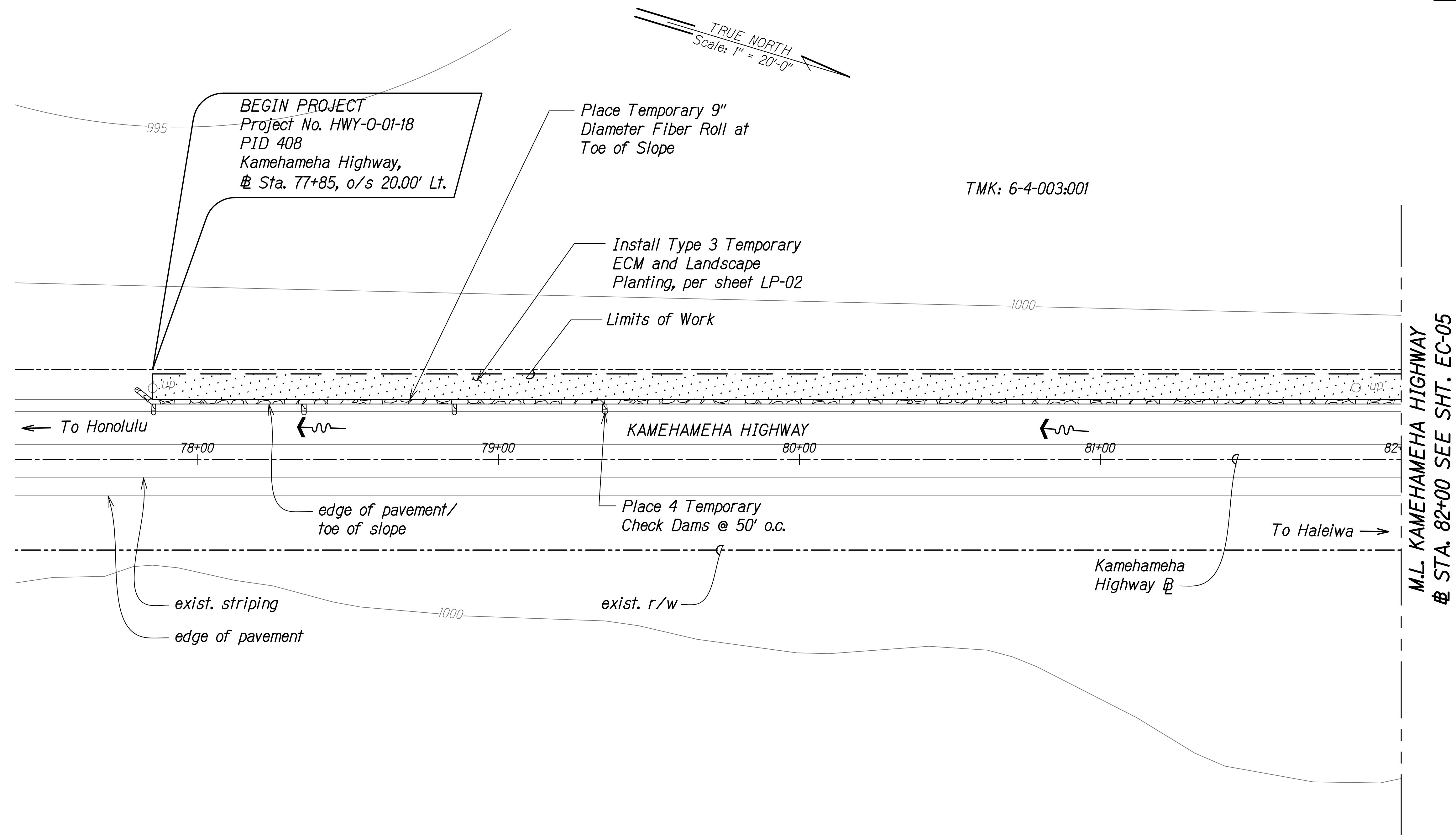


ATTACHMENT A-5

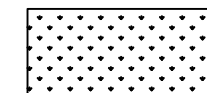
Topography and Drainage Patterns *(Item C.8 of Form C)*

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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	17	65

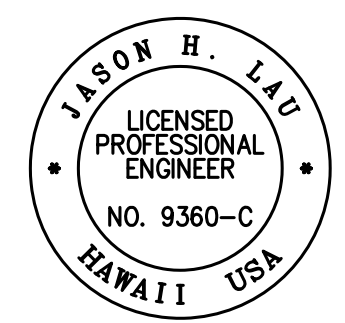


Legend

 Type 3 Temporary ECM and Landscape Planting

TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 408
Scale: 1" = 20'-0"

- Notes:**
- 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 5 on Sheet EC-01.



4/30/18
EXP. DATE

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMP. EC AND PERMANENT BMP PLAN
PID 408

SLOPE IMPROVEMENTS FOR EROSION CONTROL
AT VARIOUS SITES ON OAHU, PHASE 8
Project No. HWY-O-01-18
Scale: 1" = 20'-0" Date: April 2018


SURVEY PLOTTED BY	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	
APPROVED BY	

22-EC-PID 408.DWG 3/27/2018 12:42:28 PM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	18	65



M.L. KAMEHAMEHA HIGHWAY
SEE STA. 86+00 SEE SHT. EC-06



Scale: 1" = 20'-0"

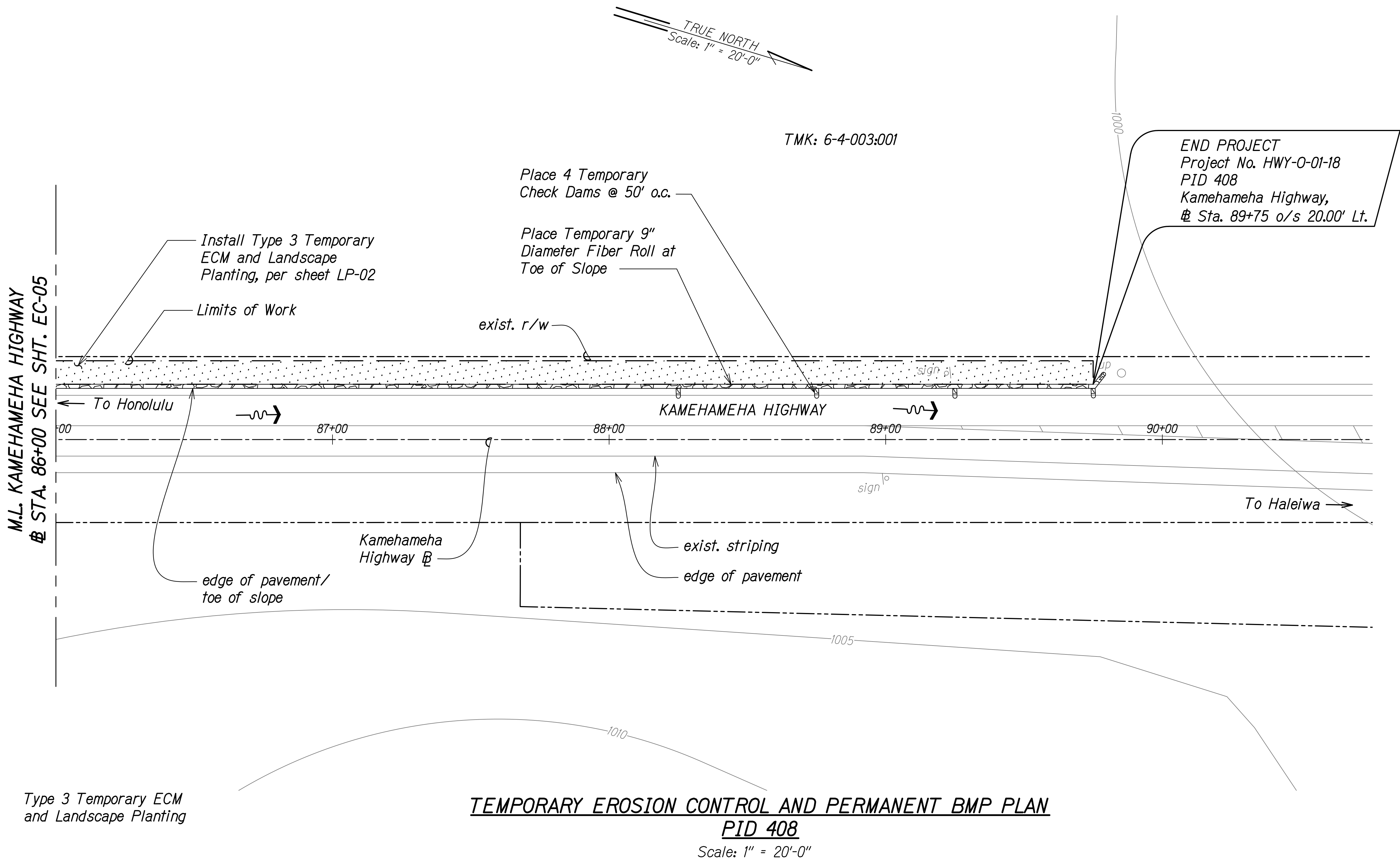
1. Contractor shall field verify site conditions and ECM limits.
2. For ECM details, see Sheets EC-01 & EC-02.
3. For installation of ECM around obstacles, see Detail 5 on Sheet EC-01.

TEMP. EC AND PERMANENT BMP PLAN
PID 408

SLOPE IMPROVEMENTS FOR EROSION CONTROL
AT VARIOUS SITES ON OAHU, PHASE 8
Project No. HWY-O-01-18
Scale: 1" = 20'-0" Date: April 2018

SHEET No. *EC-04* OF 25 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	19	65



- Notes:**
- 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 5 on Sheet EC-01.

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

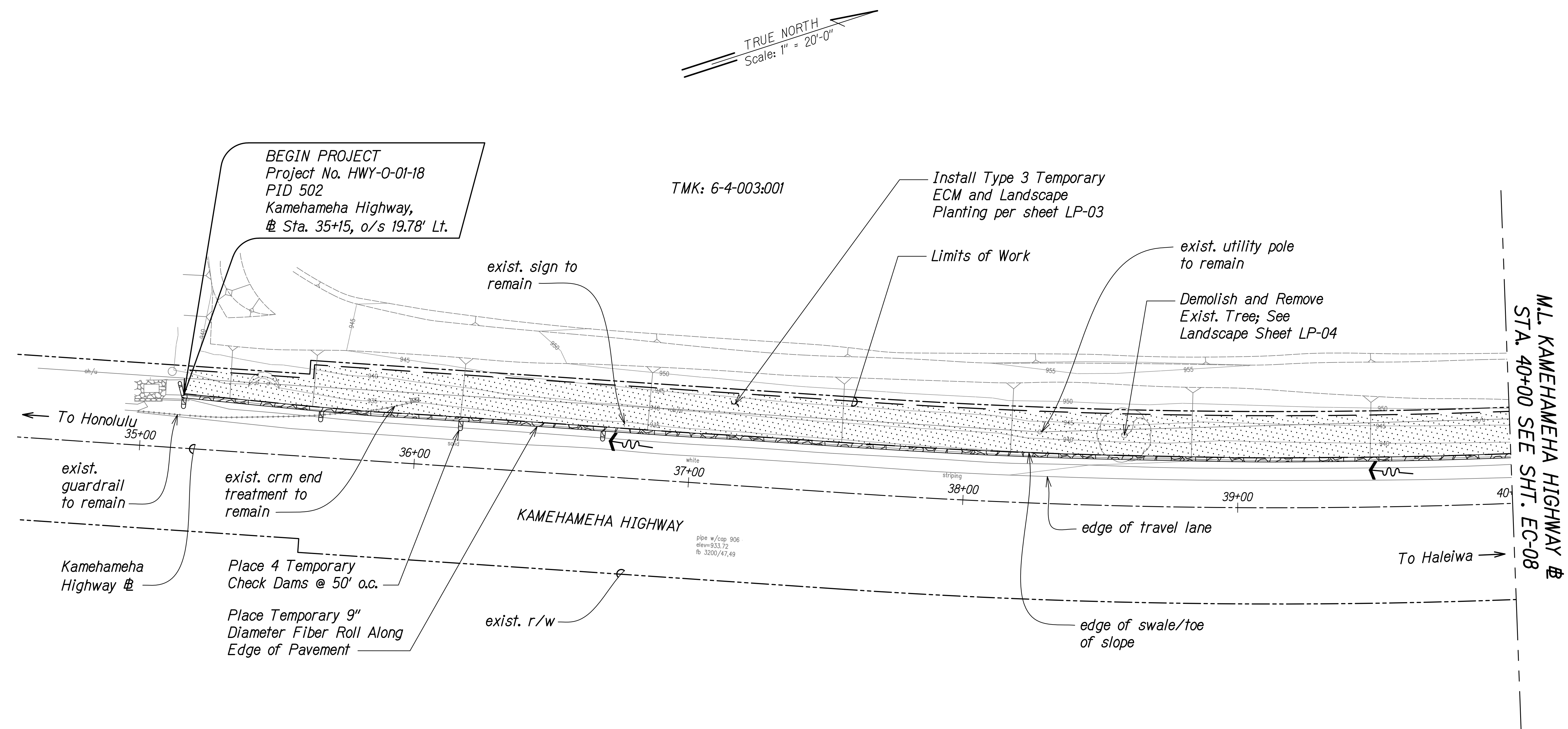
22-EC-PID 408.DWG 3/27/2018 12:42:28 PM

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

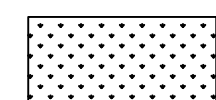
TEMP. EC AND PERMANENT BMP PLAN
PID 408
SLOPE IMPROVEMENTS FOR EROSION CONTROL
AT VARIOUS SITES ON OAHU, PHASE 8
Project No. HWY-O-01-18
Scale: 1" = 20'-0" Date: April 2018

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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	20	65



Legend



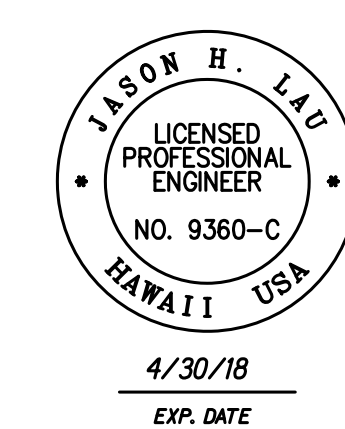
Type 3 Temporary ECM
and Landscape Planting

TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 502

Scale: 1" = 20'-0"

Notes:

- 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 5 on Sheet EC-01.



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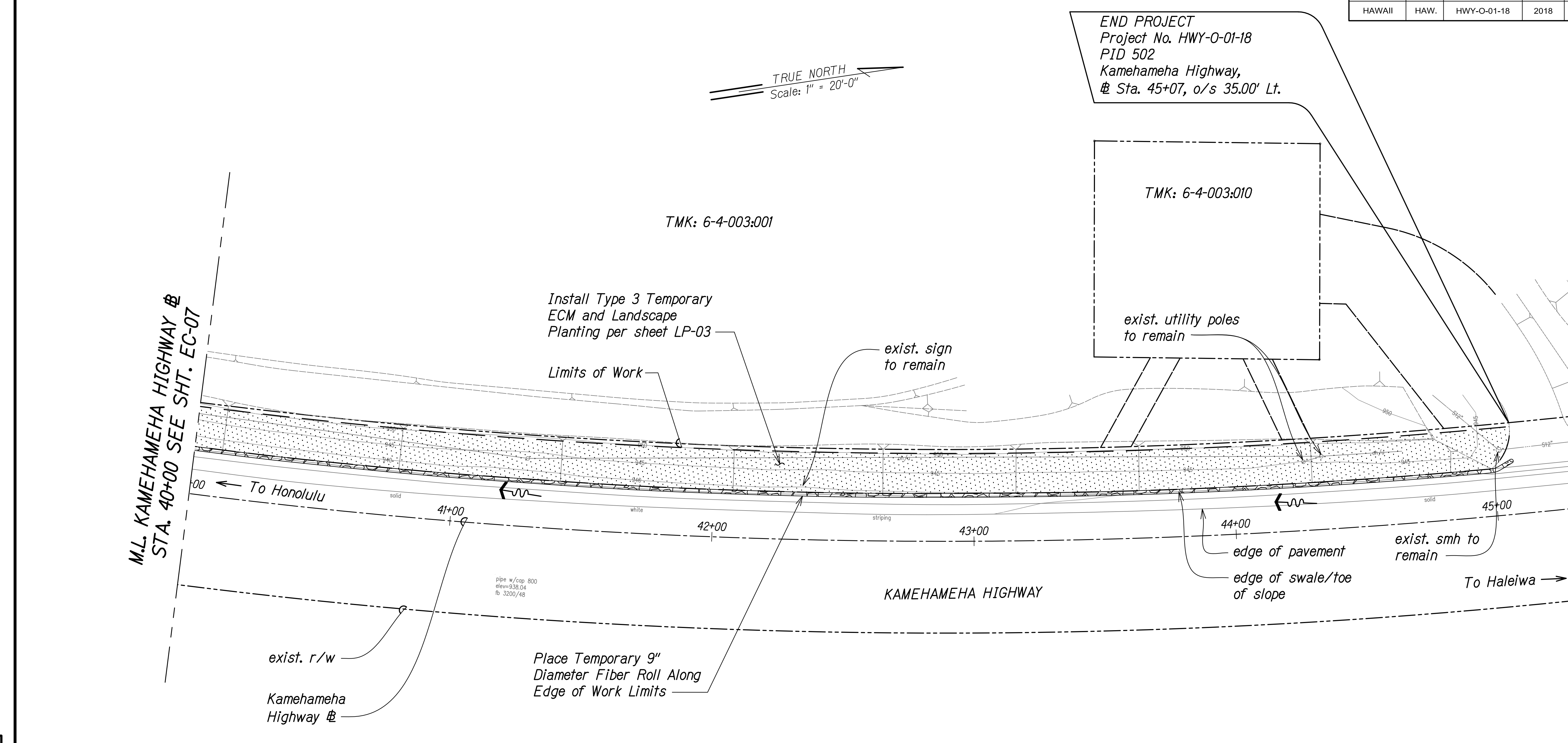
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMP. EC AND PERMANENT BMP PLAN
PID 502

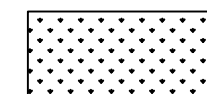
SLOPE IMPROVEMENTS FOR EROSION CONTROL
AT VARIOUS SITES ON OAHU, PHASE 8
Project No. HWY-O-01-18
Scale: 1" = 20'-0" Date: April 2018

SHEET No. EC-06 OF 25 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	21	65



Legend

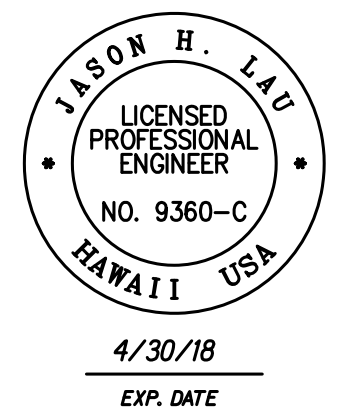
 Type 3 Temporary ECM and Landscape Planting

TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 502
 Scale: 1" = 20'-0"

- Notes:
- 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 5 on Sheet EC-01.

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

23-EC-PID 502.DWG 3/28/2018 11:59:09 AM



4/30/18
EXP. DATE

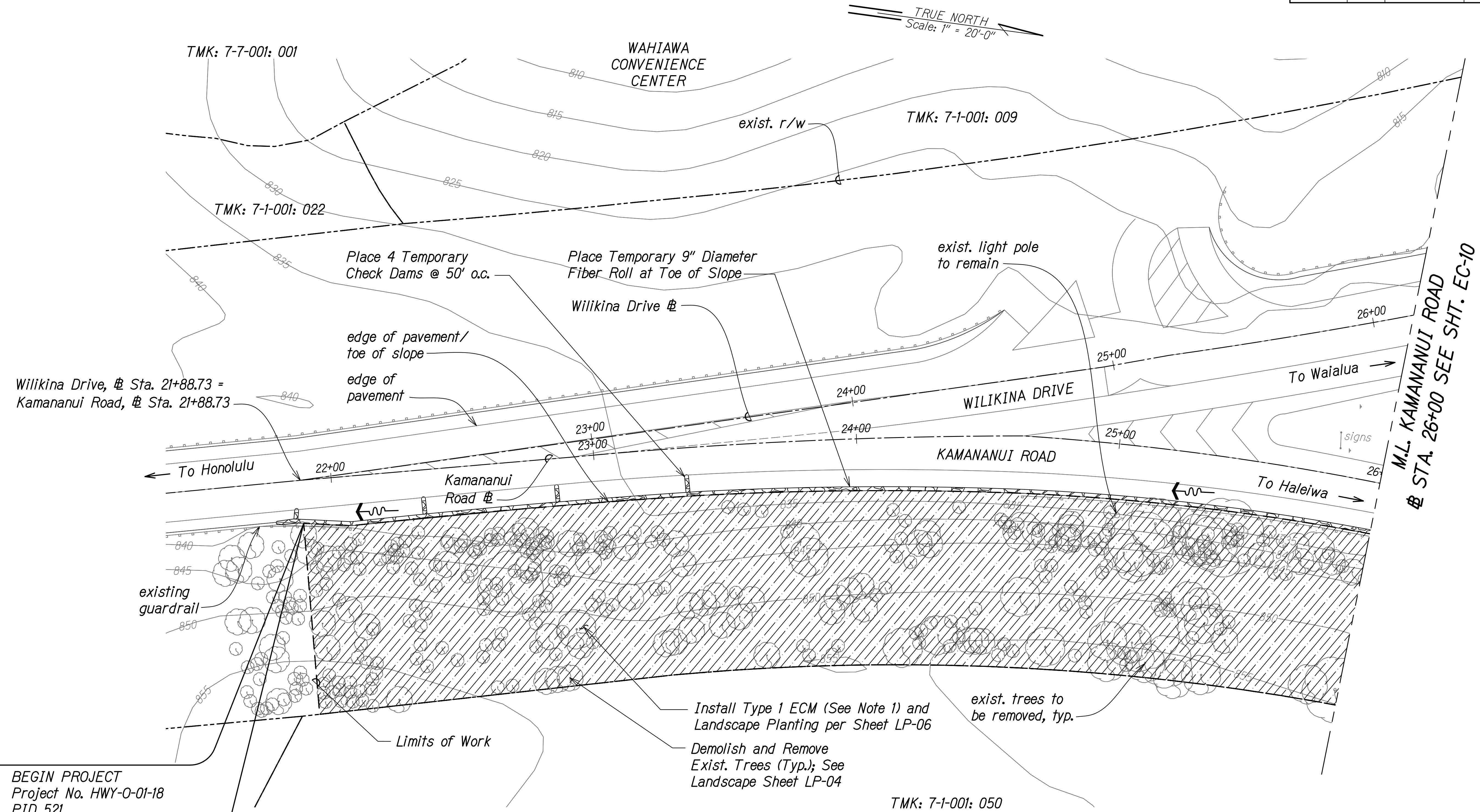
This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMP. EC AND PERMANENT BMP PLAN
PID 502
SLOPE IMPROVEMENTS FOR EROSION CONTROL
AT VARIOUS SITES ON OAHU, PHASE 8
Project No. HWY-O-01-18
 Scale: 1" = 20'-0" Date: April 2018

SHEET No. EC-07 OF 25 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	22	65



BEGIN PROJECT
 Project No. HWY-O-01-18
 PID 521
 Kamananui Road,
 @ Sta. 21+88 o/s 16.40' Rt.

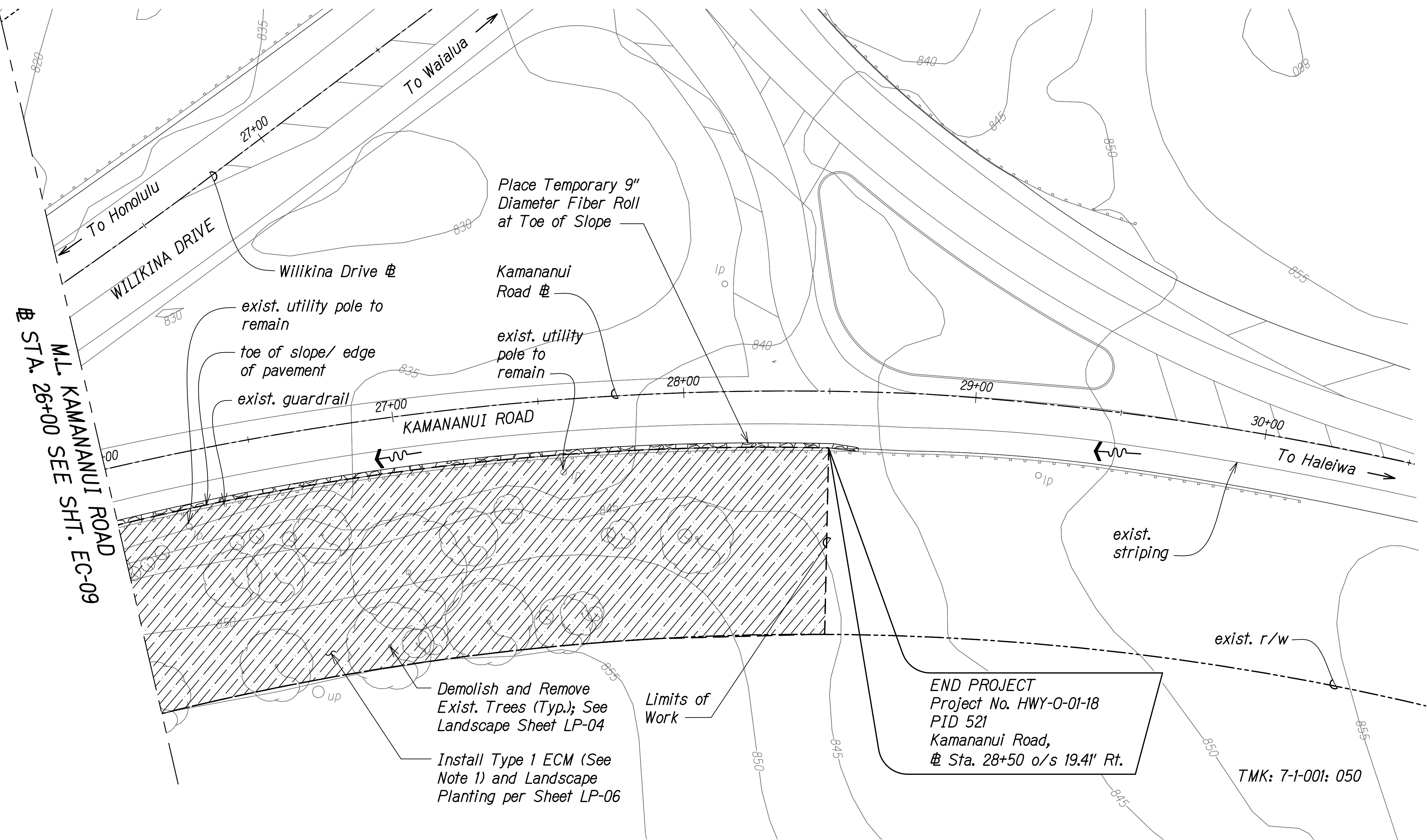
Legend
 Type 1 ECM and Landscape Planting

- Notes:**
- 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 5 on Sheet EC-01.

TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 521
 Scale: 1" = 20'-0"

 4/30/18 EXP. DATE <small>This work was prepared by me or under my supervision.</small>	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION TEMP. EC AND PERMANENT BMP PLAN PID 521 SLOPE IMPROVEMENTS FOR EROSION CONTROL AT VARIOUS SITES ON OAHU, PHASE 8 Project No. HWY-O-01-18 Scale: 1" = 20'-0" Date: April 2018
	SHEET No. EC-08 OF 25 SHEETS
	22
	24-EC-PID 521-DWG 3/27/2018 12:12:28 PM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	23	65



TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 521

Scale: 1" = 20'-0"

Notes:

- 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 5 on Sheet EC-01.

Legend

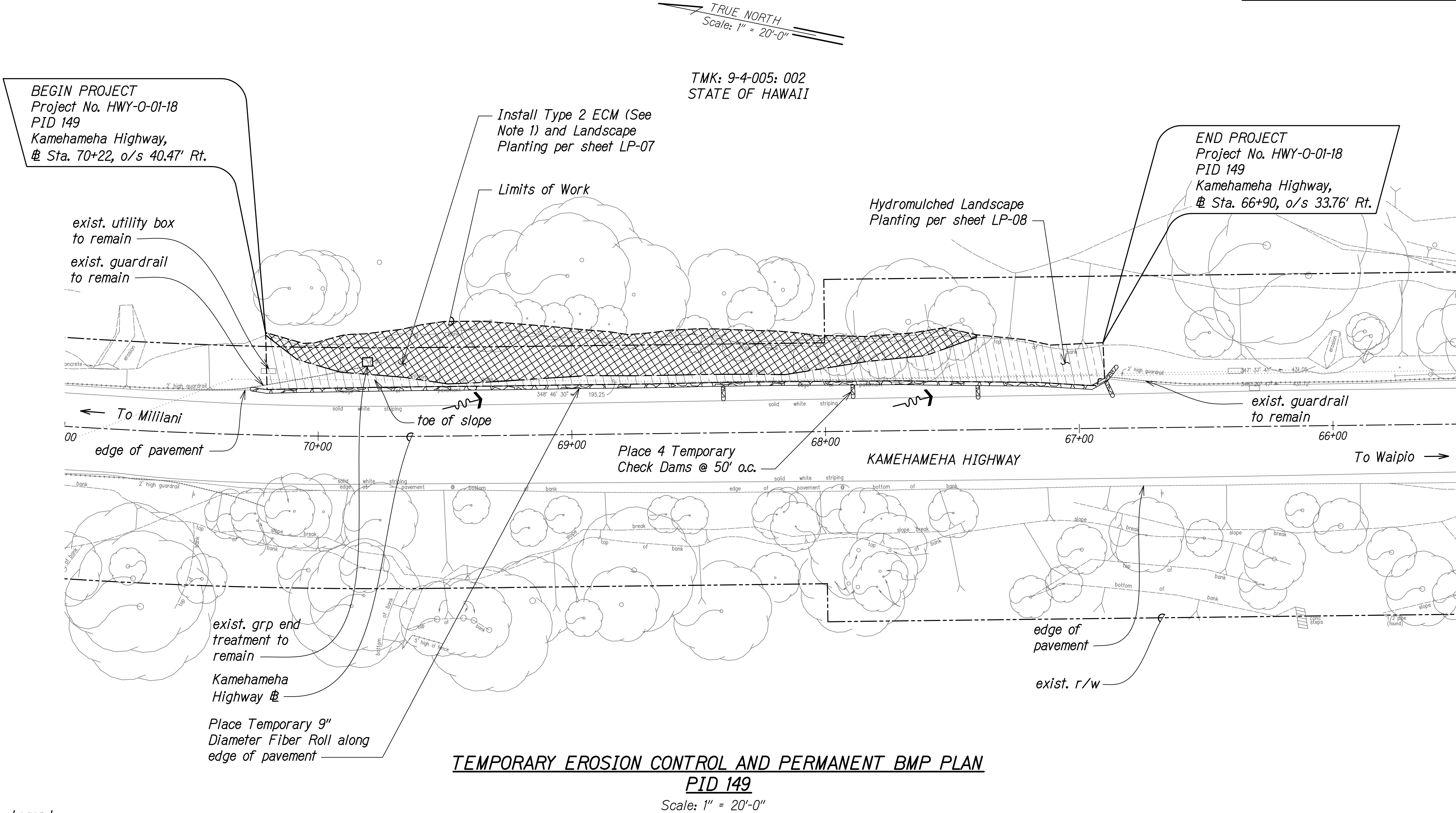


Type 1 ECM and
Landscape Planting

	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
	TEMP. EC AND PERMANENT BMP PLAN PID 521
	SLOPE IMPROVEMENTS FOR EROSION CONTROL AT VARIOUS SITES ON OAHU, PHASE 8 Project No. HWY-O-01-18
	Scale: 1" = 20'-0" Date: April 2018

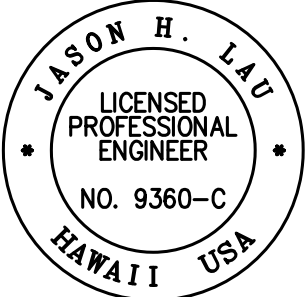
SHEET No. EC-09 OF 25 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	24	65



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

26-EC-PID 149.DWG 3/27/2018 12:53 PM



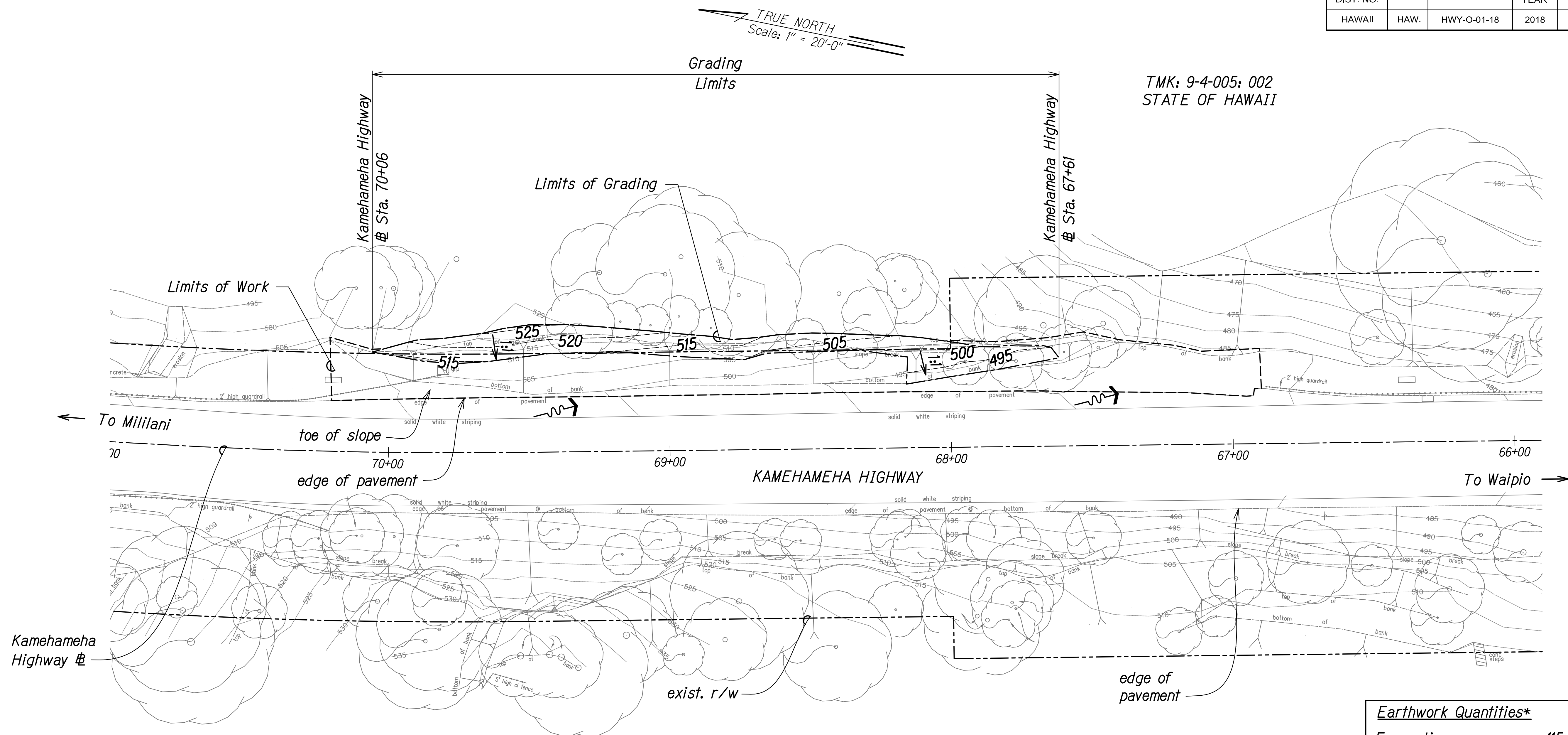
4/30/18
EXP. DATE

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMP. EC AND PERMANENT BMP PLAN
PID 149
SLOPE IMPROVEMENTS FOR EROSION CONTROL
AT VARIOUS SITES ON OAHU, PHASE 8
Project No. HWY-O-01-18
Scale: 1" = 20'-0" Date: April 2018

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	25	65



Earthwork Quantities*

Excavation = 115 C.Y.
Embankment = 20 C.Y.
Area to be Graded = 0.05 Acres
Area to be Disturbed = 0.15 Acres

*For Grading Permit Purposes Only

LEGEND

---+100--- Existing Contour

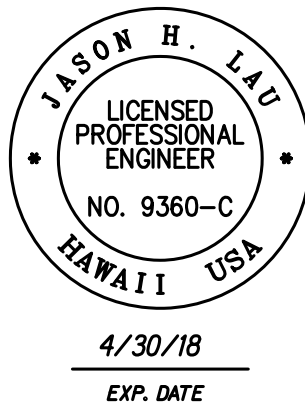
—100— Finish Contour

--- Limits of Work

--- Limits of Grading

GRADING PLAN
PID 149

Scale: 1" = 20'-0"



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING PLAN
PID 149

SLOPE IMPROVEMENTS FOR EROSION CONTROL
AT VARIOUS SITES ON OAHU, PHASE 8

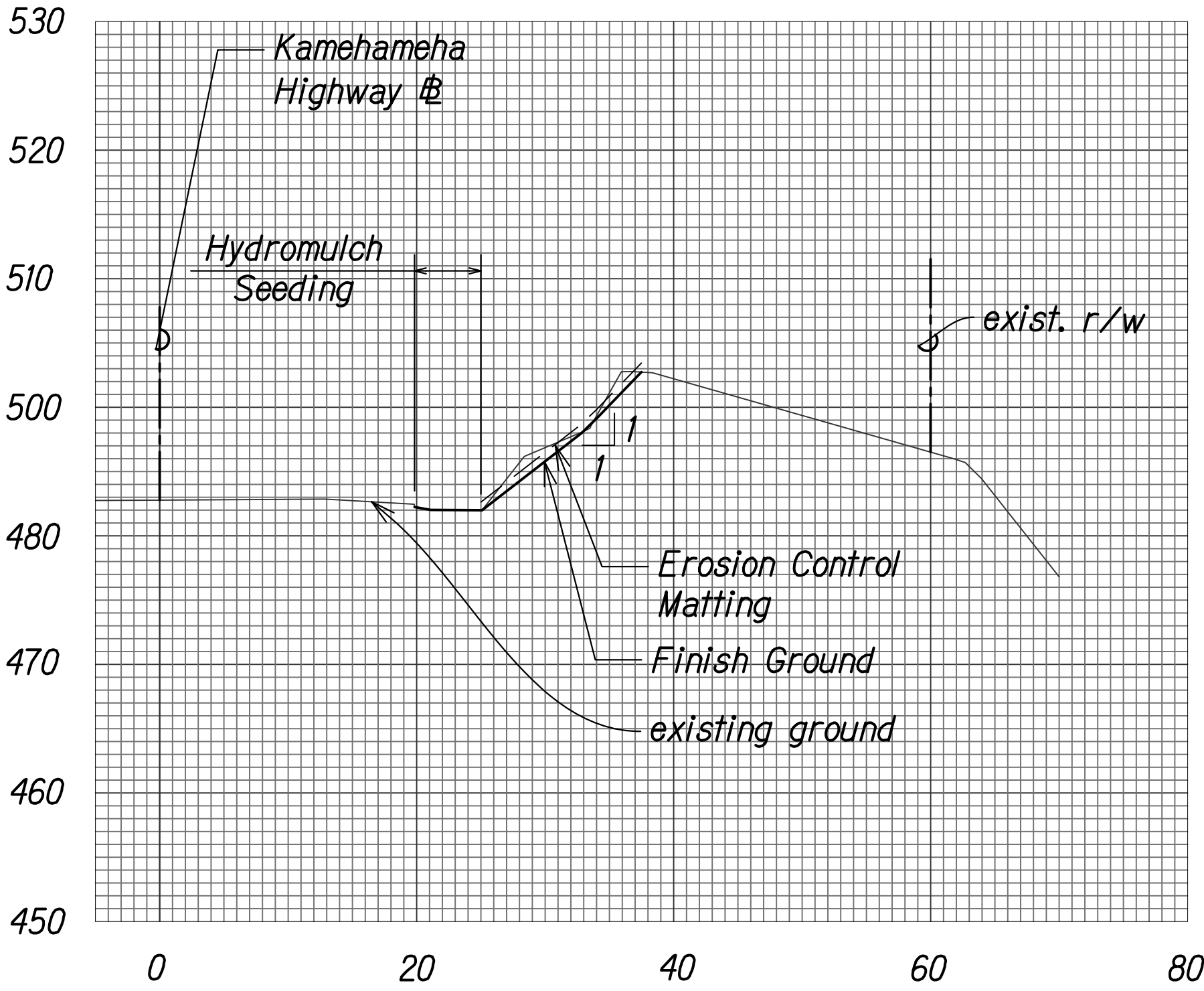
Project No. HWY-O-01-18
Scale: 1" = 20'-0" Date: April 2018

SHEET No. EC-11 OF 25 SHEETS

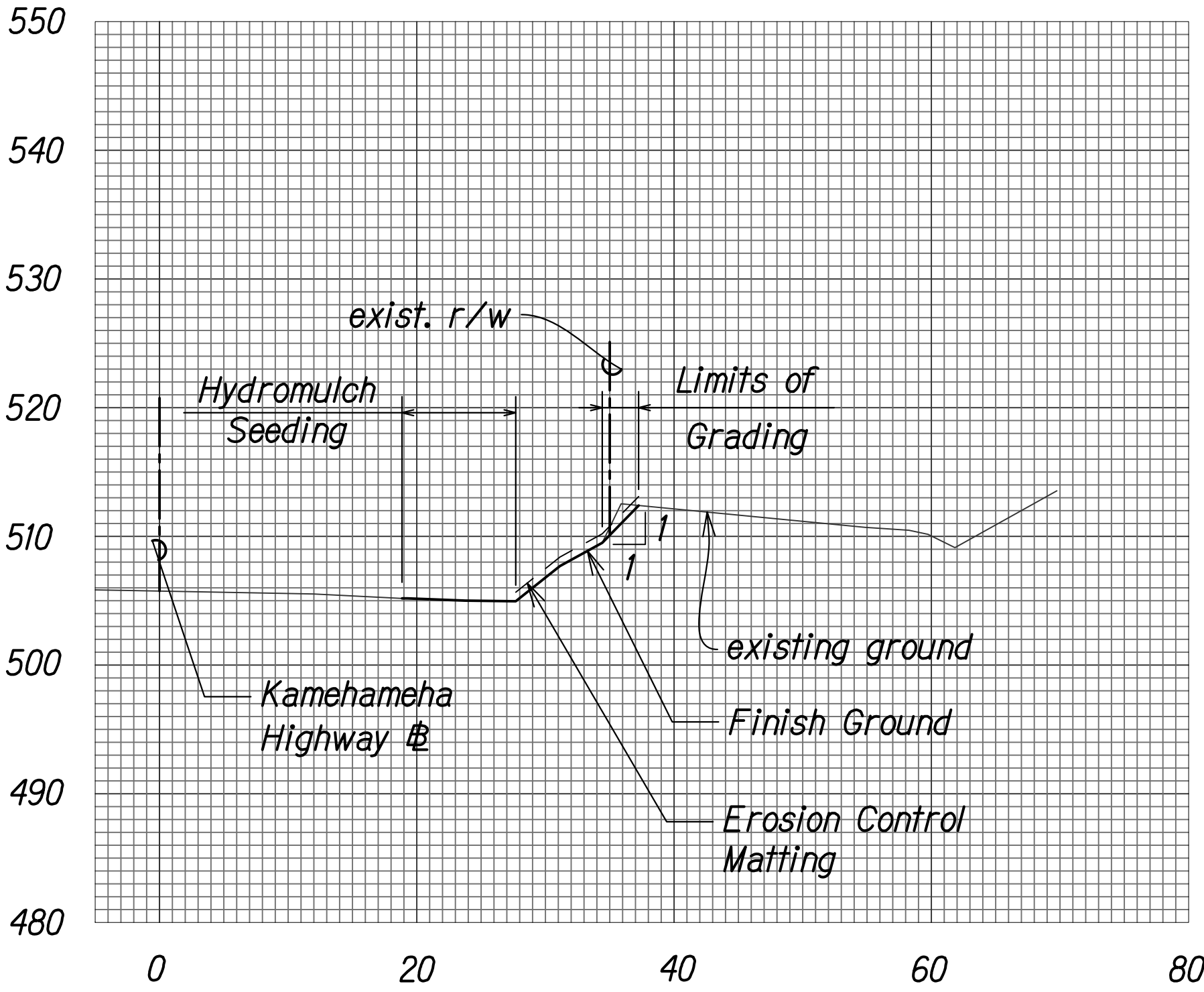
SURVEY PLOTTED BY: _____	DATE: _____
DESIGNED BY: _____	CHECKED BY: _____
NOTED BY: _____	QUANTITIES BY: _____
ORIGINAL PLAN	NOTE BOOK
No. _____	No. _____

27-GRADING PID 149.DWG 3/27/2018 12:53 PM

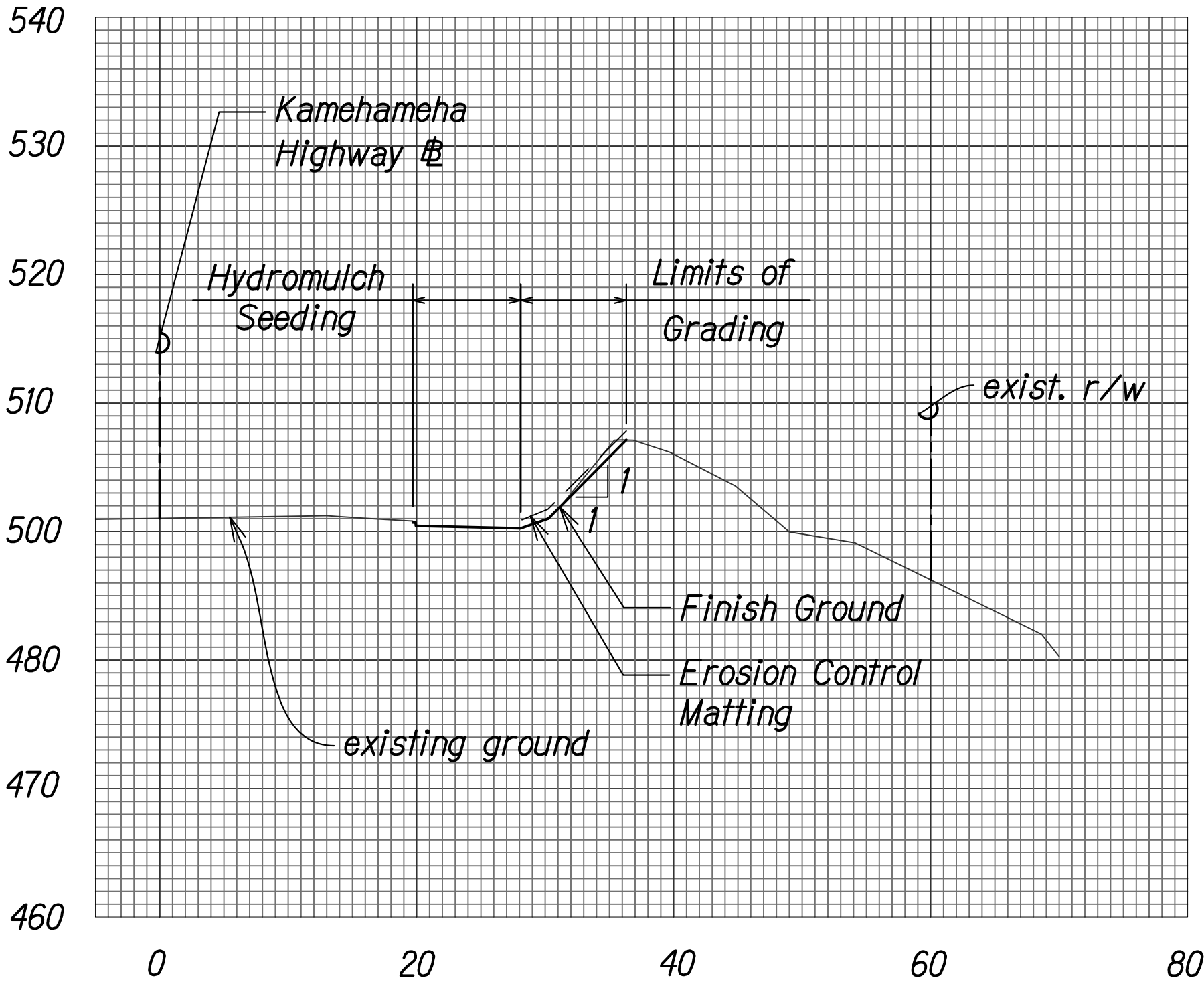
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	26	65



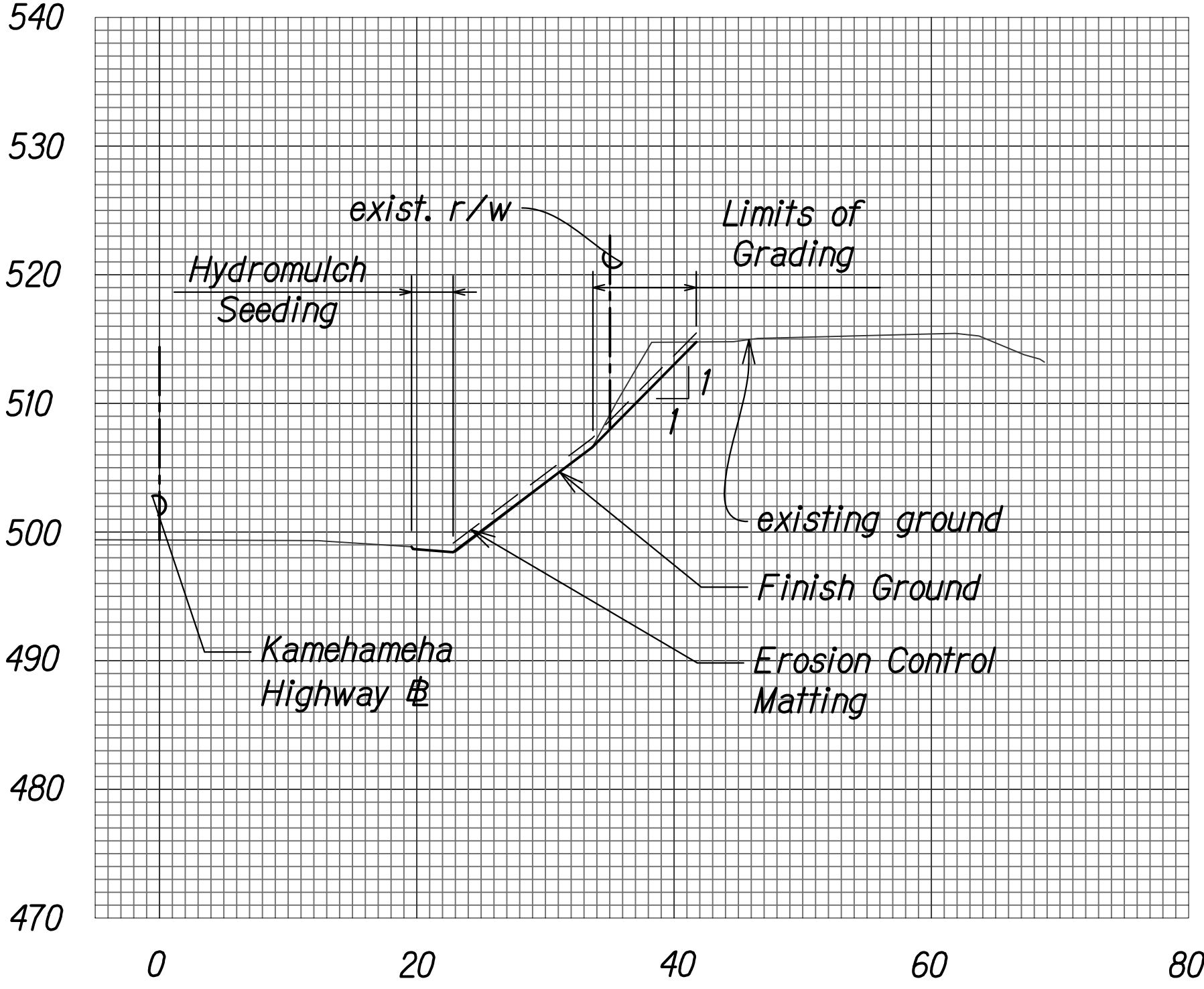
STA. 68+00



STA. 70+00



STA. 67+75



STA. 69+00

CROSS SECTIONS
PID 149

Scale: Horiz. 1" = 10'-0"
Vert. 1" = 10'-0"

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

27-GRADING PID 149 3/27/2018 12:53 PM

4/30/18
EXP. DATE

This work was prepared by me or under my supervision.

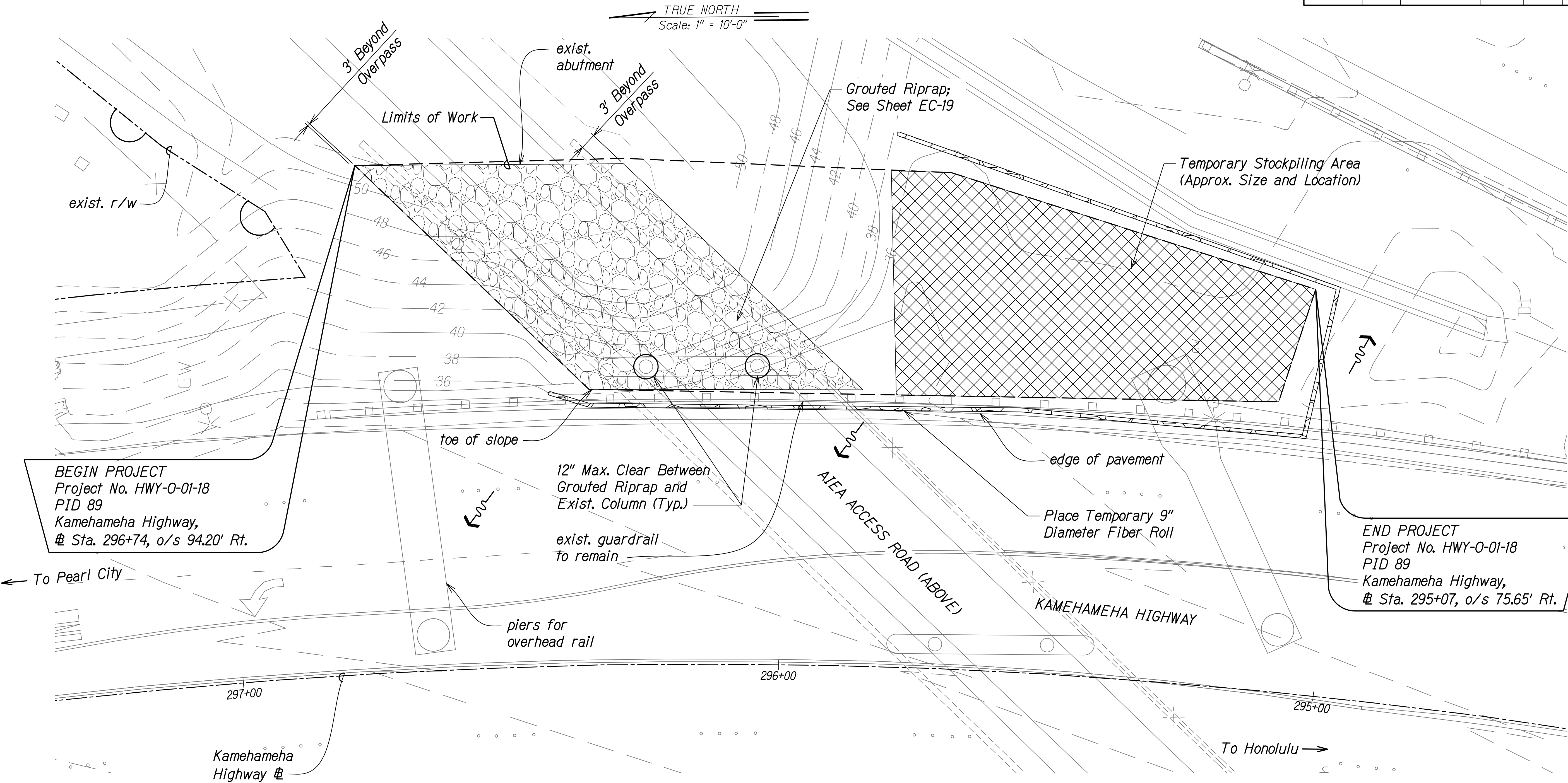
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CROSS SECTIONS
PID 149

SLOPE IMPROVEMENTS FOR EROSION CONTROL
AT VARIOUS SITES ON OAHU, PHASE 8

Project No. HWY-O-01-18
Scale: 1" = 20'-0" Date: April 2018

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	27	65



Note:
 1. The Contractor shall adjust staging/stockpiling area as required for construction.

- Legend**
- Grouted Riprap
 - Staging/Stockpiling Area

TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 89
 Scale: 1" = 10'-0"

SURVEY PLOTTED BY	DATE
DESIGNED BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

31-EC-PID 89.DWG 3/27/2018 12:46:21 PM

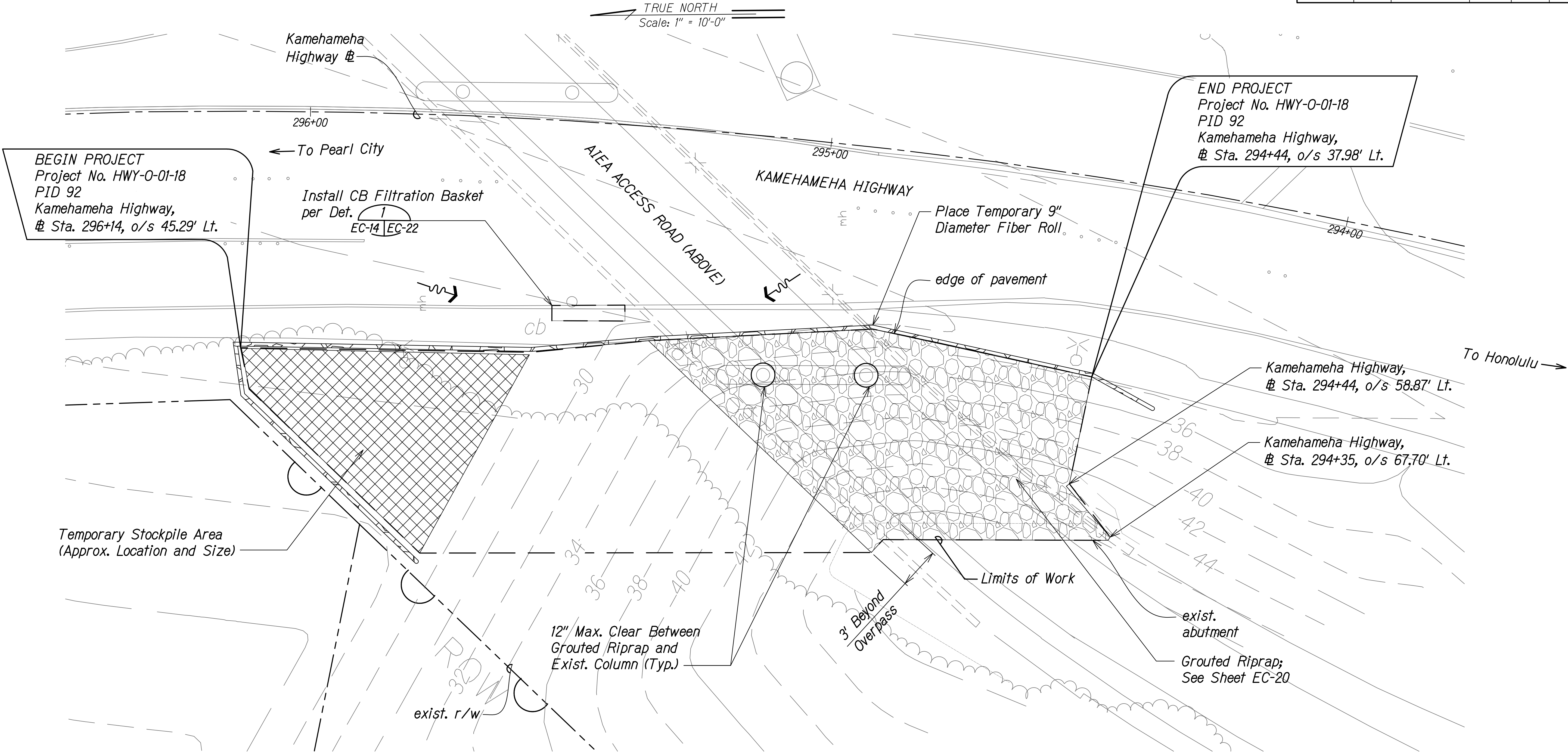
4/30/18
EXP. DATE

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMP. EC AND PERMANENT BMP PLAN
PID 89
 SLOPE IMPROVEMENTS FOR EROSION CONTROL
 AT VARIOUS SITES ON OAHU, PHASE 8
 Project No. HWY-O-01-18
 Scale: 1" = 10'-0" Date: April 2018

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	28	65



Note:
 1. The Contractor shall adjust staging/stockpiling area as required for construction.

- Legend**
- Grouted Riprap
 - Staging/Stockpiling Area

TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 92
 Scale: 1" = 10'-0"

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

32-EC-PID 92.DWG 3/27/2018 12:45:36 PM

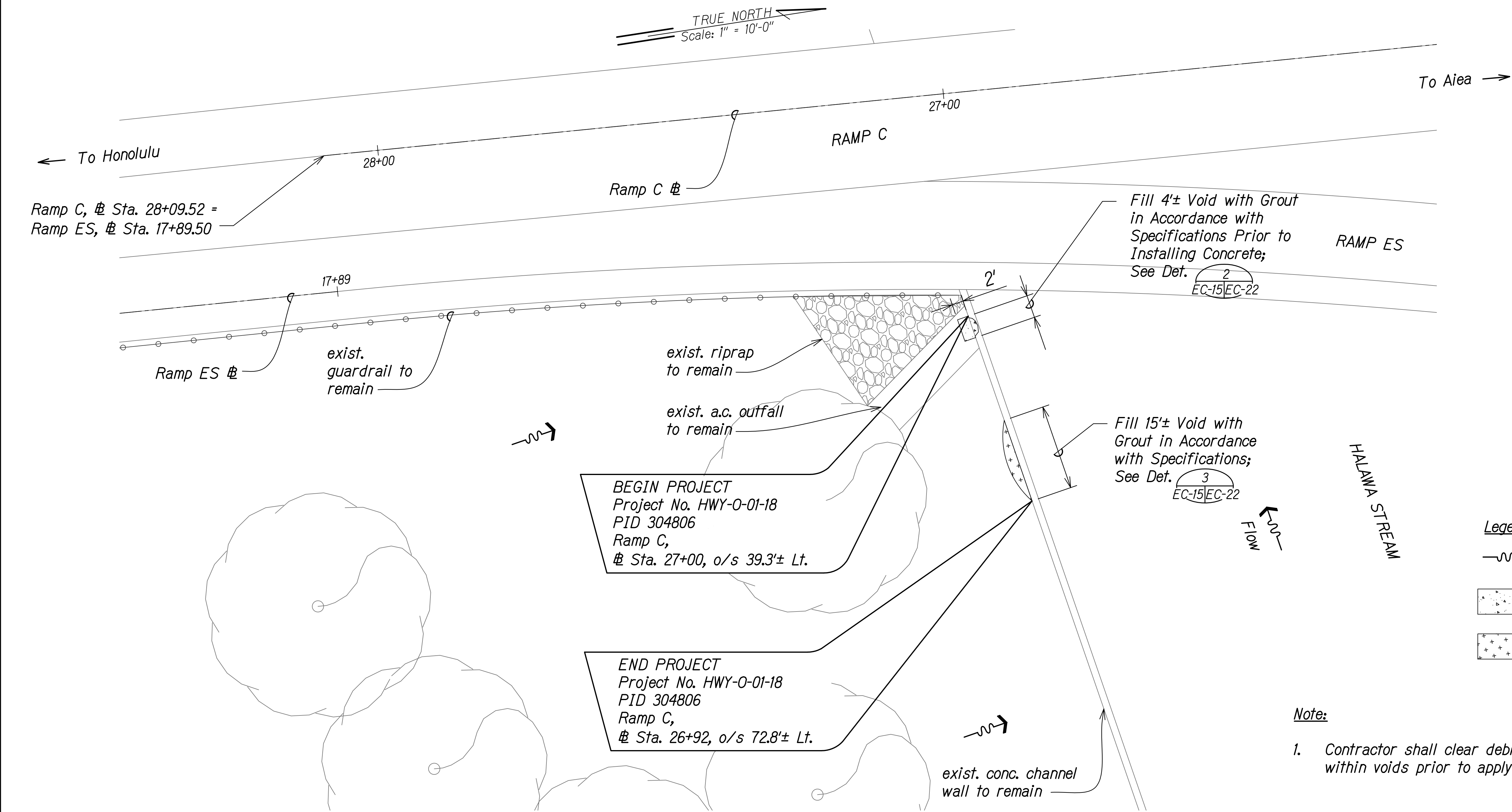
4/30/18
EXP. DATE

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMP. EC AND PERMANENT BMP PLAN
PID 92
SLOPE IMPROVEMENTS FOR EROSION CONTROL
AT VARIOUS SITES ON OAHU, PHASE 8
Project No. HWY-O-01-18
Scale: 1" = 10'-0" Date: April 2018

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	29	65



TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 304806
 Scale: 1" = 10'-0"

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

31-EC-P PID 304806.DWG 3/27/2018 12:45 PM

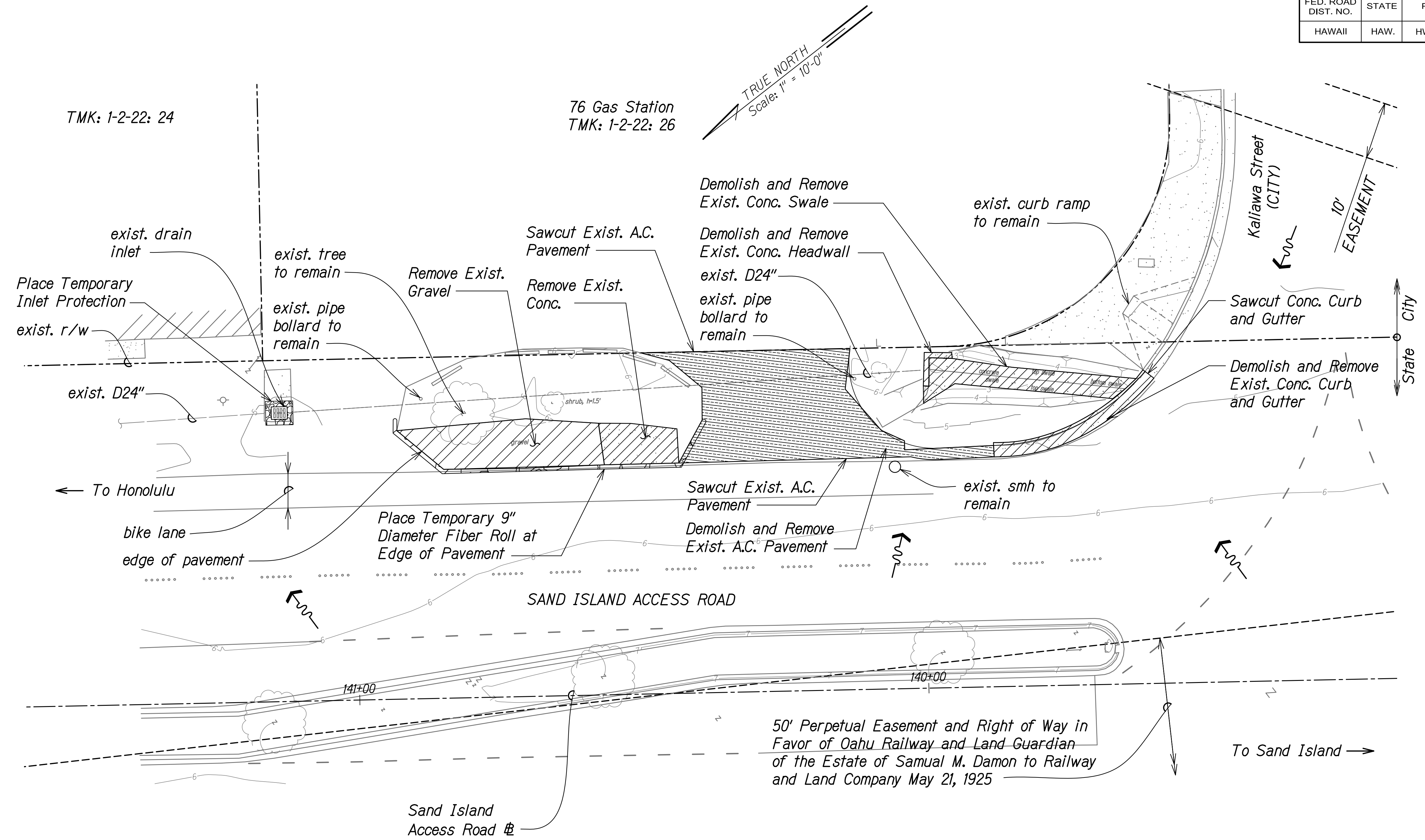
4/30/18
EXP. DATE

This work was prepared by me or under my supervision.

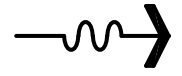
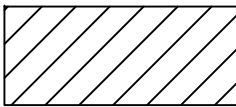
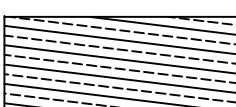
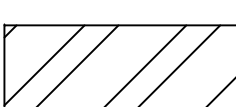
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMP. EC AND PERMANENT BMP PLAN
PID 304806
 SLOPE IMPROVEMENTS FOR EROSION CONTROL
 AT VARIOUS SITES ON OAHU, PHASE 8
 Project No. HWY-O-01-18
 Scale: 1" = 10'-0" Date: April 2018

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	30	65



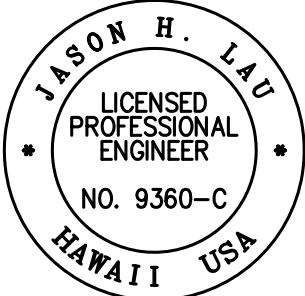
LEGEND

-  Direction of Flow
-  Demolish and Remove Existing Concrete
-  Demolish and Remove Existing A.C. Pavement
-  Remove Existing Gravel

DEMOLITION AND TEMPORARY EROSION CONTROL PLAN

PID 467

Scale: 1" = 10'-0"



4/30/18
EXP. DATE

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DEMOLITION AND TEMP. EC PLAN

PID 467

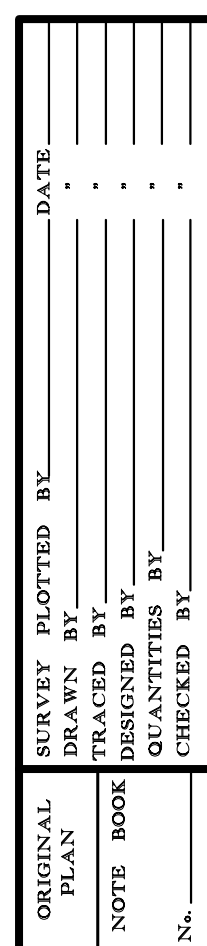
SLOPE IMPROVEMENTS FOR EROSION CONTROL
AT VARIOUS SITES ON OAHU, PHASE 8

Project No. HWY-O-01-18
Scale: 1" = 10'-0" Date: April 2018

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

34-EC-PID 467.DWG 3/29/2018 2:52:28 PM

334 FCP PIN 467 NWC 3/28/2018 2:32:28 PM



Notes:

1. The Contractor shall restore pavement striping to match existing.
2. For Profile, See Sheet EC-21.

Scale: 1" = 10'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PERMANENT BMP PLAN
PID 467

SLOPE IMPROVEMENTS FOR EROSION CONTROL
AT VARIOUS SITES ON OAHU, PHASE 8
Project No. HWY-0-01-18

Scale: 1" = 10'-0" Date: April 2018

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-01-18	2018	32	65

