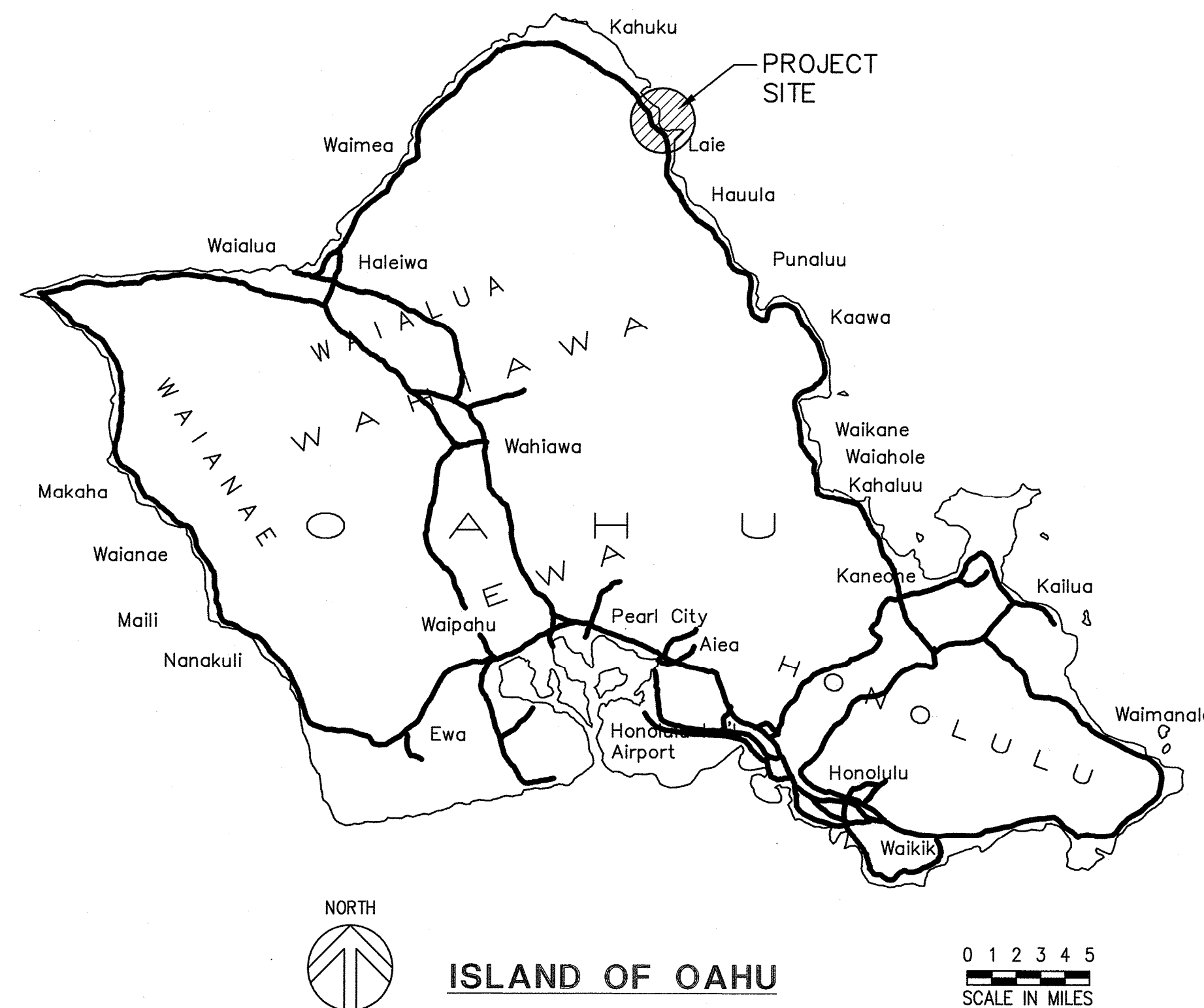
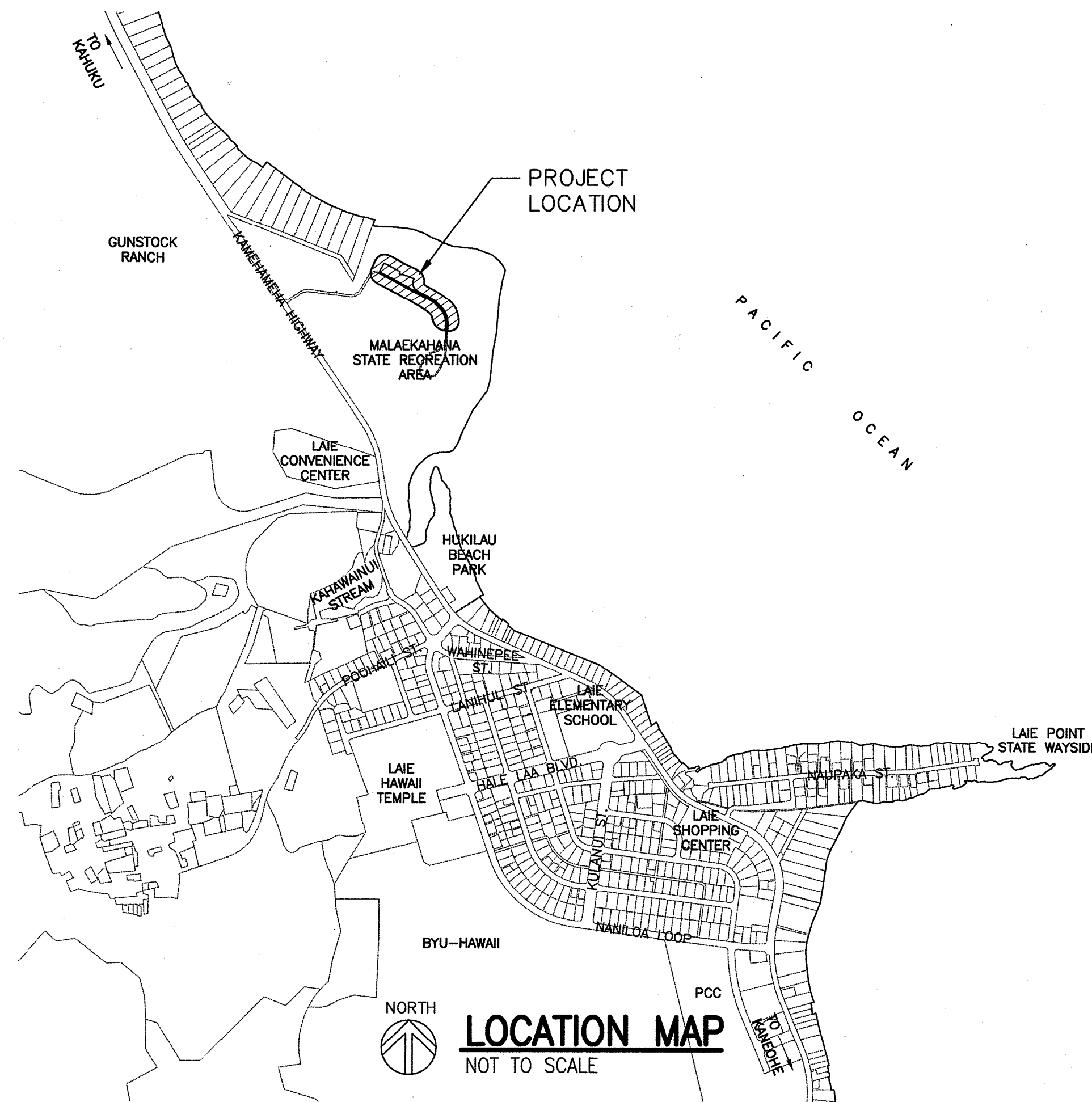
FOR
 DIVISION OF STATE PARKS

JOB NO. H70C603C
 (DPP CP JOB NO. 2019/CP-169)

**MALAEKAHANA STATE RECREATION AREA
 KALANAI SECTION
 PARK IMPROVEMENTS**

LAIE, OAHU, HAWAII

TMK: 5-6-001: 004



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APPROVED:

DATE: 12/23/2019

CURT A. COTTRELL
 ADMINISTRATOR
 DIVISION OF STATE PARKS
 DEPARTMENT OF LAND AND NATURAL RESOURCES

DATE: 12/23/2019

CURT A. CHANG, P.E.
 CHIEF ENGINEER
 ENGINEERING DIVISION
 DEPARTMENT OF LAND AND NATURAL RESOURCES

DATE: 12/13/19

DIRECTOR
 DEPARTMENT OF PLANNING AND PERMITTING,
 CITY AND COUNTY OF HONOLULU
 (FOR SITE GRADING ONLY)

SCOPE OF WORK:

THIS PROJECT RECONSTRUCTS THE EXISTING AC AND GRAVEL FILLED PARKING LOT AND ACCESS ROAD. A CONCRETE ADA ACCESSIBLE PARKING STALL WILL ALSO BE CONSTRUCTED AS WELL AS THE INSTALLATION OF PAVEMENT STRIPING.

DRAWING NO.
G-001

GENERAL CONSTRUCTION NOTES:

- ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST REVISION OF THE STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", DATED 2005; THE CITY AND COUNTY OF HONOLULU DEPARTMENT OF PUBLIC WORKS (DPW) "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", DATED SEPTEMBER 1986 AND "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION", DATED SEPTEMBER 1984 WHERE APPLICABLE AND THE 2012 INTERNATIONAL BUILDING CODE.
- VERIFY AND CHECK ALL DIMENSIONS AND DETAILS SHOWN ON THE DRAWINGS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR DIRECTION.
- THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS 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. ALL DAMAGED PORTIONS SHALL BE REPLACED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE AFFECTED UTILITY COMPANY AND SHALL BE THE CONTRACTORS RESPONSIBILITY. PERSONAL INJURY RESULTING FROM CONTACT WITH EXISTING UTILITIES SHALL BE THE CONTRACTORS RESPONSIBILITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMANCE WITH THE APPLICABLE PROVISIONS OF CHAPTER 54, WATER QUALITY STANDARDS, AND CHAPTER 55, WATER POLLUTION CONTROL, OF TITLE 11, HAWAII ADMINISTRATIVE RULES OF THE STATE DEPARTMENT OF HEALTH.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PLAN AND CONSTRUCT BEST MANAGEMENT PRACTICES (BMP) AS REQUIRED BY HIS OPERATIONS TO COMPLY WITH THE LAWS, STANDARDS, RULES, AND /OR POLICIES OF THE COUNTY, STATE, OR FEDERAL REGULATORY AGENCIES.
- THE CONTRACTOR SHALL NOTIFY ALL AGENCIES TO VERIFY THE ACTUAL LOCATION OF ALL UTILITIES IN THE PROJECT AREA PRIOR TO EXCAVATION. THE CONTRACTOR SHALL COORDINATE ALL WORK.
- THE CONTRACTOR SHALL RESTORE TO THEIR ORIGINAL OR BETTER CONDITION ALL IMPROVEMENTS AND VEGETATION DAMAGED AS A RESULT OF THE CONSTRUCTION, INCLUDING PAVEMENTS, EMBANKMENTS, CURBS, SIGNS, LANDSCAPING, STRUCTURES, UTILITIES, WALKWAYS, FENCES, ETC. UNLESS PROVIDED FOR SPECIFICALLY IN THE PROPOSAL, DEMOLITION AND RESTORATION OF EXISTING ITEMS SHALL BE INCIDENTAL.
- WHERE PEDESTRIAN WALKWAYS EXIST, THEY SHALL BE MAINTAINED IN PASSABLE CONDITION OR OTHER FACILITIES FOR PEDESTRIANS SHALL BE PROVIDED. TEMPORARY PASSAGEWAYS SHALL BE ACCESSIBLE PER 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN CHAPTER 2, SECTIONS 201.3 AND 206.1.
- EXISTING TOPOGRAPHIC SURVEY WAS CONDUCTED ON APRIL 26, 2019 BY KN SURVEYING, LLC. THIS TOPOGRAPHIC SURVEY WAS BASED ON THE BEST AVAILABLE INFORMATION AND THE CONTRACTOR MUST VERIFY IT IS ACCURATE PRIOR TO CONSTRUCTION.
- NO BLASTING SHALL BE ALLOWED ON THIS PROJECT.
- THE CONTRACTOR SHALL NOTIFY THE ONE CALL CENTER AT (866) 423-7287 AT LEAST 5 WORKING DAYS PRIOR TO THE START OF EXCAVATION OR TRENCHING.
- FOR ALL PROJECTS WHICH WILL DISTURB ONE (1) ACRE OR MORE OF LAND, THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL A NPDES PERMIT IS RECEIVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAII, AND HAS SATISFIED ANY OTHER APPLICABLE REQUIREMENTS OF THE NPDES PERMIT PROGRAM. ALSO, FOR COUNTY PROJECTS, THE CONTRACTOR SHALL PROVIDE A WRITTEN COPY OF THE NPDES PERMIT TO THE APPROPRIATE COUNTY DEPARTMENT OR GOVERNMENTAL AGENCY PER THEIR REQUIREMENTS.
- 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.
- THE CONTRACTOR AGREES THAT HE 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 WORK HOURS.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS FROM APPROPRIATE GOVERNMENT AGENCIES.
- THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR UTILITIES SUCH AS ELECTRICITY, WATER, ETC. REQUIRED FOR HIS OPERATIONS AND ALL COSTS SHALL BE BORNE BY THE CONTRACTOR.
- GENERAL CONTRACTOR TO CONSTRUCT TEMPORARY BARRICADES DURING CONSTRUCTION, FOR THE PROTECTION OF LIFE, SAFETY AND PROPERTY.
- THE JOB SITE MUST BE LEFT IN A SAFE, SECURE CONDITION AT THE END OF EACH CONSTRUCTION WORK DAY. CLEAN UP AND REMOVE FROM THE JOB SITE ALL RUBBISH AND MAINTAIN THE PREMISES IN A CLEAN ORDERLY CONDITION AT ALL TIMES.
- UPON COMPLETION OF CONSTRUCTION THE ENTIRE JOB SITE SHALL BE CLEANED OF ALL RUBBISH AND DEBRIS.
- THE MALAEKAHANA STATE RECREATION AREA SHALL REMAIN OPEN DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL INSTALL ADEQUATE TEMPORARY BARRICADES AND WARNING SIGNS TO PROTECT THE PUBLIC DURING THE CONSTRUCTION PERIOD. PROVIDE AND MAINTAIN A SAFE PEDESTRIAN ACCESS AND VEHICLE ACCESS TO THE PARK AND PARK FACILITIES THROUGHOUT THE CONSTRUCTION PERIOD.
- ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR DURING CONSTRUCTION AND ANY DAMAGE TO THEM SHALL BE REPAIRED AND PAID FOR 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 NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVENIENCE AND SAFETY OF THE PUBLIC.
- ALL REQUIRED UTILITY ADJUSTMENTS SUCH AS MANHOLE AND /OR VALVE BOX FRAMES AND COVERS SHALL BE DONE BY THE CONTRACTOR.

- ALL STRIPING SHALL BE THERMOPLASTIC.
- PROVIDE THEFT-RESISTANT FASTENERS FOR ALL ACCESSORY MOUNTINGS. ALL FASTENERS SHALL BE STAINLESS STEEL WITH THEFT-RESISTANT TYPE HEADS OR NUTS.
- CONTRACTOR SHALL ENSURE THAT TEMPORARY PEDESTRIAN ROUTES BE ACCESSIBLE AND SHALL COMPLY WITH ADAAG 201.3 AND ADAAG 206.1.
- SHOULD HISTORIC REMAINS SUCH AS ARTIFACTS, BURIALS, CONCENTRATIONS OF SHELL OR CHARCOAL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, WORK SHALL CEASE IMMEDIATELY IN THE IMMEDIATE VICINITY OF THE FIND. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE STATE HISTORIC PRESERVATION DIVISION AT (808) 692-8015, WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND THE APPROPRIATE MITIGATION MEASURES, IF NECESSARY.
- CONTRACTOR SHALL COORDINATE HIS OPERATIONS WITH THOSE OF OTHER CONTRACTORS WHO MAY BE EMPLOYED ON ADJACENT ON RELATED STATE PROJECTS AT THE SITE AND AVOID UNNECESSARY DELAY OR HINDRANCE IN THE PERFORMANCE OF THEIR RESPECTIVE CONTRACTS.
- THE CLOSURE OF THE PARKING LOT AND ACCESS ROAD WILL BE ALLOWED FOR A TOTAL OF 25 CONSECUTIVE DAYS TO COMPLETE THE IMPROVEMENT WORK.

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 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 HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 60.1, "AIR POLLUTION CONTROL".
- 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.
- FILLS ON SLOPES STEEPER THAN 5:1 SHALL BE KEYED.
- THE CITY SHALL 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.
- NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE DIRECTOR, D.P.P., PROVIDED SUCH GRADING WORK IS ALSO IN CONFORMANCE WITH THE COMMUNITY NOISE CONTROL STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 46, "COMMUNITY NOISE CONTROL".
- THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.
- THE CONTRACTOR OF THE PROJECT SHALL BE RESPONSIBLE FOR ALL GRADING OPERATIONS TO BE PERFORMED IN CONFORMANCE WITH APPLICABLE PROVISIONS OF THE HAWAII 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.

THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE(S) FOR THE FOLLOWING:

- STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT DISTURB ONE (1) ACRE OR MORE, AND DISCHARGES OF HYDROTASTING EFFLUENT, DEWATERING EFFLUENT TO STATE WATERS.

IN ACCORDANCE WITH STATE LAW, ALL DISCHARGES RELATED TO PROJECT CONSTRUCTION OR OPERATIONS ARE REQUIRED TO COMPLY WITH STATE WATER QUALITY STANDARDS (HAWAII ADMINISTRATIVE RULES, CHAPTER 11-54). BEST MANAGEMENT PRACTICES SHALL BE USED TO MINIMIZE OR PREVENT THE DISCHARGE OF SEDIMENT, DEBRIS, AND OTHER POLLUTANTS TO STATE WATERS. PERMIT COVERAGE IS AVAILABLE FROM THE DEPARTMENT OF HEALTH, CLEAN WATER BRANCH AT [HTTP://HEALTH.HAWAII.GOV/CWB](http://health.hawaii.gov/cwb). THE OWNER/DEVELOPER/CONTRACTOR IS RESPONSIBLE FOR OBTAINING OTHER FEDERAL, STATE, OR LOCAL AUTHORIZATIONS AS REQUIRED BY LAW.

- 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.
- TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.
- TEMPORARY EROSION CONTROL PROCEDURES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO APPLICATION FOR GRADING PERMIT.
- IF THE GRADING WORK INVOLVES CONTAMINATED SOIL, THEN ALL GRADING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.

- FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEERING BRANCH, D.P.P. AT 768-8084 TO ARRANGE FOR INSPECTIONAL 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.
- 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 HAWAII, AND HAS SATISFIED ANY OTHER APPLICABLE REQUIREMENTS OF THE NPDES PERMIT PROGRAM. ALSO, FOR NON-CITY AND OTHER NON-GOVERNMENTAL AGENCY PROJECTS, THE CONTRACTOR SHALL PROVIDE A WRITTEN COPY OF THE NGPC TO THE PERMITTING AND INSPECTION SECTION, CIVIL ENGINEERING BRANCH, D.P.P., 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 NGPC TO THE APPROPRIATE CITY DEPARTMENT OR GOVERNMENTAL AGENCY PER THEIR REQUIREMENTS.
- 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.
- 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 SUBJECT TO ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES.
- FOR BENCH MARK, SEE SHEET C-100.

ABBREVIATIONS

AC	ASPHALT CONCRETE/ACRE	MIN	MINIMUM
ARV	AIR RELEASE VALVE	NO	NUMBER
B	BOLE	NTS	NOT TO SCALE
BL	BASELINE	OC	ON CENTER
BLDG	BUILDING	P/L	PROPERTY LINE
BMP	BEST MANAGEMENT PRACTICE	PAVT	PAVEMENT
BOT	BOTTOM	PC	POINT OF CURVATURE
BW	BOTTOM OF WALL	PCC	PORTLAND CEMENT CONCRETE
C	CHORD	POR	PORTION
CC	CONCRETE CORNER	PT	POINT OF TANGENCY
CONC	CONCRETE	R	RADIUS
CONN	CONNECTION	RD	ROAD
CONT	CONTINUOUS	RCP	REINFORCED CONCRETE PIPE
DIAG	DIAGONAL	RT	RIGHT
DPP	DEPARTMENT OF PLANNING AND PERMITTING	SHT	SHEET
DWG	DRAWING	SMH	SEWER MANHOLE
ELEV	ELEVATION	SQ	SQUARE
EXIST	EXISTING	STA	STATION
EPA	ENVIRONMENTAL PROTECTION AGENCY	STD	STANDARD
EW	EACH WAY	SY	SQUARE YARDS
FG	FINISH GRADE	T	TOP/TANGENT
FH	FIRE HYDRANT	TC	TOP OF CURB
GND	GROUND	TMK	TAX MAP KEY
H	HEIGHT	TS	TOP OF STEM
HWY	HIGHWAY	TW	TOP OF WALL
HECO	HAWAIIAN ELECTRIC COMPANY	TYP	TYPICAL
L	LENGTH OF CURVE	UP	UTILITY POLE
LT	LEFT	W/	WITH
MAX	MAXIMUM	WM	WATER METER
		WS	WHEELSTOP

APPROVED:

for Melina J. Johnson
CHIEF, CIVIL ENGINEERING BRANCH, DPP

12/10/19
DATE

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS GENERAL NOTES					
DESIGNED: SKK		SUBMITTED: 1/5			
DRAWN: JM		DATE: JULY 12, 2019			
CHECKED: RS		SCALE: AS SHOWN			
APPROVED: <u>Carty Chang</u>		E-signed 2019-12-23 03:16PM HST		DRAWING NO. C-001	
SIGNATURE		E-carty.s.chang@hawaii.gov		State of Hawaii	
EXP. DATE: 04/30/20		Chief Engineer			

EROSION AND SEDIMENT CONTROL NOTES:

- THE OWNER OF THE PROPERTY OF 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.
- THE CONTRACTOR SHALL FOLLOW THE GUIDELINES IN THE CITY AND COUNTY OF HONOLULU'S "RULES RELATING TO WATER QUALITY".
- MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY EARTHWORK IS INITIATED.
- 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.
- 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.
- PRESERVE EXISTING VEGETATION AND 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.
- MINIMIZE SOIL COMPACTION AREAS WHERE FINAL STABILIZATION OR INFILTRATION PRACTICES WILL BE INSTALLED. AREAS 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.
- PERIMETER CONTROLS ARE REQUIRED DOWN SLOPE OF ALL DISTURBED AREAS. MAINTAIN DOWNSTREAM VEGETATED BUFFER AREA.
- 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 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.
- BEST MANAGEMENT PRACTICES (BMPs) SHALL NOT BE REMOVED UNTIL FINAL STABILIZATION IS COMPLETE FOR THAT PHASE.
- REFER TO CITY AND COUNTY OF HONOLULU BEST MANAGEMENT PRACTICES MANUAL - CONSTRUCTION, FOR MORE INFORMATION ON BMPs.
- THE FOLLOWING BMPs WERE DETERMINED TO BE NOT APPLICABLE BASED ON THE SPECIFIC SITE CONDITIONS. A BRIEF EXPLANATION OF WHY EACH OMITTED BMP IS UNNECESSARY OR IMPRACTICABLE HAS BEEN PROVIDED UNDER SEPARATE DOCUMENTATION TO DPP. AS CONSTRUCTION PROGRESSES, REVISION MAY BE NECESSARY AND WILL BE PROVIDED TO DPP INSPECTORS.
 - SLOPE MANAGEMENT AND PROTECTION
 - DIVERSIONS BMPs TO DIVERT RUNOFF FROM UPSTREAM AREAS AROUND DISTURBED AREAS OF THE SITE
 - VELOCITY DISSIPATION DEVICES
 - STORM DRAIN INLET PROTECTION
 - BUFFER ZONES
 - SEDIMENT BASINS
 - SEDIMENT TRAPS
 - DEWATERING OPERATIONS

ESCP SCHEDULE AND RAIN RESPONSE PLAN:

- COMPLY WITH THE PROJECT SCHEDULING REQUIREMENTS OF CITY'S RULES RELATING TO WATER QUALITY.
- THE SCHEDULED START DATE SHALL BE SUBMITTED TO THE DIRECTOR IN WRITING 2 WEEKS PRIOR TO COMMENCING ANY WORK GOVERNED BY THESE RULES.

PROJECT SEQUENCE:

- INSTALL CONSTRUCTION ENTRANCES AND PERIMETER CONTROLS AS SHOWN ON THE PLANS.
- PROCEED WITH PHASE 1 CONSTRUCTION AND GRADING WITH LEAST POSSIBLE DISTURBANCE OF VEGETATIVE AREAS AND TEMPORARY STRUCTURES.
- PHASE 1 CONSTRUCTION AND GRADING SHALL BE COMPLETE (I.E. FULL ESTABLISHMENT OF PERMANENT VEGETATIVE COVER OR PAVEMENT STRUCTURE) PRIOR TO PHASE 2 CONSTRUCTION.
- PROCEED WITH PHASE 2 CONSTRUCTION AND GRADING WITH LEAST POSSIBLE DISTURBANCE OF VEGETATIVE AREAS AND TEMPORARY STRUCTURES.

- REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER FULL ESTABLISHMENT OF PERMANENT VEGETATIVE COVER OR PAVEMENT STRUCTURE HAS BEEN INSTALLED FOR PHASE 2.
- PRACTICE GOOD HOUSEKEEPING MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.
- INSPECTIONS WILL BE PERFORMED WEEKLY.

RAIN RESPONSE PLAN:

THE FOLLOWING WILL BE PERFORMED WHEN HEAVY RAINS, TROPICAL STORM OR HURRICANE IS IMMINENT OR IS FORECASTED IN THE NEXT 48 HOURS:

- TEMPORARY SUSPENSION OF ACTIVE GRADING.
- INSPECT ALL PERIMETER CONTROLS, AND MAINTAIN AS NEEDED. REINSTALL ANY PERIMETER CONTROLS THAT WERE REMOVED DUE TO ACTIVE WORK IN THE AREA.
- 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 ONLY WATER AFTER THE RAIN EVENT.
- RE-INSPECT AFTER THE APPROACHING HEAVY RAINS, TROPICAL STORM OR HURRICANE AND REPLACE OR MAINTAIN BMPs AS NEEDED.

GOOD HOUSEKEEPING BMPs:

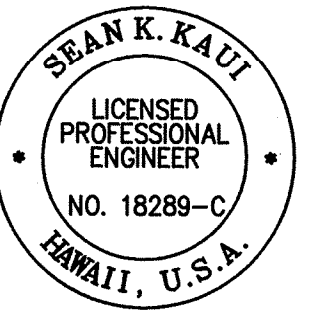
- BMP USE AND MAINTENANCE REQUIRED. ALL BMPs MUST BE DESIGNED, USED AND MAINTAINED IN COMPLIANCE WITH THE STANDARDS AND SPECIFICATIONS SET FORTH IN THESE RULES AT ALL TIMES. WHERE THESE RULES DO NOT PROVIDE STANDARDS AND SPECIFICATIONS FOR A BMP, THE BMP MUST BE INSTALLED AND MAINTAINED WITH THE MANUFACTURER'S SPECIFICATIONS, WHICH MUST BE KEPT ONSITE AND IMMEDIATELY MADE AVAILABLE FOR INSPECTION UPON REQUEST BY THE DIRECTOR. IF BMPs FAIL, NOTWITHSTANDING THEIR INTENT OR DESIGN, THE BMPs SHALL BE MODIFIED OR UPGRADED TO PREVENT ANY FURTHER FAILURE IN THE SAME OR SIMILAR CIRCUMSTANCES.
- STREET SWEEPING AND VACUUMING. ALL POLLUTANTS DISCHARGED FROM THE CONSTRUCTION SITE TO OFF-SITE AREAS MUST BE SWEEPED OR VACUUMED EACH DAY BEFORE LEAVING THE JOB SITE.
- 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, 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 TO MS4, RECEIVING WATERS, OR DRAINAGE IMPROVEMENTS THAT DISCHARGE OFF-SITE. PRIMARY AND SECONDARY CONTAINMENT CONTROLS AND COVERS SHALL BE IMPLEMENTED TO THE MEP.
- 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 BY REDUCING THE CHANCE OF SPILLS, ABSORBING, CONTAINING AND CLEANING UP SPILLS AND PROPERLY DISPOSING OF SPILL MATERIALS. AT A MINIMUM, ALL PROJECTS SHALL CLEAN-UP ALL LEAKS AND SPILLS IMMEDIATELY.
- 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 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 THE NOTIFICATION BY PHONE.
- NONHAZARDOUS MATERIALS. IN THE EVENT THAT NONHAZARDOUS MATERIALS ARE DISCHARGED TO THE MS4, THE PROPERTY OWNER OR ESCP COORDINATOR SHALL NOTIFY THE CITY DEPARTMENT OF FACILITIES MAINTENANCE BY TELEPHONE NO LATER THAN 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 THE NOTIFICATION BY PHONE.
- VEHICLE AND EQUIPMENT CLEANING. 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.
- VEHICLE AND EQUIPMENT FUELING. PREVENT FUEL SPILL AND LEAKS BY USING OFF-SITE FACILITIES, FUELING ONLY IN DESIGNATED AREAS, ENCLOSING OR COVERING STORED FUEL, AND IMPLEMENTING SPILL CONTROLS SUCH AS SECONDARY CONTAINMENTS AND ACTIVE MEASURES USING SPILL RESPONSE KITS.
- VEHICLE AND EQUIPMENT MAINTENANCE. ELIMINATE AND MINIMIZE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM VEHICLE AND EQUIPMENT CLEANING 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.

- SOLID WASTE MANAGEMENT. PREVENT OR REDUCE DISCHARGE OF POLLUTANTS TO THE LAND, GROUNDWATER, AND IN THE STORM WATER FROM SOLID WASTE OR 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.
- 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.
- STOCKPILE MANAGEMENT. STOCKPILES SHALL NOT BE LOCATED IN DRAINAGE WAYS, WITHIN 50 FEET FROM AREAS OR 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.
- LIQUID WASTE MANAGEMENT. LIQUID WASTE SHALL BE CONTAINED IN A CONTROLLED AREA SUCH AS HOLDING PIT, SEDIMENT BASIN, ROLL-OFF BIN, OR PORTABLE TANK OF SUFFICIENT VOLUME AND TO CONTAIN THE LIQUID WASTES GENERATED. CONTAINMENT AREAS OR 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.
- 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, OR 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 AREA WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF AS SOLID WASTES.
- 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.
- DUST CONTROL. DUST FROM THE PROJECT SITE SHALL NOT BE TRANSPORTED OR DISCHARGED TO OFF-SITE AREAS. THE WORK MUST BE IN CONFORMANCE WITH AIR POLLUTION CONTROL STANDARDS CONTAINED IN HAWAII ADMINISTRATIVE RULES: TITLE 11 CHAPTER 60.1, "AIR POLLUTION CONTROL." ALL ESCPs SHALL PROVIDE FOR THE CONTROL OF DUST BY ONE OR MORE OF THE FOLLOWING:
 - MULCHING TO A DEPTH OF NO LESS THAN 1 INCH;
 - SPRINKLING EXPOSED SOILS WITH WATER TO MAINTAIN MOISTNESS AT A DEPTH OF 2 - 3 INCHES DURING WORKING HOURS AND NOT TO GENERATE ANY RUNOFF; AND
 - VERTICAL DUST BARRIERS NO LESS THAN 6 FEET IN HEIGHT, CONSTRUCTED OF MATERIALS CAPABLE OF EFFECTIVELY PREVENTING THE SPREAD OF DUST PARTICLES.

APPROVED:

for Melvin J. Johnson
CHIEF, CIVIL ENGINEERING BRANCH, DPP

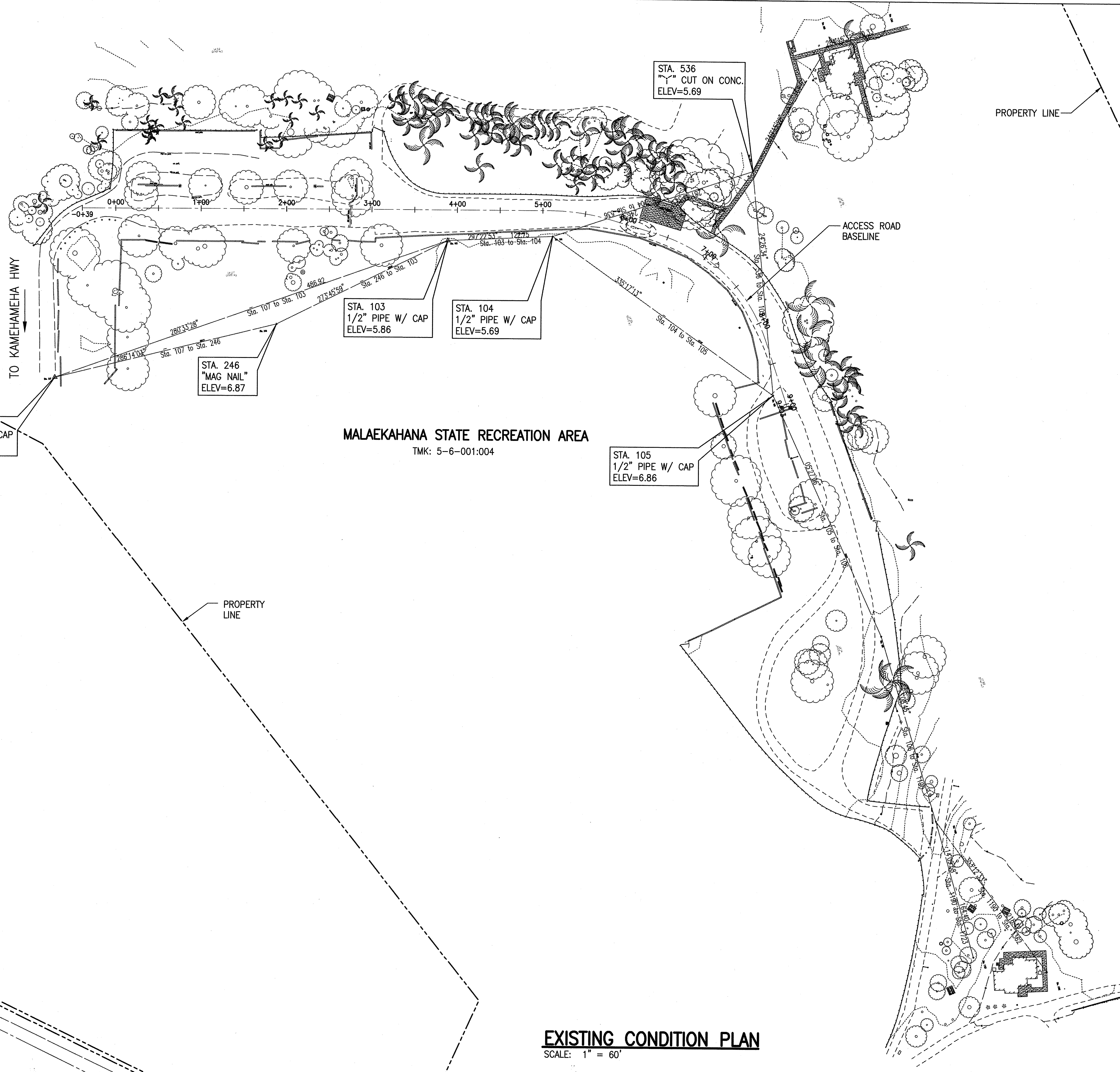
12/10/19
DATE

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
					
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS EROSION AND SEDIMENT CONTROL NOTES					
DESIGNED:	SKK	SUBMITTED:	[Signature]		
DRAWN:	JM	DATE:	JULY 12, 2019		
CHECKED:	RS	SCALE:	AS SHOWN		
APPROVED:	Carty Chang E-signed 2019-12-23 03:16PM HST carty.s.chang@hawaii.gov State of Hawaii Chief Engineer				
SIGNATURE EXP. DATE: 04/30/20					DRAWING NO. C-002

W:_CIVIL_3D_PROJECTS\2018_2386.000_SOH_DNR_MALAEKAHANA_PARK_IMPROV\01_CE_DWG\C-002_EROSION-SEDIMENTCONTROLNOTES.DWG 12/4/2019 9:44 AM SKAU

W:\CIVIL_3D PROJECTS\2018_236.000 SOH DLNR MALAEKAHANA PARK IMPROV\01 CE DWG\C-100 EXISTING CONDITIONS PLAN.DWG 9/20/2019 12:27 AM EBORNALES

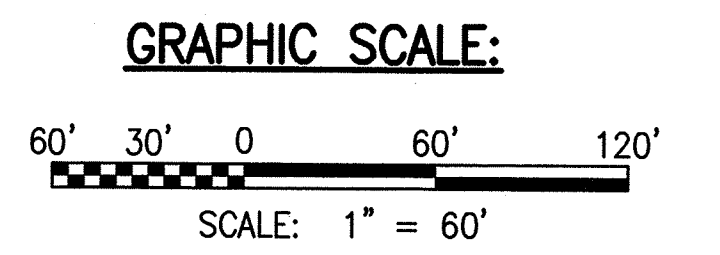
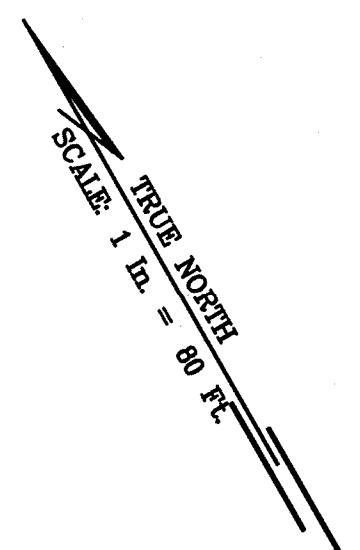
TO KAMEHAMEHA HWY



MALAEKAHANA STATE RECREATION AREA
TMK: 5-6-001:004

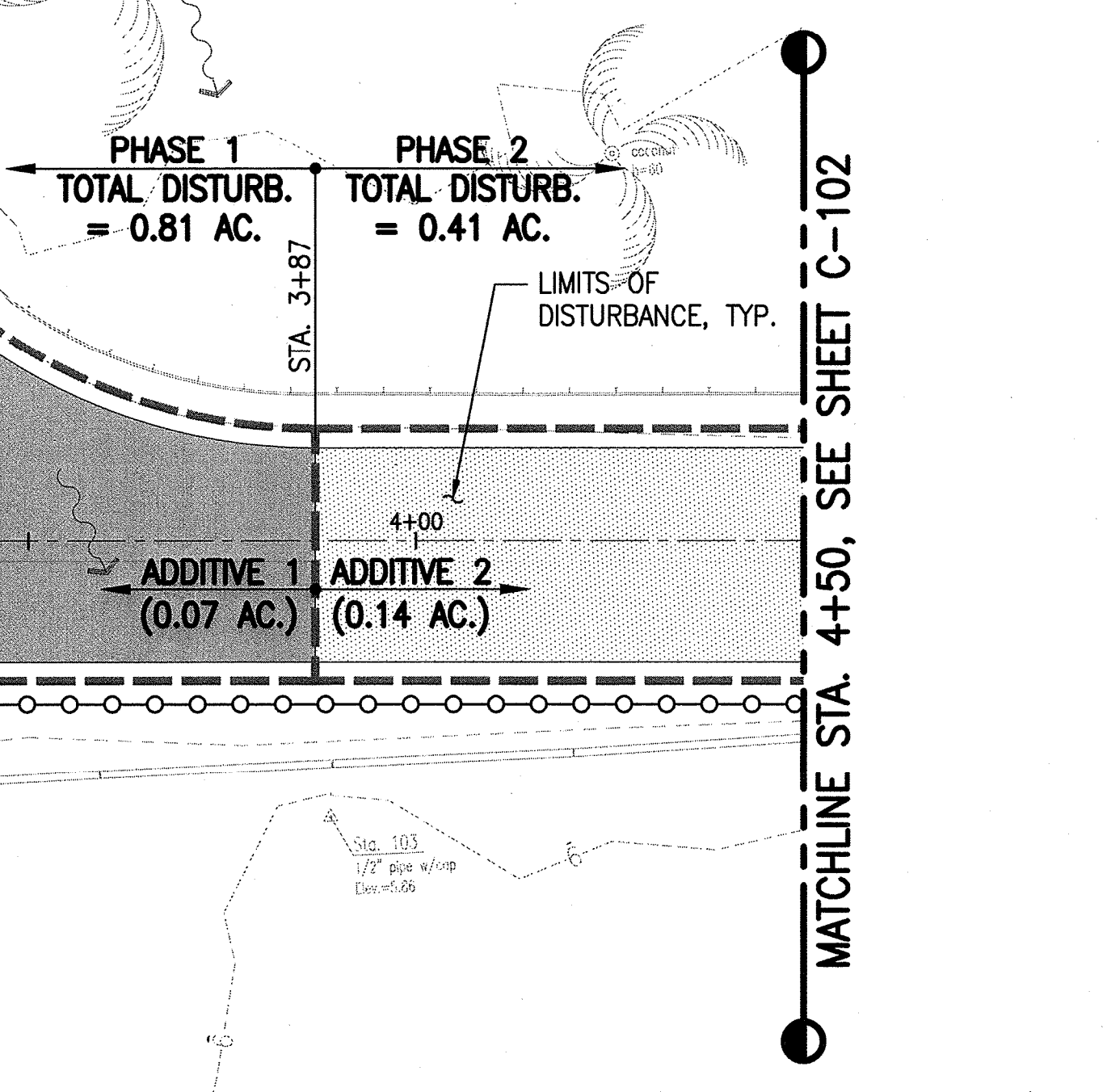
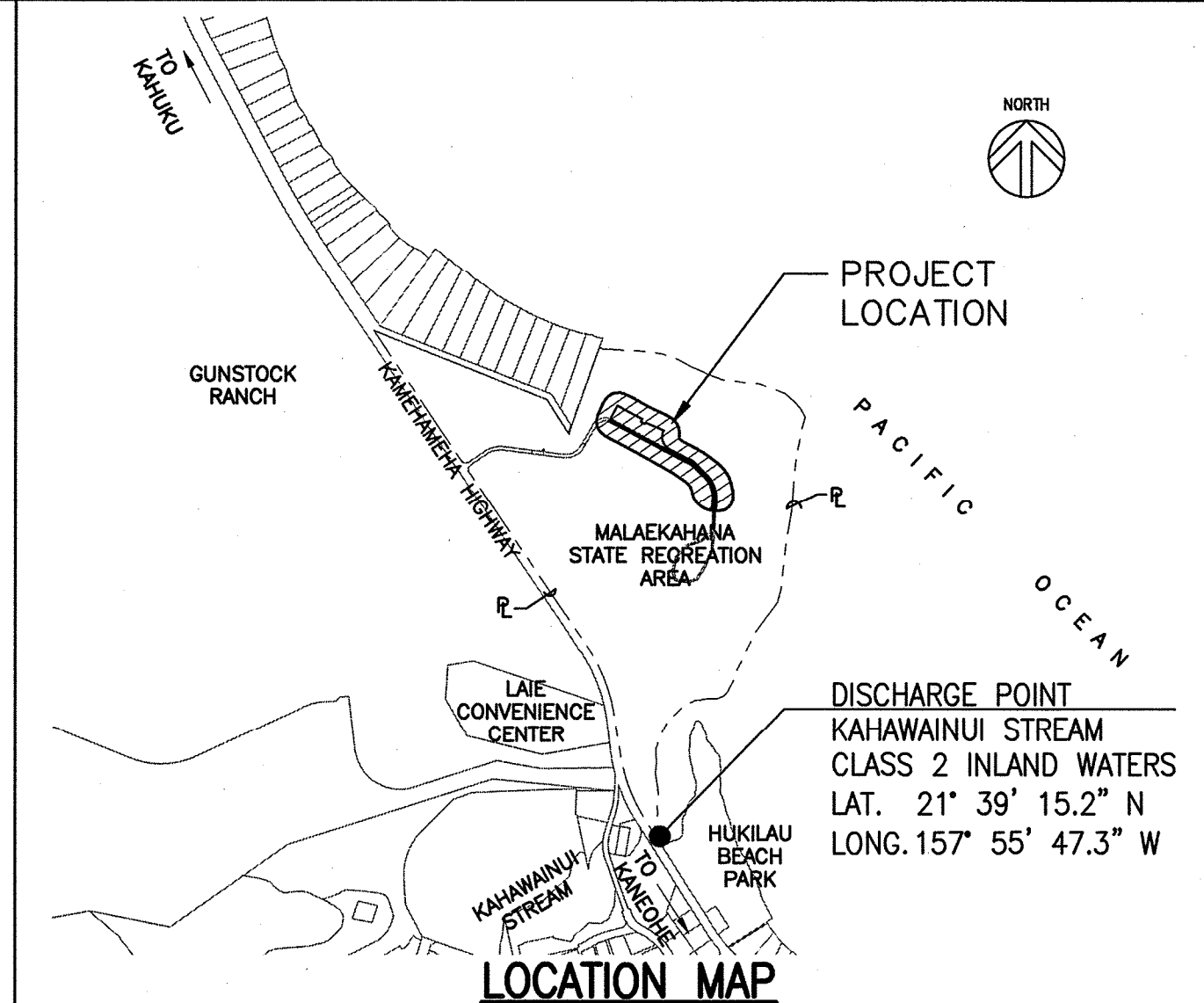
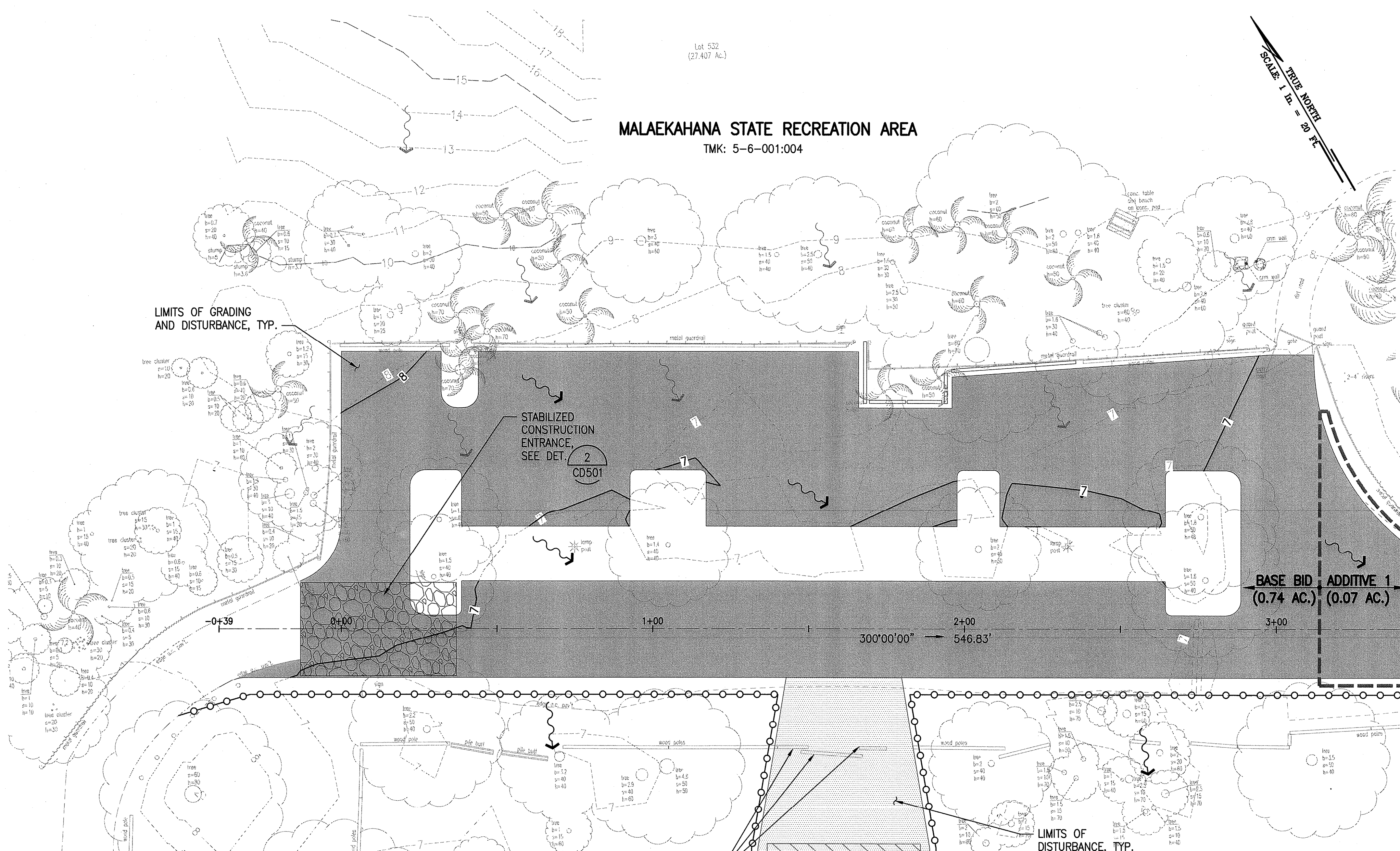
EXISTING CONDITION PLAN
SCALE: 1" = 60'

LEGEND:
----- PROPERTY LINE



REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED
<p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION</p> <p>MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS</p> <p>EXISTING CONDITION PLAN</p>					
<p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.</p>					
DESIGNED: SKK		SUBMITTED: 1/5			
DRAWN: JM		DATE: JULY 12, 2019			
CHECKED: RS		SCALE: AS SHOWN			
APPROVED:		Carty Chang		DRAWING NO.	
SIGNATURE		E-signed 2019-12-23 03:16PM HST		C-100	
EXP. DATE: 04/30/20		carty.s.chang@hawaii.gov		State of Hawaii	
CHIEF ENGINEER					

W:_CIVIL_3D_PROJECTS\2018_236.000_SOH_DLNR_MALAEKAHANA_PARK_IMPROV_01_CE_DWG\C-101_EROSION-SEDIMENT\PLAN-1.DWG 12/5/2019 5:13 PM EACELO



NOTES:

- STREAMS, CHANNELS AND PUBLIC DRAINAGE STRUCTURES ARE NOT WITHIN 100 FEET OF PROJECT SITE.
- PROJECT LOCATION FALLS WITHIN THE FEMA FLOOD ZONE X.
- CONTRACTOR SHALL REVISE THE CONFIGURATION OF THE CONSTRUCTION INGRESS/EGRESS TO CONFORM WITH THE PROPOSED SITE CONDITIONS. THE ESCP COORDINATOR SHALL MAINTAIN AND REVISE THE ESCP TO CONFORM TO THE CONFIGURATION OF THE CONSTRUCTION INGRESS/EGRESS.
- THE EROSION CONTROL ITEMS SHOWN ON THIS PLAN REPRESENT ONLY A MINIMUM REQUIREMENT. CONTRACTOR SHALL TAKE PRECAUTIONS AND MAKE NECESSARY MEASURES TO ENSURE COMPLIANCE TO ALL APPLICABLE BUT NOT LIMITED TO FEDERAL, STATE, HDOT AND CITY AND COUNTY OF HONOLULU AGENCIES REQUIREMENTS.

BMP NOTES:

- PRE-CONSTRUCTION CONTROL BMPS**
- CONSTRUCTION INGRESS/EGRESS
 - COMPOST FILTER SOCK
- DURING CONSTRUCTION CONTROL BMPS**
- TEMPORARY STABILIZATION
 - BMPs FOR STOCKPILES, STAGING AREA, PROJECT TRAILERS, MATERIAL STORAGE, ETC.*
- * CONTRACTOR SHALL INCLUDE THESE BMPs IN THE REVISED EROSION CONTROL PLANS, WHICH SHALL BE SUBMITTED TO THE CITY INSPECTORS FOR THEIR RECORDS
- POST-CONSTRUCTION BMPs**
- PERMANENT STABILIZATION (ASPHALT AND CONCRETE)
- NOTES**
- FOR EROSION AND SEDIMENT CONTROL NOTES, SEE SHEET C-003
 - FOR EROSION AND SEDIMENT CONTROL DETAILS, SEE SHEET CD501

LEGEND:

- PROPERTY LINE
- LIMITS OF GRADING AND DISTURBANCE
- LIMITS OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE (2) CD501
- CONTRACTOR'S STAGING AND STORAGE AREA
- COMPOST FILTER SOCK (1) CD501
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING RUNOFF DIRECTION
- PROPOSED RUNOFF DIRECTION

REMOVE EXIST. WOOD POLES REINSTALL AFTER CONSTRUCTION

CONTRACTOR'S STAGING AND STORAGE AREA

EROSION AND SEDIMENT CONTROL PLAN - 1 (CATEGORY 5)

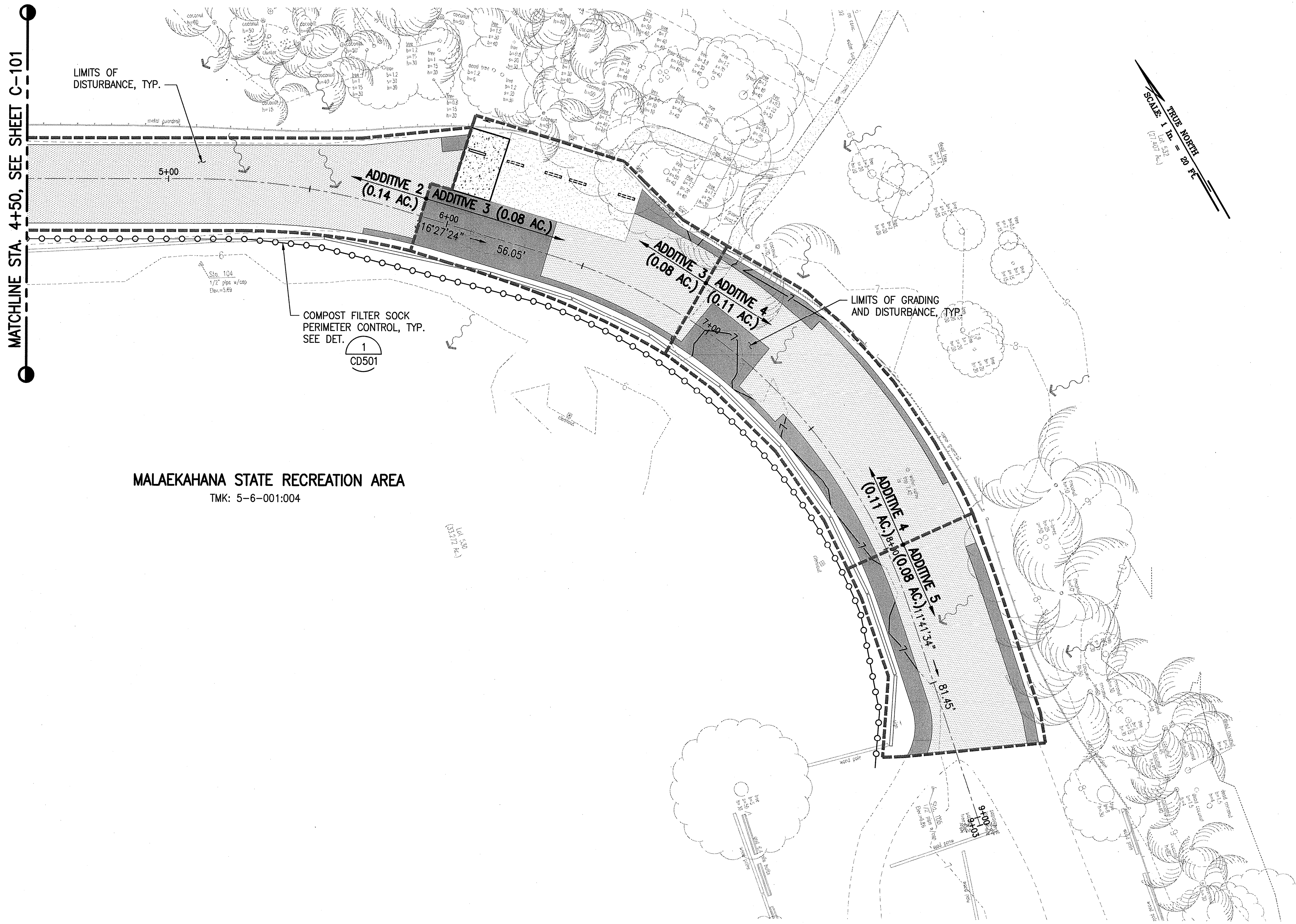
SCALE: 1" = 20'

APPROVED: *Melani J. Johnson*
CHIEF, CIVIL ENGINEERING BRANCH, DPP

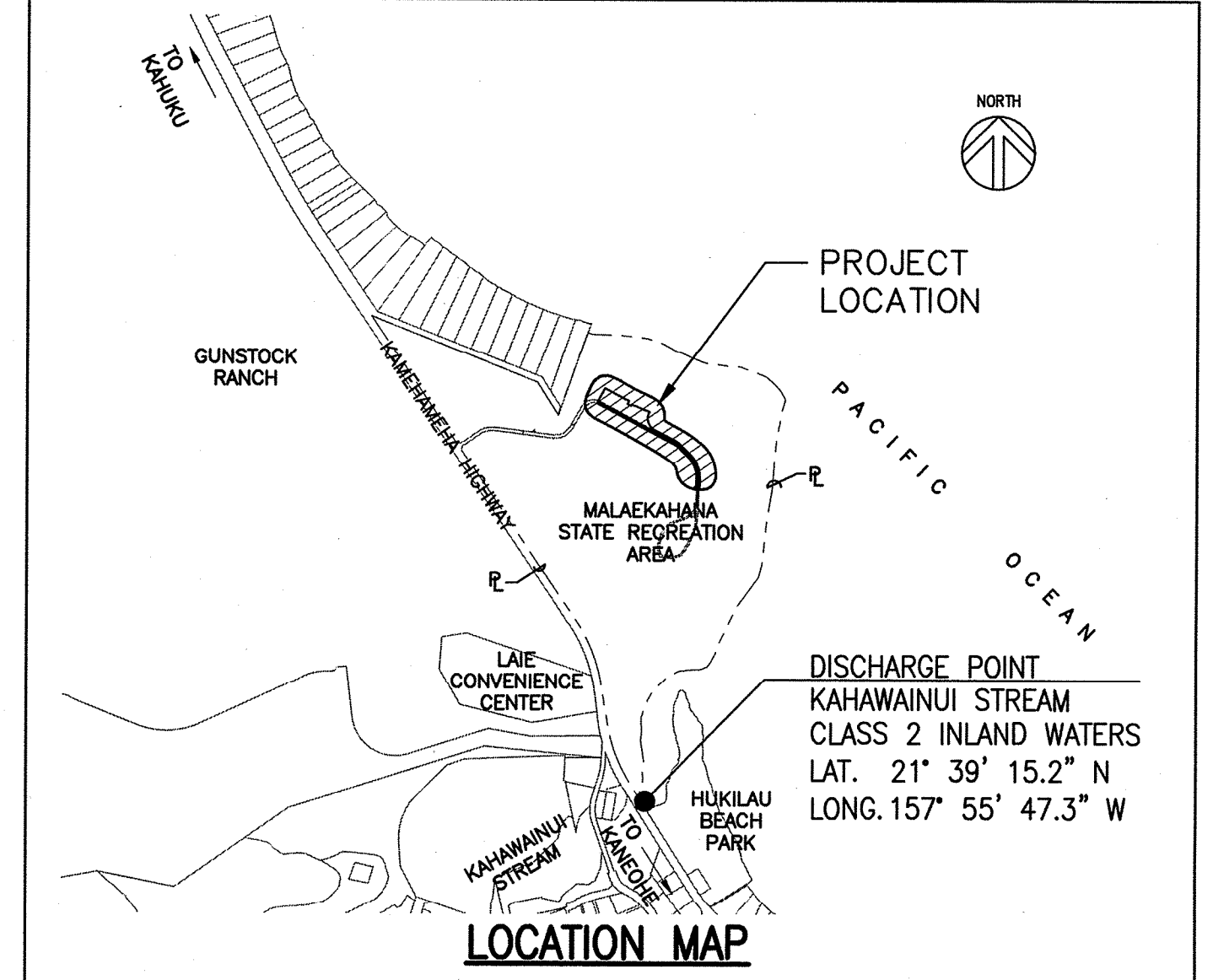
DATE: 12/10/19

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED
<p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION</p> <p>MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS</p> <p>EROSION AND SEDIMENT CONTROL PLAN - 1</p>					
DESIGNED: SKK		SUBMITTED: 1/5			
DRAWN: JM		DATE: JULY 12, 2019			
CHECKED: RS		SCALE: AS SHOWN			
APPROVED: <i>Carty Chang</i>		E-signed 2019-12-23 03:16PM HST		DRAWING NO. C-101	
SIGNATURE		EXP. DATE: 04/30/20		CHIEF ENGINEER	

W:_CIVIL_3D_PROJECTS\2018_235.000_SOH_DLNR_MALAEKAHANA_PARK_IMPROV_01_CE_DWG\C-102_EROSION-SEDIMENT\PLAN-2.DWG 12/4/2019 10:21 AM SKAUI



MALAEKAHANA STATE RECREATION AREA
TMK: 5-6-001:004



NOTES:

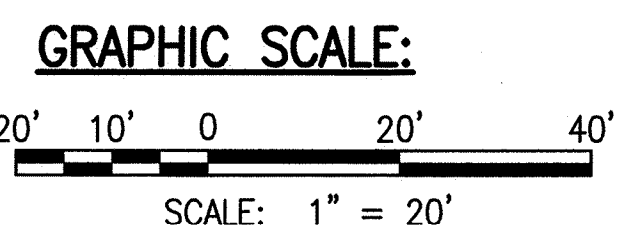
1. STREAMS, CHANNELS AND PUBLIC DRAINAGE STRUCTURES ARE NOT WITHIN 100 FEET OF PROJECT SITE.
2. PROJECT LOCATION FALLS WITHIN THE FEMA FLOOD ZONE X.
3. CONTRACTOR SHALL REVISE THE CONFIGURATION OF THE CONSTRUCTION INGRESS/EGRESS TO CONFORM WITH THE PROPOSED SITE CONDITIONS. THE ESCP COORDINATOR SHALL MAINTAIN AND REVISE THE ESCP TO CONFORM TO THE CONFIGURATION OF THE CONSTRUCTION INGRESS/EGRESS.
4. THE EROSION CONTROL ITEMS SHOWN ON THIS PLAN REPRESENT ONLY A MINIMUM REQUIREMENT. CONTRACTOR SHALL TAKE PRECAUTIONS AND MAKE NECESSARY MEASURES TO ENSURE COMPLIANCE TO ALL APPLICABLE BUT NOT LIMITED TO FEDERAL, STATE, HDOT AND CITY AND COUNTY OF HONOLULU AGENCIES REQUIREMENTS.

LEGEND:

- PROPERTY LINE
- [Hatched Box] LIMITS OF GRADING AND DISTURBANCE
- [Dotted Box] LIMITS OF GRADING AND DISTURBANCE
- [Stippled Box] LIMITS OF DISTURBANCE
- COMPOST FILTER SOCK (1 CD501)
- - - - - EXISTING CONTOURS
- — — — — PROPOSED CONTOURS
- ~> EXISTING RUNOFF DIRECTION
- ~> PROPOSED RUNOFF DIRECTION

EROSION AND SEDIMENT CONTROL PLAN - 2

SCALE: 1" = 20'



APPROVED:

Melvin Johnson
CHIEF, CIVIL ENGINEERING BRANCH, DPP

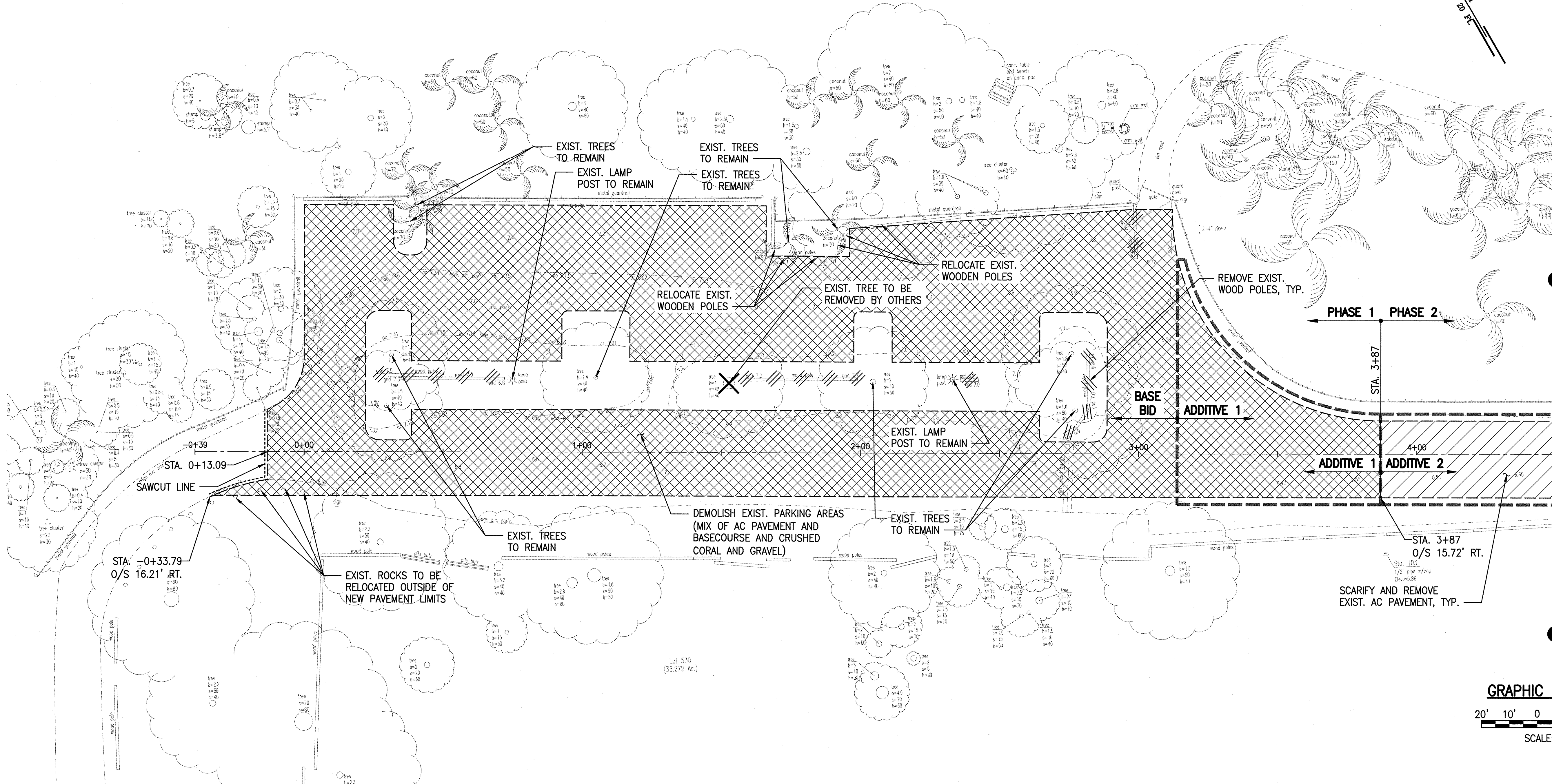
12/10/19
DATE

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS EROSION AND SEDIMENT CONTROL PLAN - 2					
DESIGNED: SKK		SUBMITTED: <i>JS</i>			
DRAWN: JM		DATE: JULY 12, 2019			
CHECKED: RS		SCALE: AS SHOWN			
APPROVED: <i>Carty Chang</i>		DRAWING NO. C-102			
SIGNATURE		E-signed 2019-12-23 03:16PM HST			
EXP. DATE: 04/30/20		carty.s.chang@hawaii.gov			
CHIEF ENGINEER		State of Hawaii			

Ltd 532
(27,407 Ac.)

MALAEKAHANA STATE RECREATION AREA
TMK: 5-6-001:004

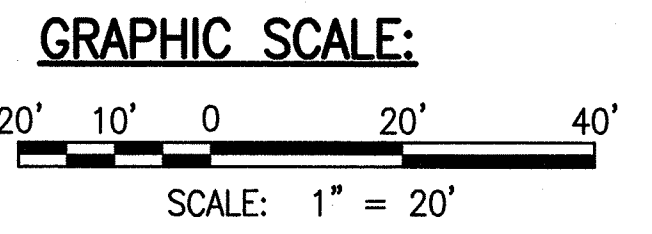
TRUE NORTH
SCALE: 1" = 20' FT.



DEMOLITION PLAN - 1
SCALE: 1" = 20'

LEGEND:

- PROPERTY LINE
- LIMITS OF PAVEMENT REMOVAL
- SAWCUT LINE
- ADDITIVES
- DEMOLISH EXIST. PARKING AREAS (MIX OF AC PAVEMENT AND BASECOURSE AND CRUSHED CORAL AND GRAVEL)
- SCARIFY AND REMOVE EXIST. AC PAVEMENT. RECOMPACT EXIST. BASE COURSE
- REMOVE EXIST. WOOD POLES



W:_CIVIL 3D PROJECTS\2018_236.000 SOH DLNR MALAEKAHANA PARK IMPROV\01 CE DWG\CD101 DEMOPLAN-1.DWG 11/15/2019 9:50 AM SNAKAGAKI

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
<p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION</p> <p>MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS</p> <p>DEMOLITION PLAN - 1</p>					
DESIGNED: SKK		SUBMITTED: <i>JS</i>			
DRAWN: JM		DATE: JULY 12, 2019			
CHECKED: RS		SCALE: AS SHOWN			
APPROVED:		Carty Chang E-signed 2019-12-23 03:16PM HST carty.s.chang@hawaii.gov State of Hawaii		DRAWING NO. CD101	

MATCHLINE STA. 4+50, SEE SHEET CD101

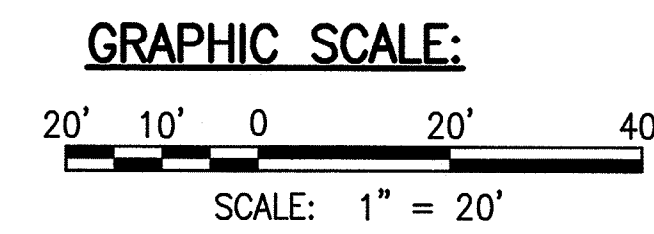
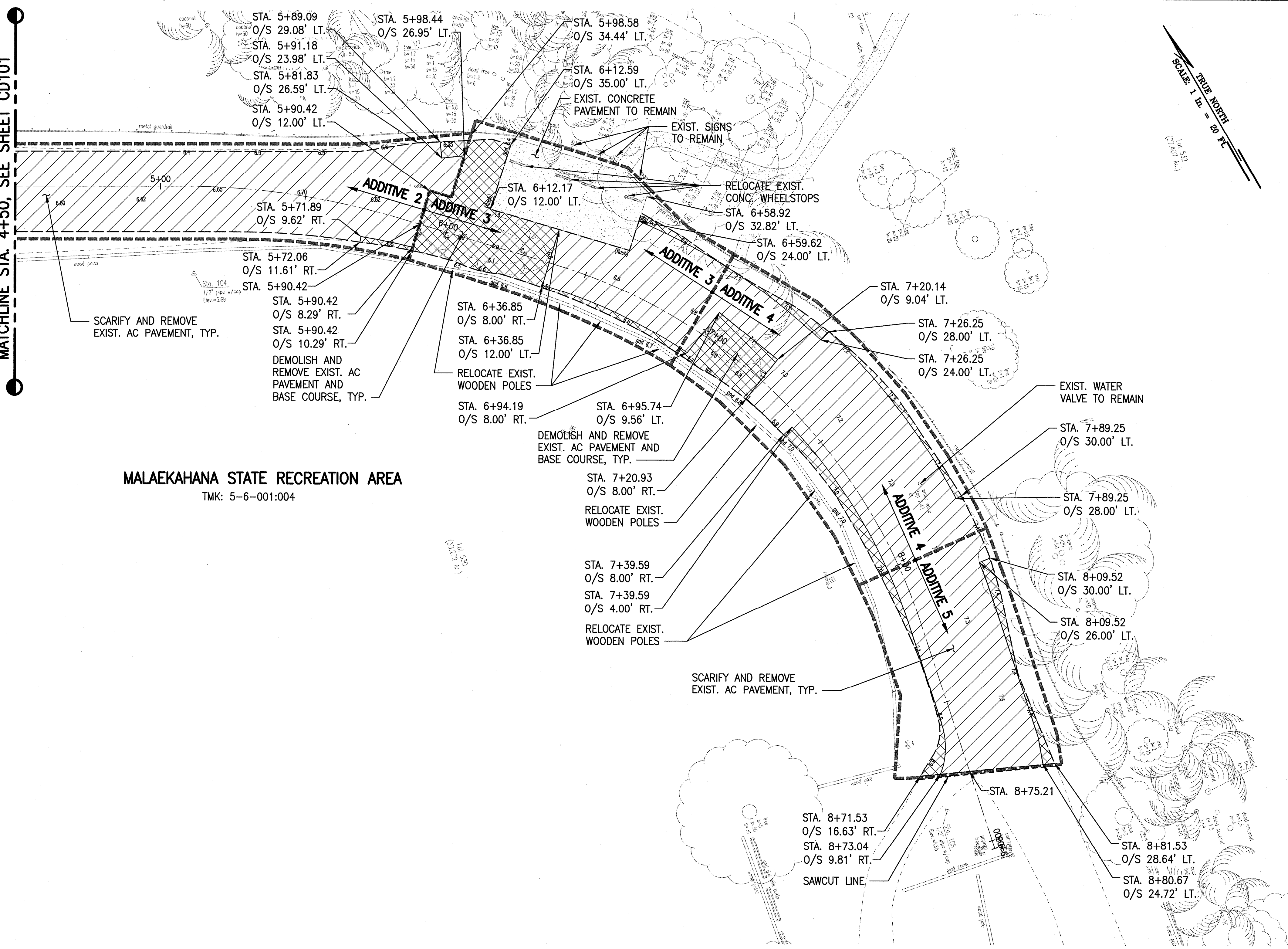
MALAEKAHANA STATE RECREATION AREA
TMK: 5-6-001:004

DEMOLITION PLAN - 2
SCALE: 1" = 20'

LEGEND:

- PROPERTY LINE
- LIMITS OF PAVEMENT REMOVAL
- SAWCUT LINE
- ADDITIVES
- DEMOLISH EXIST. AC PAVEMENT AND BASE COURSE
- SCARIFY AND REMOVE EXIST. AC PAVEMENT (RECOMPACT EXIST. BASE COURSE)

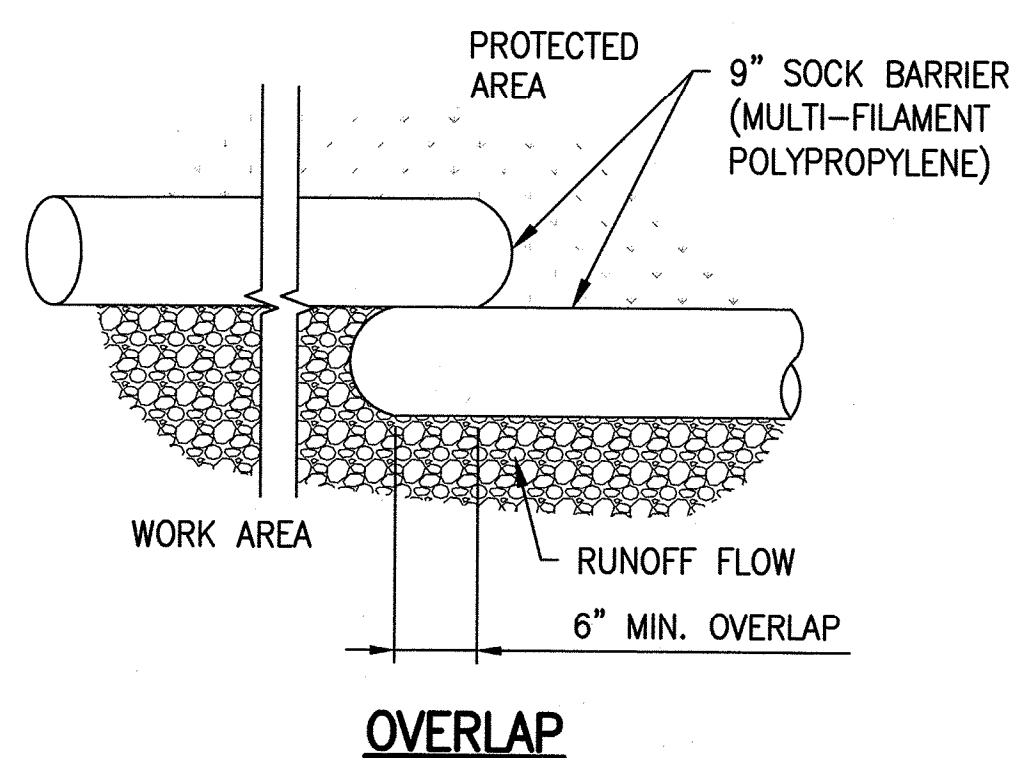
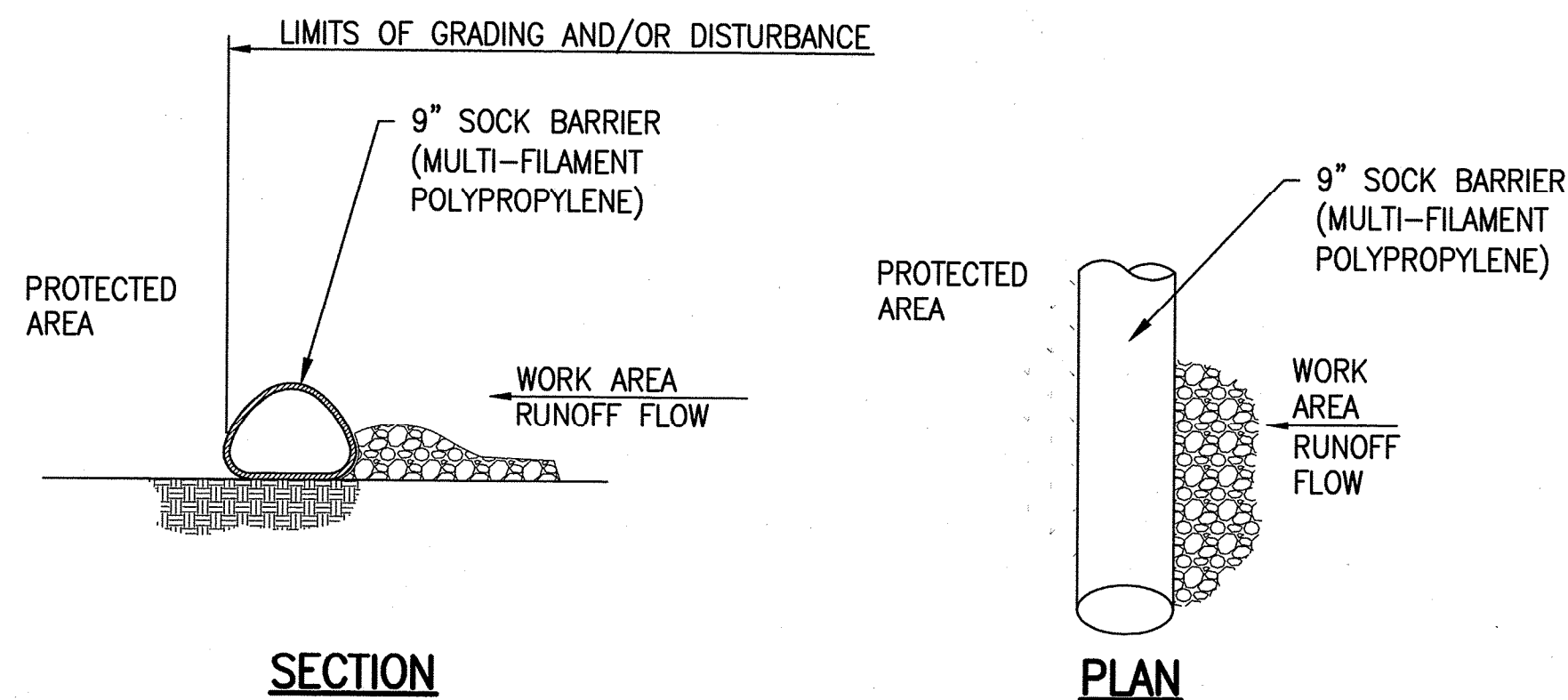
TRUE NORTH
SCALE: 1" = 20'



W:\CIVIL_3D PROJECTS\2018_236.000 SOH DLNR MALAEKAHANA PARK IMPROV\01 CE DWG\CD102 DEMOPLAN-2.DWG 9/22/2019 8:41 PM SNAKAGAKI

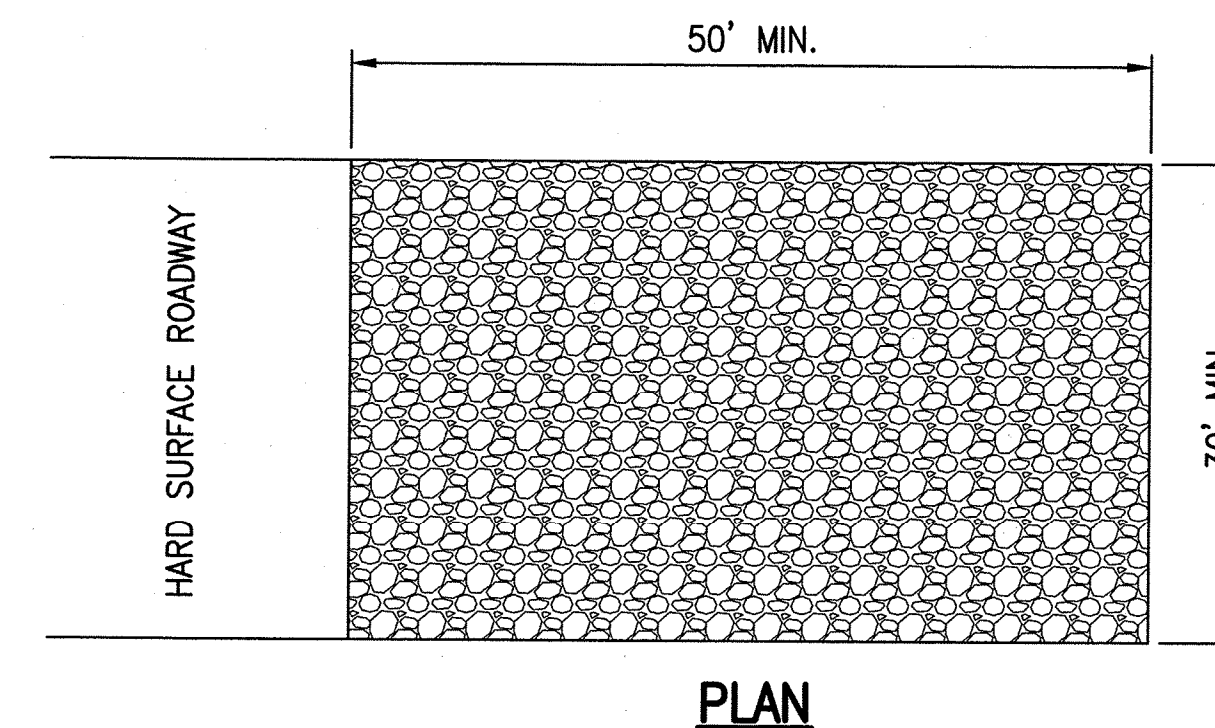
REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
<p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION</p> <p>MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS</p> <p>DEMOLITION PLAN - 2</p>					
<p>DESIGNED: SKK</p> <p>DRAWN: JM</p> <p>CHECKED: RS</p> <p>APPROVED: <i>Sean K. Kaut</i> SIGNATURE EXP. DATE: 04/30/20</p>			<p>SUBMITTED: <i>JS</i></p> <p>DATE: JULY 12, 2019</p> <p>SCALE: AS SHOWN</p> <p>DRAWING NO. CD102</p>		
<p>SEAN K. KAUI LICENSED PROFESSIONAL ENGINEER NO. 18289-C HAWAII, U.S.A.</p> <p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.</p>			<p>DESIGNED: SKK</p> <p>DRAWN: JM</p> <p>CHECKED: RS</p> <p>APPROVED: Carty Chang E-signed 2019-12-23 03:16PM HST carty.s.chang@hawaii.gov State of Hawaii Chief Engineer</p>		

W:_CIVIL_3D_PROJECTS\2018_236.000 SOH DLNR MALAEKAHANA PARK IMPROV\01 CE DWG\CD501 EROSION-SEDIMENTCONTROL.DWG 11/18/2019 4:58 PM SDAPON



- NOTES:**
1. FILL COMPOSITION IS WOOD MULCH.
 2. FILL SHALL NOT CONTAIN BIOSOLIDS AND SHOULD BE CONSISTENT WITH EPA GUIDELINES.

1 COMPOST FILTER SOCK DETAIL
CD501 NOT TO SCALE



NOTE:
12" COARSE AGGREGATE LAYER SHALL BE REMOVED IMMEDIATELY PRIOR TO INSTALLATION OF ROADWAY BASE COURSE.

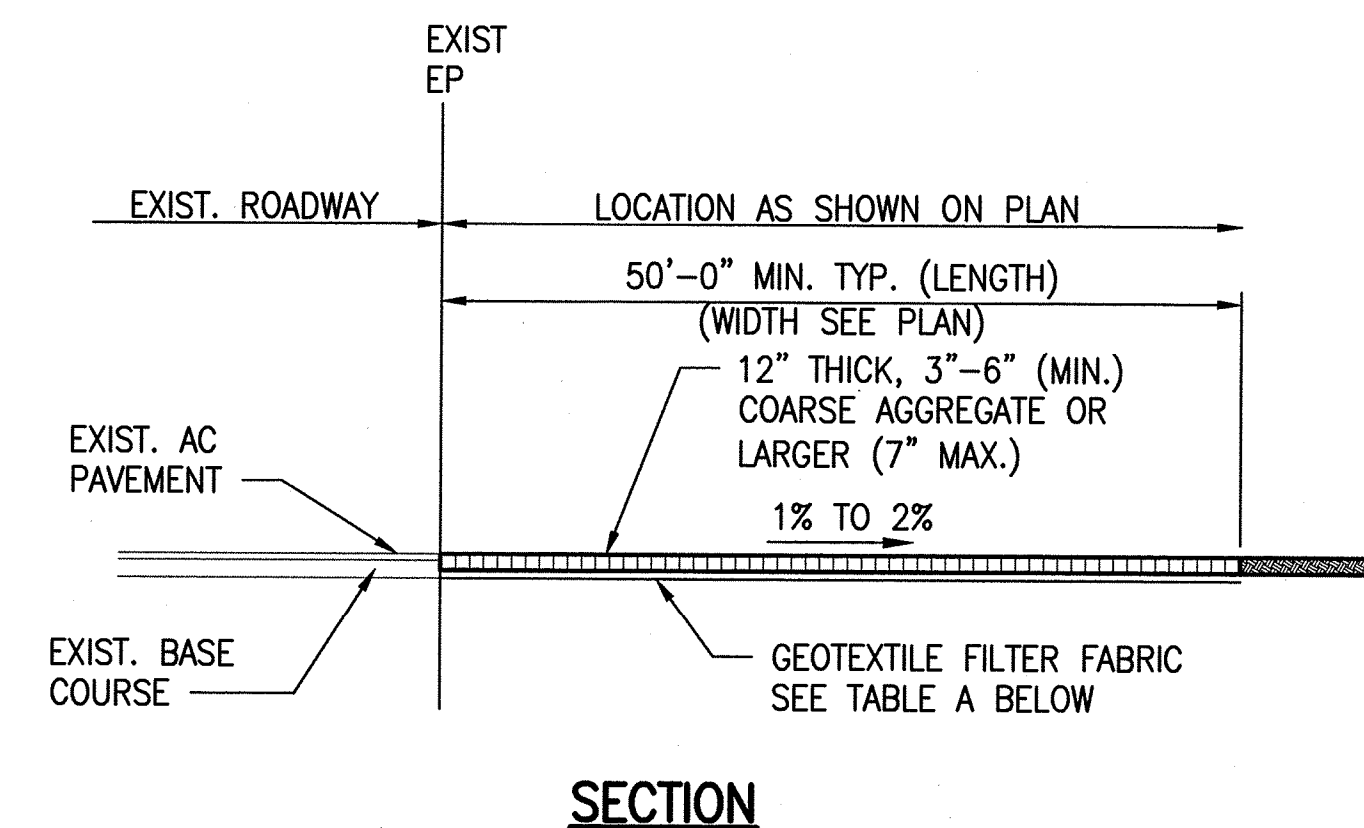


TABLE A GEOTEXTILE REQUIREMENTS

PHYSICAL PROPERTY	REQUIREMENTS
GRAB TENSILE STRENGTH	220 LB (ASTM D1682)
ELONGATION FAILURE	60% (ASTM D1682)
MULLEN BURST STRENGTH	430 LB (ASTM D3768)
PUNCTURE STRENGTH	125 LB (ASTM D751, MODIFIED)
EQUIVALENT OPENING	SIZE 40-80 (U.S. STD. SIEVE, CW 02215)

2 STABILIZED CONSTRUCTION ENTRANCE DETAILS
CD501 NOT TO SCALE

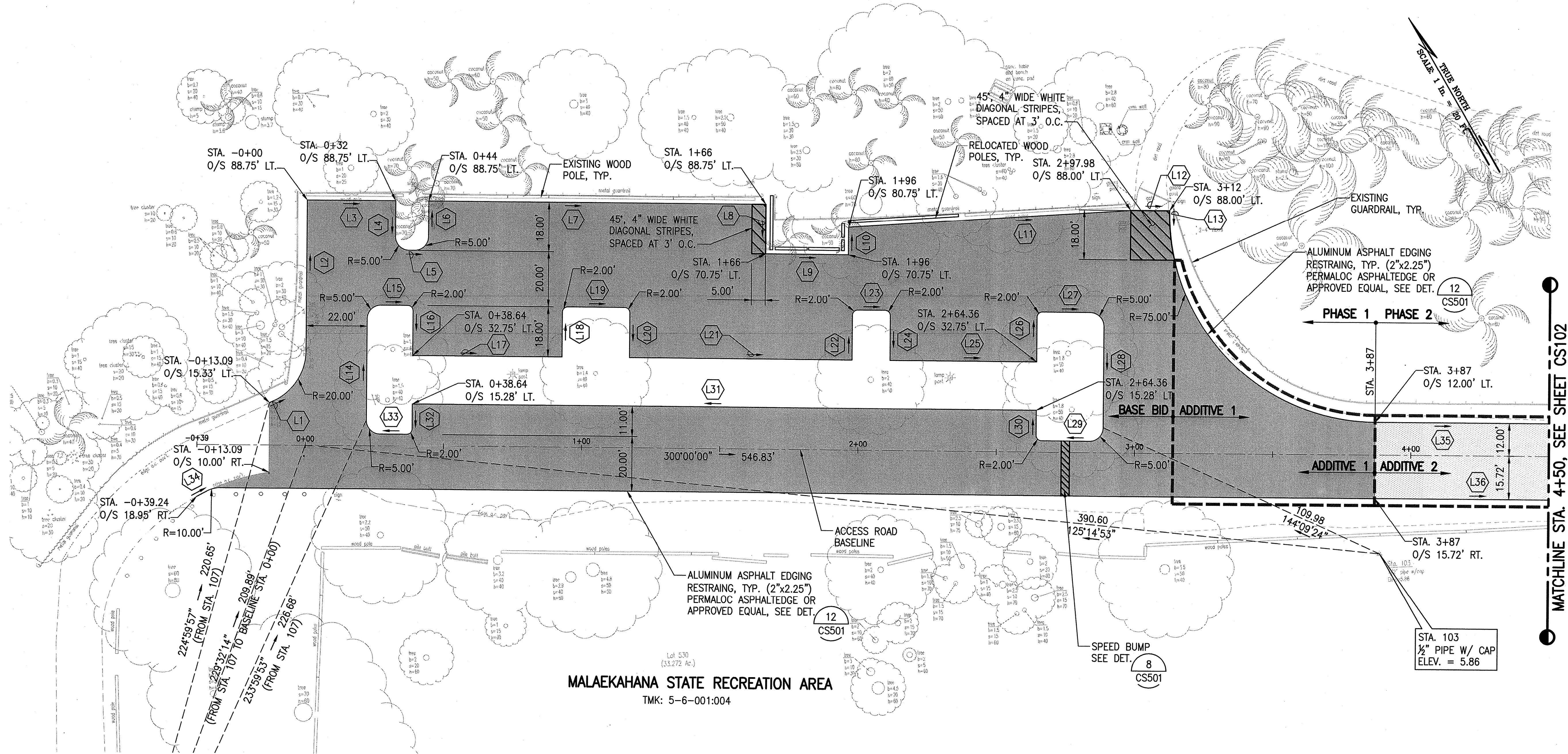
APPROVED:

for *Melvin J. Tolson*
CHIEF, CIVIL ENGINEERING BRANCH, DPP

12/10/19
DATE

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
<p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION</p> <p>MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS</p> <p>EROSION AND SEDIMENT CONTROL DETAILS</p>					
DESIGNED: SKK		SUBMITTED: <i>JS</i>			
DRAWN: JM		DATE: JULY 12, 2019			
CHECKED: RS		SCALE: AS SHOWN			
APPROVED: <i>Sean K. Kaji</i>		Carty Chang			
SIGNATURE		E-signed 2019-12-23 03:16PM HST			
EXP. DATE: 04/30/20		carty.s.chang@hawaii.gov			
CHIEF ENGINEER		State of Hawaii			

W:_CIVIL_3D_PROJECTS\2018_236.000 SOH DNR MALAEKAHANA PARK IMPROV\01 CE DWG\CS101 SITEPLAN-1.DWG 11/18/2019 1:07 PM SKAU



MALAEKAHANA STATE RECREATION AREA
TMK: 5-6-001:004

SITE PLAN - 1
SCALE: 1" = 20'

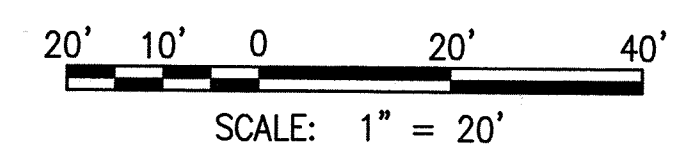
LEGEND:

- PROPERTY LINE
- ADDITIVES
- AC PAVEMENT, FULL DEPTH RECONSTRUCTION, SEE DET. 2 CS501
- AC PAVEMENT, MILL AND OVERLAY, SEE DET. 3 CS501
- RELOCATED WOOD POLES

NOTES:

1. CONTRACTOR SHALL RELOCATE WOOD POLES AS SHOWN 1' FROM THE EDGE OF THE AC PAVEMENT.
2. FOR TRANSITION BETWEEN FULL DEPTH PAVEMENT RECONSTRUCTION AND MILL OVERLAY, SEE DET. 9 CS501
3. FOR ROOTS ENCROACHING BENEATH NEW PAVEMENT, SEE ROOT BARRIER DET. 11 CS501

GRAPHIC SCALE:



LINE #	LENGTH	AZIMUTH
L1	1.64	275°08'46"
L2	54.58	210°00'00"
L3	32.00	300°00'00"
L4	13.00	30°00'00"
L5	2.00	300°00'00"
L6	13.00	210°00'00"
L7	122.00	300°00'00"
L8	18.00	30°00'00"
L9	30.00	300°00'00"
L10	10.00	210°00'00"
L11	102.26	295°56'06"

LINE #	LENGTH	AZIMUTH
L12	14.00	300°00'00"
L13	1.00	30°00'00"
L14	36.47	210°00'00"
L15	9.64	300°00'00"
L16	16.00	30°00'00"
L17	54.00	300°00'00"
L18	16.00	210°00'00"
L19	20.44	300°00'00"
L20	16.00	30°00'00"
L21	80.50	300°00'00"
L22	16.00	210°00'00"

LINE #	LENGTH	AZIMUTH
L23	9.77	300°00'01"
L24	16.00	30°00'00"
L25	53.00	300°00'00"
L26	16.00	210°00'00"
L27	17.26	300°00'00"
L28	36.47	30°00'00"
L29	17.26	120°00'00"
L30	9.00	210°00'00"
L31	225.72	120°00'00"
L32	9.00	30°00'00"
L33	9.64	120°00'00"

LINE #	LENGTH	AZIMUTH
L34	4.35	271°54'21"
L35	181.56	300°00'00"
L36	557.65	300°00'00"

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED

SEAN K. KAUI
LICENSED PROFESSIONAL ENGINEER
NO. 18289-C
HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

**MALAEKAHANA STATE RECREATION AREA
KALANAI SECTION
PARK IMPROVEMENTS**

SITE PLAN - 1

DESIGNED: SKK
DRAWN: JM
CHECKED: RS
APPROVED: *Sean K. Kauai*
SIGNATURE
EXP. DATE: 04/30/20

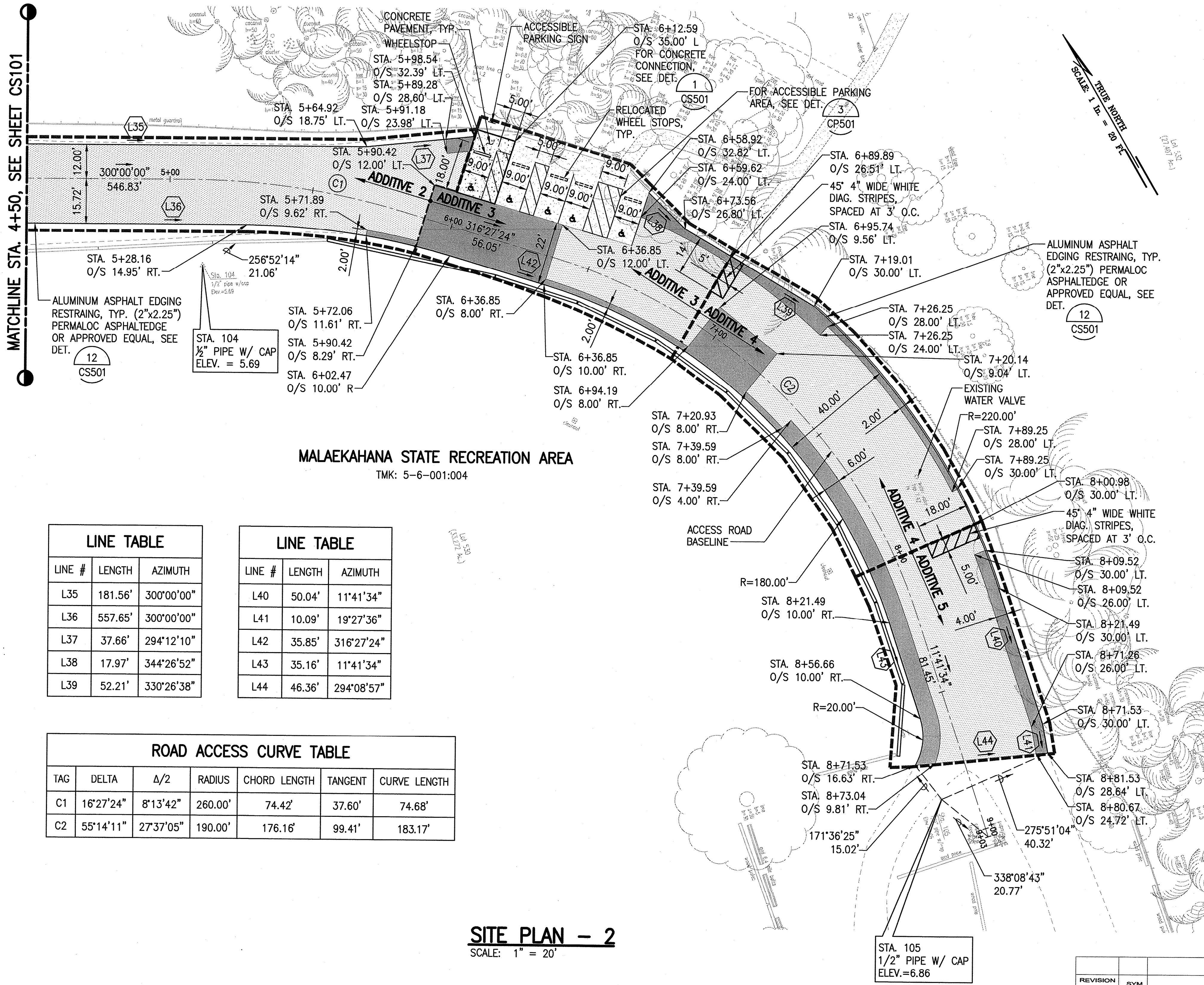
CHIEF ENGINEER

Carty Chang
E-signed 2019-12-23 03:16PM HST
carty.s.chang@hawaii.gov
State of Hawaii
Chief Engineer

DRAWING NO.
CS101

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

W:_CIVIL_3D_PROJECTS\2018_236.000 SOH DLNR MALAEKAHANA PARK IMPROV\01 DE DWG\CS102 SITEPLAN-2.DWG 11/18/2019 9:58 AM SKAUI



- NOTES:**
- CONTRACTOR SHALL RELOCATE WOOD POLES AS SHOWN 1' FROM THE EDGE OF THE AC PAVEMENT.
 - FOR TRANSITION BETWEEN FULL DEPTH PAVEMENT RECONSTRUCTION AND MILL OVERLAY, SEE DET. 9 CS501
 - FOR ROOTS ENCROACHING BENEATH NEW PAVEMENT, SEE ROOT BARRIER DET. 11 CS501

- LEGEND:**
- PROPERTY LINE
 - AC PAVEMENT, FULL DEPTH RECONSTRUCTION, SEE DET. 2 CS501
 - AC PAVEMENT, MILL AND OVERLAY, SEE DET. 3 CS501
 - CONC PAVEMENT, SEE DET. 10 CS501
 - RELOCATED WOOD POLES
 - ADDITIVES

LINE TABLE

LINE #	LENGTH	AZIMUTH
L35	181.56'	300°00'00"
L36	557.65'	300°00'00"
L37	37.66'	294°12'10"
L38	17.97'	344°26'52"
L39	52.21'	330°26'38"

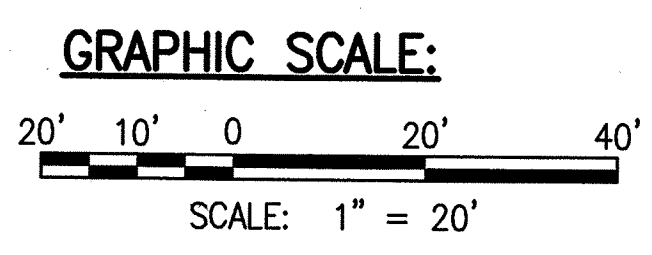
LINE TABLE

LINE #	LENGTH	AZIMUTH
L40	50.04'	11°41'34"
L41	10.09'	19°27'36"
L42	35.85'	316°27'24"
L43	35.16'	11°41'34"
L44	46.36'	294°08'57"

ROAD ACCESS CURVE TABLE

TAG	DELTA	Δ/2	RADIUS	CHORD LENGTH	TANGENT	CURVE LENGTH
C1	16°27'24"	8°13'42"	260.00'	74.42'	37.60'	74.68'
C2	55°14'11"	27°37'05"	190.00'	176.16'	99.41'	183.17'

SITE PLAN - 2
SCALE: 1" = 20'



REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

MALAIEKAHANA STATE RECREATION AREA
KALANAI SECTION
PARK IMPROVEMENTS

SITE PLAN - 2

DESIGNED: SKK	SUBMITTED: 1/5
DRAWN: JM	DATE: JULY 12, 2019
CHECKED: RS	SCALE: AS SHOWN
APPROVED:	DRAWING NO. CS102

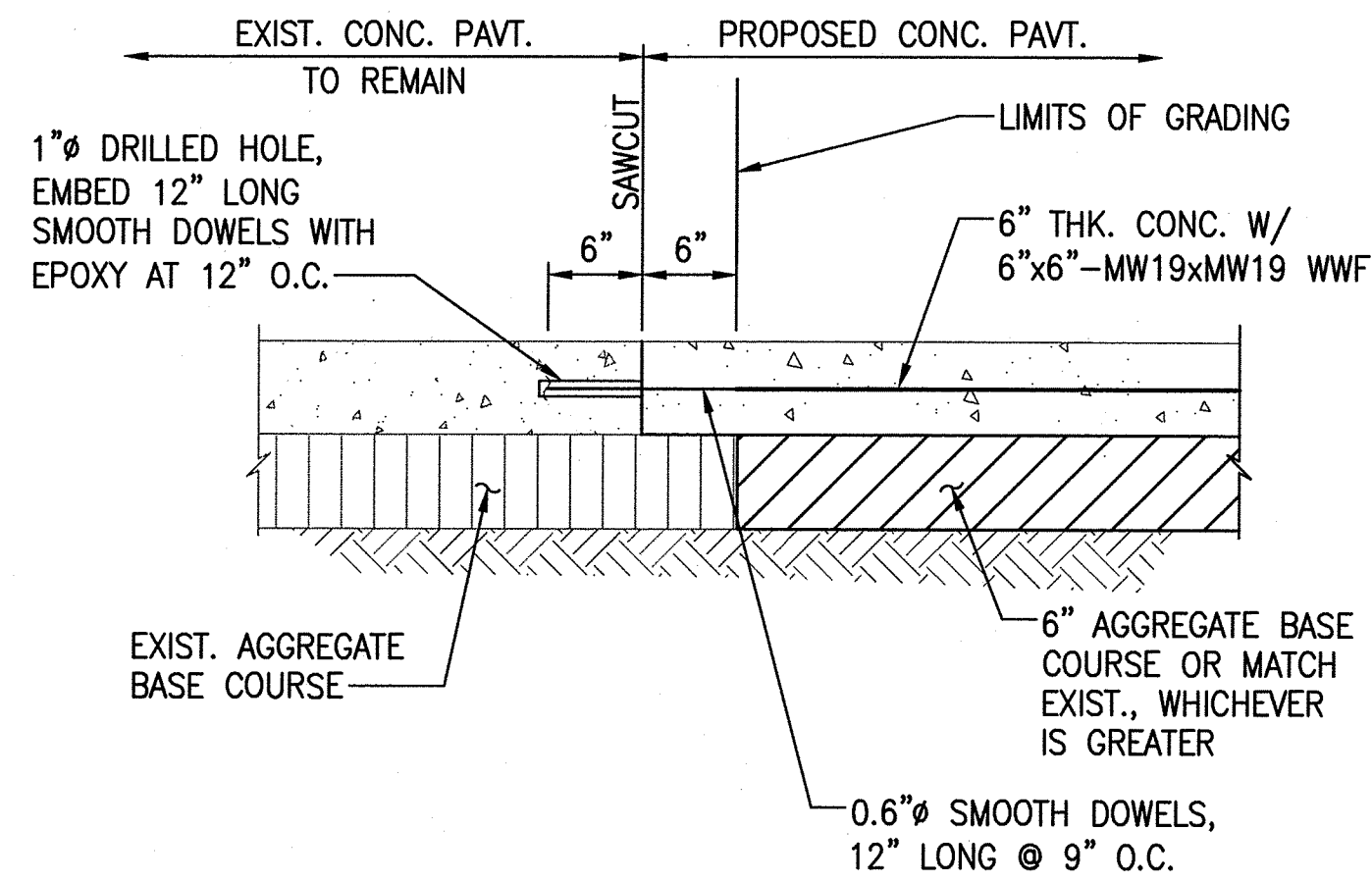
SEAN K. KAUI
LICENSED PROFESSIONAL ENGINEER
NO. 18289-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

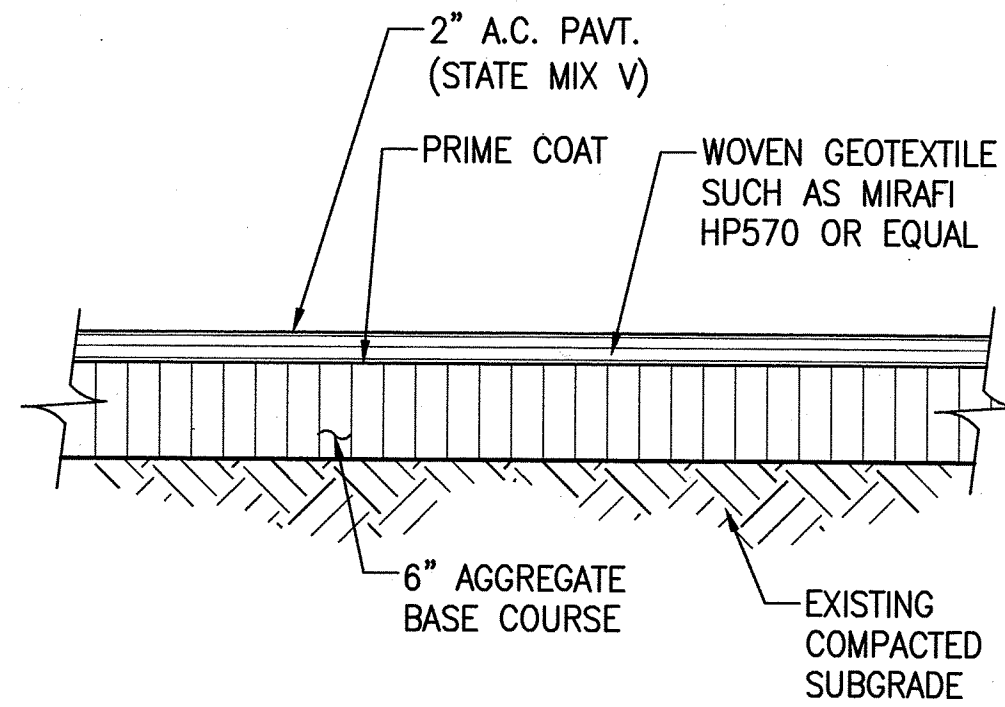
SKK
SIGNATURE
EXP. DATE: 04/30/20

Carty Chang
E-signed 2019-12-23 03:16PM HST
carty.s.chang@hawaii.gov
State of Hawaii
Chief Engineer

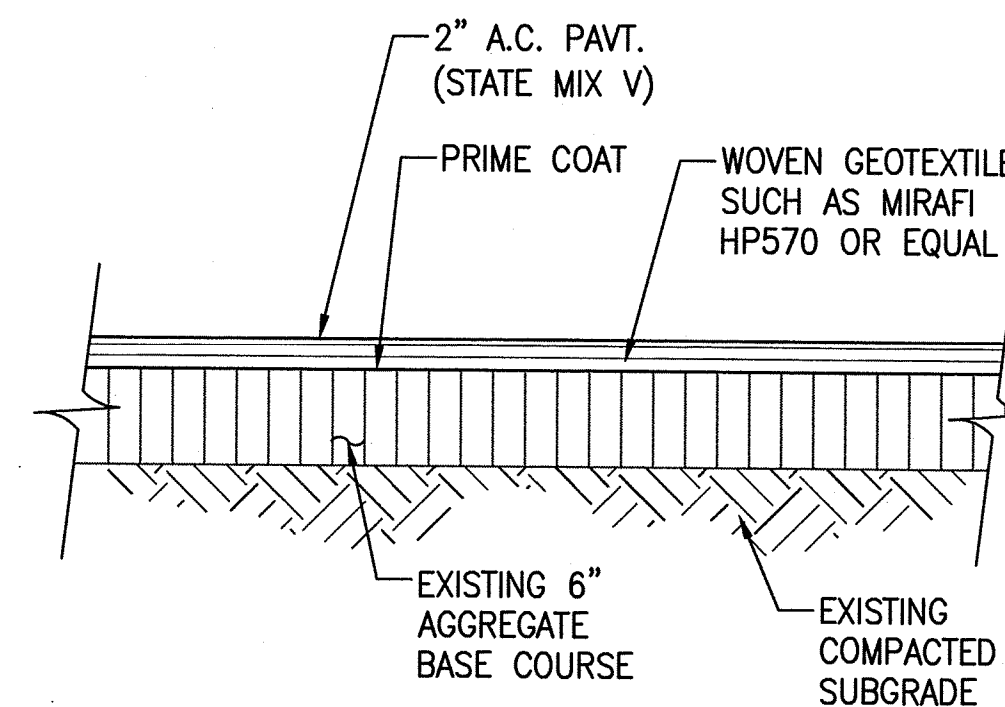
JOB NO. H70C603C SHEET NO. 11 OF 15 SHEETS



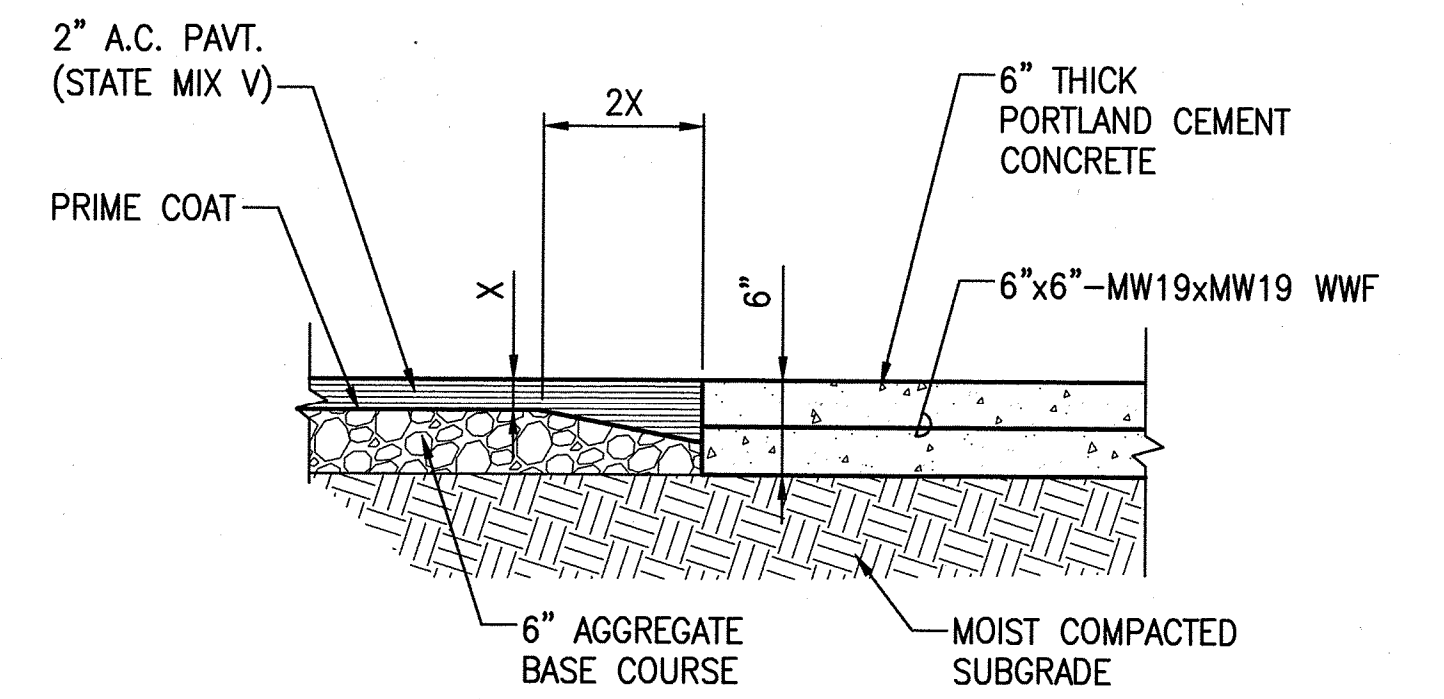
1 CONCRETE CONNECTION DETAIL
CS501 NOT TO SCALE



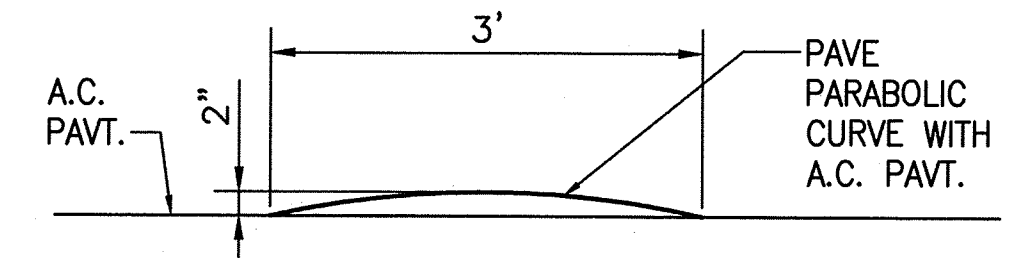
2 AC PAVEMENT DETAIL - FULL DEPTH RECONSTRUCTION
CS501 NOT TO SCALE



3 AC PAVEMENT DETAIL - MILL AND OVERLAY
CS501 NOT TO SCALE

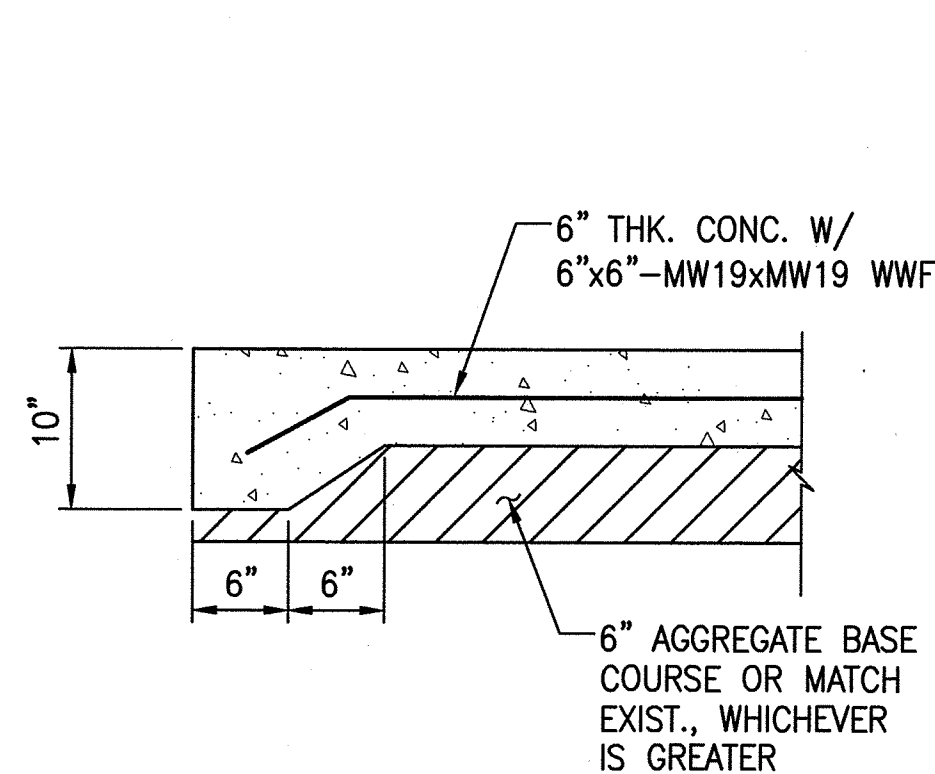


4 ASPHALT TO CONCRETE TRANSITION DETAIL
CS501 NOT TO SCALE



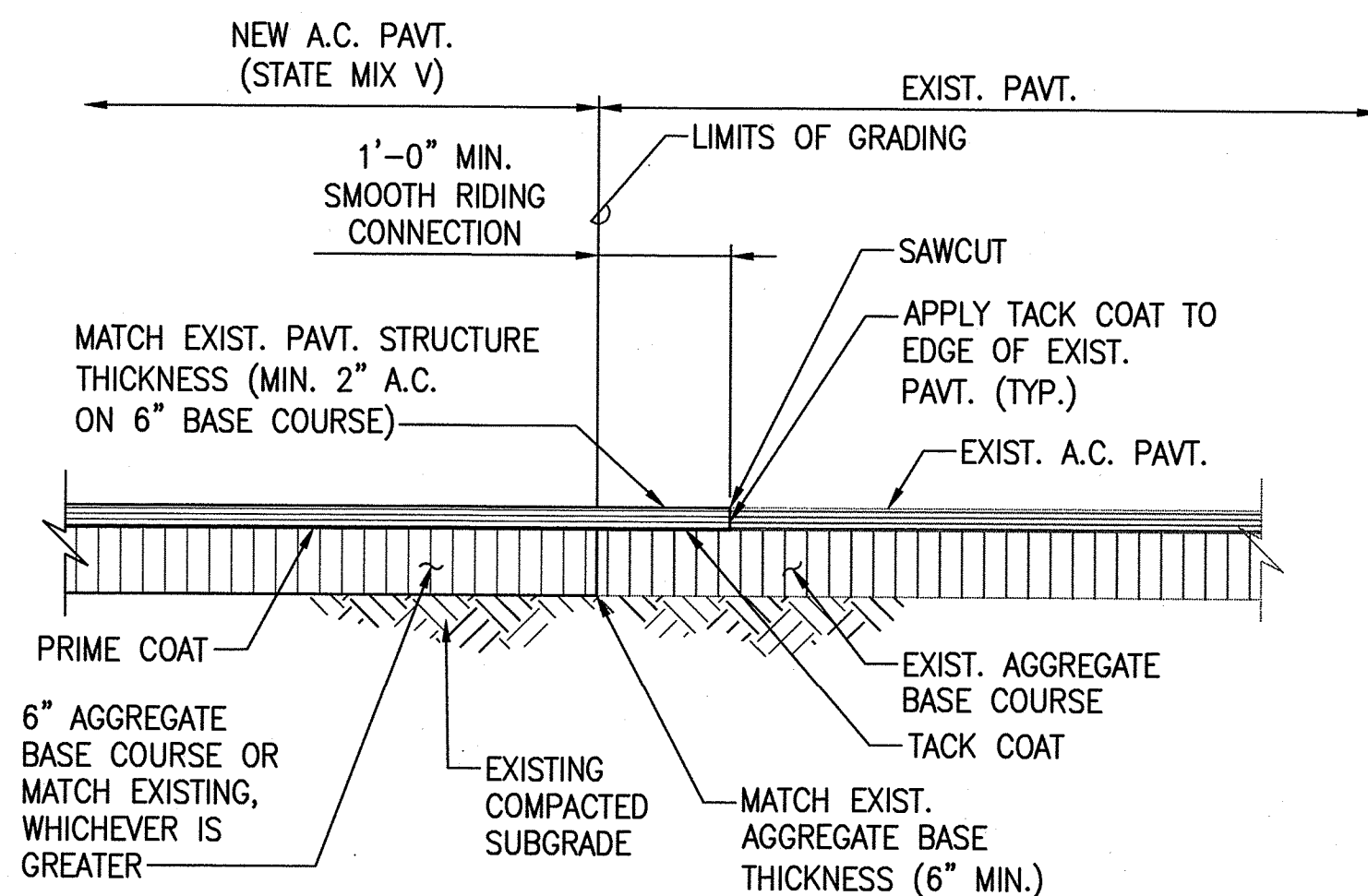
NOTE:
PAINT ENTIRE SPEED BUMP WITH REFLECTIVE YELLOW TRAFFIC PAVT. PAINT.

8 SPEED BUMP DETAIL
CS501 NOT TO SCALE

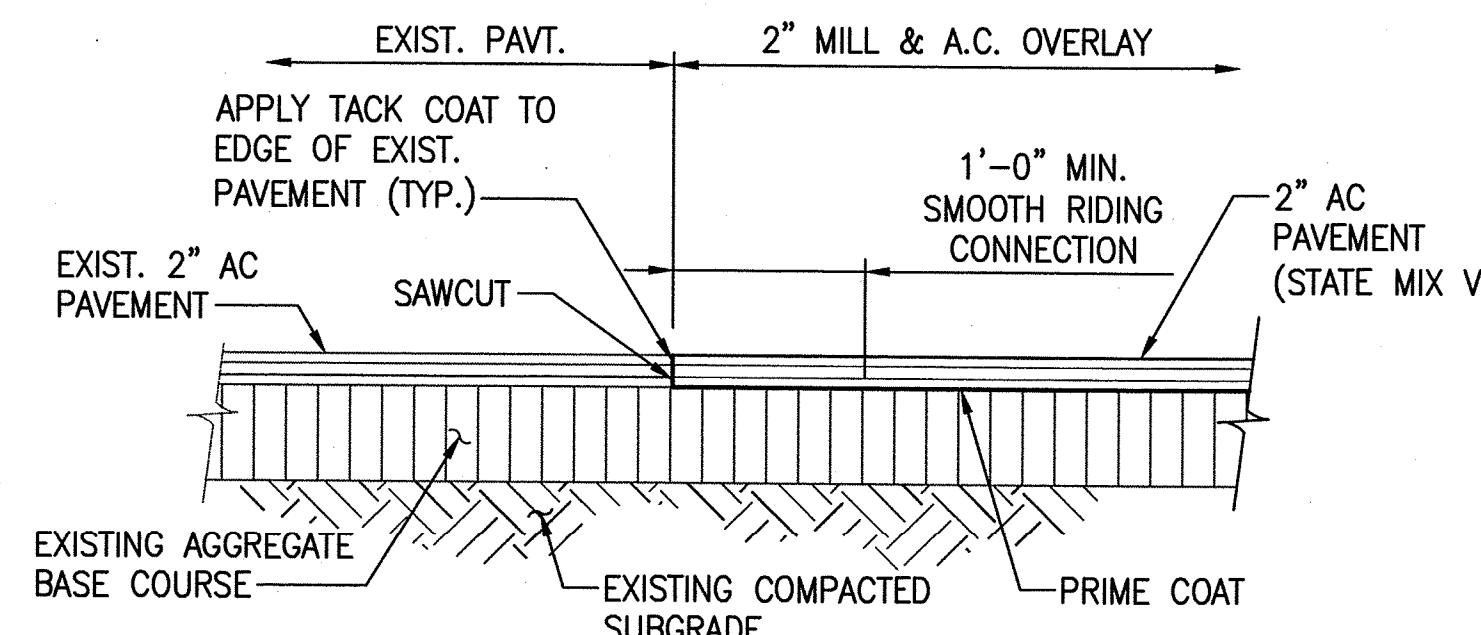


NOTE:
FOR ALL CONCRETE WALKWAYS, CURBS AND SLABS PROVIDE CONTRACTION JOINTS AT EVERY 5'.

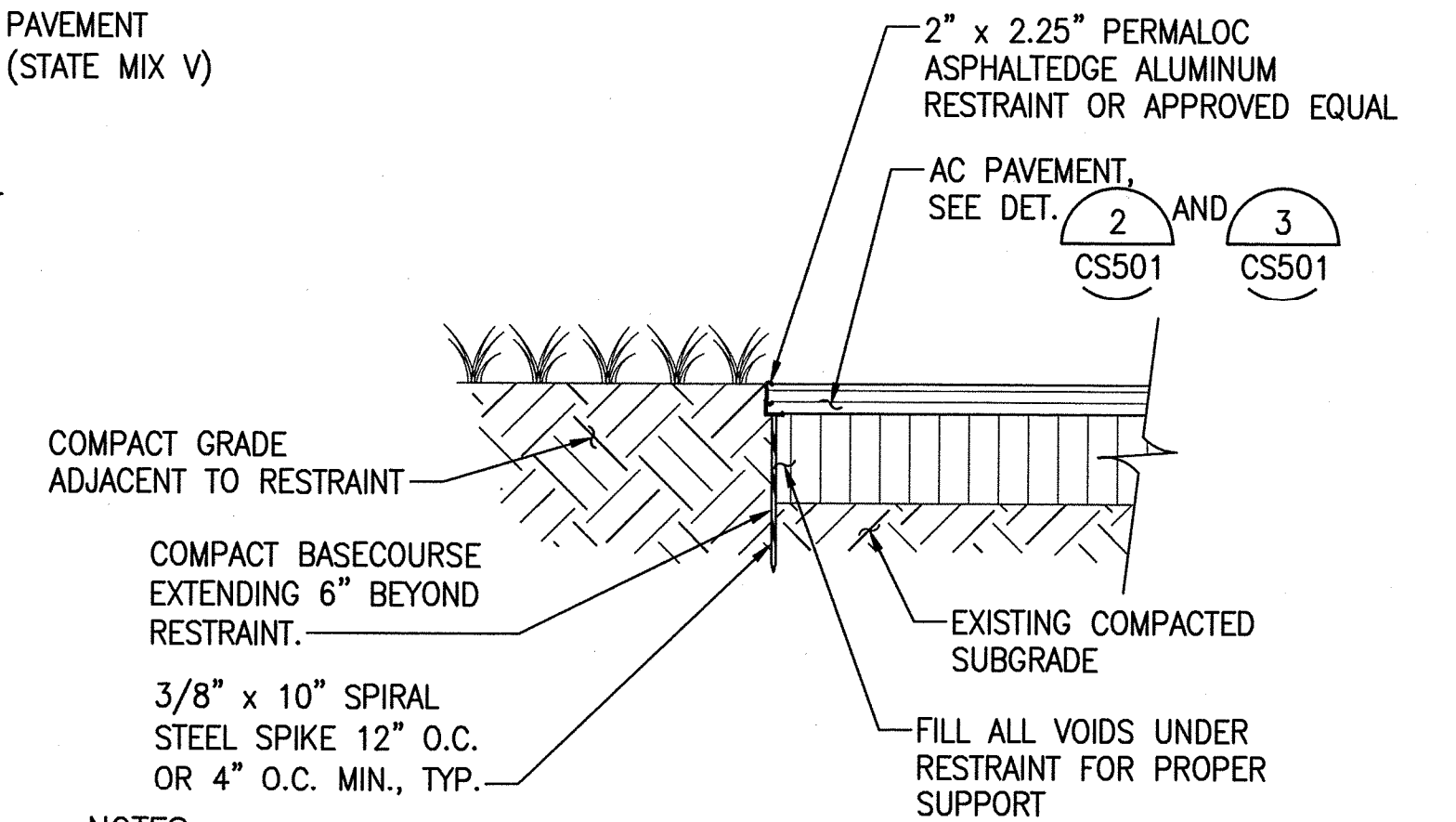
5 CONCRETE EDGE DETAIL
CS501 NOT TO SCALE



6 FULL DEPTH PAVEMENT RECONSTRUCTION DETAIL
CS501 NOT TO SCALE

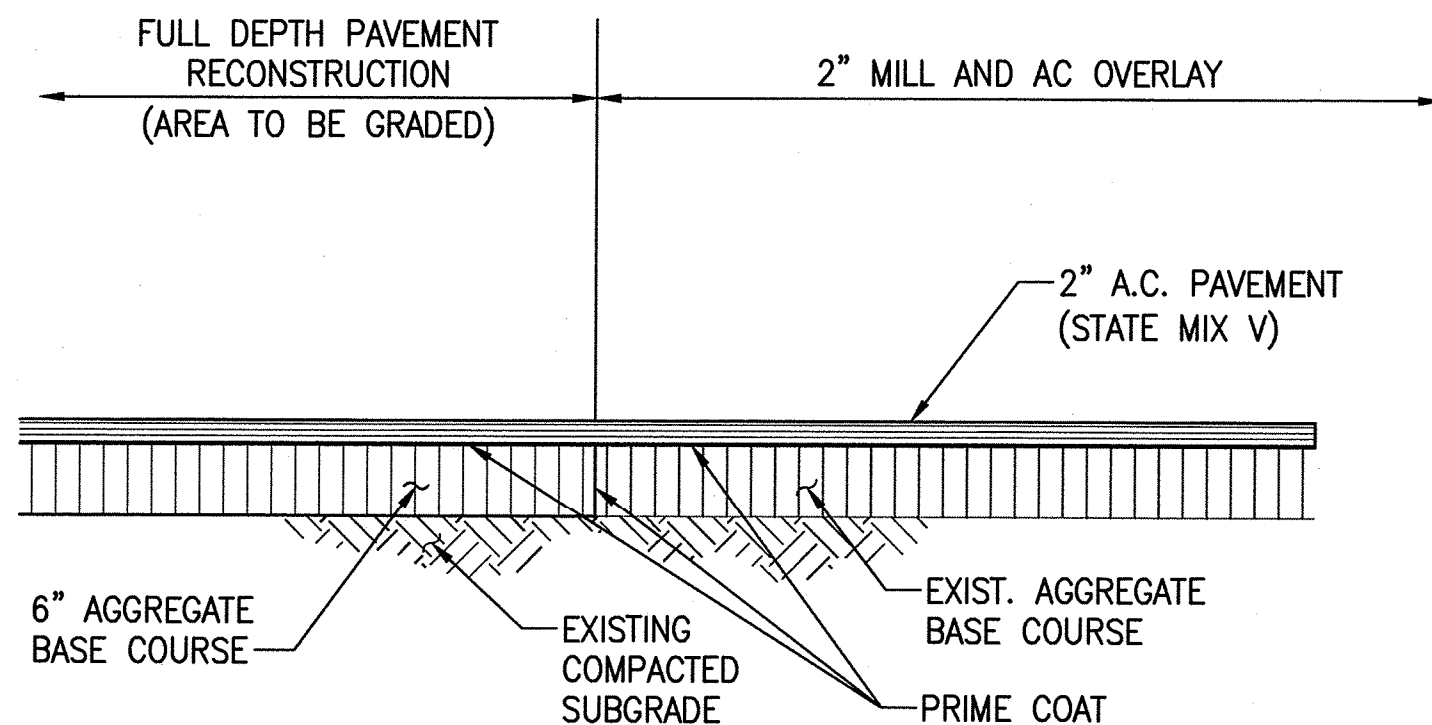


7 MILL AND OVERLAY DETAIL
CS501 NOT TO SCALE

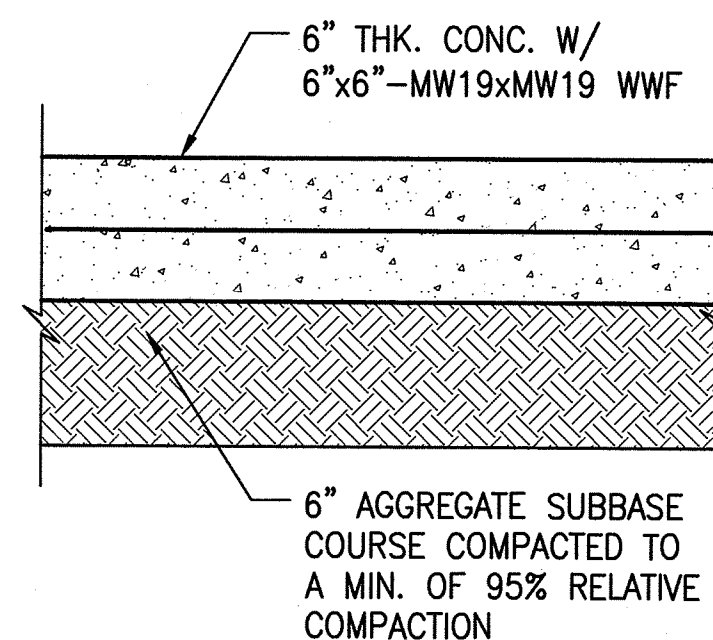


- NOTES:
1. INSTALL PER MANUFACTURER'S INSTALLATION GUIDELINES.
 2. 8'-0" SECTIONS CONNECTED WITH 4" SLIDING CONNECTOR.
 3. MAINTAIN 3/8" GAP BETWEEN SECTIONS TO ALLOW FOR PRODUCT EXPANSION IN EXTREME TEMPERATURES.
 4. CORNERS: NOTCH BASE ONLY AND FORM A CONTINUOUS CORNER.

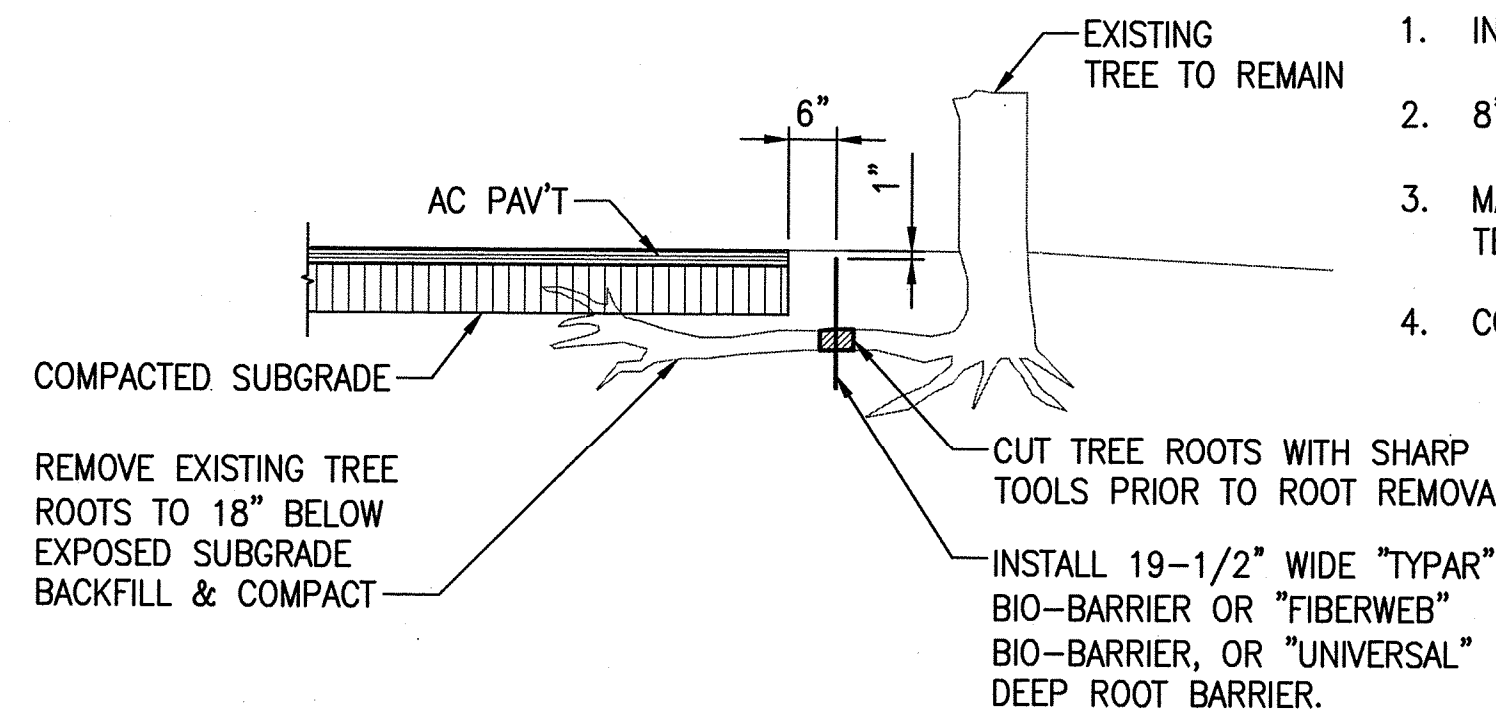
12 PERMALOC ASPHALT EDGE DETAIL
CS501 NOT TO SCALE



9 FULL DEPTH PAVEMENT RECONSTRUCTION TO MILL AND AC TRANSITION DETAIL
CS501 NOT TO SCALE



10 CONCRETE PAVEMENT SECTION
CS501 NOT TO SCALE



NOTE:
ROOT CUTTING AND REMOVAL SHALL BE UNDER THE DIRECT SUPERVISION OF AN ARBORIST CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE WESTERN REGION.

11 ROOT BARRIER DETAIL
CS501 NOT TO SCALE

APPROVED:
Melvin Johnson
for CHIEF, CIVIL ENGINEERING BRANCH, DPP

12/10/18
DATE

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS					
SITE DETAILS					
DESIGNED: SKK	SUBMITTED: 1/5				
DRAWN: JM	DATE: JULY 12, 2019				
CHECKED: RS	SCALE: AS SHOWN				
APPROVED: <i>Sean K. Kau</i>	Carty Chang E-signed 2019-12-23 03:16PM HST carty.s.chang@hawaii.gov State of Hawaii		DRAWING NO. CS501		
CHIEF ENGINEER			CHIEF ENGINEER		

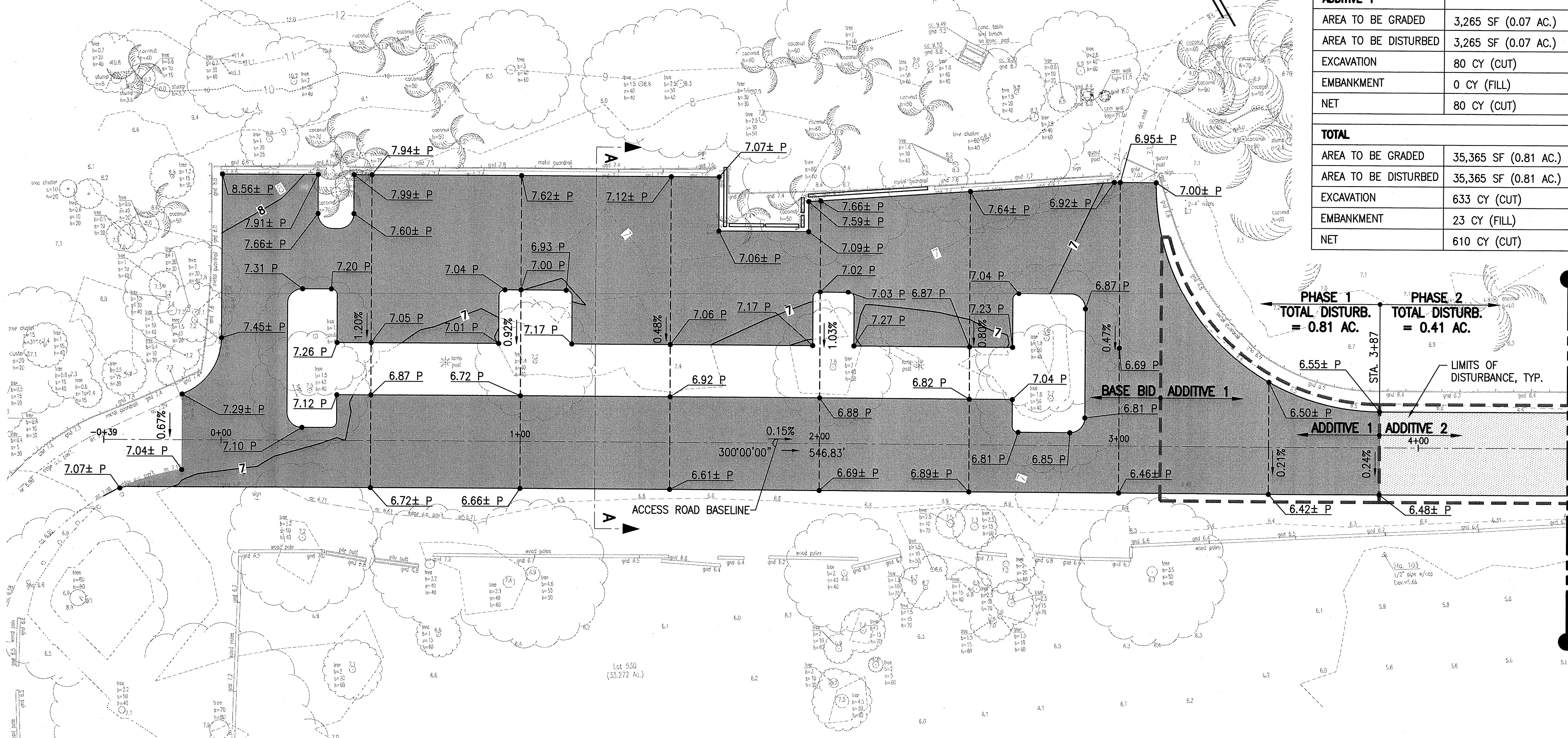
W:\CIVIL_3D_PROJECTS\2018_236.000 SOH DLNR MALAEKAHANA PARK IMPROV\01 CE DWG\CG101 GRADINGPLAN-1.DWG 12/14/2019 11:29 PM EACELO

MALAEKAHANA STATE RECREATION AREA
TMK: 5-6-001:004

TRUE NORTH
SCALE: 1" = 20' FC.

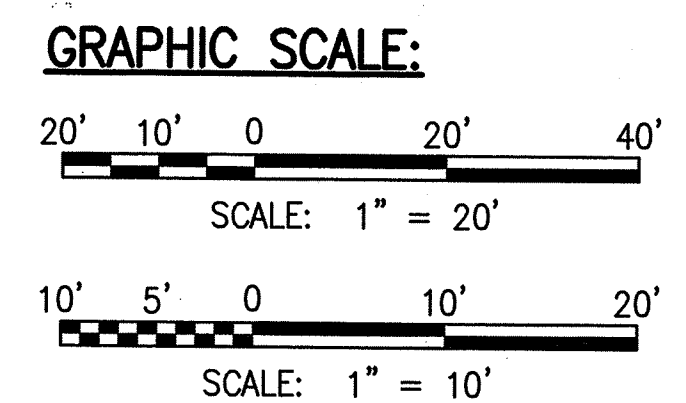
EARTHWORK SUMMARY (PHASE 1):	
BASE BID	
AREA TO BE GRADED	32,100 SF (0.74 AC.)
AREA TO BE DISTURBED	32,100 SF (0.74 AC.)
EXCAVATION	553 CY (CUT)
EMBANKMENT	23 CY (FILL)
NET	530 CY (CUT)
ADDITIVE 1	
AREA TO BE GRADED	3,265 SF (0.07 AC.)
AREA TO BE DISTURBED	3,265 SF (0.07 AC.)
EXCAVATION	80 CY (CUT)
EMBANKMENT	0 CY (FILL)
NET	80 CY (CUT)
TOTAL	
AREA TO BE GRADED	35,365 SF (0.81 AC.)
AREA TO BE DISTURBED	35,365 SF (0.81 AC.)
EXCAVATION	633 CY (CUT)
EMBANKMENT	23 CY (FILL)
NET	610 CY (CUT)

EARTHWORK SUMMARY (PHASE 2):	
ADDITIVE 2	
AREA TO BE GRADED	81 SF (0.002 AC.)
AREA TO BE DISTURBED	6,140 SF (0.14 AC.)
EXCAVATION	2 CY (CUT)
EMBANKMENT	0 CY (FILL)
NET	2 CY (CUT)
ADDITIVE 3	
AREA TO BE GRADED	1,260 SF (0.03 AC.)
AREA TO BE DISTURBED	3,405 SF (0.08 AC.)
EXCAVATION	28 CY (CUT)
EMBANKMENT	0 CY (FILL)
NET	28 CY (CUT)
ADDITIVE 4	
AREA TO BE GRADED	1,205 SF (0.03 AC.)
AREA TO BE DISTURBED	4,975 SF (0.11 AC.)
EXCAVATION	30 CY (CUT)
EMBANKMENT	0 CY (FILL)
NET	30 CY (CUT)
ADDITIVE 5	
AREA TO BE GRADED	730 SF (0.02 AC.)
AREA TO BE DISTURBED	3,470 SF (0.08 AC.)
EXCAVATION	18 CY (CUT)
EMBANKMENT	0 CY (FILL)
NET	18 CY (CUT)
TOTAL (PHASE 2):	
AREA TO BE GRADED	3,276 SF (0.08 AC.)
AREA TO BE DISTURBED	17,990 SF (0.41 AC.)
EXCAVATION	78 CY (CUT)
EMBANKMENT	0 CY (FILL)
NET	78 CY (CUT)



MATCHLINE STA. 4+50, SEE SHEET CG102

GRADING PLAN - 1
SCALE: 1" = 20'



LEGEND:

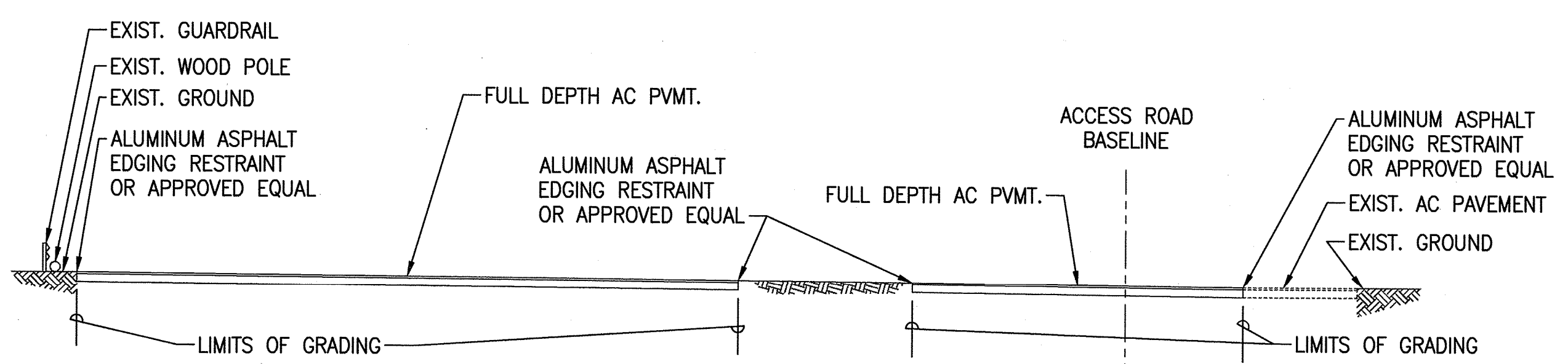
6.00± P	PAVEMENT ELEVATION, MATCH EXIST. GRADE
6.00 P	FINISH PAVEMENT ELEVATION
7	EXISTING CONTOURS
7	FINISH CONTOURS
[Pattern]	AC PAVEMENT, FULL DEPTH RECONSTRUCTION (LIMITS OF GRADING AND DISTURBANCE)
[Pattern]	AC PAVEMENT, MILL AND OVERLAY (LIMITS OF DISTURBANCE)

- NOTES:**
- THE EARTHWORK SUMMARY TABLE IS FOR DPP-CEB PERMITTING REFERENCE ONLY. CONTRACTOR SHALL PERFORM THEIR OWN QUANTITY ESTIMATES.
 - FOR SITE TIES, SEE SHEETS CS101 AND CS102.

APPROVED:

Melvin Johnson
CHIEF, CIVIL ENGINEERING BRANCH, DPP

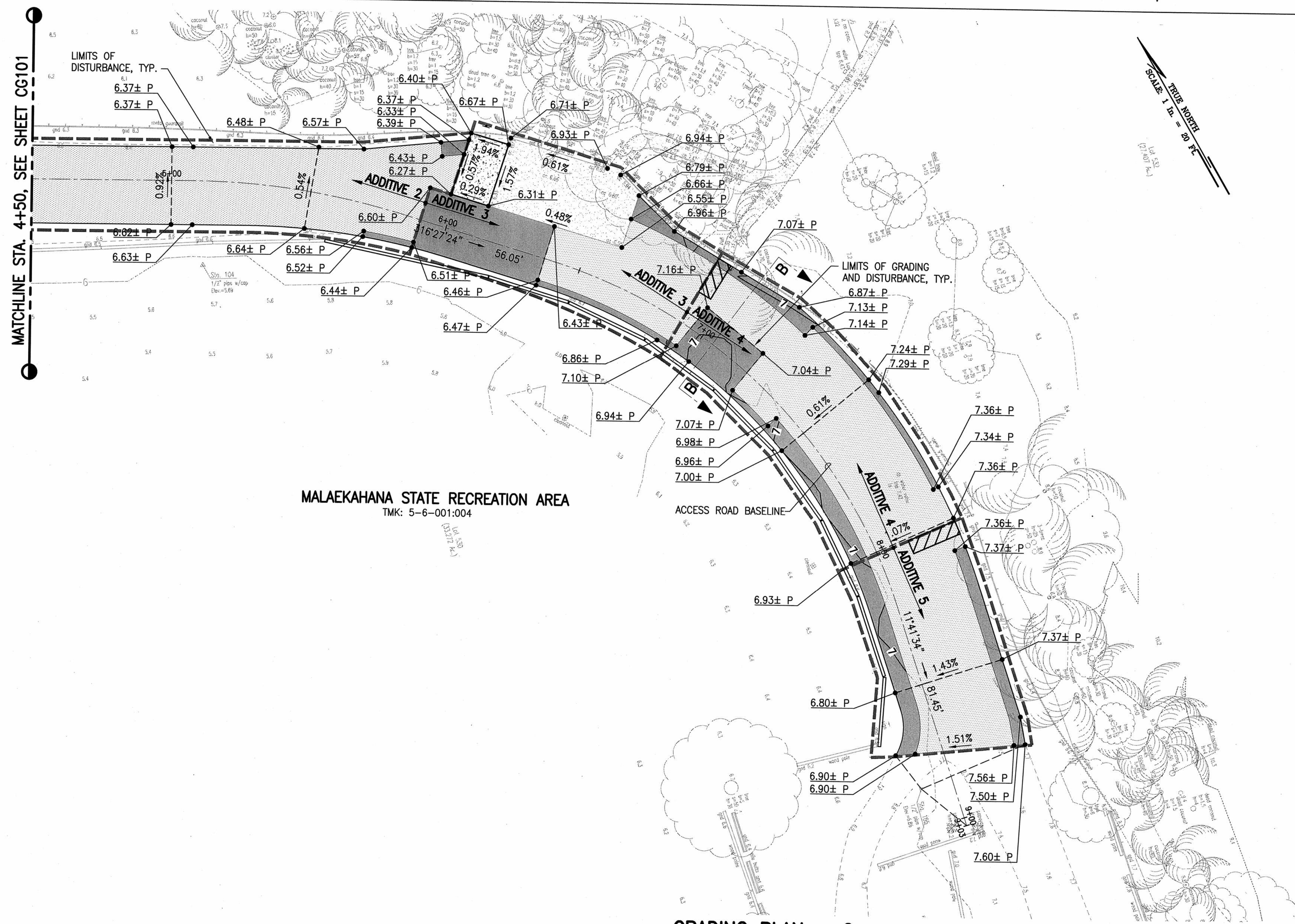
12/10/19
DATE



SECTION A-A
SCALE: HORIZ 1" = 10'
VERT .1" = 10'

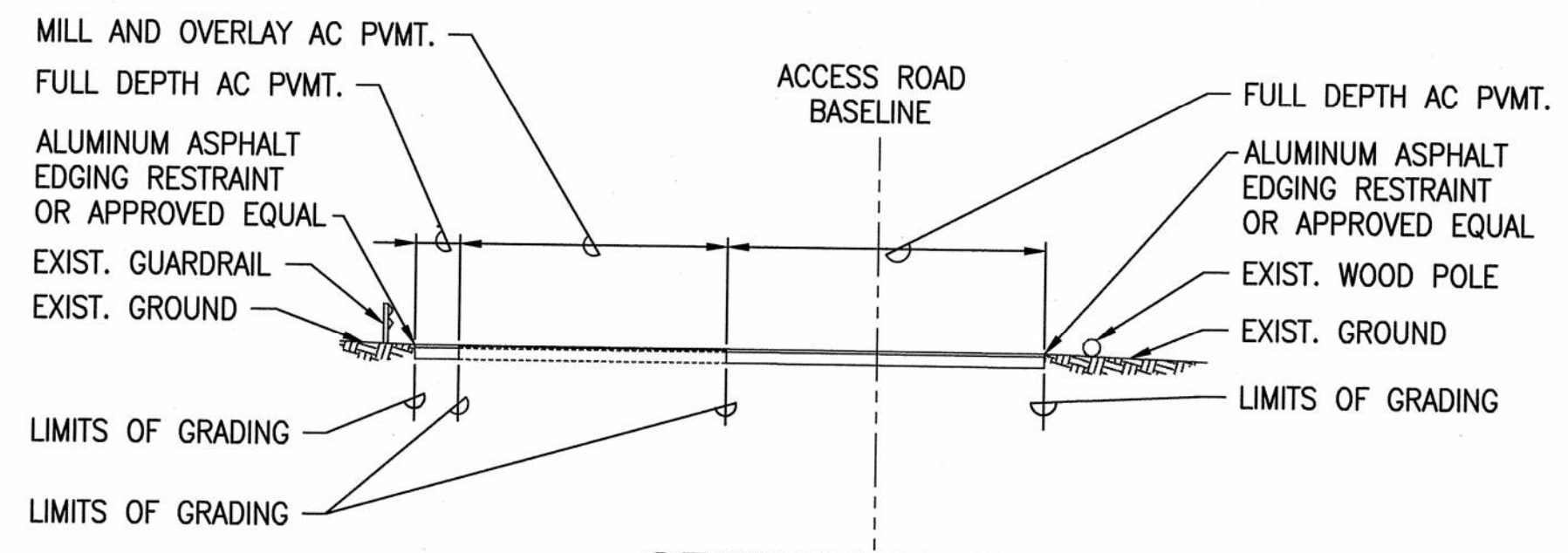
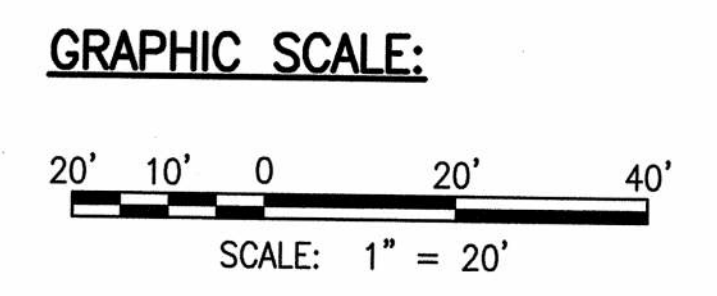
REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
<p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION</p> <p>MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS</p> <p>GRADING PLAN - 1</p>					
DESIGNED: SKK		SUBMITTED: 1/5			
DRAWN: JM		DATE: JULY 12, 2019			
CHECKED: RS		SCALE: AS SHOWN			
APPROVED: <i>SKK</i>	Carty Chang	E-signed 2019-12-23 03:16PM HST			DRAWING NO. CG101
CHIEF ENGINEER	carty.s.chang@hawaii.gov	State of Hawaii			

W:\CIVIL_3D\PROJECTS\2018_238.000 SOH DLNR MALAEKAHANA PARK IMPROV\01 CE DWG\CG102 GRADING\PLAN-2.DWG 11/18/2019 1:07 PM SKAUJ



- LEGEND:**
- 6.00± P PAVEMENT ELEVATION, MATCH EXIST. GRADE
 - 7 --- EXISTING CONTOURS
 - 7 ——— FINISH CONTOURS
 - AC PAVEMENT, FULL DEPTH RECONSTRUCTION (LIMITS OF GRADING AND DISTURBANCE)
 - AC PAVEMENT, MILL AND OVERLAY (LIMITS OF DISTURBANCE)
 - CONCRETE PAVEMENT CONSTRUCTION (LIMITS OF GRADING AND DISTURBANCE)

NOTE:
FOR SITE TIES, SEE SHEETS CS101 AND CS102.



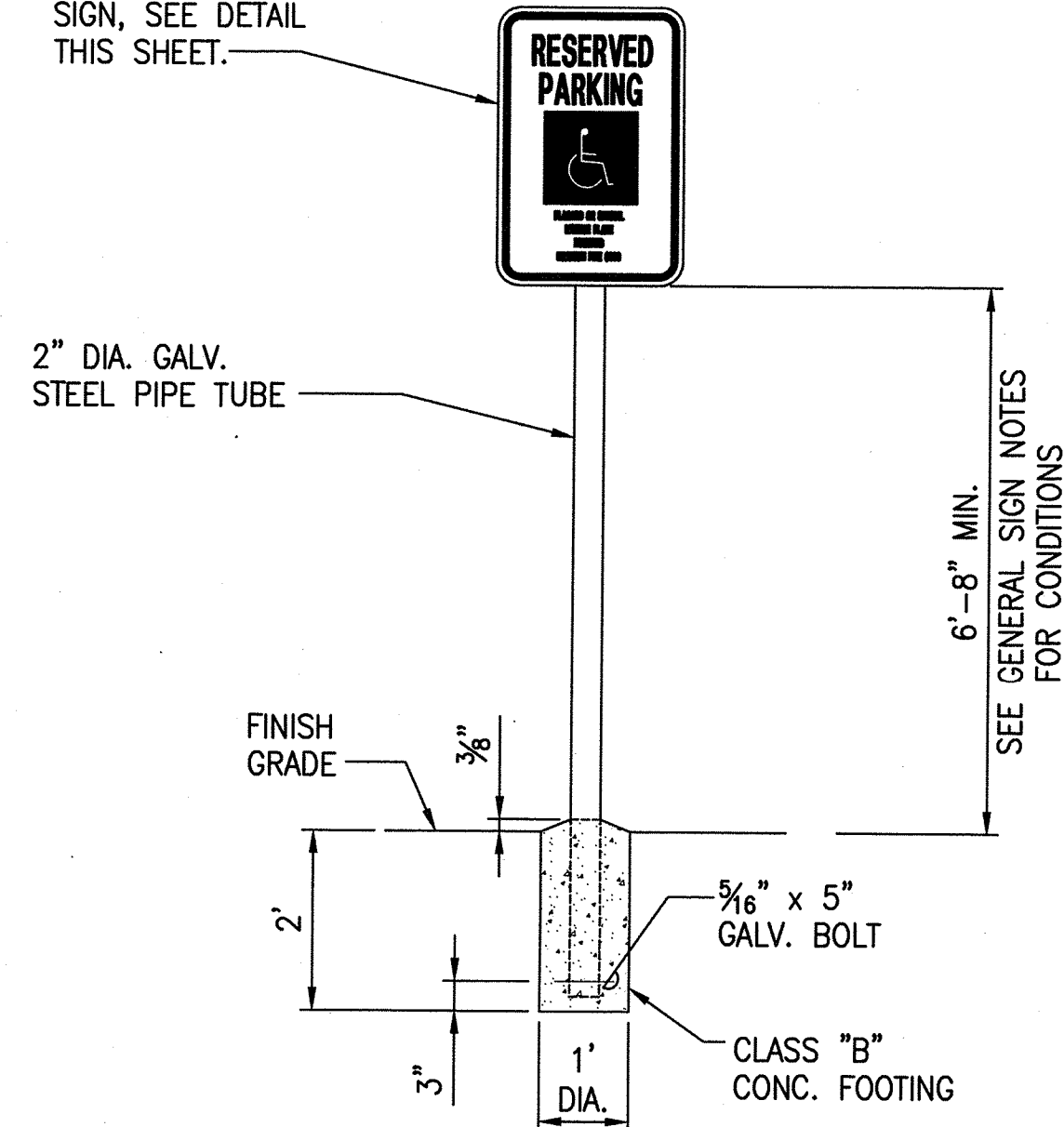
SECTION B-B
SCALE: HORIZ 1" = 10'
VERT 1" = 10'

APPROVED:
Melvin Seligman
CHIEF, CIVIL ENGINEERING BRANCH, DPP

12/10/19
DATE

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
<p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION</p> <p>MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS</p> <p>GRADING PLAN - 2</p>					
DESIGNED: SKK		SUBMITTED: 1/3			
DRAWN: JM		DATE: JULY 12, 2019			
CHECKED: RS		SCALE: AS SHOWN			
APPROVED:		Carty Chang E-signed 2019-12-23 03:16PM HST carty.s.chang@hawaii.gov State of Hawaii		DRAWING NO. CG102	
CHIEF ENGINEER		Chief Engineer			

ACCESSIBLE PARKING SIGN, SEE DETAIL THIS SHEET.



SIGN NOTES:

1. SIGNS SHALL CONFORM TO THE LATEST EDITION OF FHWA PUBLICATIONS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", STANDARD ALPHABETS FOR HIGHWAYS SIGNS", AND THE AMERICANS WITH DISABILITIES ACCESSIBILITY GUIDELINES (ADAAG) SECTION 703, AND AS AMENDED.
2. SIGNS SHALL BE MINIMUM T6061 SHEET COVERED WITH ENGINEERING GRADE REFLECTIVE SHEETING.
3. ALL SIGNS SHALL HAVE 3/8" DIA BOLT HOLES PRE-DRILLED AT APPROPRIATE LOCATIONS.
4. SIGN LETTERING SHALL BE UPPERCASE LETTERS OF THE TYPE APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.

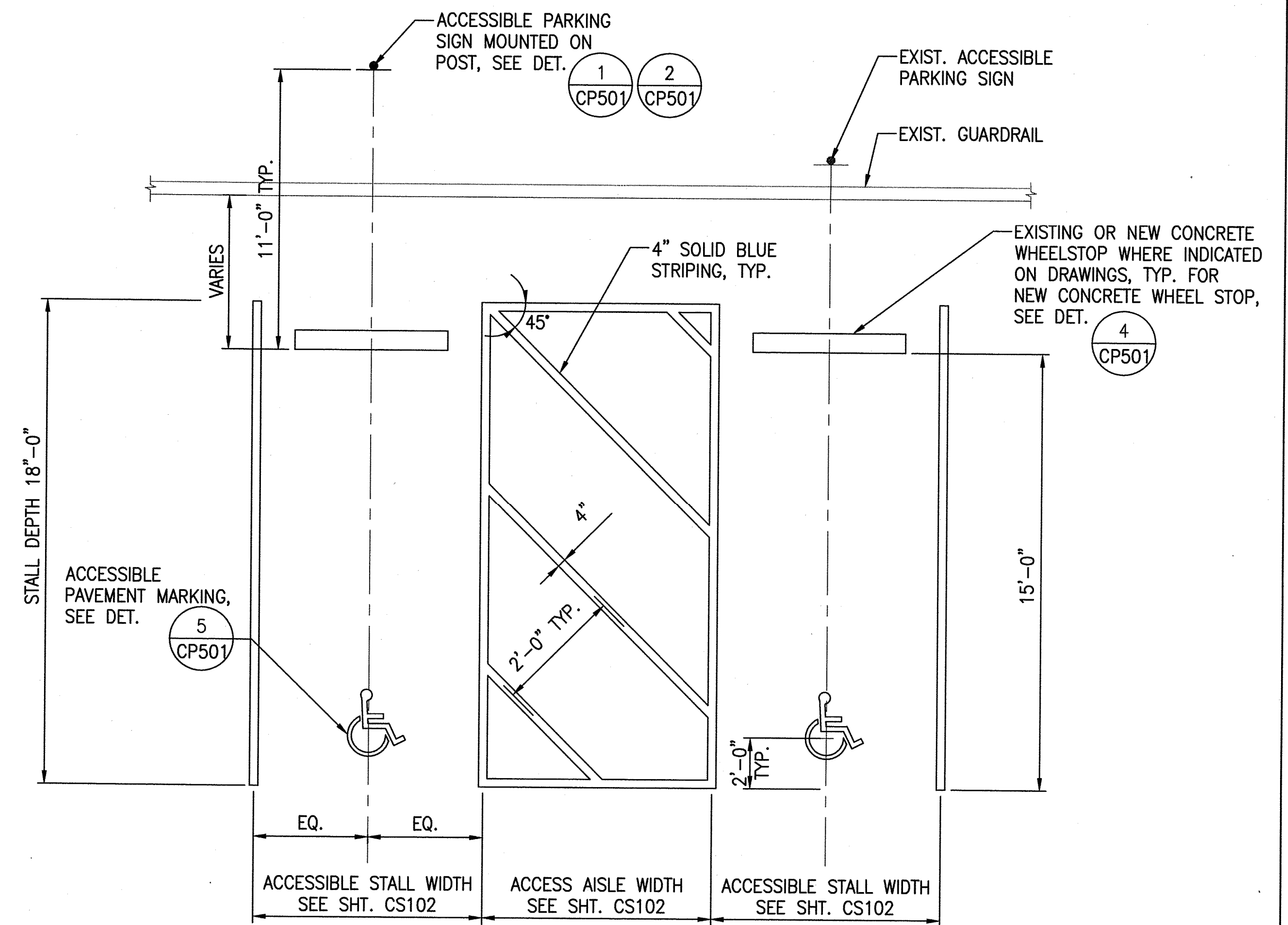
BORDER AND TEXT SCREENPRINTED PANTONE GREEN C. TYPEFACE: HELV. CONC. (CONDENSE MANUALLY)

SCREENPRINTED TO MATCH BLUE PANTONE 300 C. ARTWORK PROVIDED BY DESIGNER



GENERAL SIGN NOTES:

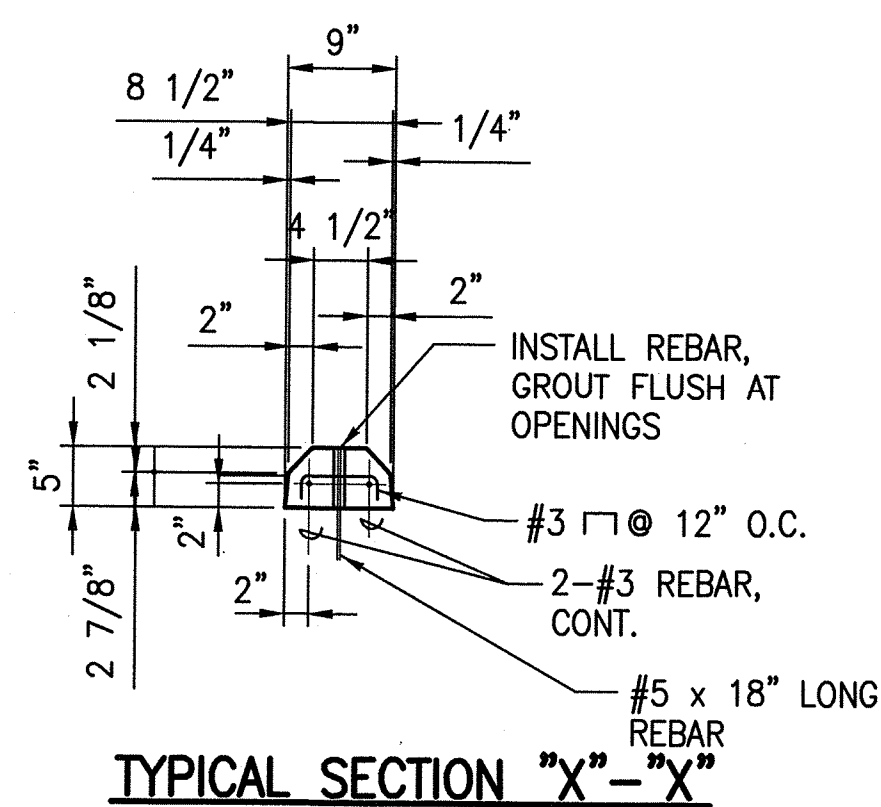
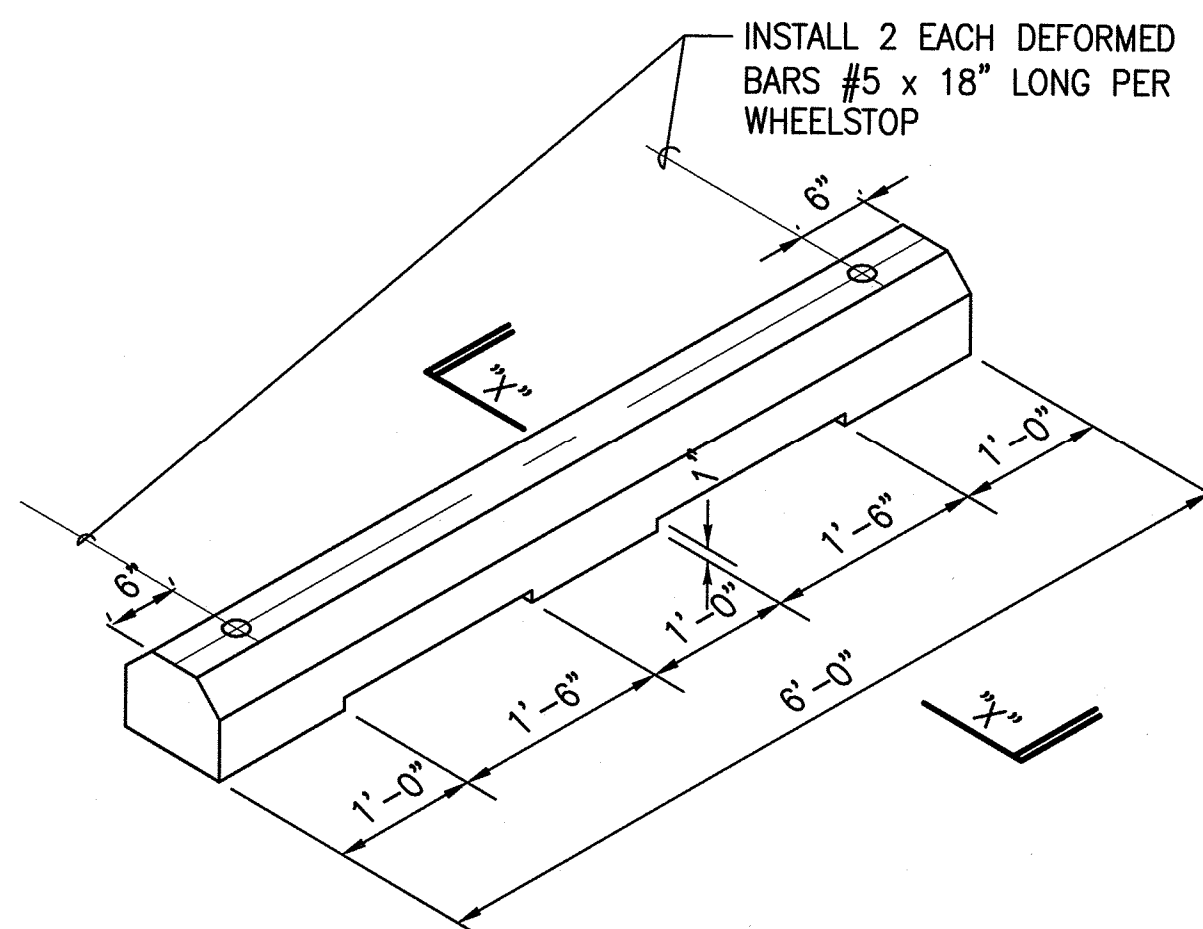
1. LOCATE SIGNS AS INDICATED ON THE PLANS AND AS SHOWN IN DETAILS.
2. MOUNTING HEIGHT FOR ALL SIGNS SHALL BE 6'-8" MINIMUM FROM THE BOTTOM EDGE OF THE SIGN TO (WHICHEVER IS GREATER):
 - A. IMMEDIATELY ADJACENT FINISH GRADE (OR)
 - B. TOP OF ADJACENT FINISH GRADE (OR)
 - C. CENTERLINE OF TRAVELED WAY FROM WHICH THE CORRESPONDING PARKING STALL IS ACCESSED MEASURED PERPENDICULAR TO THE SIGN FACE.



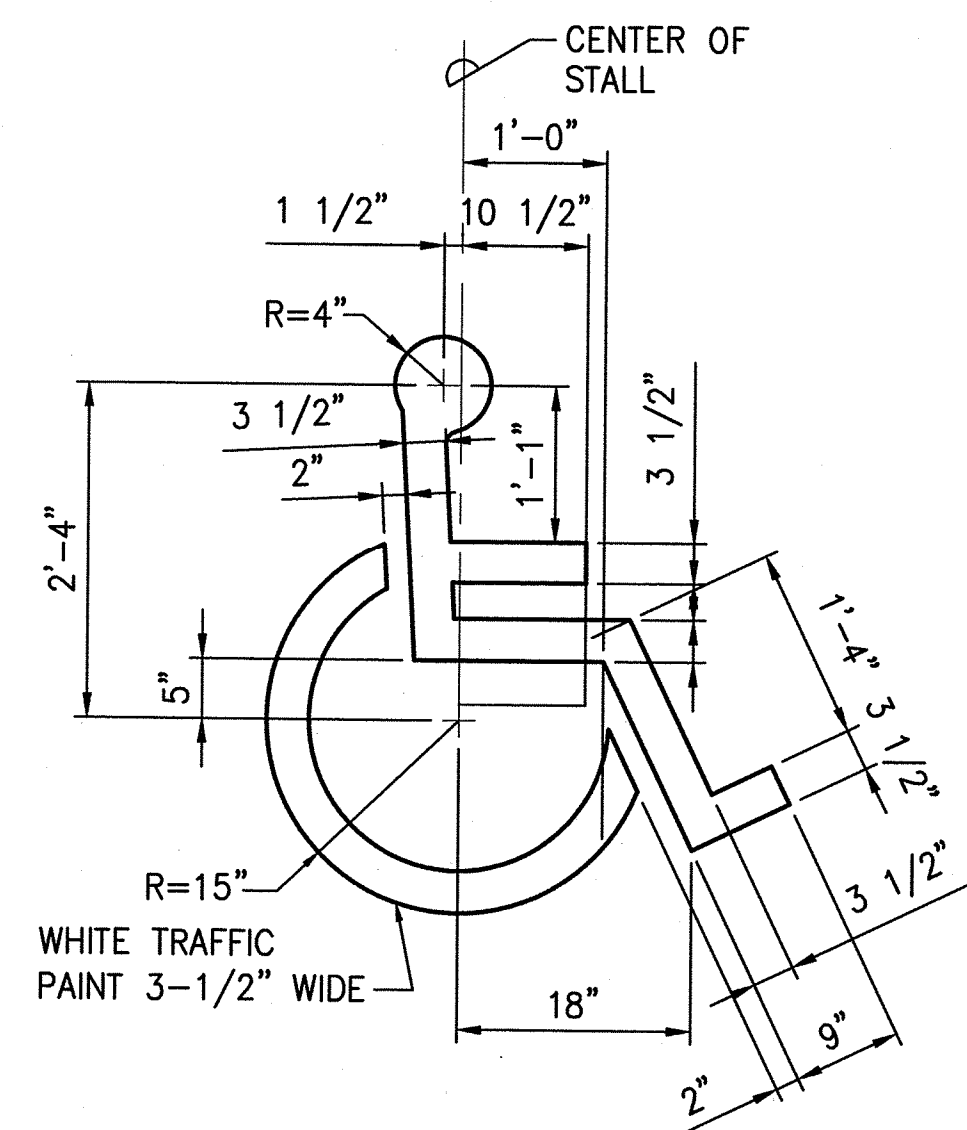
1 TYPICAL ACCESSIBLE PARKING SIGN AND POST
CP501 NOT TO SCALE

2 ACCESSIBLE PARKING SIGN
CP501 NOT TO SCALE

3 ACCESSIBLE PAVEMENT MARKING
CP501 NOT TO SCALE



4 WHEEL STOP DETAIL
CP501 NOT TO SCALE



5 ACCESSIBLE PAVEMENT MARKING
CP501 NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
<p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION</p> <p>MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS</p> <p>SIGNAGE AND STRIPING DETAILS</p>					
DESIGNED: SKK		SUBMITTED: 1/3		DL	
DRAWN: JM		DATE: JULY 12, 2019			
CHECKED: RS		SCALE: AS SHOWN			
APPROVED: <i>Sean K. Kau</i>		Carty Chang		DRAWING NO. CP501	
SIGNATURE EXP. DATE: 04/30/20		E-signed 2019-12-23 03:16PM HST carty.s.chang@hawaii.gov State of Hawaii Chief Engineer			