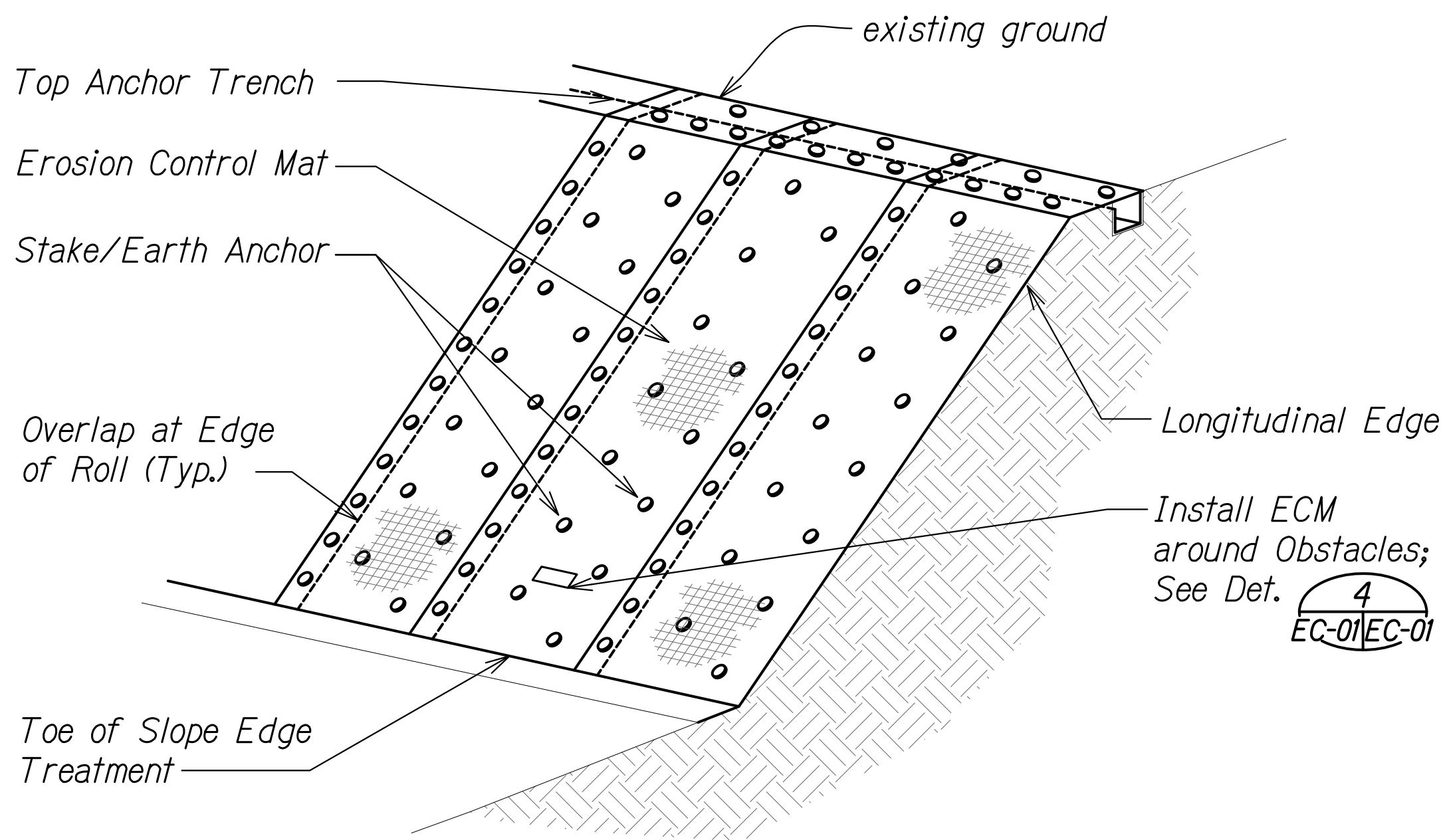
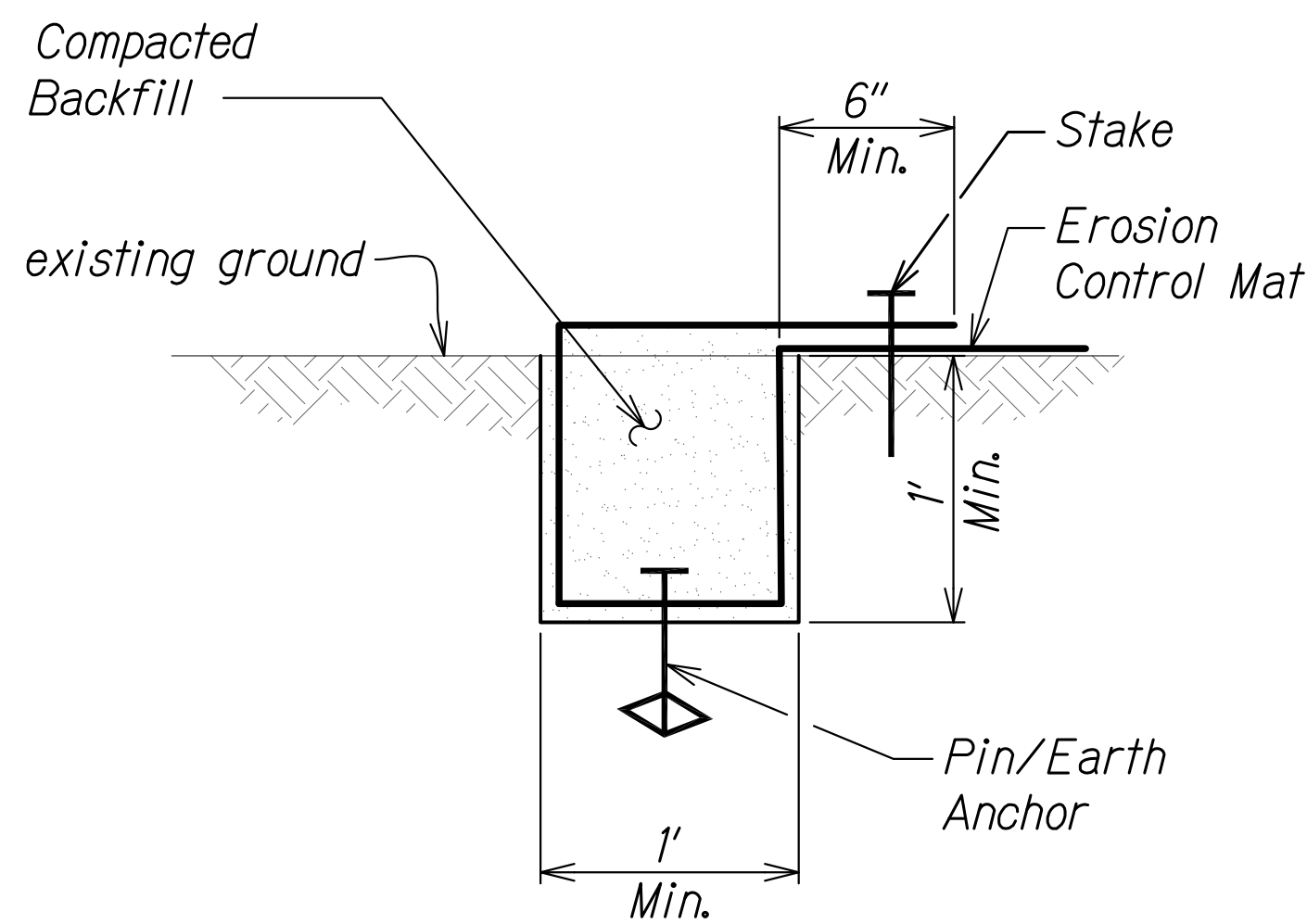


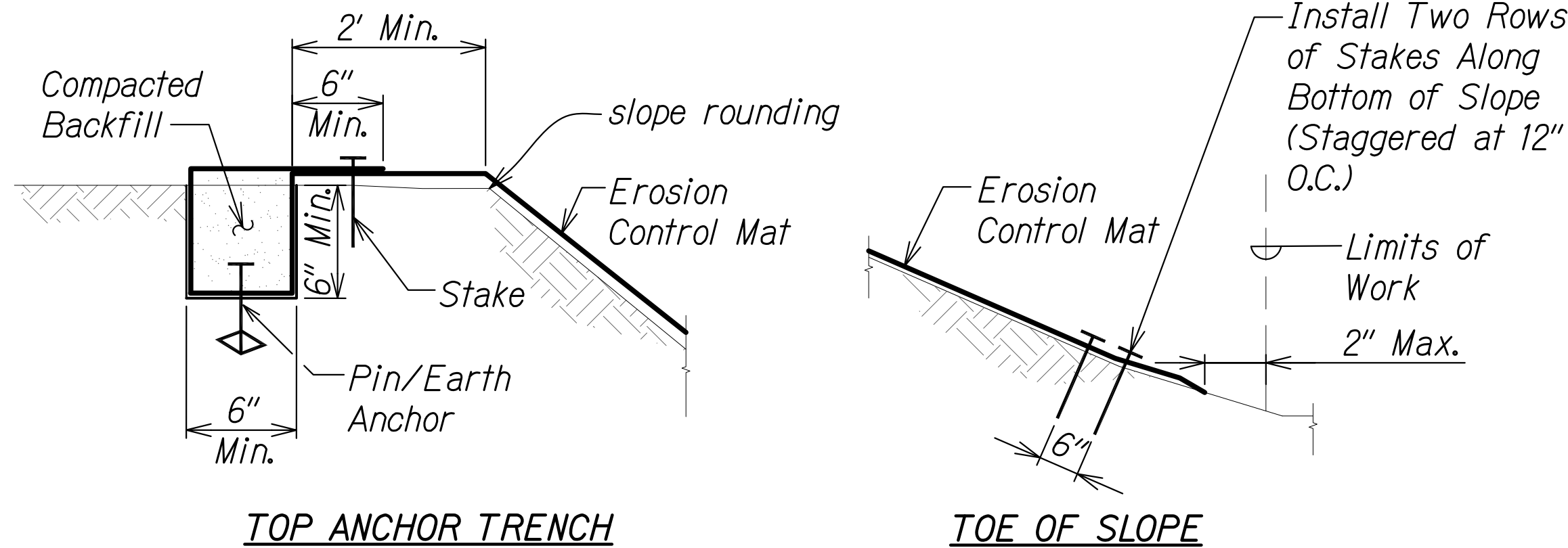
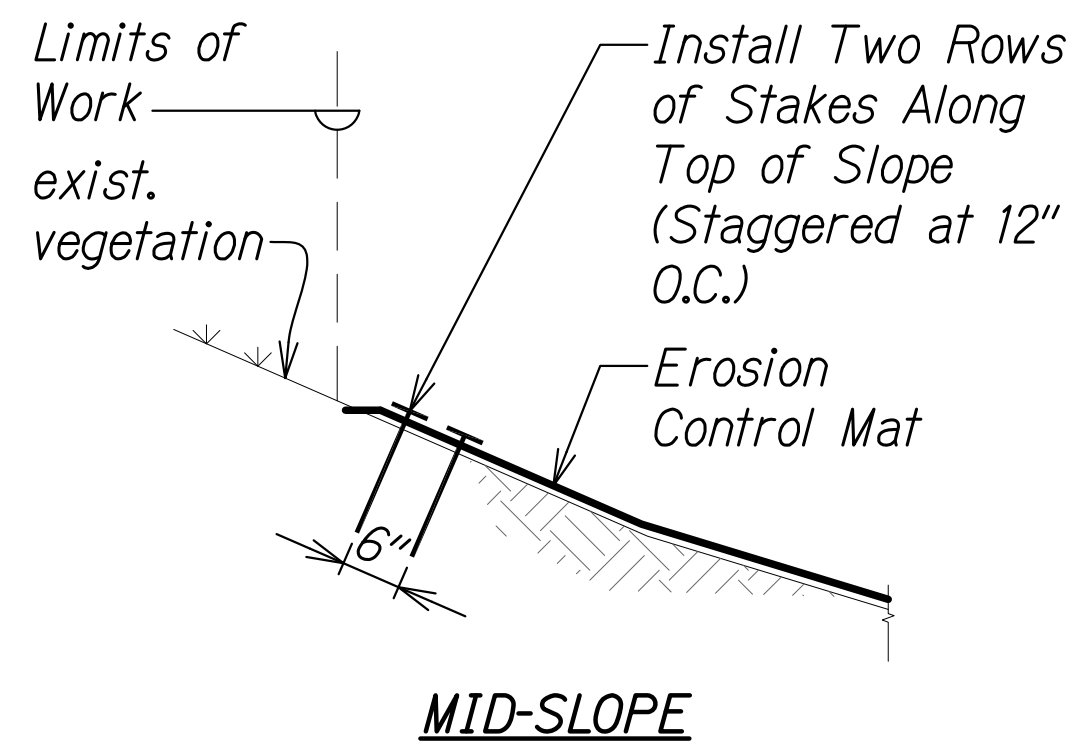
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	13	58



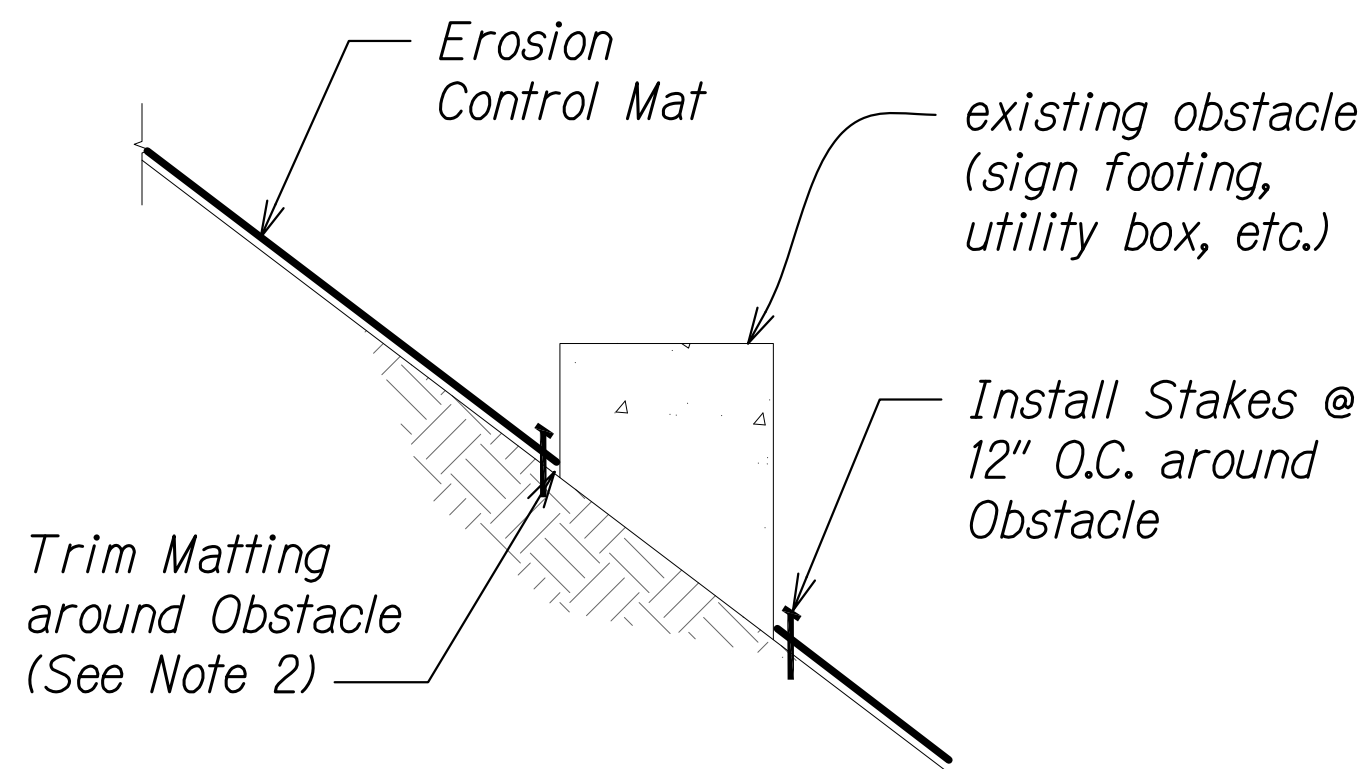
OVERVIEW OF PERMANENT EROSION CONTROL MATTING SYSTEM
Scale: Not to Scale



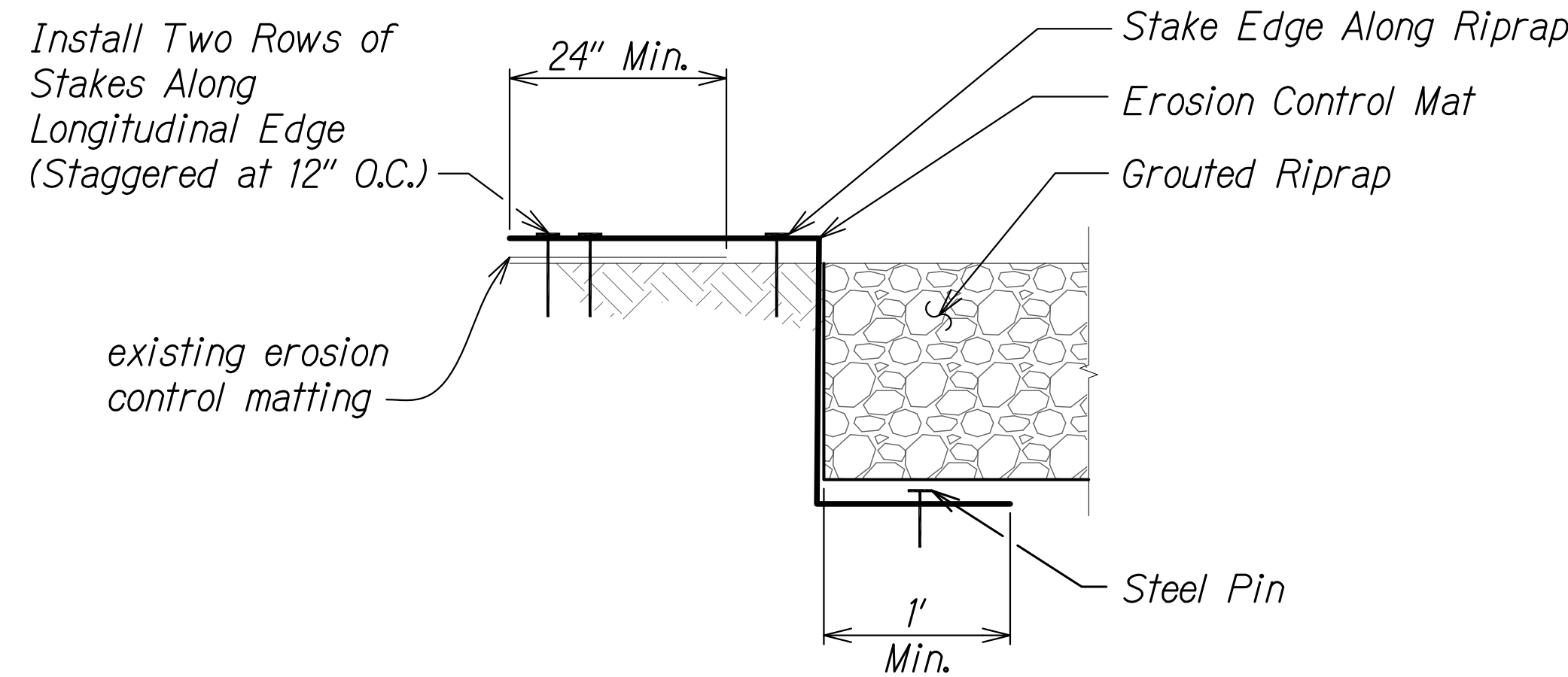
LONGITUDINAL EDGE TRENCH DETAIL
Scale: Not to Scale



EDGE TREATMENT DETAILS
Scale: Not to Scale



TYPICAL SECTION AROUND EXISTING OBSTACLES
Scale: Not to Scale



EDGE TREATMENT AT RIPRAP DETAIL
Scale: Not to Scale

Notes:

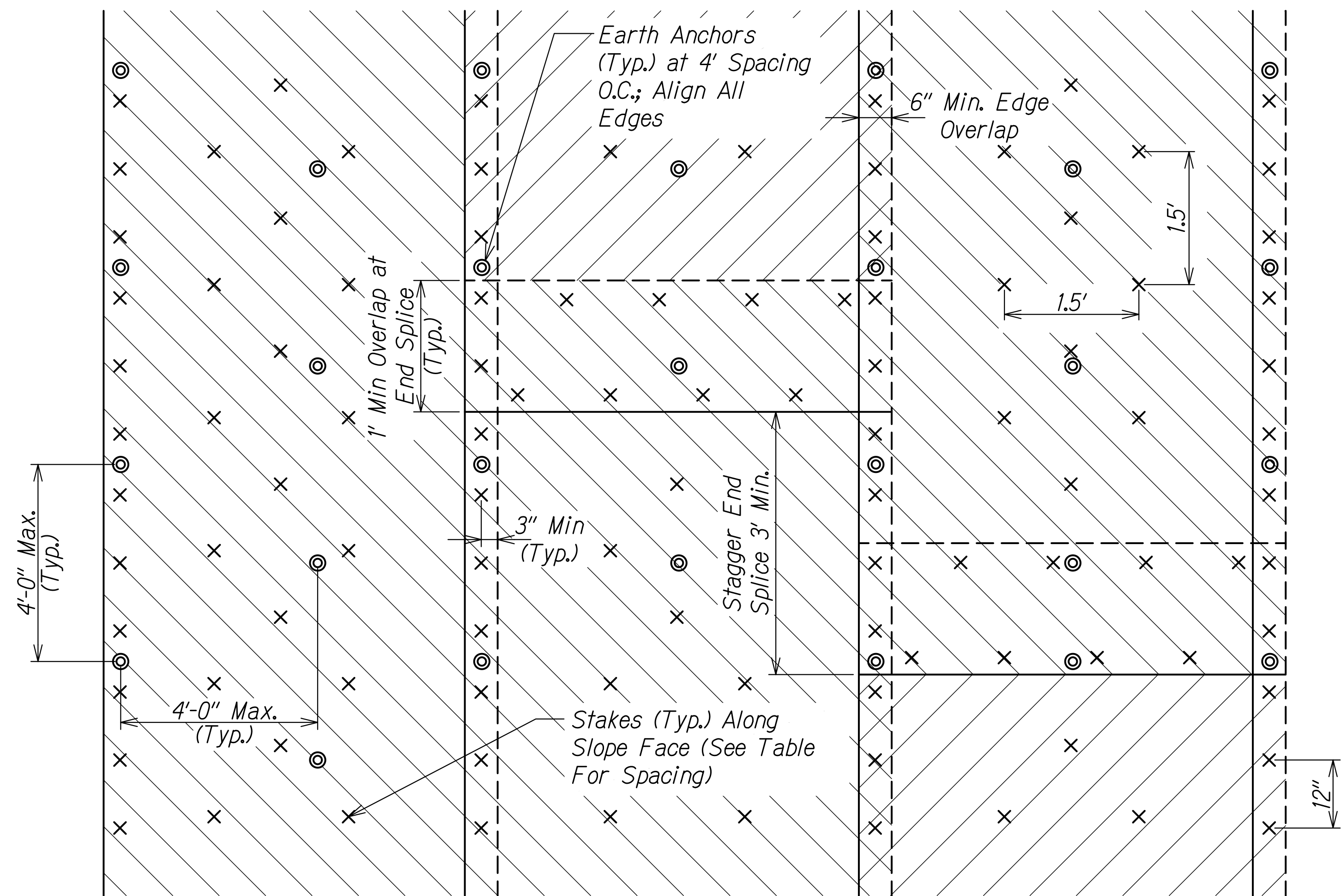
1. Matting shall be placed and secured in direct contact with the finish grade.
2. Maximum gap between edge of trimmed matting and obstacle shall be 1 inch.
3. Contractor shall locate and expose exist. utility boxes prior to installing matting.
4. Contractor shall ensure that erosion control matting does not cover existing utility boxes when installed.
5. For installation of matting around existing trees, see Landscape drawings.

 4/30/22 EXP. DATE This work was prepared by me or under my supervision.	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION TYPICAL DETAILS EROSION CONTROL MATTING MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU Project No. HWY-O-02-20 Scale: Not to Scale Date: April 2022
	SHEET No. EC-01 OF 24 SHEETS
	13

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

12. EROSION CONTROL MATTING DETAILS (LWG: 3/20/2022 9:26:07 AM)

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	14	58



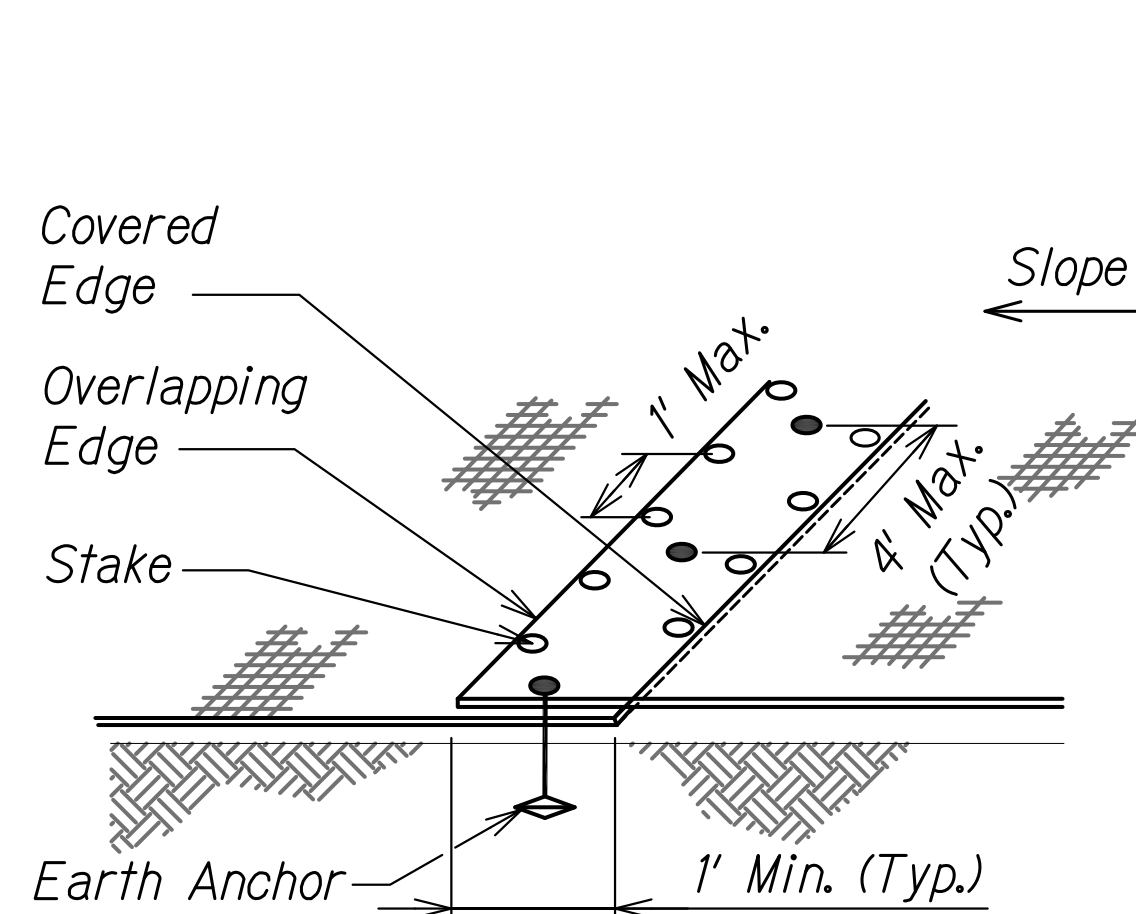
- Notes:
- Secure all erosion control mat edges with stakes or earth anchors at the spacing indicated or the manufacturer's recommended spacing, whichever is more stringent.
 - Stakes shall be a minimum of 12" in length.
 - Stake shall be made of a biodegradable polypropylene-based resin as indicated in Section 659.
 - Earth anchors in trenches shall extend a minimum depth of 3' from the bottom of trench.
 - For PID 21, install ECM using stakes to secure matting to the slope face.
 - ~~For PID 223, install ECM using stakes and percussion driven earth anchors to secure matting to the slope face.~~

Max. Stake/Earth Anchor Spacing (See Note 1)		
Fastener Type	Along Slope Face	Top & Edge Trenches
Stakes	1.5'	-
Earth Anchor	4'	4'

(N.I.C.)

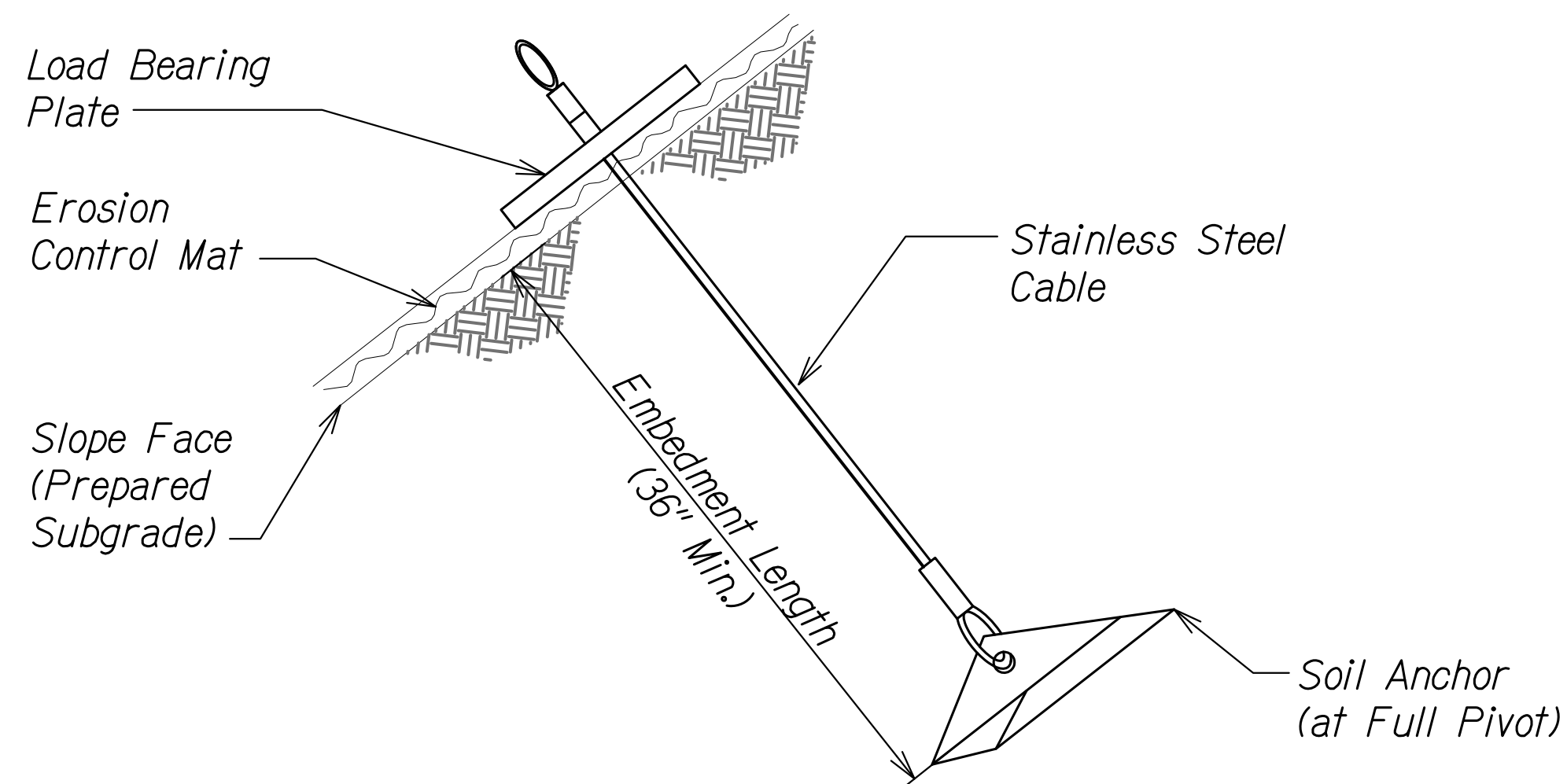
TYPICAL PERMANENT EROSION CONTROL MAT AND EARTH ANCHOR/STAKE LAYOUT
Scale: Not to Scale

1
EC-02EC-02



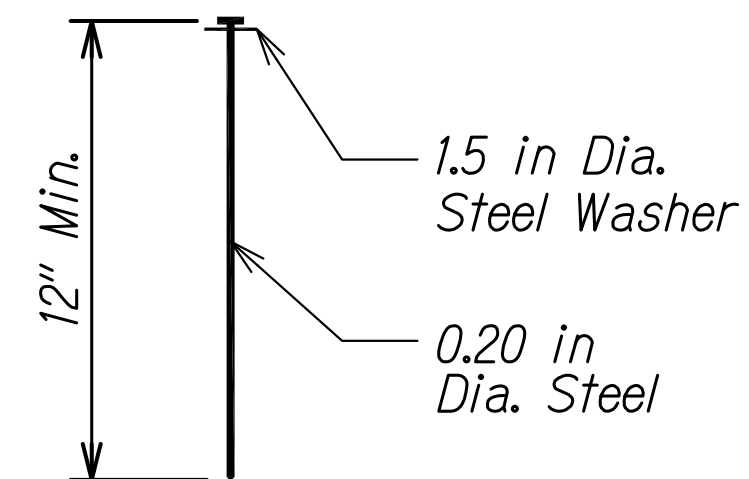
OVERLAP END DETAIL
Scale: Not to Scale

2
EC-02EC-02



EARTH ANCHOR DETAIL
Scale: Not to Scale

3
EC-02EC-02



- Notes:
- For clayey soils, pins shall be a minimum of 12" in length.
 - For sandy soils, pins shall be a minimum of 18" in length.

PIN DETAIL
Scale: Not to Scale

4
EC-02EC-02

TEROR R. YAGAI

LICENSED PROFESSIONAL ENGINEER

No. 14993-C

HAWAII U.S.A.

4/30/22

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STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

TYPICAL DETAILS

EROSION CONTROL MATTING

MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU

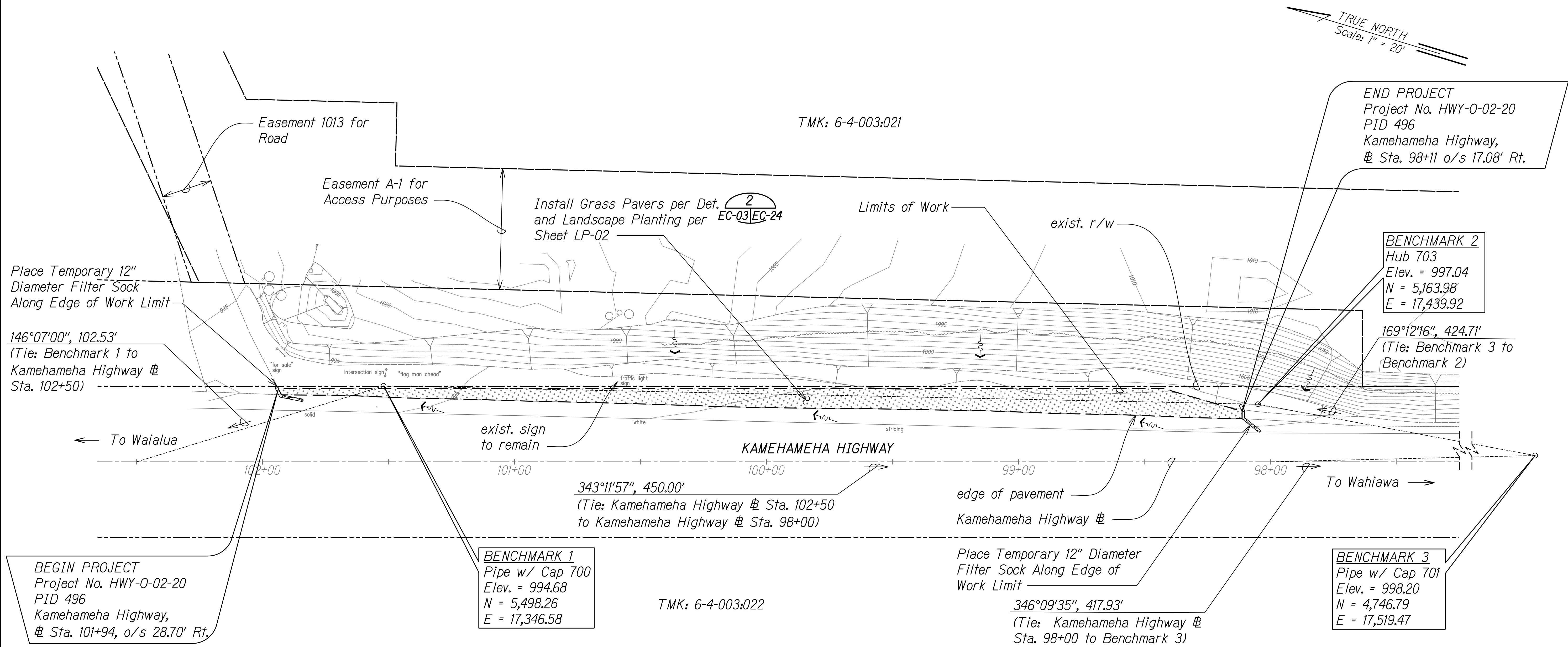
Project No. HWY-O-02-20

Scale: Not to Scale

Date: April 2022

SHEET No. EC-02 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	15	58



TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 496

Scale: 1" = 20'

- Notes:**
- Benchmark coordinates from Old Hawaii Datum 1927, Hawaii State Plane Zone 3.
 - Sediment and Erosion Control BMP measures shown in the Contract Documents are minimum BMP requirements and do not constitute an acceptable and/or complete Sediment and Erosion Control Plan. The Contractor shall incorporate additional BMPs based upon their means and methods considering site conditions, expected run off flows, and construction sequence in accordance with the Contract Documents including applicable permit document requirements. Cost shall be included in Pay Item 209.0100; Installation, Maintenance, Monitoring, and Removal of BMP.

Legend

Grass Paver and Landscape Planting



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TEMP. EC AND PERMANENT
BMP PLAN PID 496**

MISCELLANEOUS PERMANENT BEST MANAGEMENT
PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU

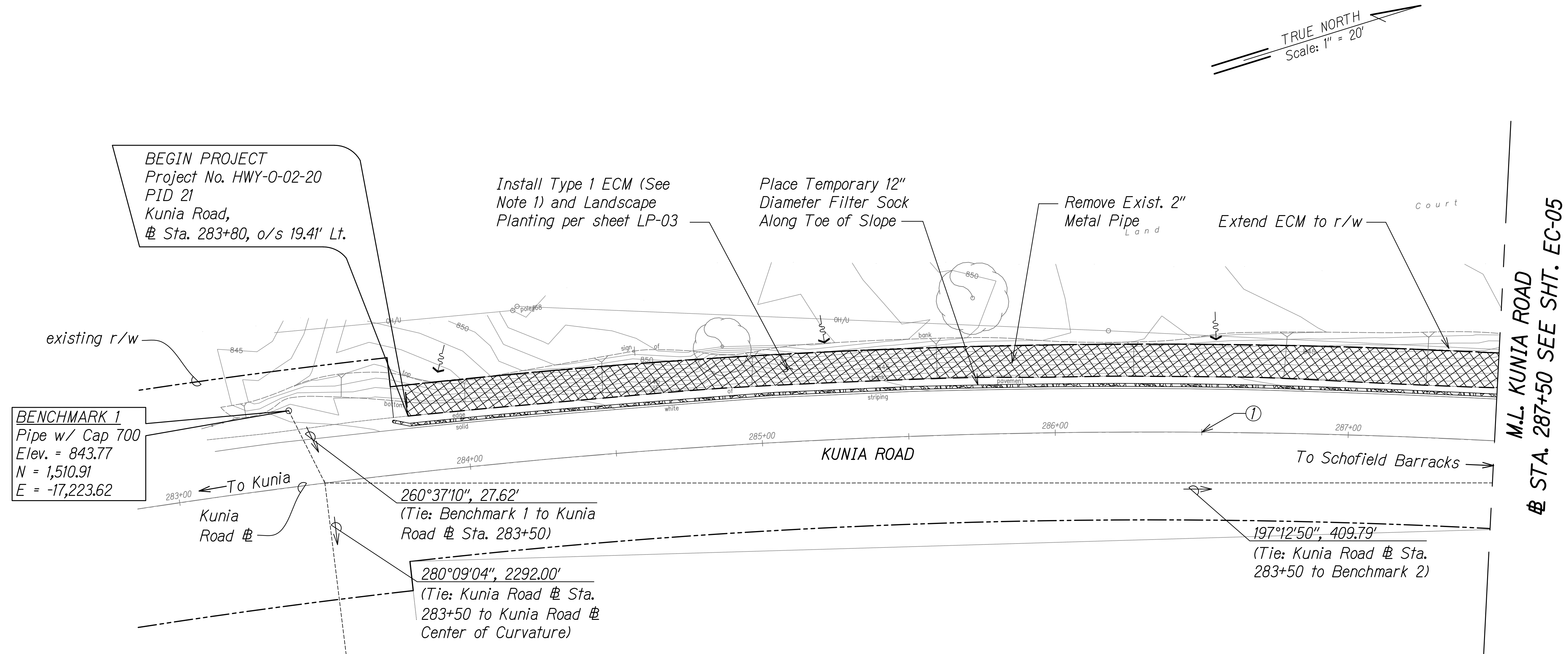
Project No. HWY-O-02-20
Scale: 1" = 20' Date: April 2022

SHEET No. EC-03 OF 24 SHEETS

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

EC-PID-496.DWG 4/13/2022 11:45:59 AM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	16	58



SURVEY PLOTTED BY	DATE
DESIGNED BY	
CHECKED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

EC-PID 21.DWG 4/13/2022 10:46:56 AM

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TEMP. EC AND PERMANENT
BMP PLAN PID 21**

MISCELLANEOUS PERMANENT BEST MANAGEMENT
PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU

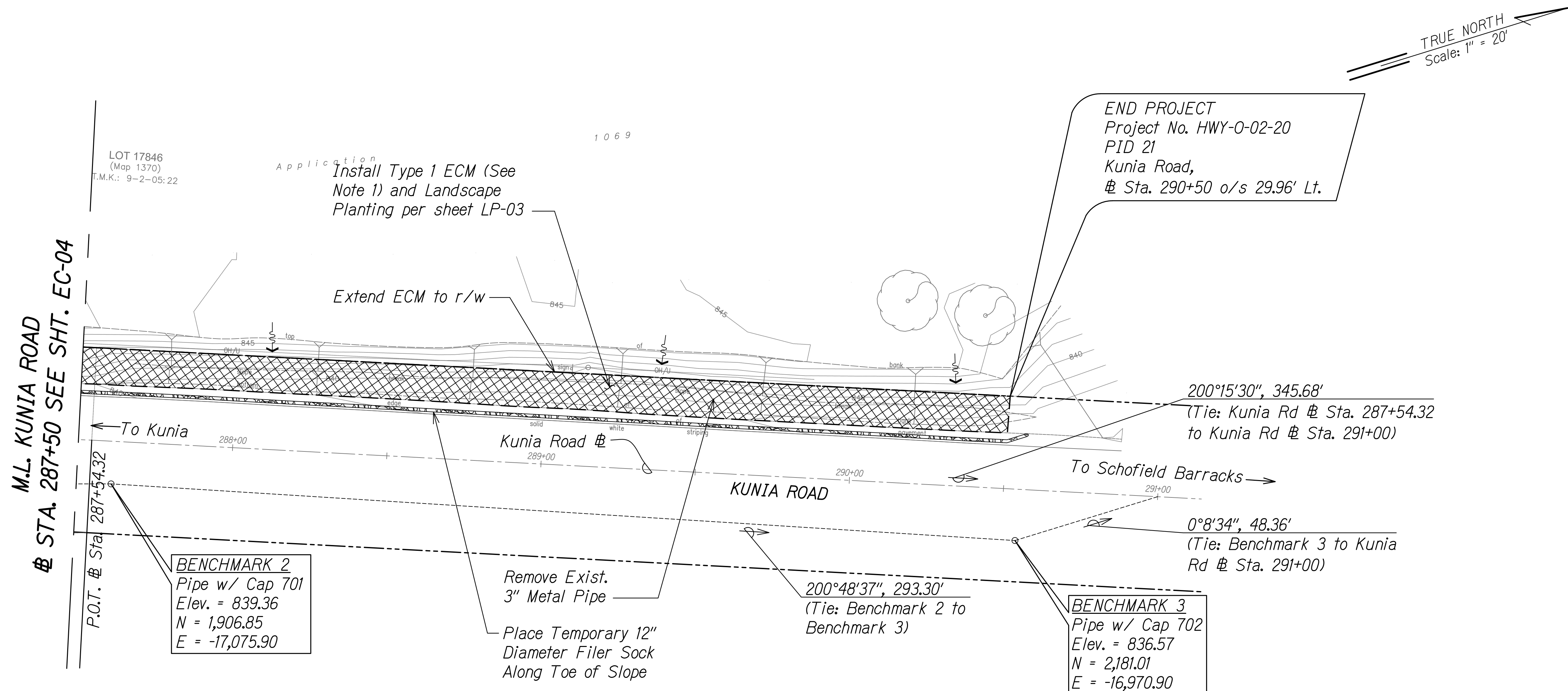
Project No. HWY-O-02-20
Scale: 1" = 20' Date: April 2022

PROF. R. YAMASAKI
LICENSED PROFESSIONAL ENGINEER
No. 14993-C
HAWAII U.S.A.

4/30/22
EXP. DATE

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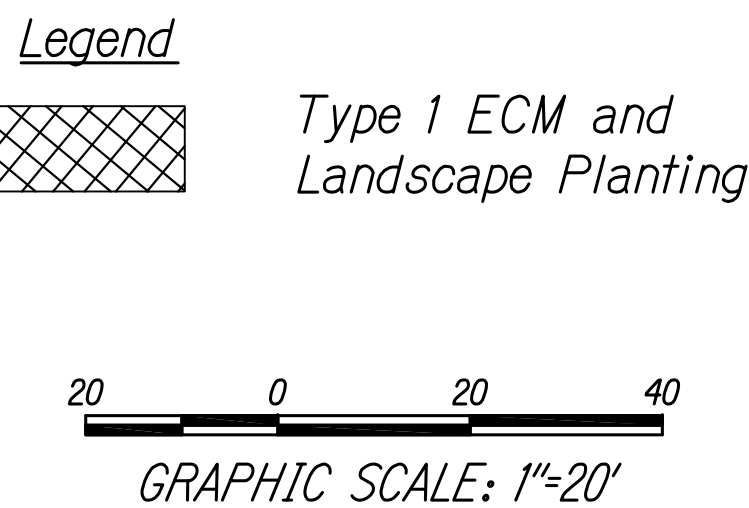
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	17	58



TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 21
Scale: 1" = 20'

Notes:

- Benchmark coordinates from Old Hawaii Datum 1927, Hawaii State Plane Zone 3.
- Contractor shall field verify site conditions and ECM limits.
- For ECM details, see Sheets EC-01 & EC-02.
- For installation of ECM around obstacles, see Detail 4 on Sheet EC-01.
- Sediment and Erosion Control BMP measures shown in the Contract Documents are minimum BMP requirements and do not constitute an acceptable and/or complete Sediment and Erosion Control Plan. The Contractor shall incorporate additional BMPs based upon their means and methods considering site conditions, expected run off flows, and construction sequence in accordance with the Contract Documents including applicable permit document requirements. Cost shall be included in Pay Item 209.0100; Installation, Maintenance, Monitoring, and Removal of BMP.



SEBOR R. YADAI
LICENSED PROFESSIONAL ENGINEER
No. 14993-C
HAWAII U.S.A.

4/30/22
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TEMP. EC AND PERMANENT
BMP PLAN PID 21**

MISCELLANEOUS PERMANENT BEST MANAGEMENT
PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU

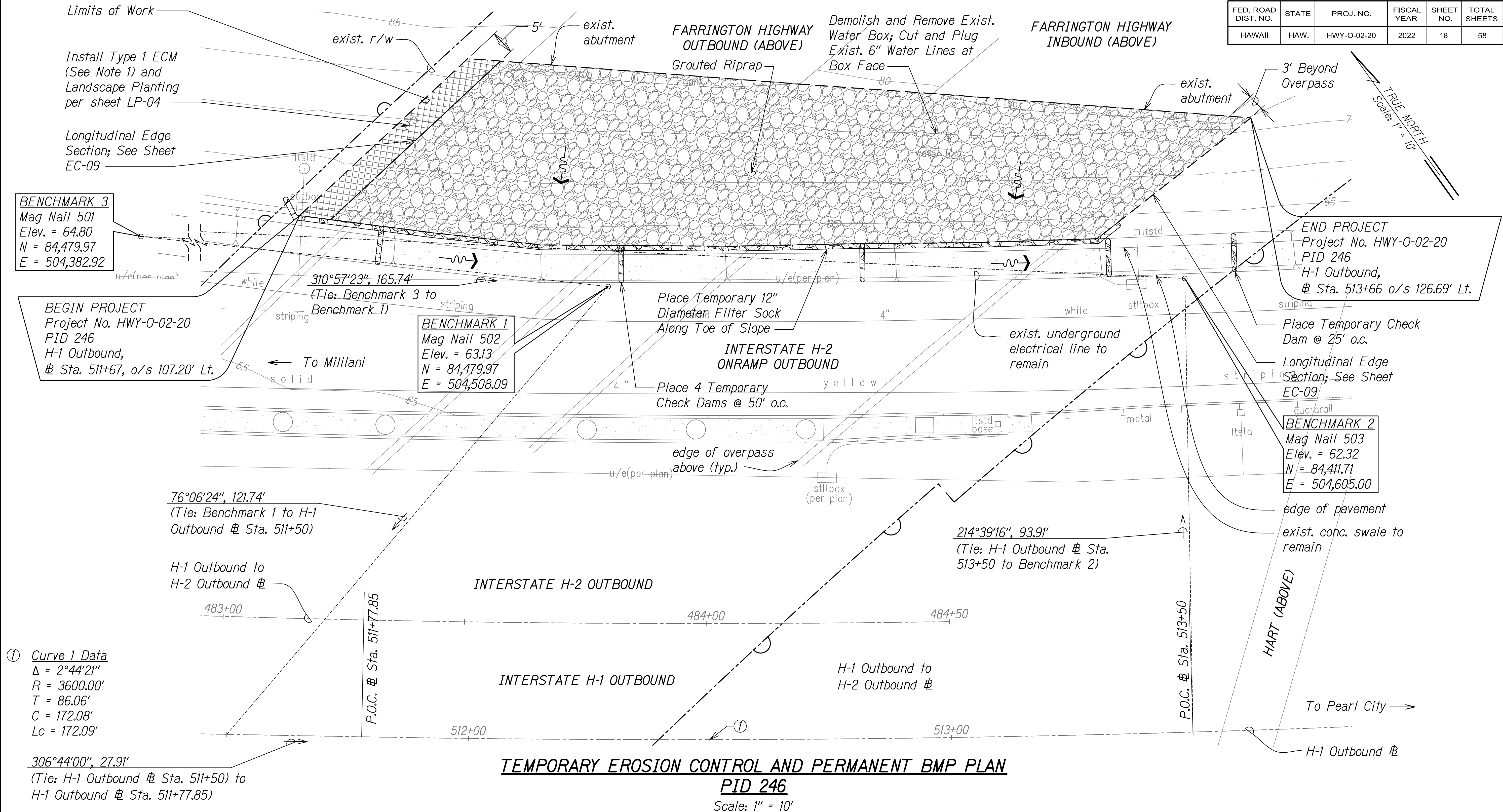
Project No. HWY-O-02-20
Scale: 1" = 20' Date: April 2022

SHEET No. EC-05 OF 24 SHEETS

SURVEY PLOTTED BY	DATE
DESIGNED BY	
CHECKED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

EC-PID 21.DWG 4/13/2022 10:45:56 AM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	18	58

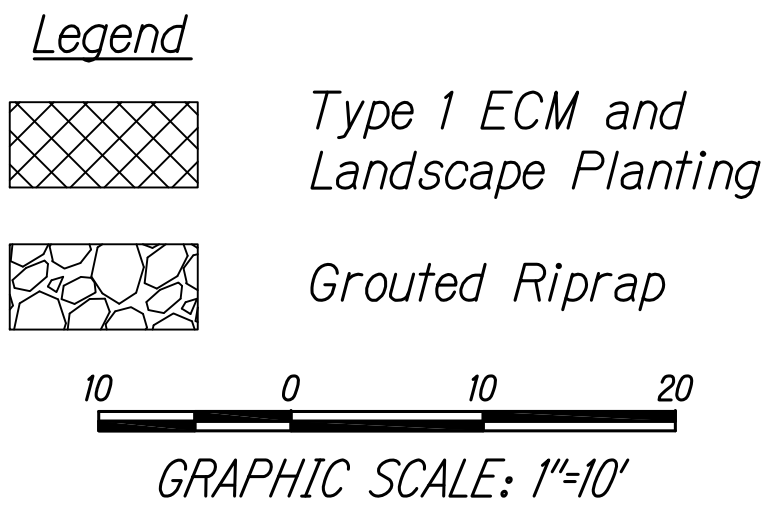


① Curve 1 Data
 $\Delta = 2^{\circ}44'21''$
 $R = 3600.00'$
 $T = 86.06'$
 $C = 172.08'$
 $Lc = 172.09'$

 $306^{\circ}44'00'', 27.91'$
(Tie: H-1 Outbound @ Sta. 511+50) to
H-1 Outbound @ Sta. 511+77.85)

Notes:

- Benchmark coordinates from Old Hawaii Datum 1927, Hawaii State Plane Zone 3.
- For ECM details, see Sheets EC-01 & EC-02.
- For installation of ECM around obstacles, see Detail 4 on sheet EC-01
- Sediment and Erosion Control BMP measures shown in the Contract Documents are minimum BMP requirements and do not constitute an acceptable and/or complete Sediment and Erosion Control Plan. The Contractor shall incorporate additional BMPs based upon their means and methods considering site conditions, expected run off flows, and construction sequence in accordance with the Contract Documents including applicable permit document requirements. Cost shall be included in Pay Item 209.0100; Installation, Maintenance, Monitoring, and Removal of BMP.



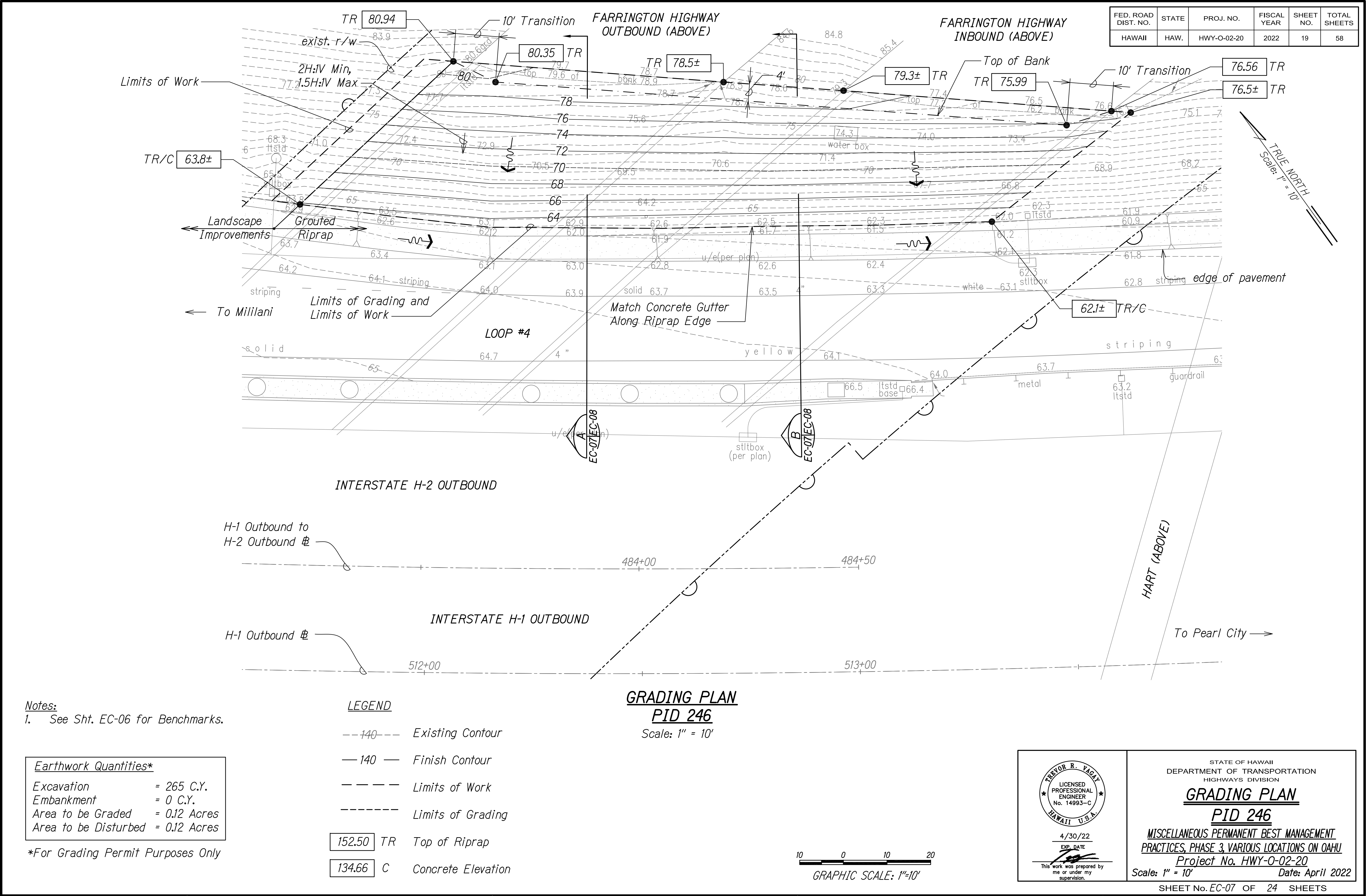
TEROR R. YAMAI
LICENSED PROFESSIONAL ENGINEER
No. 14993-C
HAWAII U.S.A.
4/30/22
EXP. DATE
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TEMP. EC AND PERMANENT
BMP PLAN PID 246**
MISCELLANEOUS PERMANENT BEST MANAGEMENT
PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU
Project No. HWY-O-02-20
Scale: 1" = 10' Date: April 2022
SHEET No. EC-06 OF 24 SHEETS

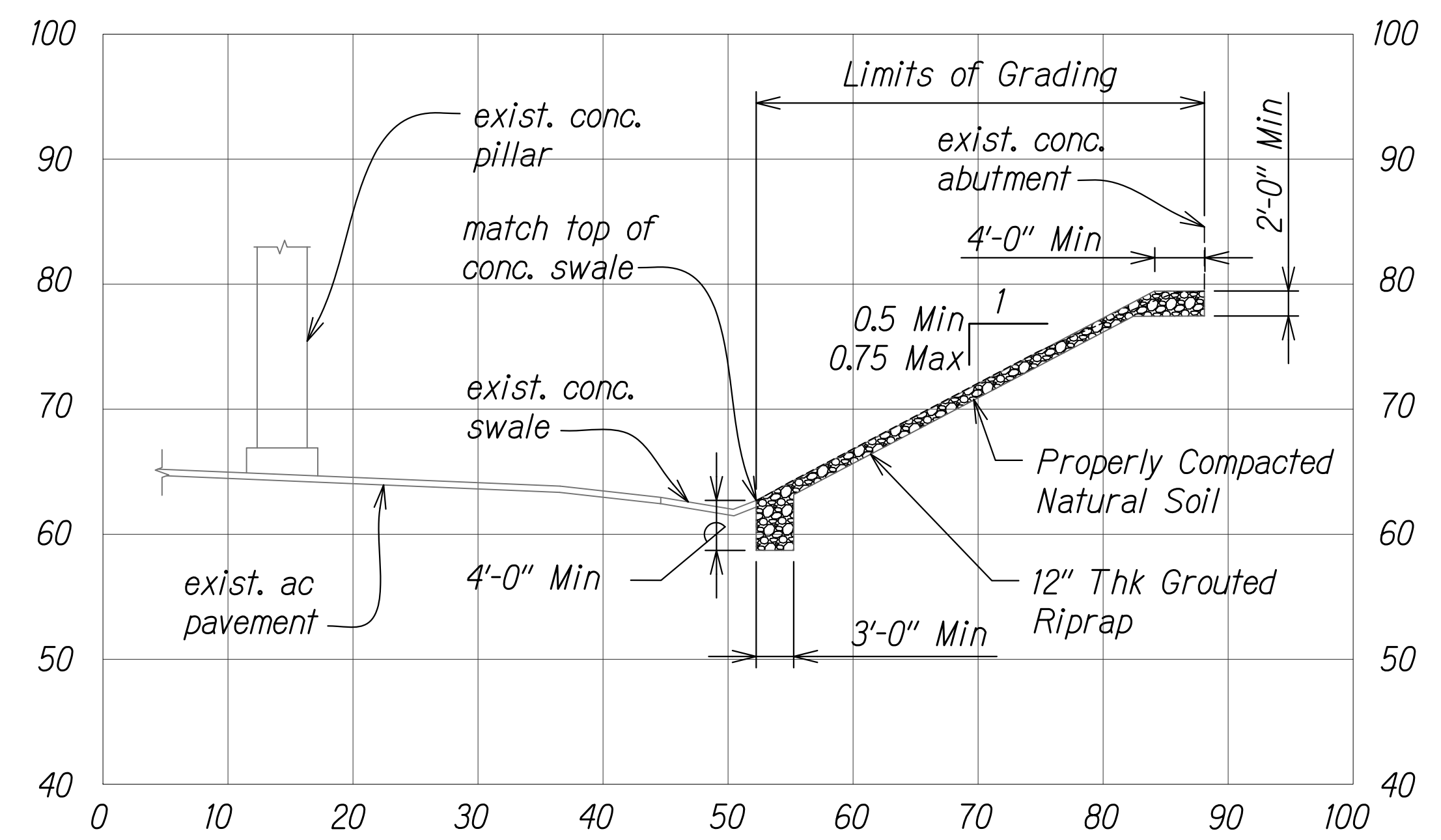
SURVEY PLOTTED BY	DATE
DESIGNED BY	
CHECKED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

EC-PID 246.DWG 4/12/2022 14:53 AM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	19	58

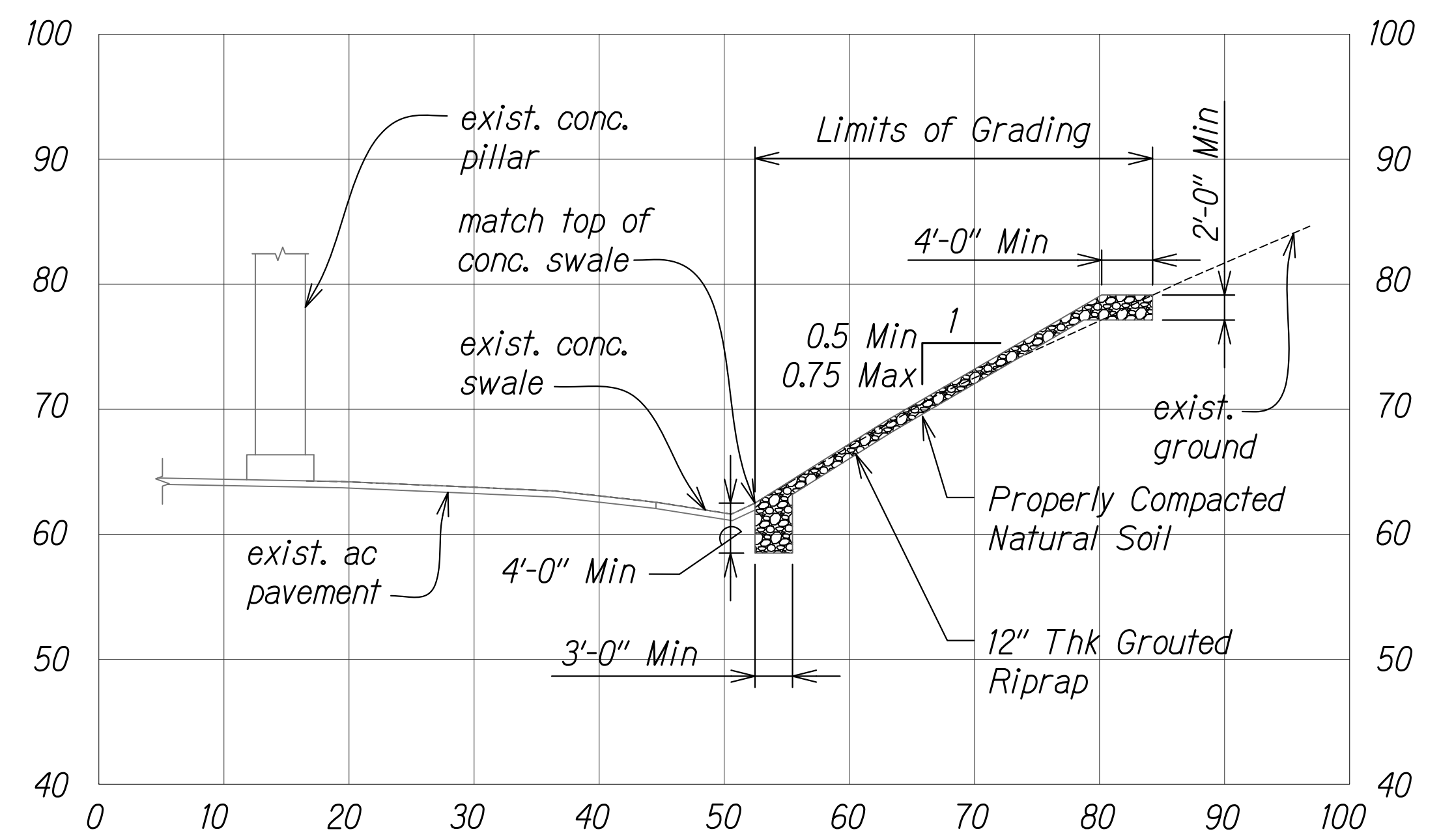


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	20	58



SECTION A
Scale: Horiz. 1" = 10'
Vert. 1" = 10'

A
EC-07EC-08



SECTION B
Scale: Horiz. 1" = 10'
Vert. 1" = 10'

B
EC-07EC-08



TEROR R. YAGAI

LICENSED PROFESSIONAL ENGINEER

No. 14993-C

HAWAII U.S.A.

4/30/22

EXP. DATE

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STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

TYPICAL SECTIONS

PID 246

MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU

Project No. HWY-O-02-20

Scale: 1" = 10'

Date: April 2022

SHEET No. EC-08 OF 24 SHEETS

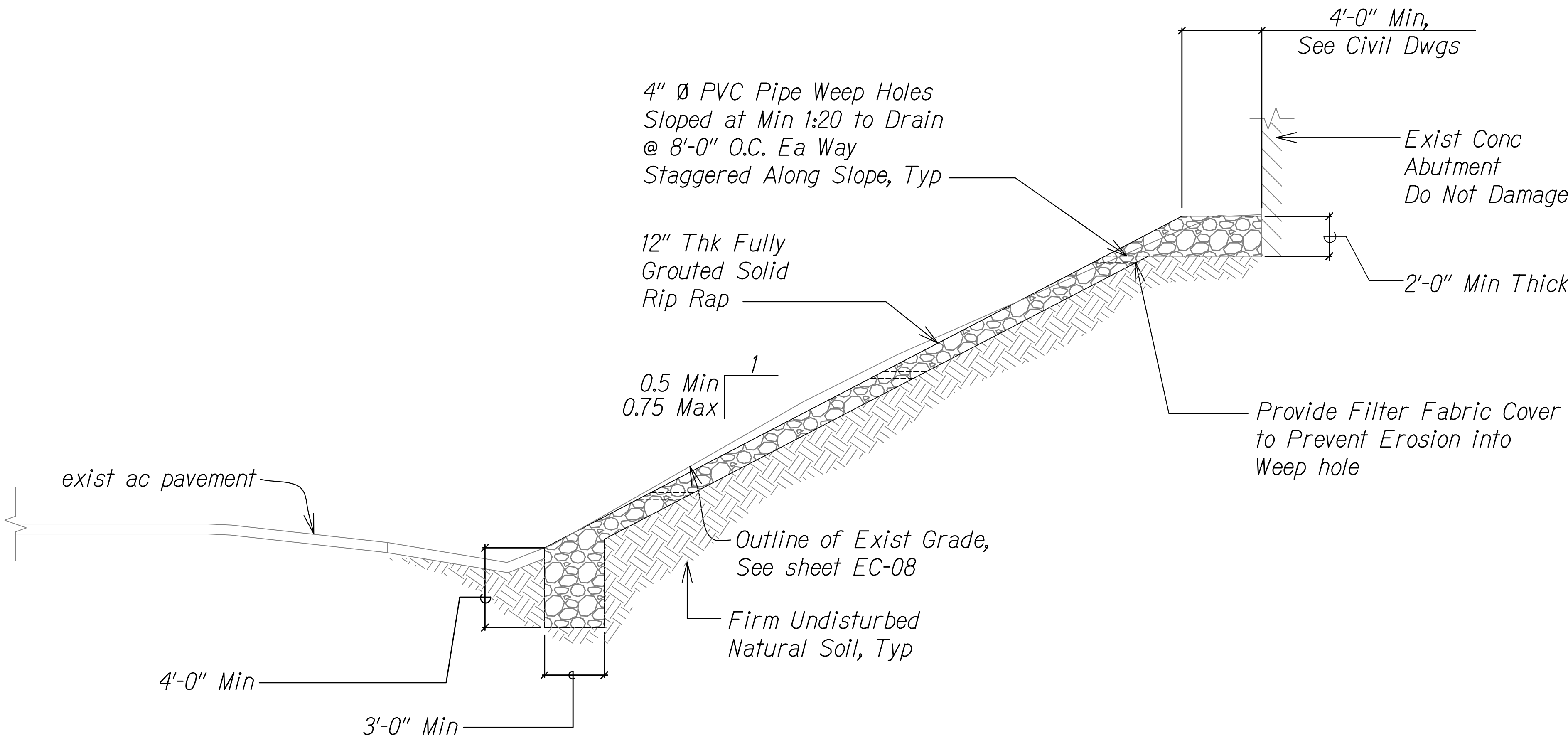
SURVEY PLOTTED BY	DATE
DESIGNED BY	
CHECKED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
No.	

SECTIONS PID 246.DWG. 3/30/2022 8:37:41 AM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	21	58

Notes:

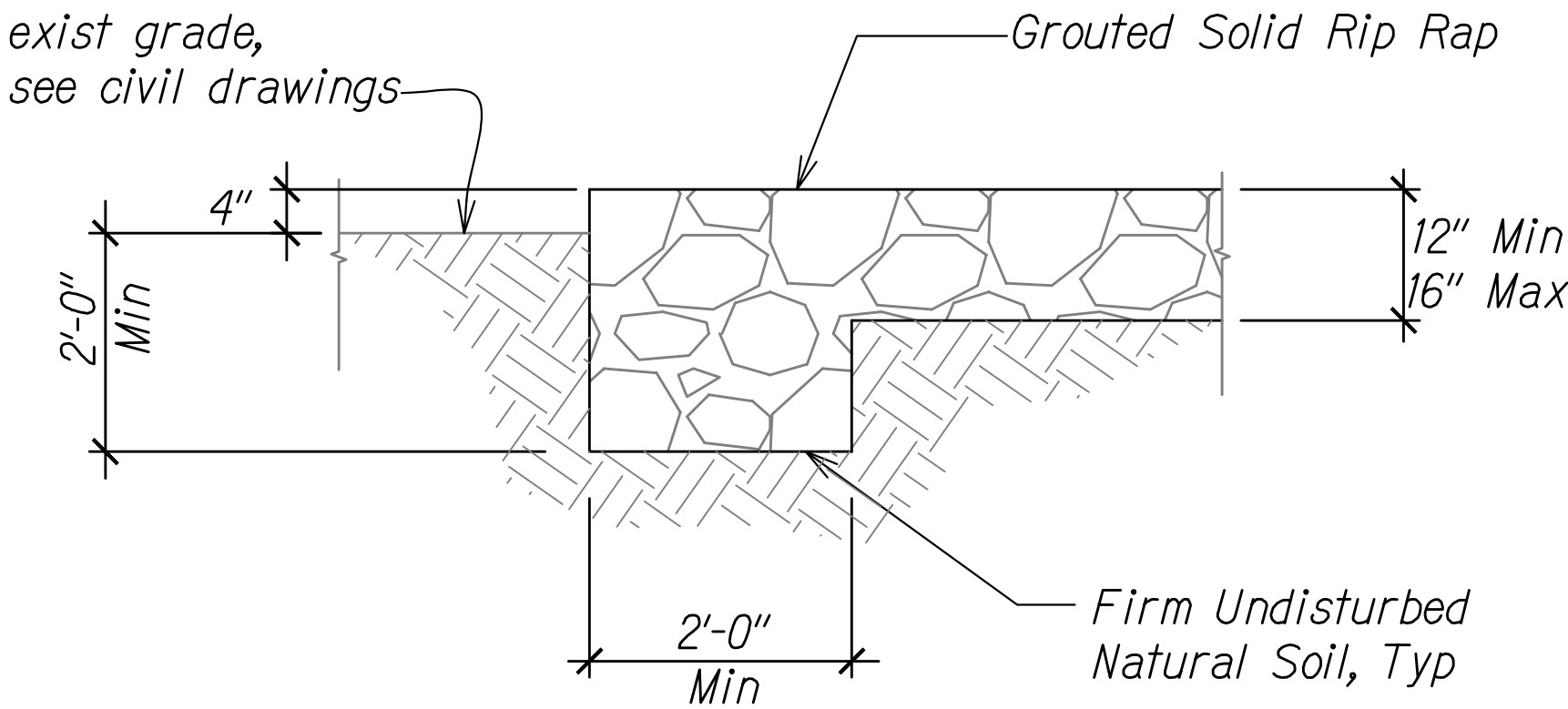
1. For Grading Plan & Elevations, See Sheets EC-05 & EC-06.
2. Contractor Shall Not Damage Existing Conc Footing & Conc Abutment During Excavation For Grouted Rip Rap.
3. Grout For Rip Rap Construction Shall Have A Minimum 28 Day Compressive Strength of 3,000 Psi Unless Noted Otherwise.
4. Prior to the Placement of Grouted Riprap, the Subgrade Should be Clear of All Vegetation, Large Roots, Loose and Disturbed Soils.
5. The Blanket Thickness of the Grouted Riprap Layer Should be a Minimum of 12 Inches, with a Median Rock Size Not Exceeding Two-thirds the Blanket Thickness.
6. The Largest Rock Used in the Grouted Riprap Should not Exceed Blanket Thickness.



ERODED SLOPE REPAIR DETAIL - PID 246

Scale: 1/4" = 1'-0"

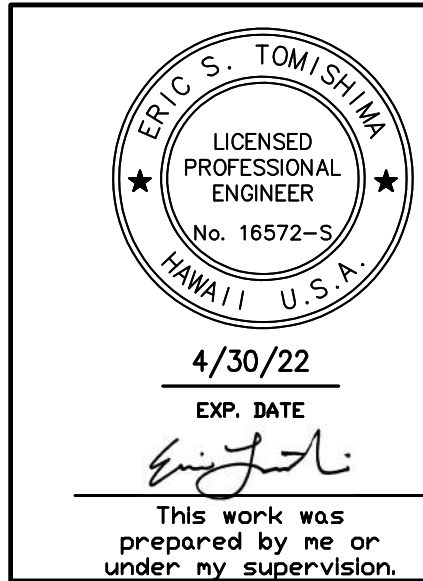
1
EC-09/EC-09



SECTION @ GROUTED RIP RAP EDGE

Scale: 3/4" = 1'-0"

2
EC-09/EC-09



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ERODED SLOPE REPAIR DETAIL
PID 246
MISCELLANEOUS PERMANENT BEST MANAGEMENT
PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU
Project No. HWY-O-02-20
Scale: As Shown Date: March 2022
SHEET No. EC-09 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	22	58

- Notes:
- Benchmark coordinates from Old Hawaii Datum 1927, Hawaii State Plane Zone 3.
 - See Landscaping Drawings for tree protection.
 - Sediment and Erosion Control BMP measures shown in the Contract Documents are minimum BMPs requirements and do not constitute an acceptable and/or complete Sediment and Erosion Control Plan. The Contractor shall incorporate additional BMPs based upon their means and methods considering site conditions, expected run off flows, and construction sequence in accordance with the Contract Documents including applicable permit document requirements. Cost shall be included in Pay Item 209.0100; Installation, Maintenance, Monitoring, and Removal of BMP.
 - New fence post to be installed no more than 2' from edge of drainage channel.
 - Install new chain link fence on new fence post per DOT Std. Plan D-02 and Def. 1

- LEGEND
- Landscape Planting
 - Grass Paver and Landscaping Planting
 - New Chain Link Fence

- ① Curve 1 Data
- $\Delta = 12^\circ 40' 43''$
 - $R = 955.00'$
 - $T = 106.09'$
 - $C = 210.88'$
 - $L_c = 211.31'$

TEROR R. YADAI

LICENSED PROFESSIONAL ENGINEER

No. 14993-C

HAWAII U.S.A.

4/30/22

EXP. DATE

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STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

TEMP. EC AND PERMANENT

BMP PLAN PID 973

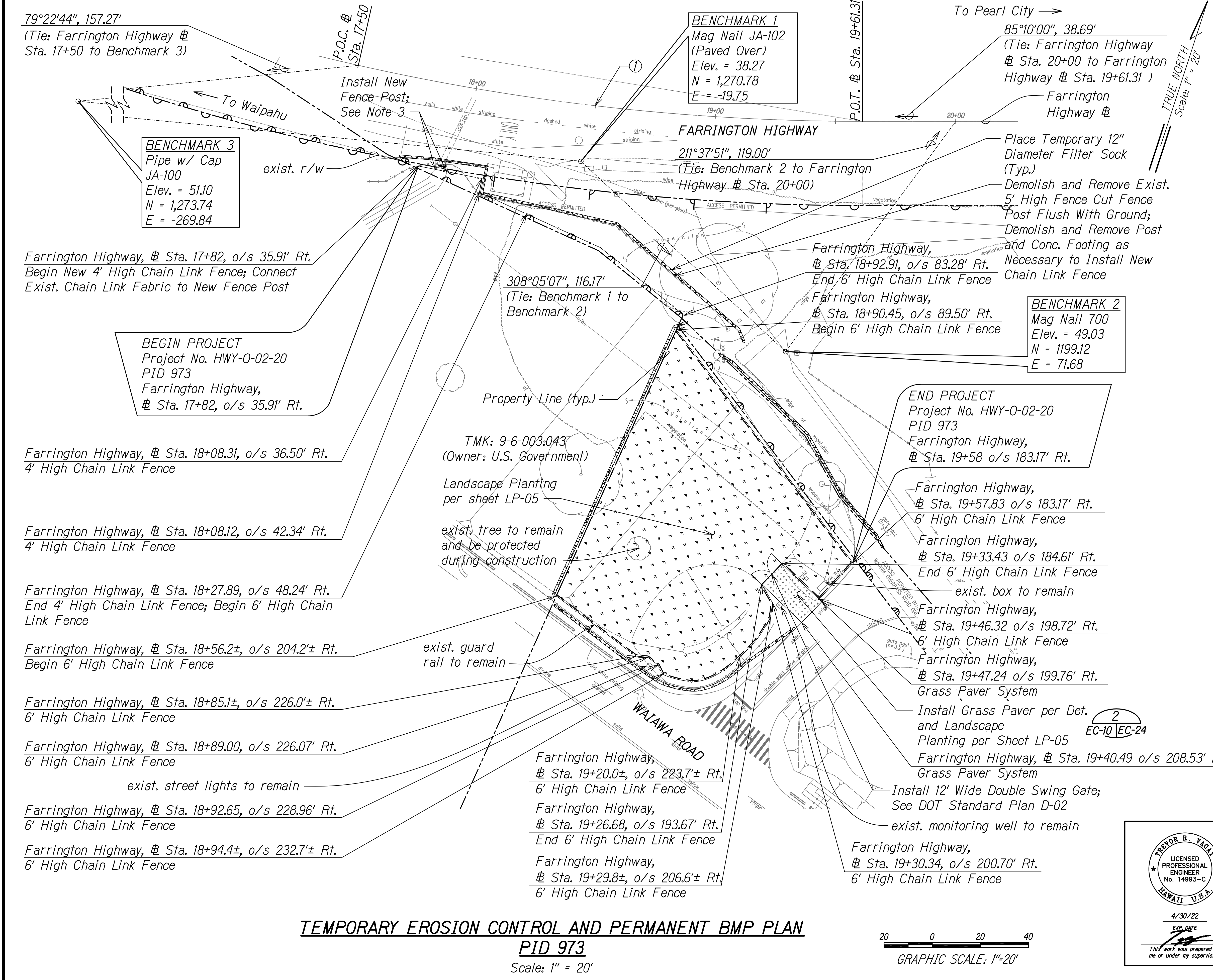
MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU

Project No. HWY-O-02-20

Scale: 1" = 20'

Date: April 2022

SHEET No. EC-10 OF 24 SHEETS



TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 973
Scale: 1" = 20'

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

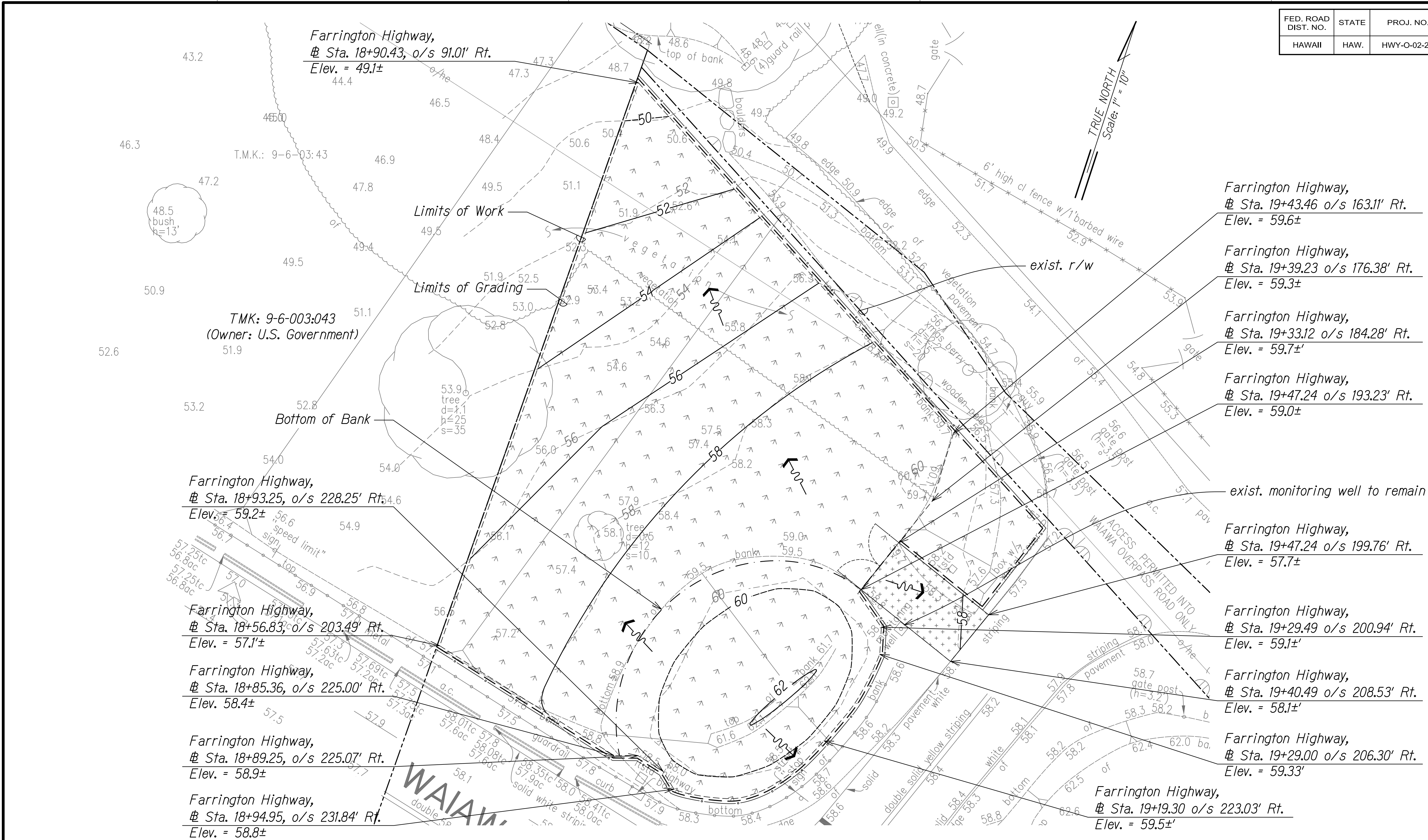
ORIGINAL PLAN

NOTE BOOK

No.

EC-PID 973.DWG 4/19/2022 10:20 AM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	23	58



Notes:
1. See Sht. EC-10 for Benchmarks.

LEGEND

Earthwork Quantities*	
Excavation	= 39 C.Y.
Embankment	= 28 C.Y.
Area to be Graded	= 0.19 Acres
Area to be Disturbed	= 0.20 Acres

*For Grading Permit Purposes Only

---58---	Existing Contour		Landscape Planting
—58—	Finish Contour		Grass Paver and Landscaping Planting
- - - -	Limits of Work		
-----	Limits of Grading		

**GRADING PLAN
PID 973**
Scale: 1" = 10'



4/30/22
EXP. DATE
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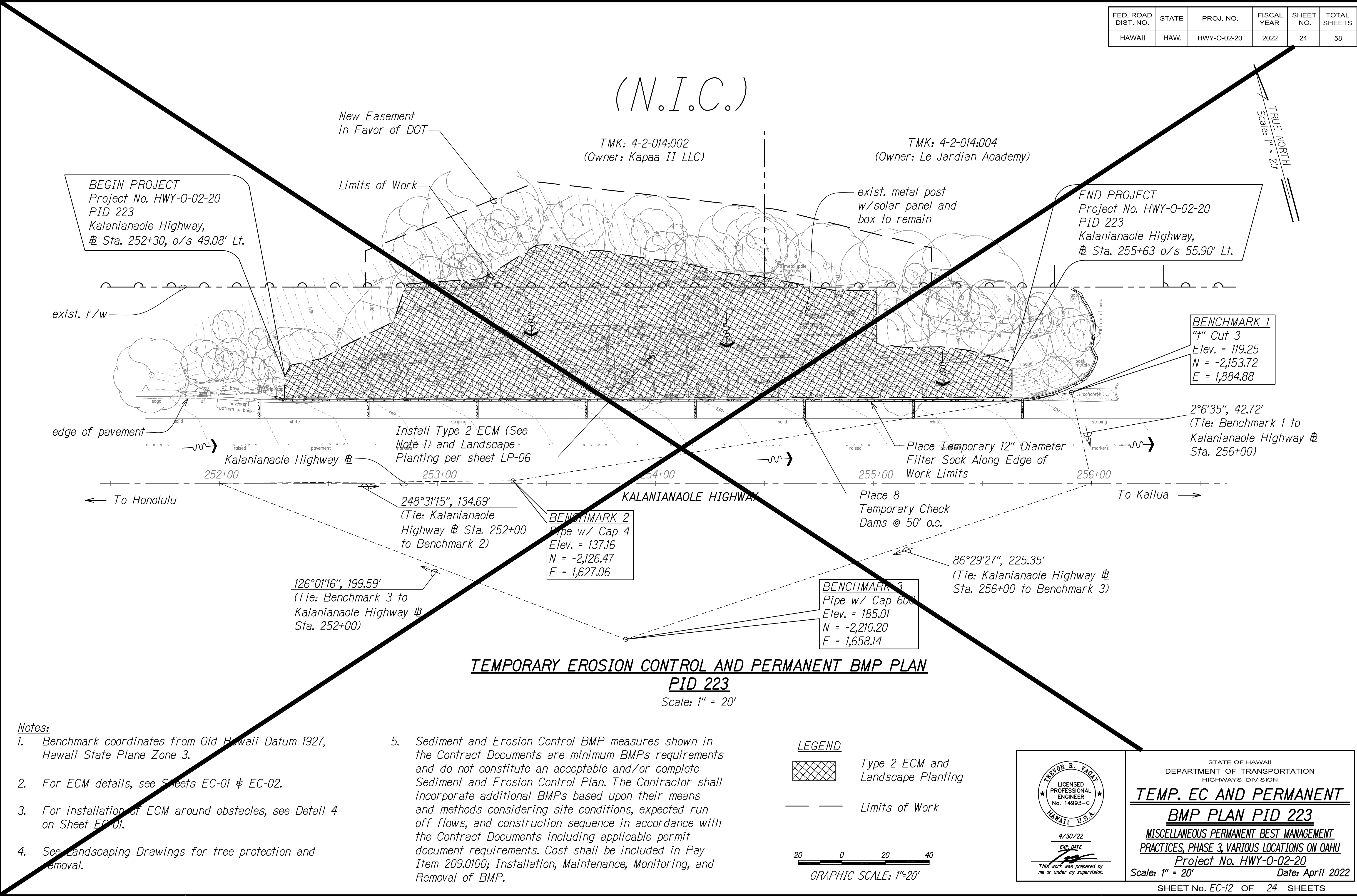
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**GRADING PLAN
PID 973**

MISCELLANEOUS PERMANENT BEST MANAGEMENT
PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU
Project No. HWY-O-02-20
Scale: 1" = 10' Date: April 2022

SHEET No. EC-11 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	24	58



Notes:

- Benchmark coordinates from Old Hawaii Datum 1927, Hawaii State Plane Zone 3.
- For ECM details, see Sheets EC-01 & EC-02.
- For installation of ECM around obstacles, see Detail 4 on Sheet EC-01.
- See Landscaping Drawings for tree protection and removal.
- Sediment and Erosion Control BMP measures shown in the Contract Documents are minimum BMPs requirements and do not constitute an acceptable and/or complete Sediment and Erosion Control Plan. The Contractor shall incorporate additional BMPs based upon their means and methods considering site conditions, expected run off flows, and construction sequence in accordance with the Contract Documents including applicable permit document requirements. Cost shall be included in Pay Item 209.0100; Installation, Maintenance, Monitoring, and Removal of BMP.

LEGEND

- Type 2 ECM and Landscape Planting
- Limits of Work



4/30/22
EXP. DATE
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TEMP. EC AND PERMANENT
BMP PLAN PID 223**

MISCELLANEOUS PERMANENT BEST MANAGEMENT
PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU

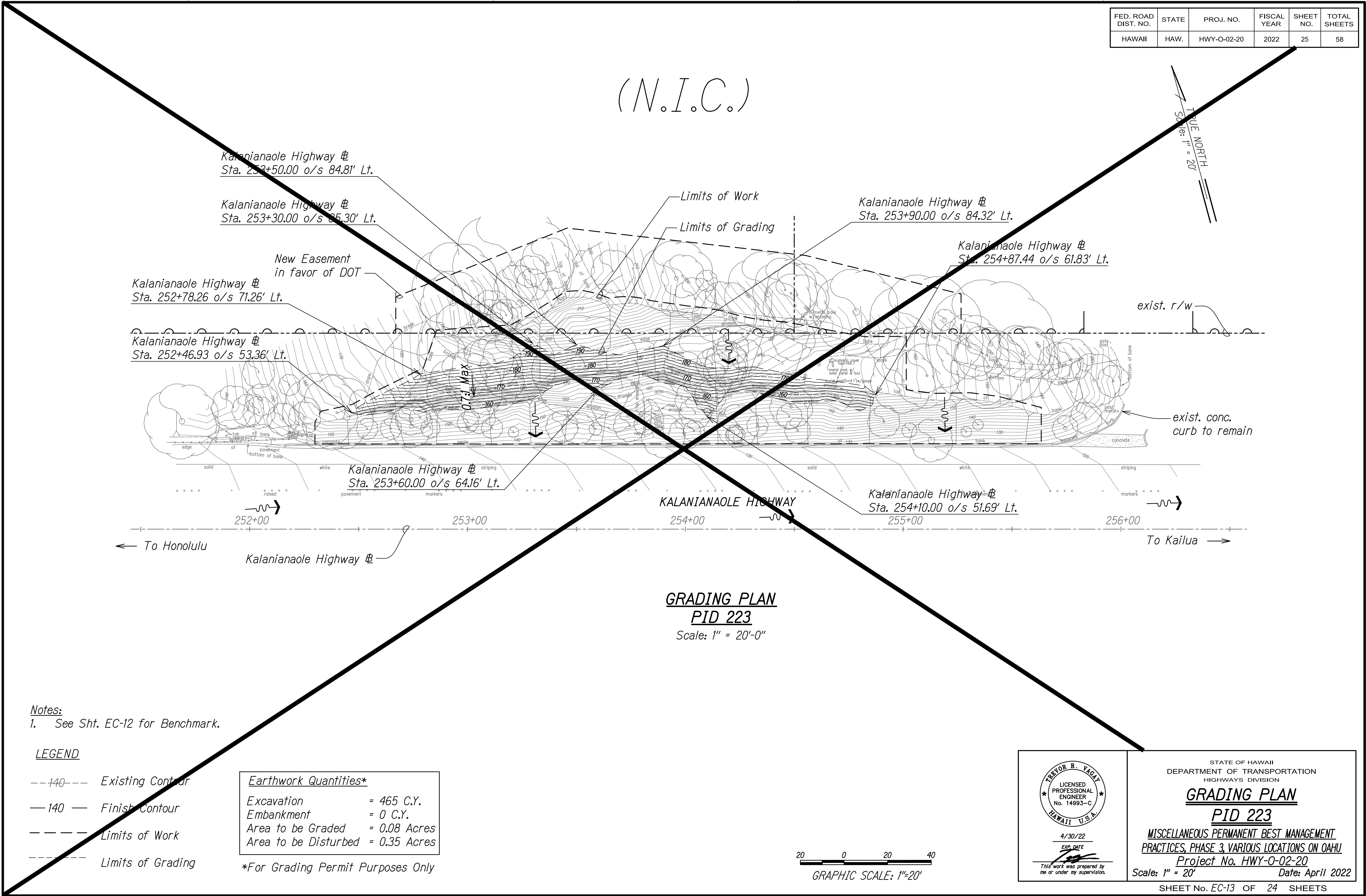
Project No. HWY-O-02-20
Scale: 1" = 20' Date: April 2022

SHEET No. EC-12 OF 24 SHEETS

SURVEY PLOTTED BY	DATE
DESIGNED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

EC-PID 223.DWG 5/3/2022 4:04:47 PM

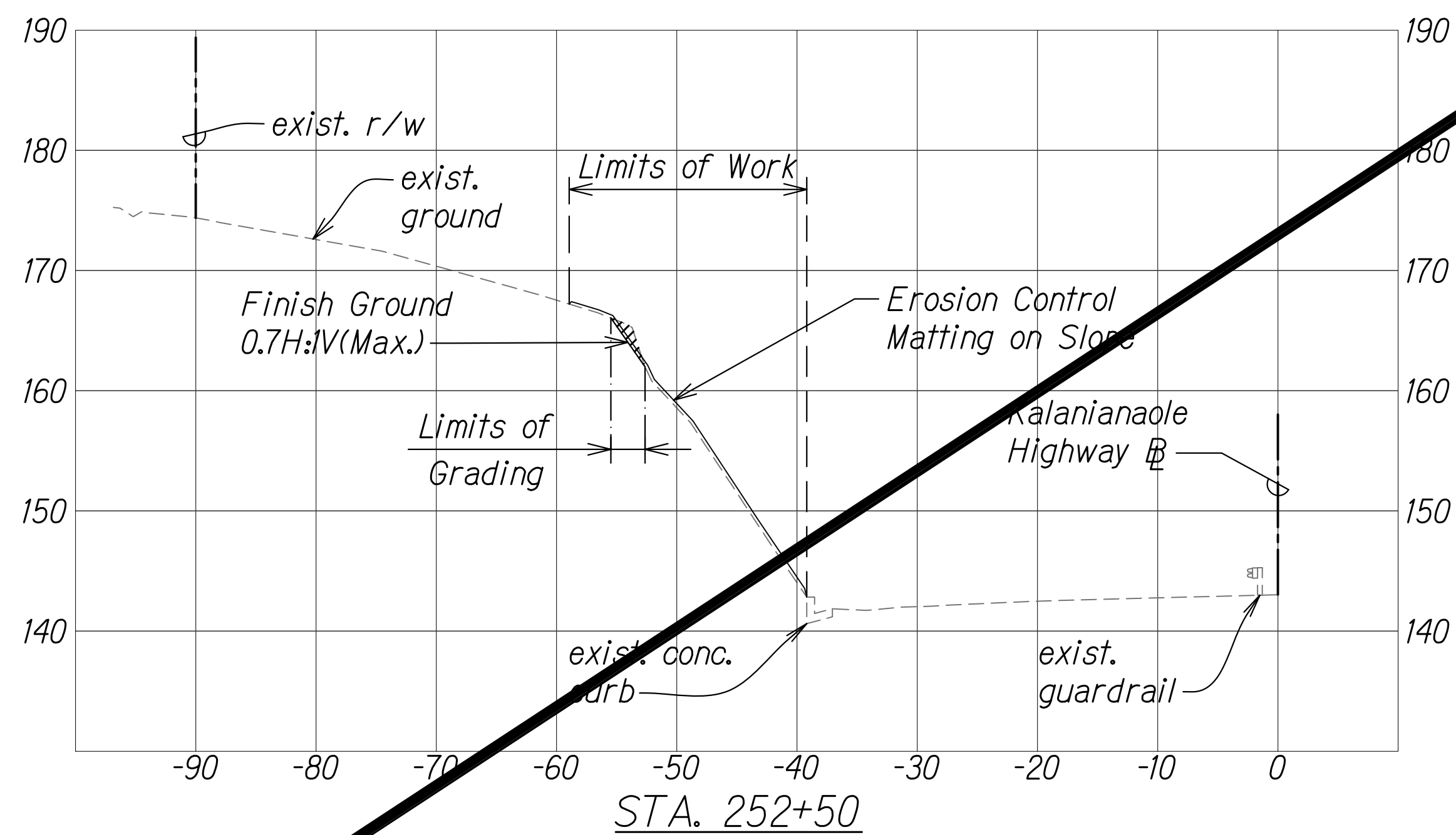
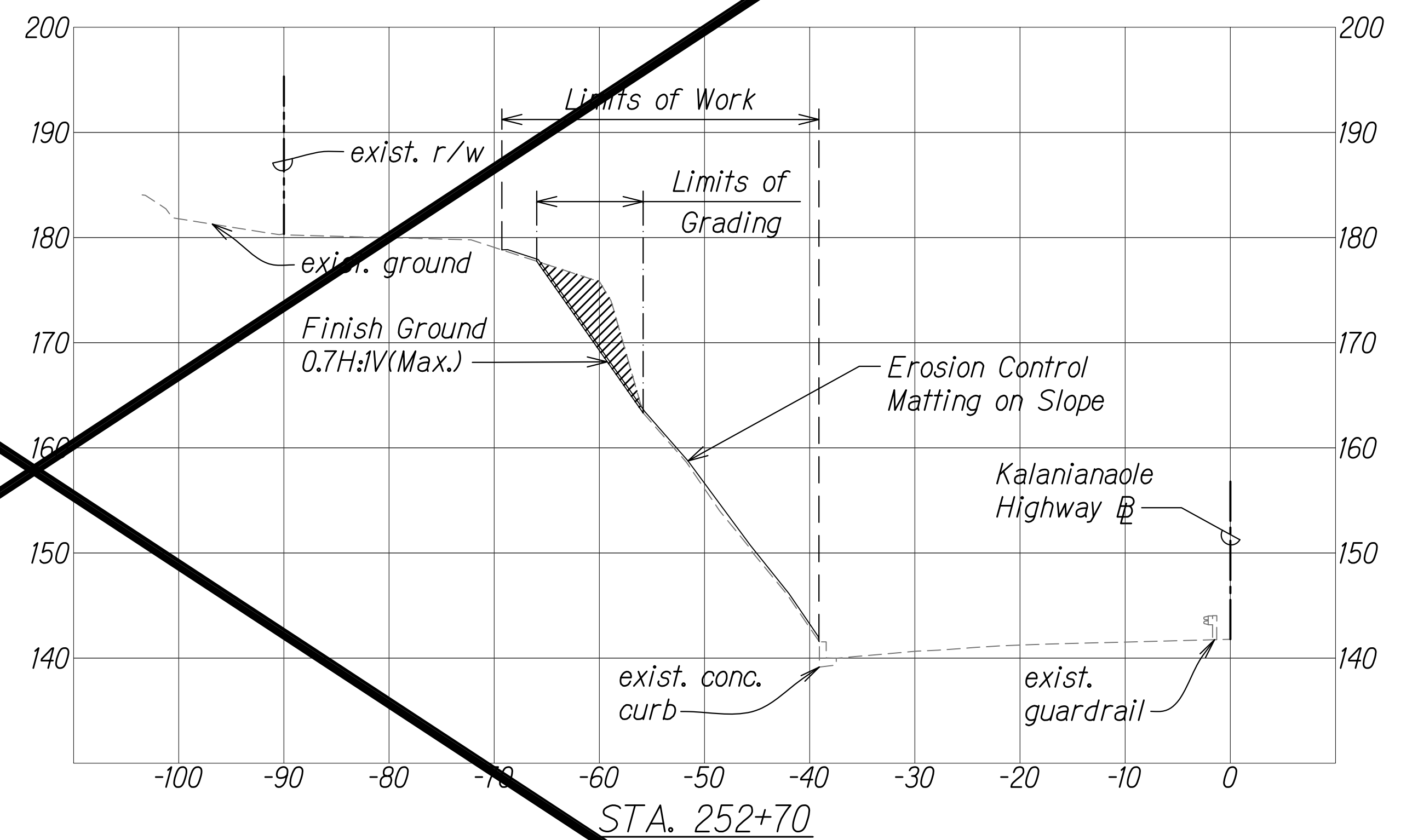
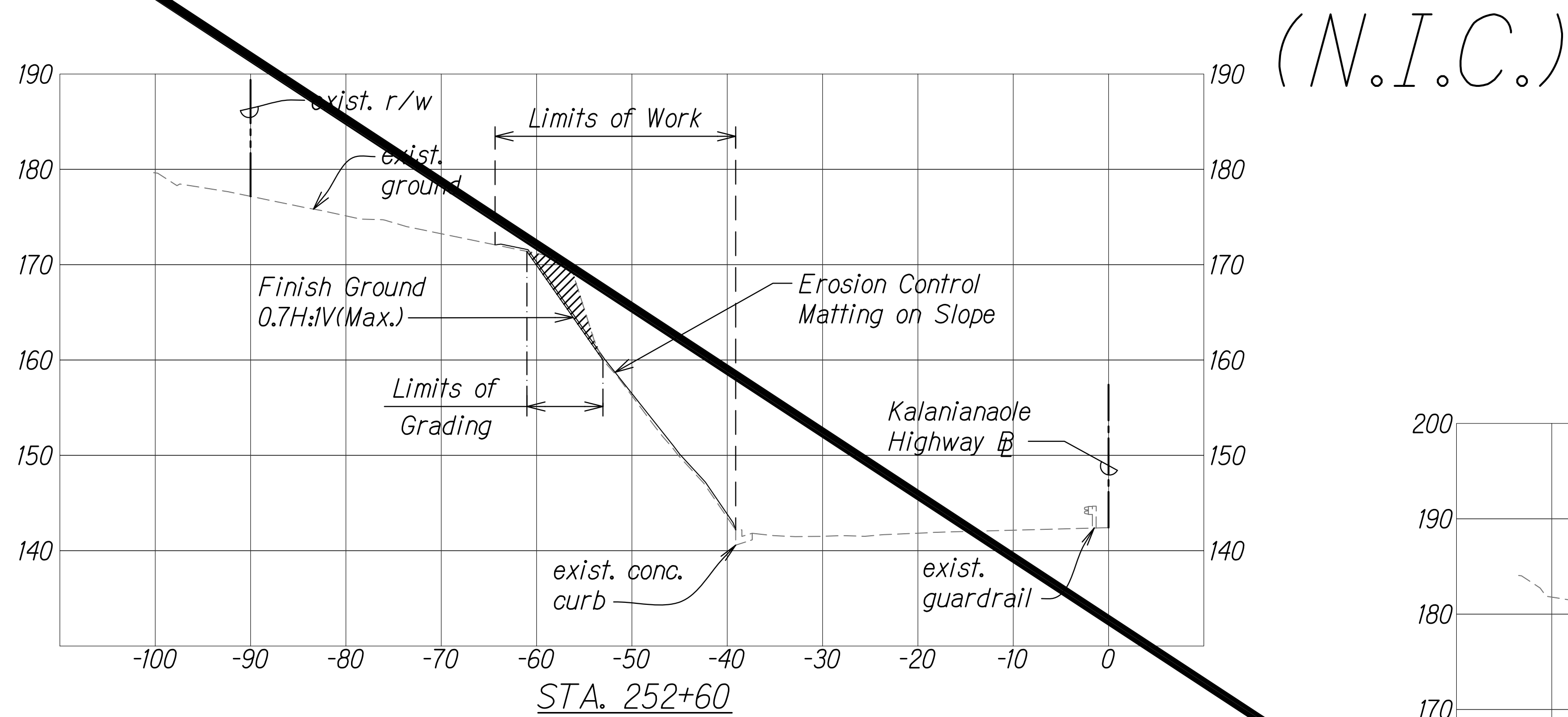
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	25	58



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

GR40-PID 223.DWG 5/3/2022 3:47:57 PM

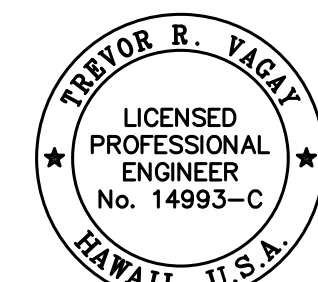
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	26	58



SURVEY PLOTTED BY	DATE
DESIGNED BY	
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ORIGINAL PLAN	
NOTE BOOK	
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SECTIONS-PID 223-02, 5/3/2022 3:54:41 PM

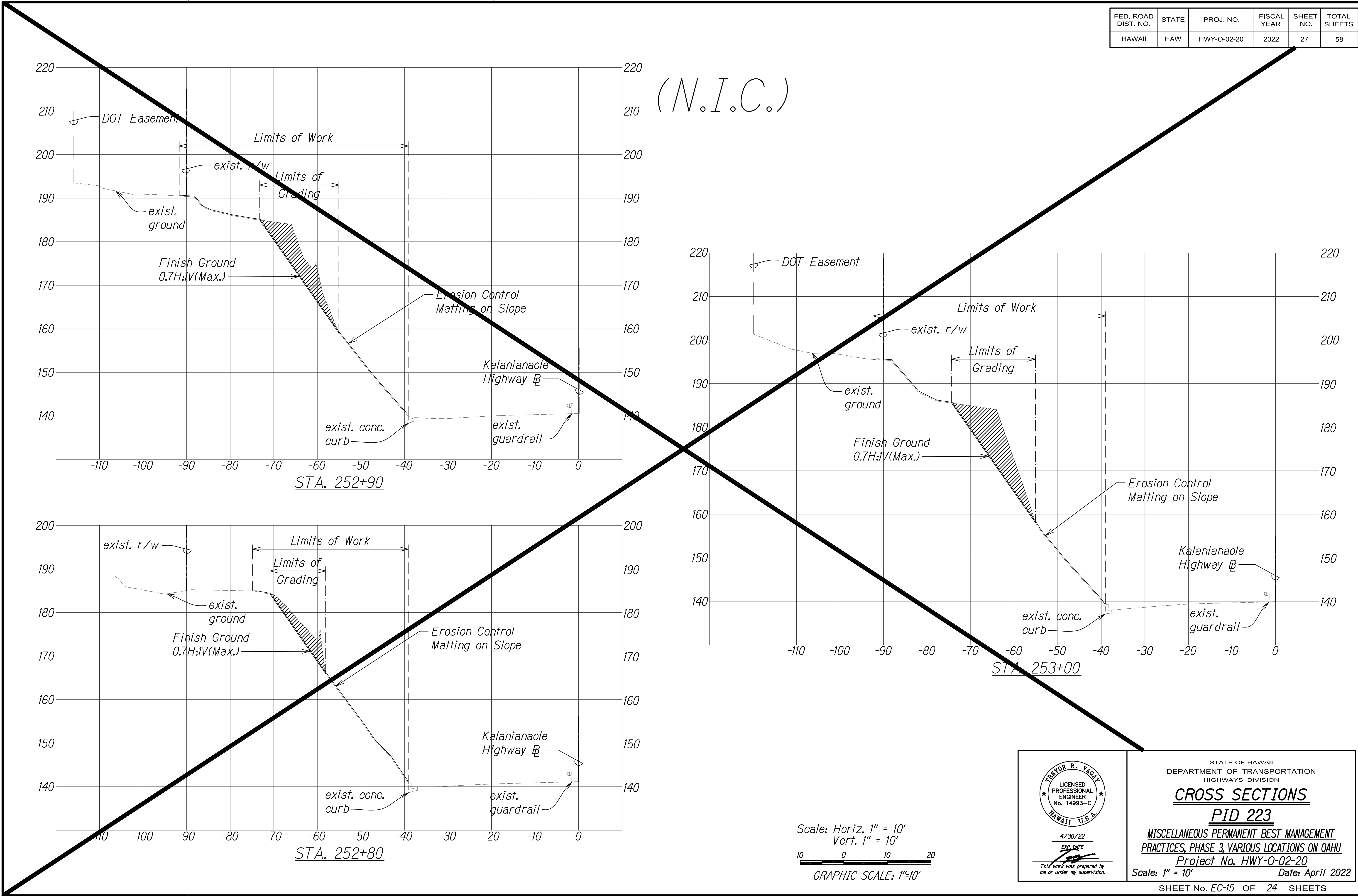
Scale: Horiz. 1" = 10'
Vert. 1" = 10'
GRAPHIC SCALE: 1"=10'



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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CROSS SECTIONS
PID 223
MISCELLANEOUS PERMANENT BEST MANAGEMENT
PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU
Project No. HWY-O-02-20
Scale: 1" = 10' Date: April 2022
SHEET No. EC-14 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	27	58

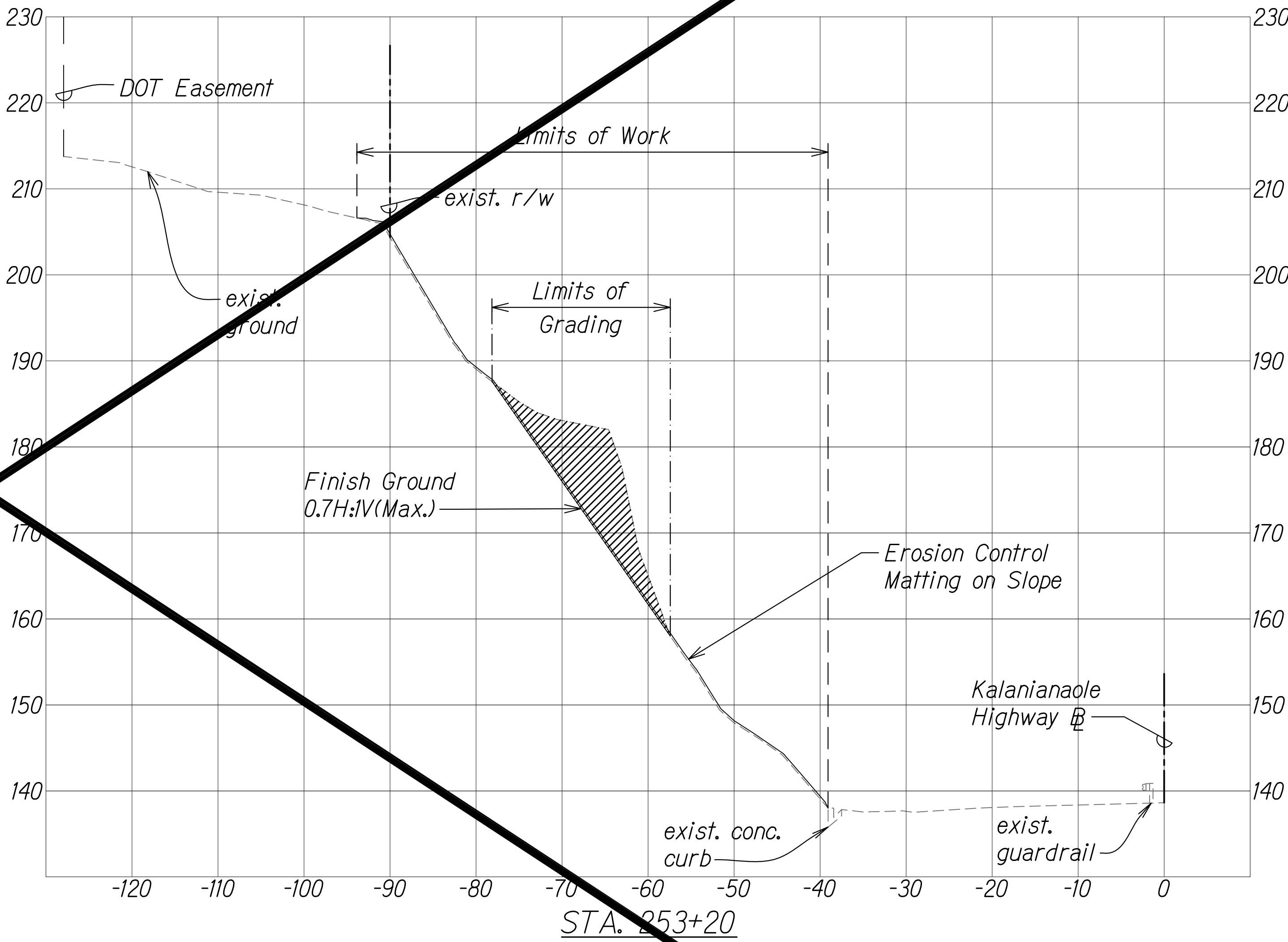
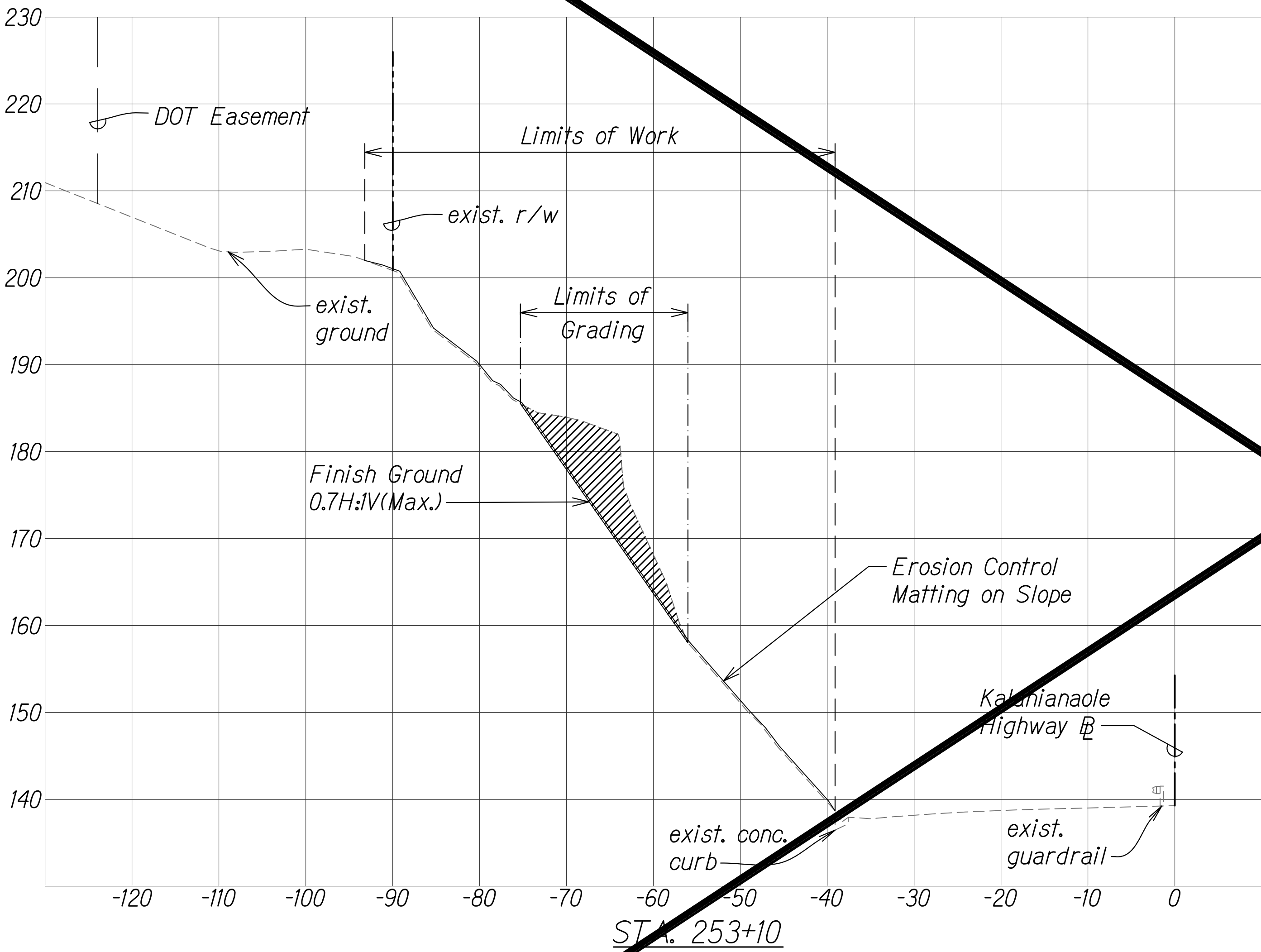


ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

SECTIONS-PID 223.DWG, 5/3/2022 3:54:41 PM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	28	58

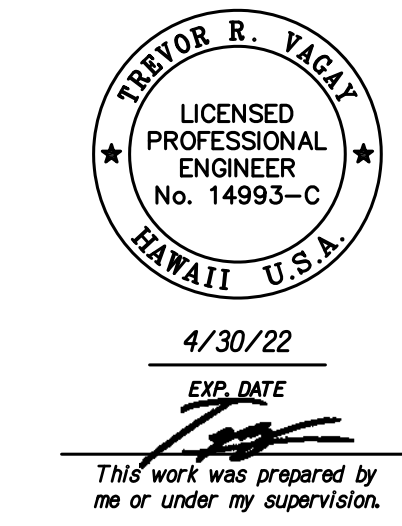
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SURVEY PLOTTED BY	DATE
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QUANTITIES BY	
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SECTIONS-PID 223.DWG 5/3/2022 3:54:41 PM

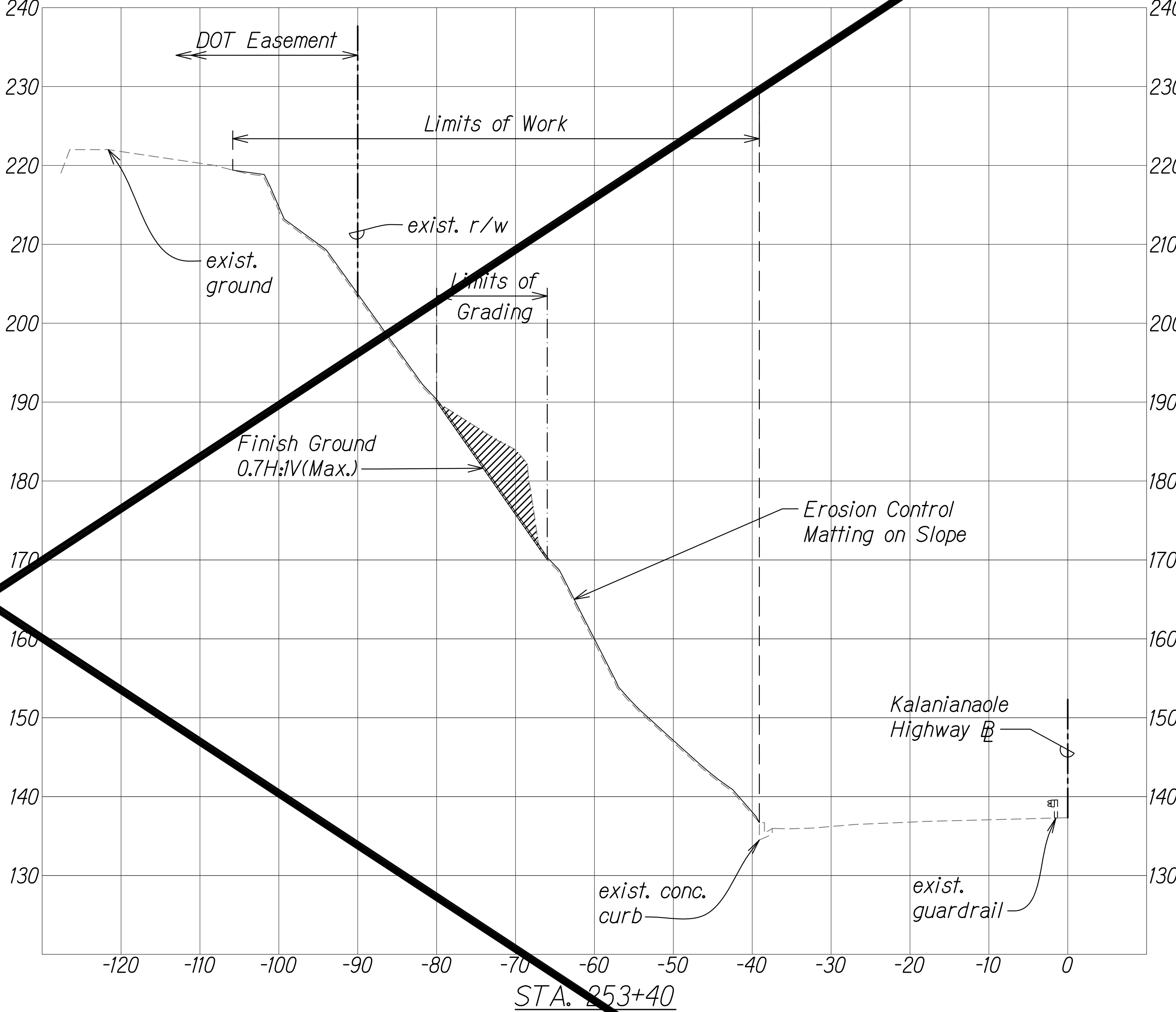
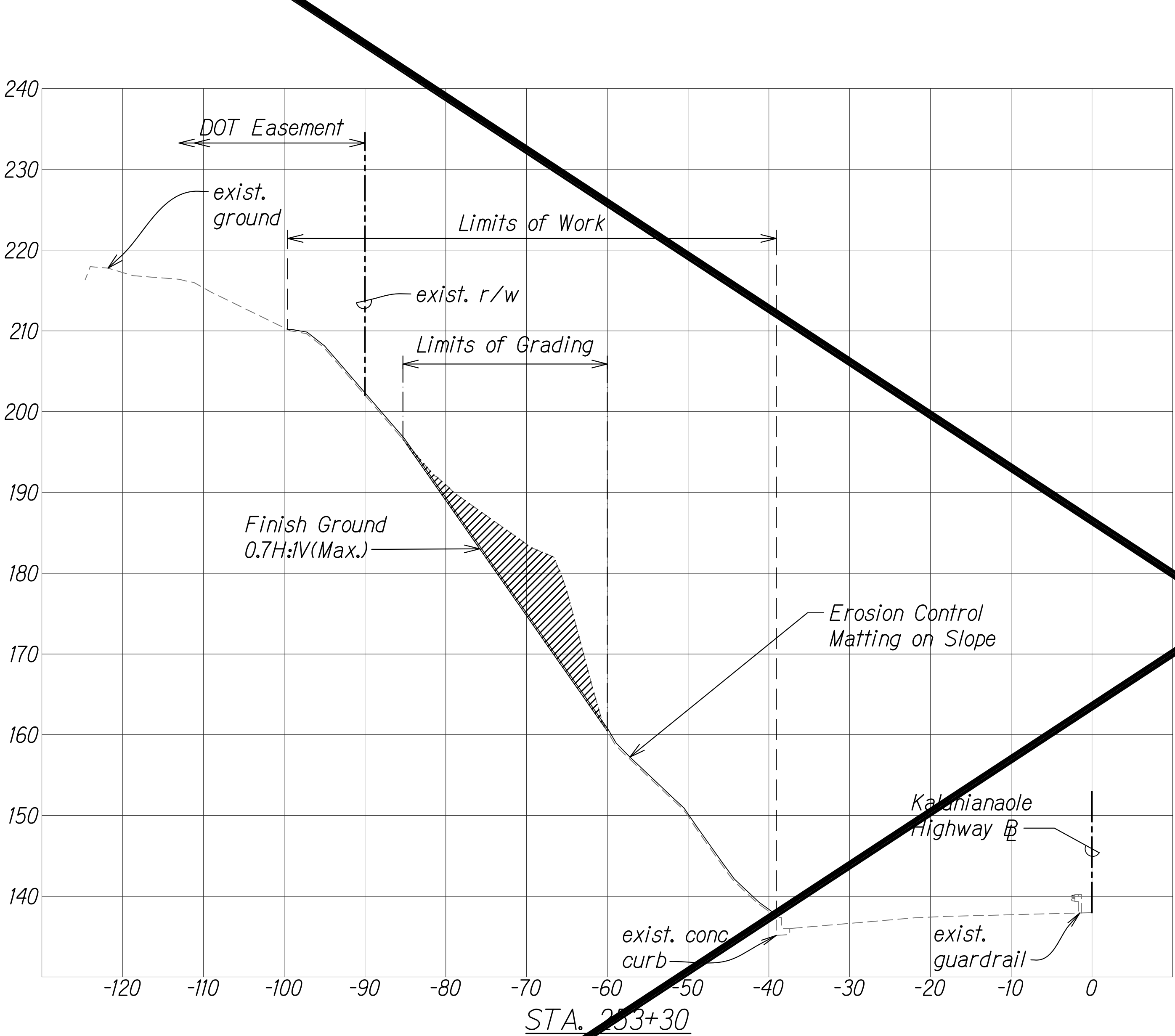
Scale: Horiz. 1" = 10'
Vert. 1" = 10'
GRAPHIC SCALE: 1"=10'



STATE OF HAWAII
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HIGHWAYS DIVISION
CROSS SECTIONS
PID 223
MISCELLANEOUS PERMANENT BEST MANAGEMENT
PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU
Project No. HWY-O-02-20
Scale: 1" = 10' Date: April 2022
SHEET No. EC-16 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	29	58

(N.I.C.)



SURVEY PLOTTED BY	DATE
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CHECKED BY	
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QUANTITIES BY	
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SECTIONS-PID 223-202 5/3/2022 3:54:41 PM

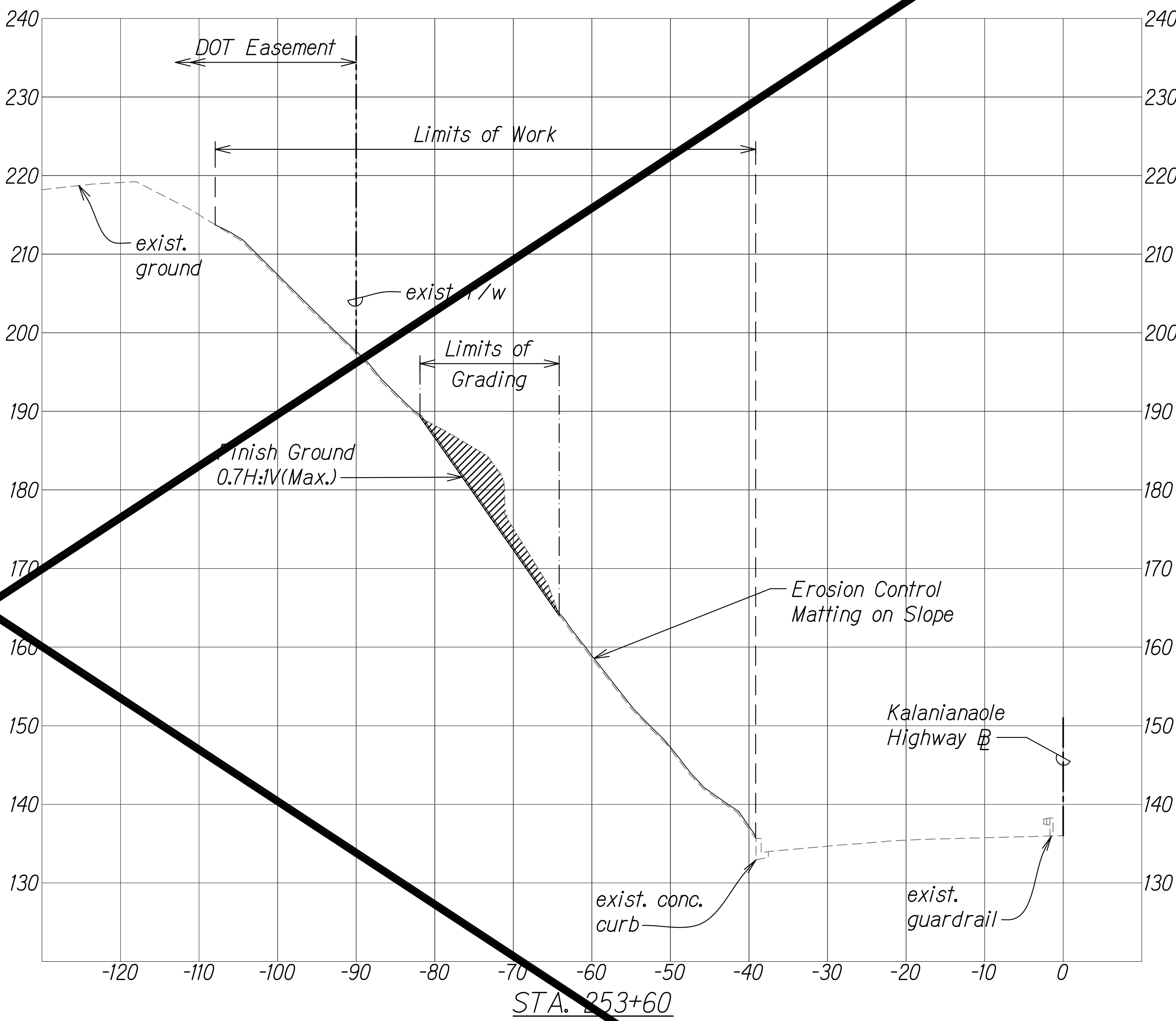
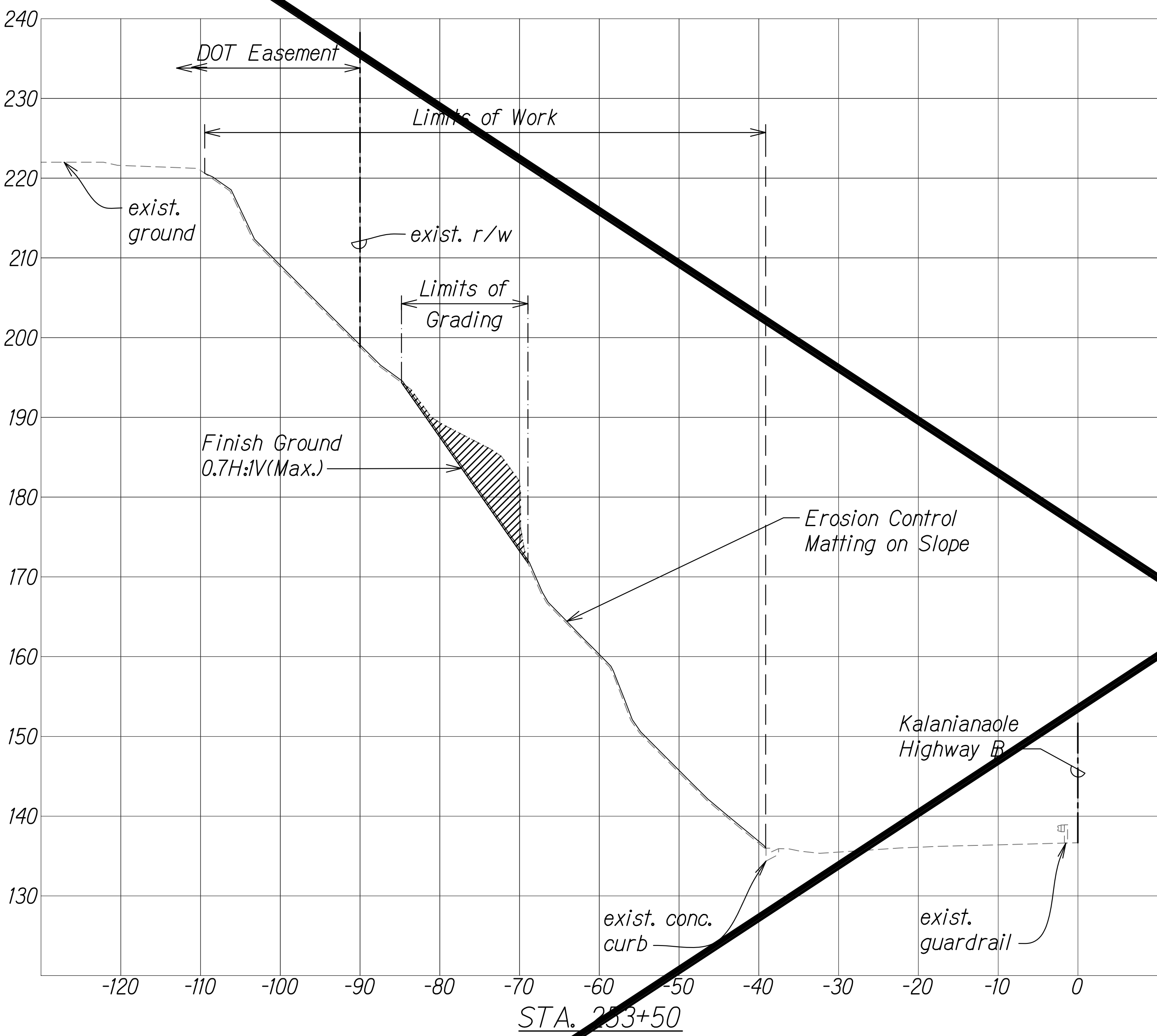
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Vert. 1" = 10'
GRAPHIC SCALE: 1"=10'

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CROSS SECTIONS
PID 223
MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU
Project No. HWY-O-02-20
Scale: 1" = 10' Date: April 2022
SHEET No. EC-17 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	30	58

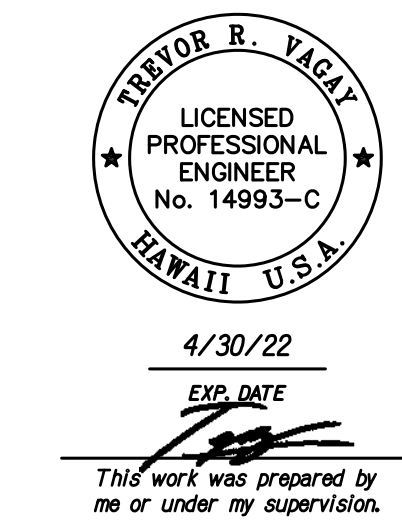
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SURVEY PLOTTED BY	DATE
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NOTE BOOK	
QUANTITIES BY	
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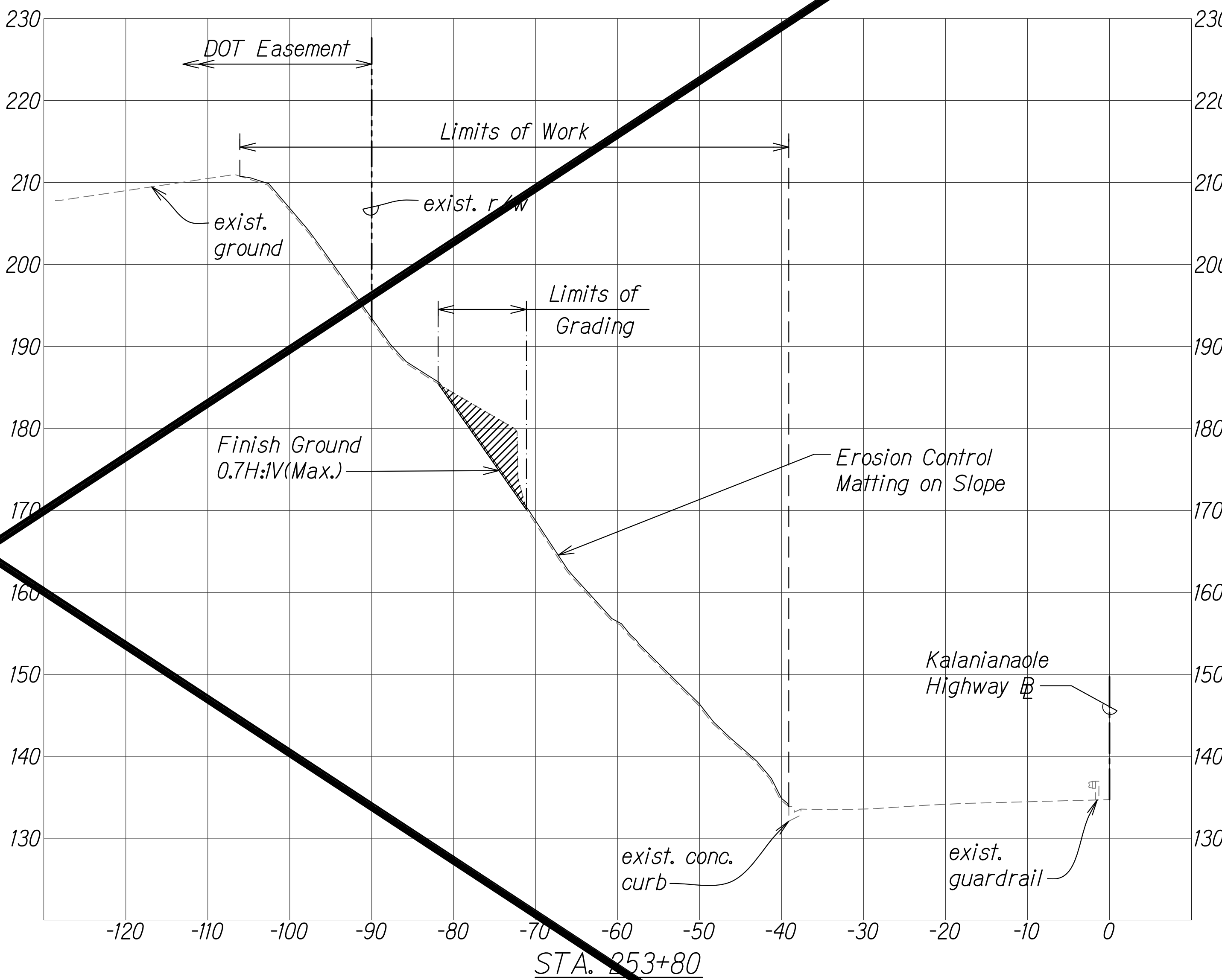
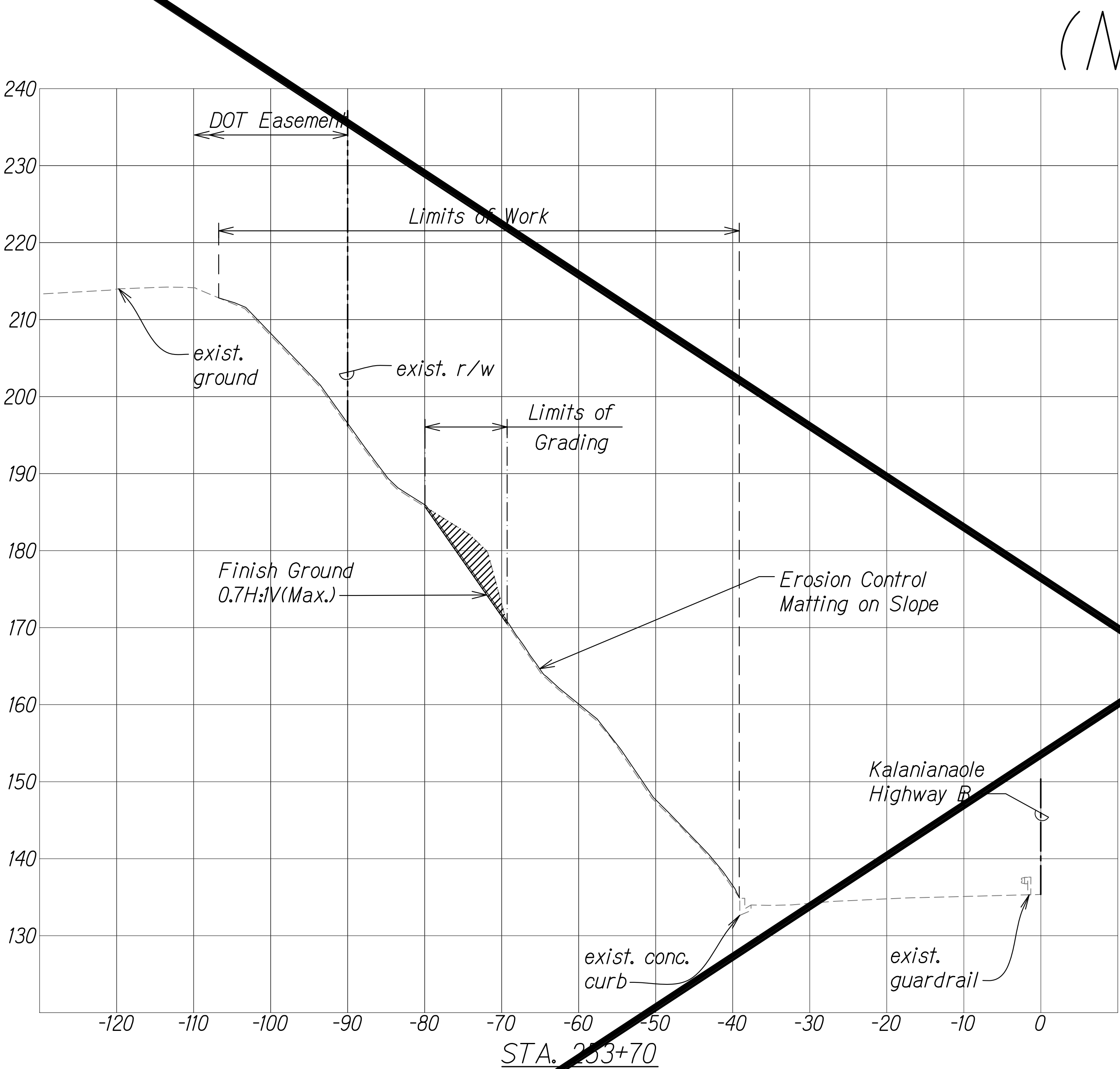
SECTIONS-PID 223-02 5/3/2022 3:54:41 PM

Scale: Horiz. 1" = 10'
Vert. 1" = 10'
GRAPHIC SCALE: 1"=10'



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CROSS SECTIONS
PID 223
MISCELLANEOUS PERMANENT BEST MANAGEMENT
PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU
Project No. HWY-O-02-20
Scale: 1" = 10' Date: April 2022
SHEET No. EC-18 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	31	58



Scale: Horiz. 1" = 10'
Vert. 1" = 10'

10 0 10 20

GRAPHIC SCALE: 1"=10'

TEROR R. YAMAI

LICENSED PROFESSIONAL ENGINEER

No. 14993-C

HAWAII U.S.A.

4/30/22

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STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

CROSS SECTIONS

PID 223

MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU

Project No. HWY-O-02-20

Scale: 1" = 10'

Date: April 2022

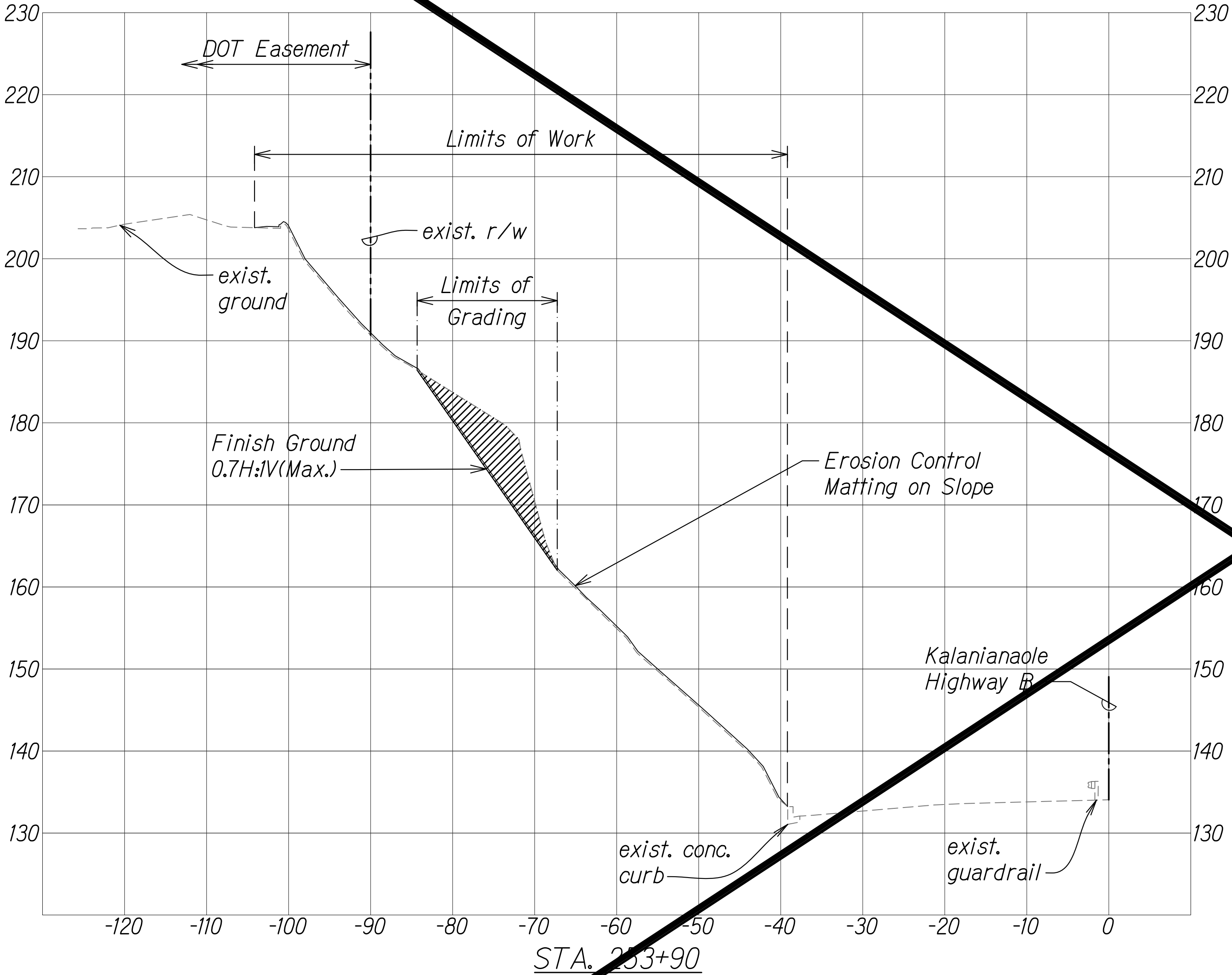
SHEET No. EC-19 OF 24 SHEETS

SURVEY PLOTTED BY	DATE
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QUANTITIES BY	
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ORIGINAL PLAN	
NOTE BOOK	
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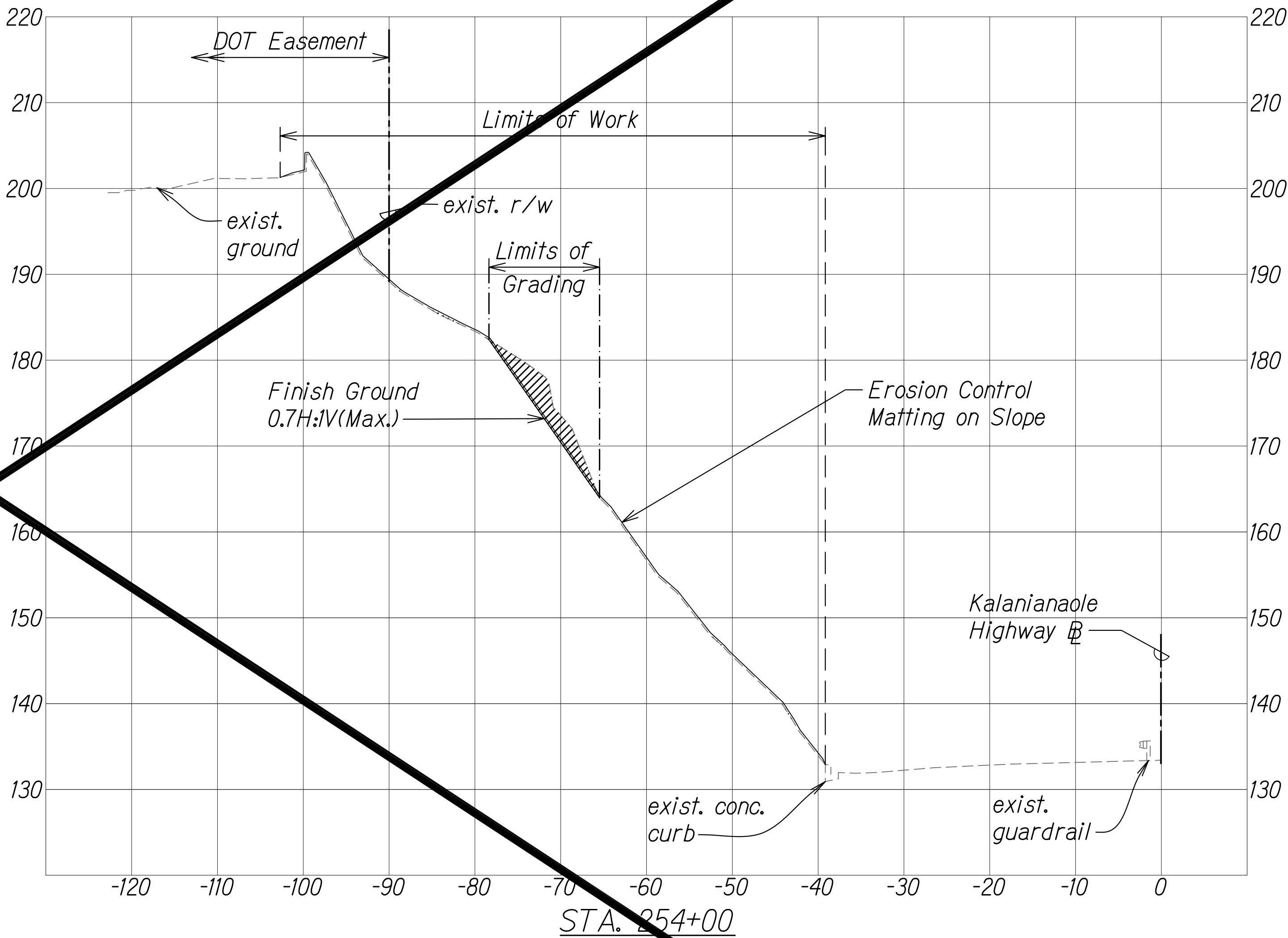
SECTIONS-PID 223.DWG 5/3/2022 3:54:41 PM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	32	58

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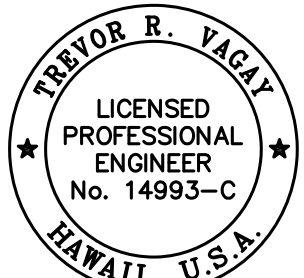


STA. 253+90



STA. 254+00

Scale: Horiz. 1" = 10'
Vert. 1" = 10'
GRAPHIC SCALE: 1"=10'



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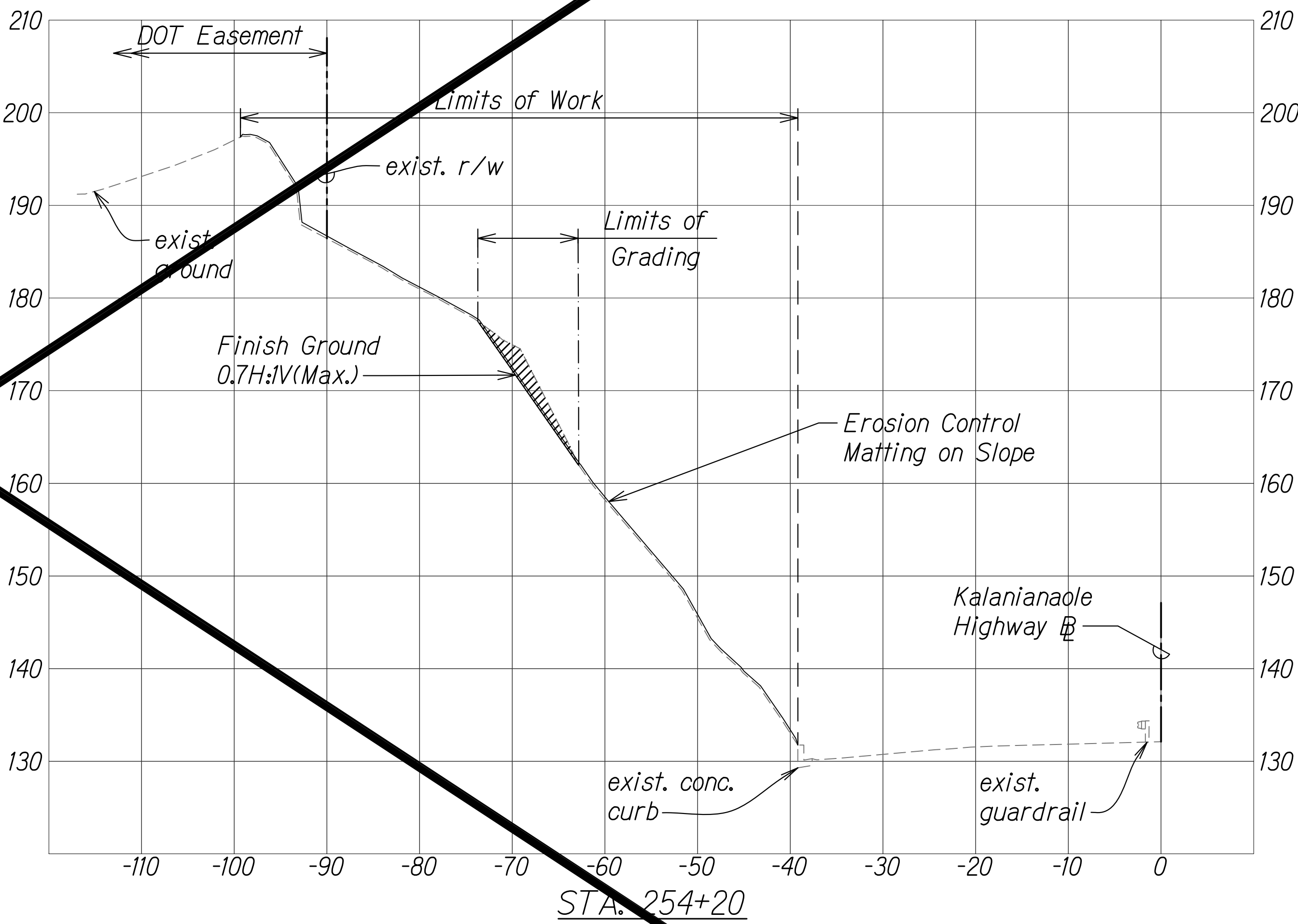
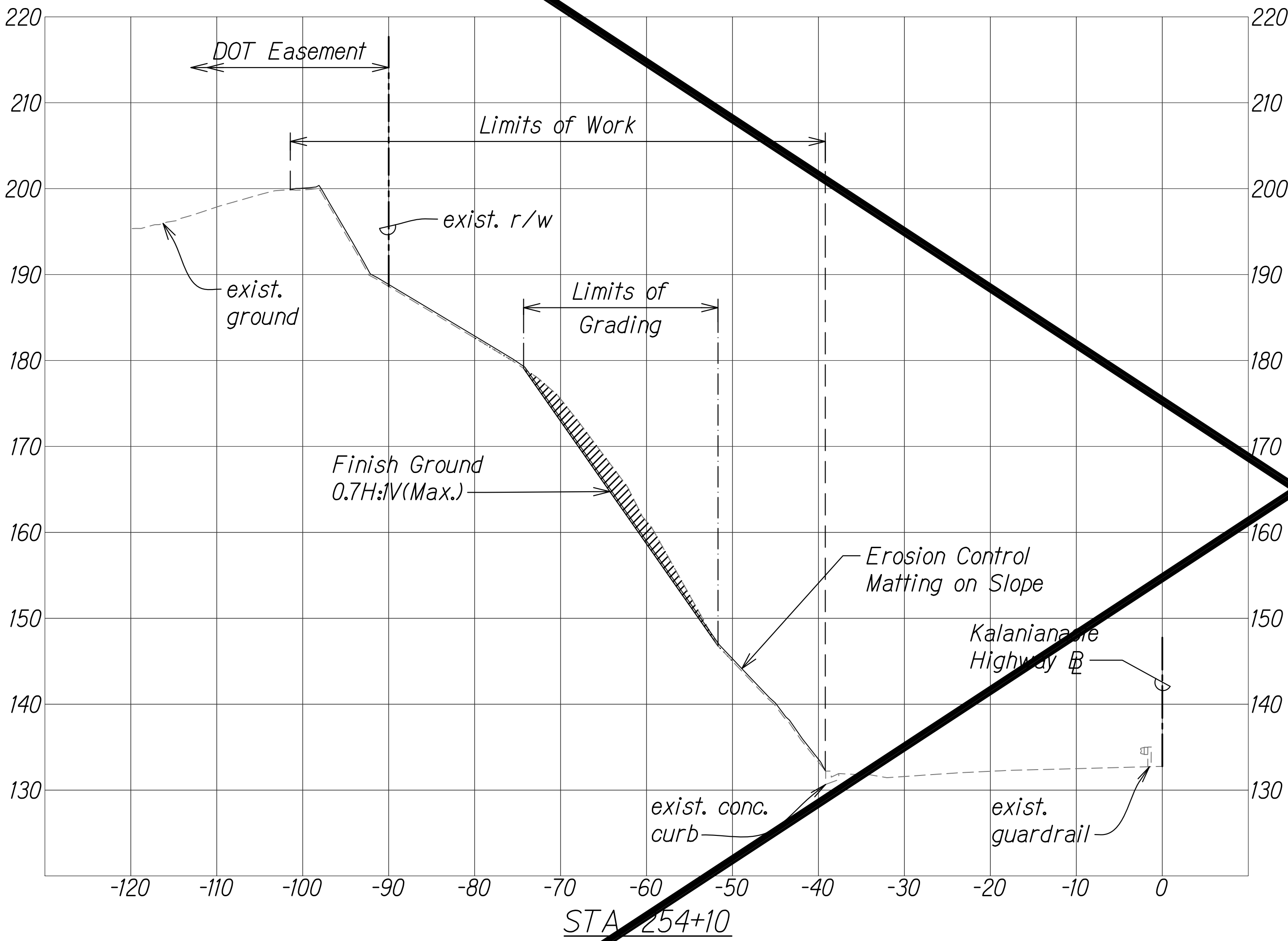
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CROSS SECTIONS
PID 223
MISCELLANEOUS PERMANENT BEST MANAGEMENT
PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU
Project No. HWY-O-02-20
Scale: 1" = 10' Date: April 2022
SHEET No. EC-20 OF 24 SHEETS

SURVEY PLOTTED BY	DATE
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SECTIONS-PID 223.DWG 5/3/2022 3:54:41 PM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-20	2022	33	58

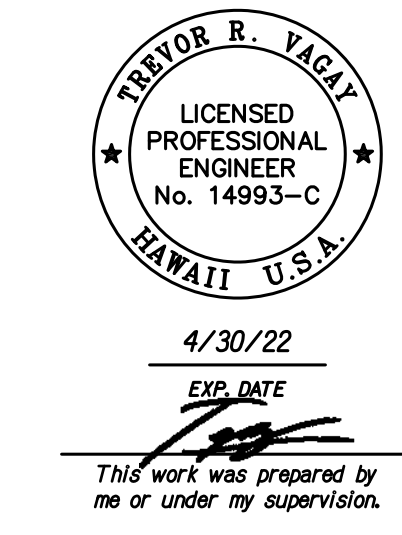
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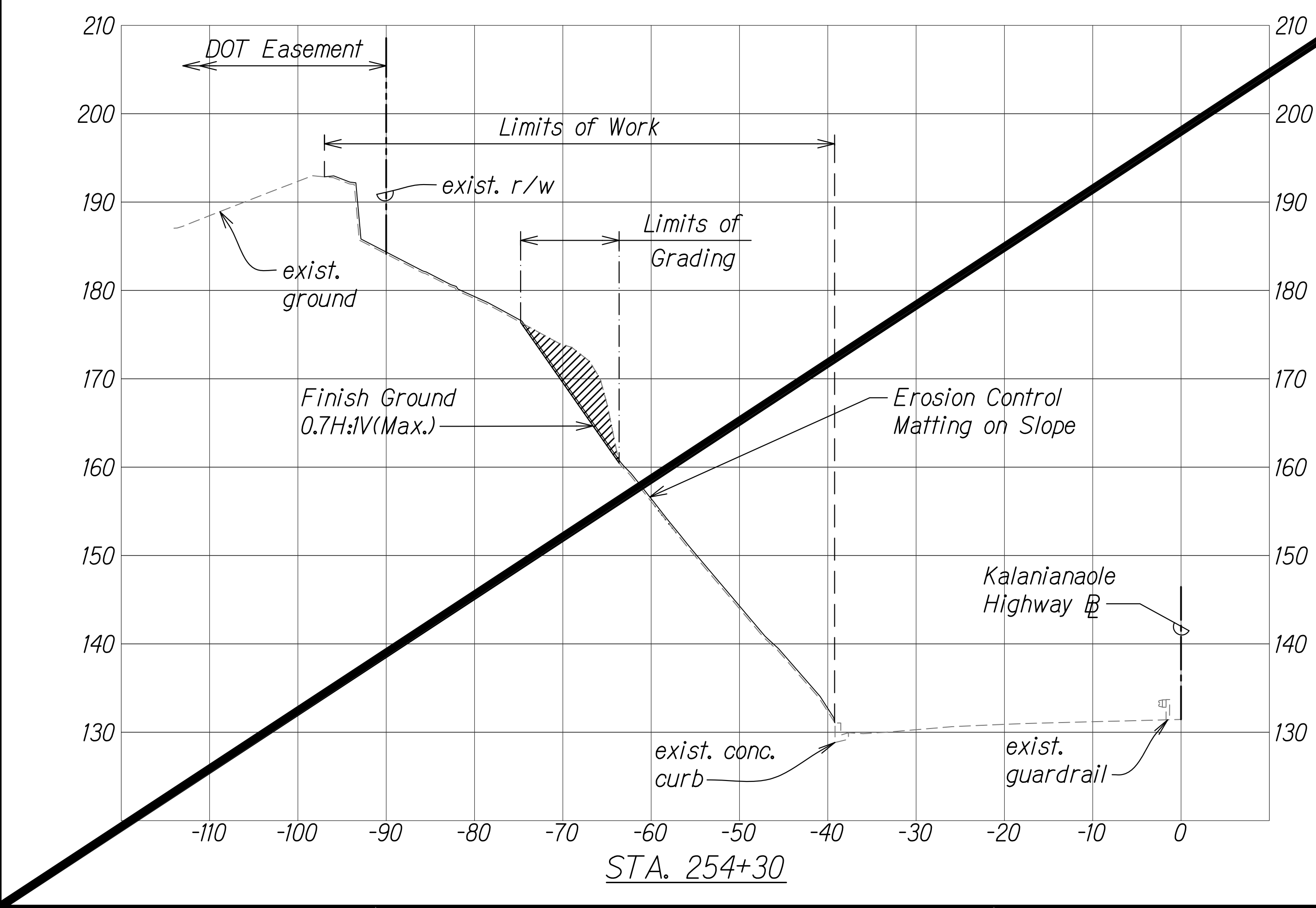
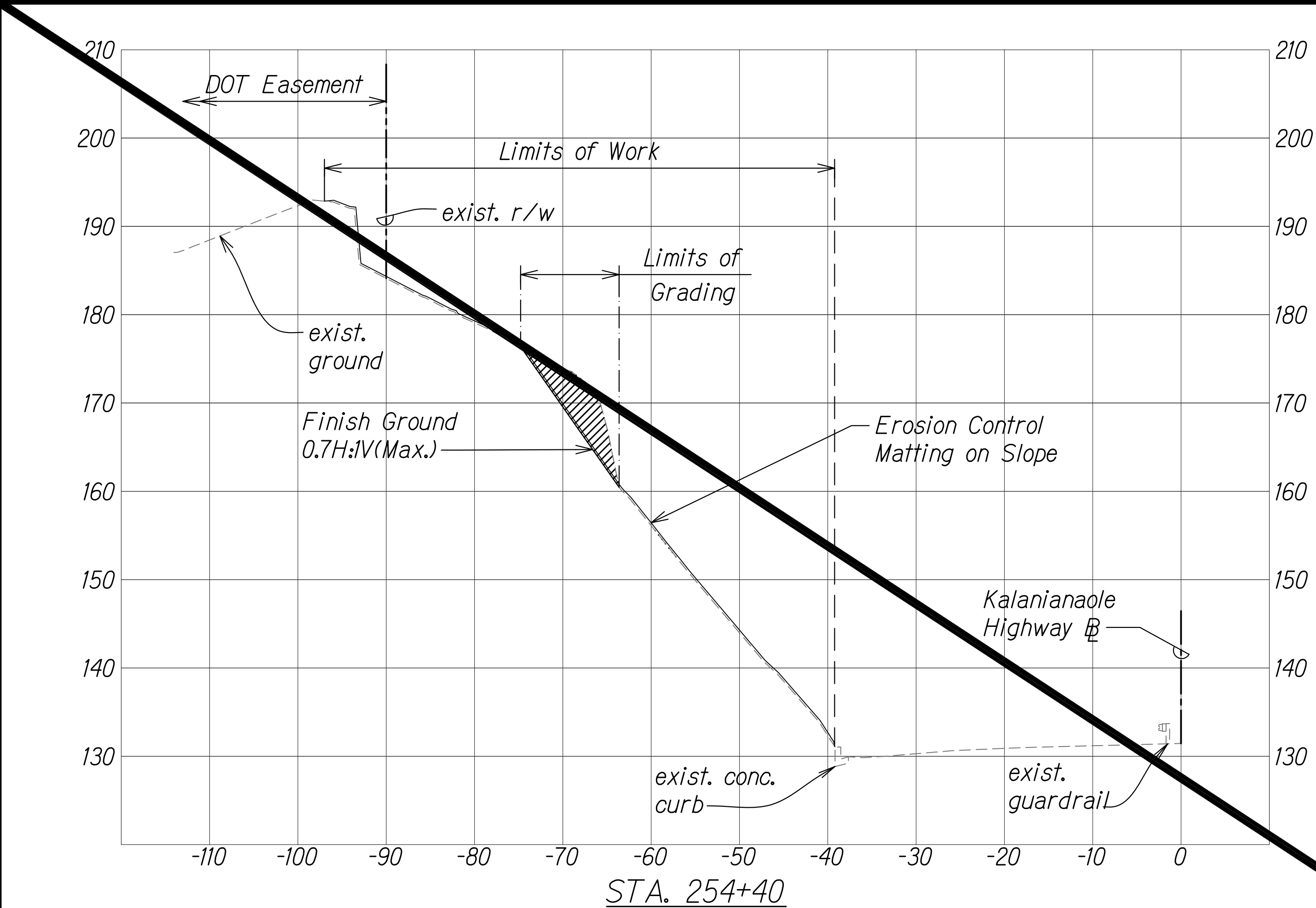
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GRAPHIC SCALE: 1"=10'

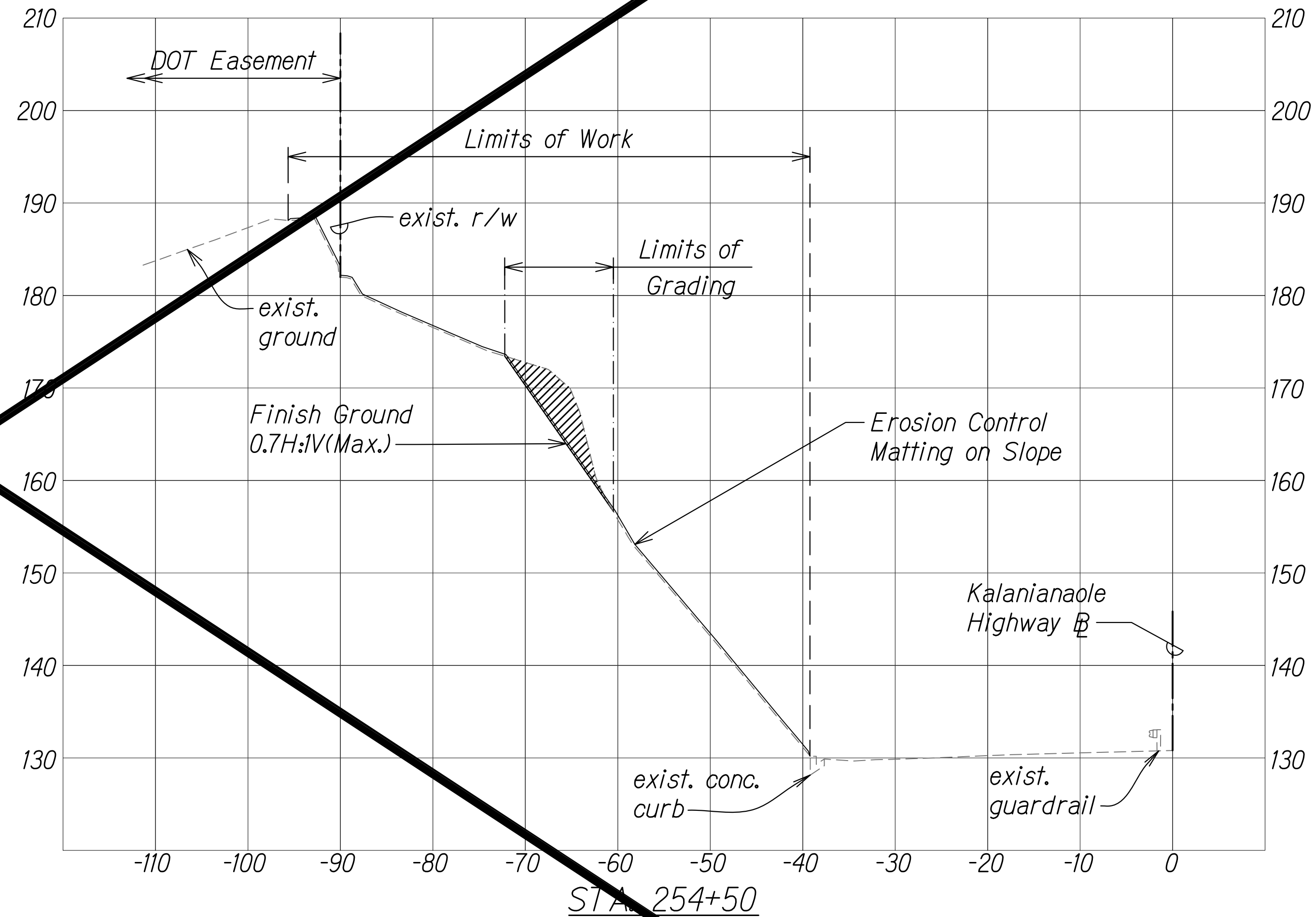


STATE OF HAWAII
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HIGHWAYS DIVISION
CROSS SECTIONS
PID 223
MISCELLANEOUS PERMANENT BEST MANAGEMENT
PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU
Project No. HWY-0-02-20
Scale: 1" = 10' Date: April 2022
SHEET No. EC-21 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	34	58



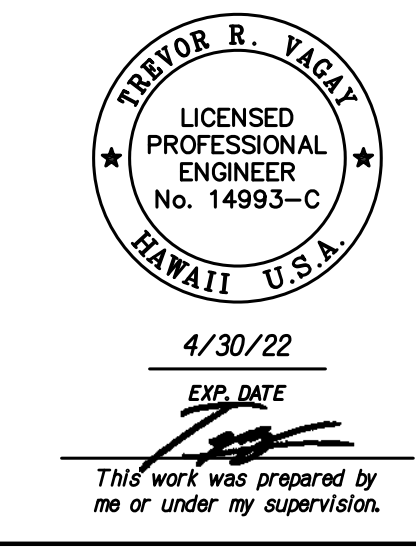
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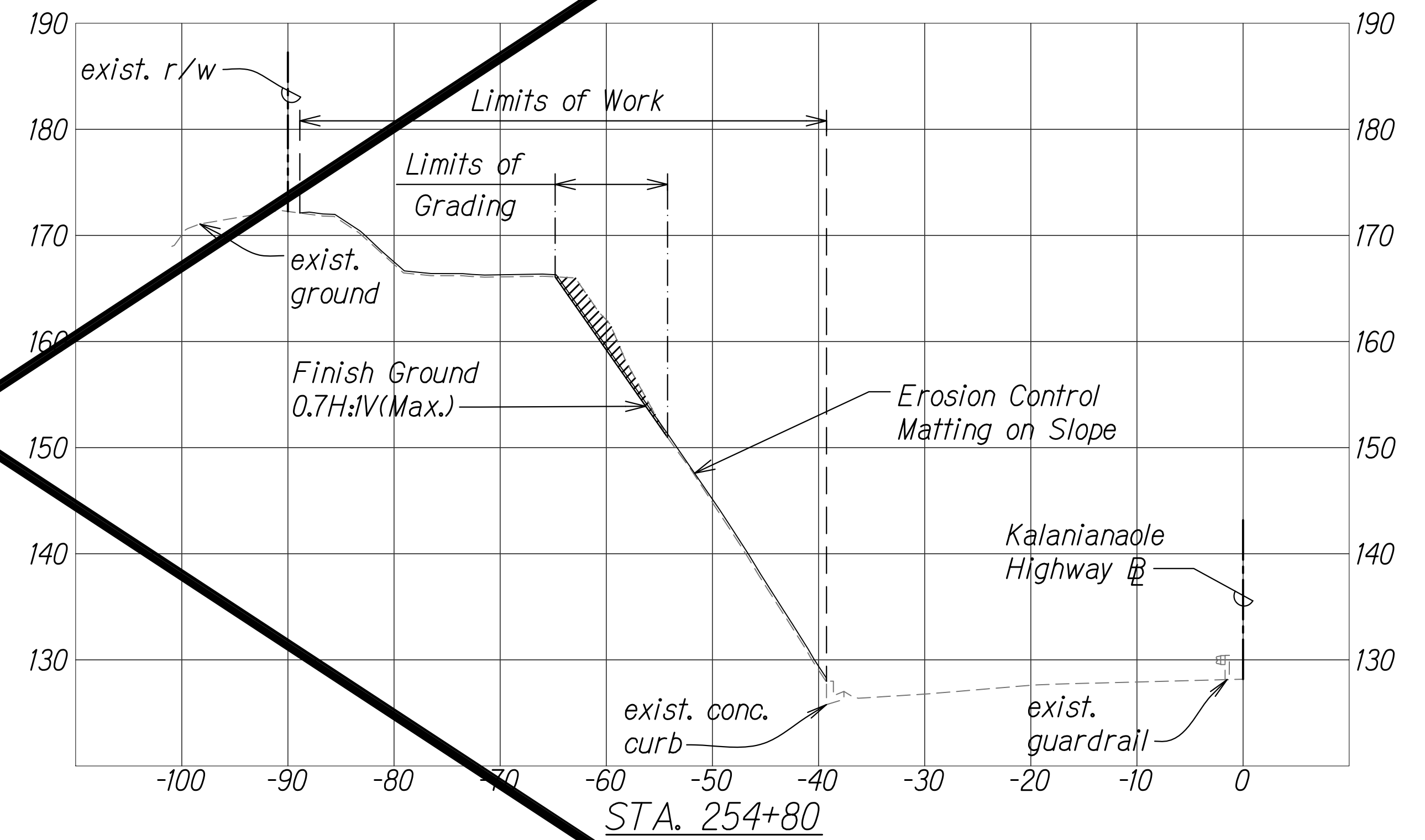
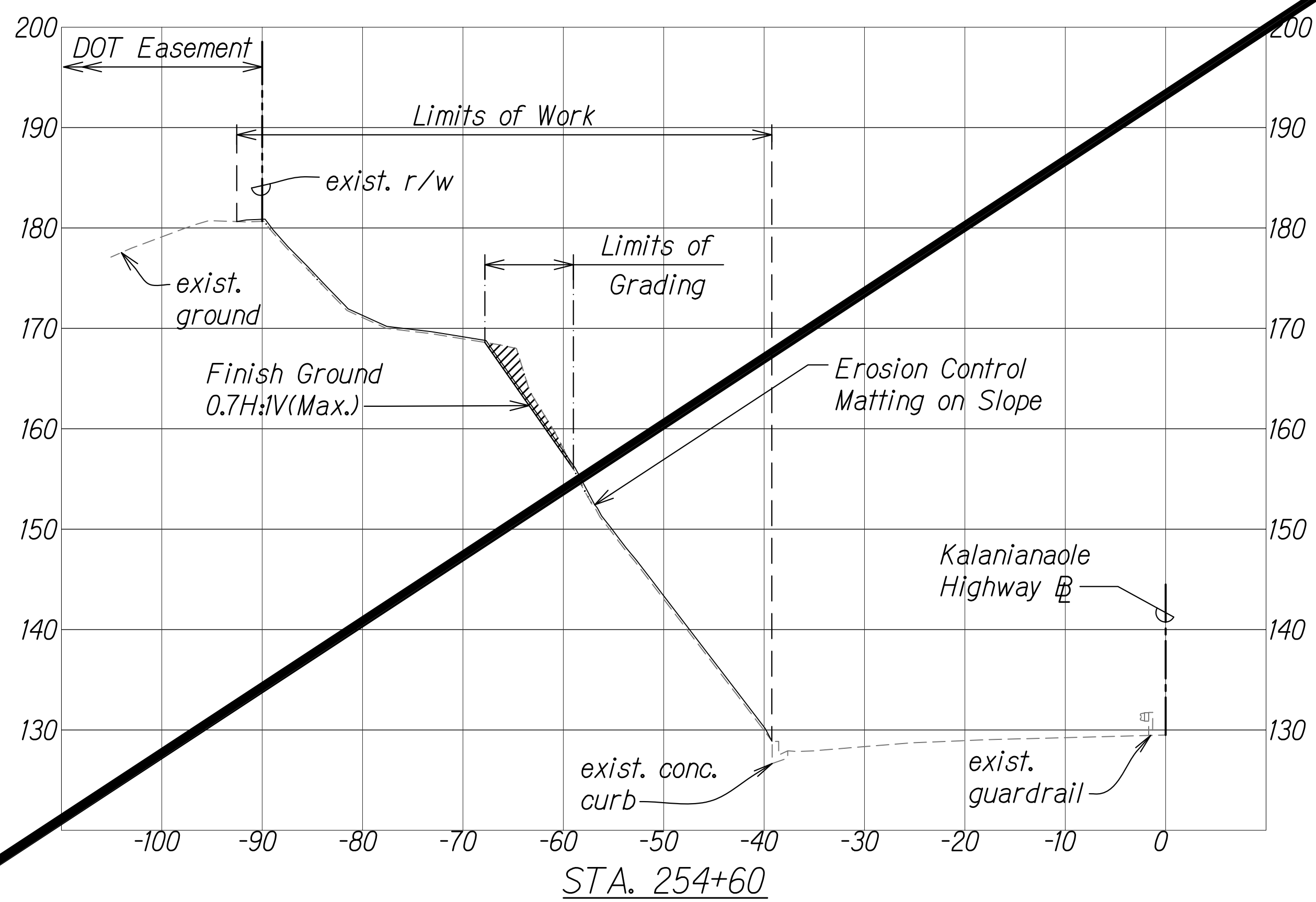
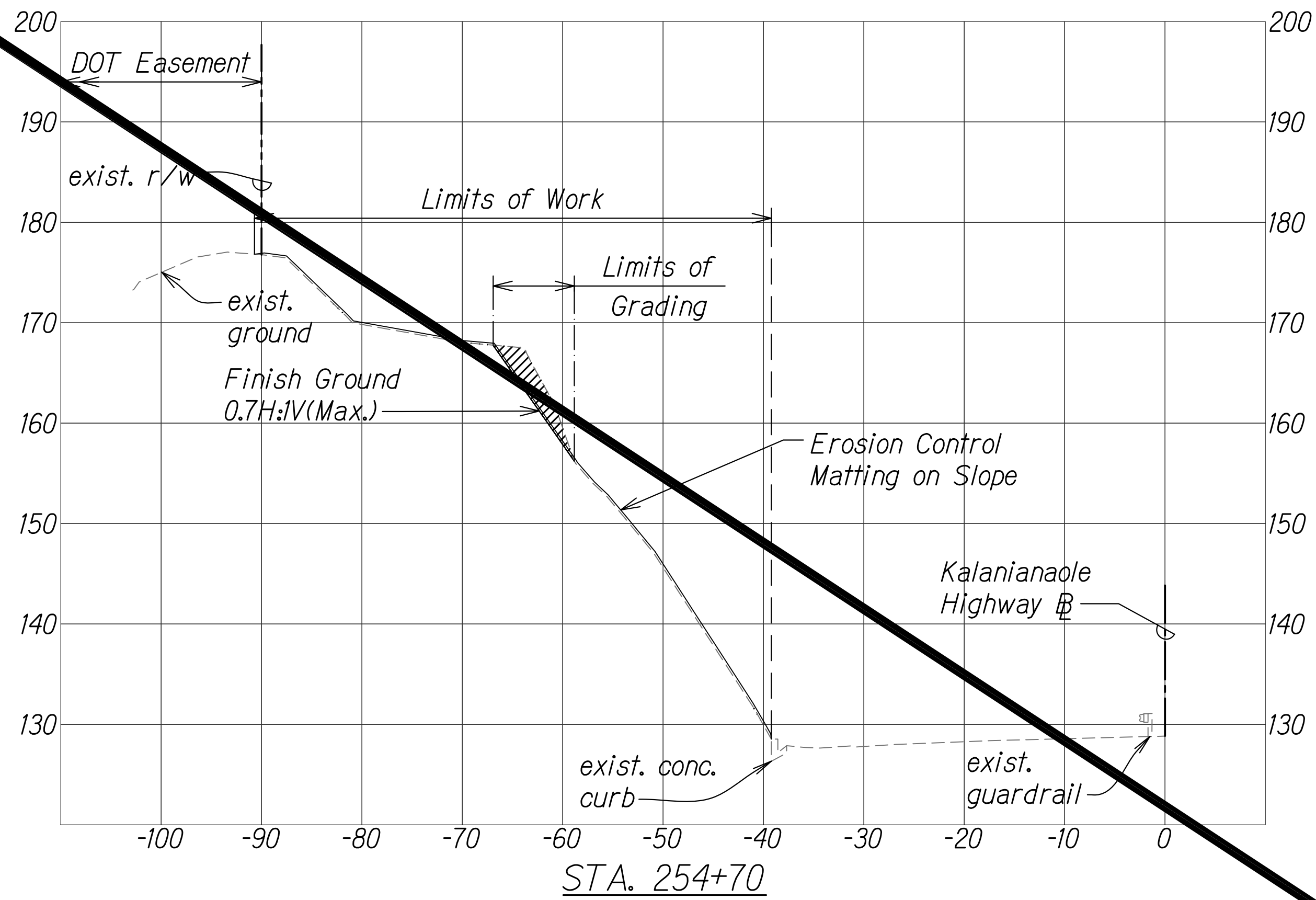
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Scale: Horiz. 1" = 10'
Vert. 1" = 10'
GRAPHIC SCALE: 1"=10'



STATE OF HAWAII
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HIGHWAYS DIVISION
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PID 223
MISCELLANEOUS PERMANENT BEST MANAGEMENT
PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU
Project No. HWY-O-02-20
Scale: 1" = 10' Date: April 2022
SHEET No. EC-22 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	35	58



SURVEY PLOTTED BY	DATE
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DATE	

SECTIONS: PID 223, 5/3/2022 3:54:41 PM

Scale: Horiz. 1" = 10'
Vert. 1" = 10'
GRAPHIC SCALE: 1"=10'

TEROR R. YADAI

LICENSED PROFESSIONAL ENGINEER

No. 14993-C

HAWAII U.S.A.

4/30/22

EXP. DATE

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STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

CROSS SECTIONS

PID 223

MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU

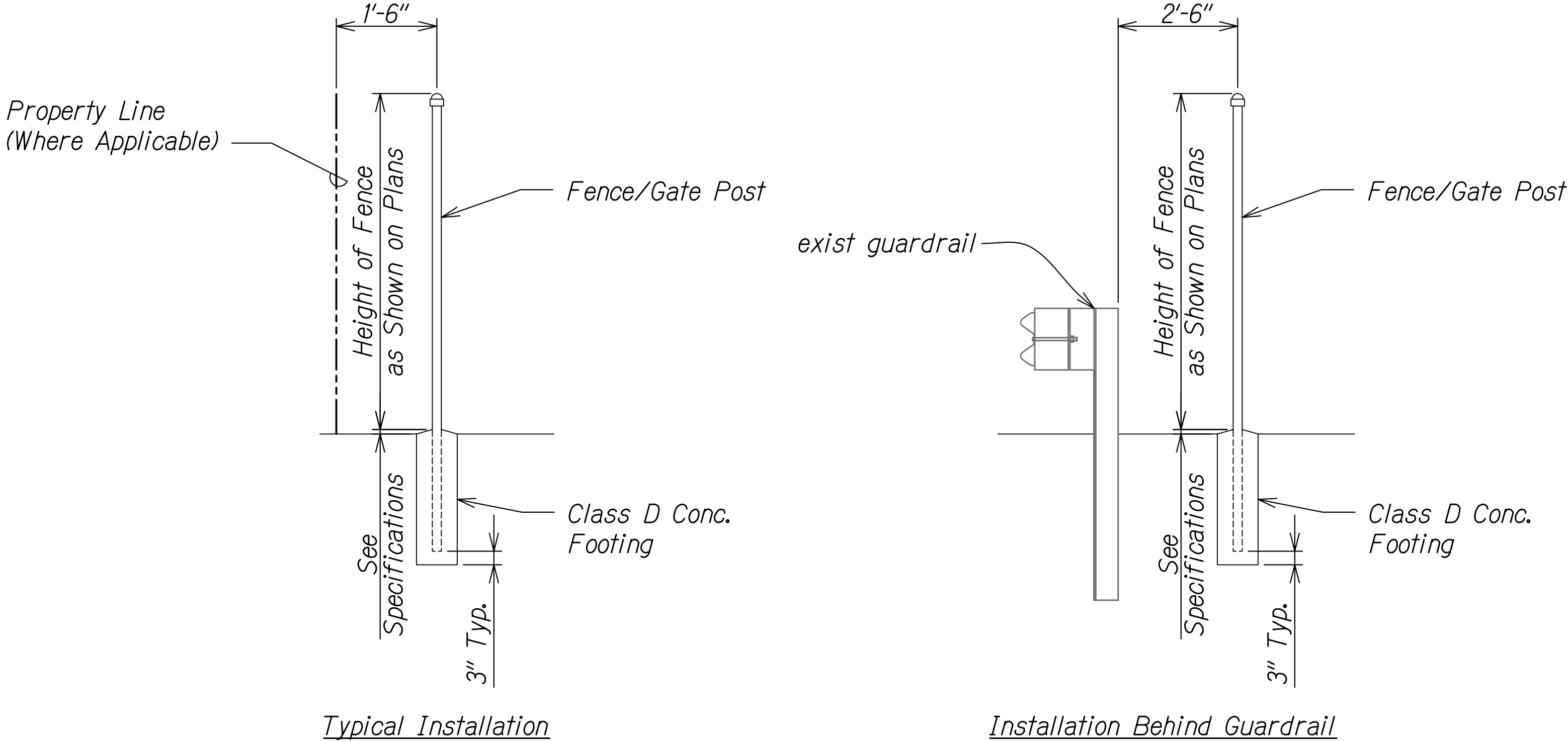
Project No. HWY-O-02-20

Scale: 1" = 10'

Date: April 2022

SHEET No. EC-23 OF 24 SHEETS

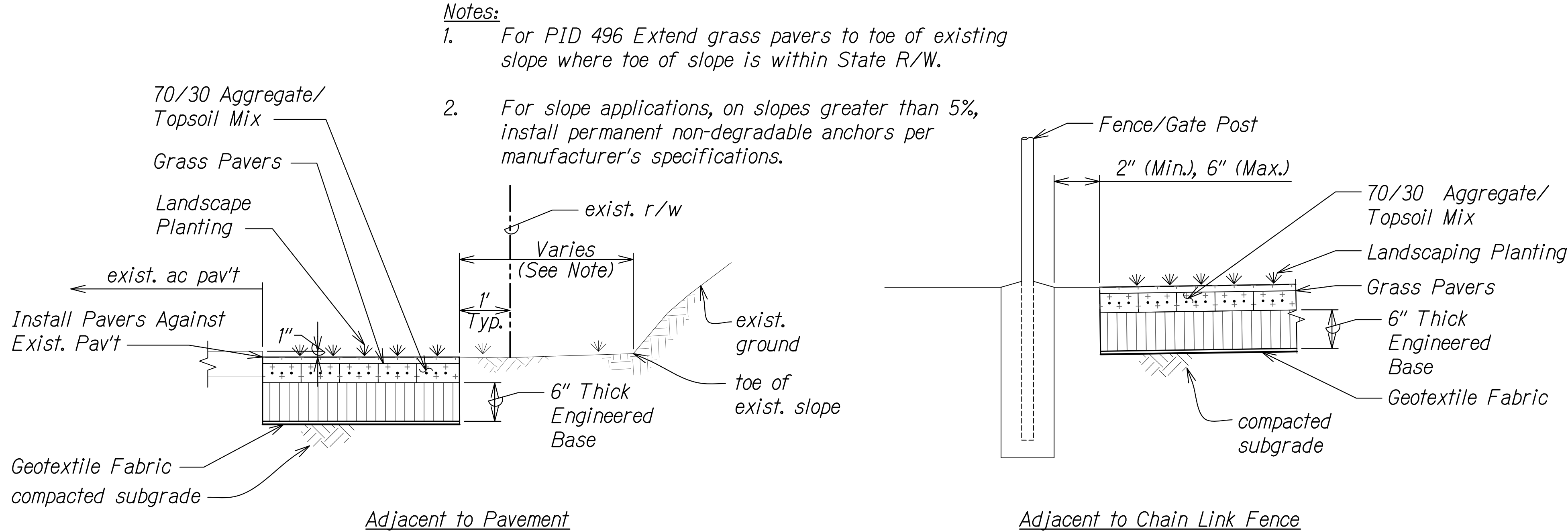
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-02-20	2022	36	58



Height of Fence	Minimum Depth of Footing	
	Line Post	Corner, Pull, End, and Gate Posts
4'	3'-6"	3'-6"
6'	4'-0"	4'-0"

- Notes:
1. All fencing material including gate hardware shall be zinc-coated steel.
 2. Top of concrete footing shall be crowned to shed water.
 3. Top rail couplings shall be located within 6" of line posts.
 4. Post caps shall be tack welded to the fence post.
 5. Gate hinges shall be welded to gate post.
 6. See DOT Standard Plan D-02 for additional chain link fence and gate details and notes.

CHAIN LINK FENCE/GATE POST DETAIL 1
Scale: Not to Scale EC-10/EC-24



GRASS PAVER SYSTEM DETAIL 2
Scale: Not to Scale EC-03, EC-10/EC-24

TEROR R. YAMAI

LICENSED PROFESSIONAL ENGINEER

No. 14993-C

HAWAII U.S.A.

4/30/22

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STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

DETAILS

MISCELLANEOUS PERMANENT BEST MANAGEMENT PRACTICES, PHASE 3, VARIOUS LOCATIONS ON OAHU

Project No. HWY-O-02-20

Scale: Not to Scale Date: April 2022