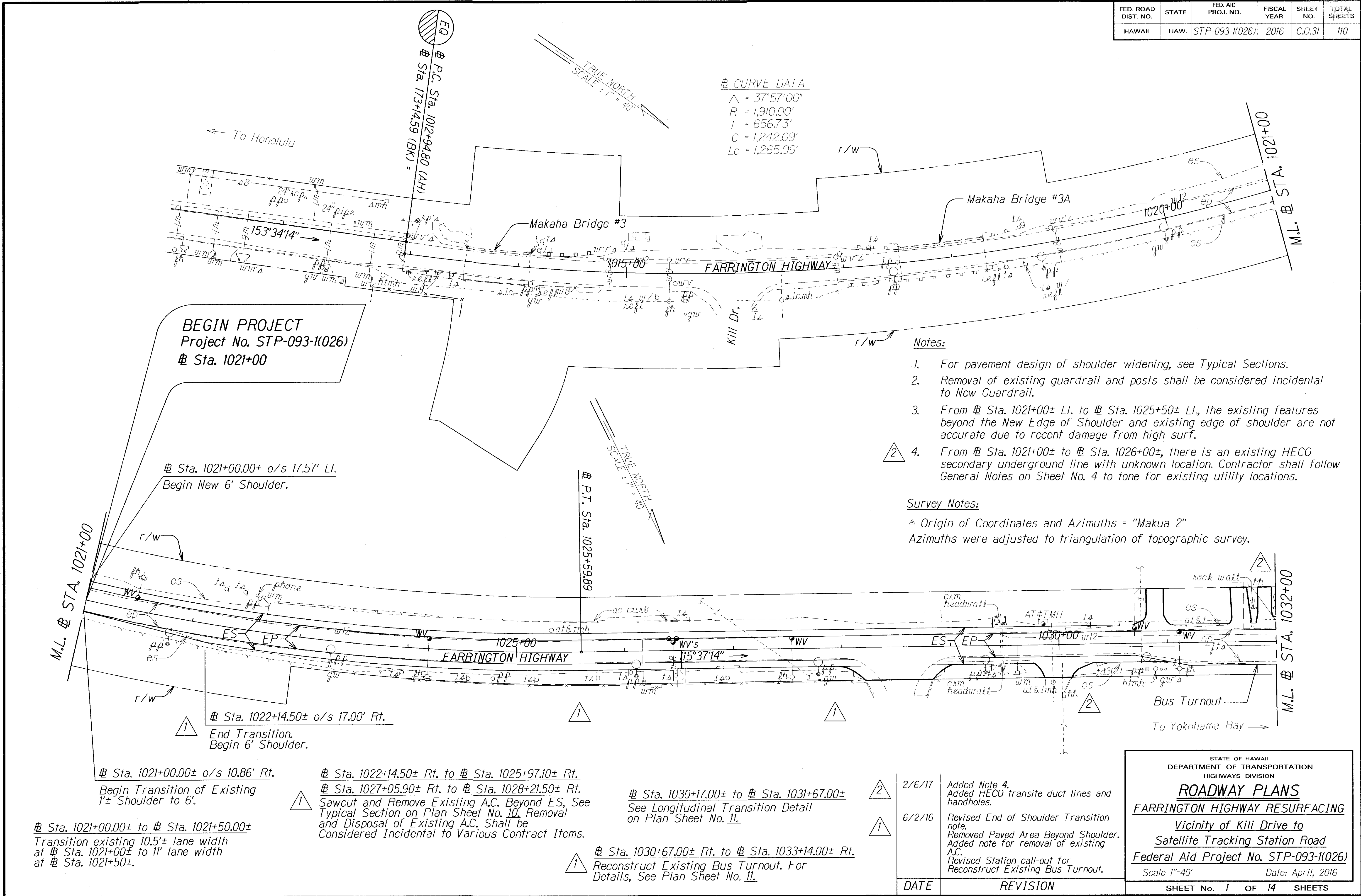


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	C.O.31	110



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

FARRINGTON HIGHWAY RESURFACING

Vicinity of Kili Drive to
Satellite Tracking Station Road

Federal Aid Project No. STP-093-1(026)

Scale 1"=40' Date: April, 2016

DATE

REVISION

2/6/17

Added Note 4.
Added HECO transite duct lines and handholes.

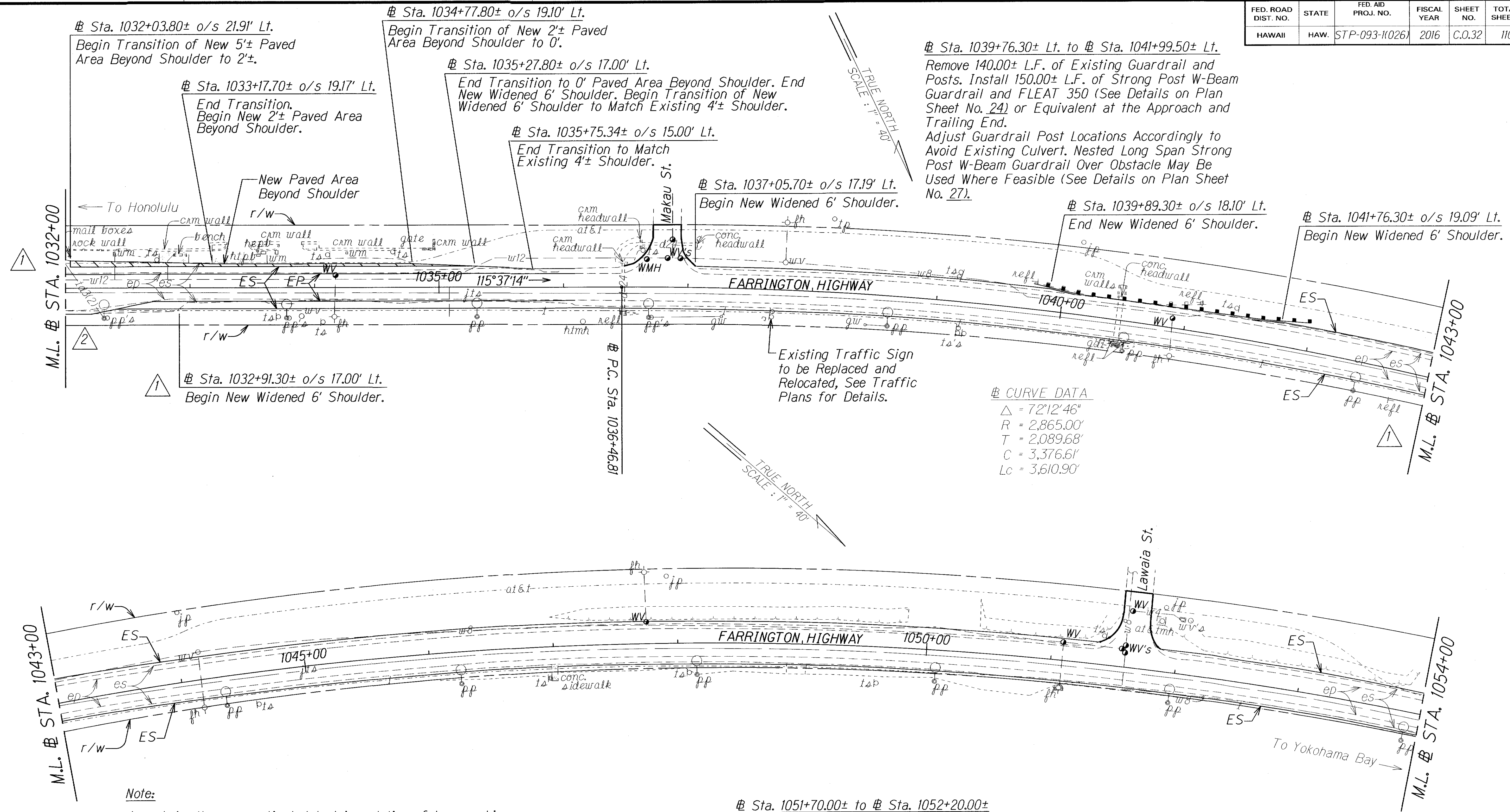
6/2/16

Revised End of Shoulder Transition note.
Removed Paved Area Beyond Shoulder.
Added note for removal of existing A.C.
Revised Station call-out for Reconstruct Existing Bus Turnout.

SHEET No. 1 OF 14 SHEETS

C.O. 31

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	C.O.32	110



Note:

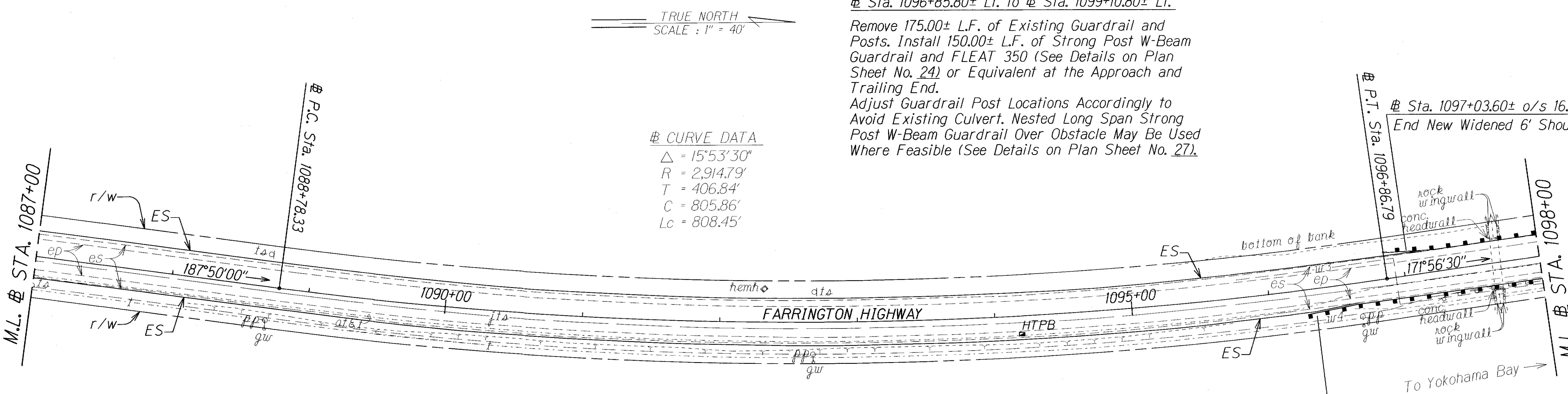
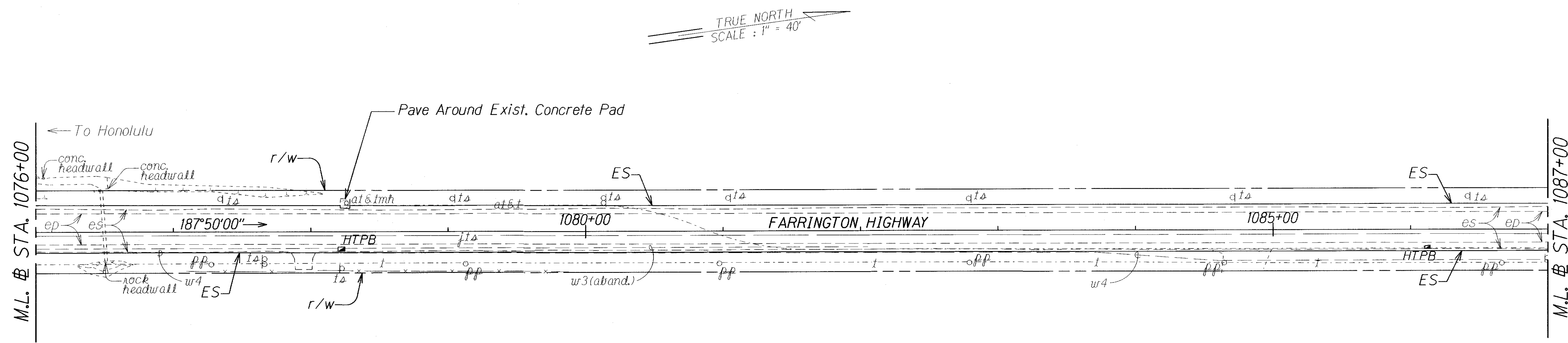
1. Azimuths were adjusted to triangulation of topographic survey.
2. Based on requirements resulting from NHPA Section 106 Consultations, the limits of staging area shall be from Sta. 1043+00 to Sta. 1045+00 and kept within the State Right-of-way. See Roadway Plans, Sheet No. 40 for other staging area location.
3. For pavement design of shoulder widening, see Typical Sections.
4. Removal and disposal of existing guardrail and posts shall be considered incidental to New Guardrail.
5. From Sta. 1033+00± to Sta. 1036+00±, there are existing HECO secondary underground lines with unknown locations. Contractor shall follow General Notes on Sheet No. 4 to tone for existing utility locations.

Sta. 1051+70.00± to Sta. 1052+20.00±
For Longitudinal Transition Detail, See
Plan Sheet No. 12.

DATE	REVISION
2/6/17	Added HECO transite duct line. Added Note 5.
6/2/16	Changed hatch for New Paved Area Beyond Shoulder. Added note to begin widened shoulder. Revised es arrow to point to correct line.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLANS
FARRINGTON HIGHWAY RESURFACING
Vicinity of Kili Drive to
Satellite Tracking Station Road
Federal Aid Project No. STP-093-1(026)
Scale 1"=40' Date: April, 2016
SHEET No. 2 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-11026	2016	C.O.34	110



CURVE DATA
 $\Delta = 15^\circ 53' 30''$
 $R = 2,914.79'$
 $T = 406.84'$
 $C = 805.86'$
 $Lc = 808.45'$

Sta. 1096+85.80± Lt. to # Sta. 1099+10.80± Lt.

Remove 175.00± L.F. of Existing Guardrail and Posts. Install 150.00± L.F. of Strong Post W-Beam Guardrail and FLEAT 350 (See Details on Plan Sheet No. 24) or Equivalent at the Approach and Trailing End.
 Adjust Guardrail Post Locations Accordingly to Avoid Existing Culvert. Nested Long Span Strong Post W-Beam Guardrail Over Obstacle May Be Used Where Feasible (See Details on Plan Sheet No. 27).

Sta. 1097+03.60± o/s 16.75' Lt. End New Widened 6' Shoulder.

Sta. 1096+26.60± Rt. to # Sta. 1098+38.70± Rt.

Remove 112.50± L.F. of Existing Guardrail and Posts. Install 137.50± L.F. of Strong Post W-Beam Guardrail and FLEAT 350 (See Details on Plan Sheet No. 24) or Equivalent at the Approach and Trailing End.
 Adjust Guardrail Post Locations Accordingly to Avoid Existing Culvert. Nested Long Span Strong Post W-Beam Guardrail Over Obstacle May Be Used Where Feasible (See Details on Plan Sheet No. 27).

Sta. 1096+33.00± o/s 16.66' Rt. End New Widened 6' Shoulder.

Notes:

1. Removal and disposal of existing guardrail and posts shall be considered incidental to New Guardrail.
2. From # Sta. 1082+00± to # Sta. 1085+00±, there is an existing HECO secondary underground line with unknown location. Contractor shall follow General Notes on Sheet No. 4 to tone for existing utility locations.



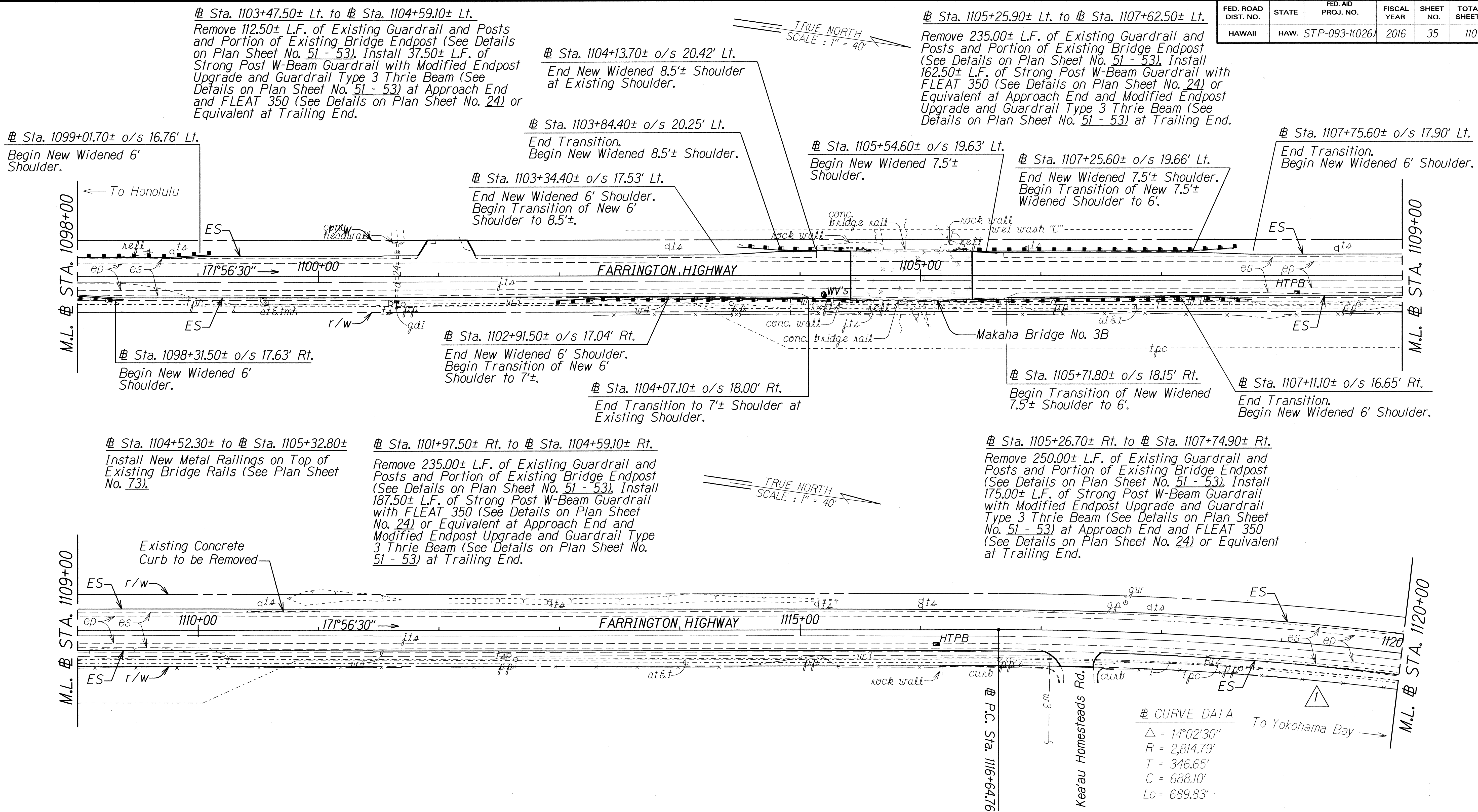
2/6/17 Added Note 2.

DATE REVISION

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
ROADWAY PLANS
FARRINGTON HIGHWAY RESURFACING
 Vicinity of Kili Drive to
 Satellite Tracking Station Road
 Federal Aid Project No. STP-093-11026
 Scale 1"=40' Date: April, 2016
 SHEET No. 4 OF 14 SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	35	110



Notes:

- For pavement design of shoulder widening, see Typical Sections.
- Removal and disposal of existing concrete curb shall be considered incidental to various contract items.
- Removal and disposal of existing guardrail and posts shall be considered incidental to New Guardrail.



6/2/16 Revised es arrow to point to correct line.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

FARRINGTON HIGHWAY RESURFACING

Vicinity of Kili Drive to
Satellite Tracking Station Road

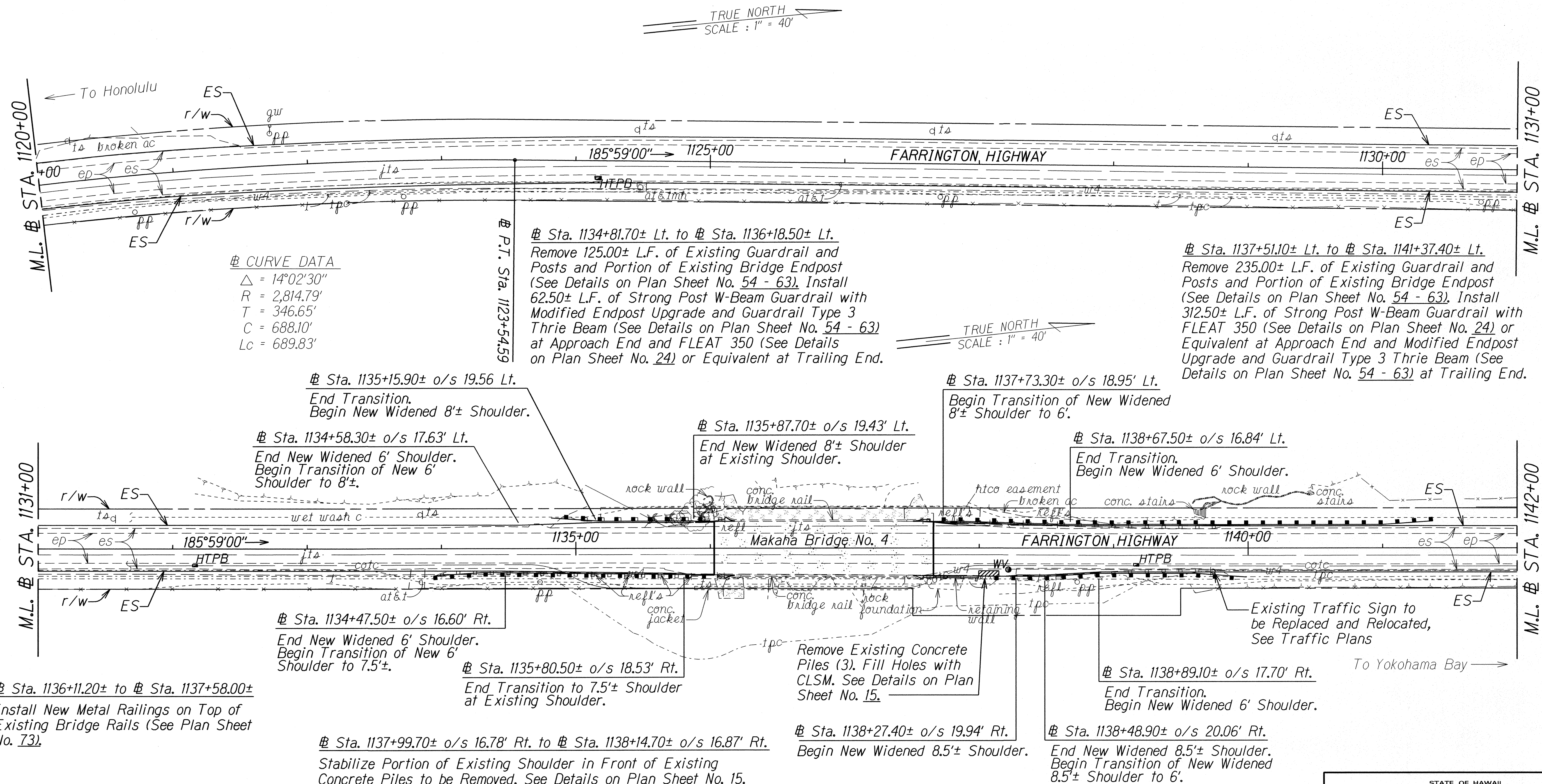
Federal Aid Project No. STP-093-1(026)

Scale 1"=40'

Date: April, 2016

SHEET No. 5 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	36	110



ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
DATE	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

FARRINGTON HIGHWAY RESURFACING

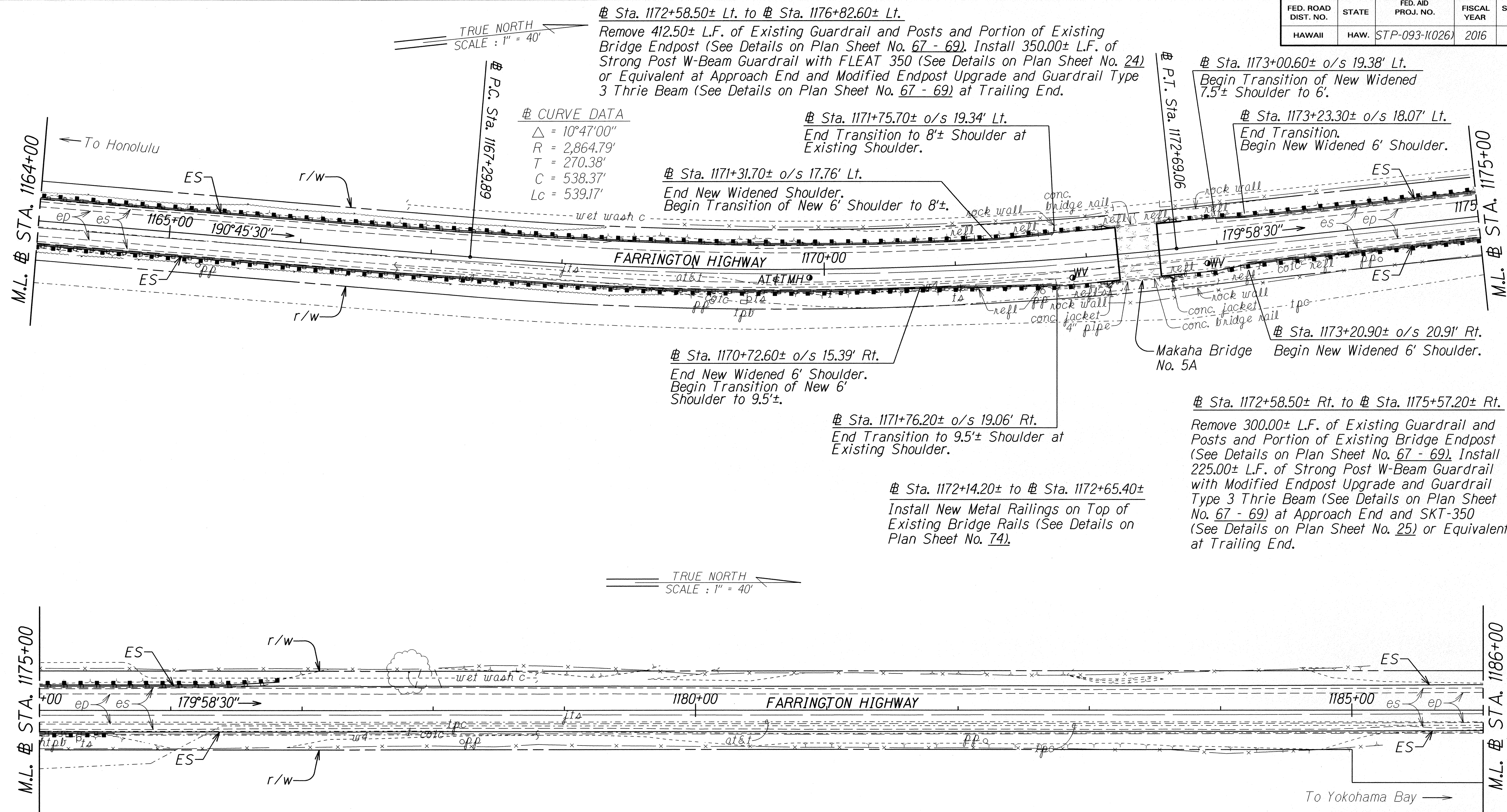
Vicinity of Kili Drive to
Satellite Tracking Station Road

Federal Aid Project No. STP-093-1(026)

Scale 1"=40' Date: April, 2016

SHEET No. 6 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	38	110



Note:

1. Sta. 1180+99.90 (BK) = Sta. 1181+00.90 (AH) [1994, FAP No. STP-093-1(12)] is not reflected in this project. A continuous stationing is used instead for the entire project limits.
2. For pavement design of shoulder widening, see Typical Sections.
3. Removal and disposal of existing guardrail and posts shall be considered incidental to New Guardrail.

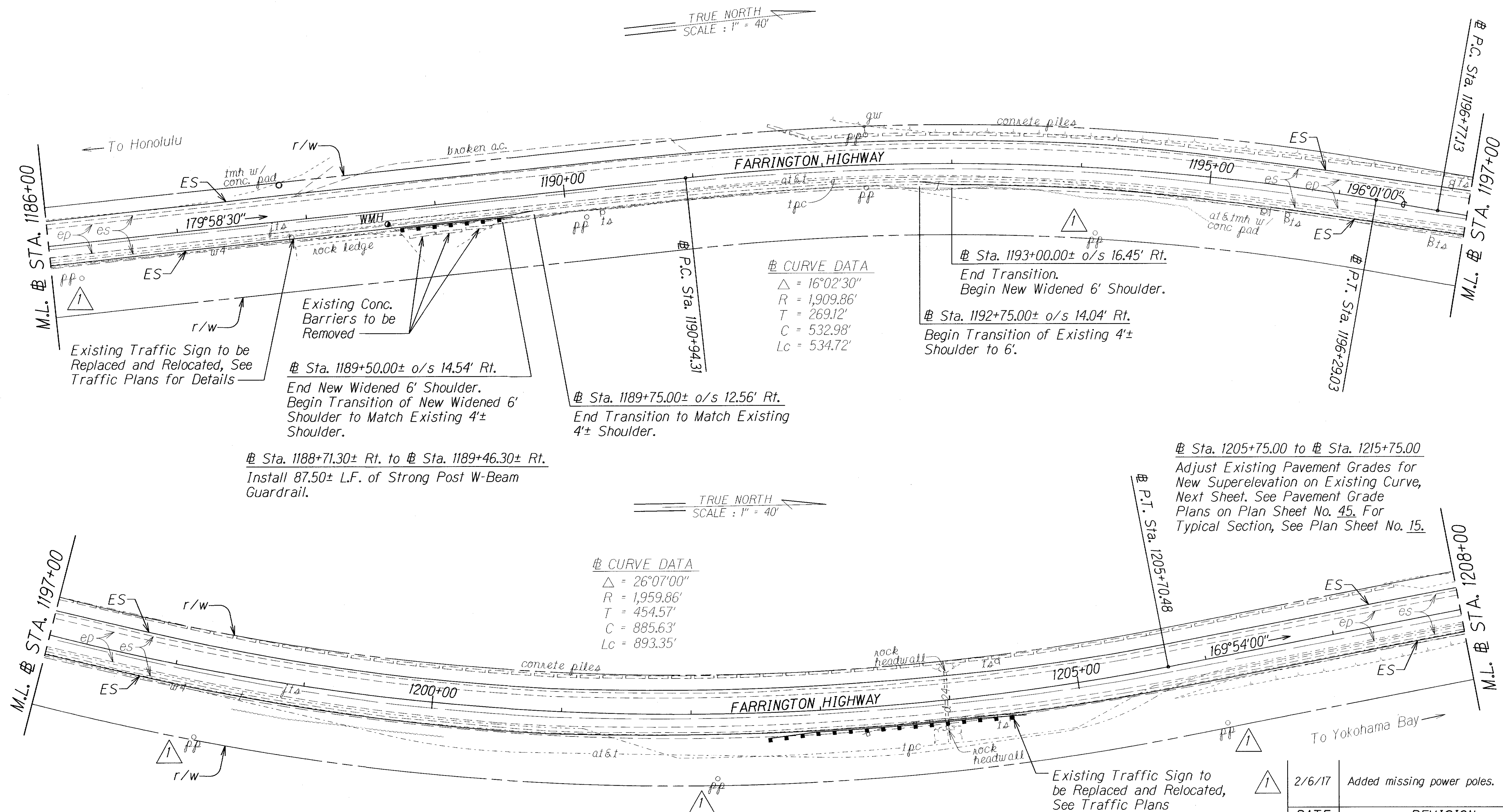
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
ad3/mke	DESIGNED BY	
N. 4/17/2016	CHECKED BY	

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

ROADWAY PLANS
FARRINGTON HIGHWAY RESURFACING
 Vicinity of Kili Drive to
 Satellite Tracking Station Road
 Federal Aid Project No. STP-093-1(026)
 Scale 1"=40' Date: April, 2016

SHEET No. 8 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-K026	2016	C.O.39	110



Notes:

- Existing spiral curves T.S. Sta. 1190+44.00 to S.T. Sta. 1196+54.60 and T.S. Sta. 1196+68.90 to S.T. Sta. 1206+13.30 were revised to simple curve P.C. Sta. 1190+94.31 to P.T. Sta. 1196+29.03 and P.C. Sta. 1196+77.13 to P.T. Sta. 1205+70.48, respectively.
- Sta. 1207+02.38 (BK) = Sta. 288+00 (AH) [1994, FAP No. STP-093-K(12)] is not reflected in this project. A continuous stationing is used instead for the entire project limits.
- For pavement design of shoulder widening, see Typical Sections.
- Removal and disposal of existing concrete barriers shall be considered incidental to various contract items.
- Removal and disposal of existing guardrail and posts shall be considered incidental to New Guardrail.

Sta. 1202+59.00± Rt. to Sta. 1204+57.30± Rt.
Remove 128.00± L.F. of Existing Guardrail and Posts. Install 125.00± L.F. of Strong Post W-Beam Guardrail with FLEAT 350 (See Details on Plan Sheet No. 24) or Equivalent at Approach and Trailing End. Adjust Guardrail Post Locations Accordingly to Avoid Existing Culvert. Nested Long Span Strong Post W-Beam Guardrail Over Obstacle May Be Used Where Feasible (See Details on Plan Sheet No. 27).

DATE	REVISION
2/6/17	Added missing power poles.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

FARRINGTON HIGHWAY RESURFACING

Vicinity of Kili Drive to
Satellite Tracking Station Road

Federal Aid Project No. STP-093-K(026)

Scale 1"=40' Date: April, 2016

SHEET No. 9 OF 14 SHEETS

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	C.O.40	110

⌘ Sta. 1214+83.00± Lt. to ⌘ Sta. 1255+33.30± Lt.

Remove 3,935.00± L.F. of Existing Guardrail and Posts.
Install 3,800.00± L.F. of Strong Post W-Beam Guardrail, and
37.50± L.F. of Guardrail Type 3 Thrie Beam with Transitions
(See Details on Plan Sheet No. 79) Over Existing Twin Cell
Culverts at # Sta. 1216+00 and # Sta. 1243+00. At Existing
Triple Cell Culvert, Connect New Guardrail to Existing
Guardrail(See Details on Plan Sheet No. 78). Install FLEAT
350 (See Details on Plan Sheet No. 24) or Equivalent at
Approach and Trailing End.

TRUE NORTH
SCALE : 1" = 40'

Sta. 1217+75.00± o/s 16.64' Lt.

End Transition. Begin New
Widened 6' Shoulder.

Sta. 1217+50.00± o/s 14.48' Lt.
Begin Transition of Existing 4'±
Shoulder to 6'.

Sta. 1213+89.10± o/s 16.95' L1
End New Widened 6' Shoulder.



Sta. 1213+25.00± o/s 15.60' Rt.
End Transition to Match Existing
4± Shoulder.

Sta. 1213+00.00± o/s 17.48' R/L
End New Widened 6' Shoulder.
Begin Transition of New
Widened 6' Shoulder to Match
Existing 4± Shoulder.

Remove 227.00± L.F. of Existing Guardrail, Posts, and Anchor Block. Install 150.00± L.F. of Strong Post W-Beam Guardrail and 37.50± L.F. of Guardrail Type 3 Thrie Beam with Transitions (See Details on Plan Sheet No. 79) Over Existing Culvert. Install SKT-350 at Approach End (See Details on Plan Sheet No. 25) and FLEAT 350 (See Details on Plan Sheet No. 24) or Equivalent at Trailing End.

4 CURVE DATA

$$\begin{aligned}\Delta &= 11^{\circ}30'10'' \\ R &= 2,000.0' \\ T &= 201.44' \\ C &= 400.85' \\ LC &= 401.52'\end{aligned}$$

TRUE NORTH
SCALE : 1" = 40'

Sta. 1226+00.00± o/s 15.98' Lt.
End Transition to Match Existing
4± Shoulder.

Sta. 1225+75.00± o/s 18.02' Lt
End New Widened 6' Shoulder.
Begin Transition of New
Widened 6' Shoulder to Match
Existing 4± Shoulder.

Sta. 1228+75.00± o/s 15.26' Lt.
Begin Transition of Existing 4'±
Shoulder to 6'.

Sta. 1229+00.00± o/s 18.12' Lt.

End Transition.
Begin New Widened 6' Shoulder.

4. CURVE DATA

$$\begin{aligned}\Delta &= 11^{\circ}08'00'' \\ R &= 2,000.0' \\ T &= 194.93' \\ C &= 388.02' \\ Lc &= 388.63'\end{aligned}$$

Sta. 1228+75.00± o/s 14.63' Rt.
Begin Transition of Existing 4'±
Shoulder to 6'.

Sta. 1229+00.00± o/s 16.24' Rt.

End Transition.
Begin New Widened 6' Shoulder.

⌘ Sta. 1223+27.80± Rt. to ⌘ Sta. 1228+75.10± Rt.

1 Remove 278.00± L.F. of Existing Guardrail and Posts. Install 387.50± L.F. of Strong Post W-Beam Guardrail. At Existing Triple Cell Culvert, Connect New Guardrail to Existing Guardrail (See Details on Plan Sheet No. 78). Install FLEAT 350 (See Details on Plan Sheet No. 24) or Equivalent at Approach and Trailing End.

Note

1. Based on requirements resulting from NHPA Section 106 Consultations, the limits of staging area shall be from ~~to~~ Sta. 1211+00 to Sta. 1215+00 and kept within the State Right-of-way. Driveway/side road access shall not be blocked. See Plan Sheet No. 32 for other staging area location.
2. For pavement design of shoulder widening, see Typical Sections.
3. Removal and disposal of existing guardrail, posts, and anchor block shall be considered incidental to New Guardrail.

2	2/6/17	Added missing power pole.
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1 6/16/16 Revised per Addendum #4

DATE	REVISION
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

FARRINGTON HIGHWAY RESURFACING

Vicinity of Kili Drive to
Satellite Tracking Station Road

Federal Aid Project No. STP-093-1(026)

Scale: 1"=40' Date: April, 2016

SHEET No. 10 OF 14 SHEETS

Note:

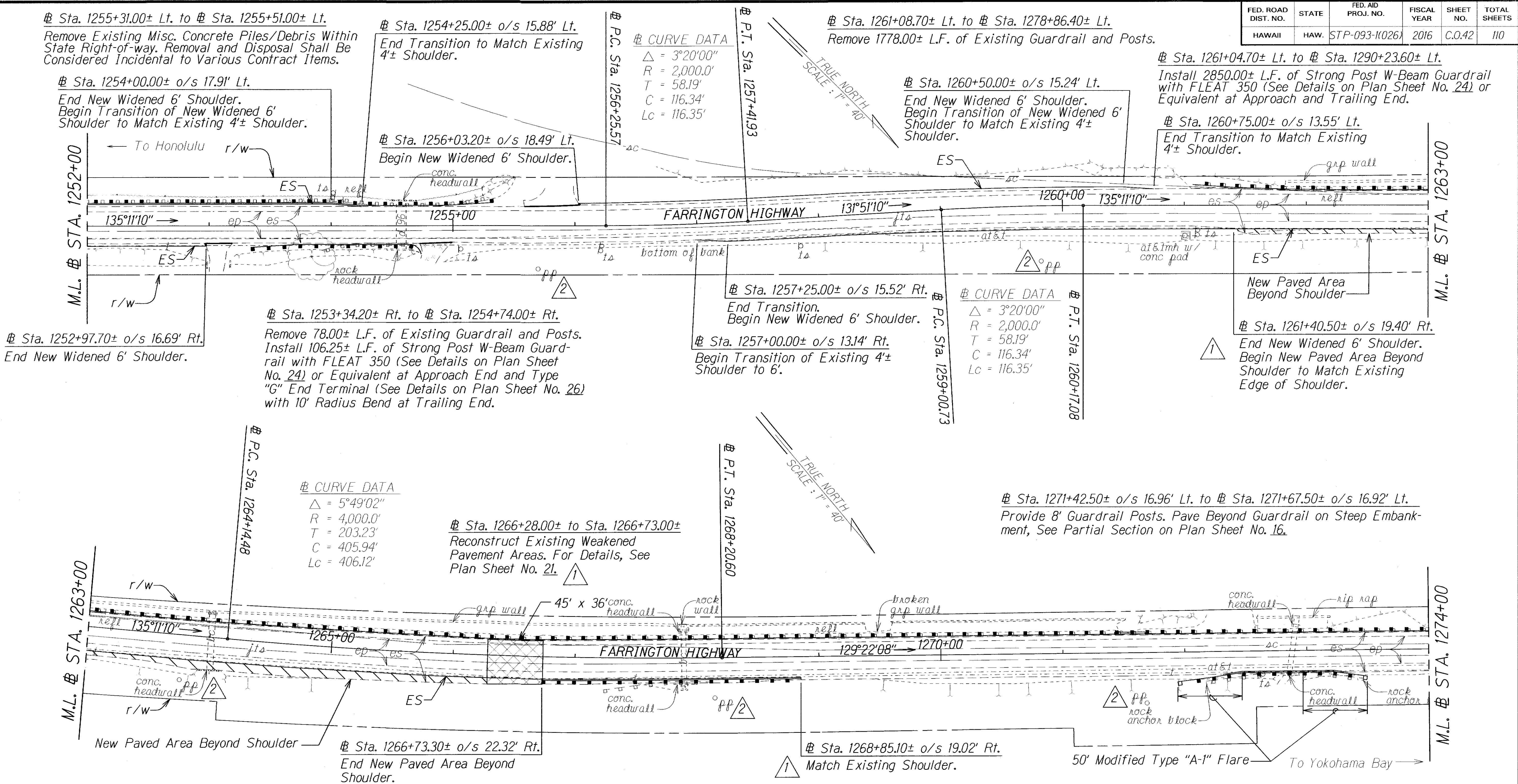
- For pavement design of shoulder widening, see Typical Sections.
- Removal and disposal of existing guardrail and posts shall be considered incidental to New Guardrail.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS
FARRINGTON HIGHWAY RESURFACING
Vicinity of Kili Drive to
Satellite Tracking Station Road
Federal Aid Project No. STP-093-I(026)
Scale 1"=40' Date: April, 2016

SHEET No. 11 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	C.O.42	110



Note:

1. Sta. 234+91.67 (BK) = Sta. 234+92.10 (AH) [1994, FAP No. STP-093-1(12)] is not reflected in this project. A continuous stationing is used instead for the entire project limits.
2. For pavement design of shoulder widening, see Typical Sections.
3. Removal and disposal of existing guardrail, posts, anchor blocks shall be considered incidental to New Guardrail.

Remove 88.00± L.F. of Existing Guardrail, Posts, and Anchor Block. Install 112.50± L.F. of Strong Post W-Beam Guardrail with SKT-350 (See Details on Plan Sheet No. 25) at Approach and Trailing End. Adjust Guardrail Post Locations Accordingly to Avoid Existing Culvert. Nested Long Span Strong Post W-Beam Guardrail Over Obstacle May Be Used Where Feasible (See Details on Plan Sheet No. 27). Sawcut and Remove Existing A.C. Beyond ES, See Detail on Plan Sheet No. 15. Removal and Disposal of Existing A.C. Shall be Considered Incidental to Various Contract Items.

Remove 130.00± L.F. of Existing Guardrail, Posts, and Anchor Block. Install 50.00± L.F. of Strong Post W-Beam Guardrail with Modified Type "A-1" Flare (See Details on Plan Sheet No. 28 - 30) at Approach and Trailing End. Adjust Guardrail Post Locations Accordingly to Avoid Existing Culvert. Nested Long Span Strong Post W-Beam Guardrail Over Obstacle May Be Used Where Feasible (See Details on Plan Sheet No. 27).

DATE	REVISION
2/6/17	Added missing power poles.
6/2/16	Revised location for end of new widened 6' shoulder. Revised reference sheet no. for reconstruct existing weakened pavement details.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLANS
FARRINGTON HIGHWAY RESURFACING
Vicinity of Kili Drive to
Satellite Tracking Station Road
Federal Aid Project No. STP-093-1(026)
Scale 1"=40' Date: April, 2016
SHEET No. 12 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-K026	2016	ADD.43	110

Sta. 1276+92.50± Lt. to # Sta. 1277+55.00± Lt.
Provide 8' Guardrail Posts.

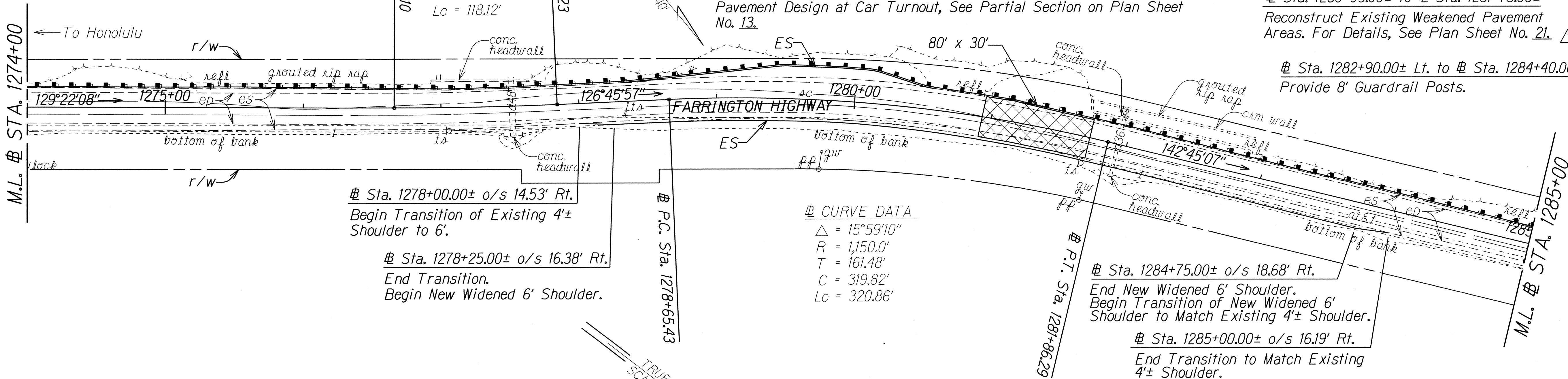
CURVE DATA
Δ = 2°36'11"
R = 2,600.0'
T = 59.07'
C = 118.11'
Lc = 118.12'

Sta. 1280+50.00± Lt. to # Sta. 1281+00.00± Lt.
Remove Portion of Existing Embankment, See
Partial Typical Section on Plan Sheet No. 16.

Sta. 1280+88.00± Lt. to # Sta. 1287+01.60± Lt.
Remove 616.00± L.F. of Existing Guardrail and Posts.

Sta. 1280+93.00± to # Sta. 1281+73.00±
Reconstruct Existing Weakened Pavement
Areas. For Details, See Plan Sheet No. 21. 

Sta. 1282+90.00± Lt. to # Sta. 1284+40.00± Lt.
Provide 8' Guardrail Posts.



Sta. 1285+33.00± o/s 13.89' Lt. to # Sta. 1285+58.00± o/s 13.75' Lt.
Provide 8' Guardrail Posts. Pave Beyond Guardrail on Steep Embankment, See Partial Section on Plan Sheet No. 16.

Sta. 1287+37.90± o/s 13.15' Lt. to # Sta. 1289+33.20± o/s 14.86' Lt.
Construct Paved Car Turnout (See Details on Plan Sheet No. 48). For
Pavement Design at Car Turnout, See Partial Section on Plan Sheet
No. 14.

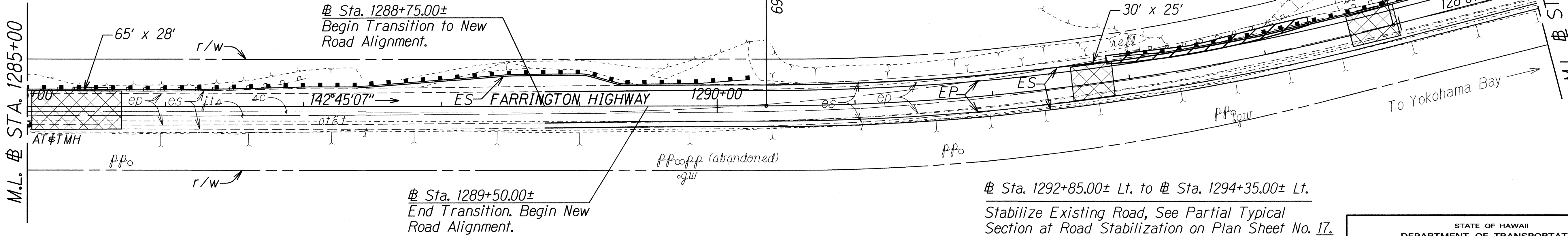
Sta. 1288+75.00± to # Sta. 1304+70.14±
Realign Existing Road, See Pavement
Grade Plan and Profile on Plan Sheet
No. 46 - 47. Demolish, Remove, and
Dispose of Existing Pavement Beyond
New Edge of Shoulder. Demolition,
Removal, and Disposal Shall be
Considered Incidental to New Pavement.

Sta. 1292+88.70± Lt. to # Sta. 1303+71.90± Lt.
Remove 846.00± L.F. of Existing Guardrail, Posts, and
Anchor Block. Install 993.75± L.F. of Strong Post
W-beam Guardrail and 31.25± L.F. of Guardrail Type 3
Thrie Beam with Transitions (See Plan Sheet No. 77)
Over Existing Twin Cell Culvert on Next Sheet. Install
FLEAT 350 (See Plan Sheet No. 24) or Equivalent at
Approach and Trailing End.

NEW # CURVE DATA
Δ = 14°37'47"
R = 1,800.0'
T = 231.06'
C = 458.36'
Lc = 459.61'
S.E. = 0.00 ft/ft

Sta. 1292+50.00± Lt. to # Sta. 1293+00.00± Lt.
Transition 4' Shoulder to 3' Shoulder.

Sta. 1294+00.00± Lt. to
Sta. 1294+50.00± Lt.
Transition 3' Shoulder
to 4' Shoulder.



Note:

Removal and disposal of existing guardrail and posts
shall be considered incidental to New Guardrail.

Sta. 1285+03.00± to Sta. 1285+68.00±
Sta. 1292+58.00± to Sta. 1292+88.00±
Sta. 1294+63.00± to Sta. 1294+98.00±
Reconstruct Existing Weakened
Pavement Areas. For Details, See Plan
Sheet No. 21. 

Sta. 1292+85.00± Lt. to # Sta. 1294+35.00± Lt.

Stabilize Existing Road, See Partial Typical
Section at Road Stabilization on Plan Sheet No. 17.
Contractor Shall Verify Location of Existing
Utilities Prior to Excavation, See General Notes. If
Required, Probing of Underground Utilities will be
Paid under Pay Item No. 203.0300.

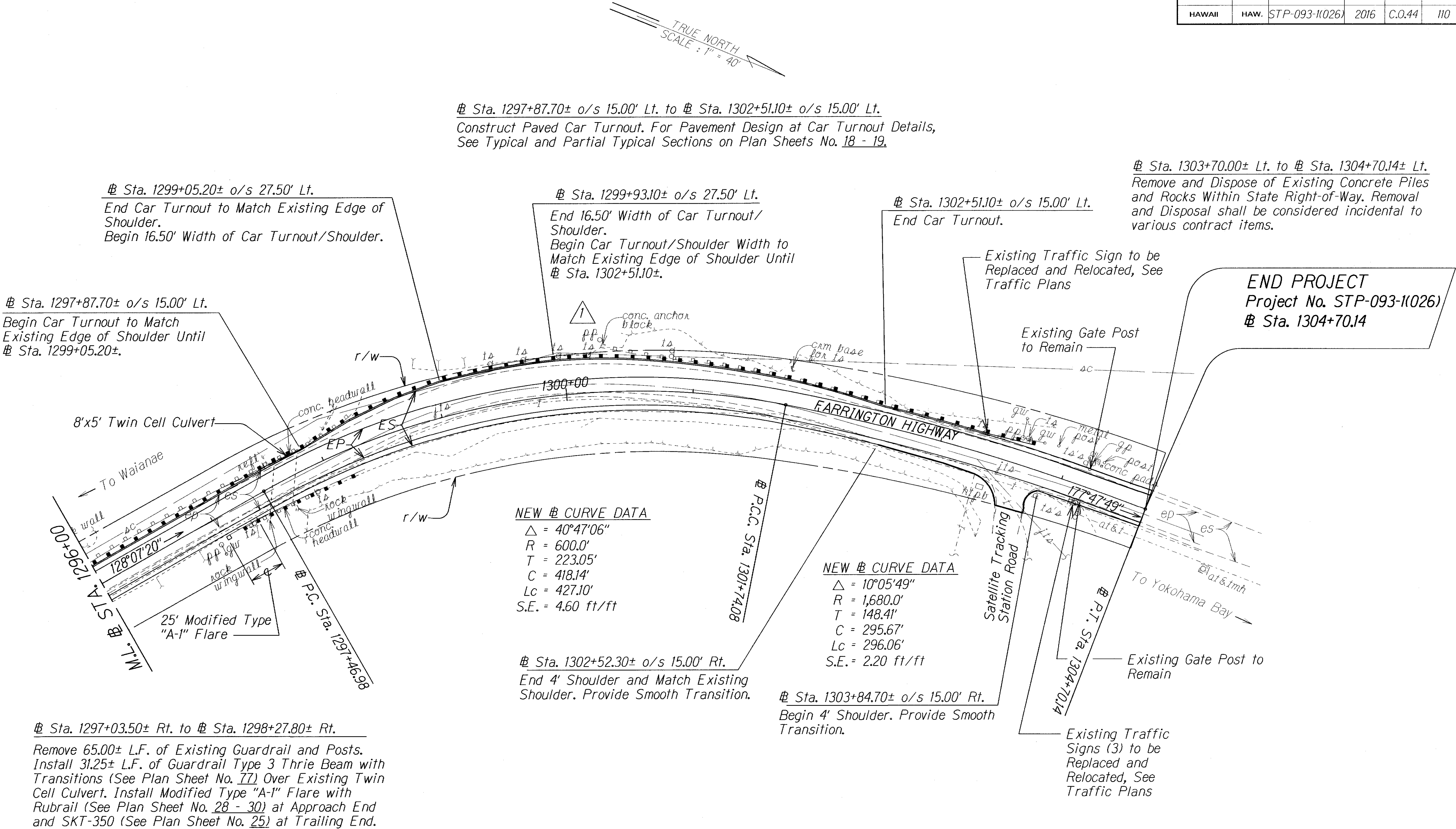
6/2/16 Revised reference sheet no. for
reconstruct existing weekend pavement
details.
Added more information to stabilize
existing road note.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLANS
FARRINGTON HIGHWAY RESURFACING
Vicinity of Kili Drive to
Satellite Tracking Station Road
Federal Aid Project No. STP-093-K026
Scale 1"=40' Date: April, 2016
SHEET NO. 13 OF 14 SHEETS

ADD. 43

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	C.O.44	110



Note:

Removal of existing guardrail, posts, and anchor blocks shall be considered incidental to New Guardrail.

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NOTED BY	
DATE	

1	2/6/17	Added missing power pole.
DATE	REVISION	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLANS

FARRINGTON HIGHWAY RESURFACING

*Vicinity of Kili Drive to
Satellite Tracking Station Road*

Federal Aid Project No. STP-093-1(026)

Scale 1"=40'

Date: April, 2016

SHEET No. **14** OF **14** SHEETS