

GENERAL UTILITY NOTES (ALL UTILITIES)

1. THE CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY EXISTING UTILITY AND STRUCTURE.
2. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES, APPURTENANCES AND STRUCTURES AS SHOWN ON THE PLANS ARE BASED ON EXISTING RECORDS OF VARYING DEGREES OF ACCURACY AND COMPLETENESS. THEY ARE NOT GUARANTEED AS TO THE LOCATION SHOWN OR THAT OTHER OBSTACLES MAY NOT BE ENCOUNTERED IN THE COURSE OF WORK. THE CONTRACTOR SHALL ASSUME THAT EXISTING UTILITIES MAY EXIST, ALTHOUGH NOT SHOWN.
3. IN ORDER TO AVOID CONFLICTS WITH FUTURE IMPROVEMENTS FOR KEEHI INTERCHANGE SUCH AS STRUCTURE FOOTINGS, UTILITIES, DRAINAGE FACILITIES, ETC., THE PROPOSED UTILITY FACILITIES SHALL BE CONSTRUCTED AT THE LOCATIONS SHOWN ON THE PLANS.
4. RESTORATION OF EXISTING PAVEMENTS AND IMPROVEMENTS UNAVOIDABLY DEMOLISHED DUE TO WORK ON UTILITY RECONSTRUCTIONS SHALL BE INCIDENTAL TO THE VARIOUS CONTRACT ITEMS. RESTORATION SHALL BE TO ORIGINAL OR BETTER CONDITION.
5. THE CONTRACTOR SHALL POST A CUSTODIAN DURING PUMPING OPERATIONS. CUSTODIAN MUST BE KNOWLEDGEABLE IN THE OPERATION OF THE PUMP IN USE IN ORDER TO AVOID PROLONGED DELAYS SHOULD THE PUMP MALFUNCTION.
6. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS FIVE (5) DAYS NOTICE BEFORE ENTERING INTO THEIR RESPECTIVE PROPERTIES.

TELEPHONE NOTES

(HAWAIIAN TELEPHONE CO., LTD.)

1. THE CONTRACTOR SHALL GIVE HTCO, IN WRITING, AT LEAST 20 WORKING DAYS ADVANCE NOTICE OF INTENT TO COMMENCE WORK ON THE TELEPHONE SYSTEM.
2. EXISTING TELEPHONE FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THEIR ACTUAL LOCATION AND SHALL MAKE ADJUSTMENTS TO THE PROPOSED FACILITY AS DIRECTED BY HTCO.
3. HTCO WILL COORDINATE ITS WORK WITH THE CONTRACTOR IN SUCH A MANNER AS TO EXPEDITE CONSTRUCTION.
4. STAKE-OUT OF NEW MANHOLES, HANDHOLES, PULLBOXES, RISER BENDS, DUCTS, POLES AND ANCHORS SHALL BE DONE BY THE CONTRACTOR, AND VERIFIED BY HTCO.
5. ALL MANHOLES, HANDHOLES, PULLBOXES, DUCTS, AND RISER BENDS SHALL BE INSTALLED BY THE CONTRACTOR.
6. ALL TELEPHONE DUCTS ENCASED IN CONCRETE JACKET UNLESS OTHERWISE SPECIFIED. ALL DUCTS AND CONDUITS SHALL BE INSPECTED AND APPROVED BY HTCO BEFORE CONCRETE PLACEMENT. ADVANCE NOTICE OF AT LEAST 24 HOURS SHALL BE GIVEN BEFORE PLACING CONCRETE.
7. POLES, ANCHORS, AND CABLES WILL BE REMOVED BY HTCO.
8. HTCO TO FURNISH THE CONTRACTOR FOR PROPER INSTALLATION, ALL MANHOLE FRAMES AND COVERS; ALL PULLBOX FRAMES AND COVERS; ALL PULLING IRONS, CABLE RACKS, BOLTS, NUTS, WASHERS AND GROUND RODS FOR INSTALLATION IN MANHOLES, PULLBOXES, AND HANDHOLES; ALL STYRENE DUCTS, FITTINGS AND SPREADERS; BENDS AND FITTINGS, EXCEPT AS SHOWN ON PLANS.

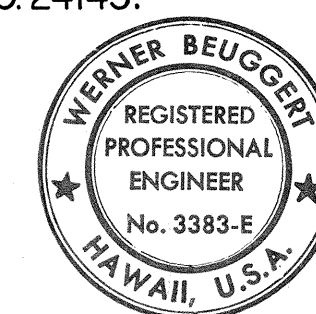
GAS NOTES (GASCO, INC.)

1. THE CONTRACTOR SHALL GIVE GASCO, INC., IN WRITING AT LEAST 14 CALENDAR DAYS ADVANCE NOTICE OF INTENT TO COMMENCE WORK ON THE GAS SYSTEM.
2. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS AND DEPTHS OF EXISTING GAS LINES PRIOR TO START OF CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL CALL GASCO, INC. A MINIMUM OF 48 HOURS BEFORE STARTING EXCAVATION TO ARRANGE FOR FIELD LOCATION OF ALL EXISTING GAS PIPE LINES. THE TELEPHONE NUMBER IS 548-2126 DURING BUSINESS HOURS, AND 548-2123 AFTER HOURS. THE CONTRACTOR SHALL EXCAVATE AND BACKFILL AROUND GAS PIPE LINES IN THE PRESENCE OF A GASCO, INC. REPRESENTATIVE. ALL BACKFILL WITHIN SIX INCHES OF GAS LINE SHALL BE SELECT CUSHION MATERIAL APPROVED BY GASCO, INC.
3. FOR RELOCATION OF ANY GAS PIPE LINE, THE CONTRACTOR SHALL NOTIFY GASCO, INC. 5 WORKING DAYS BEFORE STARTING WORK. THE CONTRACTOR SHALL PROVIDE THE NECESSARY EXCAVATION AND BACKFILL, ARRANGE FOR TRAFFIC PERMITS AND RESTORE SIDEWALK PAVEMENT OR OTHER IMPROVEMENTS. THE CONTRACTOR SHALL PERFORM ALL NECESSARY EXCAVATION FOR NEW GAS LINES UNTIL THE NEW LINES ARE IN SERVICE.
4. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR AND EQUIPMENT FOR PERFORMING ALL NECESSARY EXCAVATION, BACKFILL, AND CONCRETE WORK NECESSARY FOR THE INSTALLATION OF NEW GAS PIPES IN TRENCH AND ADJUSTMENTS TO EXISTING GAS PIPES AND APPURTENANCES. GASCO WILL PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT FOR THE INSTALLATION OF THE GAS LINE IN TRENCHES, INCLUDING FABRICATION, WELDING, AND TESTING.
5. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR AND EQUIPMENT FOR INSTALLING THE GAS LINE ON THE BIKEWAY/WATERMAIN STRUCTURE, EXCEPT FOR FURNISHING, WELDING AND TESTING OF THE PIPE WHICH WILL BE DONE BY GASCO.
6. THE GASCO, INC. GAS PIPE LINES IN THE PROJECT AREA ARE PLASTIC COATED AND CATHODICALLY PROTECTED. THE CONTRACTOR SHALL BE EXTREMELY CAREFUL WHEN WORKING NEAR THESE GAS PIPE LINES.
7. THE CONTRACTOR SHALL NOTIFY GASCO, INC. IMMEDIATELY AFTER ANY DAMAGE HAS BEEN CAUSED TO EXISTING GAS PIPELINES, THEIR COATINGS OR THEIR CATHODIC PROTECTION DEVICES. REPAIR WORK ON THIS DAMAGE WILL BE DONE BY GASCO, INC. WITH PAYMENT FOR THIS WORK TO BE BORNE BY THE CONTRACTOR.
8. MINIMUM VERTICAL OR HORIZONTAL CLEARANCE BETWEEN GAS PIPE LINES AND OTHER PIPELINES, CONDUITS, OR DUCTLINES SHALL BE 12 INCHES. ADEQUATE SUPPORT AND PROTECTION FOR GAS PIPE LINES EXPOSED IN THE TRENCH SHALL BE PROVIDED. SUCH SUPPORT AND PROTECTION WILL BE APPROVED BY GASCO, INC. IF THIS CLEARANCE CANNOT BE ATTAINED, THE GAS LINE SHALL BE PROTECTED WITH A GASCO, INC. - APPROVED INSULATION MATERIAL FURNISHED AND INSTALLED BY THE CONTRACTOR, AND THE WORK MUST BE APPROVED BY GASCO, INC.
9. THE CONTRACTOR SHALL WORK IN AN EXPEDITIOUS MANNER IN ORDER TO KEEP UNCOVERED GAS PIPE LINES EXPOSED FOR AS SHORT A PERIOD OF TIME AS POSSIBLE.
10. ALL EXISTING GAS FACILITIES SHALL REMAIN IN PLACE UNTIL ALL NEW FACILITIES ARE INSTALLED AND PRESSURIZED INTO SERVICE. ALL COSTS FOR TEMPORARY RELOCATION REQUIRED DURING CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR.

ELECTRIC NOTES

(HAWAIIAN ELECTRIC CO., INC.)

1. THE CONTRACTOR SHALL GIVE HECO IN WRITING AT LEAST 20 WORKING DAYS ADVANCE NOTICE OF INTENT TO COMMENCE WORK ON THE ELECTRICAL SYSTEM.
2. ALL EXISTING FACILITIES SHALL REMAIN IN PLACE UNTIL THE PROPOSED FACILITIES ARE INSTALLED. EXISTING ELECTRIC FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THEIR ACTUAL LOCATIONS AND SHALL MAKE ADJUSTMENTS TO THE PROPOSED FACILITY AS DIRECTED BY HECO.
3. HECO WILL COORDINATE ITS WORK WITH THE CONTRACTOR IN SUCH A MANNER AS TO EXPEDITE CONSTRUCTION.
4. ALL MATERIALS REQUIRED FOR THE RELOCATION AND REARRANGEMENT OF THE HECO'S OVERHEAD FACILITIES WILL BE FURNISHED BY HECO.
5. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS TO COMPLETE CONSTRUCTION OF THE UNDERGROUND DUCTLINE SYSTEM, INCLUDING RISER CONDUITS. ALL ELECTRIC DUCTS SHALL BE ENCASED IN CONCRETE JACKET UNLESS OTHERWISE SPECIFIED. ALL DUCTS AND CONDUITS SHALL BE INSPECTED AND APPROVED BY HECO PRIOR TO PLACING CONCRETE. THE CONTRACTOR SHALL NOTIFY HECO'S INSPECTION DIVISION (PHONE 548-4428) AT LEAST 24 HOURS PRIOR TO PLACING CONCRETE.
6. LOCATION AND DEPTH OF ALL HANDHOLES, MANHOLES, AND SWITCH CABINET PAD SHALL BE VERIFIED AND APPROVED IN THE FIELD BY HECO PRIOR TO EXCAVATION, CONSTRUCTION OR INSTALLATION.
7. THE CONTRACTOR IS TO MANDREL TEST ALL DUCTLINES IN THE PRESENCE OF HECO'S INSPECTOR PRIOR TO ACCEPTANCE.
8. EXCAVATION OF POLE HOLES AND ANCHORS, INSTALLATION OF POLES AND ANCHORS, AND BACKFILL OF POLE HOLES AND ANCHORS WILL BE DONE BY HECO. STAKE OUT OF WOOD POLE AND ANCHOR LOCATIONS TO BE DONE BY THE CONTRACTOR AND VERIFIED BY HECO.
9. ELECTRIC DUCT BANKS SHALL ENTER AND LEAVE MANHOLES AT ZERO PERCENT SLOPE FOR A MINIMUM DISTANCE OF TEN FEET.
10. FOR ANCHOR STAKE OUT DETAILS SEE HECO PROJECT DWG. NO. 24143. HECO TO PROVIDE CONTRACTOR WITH HECO PROJECT DWG. NO. 24143.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Werner Beugert

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FH-1(136):17	1976	2	124

10/6/76	Added General Utility Note 6.
DATE	REVISION
APPROVED:	
<i>K. Karamoto</i> Hawaiian Telephone Co., Ltd.	8/19/76 Date
<i>J. Karamoto</i> Hawaiian Electric Co., Inc.	7/27/76 Date
<i>C. B. B.</i> Gasco, Inc.	8/4/76 Date
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION GENERAL UTILITY NOTES INTERSTATE ROUTE H-1 PROJECT NO. 1-H1-1(136):17 NO SCALE DATE: JULY 15, 1976 SHEET NO. 1 OF 2 SHEETS	

ADD. 2

BOARD OF WATER SUPPLY

1. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND CONSTRUCTION OF THE WATER SYSTEM FACILITIES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED 1976, AND AS AMENDED, OF THE HAWAII HIGHWAYS DIVISION, DEPARTMENT OF TRANSPORTATION.
2. THE CONTRACTOR SHALL GIVE THE BOARD OF WATER SUPPLY IN WRITING, AT LEAST ONE-WEEK ADVANCE NOTICE OF INTENT TO COMMENCE WORK ON THE WATER SYSTEM.
3. PRIOR TO EXCAVATING FOR OTHER NEW UTILITY LINES, THE CONTRACTOR SHALL VERIFY IN THE FIELD THE LOCATION OF EXISTING WATER MAINS AND APPURTENANCES. WHERE OTHER NEW UTILITY LINES ARE TO CROSS OVER OR UNDER EXISTING WATER MAINS, THE CONTRACTOR SHALL EXPOSE THE EXISTING WATER MAINS PRIOR TO TRENCHING. EXCAVATION AROUND WATER MAINS SHALL BE DONE BY HAND.
4. UNLESS OTHERWISE SPECIFIED, CONCRETE CYLINDER PIPE & DUCTILE IRON PIPE SHALL BE USED FOR RECONSTRUCTED 42-INCH WATER MAIN AND DUCTILE IRON PIPE SHALL BE USED FOR 24-INCH, 12-INCH AND 6-INCH WATER LINES.
5. THE CONTRACTOR SHALL EXPOSE ALL EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO EXCAVATION OF PIPELINE TRENCH AND MANUFACTURING OF PIPE.
6. ALL SHOWN INFORMATION FOR CONNECTIONS TO EXISTING WATER MAINS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND SHALL BE ADJUSTED AS NECESSARY.
7. CONCRETE CYLINDER PIPE STORED AT THE JOB SITE OR AT THE CONTRACTOR'S STOREYARD SHALL BE ADDITIONALLY WATER CURED UNTIL INSTALLED AND BACKFILLED IN THE TRENCH.
8. PRIOR TO THE INSTALLATION OF ANY CONCRETE CYLINDER PIPE OR FITTING IN AREAS WHERE THE INVERT GRADE OF THE PIPE IS AT OR LOWER THAN FOUR-FOOT ELEVATION, THE CONTRACTOR SHALL APPLY BY BRUSHING OR MOPPING A CEMENT SLURRY COMPOSED OF ONE SACK PORTLAND CEMENT TO NOT MORE THAN FIVE GALLONS OF WATER TO THE EXTERIOR COATING OF PIPE OR FITTING. THE SLURRY COAT SHALL BE APPLIED AT LEAST 24 HOURS BUT NOT MORE THAN 48 HOURS BEFORE INSTALLATION. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS IN THE PROPOSAL.
9. THERE SHALL BE A MINIMUM HORIZONTAL CLEARANCE OF 3 FEET, AND A MINIMUM VERTICAL CLEARANCE OF 6 INCHES, BETWEEN WATER MAINS AND OTHER UTILITIES.
10. PIPE TEST PRESSURE IS 150 PSI.
11. UNLESS OTHERWISE SPECIFIED, CONNECTIONS TO EXISTING WATER MAINS AND CHLORINATION OF NEW MAINS SHALL BE DONE BY THE CONTRACTOR, WITH THE BWS INSPECTOR COORDINATING THE WORK. FOR DETAILS, CONTACT BWS ENGINEERING DIVISION, CONSTRUCTION SECTION.
12. ALL DUCTILE IRON WATER MAINS & C.I. FITTINGS BELOW ELEVATION (+) 4.0' SHALL BE ENCASED IN PLASTIC MATERIAL IN ACCORDANCE WITH ANSI SPECIFICATIONS A21.5-1972 OR AWWA SPECIFICATIONS C105-72 "POLYETHYLENE ENCASEMENT FOR GRAY AND DUCTILE CAST IRON PIPING FOR WATER AND OTHER LIQUIDS." PAYMENT SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS CONTRACT ITEMS IN THE PROPOSAL.

BOARD OF WATER SUPPLY

13. PAYMENT FOR ALL CLEANOUTS SHALL BE CONSIDERED INCIDENTAL TO VARIOUS CONTRACT ITEMS IN THE PROPOSAL.
14. PLANS APPROVED BY THE BOARD OF WATER SUPPLY ARE BASED SOLELY ON THE ADEQUACY OF THE WATER SYSTEM SUPPLY, DISCREPANCIES, IF ANY, OF ALIGNMENTS, GRADES, FITTINGS, ETC., ARE THE RESPONSIBILITY OF THE ENGINEER WHO PREPARED THE PLANS.

FIRE ALARM NOTES
(CITY & COUNTY OF HONOLULU)

1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR THE ADJUSTMENT AND RECONSTRUCTION OF AN EXISTING FIRE ALARM SYSTEM.
2. EXISTING FIRE ALARM CIRCUITS SHALL NOT BE INTERRUPTED AT ANY TIME.
3. FINAL CONNECTION OF NEW CABLES TO EXISTING CIRCUITS WILL BE DONE BY THE CITY.
4. SPLICING OF CABLES, IF REQUIRED, WILL BE DONE BY THE CITY.
5. EXISTING OVERHEAD OPEN WIRES AND CABLES SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AFTER THE NEW CABLES ARE ACCEPTED BY THE CITY.
6. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF TRANSPORTATION SERVICES, CITY AND COUNTY OF HONOLULU, PHONE 523-4905, THREE (3) WORKING DAYS PRIOR TO STARTING WORK ON THE FIRE ALARM SYSTEM.

SEWER NOTES
(CITY AND COUNTY OF HONOLULU)

1. THE CONTRACTOR SHALL NOTIFY THE DIVISION OF SEWERS SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF SEWER WORK.
2. INTERRUPTIONS TO THE SEWAGE PUMPING STATION'S OPERATIONS SHALL BE COORDINATED WITH DISPOSAL BRANCH, 653 ALA MOANA BLVD. (MR. CHRIS HONG-TEL. 523-4338). EGRESS AND INGRESS TO THE STATION SHALL BE COORDINATED WITH THE DIV. OF SEWERS.
3. IN THE EVENT THAT ANY CHANGES IN ALIGNMENT OR GRADE FOR THE PROPOSED SEWER ARE REQUIRED DUE TO UNFORESEEN CONFLICT WITH UNDERGROUND UTILITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND PROVIDE THE ENGINEER THE NECESSARY DATA IN ORDER THAT THE ENGINEER WILL BE ABLE TO DETERMINE WHAT CHANGES IN ALIGNMENT OR GRADE ARE REQUIRED.
4. ALL CONSTRUCTION WORK AND MATERIAL SHALL CONFORM TO THE STANDARD DETAILS DATED FEB. 1973, AND SPECIFICATIONS DATED MAY, 1975 OF THE DEPT. OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU, AND THE REVISED ORDINANCE OF HONOLULU, 1969.

LEGEND FOR UTILITY DRAWINGS

EXISTING FACILITIES (PLAN SHEETS)	-----	
EXISTING FACILITIES (PROFILE SHEETS)	-----	0
NEW FACILITIES	-----	
FUTURE FACILITIES	-----	
EXISTING FACILITIES TO BE: REMOVED, DEMOLISHED, ABANDONED OR RELOCATED WHEN NEW LINES ARE IN SERVICE	-----	#####
TELEPHONE-UNDERGROUND (HTCO)	-----	T
TELEPHONE-AERIAL (HTCO)	-----	TA
ELECTRIC-UNDERGROUND (HECO)	-----	E
ELECTRIC-AERIAL (HECO)	-----	EA
WATER (B.W.S.)	-----	W24
GAS (GASCO, INC.)	-----	G10
ARMY COMMUNICATIONS CABLE	-----	ACC
SANITARY SEWER (CITY)	-----	SG
FIRE ALARM-UNDERGROUND (CITY)	-----	FA
FIRE ALARM-AERIAL (CITY)	-----	FAA
LIGHTING SYSTEM-AERIAL	-----	LA
DRAINLINE	-----	D24
EXISTING POLE	-----	O
NEW POLE	-----	●
GUY WIRE	-----	⊙
GAS ANODE	-----	Ⓐ
BOTTOM VERTICAL	-----	BV
TOP VERTICAL	-----	TV
CONCRETE CYLINDER PIPE	-----	CCP
GALVANIZED STEEL PIPE	-----	G.S.P
LEAD JOINT	-----	L.J.
MECHANICAL JOINT	-----	M.J.
DUCTILE IRON	-----	D.I.
MANHOLE	-----	MH
HANDHOLE	-----	HH
PULLBOX	-----	PB
STYRENE	-----	STY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	H-11-1(136):17	1976	3	124

APPROVED:

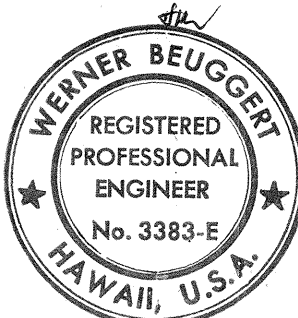
[Signature] 8/13/76
Div. of Engr., Dept. of Public Works Date
City & County of Honolulu

[Signature] 8/19/76
Assistant Chief Engineer, B.W.S. Date

[Signature] 8/23/76
Division of Sewers Date
City & County of Honolulu

[Signature] 7-20-76
Div. of Transportation Services Date
City & County of Honolulu

[Signature] 7/23/76
Div. of Refuse Collection and Disp. Date
City & County of Honolulu



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

[Signature]

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL UTILITY
NOTES

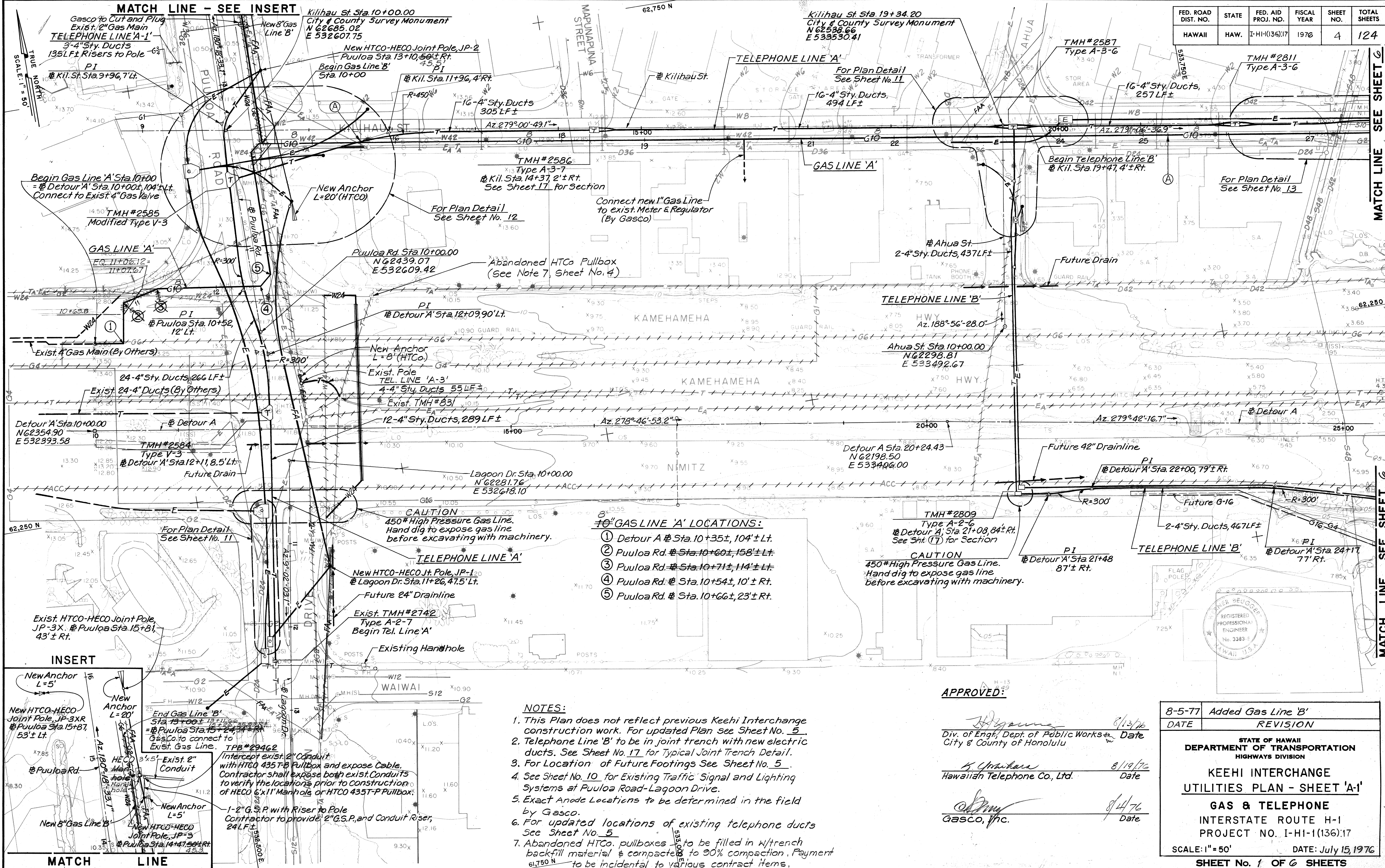
INTERSTATE ROUTE H-1
PROJECT NO. 1-H1-1(136):17

NO SCALE DATE: JULY 15, 1976

SHEET NO. 2 OF 2 SHEETS

MATCH LINE - SEE INSERT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI(136)17	1976	4	124



10" GAS LINE 'A' LOCATIONS:

- 1 Detour A @ Sta. 10+35±, 104'± Lt.
- 2 Puuloa Rd. @ Sta. 10+60±, 158'± Lt.
- 3 Puuloa Rd. @ Sta. 10+71±, 114'± Lt.
- 4 Puuloa Rd. @ Sta. 10+54±, 10'± Rt.
- 5 Puuloa Rd. @ Sta. 10+66±, 23'± Rt.

NOTES:

1. This Plan does not reflect previous Keehi Interchange construction work. For updated Plan See Sheet No. 5.
2. Telephone Line 'B' to be in joint trench with new electric ducts. See Sheet No. 17 for Typical Joint Trench Detail.
3. For Location of Future Footings See Sheet No. 5.
4. See Sheet No. 10 for Existing Traffic Signal and Lighting Systems at Puuloa Road-Lagoon Drive.
5. Exact Anode Locations to be determined in the field by Gasco.
6. For updated locations of existing telephone ducts See Sheet No. 5.
7. Abandoned HTCo. pullboxes to be filled in w/trench backfill material & compacted to 90% compaction. Payment to be incidental to various contract items.

APPROVED:

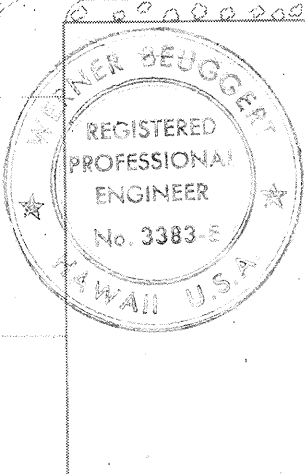
[Signature] 8/13/76
Div. of Engr., Dept. of Public Works
City & County of Honolulu
Date

[Signature] 8/19/76
Hawaiian Telephone Co., Ltd.
Date

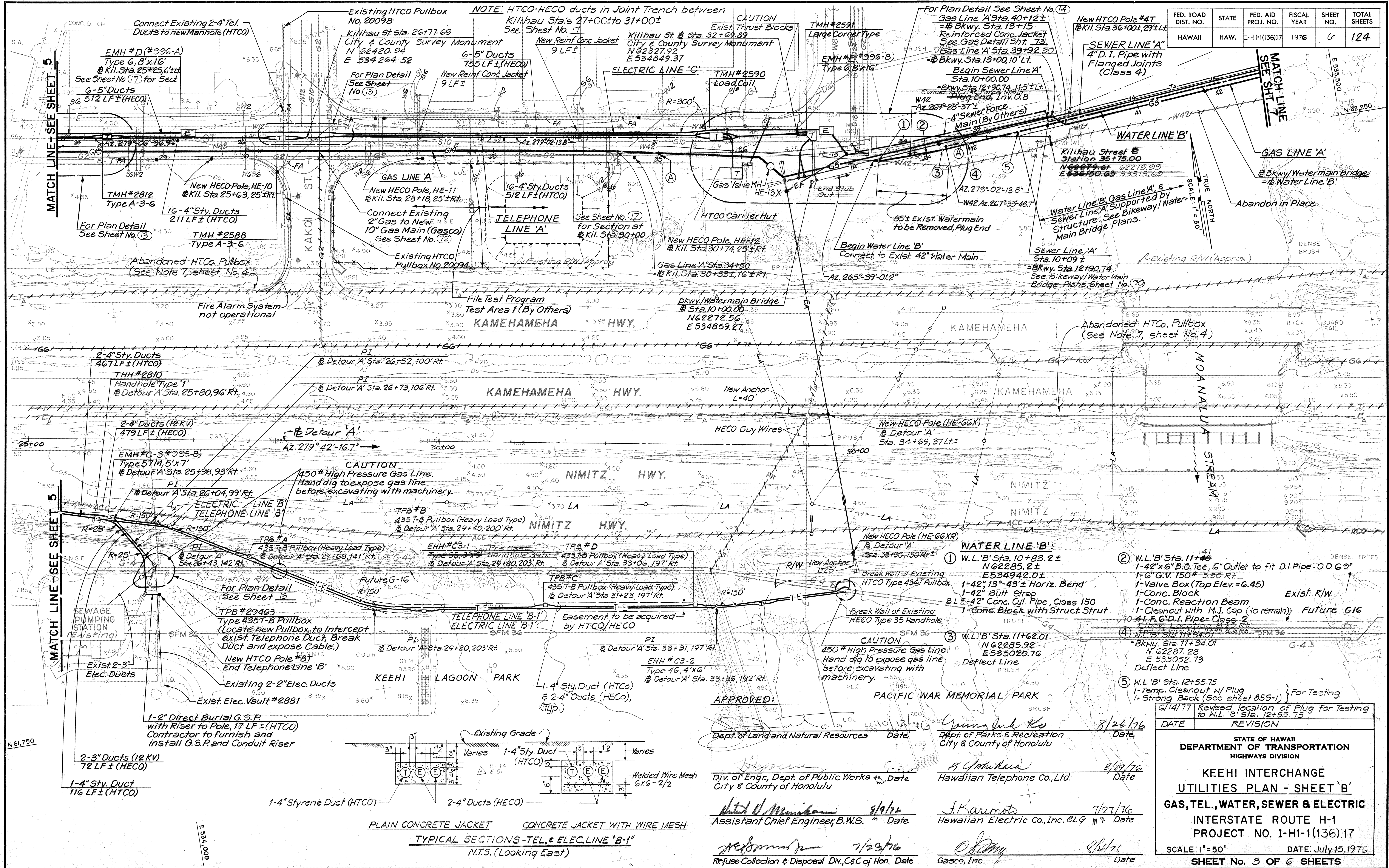
[Signature] 8/4/76
Gasco, Inc.
Date

8-5-77	Added Gas Line 'B'
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
KEEHI INTERCHANGE UTILITIES PLAN - SHEET 'A-1'	
GAS & TELEPHONE INTERSTATE ROUTE H-1 PROJECT NO. I-HI-1(136)17	
SCALE: 1" = 50' DATE: July 15, 1976	
SHEET No. 1 OF 6 SHEETS	

DATE	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	



DATE	SURVEY PLOTTED BY
DATE	DRAWN BY
DATE	DESIGNED BY
DATE	QUANTITIES BY
DATE	CHECKED BY



GAS LINE:

Begin G.L. "C" Sta. 10+00 =
G.L. "A" Sta. 56+62 ±
Connect to G.L. "A"

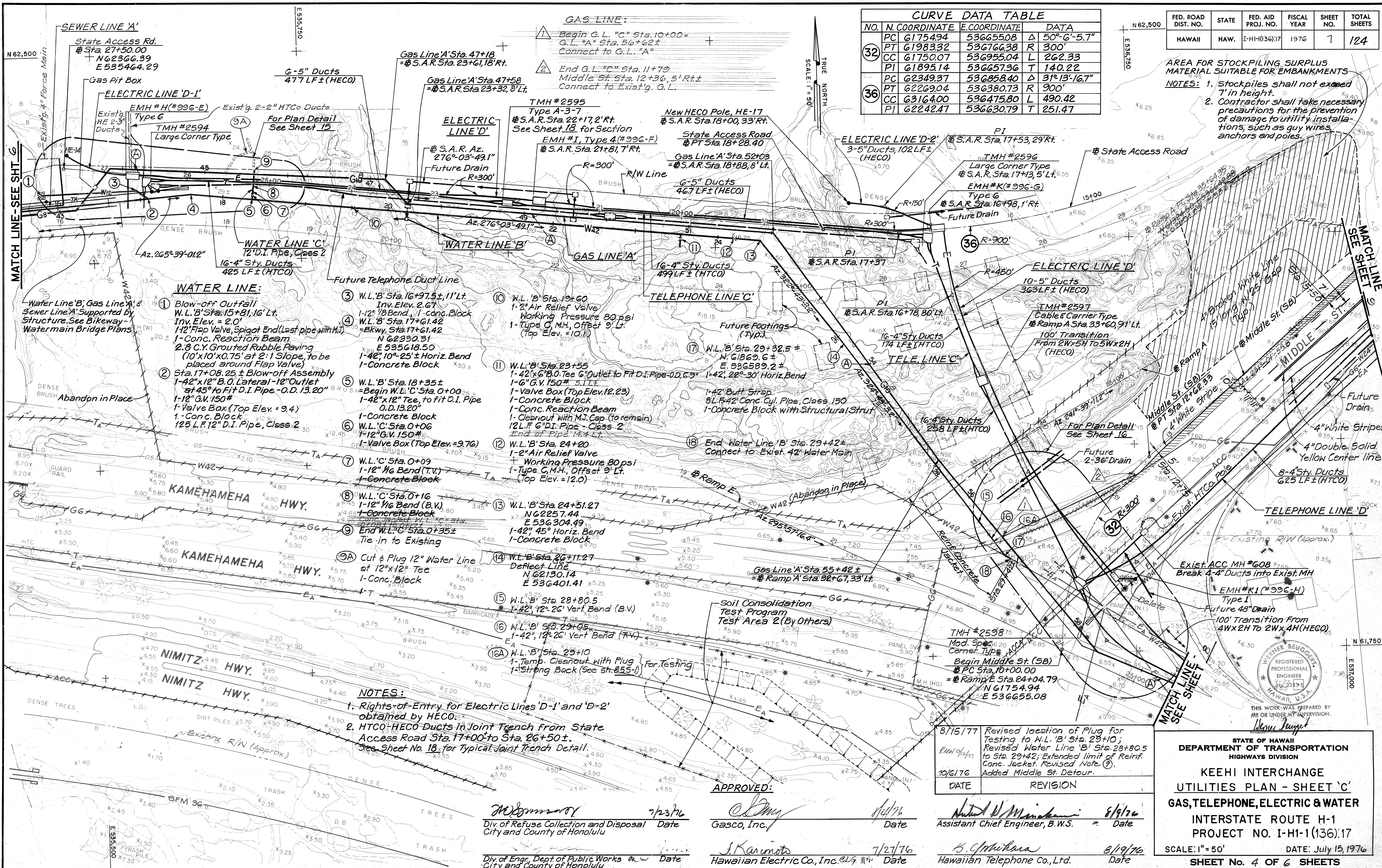
End G.L. "C" Sta. 11+70
Middle St. Sta. 12+36, 5' R/L ±
Connect to Exist'g. G.L.

CURVE DATA TABLE				
NO.	N. COORDINATE	E. COORDINATE	DATA	
32	PC 61754.94	5366550.8	Δ 50°-6'-5.7"	
	PT 61983.32	5367663.8	R 300'	
	CC 61750.07	536955.04	L 262.33	
	PI 61895.14	536657.36	T 140.22	
36	PC 62349.37	536858.40	Δ 31°-13'-16.7"	
	PT 62269.04	536380.73	R 900'	
	CC 63164.00	536475.80	L 490.42	
	PI 62242.47	536630.79	T 251.47	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(136)17	1976	7	124

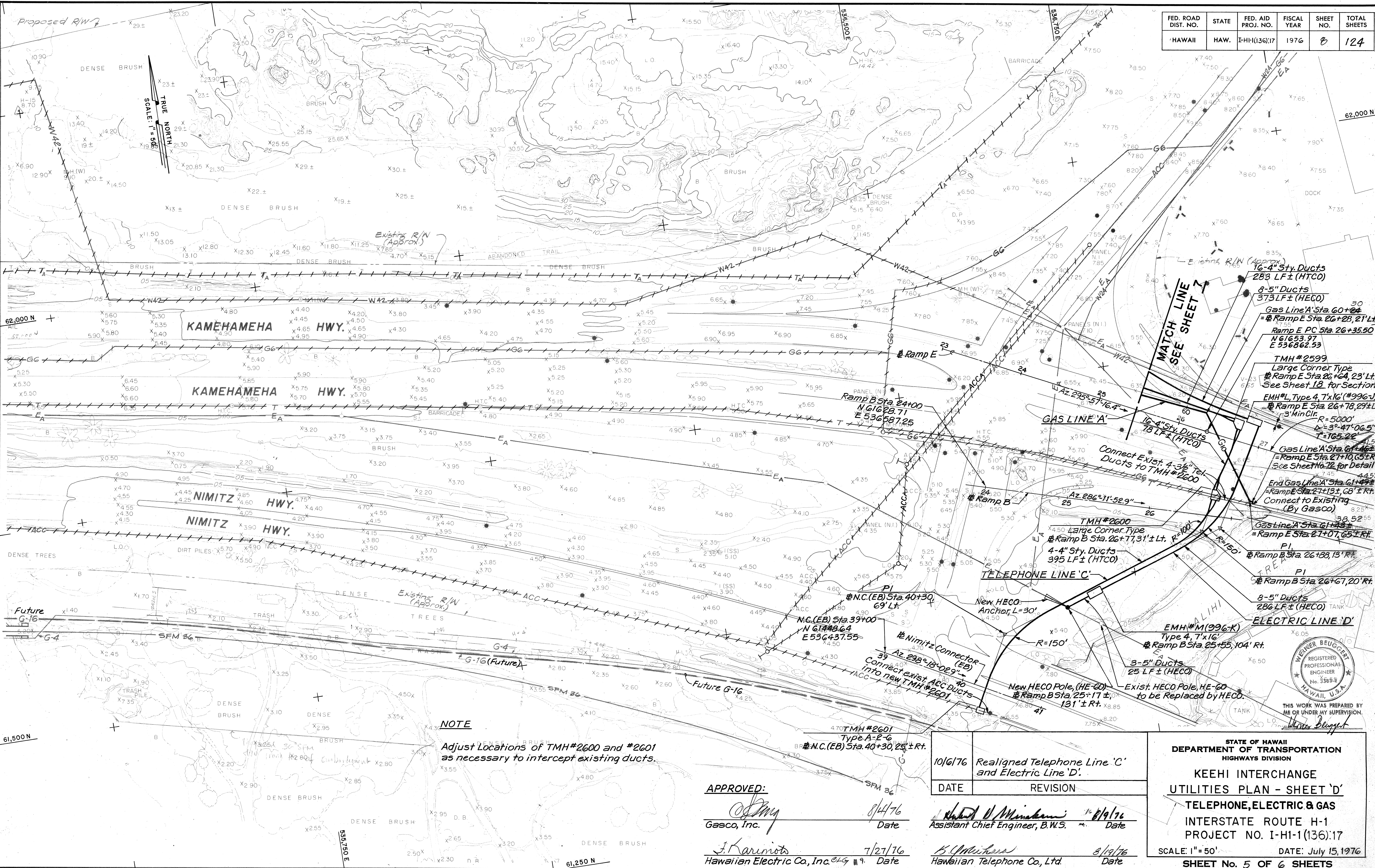
AREA FOR STOCKPILING SURPLUS MATERIAL SUITABLE FOR EMBANKMENTS

- NOTES: 1. Stockpiles shall not exceed 7' in height.
2. Contractor shall take necessary precautions for the prevention of damage to utility installations, such as guy wires, anchors and poles.

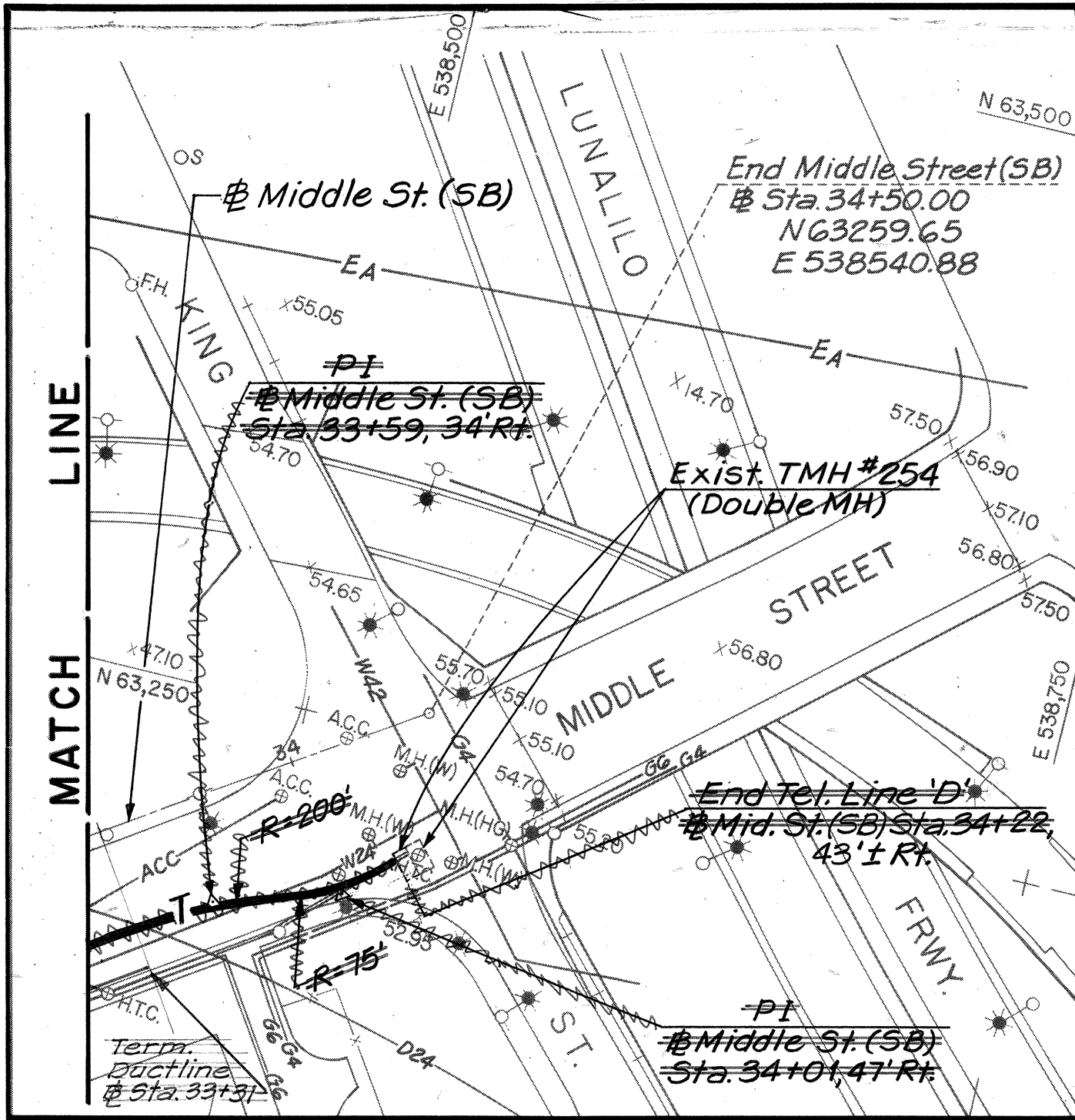


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(136)17	1976	8	124

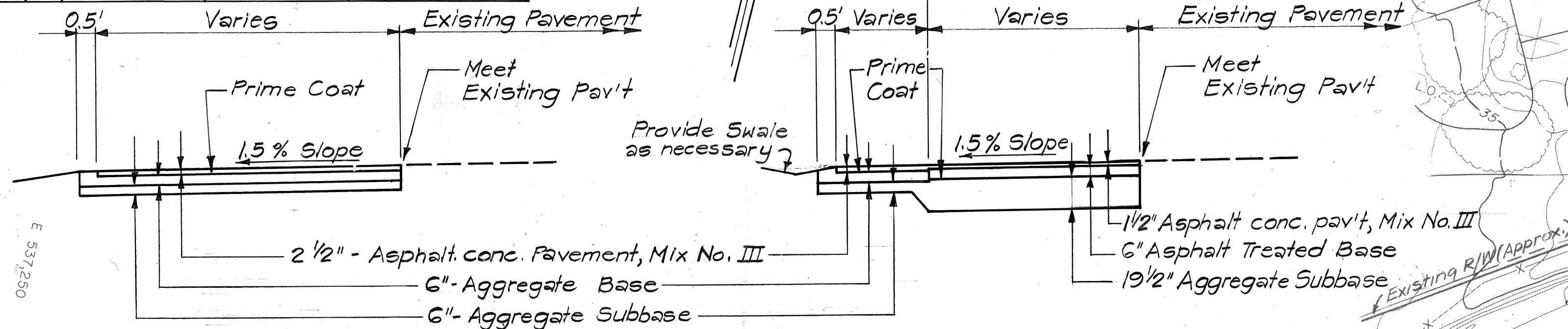
DATE	*****
SURVEY PLOTTED BY	*****
ORIGINAL PLAN	*****
TRACED BY	*****
NOTED BY	*****
QUANTITIES BY	*****
CHECKED BY	*****
No.	*****



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(136)17	1976	7	124

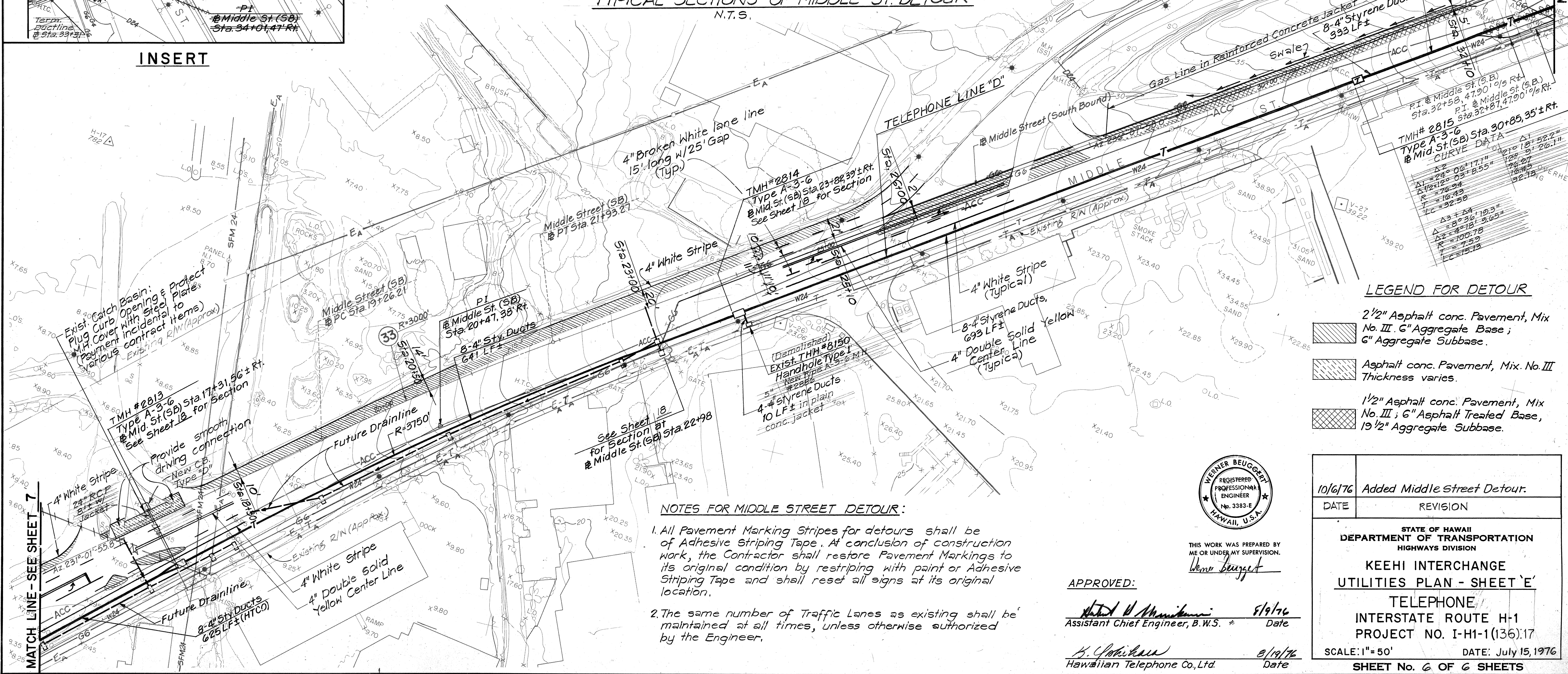


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PT	6255931	53749738	R 3000	
CC	6006832	53916919	L 267.07	
PI	6248485	53738643	T 133.62	



SOUTH BOUND STA. 12+00 ± TO STA. 28+00 ±
SOUTH BOUND STA. 28+00 ± TO STA. 32+40 ±
TYPICAL SECTIONS OF MIDDLE ST. DETOUR
N.T.S.

INSERT

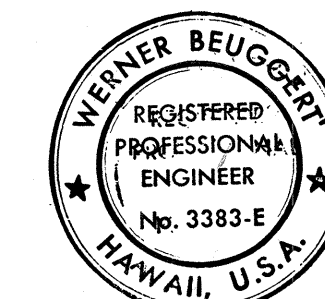


LEGEND FOR DETOUR

- 2 1/2" Asphalt conc. Pavement, Mix No. III; 6" Aggregate Base; 6" Aggregate Subbase.
- Asphalt conc. Pavement, Mix. No. III Thickness varies.
- 1 1/2" Asphalt conc. Pavement, Mix No. III; 6" Asphalt Treated Base, 19 1/2" Aggregate Subbase.

NOTES FOR MIDDLE STREET DETOUR:

- All Pavement Marking Stripes for detours shall be of Adhesive Striping Tape. At conclusion of construction work, the Contractor shall restore Pavement Markings to its original condition by restriping with paint or Adhesive Striping Tape and shall reset all signs at its original location.
- The same number of Traffic Lanes as existing shall be maintained at all times, unless otherwise authorized by the Engineer.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Werner Beugert

APPROVED:

Assistant Chief Engineer, B.W.S. 8/19/76
Date

Hawaiian Telephone Co., Ltd. 8/19/76
Date

10/6/76 Added Middle Street Detour.
DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KEEHI INTERCHANGE
UTILITIES PLAN - SHEET 'E'

TELEPHONE
INTERSTATE ROUTE H-1
PROJECT NO. I-H-1(136)17

SCALE: 1" = 50' DATE: July 15, 1976

SHEET NO. 6 OF 6 SHEETS

ADD. 9