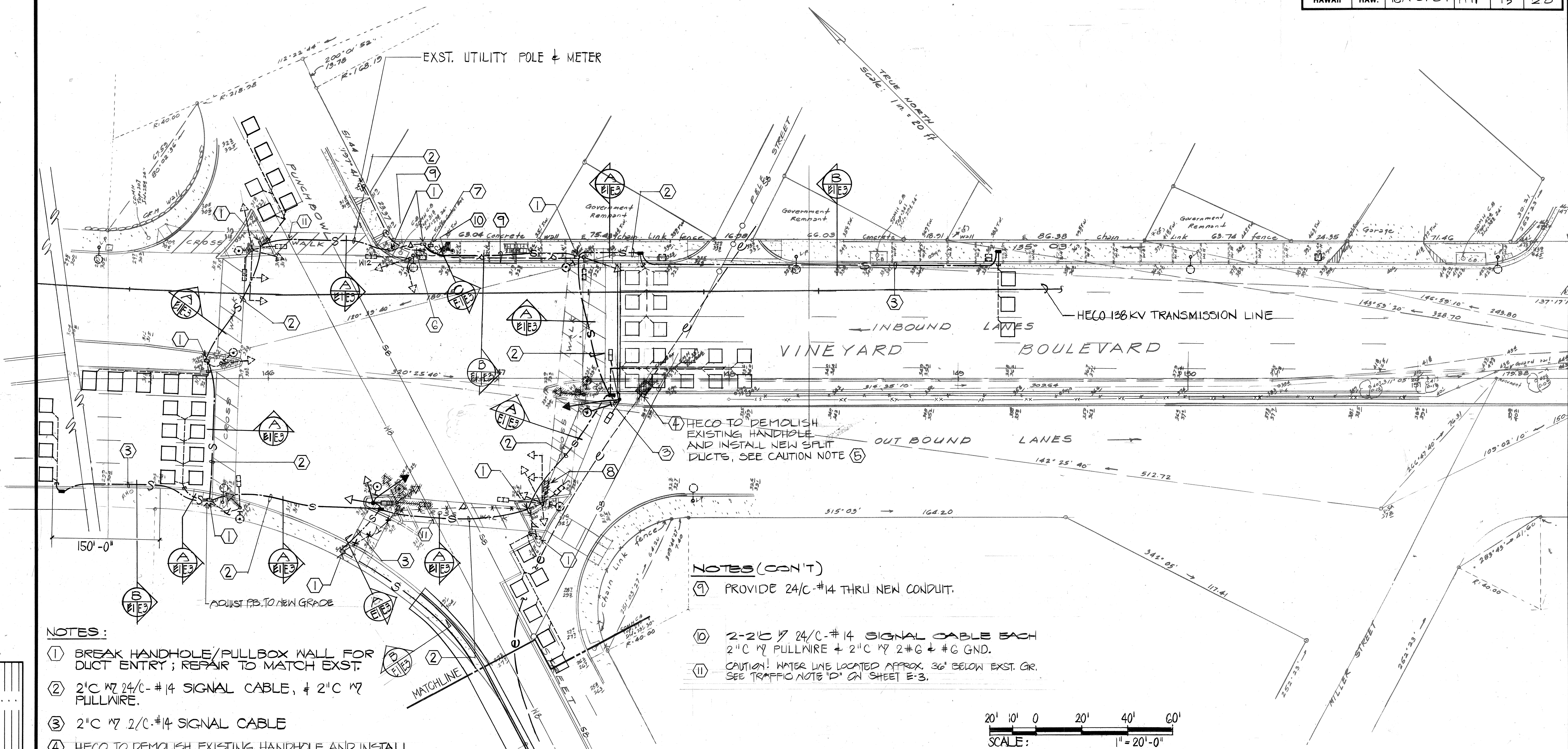


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	98A-01-89	1991	15	28



NOTES:

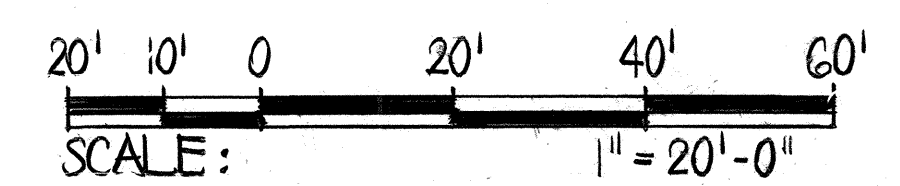
- ① BREAK HANDHOLE/PULLBOX WALL FOR DUCT ENTRY; REPAIR TO MATCH EXST.
- ② 2" C #24/C-#14 SIGNAL CABLE, & 2" C #7 PULLWIRE.
- ③ 2" C #7 2/C-#14 SIGNAL CABLE
- ④ HECO TO DEMOLISH EXISTING HANDHOLE AND INSTALL NEW SPLIT DUCTS.
- ⑤ CAUTION: ELECTRICAL HAZARD. CABLES IN HANDHOLES AND DUCTLINES ARE ENERGIZED. THESE ENERGIZED, INSULATED CABLES ARE TO REMAIN IN PLACE DURING CONSTRUCTION. ONLY HECO IS TO HANDLE THESE CABLES AND ERECT TEMPORARY GUARDS TO PROTECT THESE CABLES FROM DAMAGE. CONTRACTOR SHALL EXERCISE DUE CARE AND PRECAUTIONS TO AVOID DISTURBANCE OF ENERGIZED CABLES, EXST. DUCTLINES, TEMP. GUARDS, ETC. AND WORK CAUTIOUSLY.
- ⑥ EXPOSE EXST. DUCT, DISCONNECT & REMOVE WIRING; INTERCEPT DUCT, PROVIDE COUPLING & EXTEND TO NEW TRAFFIC CONTROLLER.
- ⑦ EXST. TRAFFIC CONTROLLER. C/C-DEPT. OF TRANSP SVCS. TO RECONFIGURE CONTROLLER FOR NEW PHASING.
- ⑧ REPOSITION PEDESTRIAN SIGNAL

NOTES (CON'T)

- ⑨ PROVIDE 24/C-#14 THRU NEW CONDUIT.
- ⑩ 2-2" C #24/C-#14 SIGNAL CABLE EACH 2" C #7 PULLWIRE & 2" C #7 2#G & #G GND.
- ⑪ CAUTION! WATER LINE LOCATED APPROX. 36" BELOW EXST. GR. SEE TRAFFIC NOTE 'D' ON SHEET E-3.

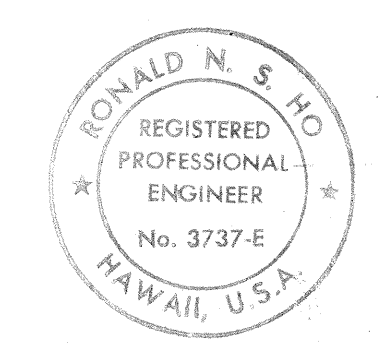
ELECTRICAL PLAN
SCALE: 1" = 20'-0"

APPROVED:	
M. Fukunaga	6/21/89
CHIEF DIV. OF ENGINEERING, DPW (FOR WORK WITHIN CITY JURISDICTION ONLY)	
DATE	
RE-APPROVED:	
Kenneth Z. Young	4/1/90
DIRECTOR, DEPARTMENT OF TRANSPORTATION SERVICES	
DATE	



GRAPHIC SCALE

APPROVED:	
Michael J. ...	5-29-87
HAWAIIAN ELECTRIC CO. DATE	
Kenneth Z. Young	5/14/87
DIRECTOR, DEPARTMENT OF TRANSPORTATION SERVICES	
DATE	

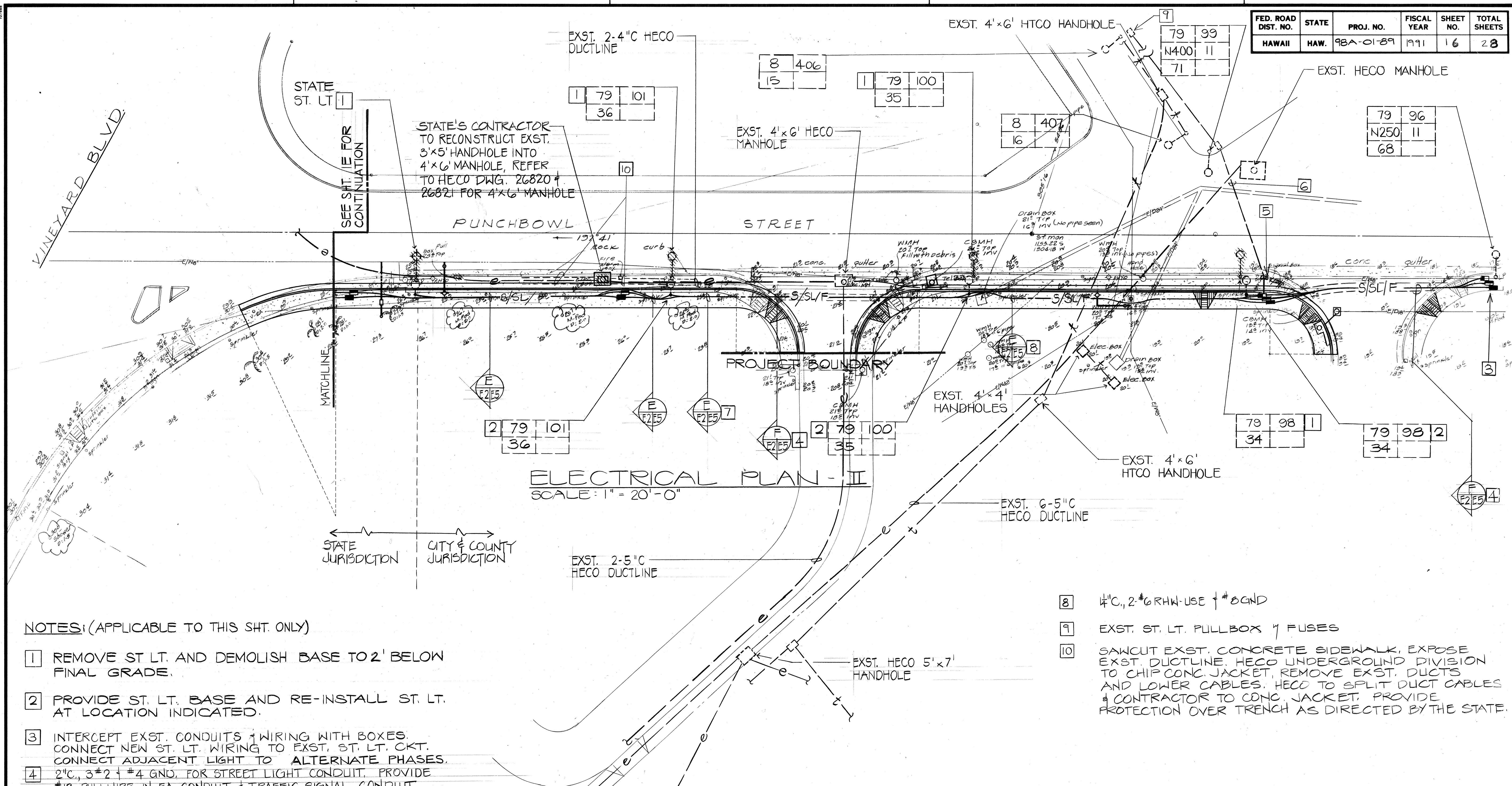


THIS WORK WAS PREPARED BY ME
UNDER MY SUPERVISION
11/12/86

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
ELECTRICAL PLAN - I	
VINEYARD - PUNCHBOWL TRAFFIC IMPROVEMENT PROJECT PROJECT NO. 98A-01-89	
SCALE: AS SHOWN	DATE: APRIL 1990
SHEET NO. 1 OF 5 SHEETS	

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	98A-01-89	1991	16	28

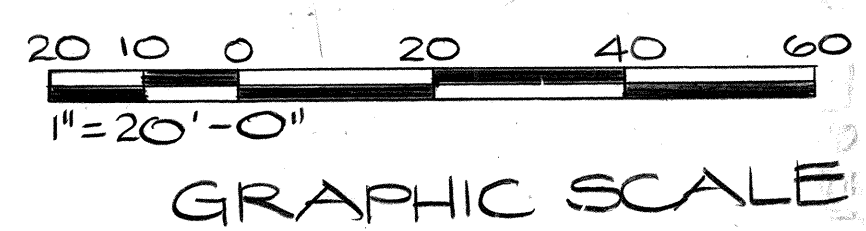


NOTES: (APPLICABLE TO THIS SHT. ONLY)

- 1 REMOVE ST. LT. AND DEMOLISH BASE TO 2' BELOW FINAL GRADE.
- 2 PROVIDE ST. LT. BASE AND RE-INSTALL ST. LT. AT LOCATION INDICATED.
- 3 INTERCEPT EXST. CONDUITS & WIRING WITH BOXES. CONNECT NEW ST. LT. WIRING TO EXST. ST. LT. CKT. CONNECT ADJACENT LIGHT TO ALTERNATE PHASES.
- 4 2" C, 3#2 & #4 GND. FOR STREET LIGHT CONDUIT. PROVIDE #12 PULLWIRE IN F.A. CONDUIT & TRAFFIC SIGNAL CONDUIT.
- 5 DEMOLISH ST. LT. BOX, REMOVE CONDUCTORS FROM EXST. CONDUIT, EXTEND CONDUIT TO NEW ST. LT. BOX. C.C.-D.T.S. INSPECTOR SHALL APPROVE INSTALLATION PRIOR TO BACKFILLING.
- 6 PROVIDE CONDUCTORS THROUGH EXST. CONDUIT, INSULATION OF CONDUCTORS SHALL BE RHW-USE, AMPACITY & NUMBER OF CONDUCTORS SHALL MATCH EXST. CONDUCTORS.
- 7 1" C, 2-#8RHW-USE & #10 GND

- 8 1/4" C, 2-#6RHW-USE & #8 GND
- 9 EXST. ST. LT. PULLBOX & FUSES
- 10 SAWCUT EXST. CONCRETE SIDEWALK, EXPOSE EXST. DUCTLINE. HECO UNDERGROUND DIVISION TO CHIP CONC. JACKET, REMOVE EXST. DUCTS AND LOWER CABLES. HECO TO SPLIT DUCT CABLES & CONTRACTOR TO CONC. JACKET. PROVIDE PROTECTION OVER TRENCH AS DIRECTED BY THE STATE.

APPROVED:
M. Fukuyama
CHIEF, DIV. OF ENGINEERING, DPW
(FOR WORK WITHIN CITY JURISDICTION ONLY)
6/21/89
DATE



APPROVED:
HAW'N ELEC. CO. 3/14/90
DATE
R. Naya
HAW'N TEL. CO. 1/13/90
DATE
K. Kumei Z. Young
DEPT. OF TRANSP. SVCS. 7/7/90
DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL PLAN - II

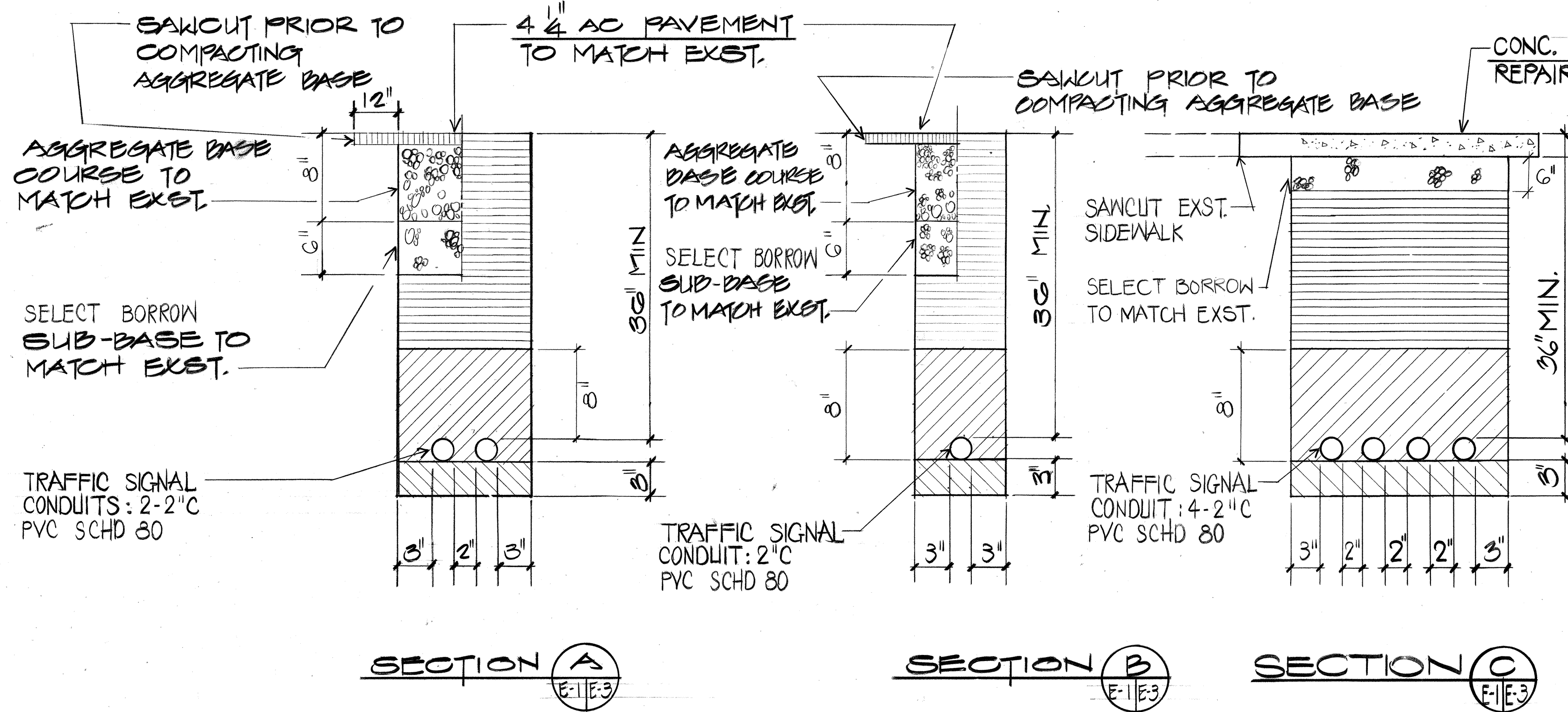
VINEYARD - PUNCHBOWL
TRAFFIC IMPROVEMENT PROJECT
PROJECT NO. 98A-01-89
SCALE: AS SHOWN DATE: APRIL 1990

SHEET NO. 2 OF 5 SHEETS

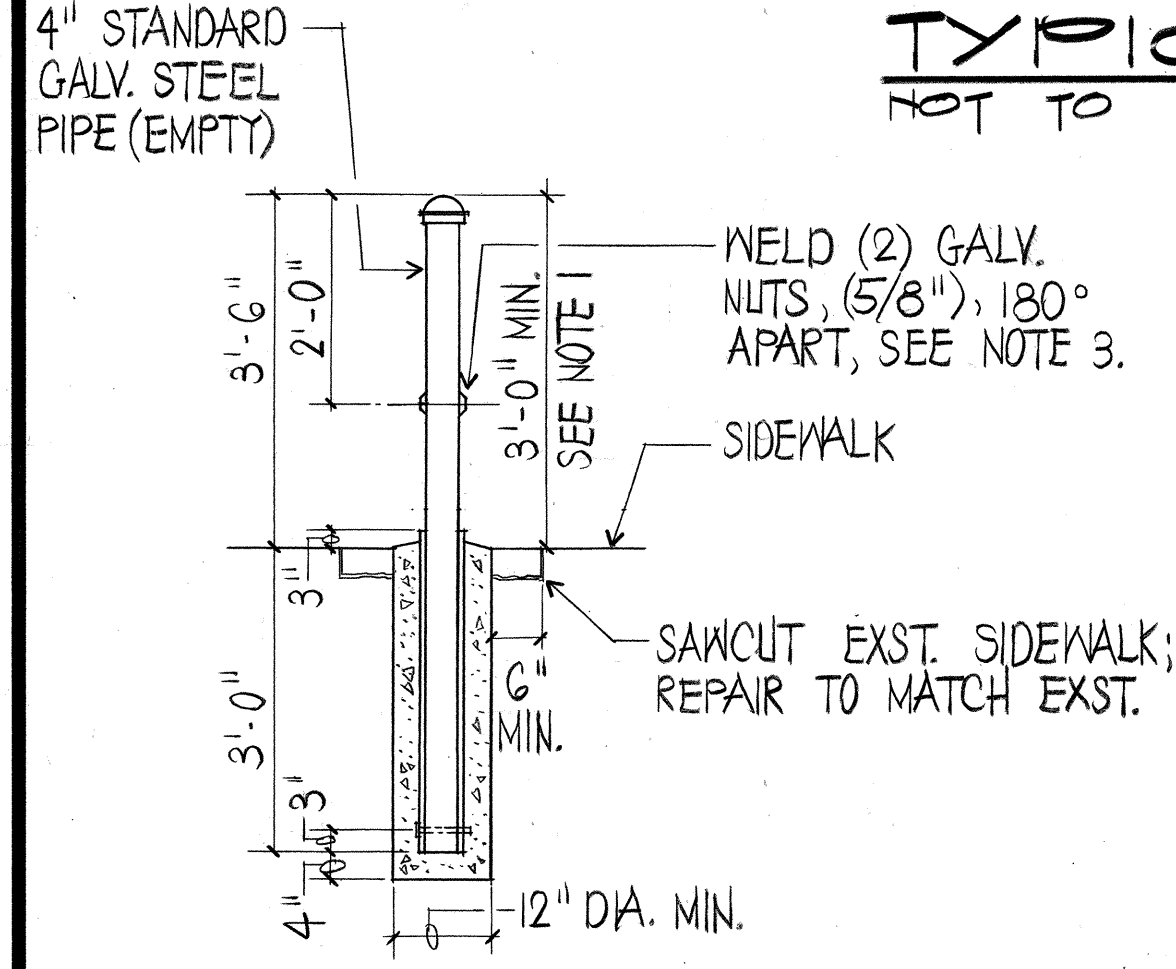
DATE
DRAWN BY
DESIGNED BY
CHECKED BY
ORIGINAL PLAN
NOTE BOOK
No.

BACKFILL NOTES:

- TYPE "A" BACKFILL -
1. SAND EQUIVALENT ≥ 2
2. 8" MAX. VERT. LIFT
3. 95% COMPACTION
- TYPE "B" BACKFILL -
1. SAND EQUIVALENT ≥ 20
2. 8" MAX. VERT. LIFT
3. 95% COMPACTION
- NOTE - IF NORMAL MATERIAL AT BOTTOM OF TRENCH IS NOT TYPE "B", AN ADDITIONAL 3" SHALL BE EXCAVATED & TYPE "B" BACKFILL PROVIDED.

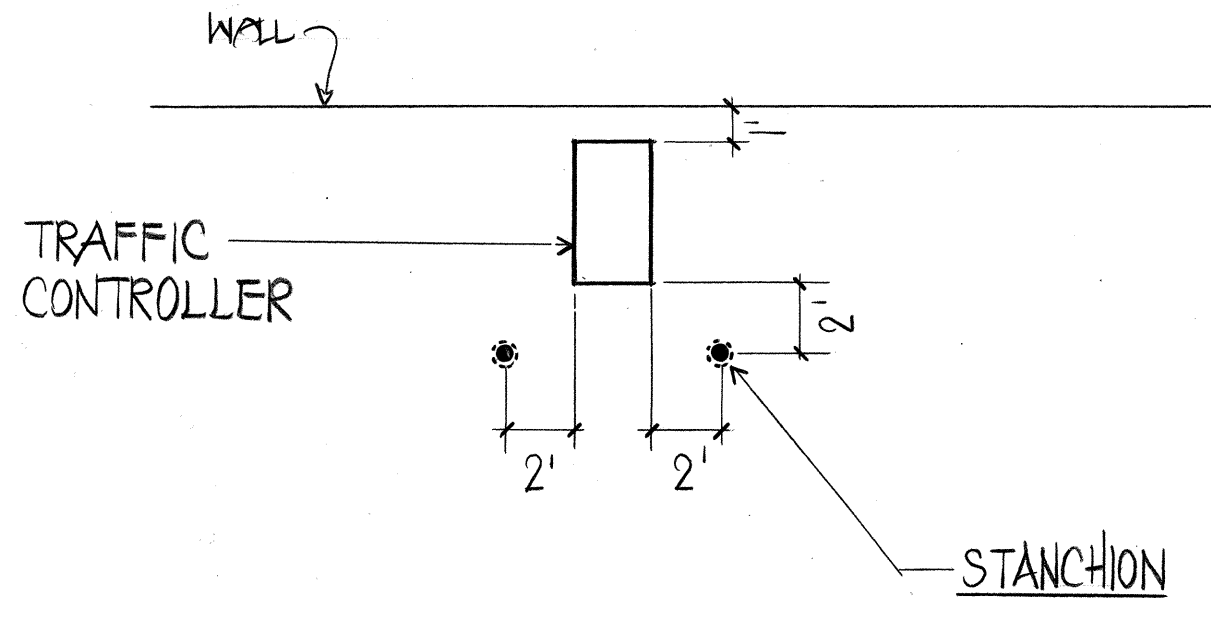


ELECTRICAL SYMBOLS	
ITEM	DESCRIPTION
○-○	EXST. STREET LT.
○	EXST. TRAFFIC SIGNAL STANDARD
⊗	REMOVE TRAFFIC SIGNAL STANDARD & ASSOCIATED APPURTENANCES, DEMOLISH CONC. BASE 12" BELOW FIN. GRADE.
●	TRAFFIC SIGNAL STANDARD & CONCRETE BASE, TYPE I.
○-○	RELOCATED ST. LT. AND NEW ST. LT. BASE
→	TRAFFIC SIGNAL, 12" (R Y ←)
→	TRAFFIC SIGNAL, 12" (R Y G)
→	EXST. TRAFFIC SIGNAL
→	REMOVE TRAFFIC SIGNAL
→	EXST. TRAFFIC SIGNAL + MAST ARM
→	REMOVE AND RELOCATE ST. LT. STANDARD.
→	PEDESTRIAN SIGNAL
→	EXST. PEDESTRIAN SIGNAL
→	REMOVE PEDESTRIAN SIGNAL
→	PEDESTRIAN SIGNAL PUSHBUTTON, MTD ON TRAFFIC SIGNAL STANDARD
→	EXST. PEDESTRIAN SIGNAL PUSH BUTTON
→	REMOVE PEDESTRIAN SIGNAL PUSH BUTTON
→	ST. LT. PULLBOX TYPE "SLD-1"
→	HTCO 2'x4' MANHOLE
→	HECO 4'x6' MANHOLE PROVIDED BY HECO.
→	TRAFFIC SIGNAL PULLBOX, TYPE "A"
→	EXST. TRAFFIC SIGNAL PULLBOX
→	REMOVE PULLBOX/HANDHOLE UNLESS INDICATED OTHERWISE.
→	LOOP DETECTOR
→	TRAFFIC SIGNAL CONTROLLER & CONCRETE BASE.
→	FIRE ALARM PULLBOX TYPE "A"
→	UNDERGROUND ELEC. DUCTS PROVIDED BY HECO.
→	EXST. UNDERGROUND ELEC. DUCTS
→	REMOVE OR ABANDON EXST. UNDERGROUND ELEC. DUCTS
→	UNDERGROUND TRAFFIC SIGNAL DUCTS
→	EXST. UNDERGROUND TRAFFIC SIGNAL DUCTS
→	REMOVE OR ABANDON EXST. UNDERGROUND TRAFFIC SIGNAL DUCTS
→	LOOP DETECTOR CABLES, UNDERGROUND
→	EXST. UNDERGROUND TEL. DUCTS
→	UNDERGROUND ST. LT. DUCTS
→	UNDERGROUND FIRE ALARM DUCTS

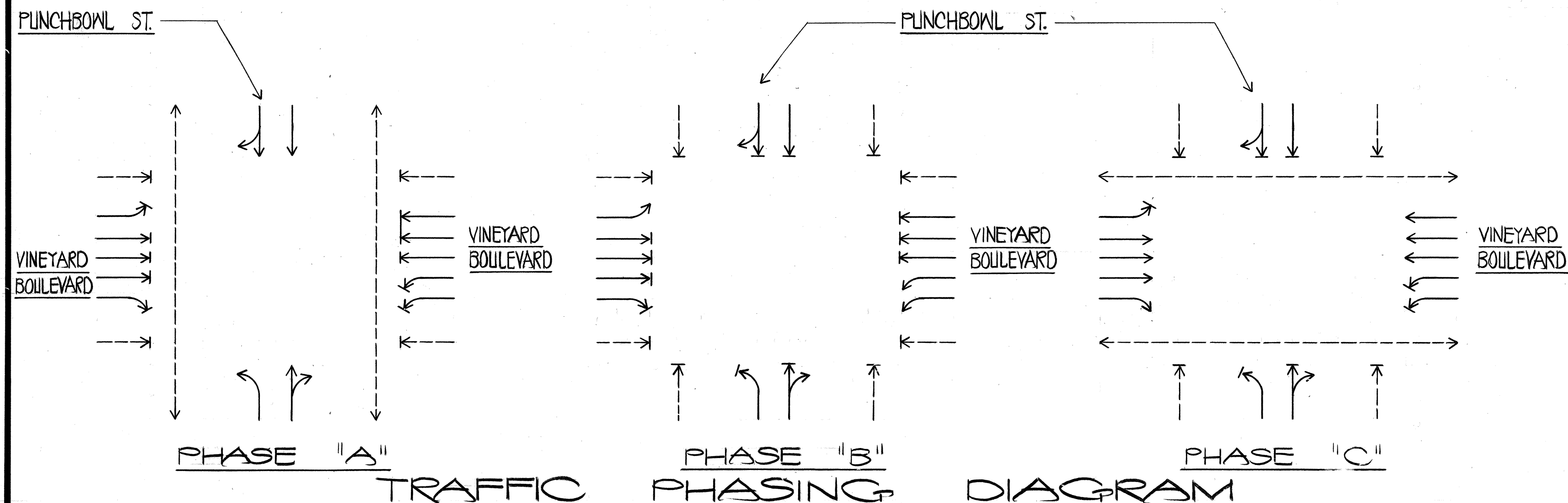


REMOVABLE STANCHION DETAIL
NOT TO SCALE

- NOTES:
- ALL STANCHIONS SHALL BE INSTALLED AT SAME HEIGHT. ABOVE TOP OF SIDEWALK.
 - WELDED NUTS ARE FOR SCREWING IN BOLTS TO ACT AS HANDLES FOR LIFTING REMOVABLE STANCHIONS. BOLT TO BE REMOVED AFTER INSTALLATION.
 - STANCHIONS SHALL BE PAINTED YELLOW PER ANSI SPEC. Z53.1 TO COMPLY WITH OSHA STANDARDS PER COLOR CODING.
 - STANCHION SHALL CONFORM TO ASTM A53.



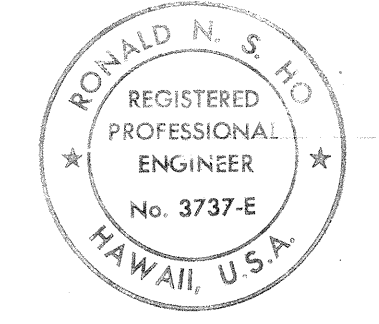
STANCHION DETAIL PLAN
NOT TO SCALE



TRAFFIC PHASING DIAGRAM

APPROVED: *[Signature]* 4/7/90
DIRECTOR, DEPARTMENT OF TRANSPORTATION SERVICES

APPROVED: *[Signature]* 6/21/89
CHIEF, DIV. OF ENGINEERING, DPW (FOR WORK WITHIN CITY JURISDICTION ONLY)



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
[Signature] 1/23/87

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL SYMBOLS & MISC. DETAILS

VINEYARD-PUNCHBOWL
TRAFFIC IMPROVEMENT PROJECT
PROJECT NO. 98A-01-89

SCALE: AS SHOWN DATE: APRIL 1990

SHEET NO. 3 OF 5 SHEETS

DATE
SURVEY PLOTTED BY
DRAWN BY
CHECKED BY
ORIGINAL PLAN
NOTE BOOK
No.

NOTES FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY:

1. CONTRACTOR SHALL OBTAIN A CONSTRUCTION PERMIT FROM STATE'S HIGHWAY DISTRICT ENGINEER AT 727 KAKOI STREET PRIOR TO COMMENCEMENT OF WORK WITHIN THE STATE RIGHT-OF-WAY.
2. CONSTRUCTION & RESTORATION OF ALL EXISTING HIGHWAY FACILITIES WITHIN STATE RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE SECTIONS OF THE CURRENT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", & THE "SPECIFICATION FOR INSTALLATION OF MISCELLANEOUS IMPROVEMENTS WITHIN STATE HIGHWAYS", OF THE STATE HIGHWAYS DIVISION.
3. ALL LANES SHALL BE OPEN TO TRAFFIC DURING MORNING PEAK HOURS FROM 6:00 AM TO 9:00 AM & DURING AFTERNOON PEAK HOURS FROM 3:00 PM TO 6:30 PM, & DURING OFF-WORK HOURS. ONLY ONE LANE OF VINEYARD BLVD. IN EACH DIRECTION SHALL BE CLOSED AT ANY OTHER TIME.
4. CONTRACTOR SHALL PROVIDE, INSTALL & MAINTAIN ALL NECESSARY SIGNS, LIGHTS, BARRICADES, MARKERS, CONES, & OTHER PROJECTIVE FACILITIES & SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION & FOR THE CONVENIENCE & SAFETY OF PUBLIC TRAFFIC. ALL SUCH PROTECTIVE FACILITIES & PRECAUTIONS TO BE TAKEN SHALL CONFORM WITH THE "ADMINISTRATIVE RULES OF HAWAII GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON OR ADJACENT TO PUBLIC STREETS & HIGHWAYS" ADOPTED BY THE DIRECTOR OF TRANSPORTATION, & THE CURRENT U.S. FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS & HIGHWAYS, PART VI - TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION & MAINTENANCE OPERATIONS". IF LANE CLOSURES ARE REQUIRED DURING CONSTRUCTION, A TRAFFIC CONTROL PLAN SHALL BE INCORPORATED INTO THE CONSTRUCTION PLANS AND MUST BE APPROVED BY THE DIVISION PRIOR TO THE ISSUANCE OF THE PERMIT.

5. ALL REGULATORY, GUIDE & CONSTRUCTION SIGNS AND BARRICADES SHALL BE OF HIGH INTENSITY REFLECTIVE SHEETING.

6. NO MATERIAL AND/OR EQUIPMENT SHALL BE STOCKPILED OR OTHERWISE STORED WITHIN HIGHWAY RIGHT-OF-WAY EXCEPT AT LOCATIONS DESIGNATED IN WRITING & APPROVED BY THE DISTRICT ENGINEER.
7. CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADEQUATE, SAFE, NON-SKID BRIDGING MATERIAL OVER TRENCHES, INCLUDING SHORING, WHEN TRENCHING IN PAVEMENT AREAS TO HANDLE ALL TYPES OF VEHICULAR TRAFFIC. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF TRENCHING MATERIAL AND DETAIL FOR APPROVAL BY ENGINEER.
8. LONGITUDINAL DRAINAGE ALONG THE HIGHWAY SHALL BE MAINTAINED.

TRAFFIC NOTES FOR CITY STREETS

- A. A PERMIT SHALL BE OBTAINED FROM THE DEPT. OF TRANSPORTATION SERVICES BEFORE WORK ON ANY PORTION OF A PUBLIC STREET OR HIGHWAY MAY BEGIN.
- B. THE CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN ALL NECESSARY SIGNS AND OTHER PROTECTIVE FACILITIES, WHICH SHALL CONFORM TO THE "RULES AND REGULATIONS GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON OR ADJACENT TO PUBLIC STREETS AND HIGHWAYS" ADOPTED BY THE HIGHWAY SAFETY COORDINATOR, AND THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PART IV - TRAFFIC CONTROLS FOR HIGHWAY CONTRUCTION AND MAINTENANCE OPERATIONS".
- C. DURING NON-WORKING HOURS, ALL LANES SHALL BE OPEN TO TRAFFIC AND ALL EXCAVATION WITHIN THE PUBLIC RIGHTS OF WAY SHALL BE COVERED WITH A SAFE NON-SKID BRIDGING MATERIAL.
- D. AS REQUIRED BY THE DEPT. OF TRANSPORTATION SERVICES, THE CONTRACTOR SHALL PROVIDE OFF-DUTY POLICE OFFICERS TO CONTROL THE FLOW OF TRAFFIC.
- E. 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 LIKEWISE BE PROVIDED.
- F. DRIVEWAYS SHALL BE KEPT OPEN UNLESS THE OWNERS OF THE PROPERTY USING THESE RIGHTS-OF-WAY ARE OTHERWISE PROVIDED FOR SATISFACTORILY.
- G. NO MATERIAL AND/OR EQUIPMENT SHALL BE STOCKPILED OR OTHERWISE STORED WITHIN STREET RIGHTS-OF-WAY EXCEPT AT LOCATION DESIGNATED IN WRITING AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION SERVICES.
- H. THE CONTRACTOR SHALL NOTIFY M.T.L. - KENNETH HONG AT 532-7066, TWO WEEKS PRIOR TO CONSTRUCTION, INFORMING HIM OF THE LOCATION, SCOPE OF WORK, PROPOSED CLOSURE OF ANY STREET OR TRAFFIC LANES, AND THE NEED TO RELOCATE ANY BUS STOP.

GENERAL NOTES

- A. ALL CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, HIGHWAY DIVISION, DEPT. OF TRANSPORTATION, DATED 1985 AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
- B. THE LOCATION OF EXISTING UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THEIR LOCATION AND SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THESE UTILITIES AS A RESULT OF HIS OPERATIONS. ADJUSTMENTS TO THE NEW TRAFFIC SIGNAL STANDARD LOCATIONS, IF REQURED, SHALL BE MADE TO PROVIDE THE REQUIRED CLEARANCES.
- C. UNDERGROUND UTILITIES SHOWN HEREON ARE FOR INFORMATION ONLY. NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF SAID INFORMATION.

GENERAL NOTES CONT'D.:

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	98A-01-89	1991	18	28

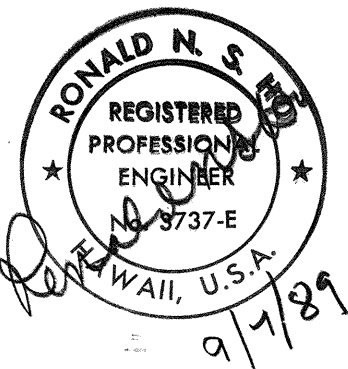
- D. EXISTING STREET LIGHTING, FIRE ALARM AND TRAFFIC SIGNAL FACILITIES SHALL BE MAINTAINED IN OPERATING CONDITION THROUGHOUT THE CONSTRUCTION OF THE PROJECT. ALL ADJUSTMENTS REQUIRED ON THESE LINES FOR THE PROPER CONSTRUCTION OF THE PROJECT SHALL BE DONE BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE STATE.
- E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANING AND REMOVAL OF ALL SILT AND DEBRIS GENERATED, DEPOSITED AND ACCUMULATED WITHIN DOWNSTREAM WATERWAYS, DITCHES, DRAIN PIPES, AND ON PUBLIC ROADWAYS. THE CONTRACTOR AGREES TO REIMBURSE THE CITY AND COUNTY OF HONOLULU FOR ALL COSTS EXPECTED IN THE PERFORMANCE OF THE ABOVE WORK IF REQUIRED FOR PUBLIC HEALTH AND SAFETY OR MADE NECESSARY BY NON-PERFORMANCE BY THE CONTRACTOR.
- F. THE CONTRACTOR, AT HIS EXPENSE, SHALL KEEP THE PROJECT AND SURROUNDING AREAS FREE FROM DUST NUISANCE. THE COST FOR SUPPLEMENTARY MEASURES WHICH WILL BE REQUIRED BY THE CITY AND COUNTY OF HONOLULU OR BY THE STATE SHALL BE BORNE BY THE CONTRACTOR.
- G. COORDINATE DEMOLITION WORK WITH RESPECTIVE UTILITY COMPANIES TO ALLOW THEM SUFFICIENT TIME TO ACCOMPLISH THEIR WORK, AND NOT TO CONFLICT WITH THEIR WORK SCHEDULE.

ELECTRICAL & MAINTENANCE SERIVCE DIVISION NOTES

- A. THE CONTRATOR SHALL NOTIFY THE TRAFFIC SIGNALS SECTION, DEPARTMENT OF TRANSPORTATION SERVICES, CITY AND COUNTY OF HONOLULU (PH: 523-4961) A MINIMUM OF 72 HOURS PRIOR TO COMMENCING ANY CONSTRUCTION WITHIN ANY SIGNALIZED INTERSECTION.
- B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING TRAFFIC SIGNAL CONDUITS AND LOOP DETECTORS. ALL DAMAGES SHALL BE REPAIRED BY THE CONTRACTOR. THE COST SHALL BE INCIDENTAL TO THE VARIOUS BID ITEMS.
- C. EXISTING TRAFFIC SIGNAL EQUIPMENT INDICATED TO BE REMOVED, SHALL INCLUDE TRAFFIC SIGNAL HEADS, POLE STANDARDS, TRAFFIC CONTROL CABINETS, WIRING AND ASSOCIATED APPURTENANCES. COST OF REMOVAL SHALL BE CONSIDERED INCIDENTAL TO THE "DEMOLITION WORK" OF THIS PROJECT AND NO ADDITIONAL PAYMENTS SHALL BE MADE TO THE CONTRACTOR.
- D. CONTRACTOR SHALL MAKE ALL ARRANGEMENTS TO DELIVER ALL SALVABLE TRAFFIC SIGNAL EQUIPMENT TO THE STREET LIGHT YARD AT 160 KOULA ST. AND STOCKPILED WITHIN THE SITE.
- E. MINIMUM CLEARANCE BETWEEN TRAFFIC SIGNAL STANDARDS AND FIRE HYDRANTS SHALL BE THREE FEET.
- F. PRIOR TO INSTALLING TRAFFIC SIGNAL STANDARDS, THE CONTRACTOR SHALL REQUEST THE HAWAIIAN TELEPHONE CO. AND HAWAIIAN ELECTRIC CO. TO LOCATE EXISTING DUCTLINES WHEREVER REQUIRED.
- G. CONTRACTOR SHALL NOT REMOVE ANY TRAFFIC SIGNS OR POLES WITH TRAFFIC SIGNALS, AND/OR LIGHT WITHOUT PRIOR APPROVAL OF THE DEPARTMENT OF TRANSPORTATION SERVICES.

APPROVED:

for Kenneth C. Hong 4/1/90
DIRECTOR, DEPARTMENT OF TRANSPORTATION SERVICES DATE



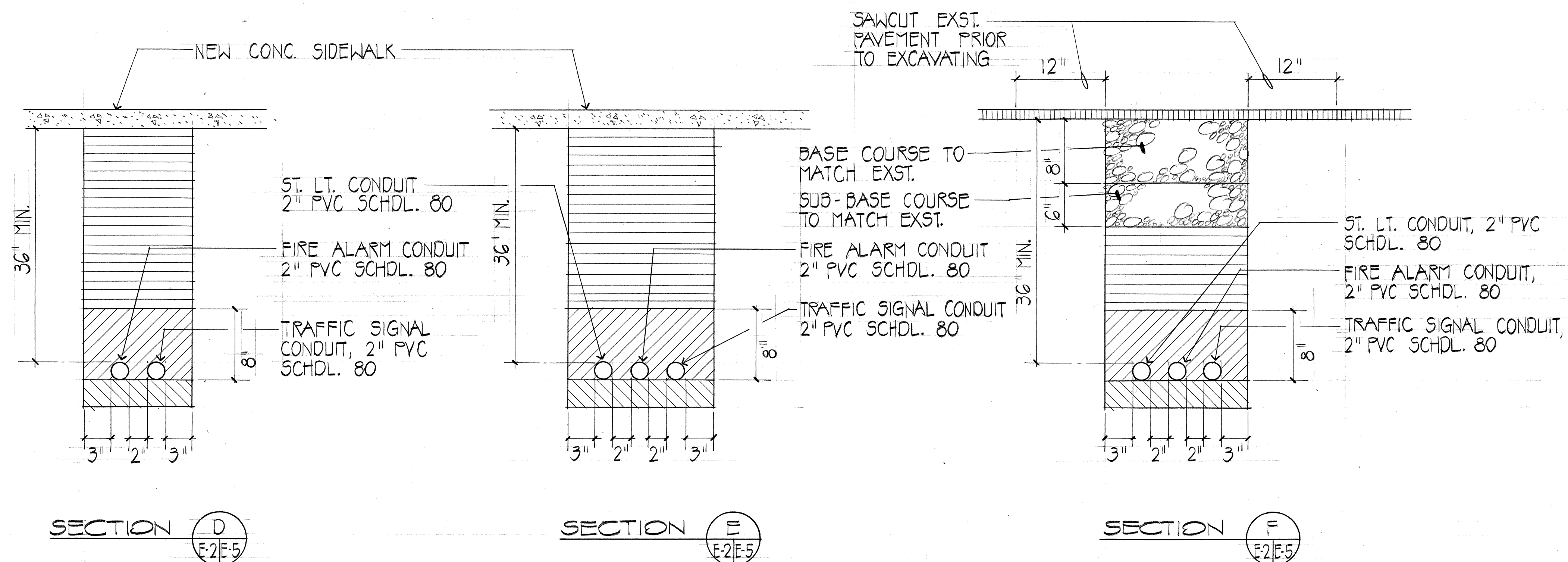
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS
VINEYARD-PUNCHBOWL
TRAFFIC IMPROVEMENT PROJECT
PROJECT NO. 98A-01-89

DATE: APRIL 1990

SHEET No. 4 OF 5 SHEETS

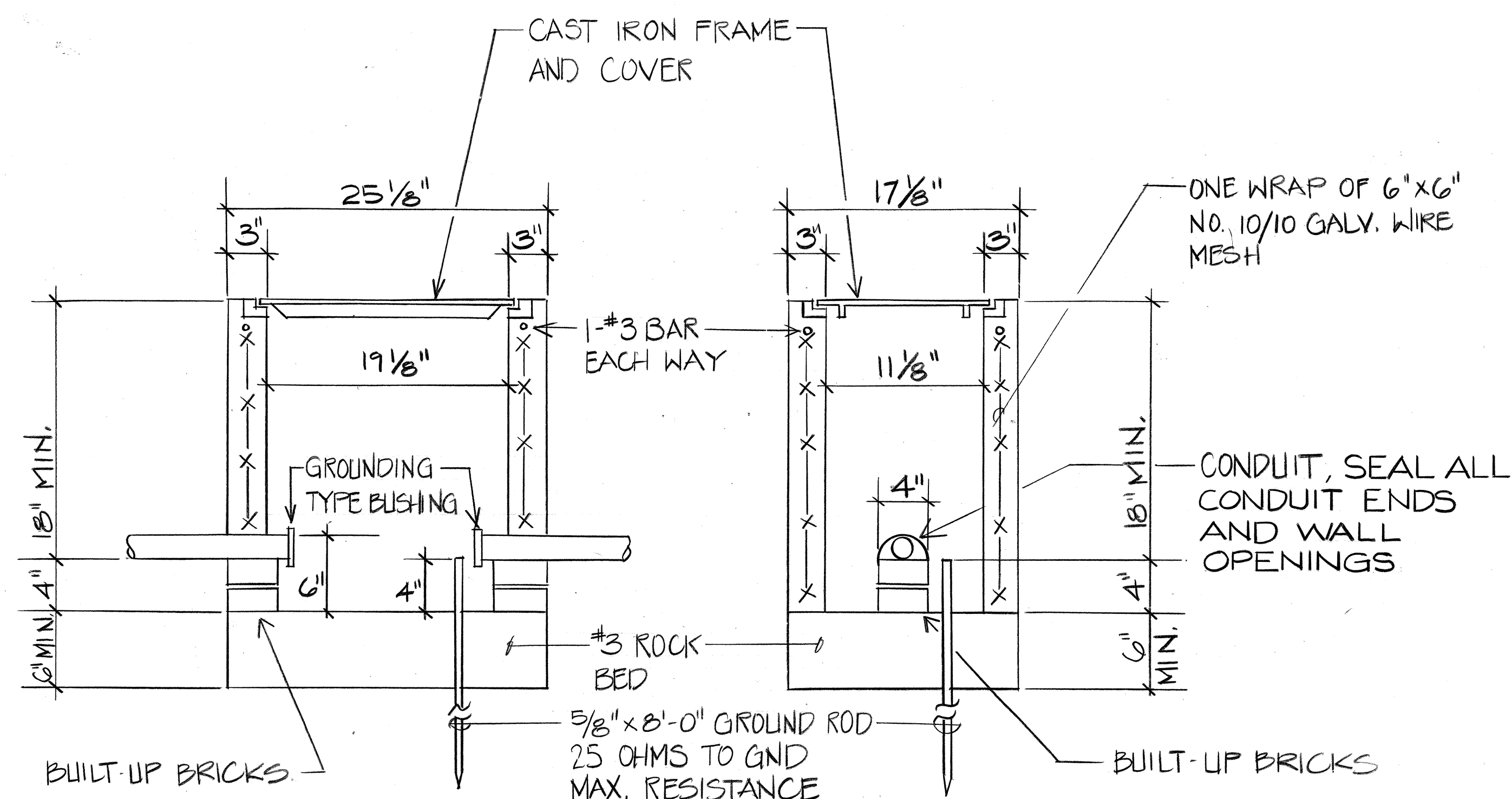
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	98A-01-89	1991	19	28



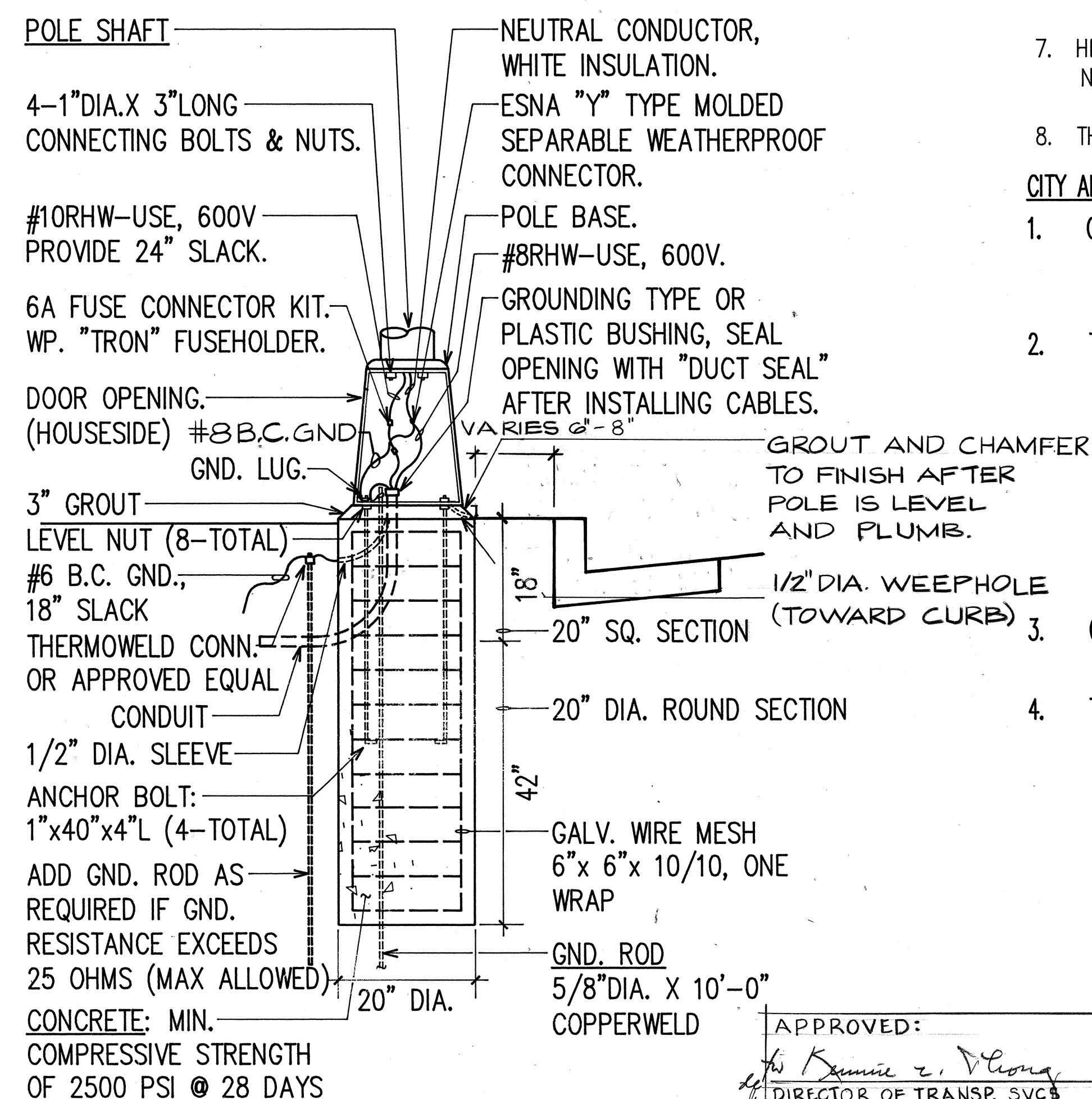
TYPICAL DUCT SECTIONS (ADDITIONAL)

NOT TO SCALE

SEE SHT. E-3 FOR BACKFILL NOTES.

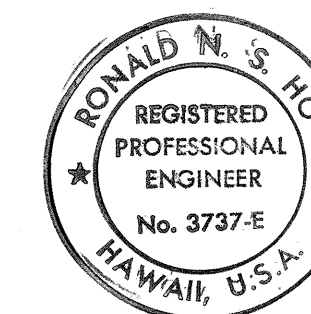


C & C PULLBOX TYPE "SLD-1"
(SUBMIT SHOP DRAWING FOR APPROVAL)



CONCRETE BASE ELEVATION
N.I.S.

APPROVED: W. Kamille C. Young 2/1/90
DIRECTOR OF TRANSP. SVCS. DATE



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION,
Ronald N. Seltzer
5/11/87

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

VINEYARD - PUNCHBOWL
TRAFFIC IMPROVEMENT PROJECT
PROJECT NO. 98A-01-89

SCALE: NONE

DATE: APRIL 1990

SHEET No. 5 OF 5 SHEETS