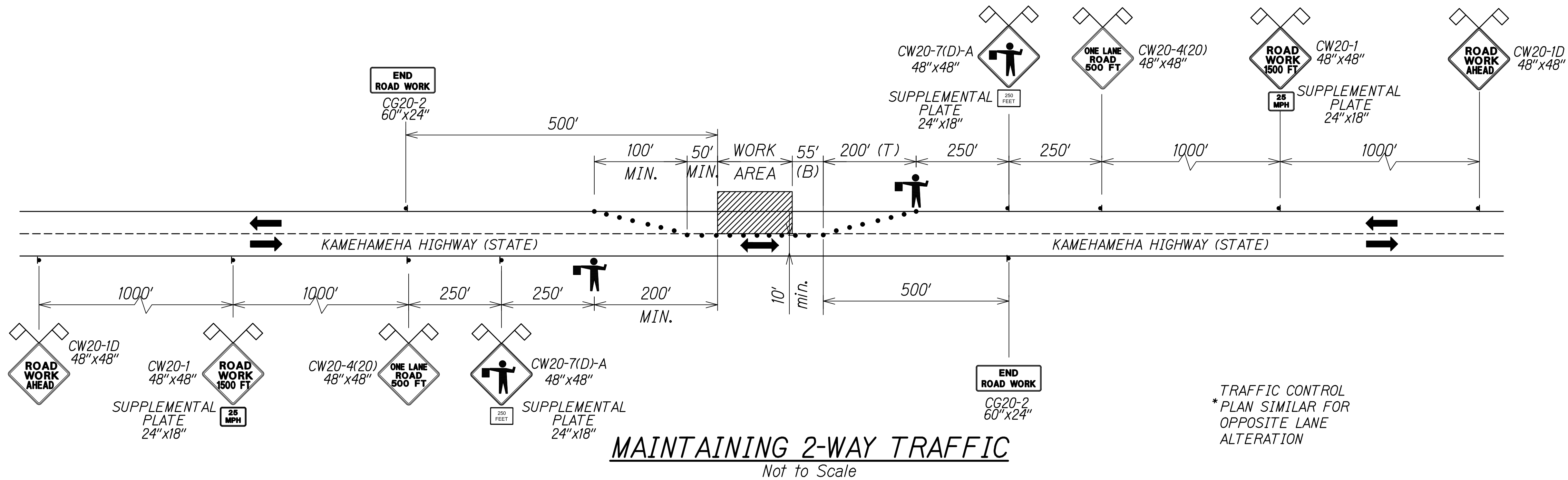


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	95	125

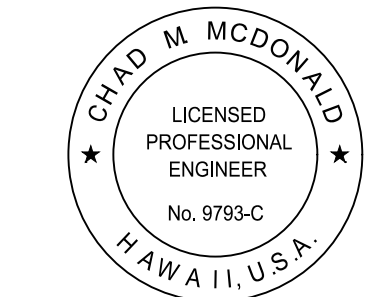


- LEGEND**
- SIGN
 - CONE OR DELINEATOR
 - ➔ DIRECTION OF TRAFFIC
 - ⬇ FLASHING ARROW BOARD

- Notes:**
- The contractor shall provide two lanes of through traffic at all times.
 - See sheet C-37 for additional "Work Zone" traffic control requirements.

TRAFFIC CONTROL
*PLAN SIMILAR FOR
OPPOSITE LANE
ALTERATION

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	



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Chad M. McDonald
MITSUNAGA & ASSOCIATES, INC. EXP. DATE 4/30/2022

NOTE: Contractor to check and verify
dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

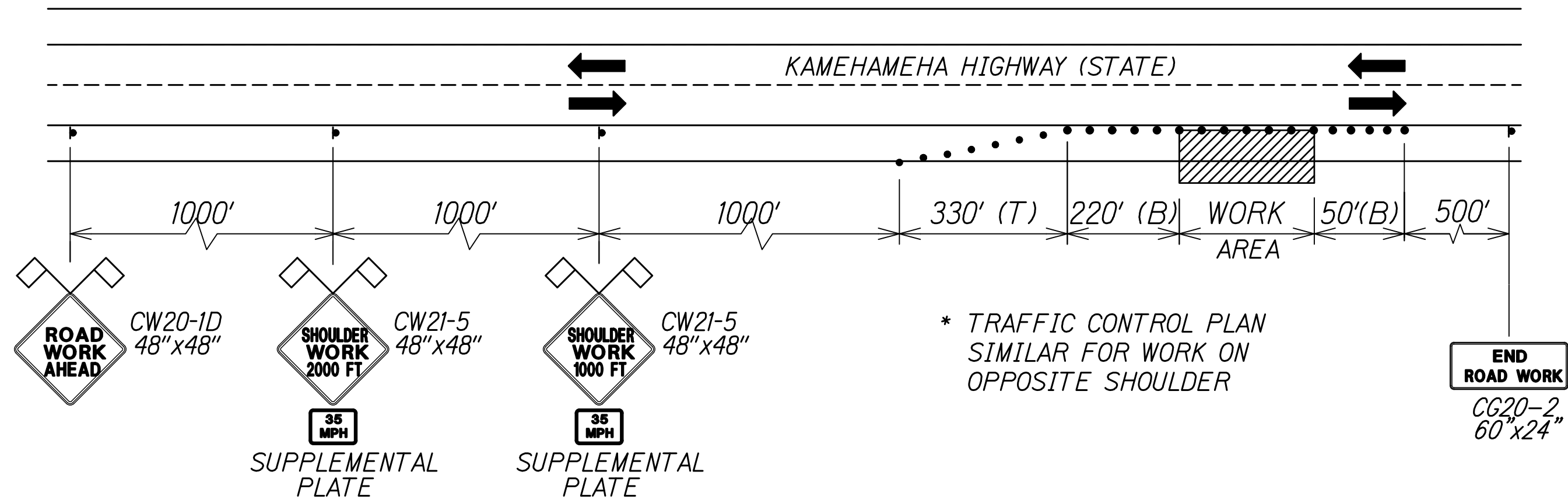
**TYPICAL TRAFFIC CONTROL
PLAN**

Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

Scale: As Noted Date: August 2020

SHEET No. **C93** OF **125** SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	96	125

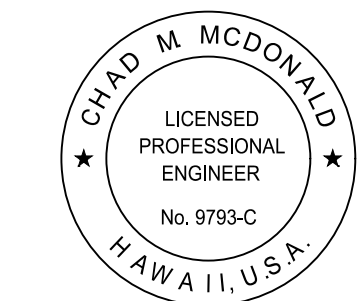


TYPICAL SHOULDER WORK
Not to Scale

GENERAL NOTES FOR TRAFFIC CONTROL PLAN

1. The Contractor shall make minor adjustments at intersections, side roads, drainage structures, etc., to fit field conditions.
2. Cones or delineators shall be extended to a point where they are visible to approaching traffic.
3. Traffic control devices shall be installed such that the sign or device farthest from the work area shall be placed first. The others shall then be placed progressively toward the work area.
4. Regulatory and warning signs within the construction zone that are in conflict with the traffic control plans shall be removed or covered. All signs shall be replaced upon completion of the work.
5. All regulatory, guide, and construction signs and barricades shall have a high-intensity reflective background.
6. Flaggers and/or police officers shall be in sight of each other or in direct communication at all times.
7. The Contractor shall install a flashing arrow signal as shown on the traffic control plans, unless otherwise authorized by the Engineer.
8. Sign spacing (L), taper lengths (T) and spacings of cones or delineators shall be as noted on the traffic control plans, or special provisions.
9. All traffic lanes shall be a minimum of 10 feet wide.
10. All construction warning signs shall be promptly removed or covered whenever the message is not applicable or not in use.
11. The back of all signs used for traffic control shall be marked with the sign owner's name.
12. At the end of each day's work or as soon as the work is completed, The permittee shall remove all traffic control devices no longer needed to permit free and safe passage of public traffic. Removal shall be in the reverse order of installation.
13. Replace permanent pavement markings and traffic signs upon completion of each phase of work.
14. All work zone traffic control devices shall comply with the "Statewide Guidance For Work Zone Traffic Control Devices" Dated September 13, 2000 and the Manual on Uniform Traffic Control Devices (MUTCD) as referenced in the 23 Code of Federal Regulations (CFR), Part 655, Subpart F. The MUTCD shall be recognized as the national standard for traffic control devices on all public roads open to public travel in accordance with 23 U.S.C. 109(d) and 402(a).
15. Cones or delineators shall be installed at 25' o.c. max. along tapers.
16. Cones or delineators shall be installed at 50' o.c. max. along tangents.
17. Posted speed limit along Kamehameha Highway (State) is 55 M.P.H. Speed limit shall be reduced to advisory 25 M.P.H. through all construction work zone diversions.
18. Contractor provided two (2) message boards are to be in place 1 week prior to start of work of lane shifts.
19. Mobile/roving/moving work zone lane closures for striping work shall not be used.

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



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Chad M. McDonald
MITSUNAGA & ASSOCIATES, INC. EXP. DATE 4/30/2022

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL TRAFFIC CONTROL PLAN

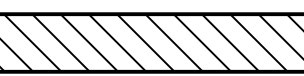
Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

Scale: As Noted Date: August 2020

SHEET No. **C94** OF **125** SHEETS

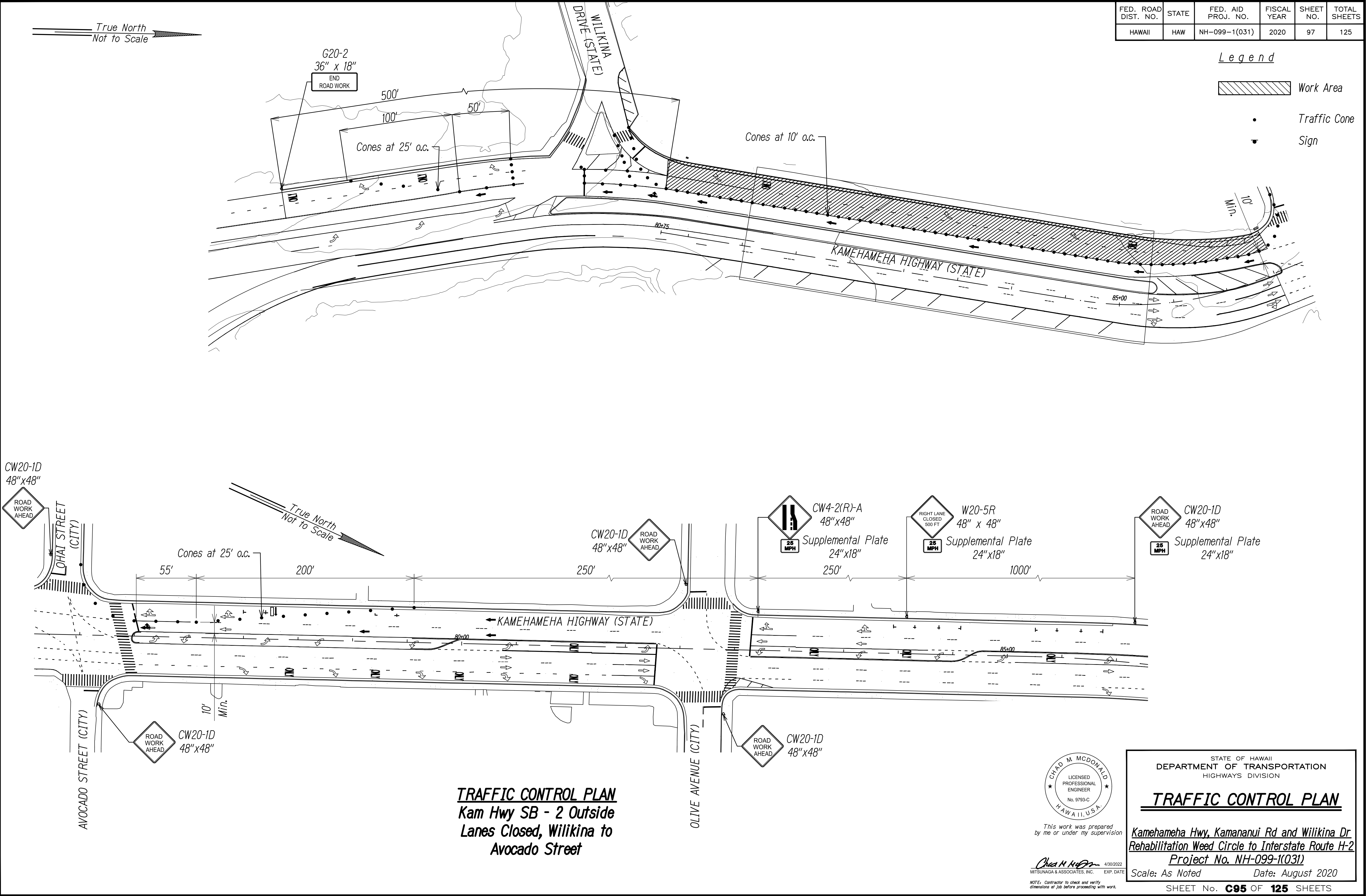
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	97	125

Legend

 Work Area

 Traffic Cone

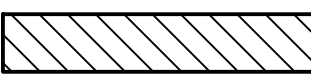
 Sign



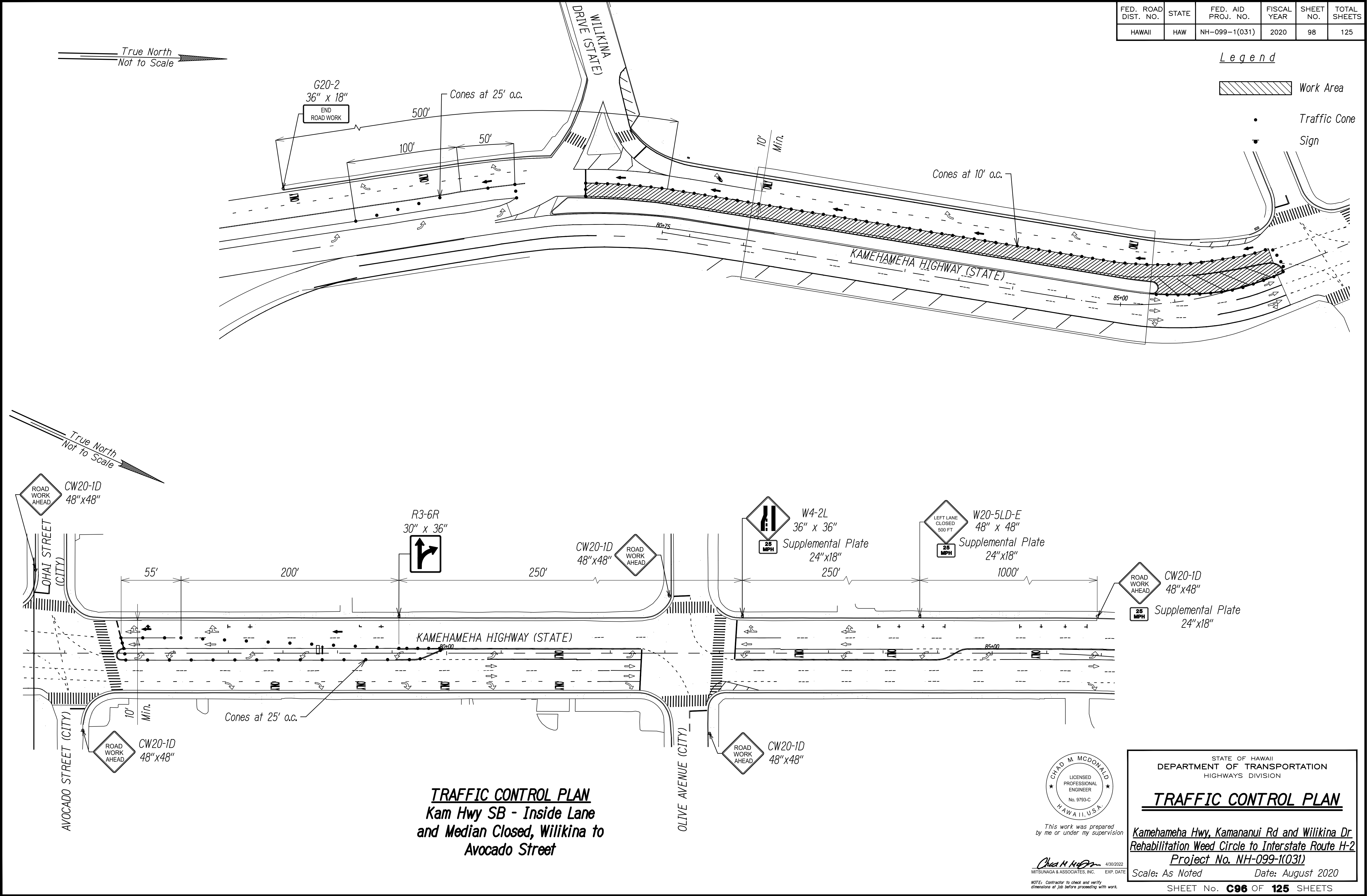
SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	98	125

Legend

 Work Area

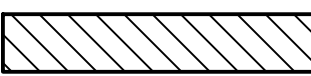
 Traffic Cone
 Sign



SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	

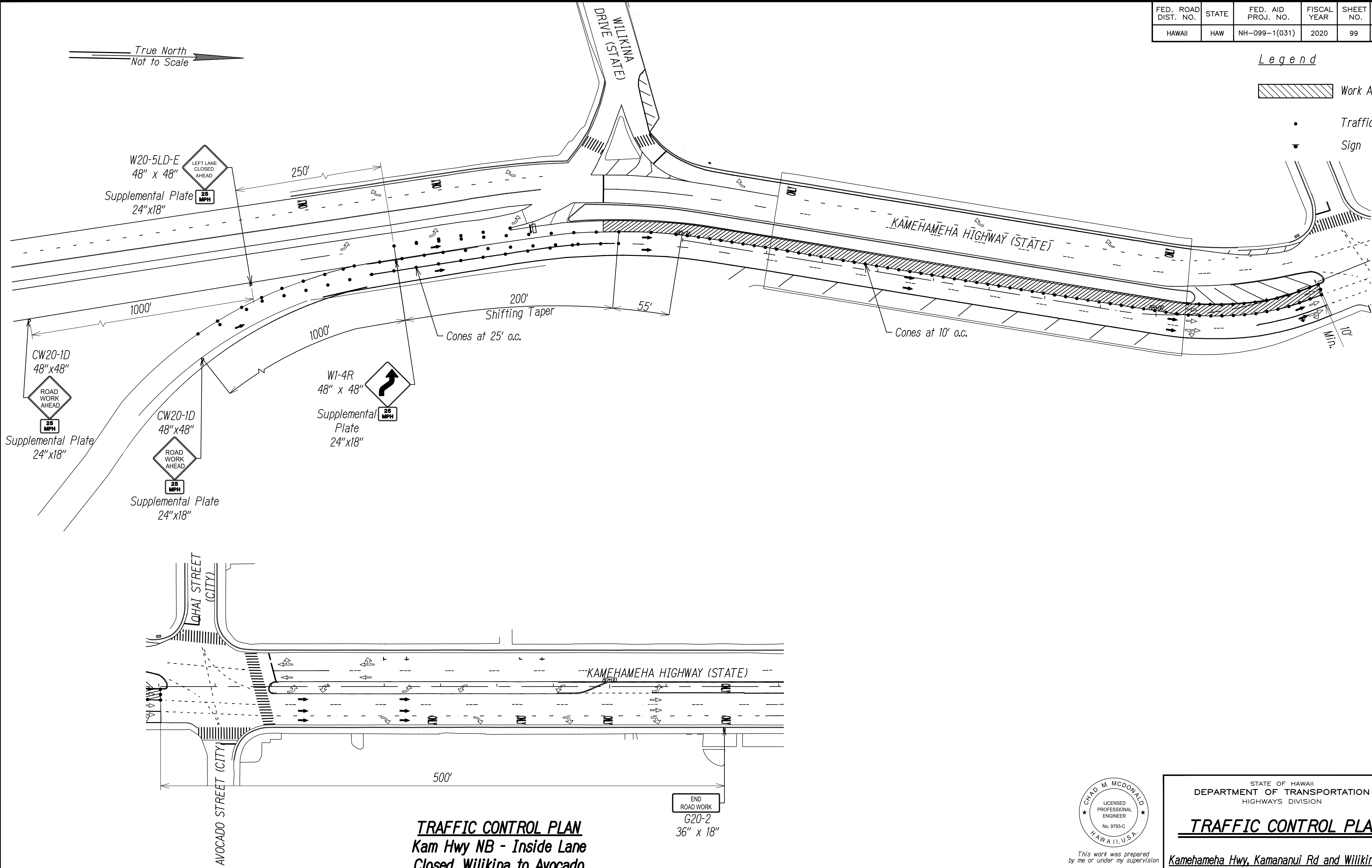
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	99	125

Legend

 Work Area

 Traffic Cone

 Sign



TRAFFIC CONTROL PLAN
Kam Hwy NB - Inside Lane
Closed, Wilikina to Avocado
Street



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by me or under my supervision

Chad M. McDonald
 MITSUNAGA & ASSOCIATES, INC. EXP. DATE

NOTE: Contractor to check and verify
dimensions at job before proceeding with work.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

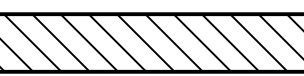
Scale: As Noted Date: August 2020

SHEET No. **C97** OF **125** SHEETS

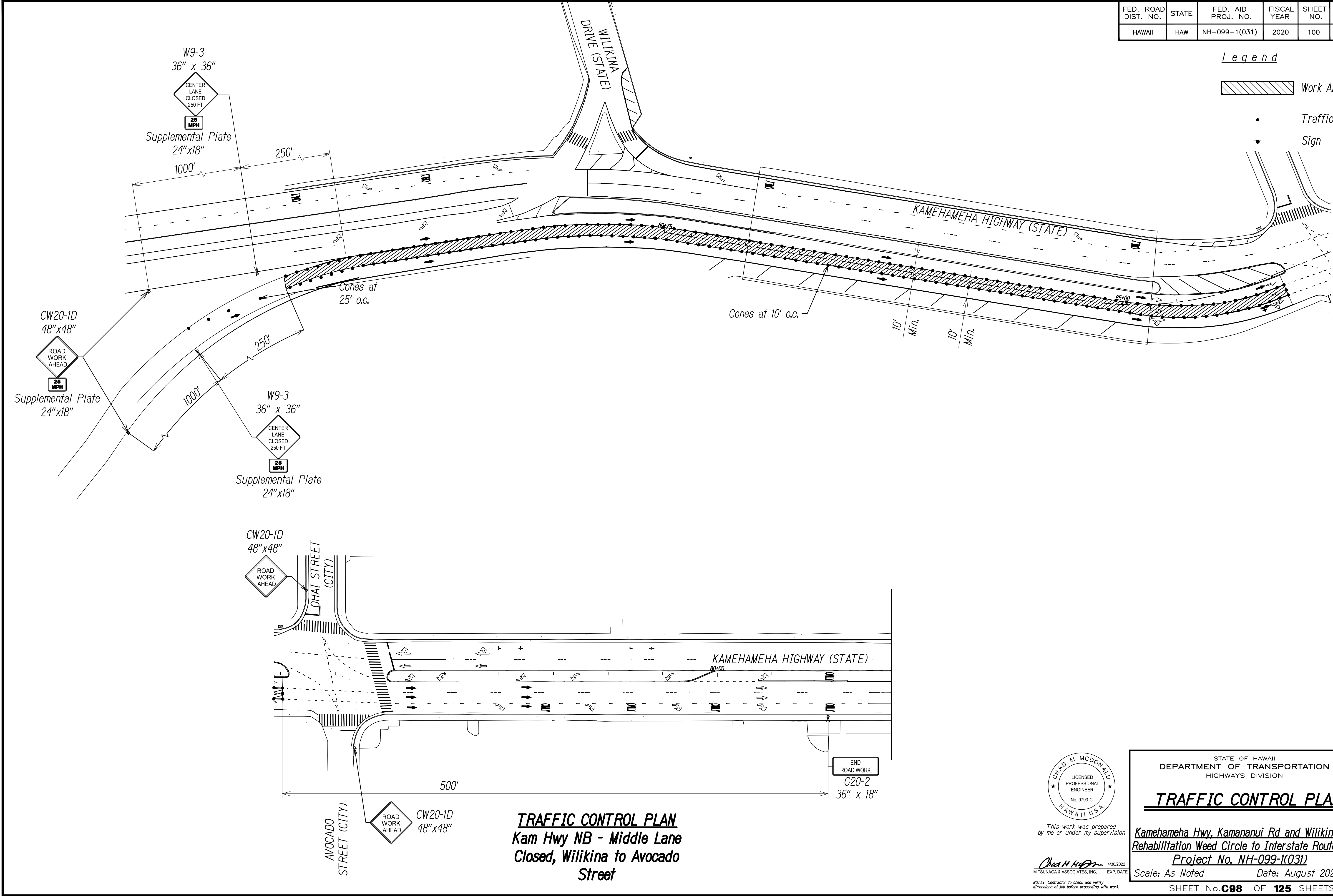
SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	100	125

Legend

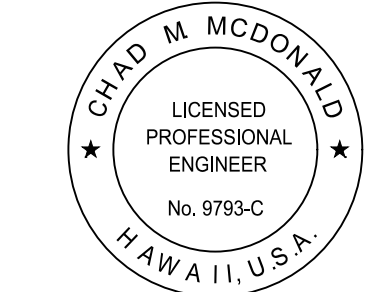
 Work Area

 Traffic Cone
 Sign



ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
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No.	

TRAFFIC CONTROL PLAN
Kam Hwy NB - Middle Lane
Closed, Wilikina to Avocado
Street



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MITSUNAGA & ASSOCIATES, INC. EXP. DATE 4/30/2022

NOTE: Contractor to check and verify
dimensions at job before proceeding with work.

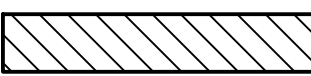
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN
Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)
Scale: As Noted Date: August 2020

SHEET No. **C98** OF **125** SHEETS

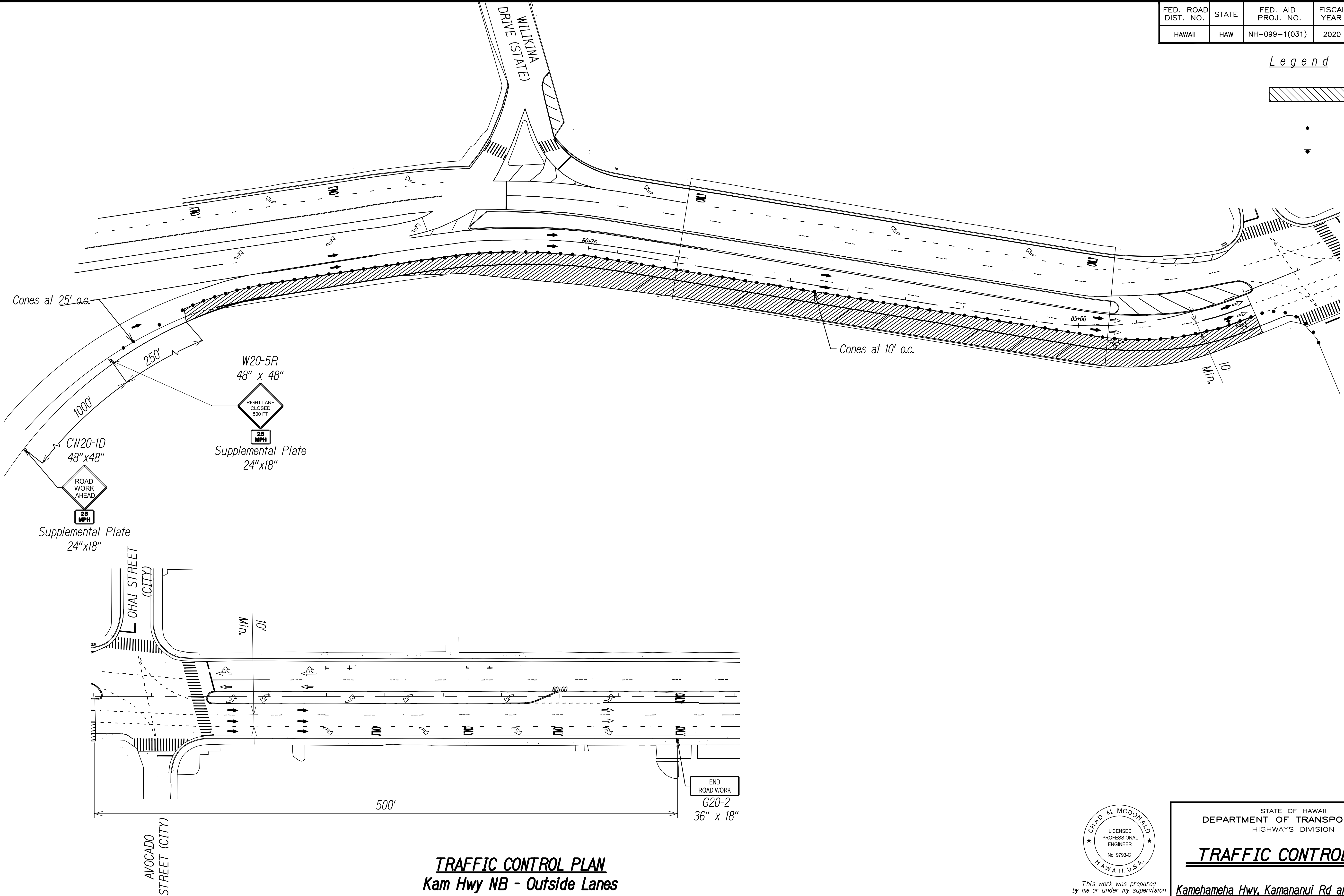
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	101	125

Legend

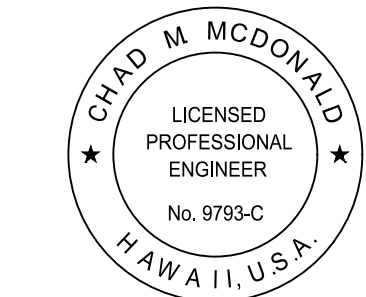
 Work Area

 Traffic Cone

 Sign



SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

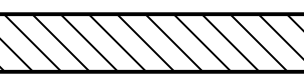
Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

Scale: As Noted Date: August 2020

SHEET No. **C99** OF **125** SHEETS

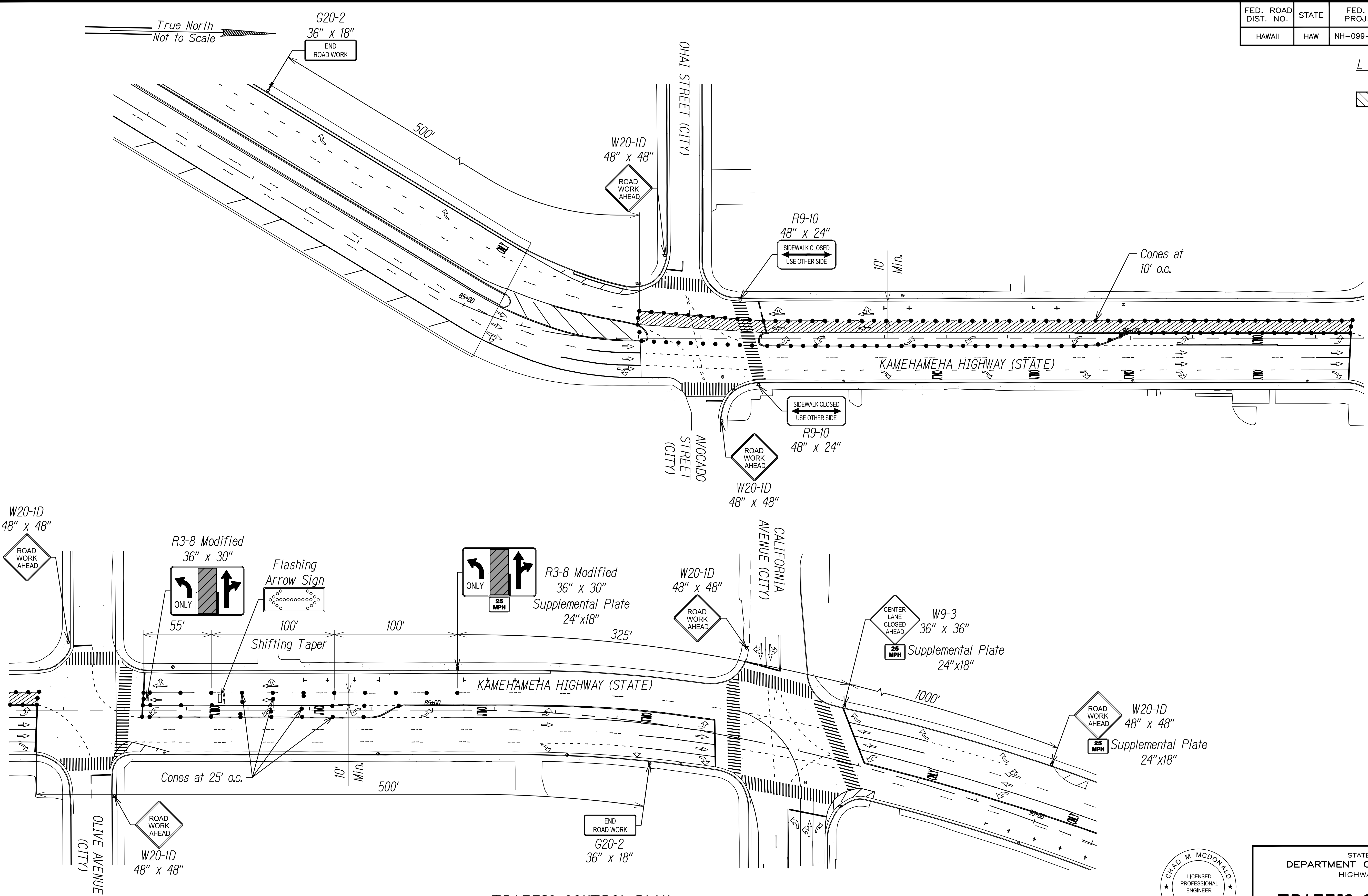
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	103	125

Legend

 Work Area

 Traffic Cone

 Sign



TRAFFIC CONTROL PLAN
Kam Hwy SB - Inside Lane Closed,
Avocado Street to Olive Avenue



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NOTE: Contractor to check and verify
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STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

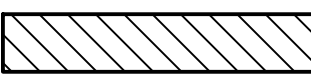
Scale: As Noted Date: August 2020

SHEET No. **C101** OF **125** SHEETS

SURVEY PLOTTED BY	DATE
DESIGNED BY	
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DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
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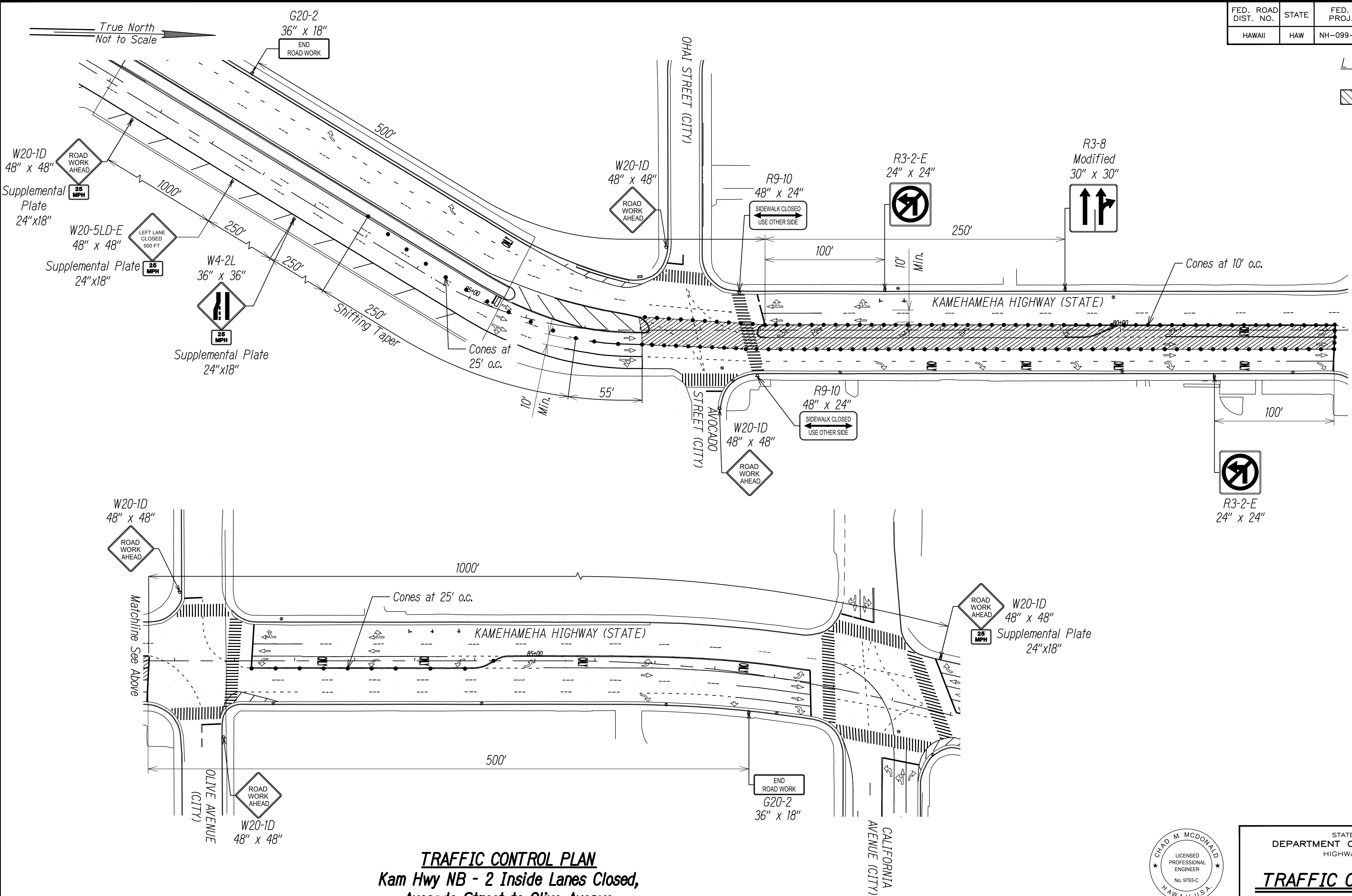
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	104	125

Legend

 Work Area

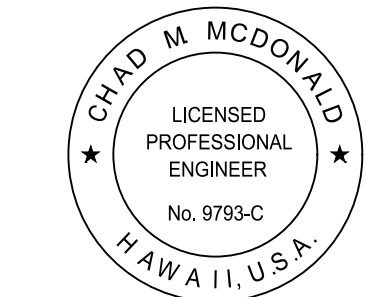
 Traffic Cone

 Sign



TRAFFIC CONTROL PLAN
Kam Hwy NB - 2 Inside Lanes Closed,
Avocado Street to Olive Avenue

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



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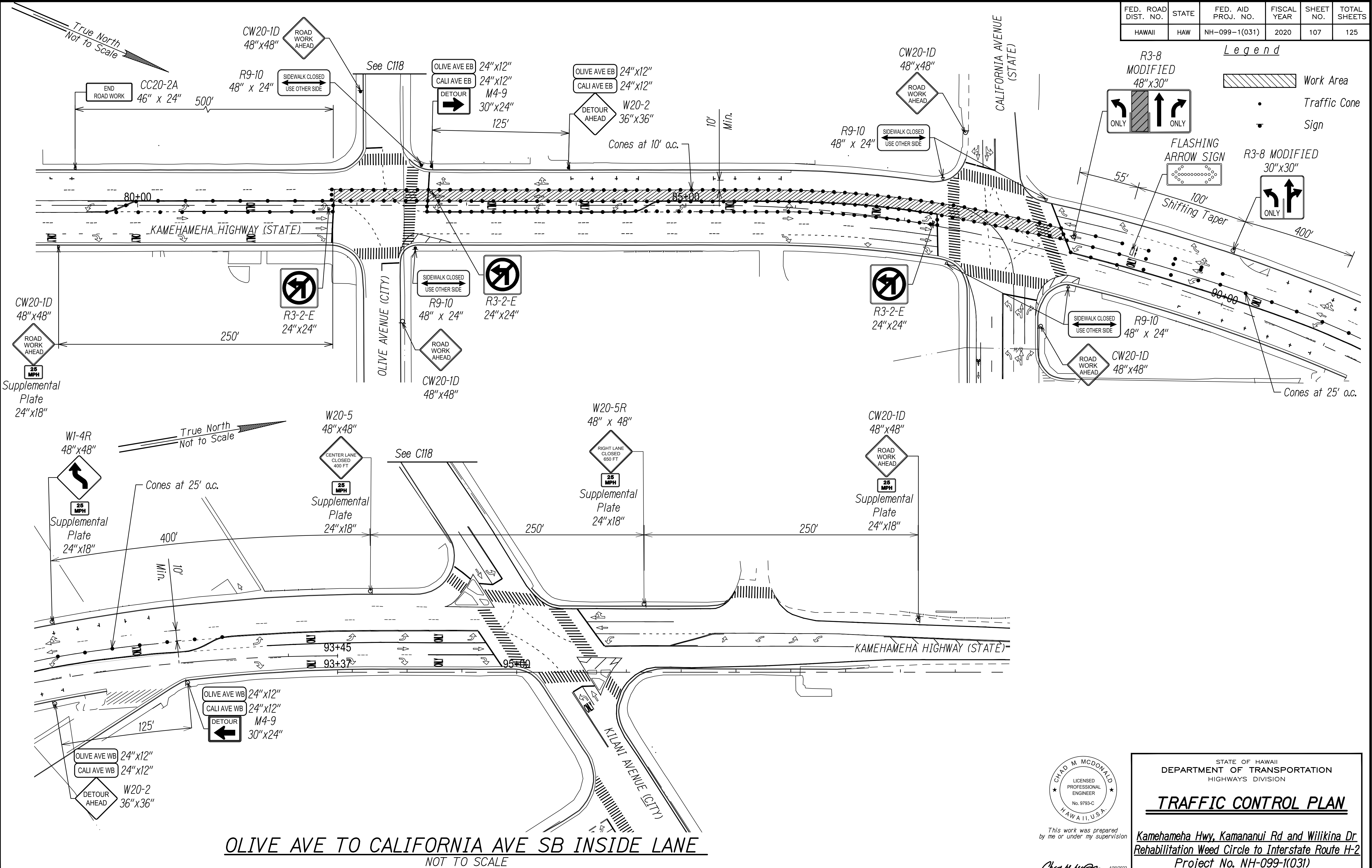
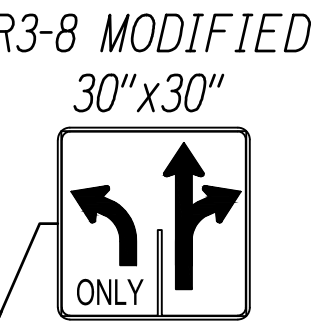
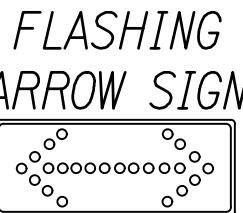
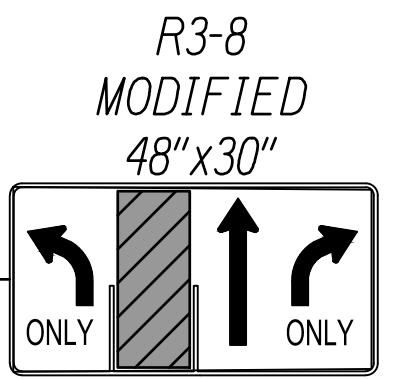
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN
Kamehameha Hwy, Kanananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)
Scale: As Noted Date: August 2020
SHEET No. **C102** OF **125** SHEETS

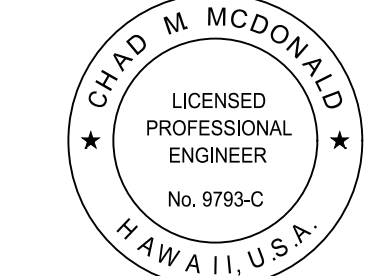
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	107	125

Legend

- Work Area
- Traffic Cone
- Sign



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



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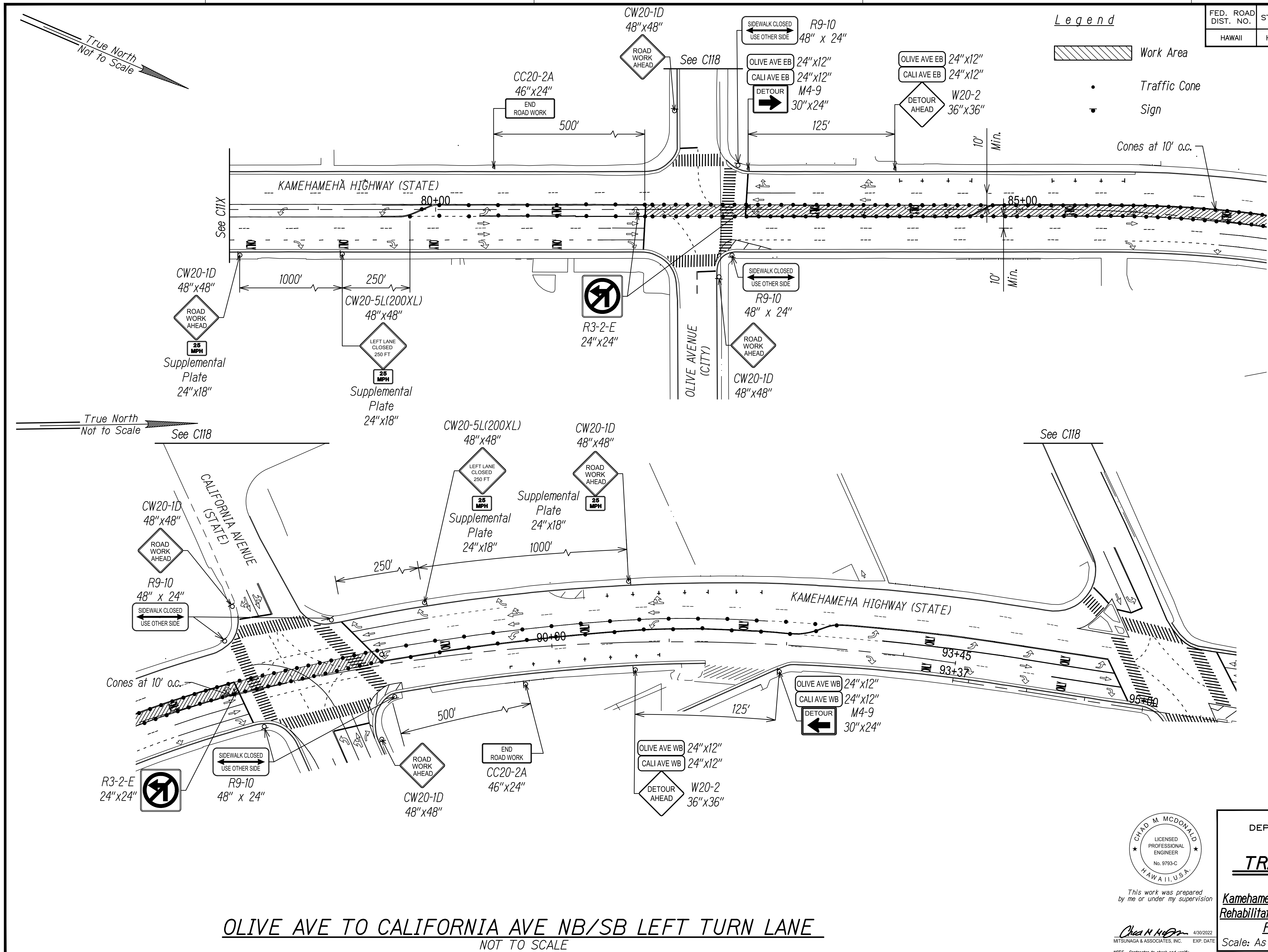
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

Kamehameha Hwy, Kananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

Scale: As Noted Date: August 2020

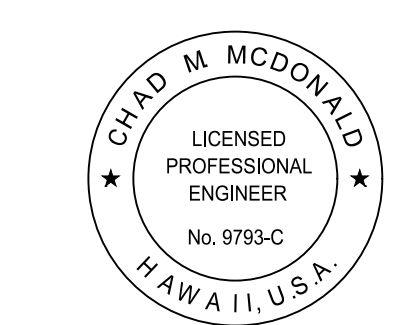
SHEET No. **C105** OF **125** SHEETS



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	108	125

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

OLIVE AVE TO CALIFORNIA AVE NB/SB LEFT TURN LANE
NOT TO SCALE



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

Scale: As Noted Date: August 2020

SHEET No. **C106** OF **125** SHEETS

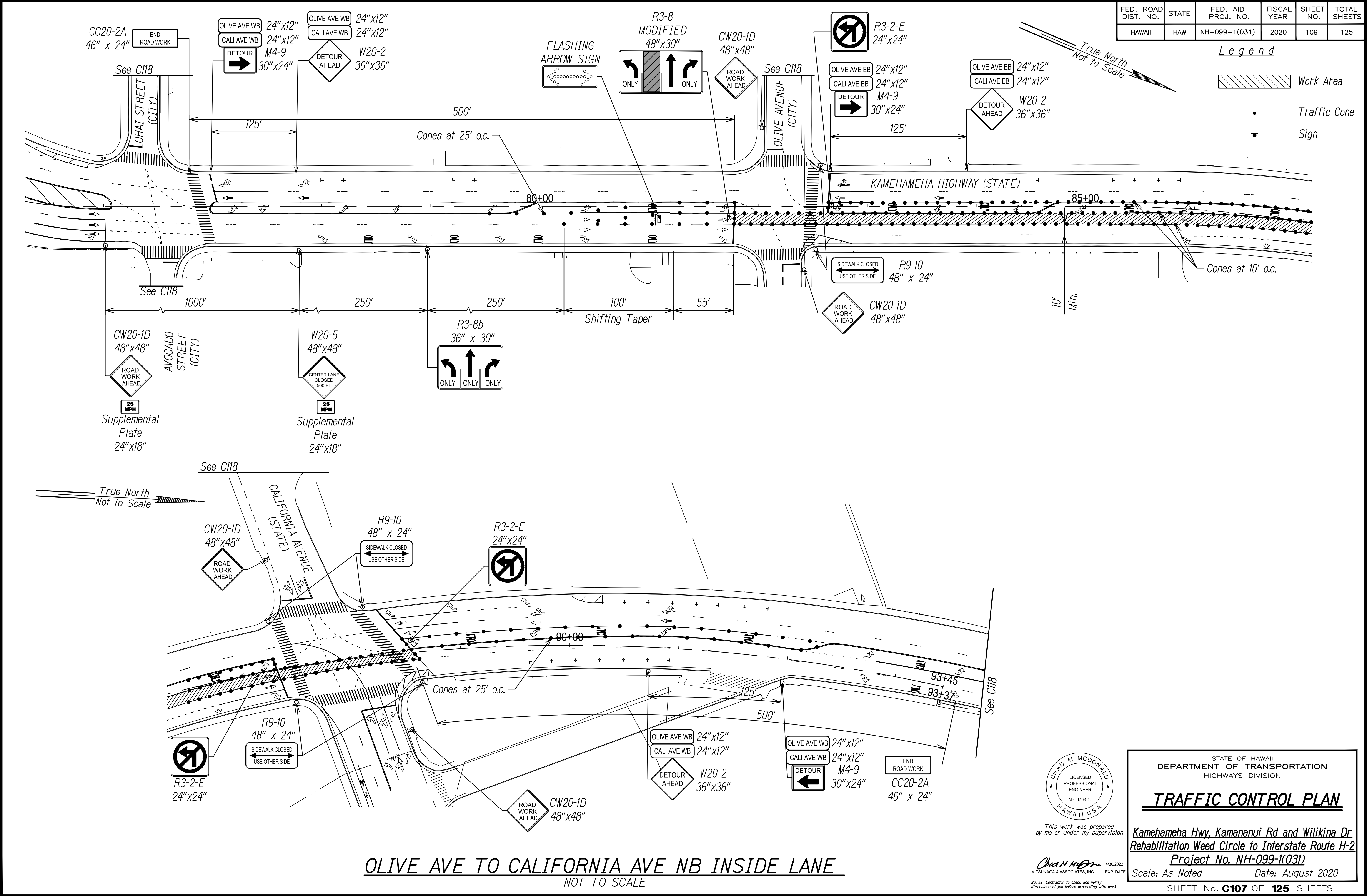
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	109	125

Legend

Work Area

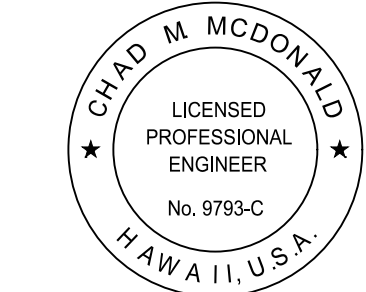
Traffic Cone

Sign



OLIVE AVE TO CALIFORNIA AVE NB INSIDE LANE
NOT TO SCALE

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
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4/30/2022
MITSUNAGA & ASSOCIATES, INC. EXP. DATE

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

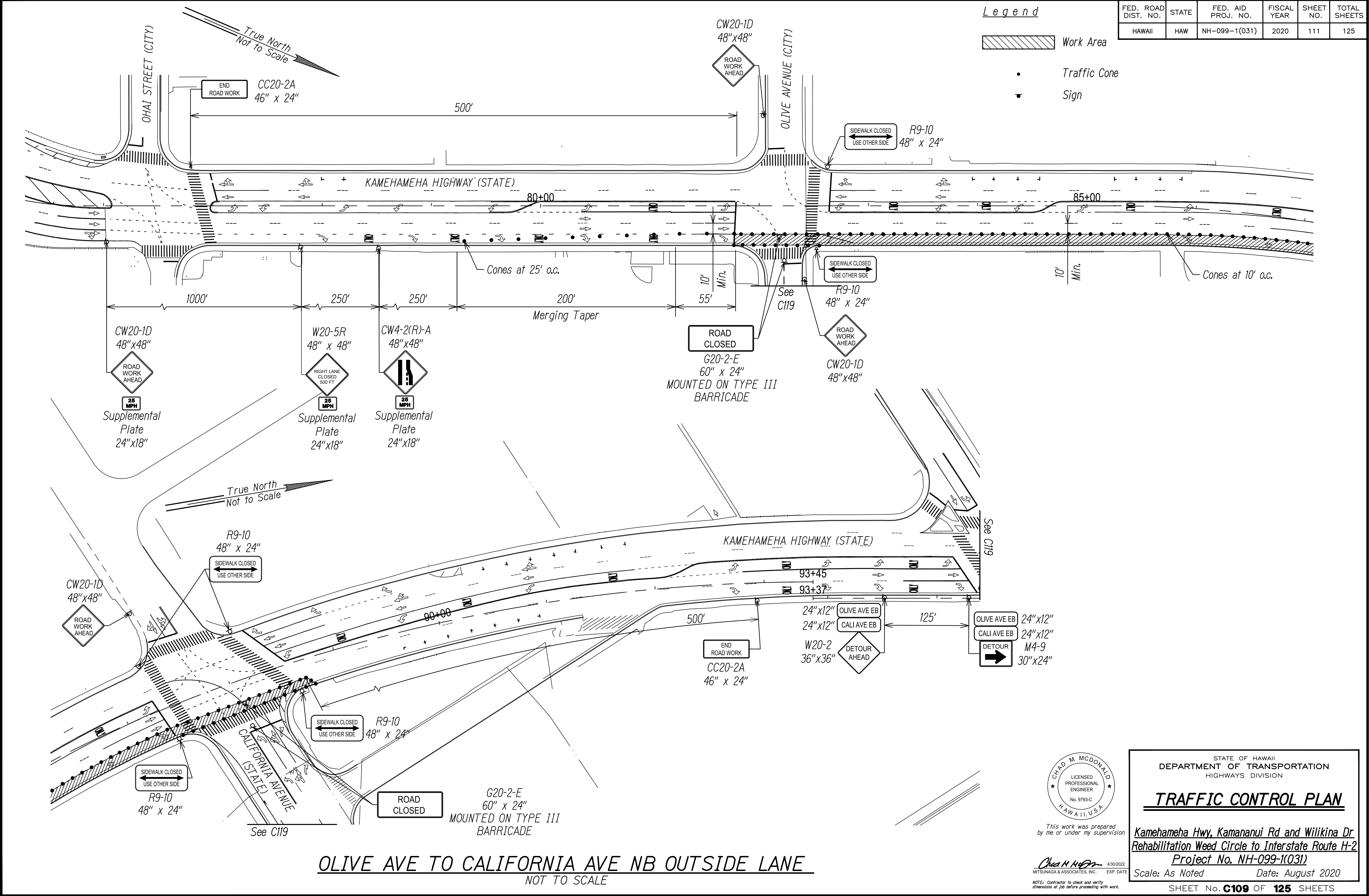
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SHEET No. C107 OF 125 SHEETS

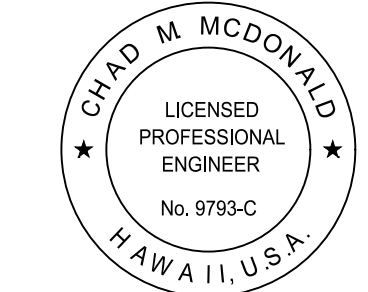
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	111	125

Legend

- Work Area
- Traffic Cone
- Sign



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



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MITSUNAGA & ASSOCIATES, INC. EXP. DATE
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

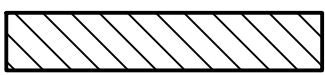


Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

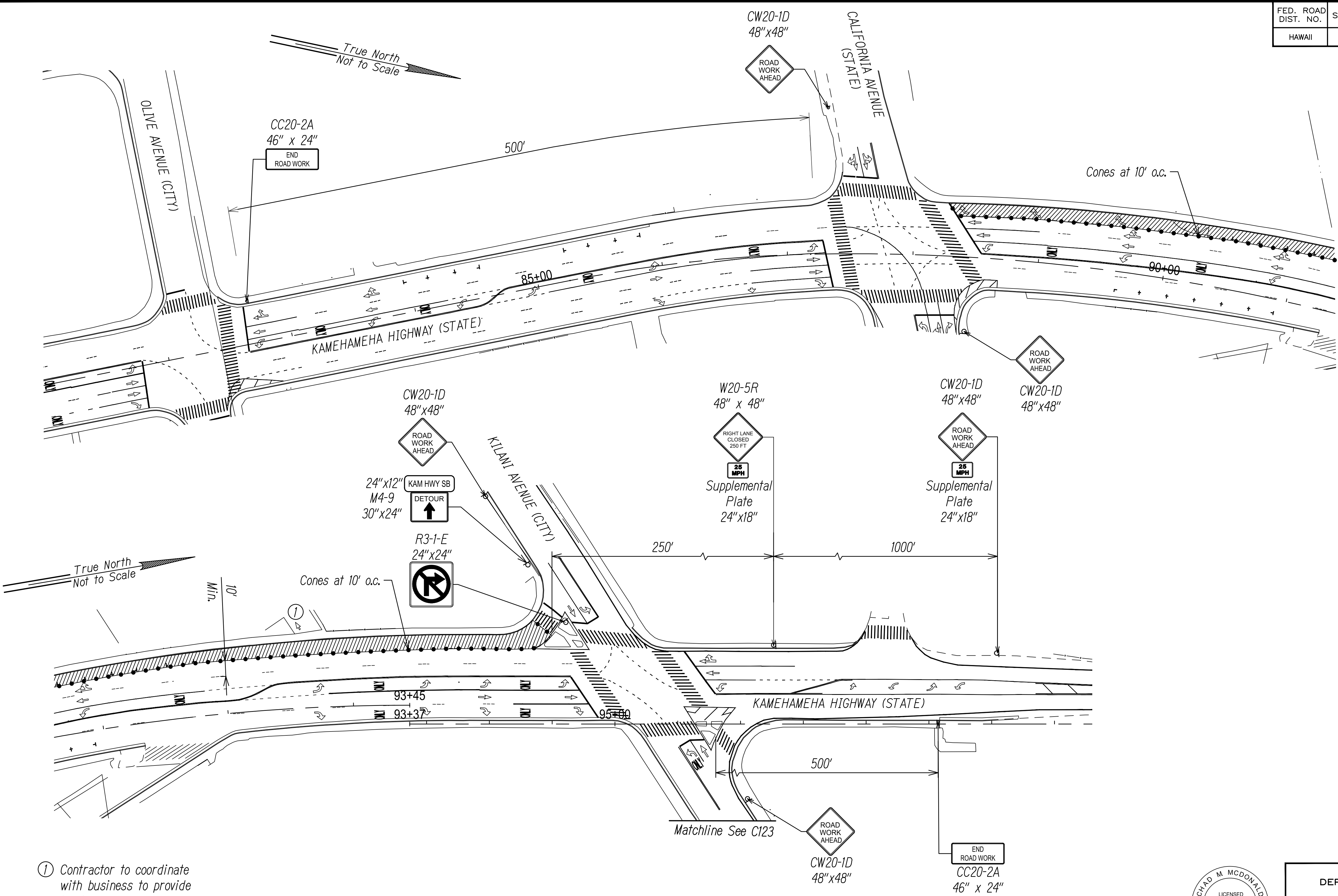
Scale: As Noted Date: August 2020

SHEET No. **C109** OF **125** SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	112	125

Legend

-  Work Area
-  Traffic Cone
-  Sign



① Contractor to coordinate with business to provide local access

CALIFORNIA AVE TO KILANI AVE SB OUTSIDE LANE
NOT TO SCALE

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

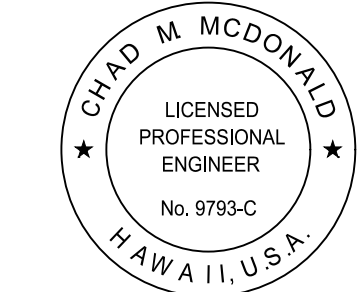
TRAFFIC CONTROL PLAN

Kamehameha Hwy, Kamananui Rd and Wilikina Dr

Rehabilitation Weed Circle to Interstate Route H-2

Project No. NH-099-1(031)

Scale: As Noted Date: August 2020






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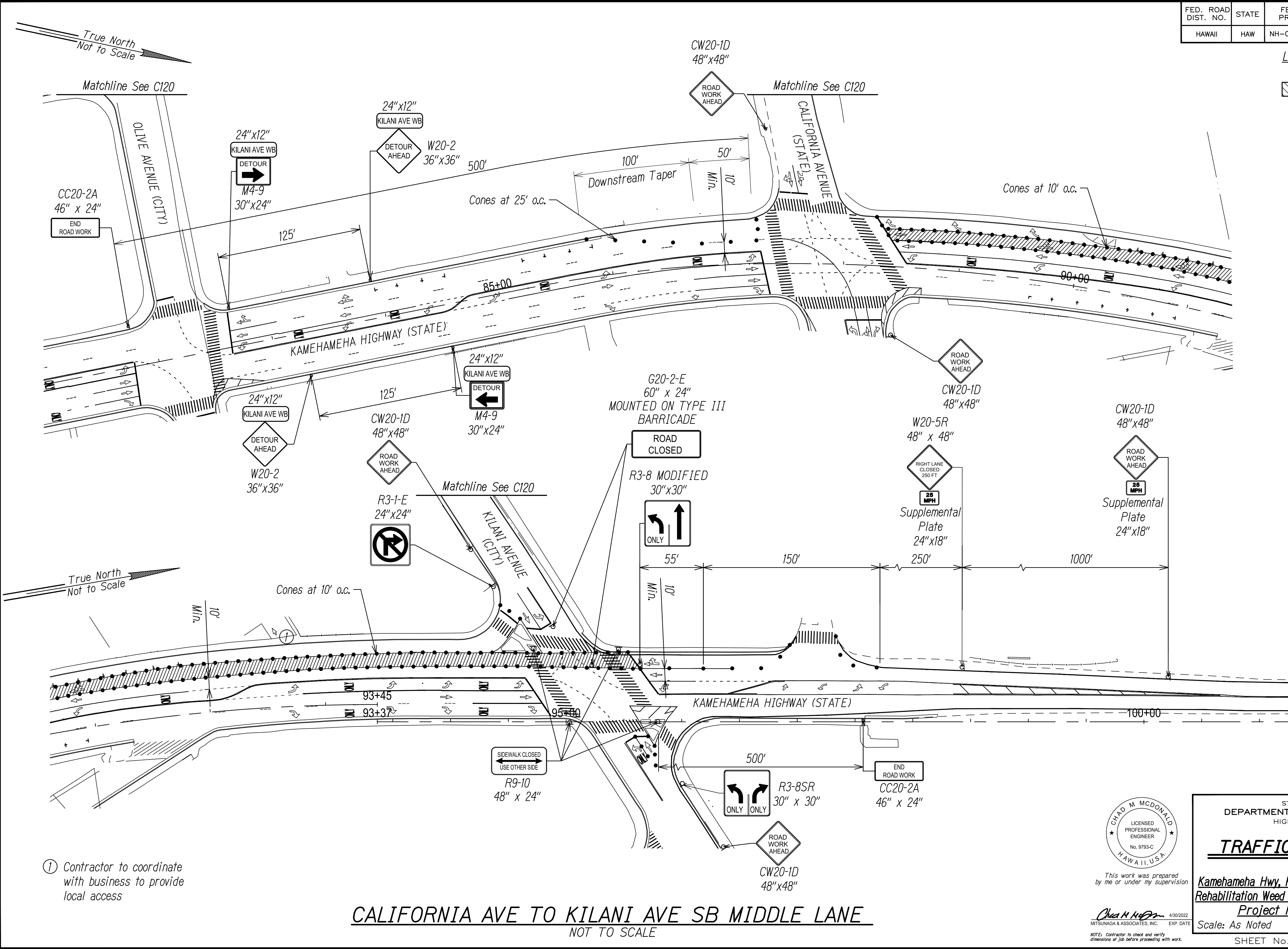

 CHAD M. MCDONALD
 LICENSED PROFESSIONAL ENGINEER
 No. 9793-C
 HAWAII, U.S.A.
 EXP. DATE 4/30/2022
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	113	125

Legend

-  Work Area
-  Traffic Cone
-  Sign



STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

Kamehameha Hwy, Kamananui Rd and Wilikina Dr

Rehabilitation Weed Circle to Interstate Route H-2

Project No. NH-099-1(031)

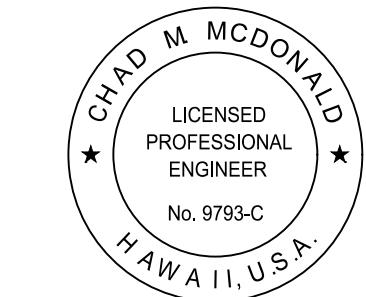
Scale: As Noted Date: August 2020

SHEET No. **C111** OF **125** SHEETS

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

① Contractor to coordinate with business to provide local access

CALIFORNIA AVE TO KILANI AVE SB MIDDLE LANE
NOT TO SCALE



This work was prepared by me or under my supervision

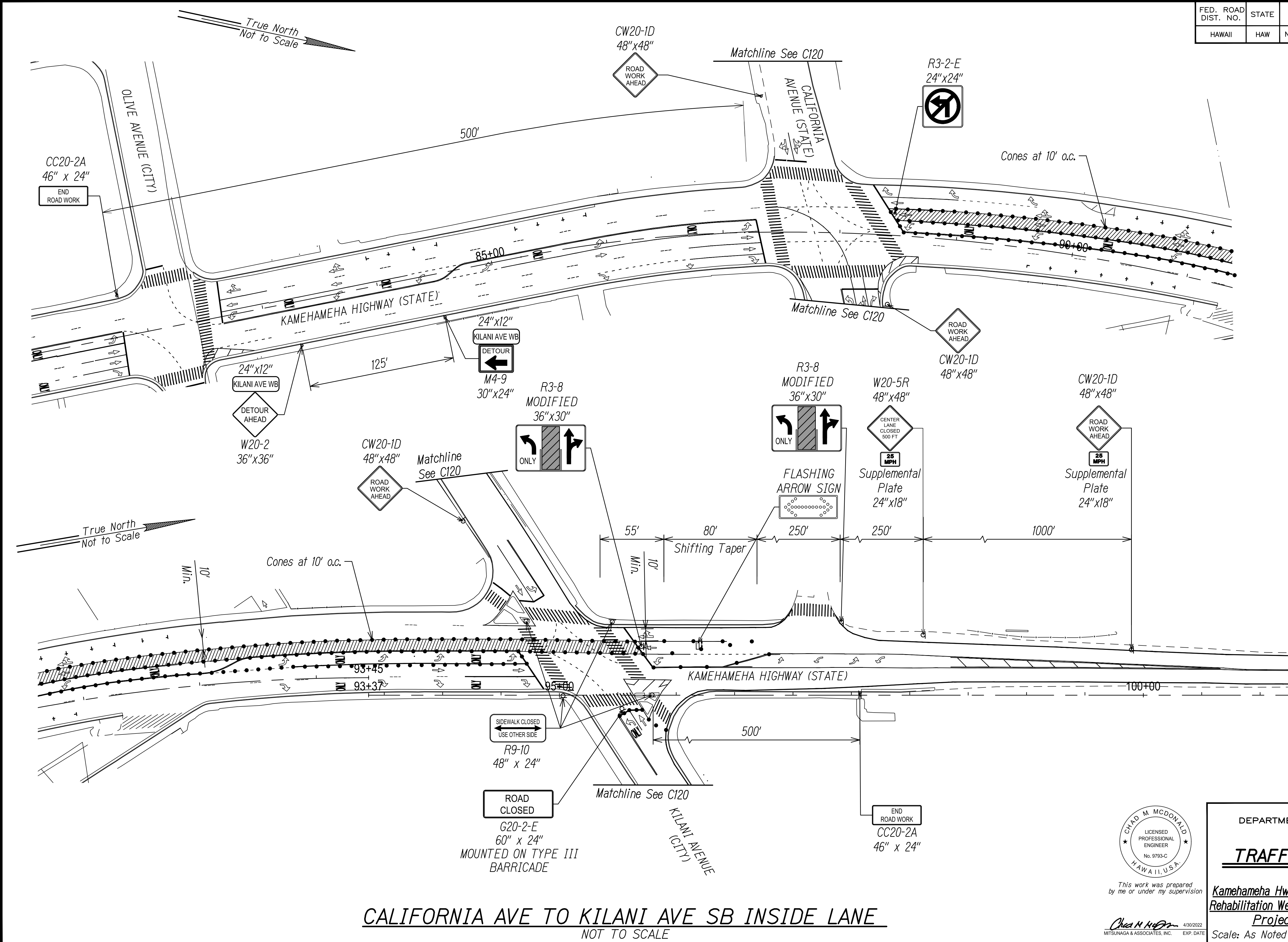
4/30/2022
MITSUNAGA & ASSOCIATES, INC. EXP. DATE

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	114	125

Legend

- Work Area
- Traffic Cone
- Sign

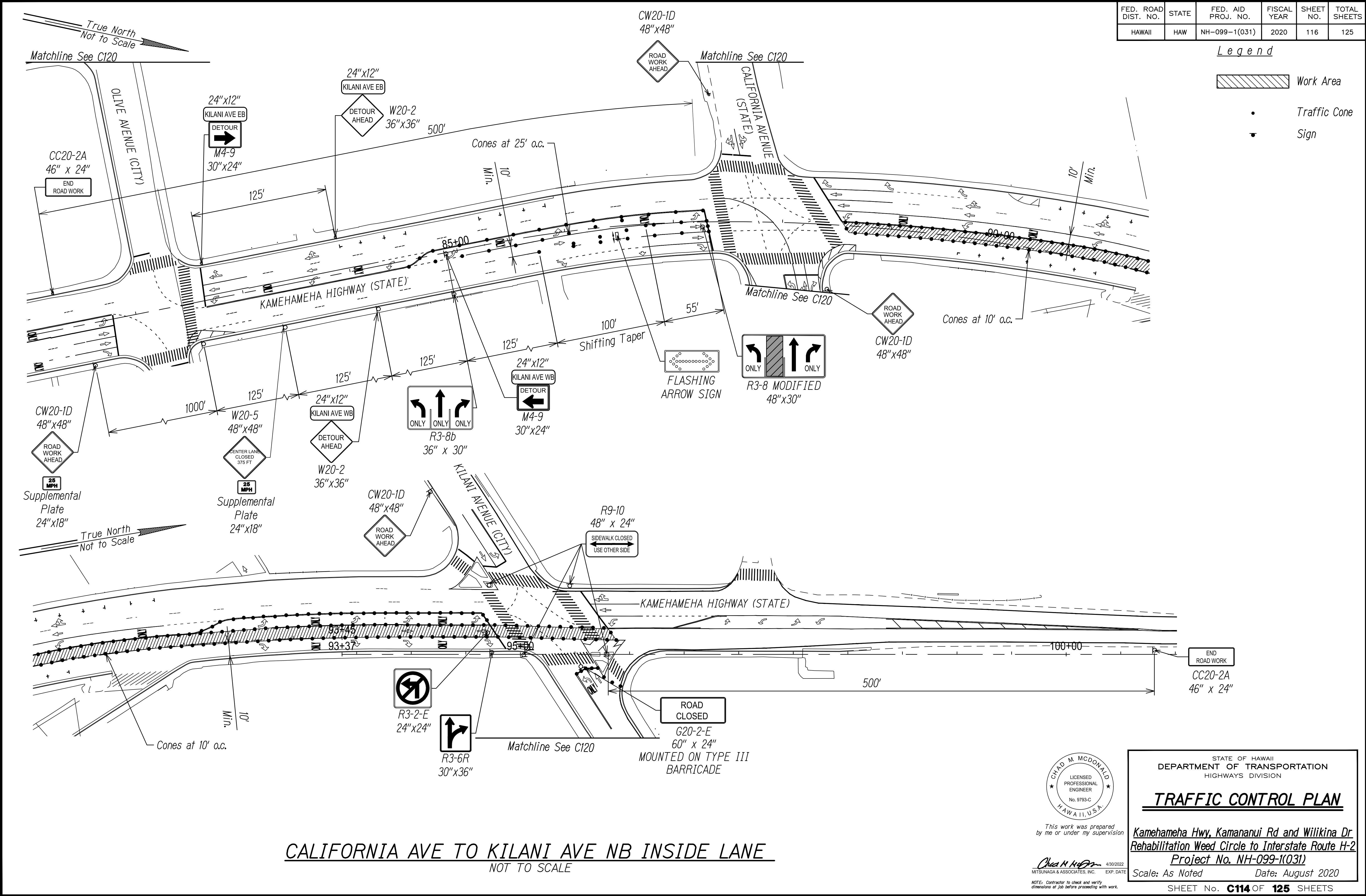


SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

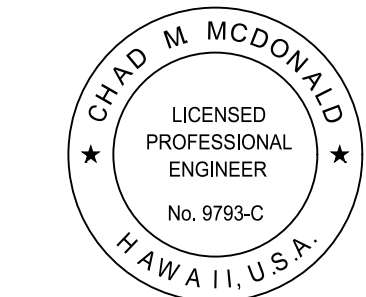
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	116	125

Legend

- Work Area
- Traffic Cone
- Sign



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



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Chad M. McDonald
MITSUNAGA & ASSOCIATES, INC. EXP. DATE
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

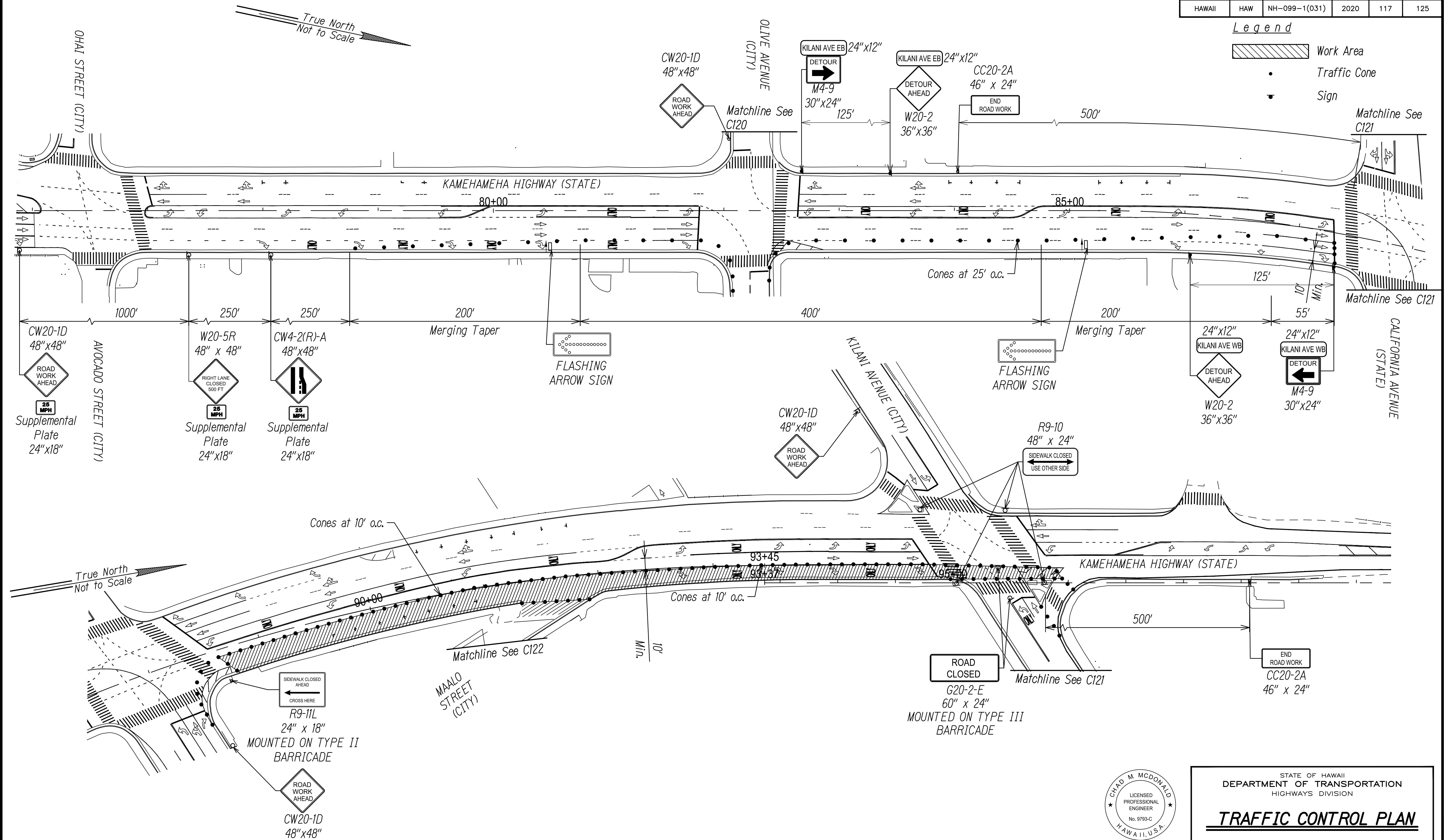
Kamehameha Hwy, Kananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)
Scale: As Noted Date: August 2020

SHEET No. **C114** OF **125** SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	117	125

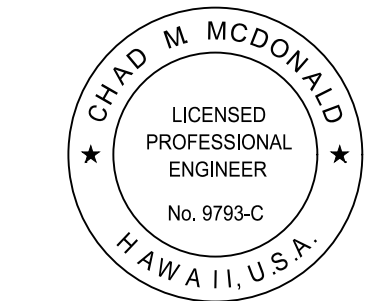
Legend

- Work Area
- Traffic Cone
- Sign



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

CALIFORNIA AVE TO KILANI AVE NB OUTSIDE LANE
NOT TO SCALE



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MITSUNAGA & ASSOCIATES, INC. EXP. DATE
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN

Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

Scale: As Noted Date: August 2020

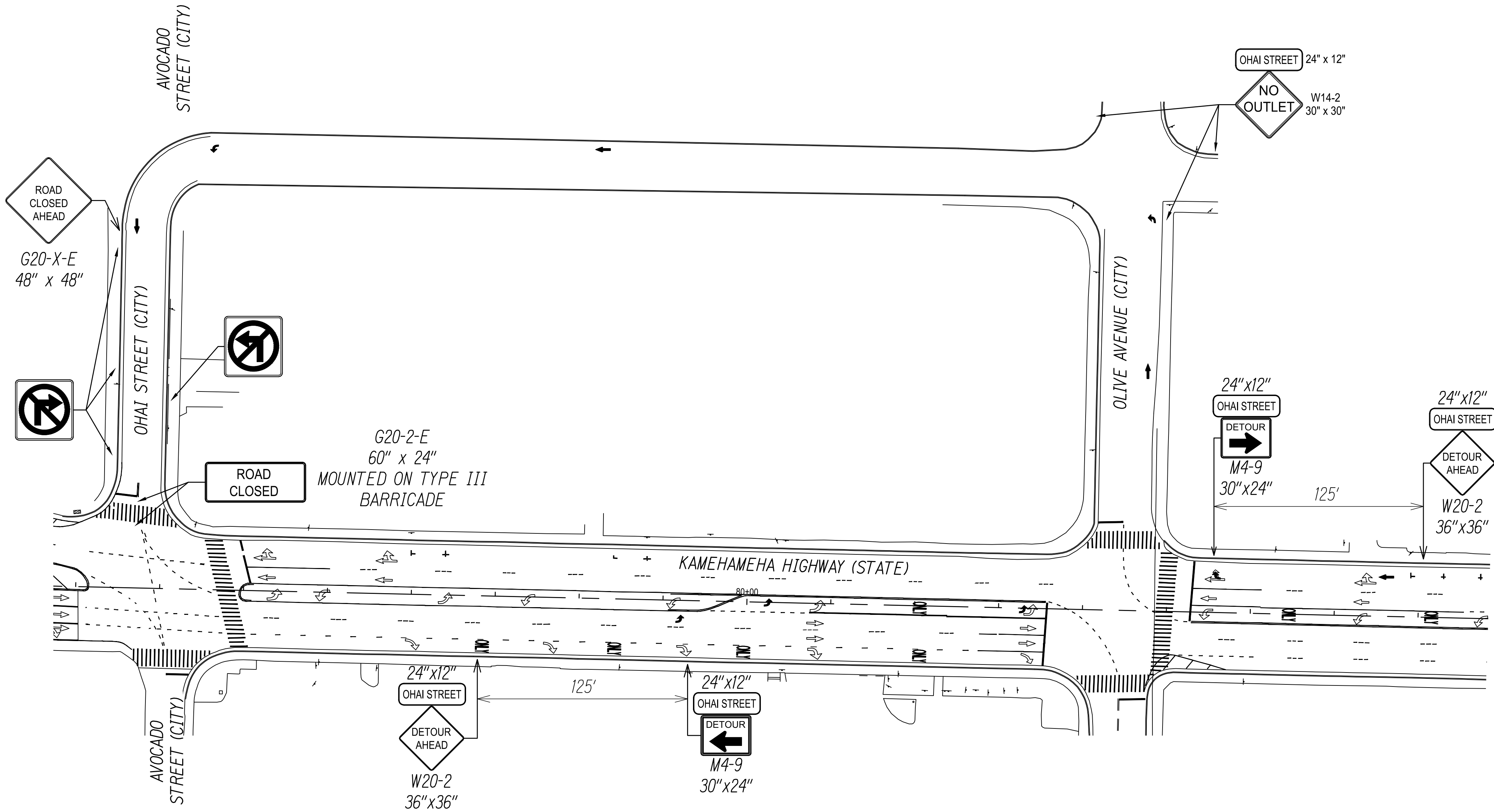
SHEET No. C115 OF 125 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	116	125

Legend

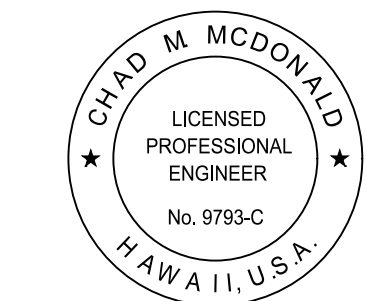
← Direction of Detour

• Sign



DETOUR PLAN
Ohai Street Closed

ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	



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MITSUNAGA & ASSOCIATES, INC. EXP. DATE

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

OHAI ST DETOUR PLAN

Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

Scale: As Noted Date: August 2020

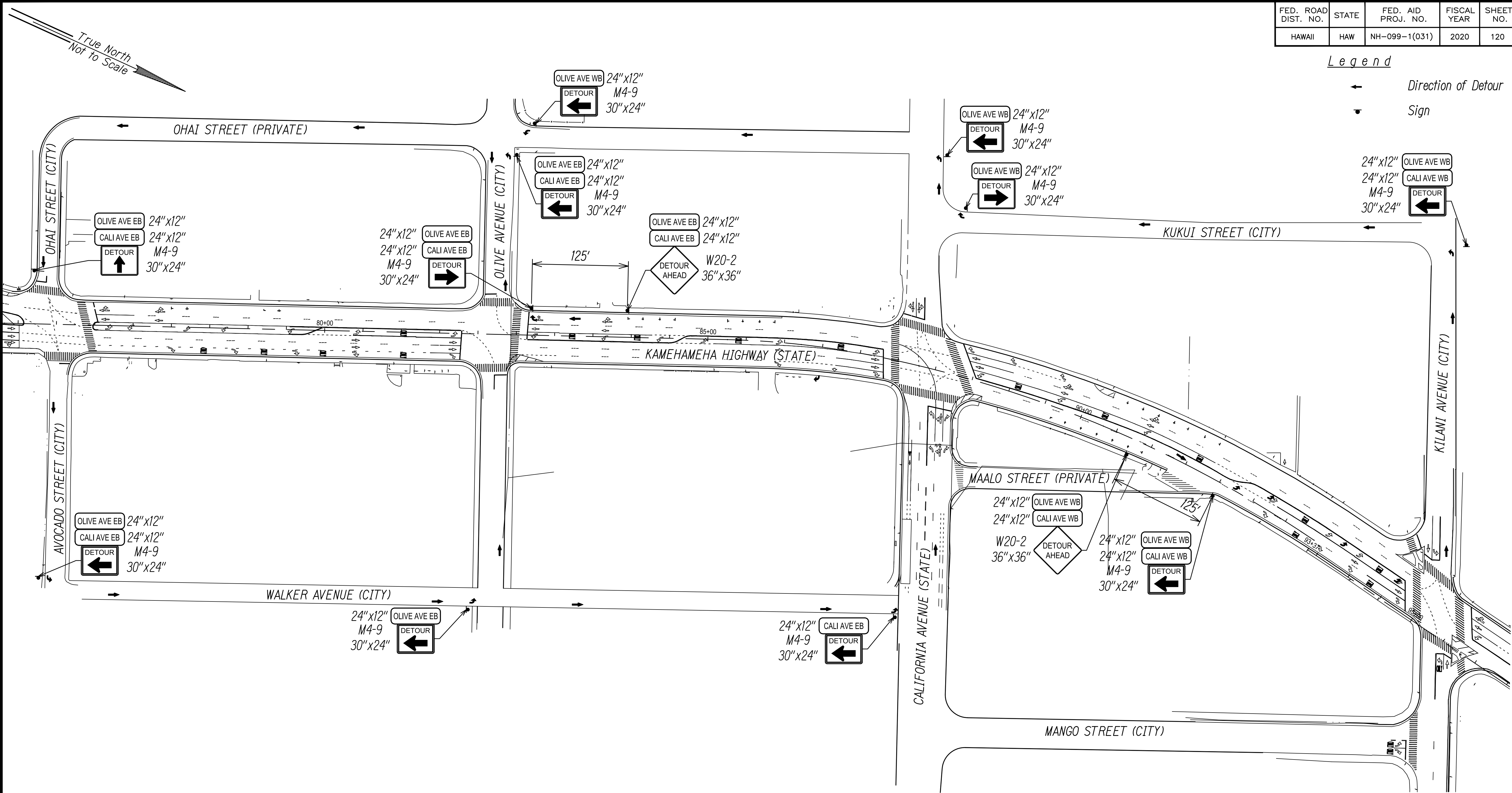
SHEET No. **C116** OF **125** SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	120	125

Legend

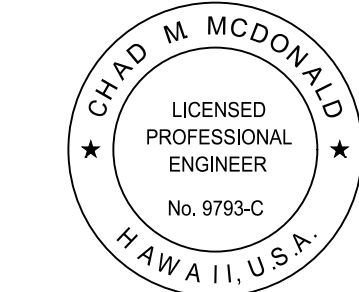
- ← Direction of Detour
→ Sign

24"x12" OLIVE AVE WB
24"x12" CALI AVE WB
M4-9
30"x24" DETOUR



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

ORIGINAL PLAN	No.
NOTE BOOK	
CHECKED BY	



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Chad M. McDonald
MITSUNAGA & ASSOCIATES, INC. EXP. DATE 4/30/2022

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**OLIVE AND CALIFORNIA AVE
DETOUR PLAN**

*Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)*

Scale: As Noted Date: August 2020

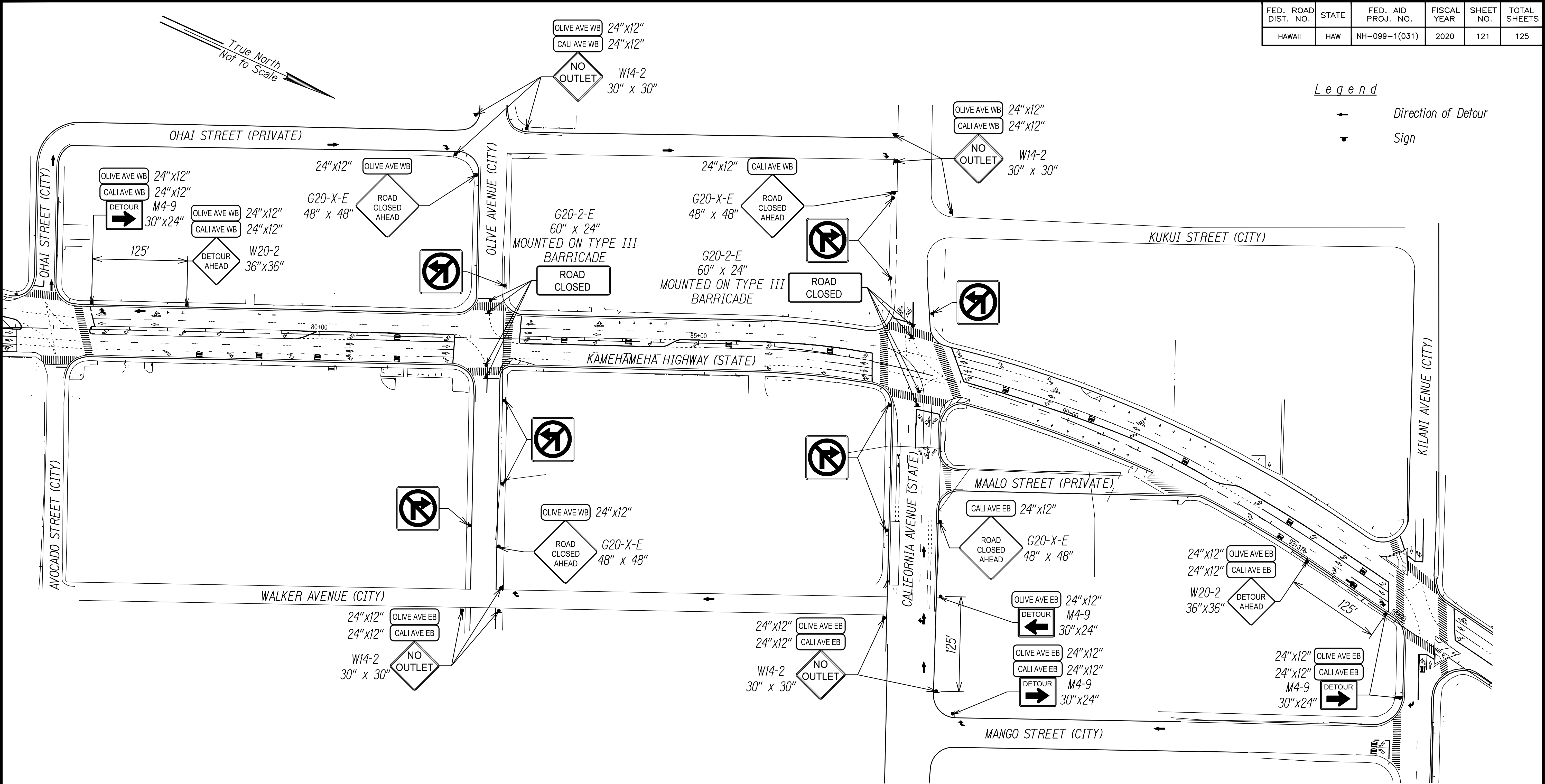
SHEET No. **C118** OF **125** SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	121	125

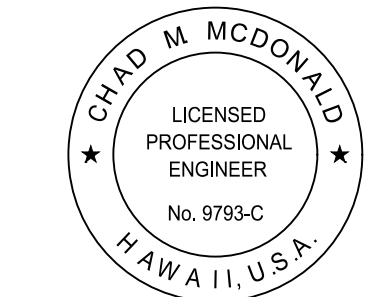
Legend

Direction of Detour

Sign



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



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Chad M. McDonald
MITSUNAGA & ASSOCIATES, INC. EXP. DATE

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**OLIVE AND CALIFORNIA AVE
ROAD CLOSED DETOUR PLAN**

Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

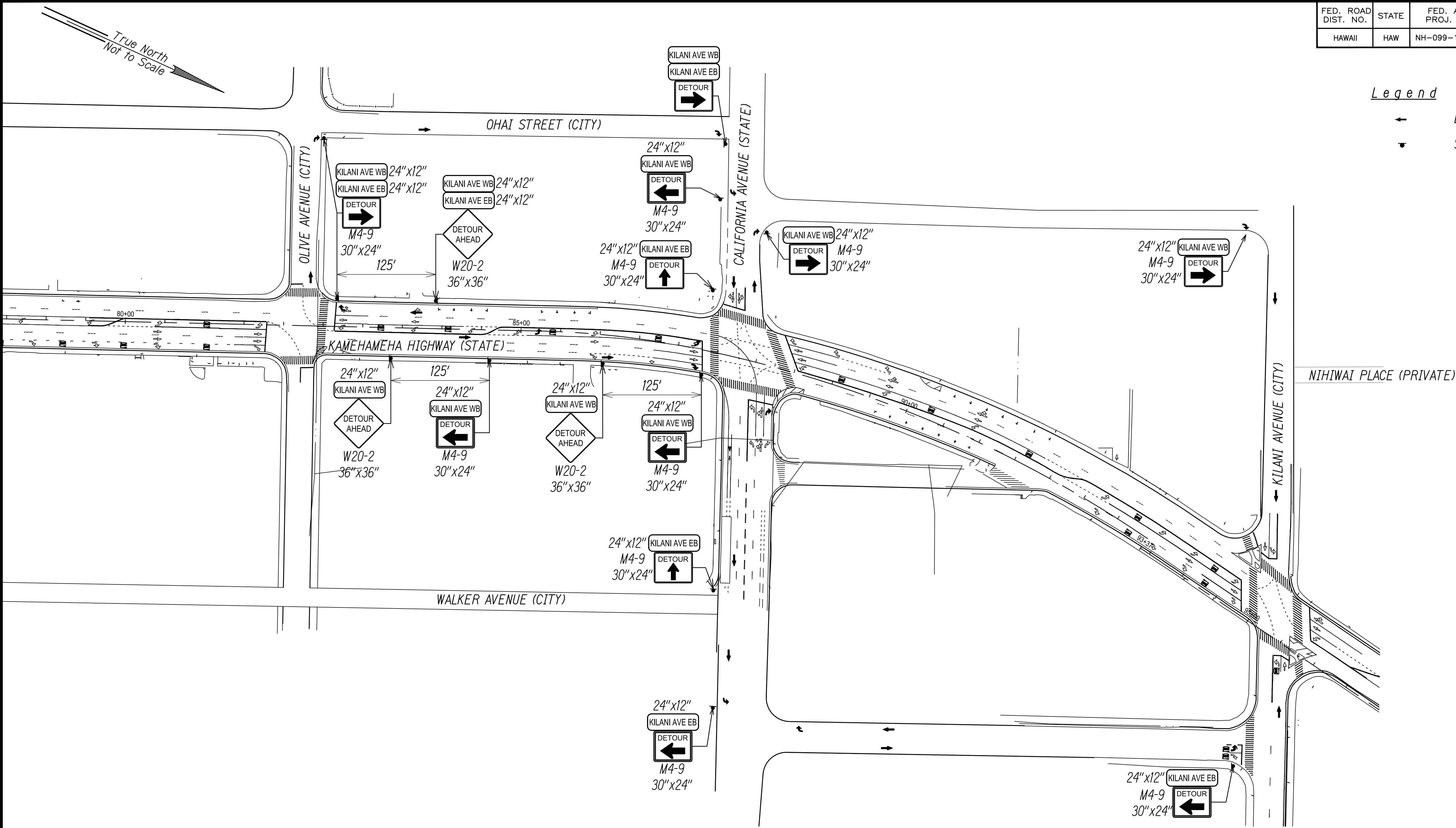
Scale: As Noted Date: August 2020

SHEET No. **C119** OF **125** SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	122	125

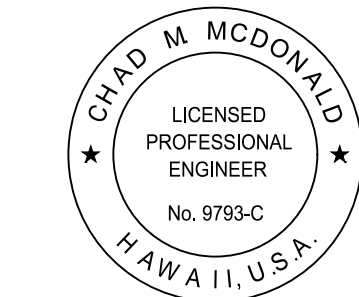
Legend

- ← Direction of Detour
• Sign



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

ORIGINAL PLAN	No.
NOTE BOOK	
CHECKED BY	



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4/30/2022
MITSUNAGA & ASSOCIATES, INC. EXP. DATE

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

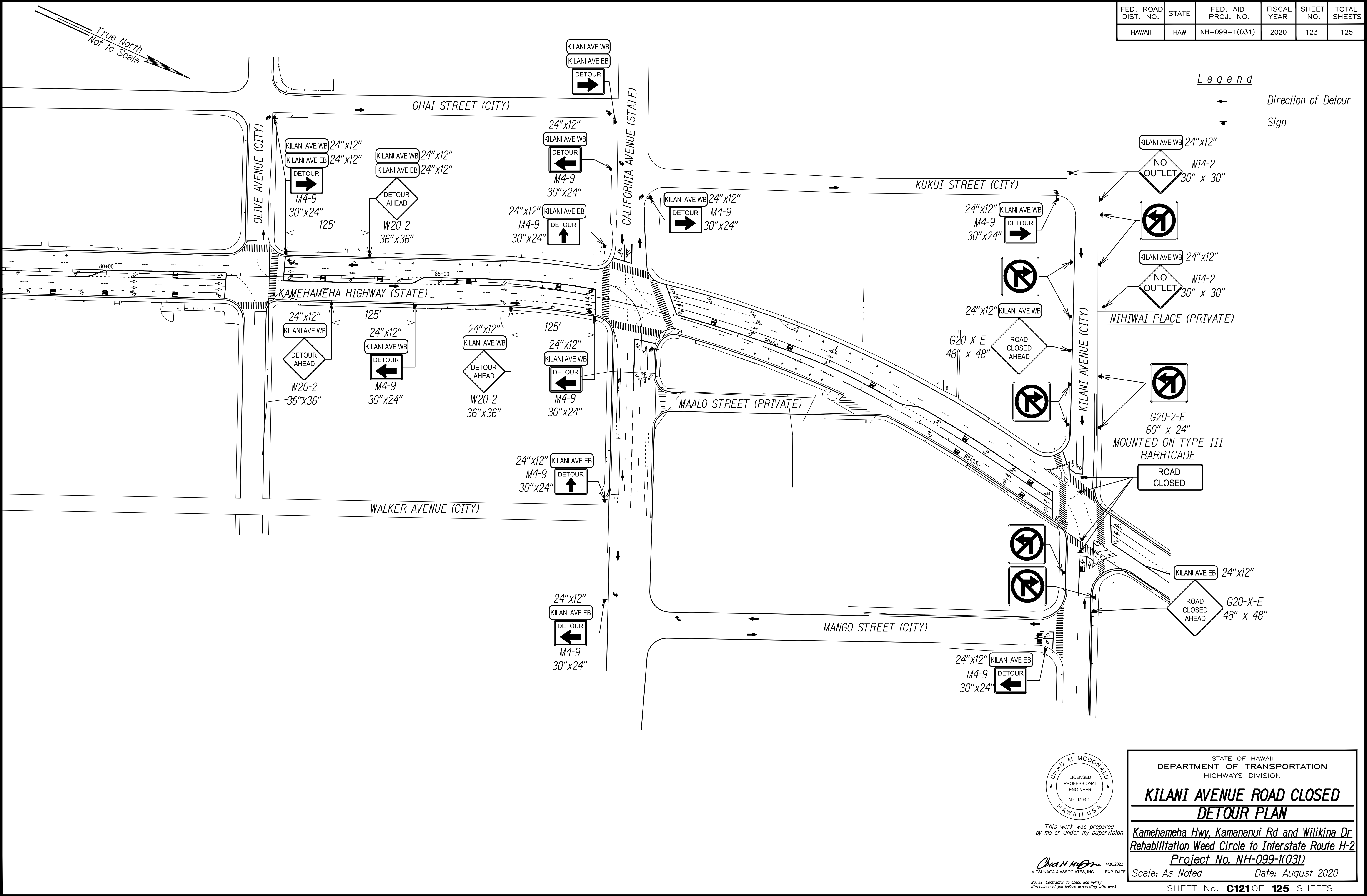
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KILANI AVENUE DETOUR PLAN

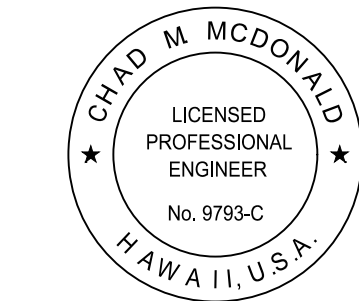
Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)
Scale: As Noted Date: August 2020

SHEET No. **C120** OF **125** SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	123	125



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



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Chad M. McDonald
MITSUNAGA & ASSOCIATES, INC. EXP. DATE

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**KILANI AVENUE ROAD CLOSED
DETOUR PLAN**

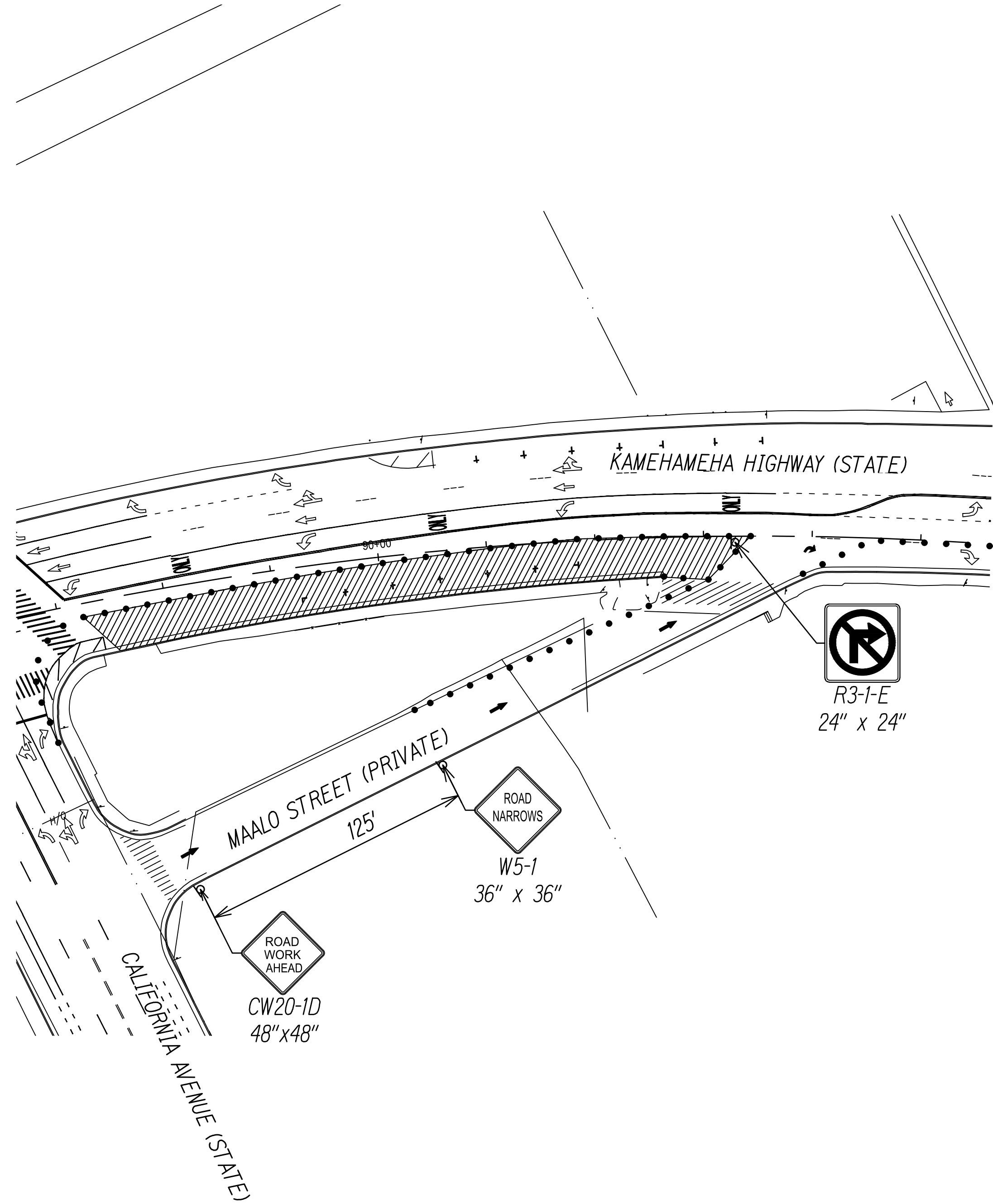
Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

Scale: As Noted Date: August 2020

SHEET No. **C121** OF **125** SHEETS

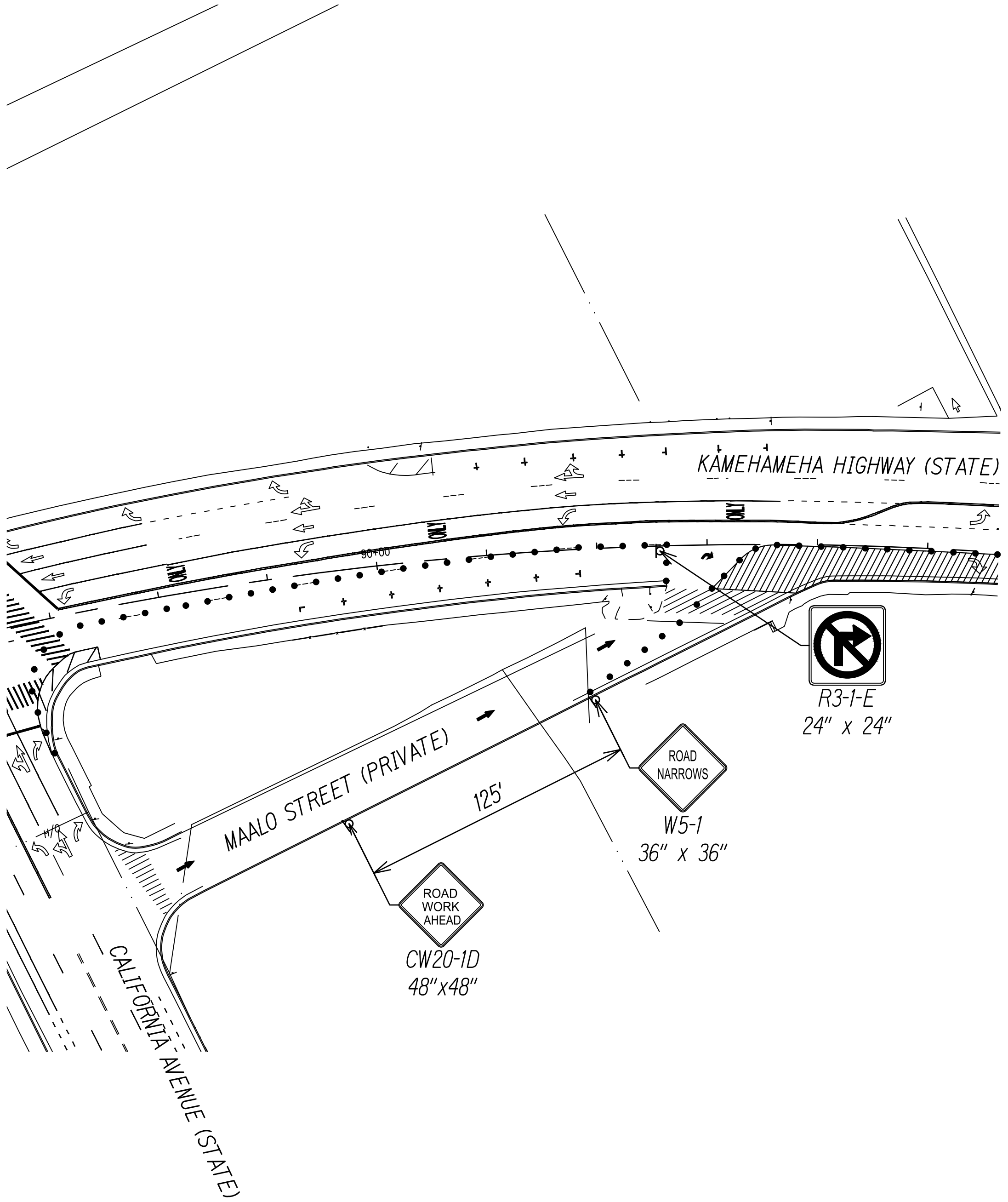
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	124	125

True North
Not to Scale



MAALO STREET DETOUR PART A
NOT TO SCALE

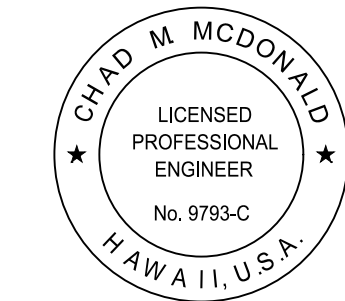
True North
Not to Scale



MAALO STREET DETOUR PART B
NOT TO SCALE

Legend
Direction of Detour
Sign

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



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Chad M. McDonald
MITSUNAGA & ASSOCIATES, INC. EXP. DATE 4/30/2022

NOTE: Contractor to check and verify
dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MAALO STREET DETOUR PLAN

Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

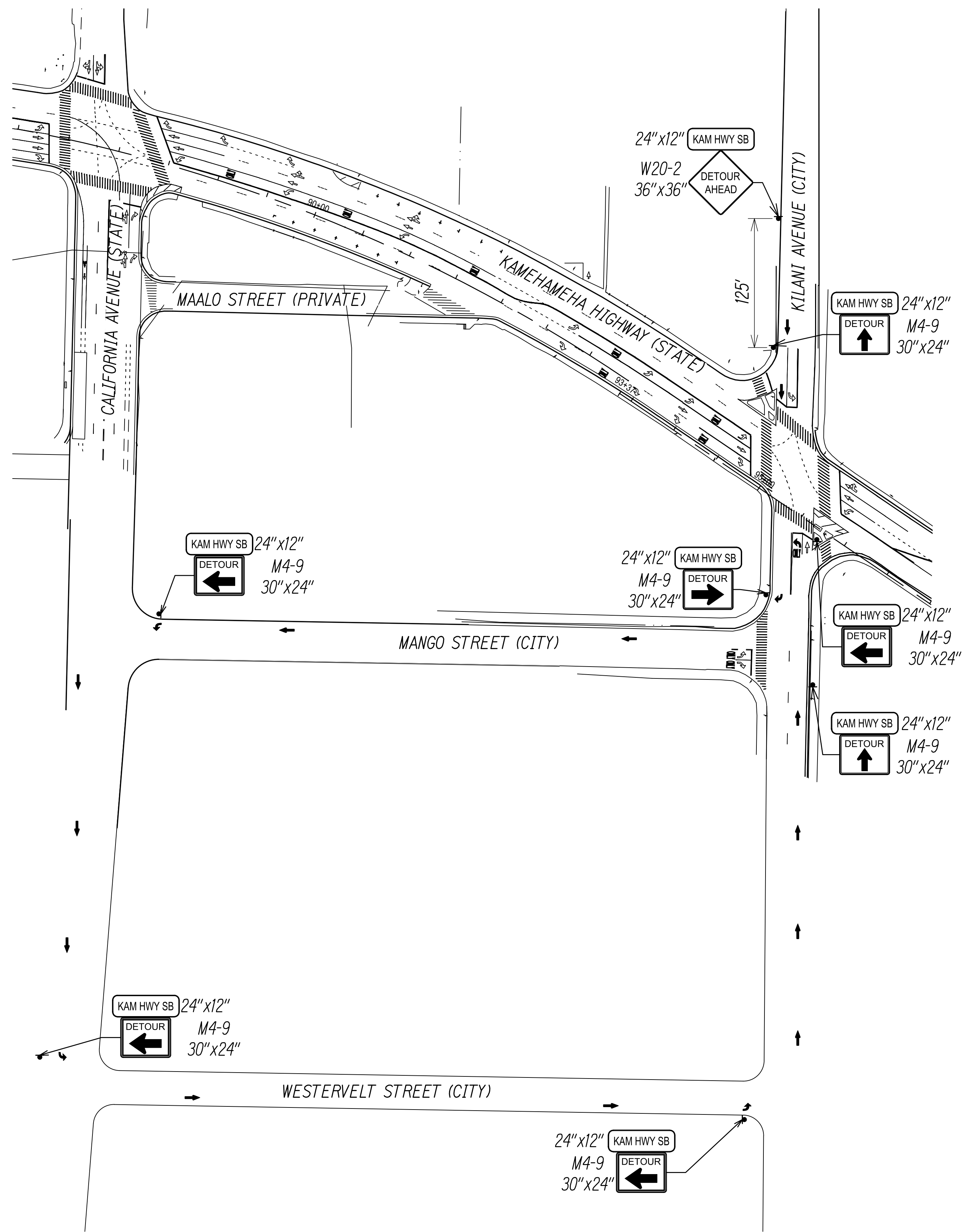
Scale: As Noted Date: August 2020

SHEET No. **C122** OF **125** SHEETS

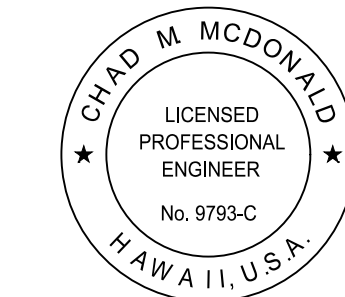
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	125	125

Legend

- Direction of Detour
↑ Sign



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



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Chad M. McDonald
MITSUNAGA & ASSOCIATES, INC. EXP. DATE

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dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KILANI ST SB DETOUR PLAN

Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)

Scale: As Noted Date: August 2020

SHEET No. **C123** OF **125** SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	ADD.125 S-1	125

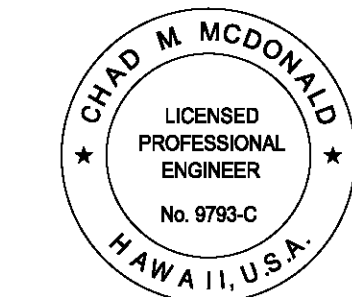
ENHANCED VEHICLE CLASSIFICATION (EVC) SYSTEM NOTES

- The location of new loop sensors and piezo sensors shall be staked out in the field by the Contractor and approved by the Engineer prior to installation.
- The Contractor shall inform the Engineer at least three days prior to saw cutting pavement and installing loop sensors and piezo sensors.
- Pull loop sensor cables and piezo sensor lead cables into conduit where indicated. Cables shall be tested for acceptance before and after installation into conduit.
- Piezo lead cables shall be continuous with no splices.
- The Contractor shall restore all affected areas to their original condition. This item of work shall not be paid for separately, but shall be considered incidental to work of other paid items.
- The Contractor shall verify the location of the existing utilities and underground structures whether or not shown on the plans.
- The Contractor shall assume that underground utilities not shown on the plans may exist. The Contractor shall be responsible for contacting the different utility companies for information and toning.
- The Contractor shall be held liable for any damages incurred to the existing utilities and underground structures as a result of his operations. All damaged portions shall be replaced in accordance with the standards and specifications of the affected utility company at no cost to the State.
- Changes to the contract plans and specifications will not be permitted, unless approved by the Engineer in writing.
- All cables are to be terminated within the EVC cabinet and shall have a minimum 12" additional slack.
- Highway crossing conduit shall be provided with 36" cover.
- Saw cuts shall be made by wet cutting only.
- Clean away collected dust, dirt, and refuse after saw cutting is done. The saw cuts shall be cleared by water applied by pressure washer. Residual water within the saw cuts shall be vacuumed by use of a wet/dry vacuum. The saw cuts shall then be dried by air compressor.
- After saw cuts are dried, any remaining debris stuck within the cut shall be removed. The saw cuts must be completely clean and dry before inserting the sensors and filling the voids with Loop Sealant (for loop sensors) or PU200 Piezo Installation Resin or equivalent (for piezo sensors).

ENHANCED VEHICLE CLASSIFICATION (EVC) SYSTEM NOTES CONTINUED

- The collected slurry shall be disposed of appropriately (i.e., either placed in a Filter Fabric Lined Filtration Box or in a Filter Fabric Lined Dug Up Retention/Percolation Basin, and after Filtration/Percolation, the Filter Fabric and the retained sediments, disposed of appropriately).
- LOOP SENSOR LAYOUT NOTES
- Loop sensors shall consist of four turns of 1C #14 cable (meeting IMSA Spec 51-3 or equivalent) embedded in a 3/8" wide by 4" deep saw cut, except as noted. Loop sensors shall be provided a minimum 2" cover.
 - After laying the loop sensor cable in four (4) turns within the 4" deep cut, press 1"-long pieces of backer rod in each foot of the loop and the loop lead saw cut, to anchor the wire in the bottom of the cut before applying the Loop Sealant. Backer rod shall be embedded at least 2" below the top of pavement. The backer rod shall be placed into the saw cut with a blunt object, such as a wooden paint stir stick. No sharp objects (such as a screw driver) shall be used to place the backer rod into the saw cuts.
 - Loop sensor and lead cable shall be one continuous wire. Lead wires from the same loop shall be twisted in pairs, five twists per foot, from the edge of paved shoulder to the pull box. Do not twist one loop pair with another loop pair.
 - Continuity of loop sensors and lead-in wires shall be tested and warrantied for one year from the date of acceptance by the Engineer.
 - Loop sensor lead cables shall be spliced only at the closest pull box to the loop. Splice points of cables shall be suspended near the top of the pull box with a j-hook.
 - Splices shall be made by use of a splice kit.
 - Stagger loop sensors on roadways with lanes that are less than 12 feet in width, as shown on contract plans or by direction of the Engineer.
 - The Contractor shall label the loop and piezo sensor leads clearly to identify traffic direction, lane number, and sequence of loop and piezo sensors in each lane per direction.
 - The left-most lane in the direction of traffic flow is designated as Lane 1, and the next lane to its right as Lane 2, and so on as indicated on plans.

SURVEY PLOTTED BY _____	DATE _____
DESIGNED BY _____	TRACED BY _____
NOTE BOOK _____	DESIGNED BY _____
QUANTITIES BY _____	CHECKED BY _____
NO. _____	



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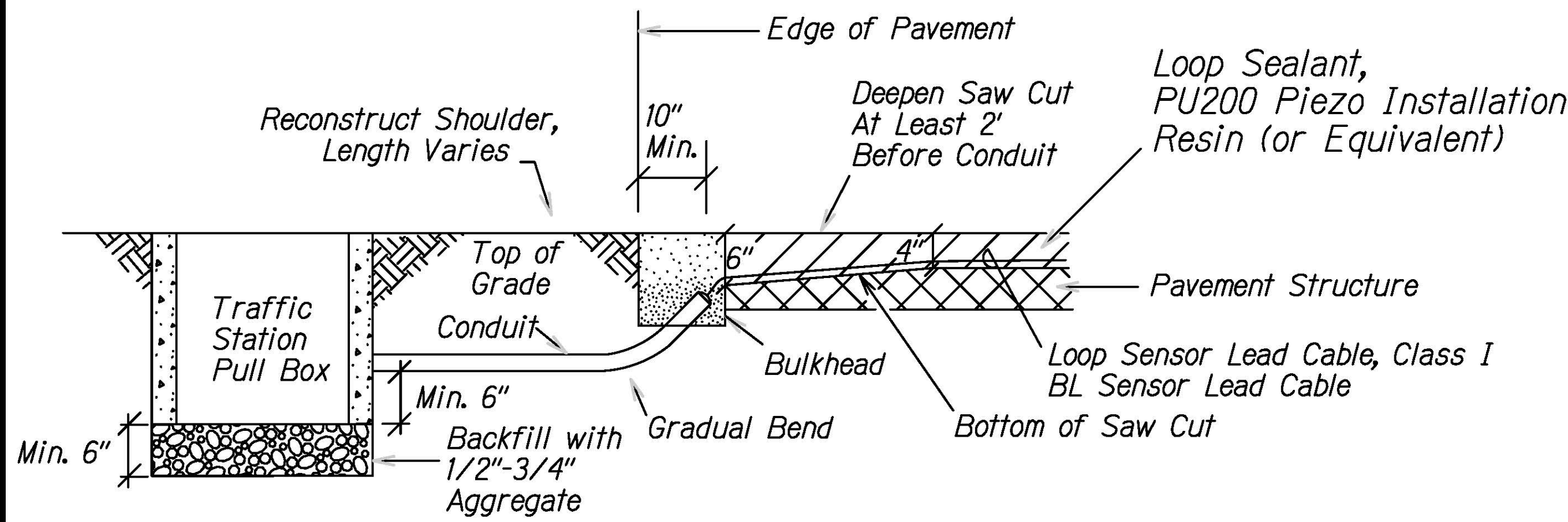
Chad M. McDonald
MITSUNAGA & ASSOCIATES, INC. EXP. DATE 4/30/2022

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

9/09/20 New Sheet added

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
EVC TRAFFIC COUNTING SYSTEM NOTES	
STATION 080000, 080008 REPAIRS	
Kamehameha Hwy, Kamananui Rd and Wilikina Dr Rehabilitation Weed Circle to Interstate Route H-2 Project No. NH-099-1(031)	
Scale: As Noted	Date: August 2020
SHEET No. --- OF 125 SHEETS	

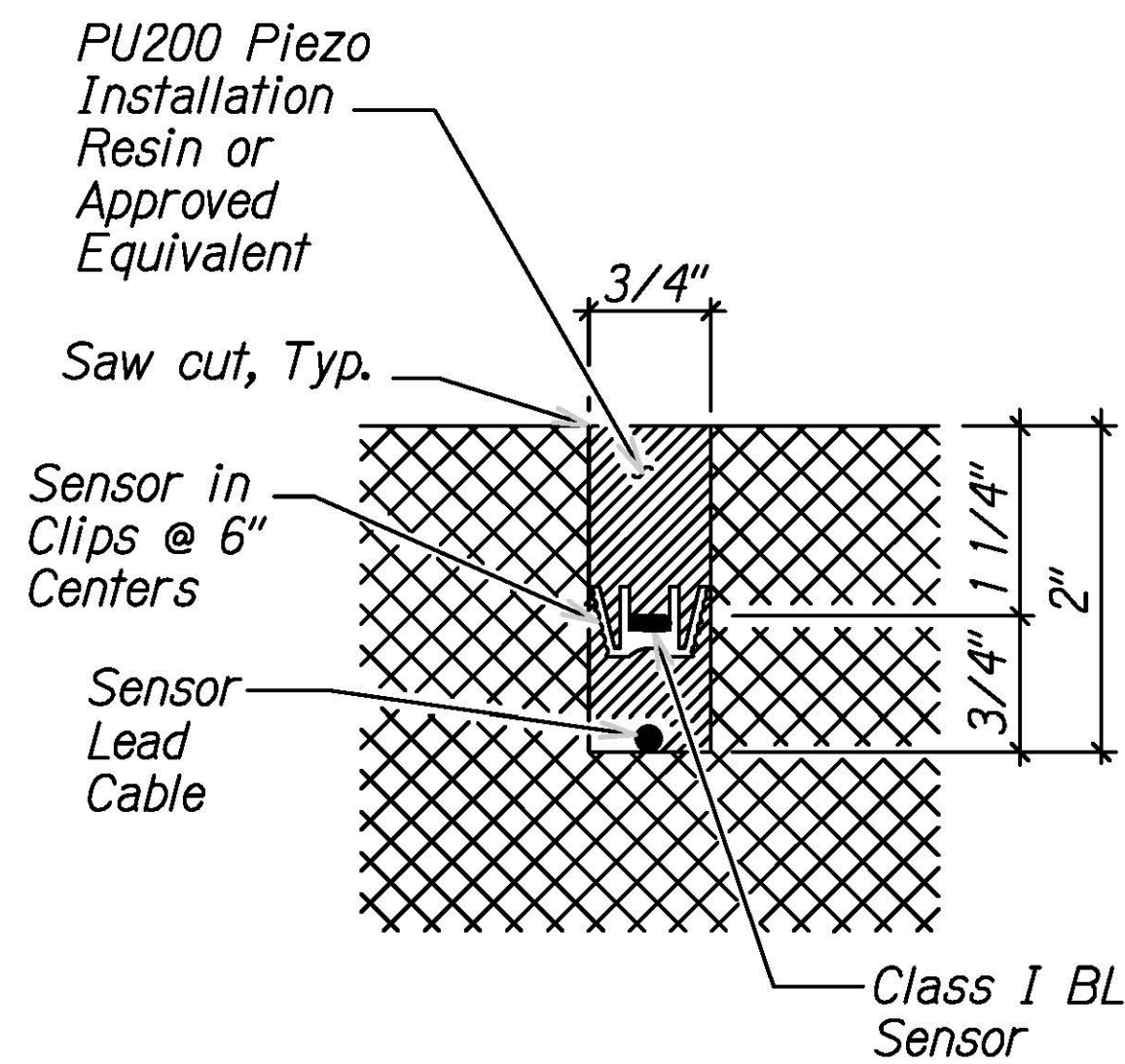
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	ADD.125 S-4	125



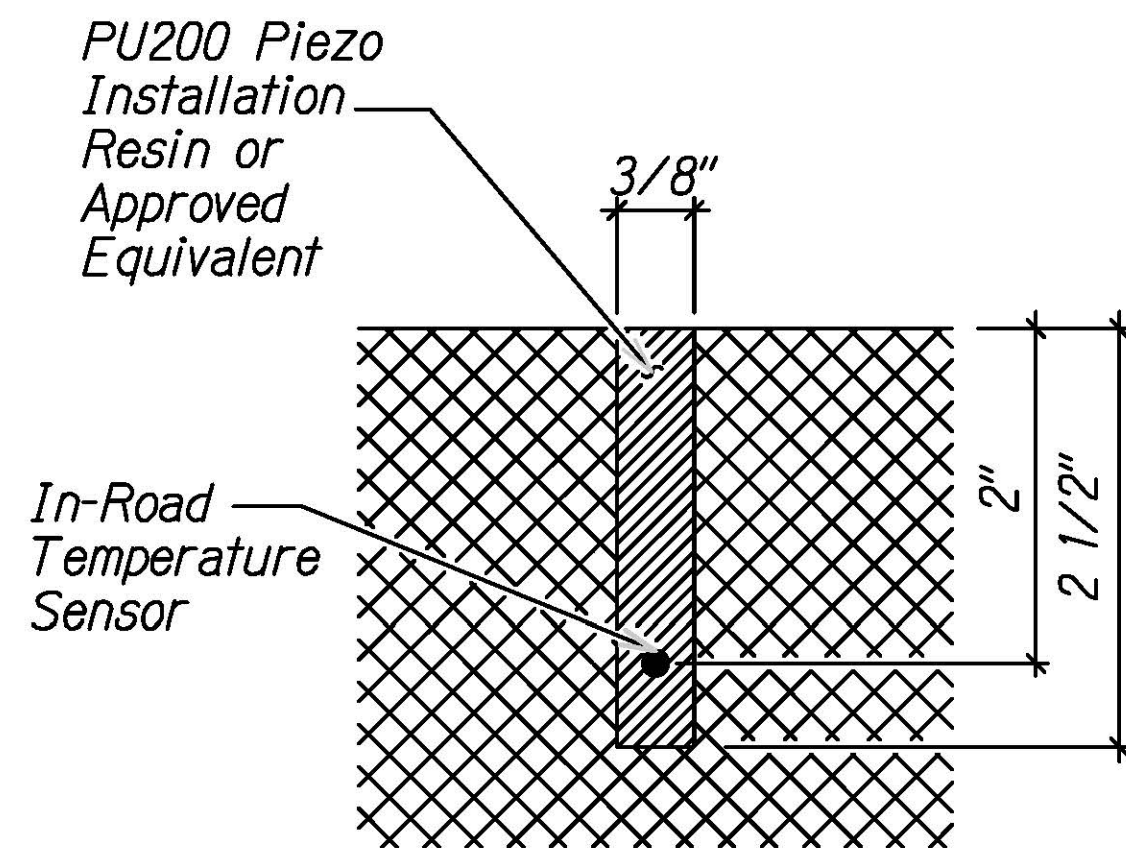
EDGE OF ROADWAY DETAILS
Not to Scale

NOTES ON CONSTRUCTION AT END OF SAW CUT:

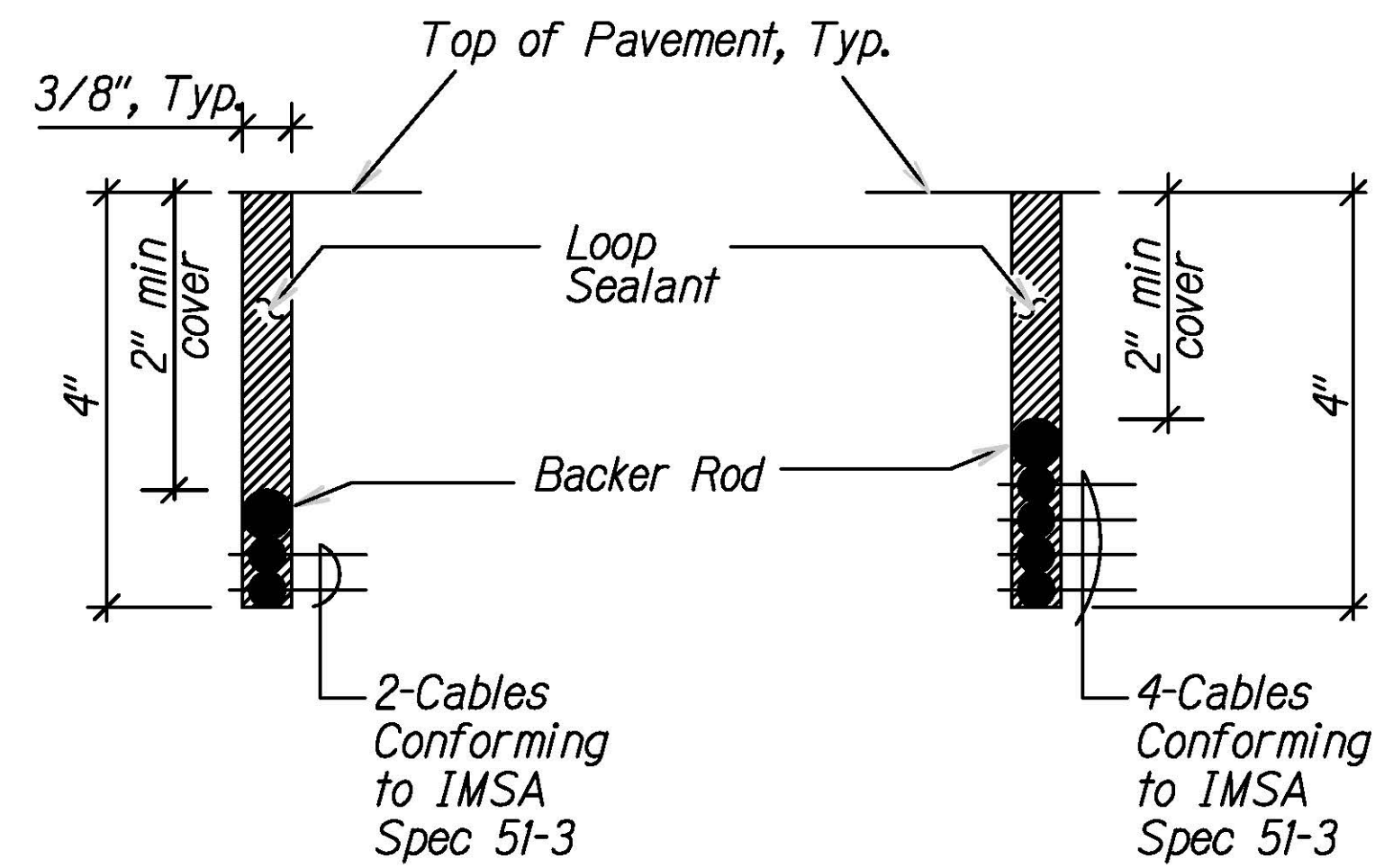
1. Seal roadway end of conduit with duct seal compound after installation of conductor.
2. Install bulkhead across saw cut to keep sealant in saw cut as it is placed..
3. Place Loop Sealant, PU200 Piezo Installation Resin (or Equivalent) in saw cut.
4. Place sand to cover exposed lead cables and protect and separate them from backfill.
5. Backfill over sand with new A.C. cold mix.
6. Reconstruct shoulder, curb, and gutter as required.
7. Conduit should be installed at least 10 inches from the edge of pavement.
If the depth of pavement is 4 inches or less at the edge, conduit should be installed at least 12 inches from the edge of pavement.



PIEZO SENSOR SAW CUT
SECTION DETAIL
Not to Scale



TEMPERATURE SENSOR SAW CUT
SECTION DETAIL
Not to Scale

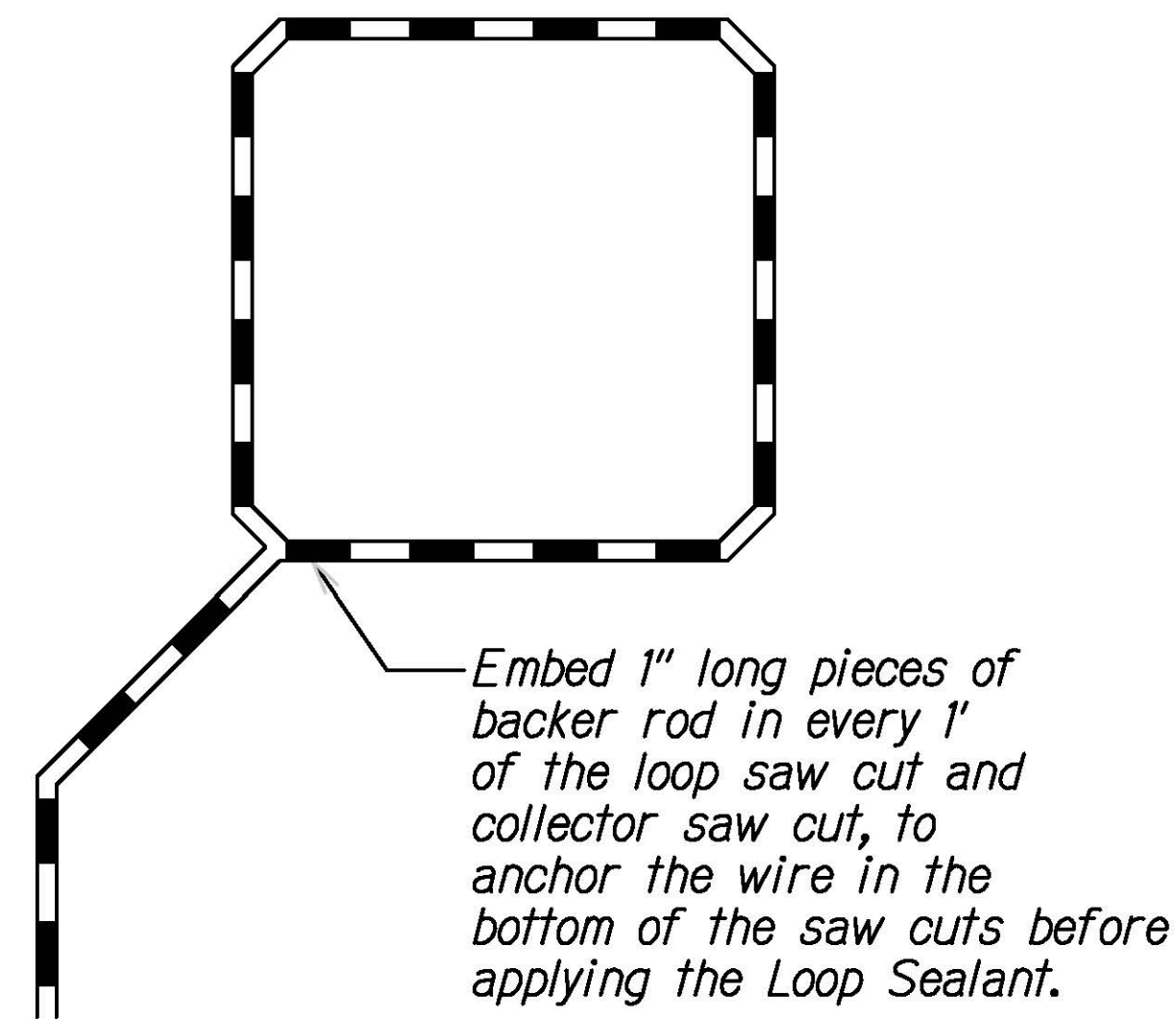


SECTION A
Not to Scale

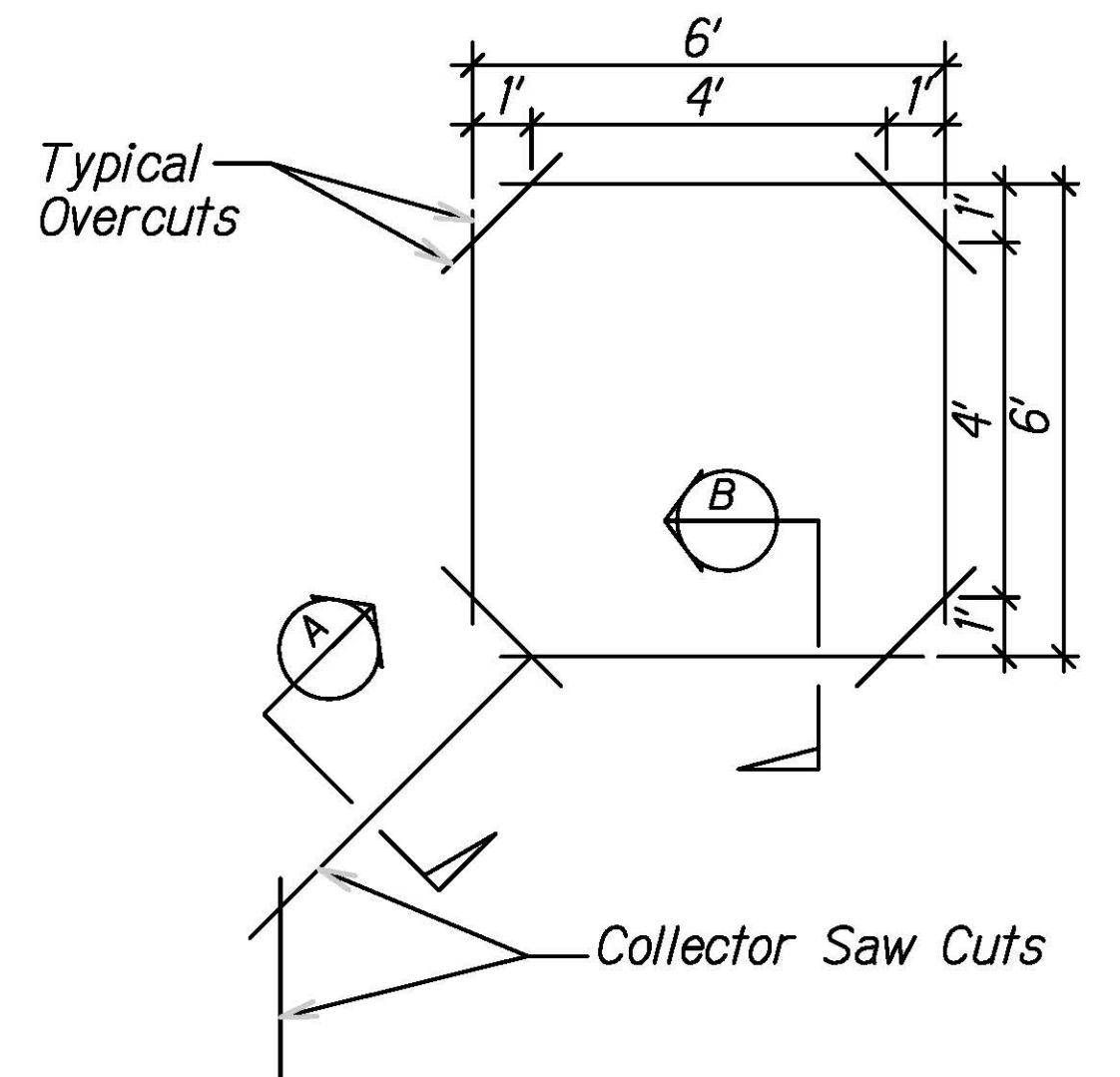
SECTION B
Not to Scale

TYPICAL SECTIONS
LOOP SENSORS
Not to Scale

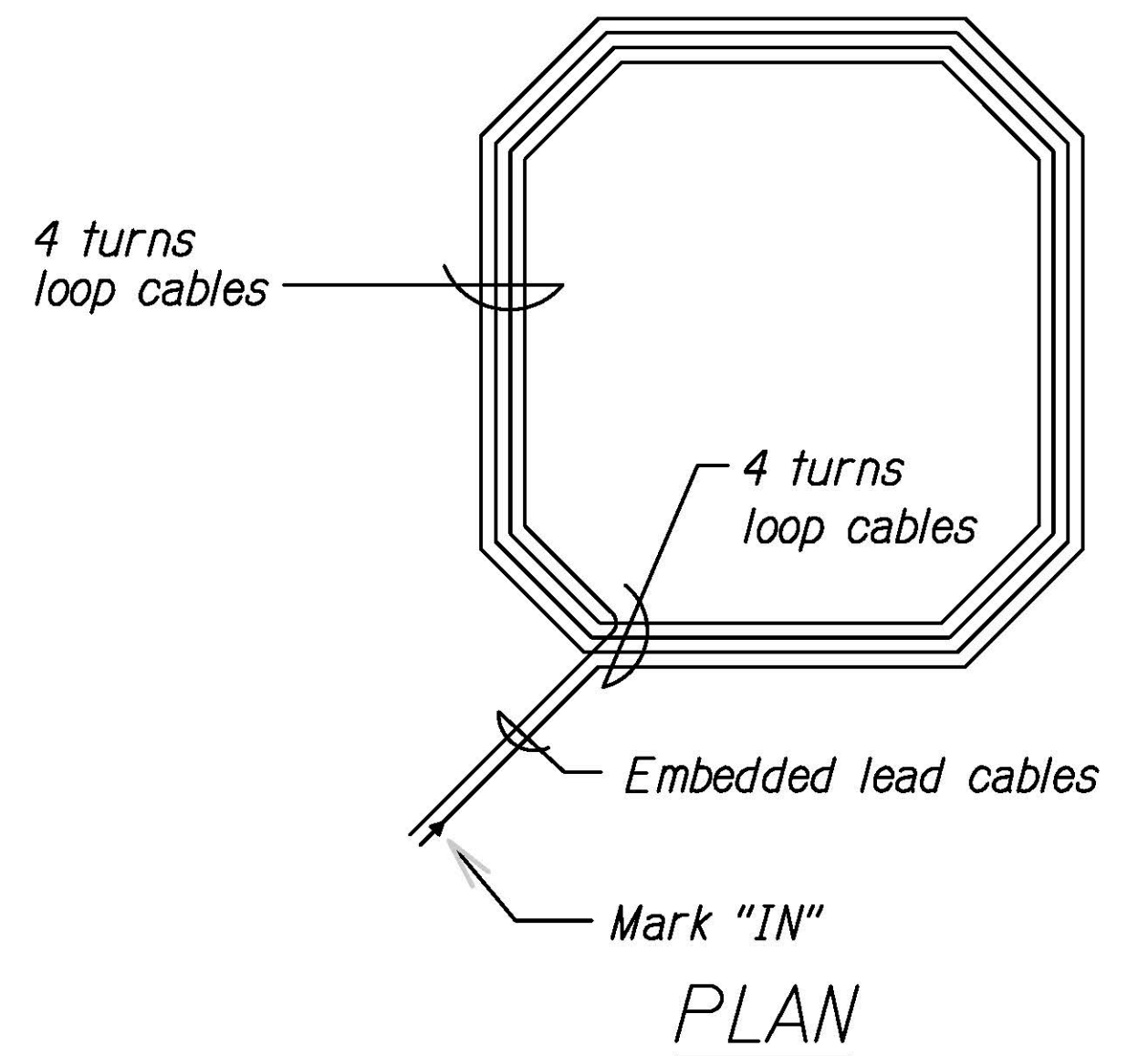
LOOP SENSOR SAW CUT NOTES:
Length of overcuts shall be kept to a minimum. All overcuts shall be backfilled with Loop Sealant.



TYPICAL LOOP SENSOR BACKER
ROD PLACEMENT DIAGRAM
Not to Scale

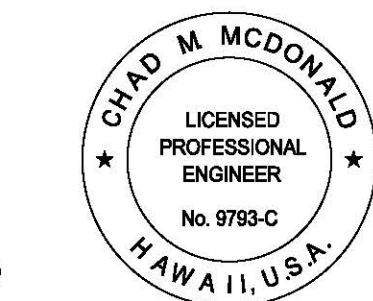


TYPICAL LOOP SENSOR
SAW CUT DETAIL
Not to Scale



TYPICAL LOOP SENSOR
WIRING DIAGRAM
Not to Scale

9/09/20	△ New Sheet added
DATE	REVISION



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Chad M. McDonald
MITSUNAGA & ASSOCIATES, INC. 4/30/2022
EXP. DATE

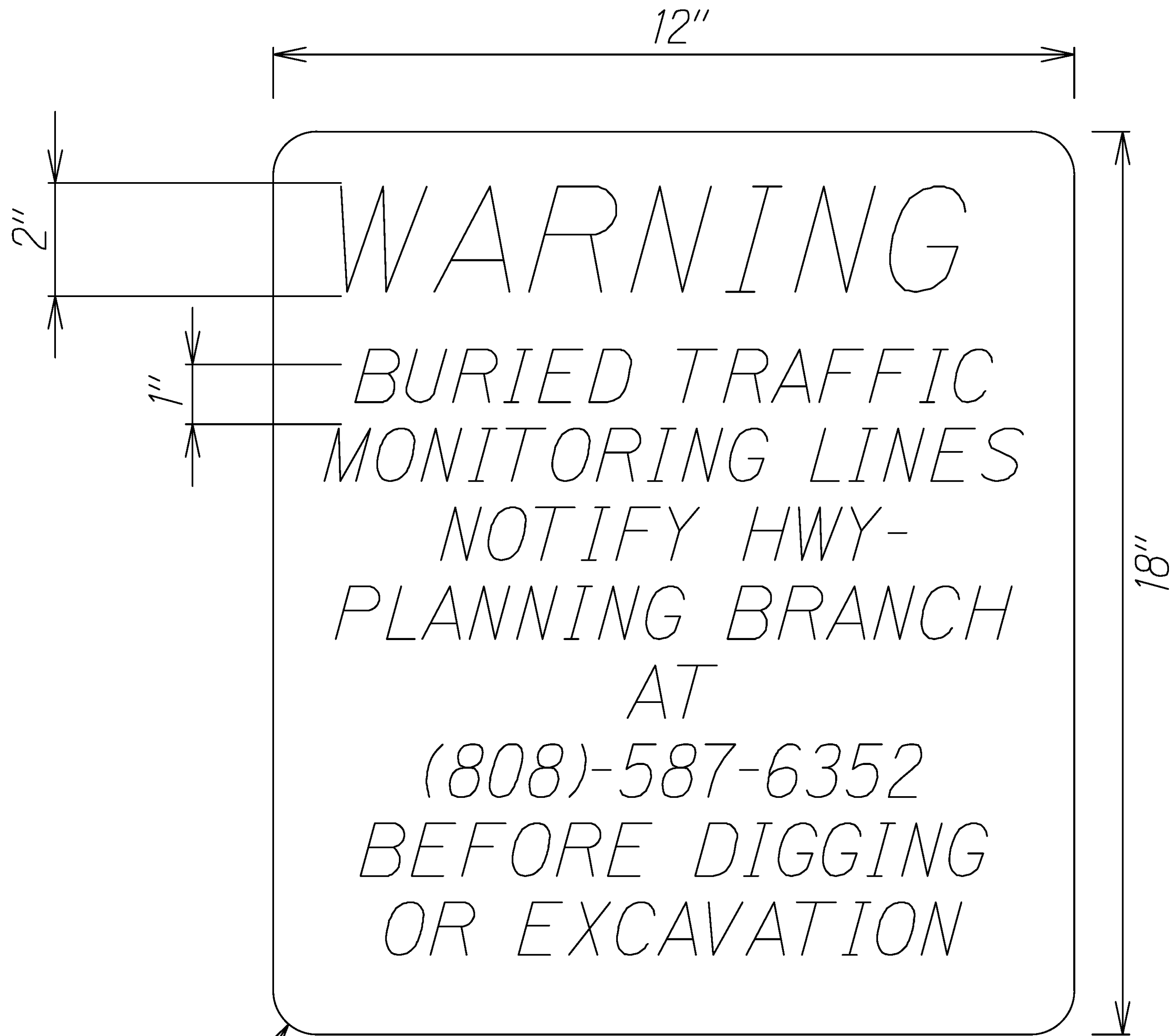
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
EVC TRAFFIC COUNTING SYSTEM SENSOR DETAILS	
Kamehameha Hwy, Kanananui Rd and Wilikina Dr Rehabilitation Weed Circle to Interstate Route H-2 Project No. NH-099-1(031)	
Scale: As Noted	Date: August 2020

SHEET No. --- OF 125 SHEETS

ADD.125 S-4

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	ADD.125 S-5	125



Radius Corners, Typ.

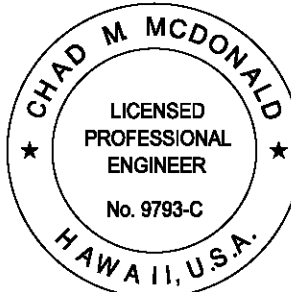
NOTES:

1. For sign post detail, see State Standard Plans TE-03A and TE-03B.
2. Two (2) warning signs shall be placed on each sign post "Back-to-Back".
3. Text on sign shall be centered both ways and shall be black text on yellow background.
4. Bottom edge of sign shall be 8' above grade.

EXCAVATION WARNING SIGN DETAIL
Not to Scale

9/09/20 ☐ New Sheet added

DATE REVISION



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Chad M. McDonald
MITSUNAGA & ASSOCIATES, INC. EXP. DATE 4/30/2022

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
EVC TRAFFIC COUNTING SYSTEM
REPLACEMENT WARNING SIGN DETAILS
Kamehameha Hwy, Kananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)
Scale: As Noted Date: August 2020

SHEET No. --- OF 125 SHEETS

ADD.125 S-5