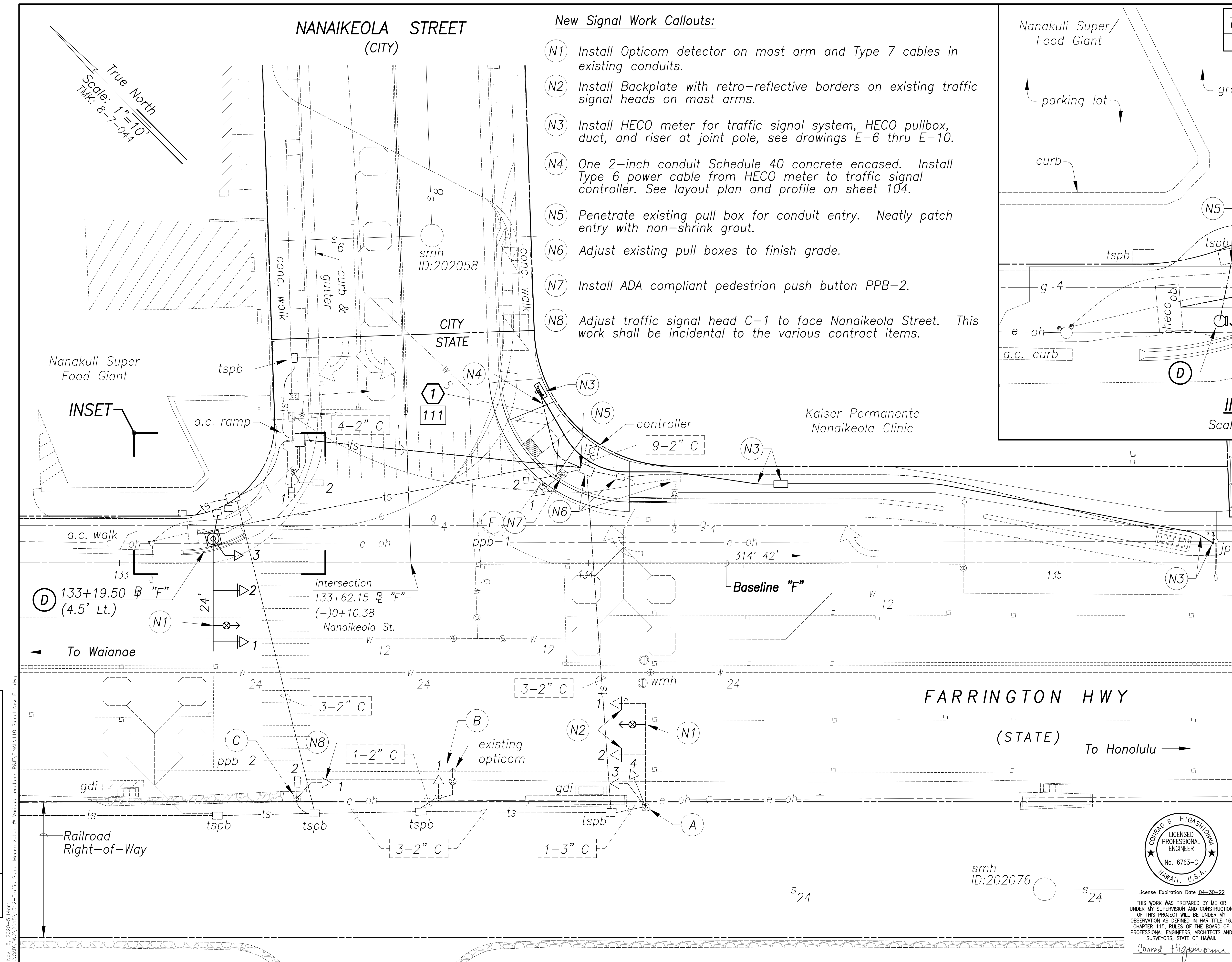
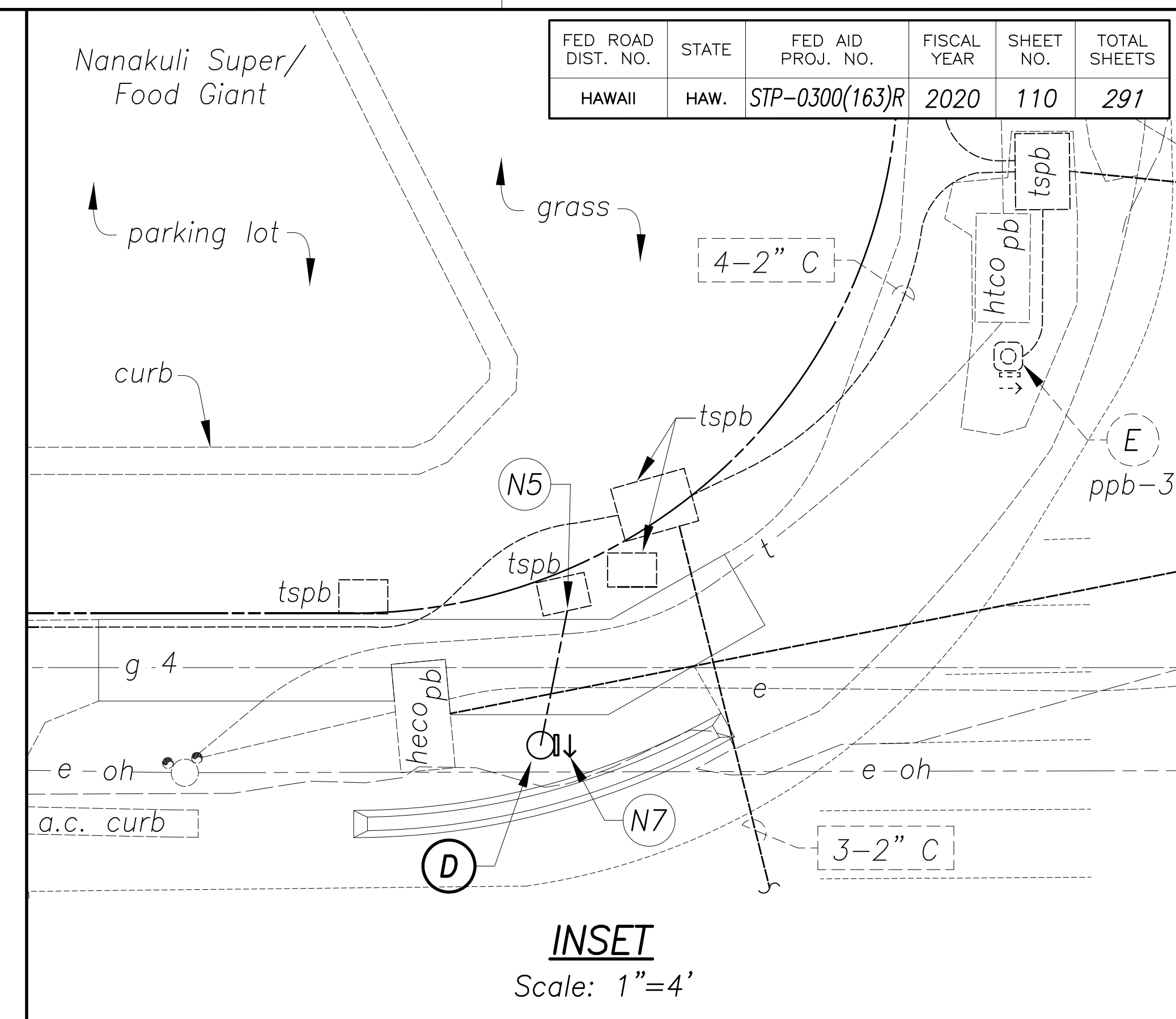


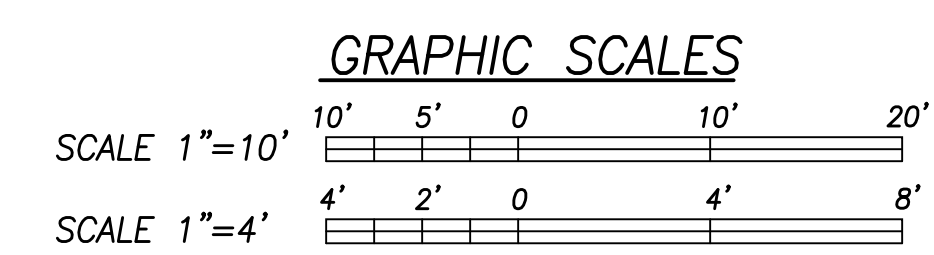


- New Signal Work Callouts:**
- (N1) Install Opticom detector on mast arm and Type 7 cables in existing conduits.
 - (N2) Install Backplate with retro-reflective borders on existing traffic signal heads on mast arms.
 - (N3) Install HECO meter for traffic signal system, HECO pullbox, duct, and riser at joint pole, see drawings E-6 thru E-10.
 - (N4) One 2-inch conduit Schedule 40 concrete encased. Install Type 6 power cable from HECO meter to traffic signal controller. See layout plan and profile on sheet 104.
 - (N5) Penetrate existing pull box for conduit entry. Neatly patch entry with non-shrink grout.
 - (N6) Adjust existing pull boxes to finish grade.
 - (N7) Install ADA compliant pedestrian push button PPB-2.
 - (N8) Adjust traffic signal head C-1 to face Nanaikeola Street. This work shall be incidental to the various contract items.



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(163)R	2020	110	291

Approved By: _____
Chief, Traffic Signals & Technology, DTS Date: _____



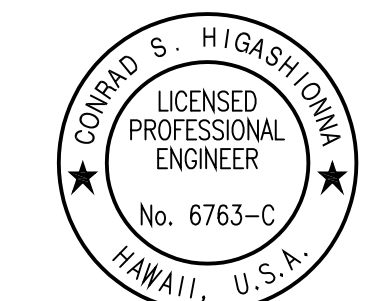
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

ORIGINAL PLAN

NOTE BOOK

No. _____

New 18, 2020-5110m
N:\CADD\DWG\2015\1512-Traffic Signal Modernization @ Various Locations P&E\FINAL\110 Signal New F 1.dwg



License Expiration Date: 04-30-22
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN HAWAII TITLE 16, CHAPTER 115, RULES OF THE BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS AND SURVEYORS, STATE OF HAWAII.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW SIGNAL WORK

Farrington Hwy & Nanaikeola St

BASE BID

Traffic Signal Modernization, Oahu, Phase 1

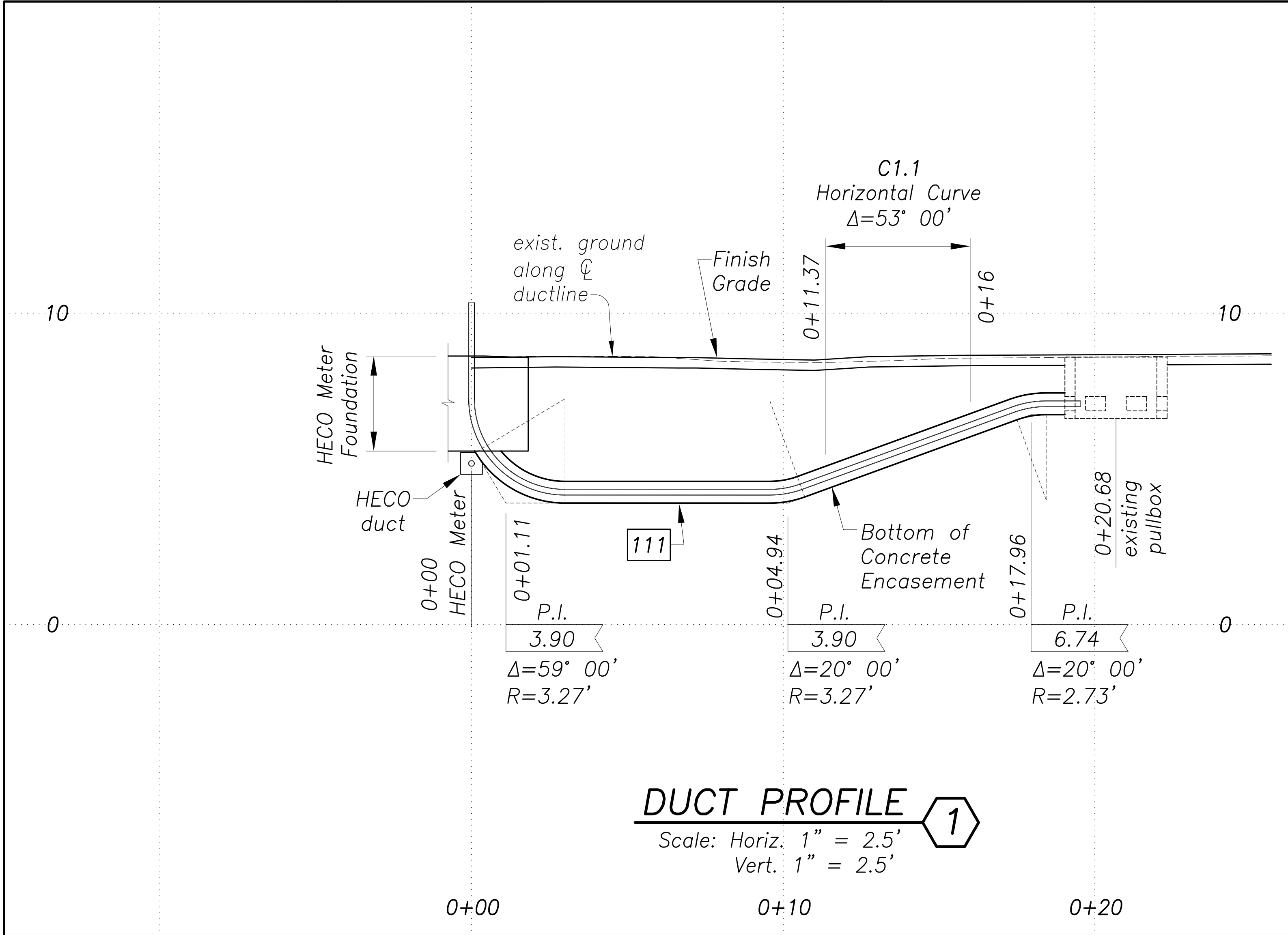
Federal-Aid Project No. STP-0300(163)R

Scale: 1"=10' Date: Oct. 2020

SHEET No. TS-8 OF 113 SHEETS

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

New 18, 2020--511com
N:\CAO\DWG\2015\1512-Traffic Signal Modernization @ Various Locations P&E\FINAL\111 Signal New F 2.dwg



DRILLED SHAFT FOUNDATIONS
for Type II Traffic Signal Standards

I.D. LABEL	SOIL TYPE	GRADE	MAST ARM LENGTH (feet)	DRILLED SHAFT DIAMETER (inches)	DRILLED SHAFT LENGTH (feet)
(A)*	Sand & Gravel	Level	24	30	9

* For drilled shaft foundation details, see 2008 Standard Plans TE-33A.1 & TE-33A.2 – below ground water table.

No boring for soils data conducted for this site.

HECO Meter

0+00 DL-1= 133+89.77 @ "F" (36.10' Rt.)

31 degrees 00' 00" 11.37'

0+11.37

0+16

338 degrees 00' 4.68' +/-

0+20.68 +/- DL-1= 133+99.65 +/- @ "F" (19.8 +/- Rt.)

existing controller

existing pull box

True North

Scale: 1 inch=5'

Ø Duct Line Curve Data	
ÝF	C1.1
ÝF	53 degrees 00' 00"
ÝF/2	26 degrees 30' 00"
R	5.00'
T	2.49'
Ch	4.46'
Lc	4.63'

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(163)R	2020	111	291

SIGNAL INDICATIONS

Head Type	Pole Letter – Signal Head Number
R Y G &#2190; Green Arrow	A-1*** F-1*
R Y G	A-2*** D-3 B-1* C-1* D-1** D-2**
R Y &#2191; Green Arrow	A-3*
R &#2190; Yellow Arrow &#2190; Green Arrow	A-4*
&#2191; &#2192; &#2193;	C-2* E-1* E-2* F-2*

* Existing signal head to remain

** Install Backplate with Retroreflective Borders

*** Install Backplate with Retroreflective Borders on existing signal head to remain

GRAPHIC SCALES

SCALE 1 inch=2.5' 2.5' 0 2.5' 5'

SCALE 1 inch=5' 5' 0 5' 10'

Approved By:

Chief, Traffic Signals & Technology, DTS

Date

CONRAD S. HIGASHIOMIA
LICENSED PROFESSIONAL ENGINEER
No. 6763-C
HAWAII, U.S.A.

License Expiration Date 04-30-22

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN HAW. TITLE 16, CHAPTER 115, RULES OF THE BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS AND SURVEYORS, STATE OF HAWAII.

Conrad Higashiomia

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW SIGNAL WORK

Farrington Hwy & Nanaieola St

BASE BID

Traffic Signal Modernization, Oahu, Phase 1

Federal-Aid Project No. STP-0300(163)R

Scale: As noted Date: Oct. 2020

SHEET No. TS-9 OF 113 SHEETS