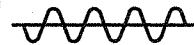
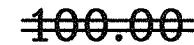
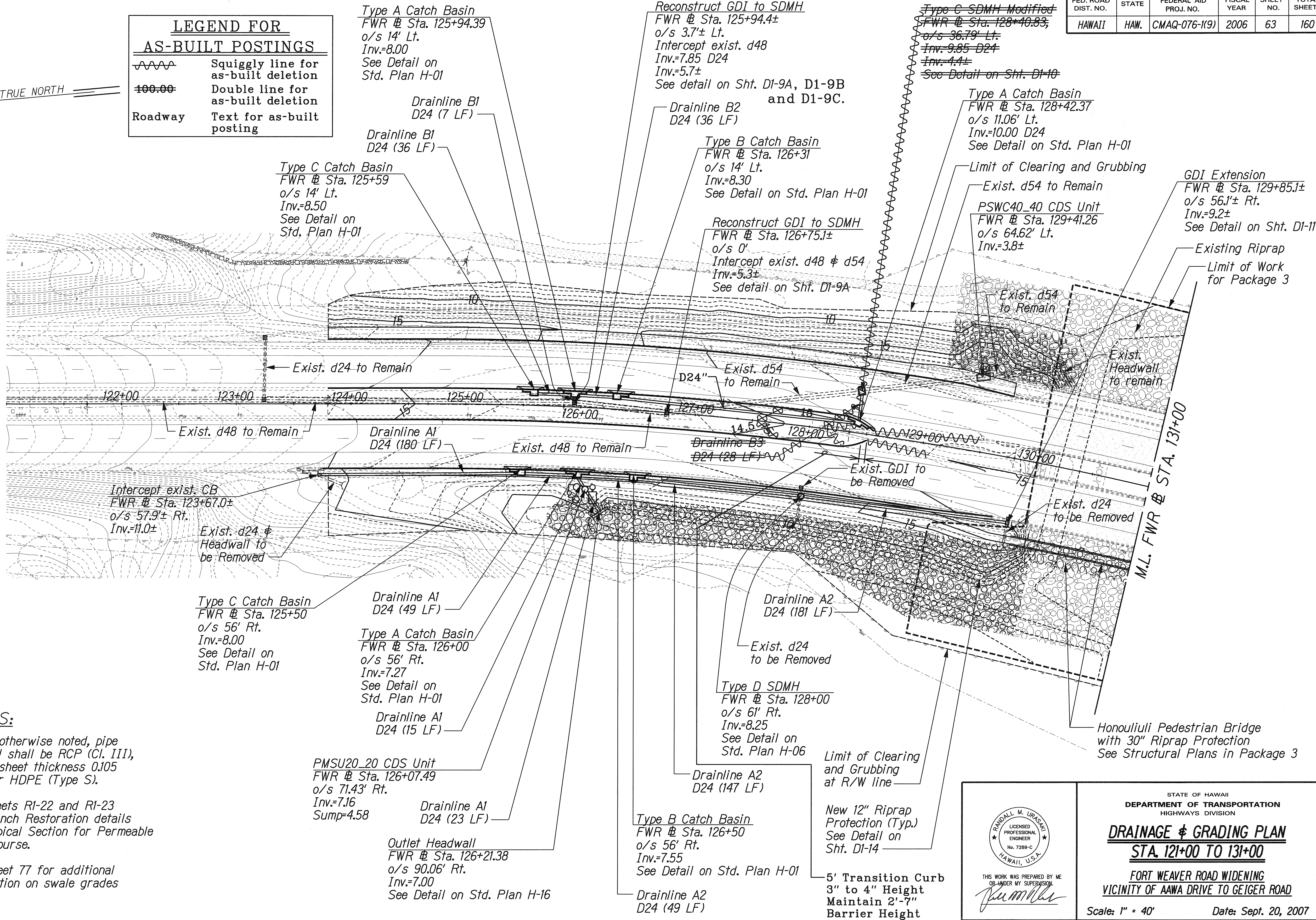


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	63	160

LEGEND FOR
AS-BUILT POSTINGS

 Squiggly line for as-built deletion
 Double line for as-built deletion
Roadway Text for as-built posting

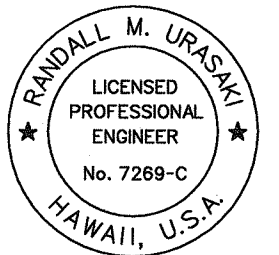


NOTES:

- Unless otherwise noted, pipe material shall be RCP (Cl. III), ASRP (sheet thickness 0.105 inch), or HDPE (Type S).
- See sheets R1-22 and R1-23 for Trench Restoration details and Typical Section for Permeable Base Course.
- See Sheet 77 for additional information on swale grades

DESIGNED BY	DATE
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CHECKED BY	
NOTED BY	
QUANTITIES BY	
ORIGINAL PLAN	

U:\FORT WEAVER ROAD\RAIN\RAIN.dgn



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DRAINAGE & GRADING PLAN
STA. 121+00 TO 131+00
FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD
Scale: 1" = 40'
Date: Sept. 20, 2007
SHEET No. D-1 OF 15 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	64	160

LEGEND FOR AS-BUILT POSTINGS

 Squiggly line for as-built deletion
 Double line for as-built deletion
 Roadway Text for as-built posting

Type C Catch Basin
 FWR @ Sta. 137+98.97
 o/s 14' Lt.
 Inv.=9.20
 See Detail on Std. Plan H-01

Drainline C1
 D24 (15 LF)

Type C SDM
 FWR @ Sta. 137+99.0±
 o/s 3.9± Rt.
 Intercept exist. d36
 Inv.=8.90 D24
 Inv.=6.8±
 See Detail on Sht. D1-9 and Std. Plan H-05

Type A1 Catch Basin
 FWR @ Sta. 140+25
 o/s 56' Lt.
 Intercept exist. d24
 Inv.=9.80 D24 (Left)
 Inv.=7.6±
 See Detail on Std. Plan H-02

Drainline C3
 D24 (84 LF)

Concrete Protection
 (60 LF)

Type B Catch Basin
 FWR @ Sta. 139+25
 o/s 56' Lt.
 Inv.=10.38
 See Detail on Std. Plan H-01

Concrete Collar
 See Detail on Sheet D1-14

M.L. FWR @ STA. 141+00

Drainline D1
 7' x 3' Box
 Culvert (168 LF)

Type G SDM
 FWR @ Sta. 139+41
 o/s 67.58' Rt.
 Inv.=9.60 D24
 Inv.=8.18
 See Detail on Sht. D1-13

PMIU20_15.5 (curb) CDS Unit
 FWR @ Sta. 139+41
 o/s 56' Rt.
 Inv.=9.70
 Sump=7.70

Type A1 Catch Basin
 FWR @ Sta. 140+24.9±
 o/s 56' Rt.
 Intercept exist. d24
 Inv.=8.2±
 See Detail on Std. Plan H-02

Type C SDM
 FWR @ Sta. 140+24.9±
 o/s 4.1± Rt.
 Intercept exist. d36 & d24
 Inv.=7.3±
 See Detail on Sht. D1-9 and Std. Plan H-05

Exist. 2-d36
 to Remain

Drainline D1
 7' x 3' Box
 Culvert (85 LF)

Type G SDM
 FWR @ Sta. 137+40
 o/s 67.55' Rt.
 Inv.=7.18
 See Detail on Sht. D1-13

Drainline D1
 7' x 3' Box
 Culvert (201 LF)

Type C1 Catch Basin
 FWR @ Sta. 137+76.6±
 o/s 56' Rt.
 Intercept exist. d36
 Inv.=6.4±
 See Detail on Std. Plan H-02

Type C1 Catch Basin
 FWR @ Sta. 135+24.2±
 o/s 56' Rt.
 Intercept exist. d36
 Inv.=6.2±
 See Detail on Std. Plan H-02

Drainline C10
 D36 (21 LF)

Drainline C10
 D36 (18 LF)

Outlet Headwall
 FWR @ Sta. 135+00
 o/s 85' Rt.
 Inv.=6.00
 See Detail on Std. Plan H-16

Reconstruct
 Concrete
 Headwall
 Inv.=6.75

Limit of
 Clearing and
 Grubbing at
 R/W Line

Meet Exist
 Grade and
 Conc. Pad

5' Transition Curb
 3" to 4" Height
 See Det. B

Drainline C1
 D24 (151 LF)

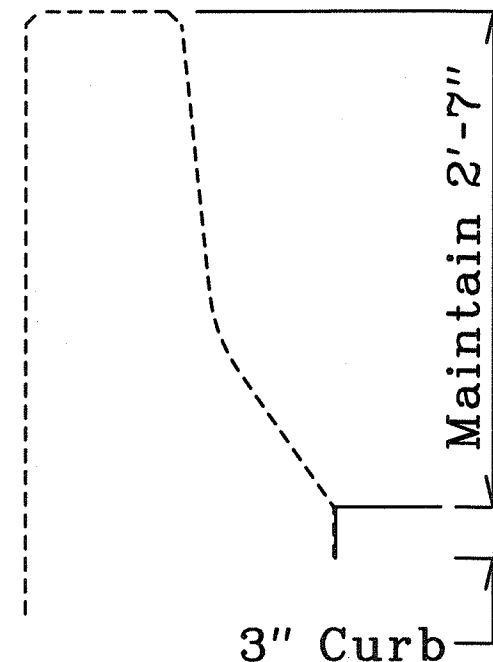
Type C Catch Basin
 FWR @ Sta. 134+50
 o/s 14' Lt.
 Inv.=12.80
 See Detail on Std. Plan H-01

Concrete Protection
 (18 LF)

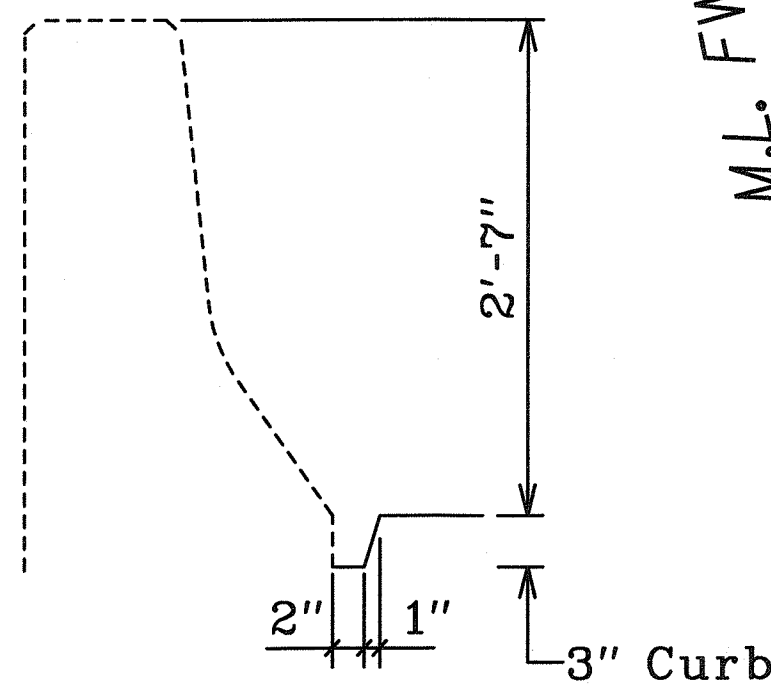
Limit of Work
 for Package 3

Type 2A-9 GDI
 FWR @ Sta. 134+30
 o/s 3.43' Lt.
 Inv.=13.03

Existing Riprap



DETAIL A
 Scale: 1"=1'-0"



DETAIL B
 Scale: 1"=1'-0"

Honouliuli Pedestrian Bridge
 with 30" Riprap Protection
 See Structural Plans in Package 3

Existing Riprap

Limit of Dredging
 (See Package 3)

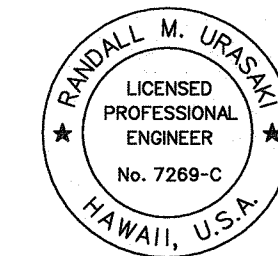
5' Transition Curb
 3" to 4" Height

NOTES:

- Unless otherwise noted, pipe material shall be RCP (Cl. III), ASRP (sheet thickness 0.105 inch), or HDPE (Type S).
- See Sheet 77 for additional information on swale grades.

DESIGNED BY	DATE
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CHECKED BY	
IN CHARGE	
NOTED BY	
QUANTITIES BY	
DATE	

J:\FORT WEAVER ROAD\RAIN\RAIN2.dgn



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 [Signature]

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

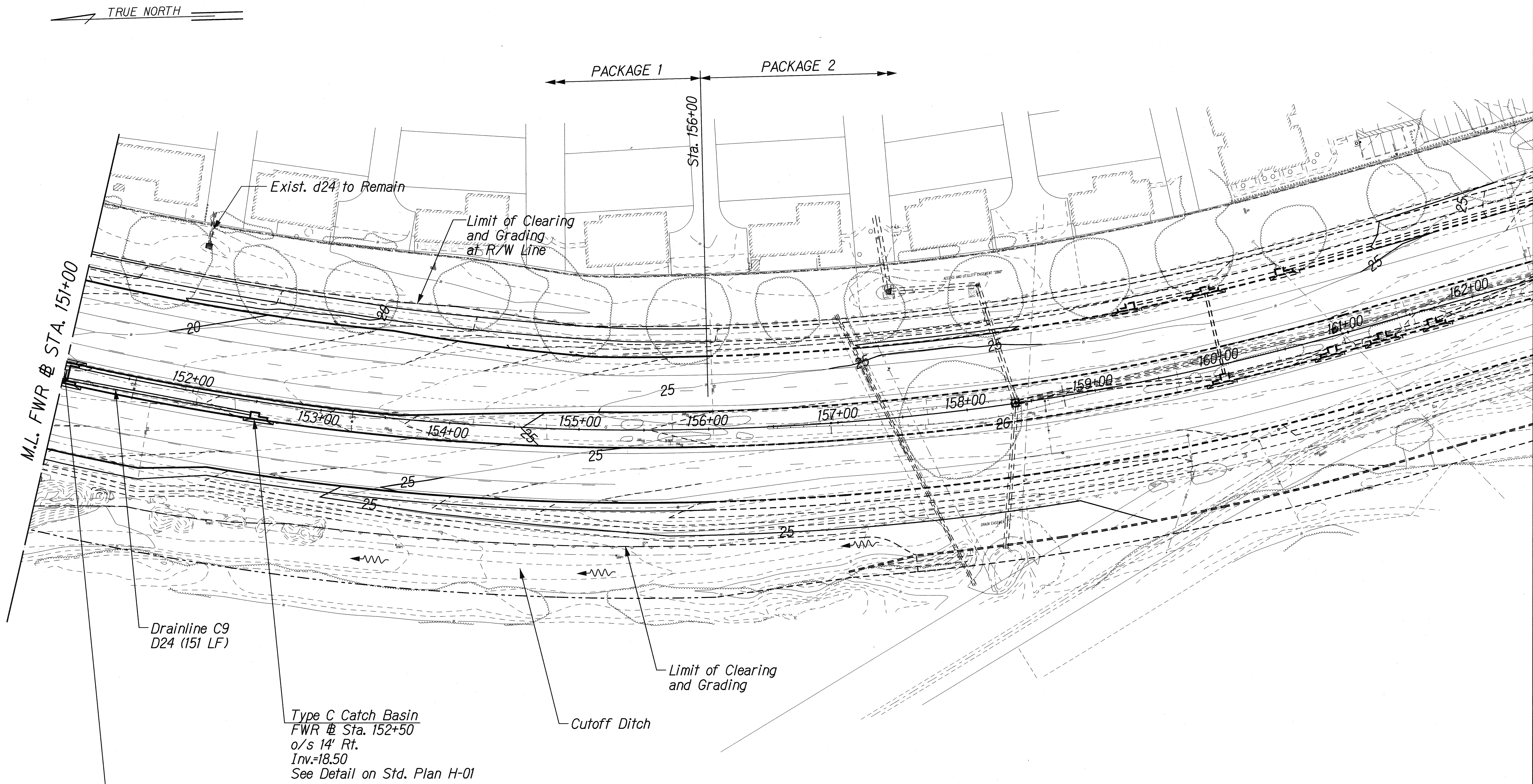
DRAINAGE & GRADING PLAN STA. 131+00 TO 141+00

FORT WEAVER ROAD WIDENING
 VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Sept. 20, 2007

SHEET No. D1-2 OF 15 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	66	160



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

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NOTE:
Unless otherwise noted, pipe material shall be RCP (Cl. III), ASRP (sheet thickness 0.105 inch), or HDPE (Type S).

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R. M. Urashima

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

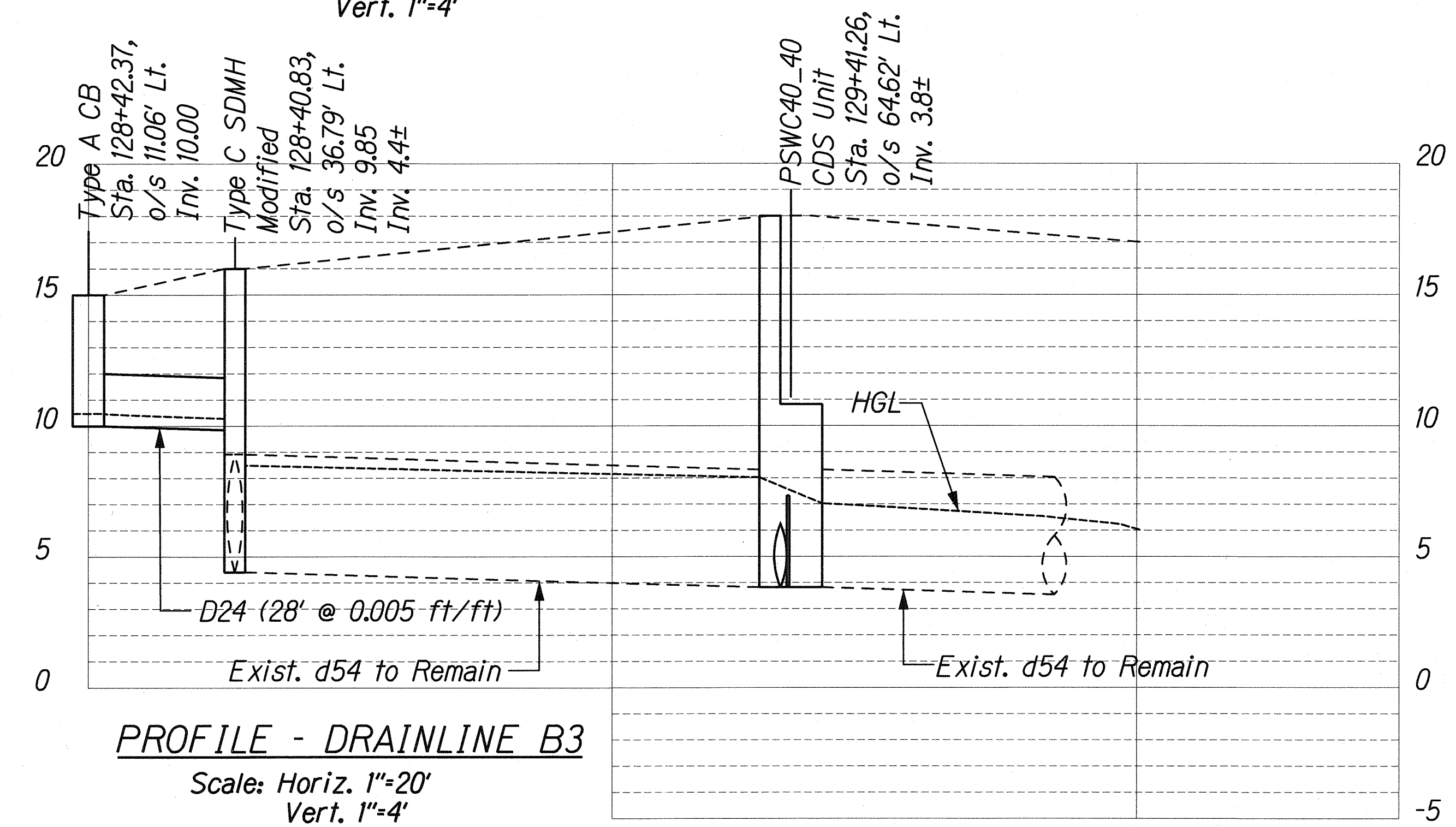
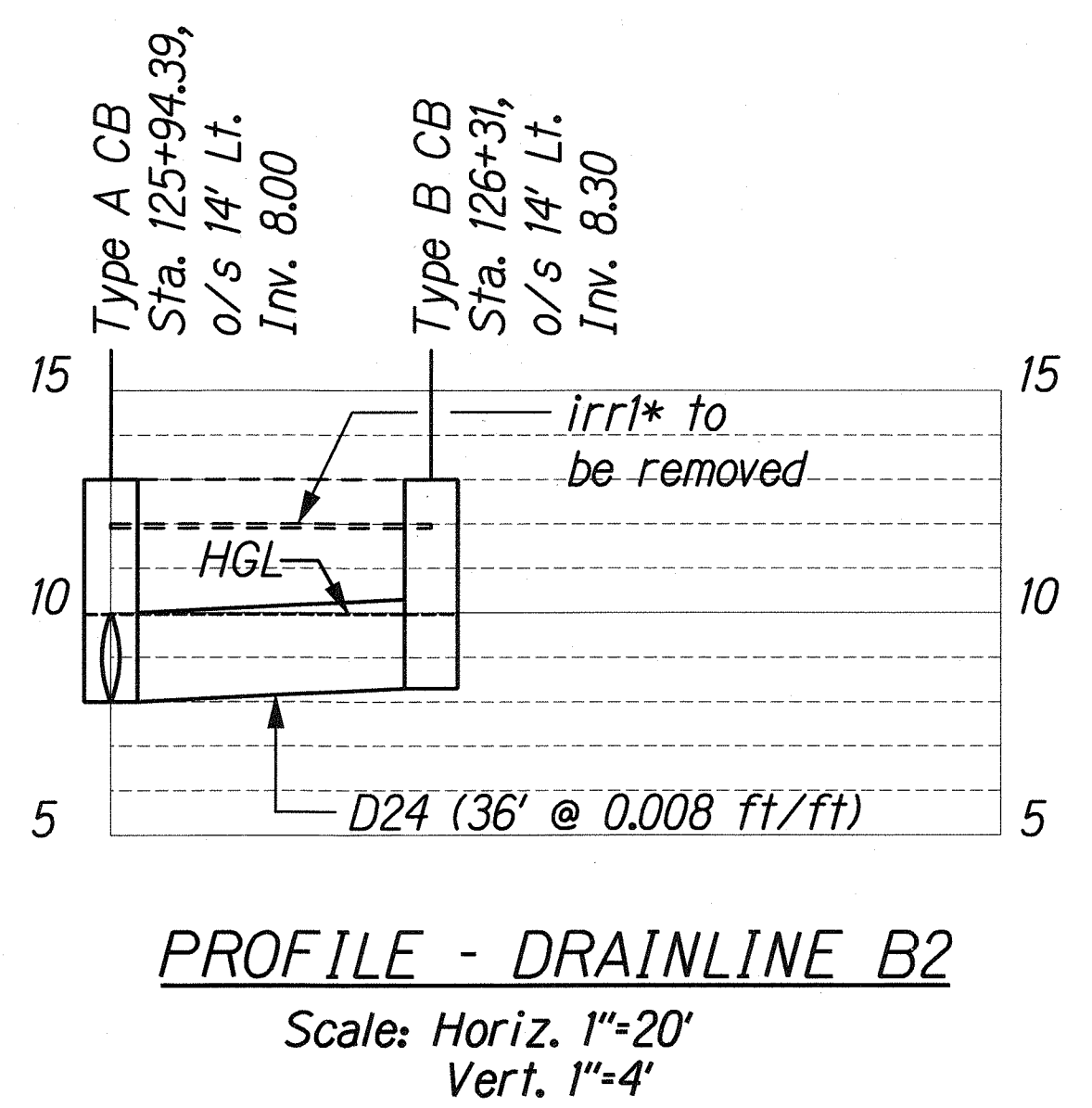
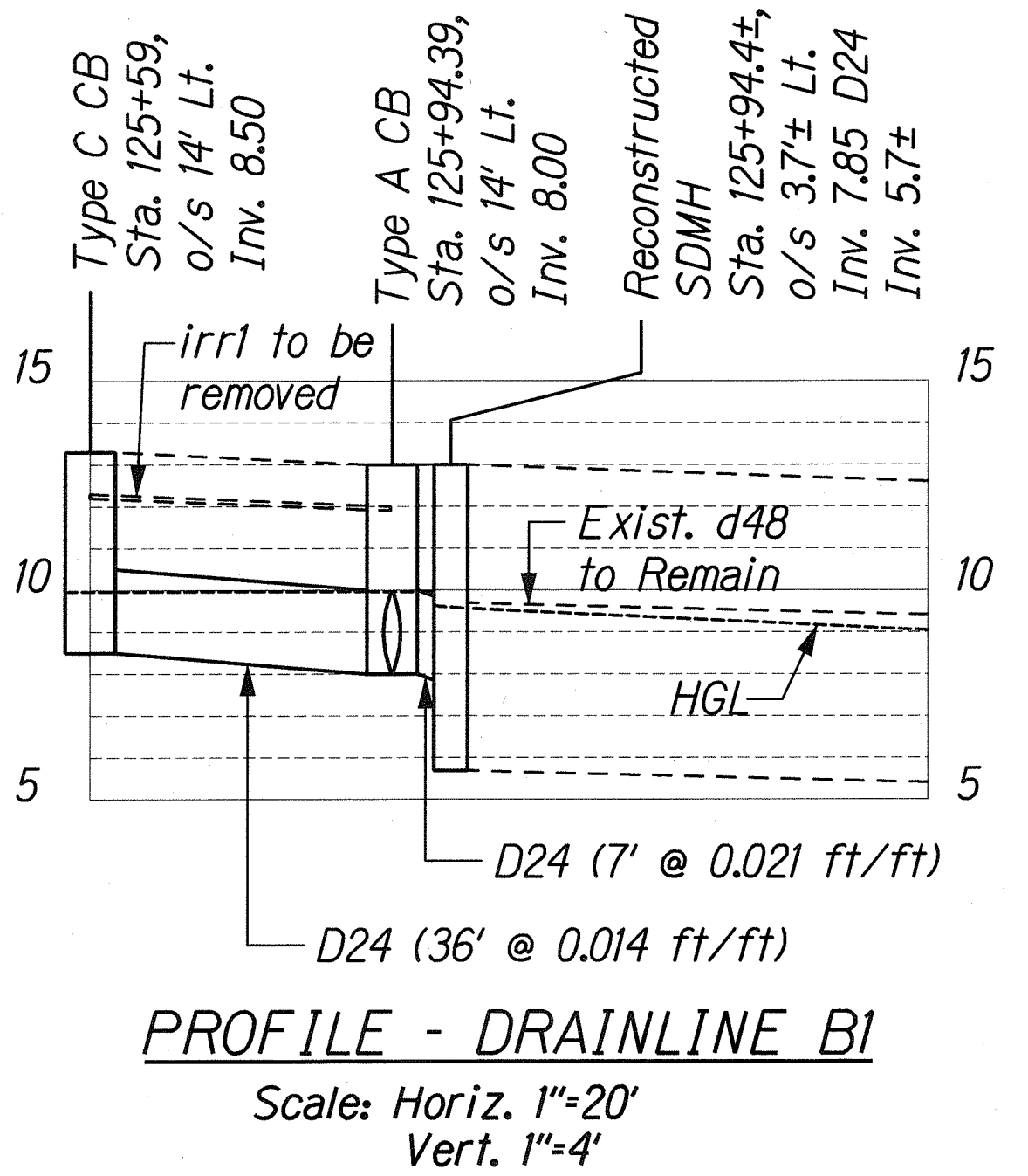
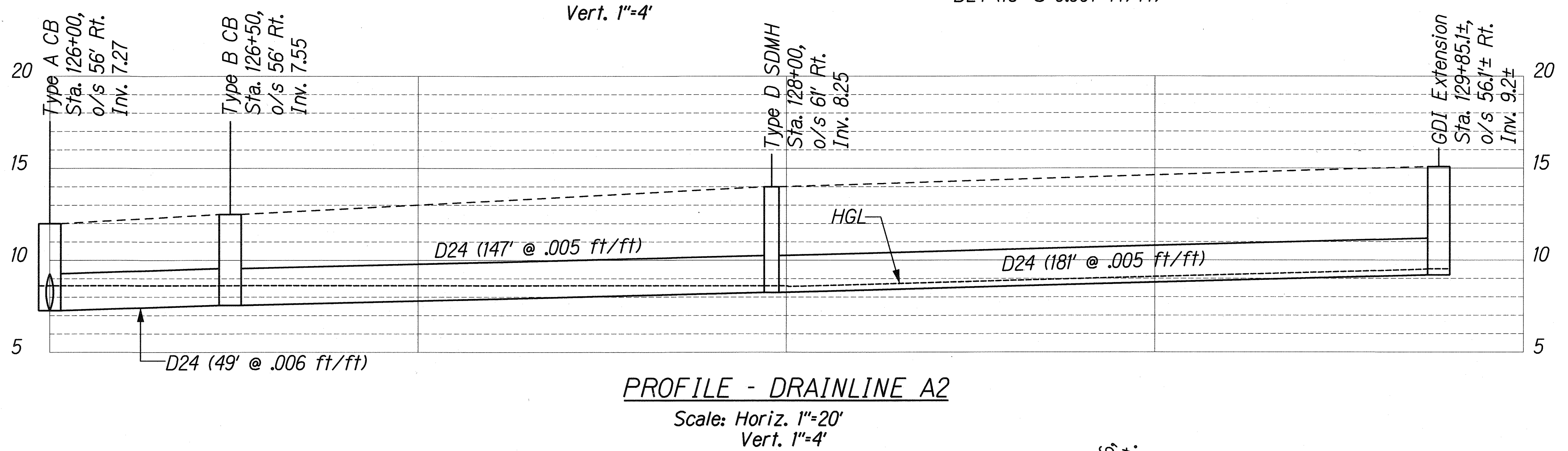
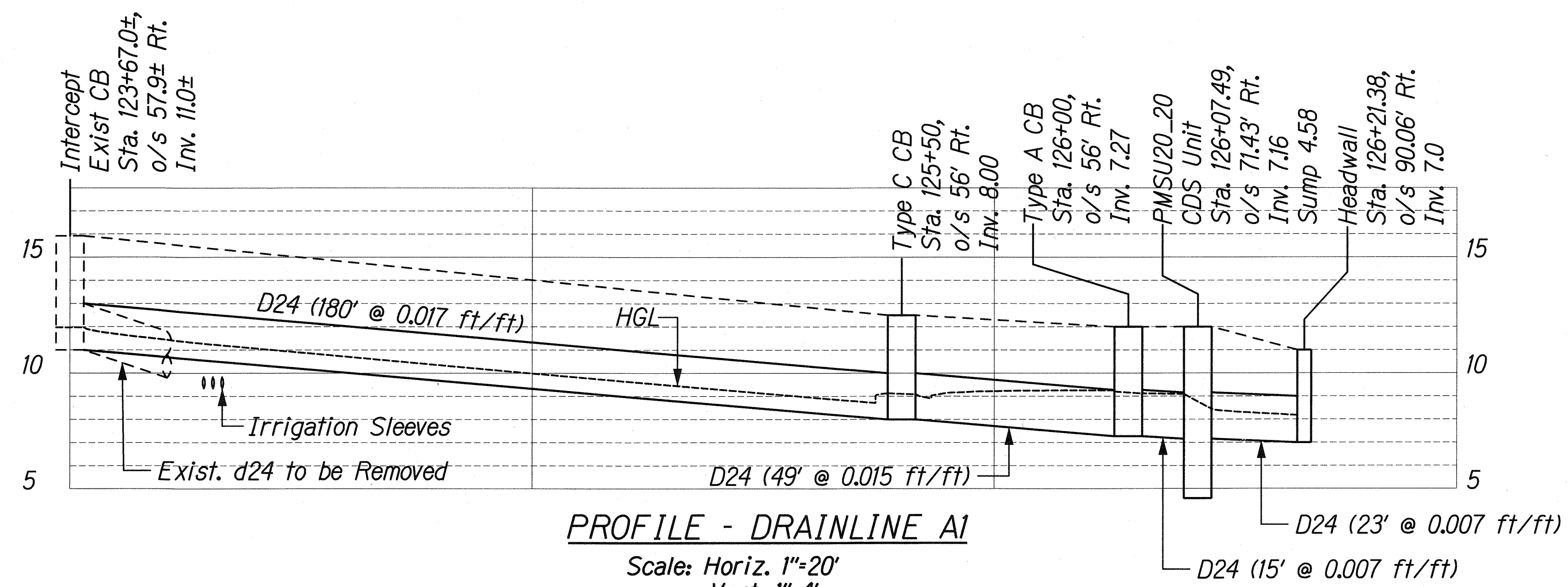
DRAINAGE & GRADING PLAN
STA. 151+00 TO 160+00

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Sept. 20, 2007

SHEET No. D1-4 OF 15 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	67	160



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Randall M. Urasak

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PROFILES - 1

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

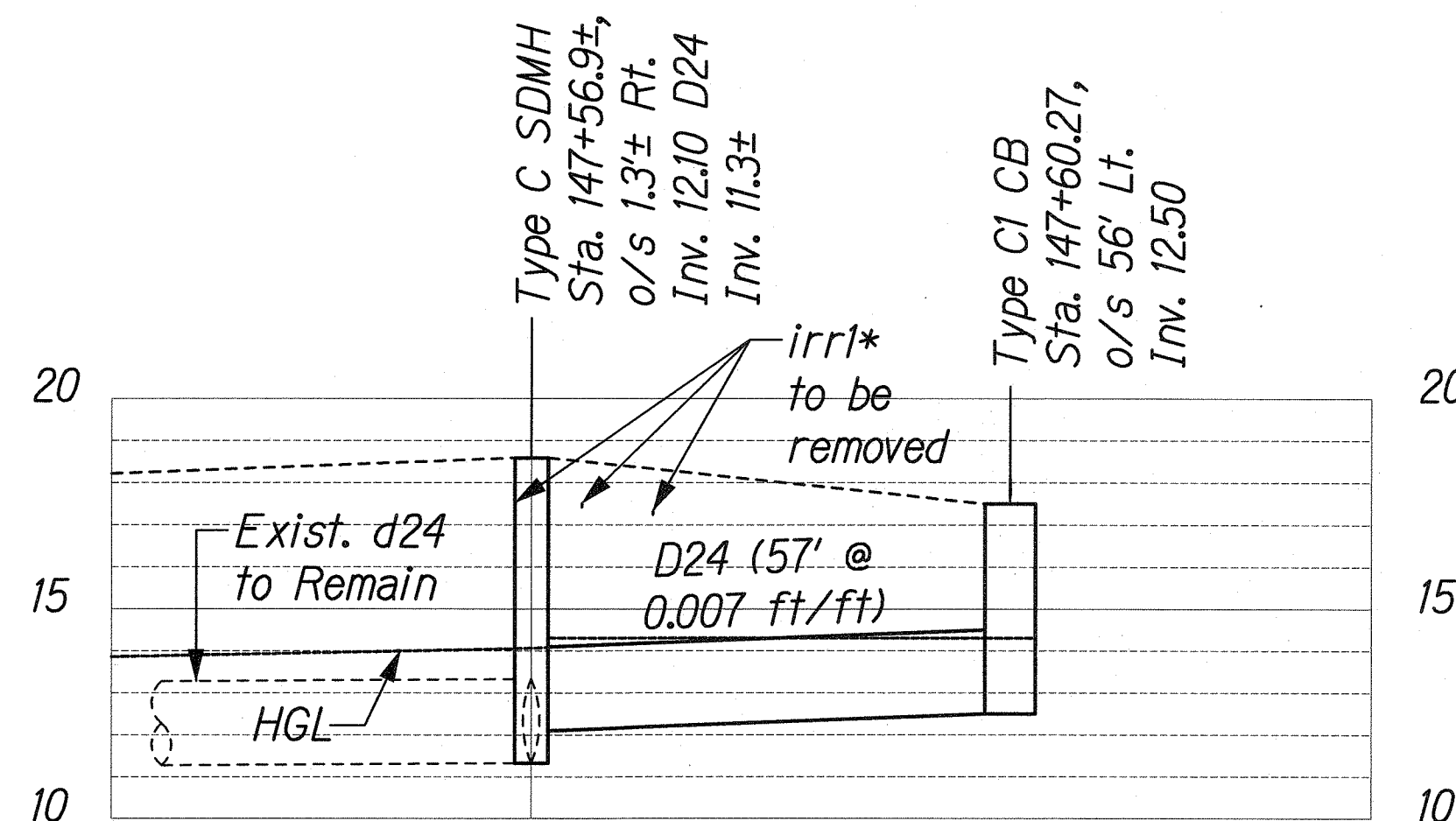
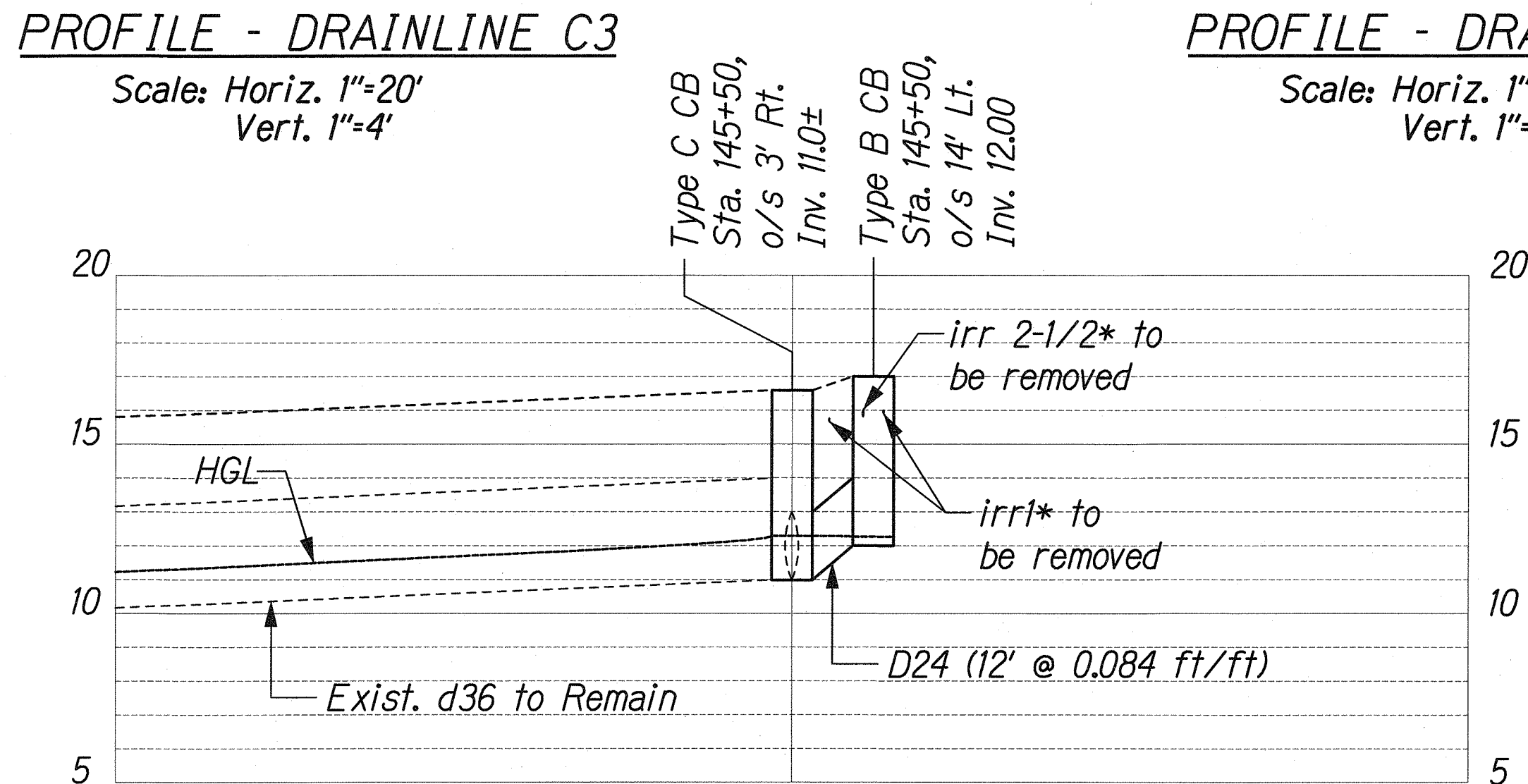
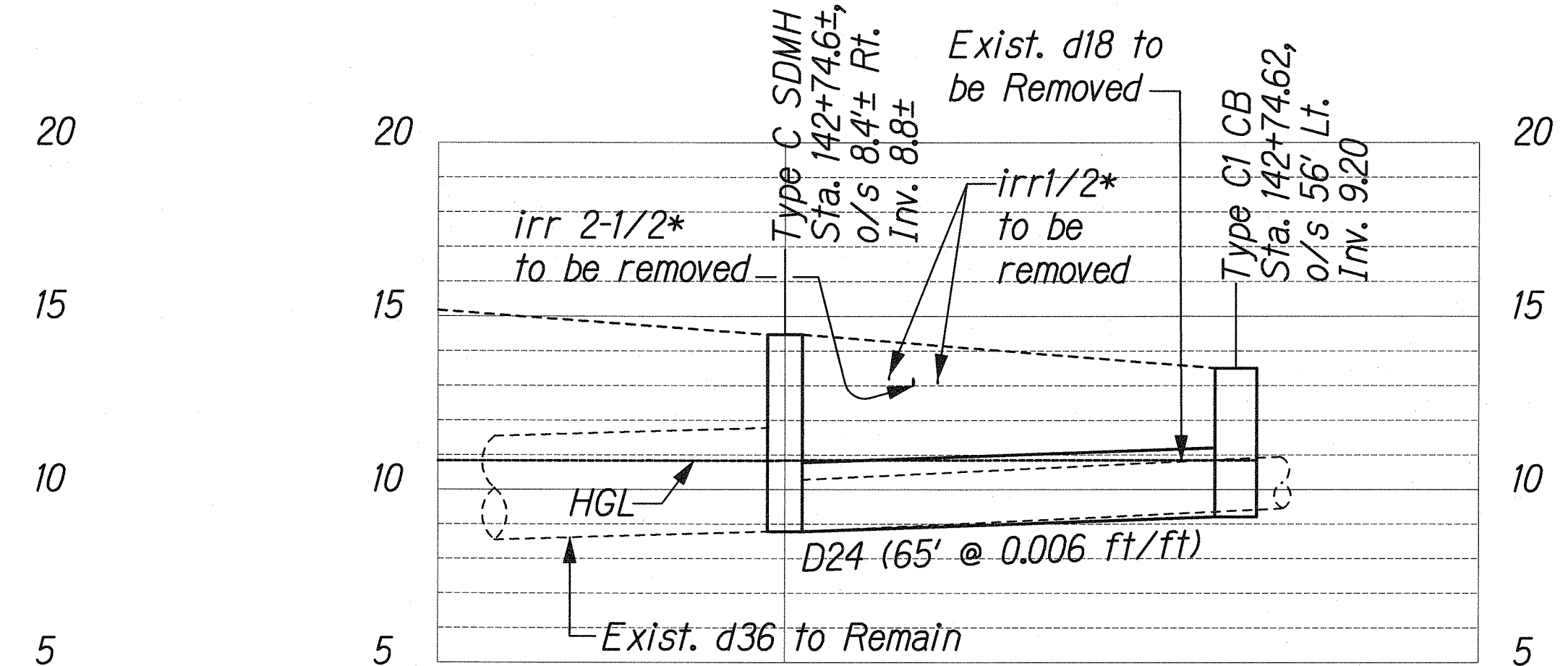
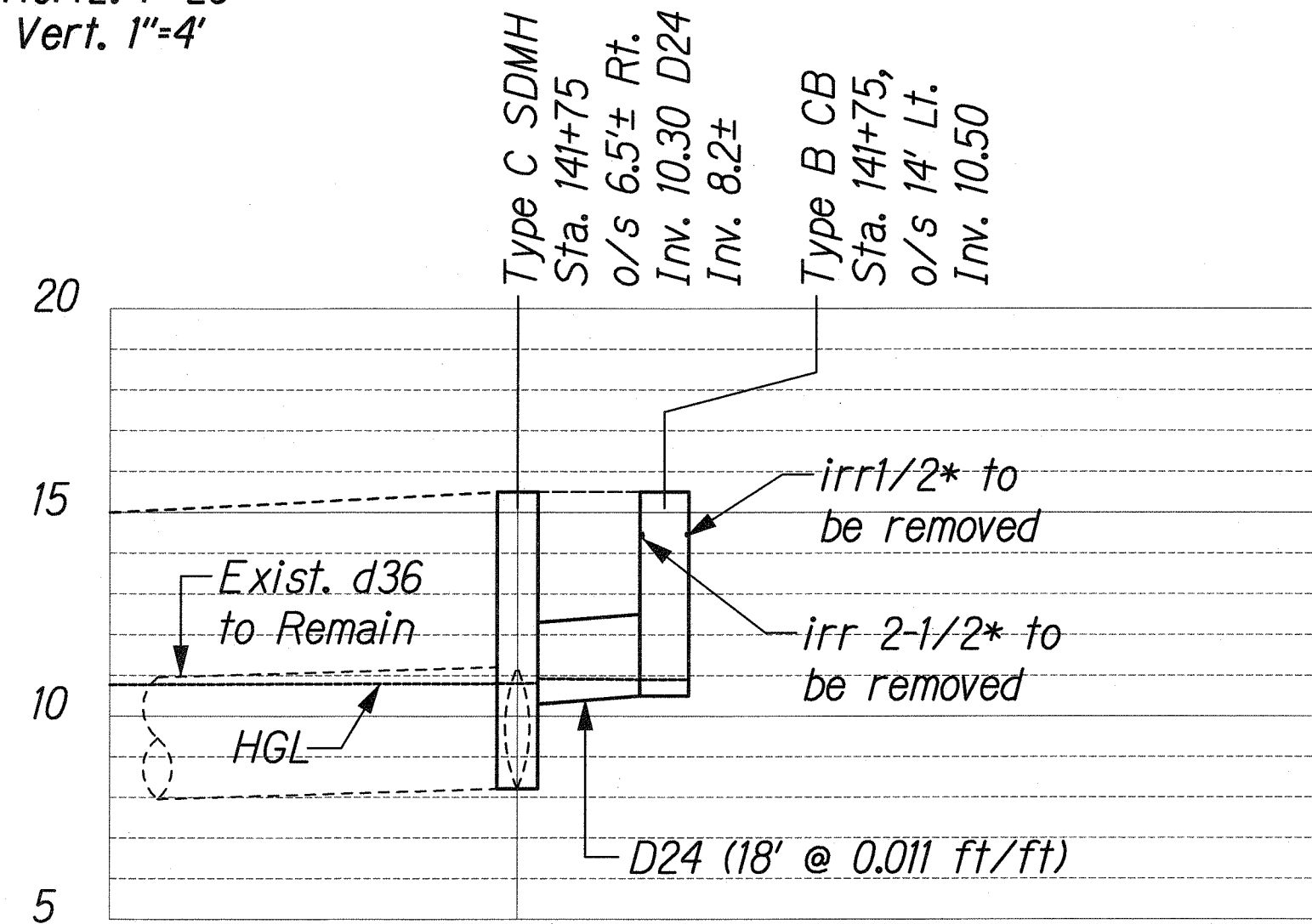
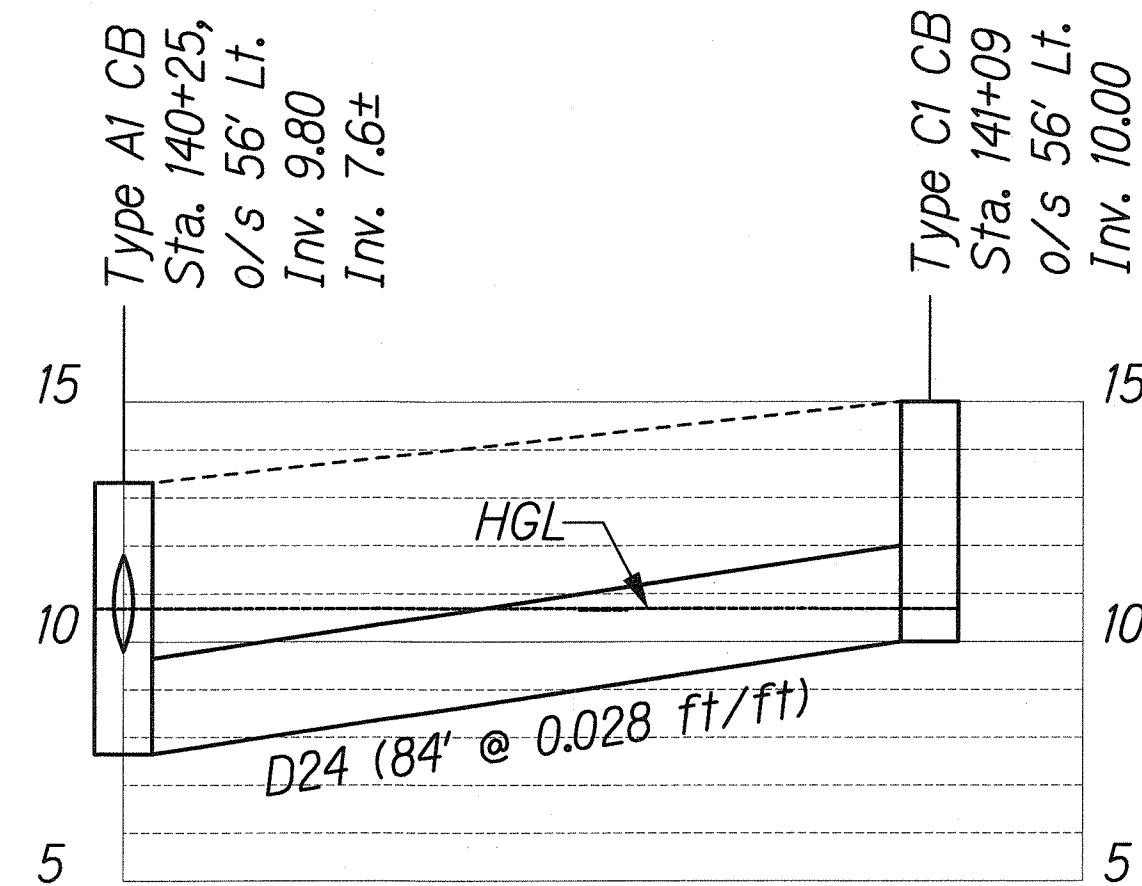
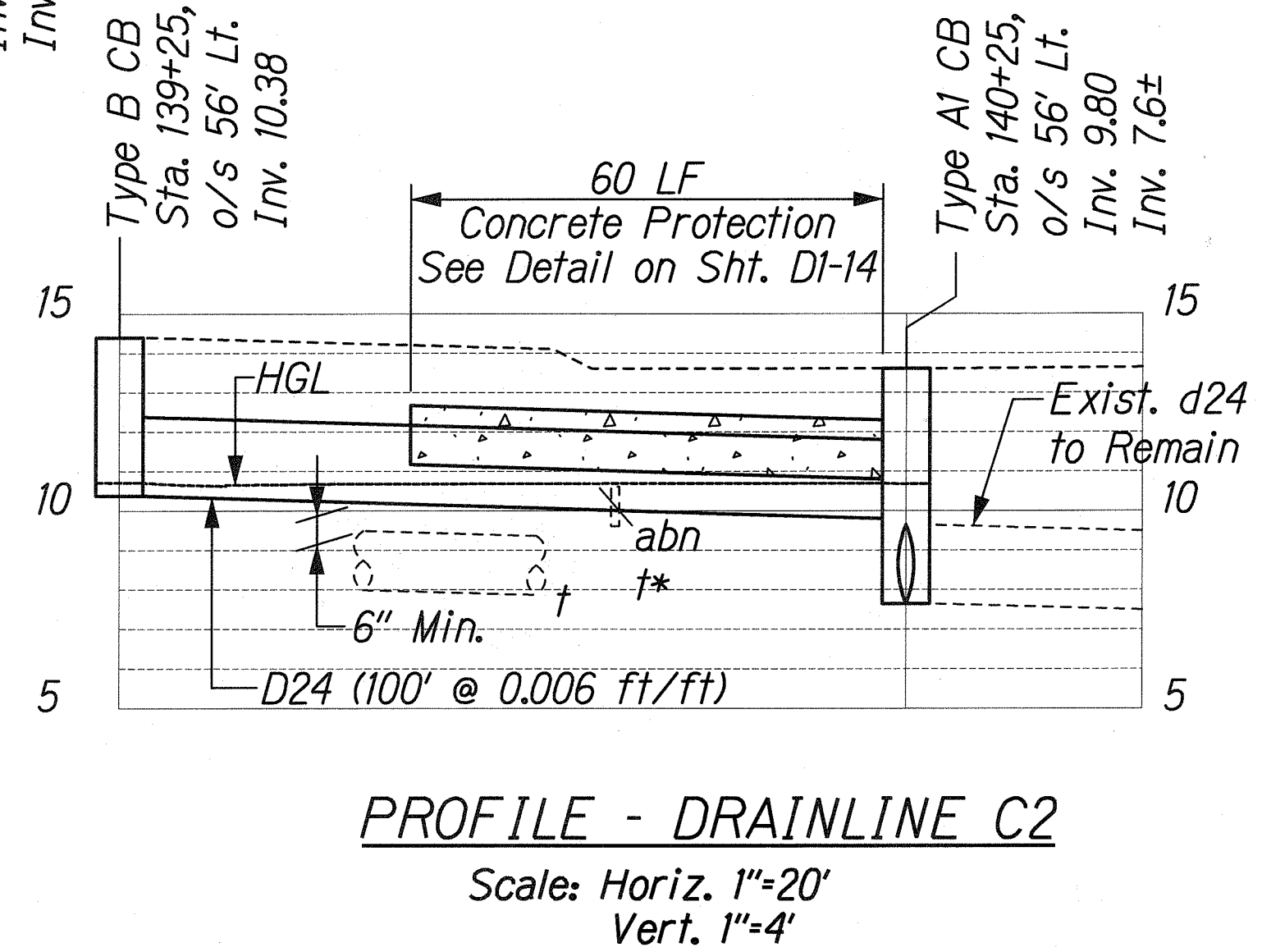
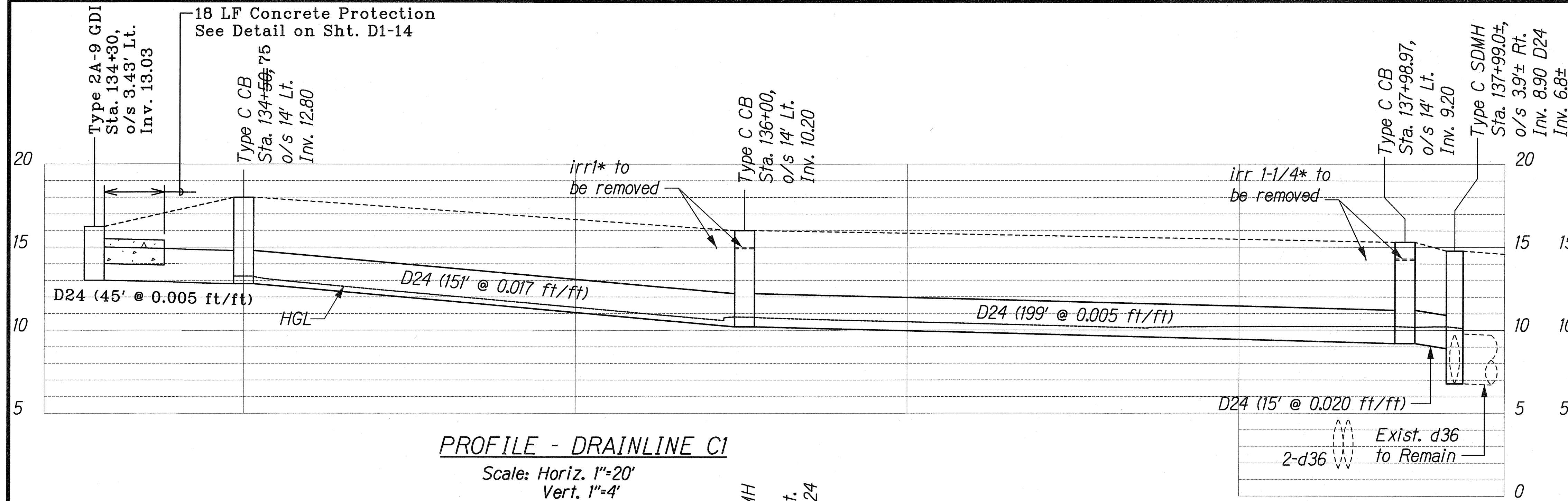
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SHEET No. D1-5 OF 15 SHEETS

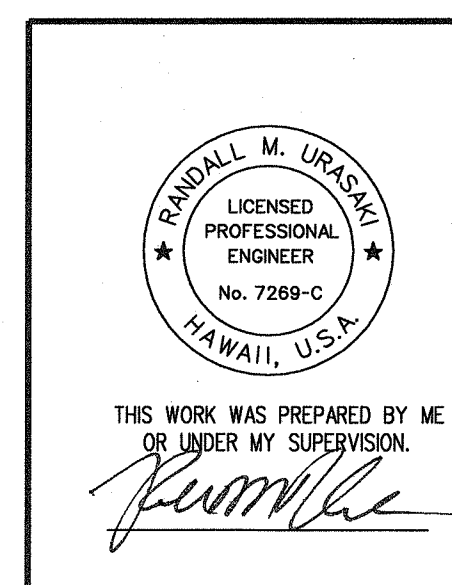
ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	B8	189

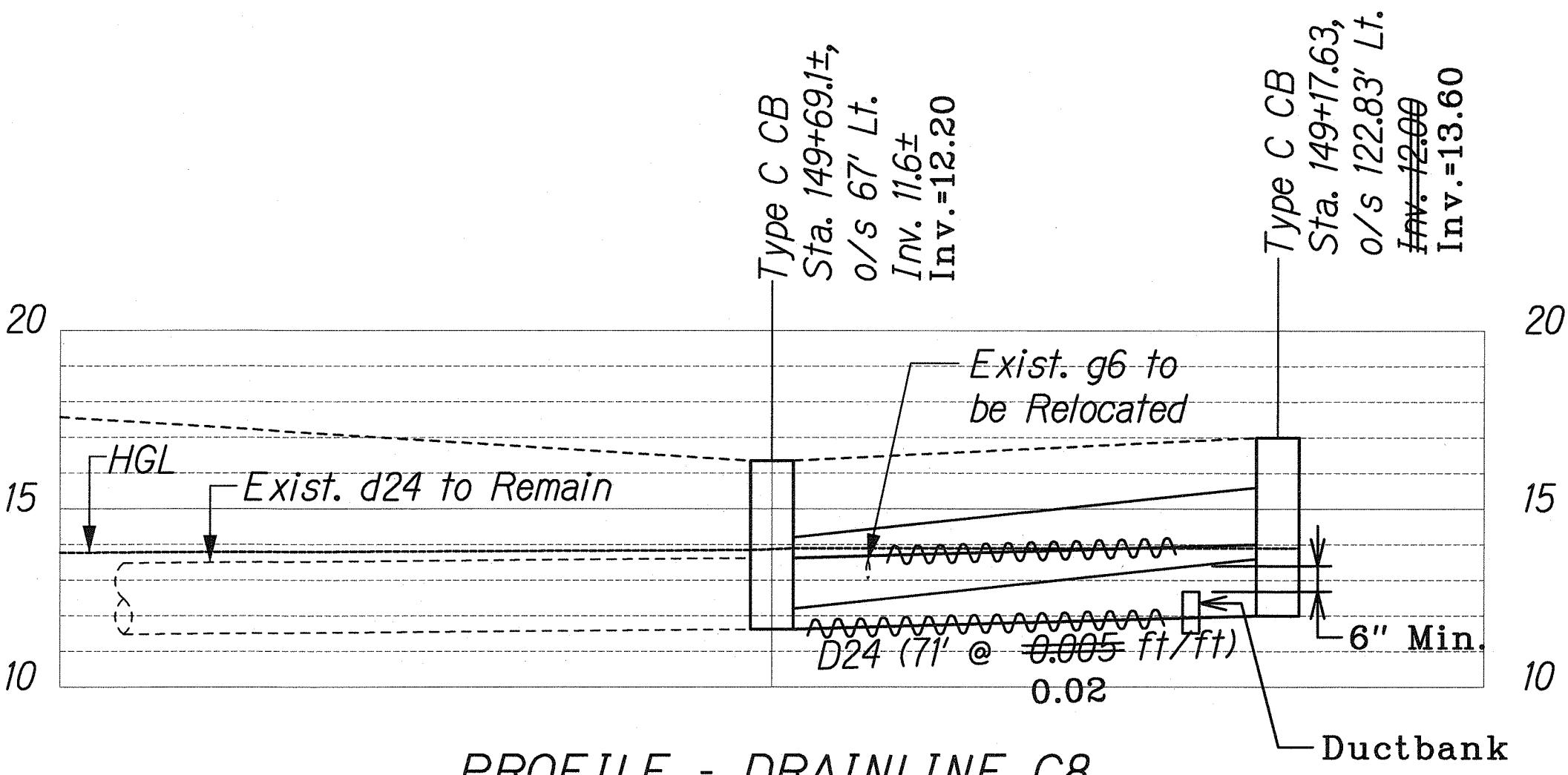


LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting



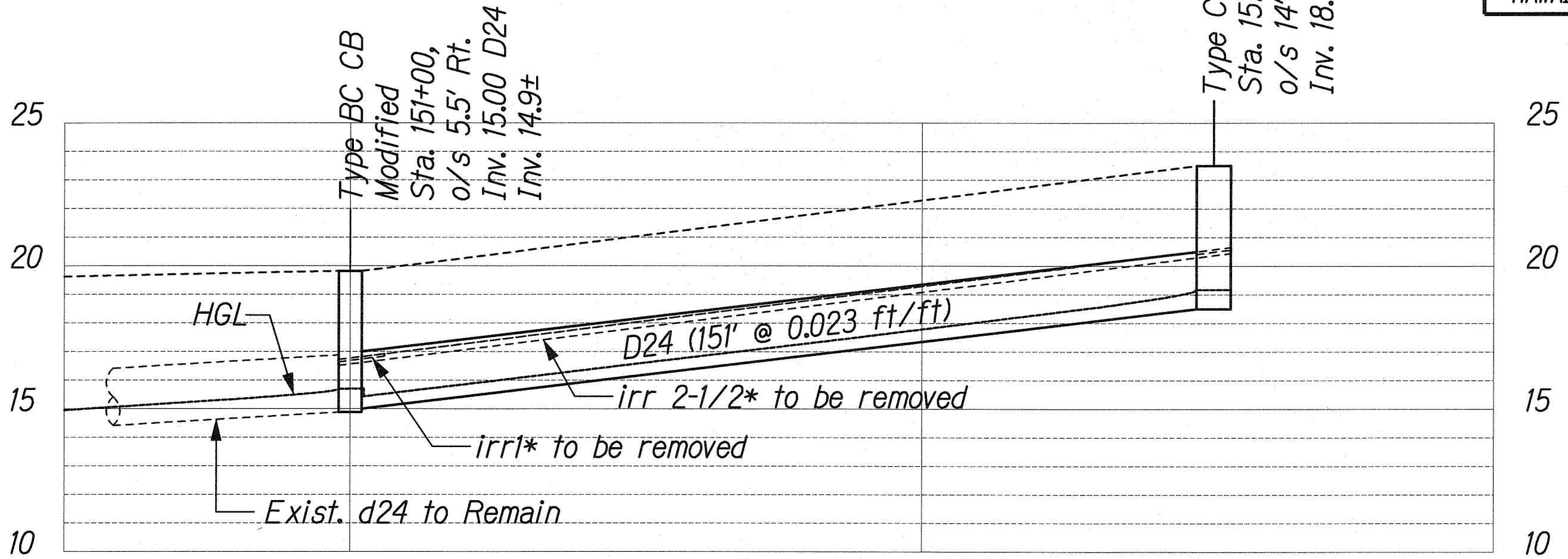
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
DRAINAGE PROFILES - 2	
FORT WEAVER ROAD WIDENING VICINITY OF AAWA DRIVE TO GEIGER ROAD	
Scale: As Shown	Date: Sept. 20, 2007
SHEET No. D1-6 OF 15 SHEETS	

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	69	33



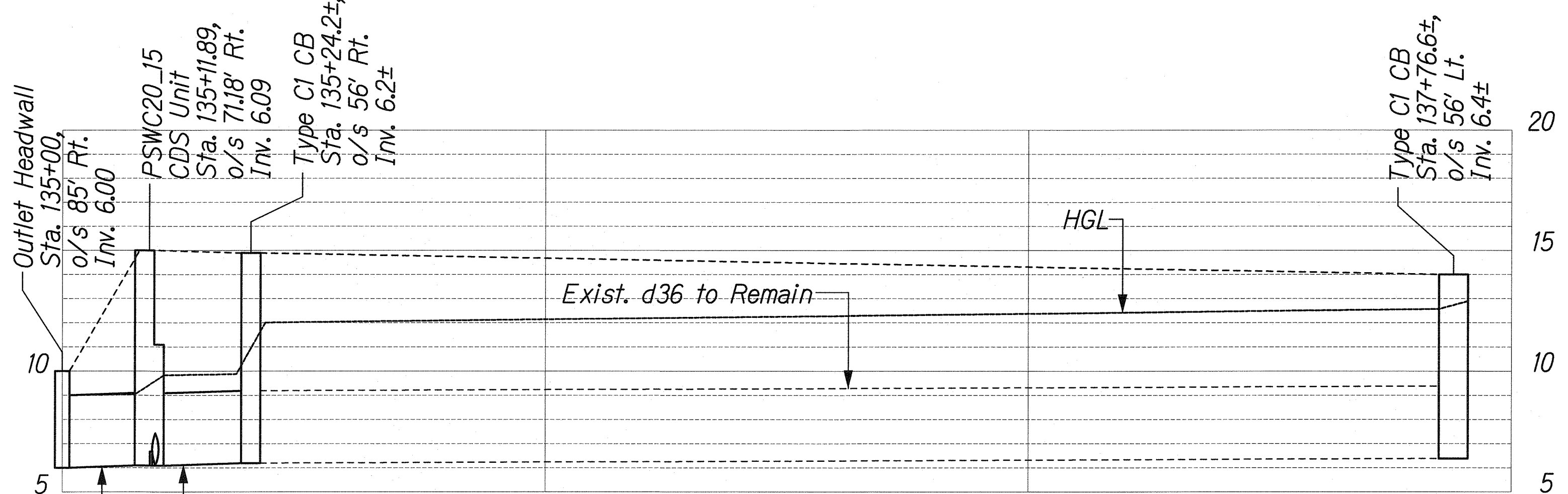
PROFILE - DRAINLINE C8

Scale: Horiz. 1"=20'
Vert. 1"=4'



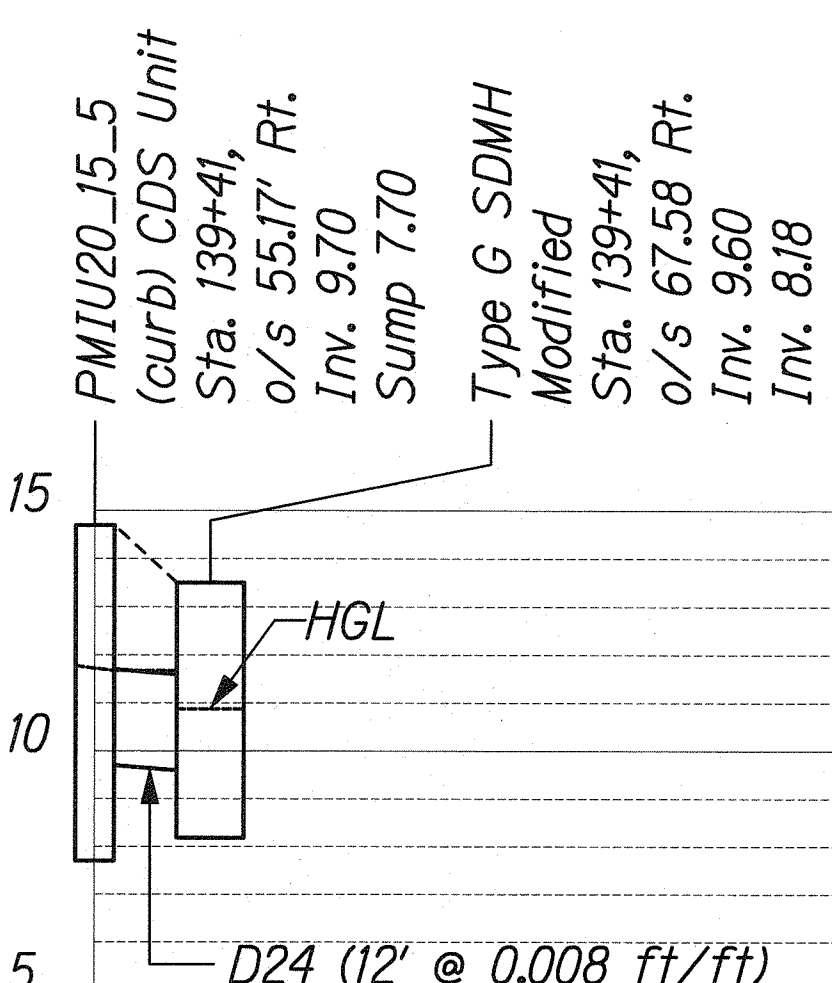
PROFILE - DRAINLINE C9

Scale: Horiz. 1"=20'
Vert. 1"=4'



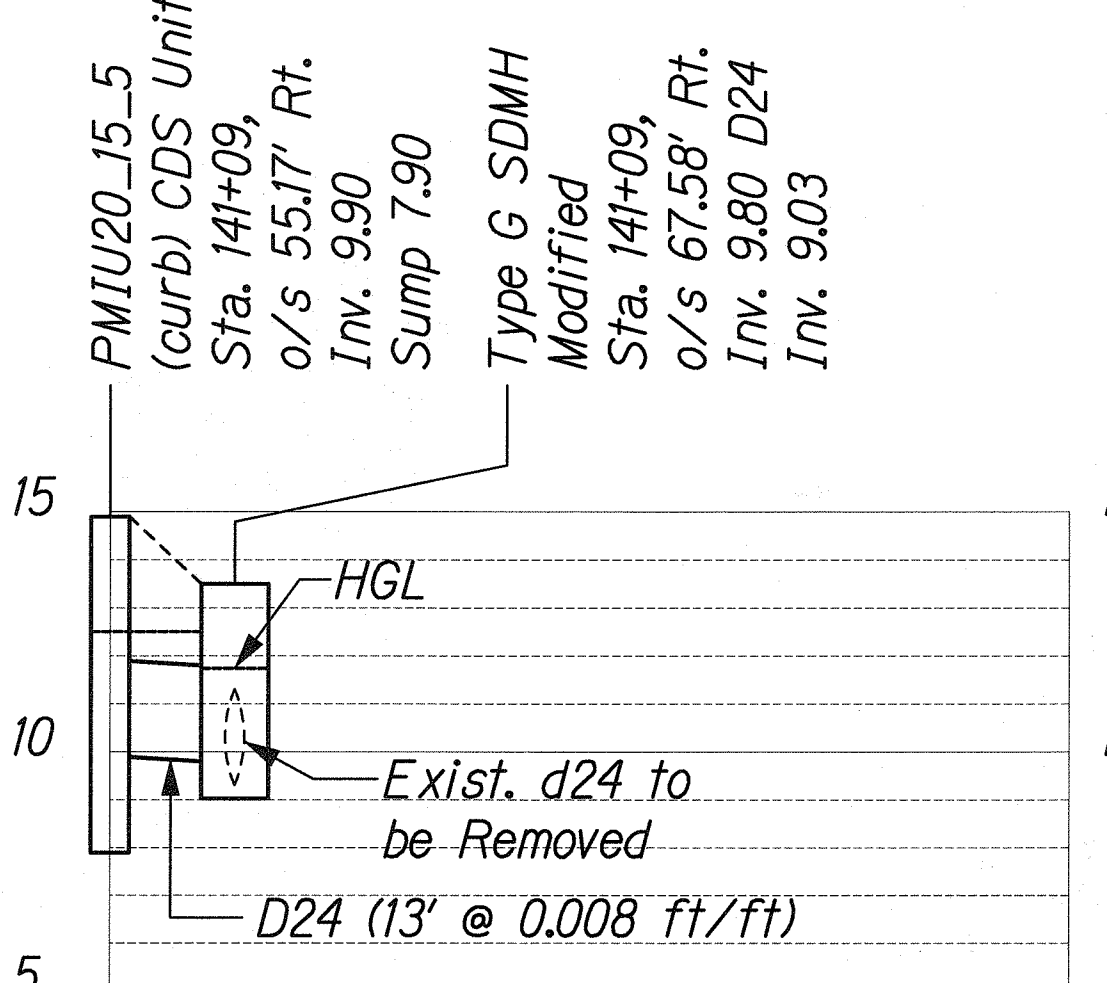
PROFILE - DRAINLINE C10

Scale: Horiz. 1"=20'
Vert. 1"=4'



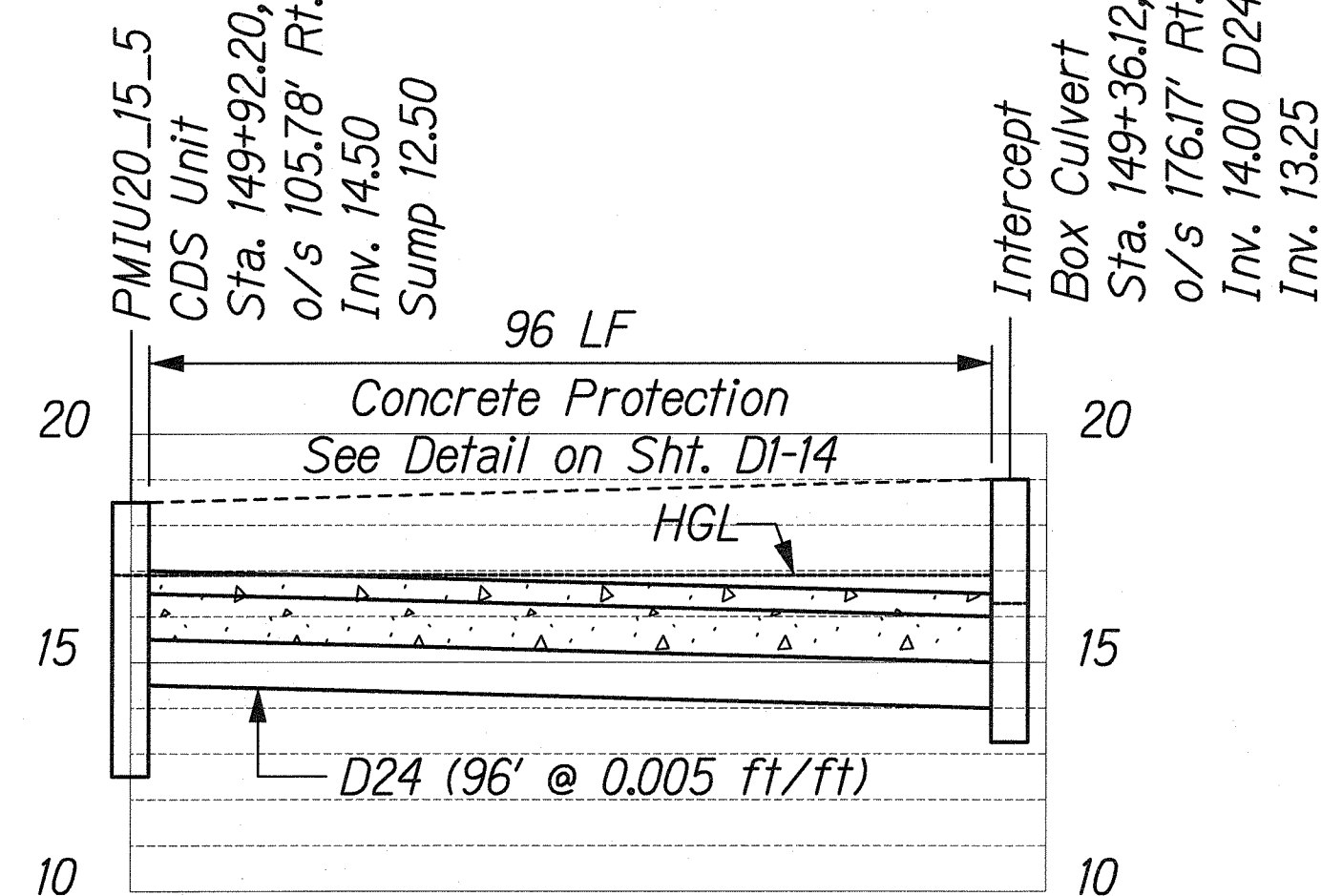
PROFILE - DRAINLINE D2

Scale: Horiz. 1"=20'
Vert. 1"=4'



PROFILE - DRAINLINE D3

Scale: Horiz. 1"=20'
Vert. 1"=4'



PROFILE - DRAINLINE D4

Scale: Horiz. 1"=20'
Vert. 1"=4'

LEGEND FOR
AS-BUILT POSTINGS

Squiggly line for as-built deletion

Double line for as-built deletion

Text for as-built posting

ROADWAY

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R. Urasaki

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

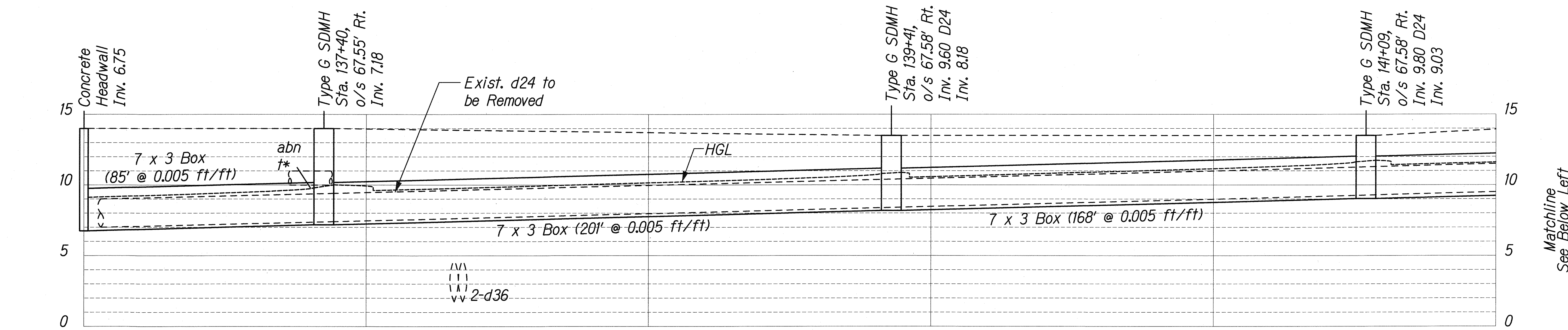
DRAINAGE PROFILES - 3

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

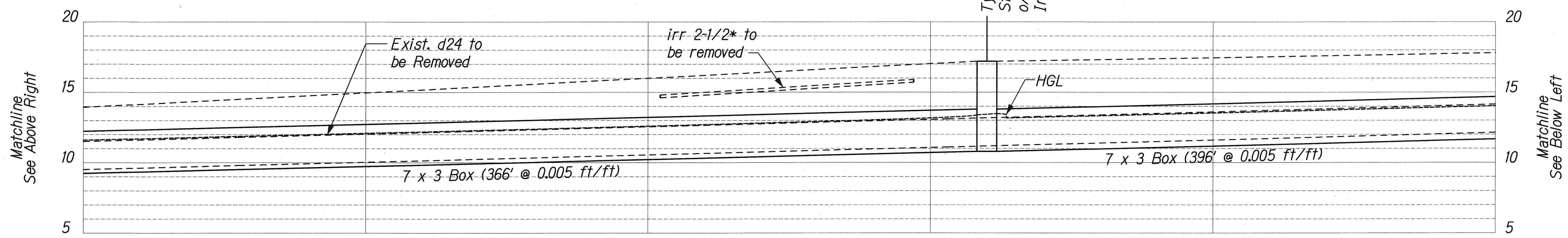
Scale: As Shown Date: Sept. 20, 2007

SHEET No. DI-7 OF 15 SHEETS

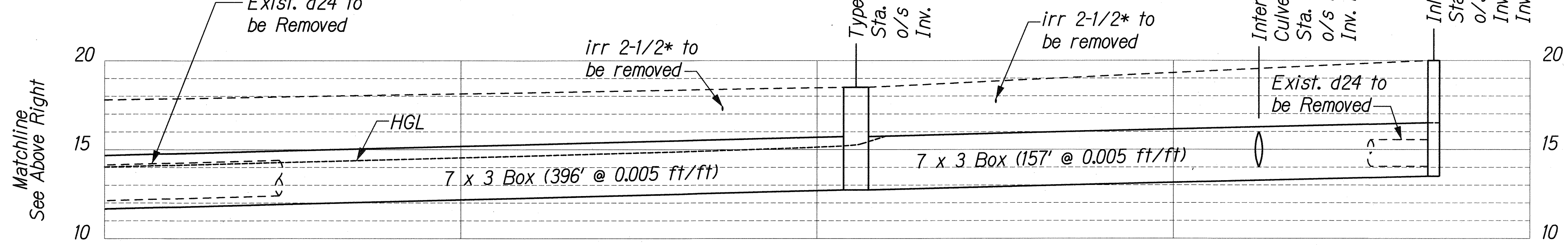
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	70	160



PROFILE - DRAINLINE D1
Scale: Horiz. 1"=20'
Vert. 1"=4'



PROFILE - DRAINLINE D1
Scale: Horiz. 1"=20'
Vert. 1"=4'



PROFILE - DRAINLINE D1
Scale: Horiz. 1"=20'
Vert. 1"=4'

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
APPROVED BY	

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

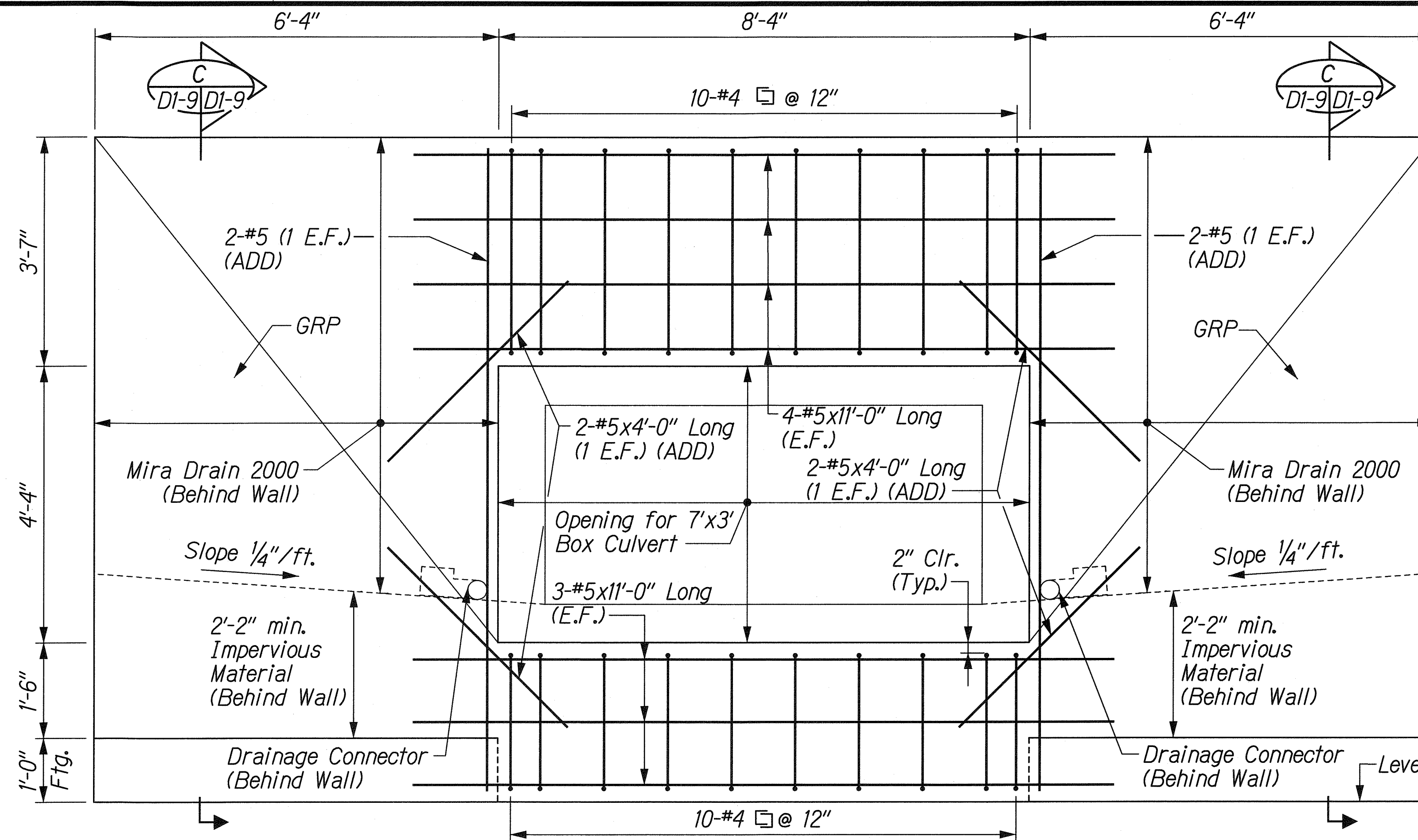
DRAINAGE PROFILES - 4

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: As Shown Date: Sept. 20, 2007

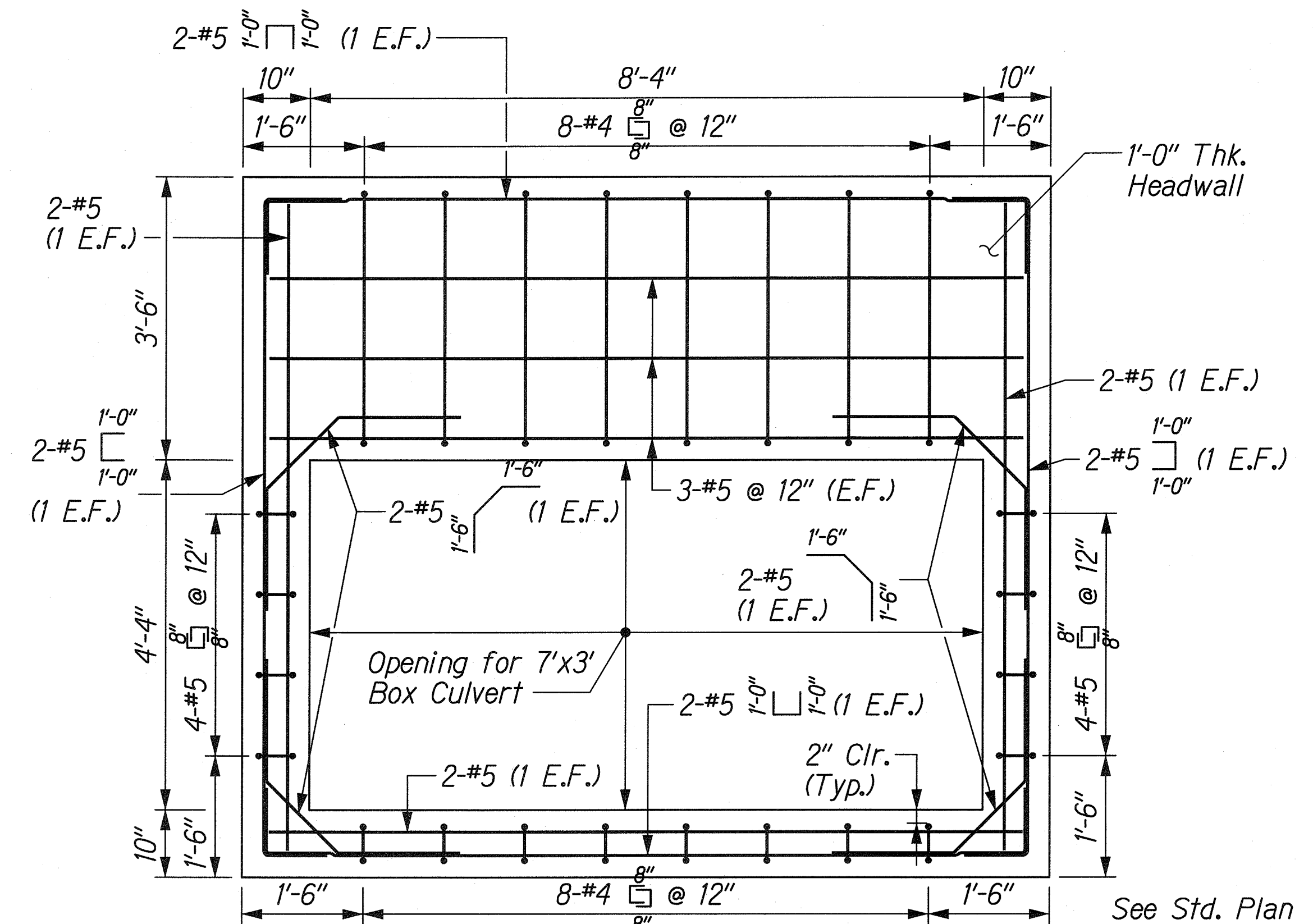
SHEET No. D1-8 OF 15 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	71	160



OUTLET STRUCTURE AT STA. 136+55 REINFORCING AT HEADWALL OPENING

SECTION A
Scale: NTS
DI-2 DI-9

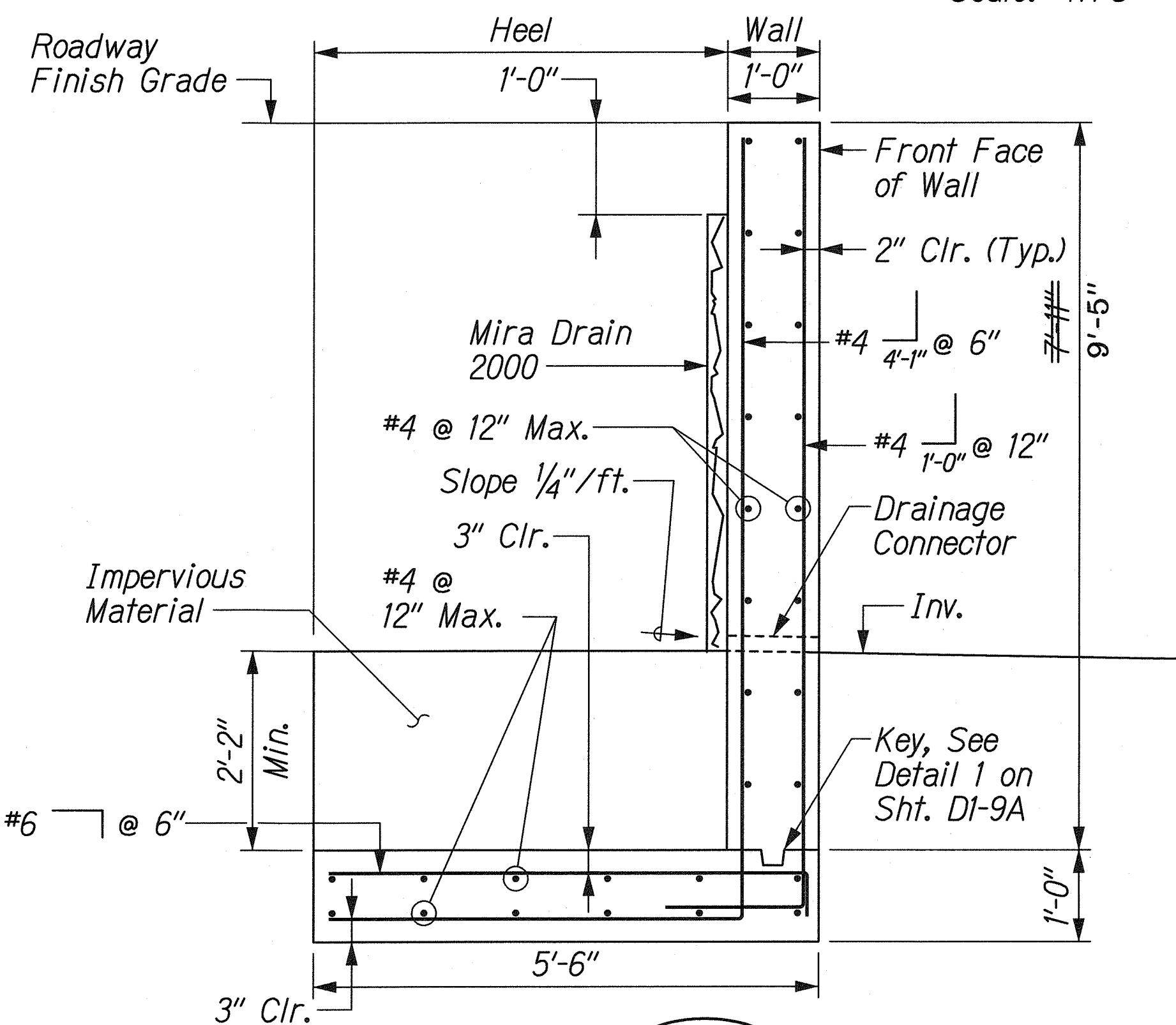


INLET STRUCTURE AT STA. 149+68
REINFORCING AT HEADWALL OPENING

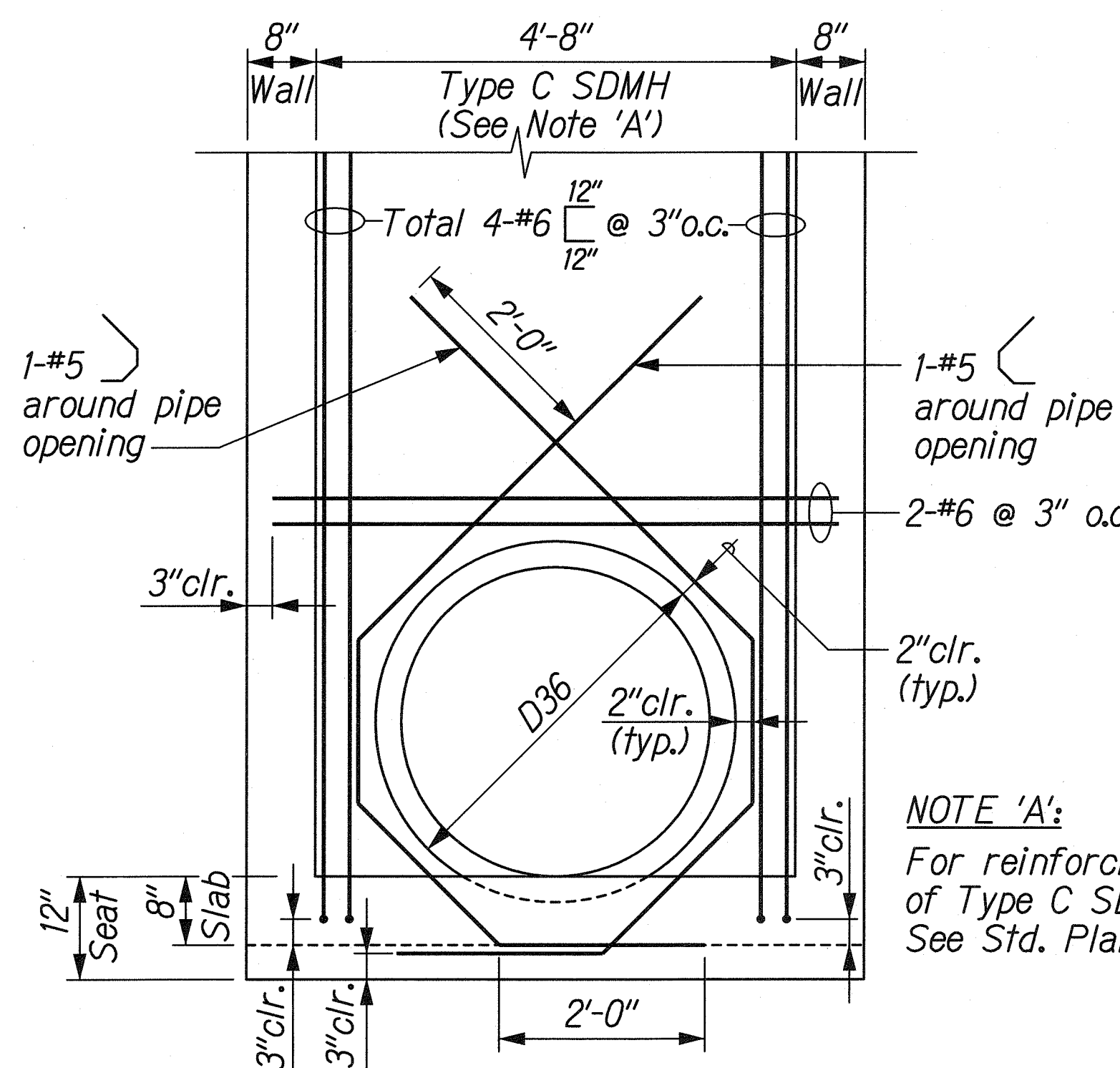
SECTION B
Scale: NTS
DI-3 DI-9

See Std. Plan H-17 for Wing Walls and Apron Slab.

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
	Text for as-built posting



SECTION C
DI-9 DI-9



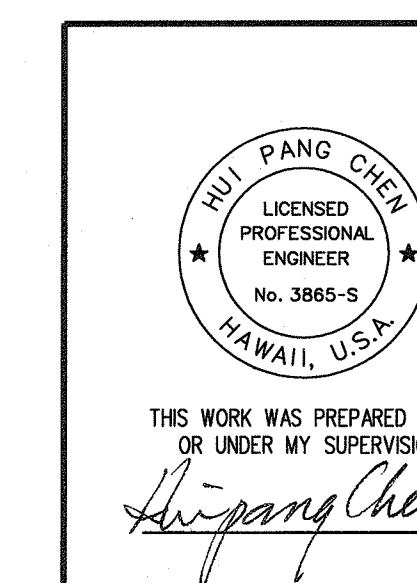
ADDITIONAL REINFORCING AT CULVERT OPENING FOR D36

Scale: NTS

NOTE 'A':
For reinforcing details of Type C SDMH, See Std. Plan H-05.

ORIGINAL PLAN	DATE
DESIGNED BY	
CHECKED BY	
NOTED BY	
TRACED BY	
REVIEWED BY	

1/6 FORT WEAVER ROAD DRAIN/CD-01.dgn



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

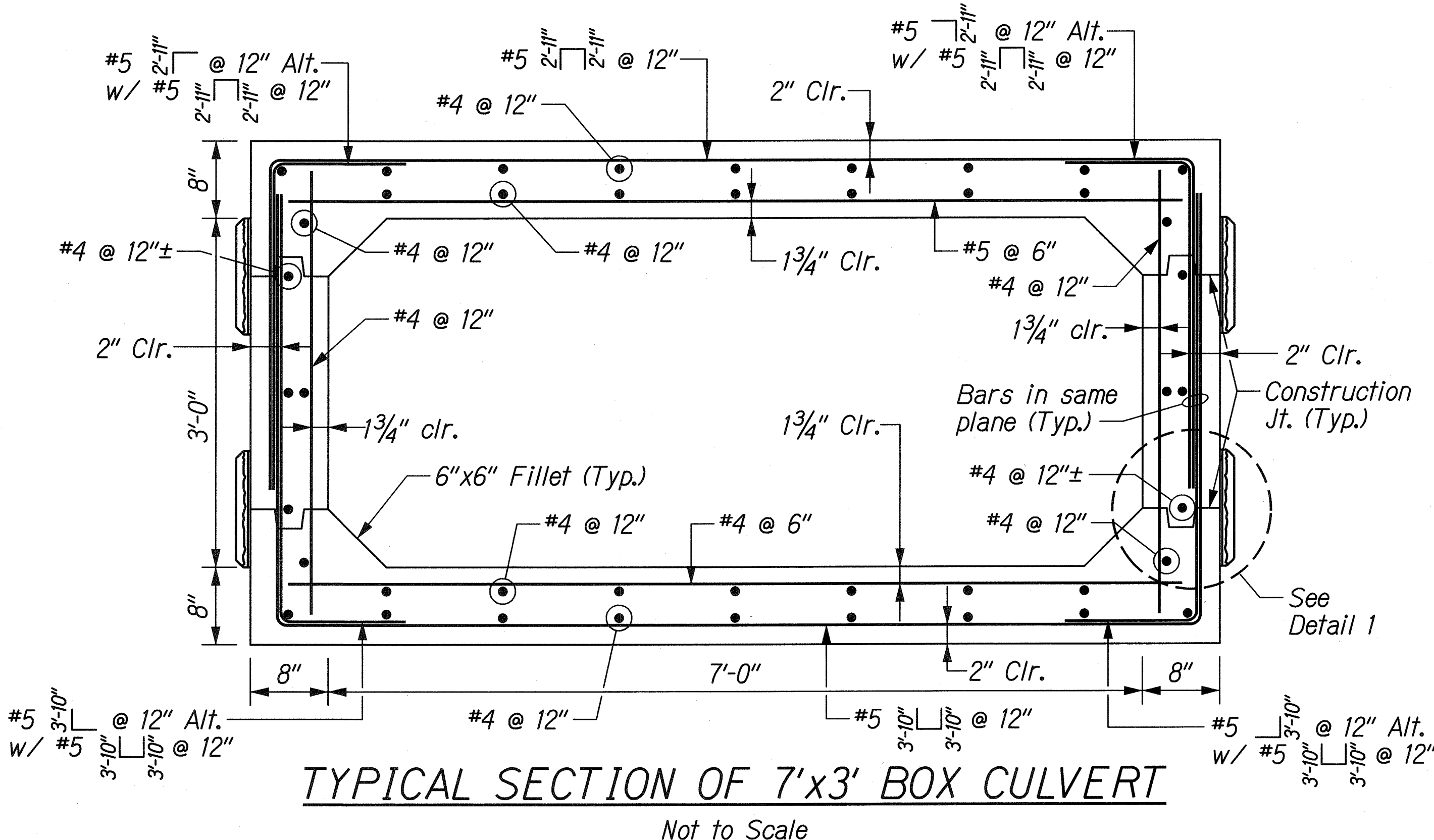
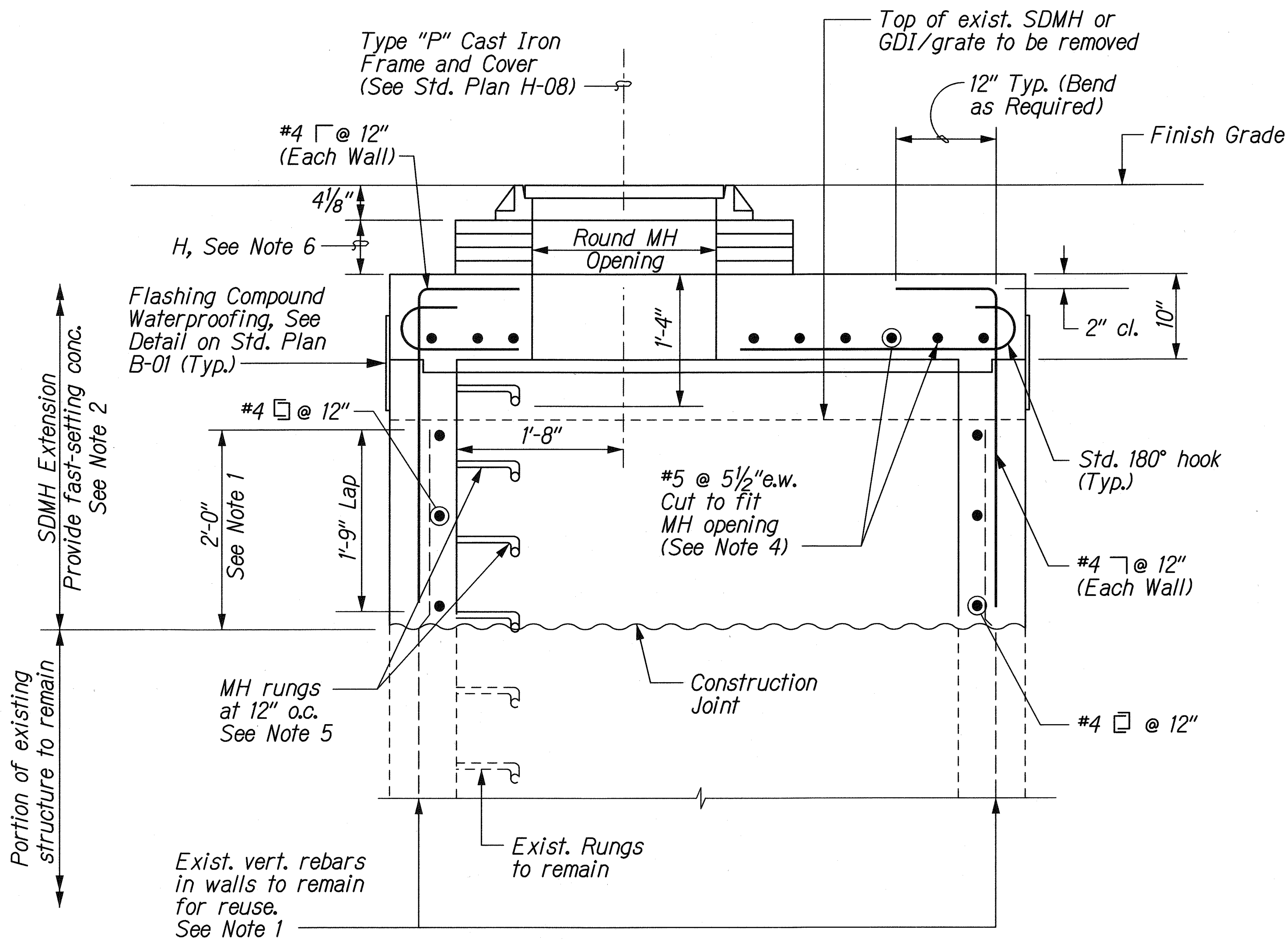
DRAINAGE DETAILS
INLET STRUCTURE, GDI RECONSTRUCTION

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: As Shown Date: Sept. 20, 2007

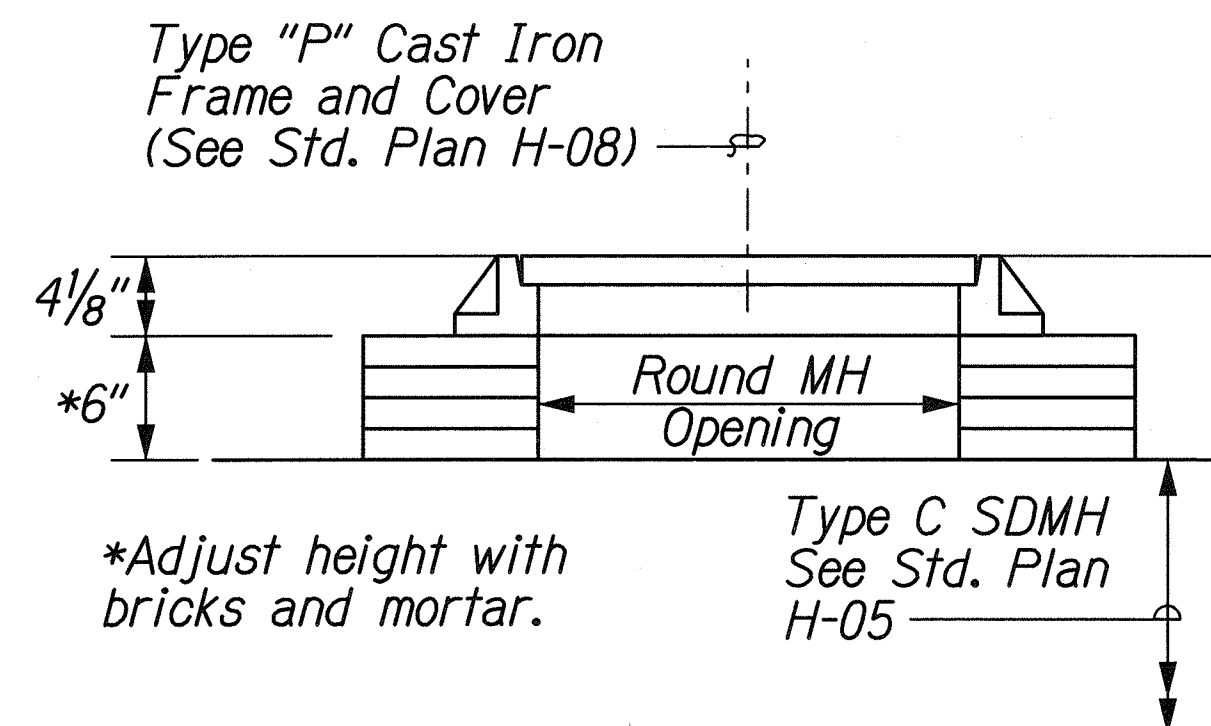
SHEET No. DI-9 OF 15 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	71S-1	160

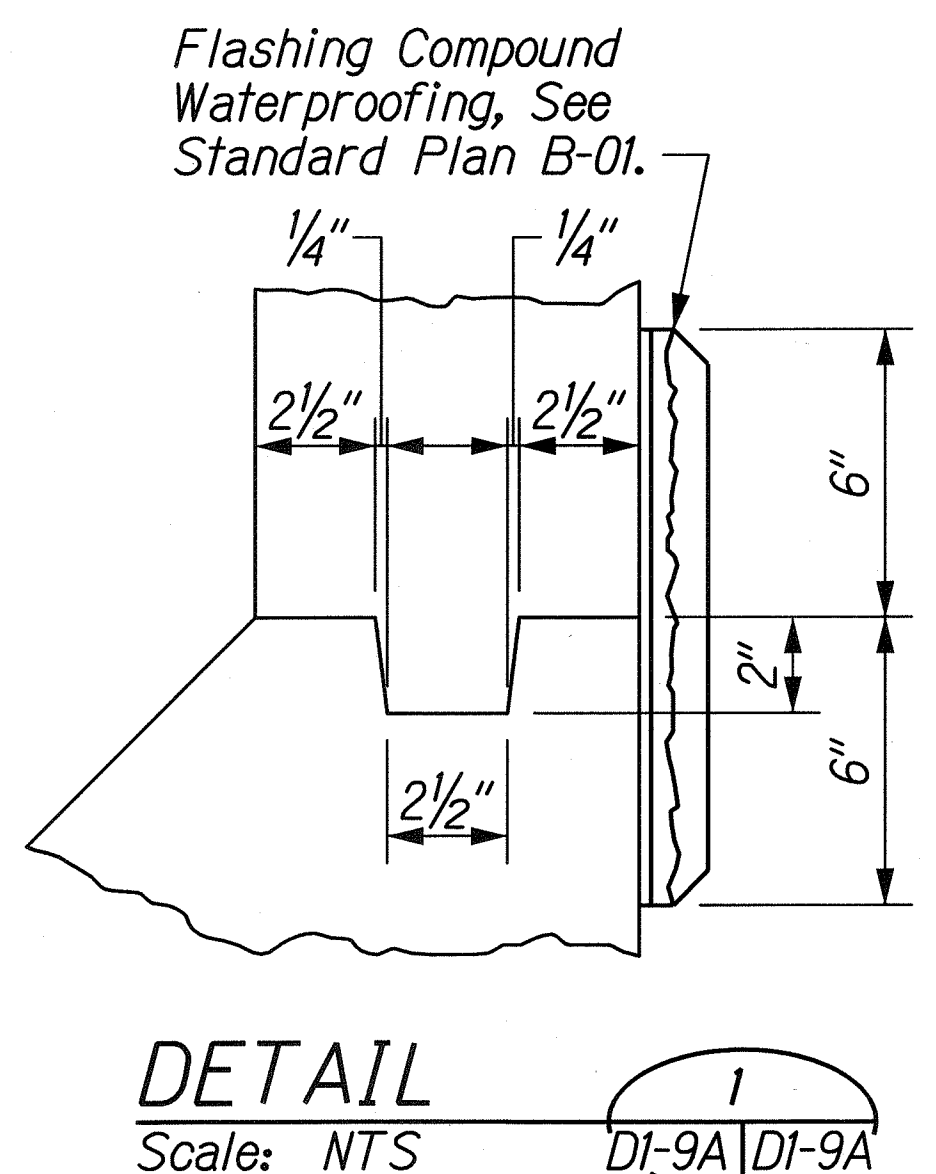


- NOTES:**
1. Remove upper 2'-0" of existing drainage structure concrete walls. Do not cut the exposed existing vertical rebar. Clean the exposed existing rebar for reuse for extension connection.
 2. Use fast-setting concrete to rebuild walls and roof slab. The fast-setting concrete shall attain a minimum cylinder compressive strength of 3,000 psi in 12 hours or less.
 3. All rebar shall conform to ASTM A615, Grade 60.
 4. Additional rebar around MH opening see Standard Plan H-05.
 5. For details of MH Rungs, see Standard Plan H-08.
 6. Adjust height with bricks and mortar. H varies from 0 to 6" max.

**RECONSTRUCTED GDI TO SDMH
RECONSTRUCTED SDMH**
Not to Scale



**TYPE C SDMH
NECK EXTENSION DETAIL**
Not to Scale



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Hui Pang Chen

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS
BOX CULVERT, SDMH RECONSTRUCTION

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

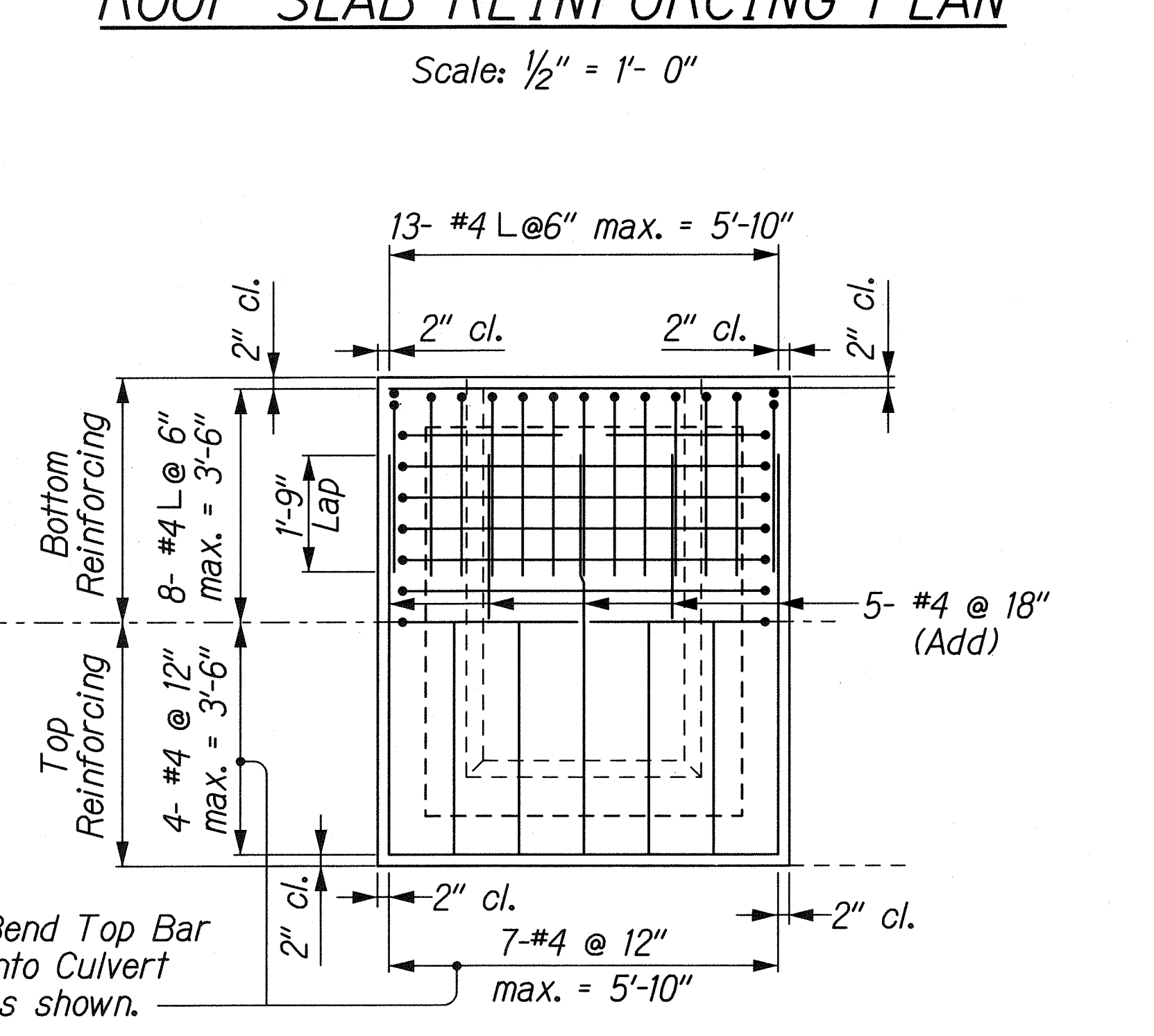
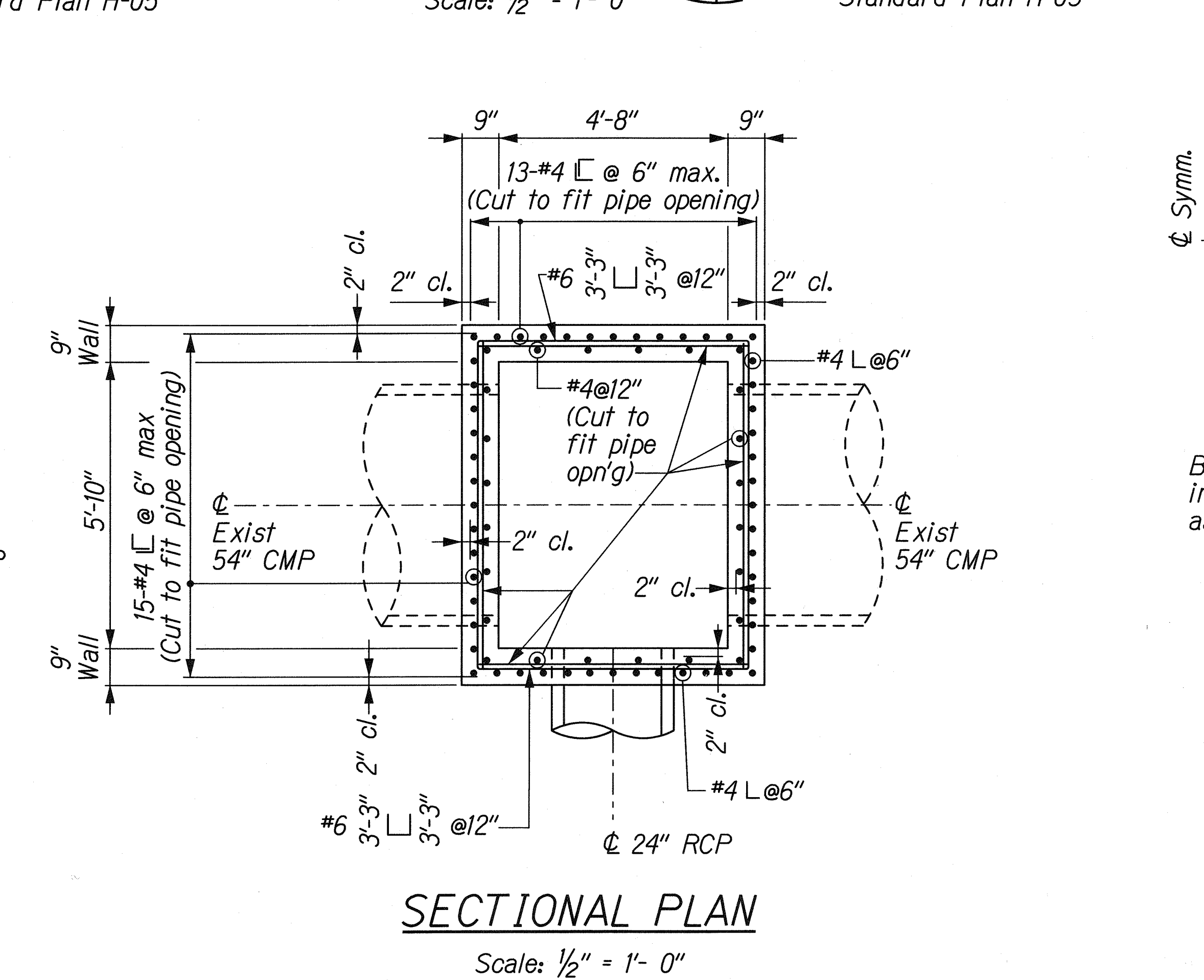
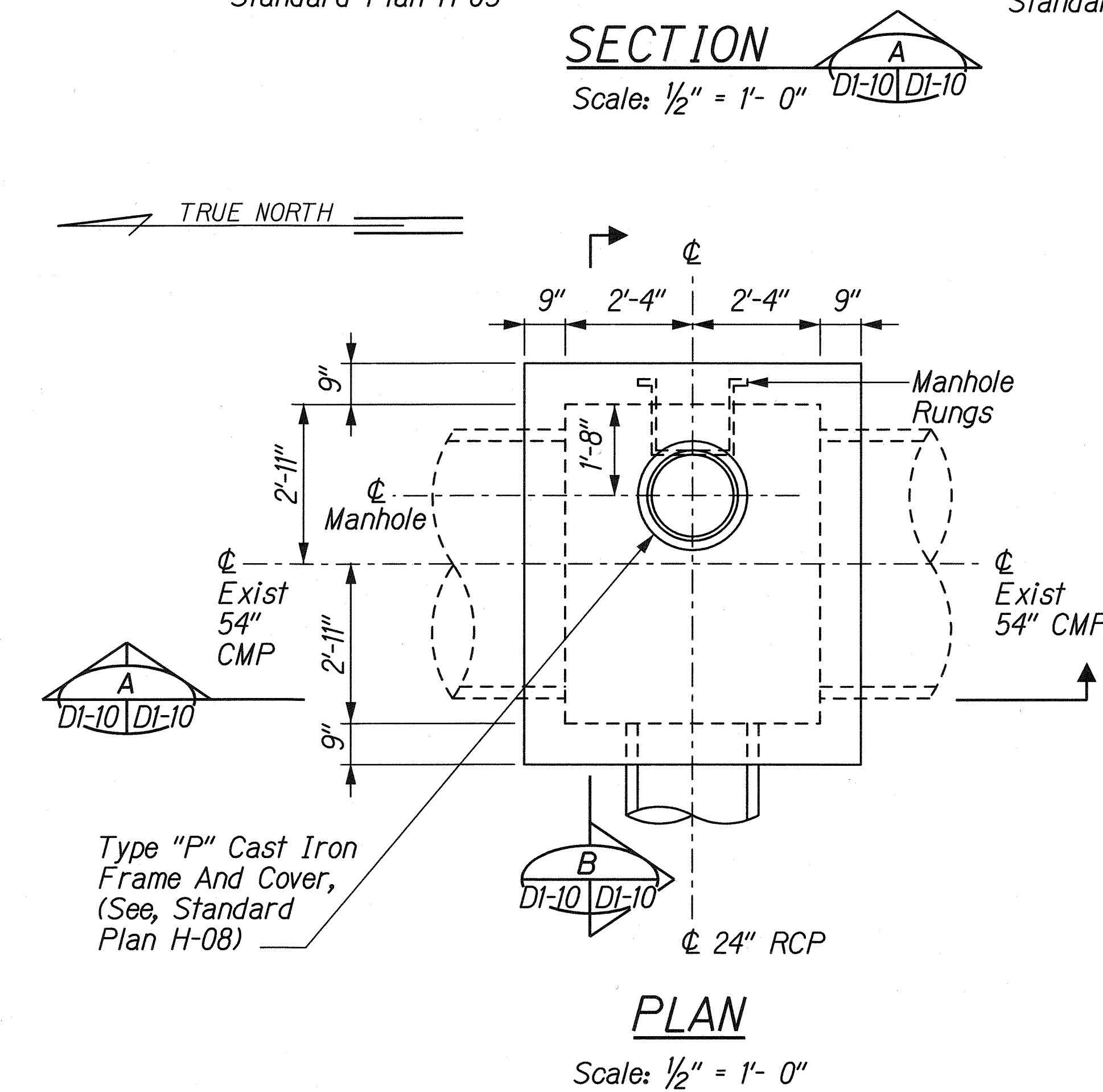
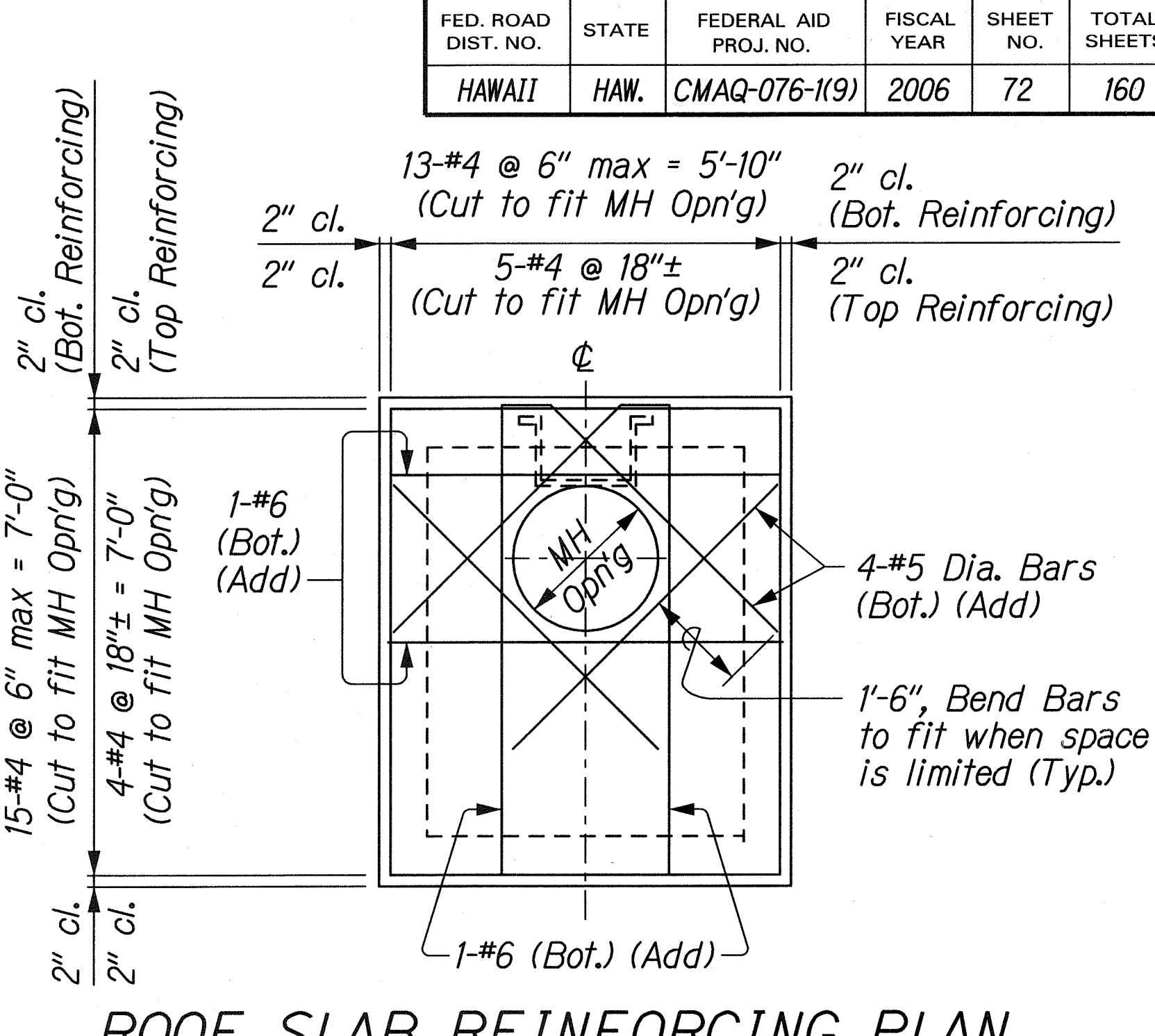
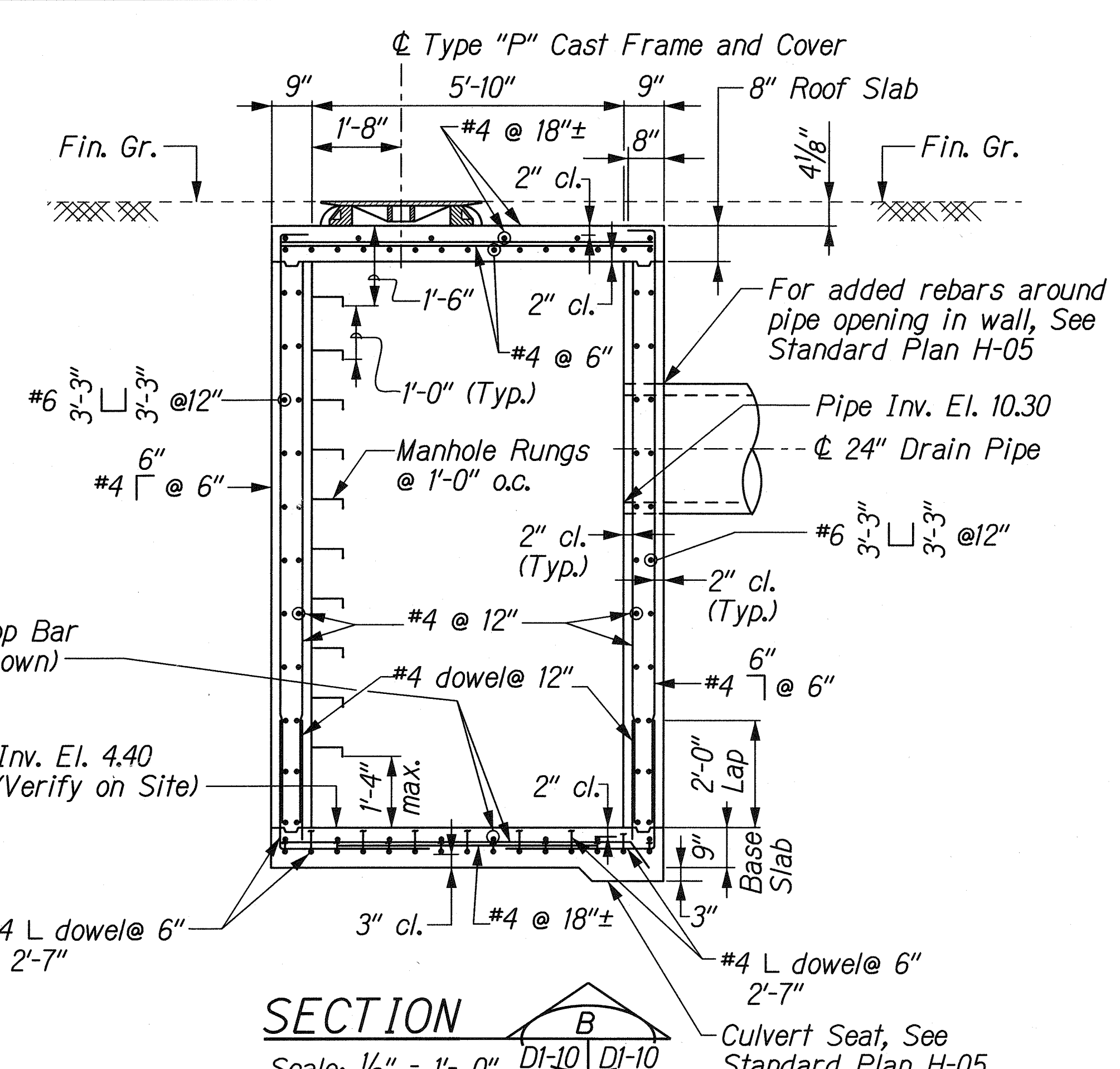
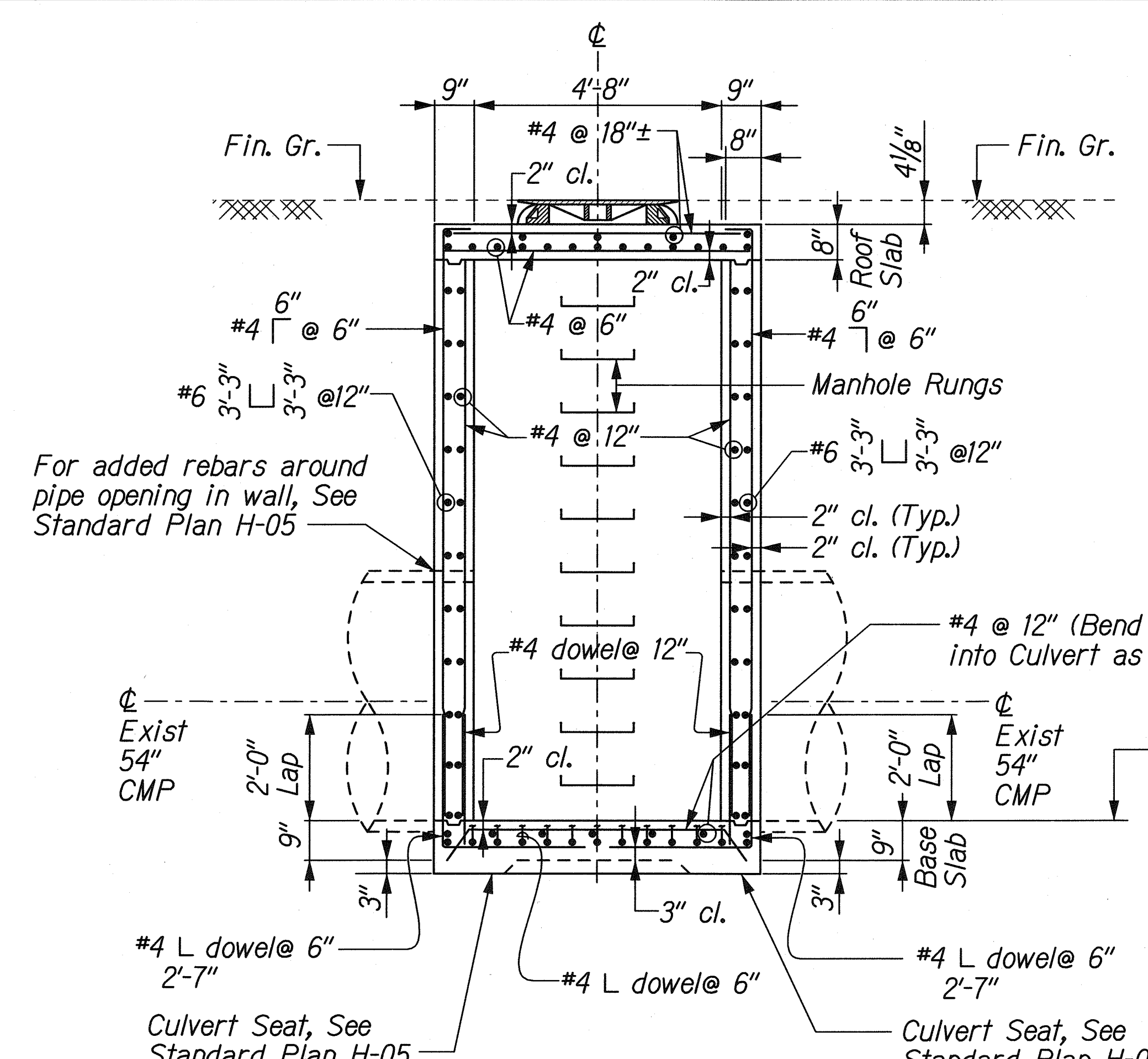
Scale: As Shown Date: Sept. 20, 2007

SHEET No. DI-9A OF 15 SHEETS

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

\\FORT WEAVER ROAD\DRAIN\dd-07.dgn

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	72	160



DATE	DESIGNED BY	CHECKED BY
10/10/07	TRACED BY	QUANTITIES BY
10/10/07	NOTE BOOK	N.

1/4 FORT WEAVER ROAD DRAIN DP-034gn

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Hui Pang Chen

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPE C SDMH MODIFIED

AT STA. 128+40.83

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1/2" = 1'- 0" Date: Sept. 20, 2007

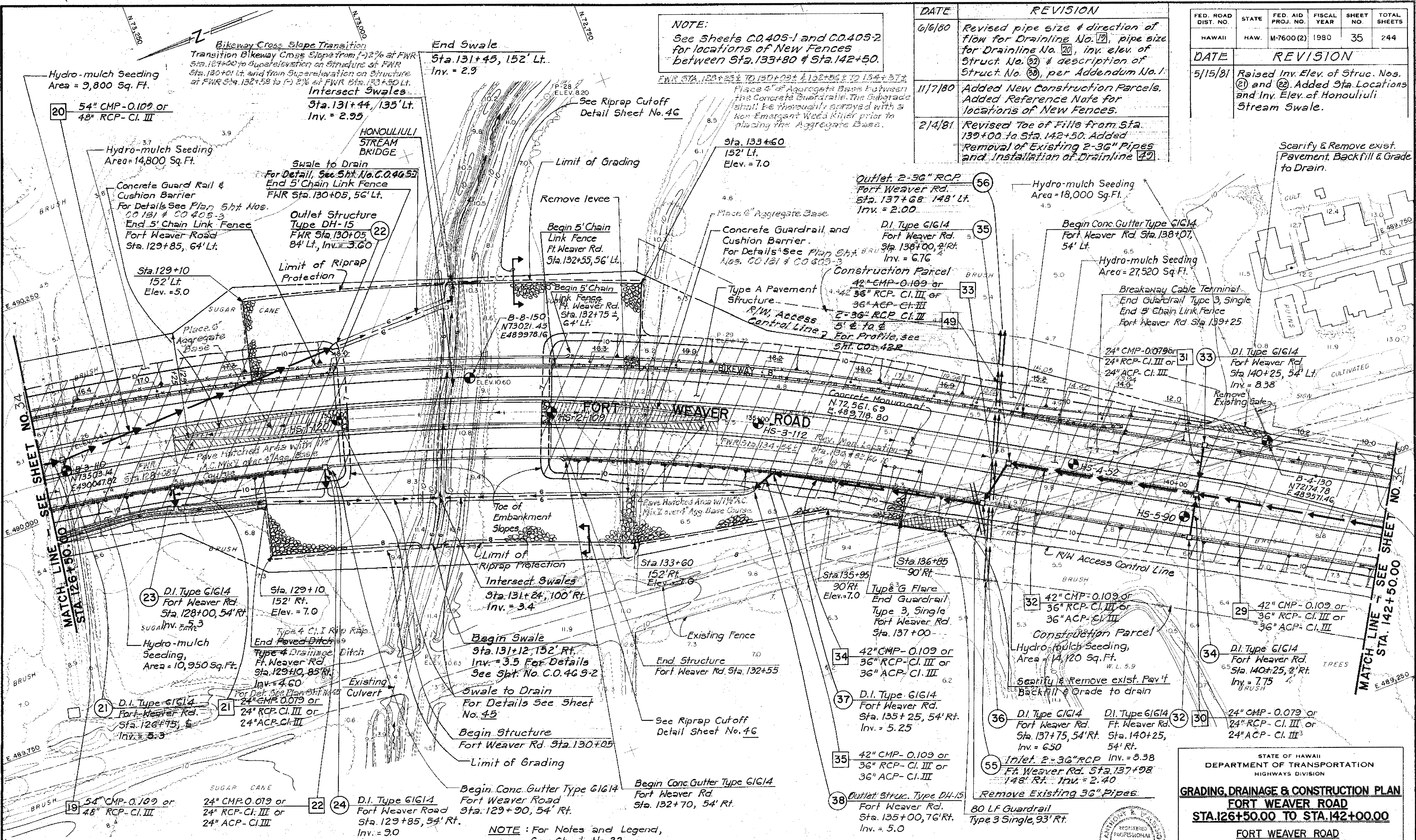
SHEET No. DI-10 OF 15 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600(2)	1980	35	244

DATE	REVISION
5/15/81	Raised Inv. Elev. of Struct. Nos. 21 and 22. Added Sta. Locations and Inv. Elev. of Honouliuli Stream Swale.

DATE	REVISION
6/6/80	Revised pipe size & direction of flow for Draining No. 17, pipe size for Draining No. 20, inv. elev. of Struct. No. 22 & description of Struct. No. 23, per Addendum No. 1.
11/7/80	Added New Construction Parcels. Added Reference Note for locations of New Fences.
2/4/81	Revised Toe of Fill from Sta. 139+00 to Sta. 142+50. Added Removal of Existing 2-36" Pipes and Installation of Drainline 49.

NOTE:
See Sheets C.O.405-1 and C.O.405-2 for locations of New Fences between Sta. 133+80 & Sta. 142+50.



REFERENCE ONLY

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING, DRAINAGE & CONSTRUCTION PLAN
FORT WEAVER ROAD
STA. 126+50.00 TO STA. 142+00.00

FORT WEAVER ROAD
SOUTH OF FARRINGTON HIGHWAY
TO THE VICINITY OF RENTON ROAD

SCALE: 1" = 50' DATE: SEPT 1979
SHEET NO. 4 OF 9 SHEETS

