

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83A-01-98	1998	2	28

GENERAL NOTES

- THE KAMEHAMEHA HIGHWAY LANDSCAPING, HELEMANO-WAIALUA JUNCTION TO HALEIWA BEACH PARK, OAHU PROJECT CONSISTS OF ROADSIDE LANDSCAPE IMPROVEMENTS, ALONG THE NEW HALEIWA BY-PASS ROAD BETWEEN WAIALUA JUNCTION TO HALEIWA BEACH PARK. THE WORK INCLUDES LANDSCAPE INSTALLATION, TEMPORARY IRRIGATION AND A NINE (9) MONTH PLANT ESTABLISHMENT PERIOD.
- THE CONTRACT DOCUMENTS INCLUDE:
 - LANDSCAPE PLANS.
 - HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND PUBLIC WORKS CONSTRUCTION, (1994).
 - SPECIAL PROVISIONS, PROPOSAL, CONTRACT AND BOND.BE AWARE THAT THE HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND PUBLIC WORKS CONSTRUCTION, (1994) IS INCLUDED BY REFERENCE ONLY AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR UNDERSTANDING AND COMPLETING ALL WORK IN ACCORDANCE TO THE REQUIREMENTS SET FORTH IN THIS DOCUMENT, EXCEPT WHERE AMENDED IN THE SPECIAL PROVISIONS.

THE SPECIAL PROVISIONS SUPPLEMENT AND AMEND SECTIONS OF THE HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND PUBLIC WORKS CONSTRUCTION, (1994) AND APPLY TO THIS PROJECT.
- VERIFICATION OF EXISTING CONDITIONS
 - BASE INFORMATION FOR THIS PROJECT INCLUDING BUT NOT LIMITED TO ROADWAY ALIGNMENT, STATION POINTS, ROADSIDE EMBANKMENTS, SURFACE DRAINAGE AND UTILITIES ARE FROM CIVIL ENGINEERING CONSTRUCTION PLANS PROVIDED BY ENGINEERS SURVEYORS HAWAII, INC. AS-BUILT PLANS WERE NOT AVAILABLE AND NO GUARANTEE OF THE ACCURACY OF THE BASE INFORMATION EITHER EXPRESSED OR IMPLIED IS MADE.
 - THE CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS INCLUDING BUT NOT LIMITED TO ALL UTILITIES AND UNDERGROUND STRUCTURES PRIOR TO COMMENCING WORK. DAMAGE TO ANY EXISTING UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THEIR EXPENSE. NOTIFY THE ENGINEER IMMEDIATELY OF ANY EXISTING UTILITIES AND UNDERGROUND STRUCTURES NOT IDENTIFIED ON PLANS.
- CLEARING AND GRUBBING

PRIOR TO ANY PLANTING OPERATIONS ALL PLANTING AREAS SHALL BE CLEARED AND GRUBBED ACCORDING TO THE SPECIFICATIONS. SEE SECTION 201 CLEARING AND GRUBBING.
- COORDINATE AND COOPERATE WITH OTHER TRADES TO ENABLE WORK TO PROCEED AS RAPIDLY AND EFFICIENTLY AS POSSIBLE.
- KEEP ALL AREAS CLEAN, NEAT AND ORDERLY AT ALL TIMES. KEEP ALL PAVED AREAS CLEAN AND AT NO TIME SHALL TRAVELWAY BE OBSTRUCTED.
- EXISTING GRADES AND DRAINAGE SWALES SHALL NOT BE ALTERED BY THE PLANTING OPERATION. NOTIFY THE ENGINEER IMMEDIATELY OF ANY GRADING AND DRAINAGE PROBLEMS ENCOUNTERED IN THE FIELD.
- 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 AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH.
- VERIFY AND CHECK ALL DIMENSIONS AND DETAILS SHOWN ON THE DRAWINGS PRIOR TO THE START OF CONSTRUCTION, AND ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
- THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, BARRICADES, MARKERS, CONES, AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION AND FOR THE CONVENIENCES AND SAFETY OF PUBLIC TRAFFIC. ALL SUCH PROTECTIVE FACILITIES AND PRECAUTIONS TO BE TAKEN SHALL CONFORM WITH THE HAWAII ADMINISTRATION RULES GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON OR ADJACENT TO PUBLIC STREETS AND HIGHWAYS, ADOPTED BY THE DIRECTOR OF TRANSPORTATION, AND THE CURRENT U.S. FEDERAL HIGHWAYS ADMINISTRATION'S MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PART IV- TRAFFIC CONTROLS FOR STREETS AND HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS, CURRENT EDITION.
- THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE, LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH AND SAFETY AND ENVIRONMENTAL QUALITY.

SPECIAL CONDITIONS AND NOTES

- THE FOLLOWING NOTES ARE PROVIDED TO INFORM THE CONTRACTOR OF SPECIFIC REQUIREMENTS, DIRECTIONS, INSPECTIONS, ETC. WHICH SHALL BE REQUIRED TO COMPLY WITH THE TERMS OF THE CONTRACT. THE CONTRACTOR SHALL REFER TO THE HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND PUBLIC WORKS CONSTRUCTION (1994) AND THE SPECIAL PROVISIONS WHILE REVIEWING THE WORK INDICATED ON THE PLANS MENTIONED BELOW.
- PLANTING PLANS
 - SUBMIT ALL NECESSARY SAMPLES AND DOCUMENTS TO ENGINEER PRIOR TO THE START OF WORK, I.E. CERTIFICATE OF PLANTS, MATERIALS, FERTILIZER AND WEEDING SCHEDULE, ETC. REFER TO SPECIFICATIONS SECTION 619.02(A), 619.02(B), 619.02(C), 619.02(D), AND 619.02(G)
 - EXISTING DEBRIS AND PLANTS SHALL BE REMOVED. REFER TO SPECIFICATIONS 619.03(A), 619.03(D)(1), AND 619.03(D)(4).
 - AMENDED IMPORTED PLANTING SOIL AND ORGANIC SOIL AMENDMENTS SHALL BE REQUIRED. REFER TO SPECIFICATIONS 619.03(A).
 - THE CONTRACTOR SHALL MEET THE MINIMUM ACCEPTABLE STANDARDS FOR PLANT SIZE. REFER TO SPECIFICATIONS 619.02(C) AND THE "REMARKS" COLUMN OF THE PLANT LIST FOR MINIMUM REQUIREMENTS.
 - EXCAVATION FOR PLANT HOLES SHALL BE REQUIRED. PROPER PREPARATION OF PLANT HOLES WILL BE MONITORED. SEE SPECIFICATIONS 619.03(A), 619.03(C) AND 201.
 - A MINIMUM NINE (9) MONTH PLANT ESTABLISHMENT PERIOD IS REQUIRED. REFER TO SECTION 619.03(E).
 - FORMAL INSPECTIONS BY THE ENGINEER WILL BE HELD WITH THE CONTRACTOR TO VERIFY COMPLIANCE TO THE CONTRACT AS LISTED IN SECTION 619.03(F)
 - TEMPORARY IRRIGATION
 - THE CONTRACTOR SHALL SEEK AND SECURE A POTABLE OR NON-POTABLE WATER SOURCE FOR TEMPORARY IRRIGATION OF ALL LANDSCAPE AREAS WITHIN THE PROJECT LIMITS DURING THE CONTRACT PERIOD. ALL REQUIRED PERMITS, FEES AND CHARGES FOR SECURING, TRANSPORTING AND USING THE WATER SHALL BE BORN BY THE CONTRACTOR.

POTENTIAL WATER SOURCES MAY BE AVAILABLE FROM THE FOLLOWING OWNERS OR AGENCIES:
 - WAIALUA SUGAR COMPANY
 - BISHOP ESTATE
 - BOARD OF WATER SUPPLYPRELIMINARY ALTERNATIVE IRRIGATION WATER RESOURCES INFORMATION MAY BE OBTAINED FROM DOT-HIGHWAYS DESIGN BRANCH (TEL. NO. 587-2124).
 - THE CONTRACTOR SHALL PROVIDE A TEMPORARY IRRIGATION SYSTEM APPROVED BY THE ENGINEER TO PROVIDE SUPPLEMENTAL WATER TO ALL LANDSCAPE AREAS WITHIN THE PROJECT LIMITS THROUGHOUT THE PLANTING AND THE PLANT ESTABLISHMENT PERIOD. REFER TO SECTION 619 PLANTING AND TRANSPLANTING.

THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:
 - AFTER THE CONTRACT HAS BEEN AWARDED TO THE CONTRACTOR, SUBMIT A PLAN FOR THE TEMPORARY IRRIGATION SYSTEM FOR APPROVAL BY THE ENGINEER. APPROVAL WILL BE BASED ON COMPLIANCE TO THE IRRIGATION PERFORMANCE REQUIREMENTS LISTED BELOW, ITEM NO. 3.

THE APPROVED IRRIGATION SYSTEM PLAN SHALL BE INSTALLED OR MADE AVAILABLE FOR A FIELD TEST IN THE PRESENCE OF THE ENGINEER. MAKE ALL NECESSARY ADJUSTMENTS TO THE SYSTEM IN ACCORDANCE TO THE PERFORMANCE REQUIREMENTS AND AS DIRECTED BY THE ENGINEER. CONTACT THE ENGINEER IN WRITING ONE WEEK IN ADVANCE TO ARRANGE A DAY AND TIME OF THE FIELD TEST.

THE TYPE OF IRRIGATION SYSTEM TO BE PROVIDED IS AT THE CONTRACTOR'S DISCRETION (I.E. CONVENTIONAL, WATER TRUCK WITH MODIFIED NOZZLES) SO LONG AS IT MEETS THE IRRIGATION PERFORMANCE REQUIREMENTS LISTED BELOW.
 - EXISTING 6" PVC SLEEVES UNDER THE ROADWAY ARE INDICATED ON THE LANDSCAPE PLANS AT (4) LOCATIONS FOR USE BY THE CONTRACTOR IF SO DESIRED.
 - TEMPORARY IRRIGATION PERFORMANCE REQUIREMENTS
 - THE INTENT OF THE TEMPORARY IRRIGATION SYSTEM (OR METHOD) IS TO PROVIDE A RELIABLE AND REGULATED SOURCE OF SUPPLEMENTAL WATER TO NEW PLANTING AREAS TO OPTIMIZE PLANT GROWTH AND ROOT DEVELOPMENT DURING THE PLANTING AND PLANT ESTABLISHMENT PERIOD.

- REGULATE IRRIGATION TO ENSURE ACTIVE GROWTH KEEPING AREAS MOIST BUT NOT SATURATED. REGULATE IRRIGATION TO AVOID MISTING AND OVERSPRAYING AS WELL AS TO AVOID EROSION AND GULLYING.
- THE FREQUENCY AND QUANTITY OF IRRIGATION WATER SHALL BE GRADUALLY REDUCED AND EVENTUALLY ELIMINATED AT THE END OF THE PLANT ESTABLISHMENT PERIOD TO ACCLIMATIZE THE PLANTS TO ENABLE THEM TO SURVIVE UNDER NATURAL CONDITIONS.
- DURING THE INITIAL 90 DAYS PLANTING PERIOD AND THE FIRST 90 DAYS OF THE PLANT ESTABLISHMENT PERIOD, WATER DAILY. APPLY APPROXIMATELY 1/4 INCH OF WATER IN A 5-10 MINUTE RUN TIME.
- REDUCE THE FREQUENCY OF WATERING TO EVERY OTHER DAY FROM 61 TO DAY 90 OF THE PLANT ESTABLISHMENT PERIOD. APPLY AT THE SAME RATE ABOVE. MONITOR FOR ANY SIGNS OF DROUGHT STRESS AND ADJUST AS NECESSARY.
- DURING THE LAST 3 MONTHS OF THE PLANT ESTABLISHMENT PERIOD, FURTHER REDUCE THE FREQUENCY OF WATERING TO EVERY THIRD DAY OR TWICE A WEEK. MAINTAIN THE SAME RATE AS ABOVE. MONITOR AND ADJUST AS REQUIRED.
- AT THE FINAL ACCEPTANCE AND COMPLETION OF THE PROJECT THE TEMPORARY IRRIGATION SYSTEM (OR METHOD) SHALL BE SHUT-OFF, DISMANTLED AND REMOVED.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

[Signature]

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION GENERAL NOTES / SPECIAL CONDITIONS AND NOTES KAMEHAMEHA HIGHWAY LANDSCAPING Helemano-Waialua Junction to Haleiwa Beach Park, Oahu PROJECT NO. 83A-01-98 SCALE: NONE DATE: MAY, 1998	