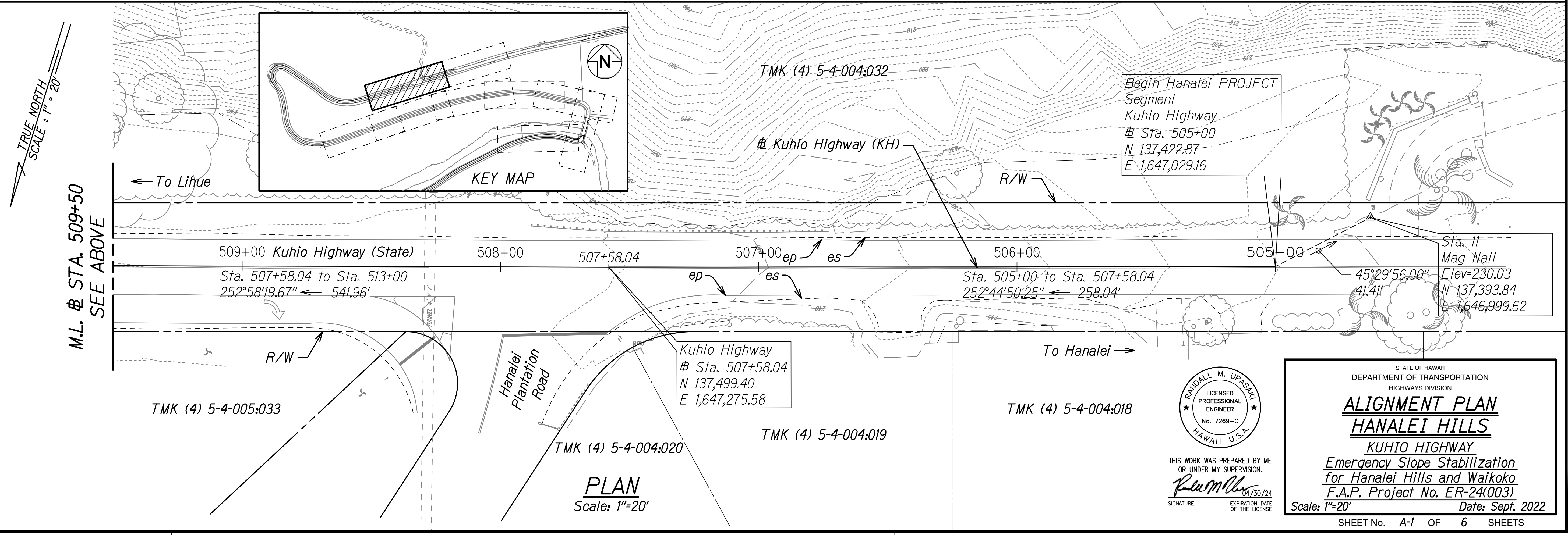
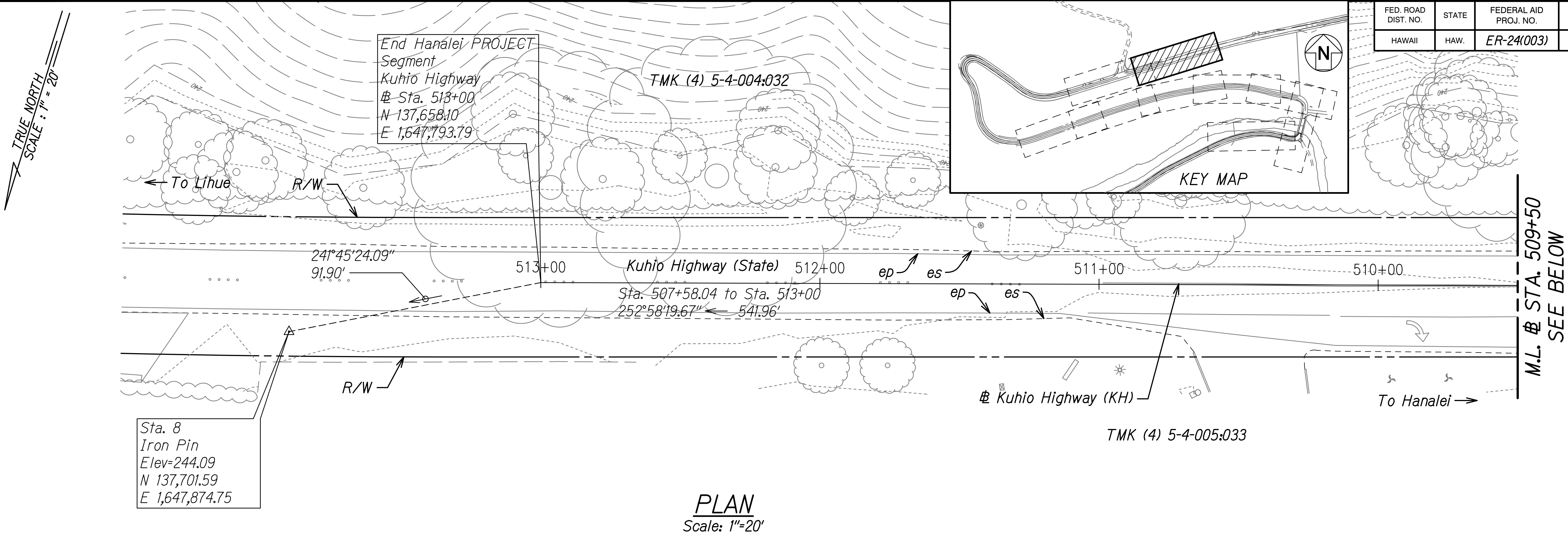


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(003)	2023	18	100

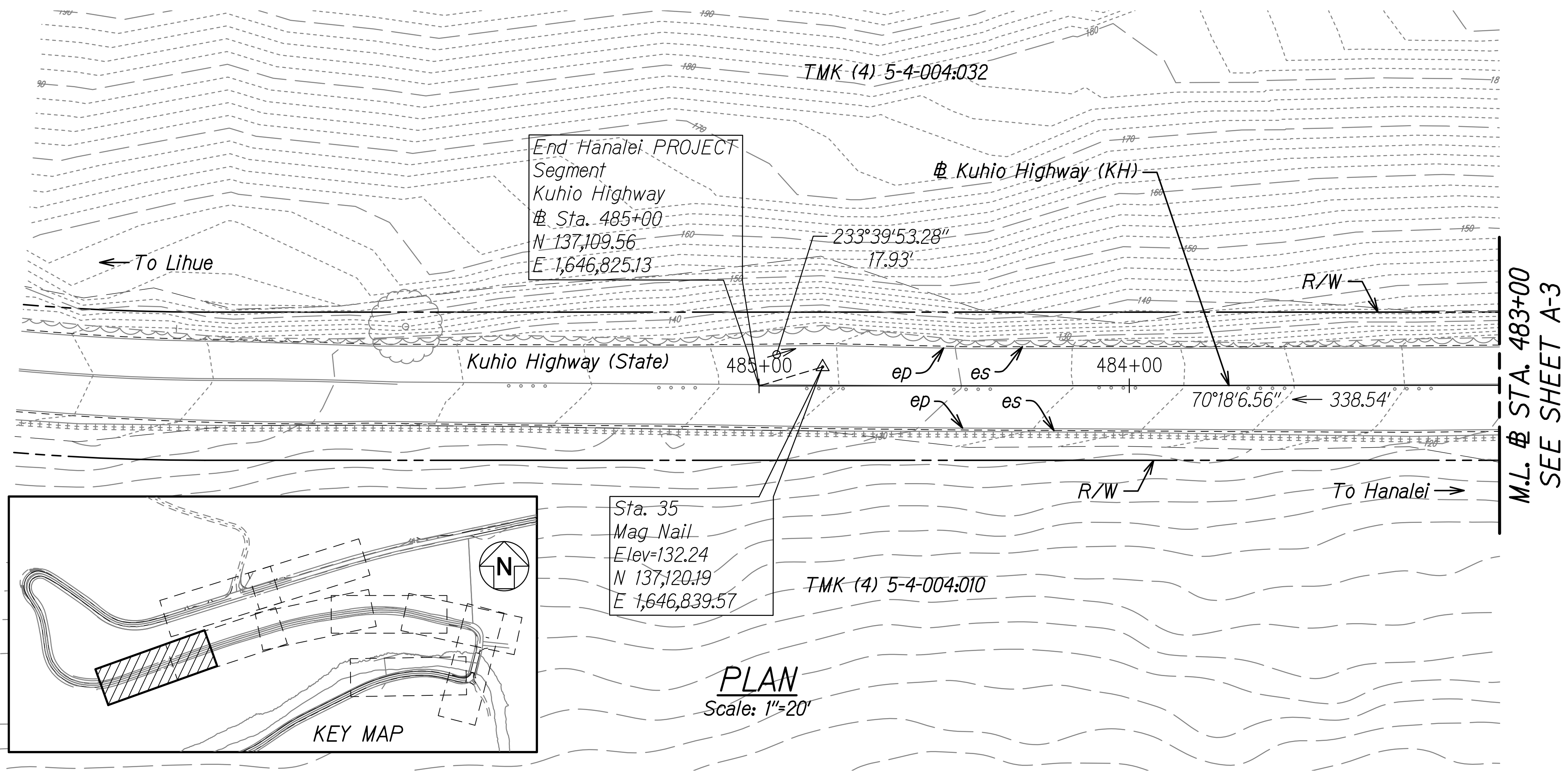


SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

RANDALL M. URASAKI
 LICENSED PROFESSIONAL ENGINEER
 No. 7269-C
 HAWAII, U.S.A.
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 SIGNATURE: *R. M. Urasaki* 04/30/24
 EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
ALIGNMENT PLAN
HANAIEI HILLS
KUHIO HIGHWAY
Emergency Slope Stabilization
for Hanalei Hills and Waikoko
F.A.P. Project No. ER-24(003)
 Scale: 1"=20' Date: Sept. 2022

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(003)	2023	19	100



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

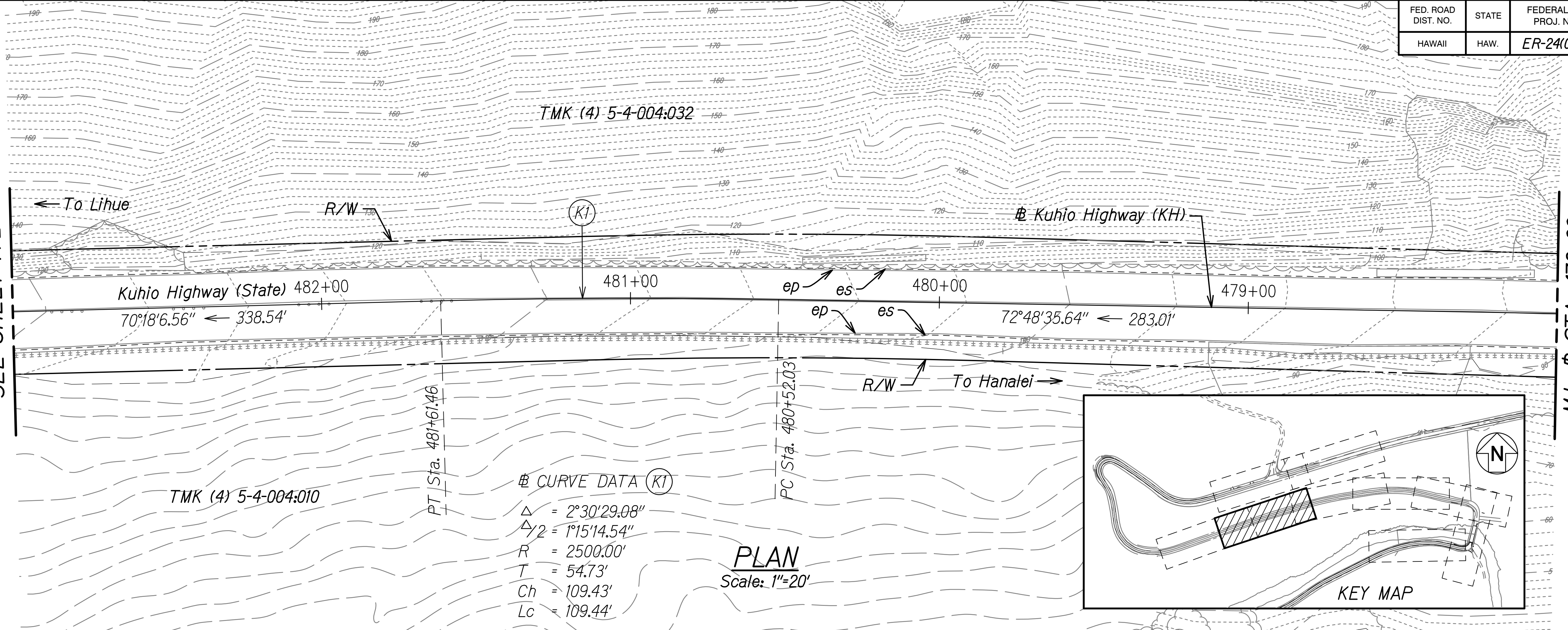
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ALIGNMENT PLAN
HANALEI HILLS
KUHIO HIGHWAY
Emergency Slope Stabilization
for Hanalei Hills and Waikoko
F.A.P. Project No. ER-24(003)
Scale: 1"=20'
Date: Sept. 2022

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OR UNDER MY SUPERVISION.
Randall M. Urasaki
SIGNATURE
EXPIRATION DATE
OF THE LICENSE
04/30/24

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(003)	2023	20	100

TRUE NORTH
SCALE: 1"=20'

M.L. # STA. 483+00
SEE SHEET A-2

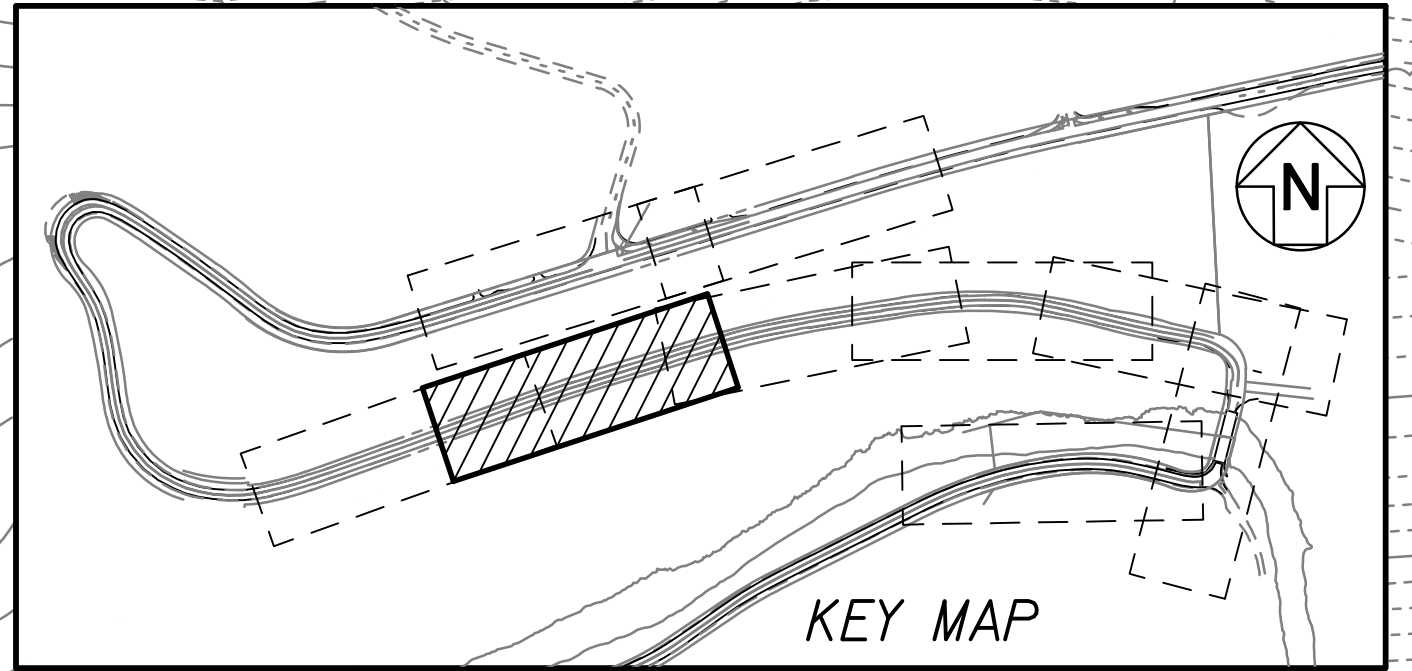


M.L. # STA. 478+00
SEE BELOW

CURVE DATA (K1)

$\Delta = 2^{\circ}30'29.08''$
 $\Delta/2 = 1^{\circ}15'14.54''$
 $R = 2500.00'$
 $T = 54.73'$
 $Ch = 109.43'$
 $Lc = 109.44'$

PLAN
Scale: 1"=20'



KEY MAP

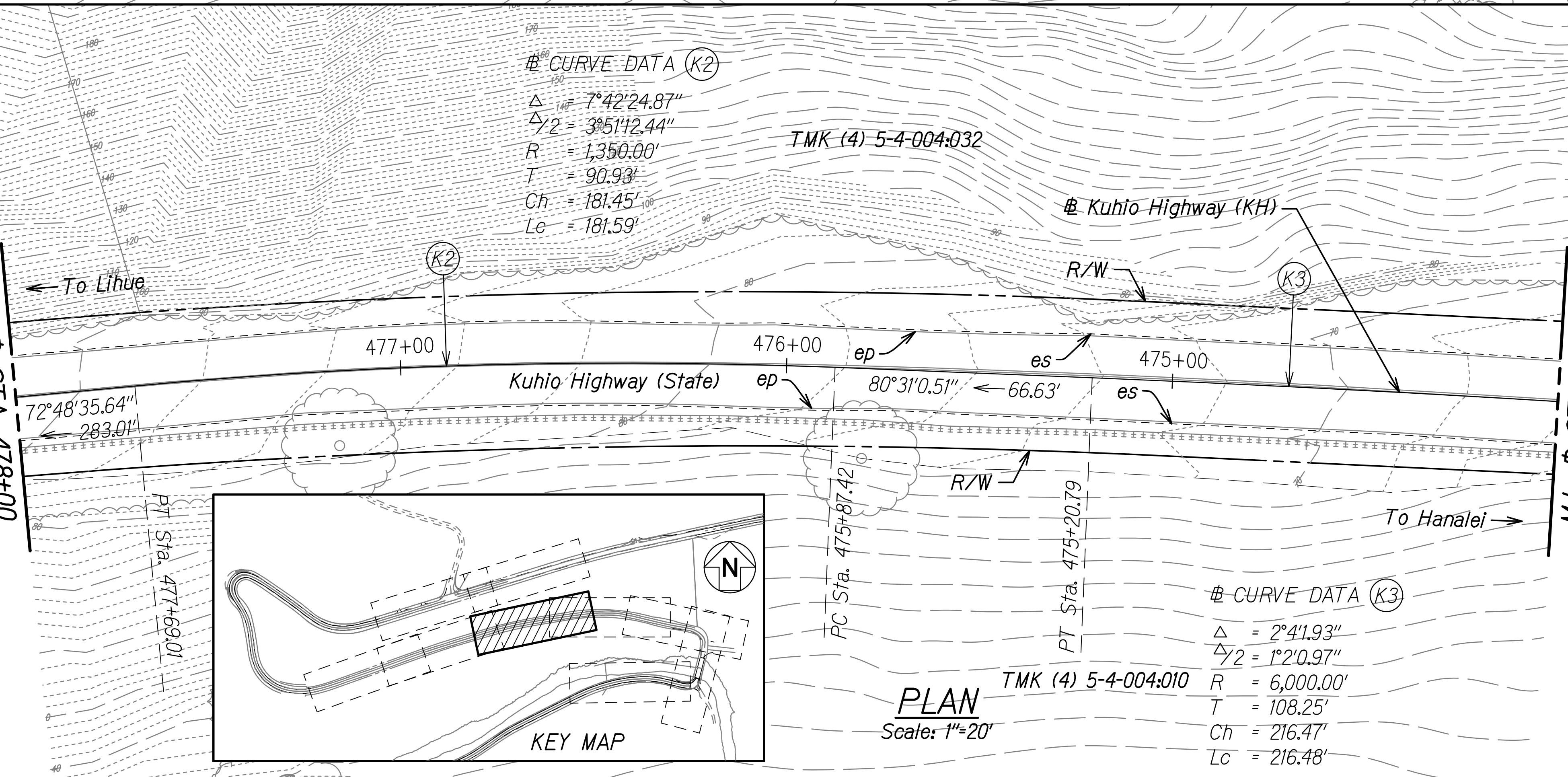
CURVE DATA (K2)

$\Delta = 7^{\circ}42'24.87''$
 $\Delta/2 = 3^{\circ}51'12.44''$
 $R = 1350.00'$
 $T = 90.93'$
 $Ch = 181.45'$
 $Lc = 181.59'$

TMK (4) 5-4-004:032

Kuhio Highway (KH)

M.L. # STA. 478+00
SEE ABOVE



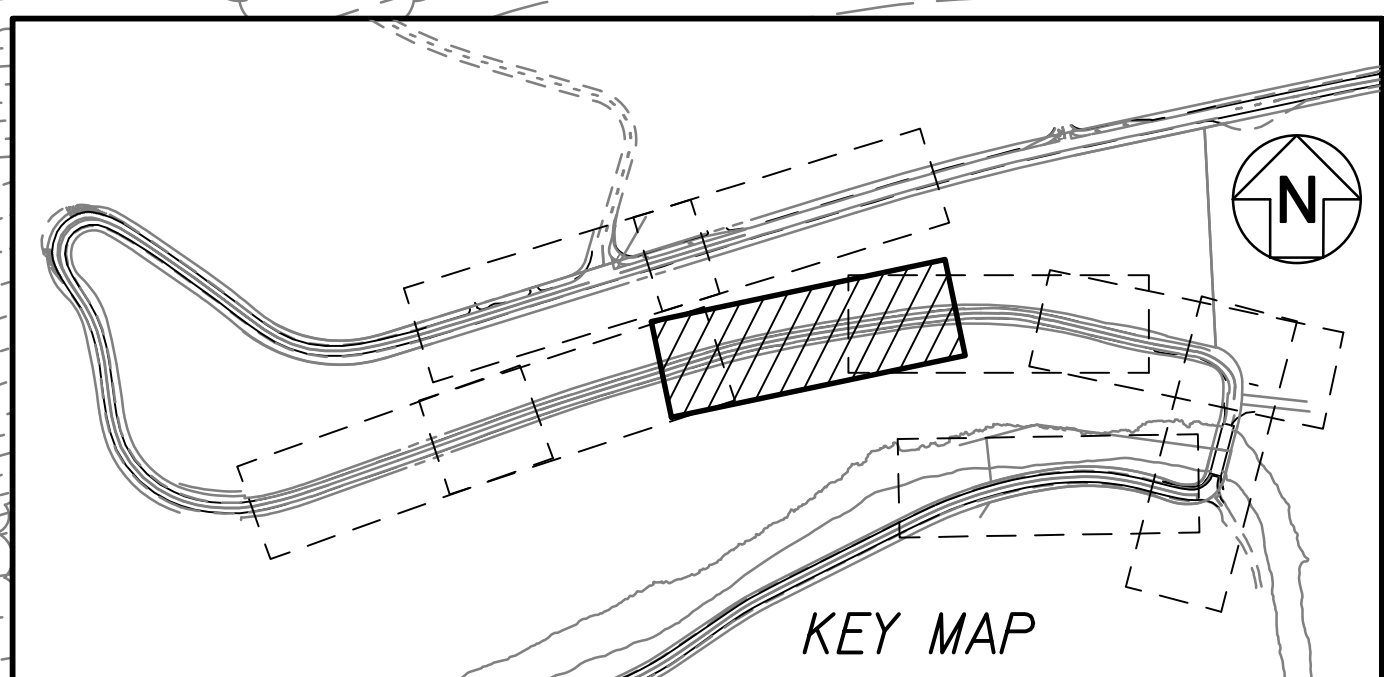
M.L. # STA. 474+00
SEE SHEET A-4

CURVE DATA (K3)

$\Delta = 2^{\circ}41'19.3''$
 $\Delta/2 = 1^{\circ}20'0.97''$
 $R = 6,000.00'$
 $T = 108.25'$
 $Ch = 216.47'$
 $Lc = 216.48'$

PLAN
Scale: 1"=20'

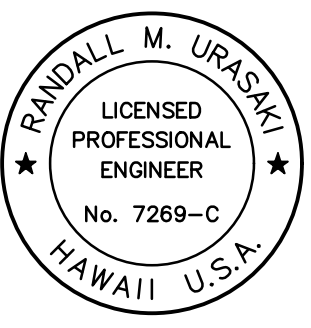
TMK (4) 5-4-004:010



KEY MAP

TRUE NORTH
SCALE: 1"=20'

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

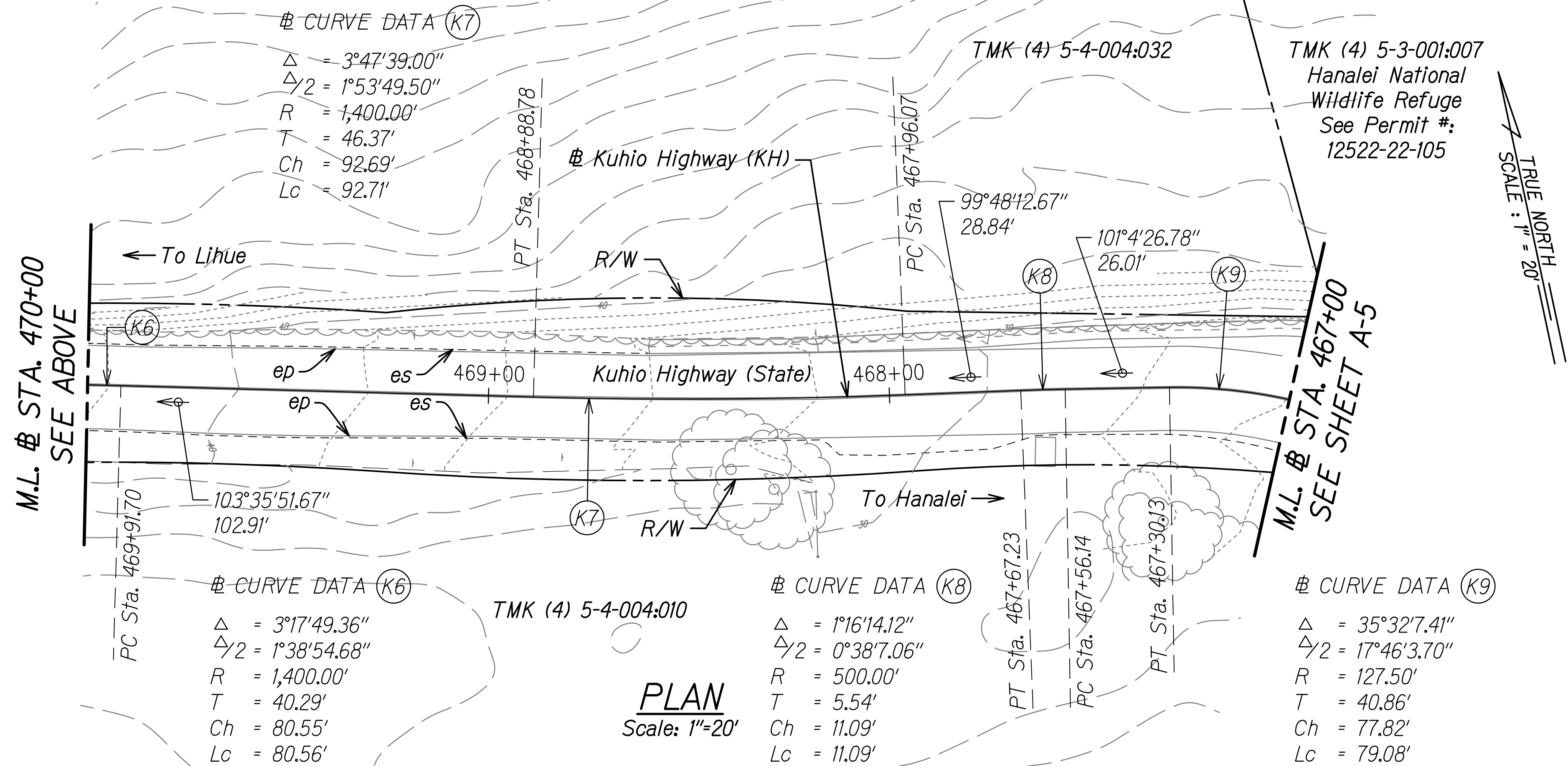
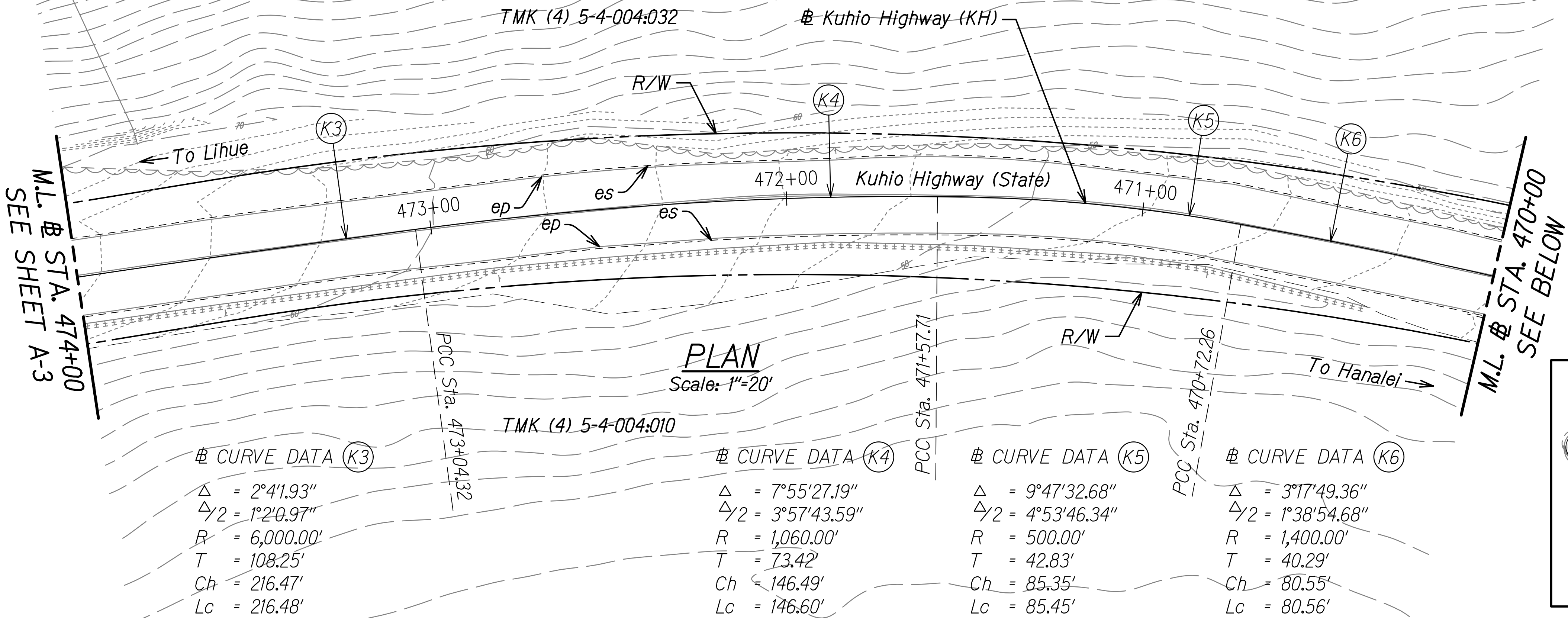


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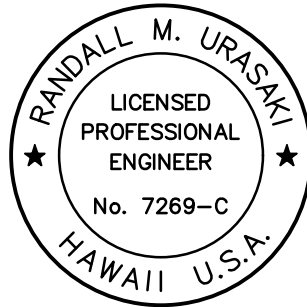
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ALIGNMENT PLAN
HANAIEI HILLS
KUHIO HIGHWAY
Emergency Slope Stabilization
for Hanalei Hills and Waikoko
F.A.P. Project No. ER-24(003)
Scale: 1"=20'
Date: Sept. 2022

SHEET No. A-3 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(003)	2023	21	100



SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	



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SIGNATURE
EXPIRATION DATE OF THE LICENSE: 04/30/24

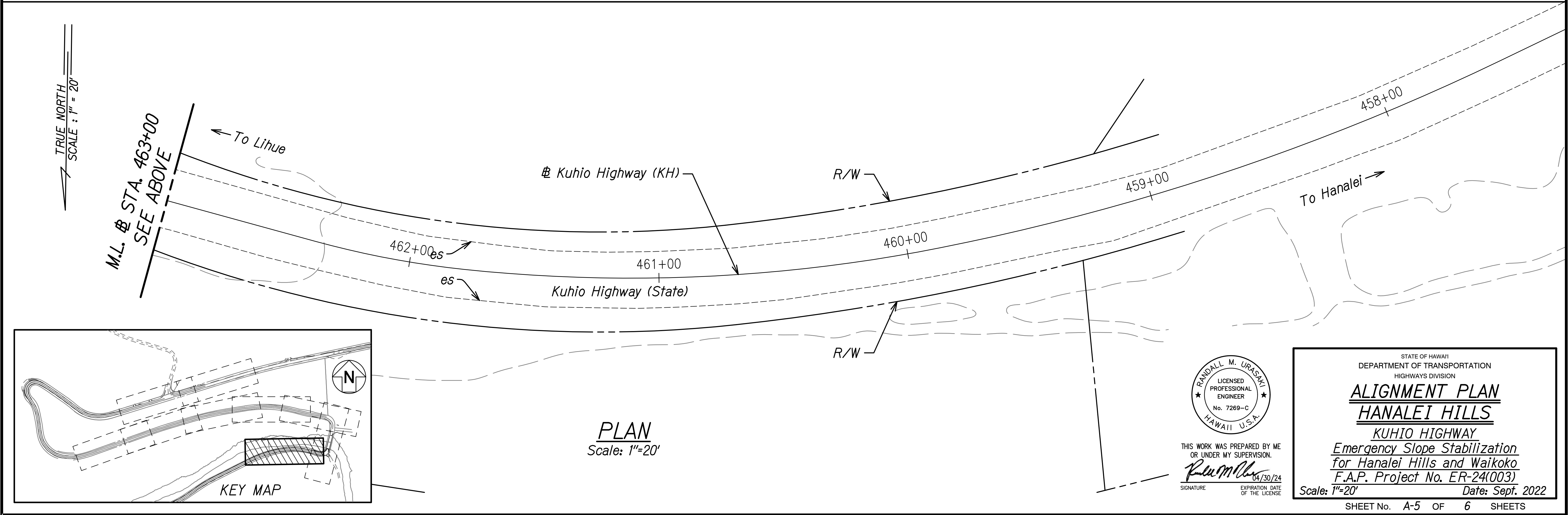
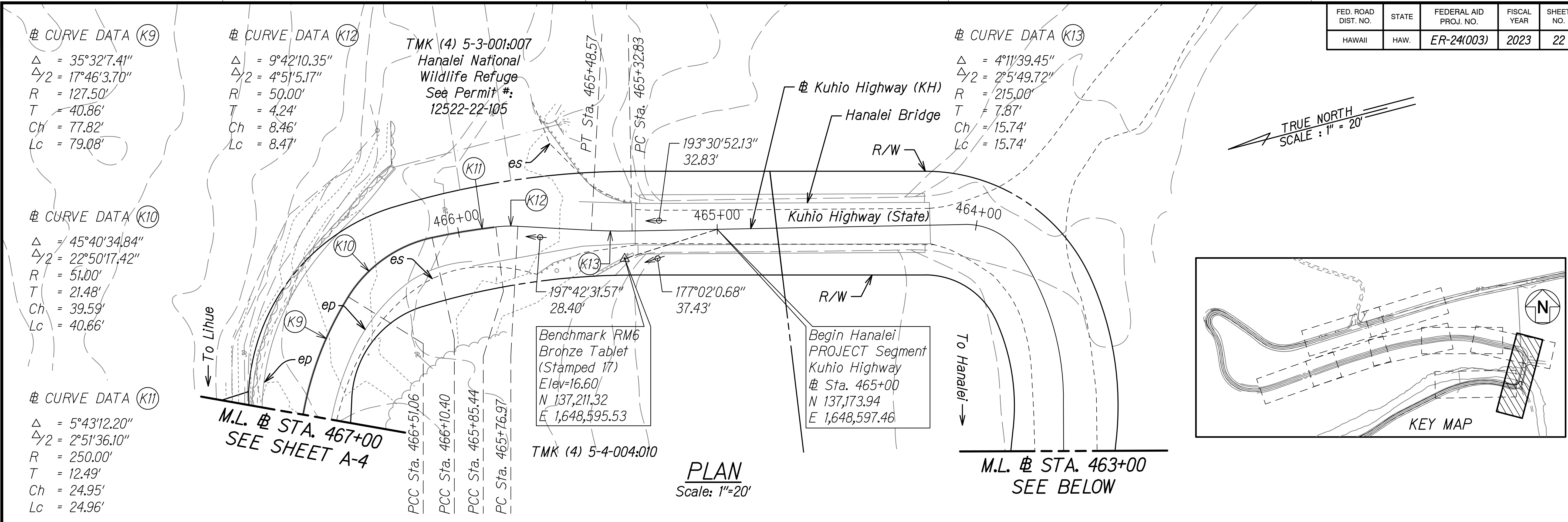
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ALIGNMENT PLAN
HANAIE HILLS
KUHIO HIGHWAY
Emergency Slope Stabilization
for Hanalei Hills and Waikoko
F.A.P. Project No. ER-24(003)

Scale: 1"=20' Date: Sept. 2022

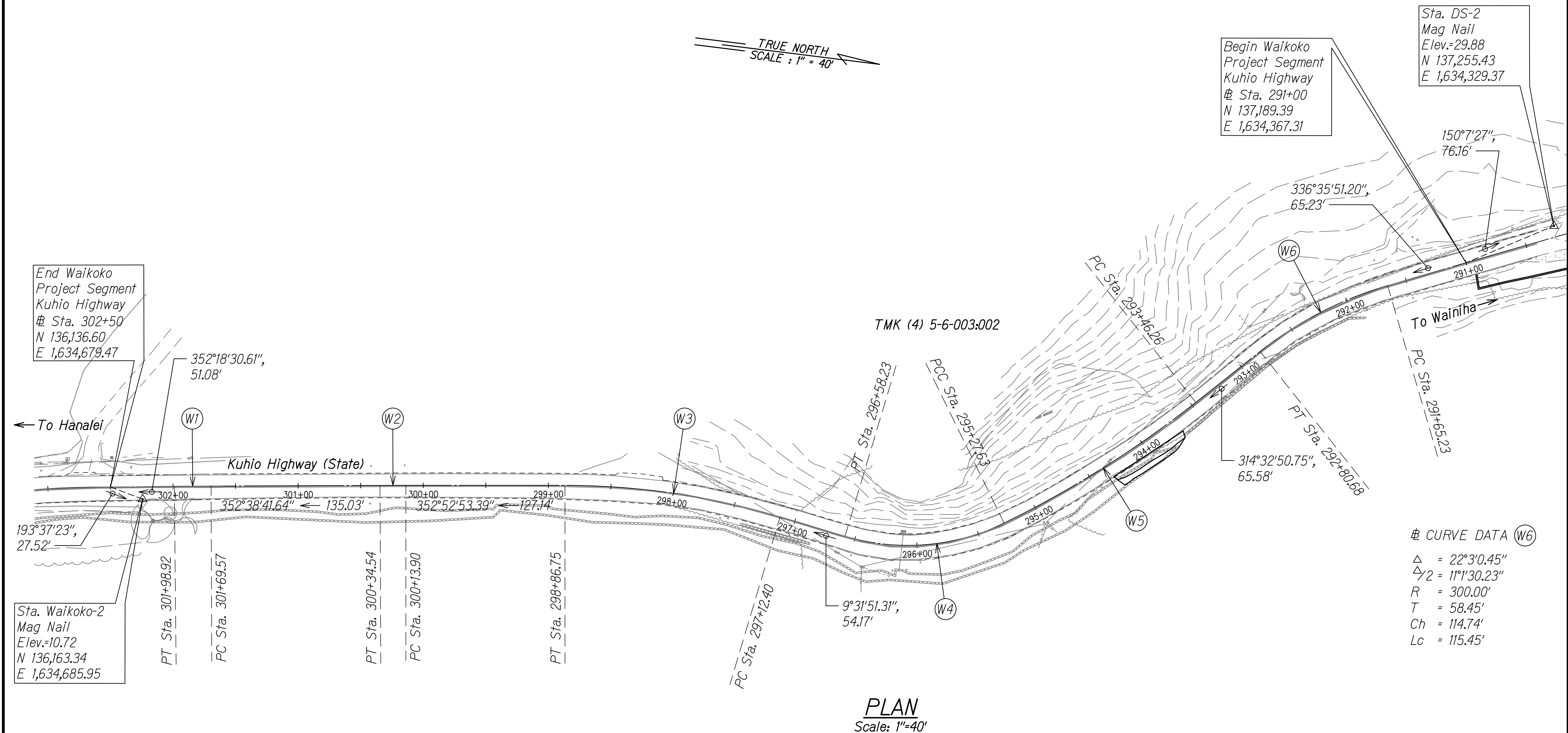
SHEET No. A-4 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(003)	2023	22	100



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

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(003)	2023	23	100



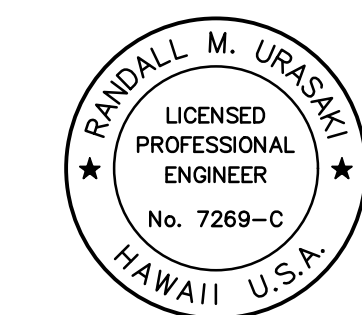
CURVE DATA (W1)
Δ = 0°20'11.03"
Δ/2 = 0°10'05.52"
R = 5,000.00'
T = 14.68'
Ch = 29.36'
Lc = 29.36'

CURVE DATA (W2)
Δ = 0°14'11.75"
Δ/2 = 0°7'5.87"
R = 5,000.00'
T = 10.32'
Ch = 20.65'
Lc = 20.65'

CURVE DATA (W3)
Δ = 16°38'57.92"
Δ/2 = 8°19'28.96"
R = 600.00'
T = 87.79'
Ch = 173.74'
Lc = 174.35'

CURVE DATA (W4)
Δ = 42°45'29.08"
Δ/2 = 21°22'44.54"
R = 175.00'
T = 68.51'
Ch = 127.59'
Lc = 130.60'

CURVE DATA (W5)
Δ = 12°13'31.49"
Δ/2 = 6°6'45.75"
R = 850.00'
T = 91.03'
Ch = 181.02'
Lc = 181.37'



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R. M. Urasaki
SIGNATURE EXPIRATION DATE OF THE LICENSE 04/30/24

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ALIGNMENT PLAN
WAIKOKO
KUHIO HIGHWAY
Emergency Slope Stabilization
for Hanalei Hills and Waikoko
F.A.P. Project No. ER-24(003)

Scale: 1"=40' Date: Sept. 2022