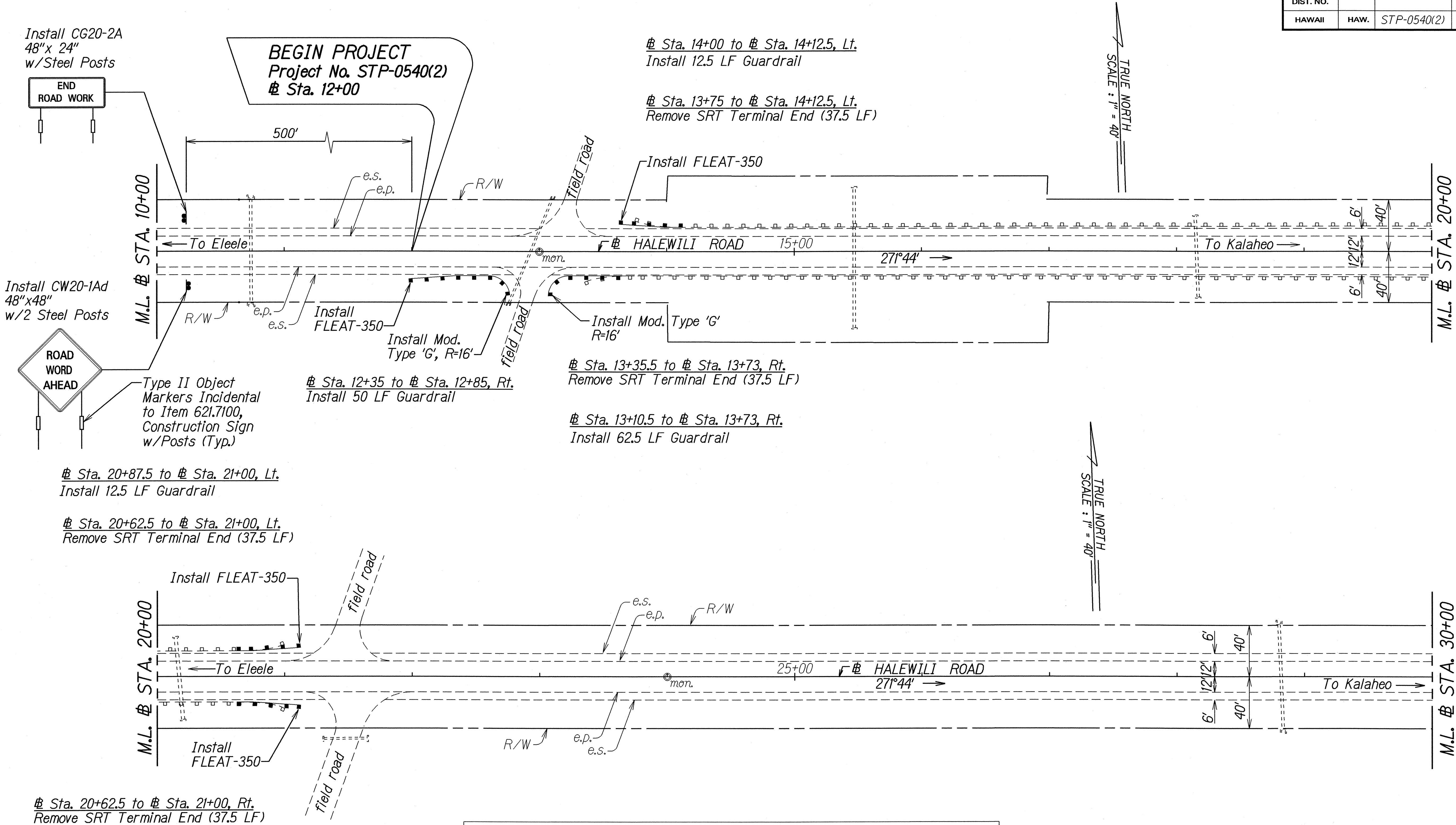


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0540(2)	2004	6	23



DATE	June 2003
SURVEY PLOTTED BY	J. Ke
DRAWN BY	J. Ke
CHECKED BY	J. Ke
APPROVED BY	J. Ke
NOTE BOOK	See Note
QUANTITIES BY	J. Ke
CHECKED BY	J. Ke

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QTY.
202.0240	REMOVAL OF GUARDRAIL AND STEEL POSTS	LF	150
606.3130	GUARDRAIL, STRONG POST WITH W-BEAM	LF	150
606.7010	TERMINAL SECTION, TYPE 'G' WITH ROUNDED END	EACH	2
606.7030	TERMINAL SECTION, TYPE FLEAT-350	EACH	4
621.4105	REFLECTOR MARKER, (RM-5)	EACH	5

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

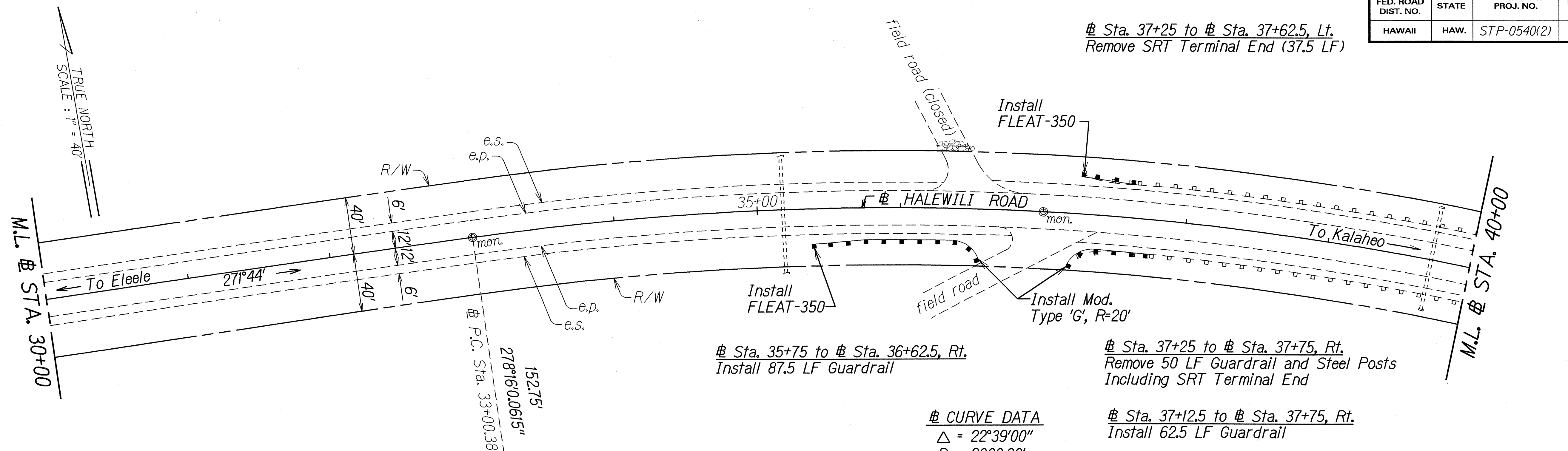
HALEWILI ROAD

Guardrail and Shoulder Improvements
Federal Aid Project No. STP-0540(2)

Scale: 1" = 40' Date: June 2003

SHEET No. 1 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0540(2)	2004	7	23



Sta. 37+25 to # Sta. 37+62.5, Lt.
Remove SRT Terminal End (37.5 LF)

Sta. 35+75 to # Sta. 36+62.5, Rt.
Install 87.5 LF Guardrail

Sta. 37+25 to # Sta. 37+75, Rt.
Remove 50 LF Guardrail and Steel Posts
Including SRT Terminal End

Sta. 37+12.5 to # Sta. 37+75, Rt.
Install 62.5 LF Guardrail

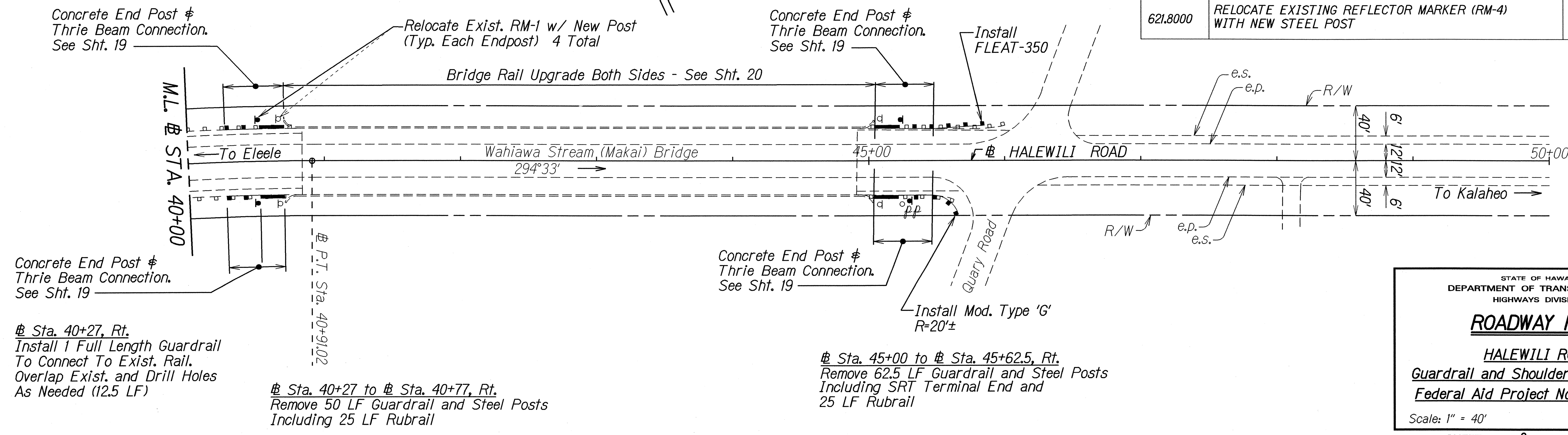
CURVE DATA
 $\Delta = 22^\circ 39' 00''$
 $R = 2000.00'$
 $T = 400.55'$
 $C = 785.50'$
 $L_c = 790.63'$

ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	UNIT	QTY.
202.0240	REMOVAL OF GUARDRAIL AND STEEL POSTS	LF	350
304.1110	AGGREGATE BASE	CY	40
401.0500	ASPHALT CONCRETE PAVEMENT, MIX NO. IV	TON	17
507.0500	GUARDRAIL, TYPE 3 THRIE BEAM	LF	100
606.3130	GUARDRAIL, STRONG POST WITH W-BEAM	LF	175
606.7010	TERMINAL SECTION, TYPE 'G' WITH ROUNDED END	EACH	3
606.7030	TERMINAL SECTION, TYPE FLEAT-350	EACH	3
621.4105	REFLECTOR MARKER, (RM-5)	EACH	10
621.8000	RELOCATE EXISTING REFLECTOR MARKER (RM-4) WITH NEW STEEL POST	EACH	4

Sta. 40+27 to # Sta. 40+77, Lt.
Remove 50 LF Guardrail and Steel Posts
Including 25 LF Rubrail

Sta. 40+27, Lt.
Install 1 Full Length Guardrail To Connect To Exist. Rail.
Overlap Exist. and Drill Holes As Needed (12.5 LF)

Sta. 45+00 to # Sta. 46+00, Lt.
Remove 100 LF Guardrail and Steel Posts
Including SRT Terminal End and
25 LF Rubrail



Concrete End Post #
Thrie Beam Connection.
See Sht. 19

Sta. 40+27, Rt.
Install 1 Full Length Guardrail
To Connect To Exist. Rail.
Overlap Exist. and Drill Holes
As Needed (12.5 LF)

Sta. 40+27 to # Sta. 40+77, Rt.
Remove 50 LF Guardrail and Steel Posts
Including 25 LF Rubrail

Concrete End Post #
Thrie Beam Connection.
See Sht. 19

Sta. 45+00 to # Sta. 45+62.5, Rt.
Remove 62.5 LF Guardrail and Steel Posts
Including SRT Terminal End and
25 LF Rubrail

SURVEY PLOTTED BY	DATE
DRAWN BY	June 2003
DESIGNED BY	
CHECKED BY	
NOTE BOOK	
FILED	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

HALEWILI ROAD

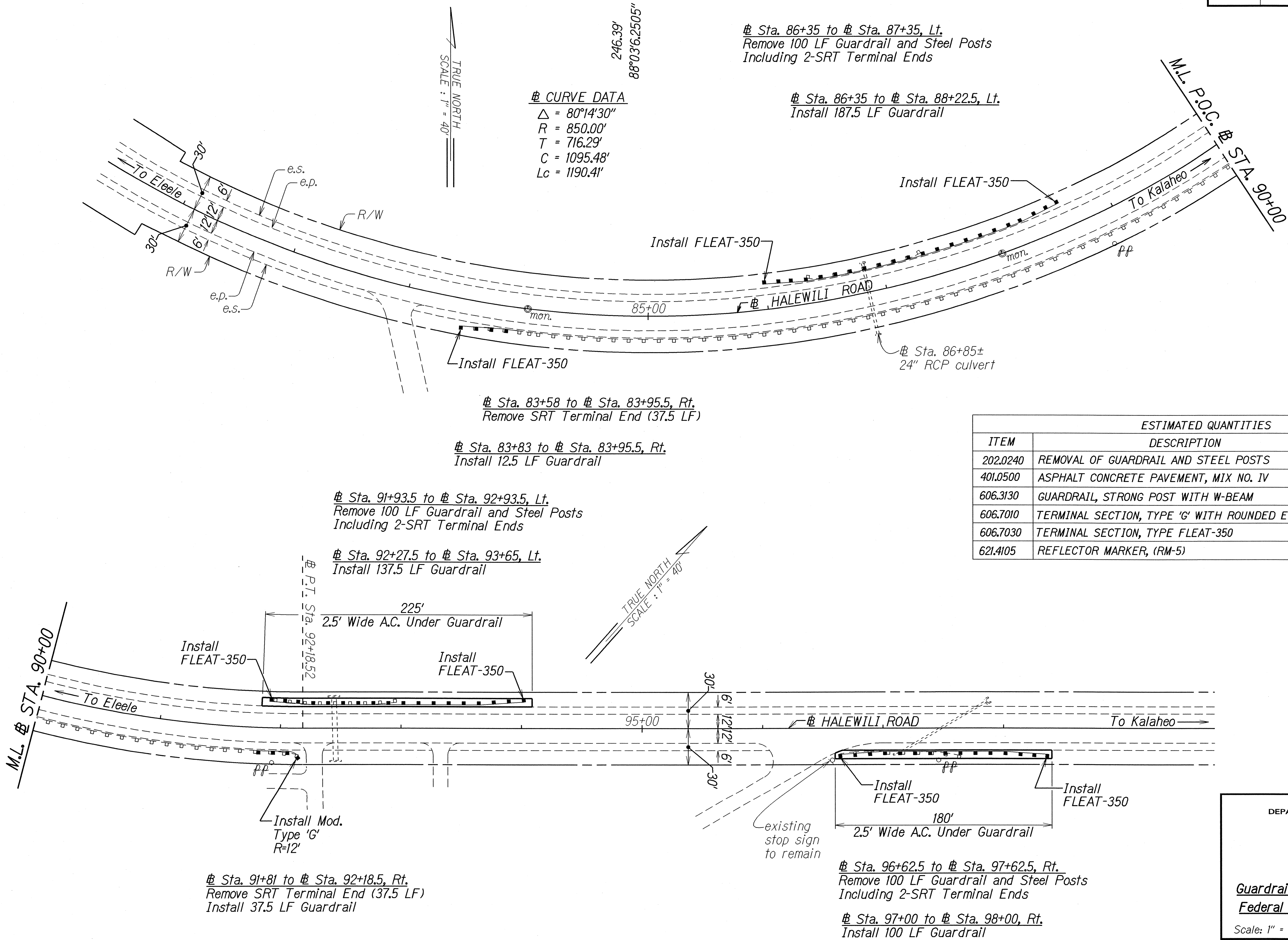
Guardrail and Shoulder Improvements

Federal Aid Project No. STP-0540(2)

Scale: 1" = 40' Date: June 2003

SHEET No. 2 OF 5 SHEETS

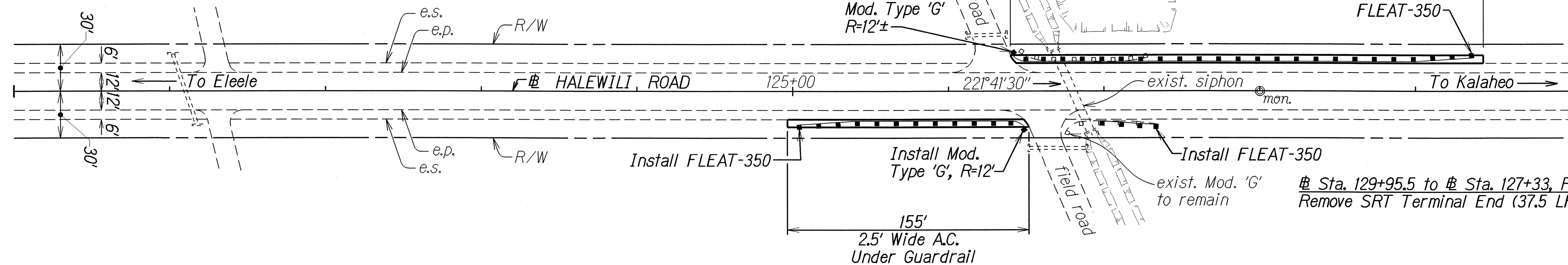
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0540(2)	2004	8	23



DATE	JUNE 2003
SURVEY PLOTTED BY	
DRAWN BY	J. L. LUGG
DESIGNED BY	J. L. LUGG
CHECKED BY	J. L. LUGG
NOTED BY	J. L. LUGG
ORIGINAL PLAN	

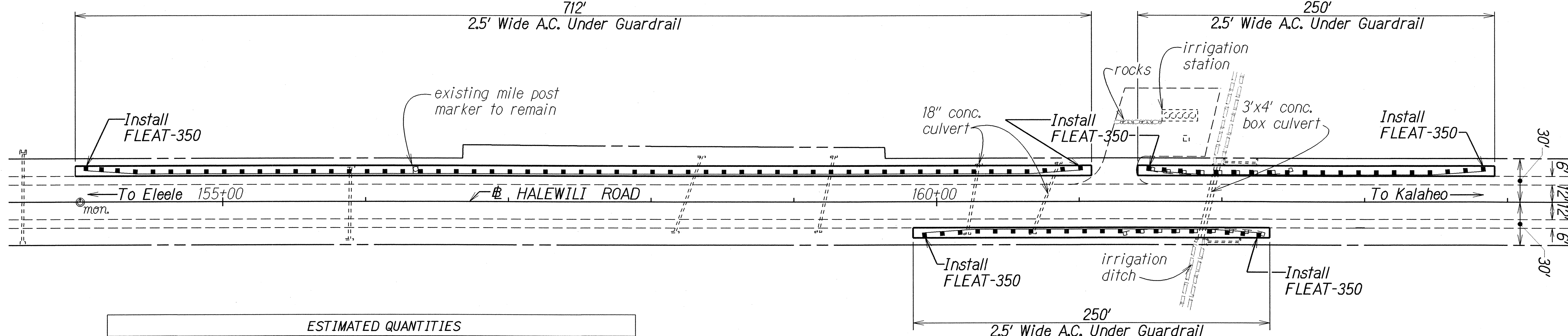
1. <i>What is the purpose of the study?</i> 2. <i>What are the research questions or hypotheses?</i> 3. <i>What is the study design?</i> 4. <i>What are the participants and sample size?</i> 5. <i>What are the variables and measurement tools?</i> 6. <i>What are the data analysis methods?</i> 7. <i>What are the results and conclusions?</i> 8. <i>What are the limitations and strengths?</i> 9. <i>What are the implications for practice and research?</i> 10. <i>What are the ethical considerations?</i>	1. <i>What is the purpose of the study?</i> 2. <i>What are the research questions or hypotheses?</i> 3. <i>What is the study design?</i> 4. <i>What are the participants and sample size?</i> 5. <i>What are the variables and measurement tools?</i> 6. <i>What are the data analysis methods?</i> 7. <i>What are the results and conclusions?</i> 8. <i>What are the limitations and strengths?</i> 9. <i>What are the implications for practice and research?</i> 10. <i>What are the ethical considerations?</i>
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Sta. 126+50 to # Sta. 129+00, Lt.
Install 250LF Guardrail



Sta. 125+40 to # Sta. 126+50, Rt.
Install 112.5 LF Guardrail

Sta. 161+87.5 to # Sta. 163+50, Lt.
Install 162.5 LF Guardrail



ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	UNIT	QTY.
202.0240	REMOVAL OF GUARDRAIL AND STEEL POSTS	LF	325
401.0500	ASPHALT CONCRETE PAVEMENT, MIX NO. IV	TON	43.0
606.3130	GUARDRAIL, STRONG POST WITH W-BEAM	LF	1312.5
606.7010	TERMINAL SECTION, TYPE 'G' WITH ROUNDED END	EACH	2
606.7030	TERMINAL SECTION, TYPE FLEAT-350	EACH	8
621.4105	REFLECTOR MARKER, (RM-5)	EACH	60

Sta. 160+30 to # Sta. 161+92.5, Rt.
Install 162.5 LF Guardrail

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

HALEWILI ROAD

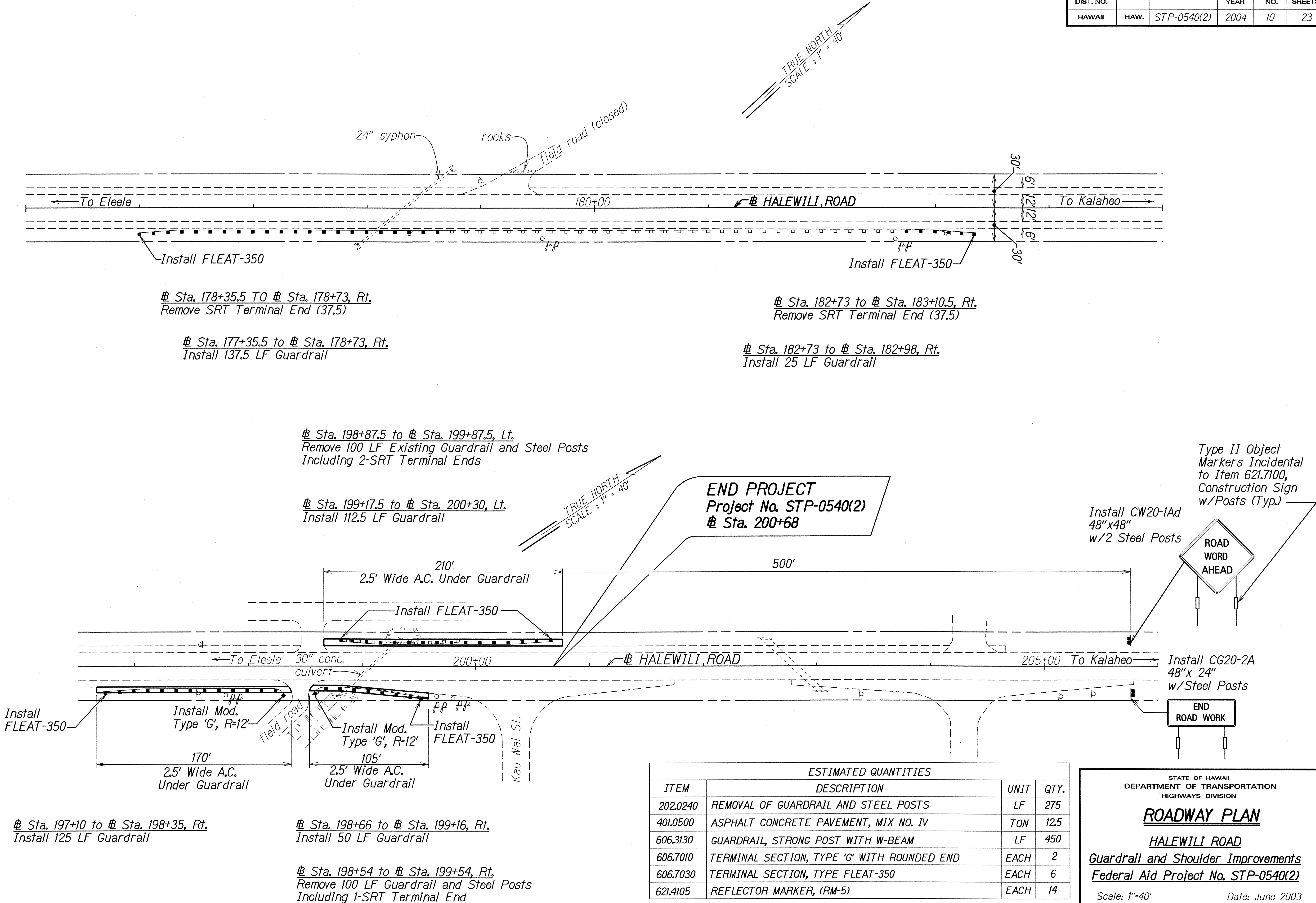
Guardrail and Shoulder Improvements

Federal Aid Project No. STP-0540(2)

Scale: 1" = 40' Date: June 2003

SHEET No. 4 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0540(2)	2004	10	23



ORIGINAL PLAN	DATE: June 2003
SURVEY PLOTTED BY: J. T. HUGHES	
DESIGNED BY: J. T. HUGHES	
QUANTITIES BY: J. T. HUGHES	
CHECKED BY: J. T. HUGHES	