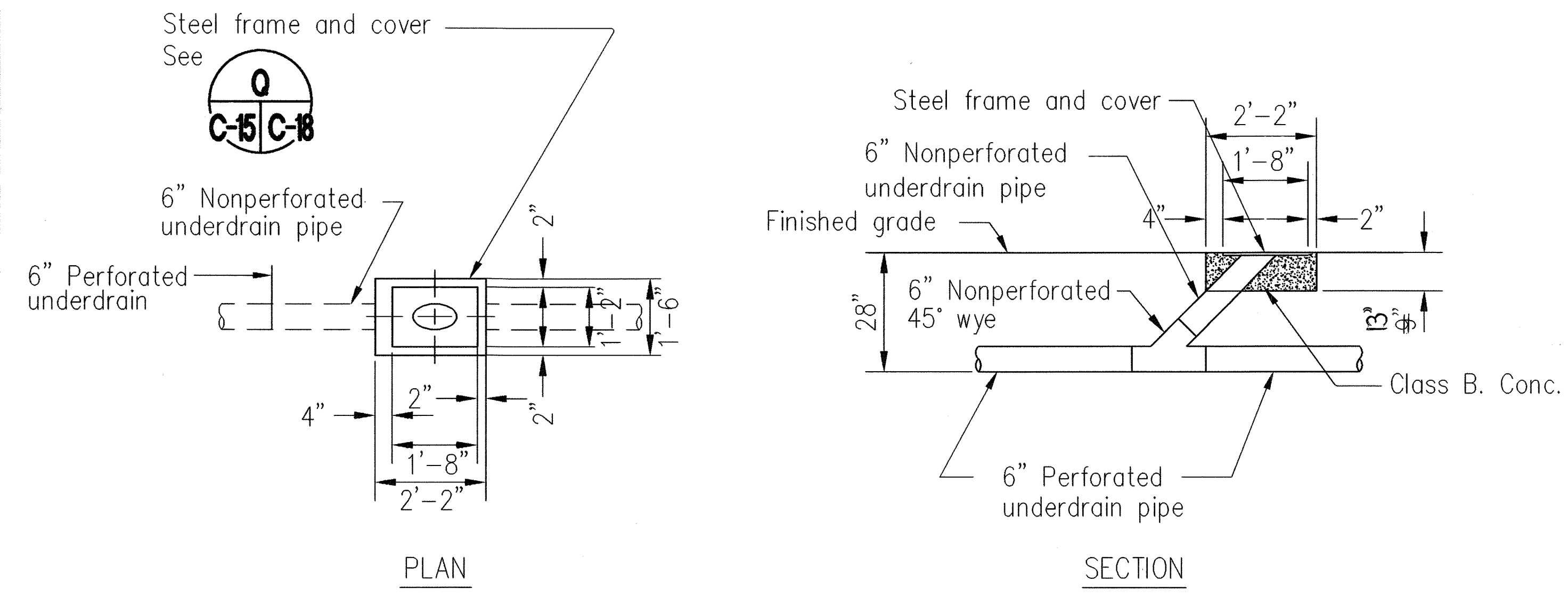
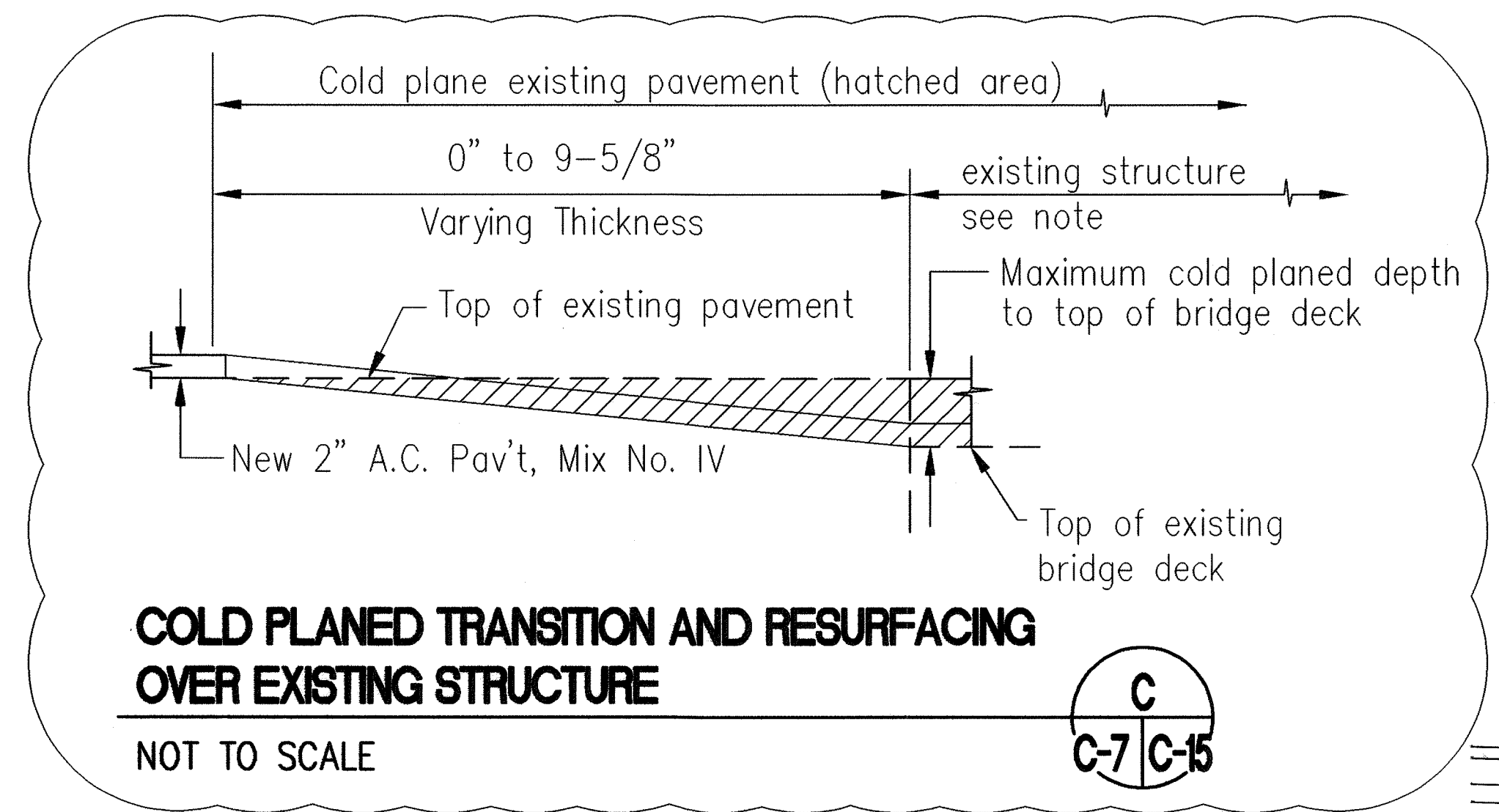


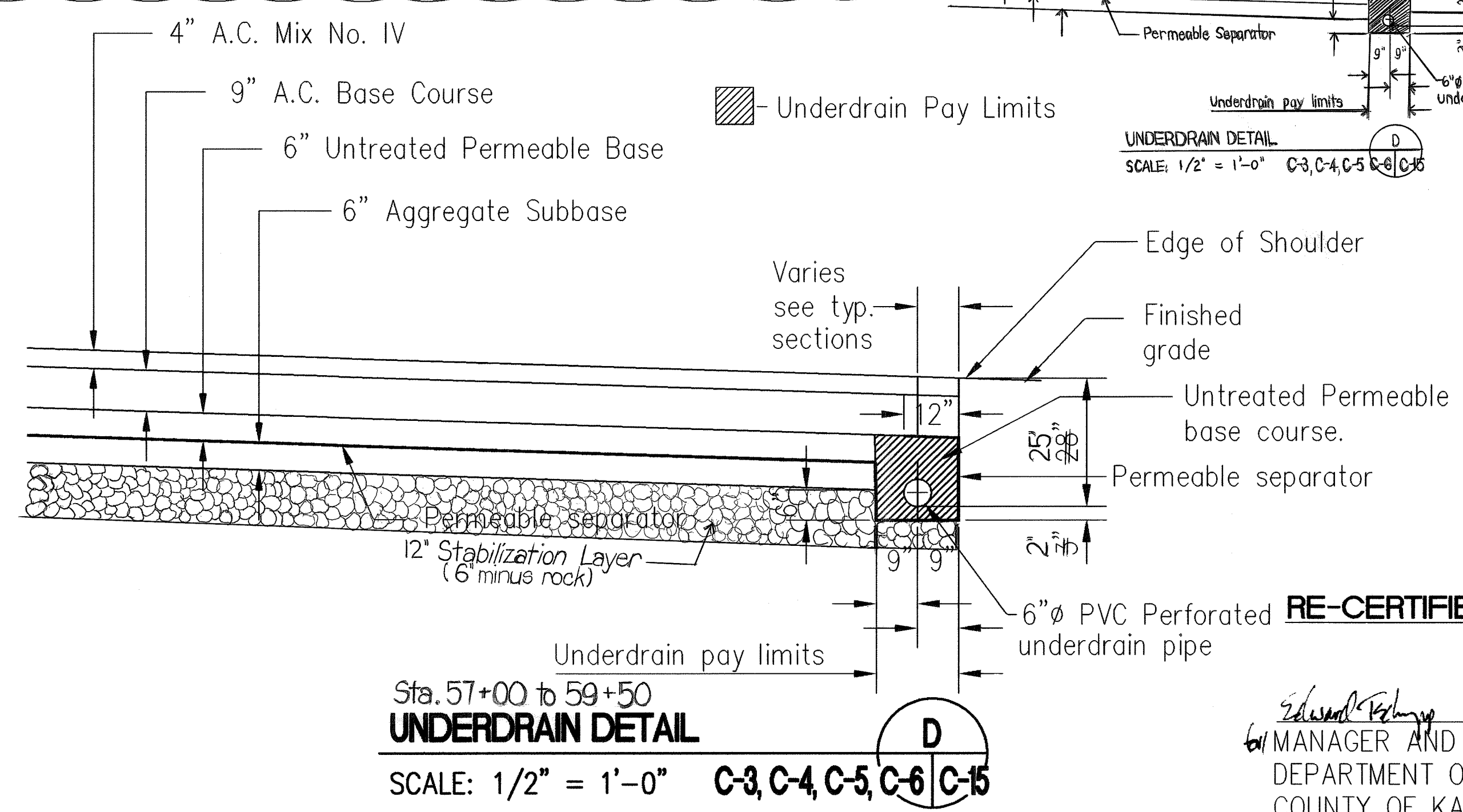
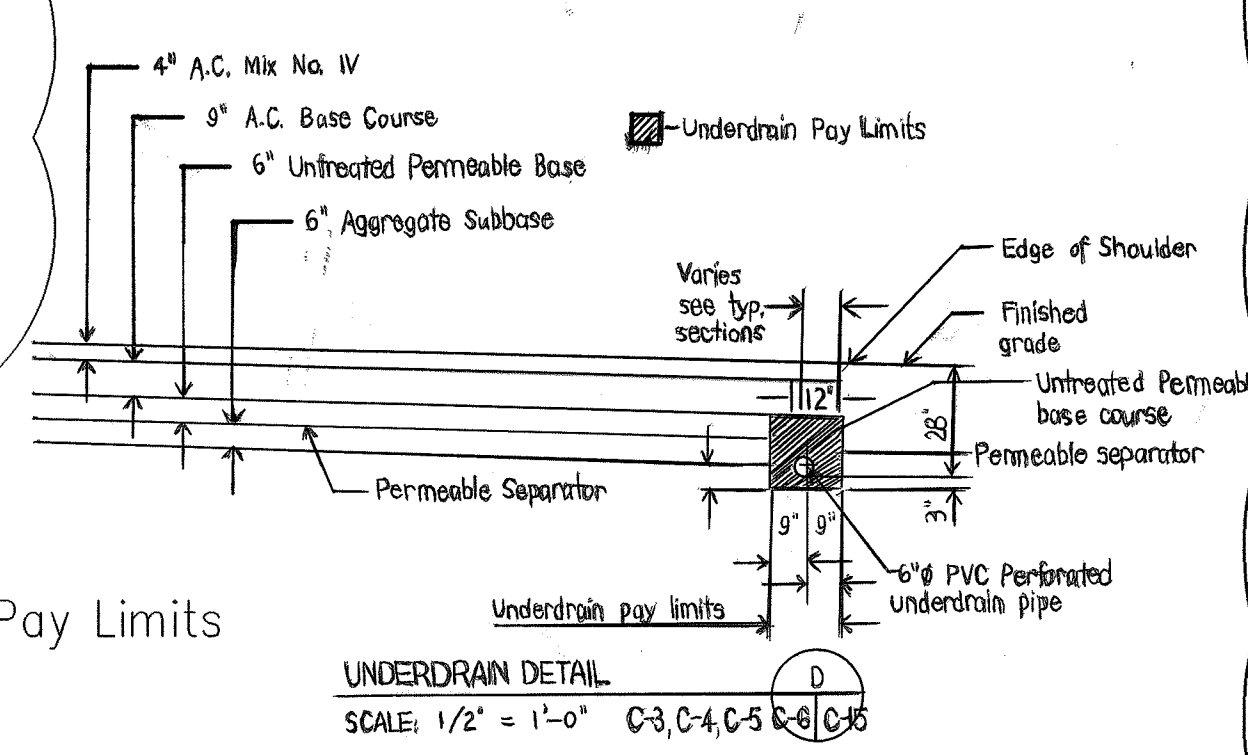
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(17)	2000	17	72



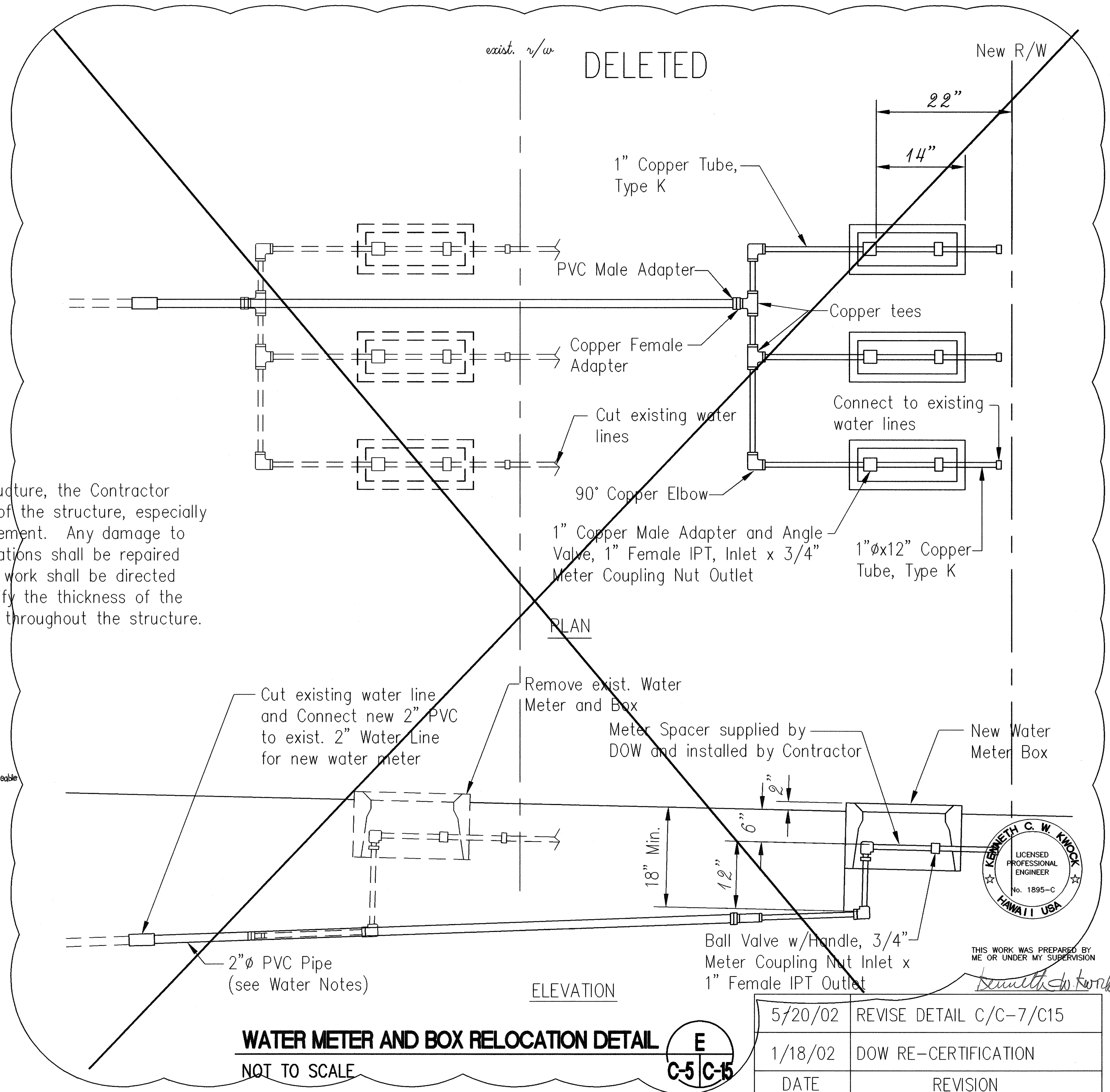
UNDERDRAIN CLEANOUT DETAIL **B**
 SCALE: 1/2"=1'-0" **C-5, C-6, C-7, C-8, C-9, C-15**



Note:
 In cold planing the pavement over the structure, the Contractor exercise care not to damage any portion of the structure, especially the slab, joints, drainage pipes or reinforcement. Any damage to the structure during the cold planing operations shall be repaired by the Contractor at his expense. Repair work shall be directed by the Engineer. The Contractor shall verify the thickness of the pavement by taking several measurements throughout the structure.



RE-CERTIFIED:
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 MANAGER AND CHIEF ENGINEER
 DEPARTMENT OF WATER
 COUNTY OF KAUAI

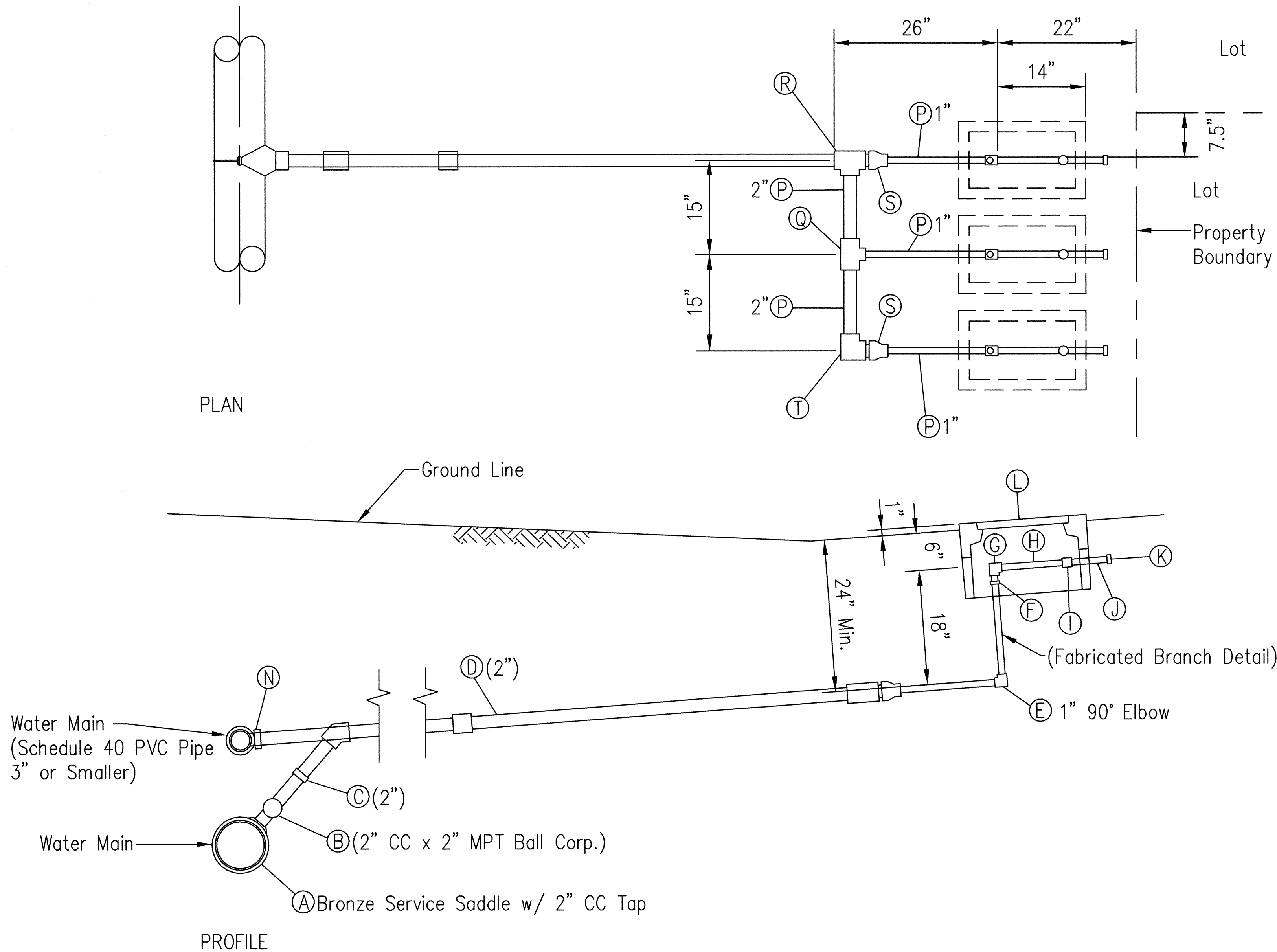


WATER METER AND BOX RELOCATION DETAIL **E**
 NOT TO SCALE **C-5, C-15**

APPROVED:
Edward F. Kelly
 MANAGER AND CHIEF ENGINEER
 DEPARTMENT OF WATER
 COUNTY OF KAUAI

5/20/02	REVISE DETAIL C/C-7/C15
1/18/02	DOW RE-CERTIFICATION
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION DETAILS KAUMUALII HIGHWAY INTERSECTION IMPROVEMENTS AT KOLOA ROAD FED. AID PROJ. No. STP-050-1(17) DATE:	
SHEET No. C-15 OF 38 SHEETS	

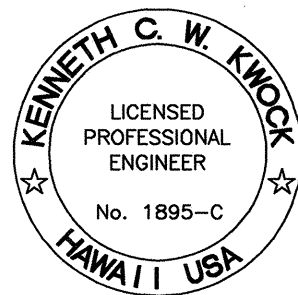
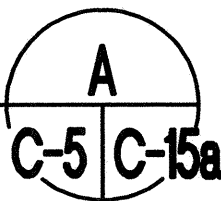
FED. ROAD DIST NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(17)	2000	17	72



SCHEDULE OF FITTINGS					
No.	Description	Single Service	Double Service	Triple Service	Quad Service
A	Bronze Service Saddle w/ Tap for C-900 PVC Pipe and Ductile Iron Pipe	1	1	1	1
B	Bronze Ball Corp	1	1	1	1
C	Ford Pack Joint Coupling	1	1	1	1
D	Copper Tube, Type "K" Soft	1	1	1	1
E	1" 90° Copper Elbow	1	2	3	4
F	1" Copper Male Adapter	1	2	3	4
G	Angle Valve, 1" Female IPT, Inlet x 3/4" Meter Coupling Nut Outlet (Ford KV13-342W or Approved Equal)	1	2	3	4
H	Meter Spacer Supplied by Dow and Installed by Contractor	1	2	3	4
I	Ball Valve w/Handle, 3/4" Meter Coupling Nut Inlet x 1" Female IPT Outlet (Ford BM-13-342 w/ HT-34 Handle or Approved Equal)	1	2	3	4
J	Linesetter - 1" Copper Tube, Type "K" Soft, 12" Long	1	2	3	4
K	1" Plastic Thread Protector	1	2	3	4
L	Type "B" Concrete Meter Box w/ Cast Iron Cover	1	2	3	4
M	1" x 1" x 1 1/2" Copper Tee, S x S x S		1		
N	Copper Male Adapter, S x T (When Connecting to 3" or Smaller PVC Pipe)	1	1	1	
P	Copper Tube, Type "K" Soft		2	5	8
Q	1" x 2" x 2" Copper Tee, S x S x S			1	
R	2" x 2" x 2" Copper Tee, S x S x S			1	
S	2" x 1" Copper Reducer, S x S			2	
T	2" Copper Elbow, S x S			1	
U	1" x 2 1/2" x 2 1/2" Copper Tee, S x S x S				2
V	2 1/2" x 2 1/2" x 2 1/2" Copper Tee, S x S x S				1
W	2 1/2" x 1" Copper Reducer, S x S				2
X	2 1/2" Copper Elbow, S x S				2

TRIPLE WATER SERVICE

NOT TO SCALE



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Kenneth C. W. Knox

APPROVED:

Edward F. Schupp
MANAGER AND CHIEF ENGINEER
DEPARTMENT OF WATER
COUNTY OF KAUAI

1/29/02

DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS

KAUMUALII HIGHWAY INTERSECTION

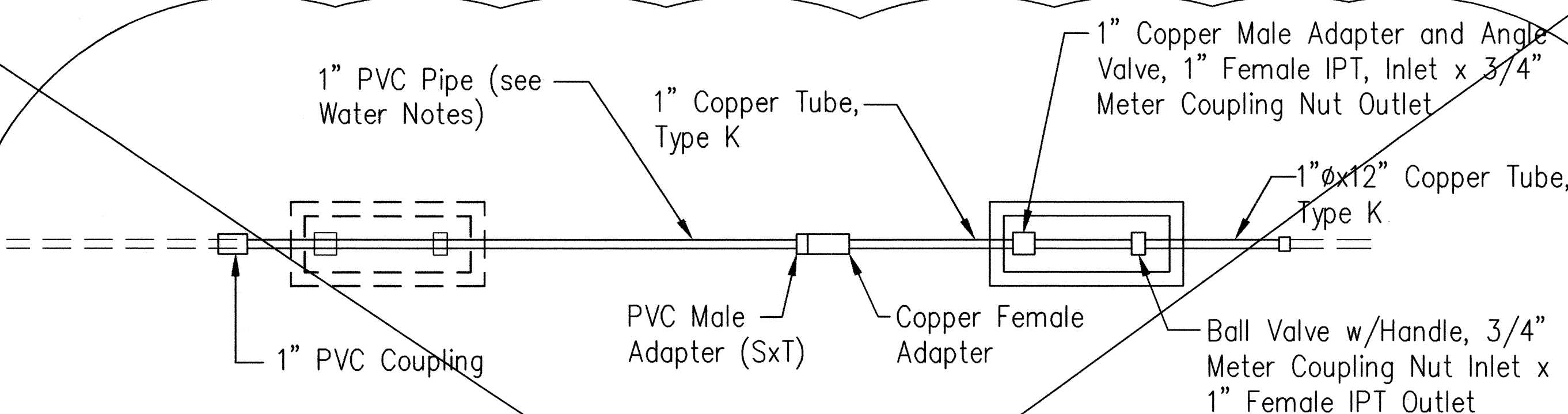
IMPROVEMENTS AT KOLOA ROAD

FED. AID PROJ. No. STP-050-1(17)

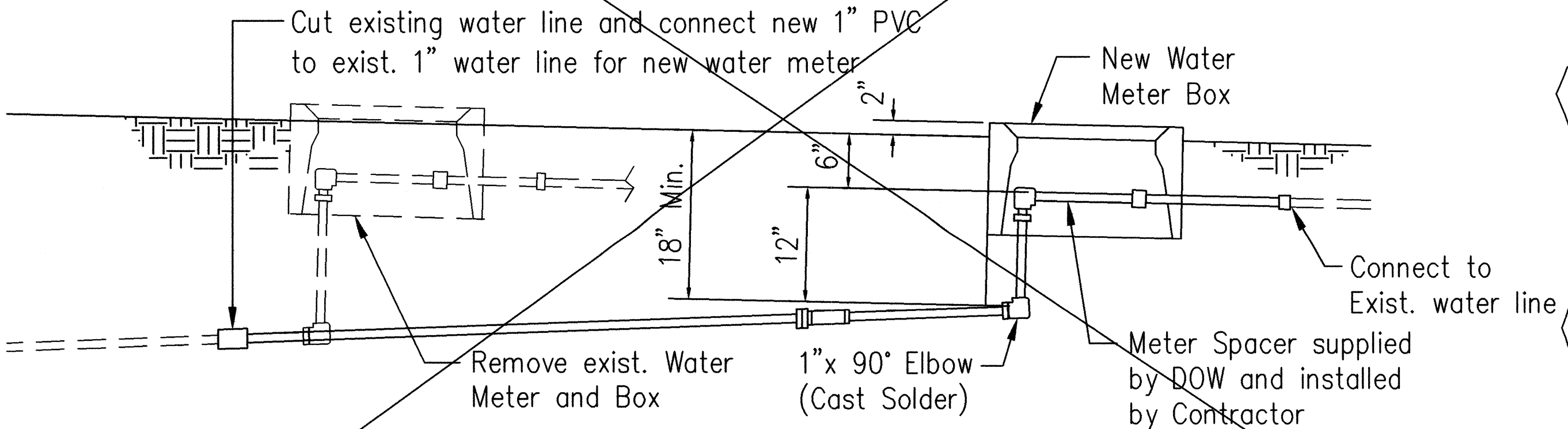
DATE:

SHEET No. C-15a OF 38 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(17)	2000	18	72



PLAN



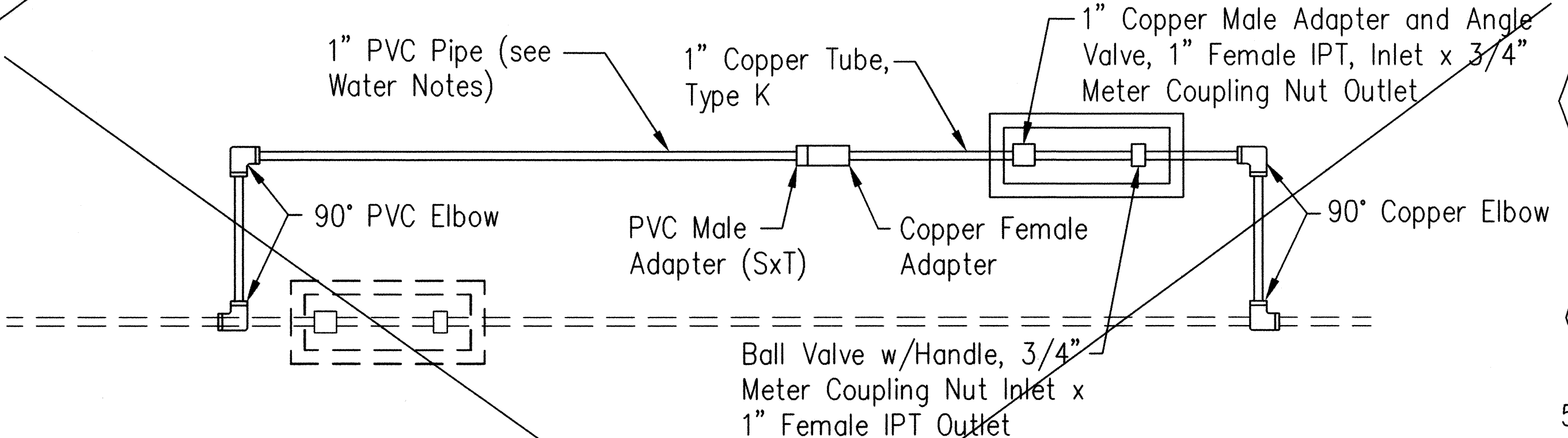
ELEVATION

SINGLE SERVICE WATER METER AND BOX RELOCATION DETAIL

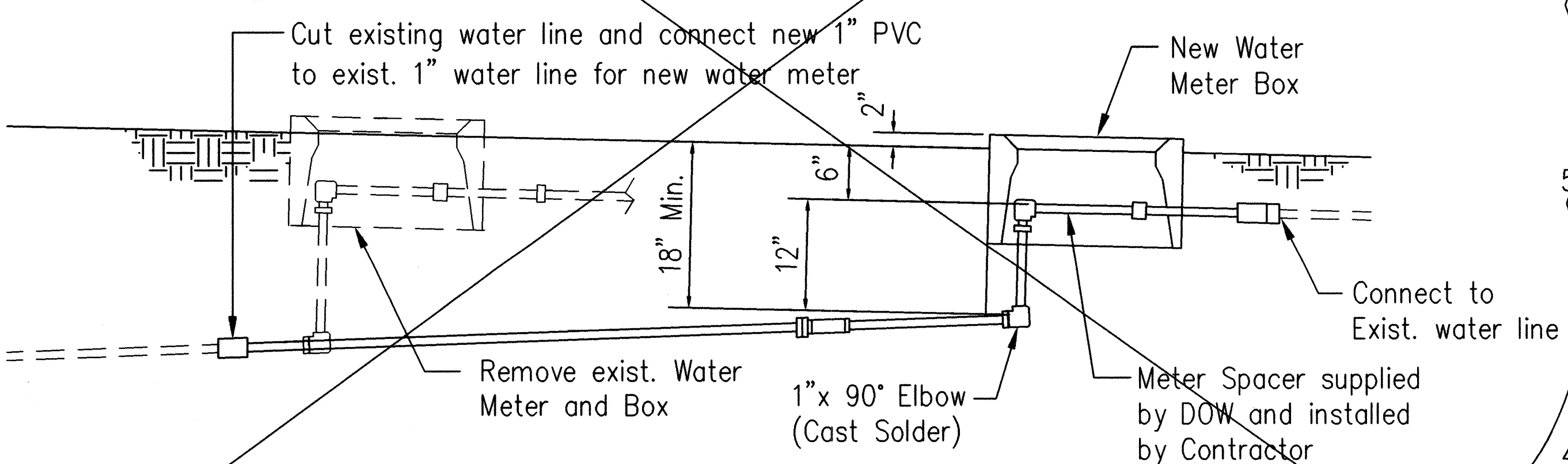
NOT TO SCALE

F
C-6 C-16

DELETED



PLAN

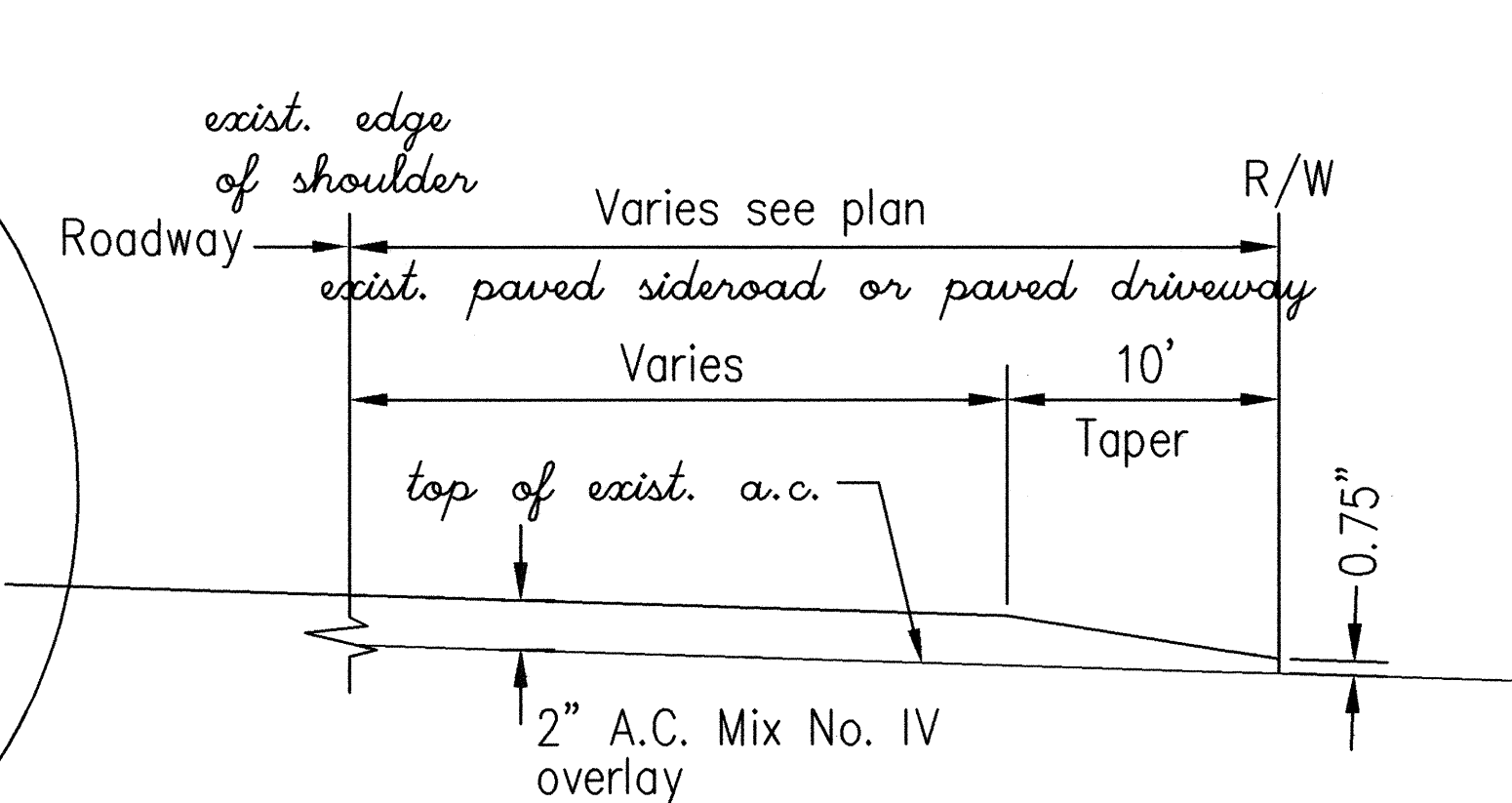


ELEVATION

LATERAL WATER METER AND BOX RELOCATION DETAIL

NOT TO SCALE

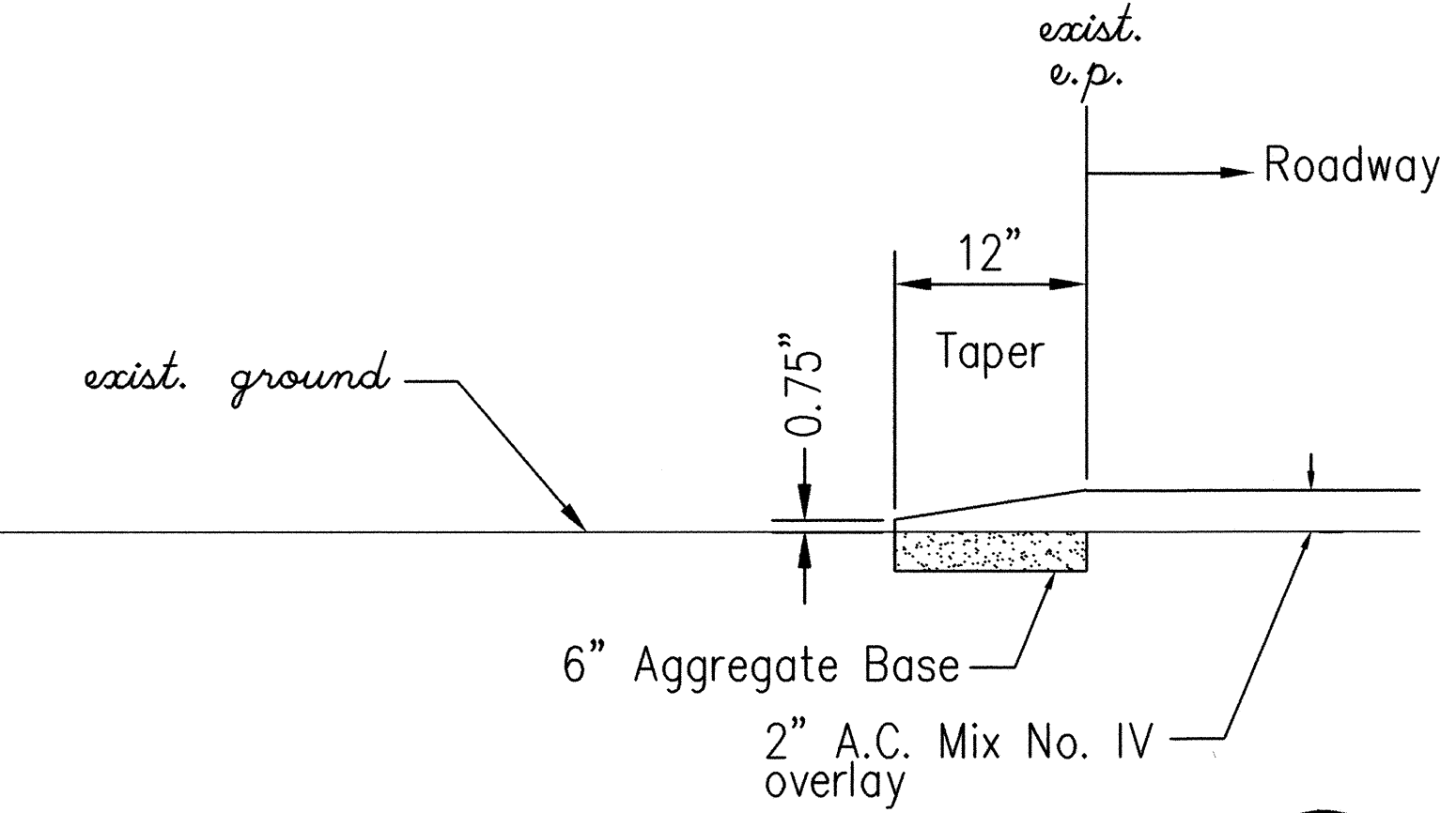
G
C-6 C-16



A.C. RESURFACING AT PAVED SIDEROAD OR PAVED DRIVEWAY DETAIL

NOT TO SCALE

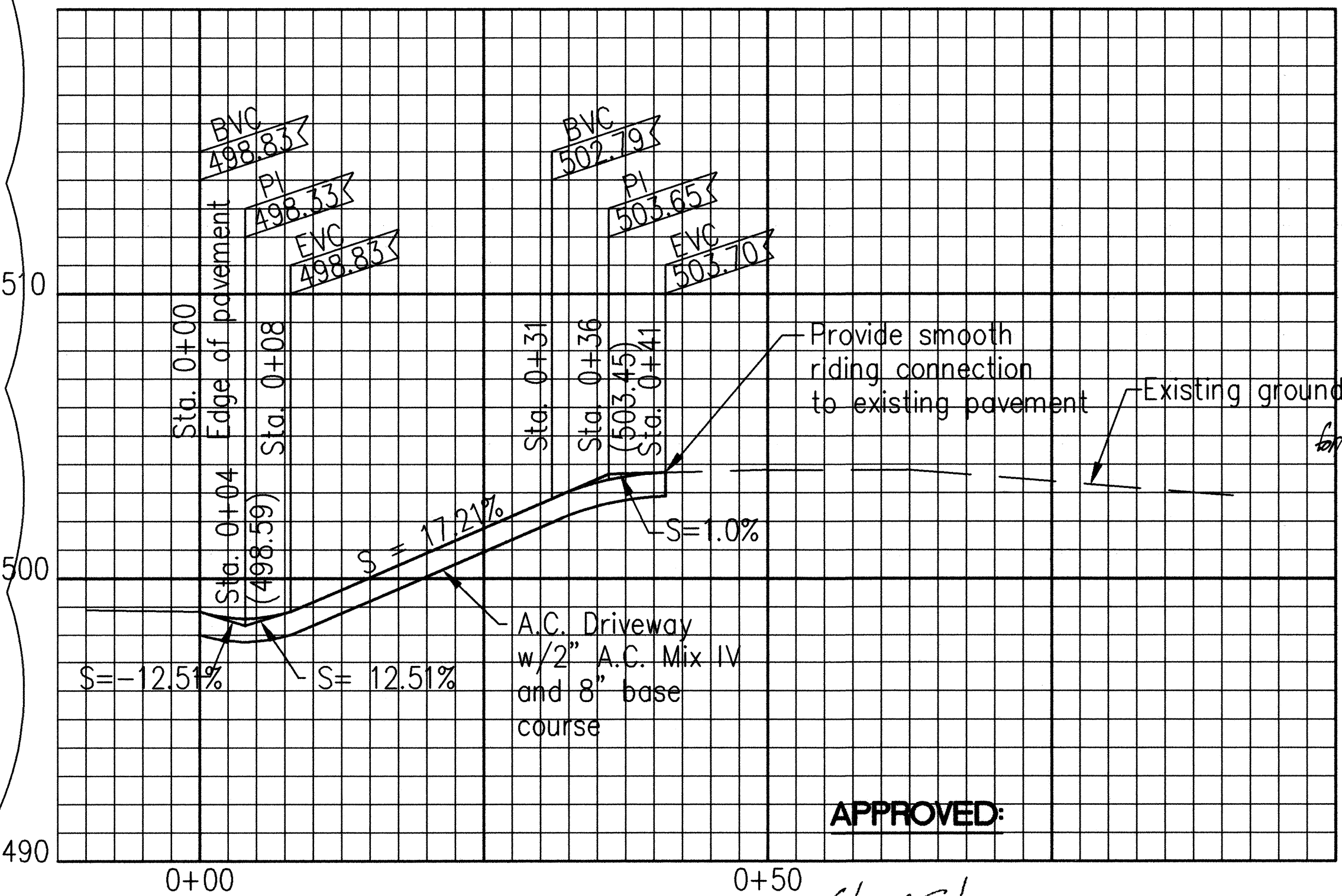
H
C-5, C-6, C-7 C-16



A.C. RESURFACING AT EDGE OF PAVEMENT DETAIL

NOT TO SCALE

I
C-3, C-5 C-16



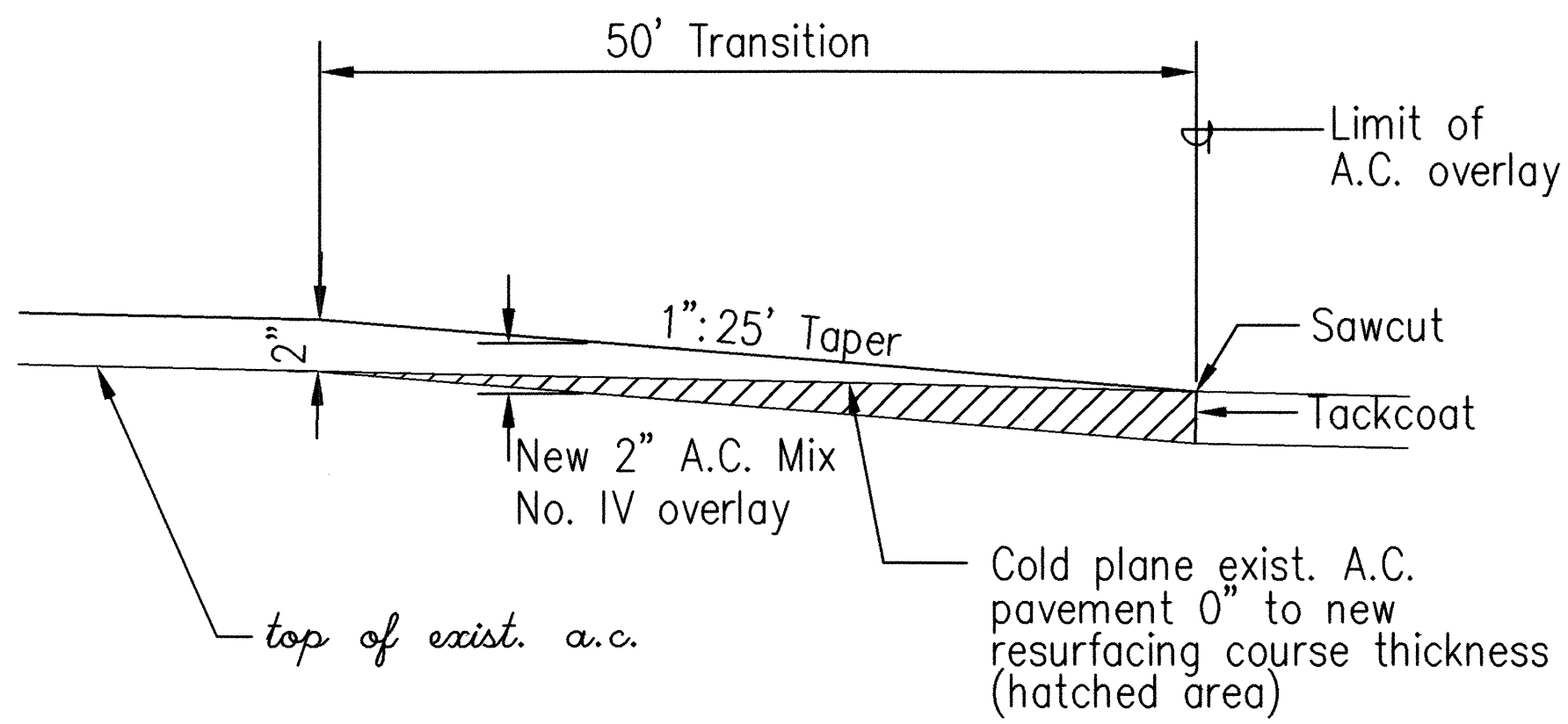
A.C. DRIVEWAY PROFILE

SCALE: 1"=4' Vert.
1"=10' Horiz.

L
C-6 C-16

APPROVED:

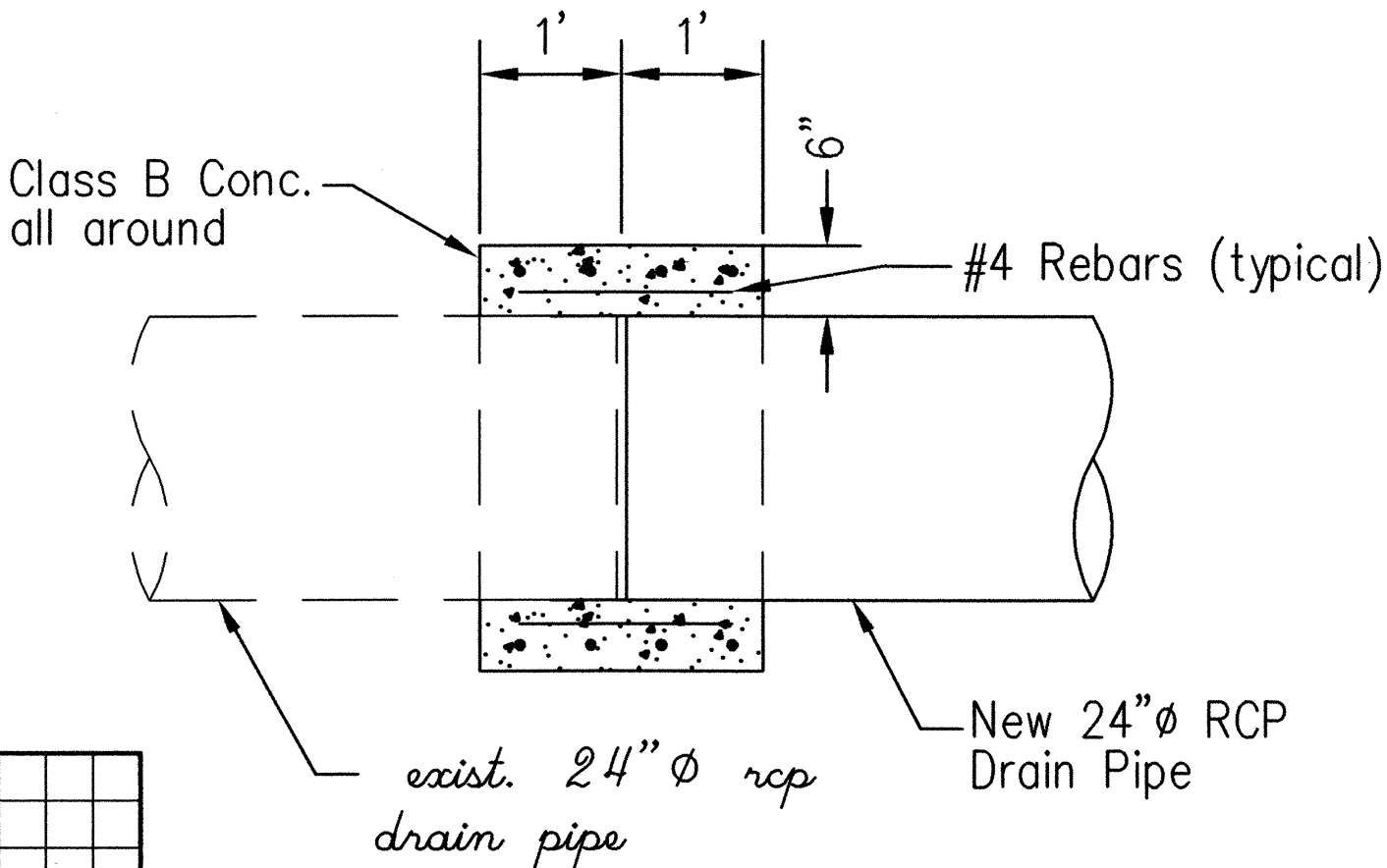
Edward P. Kelly
MANAGER AND CHIEF ENGINEER
DEPARTMENT OF WATER
COUNTY OF KAUAI



COLD PLANED TRANSITION TO EXIST A.C. PAVEMENT

NOT TO SCALE

J
C-5, C-9 C-16



CONCRETE COLLAR DETAIL

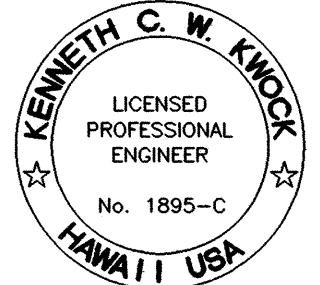
SCALE: 3/4"=1'-0"

K
C-8 C-16

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MANAGER AND CHIEF ENGINEER
DEPARTMENT OF WATER
COUNTY OF KAUAI

1/29/02
DATE

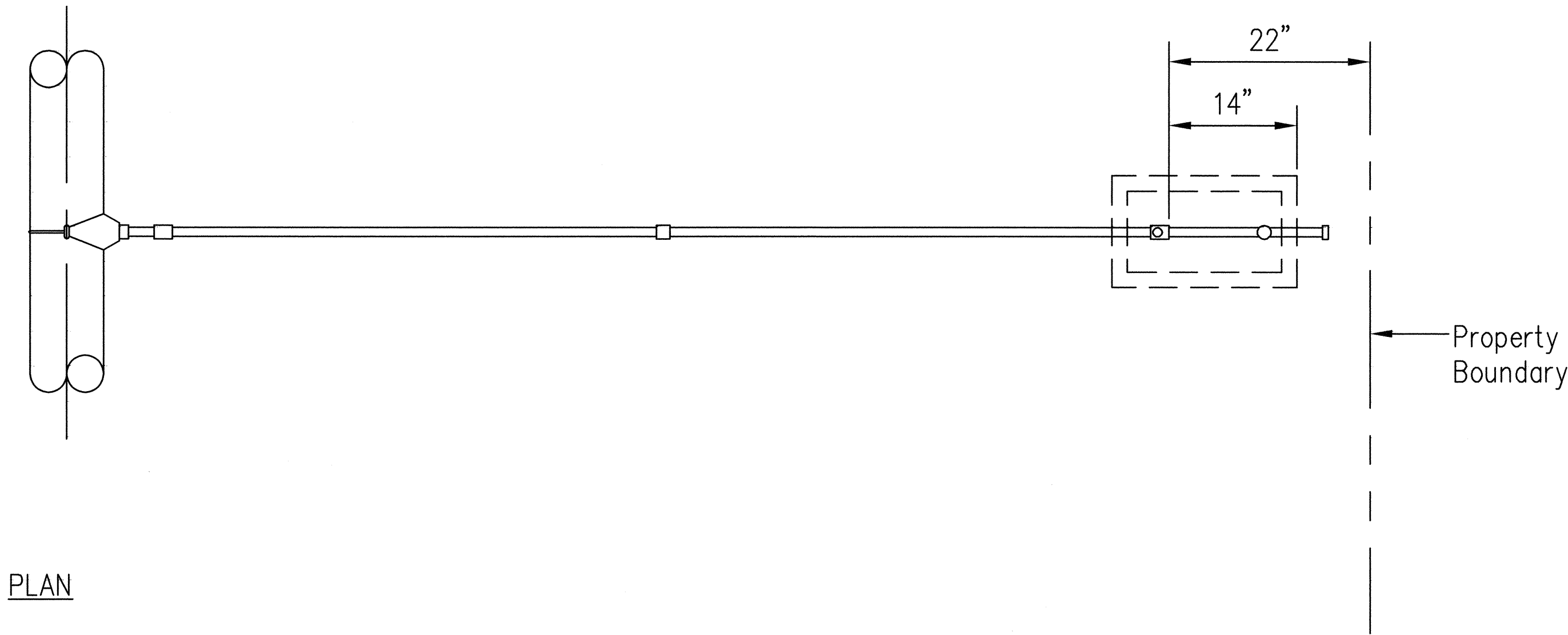


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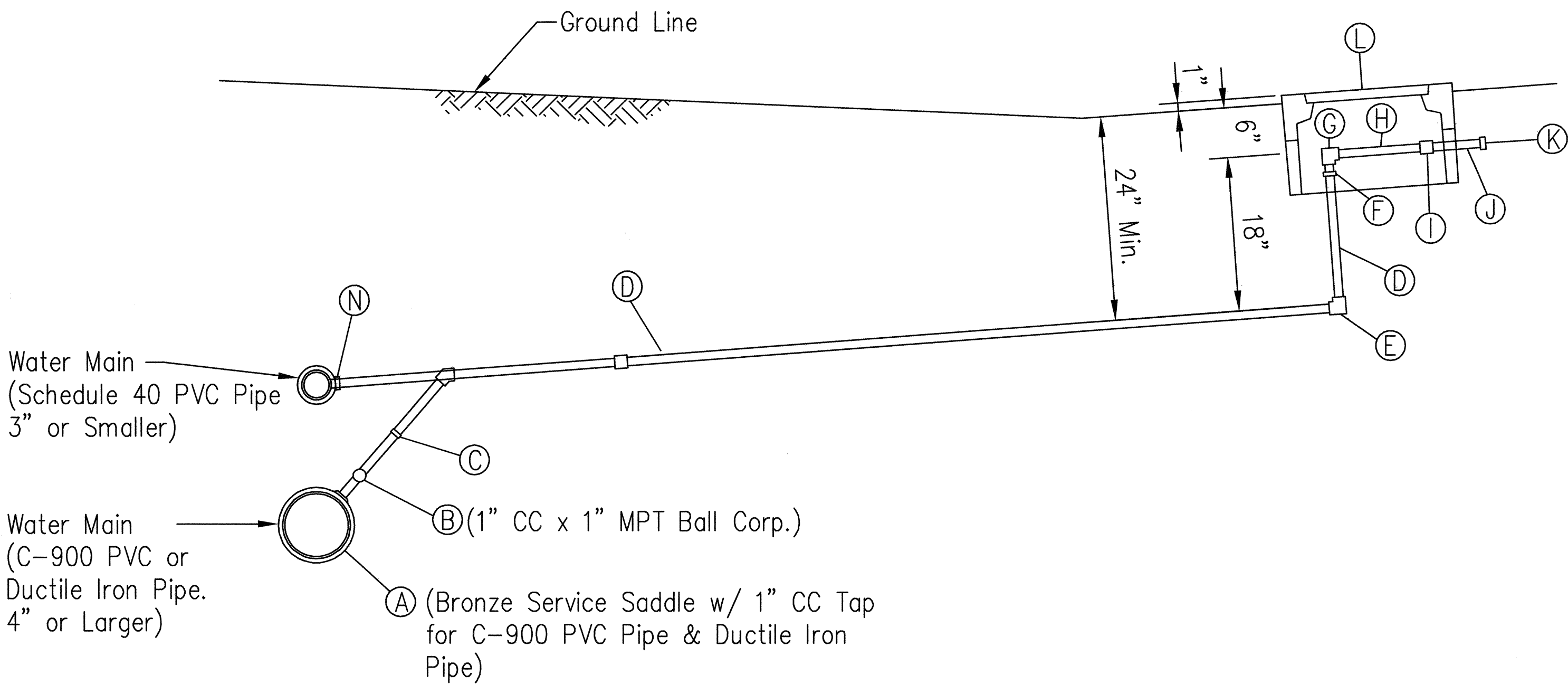
1/18/02	DOW RE-CERTIFICATION
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION DETAILS KAUMUALII HIGHWAY INTERSECTION IMPROVEMENTS AT KOLOA ROAD FED. AID PROJ. No. STP-050-1(17) DATE: 10/8/99 SHEET No. C-16 OF 38 SHEETS	

FED. ROAD DIST NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(17)	2000	17	72

SCHEDULE OF FITTINGS		
No.	Description	Single Service
A	Bronze Service Saddle w/ 1" Tap for C-900 PVC Pipe and Ductile Iron Pipe	1
B	1" CC X 1" MPT Ball Corporation	1
C	Pack Joint Couplings (Ford C14-44 or Approved Equal)	1
D	1" Copper Tube, Type "K" Soft	1
E	1" 90° Copper Elbow	1
F	1" Copper Male Adapter	1
G	Angle Ball Valve, 1" Female IPT, Inlet x 3/4" Meter Coupling Nut Outlet Ford BA13-342W or Approved Equal)	1
H	Meter Spacer Supplied by Dow and Installed by Contractor	1
I	Ball Valve w/Handle, 3/4" Meter Coupling Nut Inlet x 1" Female IPT Outlet (Ford B-13-342 w/ HT-34 Handle or Approved Equal)	1
J	Linesetter - 1" Copper Tube, Type "K" Soft, 12" Long	1
K	1" Plastic Thread Protector	1
L	Type "B" Concrete Meter Box w/ Cast Iron Cover	1
M	Tee w/ 1" Bushing (When Connecting to 3" or Smaller Pipe)	1



PLAN

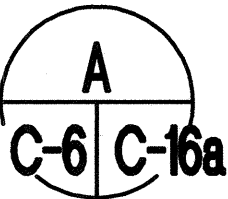


PROFILE

Note:
Install Type "X" concrete meter
box w/ cast iron cover in sidewalk
or paved areas. Top of meter box
to be flushed with finished grade.

SINGLE SERVICE LATERAL

NOT TO SCALE

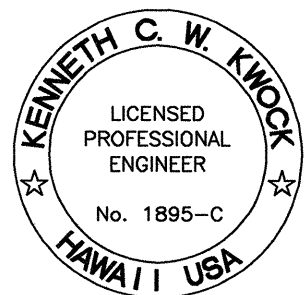


APPROVED:

Edward P. Schupp
MANAGER AND CHIEF ENGINEER
DEPARTMENT OF WATER
COUNTY OF KAUAI

1/29/02

DATE



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS

KAUMUALII HIGHWAY INTERSECTION

IMPROVEMENTS AT KOLOA ROAD

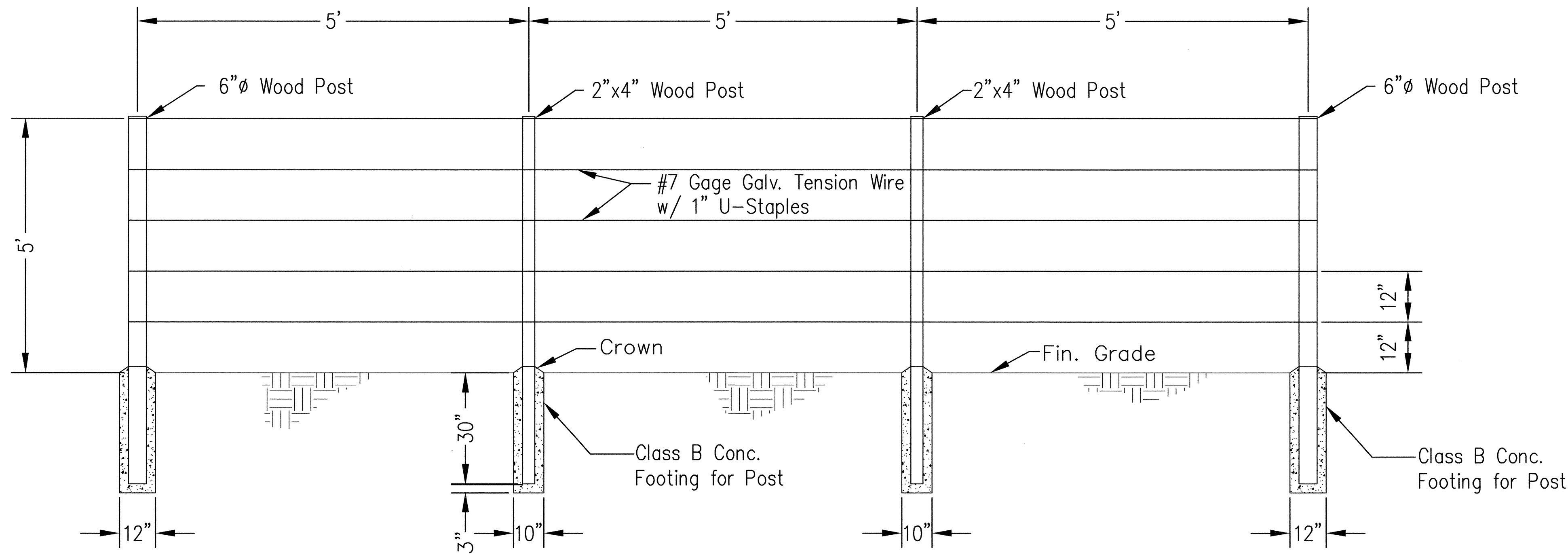
FED. AID PROJ. No. STP-050-1(17)

DATE:

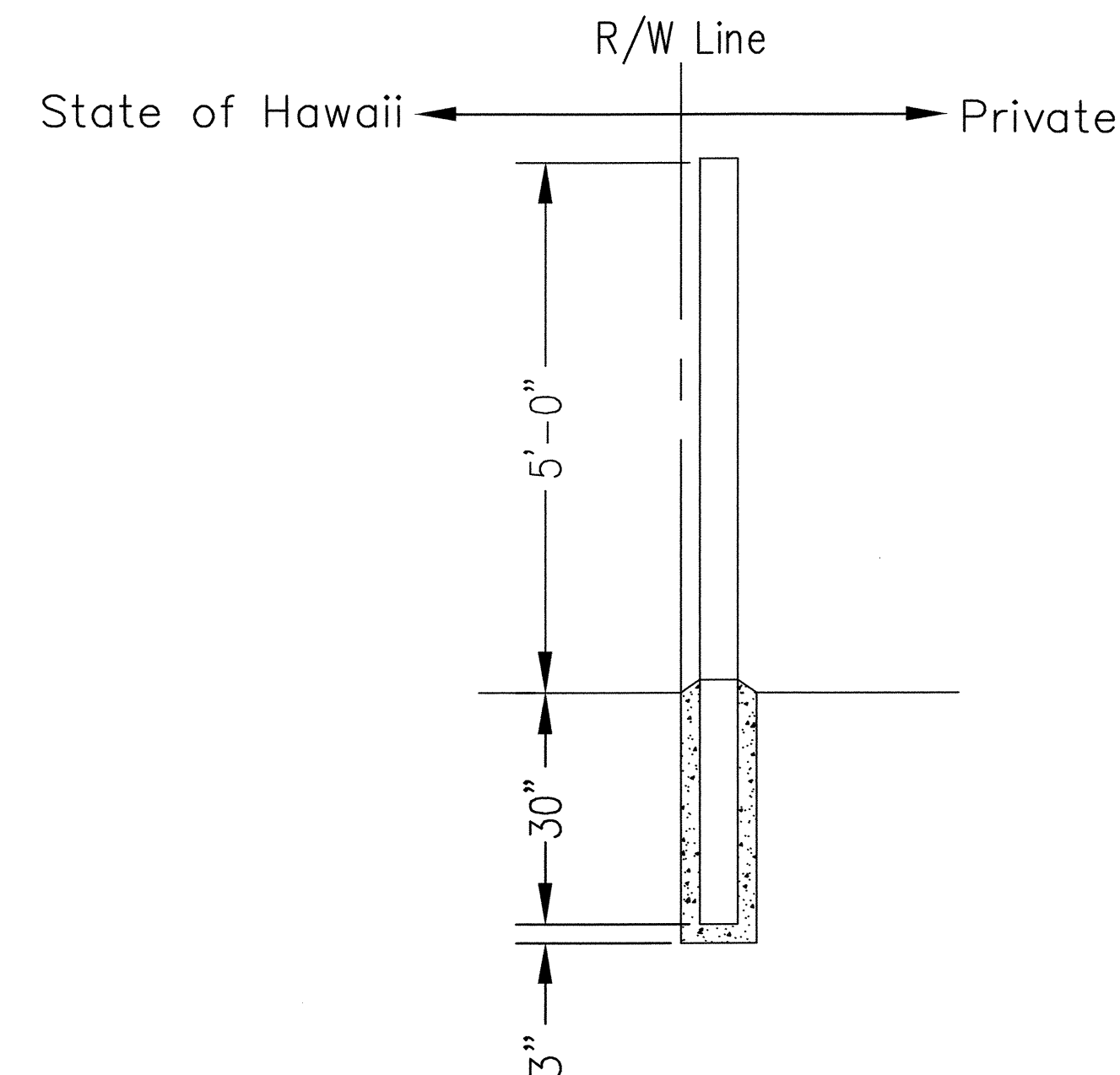
SHEET No. C-16a OF 38 SHEETS

C.O. 18A

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(17)	2000	19	72



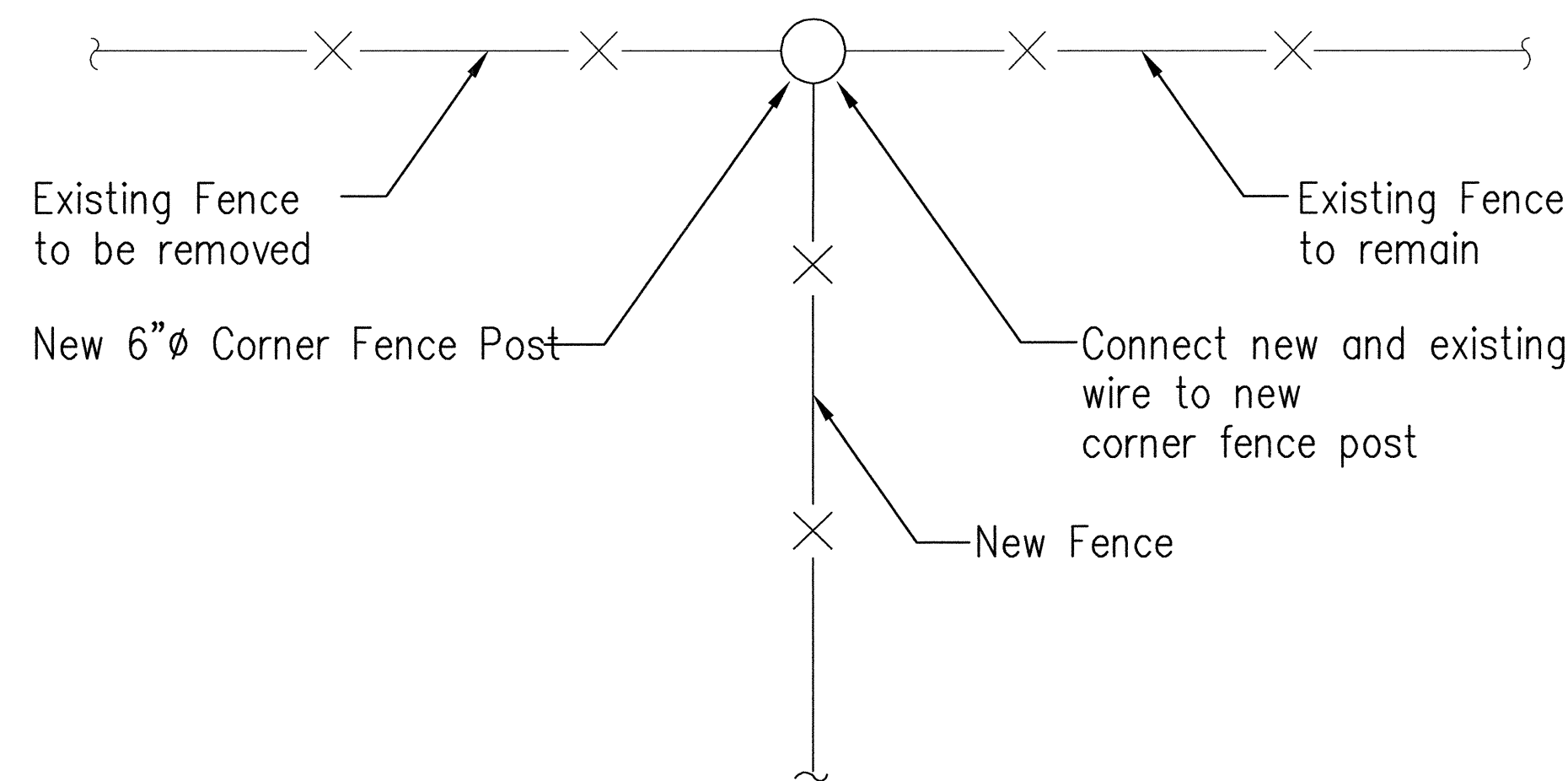
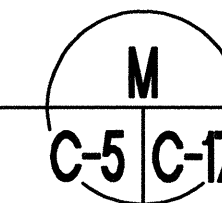
ELEVATION



SECTION

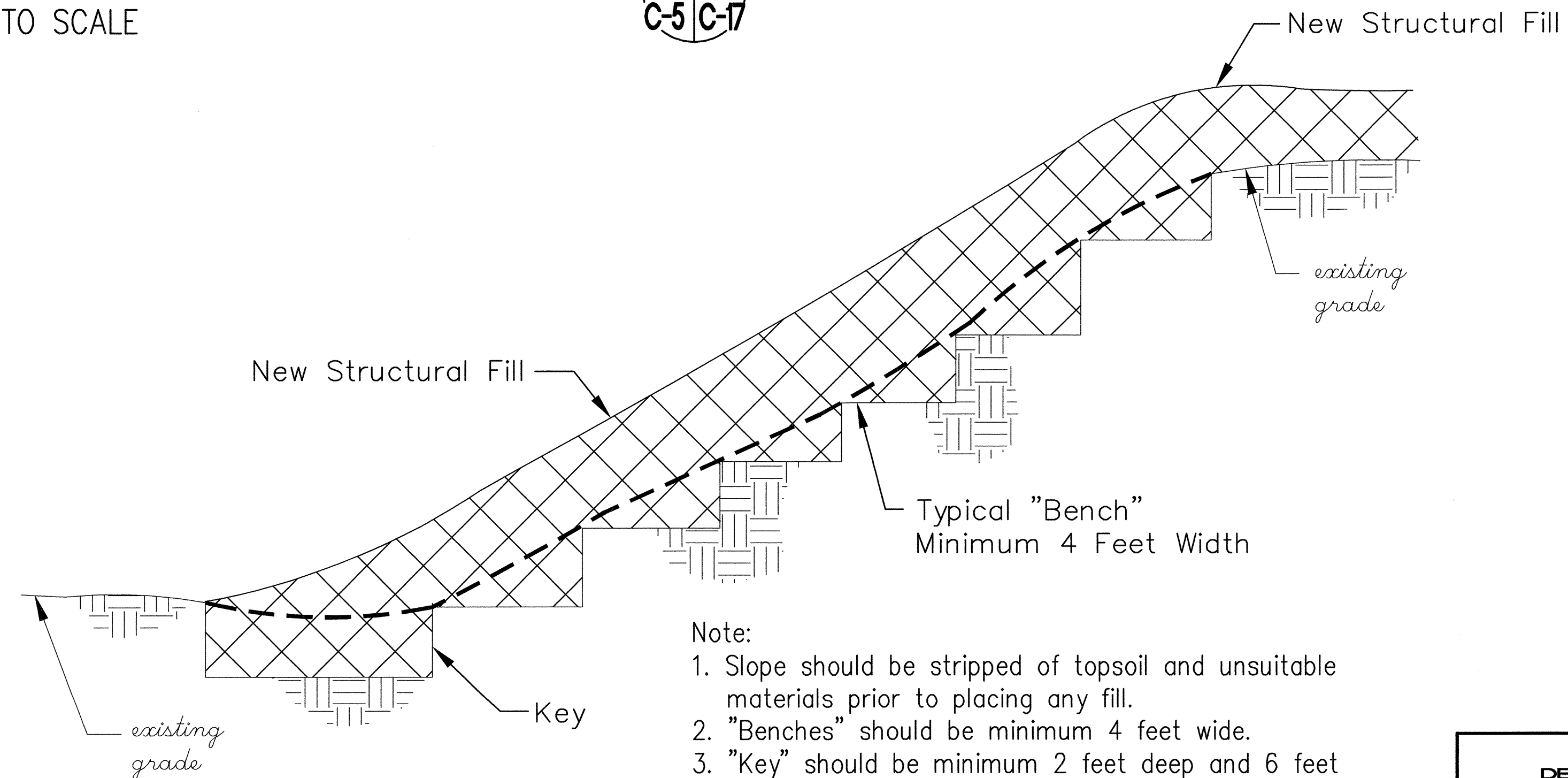
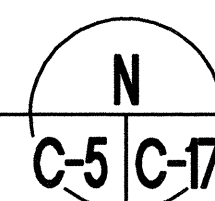
5-STRAND SMOOTH WIRE FENCE

NOT TO SCALE



TYPICAL FENCE CONNECTION DETAIL

NOT TO SCALE

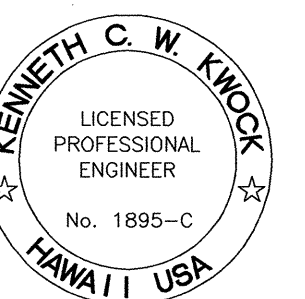
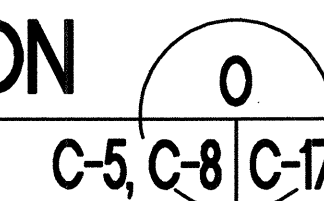


Note:

1. Slope should be stripped of topsoil and unsuitable materials prior to placing any fill.
2. "Benches" should be minimum 4 feet wide.
3. "Key" should be minimum 2 feet deep and 6 feet wide, extending the full length of the slope face.

TYPICAL SLOPE FILL PLACEMENT CROSS SECTION

NOT TO SCALE



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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

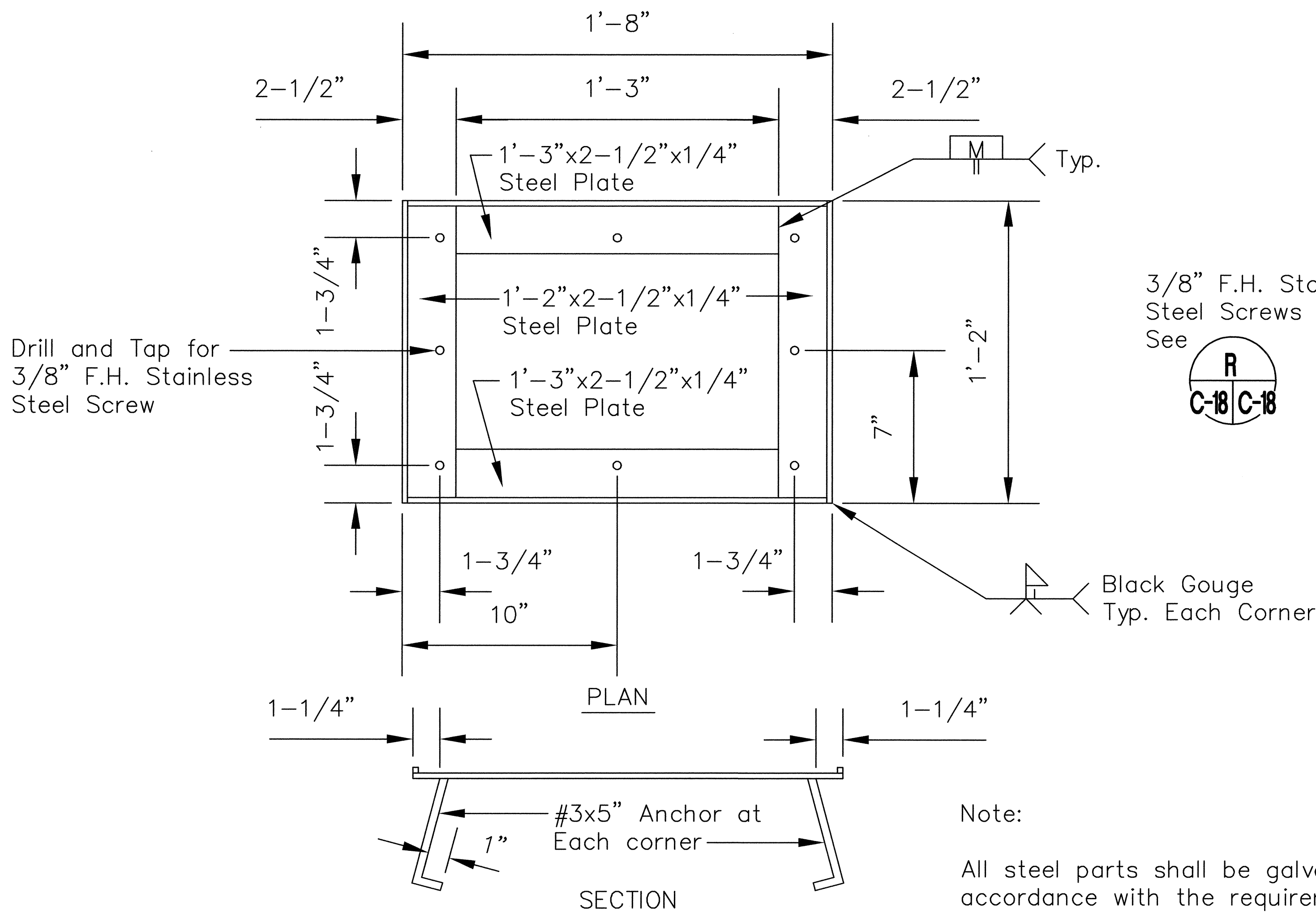
DETAILS

KAUMUALII HIGHWAY INTERSECTION
IMPROVEMENTS AT KOLOA ROAD

FED. AID PROJ. No. STP-050-1(17)
DATE: 10/8/99

SHEET No. C-17 OF 38 SHEETS

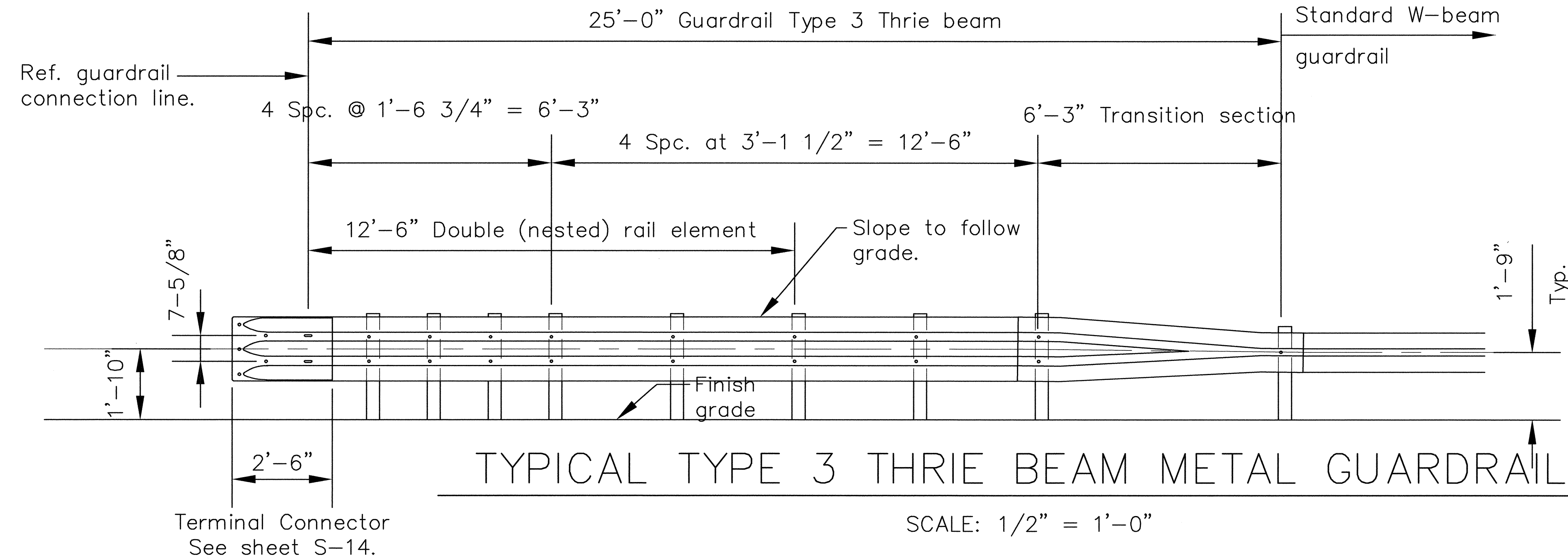
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(17)	2000	20	72



DETAILS OF STEEL FRAME AND COVER FOR CLEANOUT

SCALE: 3" = 1'-0"

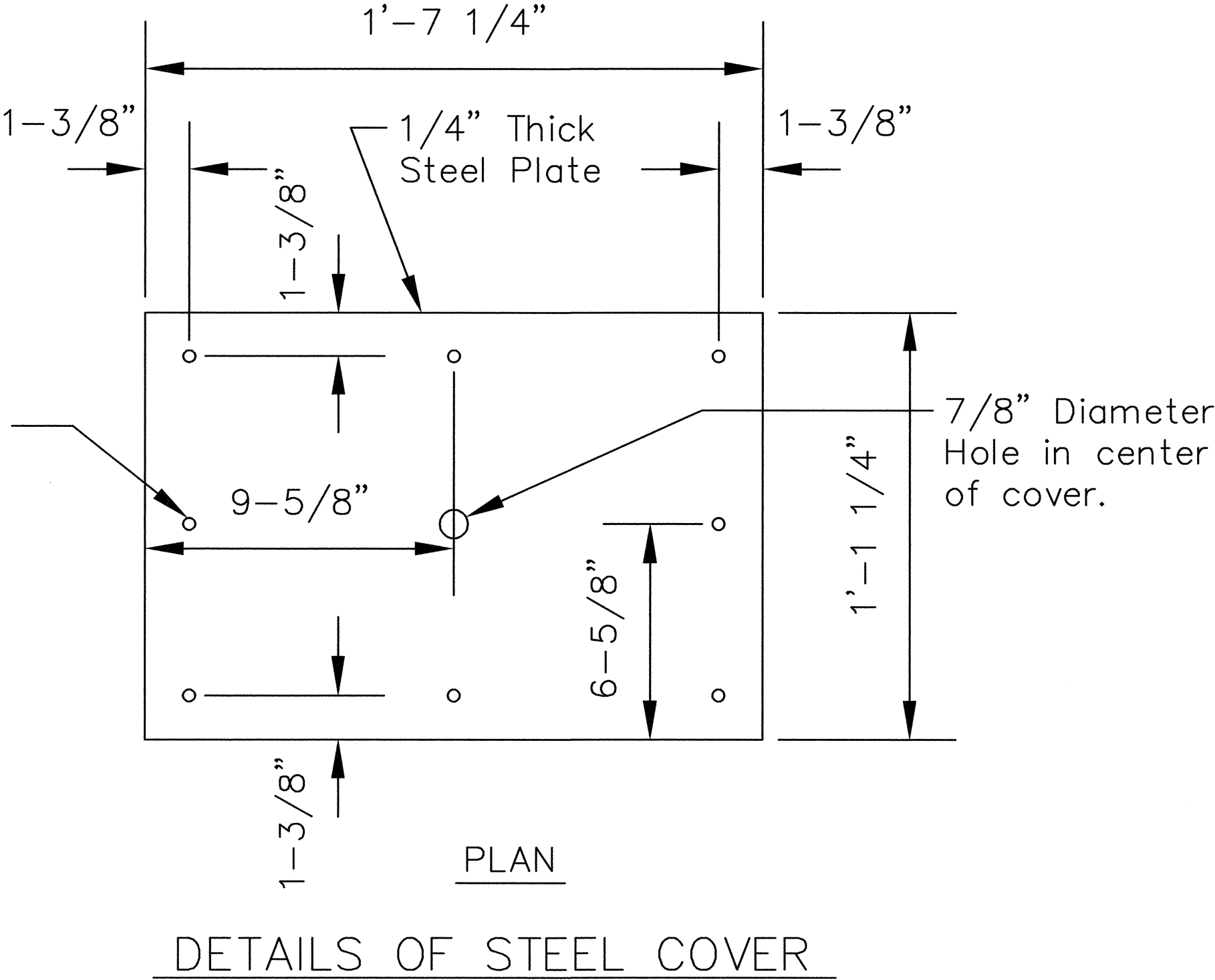
Q
C-15 C-18



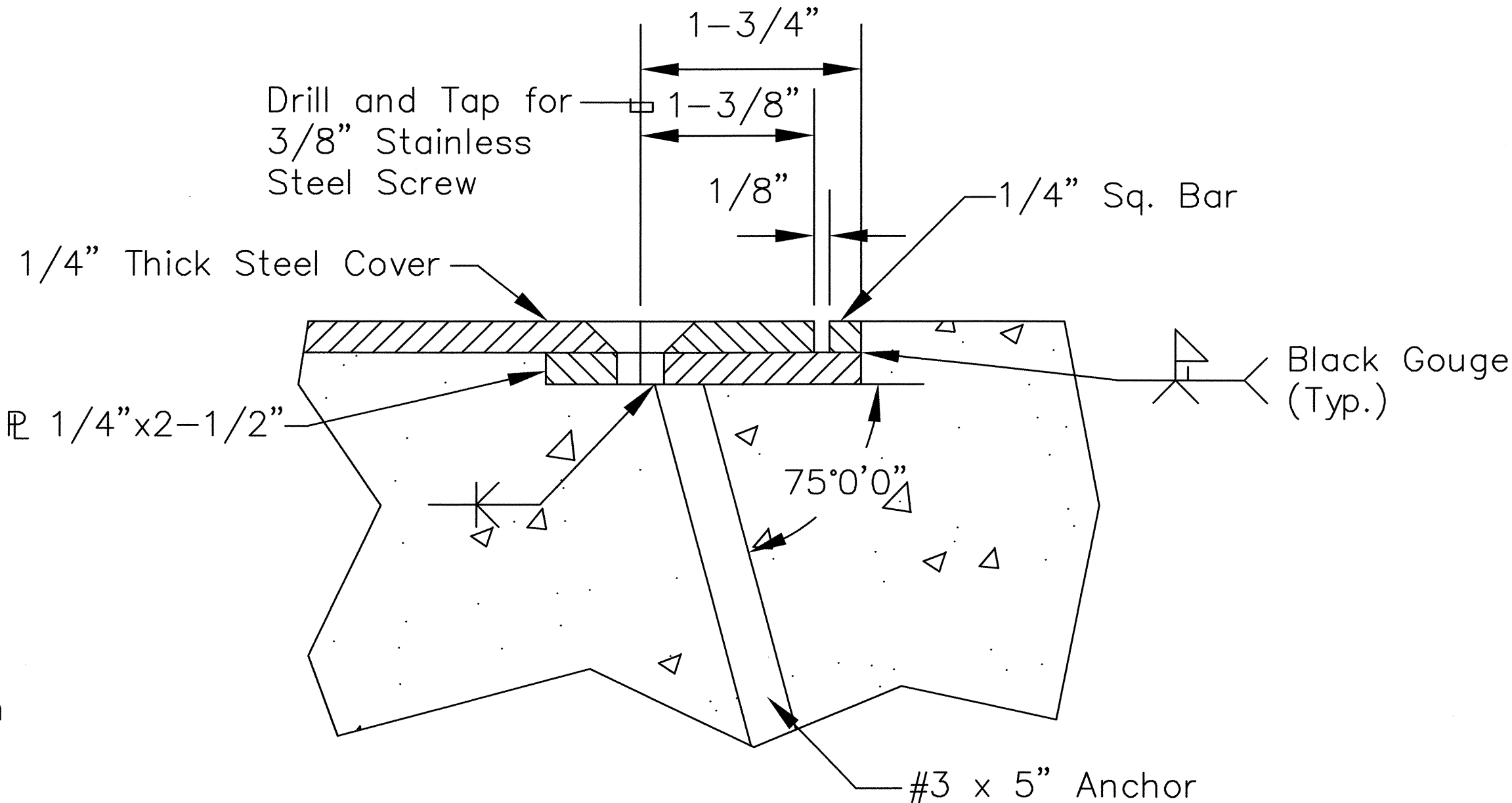
TYPICAL TYPE 3 THRIE BEAM METAL GUARDRAIL

SCALE: 1/2" = 1'-0"

P
C-7 C-18



DETAILS OF STEEL COVER

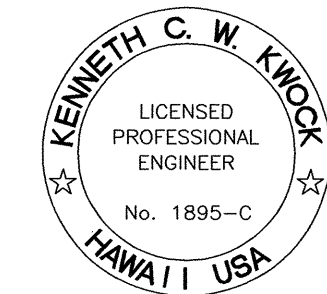


DETAIL

FULL SCALE

R
C-18 C-18

- Notes:
1. Use W6x15 Post x 6'-9"
 2. Use W6x12 Spacer
 3. Specify AASHTO M180, Class B, Type II Guardrail Material
 4. For guardrail details see C-33.



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS
KAUMUALII HIGHWAY INTERSECTION
IMPROVEMENTS AT KOLOA ROAD
FED. AID PROJ. No. STP-050-1(17)
DATE: 10/8/99

SHEET No. C-18 OF 40 SHEETS