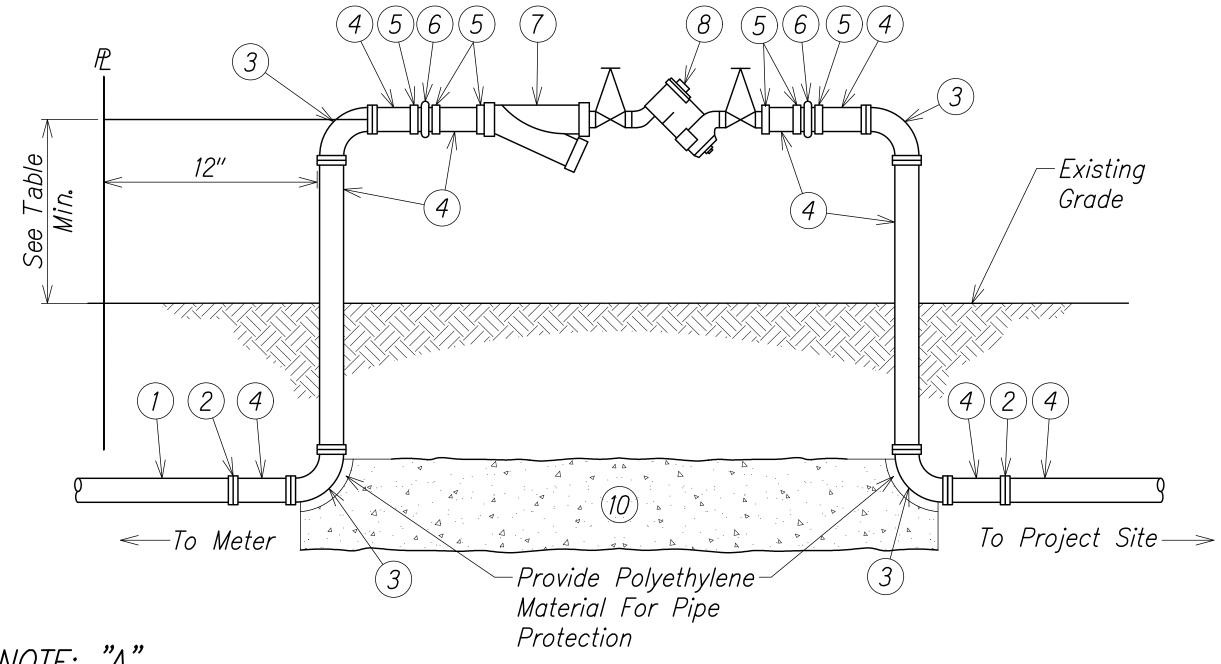


#### CONNECTION DETAIL AT EB Scale: 1/2"=1'-0"



## <u>NOTE: "A"</u>

- Contractor shall submit shop drawings to the Department of Water for approval prior to ordering device.
- The backflow device shall be installed on the property and as close to the water meter as physically possible.
- Delete the strainer for seldom-used emergency waterlines if recommended by the manufacturer of the backflow preventer.
- Strainer is required on all backflow preventers on domestic waterline.
- Whenever backflow prevention assembly is located 5' or more from the water meter, install a concrete jacket between water meter and backflow prevention assembly to avoid potential cross connection.
- At no time shall the bottom of the backflow prevention assembly be less than 12" above ground, floor, or flood level nor more than 48" above aforementioned grades.
- The backflow prevention assembly shall be installed after the water meter prior to any tees and branches.
- Refer to Division 100, Section 107.01 for additional requirements and type of backflow prevention needed.

## REDUCED PRESSURE PRINCIPLE 1" BACKFLOW PREVENTION DEVICE

Not to Scale

# New 1" Waterline

MATERIALS LIST 1" BFP

- Adapters and Bushings as necessary
- 1" 90° Copper Elbow
- 1" Copper Nipple, Type K
- 5 1" Copper Male Adapter 6 1" Bronze Union, F.P.T.
- 7) 1" Bronze Strainer
- 1" Reduce Pressure Principle Backflow

Prevention Device (See NOTE: "A")

9 New 1" Waterline

<u>APPROVED</u>

Concrete Reaction Block 1' Thick and 1' Wide

Size (inches)	H (inches)
3/4 to 1-1/2	18
2 to 3	24
4 to 6	30
8 to 10	36

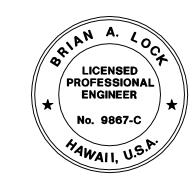
Manager and Chief Engineer Department of Water, County of Kauai

Date

7/13/21 | 🛦 Revised culvert dimensions. 11/12/19 A Reissuing plan for legibility only. No design changes have been made. 9/20/19 A Reissuing plan for legibility only. No

design changes have been made.

THESE PLANS HAVE BEEN PREPARED UTILIZING INFORMATION PROVIDED BY THE PROJECT CONTRACTOR. THE UPDATED CONSTRUCTION HAS NOT BEEN VERIFIED FOR ACCURACY AND COMPLETENESS. NO REPRESENTATION IS BEING MADE TO ITS VALIDITY.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAI'I **DEPARTMENT OF TRANSPORTATION** 

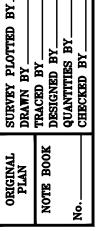
KUAMOO ROAD CULVERT EXTENSION DETAILS

KUHIO HIGHWAY SHORT-TERM IMPROVEMENTS KUAMOO ROAD TO TEMPORARY KAPAA BYPASS ROAD

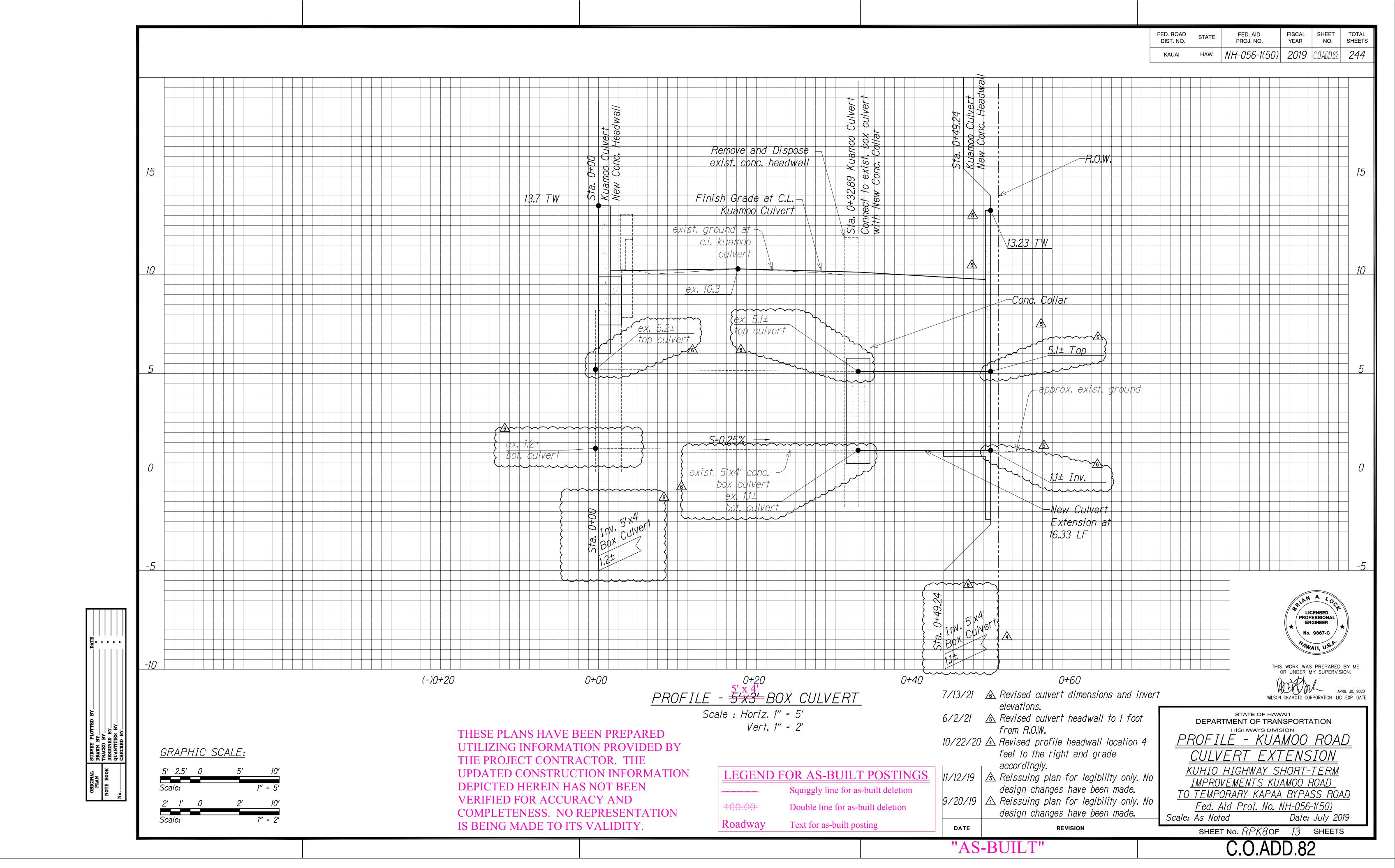
Fed. Aid Proj. No. NH-056-1(50) Scale: As Noted Date: July 2019

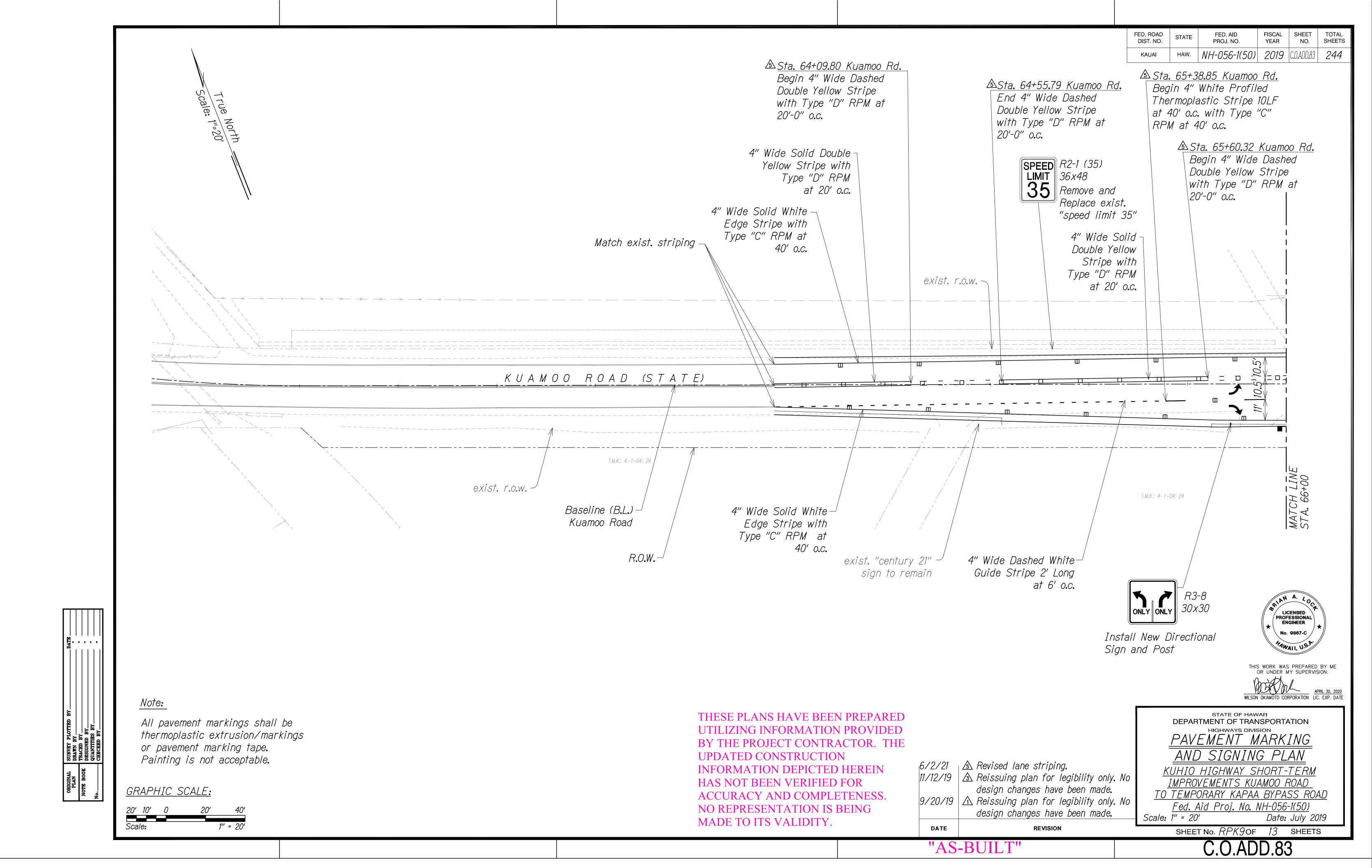
SHEET No. RPK7 OF 13 SHEETS

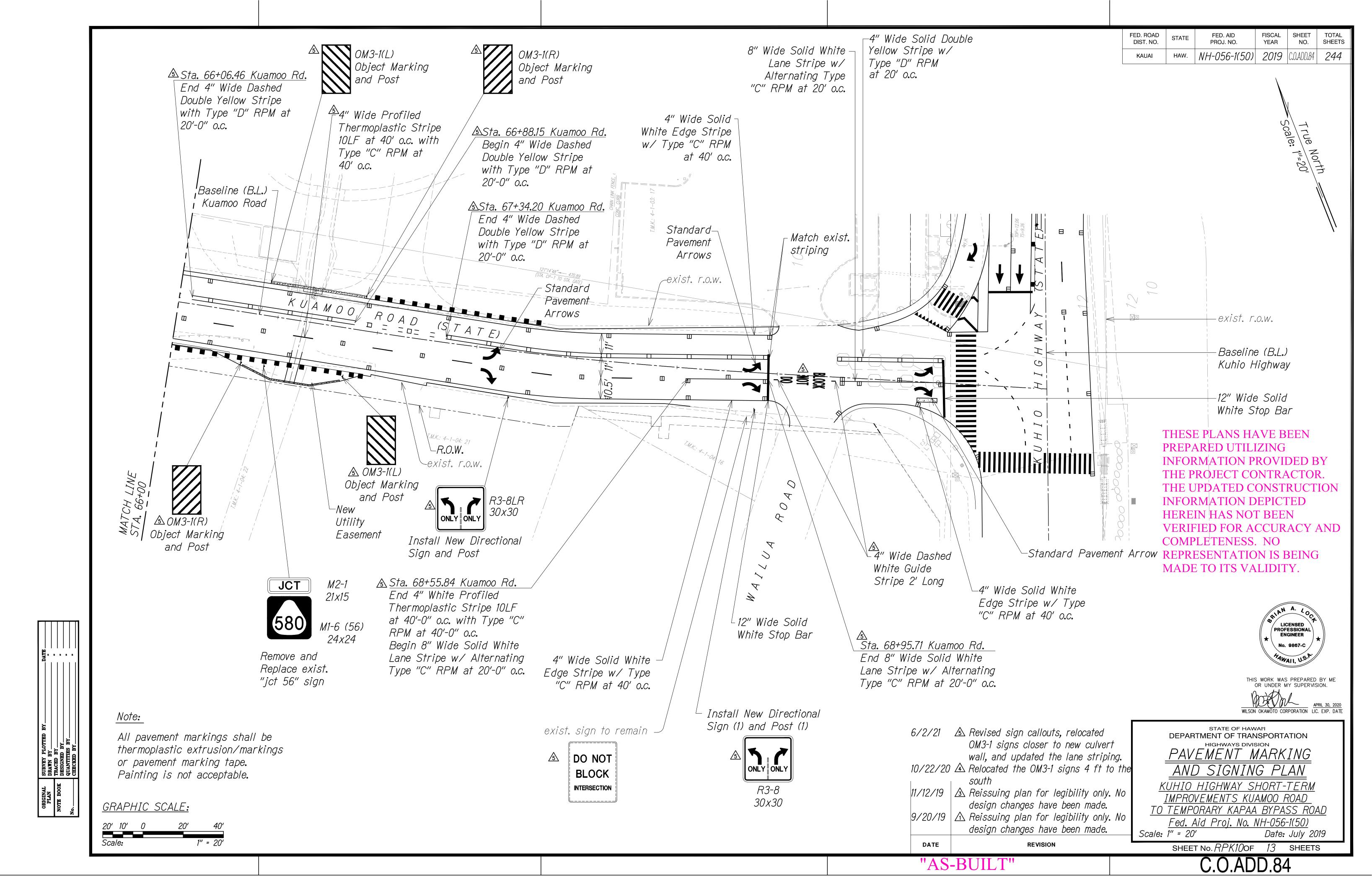
"AS-BUILT

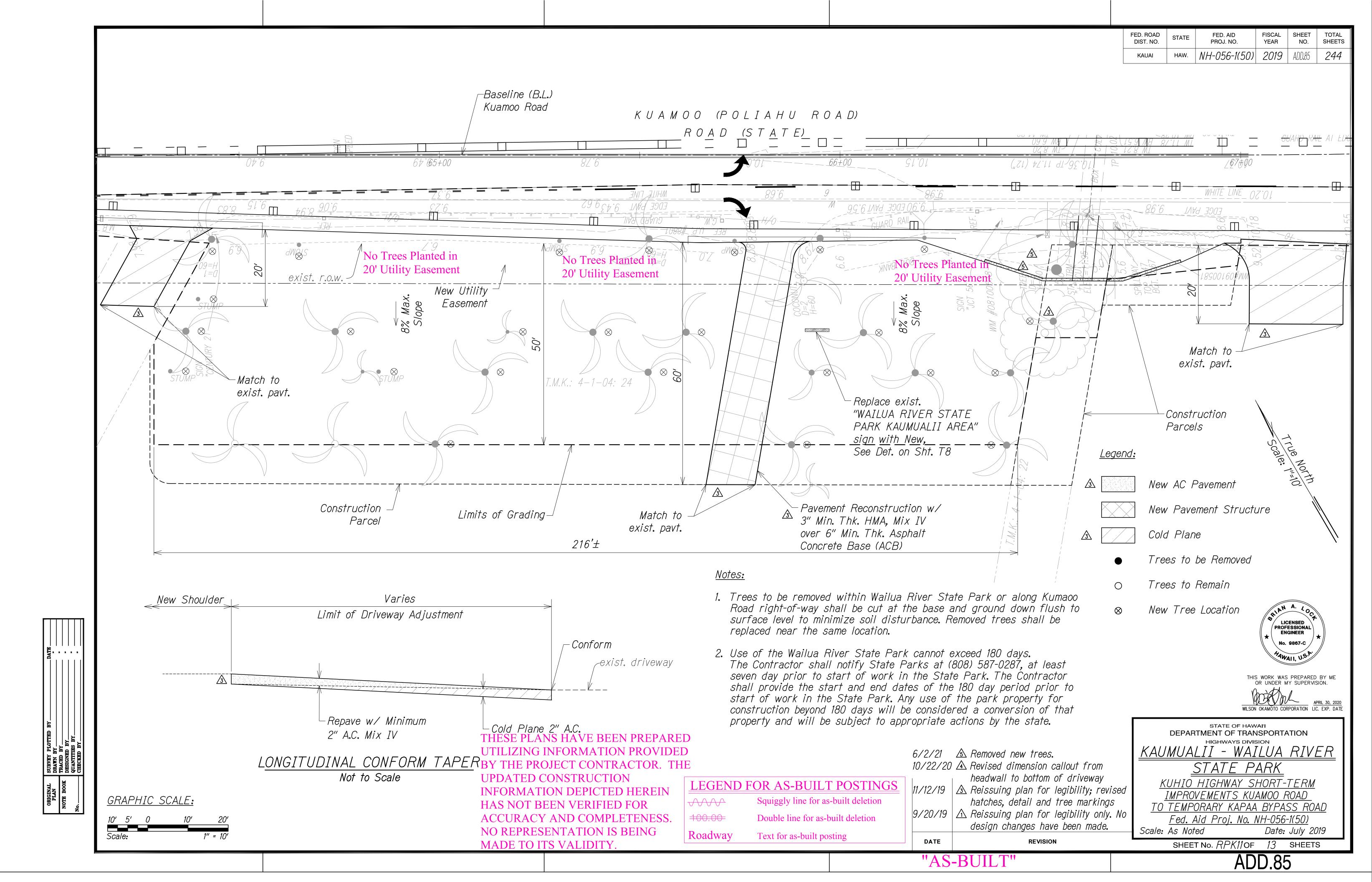


C.O.ADD.81







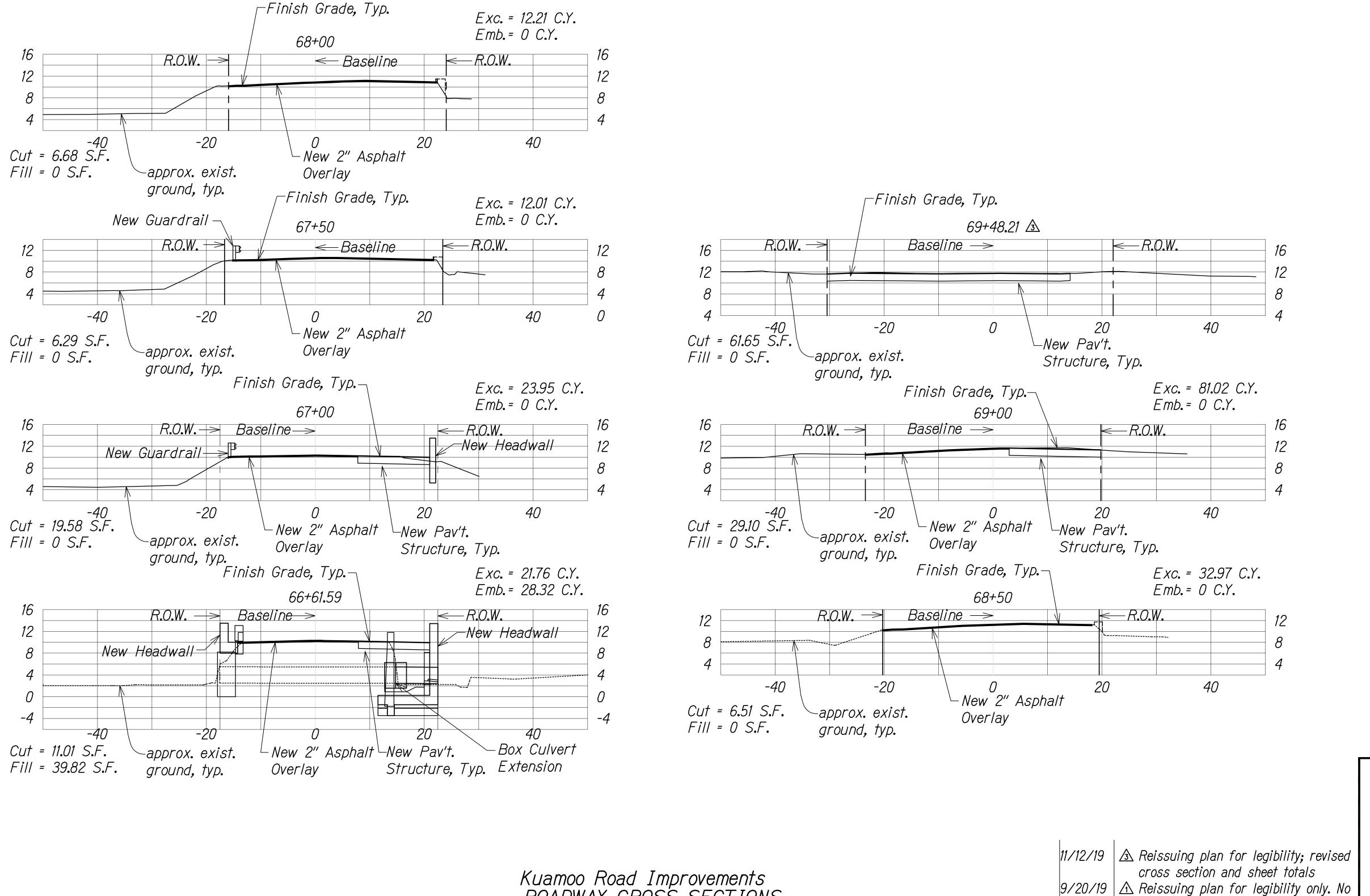


FED. ROAD DIST. NO. FED. AID PROJ. NO. FISCAL SHEET TOTAL YEAR NO. SHEETS Sheet Total NH-056-1(50) 2019 | C.O.ADD.86 | 244 Exc. = 157.22 C.Y. Emb. = 412.18 C.Y. Finish Grade, New 2" Asphalt New 2" Asphalt Finish Grade, Exc. = 24.54 C.Y. Exc. = 4.96 C.Y. Тур. Overlay -Overlay — Emb. = 9.95 C.Y. Тур. Emb. = 93.74 C.Y. 64+50 66+50 12 R.O.W. 12 R.O.W. Baseline <-Baseline R.0.W $\Pi \leftarrow R.O.W.$ New Headwall 20 As New Pav't. 40 60 80 -20 Cut = 12.10 S.F. -approx. exist. Cut = 12.91 S.F. ~approx. exist. −New Pav't. Fill = 6.55 S.F. ground, typ. Structure, Typ. ground, typ. Fill = 46.17 S.F. Structure, Typ. Finish Grade, Exc. = 27.26 C.Y. Exc. = 22.68 C.Y. New 2" Asphalt Finish Grade, New 2" Asphalt Emb. = 56.63 C.Y. Emb. = 43.60 C.Y. Тур. Overlay Overlay \( \tau \) 64+00 Тур. 66+00 12 R.O.W. 12 R.O.W. -Baseline R.O.W.<— Baseline  $\leftarrow$  R.O.W. 60 -20 Cut = 17.34 S.F. 40 New Pav't. -approx. exist. ∽approx. exist. Cut = 11.58 S.F. └─ New Pav't. Fill = 54.61 S.F. ground, typ. ground, typ. Structure, Typ. Structure, Typ. Fill = 0.92 S.F. UTILIZING INFORMATION PROVIDED BY THE PROJECT CONTRACTOR. THI New 2" Asphalt Exc. = 28.97 C.Y. Exc. = 19.93 C.Y. Finish Grade, New 2" Asphalt — Finish Grade, **UPDATED CONSTRUCTION** Emb. = 103.49 C.Y. Emb. = 0.85 C.Y. Overlay -Тур. Overlay — 65+50 63+50 INFORMATION DEPICTED HEREIN 12 R.O.W. 12 R.O.W. -Baseline R.0.W.<-- Baseline *← R.O.W.* 12HAS NOT BEEN VERIFIED FOR **8 ACCURACY AND COMPLETENESS** 4 NO REPRESENTATION IS BEING MADE TO ITS VALIDITY. -20 Cut = 13.95 S.F. 60 80 **GRAPHIC SCALE:** New Pav't. -approx. exist. -approx. exist. New Pav't. Cut = 9.94 S.F. Fill = 57.16 S.F. ground, typ. ground, typ. Fill = 0 S.F. Structure, Typ. Structure, Typ. Exc. = 25.50 C.Y. New 2" Asphalt Exc. = 3.39 C.Y. New 2" Asphalt Finish Grade, -Finish Grade, Typ. Emb. = 0 C.Y. Emb. = 103.92 C.Y. Overlay -Тур. Overlay — *65+00 63+40.58* 12 R.O.W. 12 R.O.W. *≪—Baseline/* <−*R.*0.*W*. *► R.O.W.* Baseline LICENSED PROFESSIONAL ENGINEER 20 40 -20 Cut = 13.59 S.F. 40 60 80 -20 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. – New Pav't. Cut = 9.47 S.F. └New Pav't. -approx. exist. -approx. exist. WILSON OKAMOTO CORPORATION LIC. EXP. DATE Fill = 55.07 S.F. Structure, Typ. Fill = 0 S.F. ground, typ. Structure, Typ. ground, typ. STATE OF HAWAI'I **DEPARTMENT OF TRANSPORTATION** 🛕 Revised section 66+50 headwall to 1 HIGHWAYS DIVISION foot from R.O.W. ROADWAY CROSS SECTIONS 10/22/20 A Revised section 66+50 headwall location 4 feet to the right. KUHIO HIGHWAY SHORT-TERM 11/12/19 🛕 Reissuing plan for legibility only. No IMPROVEMENTS KUAMOO ROAD design changes have been made. Kuamoo Road Improvements TO TEMPORARY KAPAA BYPASS ROAD 9/20/19 A Reissuing plan for legibility only. No Fed. Aid Proj. No. NH-056-1(50) ROADWAY CROSS SECTIONS design changes have been made. Date: July 2019 Scale: 1" = 10' REVISION DATE SHEET No. RPK12OF 13 SHEETS

C.O.ADD.86

"AS-BUILT"

SURVEY PLOTTE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY



ROADWAY CROSS SECTIONS

Scale: 1" = 10'

SURVEY PLOTTE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

Sheet Total &

Exc. = 183.93 C.Y.

Emb. = 28.32 C.Y.

Roadway Total &

Total Exc. = 341.14 C.Y.

Total Emb. = 440.51 C.Y.

design changes have been made.

**REVISION** 

DATE

FED. ROAD DIST. NO. STATE FED. AID PROJ. NO. FISCAL SHEET NO. SHEETS

KAUAI HAW. NH-056-1(50) 2019 ADD.87 244

**GRAPHIC SCALE:** 





THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

WILSON OKAMOTO CORPORATION

ATE OF HAWAI'I

STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

### ROADWAY CROSS SECTIONS

KUHIO HIGHWAY SHORT-TERM

IMPROVEMENTS KUAMOO ROAD

TO TEMPORARY KAPAA BYPASS ROAD

Fed. Aid Proj. No. NH-056-1(50)

Scale: 1" = 10' Date: July 2019

SHEET No. RPK13OF 13 SHEETS

ADD.87