

ORIGINAL PLAN	DATE
NOTED BY	
DESIGNED BY	
CHECKED BY	

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 COST INCURRED FOR ANY REMEDIAL ACTION BY THE CHIEF ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
- 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 CHAPTER 11-60, "AIR POLLUTION CONTROL".
- 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. 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.
- 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 CHIEF ENGINEER, PROVIDED SUCH GRADING WORK IS ALSO IN CONFORMANCE WITH HAWAII ADMINISTRATIVE RULES, CHAPTER 11-43, "COMMUNITY NOISE CONTROL FOR OAHU".
- THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.
- ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS CONTAINED IN HAWAII ADMINISTRATIVE RULES, CHAPTER 11-55, "WATER POLLUTION CONTROL" AND CHAPTER 11-54, "WATER QUALITY STANDARDS" 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 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.
- NON-COMPLIANCE TO ANY OF THE ABOVE REQUIREMENTS SHALL MEAN IMMEDIATE SUSPENSION OF ALL WORK, AND REMEDIAL WORK SHOULD COMMENCE IMMEDIATELY. ALL COSTS INCURRED SHALL BE BILLED TO THE PERMITTEE. FURTHERMORE, VIOLATORS SHALL BE SUBJECTED TO ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES.
- FOR BENCH MARK, SEE SHEET H1.
- SEDIMENT TRAP SHALL BE INSTALLED AT EACH OFF-SITE POINT OF DISCHARGE FOR EACH PHASE OF CONSTRUCTION.
- PROVIDE GRAVEL CONSTRUCTION ENTRANCE AT EACH CONSTRUCTION INGRESS AND EGRESS POINT FOR EACH PHASE OF CONSTRUCTION.
- PROVIDE PERIMETER RUNOFF CONTROL.
- PROVIDE FINISH GRADE STABILIZATION CONTROL.

WATER NOTES

- UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND CONSTRUCTION OF WATER SYSTEM FACILITIES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", 1985, AS AMENDED, OF THE HIGHWAYS DIVISION, DEPARTMENT OF TRANSPORTATION AND THE CITY AND COUNTY OF HONOLULU BOARD OF WATER SUPPLY'S "WATER SYSTEM STANDARDS", VOLUME 1, 1985, AND THE "APPROVED MATERIAL LIST AND STANDARD DETAILS FOR WATER SYSTEM CONSTRUCTION", VOLUME 2, 1985, THE WATER SYSTEM EXTERNAL CORROSION CONTROL STANDARD, VOLUME 3, DATED 1991, AND ALL SUBSEQUENT AMENDMENTS AND ADDITIONS.
- TEST PRESSURE SHALL BE ONE OF THE FOLLOWING:
  - PREVAILING LINE PRESSURE, JOINTS LEFT EXPOSED FOR 24 HOURS TO CHECK FOR LEAKS PRIOR TO BACKFILL.
  - 150 PSI.
- PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY BOARD OF WATER SUPPLY, THE MANUFACTURER'S CERTIFICATION THAT ALL CAST IRON (GRAY OR DUCTILE) FITTINGS FOR THE PROJECT CONFORM IN ALL RESPECTS TO THE WATER SYSTEM STANDARDS, DATED 1985.
- THE CONTRACTOR SHALL NOTIFY THE BWS PLANNING AND ENGINEERING DIVISION, CONSTRUCTION SECTION ONE WEEK PRIOR TO COMMENCING WORK ON THE WATER SYSTEM.
- 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.
- 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. THAT CONTRACTOR SHALL TAKE WATEVER MEASURE NECESSARY TO PROTECT THE WATER LINES, SUCH AS CONSTRUCTING SPECIAL REACTION BLOCKS (WITH BWS APPROVAL) AND/OR MODIFYING HIS CONSTRUCTION METHOD.
- ANY ADJUSTMENTS TO THE EXISTING WATER SYSTEM REQUIRED DURING CONSTRUCTION TO MEET REQUIREMENTS OF THE BWS STANDARDS, WHETHER SHOWN ON THE PLANS OR NOT SHALL BE DONE BY THE CONTRACTOR AT NO COST THE BOARD.
- THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES AS SHOWN ON THE PLANS ARE FROM THE LATEST AVAILABLE DATA 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 DAMAGES TO EXISTING UTILITIES.
- 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.
- RE-APPROVAL SHALL BE REQUIRED IF THIS PROJECT IS NOT UNDER CONSTRUCTION WITHIN A PERIOD OF TWO YEARS.
- 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 OBTAIN A NPDES PERMIT PRIOR TO CHLORINATION AND/OR DEWATERING. A COPY OF THE PERMIT SHALL BE SUBMITTED TO THE BWS PLANNING AND ENGINEERING DIVISION, CONSTRUCTION SECTION.
- PIPES SHALL BE PVC ONLY. PVC PIPES SHALL BE CLASS 150. ALL VALVES, CAST IRON PIPES AND FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE. NO BENDING OF PVC PIPES WILL BE PERMITTED. THE INSTALLATION OF PVC PIPE, ACCORDING TO THE PLANS AND SPECIFICATIONS AS BID ON BY THE CONTRACTOR, MAY REQUIRE ADDITIONAL DESIGN WORK, ADDITIONAL FITTINGS AND SPECIAL COUPLINGS, NOT SPECIFIED IN THE PLANS AND SPECIFICATIONS. PAYMENT FOR ADDITIONAL DESIGN WORK, ADDITIONAL FITTINGS AND SPECIAL COUPLINGS SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID IN THE PROPOSAL FOR PVC PIPE. ANY ADDITIONAL DESIGN WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COPPER TONING WIRE SHALL BE INSTALLED ALONG THE ENTIRE LENGTH OF THE PIPELINE AND ALL NON-METALLIC LATERALS.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-064-1(5)	1994	3	95

14. ALL WATER LINE CONSTRUCTION REQUIRING SHUTDOWN SHALL BE SCHEDULED AS FOLLOWS:

CONNECTION STATION	NORMAL WORKING HOURS	AFTER WORKING HOURS	REMARKS
STA 65+60 TO STA 66+05		X	8 HOURS MAXIMUM DOWNTIME U.S. COAST GUARD AFFECTED

\*STATE OWNED TREES- TO BE MAINTAINED BY THE STATE. CONTRACTOR SHALL NOTIFY STATE DEPT. OF TRANSPORTATION HIGHWAYS MAINTENANCE DIVISION FOR FINAL INSPECTION AND ACCEPTANCE.

APPROVED:

*Paula Choo* 9-23-93  
DIRECTOR DEPARTMENT OF LAND UTILIZATION  
CITY & COUNTY OF HONOLULU DATE

APPROVED:

*W. J. J. J.* 7/29/93  
DIRECTOR DEPARTMENT OF PARKS & RECREATION  
CITY & COUNTY OF HONOLULU DATE

APPROVED:  
(FOR GRADING ONLY)

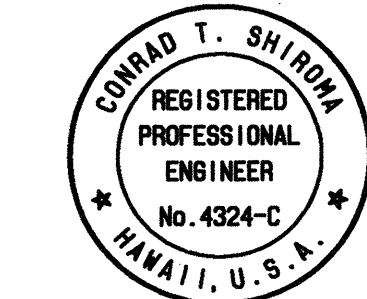
*W. J. J. J.* 7/19/93  
DIRECTOR AND CHIEF ENGINEER  
DEPARTMENT OF PUBLIC WORKS  
CITY & COUNTY OF HONOLULU DATE

APPROVED:

*W. J. J. J.* 7/13/93  
CHIEF PLANNING & ENGINEERING  
BOARD OF WATER SUPPLY  
CITY & COUNTY OF HONOLULU DATE

APPROVED:  
(FOR GRADING ONLY)

*W. J. J. J.* 7/16/93  
CHIEF DIVISION OF ENGINEERING  
DEPARTMENT OF PUBLIC WORKS  
CITY & COUNTY OF HONOLULU DATE



THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION.  
*Calvin Kim*  
CALVIN KIM & ASSOC., INC.

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CONSTRUCTION NOTES	
SAND ISLAND PARKWAY TREATMENT PLANT TO PARK ENTRANCE PROJECT NO. NH-064-1(5)	
SCALE: NONE	DATE: SEPT 1993
SHEET No. 1 OF 3 SHEETS	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-064-1(5)	1994	4	95

GENERAL CONSTRUCTION NOTES

1. AZIMUTHS AND COORDINATES ARE REFERRED TO U.S.E. NORTH BASE COORDINATE SYSTEM.
2. ELEVATIONS ARE REFERRED TO MEAN LOWER LOW WATER.
3. 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. 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.
4. BENCH MARKS SHALL BE ESTABLISHED ON NEW STREET MONUMENTS.
5. THE CONTRACTOR SHALL OBTAIN AND PAY FOR THE GRADING PERMIT FROM THE CITY AND COUNTY OF HONOLULU PRIOR TO COMMENCEMENT OF GRADING WORK.

TRAFFIC NOTES (FOR WORK IN C&C RIGHT-OF-WAY)

1. A PERMIT SHALL BE OBTAINED FROM THE DEPARTMENT OF TRANSPORTATION SERVICES BEFORE WORK IS STARTED ON ANY PORTION OF A PUBLIC STREET OR HIGHWAY.
2. THE CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN ALL NECESSARY SIGNS AND OTHER PROTECTIVE FACILITIES, WHICH SHALL CONFORM WITH THE "HAWAII ADMINISTRATIVE RULES" GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON OR ADJACENT TO PUBLIC STREETS AND HIGHWAYS IN THE STATE OF HAWAII", ADOPTED BY THE DIRECTOR OF TRANSPORTATION, AND THE CURRENT FEDERAL HIGHWAY ADMINISTRATIONS'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", PART VI, "TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS".
3. WORK ON ANY CITY STREET AREA MAY BE PERFORMED ONLY BETWEEN THE HOURS OF 8:00 AM TO 3:30 PM UNLESS OTHERWISE PERMITTED BY THE DEPARTMENT OF TRANSPORTATION SERVICES.
4. DURING NON-WORK HOURS ALL LANES SHALL BE OPEN AND ALL EXCAVATIONS ON CITY & COUNTY ROADS SHALL BE COVERED WITH A SAFE, NON-SKID BRIDGING MATERIAL.
5. THE CONTRACTOR SHALL REFERENCE, TO THE APPROVAL OF THE DEPARTMENT OF TRANSPORTATION SERVICES, ALL EXISTING TRAFFIC SIGNS, POSTS, AND PAVEMENT MARKINGS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNS, POSTS AND MARKINGS DISTURBED BY HIS ACTIVITIES. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF TRANSPORTATION SERVICES AT 523-4029 ONE (1) WEEK PRIOR TO ANY WORK TO BE DONE ON SIGNS, POSTS AND PAVEMENT MARKINGS.
6. THE CONTRACTOR SHALL PROVIDE SAFE ACCESS TO ALL DRIVEWAYS DURING WORK AND NON-WORK HOURS OR MAKE OTHER ARRANGEMENTS TO THE SATISFACTION OF THE AFFECTED RESIDENTS.
7. AS REQUIRED BY THE DEPARTMENT OF TRANSPORTATION SERVICES, THE CONTRACTOR SHALL HIRE SPECIAL DUTY POLICE OFFICERS TO CONTROL THE FLOW OF TRAFFIC.
8. A ROADWAY MAY BE CLOSED ONLY WITH THE EXPRESS PERMISSION OF THE DEPARTMENT OF TRANSPORTATION SERVICES.
9. WHERE PEDESTRIAN WALKWAYS EXIST, THEY SHALL BE MAINTAINED IN PASSABLE CONDITION OR OTHER FACILITIES FOR PEDESTRIANS SHALL BE PROVIDED. PASSAGE BETWEEN WALKWAYS AT INTERSECTIONS SHALL ALSO BE PROVIDED.
10. THE CONTRACTOR SHALL NOTIFY OTS, ED SNIFFEN OR TRASK HUDDY AT (848-4571), TWO (2) WEEKS PRIOR TO CONSTRUCTION, INFORMING THEM OF LOCATION, SCOPE OF WORK, PROPOSED CLOSURE OF ANY STREET OR TRAFFIC LANES, AND THE NEED TO RELOCATE ANY BUS STOP.
11. NO MATERIAL AND/OR EQUIPMENT SHALL BE STOCKPILED OR OTHERWISE STORED WITHIN STREET RIGHTS-OF-WAY EXCEPT AT LOCATIONS DESIGNATED IN WRITING AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION SERVICES.

HAWAIIAN TELEPHONE COMPANY NOTES

1. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CONSTRUCTION AND EXCAVATION CROSSES OR IS CLOSE TO EXISTING UNDERGROUND TELEPHONE AND SIGNAL CABLE FACILITIES. MAINTAIN ADEQUATE CLEARANCE FOR EQUIPMENT WHILE WORKING CLOSE TO AND/OR UNDER OVERHEAD FACILITIES. ANY DAMAGE TO THE EXISTING UNDERGROUND OR OVERHEAD FACILITIES SHALL BE REPAIRED BY HTCO AND PAID FOR BY THE CONTRACTOR.
2. SHOULD IT BECOME NECESSARY, ANY WORK REQUIRED TO RELOCATE OVERHEAD OR UNDERGROUND FACILITIES SHALL BE DONE BY HTCO AND PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION.
3. CONTRACTOR TO OBTAIN EXCAVATION PERMIT FROM HTCO RECORDS SECTION AT 3239 UALENA STREET AT LEAST 2 WEEKS PRIOR TO START OF CONSTRUCTION.
4. CONTRACTOR SHALL CONTACT HTCO INSPECTOR AT 834-6382 A MINIMUM OF 72 HOURS PRIOR TO START OF WORK.
5. SHOULD FIELD CONDITIONS AND CONSTRUCTION PROCEDURES REQUIRE THAT UTILITY POLES BE BRACED, THE CONTRACTOR SHALL CONTACT HTCO INSPECTOR FOR POLE BRACING INSTRUCTIONS AT LEAST 72 HOURS IN ADVANCE. RONALD MIZUTANI, AREA CONSTRUCTION SUPERVISOR 834-6258.
6. FOR FIELD LOCATION OF HTCO AND CATV FACILITIES, CONTACT HTCO, OUTSIDE PLANT ENGINEERING SECTION, A MINIMUM OF 72 HOURS IN ADVANCE PRIOR TO START OF EXCAVATION.

HAWAIIAN ELECTRIC COMPANY NOTES

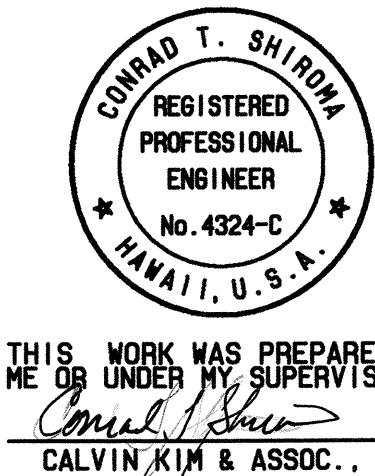
1. THE EXISTENCE AND LOCATION OF HECO'S OVERHEAD AND UNDERGROUND FACILITIES AS SHOWN ON THE PLANS ARE FROM EXISTING RECORDS OF VARYING DEGREES OF ACCURACY AND ARE NOT GUARANTEED AS SHOWN. THEREFORE, THE CONTRACTOR IS TO EXERCISE EXTREME CAUTION WHEN THE EXCAVATION CROSSES OR IS IN CLOSE PROXIMITY OF UNDERGROUND ELECTRICAL FACILITIES AND MAINTAIN ADEQUATE CLEARANCE FOR HIS EQUIPMENT WHILE WORKING CLOSE TO AND/OR UNDER THE OVERHEAD FACILITIES.
2. THE CONTRACTOR SHALL COMPLY WITH THE STATE OF HAWAII'S OCCUPATIONAL SAFETY AND HEALTH LAWS (DOSH) INCLUDING ALL AMENDMENTS.
3. WHEN TRENCH EXCAVATION IS ADJACENT TO OR BENEATH HECO'S EXISTING STRUCTURES OR FACILITIES, THE CONTRACTOR IS RESPONSIBLE FOR:
  - A. SHEETING AND BRACING THE EXCAVATION TO PREVENT SLIDES, CAVE INS AND SETTLEMENTS.
  - B. PROTECTING EXISTING STRUCTURES OR FACILITIES WITH BEAMS, STRUTS OR UNDER-PINNING.
4. FOR POLE BRACING INSTRUCTIONS, THE CONTRACTOR SHALL CALL THE HECO DISTRICT CONSTRUCTION SUPERINTENDENT AT WAI'AU, PHONE 455-6233, A MINIMUM OF 72 HOURS IN ADVANCE.
5. ANY WORK REQUIRED TO RELOCATE HECO FACILITIES SHALL BE DONE BY HECO AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION AND FOR COST IF APPLICABLE.
6. SHOULD IT BECOME NECESSARY TO TEMPORARILY RELOCATE ANY HECO FACILITIES TO ENABLE THE CONTRACTOR TO PERFORM HIS WORK IN A SAFE AND EXPEDITIOUS MANNER IN FULFILLING HIS CONTRACT OBLIGATIONS, THESE TEMPORARY RELOCATIONS WILL BE DONE BY HECO OR BY THE CONTRACTOR UNDER HECO'S SUPERVISION, WITH ALL COST BEING BORNE BY THE CONTRACTOR.
7. ANY DAMAGES TO HECO'S FACILITIES WILL BE REPORTED IMMEDIATELY TO HECO'S TROUBLE DISPATCHER AT PHONE 543-7674.
8. ALL HECO OVERHEAD AND UNDERGROUND FACILITIES SHOWN ON THESE PLANS OR WHOSE APPROXIMATE LOCATIONS WITHIN THE PROJECT BOUNDARIES HAVE BEEN MADE KNOWN BY ANY REASONABLE MEANS AT ANY TIME TO THE CONTRACTOR SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR DURING CONSTRUCTION. COSTS FOR DAMAGES TO HECO FACILITIES MAY BE BORNE BY THE CONTRACTOR. THIS REPAIR WORK SHALL BE DONE BY HECO OR BY THE CONTRACTOR UNDER HECO'S SUPERVISION.

SEWER NOTES

1. ALL SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY'S STANDARD SPECIFICATIONS, SEPT. 1986, THE DEPARTMENT OF PUBLIC WORKS STANDARD DETAILS, SEPT. 1984, CURRENT CITY PRACTICES AND REVISED ORDINANCES OF HONOLULU, 1990, AS AMENDED, AND DESIGN STANDARDS OF THE DIVISION OF WASTEWATER MANAGEMENT VOL. 1, FEB. 1984.
2. IN THE EVENT THAT ANY CHANGE IN ALIGNMENT OR GRADE FOR THE PROPOSED SEWERS ARE REQUIRED DUE TO UNFORESEEN CONFLICT WITH OTHER UTILITIES, THE ENGINEER IN CHARGE OR THE MAKER OF THE PLANS SHALL BE RESPONSIBLE FOR THE REQUIRED CHANGES WHICH ARE TO BE PRESENTED TO THE DIVISION OF WASTEWATER MANAGEMENT FOR APPROVAL.
3. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION SECTION, DIVISION OF WASTEWATER MANAGEMENT AT 527-5820 OR 523-4345 TO ARRANGE FOR INSPECTION SERVICES AND SUBMIT FOUR SETS OF APPROVED CONSTRUCTION PLANS SEVEN DAYS PRIOR TO COMMENCEMENT OF SEWER WORK.
4. CRUSHED ROCK CRADLE IS PERMITTED WHERE SOIL IS STABLE. IN AREAS OF UNSTABLE SOIL, THE MAKER OF THE PLANS AND THE CONSTRUCTION ENGINEER WILL DETERMINE THE PIPE SUPPORT REQUIRED.
5. TREES IN THE ROAD RIGHT-OF-WAY SHALL BE SITUATED A MINIMUM OF 6'-0" FROM THE CITY'S SEWER LINES.
6. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS RESEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING THE AREA.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS SEWER SERVICE TO ALL AFFECTED AREAS DURING CONSTRUCTION.
8. THE CONSULTING ENGINEER SHALL SUBMIT TO THE DIVISION OF WASTEWATER MANAGEMENT MYLAR "AS-BUILT" TRACINGS OF THE CONSTRUCTION PLANS AS ACTUALLY CONSTRUCTED, SHOWING ALL CHANGES FROM THE ORIGINAL PLANS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SEWAGE SPILLS CAUSED DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE STATE DEPARTMENT OF HEALTH AND UTILIZE APPROPRIATE SAMPLING AND ANALYZING PROCEDURES.
10. THE CONTRACTOR SHALL INSTALL "RAINSTOPPER" MANHOLE INSERTS IN ALL SEWER MANHOLES WITH TYPE "SA" FRAME AND COVER.

ORIGINAL PLAN	DATE
FILED IN	DATE
NOTED BY	DATE
DESIGNED BY	DATE
QUANTITIES BY	DATE
CHECKED BY	DATE

APPROVED:  
(FOR CONSTRUCTION WITHIN CITY R/W ONLY)  
*M. Oshiro* 8/5/93  
CHIEF, TRAFFIC ENGINEERING DIVISION  
CITY & COUNTY OF HONOLULU  
APPROVED:  
*G. Leppner* 7/6/93  
CHIEF, DIVISION OF WASTEWATER MANAGEMENT  
CITY & COUNTY OF HONOLULU



THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION.  
*Calvin Kim*  
CALVIN KIM & ASSOC., INC.

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>CONSTRUCTION NOTES</b>	
SAND ISLAND PARKWAY TREATMENT PLANT TO PARK ENTRANCE	
PROJECT NO. NH-064-1(5)	
SCALE: NONE	DATE: SEPT 1993
SHEET No. 2 OF 3 SHEETS	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-064-1(5)	1994	5	95

ABBREVIATIONS ( CIVIL PLANS )

AC	ACRE OR ASPHALT CONCRETE	E	EAST	ID	INSIDE DIAMETER	R	RADIUS
AGG	AGGREGATE	EA	EACH	INV	INVERT	RP	REDUCED PRESSURE OR ROYAL PATENT
APPROX	APPROXIMATE	EG	EXISTING GROUND			RCP	REINFORCED CONCRETE PIPE
ARV	AIR RELIEF VALVE	EGG	ELECTRIC HANDHOLE	LAT	LATERAL	RD	ROAD
		ELEC	ELECTRICAL	LF	LINEAR FOOT	RED	REDUCER
BEG	BEGIN	ELEV	ELEVATION	LIN	LINEAR	REF	REFERENCE
BL	BASELINE	EMB	EMBANKMENT	LONG	LONGITUDINAL	REINF	REINFORCEMENT
BLK	BLOCK	EMH	ELECTRIC MANHOLE	LT	LEFT OR LIGHT	REQ'D	REQUIRED
BM	BENCH MARK	ENGR	ENGINEER			RT	RIGHT
BOT	BOTTOM	EP	EDGE OF PAVEMENT	MAX	MAXIMUM	R/W	RIGHT-OF-WAY
BVC	BEGIN VERTICAL CURVE	EQ	EQUAL	MH	MANHOLE		
BWS	BOARD OF WATER SUPPLY	ESMT	EASEMENT	MIN	MINIMUM	S	SEWER OR SOUTH
		EVC	END VERTICAL CURVE	MISC	MISCELLANEOUS	SEC	SECTION
CB	CATCH BASIN	EW	EACH WAY	MJ	MECHANICAL JOINT	SF	SQUARE FEET
CI	CAST IRON	EXC	EXCAVATION	MON	MONUMENT	SHT	SHEET
CL	CLASS	EXIST	EXISTING			SL	SEWERLINE
CMU	CONCRETE MASONRY UNIT			N	NORTH	SMH	SEWER MANHOLE
CONC	CONCRETE	F	FILL OR FINISH	NIC	NOT IN CONTRACT	ST	STREET
CONN	CONNECT	FE	FLANGED ENDS	NO. #	NUMBER	STA	STATION
CONSTR	CONSTRUCTION	FF	FINISH FLOOR	NTS	NOT TO SCALE	STD	STANDARD
CONT	CONTINUED OR CONTINUATION	FH	FIRE HYDRANT			S/W	SIDEWALK
COTG	CLEANOUT TO GRADE	FIG	FIGURE	O/S	OFFSET	SY	SQUARE YARD
CY	CUBIC YARD	FIN	FINISH	OC	ON CENTER		
		FT	FEET OR FOOT	OD	OUTSIDE DIAMETER	TC	TOP CURB
D	DRAIN					TEMP	TEMPORARY
DET	DETAIL	GALV	GALVANIZE	PAVT	PAVEMENT	THK	THICK
DI	DRAIN INLET, DUCTILE IRON	GRD	GROUND	PB	PULL BOX	TP	TOP PAVEMENT
DIA	DIAMETER	GV	GATE VALVE	PC	POINT OF CURVATURE	TRANS	TRANSFORMER
DIM	DIMENSION			PI	POINT OF INTERSECTION OF TANGENTS	TW	TOP WALL
DL	DRAINLINE	HB	HOSE BIB	PIVC	POINT OF INTERSECTION OF VERTICAL CURVE	TYP	TYPICAL
DMH	DRAIN MANHOLE	HGL	HYDRAULIC GRADE LINE	PL	PLATE OR PROPERTY LINE		
DPW	DEPARTMENT OF PUBLIC WORKS	HORIZ	HORIZONTAL	POC	POINT ON CURVE	VB	VALVE BOX
DWG	DRAWING	HT	HEIGHT	PP	POWER POLE	VC	VERTICAL CURVE OR VITRIFIED CLAY
DWY	DRIVEWAY	HTCO	HAWAIIAN TELEPHONE COMPANY	PRES	PRESSURE	VERT	VERTICAL
		HWY	HIGHWAY	PROJ	PROJECT		
				PRV	PRESSURE REDUCING VALVE	W	WATER OR WEST
				PT	POINT OF TANGENCY	W/	WITH
				PVC	POLYVINYL CHLORIDE	WMH	WATER MANHOLE
						WL	WATERLINE
						W/O	WITHOUT
						WV	WATER VALVE

SURVEY PLOTTED BY

DATE

DESIGNED BY

DATE

QUANTITIES BY

DATE

CHECKED BY

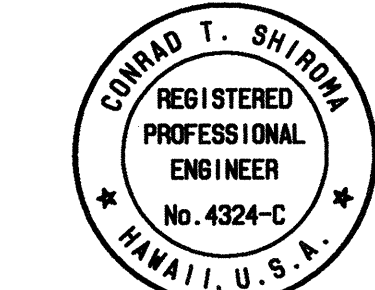
DATE

ORIGINAL PLAN

NO.

NOTEBOOK

NO.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.  
*Calvin Kim*  
CALVIN KIM & ASSOC., INC.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

ABBREVIATIONS, LEGEND

SAND ISLAND PARKWAY  
TREATMENT PLANT TO PARK ENTRANCE  
PROJECT NO. NH-064-1(5)

SCALE: AS NOTED      DATE: SEPT 1993

SHEET No. 3 OF 3 SHEETS