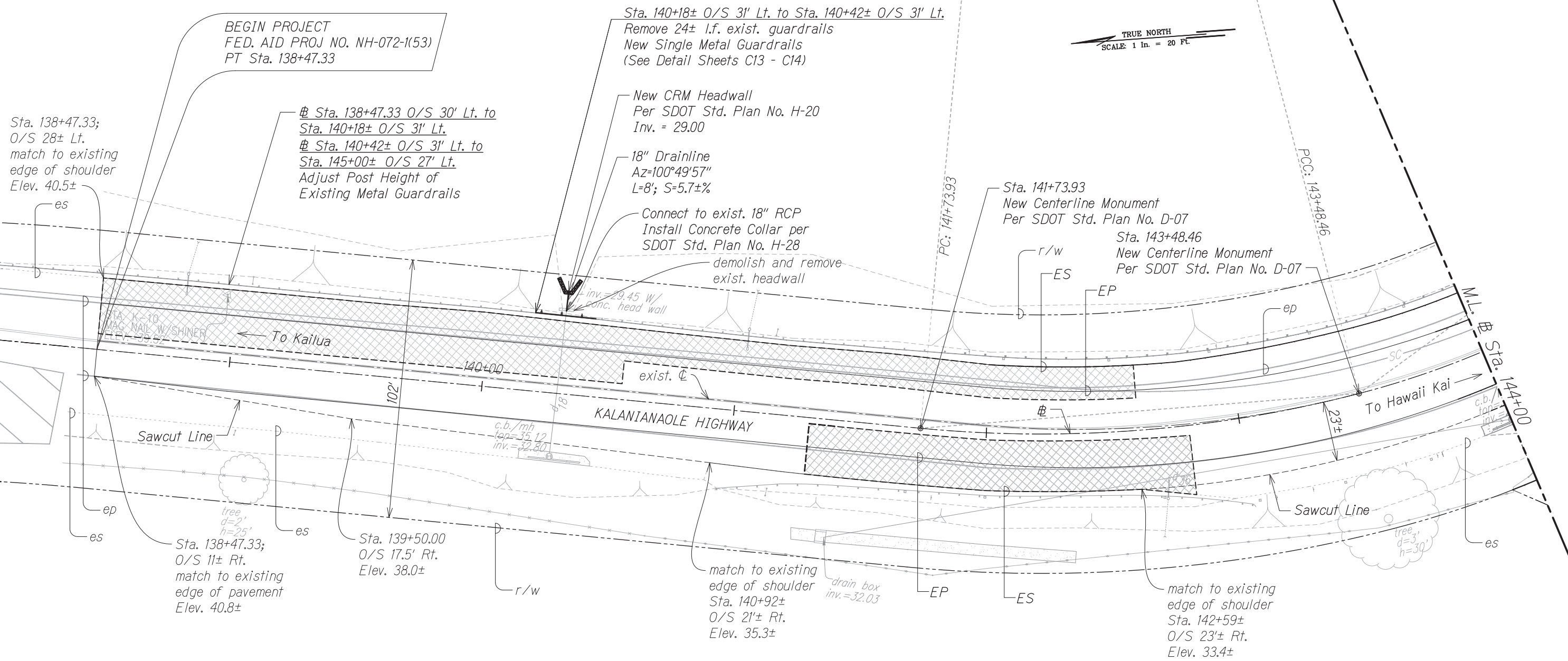


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-072-1(53)	2014	20	103



PLAN
SCALE: 1" = 20'

BENCHMARK

Y-11 Brass Disk; Elevation=30.25
referred to The National Geodetic Survey Data Sheet

Azimuth and Coordinates referred to "Waimanalo Ridge"
Triangulation Station

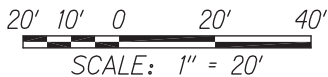
LEGEND:

Limits Pavement Reconstruction

NOTE:

For Pavement Safety Edge Detail, see Sheet C29.

GRAPHICAL SCALE:



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UNDER MY SUPERVISION

SIGNATURE

EXPIRATION DATE
OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

KALANIANA'OLE HIGHWAY IMPROVEMENTS, PHASE 1
Olomana Golf Course To Poalima Street
Federal Aid Project No. NH-072-1(53)

Scale: AS NOTED Date: JULY, 2013

SHEET No. C20 OF 69 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-072-1(53)	2014	21	103

Sta. 144+47± O/S 27' Lt. to Sta. 146+43± O/S 33' Lt.
Sta. 146+61± O/S 31' Lt. to Sta. 147+09± O/S 27' Lt.
Sta. 147+25± O/S 25' Lt. to Sta. 149+18± O/S 19' Lt.
New Single Metal Guardrails, See Detail Sheet C13 - C14

Sta. 146+43± O/S 33' Lt.
Sta. 146+61± O/S 31' Lt.
Sta. 147+09± O/S 27' Lt.
Sta. 147+25± O/S 25' Lt.
Modified Type "G" End Terminal
See Det. Sht. C16

Sta. 147+32± O/S 23' Lt. to Sta. 148+22± O/S 17' Lt.
Remove 90± l.f. exist. guardrail.

Sta. 140+42± O/S 31' Lt. to Sta. 144+46± O/S 27' Lt.
Adjust Post Height of Existing Metal Guardrails 1'-9" to Center of W-Beam (2"± Tolerance)

Sta. 146+37.82
O/S 22.5' Lt.
Elev. 29.25

Sta. 146+98.83
O/S 20.0' Lt.
Elev. 29.12

Sta. 147+35.00
O/S 17.0' Lt.
Elev. 29.07

New Ret. Wall A
See Sht. C56

M.L. # Sta. 144+00

M.L. # Sta. 149+00

exist. CB
Sawcut Line
match to existing edge of shoulder Sta. 144+42± O/S 23'± Rt. Elev. 50.3±

Sta. 145+38.07
O/S 22.0' Rt.
Elev. 31.43

Sta. 145+63.85
O/S 22.0' Rt.
Elev. 31.16

Sta. 147+11.17
O/S 22.4' Rt.
Elev. 29.20

Sta. 146+65.92
O/S 20.5' Lt.
Elev. 29.20

Sta. 146+50.16
O/S 21.0' Rt.
Elev. 30.09

Sta. 147+53.17
O/S 23.3' Rt.
Elev. 29.03

Reconstruct Driveway
Sta. 147+40; W=10'

Reconstruct Driveway
Sta. 147+24.50; W=11'

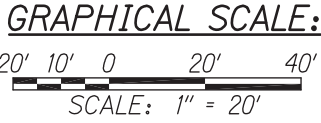
New Wheelchair Ramp
See Det. Sht. C10
Sta. 148+50.00; O/S 19.00' Rt.
Begin New Conc. Curb & Gutter (Type 2DG)
Per SDOT Std. Plan No. D-05
Sta. 148+33
New Centerline Monument
Per SDOT Std. Plan No. D-07
STA. 148+33±; O/S 20' Rt.
Hydrant Concrete Slab and Guard Posts
(See Detail Sht. C28)
(Adjust Fire Hydrant As Required)

BENCHMARK
Y-11 Brass Disk; Elevation=30.25
referred to The National Geodetic Survey Data Sheet

Azimuth and Coordinates referred to "Waimanalo Ridge" Triangulation Station

CURVE DATA:

CURVE	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
Δ	92°04'01"	89°02'06"	90°57'54"	90°00'00"	88°49'01"	86°49'13"	90°44'17"	90°30'25"	88°45'18"	180°00'00"	91°14'42"
Δ/2	46°02'00.7"	44°43'03.2"	45°28'56.8"	45°00'00.0"	44°24'30.4"	43°24'36.6"	45°22'08.5"	45°15'12.3"	44°22'39.2"	90°00'00"	45°37'20.8"
R	5.00'	5.00'	10.00'	10.00'	8.00'	8.00'	5.00'	5.00'	8.00'	2.50'	8.00'
Tan.	5.184'	4.92'	10.17'	10.00'	7.84'	7.57'	5.07'	5.04'	7.83'	INFINITY	8.18'
C	7.20'	7.01'	14.26'	14.14'	11.20'	11.00'	7.12'	7.10'	11.19'	5.00'	11.44'
Lc	8.03'	7.77'	15.88'	15.71'	12.40'	12.12'	7.92'	7.90'	12.39'	7.85'	12.74'



LEGEND:

Limits Pavement Reconstruction
match to existing driveway

NOTE:

For Pavement Safety Edge Detail, see Sheet C29.

PLAN

SCALE: 1" = 20'

LINE DATA:

LINE	①	②	③	④	⑤	⑥	⑦	⑧
Az	215°53'43"	215°57'43"	215°57'43"	215°57'43"	36°42'00"	36°42'00"	35°57'43"	35°57'43"
Distance	10.50'	12.49'	17.04'	20.00'	2.97'	3.05'	14.63'	13.72'

APPROVED:

MANAGER AND CHIEF ENGINEER, BWS
(For work affecting BWS Facilities in State R/W and BWS Easements only)

DATE

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SIGNATURE

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLAN
KALANIANA'OLE HIGHWAY IMPROVEMENTS, PHASE 1
Olomana Golf Course To Poalima Street
Federal Aid Project No. NH-072-1(53)
Scale: AS NOTED Date: JULY, 2013
SHEET No. C21 OF 69 SHEETS

Sta. 149+41± 0/S 19' Lt. to Sta. 149+96± 0/S 19' Lt.
Sta. 150+20± 0/S 19' Lt. to Sta. 150+50± 0/S 22' Lt.
Sta. 4+29± 0/S 23' Lt. to Sta. 4+91± 0/S 22' Lt.
Sta. 5+08± 0/S 22' Lt. to Sta. 6+00± 0/S 22' Lt.
New Single Metal Guardrails, See Detail Sheet C13 - C14

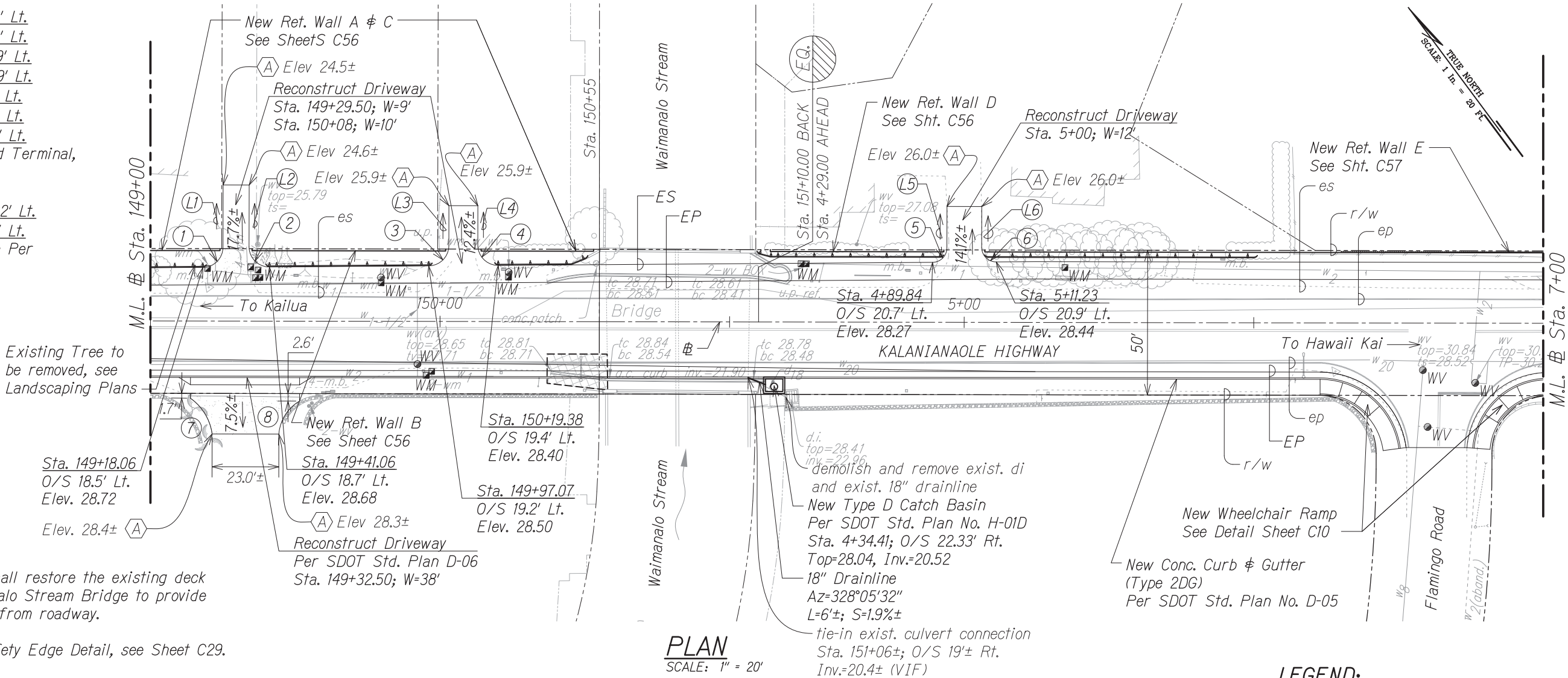
Sta. 149+18± 0/S 19' Lt.
Sta. 149+41± 0/S 19' Lt.
Sta. 149+96± 0/S 19' Lt.
Sta. 150+20± 0/S 19' Lt.
Sta. 4+91± 0/S 22' Lt.
Sta. 5+08± 0/S 22' Lt.
Sta. 6+00± 0/S 22' Lt.
Modified Type "G" End Terminal,
(See Detail Sheet C16)

Sta. 150+50± 0/S 22' Lt.
Sta. 4+29± 0/S 23' Lt.
End Guardrail Section Per
Detail Sheet C15

LINE DATA:

LINE	①	②	③	④	⑤	⑥
Az	216°42'00"	216°42'00"	216°42'00"	216°42'00"	216°42'00"	216°42'00"
Distance	21.49'	21.29'	13.81'	13.61'	14.31'	14.12'

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-072-1(53)	2014	22	103



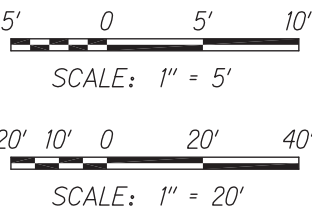
NOTES:

- The Contractor shall restore the existing deck drains on Waimanalo Stream Bridge to provide positive drainage from roadway.
- For Pavement Safety Edge Detail, see Sheet C29.

CURVE DATA:

CURVE	①	②	③	④	⑤	⑥	⑦	⑧
Δ	89°30'15"	90°29'45"	89°30'10"	90°29'45"	89°30'15"	90°29'45"	47°14'39"	55°08'42"
$\Delta/2$	44°45'07.3"	45°14'52.7"	44°45'05.0"	45°14'52.7"	44°45'07.3"	45°14'52.7"	23°37'19.4"	27°34'21.2"
R	7.00'	7.00'	7.00'	7.00'	5.00'	5.00'	18.00'	14.53'
Tan.	6.94'	7.06'	6.94'	7.06'	4.96'	5.04'	7.87'	7.59'
C	9.86'	9.94'	9.86'	9.94'	7.04'	7.10'	14.42'	13.45'
Lc	10.93'	11.06'	10.93'	11.06'	7.81'	7.90'	14.84'	13.98'

GRAPHICAL SCALE:



BENCHMARK

Y-11 Brass Disk; Elevation=30.25
referred to The National Geodetic Survey Data Sheet

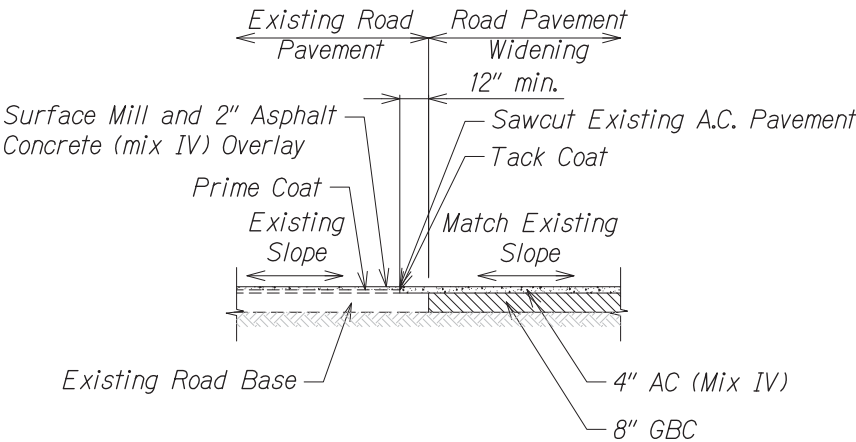
Azimuth and Coordinates referred to "Waimanalo Ridge"
Triangulation Station

PLAN

SCALE: 1" = 20'

LEGEND:

- Limits Pavement Reconstruction
- match to existing driveway



PAVEMENT CONNECTION DETAIL

SCALE: 1" = 5'

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EXPIRATION DATE
OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

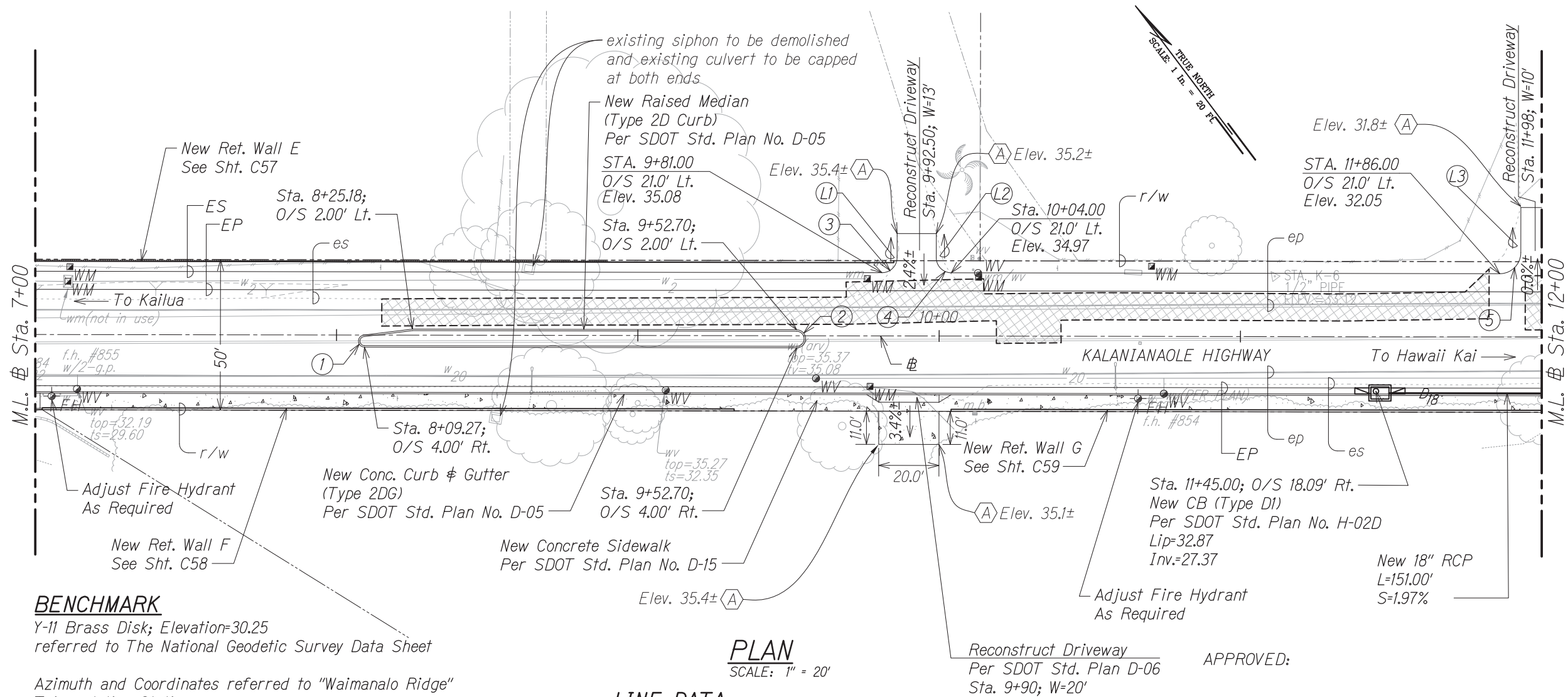
ROADWAY PLAN

KALANIANA'OLE HIGHWAY IMPROVEMENTS, PHASE 1
Olomana Golf Course To Poalima Street
Federal Aid Project No. NH-072-1(53)

Scale: AS NOTED Date: JULY, 2013

SHEET No. C22 OF 69 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-072-1(53)	2014	23	103



BENCHMARK

Y-11 Brass Disk; Elevation=30.25
referred to The National Geodetic Survey Data Sheet

Azimuth and Coordinates referred to "Waimanalo Ridge"
Triangulation Station

CURVE DATA:

CURVE	(1)	(2)	(3)	(4)	(5)
Δ	172°53'23"	180°00'00"	90°00'00"	90°00'00"	90°00'00"
$\Delta/2$	86°26'41.5"	90°00'00.0"	45°00'00.0"	45°00'00.0"	45°00'00.0"
R	2.00'	3.00'	5.00'	5.00'	7.00'
Tan.	32.19'	INFINITY	5.00'	5.00'	7.00'
C	3.99'	6.00'	7.07'	7.07'	9.90'
Lc	6.03'	9.42'	7.85'	7.85'	11.00'

PLAN

SCALE: 1" = 20'

LINE DATA:

LINE	(L1)	(L2)	(L3)
Az	216°42'00"	216°42'00"	216°42'00"
Distance	8.00'	8.00'	15.00'

NOTE:

For Pavement Safety Edge Detail, see Sheet C29.

LEGEND:

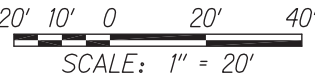
- Limits Pavement Reconstruction
- match to existing driveway

APPROVED:

MANAGER AND CHIEF ENGINEER, BWS
(For work affecting BWS Facilities in
State R/W and BWS Easements only)

DATE

GRAPHICAL SCALE:



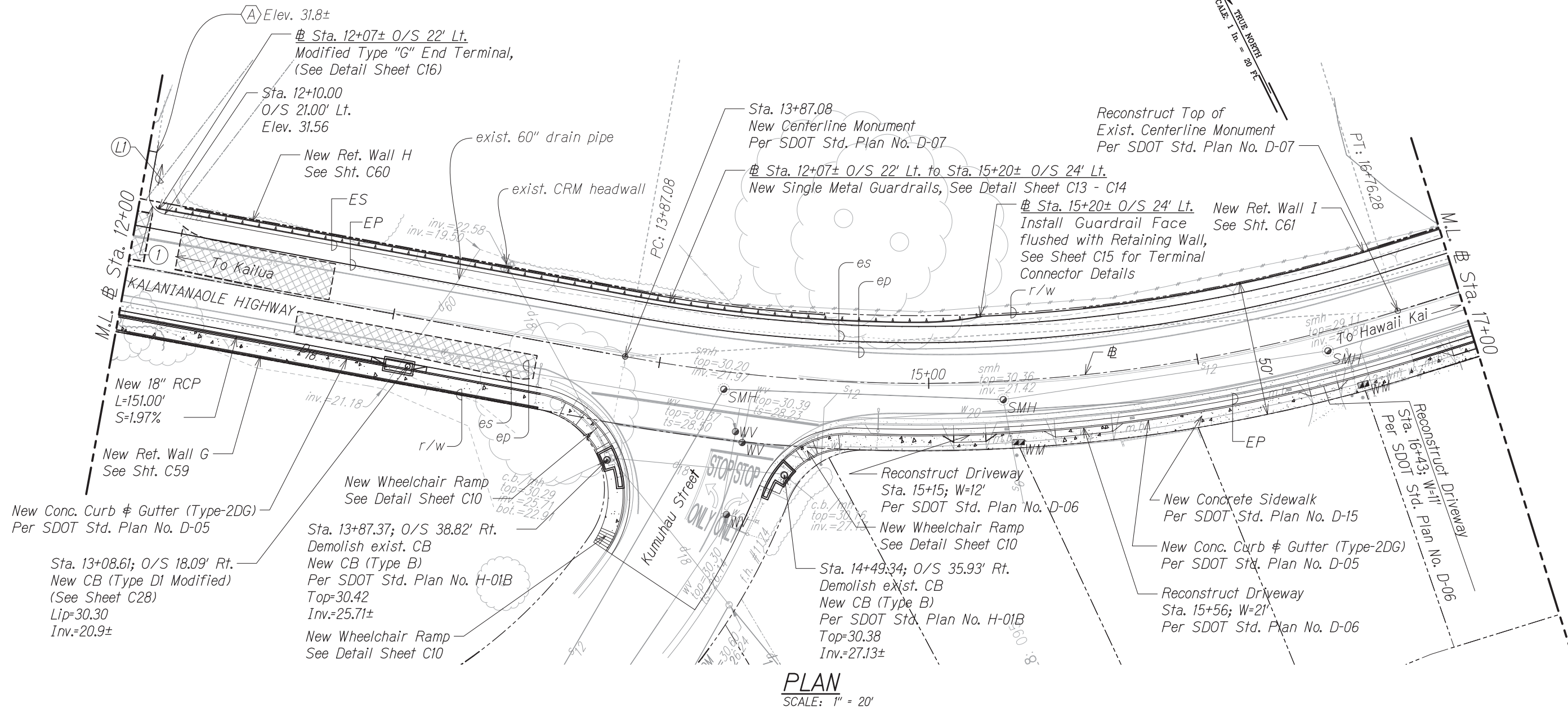
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UNDER MY SUPERVISION

SIGNATURE

EXPIRATION DATE
OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLAN
KALANIANA'OLE HIGHWAY IMPROVEMENTS, PHASE 1
Olomana Golf Course To Poalima Street
Federal Aid Project No. NH-072-1(53)
Scale: AS NOTED Date: JULY, 2013
SHEET No. C23 OF 69 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-072-1(53)	2014	24	103



BENCHMARK

*Y-11 Brass Disk; Elevation=30.25
referred to The National Geodetic Survey Data Sheet*

*Azimuth and Coordinates referred to "Waimanalo Ridge"
Triangulation Station*

CURVE DATA:

<i>CURVE</i>	①
Δ	90°00'00"
$\Delta/2$	45°00'00.0"
<i>R</i>	7.00'
<i>Tan.</i>	7.00'
<i>C</i>	9.90'
<i>Lc</i>	11.00'

LINE DATA:

LINE	(L1)
Az	216°42'00"
Distance	15.00'

NOTE:

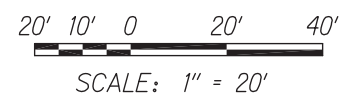
For Pavement Safety Edge Detail, see Sheet C29.

LEGEND:

 Limits Pavement Reconstruction

 *match to existing driveway*

GRAPHICAL SCALE:



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OF THE LICENSE

ROADWAY PLAN

KALANIANA'OLE HIGHWAY IMPROVEMENTS, PHASE 1

Olomana Golf Course To Poalima Street

Federal Aid Project No. NH-072-1(53)

Scale: AS NOTED

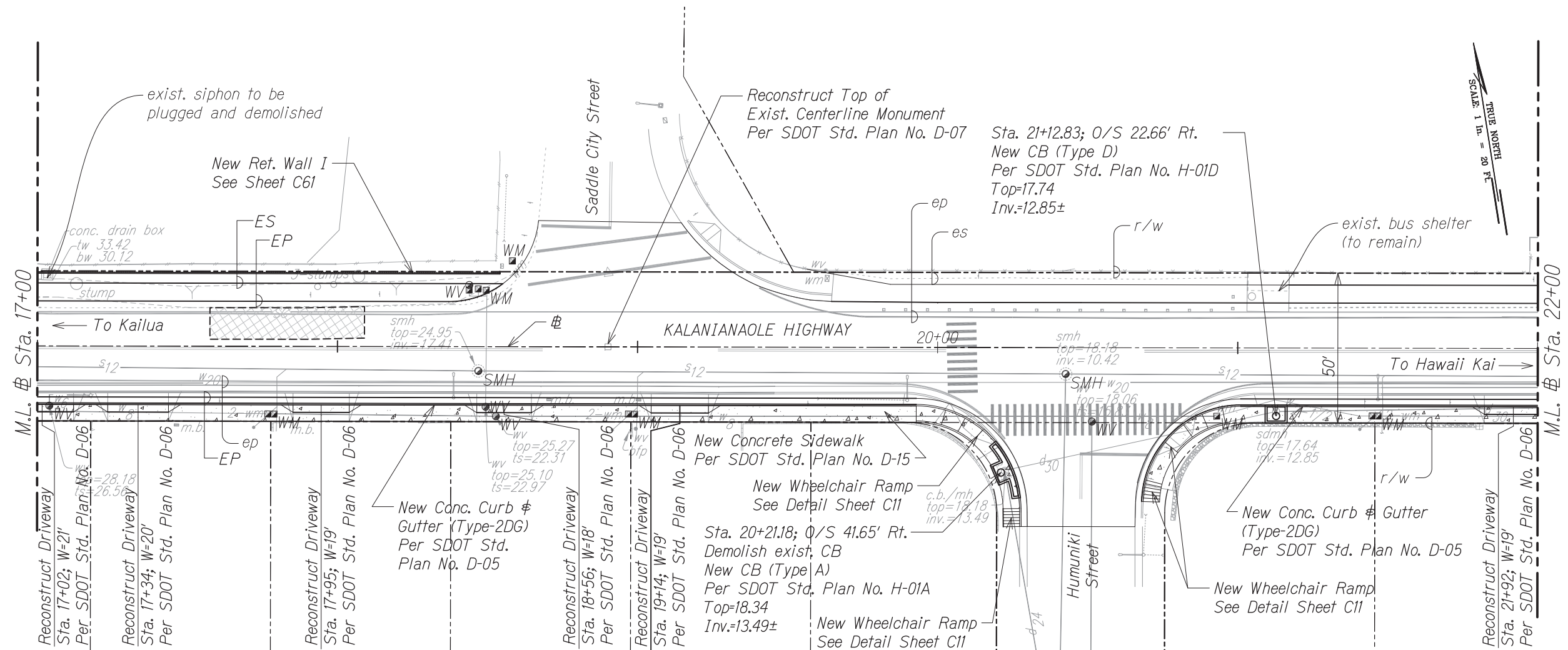
Date: JULY, 2013

SHEET No. C24 OF 69 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY _____ DATE _____
NOTE BOOK	DRAWN BY _____
	TRACED BY _____
	DESIGNED BY _____
	QUANTITIES BY _____
No. _____	CHECKED BY _____

W:_CIVIL 3D PROJECTS\2008_008_000 DOT-HWY KAL HWY IMP WAIMANALO PH 1\C24-05 - ROADWAY PLAN.DWG 6/26/2013 5:44 PM

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-072-1(53)	2014	25	103



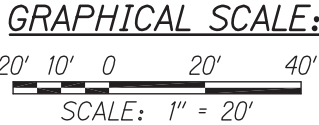
PLAN
SCALE: 1" = 20'

BENCHMARK
Y-11 Brass Disk; Elevation=30.25
referred to The National Geodetic Survey Data Sheet

Azimuth and Coordinates referred to "Waimanalo Ridge"
Triangulation Station

LEGEND:
 Limits Pavement Reconstruction

NOTE:
For Pavement Safety Edge Detail, see Sheet C29.



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	
No.	CHECKED BY	

W:_CIVIL_3D PROJECTS\2008_008_000 DOT-HWY KAL HWY IMP WAIMANALO PH 1\C25-06 - ROADWAY PLAN.DWG 6/26/2013 5:50 PM

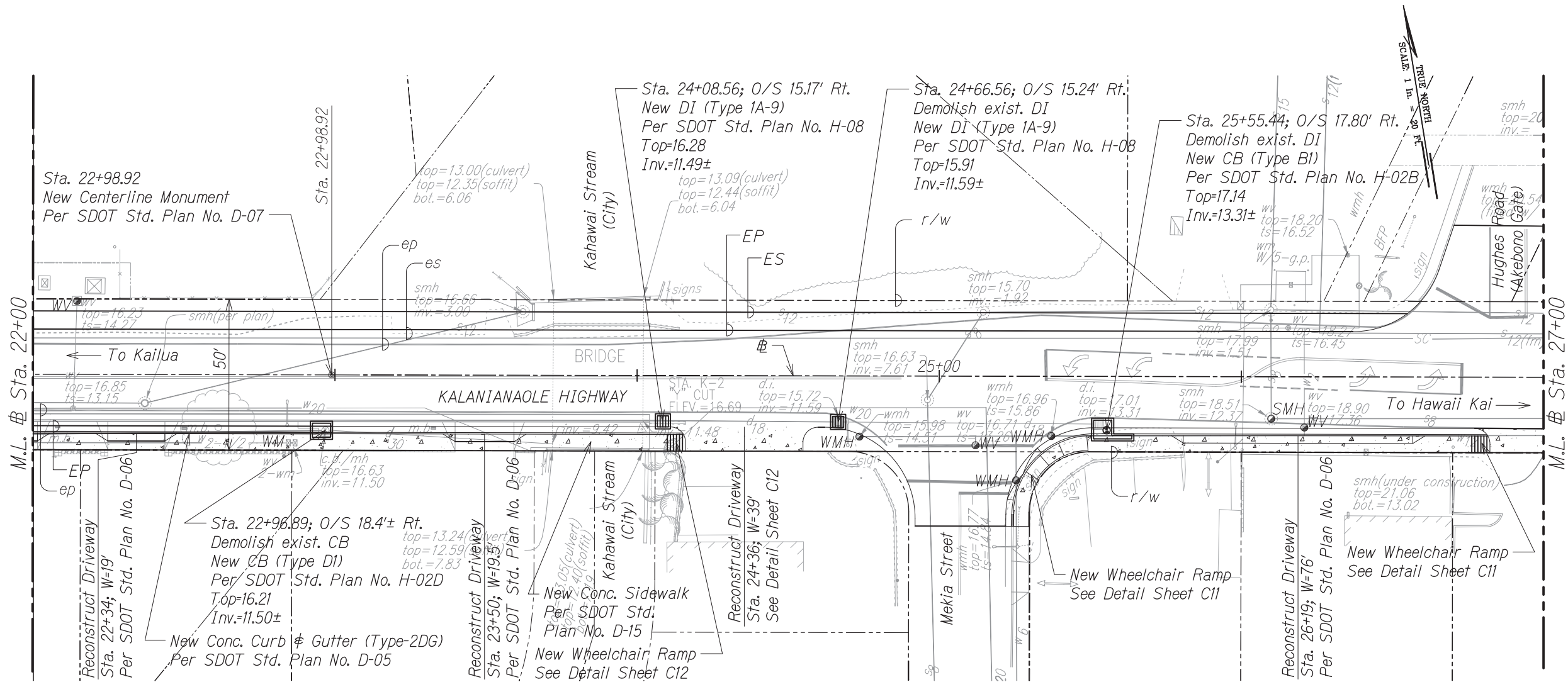
THIS WORK WAS PREPARED BY ME OR
UNDER MY SUPERVISION

SIGNATURE

EXPIRATION DATE
OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLAN
KALANIANA'OLE HIGHWAY IMPROVEMENTS, PHASE 1
Olomana Golf Course To Poalima Street
Federal Aid Project No. NH-072-1(53)
Scale: AS NOTED Date: JULY, 2013
SHEET No. C25 OF 69 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-072-1(53)	2014	26	103



BENCHMARK

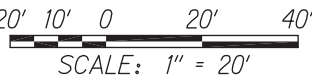
Y-11 Brass Disk; Elevation=30.25
referred to The National Geodetic Survey Data Sheet

Azimuth and Coordinates referred to "Waimanalo Ridge"
Triangulation Station

NOTES:

- The Contractor shall restore the existing deck drains on Kahawai Stream Bridge to provide positive drainage from roadway.
- For Pavement Safety Edge Detail, see Sheet C29.

GRAPHICAL SCALE:



PLAN

SCALE: 1" = 20'

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SIGNATURE

EXPIRATION DATE
OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

KALANIANA'OLE HIGHWAY IMPROVEMENTS, PHASE 1

Olomana Golf Course To Poalima Street

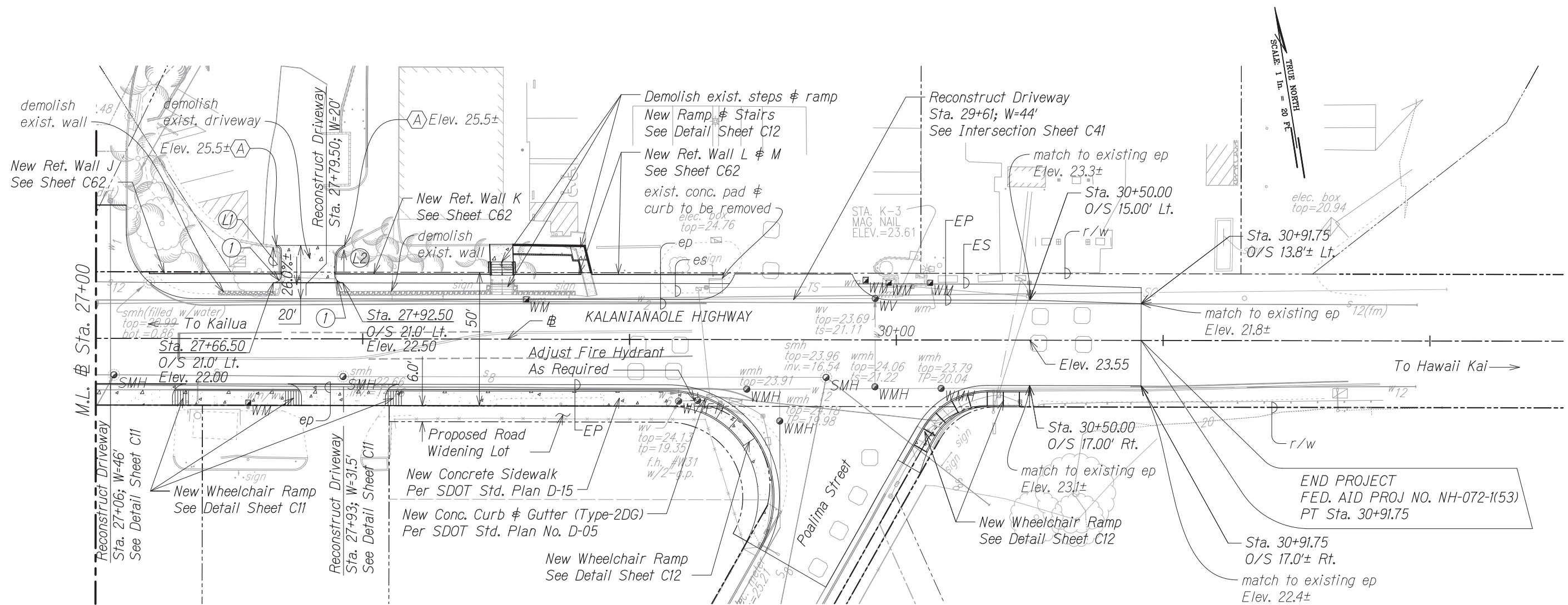
Federal Aid Project No. NH-072-1(53)

Scale: AS NOTED

Date: JULY, 2013

SHEET No. C26 OF 69 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-072-1(53)	2014	27	103



PLAN
SCALE: 1" = 20'

APPROVED:

BENCHMARK

Y-11 Brass Disk; Elevation=30.25
referred to The National Geodetic Survey Data Sheet

Azimuth and Coordinates referred to "Waimanalo Ridge"
Triangulation Station

CURVE DATA:

CURVE	①
Δ	90°00'00"
$\Delta/2$	45°00'00.0"
R	5.00'
Tan.	5.00'
C	7.07'
Lc	7.85'

LINE DATA:

LINE	①	②
Az	189°06'00"	189°06'00"
Distance	8.00'	5.09'

NOTE:

For Pavement Safety Edge Detail, see Sheet C29.

LEGEND:

(A) match to existing driveway

MANAGER AND CHIEF ENGINEER, BWS
(For work affecting BWS Facilities in
State R/W and BWS Easements only)

DATE

THIS WORK WAS PREPARED BY ME OR
UNDER MY SUPERVISION

SIGNATURE

EXPIRATION DATE
OF THE LICENSE

GRAPHICAL SCALE:



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

KALANIANAʻOLE HIGHWAY IMPROVEMENTS, PHASE 1
Olomana Golf Course To Poalima Street
Federal Aid Project No. NH-072-1(53)

Scale: AS NOTED Date: JULY, 2013

SHEET No. C27 OF 69 SHEETS