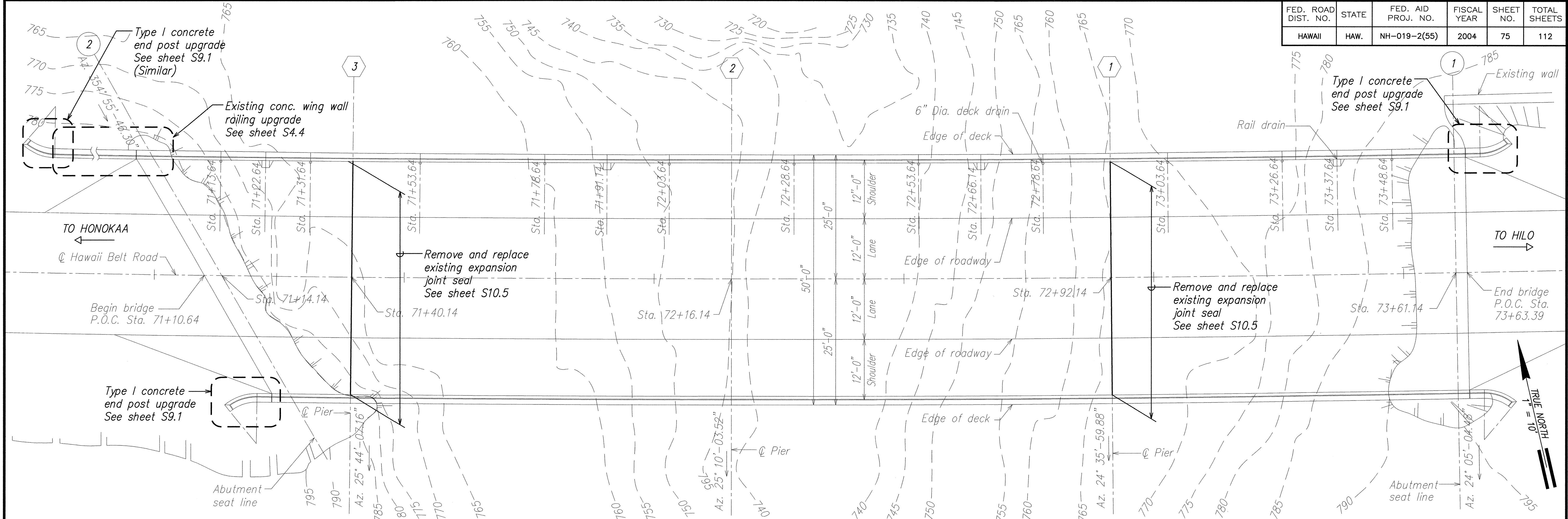
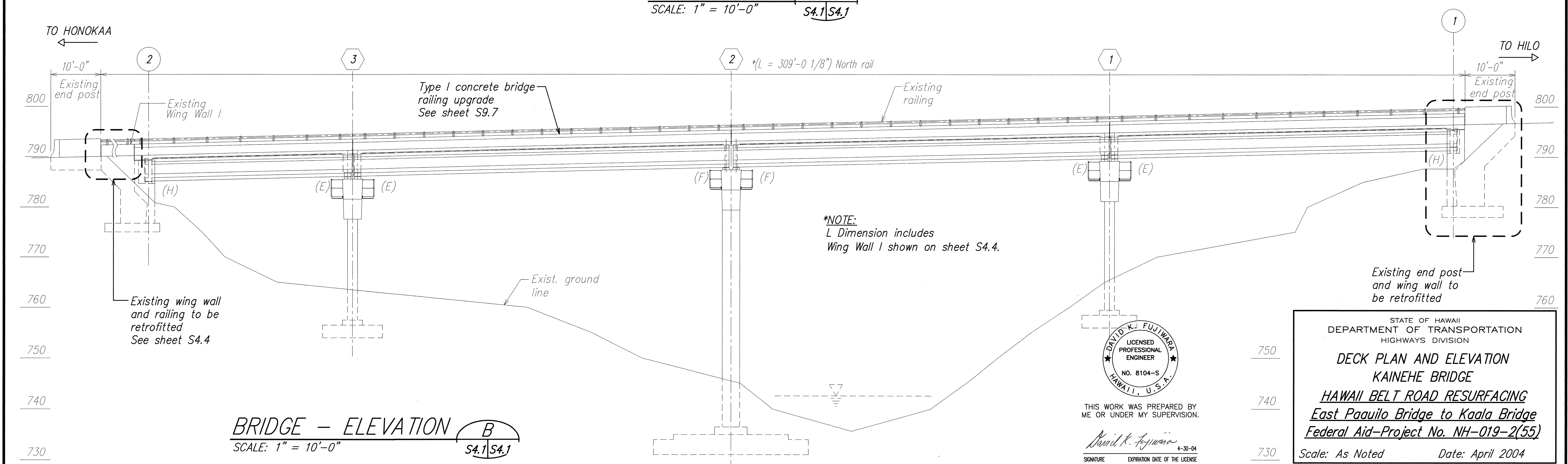


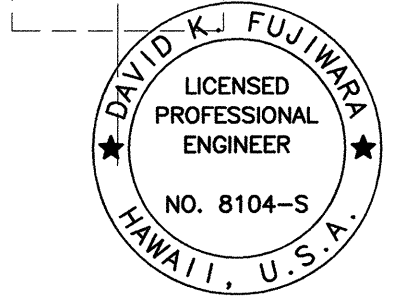
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-2(55)	2004	75	112



DECK PLAN
SCALE: 1" = 10'-0"
S4.1 S4.1



BRIDGE - ELEVATION
SCALE: 1" = 10'-0"
S4.1 S4.1

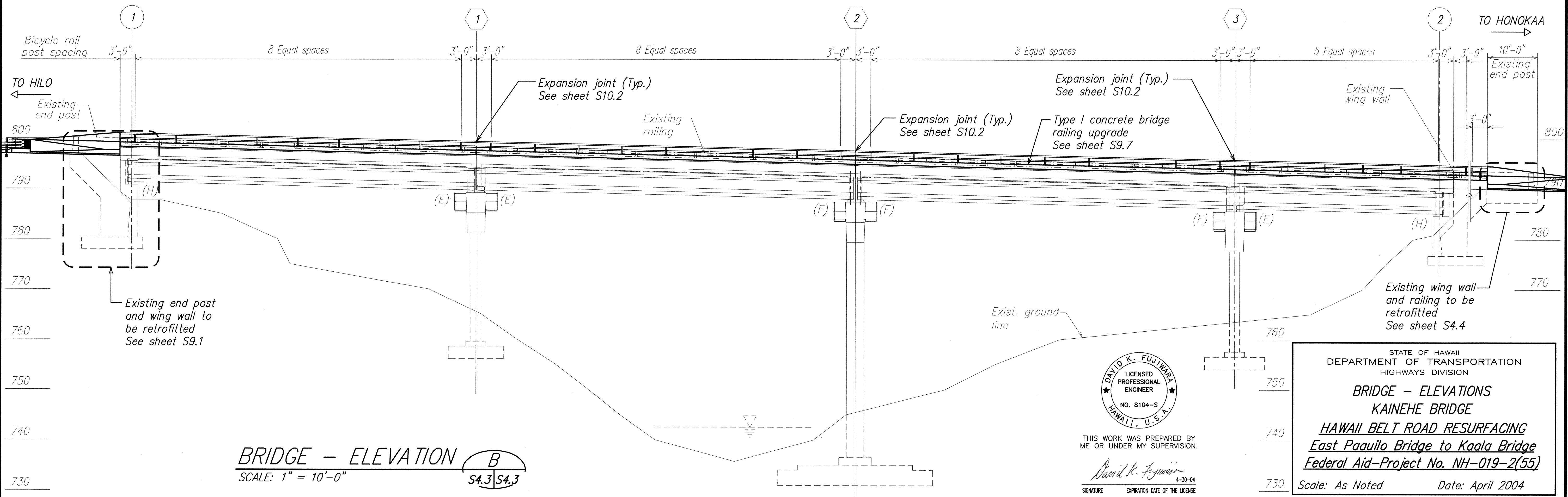
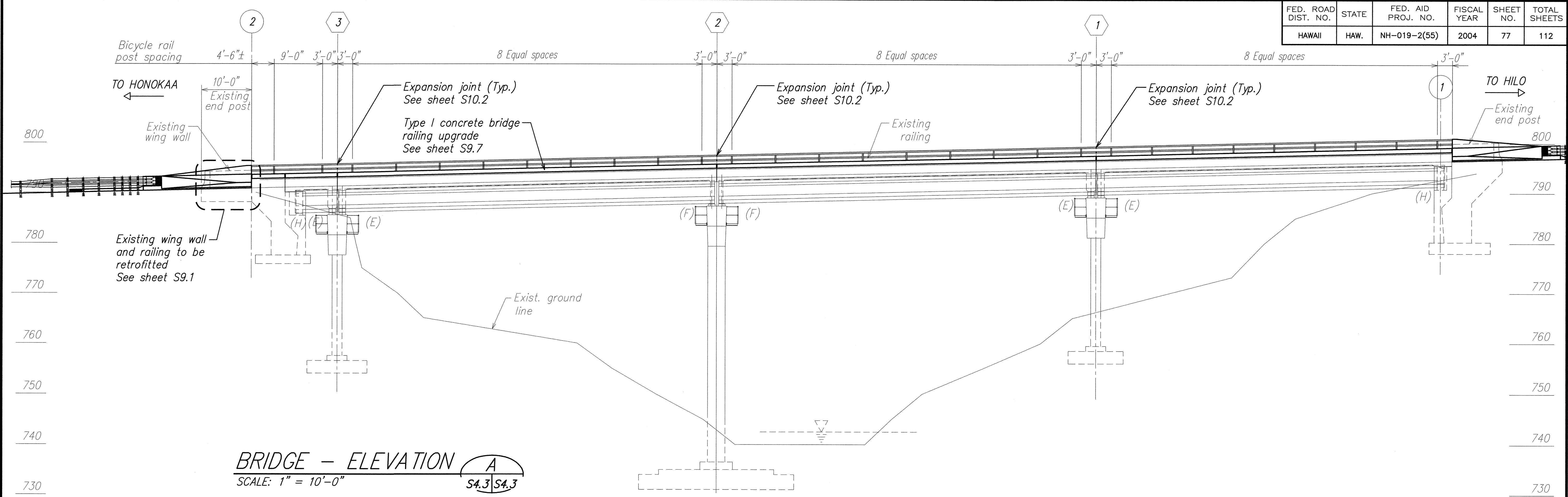


THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujimura
SIGNATURE EXPIRATION DATE OF THE LICENSE 4-30-04

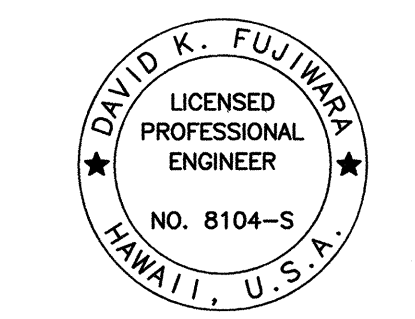
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**DECK PLAN AND ELEVATION
KAINEHE BRIDGE**
HAWAII BELT ROAD RESURFACING
East Paaulo Bridge to Kaala Bridge
Federal Aid-Project No. NH-019-2(55)
Scale: As Noted Date: April 2004
SHEET No. **S4.1** OF **61** SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-2(55)	2004	77	112



SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Signature: David K. Fujiwara
EXPIRATION DATE OF THE LICENSE: 4-30-04

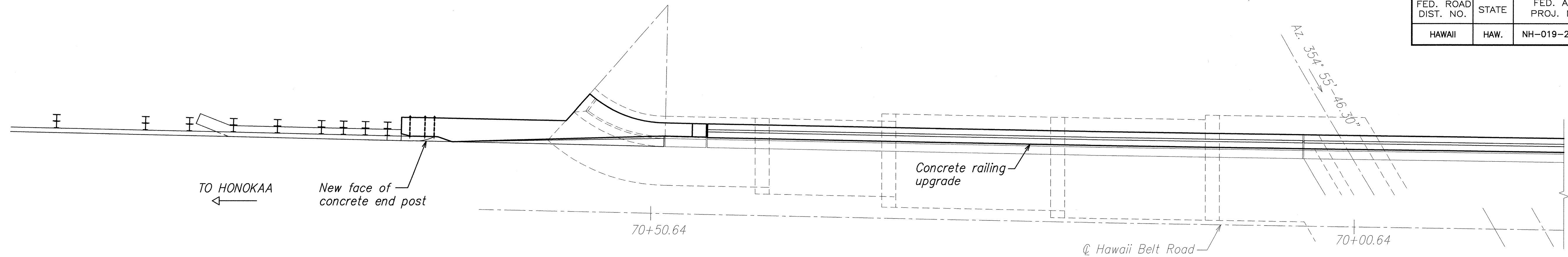
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BRIDGE - ELEVATIONS
KAINEHE BRIDGE
HAWAII BELT ROAD RESURFACING
East Paauilo Bridge to Kaala Bridge
Federal Aid-Project No. NH-019-2(55)

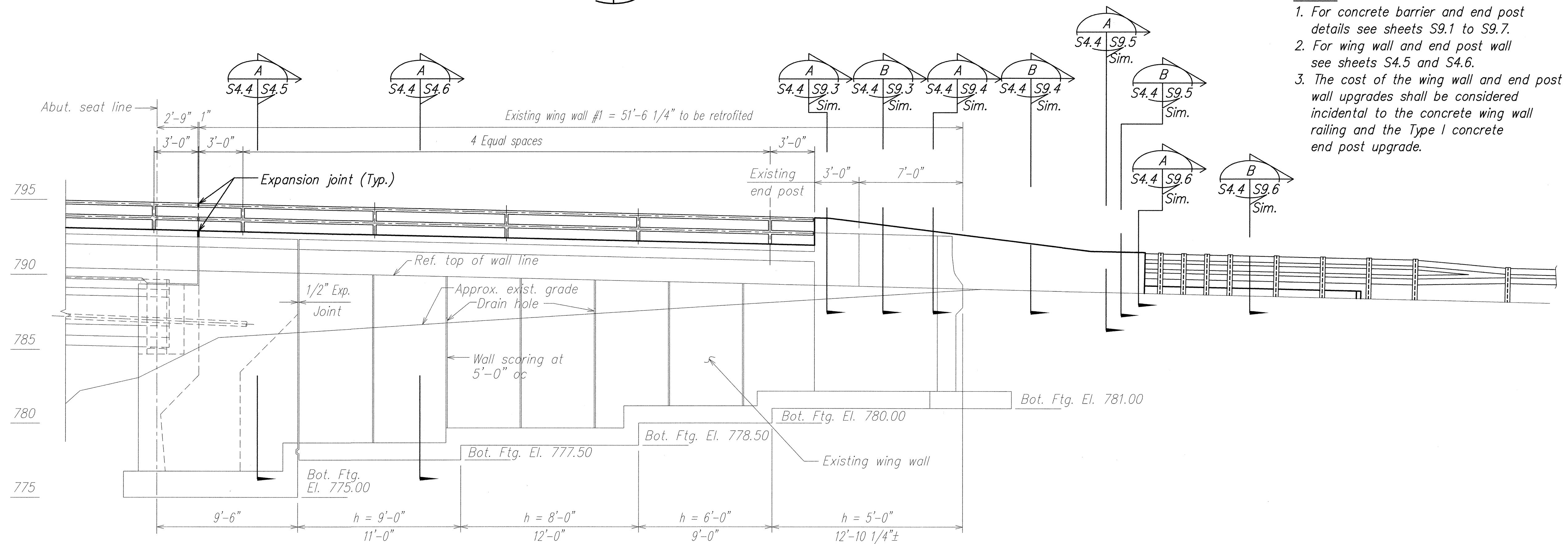
Scale: As Noted Date: April 2004

SHEET No. **S4.3** OF **61** SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-2(55)	2004	78	112



PLAN - WING WALL #1
SCALE: 1/4" = 1'-0"
A
S4.4 S4.4



ELEVATION - WING WALL #1
SCALE: 1/4" = 1'-0"
A
S4.4 S4.4

- NOTES:**
1. For concrete barrier and end post details see sheets S9.1 to S9.7.
 2. For wing wall and end post wall see sheets S4.5 and S4.6.
 3. The cost of the wing wall and end post wall upgrades shall be considered incidental to the concrete wing wall railing and the Type I concrete end post upgrade.



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Signature: *David K. Fujiwara*
4-30-04
SIGNATURE EXPIRATION DATE OF THE LICENSE

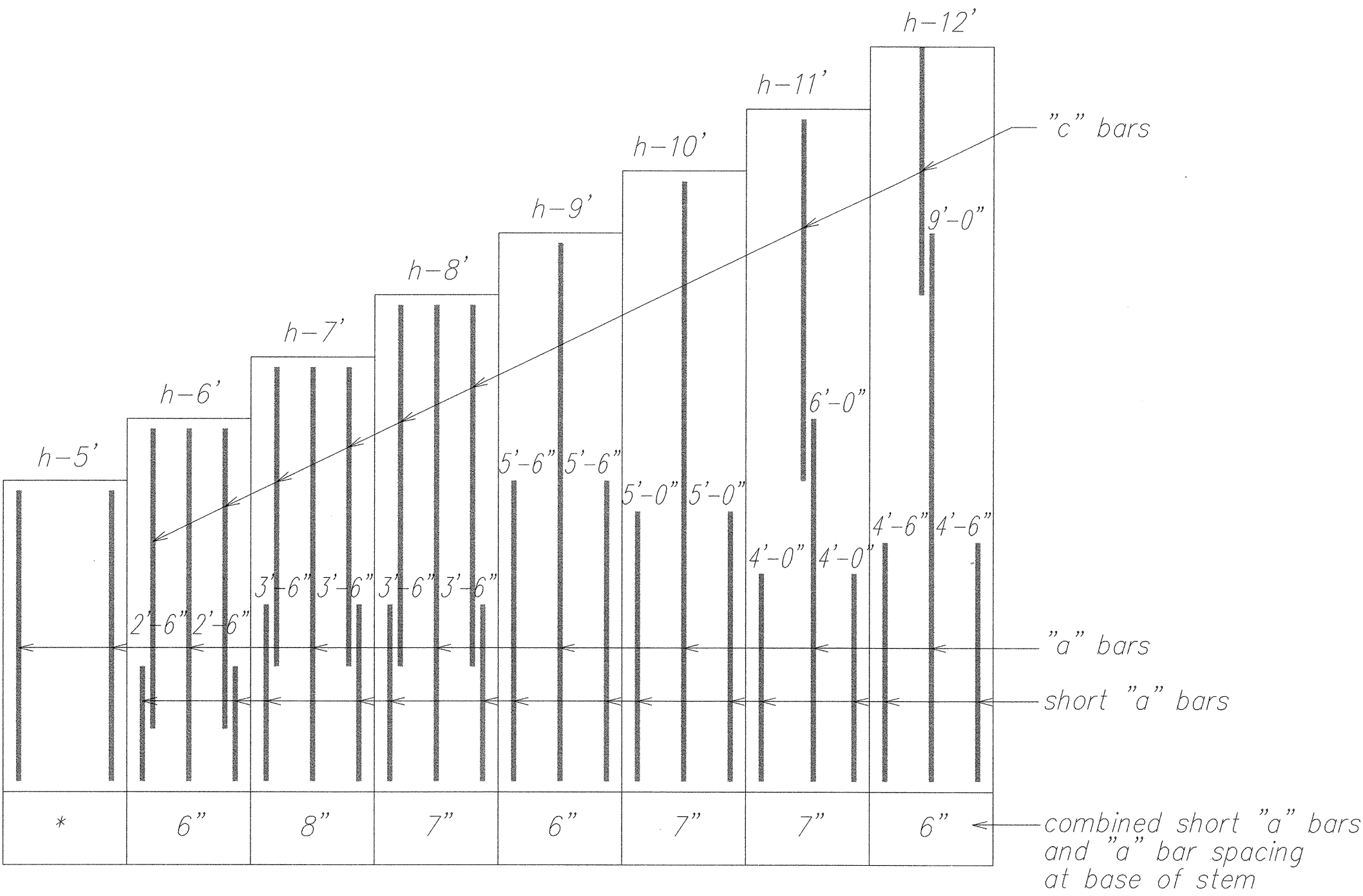
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WING WALL #1 PLAN AND ELEVATION
KAINEHE BRIDGE
HAWAII BELT ROAD RESURFACING
East Paaulo Bridge to Kaala Bridge
Federal Aid-Project No. NH-019-2(55)

Scale: As Noted Date: April 2004

SHEET No. **S4.4** OF **61** SHEETS

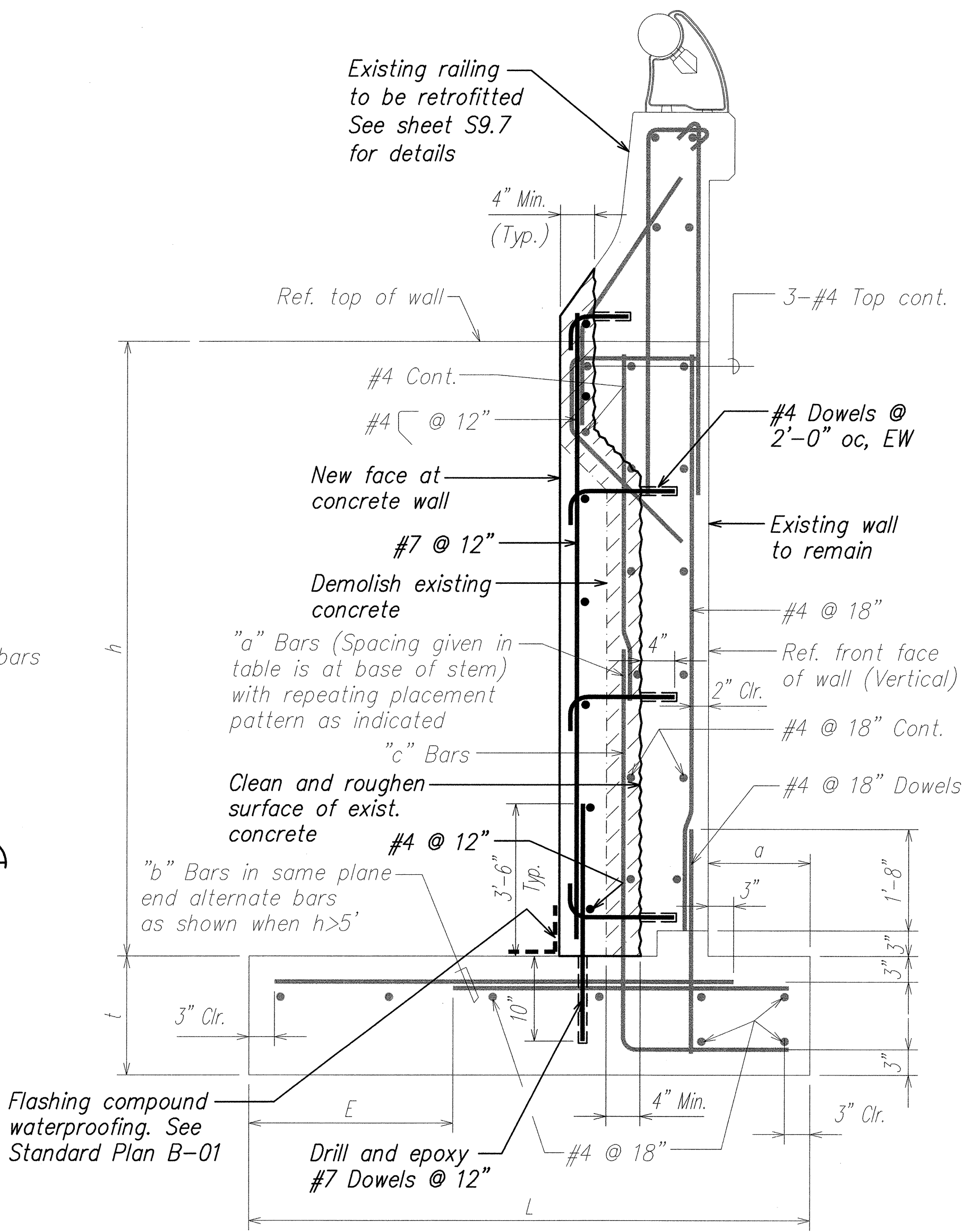
SCHEDULE OF DIMENSIONS AND REINFORCING STEEL FOR RETAINING WALL WITH CONCRETE PARAPET								
Maximum "H"	5'	6'	7'	8'	9'	10'	11'	12'
a	6"	6"	6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
t	1'-2"	1'-2"	1'-2"	1'-2"	1'-2"	1'-2"	1'-2"	1'-2"
L	5'-0"	5'-6"	6'-0"	6'-9"	7'-3"	7'-9"	8'-6"	9'-0"
E		1'-3"	1'-6"	1'-6"	1'-9"	2'-0"	2'-3"	2'-6"
"a" bars	#5@11	#4@6	#5@8	#5@7	#5@6	#6@7	#7@7	#7@6
"c" bars		#3@12	#3@16	#3@14			#6@14	#5@12
"d" bars	#4@11	#4@8	#4@6	#5@9	#5@7	#6@7 1/2	#6@6	#7@6

WITH END POST						
Maximum "H"	5' EP	6' EP	7' EP	8' EP	9' EP	10' EP
a	6"	6"	6"	9"	9"	9"
t	1'-2"	1'-2"	1'-2"	1'-2"	1'-2"	1'-2"
L	5'-3"	5'-9"	6'-3"	6'-9"	7'-3"	7'-9"
E		1'-3"	1'-6"	1'-6"	1'-9"	2'-0"
"a" bars	#5@10	#4@6	#5@8	#5@7	#5@6	#6@7
"c" bars		#3@12	#3@16	#3@14		
"d" bars	#4@10	#4@7 1/2	#4@6	#5@6	#5@6 1/2	#6@7 1/2



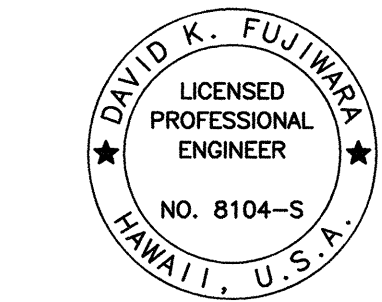
VERTICAL REINFORCING STEEL ARRANGEMENT
NOT TO SCALE

NOTE:
All existing rebars shall remain and shall not be damaged in any way.



WALL SECTION AT
ABUTMENT FOOTING LOCATION
NOT TO SCALE

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	TRACED BY	
	CHECKED BY	
	QUANTITIES BY	
	CHECKED BY	



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

Signature: David K. Fujiwara
EXPIRATION DATE OF THE LICENSE: 4-30-04

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

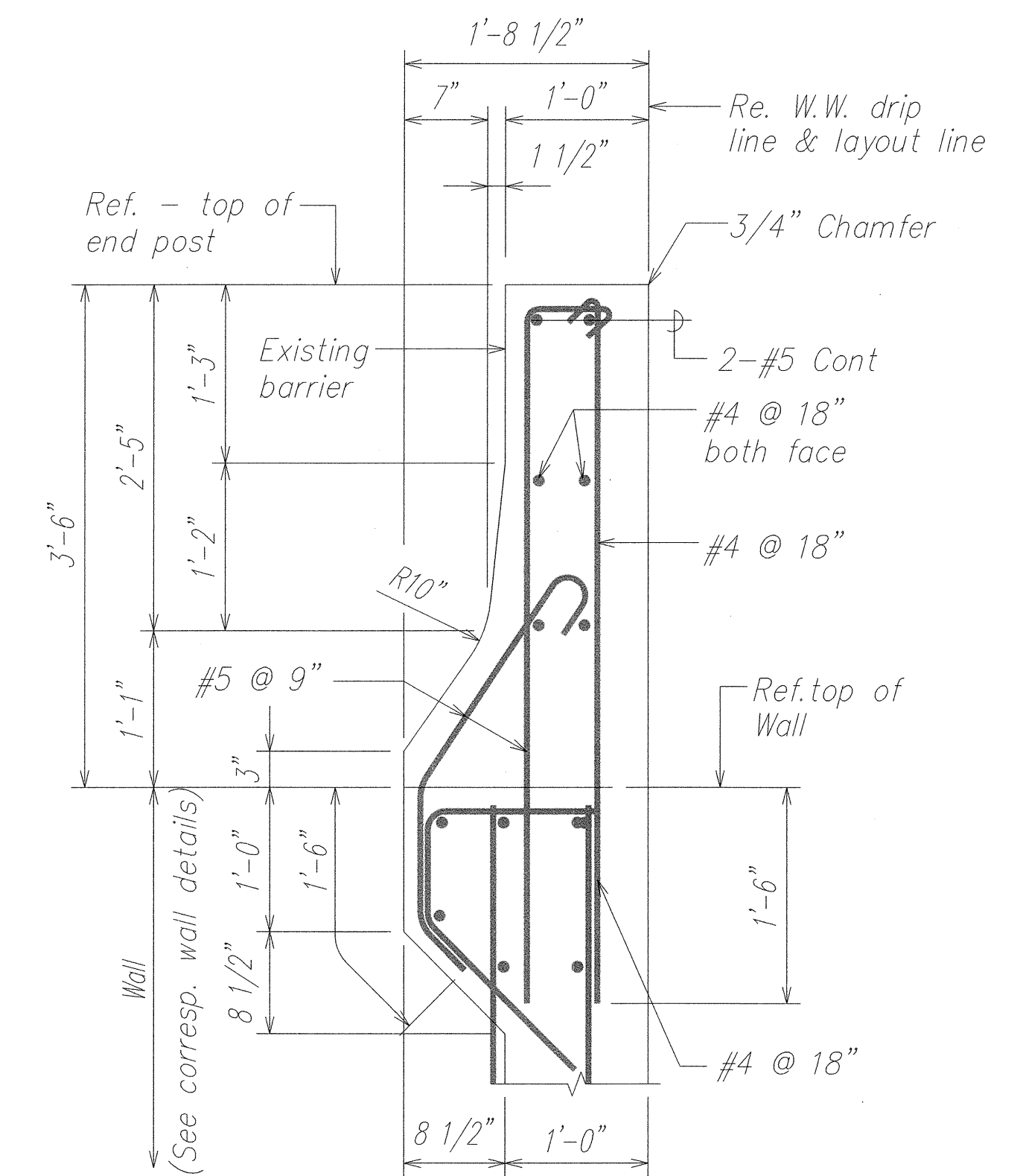
WING WALL #1
KAINEHE BRIDGE

HAWAII BELT ROAD RESURFACING
East Paaulo Bridge to Kaala Bridge
Federal Aid-Project No. NH-019-2(55)

Scale: As Noted Date: April 2004

SHEET No. S4.5 OF 61 SHEETS

Cad1\ksf04\2003\30041-HBR KAALA-PAAULO\04-13-04\HBR-S406.dwg, 4/12/2004 3:13:28 PM, KSFinc.pc3, 1:1



AT END POST

SCALE : 1" = 1'-0"

WALL SECTION 
NOT TO SCALE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL WALL SECTIONS
KAINEHE BRIDGE

HAWAII BELT ROAD RESURFACING
East Paauilo Bridge to Kaala Bridge
Federal Aid-Project No. NH-019-2(55)

Scale: As Noted Date: April 2004

SHEET No. **S4.6** OF **61** SHEETS