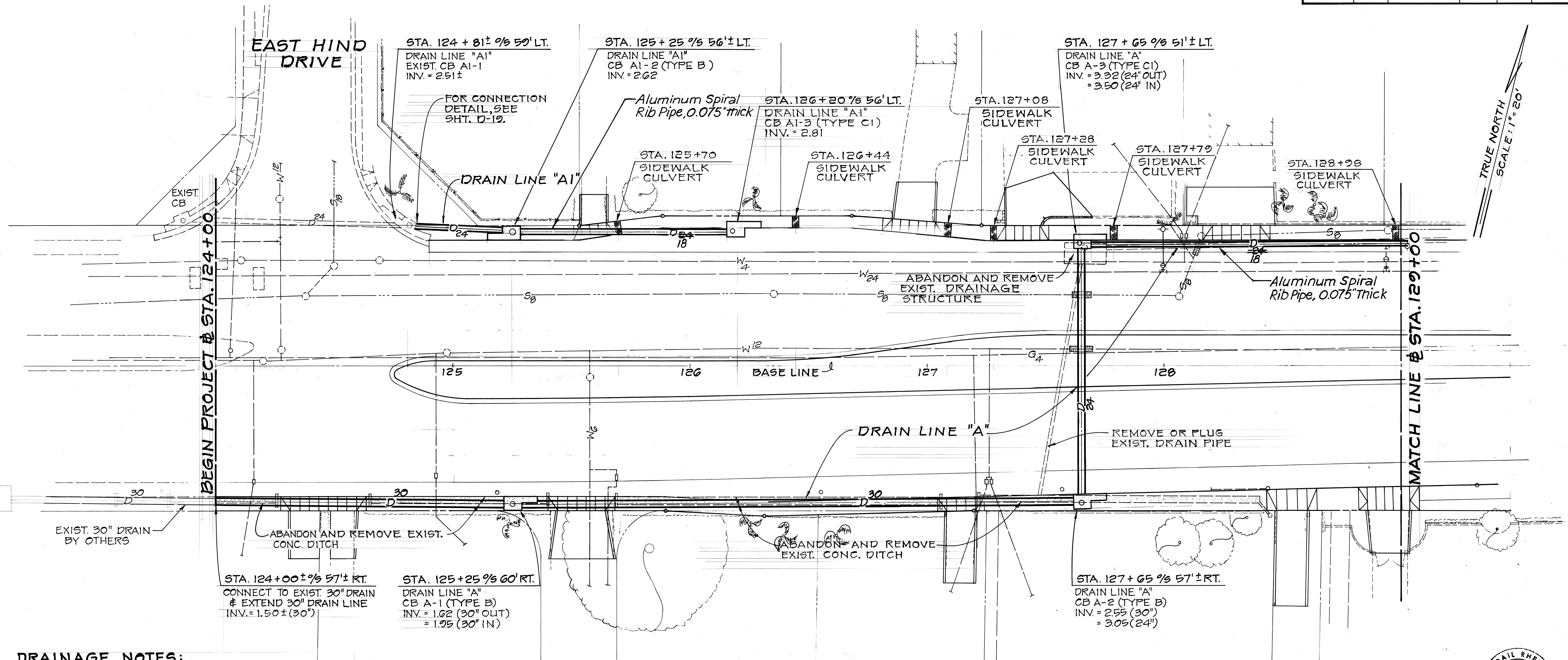


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	26	127



DRAINAGE NOTES:

- FOR DEFINITION OF ABANDONED AND/OR REMOVING OF EXISTING DRAINAGE PIPE OR STRUCTURES, REFER TO THE SPECIFICATIONS.
- IF THE DRAINAGE PIPE TO BE ABANDONED IS CORRUGATED METAL PIPE, IT SHALL BE REMOVED IN LIEU OF ABANDONMENT.
- THE CONTRACTOR SHALL ABANDON, REMOVE OR OTHERWISE REMEDY ANY DRAINAGE STRUCTURES OR DRAINAGE PIPE, NOT SHOWN ON THE PLANS, IN ACCORDANCE WITH INSTRUCTIONS FROM THE "ENGINEER".
- FIELD RELOCATION OF ANY DRAINAGE STRUCTURES, PIPE INLETS, OR OTHER DRAINAGE ITEMS SHALL BE IN ACCORDANCE WITH INSTRUCTIONS FROM THE "ENGINEER".
- ALL DRAINAGE SYSTEMS, EXCEPT CERTAIN LENGTHS OF DRAIN LINE "D" AND "F" MUST BE REINFORCED CONCRETE PIPE (RCP). SOME PIPES OF DRAIN LINES "D" AND "F" MAY BE RCP OR SPIRAL ALUMINUM RIB PIPE.
- THE LOCATION OF EXISTING UNDERGROUND DRAINAGE AND UTILITY STRUCTURES, PIPES, ETC., AS SHOWN ON THE PLANS ARE FROM THE BEST INFORMATION AVAILABLE AND ARE NOT GUARANTEED AS TO ITS ACCURACY. THE CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL DAMAGES TO EXISTING DRAINAGE AND/OR UTILITY FACILITIES.
- THE INSIDE MINIMUM DIMENSION OF STANDARD CATCH BASIN A, B, C & D OF STANDARD PLAN "H-01" SHALL BE 3'-6" INSTEAD OF 4'-0" AS SHOWN (L = D + 1'-10").
- NEW WATER AND/OR SEWER MAIN SHALL BE CONSTRUCTED BEFORE THE DRAINAGE SYSTEM ARE INSTALLED OVER OTHER EXISTING UTILITIES, WHICH WILL BE ABANDONED OR REMOVED, IN ORDER TO MAINTAIN THE SERVICES.
- THE CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITY LINES AND NOTIFY RESPECTIVE OWNERS BEFORE COMMENCING EXCAVATION WORK FOR DRAIN LINES.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF PRE-CAST DRAINAGE STRUCTURES TO THE ENGINEER.
- FOR APPROVAL, CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO MANUFACTURING PRE-CAST BOX CULVERTS TO ENSURE CONFLICTS WITH PROPOSED DRAINAGE STRUCTURE DO NOT EXIST.
- CULVERTS WITH LESS THAN 24" COVER IN AC ROADWAY SHALL BE PROTECTED AS SHOWN IN DETAIL ON SHT. D-18.
- CATCH BASIN GUTTERS LOCATED WITHIN A PROPOSED PCC SLAB (BIKE LANE) SHALL NOT BE CONSTRUCTED. THE PCC SLAB SHALL BE SHAPED AND FINISHED SIMILAR TO THE GUTTER SHOWN IN THE STANDARD DETAILS.
- EXISTING DRAINAGE FACILITIES TO REMAIN AND RELOCATED WITHIN PROJECT LIMITS SHALL BE CLEANED OF SILT AND DEBRIS. PAYMENT SHALL BE CONSIDERED INCIDENTAL TO VARIOUS CONTRACT ITEM.
- FOR DETAILS OF INDIVIDUAL SIDEWALK CULVERT, SEE SHT. D-17.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

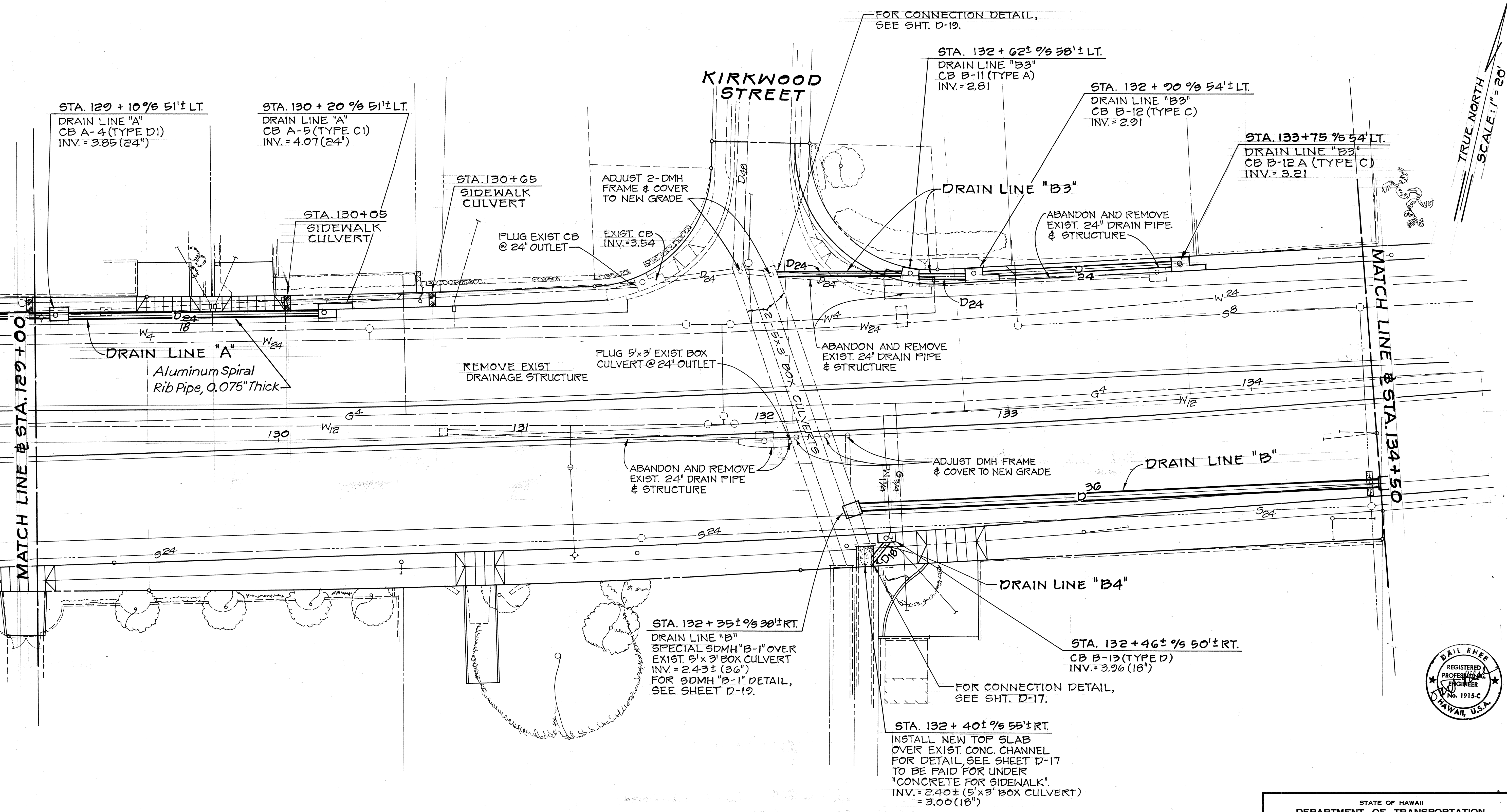
DRAINAGE PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F. A. PROJECT NO. F-072-1(34) B

SCALE: 1"=20' DATE:

SHEET No. D-1 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	27	123



ORIGINAL PLAN	NO.
SURVEY PLOTTED BY	DATE
DRAWN BY	DATE
DESIGNED BY	DATE
CHECKED BY	DATE



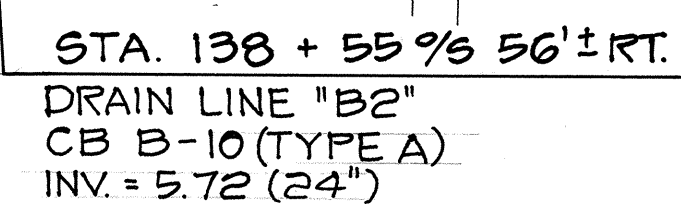
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B
SCALE: 1" = 20' DATE: _____

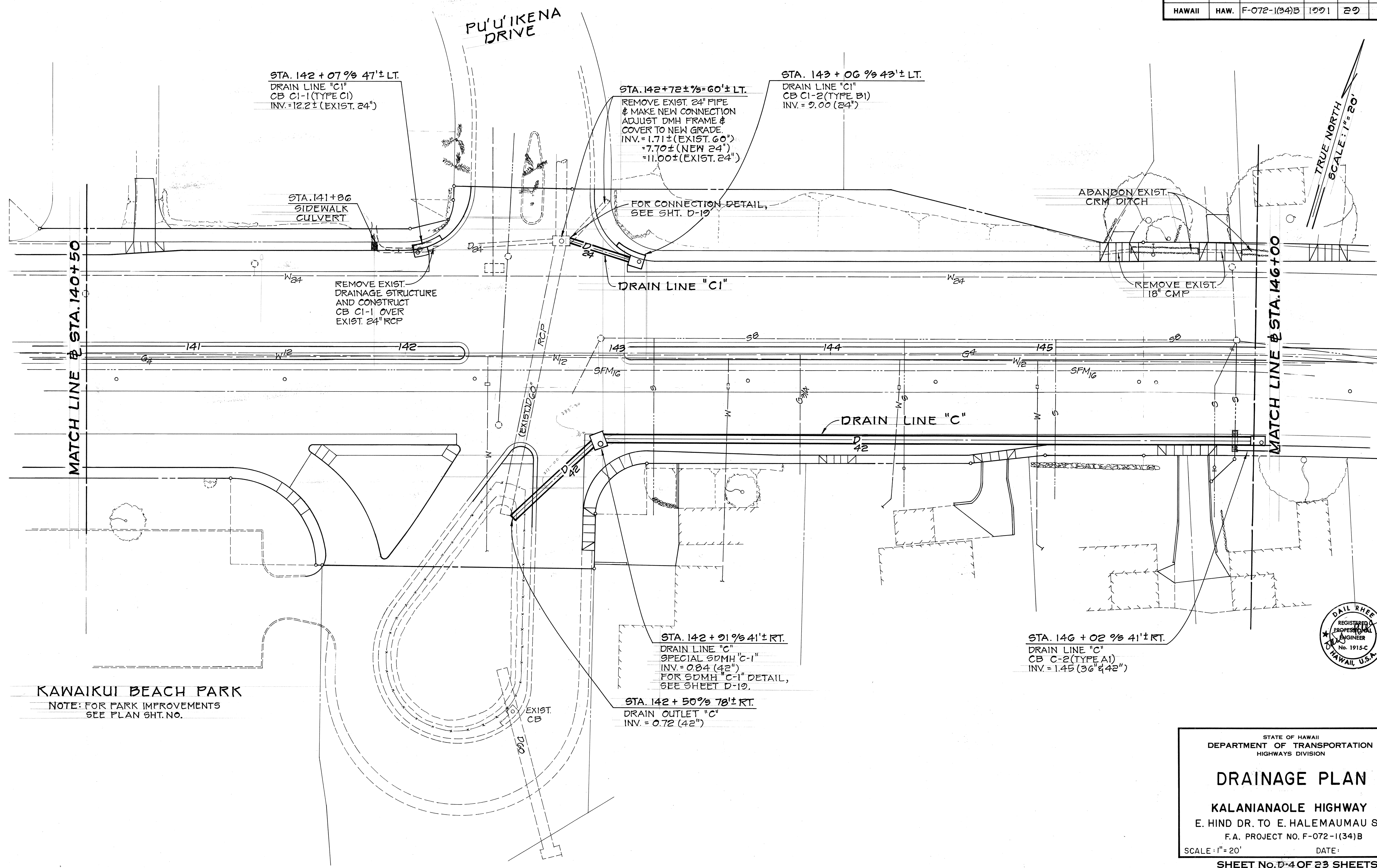
SHEET NO. 27 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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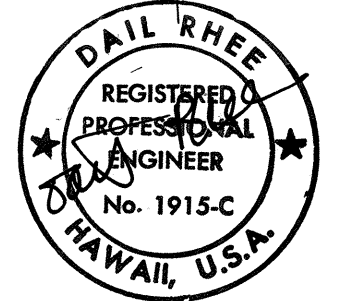
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	29	123



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

KAWAIKI BEACH PARK
NOTE: FOR PARK IMPROVEMENTS
SEE PLAN SHT. NO.



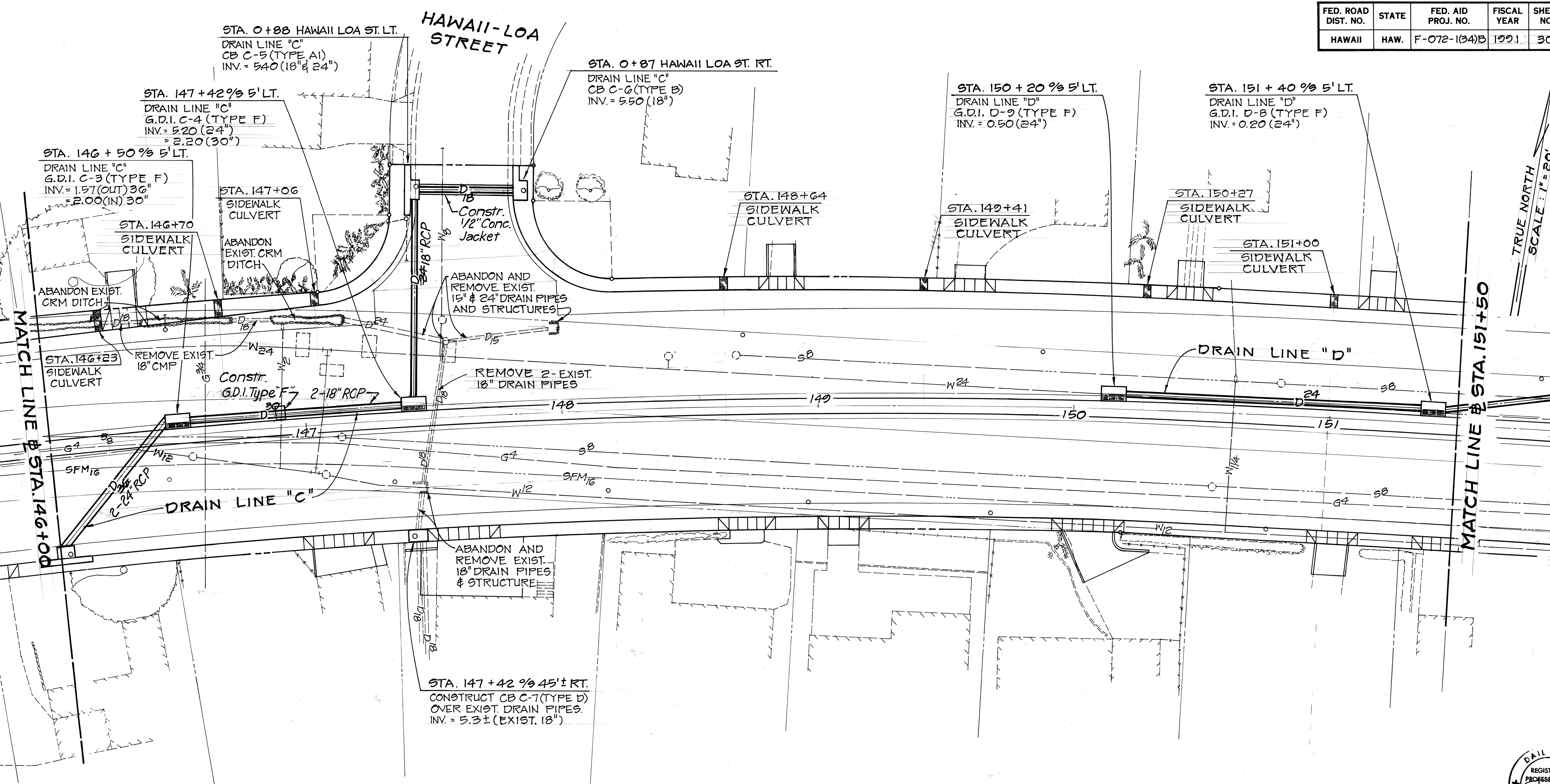
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B
SCALE: 1" = 20' DATE: _____

SHEET NO. 29 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	30	199



TRUE NORTH
SCALE: 1" = 20'

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



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

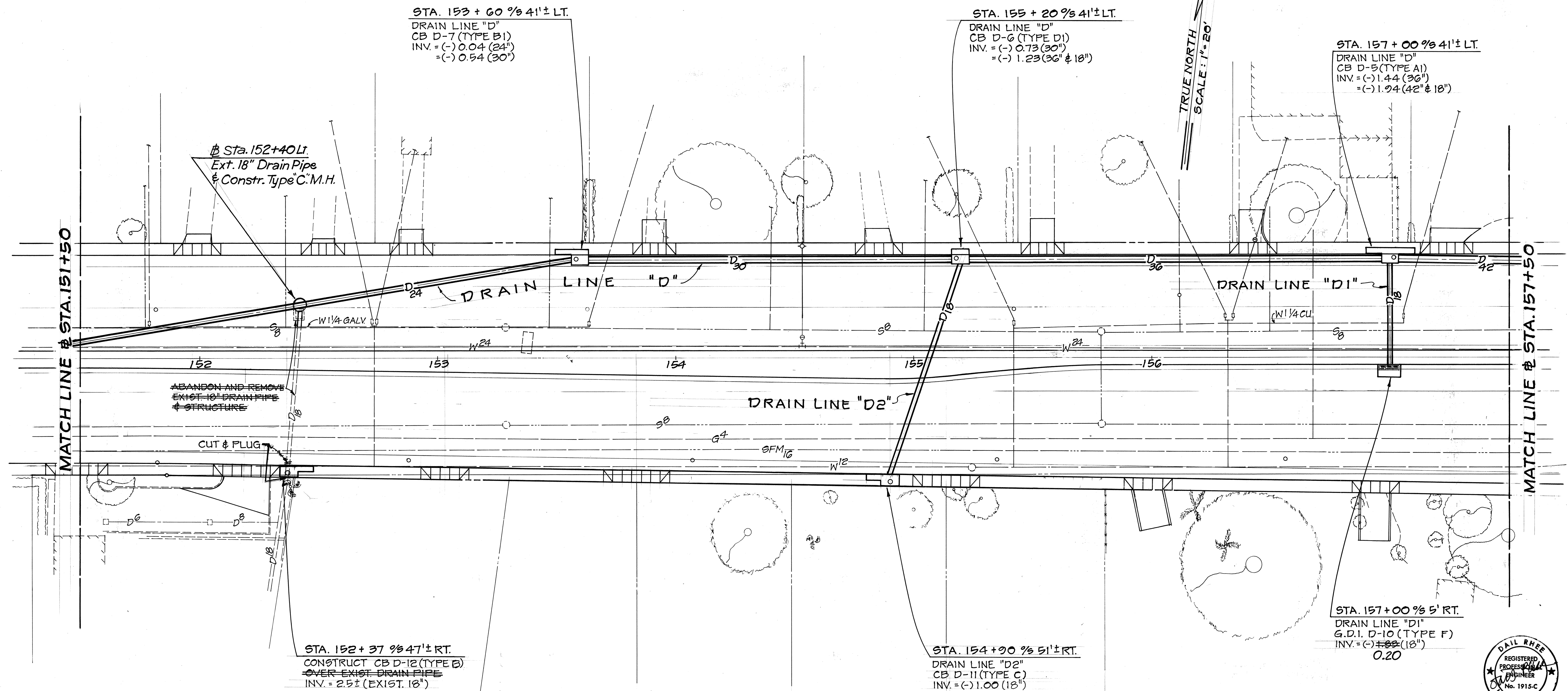
DRAINAGE PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B

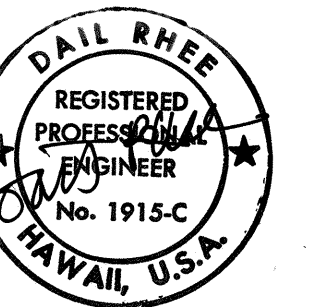
SCALE: 1" = 20' DATE:

SHEET NO. 0-5 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	31	193



ORIGINAL PLAN	SURVEY PLOTTED BY _____ DATE _____
NOTE BOOK	DRAWN BY _____
	TRACED BY _____
	DESIGNED BY _____
	QUANTITIES BY _____
No. _____	CHECKED BY _____



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-I(134)B

SCALE: 1" = 20' DATE:

SHEET No. D-6 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	32	122

MATCH LINE @ STA. 157+50

MATCH LINE @ STA. 163+00

(WEST)
HALEMAUMAU
STREET

STA. 159+37.98 35' ± LT.
DRAIN LINE "D"
SDMH D-4 (TYPE C)
INV. = (-) 3.20 (42")
= (-) 2.15 (42")

STA. 162+13.98 45' ± LT.
DRAIN LINE "D"
CB D-3 (TYPE C1)
INV. = (-) 3.45 (42")

STA. 161+77
SIDEWALK
CULVERT

STA. 162+25
SIDEWALK
CULVERT

DRAIN LINE "D"

ABANDON AND REMOVE
EXIST. 18" DRAIN PIPE
& STRUCTURE

STA. 162+17.29 16' ± RT.
DRAIN LINE "D"
G.D.I. D-2 (TYPE F)
INV. = (-) 3.52 (42")



STATE OF HAWAII
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DRAINAGE PLAN

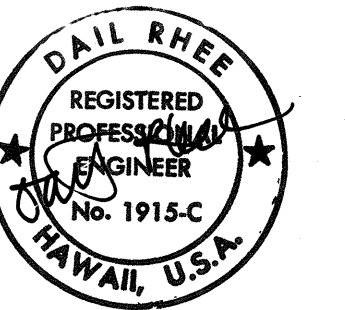
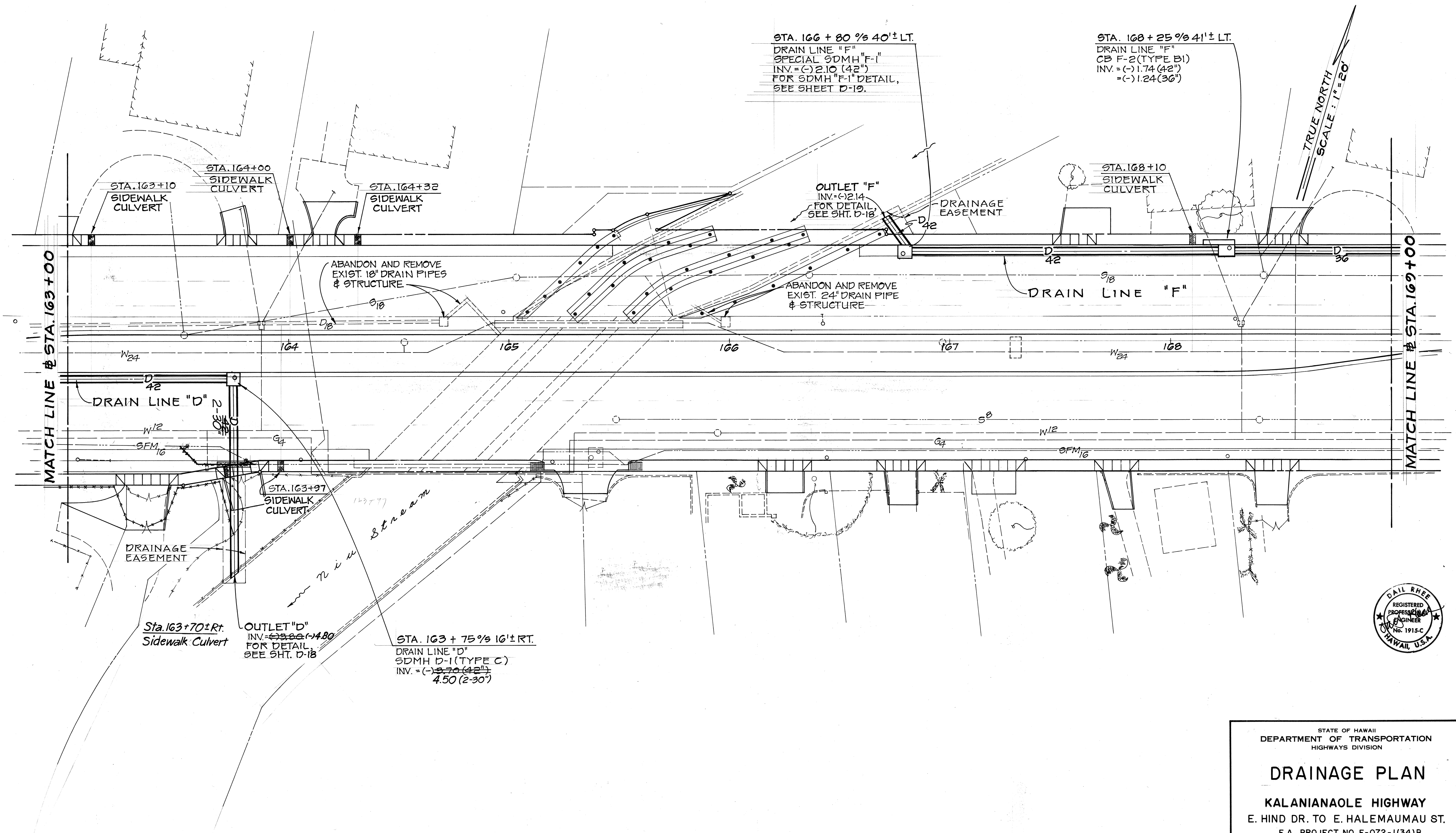
KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B

SCALE: 1" = 20' DATE:

SHEET NO. D-7 OF 23 SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	33	103



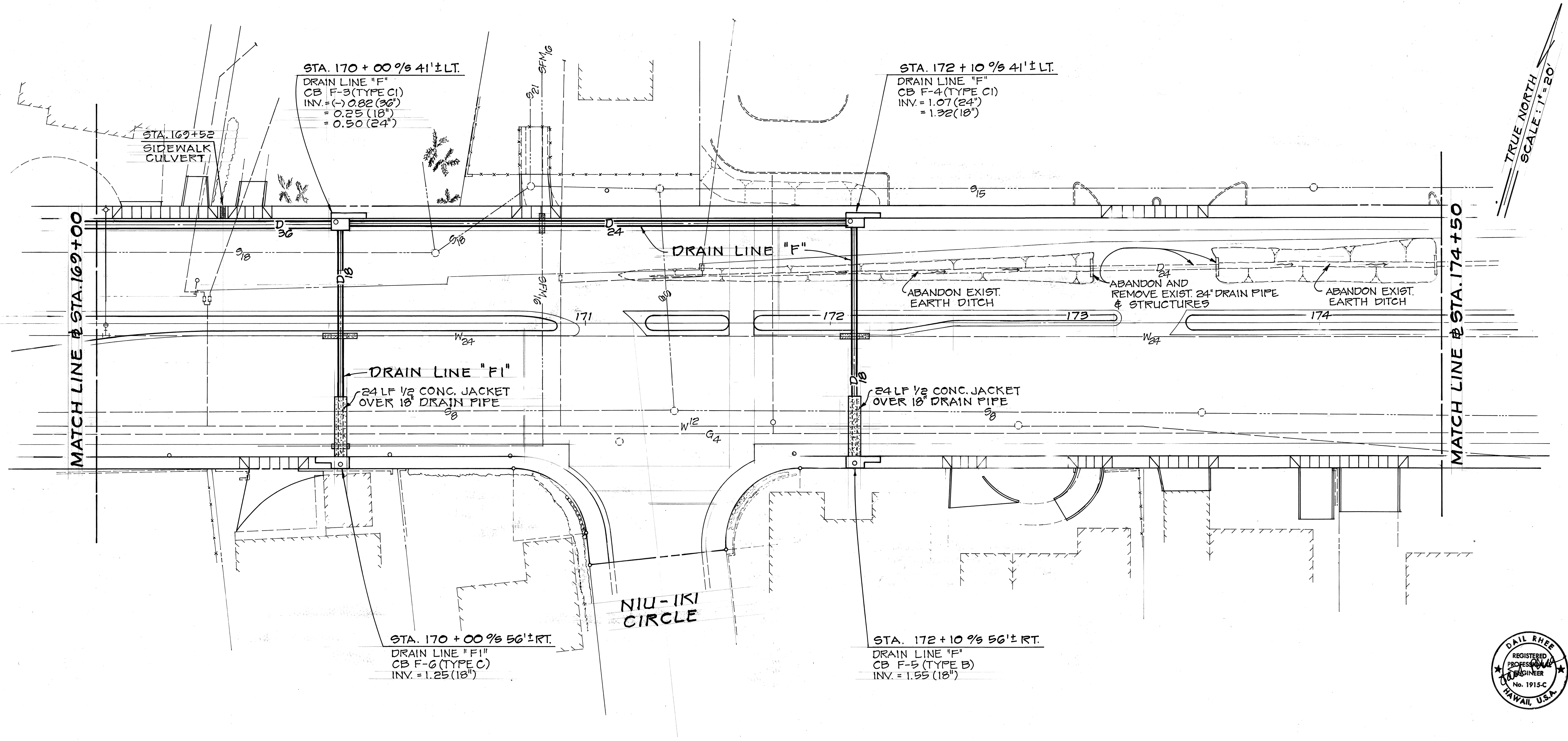
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

KALANIANAʻOLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B

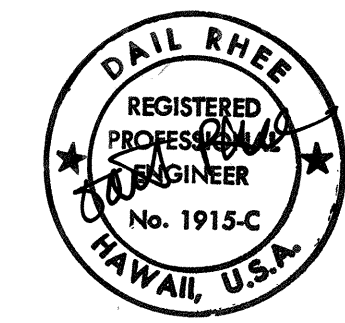
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	34	103



TRUE NORTH
SCALE: 1"=20'

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



STATE OF HAWAII
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HIGHWAYS DIVISION

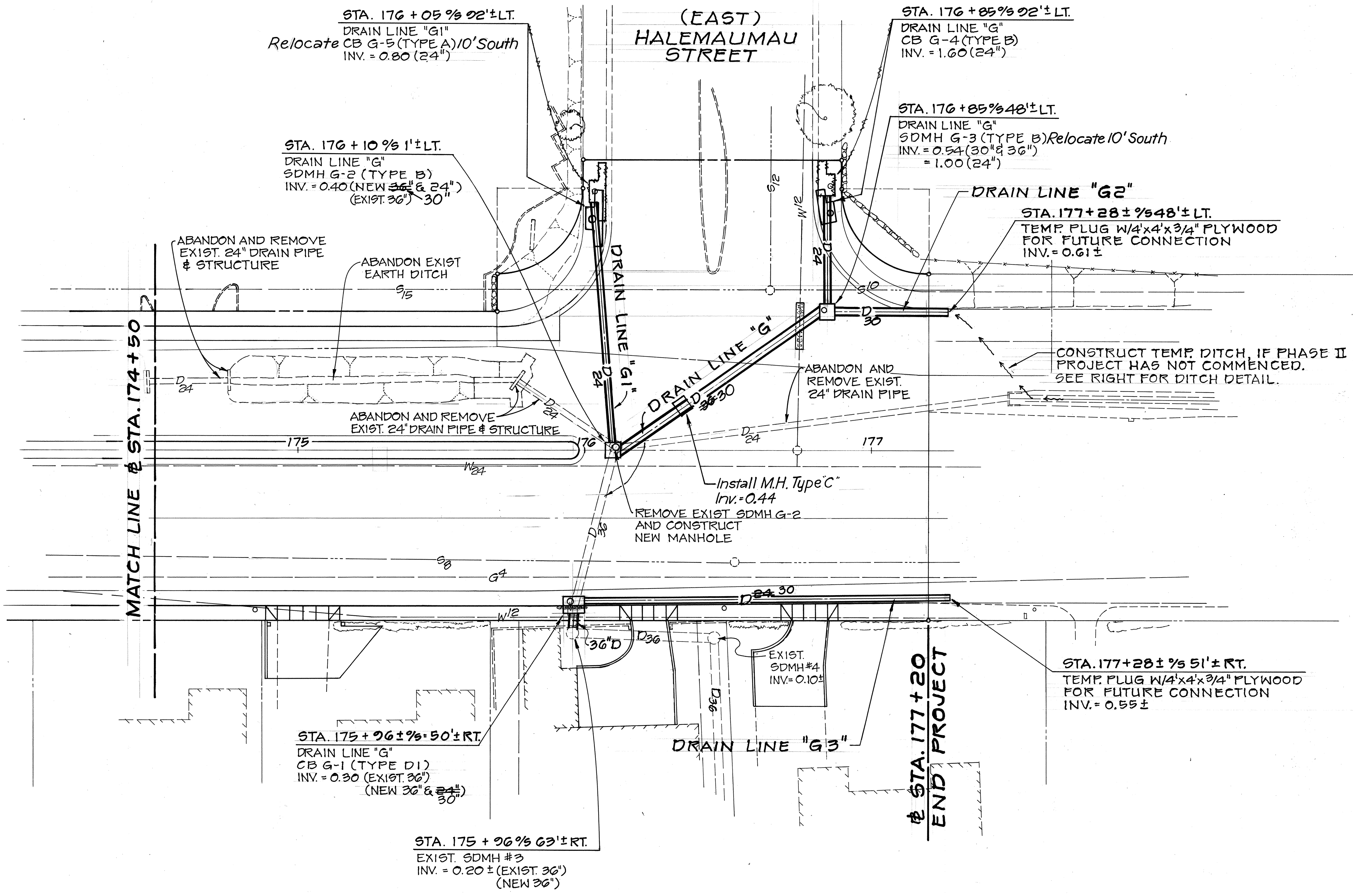
DRAINAGE PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B

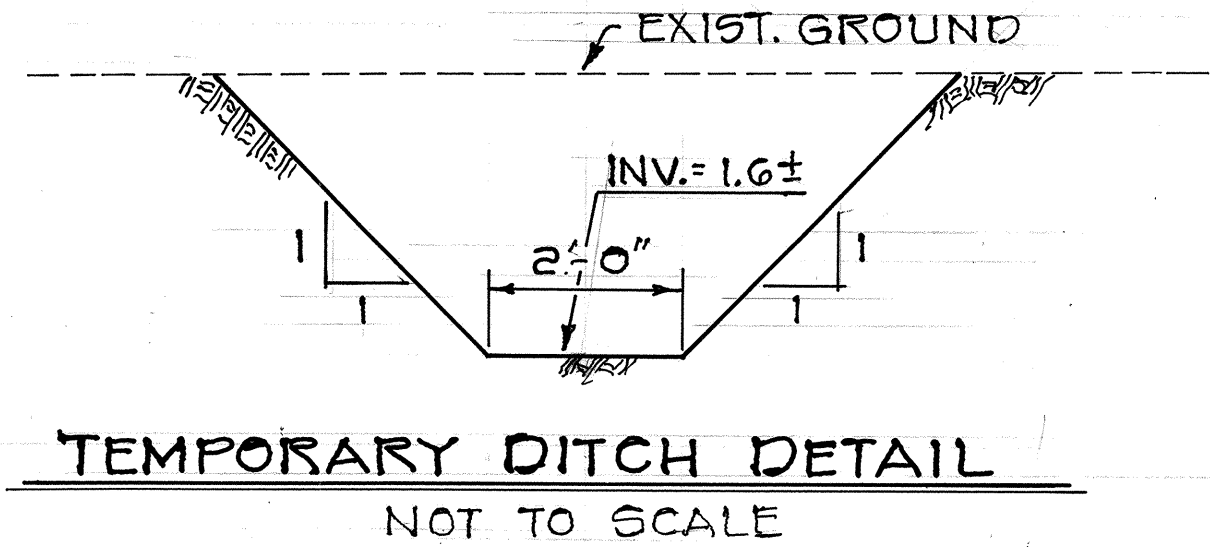
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(34)B	1991	35	103

ORIGINAL PLAN	DATE
NO.	
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	



TRUE NORTH
SCALE: 1" = 20'



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

KALANIANA'OLE HIGHWAY
E. HIND DR. TO E. HALEMAUMAU ST.
F.A. PROJECT NO. F-072-1(34)B
SCALE: 1" = 20' DATE:
SHEET No. 10 OF 23 SHEETS