

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(59)	1993	20	211

TREE LEGEND:

- Existing Trees to remain
- Relocated Kukui Tree
- Areca Palm
- False Palm
- Pua Kenikeni

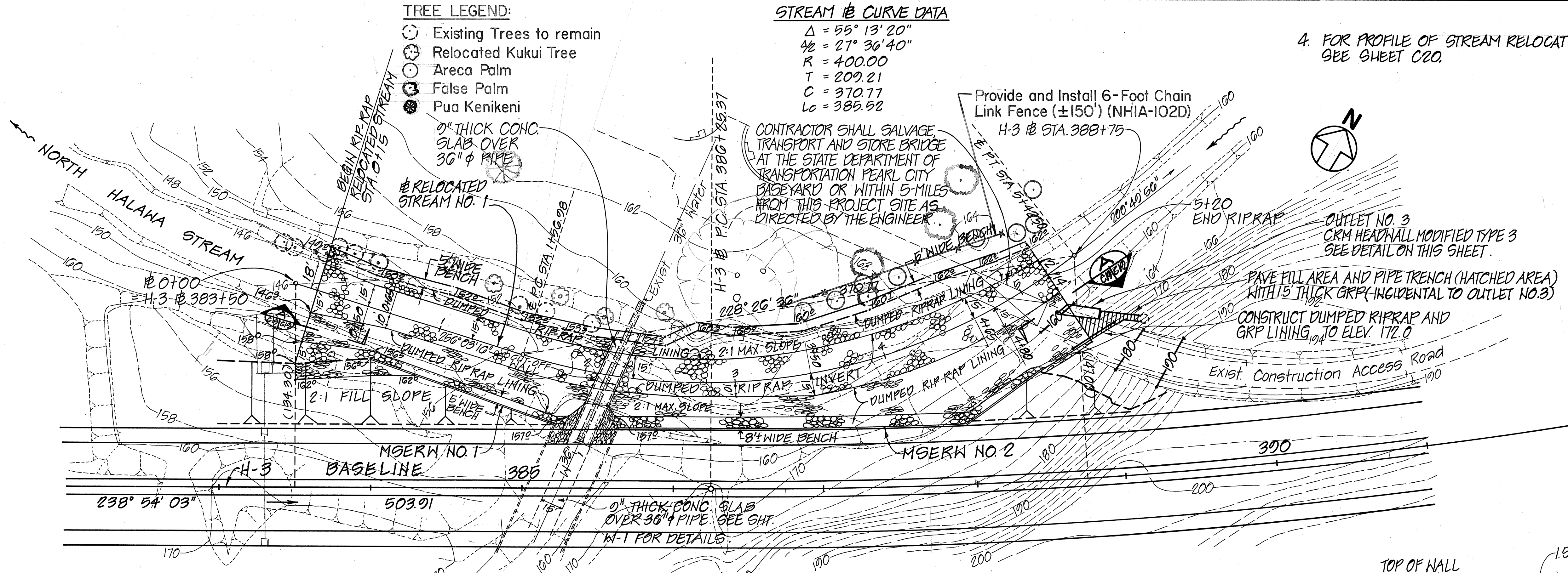
STREAM & CURVE DATA

$\Delta = 55^\circ 13' 20''$
 $\frac{1}{2} = 27^\circ 36' 40''$
 $R = 400.00$
 $T = 209.21$
 $C = 370.77$
 $Lc = 385.52$

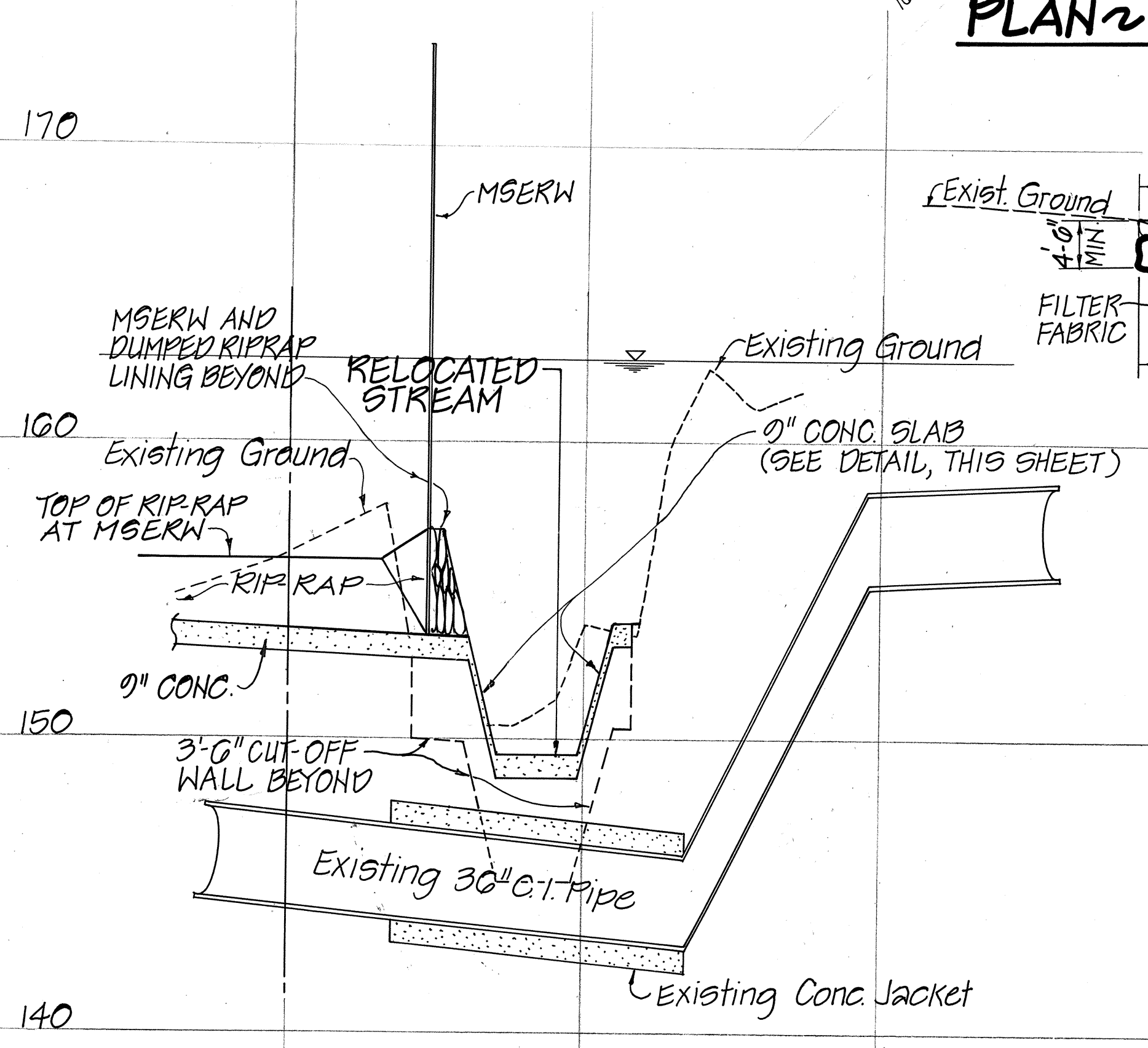
4. FOR PROFILE OF STREAM RELOCATION NO. 1 SEE SHEET C20.

NOTES:

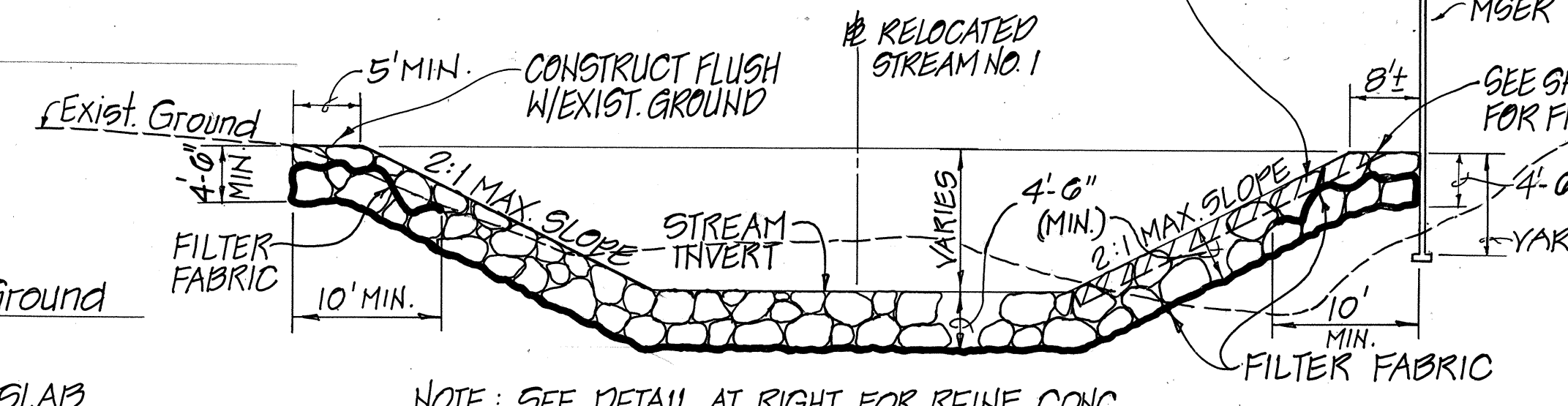
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE EXISTING 36" MAIN, AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE MAIN, AND SHALL PAY FOR ALL DAMAGES TO THE MAIN CAUSED BY HIS WORK.
- CONTRACTOR SHALL SUBMIT TO THE ENGINEER, FOR APPROVAL, THE METHOD OF MAINTAINING STREAM FLOW DURING CONSTRUCTION OF RELOCATED STREAM IMPROVEMENTS.
- TEMPORARY CONSTRUCTION THAT MAY BE NECESSARY TO FACILITATE WORK ON OTHER IMPROVEMENTS SHALL BE INCIDENTAL TO THE STREAM RELOCATION WORK.



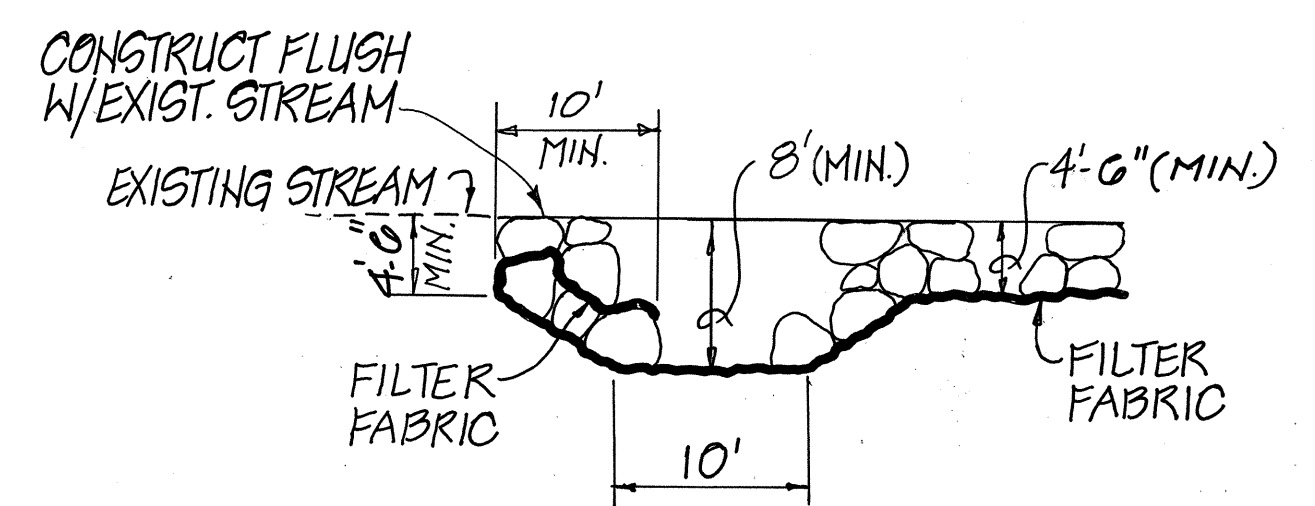
PLAN ~ RELOCATED STREAM NO. 1
SCALE: 1" = 40'



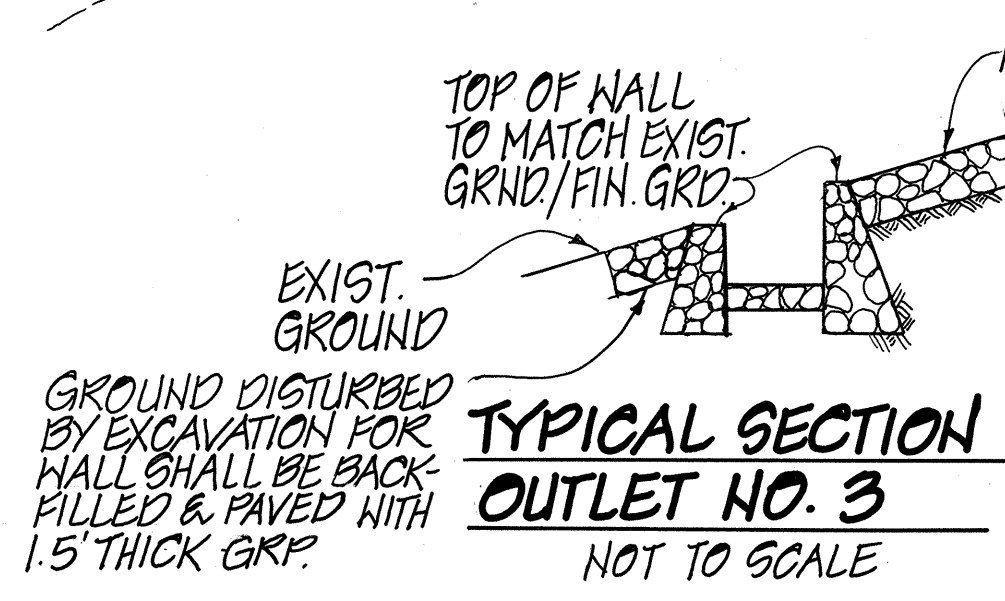
PROFILE ALONG BWS 36" PIPE
Scale: Horiz. 1" = 40'
Vert. 1" = 4'



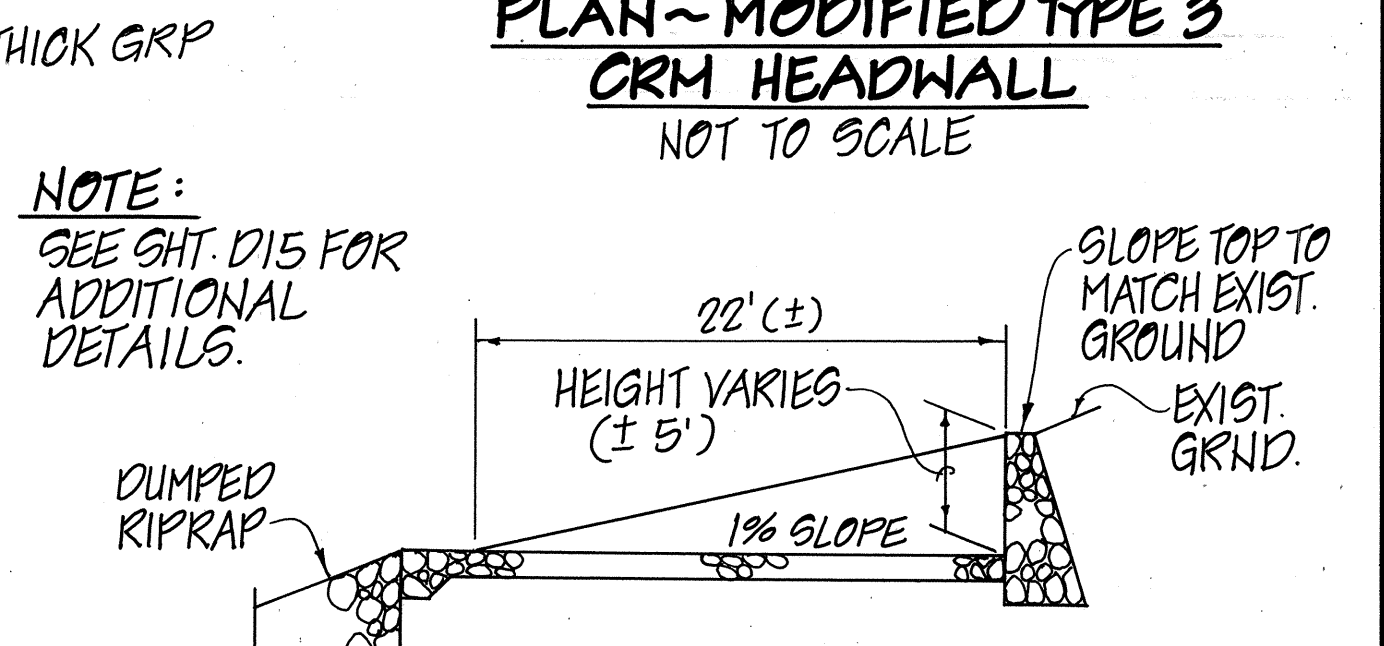
TYPICAL SECTION ~ RELOCATED STREAM NO. 1
SCALE: 1" = 10'



SECTION A
SCALE: 1" = 10'
(TERMINI OF RIP-RAP AT UPSTREAM AND DOWNSTREAM SECT.)



TYPICAL SECTION OUTLET NO. 3
NOT TO SCALE

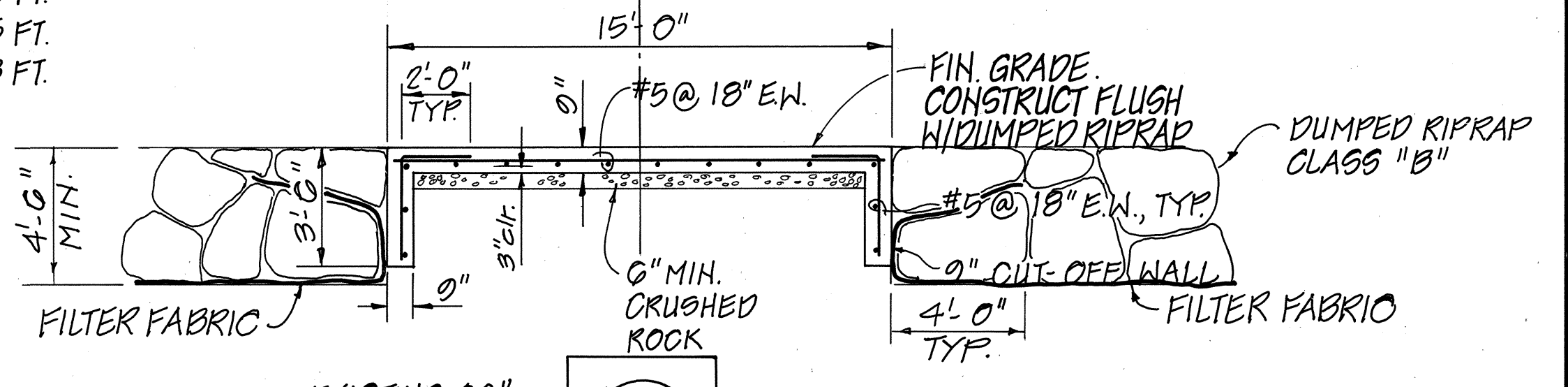


PLAN ~ MODIFIED TYPE 3 CRM HEADWALL
NOT TO SCALE

NOTE:
SEE SHT. D15 FOR ADDITIONAL DETAILS.

DUMPED RIPRAP GRADATION, CLASS "B"

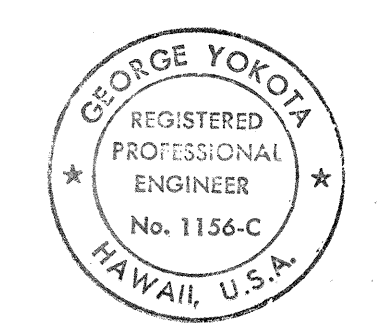
D ₁₀₀	= 3.3 FT. TO 3.7 FT.
D ₈₅	= 2.6 FT. TO 3.0 FT.
D ₅₀	= 2.2 FT. TO 2.5 FT.
D ₁₅	= 0.9 FT. TO 1.3 FT.



REIN. CONC. SLAB OVER 36" PIPE (FOR STREAM CROSSING)
SCALE: 1/4" = 1'-0"

REAPPROVED: *[Signature]* DATE: 4/13/93
 CHIEF, PLANNING & ENGINEERING, BWS

APPROVED: *[Signature]* DATE: 10/2/93
 CHIEF, PLANNING & ENGINEERING, BWS



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**RELOCATED STREAM NO. 1
ALIGNMENT PLAN**

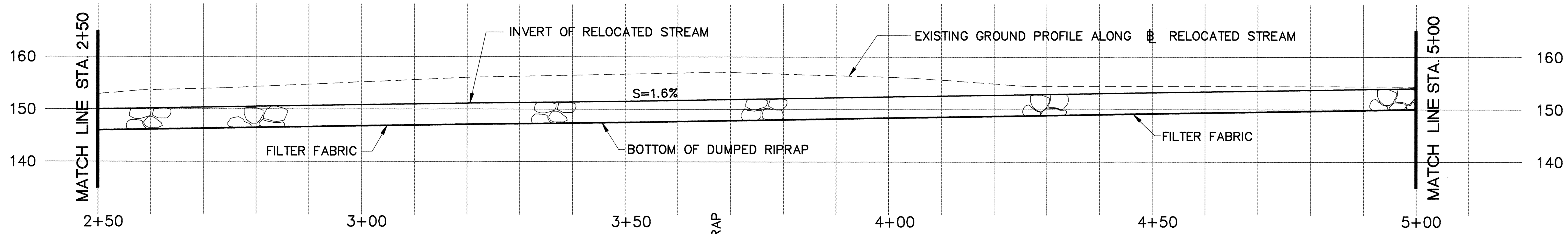
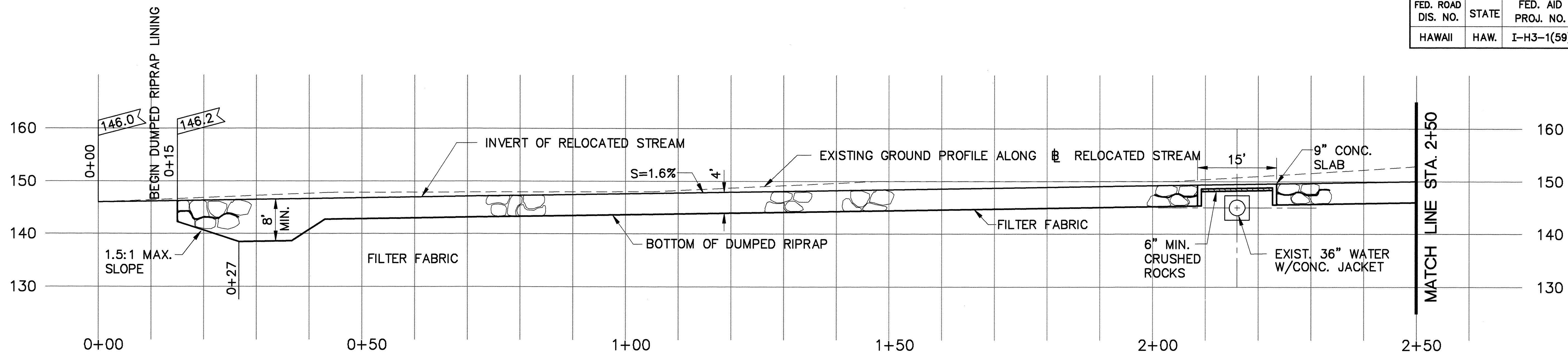
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1(59)

SCALE: 1" = 40' DATE: JUN 1993

SHEET No. C10 OF 20 SHEETS

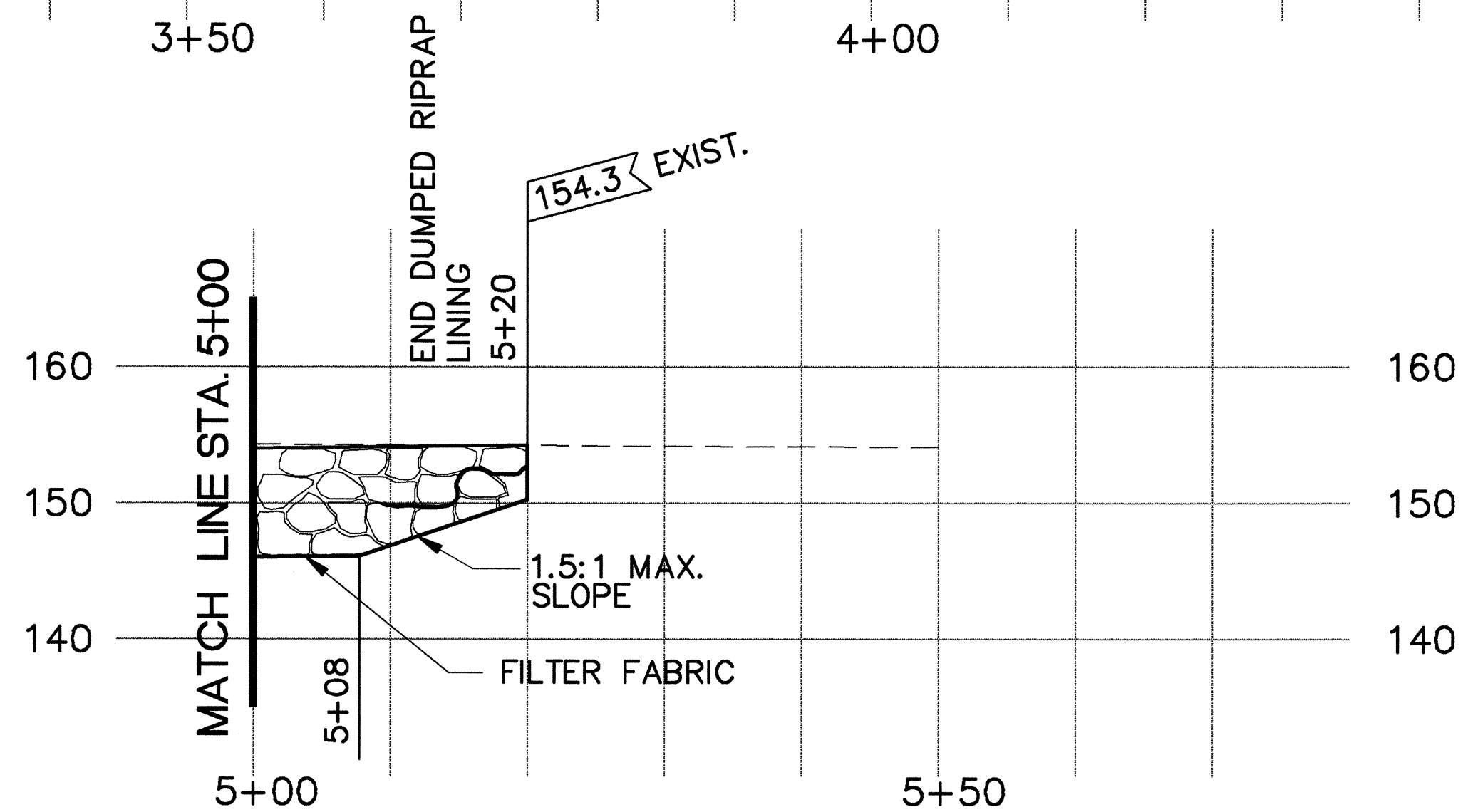
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIS. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(59)	1993	30	211



WATER NOTES

- 1- UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND CONSTRUCTION OF WATER SYSTEM FACILITIES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE CITY AND COUNTY OF HONOLULU BOARD OF WATER SUPPLY'S "WATER SYSTEM STANDARD" VOLUME 1, DATED 1985, THE "APPROVED MATERIAL LIST AND STANDARD DETAILS FOR WATER SYSTEM CONSTRUCTION", VOLUME 2, DATED 1985, THE "WATER SYSTEM EXTERNAL CORROSION CONTROL STANDARDS", VOL. 3, DATED 1991, AND ALL SUBSEQUENT AMENDMENTS AND ADDITIONS.
- 2- ALL PLANS APPROVED BY THE BOARD OF WATER SUPPLY ARE BASED SOLELY ON THE ADEQUACY OF THE WATER SUPPLY. ALL OTHER FEATURES OF THE WATER SYSTEM, SUCH AS LINES, GRADES, FITTINGS, DRAINAGE, ETC., AND OTHER FEATURES OF IMPROVEMENTS SHALL NOT BE THE RESPONSIBILITY OF THE BOARD OF WATER SUPPLY.
- 3- THE CONTRACTOR SHALL NOTIFY BWS PLANNING AND ENGINEERING DIVISION, CONSTRUCTION SECTION ONE WEEK PRIOR TO COMMENCING WORK.
- 4- 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.
- 5- 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.
- 6- RE-APPROVAL SHALL BE REQUIRED IF THIS PROJECT IS NOT UNDER CONSTRUCTION WITHIN A PERIOD OF TWO YEARS.



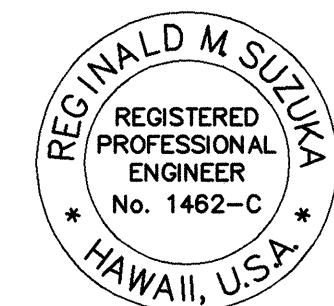
PROFILE ALONG RELOCATED STREAM NO. 1

SCALE: HORIZ. 1"= 10'
VERT. 1"= 10'

APPROVED:

DATE:

for [Signature] 4/13/93
CHIEF, PLANNING & ENGINEERING, BWS



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
[Signature]
PARK ENGINEERING

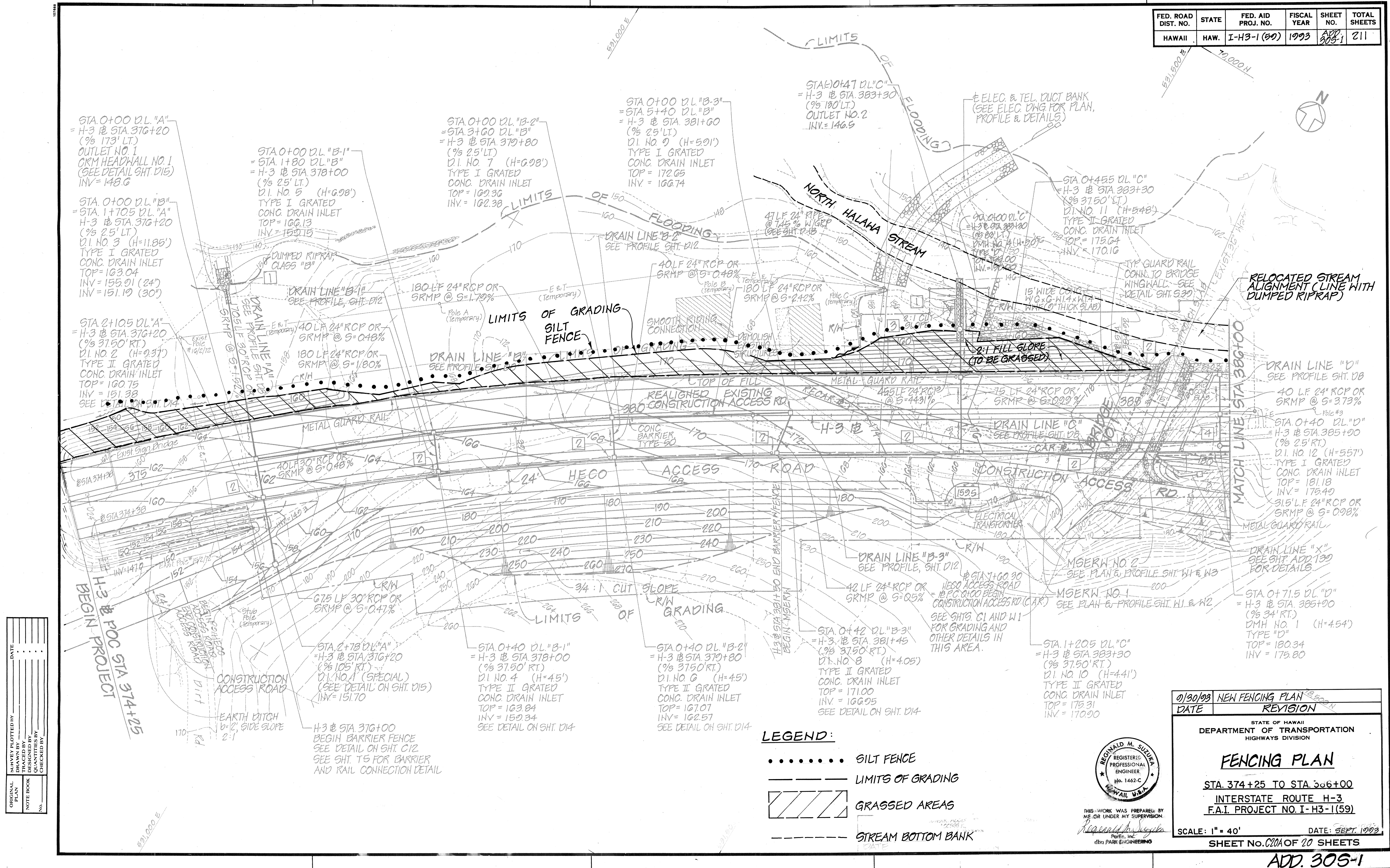
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**RELOCATED STREAM NO. 1
PROFILE**

STA. 0+00 TO STA. 5+50

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1(59)

SCALE: AS SHOWN DATE: JUNE 1993
SHEET No. C20 OF 20 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (50)	1993	ADD. 305-1	211



01/30/03	NEW FENCING PLAN
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FENCING PLAN

STA. 374+25 TO STA. 386+00

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-(159)

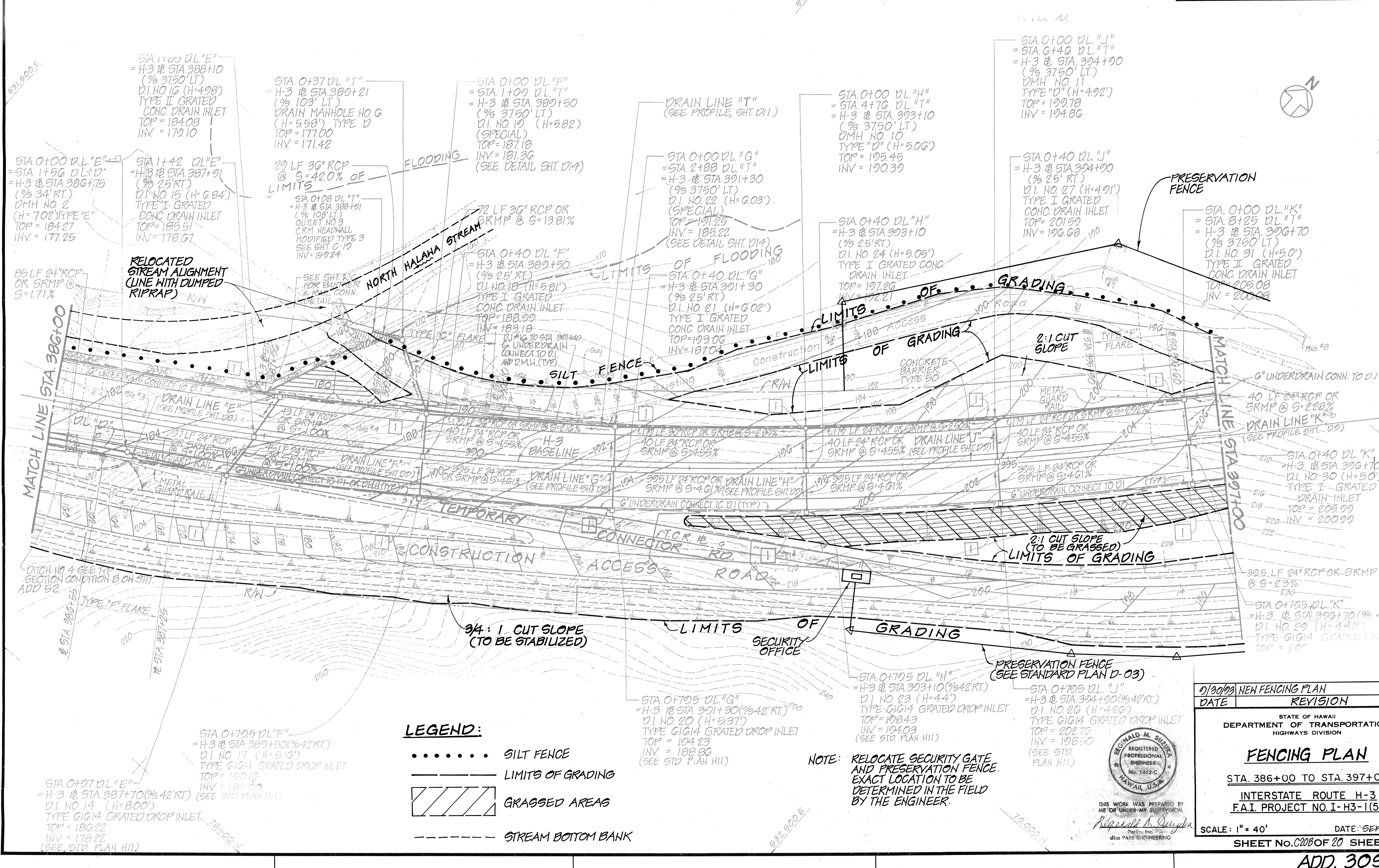
SCALE: 1" = 40'

DATE: SEPT. 1993

SHEET NO. C20A OF 20 SHEETS

ADD. 305-1

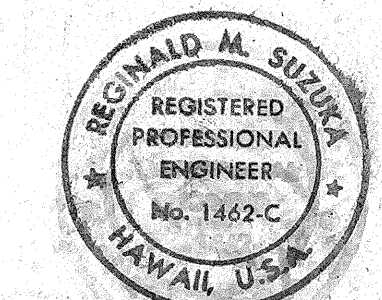
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(59)	1993	ADD 305-2	211



DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
TRACED BY	_____
NOTED BY	_____
CHECKED BY	_____
NO.	_____

- LEGEND:**
- SILT FENCE
 - LIMITS OF GRADING
 - ▨ GRASSED AREAS
 - STREAM BOTTOM BANK

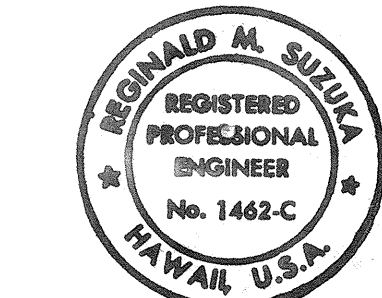
NOTE: RELOCATE SECURITY GATE AND PRESERVATION FENCE. EXACT LOCATION TO BE DETERMINED IN THE FIELD BY THE ENGINEER.



0/30/93	NEW FENCING PLAN
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
FENCING PLAN	
STA. 386+00 TO STA. 397+00	
INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-1(59)	
SCALE: 1" = 40'	DATE: SEPT. 1993
SHEET NO. C208 OF 20 SHEETS	

ADD. 305-2

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



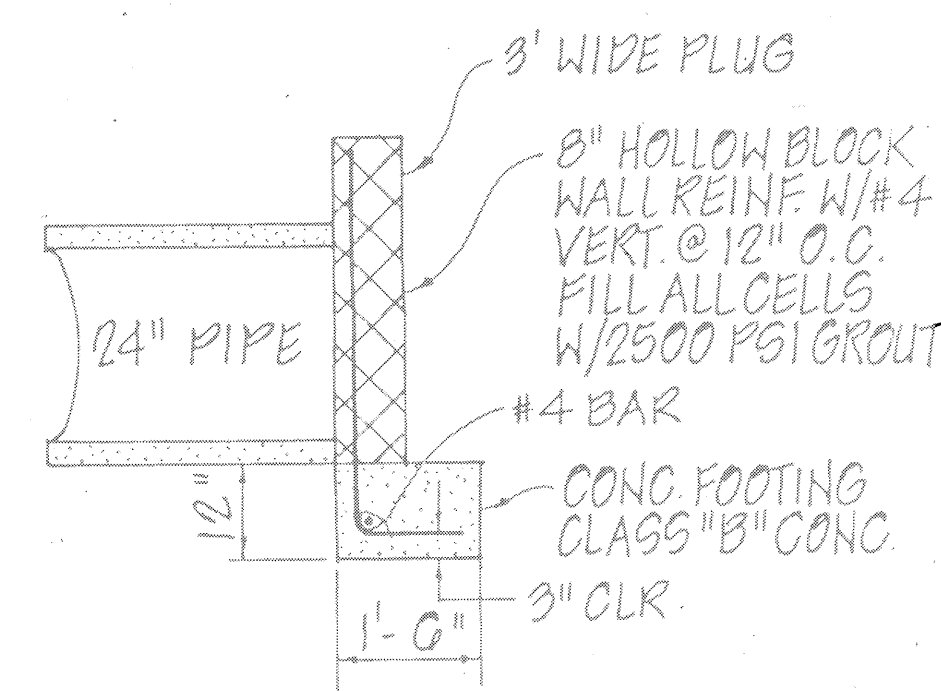
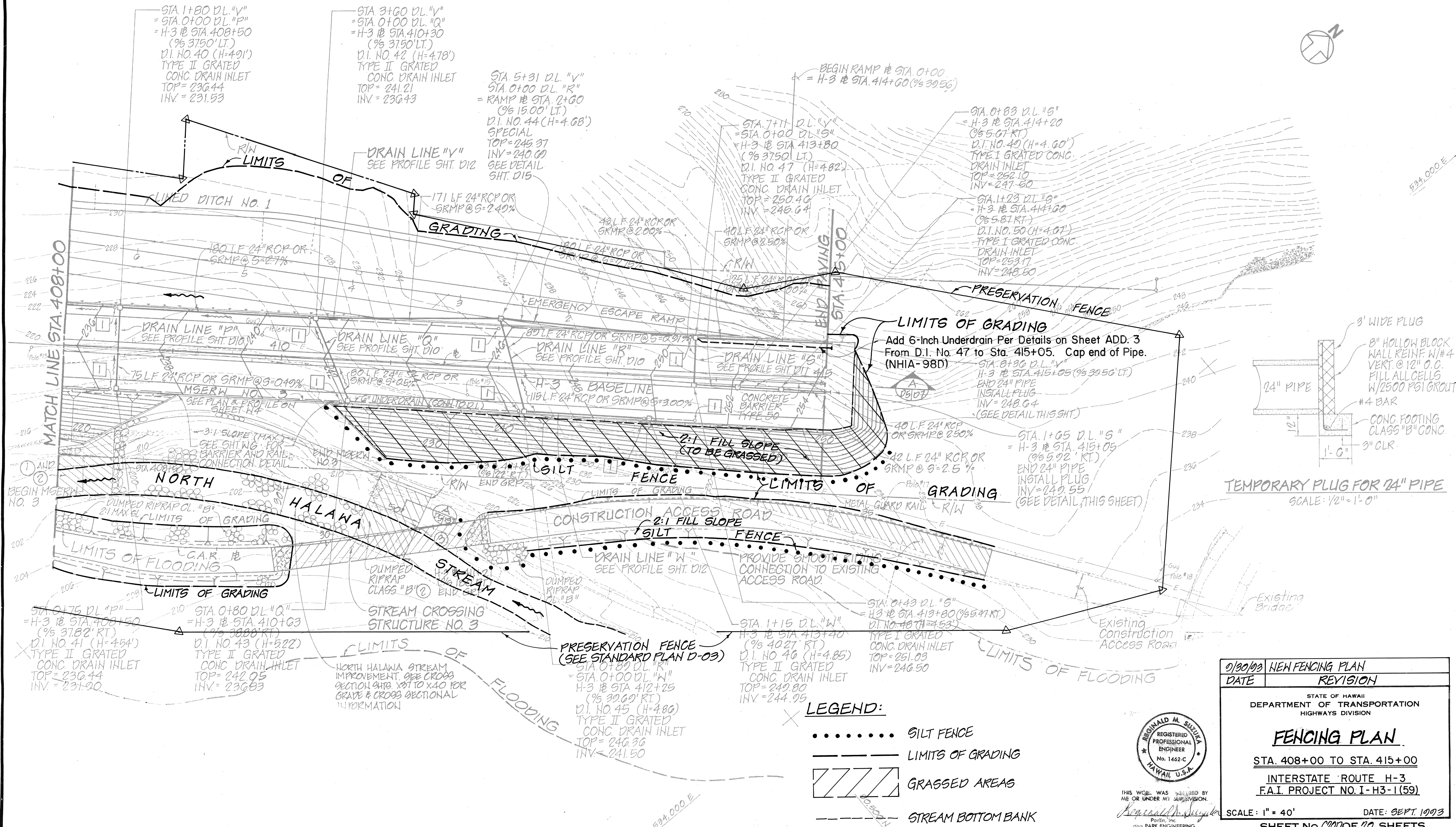
THIS WORK WAS PREPARED
ME OR UNDER MY SUPERVISION

Richard M. Sney
ParEn, Inc.
the PARK ENGINEERS

ADD. 305-3

NOTE: CONTRACTOR SHALL RELINQUISH CONSTRUCTION AREA BEYOND STATION 415+00 TO NHVH UNIT I, PHASE 1B CONTRACTOR FOR CONSTRUCTION OF SUBSEQUENT CONTRACT.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(59)	1993	ADD. 305-4	211



TEMPORARY PLUG FOR 24" PIPE
SCALE: 1/2" = 1'-0"

DATE	REVISION
01/30/93	NEW FENCING PLAN
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
FENCING PLAN	
STA. 408+00 TO STA. 415+00	
INTERSTATE ROUTE H-3	
F.A.I. PROJECT NO. I-H3-1(59)	
SCALE: 1" = 40'	DATE: SEPT. 1993
SHEET NO. 020 OF 20 SHEETS	

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
RICHARD M. SHUKLA
REGISTERED PROFESSIONAL ENGINEER
No. 1462-C
HAWAII, U.S.A.
PARK ENGINEERING

DATE	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	