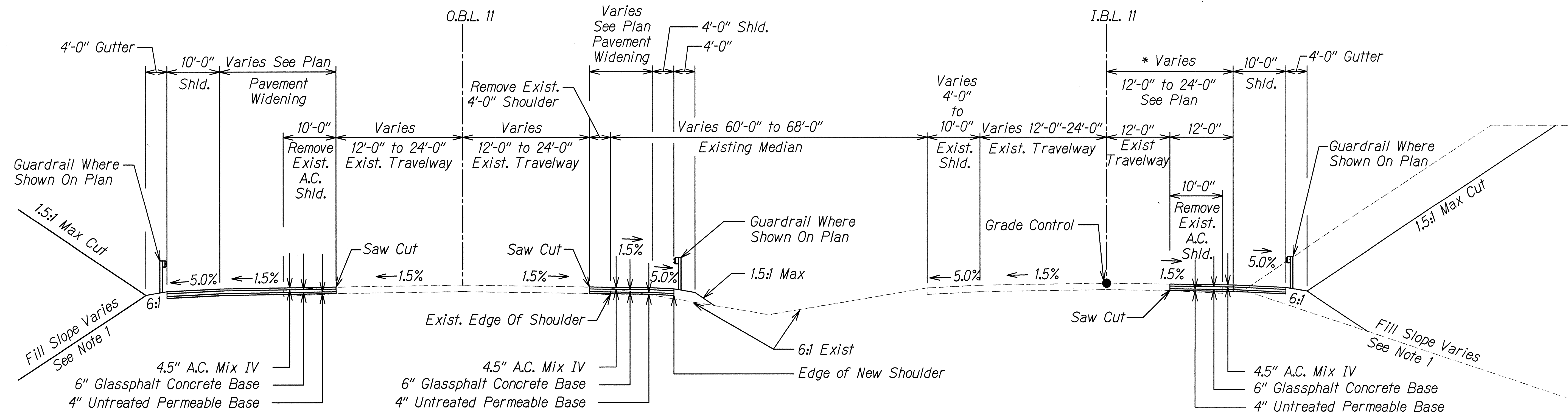


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	130B-01-98	1999	6	210



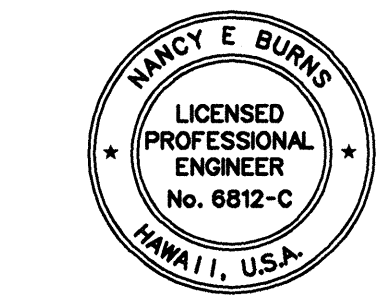
O.B.L. 11 @ Sta 1112+50.26 to O.B.L. 11 @ Sta 1119+35.54

I.B.L. 11 @ Sta 1115+28.05 to I.B.L. 11 @ Sta 1118+50
 *Taper I.B.L. 11 @ Sta 1118+50 to I.B.L. 11 @ Sta 1121+50

TYPICAL TANGENT SECTION I.B.L. 11 & O.B.L. 11

Note:
 1. Fill Slopes: 0' - 3'-0" = 6:1
 3.0' - 5.0' = 5:1

ORIGINAL PLAN	DATE
NOTED BY	DESIGNED BY
NOTED BY	DESIGNED BY
NOTED BY	DESIGNED BY
NOTED BY	DESIGNED BY
NOTED BY	DESIGNED BY
NOTED BY	DESIGNED BY
NOTED BY	DESIGNED BY
NOTED BY	DESIGNED BY
NOTED BY	DESIGNED BY



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
 Nancy E. Burns
 DATE: 8/24/98

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL SECTION
I.B.L. & O.B.L. HIGHWAY. 11

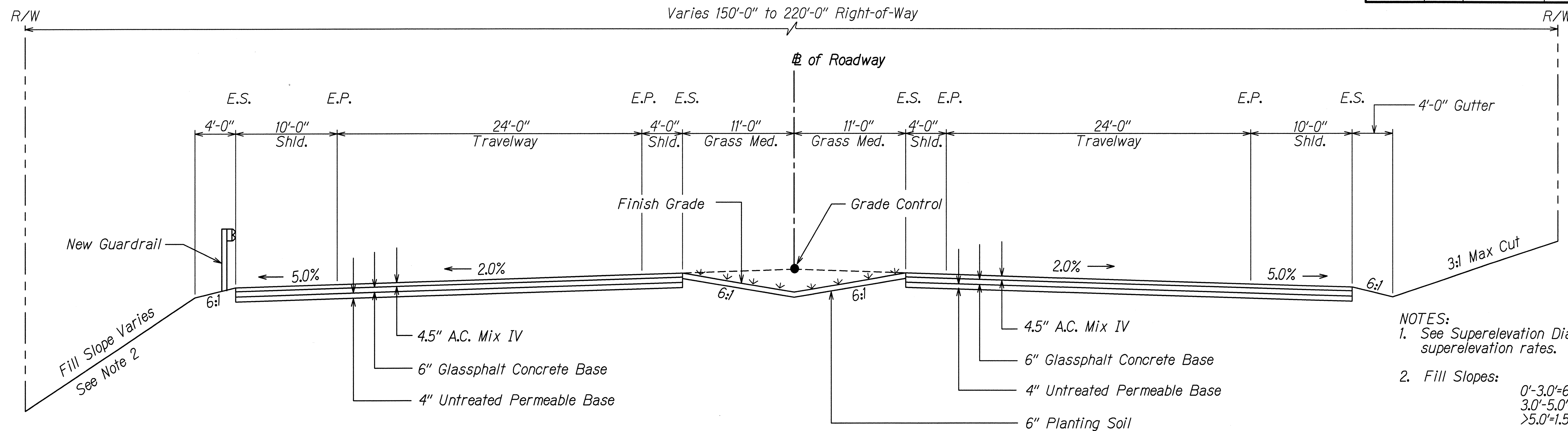
KEA'AU-PAHOA ROAD VIC. OF KEA'AU TOWN (KEA'AU BYPASS ROAD), PH. 2

PROJECT NO. 130B-01-98

Scale: 1"=10' Date: August, 1998

SHEET NO. 1 OF 8 SHEETS

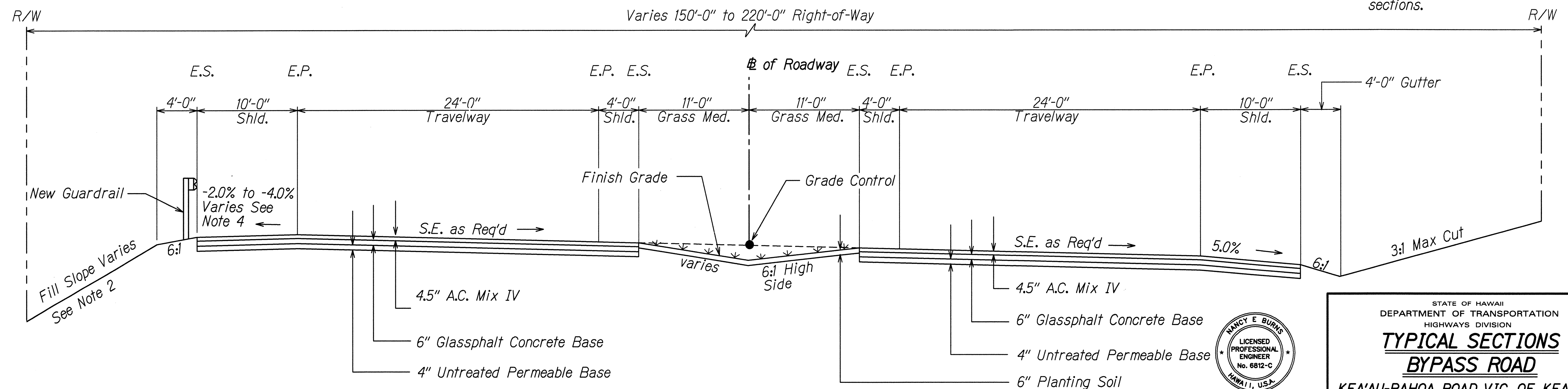
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	130B-01-98	1999	8	210



TYPICAL TANGENT SECTION BYPASS ROAD

Not To Scale

- NOTES:
- See Superelevation Diagram for superelevation rates.
 - Fill Slopes:
 $0'-3.0'=6:1$
 $3.0'-5.0'=5:1$
 $>5.0'=1.5:1$
 - Slope of 4.0' shoulder matches slope of adjacent travelway.
 - Shoulder slopes on the high side of superelevated sections, vary from -2.0% to -4.0%, see Superelevation Diagrams.
 - Bypass Road profile represents Grade Control shown on typical sections.

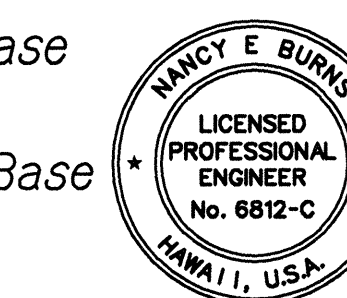


TYPICAL SUPERELEVATION SECTION BYPASS ROAD

Not To Scale

SURVEY PLOTTED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
NOTED BY	DATE
QUANTITIES BY	DATE
CHECKED BY	DATE

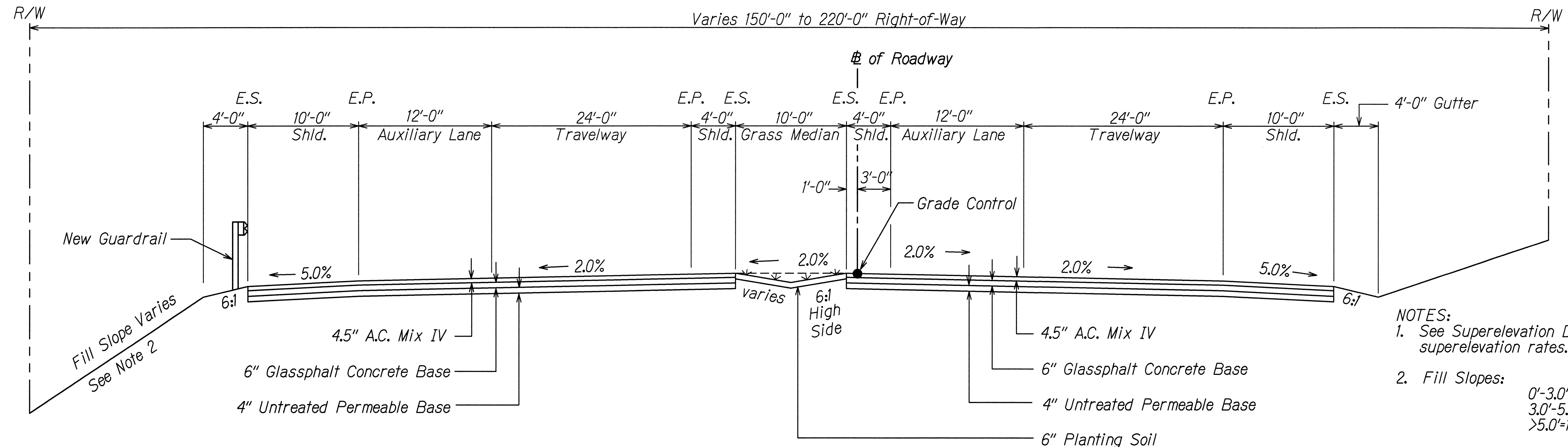
ORIGINAL PLAN	DATE
NOTE BOOK	DATE
DATE	DATE



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 Nancy E. Burns
 DATE: 8/24/98

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
TYPICAL SECTIONS
BYPASS ROAD
 KEA'AU-PAHOA ROAD VIC. OF KEA'AU
 TOWN (KEA'AU BYPASS ROAD), PH. 2
 PROJECT NO. 130B-01-98
 Scale: NTS Date: August, 1998
 SHEET No. 3 OF 8 SHEETS

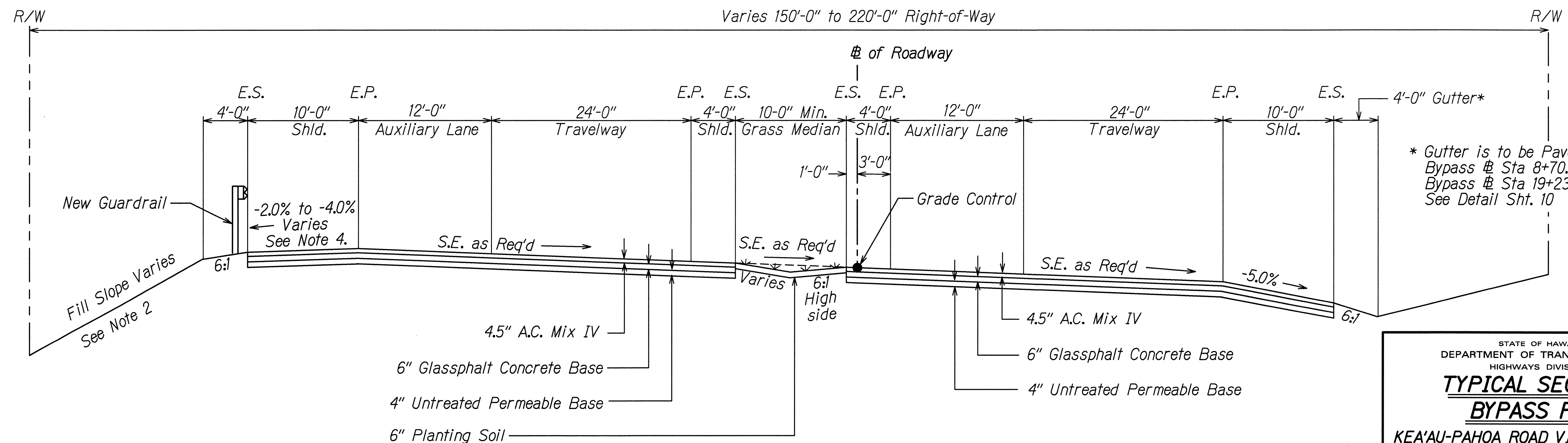
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	130B-01-98	1999	9	210



TYPICAL TANGENT SECTION WITH AUXILIARY LANES BYPASS ROAD

Not To Scale

- NOTES:
- See Superelevation Diagram for superelevation rates.
 - Fill Slopes:
 $0'-3.0'=6:1$
 $3.0'-5.0'=5:1$
 $>5.0'=1.5:1$
 - Slope of 4.0' shoulder matches slope of adjacent travelway.
 - Shoulder slopes on the high side of superelevated sections, vary from -2.0% to -4.0%, see Superelevation Diagrams.
 - Bypass Road profile represents Grade Control shown on typical sections.

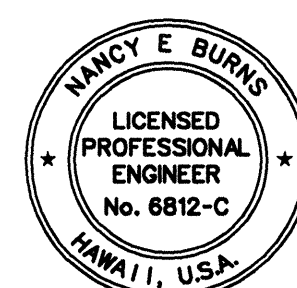


TYPICAL SUPERELEVATION SECTION WITH AUXILIARY LANES BYPASS ROAD

Not To Scale

- * Gutter is to be Paved Bypass # Sta 8+70.49 to Bypass # Sta 19+23.43 See Detail Sht. 10

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No. 210/210	



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Nancy E. Burns
DATE: 8/24/98

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

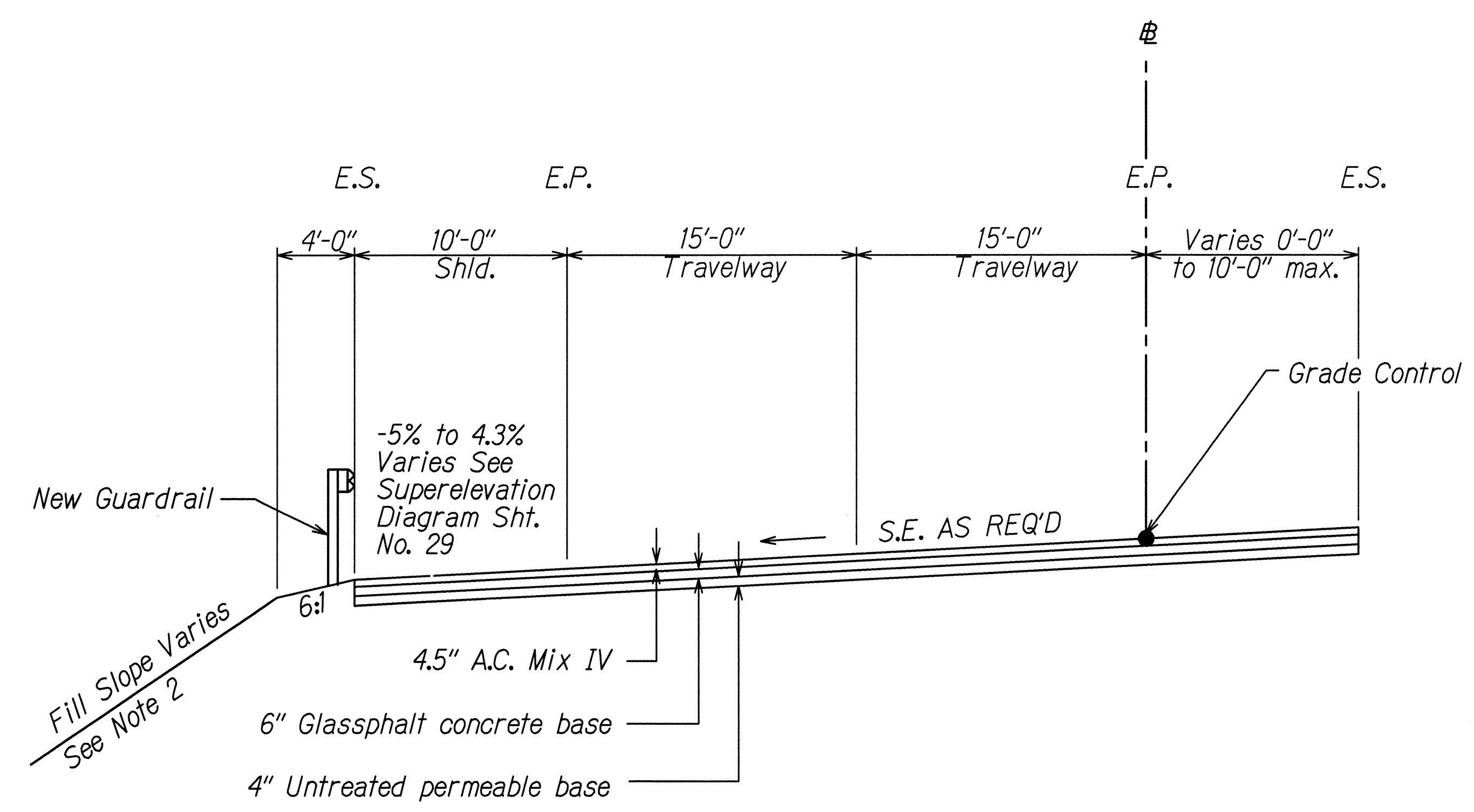
TYPICAL SECTIONS
BYPASS ROAD

KEA'AU-PAHOA ROAD VIC. OF KEA'AU TOWN (KEA'AU BYPASS ROAD), PH. 2
PROJECT NO. 130B-01-98

Scale: NTS Date: August, 1998

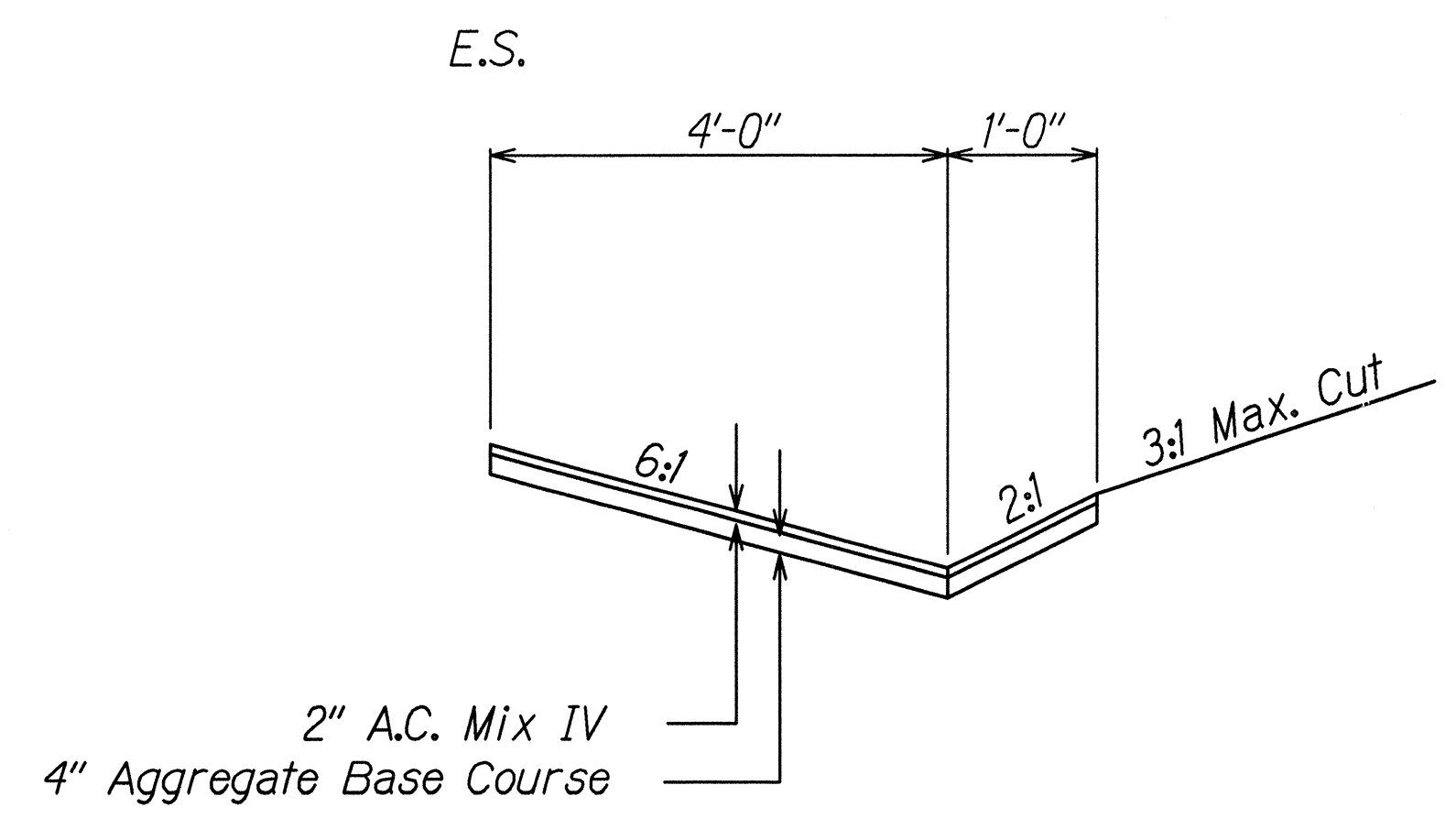
SHEET No. 4 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	130B-01-98	1999	10	210



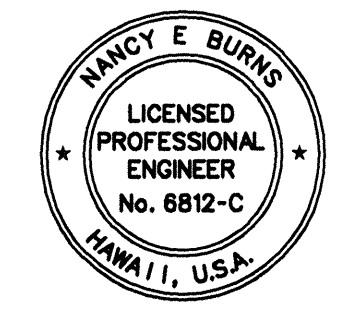
TYPICAL SECTION RAMP

- NOTES:
- See Superelevation Diagram for superelevation rates.
 - Fill slopes:
0'-3.0'=6:1
3.0'-5.0'=5:1
>5.0'=1.5:1



TYPICAL GUTTER SECTION
Bypass # Sta 8+70.49 to Bypass # Sta 19+23.43

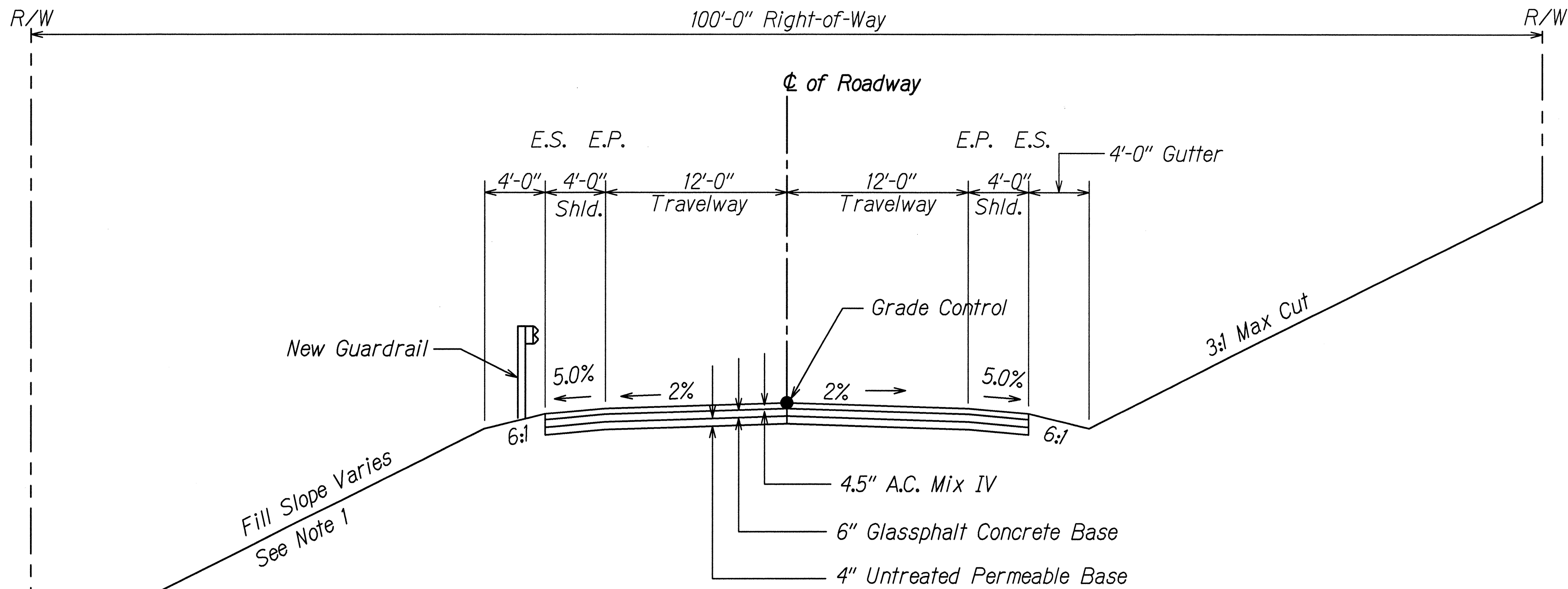
SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
N. 5010/06/09	



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Nancy E. Burns
DATE: 8/24/98

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL SECTION
RAMP & PAVED GUTTER DET.
KEA'AU-PAHOA ROAD VIC. OF KEA'AU TOWN (KEA'AU BYPASS ROAD), PH. 2
PROJECT NO. 130B-01-98
Scale: NTS Date: August, 1998
SHEET No. 5 OF 8 SHEETS

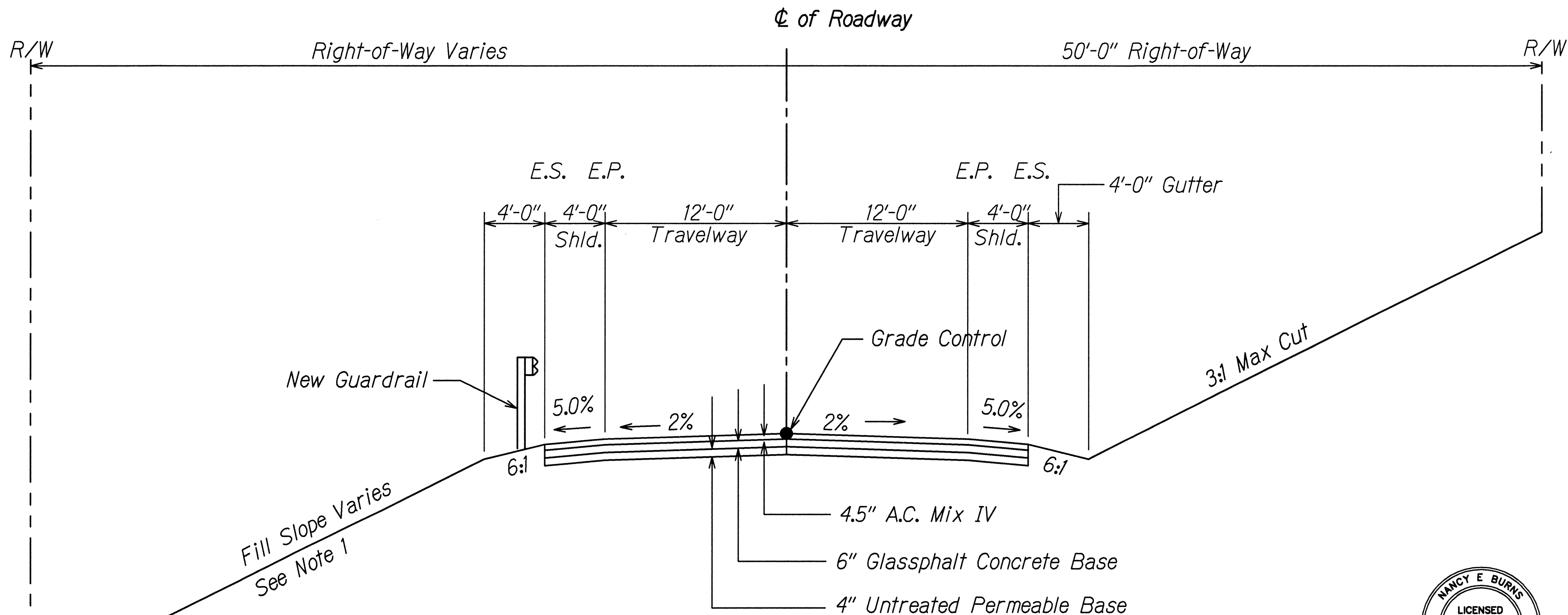
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	130B-01-98	1999	11	210



TYPICAL SECTION ROAD "C"

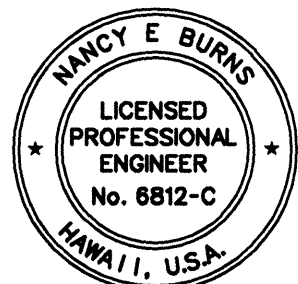
Not To Scale

NOTES:
1. Fill Slopes:
0'-3.0'=6:1
3.0'-5.0'=5:1
>5.0'=1.5:1



TYPICAL SECTION ROAD "D"

Not To Scale

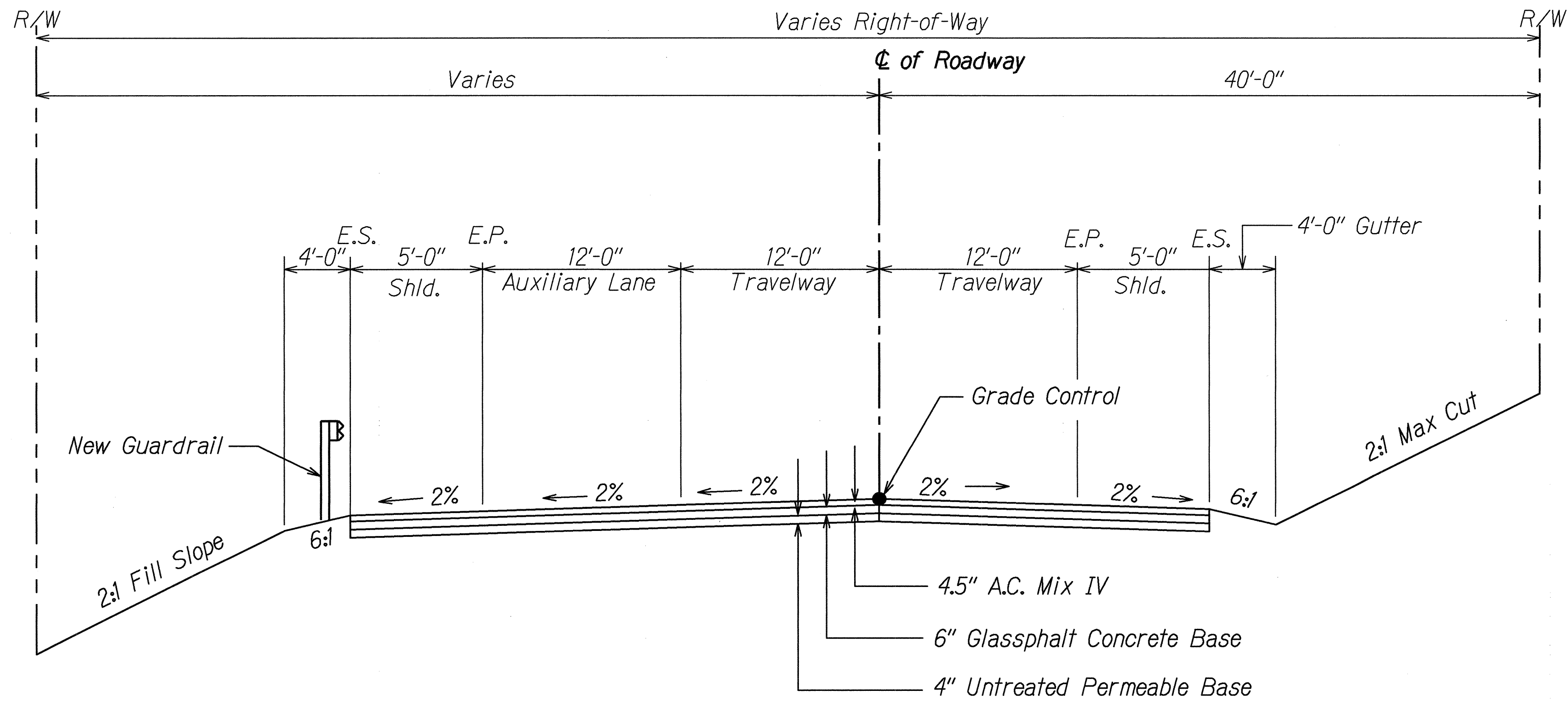


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Nancy E. Burns
DATE: 8/24/98

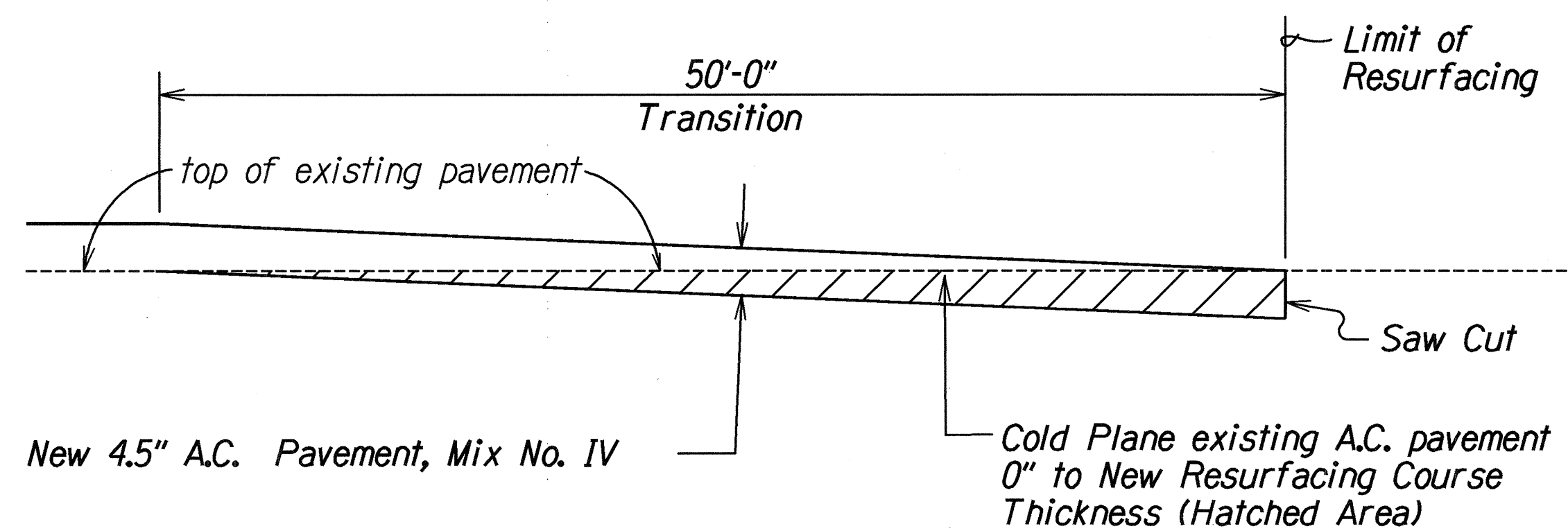
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TYPICAL SECTION
ROAD "C" & ROAD "D"**
KEA'AU-PAHOA ROAD VIC. OF KEA'AU
TOWN (KEA'AU BYPASS ROAD), PH. 2
PROJECT NO. 130B-01-98
Scale: NTS Date: August, 1998
SHEET No. 6 OF 8 SHEETS

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NOTE BOOK	
N. 9605/86/98	

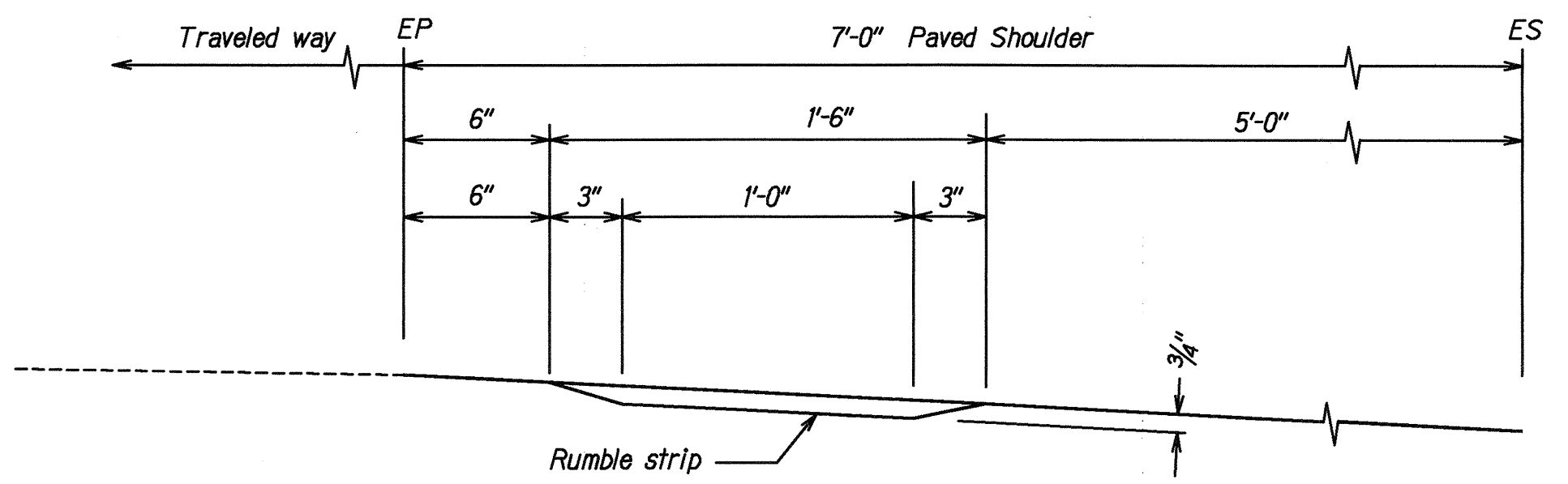
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	130B-01-98	1999	12	210



TYPICAL SECTION MILO ST.
Not To Scale

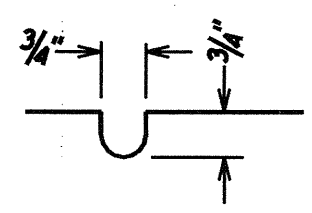


COLD PLANED TRANSITION
TO EXISTING A.C. PAVEMENT
Not To Scale

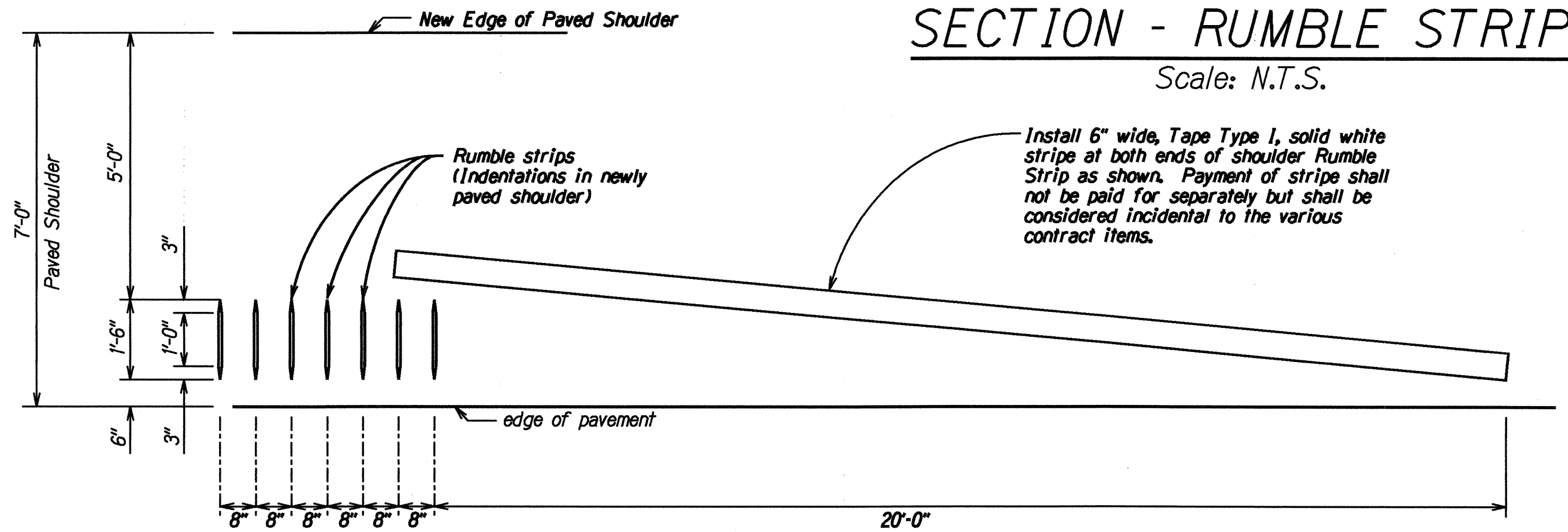


LONGITUDINAL SECTION - RUMBLE STRIP
Scale: N.T.S.

NOTE
Shoulder rumble strips should not be used unless approximately 1.5 meters (5 feet) of clear shoulder width for bicycle use is available between the rumble strips and the outer edge of the paved shoulder.



SECTION - RUMBLE STRIP
Scale: N.T.S.



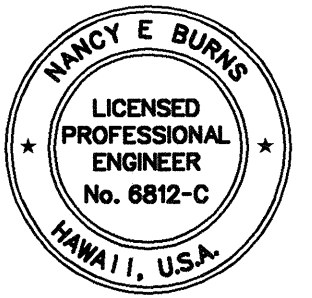
PLAN
Scale: N.T.S.

NOTES :

- Rumble Strip depressions must be placed after Breakdown Rolling, with Finish Rolling done after Rumble Strip Rolling but not on depressions unless otherwise directed by the Engineer.
- Rolling for Rumble Strip depressions shall be done when temperature of asphalt is about 180° F (when fines just stick to the palm of hand). Discontinue rolling if mat begins to tear. The rolling of depressions or the stopping of rolling process shall be done in accordance to the preceding requirements unless otherwise directed by the Engineer.
- Priority is to complete full Breakdown Rolling in order to achieve the required density. Full depth depression is a secondary consideration unless otherwise directed by the Engineer.
- The method of constructing the Rumble Strip depressions shall be submitted to the Engineer for acceptance prior to the actual work.
- The construction of the the Shoulder Rumble Strip including the fabrication of the grooving apparatus and 6"white stripe, shall be considered incidental to Asphalt Concrete Pavement, Mix No. V and will not be paid for separately.

NOTE :

Shoulder Rumble Strips applies to all new and widened pavement sections.

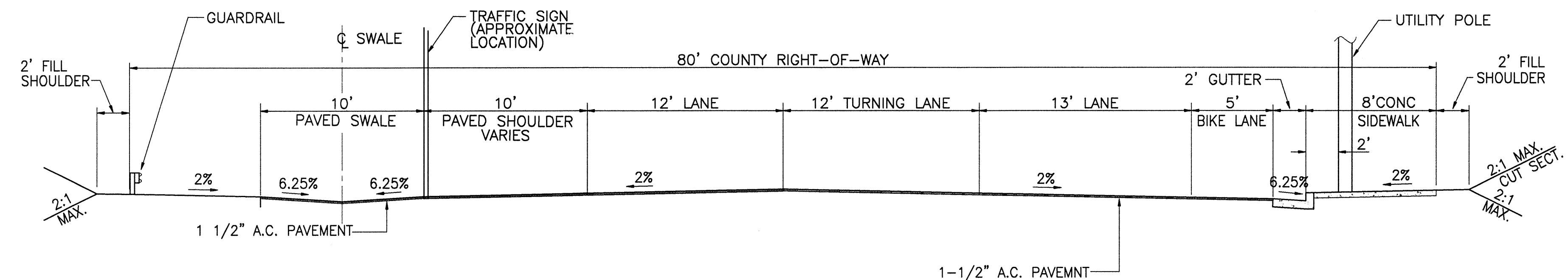


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Nancy E. Burns
DATE: 9/11/98

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL SECTION
MILO ST. & DETAILS
KEA'AU-PAHOA ROAD VIC. OF KEA'AU TOWN (KEA'AU BYPASS ROAD), PH. 2
PROJECT NO. 130B-01-98
Scale: NTS
Date: August, 1998
SHEET NO. 7 OF 8 SHEETS

ADD. 12

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	130B-01-92	1999	13	210

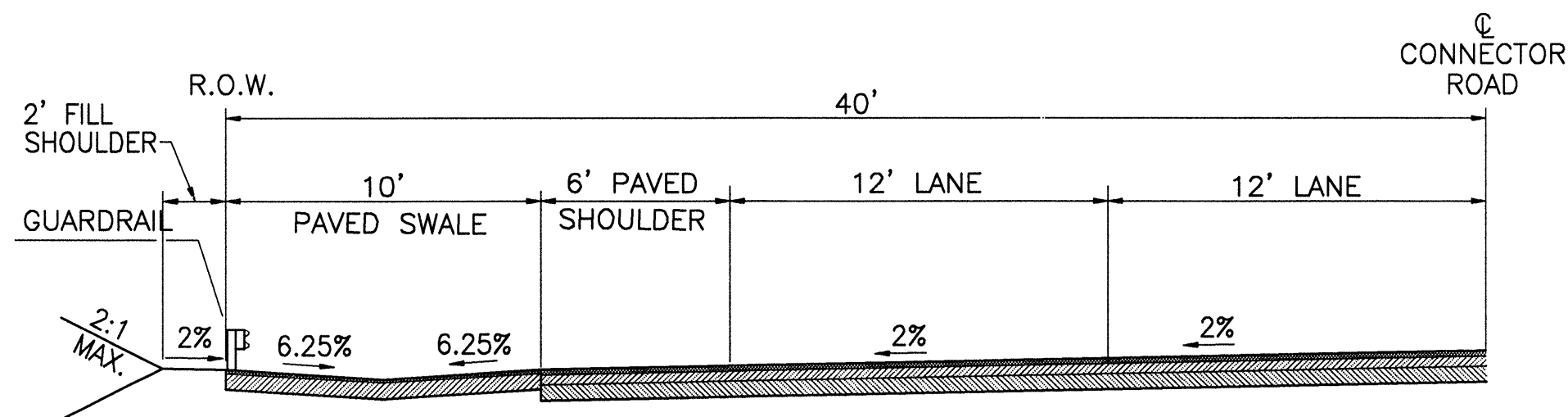


NOTE: FILL SLOPES FROM STA 7+50 TO STA 11+00 SHALL BE 3:1 SLOPE ON BOTH SIDES. SEE SHT C 7.1 FOR CHANGE IN FILL QUANTITIES.

TYPICAL ROAD SECTION — KEA'AU KULA ROAD(CONNECTOR ROAD)

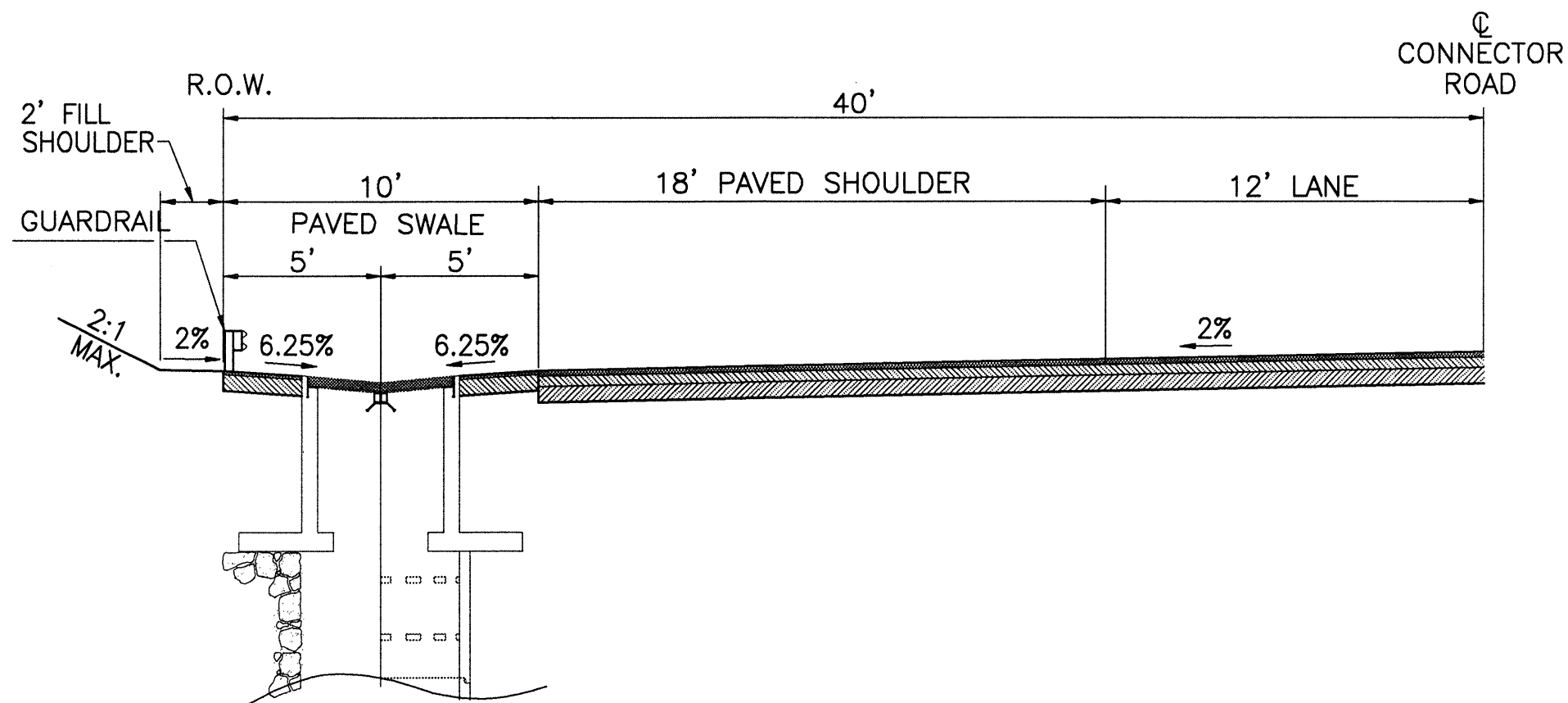
SCALE: 1"=5'

THE CONTRACTOR SHALL PAVE THE TOP 1-1/2".



HALF ROAD SECTION—CONNECTOR ROAD STA 0+39.48 TO 3+64.48

SCALE: 1"=5'



HALF ROAD SECTION @ DRYWELL

SCALE: 1"=5'

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



The work was prepared by me or under my supervision and construction of this project will be under my observation.

Nancy E. Burns

DATE: 8/24/98

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL SECTIONS
KEA'AU KULA ROAD
KEA'AU—PAHOA ROAD VIC. OF KEA'AU TOWN (KEA'AU BYPASS ROAD), PH. 2
PROJECT NO. 130B-01-98
Scale: As Noted Date: August, 1998
SHEET No. 8 OF 8 SHEETS