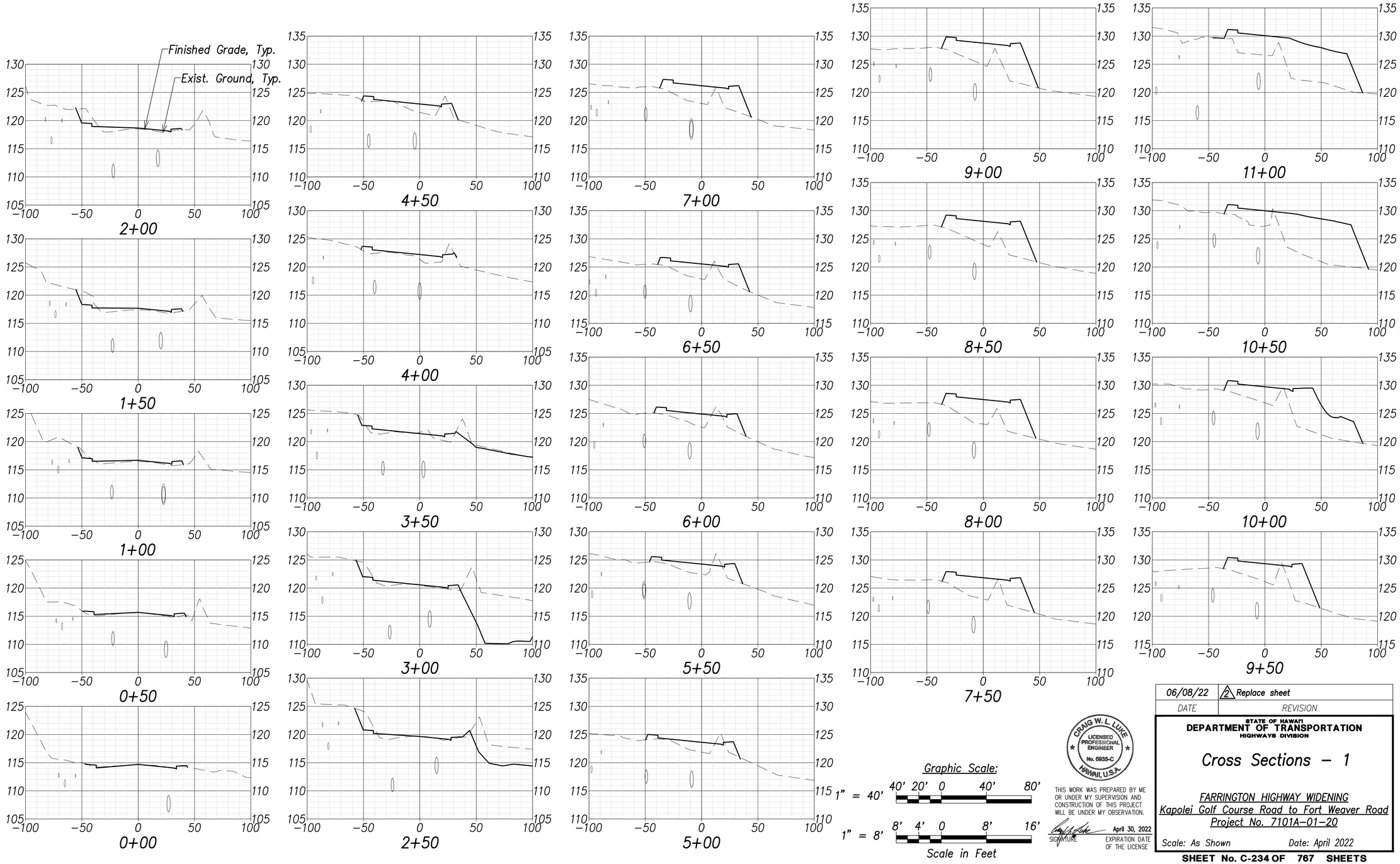
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A-01-20	2021	235	767



DATE	REVISION
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 1

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

Scale: As Shown Date: April 2022

Graphic Scale:

1" = 40' 40' 20' 0 40' 80'

1" = 8' 8' 4' 0 8' 16'

Scale in Feet

CRAIG W. L. LUKE
LICENSED PROFESSIONAL ENGINEER
No. 6935-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

SIGNATURE April 30, 2022 EXPIRATION DATE OF THE LICENSE

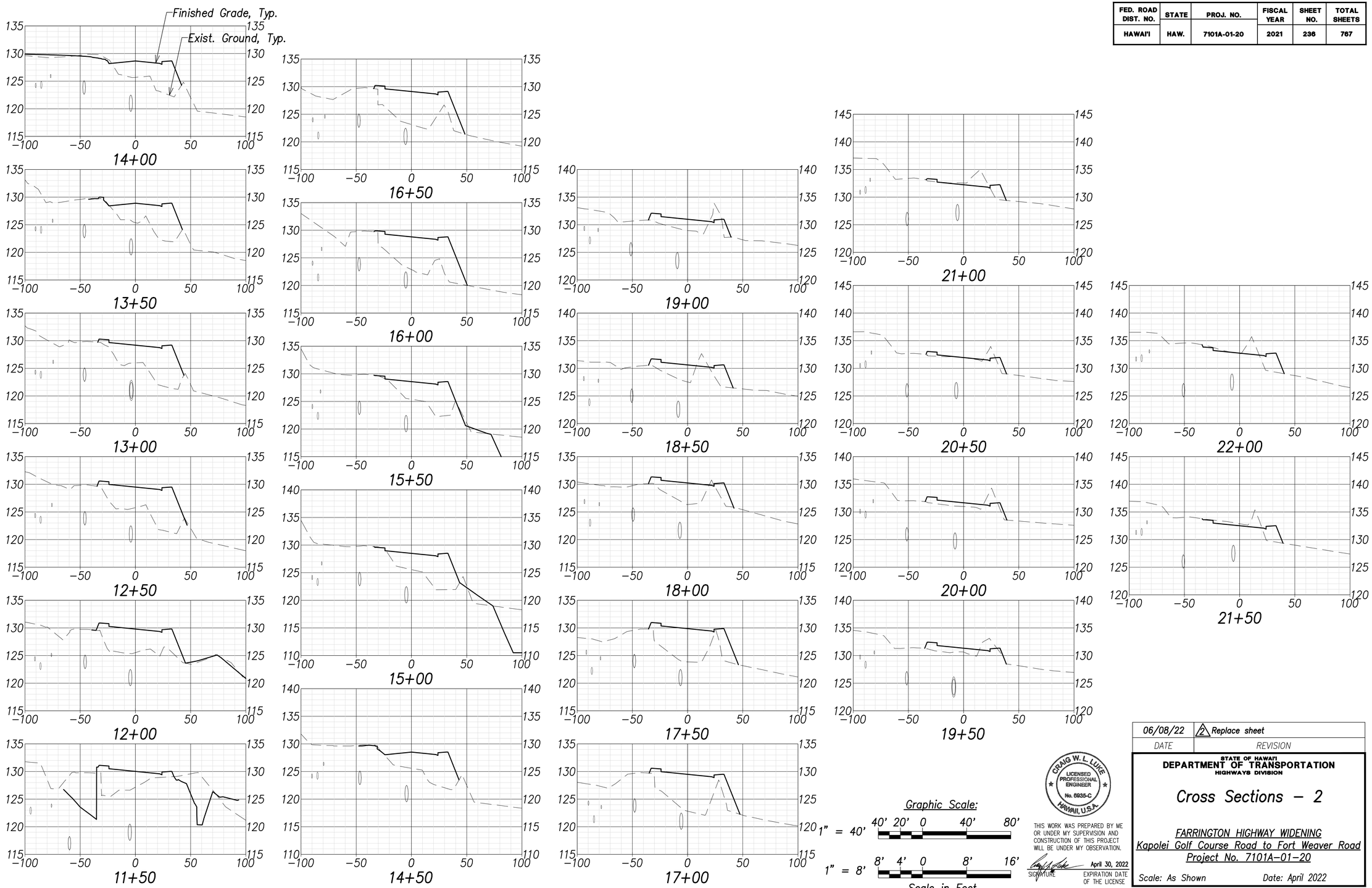
ORIGINAL PLAN	
NOTE BOOK	
No.	
SURVEY PLOTTED BY	DATE
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

SHEET No. C-234 OF 767 SHEETS

ADD. 235

FILE: \\RMTC-FS\project\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-234 Cross Sections - 1.dwg saved June 3, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A-01-20	2021	236	767



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

Graphic Scale:

1" = 40' 40' 20' 0 40' 80'

1" = 8' 8' 4' 0 8' 16'

Scale in Feet

CRAIG W. L. LUKE
LICENSED PROFESSIONAL ENGINEER
No. 6935-C
HAWAII, U.S.A.

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SIGNATURE — April 30, 2022 EXPIRATION DATE OF THE LICENSE

DATE	REVISION
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 2

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

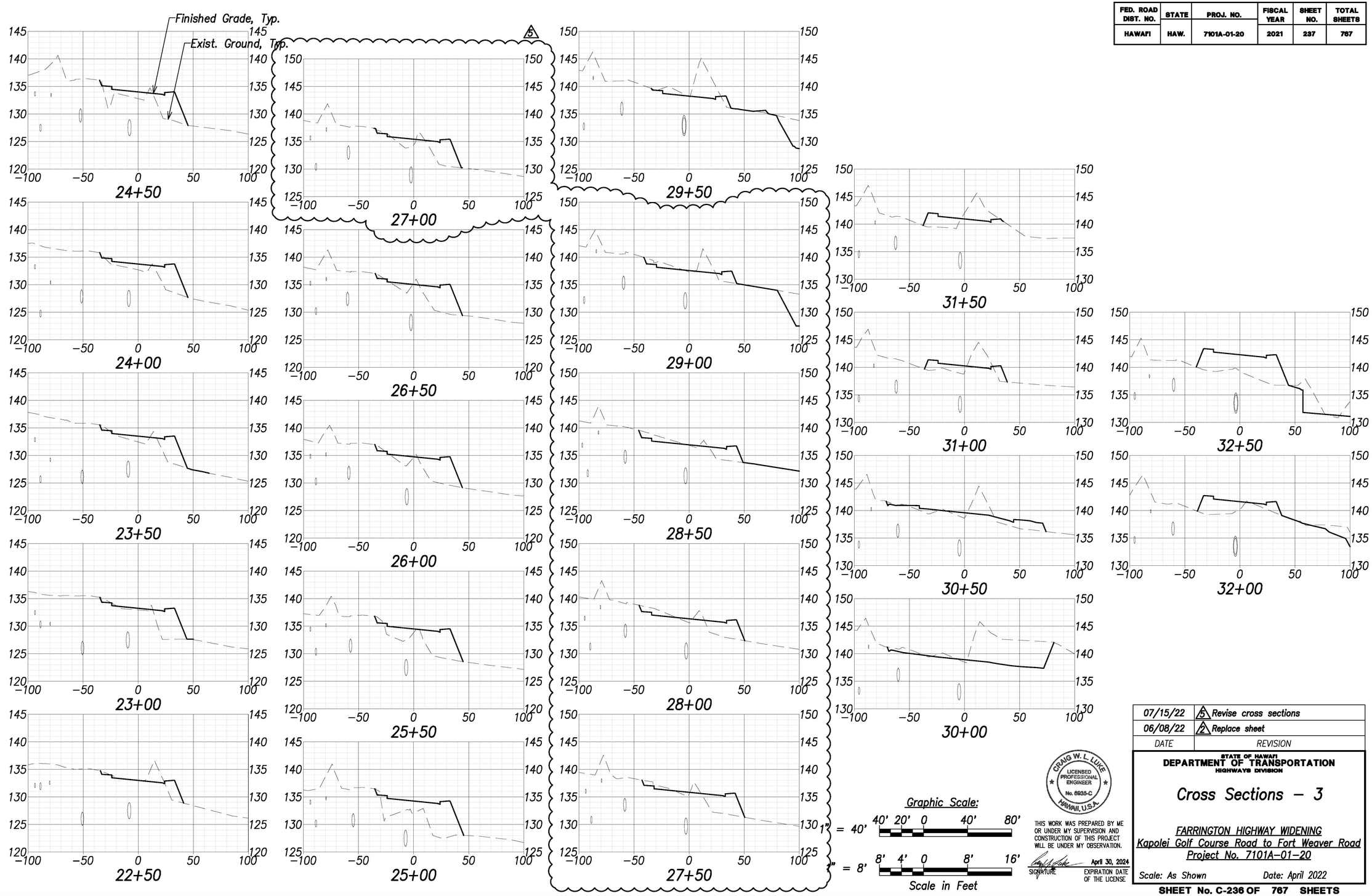
Scale: As Shown Date: April 2022

SHEET No. C-235 OF 767 SHEETS

ADD. 236

FILE: \\RMTC-FS\Iproject\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-235 Cross Sections - 2.dwg saved June 3, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-01-20	2021	237	767



07/15/22	5	Revise cross sections
06/08/22	2	Replace sheet
DATE		REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 3

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

Scale: As Shown Date: April 2022

Graphic Scale:

1" = 40' 40' 20' 0 40' 80'

1" = 8' 8' 4' 0 8' 16'

Scale in Feet

CRAIG W. L. LUKE
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No. 6935-C
HAWAII, U.S.A.

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SIGNATURE April 30, 2024
EXPIRATION DATE OF THE LICENSE

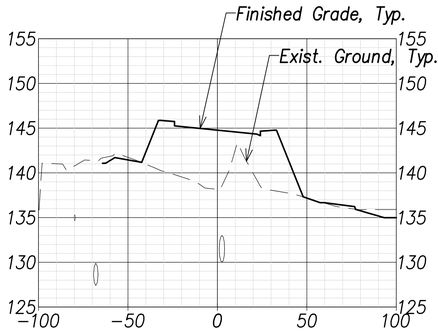
SHEET No. C-236 OF 767 SHEETS

ADD. 237

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

FILE: K:\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-236 Cross Sections - 3.dwg saved July 8, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A-01-20	2021	238	767



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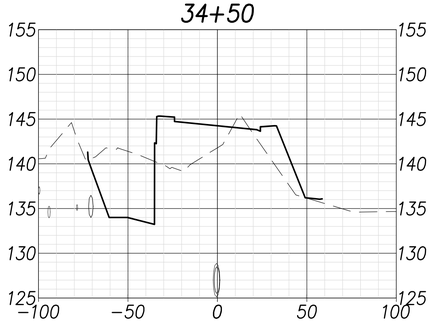

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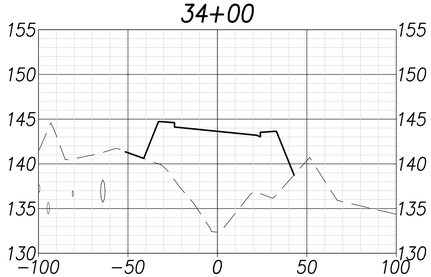

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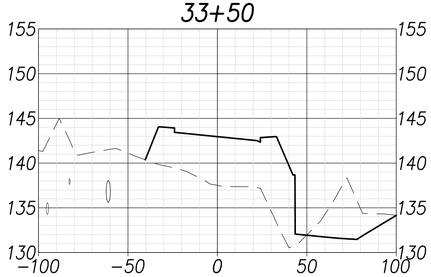

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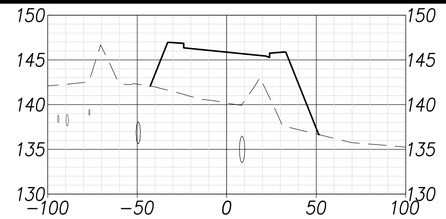

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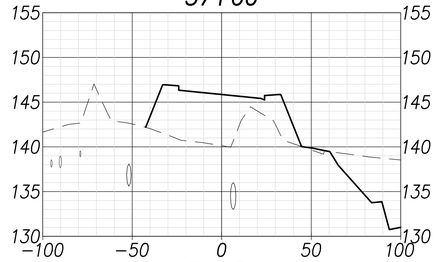

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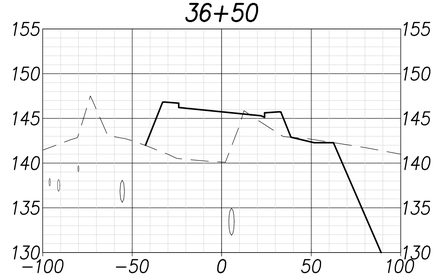

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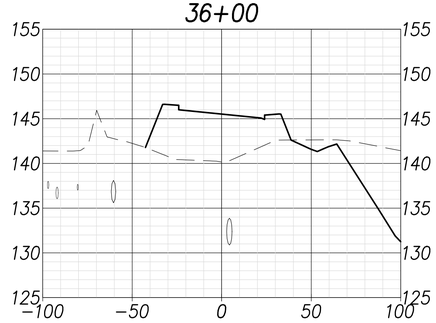

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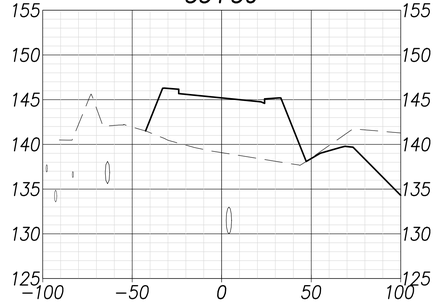

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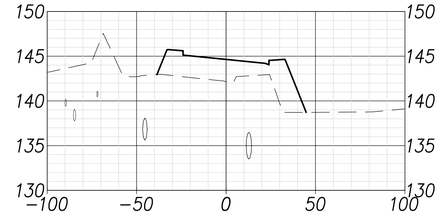

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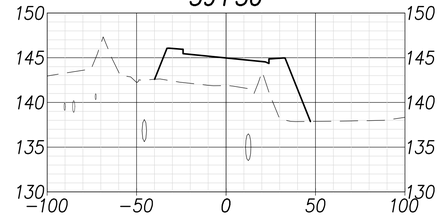

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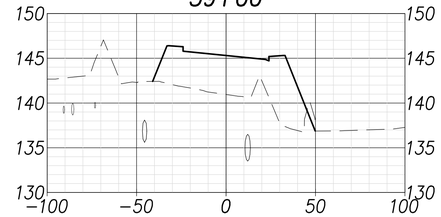

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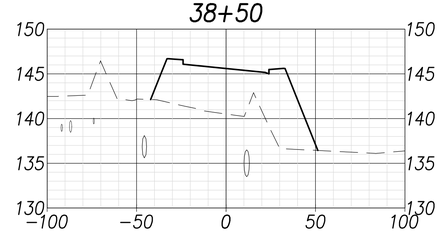

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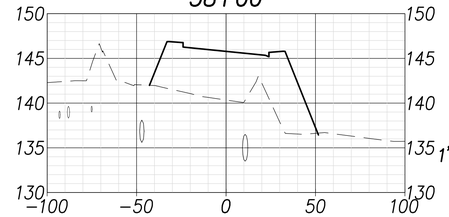

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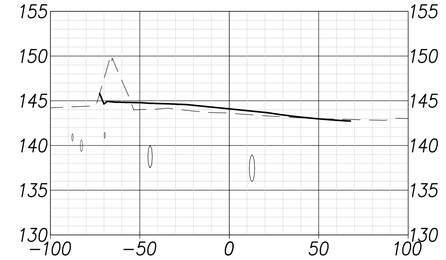

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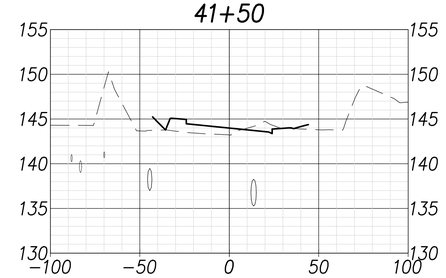

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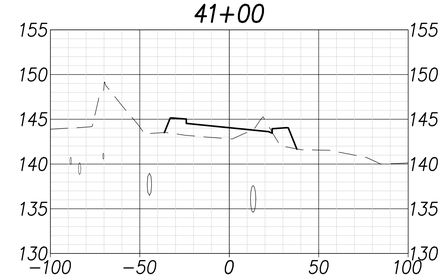

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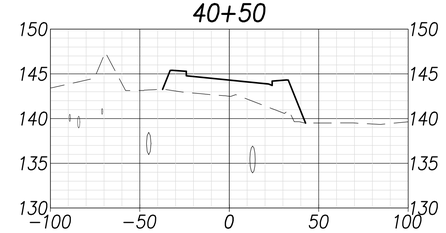

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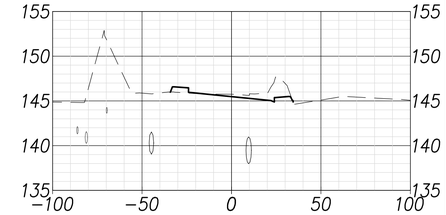

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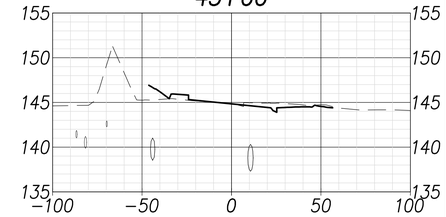

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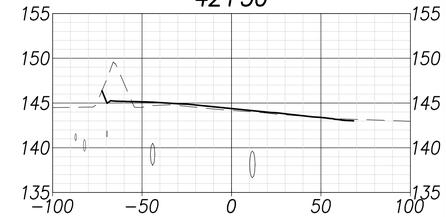

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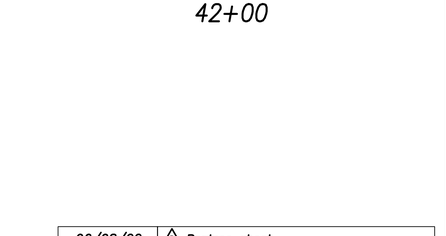


Graphic Scale:

1" = 40' 40' 20' 0 40' 80'

1" = 8' 8' 4' 0 8' 16'

Scale in Feet

CRAIG W. L. LUKE
LICENSED PROFESSIONAL ENGINEER
No. 6935-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

SIGNATURE — April 30, 2022 — EXPIRATION DATE OF THE LICENSE

DATE	REVISION
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 4

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

Scale: As Shown — Date: April 2022

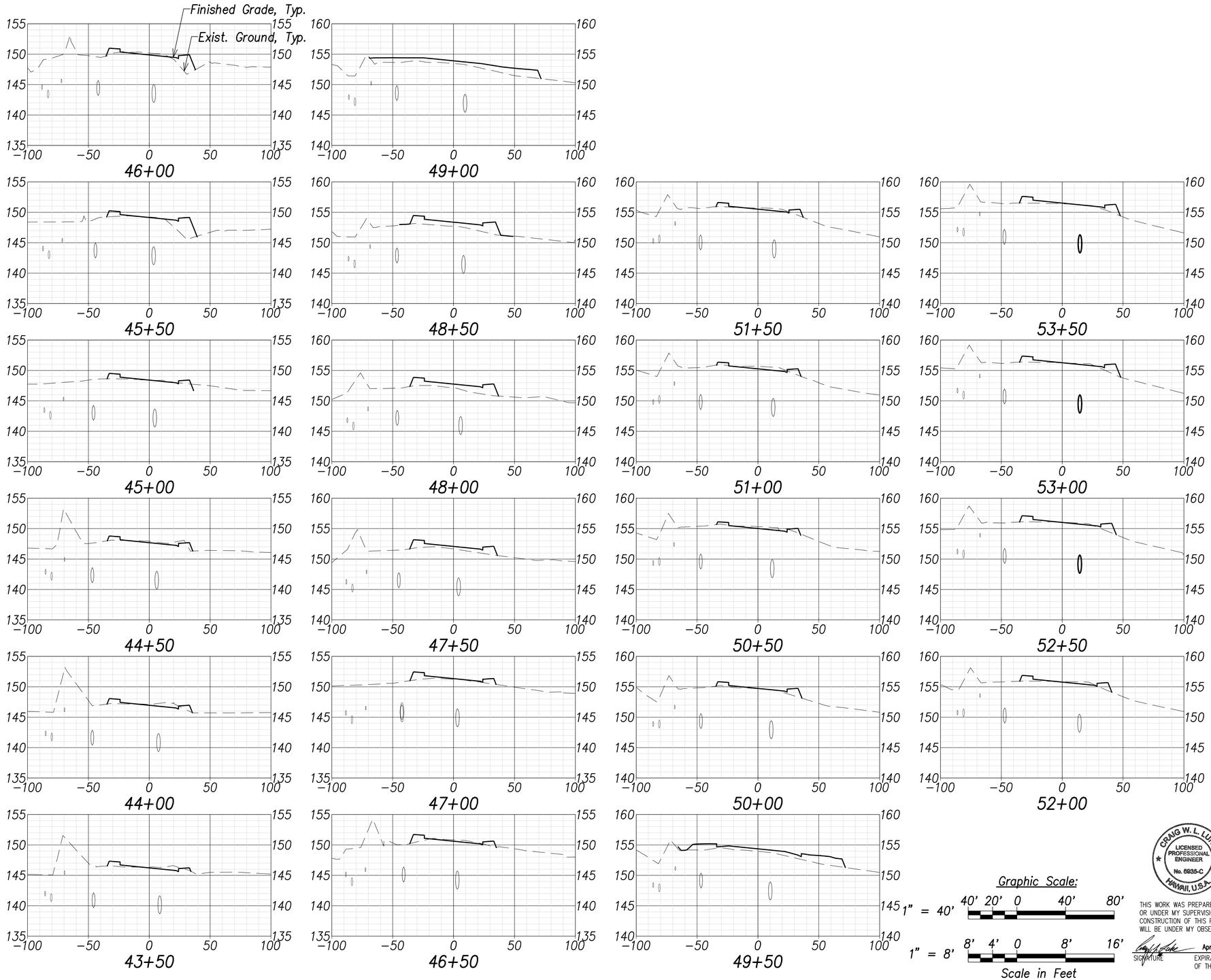
SHEET No. C-237 OF 767 SHEETS

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

ADD. 238

FILE: \\RMTC-FS\1project\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-237 Cross Sections - 4.dwg saved June 3, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A-01-20	2021	239	767



Graphic Scale:

1" = 40' 40' 20' 0 40' 80'

1" = 8' 8' 4' 0 8' 16'

Scale in Feet

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HAWAII, U.S.A.

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SIGNATURE — April 30, 2022 EXPIRATION DATE OF THE LICENSE

DATE	REVISION
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 5

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

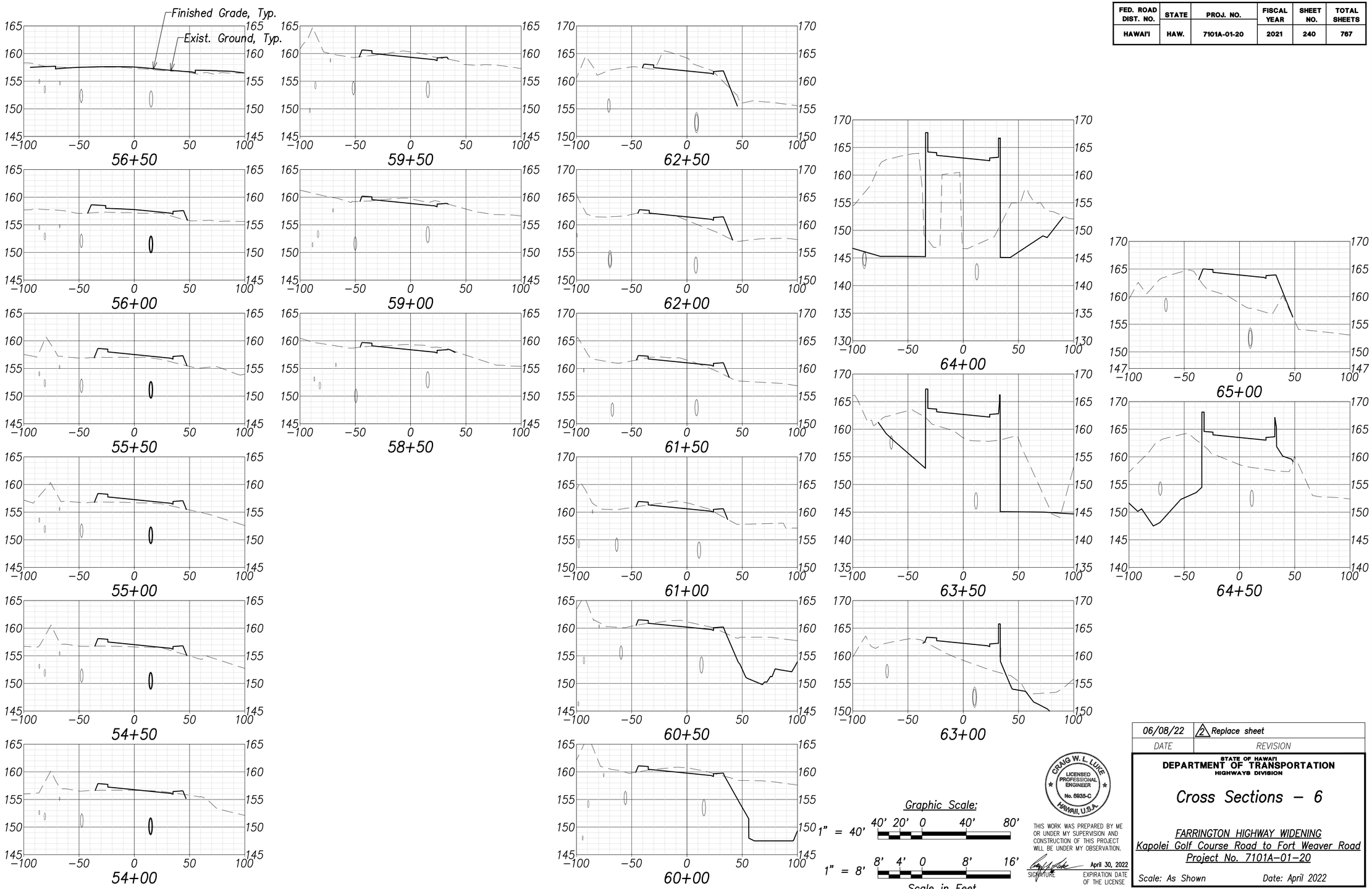
Scale: As Shown Date: April 2022

SHEET No. C-238 OF 767 SHEETS

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

FILE: \\RMTC-FS\Iproject\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-238 Cross Sections - 5.dwg saved June 3, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-01-20	2021	240	767



Graphic Scale:

1" = 40' 40' 20' 0 40' 80'

1" = 8' 8' 4' 0 8' 16'

Scale in Feet

DATE	REVISION
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 6

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

Scale: As Shown Date: April 2022

CRAIG W. L. LUKE
LICENSED PROFESSIONAL ENGINEER
No. 6935-C
HAWAII, U.S.A.

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SIGNATURE

April 30, 2022
EXPIRATION DATE OF THE LICENSE

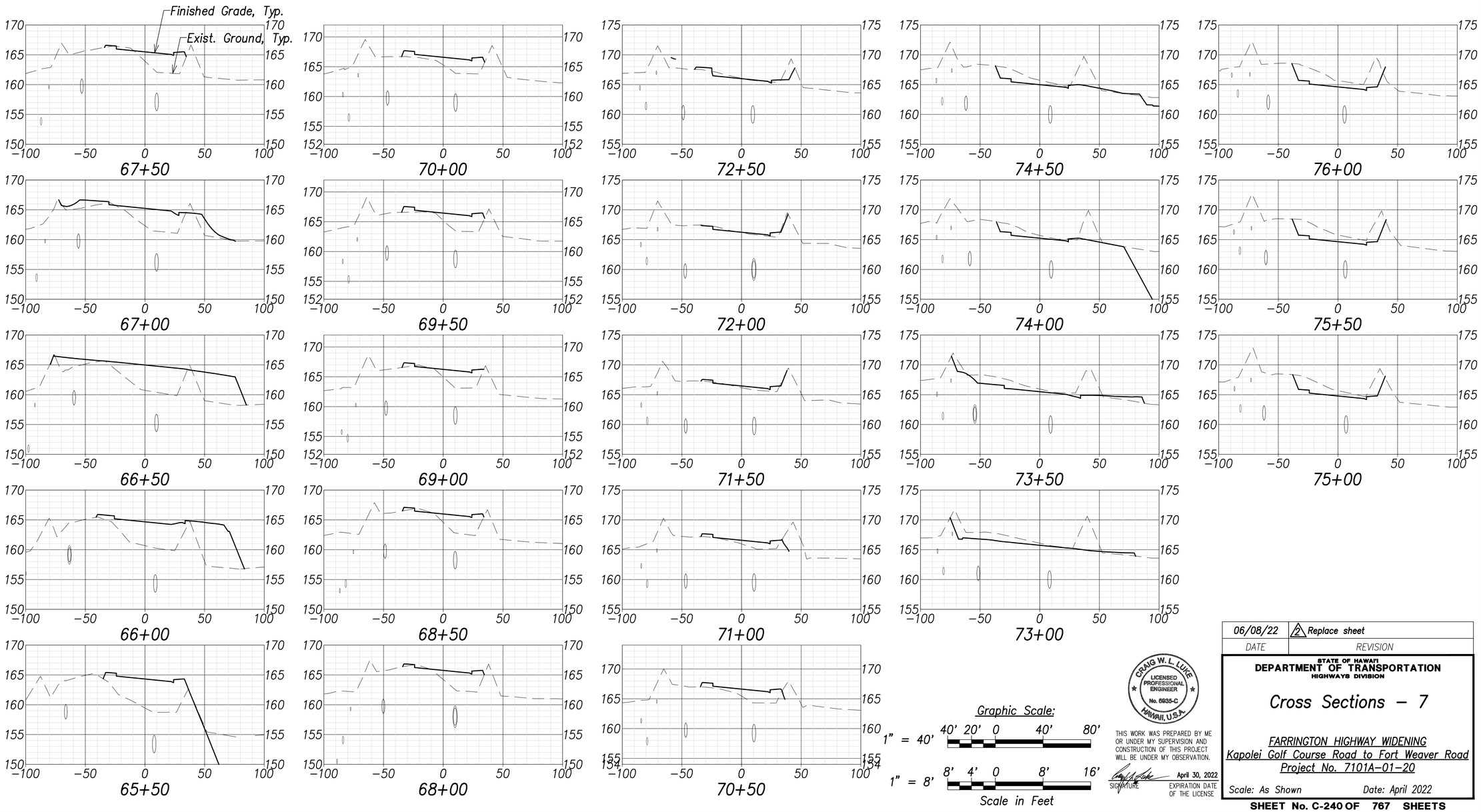
SHEET No. C-239 OF 767 SHEETS

ADD. 240

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

FILE: \\RMTC-FS\1project\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-239 Cross Sections - 6.dwg saved June 3, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A-01-20	2021	241	767



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

DATE	REVISION
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 7

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

Scale: As Shown Date: April 2022

CRAIG W. L. LUKE
LICENSED PROFESSIONAL ENGINEER
No. 6935-C
HAWAII, U.S.A.

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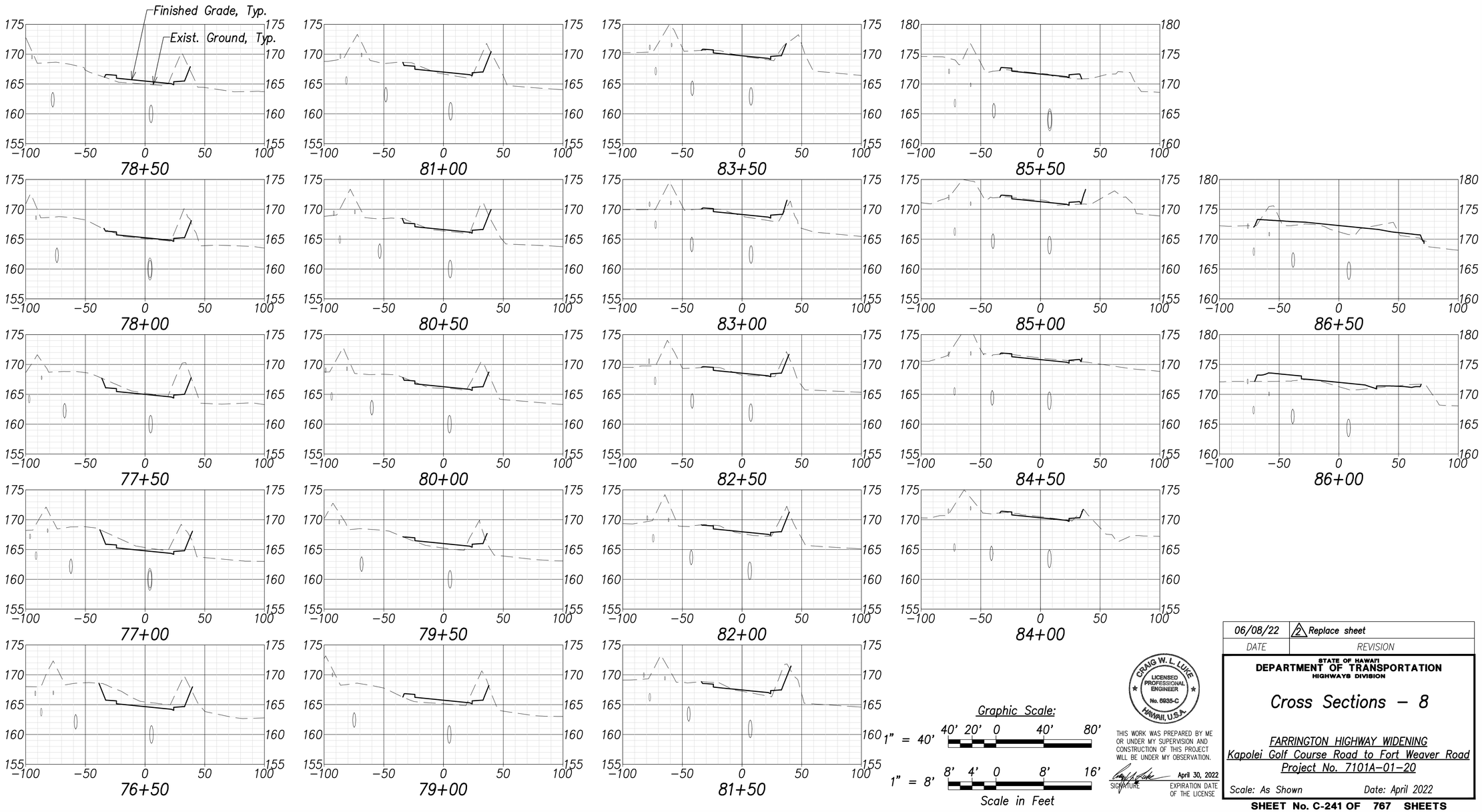
SIGNATURE April 30, 2022
EXPIRATION DATE OF THE LICENSE

SHEET No. C-240 OF 767 SHEETS

ADD. 241

FILE: \\RMTC-FS\Iproject\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-240 Cross Sections - 7.dwg saved June 3, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A-01-20	2021	242	767



Graphic Scale:

1" = 40' 40' 20' 0 40' 80'

1" = 8' 8' 4' 0 8' 16'

Scale in Feet

CRAIG W. L. LUKE
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No. 6935-C
HAWAII, U.S.A.

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SIGNATURE April 30, 2022 EXPIRATION DATE OF THE LICENSE

DATE	REVISION
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 8

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

Scale: As Shown Date: April 2022

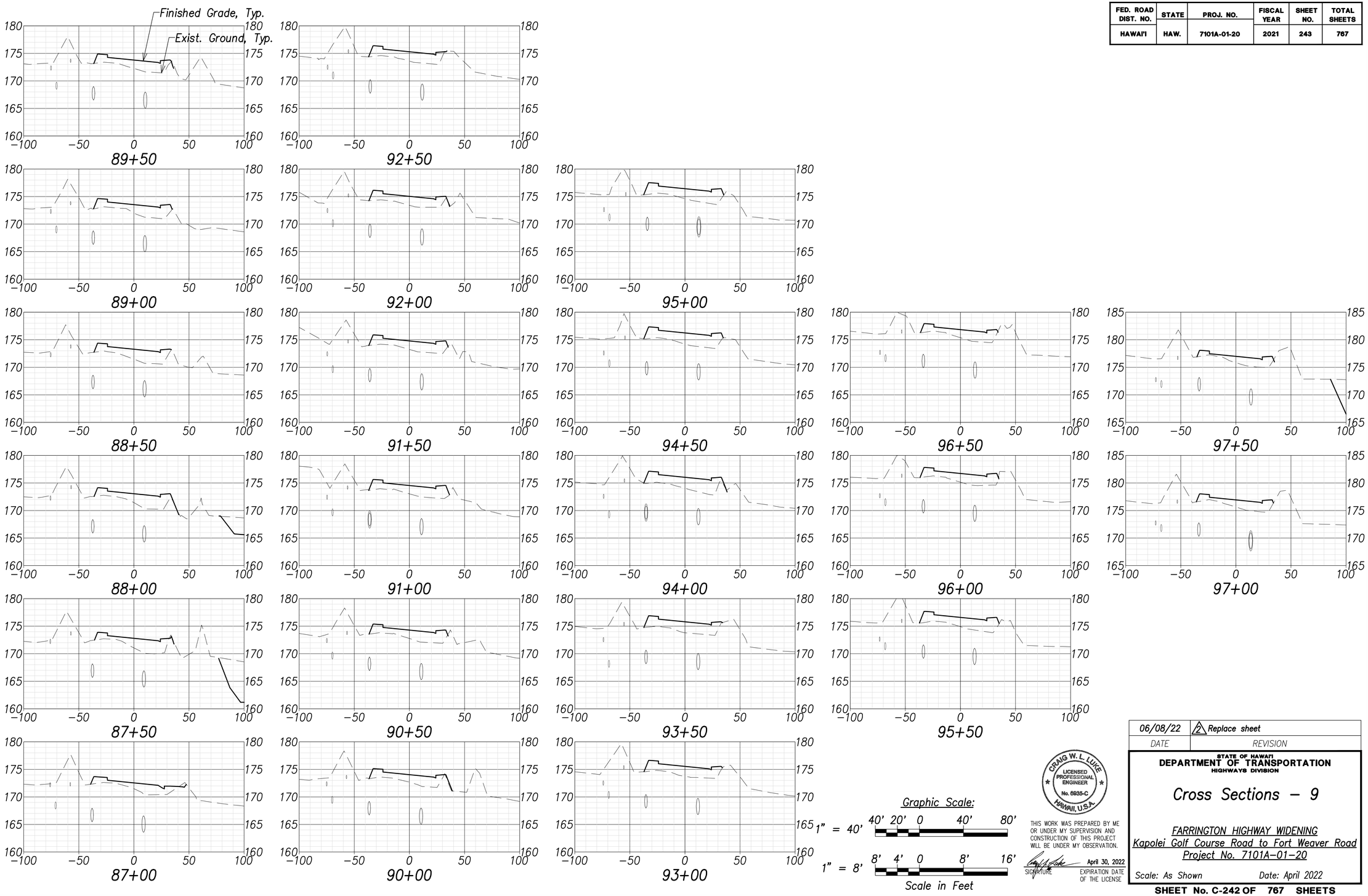
SHEET No. C-241 OF 767 SHEETS

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

FILE: \\RMTC-FS\Iproject\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-241 Cross Sections - 8.dwg saved June 3, 2022

ADD. 242

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A-01-20	2021	243	767



Graphic Scale:

1" = 40' 40' 20' 0 40' 80'

1" = 8' 8' 4' 0 8' 16'

Scale in Feet

CRAIG W. L. LUKE
LICENSED PROFESSIONAL ENGINEER
No. 6935-C
HAWAII, U.S.A.

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SIGNATURE — April 30, 2022 EXPIRATION DATE OF THE LICENSE

DATE	REVISION
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 9

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

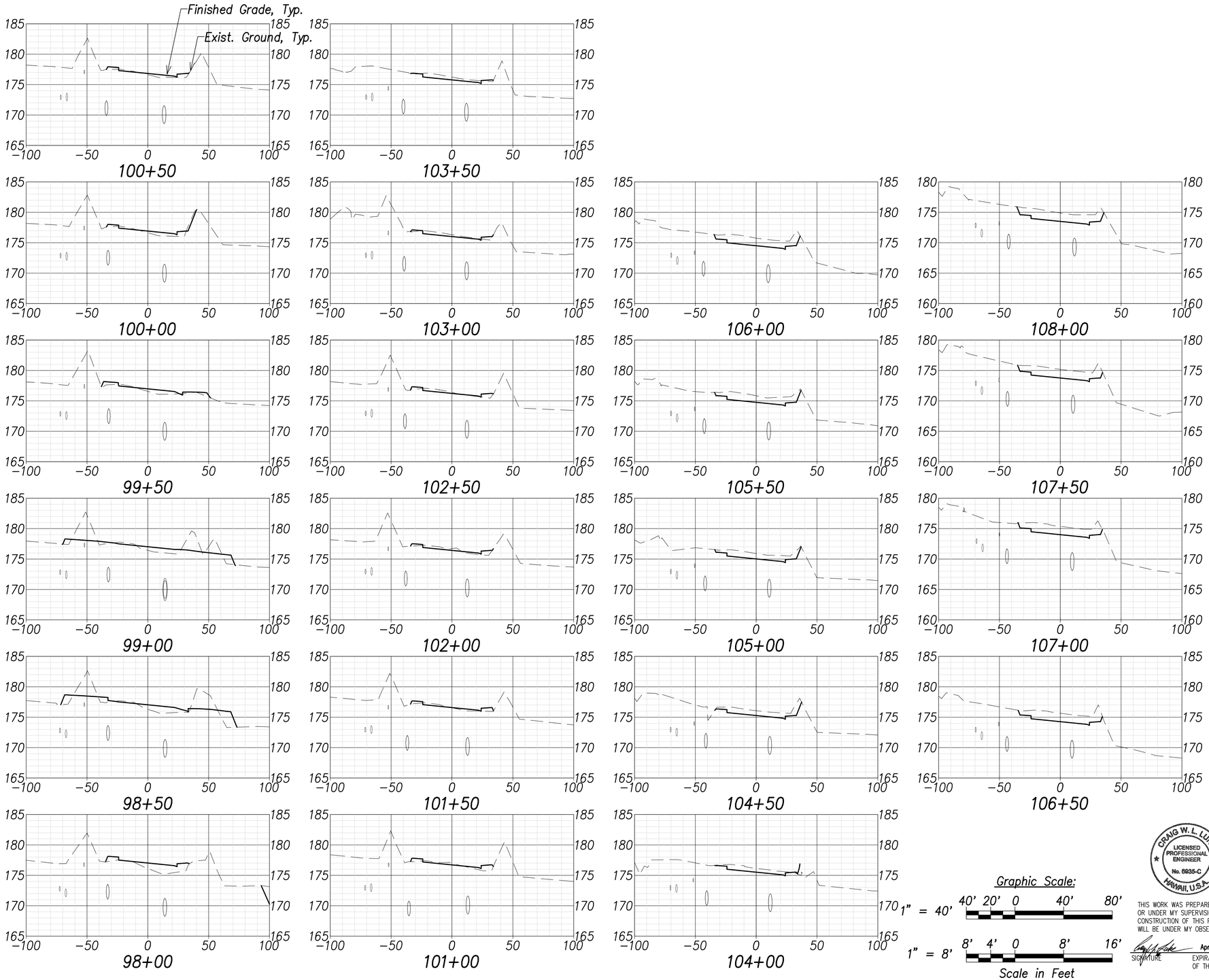
Scale: As Shown Date: April 2022

SHEET No. C-242 OF 767 SHEETS

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

FILE: \\RMTC-FS\Iproject\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-242 Cross Sections - 9.dwg saved June 3, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A-01-20	2021	244	767



Graphic Scale:

1" = 40' 40' 20' 0 40' 80'

1" = 8' 8' 4' 0 8' 16'

Scale in Feet

CRAIG W. L. LUKE
LICENSED PROFESSIONAL ENGINEER
No. 6935-C
HAWAII, U.S.A.

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SIGNATURE — April 30, 2022 EXPIRATION DATE OF THE LICENSE

DATE	REVISION
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 10

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

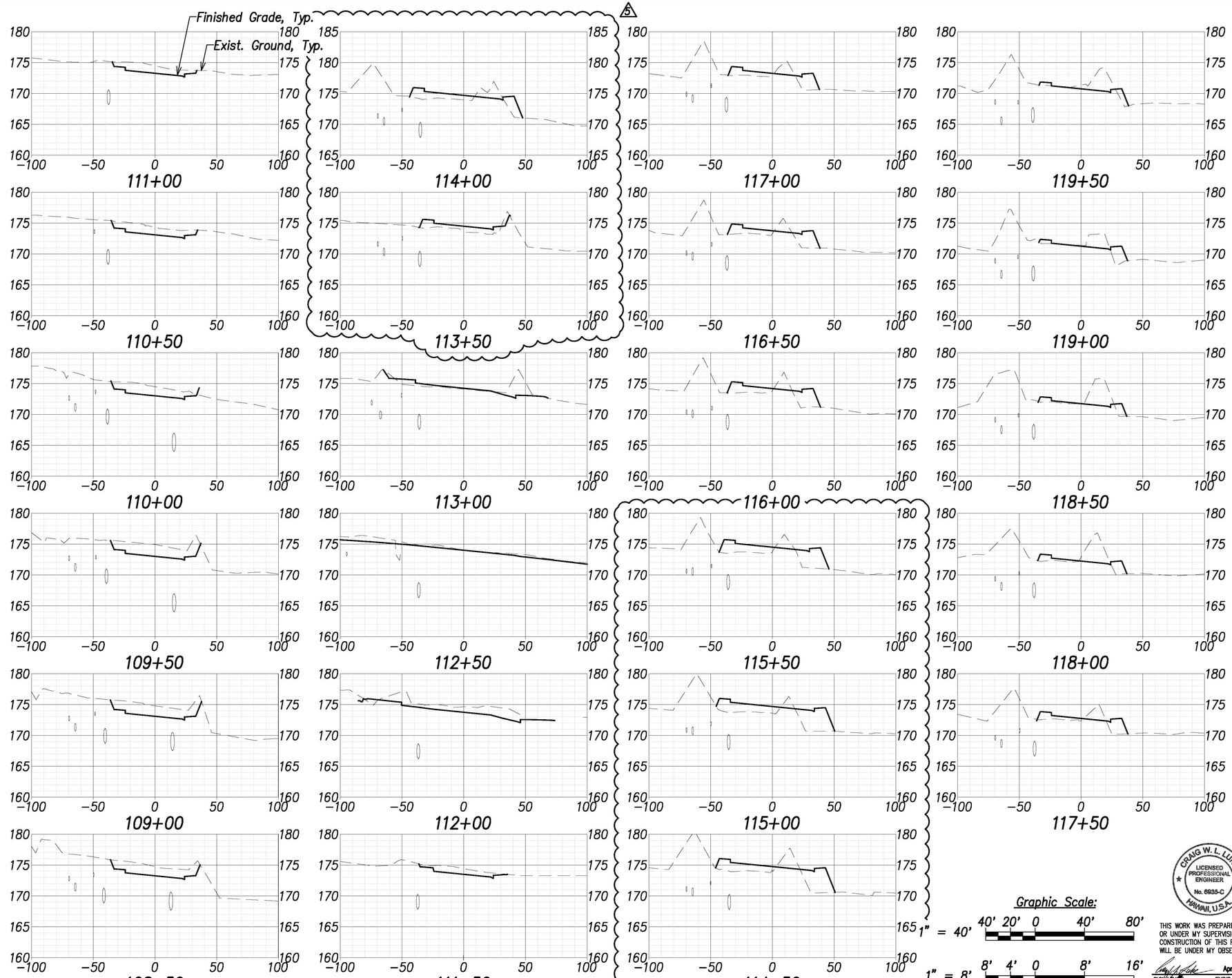
Scale: As Shown Date: April 2022

SHEET No. C-243 OF 767 SHEETS

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

FILE: \\RMTC-FS\Iproject\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-243 Cross Sections - 10.dwg saved June 3, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-01-20	2021	245	767



07/15/22	5 Revise cross sections
06/08/22	2 Replace sheet
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 11

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

Scale: As Shown Date: April 2022

Graphic Scale:

1" = 40' 40' 20' 0 40' 80'

1" = 8' 8' 4' 0 8' 16'

Scale in Feet

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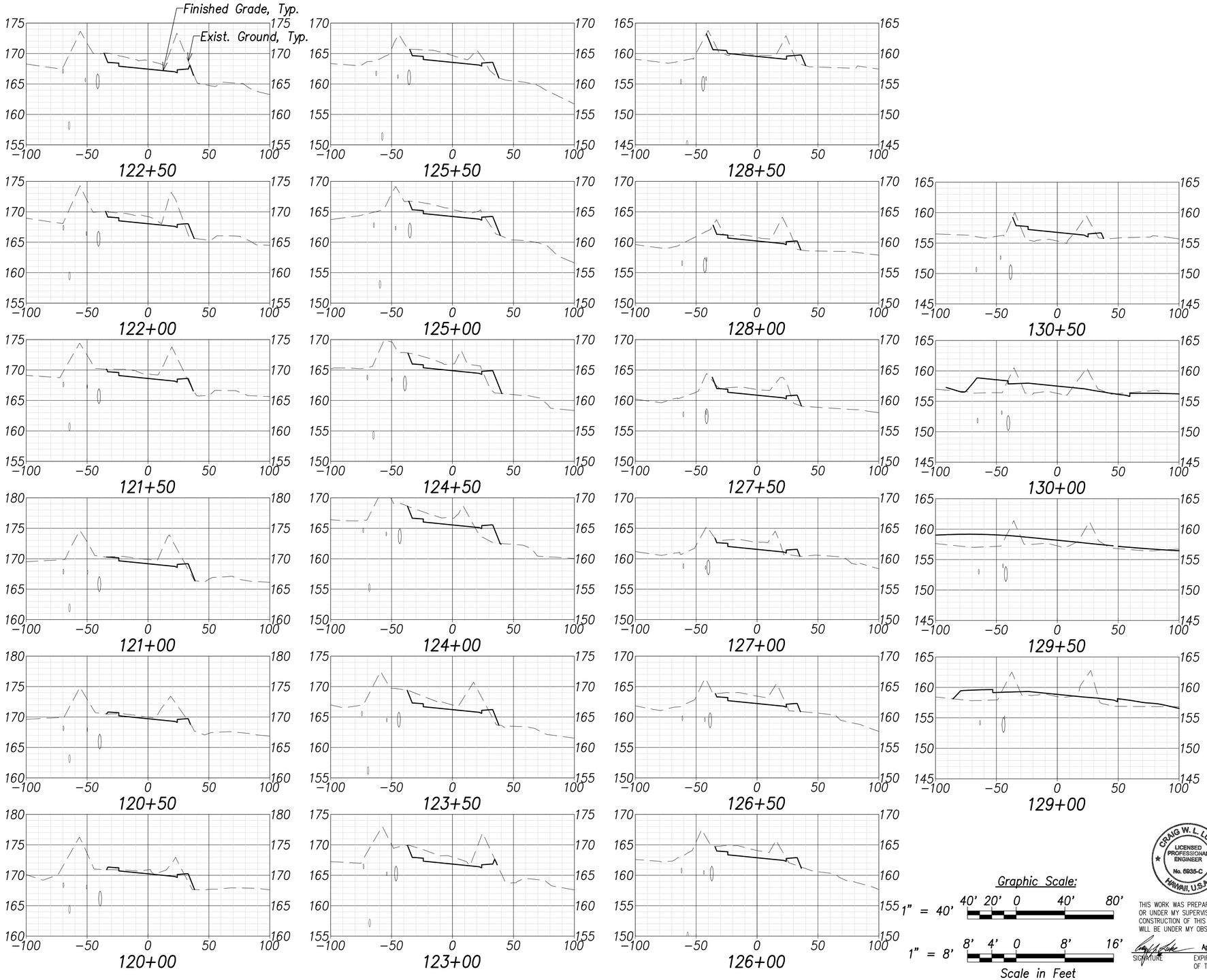
ORIGINAL PLAN	SURVEY PLOTTED BY
	SURVEY BY
	TRACED BY
NOTE BOOK	DESIGNED BY
No.	QUANTITIES BY
	CHECKED BY
	DATE

FILE: K:\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-244 Cross Sections - 11.dwg saved July 8, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-01-20	2021	246	767



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1" = 8' 8' 4' 0 8' 16'

Scale in Feet

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DATE	REVISION
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 12

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

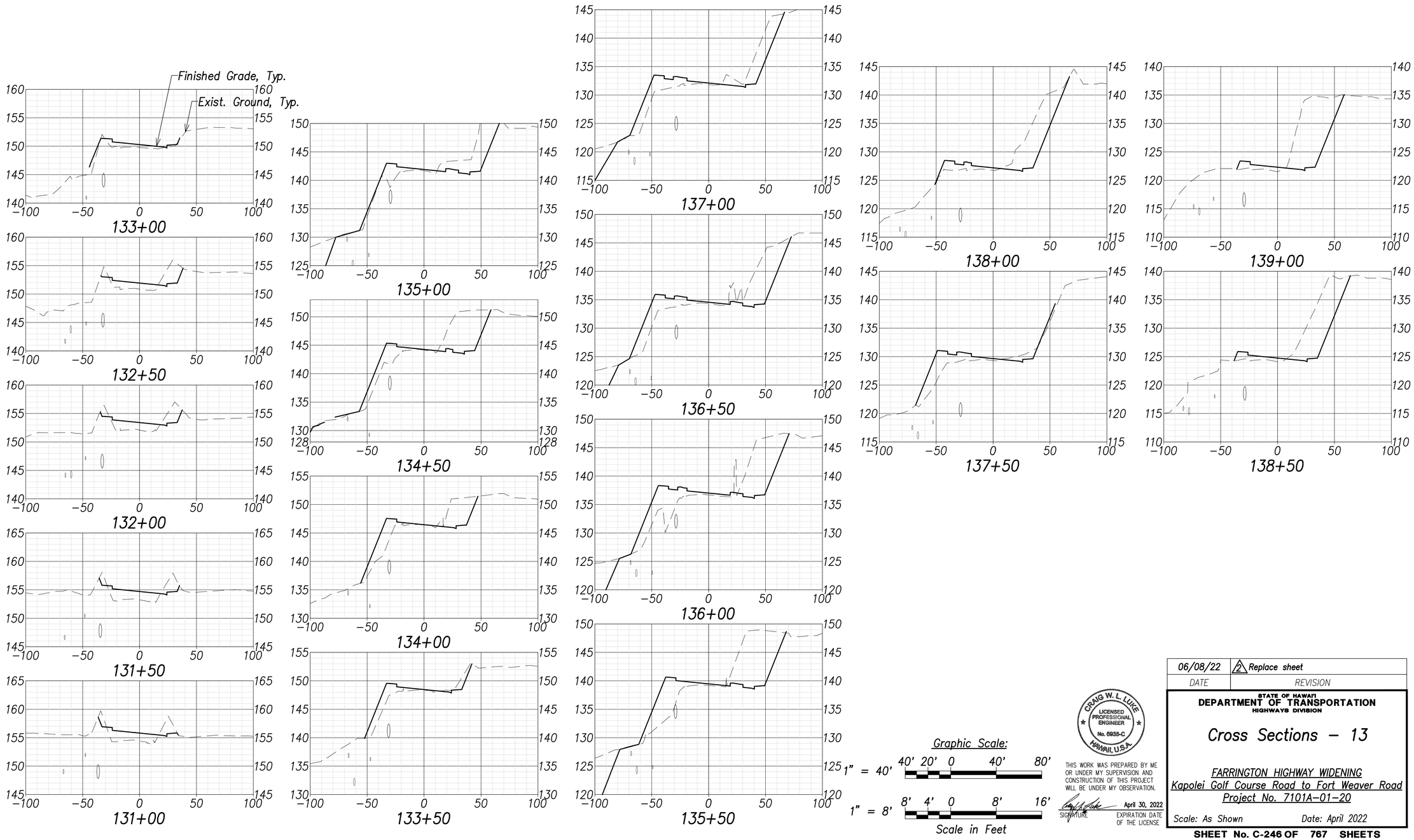
Scale: As Shown Date: April 2022

SHEET No. C-245 OF 767 SHEETS

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

FILE: \\RMTC-FS\Iproject\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-245 Cross Sections - 12.dwg saved June 3, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A-01-20	2021	247	767



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1" = 8' 8' 4' 0 8' 16'

Scale in Feet

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DATE	REVISION
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 13

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

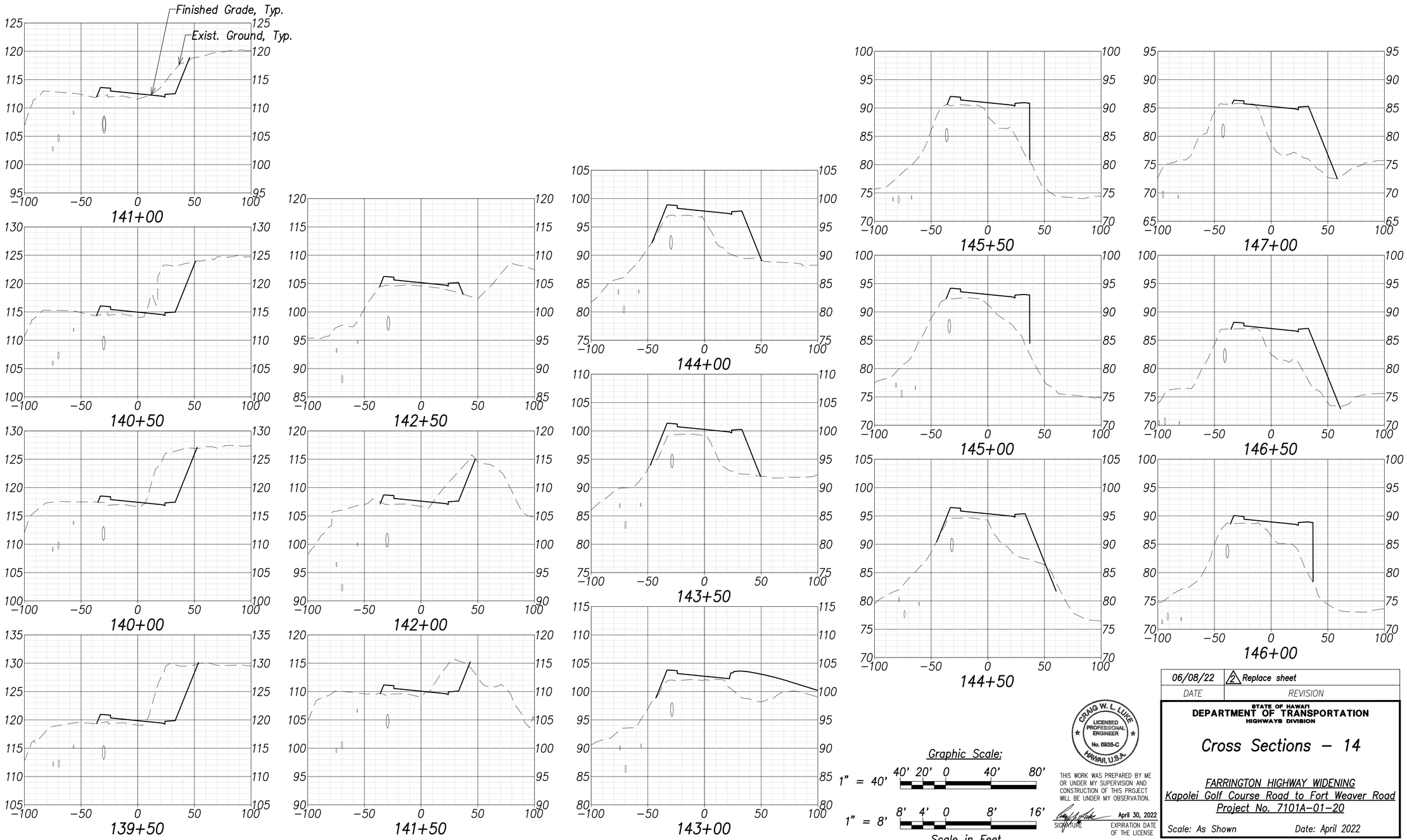
Scale: As Shown Date: April 2022

SHEET No. C-246 OF 767 SHEETS

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

FILE: \\RMTC-FS\Iproject\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-246 Cross Sections - 13.dwg saved June 3, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-01-20	2021	248	767



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DATE	REVISION
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 14

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

Scale: As Shown Date: April 2022

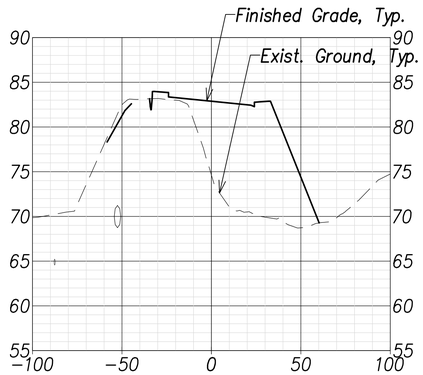
SHEET No. C-247 OF 767 SHEETS

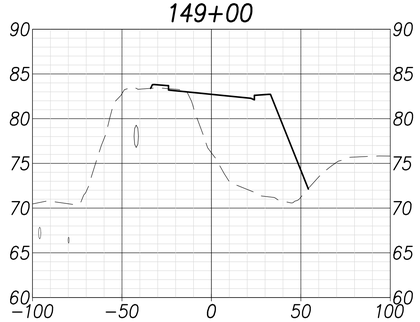
ORIGINAL PLAN
NOTE BOOK No.

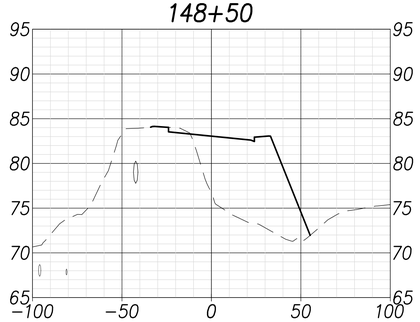
SURVEY PLOTTED BY DATE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

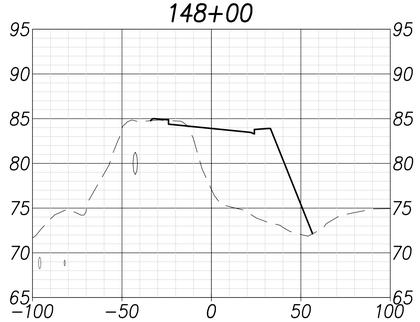
FILE: \\PMTC-FS\1project\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-247 Cross Sections - 14.dwg saved June 3, 2022

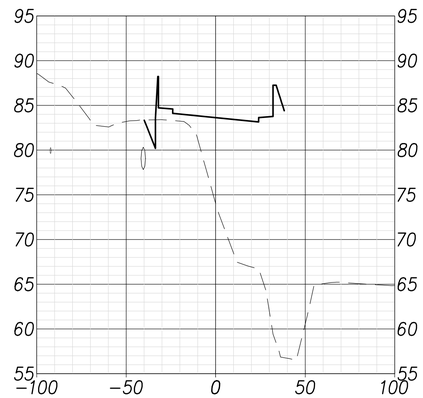
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A-01-20	2021	249	767

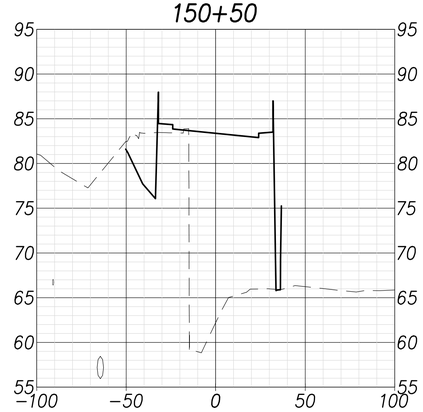


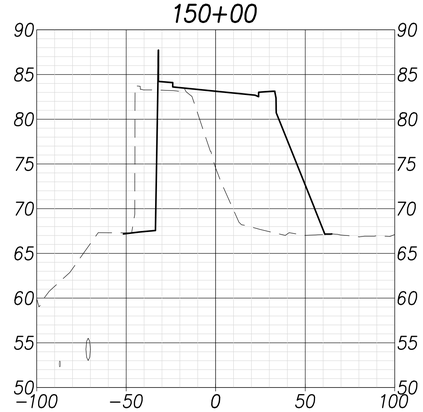


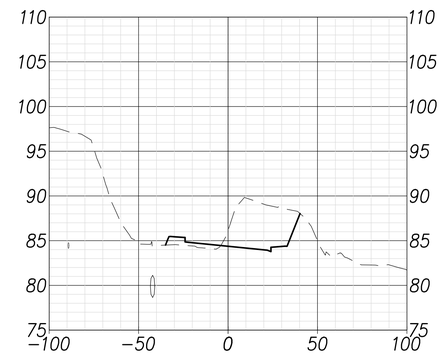


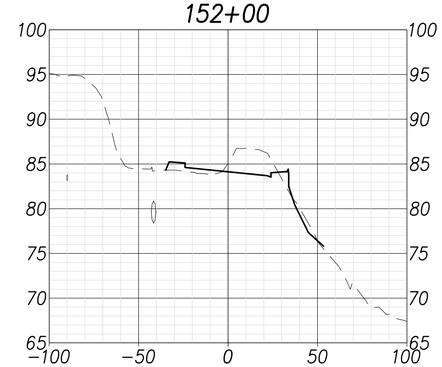


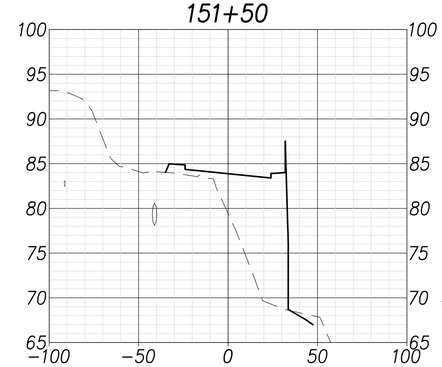


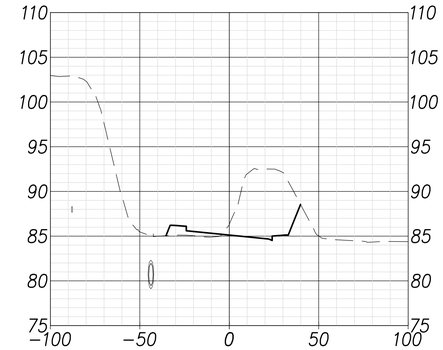


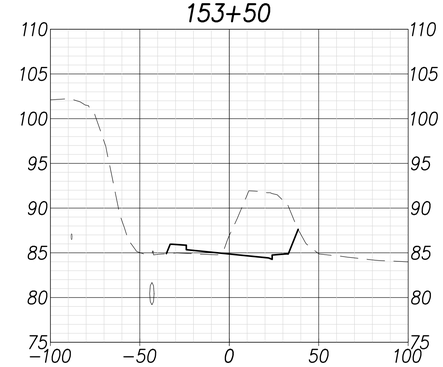


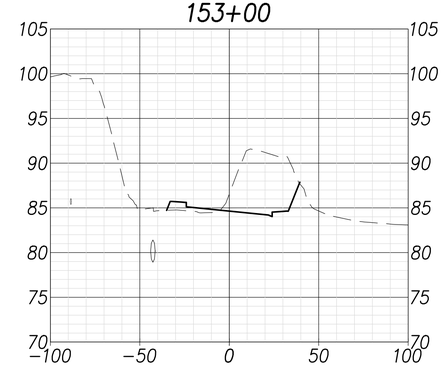


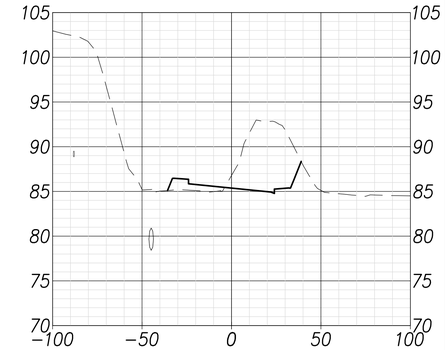












Graphic Scale:

1" = 40' 40' 20' 0 40' 80'

1" = 8' 8' 4' 0 8' 16'

Scale in Feet

CRAIG W. L. LUKE
LICENSED PROFESSIONAL ENGINEER
No. 6935-C
HAWAII, U.S.A.

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SIGNATURE — April 30, 2022 EXPIRATION DATE OF THE LICENSE

DATE	REVISION
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 15

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

Scale: As Shown Date: April 2022

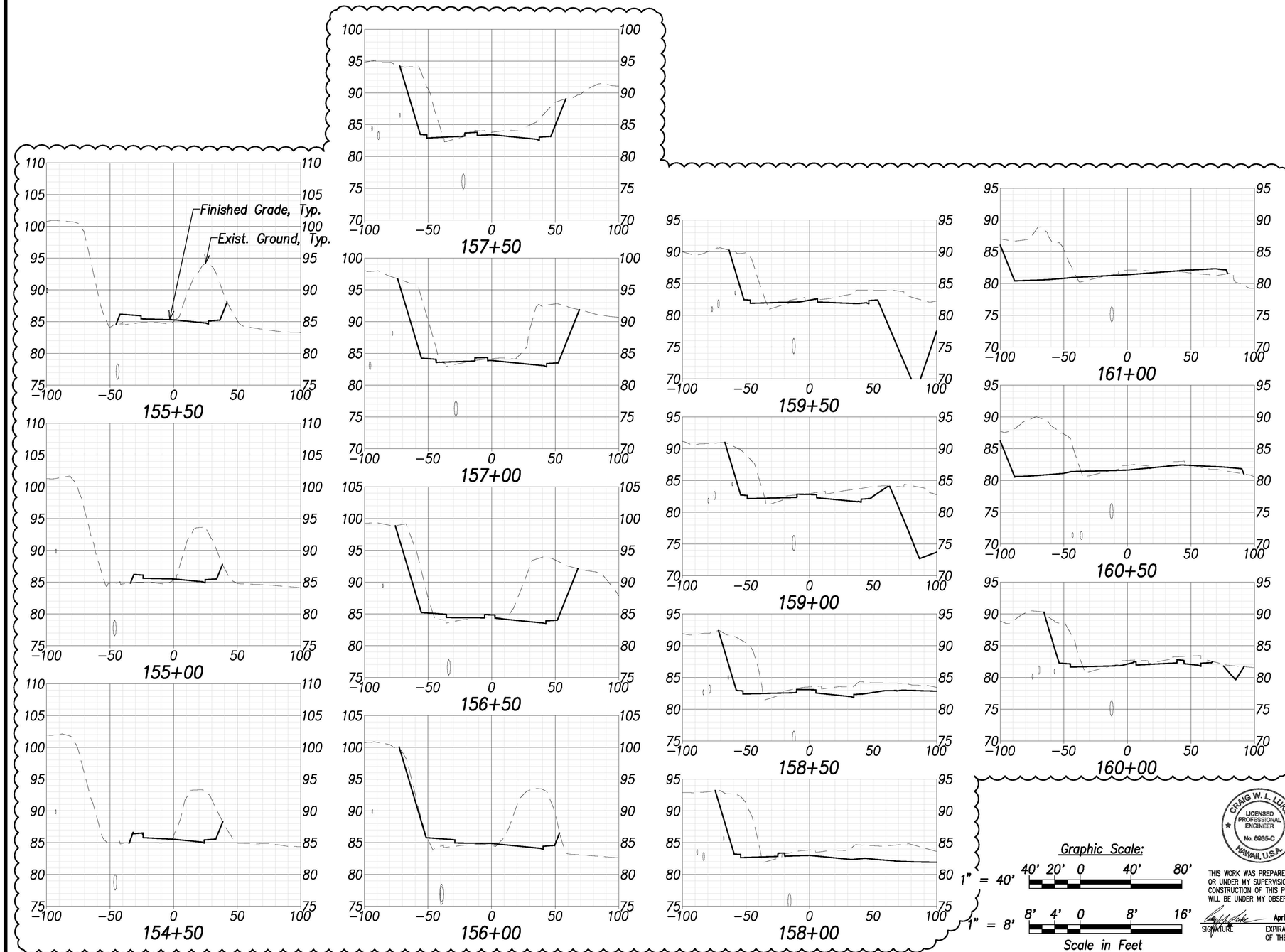
SHEET No. C-248 OF 767 SHEETS

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

ADD. 249

FILE: \\RMTC-FS\project\Civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-248 Cross Sections - 15.dwg saved June 3, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-01-20	2021	250	767



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

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DATE	REVISION
07/15/22	5 Revised cross sections
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 16

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

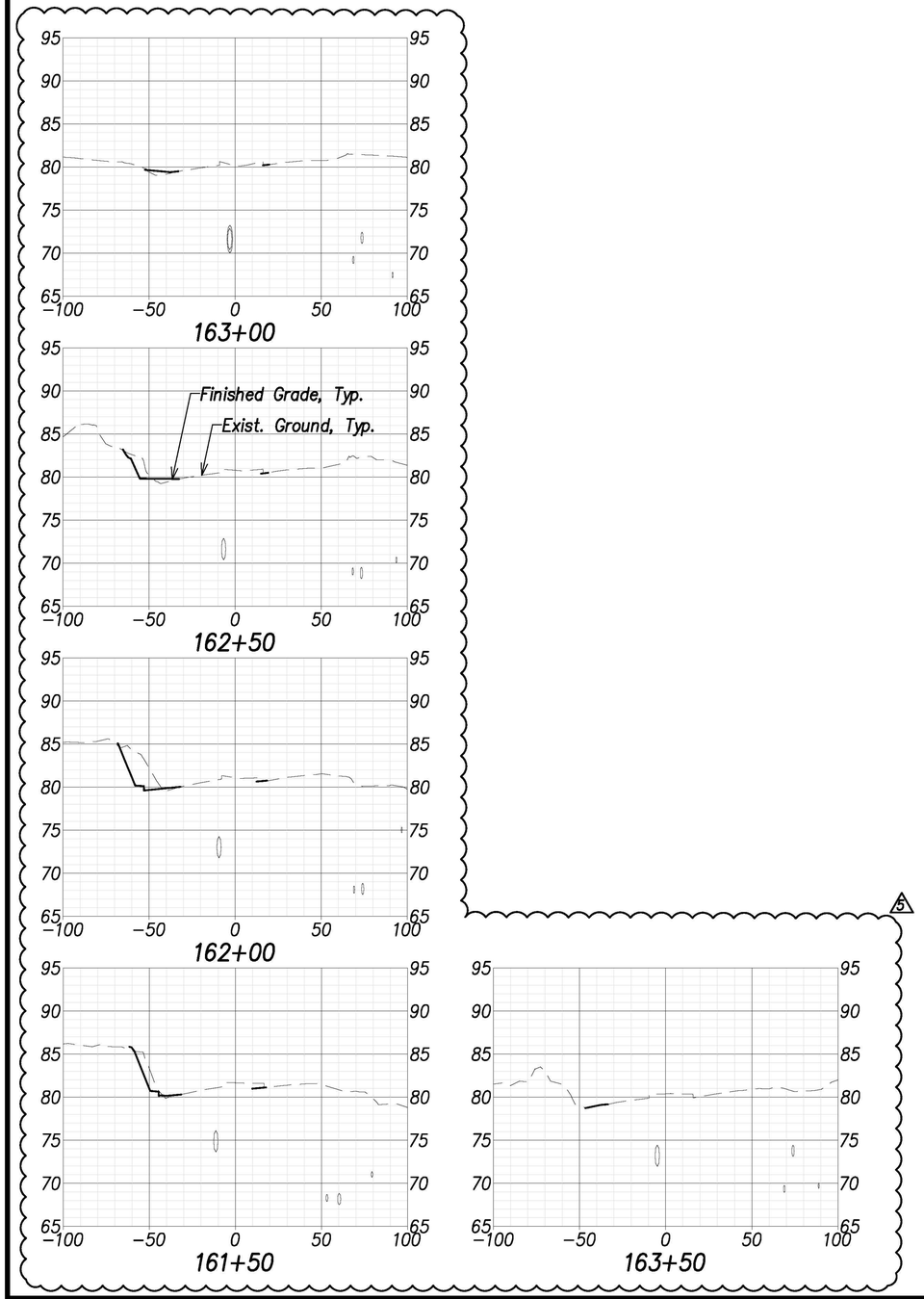
Scale: As Shown — Date: April 2022

SHEET No. C-249 OF 767 SHEETS

ADD. 250

FILE: K:\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-249 Cross Sections - 16.dwg saved July 8, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-01-20	2021	251	767



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

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1" = 8' 8' 4' 0 8' 16'

Scale in Feet

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CRAIG W. L. LUKE
LICENSED PROFESSIONAL ENGINEER
No. 6935-C
HAWAII, U.S.A.

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DATE	REVISION
07/15/22	5 Revised cross sections
06/08/22	2 Replace sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

Cross Sections – 17

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

Scale: As Shown Date: April 2022

SHEET No. C-250 OF 767 SHEETS

ADD. 251

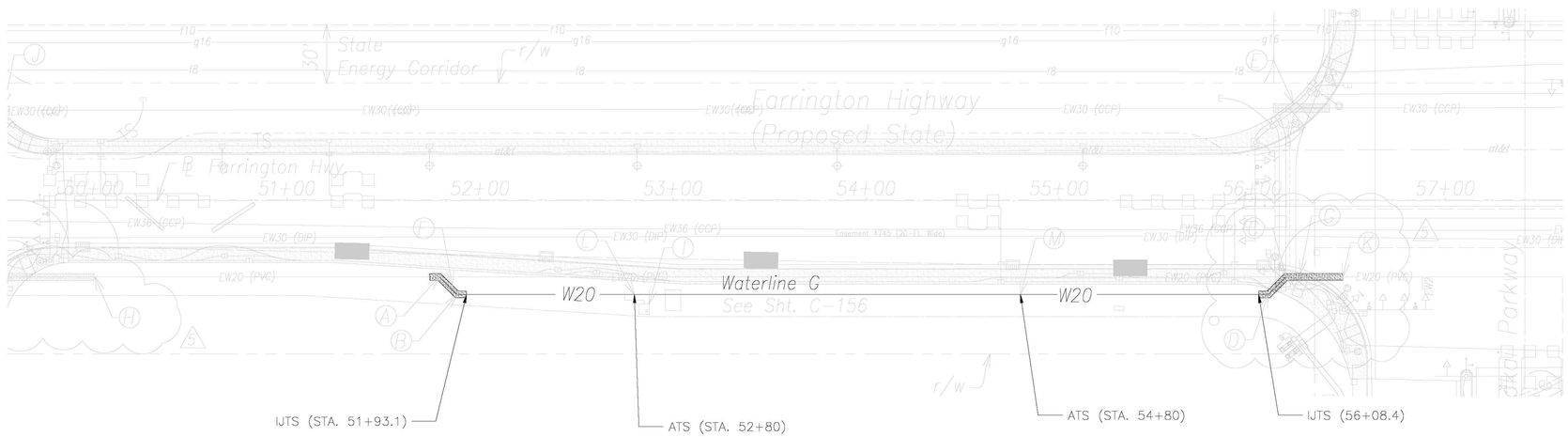
FILE: K:\civil\23146 Farrington Hwy Widening\Dwg\Construction Dwgs\C-250 Cross Sections - 17.dwg saved July 11, 2022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A-01-20	2021		XXX

TEST STATION SCHEDULE							
NO.	PIPELINE/STREET NAME	STATION	TEST STATION TYPE	NUMBER OF ANODES	TYPE OF ANODES	NOTES	REFERENCE DETAILS
1	W20	51+93.1	IJTS	N/A	N/A	INSULATING JOINT BEFORE RCJ	2/CP-2, B/CP/2, 2/CP-3
2	W20	52+80.0	ATS	4	HIGH-POTENTIAL MAGNESIUM (60 LB)		1/CP-2, A/CP-2, 1/CP-3
3	W20	54+80.0	ATS	4	HIGH-POTENTIAL MAGNESIUM (60 LB)		1/CP-2, A/CP-2, 1/CP-3
4	W20	56+08.4	IJTS	N/A	N/A	INSULATING JOINT BEFORE RCJ	2/CP-2, B/CP/2, 2/CP-3

NOTES:

1. TEST STATIONS TO BE LOCATED ON THE FAR EDGE OF THE ROW AND IN AREAS NOT SUBJECT TO VEHICULAR TRAFFIC, SUCH AS SIDEWALKS.
2. WHEN AVAILABLE, TEST STATIONS TO BE LOCATED BEHIND NEAREST CURB AND WITHIN 5 FT OF FIRE HYDRANT.
3. IJTS STATIONING TAKEN FROM INSULATING JOINT. INSULATING JOINT SHALL BE INSTALLED BETWEEN CONCRETE ENCASED PIPE AND NON-ENCASED PIPE.
4. ELECTRICALLY ISOLATE ALL METALLIC LATERAL PIPING (INCLUDING ARVs) FROM PROJECT PIPELINES. IF METALLIC LATERAL PIPING IS NOT PROPERLY ISOLATED FROM THE PROJECT PIPELINES, THEN THE CATHODIC PROTECTION SYSTEM COULD BE PREMATURELY DEPLETED.
5. THE CATHODIC PROTECTION SYSTEM DESIGN IS DEPENDENT ON THE DIP HAVING A BONDED DIELECTRIC COATING PER THE BWS WATER SYSTEM EXTERNAL CORROSION CONTROL STANDARDS. IF THE DIP DOES NOT HAVE A BONDED DIELECTRIC COATING, THEN THE CATHODIC PROTECTION SYSTEM COULD BE PREMATURELY DEPLETED.



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

V&A
1000 Broadway, Suite 320
Oakland, CA 94607
Tel. (510) 903-6600, Fax (510) 903-6601
Project No. 21-0197

GLENN H WILLSON
LICENSED PROFESSIONAL ENGINEER
No. 11304-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

SIGNATURE — EXPIRATION DATE OF THE LICENSE: April 30, 2024

07/15/22 | 5 Replace Sheet

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CATHODIC PROTECTION TEST STATION SCHEDULE

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

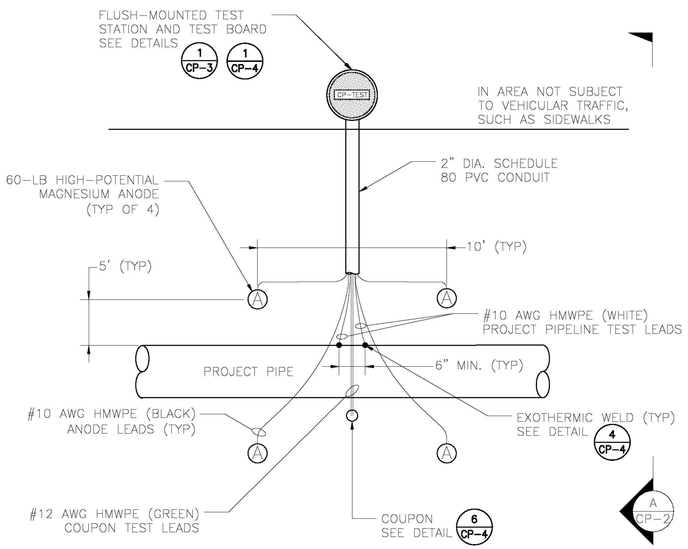
Scale: As Shown — Date: April 2022

SHEET No. CP-1 OF 767 SHEETS

ADD. 251S-1

FILE: E:\Projects\2021\0100 thru 0199\21-0197 RM Towill CDH\Drawings\2. Final\Farrington Highway Improvements (21-0197)_20220720.dwg saved July 20, 2022

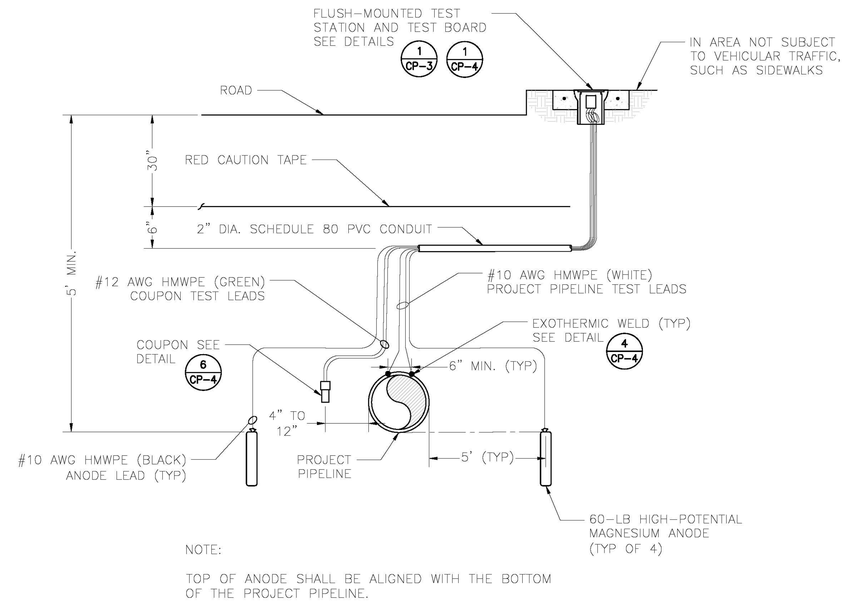
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A-01-20	2021		XXX



ANODE TEST STATION (ATS) PLAN VIEW

SCALE: NTS

1 CP-2



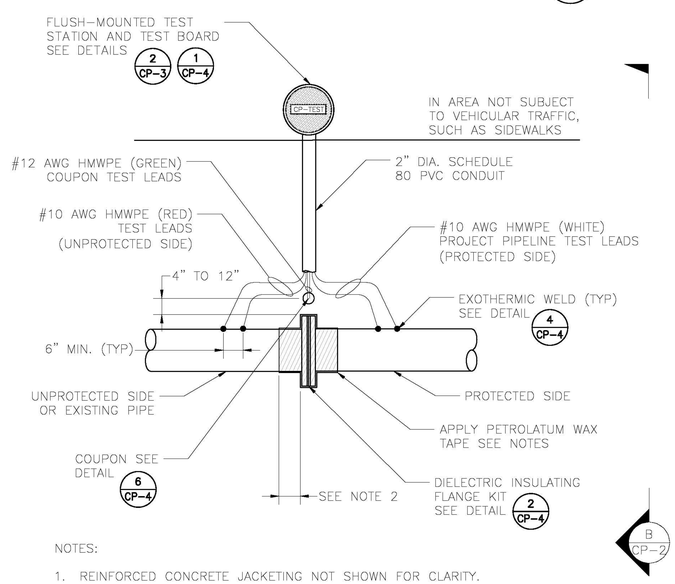
NOTE:

TOP OF ANODE SHALL BE ALIGNED WITH THE BOTTOM OF THE PROJECT PIPELINE.

ANODE TEST STATION (ATS) SECTION VIEW

SCALE: NTS

A CP-2



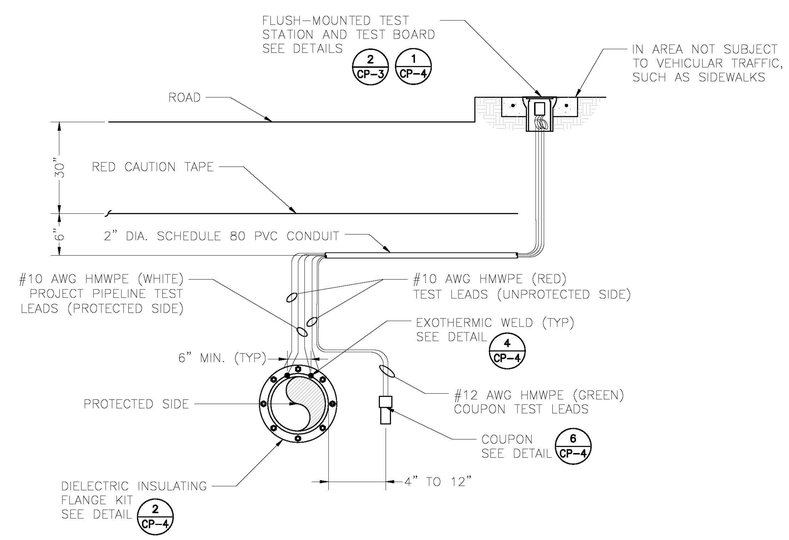
NOTES:

1. REINFORCED CONCRETE JACKETING NOT SHOWN FOR CLARITY.
2. COAT THE EXTERIOR OF THE INSULATING FLANGE WITH PETROLATUM WAX TAPE FOR A MINIMUM OF 3 FEET BEYOND THE GASKET WITH A MINIMUM OF 6 INCHES OF OVERLAP WITH THE FACTORY-APPLIED COATING ON THE PIPELINE.

INSULATING JOINT TEST STATION (IJTS) PLAN VIEW

SCALE: NTS

2 CP-2



INSULATING JOINT TEST STATION (IJTS) SECTION VIEW

SCALE: NTS

B CP-2

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	DRAWN BY PLAN	
	TRACED BY	
NOTE BOOK	DESIGNED BY	
	QUANTITIES BY	
No.	CHECKED BY	

V&A
1000 Broadway, Suite 320
Oakland, CA 94607
Tel. (510) 903-6600, Fax (510) 903-6601
Project No. 21-0197

GLENN H WILLSON LICENSED PROFESSIONAL ENGINEER No. 11304-C HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

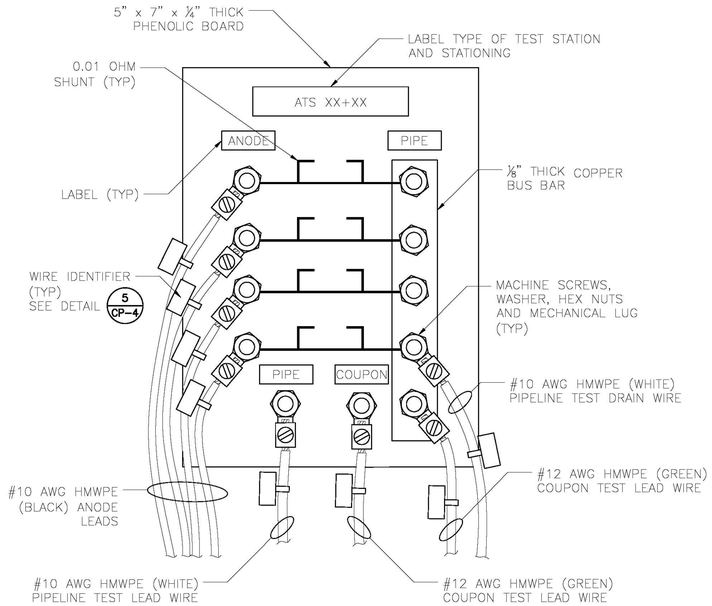
CATHODIC PROTECTION DETAILS

FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A-01-20

Scale: As Shown — Date: April 2022

FILE: E:\Projects\2021\0100 thru 0199\21-0197 RM Tswill CDh\Drawings\2. Final\Farrington Highway Improvements (21-0197)_20220720.dwg saved July 20, 2022

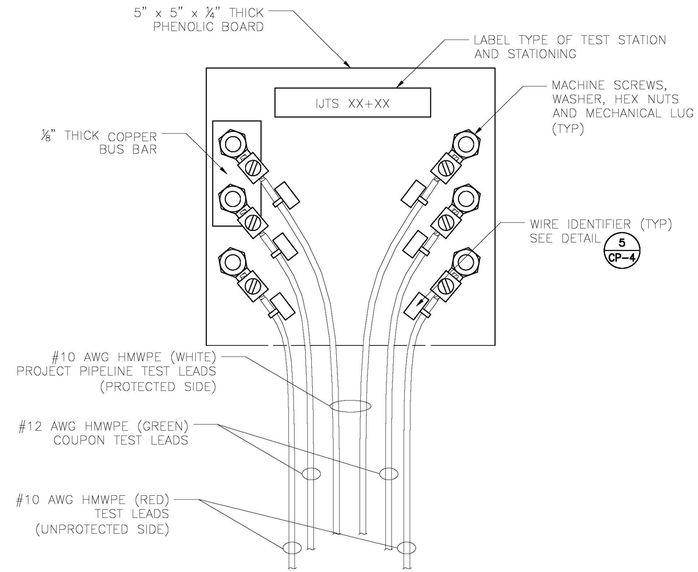
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A–01–20	2021		XXX



ANODE TEST STATION (ATS) TERMINAL BOARD DETAIL

SCALE: NTS

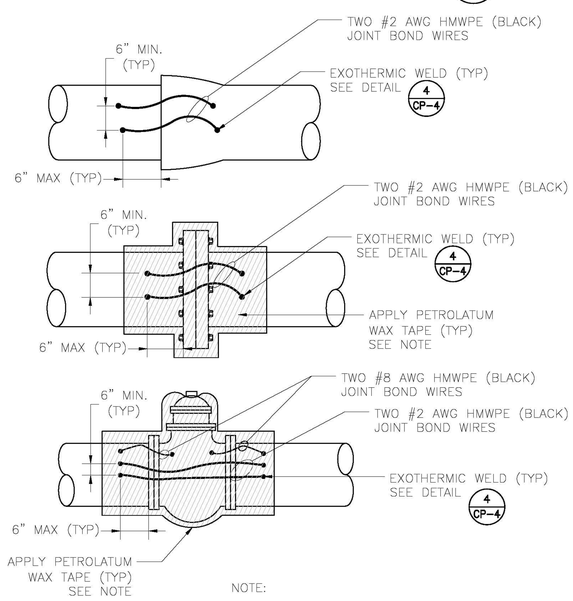
1 / CP-3

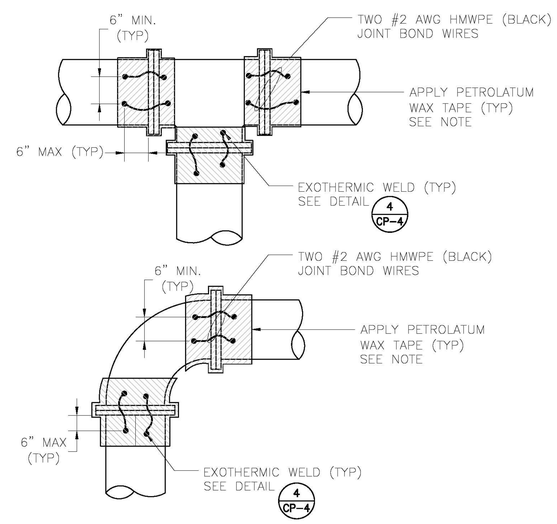


INSULATING JOINT TEST STATION (IJTS) TERMINAL BOARD DETAIL

SCALE: NTS

2 / CP-3





NOTE:

COAT THE EXTERIOR OF THE JOINT WITH PETROLATUM WAX TAPE FOR A MINIMUM OF 3 FEET BEYOND THE JOINT WITH A MINIMUM OF 6 INCHES OF OVERLAP WITH THE FACTORY–APPLIED COATING ON THE PIPELINE.

PIPE JOINT BONDING DETAILS FOR NON–INSULATED JOINTS

SCALE: NTS

4 / CP-3

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FARRINGTON HIGHWAY WIDENING
Kapolei Golf Course Road to Fort Weaver Road
Project No. 7101A–01–20

Scale: As Shown — Date: April 2022

SHEET No. CP-3 OF 767 SHEETS

ADD. 251S–3

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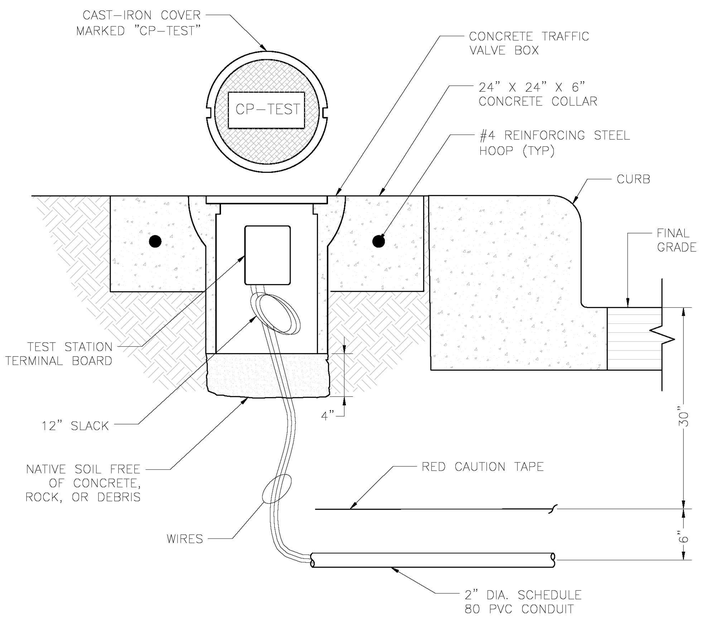
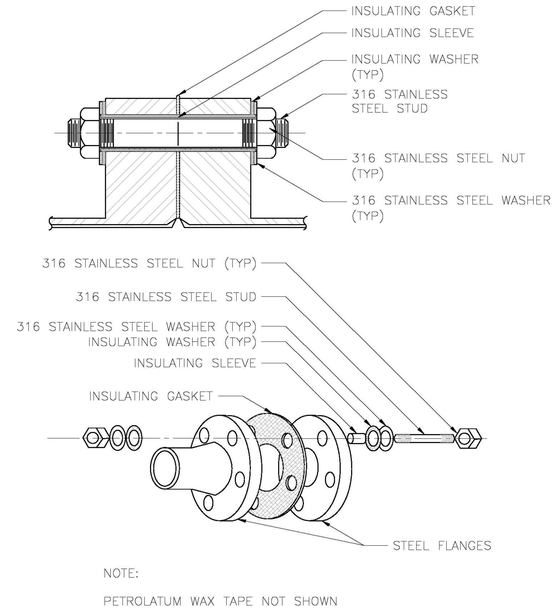
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAI'I	HAW.	7101A-01-20	2021		XXX



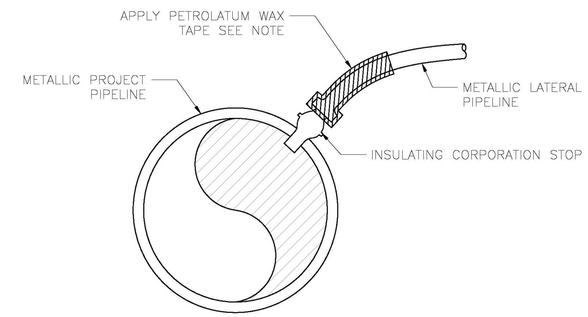
FLUSH-MOUNTED TEST STATION DETAIL (1 / CP-4)
SCALE: NTS



NOTE:

PETROLATUM WAX TAPE NOT SHOWN

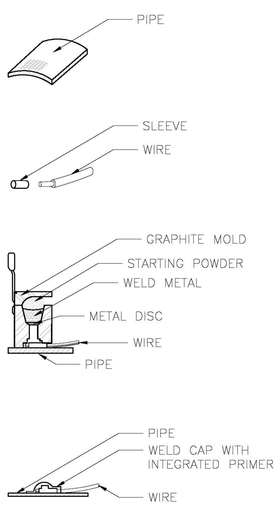
DIELECTRIC INSULATING FLANGE KIT DETAIL WITH SECTION VIEW (2 / CP-4)
SCALE: NTS



NOTE:

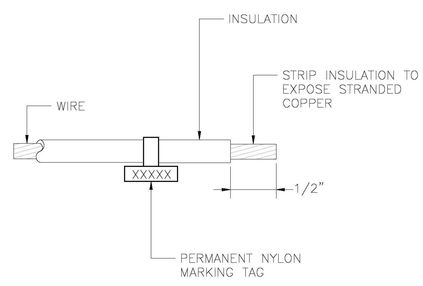
WRAP FIRST THREE FEET OF METALLIC LATERAL IN PETROLATUM WAX TAPE.

LATERAL CONNECTION DETAIL (3 / CP-4)
SCALE: NTS



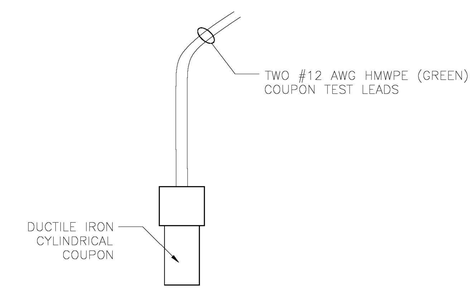
1. ALL WELDS SHALL BE 6" APART AT MINIMUM.
2. GRIND PIPE TO BARE METAL AND CLEAN SURFACE. GROUND AREA SHALL BE LARGE ENOUGH FOR EXOTHERMIC WELD AND SMALL ENOUGH TO BE COMPLETELY COVERED BY WELD CAP.
3. STRIP INSULATION FROM WIRE AND ATTACH SLEEVE.
4. HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR. IGNITE WITH FLINT GUN. REMOVE SLAG FROM CONNECTION WITH CHIPPING HAMMER. TEST WELD WITH 22 OZ HAMMER.
5. COVER CONNECTION WITH WELD CAP WITH INTEGRATED PRIMER. REPAIR ALL DAMAGE TO COATING AND LINING IN ACCORDANCE WITH COATING AND LINING MANUFACTURER'S RECOMMENDATIONS.

EXOTHERMIC WELD DETAIL FOR DUCTILE IRON PIPE (4 / CP-4)
SCALE: NTS



WIRE IDENTIFIER SCHEDULE	
STRUCTURE	LABEL
XX" DIP WATER	XX" DI
GALVANIC ANODE	ANODE
COUPON	COUP

WIRE IDENTIFIER DETAIL (5 / CP-4)
SCALE: NTS



COUPON DETAIL (6 / CP-4)
SCALE: NTS

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