

ENVIRONMENTAL CONTROL NOTES:

- IN ACCORDANCE WITH CHAPTER 11-60.1, AIR POLLUTION CONTROL, TITLE 11, HAWAII ADMINISTRATIVE RULES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT EFFECTIVE CONTROL MEASURES ARE PROVIDED TO MINIMIZE OR PREVENT ANY VISIBLE DUST EMISSION CAUSED BY THE CONSTRUCTION WORK FROM IMPACTING THE SURROUNDING AREAS; INCLUDING THE OFF-SITE ROADWAYS USED TO ENTER/EXIT THE PROJECT. THESE MEASURES INCLUDE BUT ARE NOT LIMITED TO THE USE OF WATER WAGONS, SPRINKLER SYSTEMS, DUST FENCES, ETC.
- IN ACCORDANCE WITH CHAPTER 11-55, WATER POLLUTION CONTROL AND CHAPTER 11-54, WATER QUALITY STANDARDS, TITLE 11, HAWAII ADMINISTRATIVE RULES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE BEST MANAGEMENT PRACTICE (BMP) TO MINIMIZE OR PREVENT THE DISCHARGE OF SEDIMENTS, DEBRIS AND OTHER WATER POLLUTANT INTO STATE WATERS ARE PROVIDED AT ALL TIMES.
- IN ACCORDANCE WITH CHAPTER 11-56, SOLID WASTE MANAGEMENT CONTROL, TITLE 11, HAWAII ADMINISTRATIVE RULES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT DEMOLITION WASTE AND CONSTRUCTION WASTE GENERATED BY THE PROJECT ARE DISPOSED OF IN A MANNER OR AT A SITE APPROVED BY THE STATE DEPARTMENT OF HEALTH. DISPOSAL OF ANY OF THESE WASTES BY BURNING OR BURYING IS PROHIBITED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL APPLICABLE PERMITS FROM THE DEPARTMENT OF HEALTH INCLUDING BUT NOT LIMITED TO (NPDES), NOTICE OF INTENT AND GENERAL PERMIT FOR HYDROSTATIC TEST AND DEWATERING DISCHARGES PRIOR TO COMMENCING CONSTRUCTION.
- THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM THIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
- BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE EMPLOYED AT ALL TIMES TO THE MAXIMUM EXTENT PRACTICABLE TO PREVENT DAMAGE BY SEDIMENTATION, EROSION OR DUST TO STREAMS, WATERCOURSES, NATURAL AREAS AND THE PROPERTY OF OTHERS.
- IN ACCORDANCE WITH CHAPTER 11-46, COMMUNITY NOISE, HAWAII ADMINISTRATIVE RULES, THE CONTRACTOR AND THE PROPERTY OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING EFFECTIVE CONTROL MEASURES TO MINIMIZE OR PREVENT CONSTRUCTION RELATED NOISE FROM IMPACTING THE RESIDENTS IN THE IMMEDIATE AREA. IF REQUIRED, NOISE REDUCTION MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR DURING THE CONSTRUCTION WORK.
- A COPY OF THE PLANS, CONSTRUCTION SCHEDULE AND/OR WRITTEN MEASURES THAT IS REQUIRED TO BE SUBMITTED BY THE CONTRACTOR (DUST CONTROL MEASURES/PLANS) SHOULD ALSO BE SENT TO THE DEPARTMENT OF HEALTH CLEAN WATER BRANCH FOR MONITORING PURPOSES.
- THE CONTRACTOR SHALL COMPLY WITH THE CLEAN WATER ACT AND THE STATE HARBORS DIVISION STORMWATER MANAGEMENT PROGRAM. NO POLLUTANTS WILL BE DISCHARGED DIRECTLY OR INDIRECTLY THROUGH HARBORS SMALL MS4 OR OTHER POTENTIAL PATHWAYS INTO NAWILIWILI HARBOR.
- THE CONTRACTOR SHALL SUBMIT A SITE-SPECIFIC BEST MANAGEMENT PRACTICE PLAN TO THE HARBORS ENGINEERING BRANCH FOR REVIEW AND ACCEPTANCE PRIOR TO THE START OF ANY ON-SITE CONSTRUCTION WORK.
- IN CASE OF A SPILL, LEAK OR OTHER RELEASE CONTAINING A REPORTABLE HAZARDOUS SUBSTANCE OR OIL, THE CONTRACTOR SHALL NOTIFY APPROPRIATE FACILITY PERSONNEL, EMERGENCY RESPONSE AGENCIES AND REGULATORY AGENCIES FOLLOWING NOTIFICATION PROCEDURES, AND SHALL NOTIFY THE HARBORS CONSTRUCTION ENGINEER IMMEDIATELY (I.E., WITHIN 24-HOURS). SUCH CONTACT INFORMATION MUST BE IN LOCATIONS THAT ARE READILY ACCESSIBLE AND AVAILABLE.

BMP NOTES:

TEMPORARY EROSION CONTROL MEASURES:

- PRIOR TO DEMOLITION WORK, TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AS DESCRIBED IN ARTICLE XXVI OF THE SPECIFICATIONS.
- WHEN EXPOSED AREAS ARE NOT TO BE GRADED OR DISTURBED FOR 30 DAYS OR MORE, SEED, PLANT, OR HYDROSEED TEMPORARY VEGETATION, UNLESS REMAINING NATURAL VEGETATION PROVIDES ADEQUATE PROTECTION, WHEN APPLICABLE.

EROSION CONTROL NOTES:

- ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH KAUAI COUNTY ORDINANCE 808, AS RELATED TO GRADING, SOIL EROSION AND SEDIMENT CONTROL.
- THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK THAT HAVE BEEN DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS, AND OTHER AREAS. THE COSTS INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
- THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREAS FREE FROM DUST AND OTHER NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, CHAPTER 11-60, "AIR POLLUTION CONTROL."
- THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BY THE CONTRACTOR BEFORE THE COMMENCEMENT OF THE GRADING WORK.
- THE GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER QUALITY AND WATER POLLUTION CONTROLS STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, CHAPTER 11-54, "WATER QUALITY STANDARDS"; AND CHAPTER 11-55, "WATER POLLUTION CONTROL," AND, IF APPLICABLE, THE NPDES PERMIT FOR THE PROJECT.
- 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 CONTROL PROCEDURES SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER PRIOR TO THE START OF ACTUAL GRADING OPERATIONS.
- EXCAVATED MATERIAL ON SITE WHICH WILL BE EXPOSED FOR MORE THAN 7 DAYS SHALL BE COVERED WITH PLASTIC SHEETS WITHIN 2 DAYS OR AS DIRECTED BY THE CONSTRUCTION ENGINEER.
- EROSION CONTROL MEASURES SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS ITEMS OF WORK.

STATE-OWNED WATER SYSTEM NOTES:

- TEST PRESSURE SHALL BE 200 PSI.
- AFTER INSTALLATION OF TAPPING SLEEVE AND VALVE PRIOR TO ACTUAL TAPPING OPERATIONS, THE ASSEMBLY SHALL BE TESTED AT 200 PSI ON BOTH SIDES OF THE VALVE.
- PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE CONSTRUCTION ENGINEER, THE MANUFACTURER'S CERTIFICATION THAT ALL FITTINGS FOR THE PROJECT CONFORM IN ALL RESPECTS TO THE PROJECT SPECIFICATIONS.
- POLYGON SHAPE FOR MECHANICAL JOINT GLANDS AS DESCRIBED IN AWWA STANDARD C111 SHALL BE "STRAIGHT-SIDED" OR AN APPROVED EQUAL ON A JOB TO JOB BASIS.
- THE CONTRACTOR SHALL CUT AND PLUG ALL EXISTING UNUSED LATERALS AT THE MAIN WHETHER OR NOT SHOWN ON THE PLANS. THE DAMAGED AREA SHALL BE REPAIRED TO AN EQUAL OR BETTER CONDITION THAN THE IMMEDIATE AREA. ALL WORK SHALL BE DONE AT THE EXPENSE OF THE CONTRACTOR.
- HYDROTESTING EFFLUENT REQUIRED FOR CONSTRUCTION SHALL BE IN ACCORDANCE WITH HAWAII ADMINISTRATIVE RULES, CHAPTER 11-54, WATER QUALITY STANDARDS. HYDROTESTING EFFLUENT SHALL BE DISPOSED OF VIA BACKTRENCHING.
- PIPE CUSHION AND BACKFILL MATERIAL SHALL CONTAIN NO HAZARDOUS SUBSTANCES ABOVE REGULATORY ACTION LEVELS INCLUDING BUT NOT LIMITED TO LEAD, ASBESTOS, MERCURY, CHROMIUM, CADMIUM, ZINC, STRONTIUM, AND POLYCHLORINATED BIPHENYLS (PCB).
- CLEANING SHALL BE BY THE USE OF "PIGS" INTRODUCED INTO THE PIPELINE AND RUN COMPLETELY THROUGH ALL INSTALLED PIPELINES AND ALL BRANCH LINES FOR FIRE HYDRANTS. "PIGGING" OF SERVICE LATERALS IS NOT REQUIRED. BARE FOAM "PIGS" SHALL BE USED TO SWAB PIPING CLEAN AS EACH LENGTH OF PIPELINE IS INSTALLED. EACH "PIG" SHALL CONSIST OF A CYLINDRICAL PIECE OF POLYURETHANE FOAM WITH A DENSITY OF 3 - 7 POUNDS PER CUBIC FOOT AND A VINYL-COATED NOSE. OUTSIDE DIAMETER OF THE "PIG" SHALL BE EQUAL TO 1-1/4 TO 1-1/2 TIMES THE INSIDE DIAMETER OF THE PIPE BEING INSTALLED. THE LENGTH OF THE "PIG" SHALL BE 1-1/2 TO 2 TIMES ITS DIAMETER. PRIOR TO USE, THE "PIG" SHALL BE SUBMERGED IN A CHLORINE SOLUTION OF 1 OZ. OF 5% CHLORINE BLEACH IN 5 GALLONS OF WATER. "PIGGING" OF THE PIPELINE SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE NEW PIPELINE.
- BALL CORP AND BALL STOP SHALL BE USED IN LIEU OF A CORPORATION STOP AND STOPCOCK, RESPECTIVELY.
- THE CONTRACTOR SHALL FOLLOW THE CHLORINATION AND WATER SAMPLING PROCEDURES AS SHOWN IN THE CONTRACT SPECIFICATIONS.

STATE-OWNED WATER SYSTEM NOTES (CONT'D):

- PIPE AND FITTINGS SHALL CONFORM TO THE STANDARDS SET FORTH IN THE SPECIFICATIONS.
- ALL PIPE DEFLECTIONS SHALL BE APPROVED BY THE CONSTRUCTION ENGINEER, AND SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS, UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL FURNISH AND INSTALL DIELECTRIC COUPLINGS AT ALL TAPS AFTER METERS FOR ALL SERVICE CONNECTIONS.
- ALL SECTIONS OF THE WATER MAIN REQUIRING REINFORCED CONCRETE JACKETING SHALL BE DUCTILE IRON PIPE WITH DUCTILE IRON FITTINGS AND WRAPPED WITH POLYETHYLENE ("POLY-WRAP") PER BWS STANDARDS. POLY-WRAP SHALL BE EXTENDED MIN. 3 FEET BEYOND ENDS OF REINFORCED CONCRETE JACKET AND SECURED TO PIPE WITH PLASTIC ADHESIVE TAPE.
- UNLESS OTHERWISE INDICATED, ALL PORTIONS OF THE EXISTING WATER SYSTEM, INCLUDING FIRE HYDRANTS, SHALL REMAIN OPERATIONAL AND IN SERVICE UNTIL THE NEW WATER SYSTEM IMPROVEMENTS ARE COMPLETELY IN-PLACE AND READY TO BE PLACED IN SERVICE.
- THE CONTRACTOR SHALL CHLORINATE THE ENTIRE INSIDE SURFACE OF EACH PIPE AND FITTING WITH DISINFECTION SOLUTION OF 5 OUNCES OF SODIUM HYPOCHLORITE MIXED WITH 10 GALLONS OF WATER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL WATER LINES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE ESPECIALLY CAREFUL WHEN EXCAVATING BEHIND WATER LINES, TEES AND BENDS WHEREVER THERE IS A POSSIBILITY OF WATER LINE MOVEMENT DUE TO THE REMOVAL OF THE SUPPORTING EARTH BEYOND THE EXISTING REACTION BLOCKS. THE CONTRACTOR SHALL TAKE WHATEVER MEASURES NECESSARY TO PROTECT THE WATER LINES, SUCH AS CONSTRUCTING SPECIAL REACTION BLOCKS (WITH DOT HARBORS APPROVAL) AND/OR MODIFYING HIS CONSTRUCTION METHOD.
- THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES AS SHOWN ON THE PLANS ARE FROM THE LATEST DATA THAT COULD BE OBTAINED BUT IS NOT GUARANTEED AS TO THE ACCURACY OR THE ENCOUNTERING OF OTHER OBSTACLES DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL THE DAMAGES TO EXISTING UTILITIES. THE CONTRACTOR SHALL NOT ASSUME THAT WHERE NO UTILITIES ARE SHOWN, THAT NONE EXIST.
- LIGHT POLES ADJACENT TO FIRE HYDRANTS SHALL BE PAINTED WITH A BAND BELOW THE LIGHT FIXTURES. THE CONTRACTOR SHALL COORDINATE THE LOCATION, COLOR, AND WIDTH OF THE FIRE HYDRANT INDICATOR BAND WITH THE KAUAI FIRE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE NEAREST KAUAI FIRE DEPARTMENT BATTALION CHIEF OF THE EXACT LOCATION OF THE HYDRANT MARKERS (BAND).
- BEFORE FINAL INSPECTION IS MADE, THE CONTRACTOR IN THE PRESENCE OF THE CONSTRUCTION ENGINEER, WILL FLOW TEST THE MOST CRITICAL HYDRANTS (HYDRANTS WITH THE LEAST FLOW EXPECTED). THE CONSTRUCTION ENGINEER WILL FURNISH TO THE KAUAI FIRE DEPARTMENT (WITH A COPY TO THE DEPARTMENT OF WATER SUPPLY) THE FOLLOWING FLOW DATA: STATIC AND RESIDUAL PRESSURES IN PSI; PITOT AND FLOW IN GPM; GENERAL LAYOUT DRAWING SHOWING LOCATION OF HYDRANTS; AND MANUFACTURER OF HYDRANTS.
- THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL PROVIDE EFFECTIVE MEASURES FOR THE CONTROL OF FUGITIVE DUST EMISSIONS FROM THE PROJECT AND SURROUNDING AREAS CAUSED BY HIS OPERATIONS. THESE MEASURES SHALL MEET THE REQUIREMENTS OF STATE ADMINISTRATIVE RULES, DEPARTMENT OF HEALTH, AIR POLLUTION CONTROL (11-60.1)
- ALL SLOPES AND EXPOSED AREAS SHALL BE SODDED OR PLANTED IMMEDIATELY AFTER THE GRADING WORK HAS BEEN COMPLETED.
- DEMOLITION WASTES, AND CONSTRUCTION WASTES SHALL BE DISPOSED OF AT AN AUTHORIZED SITE HAVING A DEPARTMENT OF HEALTH SOLID WASTE MANAGEMENT PERMIT. OPEN BURNING IS PROHIBITED. THE CONTRACTOR SHALL INFORM THE COUNTY ENGINEER OF THE LOCATION OF THE DISPOSAL SITES. THE DISPOSAL SITE MUST ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCES.
- ALL EXCESS MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE DAILY.
- THE PROJECT SITE SHALL BE KEPT DAMP WITH WATER SEVEN (7) DAYS A WEEK. AT THE END OF EACH DAY, THE SITE SHALL BE SUFFICIENTLY DAMPENED SO THAT THE SITE WILL REMAIN MOISTENED DURING THE NIGHT.

WATER POLLUTION AND GOOD HOUSEKEEPING NOTES:

- MATERIALS POLLUTION PREVENTION PLAN
 - APPLICABLE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION. OTHER MATERIALS AND SUBSTANCES NOT LISTED BELOW SHALL BE ADDED TO THE INVENTORY.

CONCRETE	FERTILIZERS	METAL STUDS
DETERGENTS	PETROLEUM BASED PRODUCTS	WOOD
PAINTS (ENAMEL AND LATEX)	CLEANING SOLVENTS	MASONRY BLOCK
 - MATERIAL MANAGEMENT PRACTICES SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF. AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT AS IS REQUIRED TO DO THE JOB.

ALL MATERIALS STORED ONSITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND IF POSSIBLE UNDER A ROOF OR OTHER ENCLOSURE.
 - PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
 - SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
 - WHENEVER POSSIBLE, A PRODUCT SHALL BE USED UP COMPLETELY BEFORE DISPOSING OF THE CONTAINER.
 - MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
 - THE CONTRACTOR SHALL CONDUCT A DAILY INSPECTION TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.
- ONSITE AND OFFSITE PRODUCTS SPECIFIC PLAN
 - THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ONSITE:
 - PETROLEUM BASED PRODUCTS: ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.
 - FERTILIZERS: FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE SHALL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
 - PAINTS: ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STATE DRAINAGE SYSTEM BUT SHALL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
 - CONCRETE TRUCKS: CONCRETE TRUCKS SHALL NOT BE ALLOWED TO WASH OUT OR DRUM WASH WATER AT THE PROJECT SITE. WATER SHALL NOT BE DISCHARGED IN THE STATE OR COUNTY DRAINAGE SYSTEM OR WATERS OF THE UNITED STATES. THE CONTRACTOR SHALL CONTACT DRINKING WATER BRANCH, DEPARTMENT OF HEALTH AT (808) 586-4258 TO RECEIVE PERMISSION TO DESIGNATE A DISPOSAL SITE. THE CONTRACTOR SHALL CLEAN DISPOSAL SITE AS REQUIRED OR AS REQUESTED BY THE OWNER'S REPRESENTATIVE.
 - OFFSITE VEHICLE TRACKING: THE PAVED STREET ADJACENT TO THE SITE ENTRANCE SHALL BE CLEANED DAILY OR AS REQUIRED TO REMOVE ANY EXCESS MUD, COLD PLANED MATERIALS, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL TO/OR FROM THE CONSTRUCTION SITE SHALL BE COVERED WITH A TARPULIN.

REV	DATE	DESCRIPTION	BY	APPROVED
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HARBORS DIVISION				
JOB TITLE FIRE PROTECTION SYSTEM REPAIRS, PIER 3, NAWILIWILI HARBOR KAUAI, HAWAII				
SHEET TITLE GENERAL NOTES				
DESIGNED BY: NS	JOB NUMBER S70156			SHEET 2 2 OF 4 SHYTS.
DRAWN BY: EL				
CHECKED BY: NS				
DATE: APR 2023				
SCALE:				