

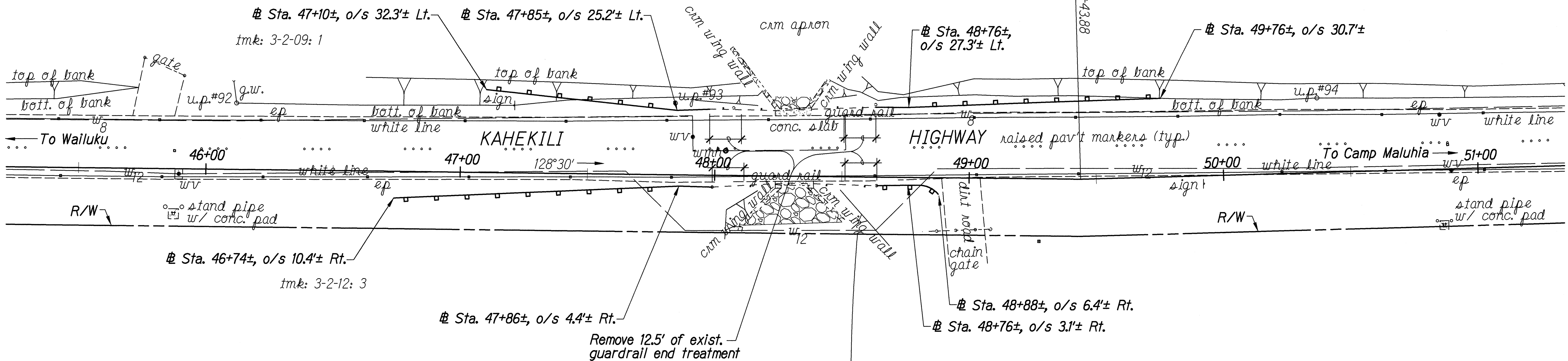
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	340CD-01-02M	2002	7	33

True North
Scale: 1"=20'

NOTE:
Install RM-5 Markers on
existing guardrail,
See Sheet 3, Note 17.

Sta. 47+10± Lt. to # Sta. 48+10± Lt.
Install 62.5 L.F. of Guardrail, W Beam
with Strong Post.
Trailing End - Fleet 350 (1 Each)

Sta. 48+51± Lt. to # Sta. 49+76± Lt.
Install 87.5 L.F. of Guardrail, W Beam
with Strong Post.
Approach End - Fleet 350 (1 Each)

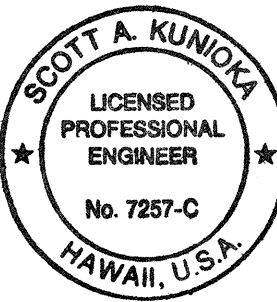


Sta. 46+74± Rt. to # Sta. 48+12± Rt.
Install 100 L.F. of Guardrail, W Beam
with Strong Post.
Approach End - Fleet 350 (1 Each)

Sta. 48+51± Rt. to # Sta. 48+88± Rt.
Install 37.5 L.F. of Guardrail, W Beam
with Strong Post.
Trailing End - Modified Type "G" with
Radius Flare (R=10' Min.)

GUARDRAIL IMPROVEMENT PLAN # STA. 46+50 TO # STA. 50+00 Scale: 1"=20'

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
Nc.	



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Scott A. Kunka
SCOTT A. KUNKA, ENDO & YOSHIZAKI, INC.
1126 12TH AVENUE
HONOLULU, HAWAII 96816

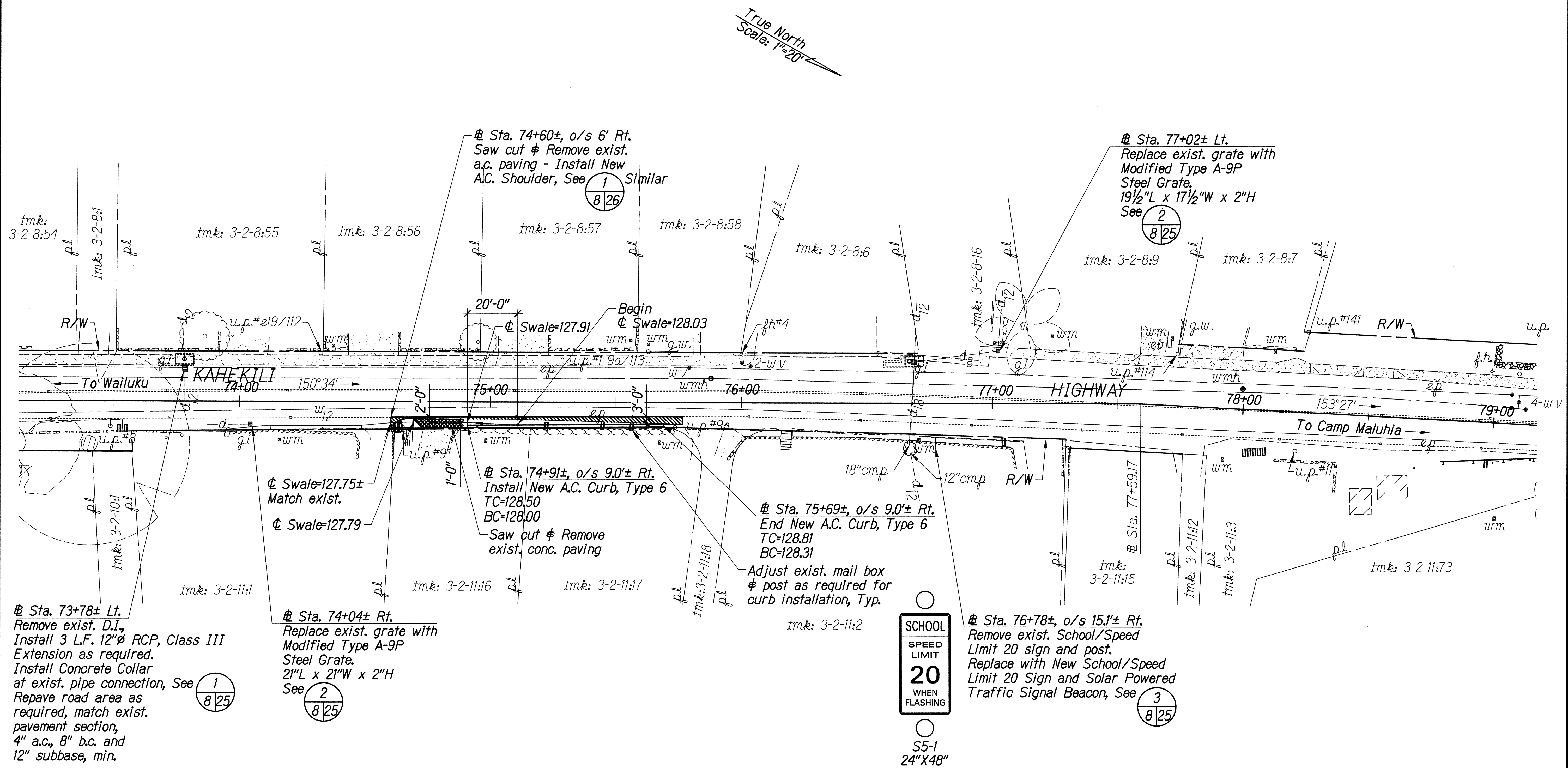
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL IMPROVEMENT PLAN
STA. 46+50 to # STA. 50+00
Kahekili Hwy. Repairs and Maintenance
Waiehu Beach Road to Camp Maluhia
Project No. 340CD-01-02M

Scale: As Shown Date: March 21, 2002

SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	340CD-01-02M	2002	ADD. 8	43



DRAINAGE SYSTEM IMPROVEMENT PLAN **Sta. 73+70 TO Sta. 77+50** Scale: 1"=20'

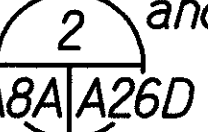
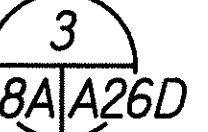
SCOTT A. KUNIOKA
LICENSED
PROFESSIONAL
ENGINEER
No. 7257-C
HAWAII, U.S.A.

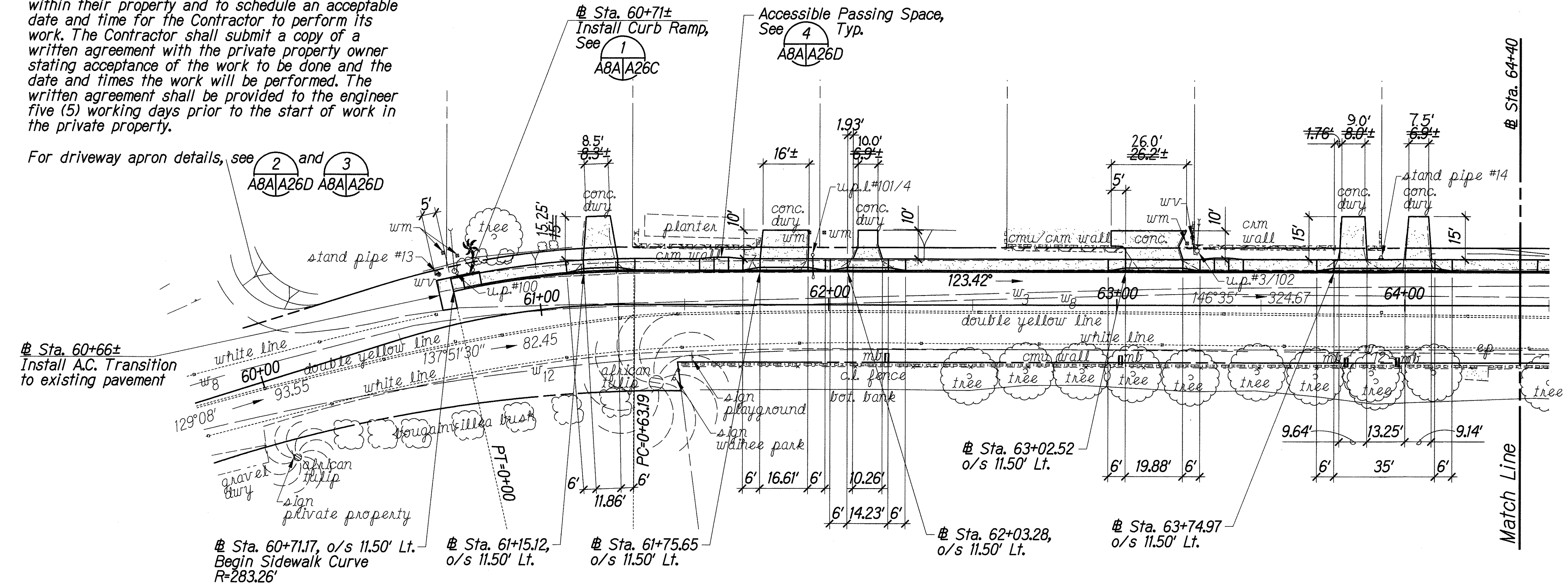
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.
SHIMABUKURO, ENDO & YOSHIKAWA, INC.
1126 12th Avenue
Honolulu, Hawaii 96816

6/17/02	Delete CB & DI Callouts
Date	Revisions
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
DRAINAGE SYSTEM IMPROVEMENT PLAN	
Sta. 73+70 TO Sta. 77+50	
Kahekili Hwy. Sidewalk Replacement Waihee Park to Waihee Elementary School Project No. 340CD-01-02M	
Scale: As Shown	Date: March 21, 2002
SHEET No. 1 OF 1 SHEETS	

Notes:

- Contractor shall remove and replace the existing concrete sidewalk, see sheets ADD. 6 and ADD. 7 for profile and  for details.
A8A/A26D
- Contractor shall notify and coordinate proposed work within private properties with the property owners. Contractor shall obtain written permission from private property owners to perform work within their property and to schedule an acceptable date and time for the Contractor to perform its work. The Contractor shall submit a copy of a written agreement with the private property owner stating acceptance of the work to be done and the date and times the work will be performed. The written agreement shall be provided to the engineer five (5) working days prior to the start of work in the private property.

For driveway apron details, see  and 
A8A/A26D A8A/A26D



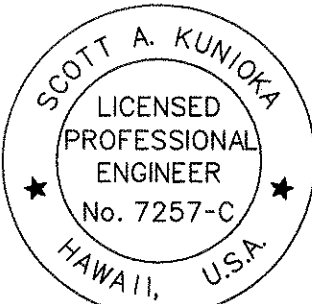
SIDEWALK REPLACEMENT PLAN-# STA. 60+00 TO # STA. 64+40

Scale: 1"=20'

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	340CD-01-02M	2002	ADD. 8A	43

True North
Scale: 1"=20'

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



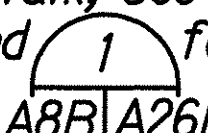
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.
Scott A. Kunioka
SHIMABUKURO, ENDO & YOSHIZAKI, INC.
1126 12th Avenue
Honolulu, Hawaii 96816

6/17/02	New Sheet
Date	Revisions
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION SIDEWALK REPLACEMENT PLAN # STA. 60+00 to # STA. 64+40 <i>Kahekili Hwy. Repairs and Maintenance</i> <i>Waiehu Beach Road to Camp Maluhia</i> <i>Project No. 340CD-01-02M</i> Scale: As Shown Date: June 17, 2002	
SHEET No. 1	OF 5 SHEETS

"AS-BUILT"

ADD. 8A

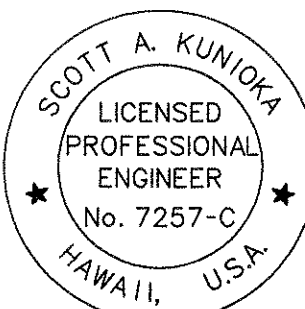
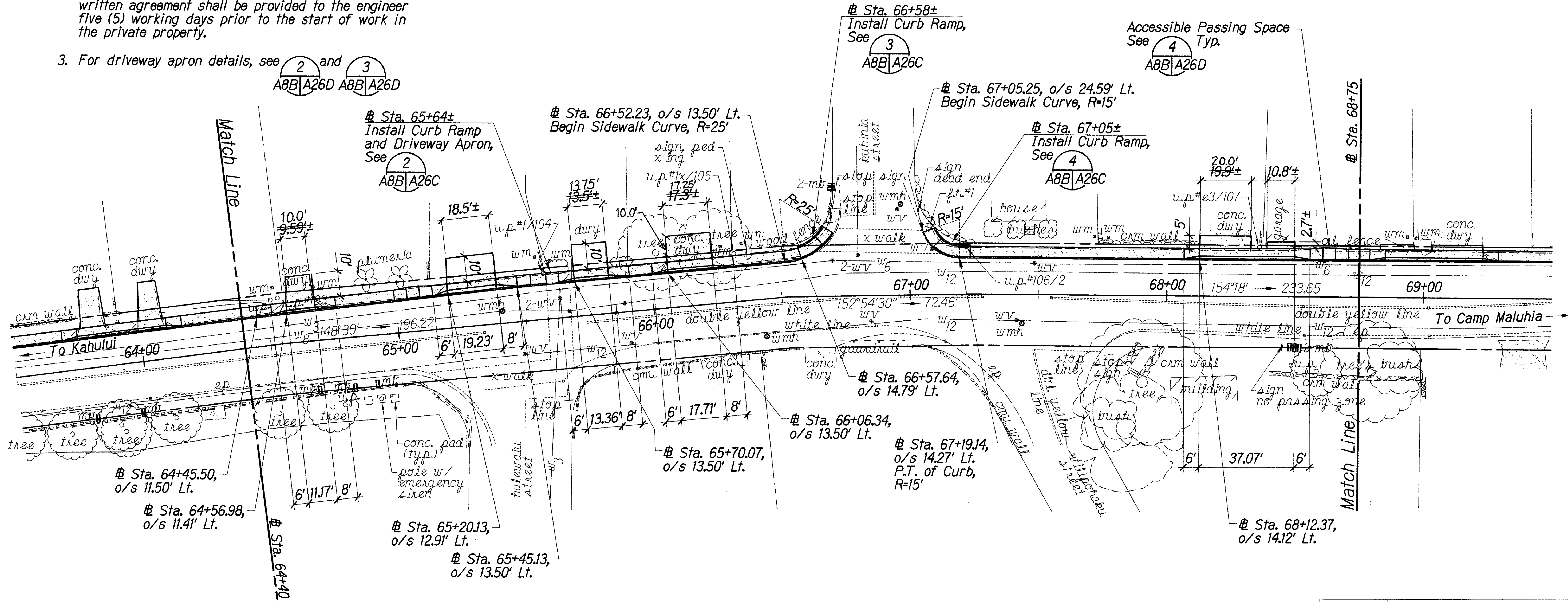
Notes:

1. Contractor shall remove and replace the existing concrete sidewalk, see sheets ADD. 6 and ADD. 7 for profile and  for details.

A8B/A26D

2. Contractor shall notify and coordinate proposed work within private properties with the property owners. Contractor shall obtain written permission from private property owners to perform work within their property and to schedule an acceptable date and time for the Contractor to perform its work. The Contractor shall submit a copy of a written agreement with the private property owner stating acceptance of the work to be done and the date and times the work will be performed. The written agreement shall be provided to the engineer five (5) working days prior to the start of work in the private property.

3. For driveway apron details, see  and  A8B/A26D A8B/A26D



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Scott A. Kunioka
SHIMABUKURO, ENDO & YOSHIZAKI, INC.
1126 12th Avenue
Honolulu, Hawaii 96816

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	340CD-01-02M	2002	ADD. 8B	43

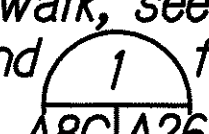
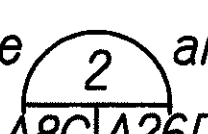
True North
Scale: 1"=20'

SURVEY PLANNED BY	DATE
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NOTE BOOK	
PLAN	

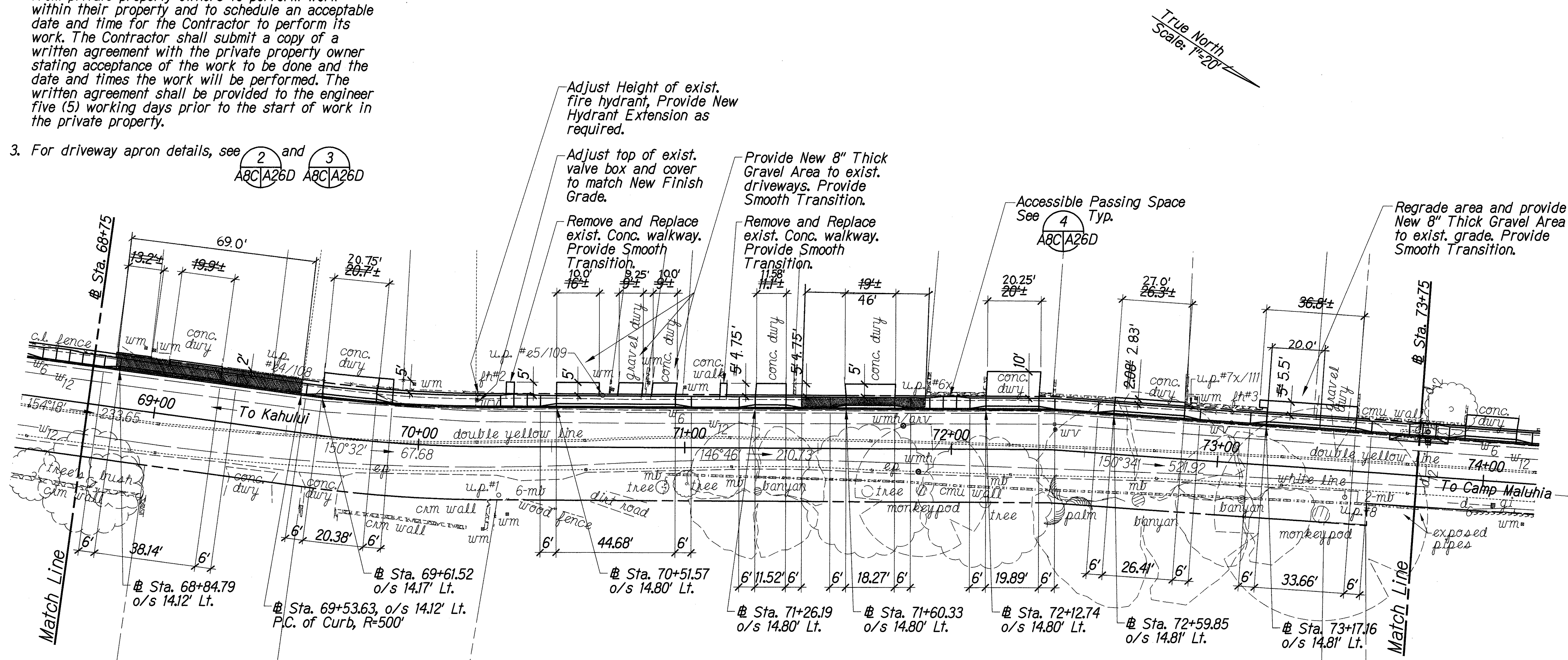
SIDEWALK REPLACEMENT PLAN-# STA. 64+40 TO # STA. 68+75
Scale: 1"=20'

6/17/02	New Sheet
Date	Revisions
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION SIDEWALK REPLACEMENT PLAN # STA. 64+40 to # STA. 68+75 <i>Kahekili Hwy. Repairs and Maintenance</i> <i>Waiehu Beach Road to Camp Maluhia</i> <i>Project No. 340CD-01-02M</i> Scale: As Shown Date: June 17, 2002	
SHEET No. 2 OF 5 SHEETS	

Notes:

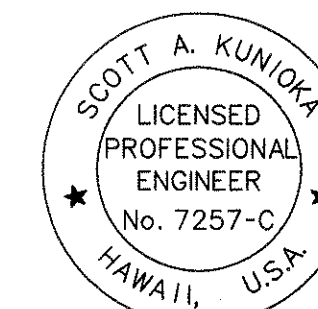
- Contractor shall remove and replace the existing concrete sidewalk, see sheets ADD. 6 and ADD. 7 for profile and  for details.
ABC/A26D
- Contractor shall notify and coordinate proposed work within private properties with the property owners. Contractor shall obtain written permission from private property owners to perform work within their property and to schedule an acceptable date and time for the Contractor to perform its work. The Contractor shall submit a copy of a written agreement with the private property owner stating acceptance of the work to be done and the date and times the work will be performed. The written agreement shall be provided to the engineer five (5) working days prior to the start of work in the private property.
- For driveway apron details, see  and 
ABC/A26D ABC/A26D

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	340CD-01-02M	2002	ADD. 8C	43



SIDEWALK REPLACEMENT PLAN-# STA. 68+75 TO # STA. 73+75
Scale: 1"=20'

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



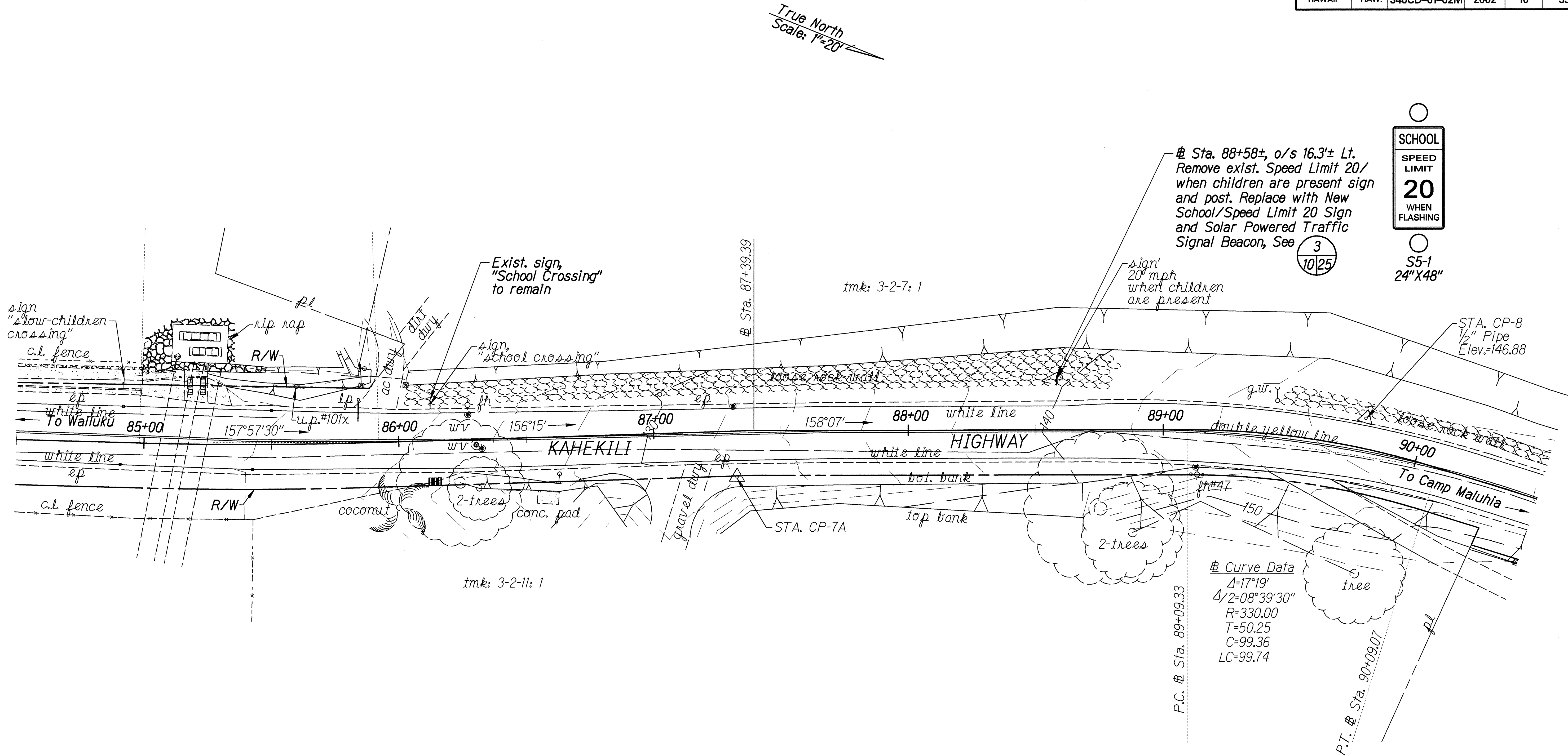
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Scott A. Kunik
SHIMABUKURO, ENDO & YOSHIKAWA, INC.
1126 12th Avenue
Honolulu, Hawaii 96816

6/17/02	New Sheet
Date	Revisions
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION SIDEWALK REPLACEMENT PLAN # STA. 68+75 to # STA. 73+75 Kahekili Hwy. Repairs and Maintenance Waiehu Beach Road to Camp Maluhia Project No. 340CD-01-02M Scale: As Shown Date: June 17, 2002	
SHEET No. 3	OF 5 SHEETS

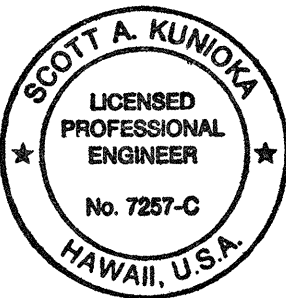
"AS-BUILT"

ADD. 8C

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	340CD-01-02M	2002	10	33



REPLACE SIGN @ STA. 88+58
Scale: 1"=20'



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SHIMABUKURO, ENDO & YOSHIZAKI, INC.
1126 12TH Avenue
Honolulu, Hawaii 96816

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

REPLACE SIGN @ STA. 88+58

Kahekili Hwy.-Repairs and Maintenance
Waiehu Beach Road to Camp Maluhia
Project No. 340CD-01-02M

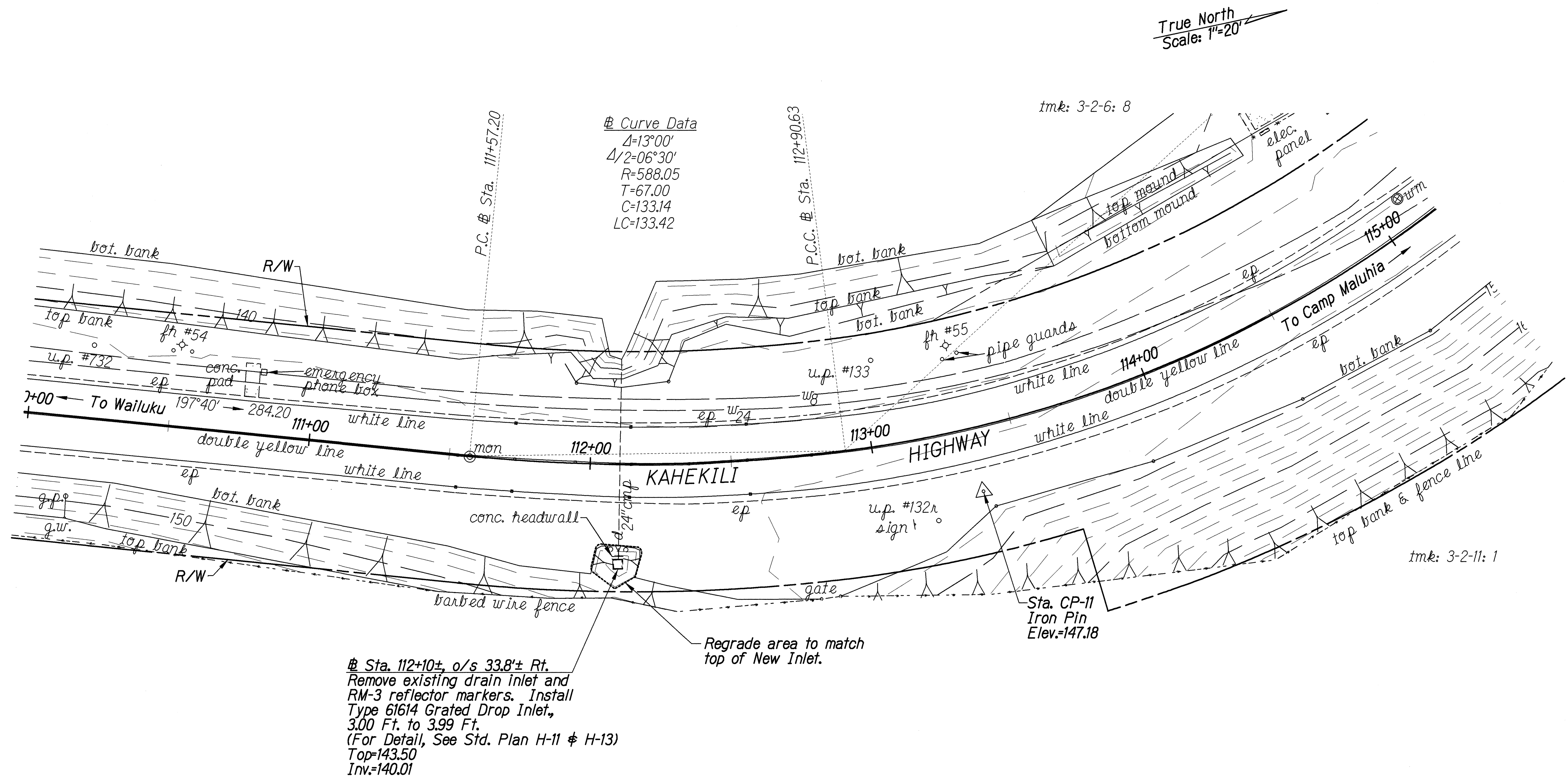
Scale: As Shown Date: March 21, 2002

SHEET No. 1 OF 1 SHEETS

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

sh-102gn

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	340CD-01-02M	2002	11	33

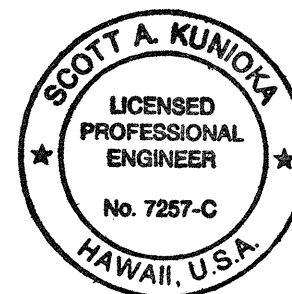


Sta. 112+10±, o/s 33.8± Rt.
Remove existing drain inlet and
RM-3 reflector markers. Install
Type 61614 Grated Drop Inlet,
3.00 Ft. to 3.99 Ft.
(For Detail, See Std. Plan H-11 & H-13)
Top=143.50
Inv.=140.01

REPLACE INLET @ STA. 112+10 Scale: 1"=20'

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

ORIGINAL PLAN	NO.
NOTE BOOK	



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Scott A. Kunicki
SHIMADZUKU, ENDO & YOSHIZAKI, INC.
1126 12TH AVENUE
HONOLULU, HAWAII 96816

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

REPLACE INLET @ STA. 112+10
Kahekili Hwy.-Repairs and Maintenance
Waiehu Beach Road to Camp Maluhia
Project No. 340CD-01-02M
Scale: As Shown Date: March 21, 2002

SHEET No. 1 OF 1 SHEETS

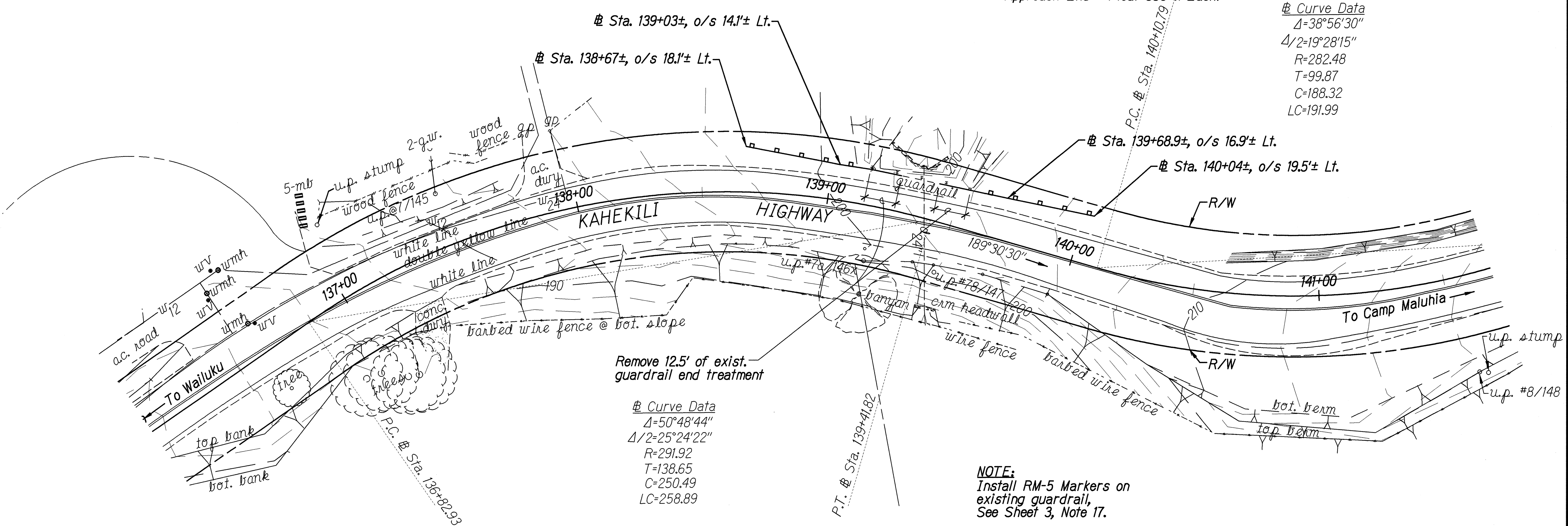
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	340CD-01-02M	2002	13	33

True North
Scale: 1"=20'

Sta. 138+67± Lt. to # Sta. 139+27± Lt.
Install 25 L.F. of Guardrail, W-Beam
with Strong Post.
Trailing End - Fleet 350 (1-Each)

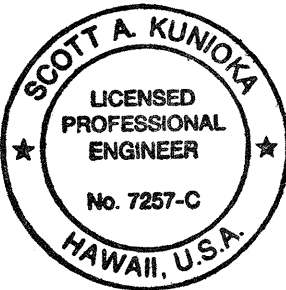
Sta. 139+41± Lt. to # Sta. 140+04± Lt.
Install 25 L.F. of Guardrail, W-Beam
with Strong Post.
Approach End - Fleet 350 (1-Each)

Curve Data
Δ=38°56'30"
Δ/2=19°28'15"
R=282.48
T=99.87
C=188.32
LC=191.99



GUARDRAIL IMPROVEMENTS # STA. 138+67 TO # STA. 140+04
Scale: 1"=20'

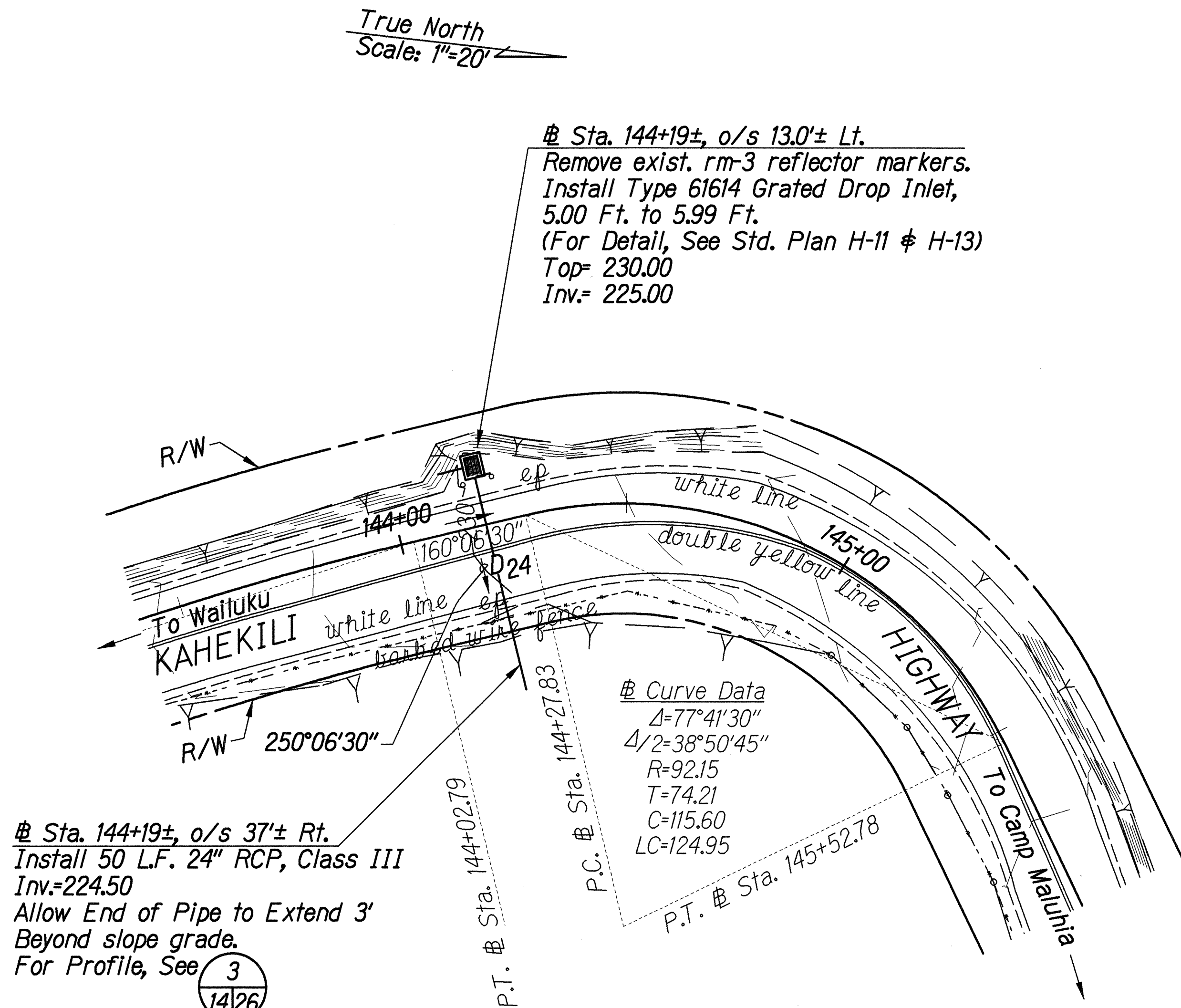
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
DATE	



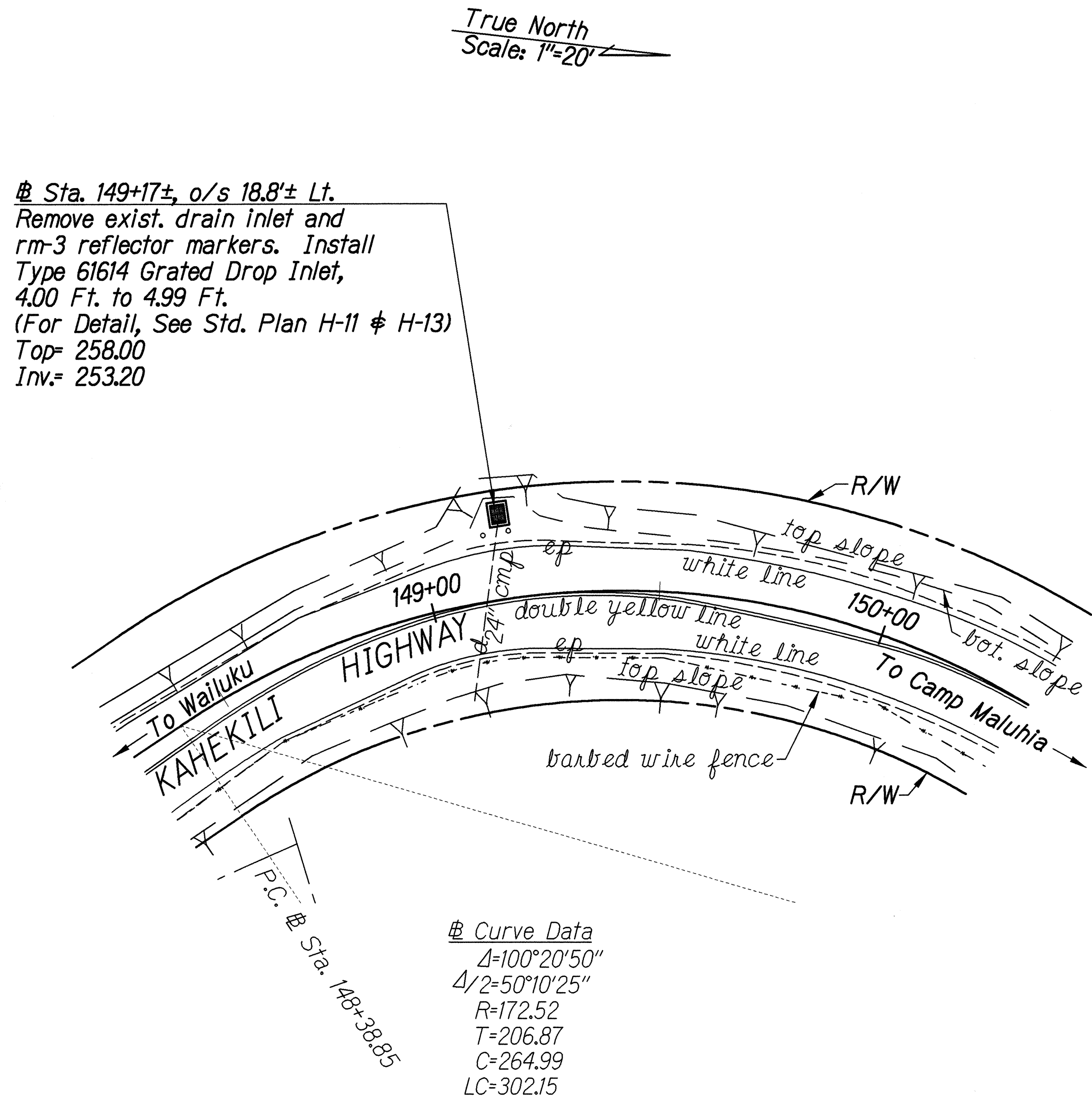
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Scott A. Kuwaka
SHIMABUKURO, ENDO & YOSHIZAKI, INC.
1126 12TH Avenue
Honolulu, Hawaii 96816

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
GUARDRAIL IMPROVEMENTS
STA. 138+67 TO # STA. 140+04
Kahekili Hwy. Repairs and Maintenance
Waiehu Beach Road to Camp Maluhia
Project No. 340CD-01-02M
Scale: 1"=20' Date: March 21, 2002
SHEET No. 1 OF 1 SHEETS

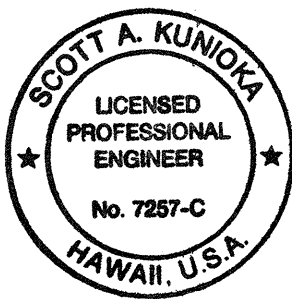
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	340CD-01-02M	2002	14	33



REPLACE INLET # STA. 144+19
Scale: 1"=20'



REPLACE INLET # STA. 149+17
Scale: 1"=20'



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Scott A. Kunio
SHINABUKURO, ENDO & YOSHIZAKI, INC.
1125 12TH AVENUE
HONOLULU, HAWAII 96816

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

REPLACE INLET
STA. 144+19 & # STA. 149+17

Kahekili Hwy. Repairs and Maintenance
Waiehu Beach Road to Camp Maluhia
Project No. 340CD-01-02M

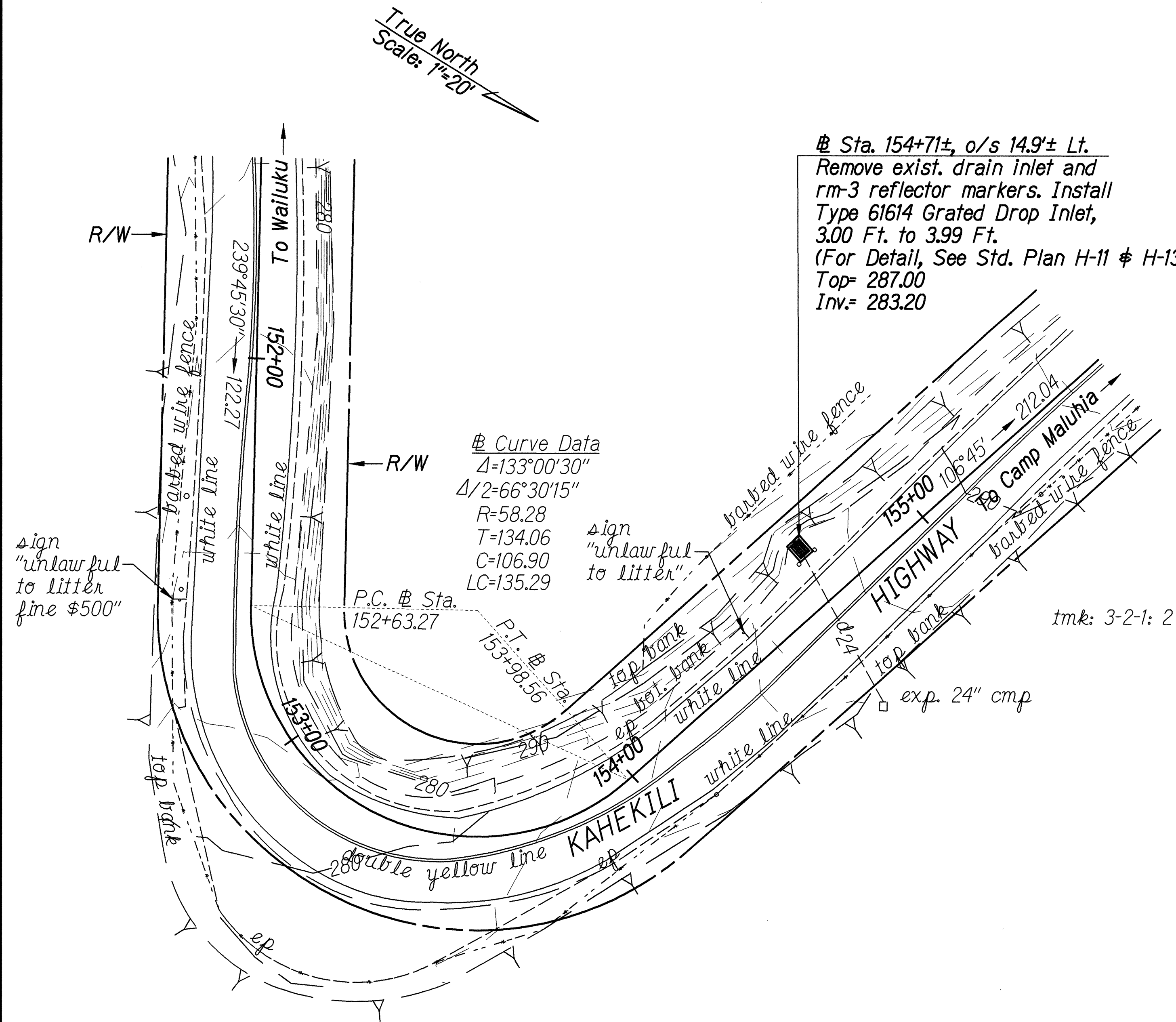
Scale: 1"=20' Date: March 21, 2002

SHEET No. 1 OF 1 SHEETS

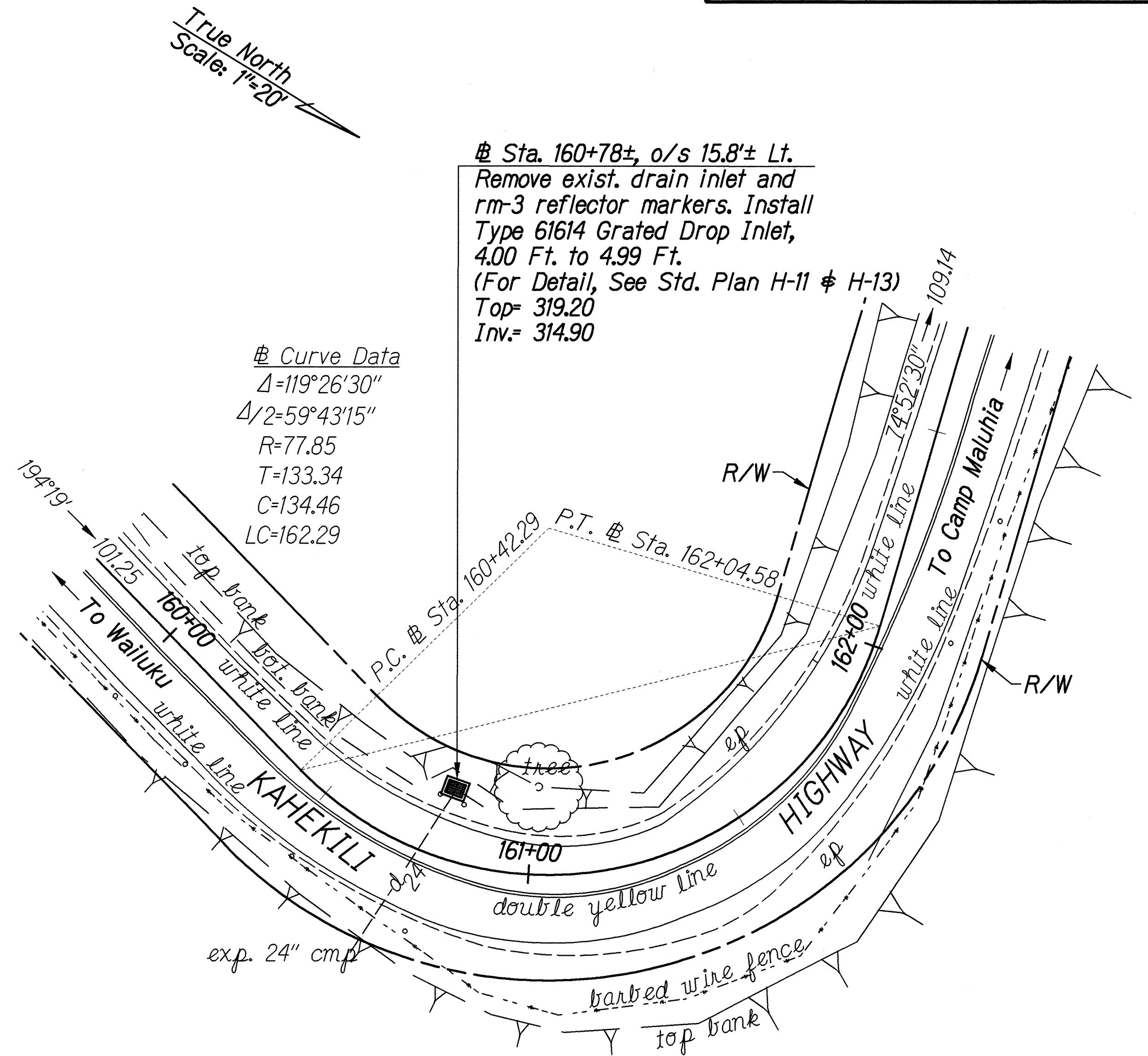
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

shh-14.dgn

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	340CD-01-02M	2002	15	33

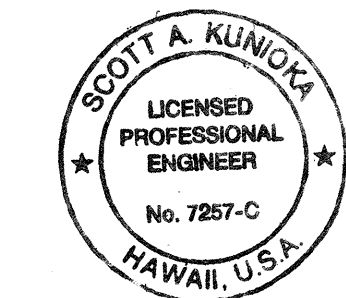


REPLACE INLET @ STA. 154+71
Scale: 1"=20'



REPLACE INLET @ STA. 160+78
Scale: 1"=20'

SURVEY PLANNED BY	DATE
DRAWN BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



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OR UNDER MY SUPERVISION
Scott A. Kunioka
SHIMABUKURO, ENDO & YOSHIZAKI, INC.
1125 12TH AVENUE
HONOLULU, HAWAII 96816

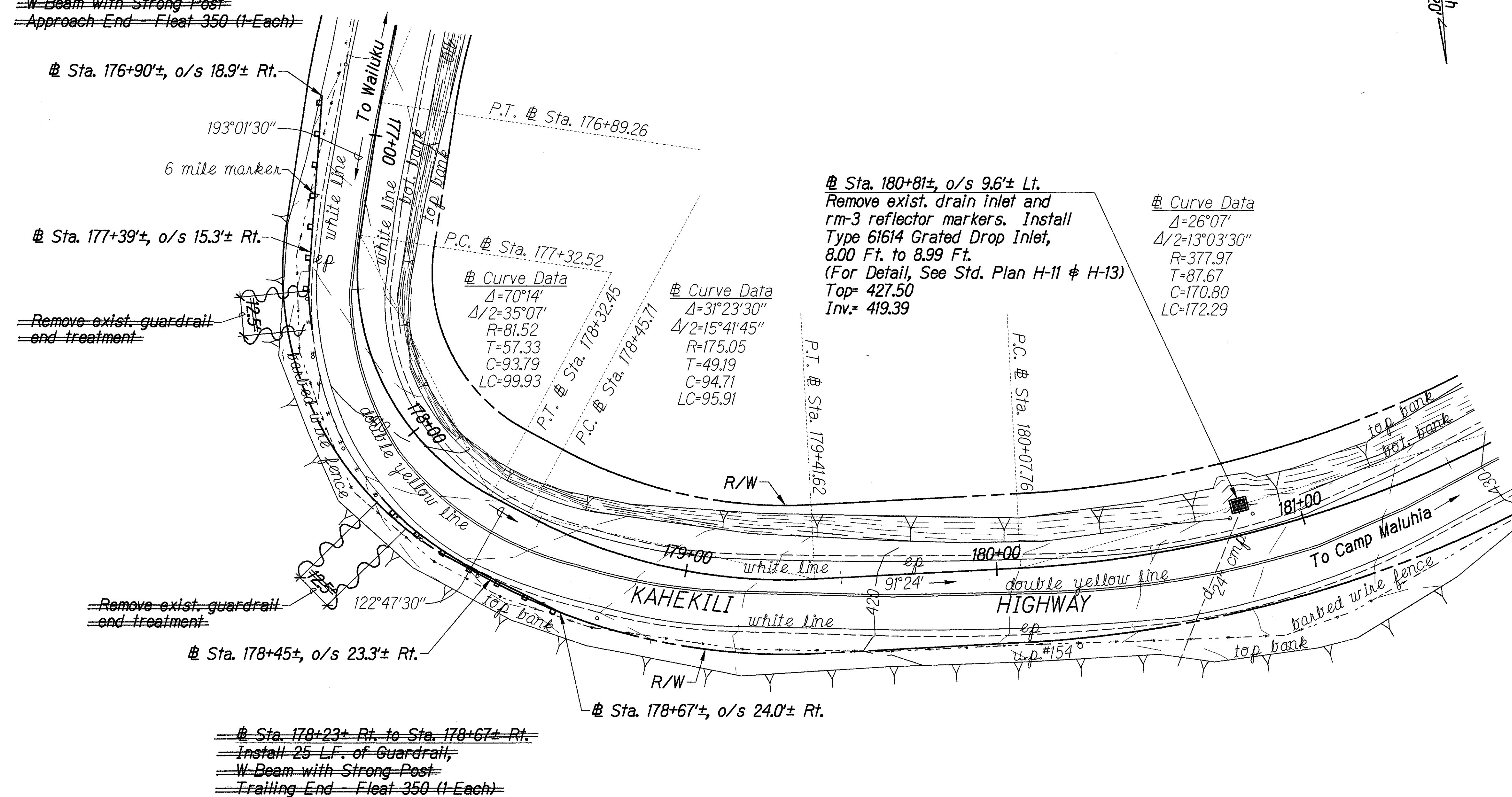
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

REPLACE INLET
@ STA. 154+71 & @ STA. 160+78
Kahekili Hwy. Repairs and Maintenance
Waiehu Beach Road to Camp Maluhia
Project No. 340CD-01-02M
Scale: 1"=20' Date: March 21, 2002

SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	340CD-01-02M	2002	16	33

~~# Sta. 176+90± Rt. to Sta. 177+60± Rt.~~
~~Install 37.5 LF. of Guardrail,~~
~~W-Beam with Strong Post~~
~~Approach End - Fleet 350 (1 Each)~~



True North
Scale: 1"=20'

~~Remove exist. guardrail~~
~~end treatment~~

~~Remove exist. guardrail~~
~~end treatment~~

~~# Sta. 178+23± Rt. to Sta. 178+67± Rt.~~
~~Install 25 LF. of Guardrail,~~
~~W-Beam with Strong Post~~
~~Trailing End - Fleet 350 (1 Each)~~

NOTE:
Install RM-5 Markers on
existing guardrail,
See Sheet 3, Note 17.

GUARDRAIL IMPROVEMENTS AND REPLACE INLET # STA. 176+90 TO # STA. 180+31 Scale: 1"=20'

DATE	_____
DESIGNED BY	_____
DRAWN BY	_____
CHECKED BY	_____
IN CHARGE	_____
NOTE BOOK	_____
QUANTITIES BY	_____
CHECKED BY	_____

SCOTT A. KUNIOKI
LICENSED PROFESSIONAL ENGINEER
No. 7287-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION
Scott A. Kunioki
SHIMADZUKU, ENDO & YOSHIZAKI, INC.
1126 12TH AVENUE
Honolulu, Hawaii 96816

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

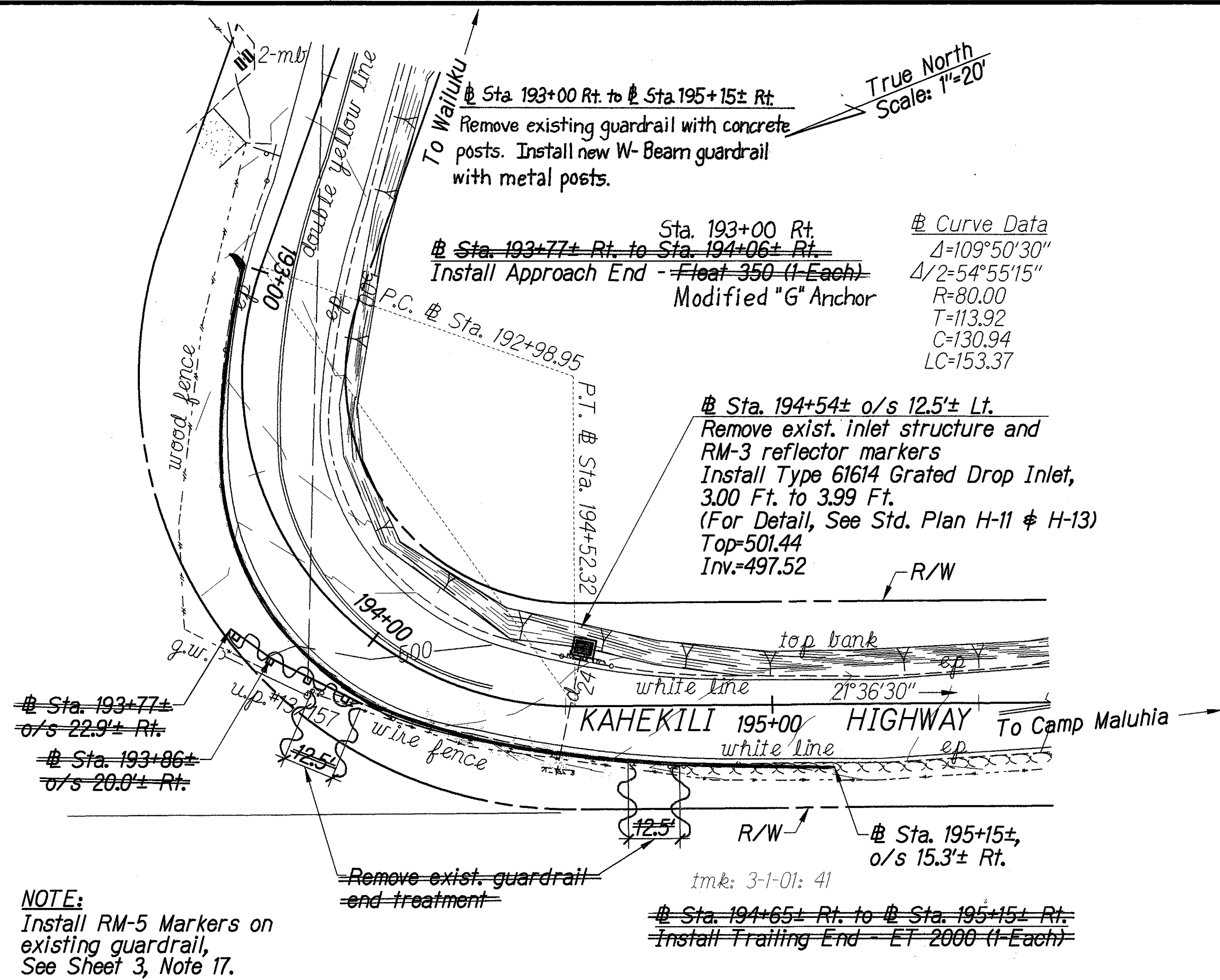
**GUARDRAIL IMPROVEMENTS
AND REPLACE INLET**
STA. 176+90 TO # STA. 180+31
Kahekili Hwy. Repairs and Maintenance
Waiehu Beach Road to Camp Maluhia
Project No. 340CD-01-02M

Scale: As Shown Date: March 21, 2002

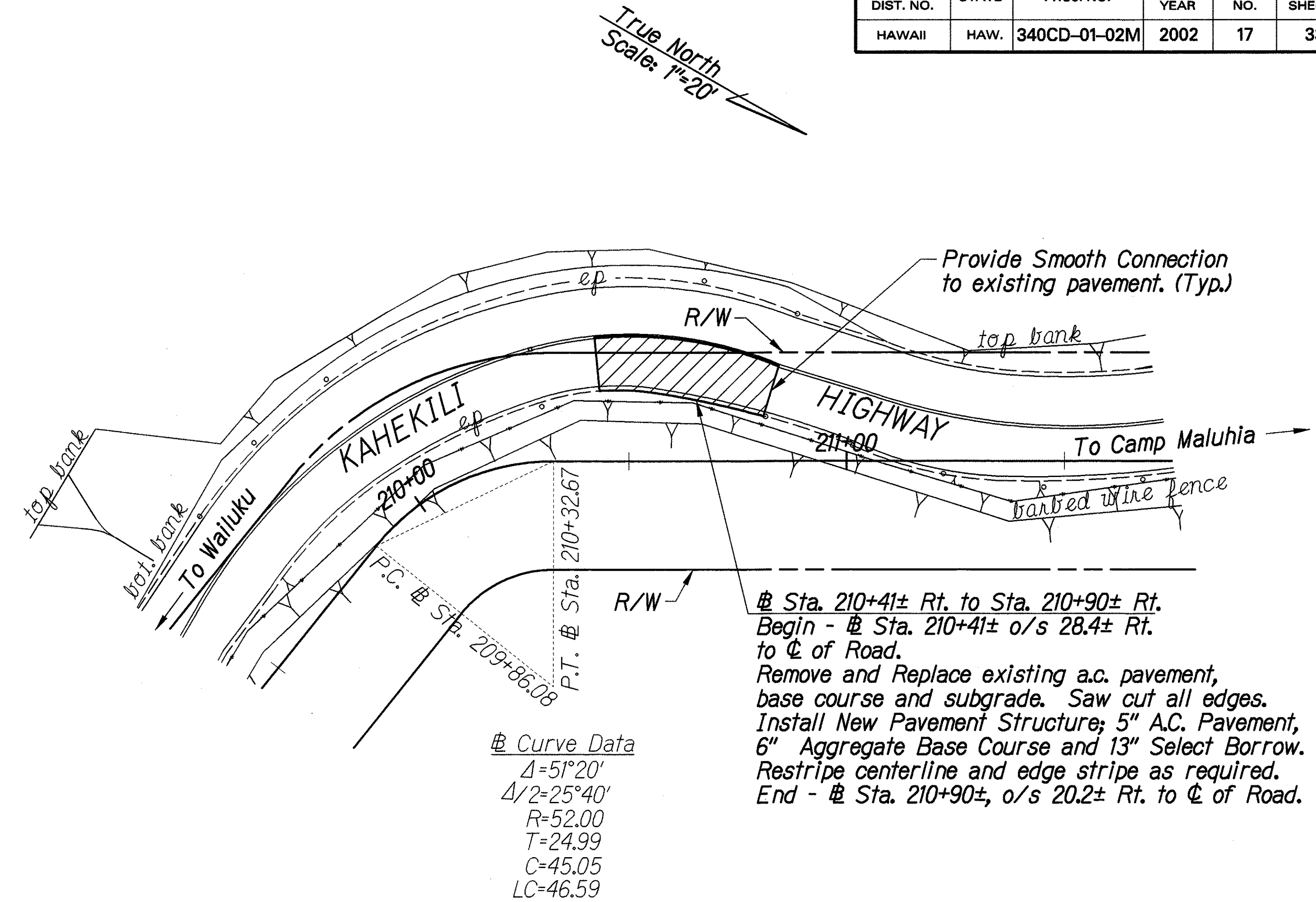
SHEET No. 1 OF 1 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	340CD-01-02M	2002	17	33



GUARDRAIL IMPROVEMENTS AND REPLACE INLET
STA. 193+77 to # STA. 195+15
Scale: 1"=20'



PAVEMENT IMPROVEMENTS # STA. 210+50
Scale: 1"=20'

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

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OR UNDER MY SUPERVISION

Scott A. Kunioke
SHIMIZUKURO, ENDO & YOSHIKAZAKI, INC.
1126 12TH Avenue
Honolulu, Hawaii 96816

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL IMPROV. & REPLACE INLET
STA. 193+77 TO # STA. 195+15
PAVEMENT IMPROV. # STA. 210+50
Kahekili Hwy. Repairs and Maintenance
Waiehu Beach Road to Camp Maluhia
Project No. 340CD-01-02M
Scale: 1"=20' Date: March 21, 2002

SHEET No. 1 OF 1 SHEETS

"AS-BUILT"

