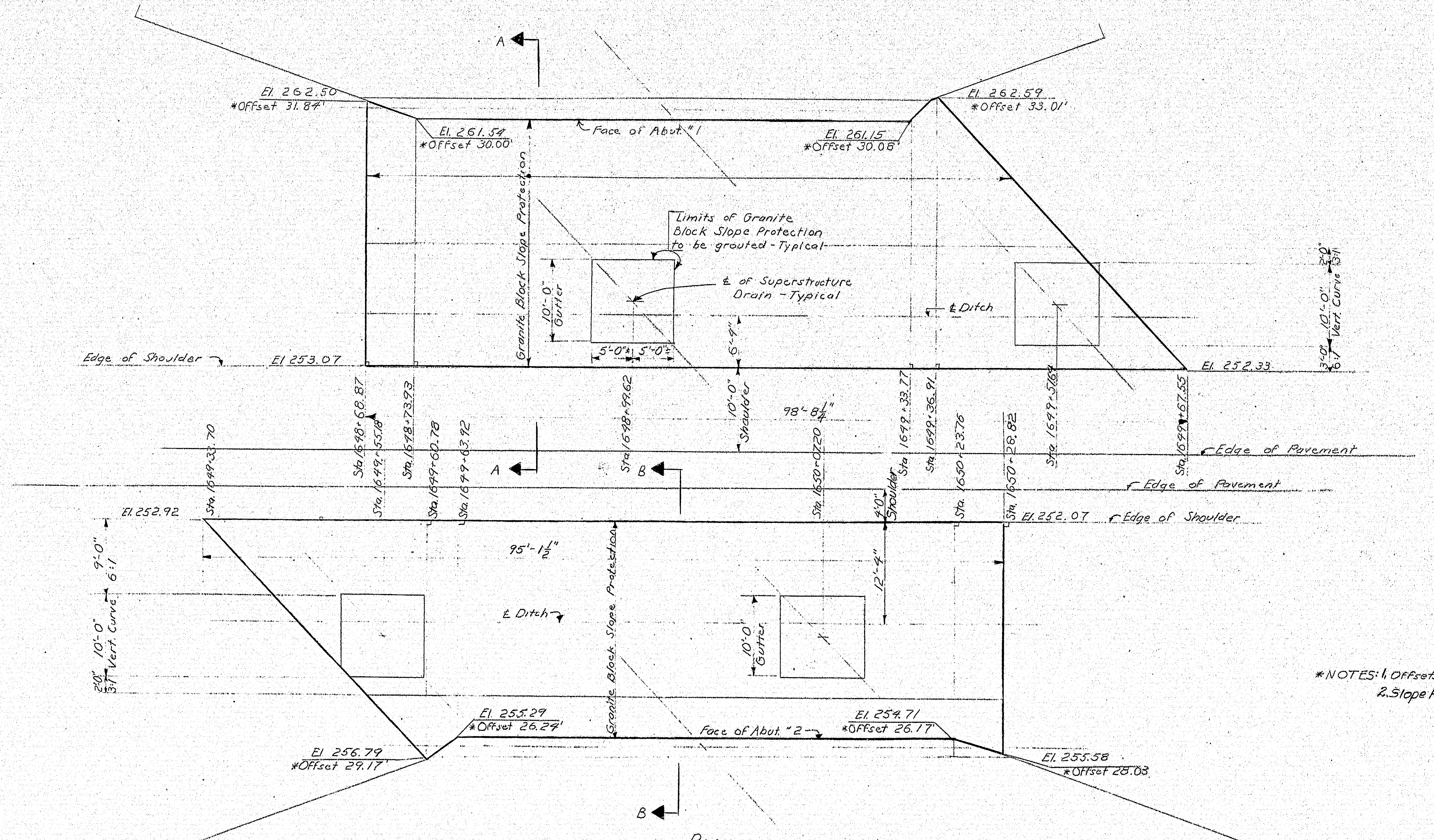
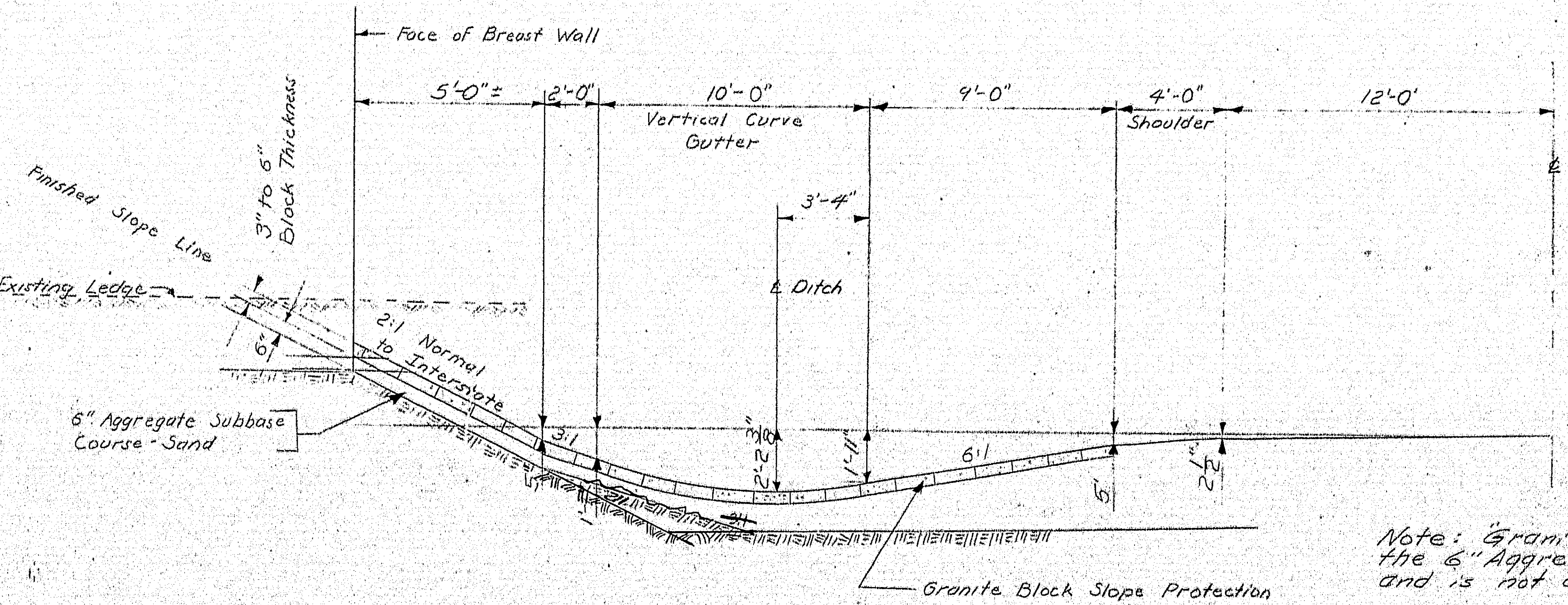
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95-5(6)94	29	55



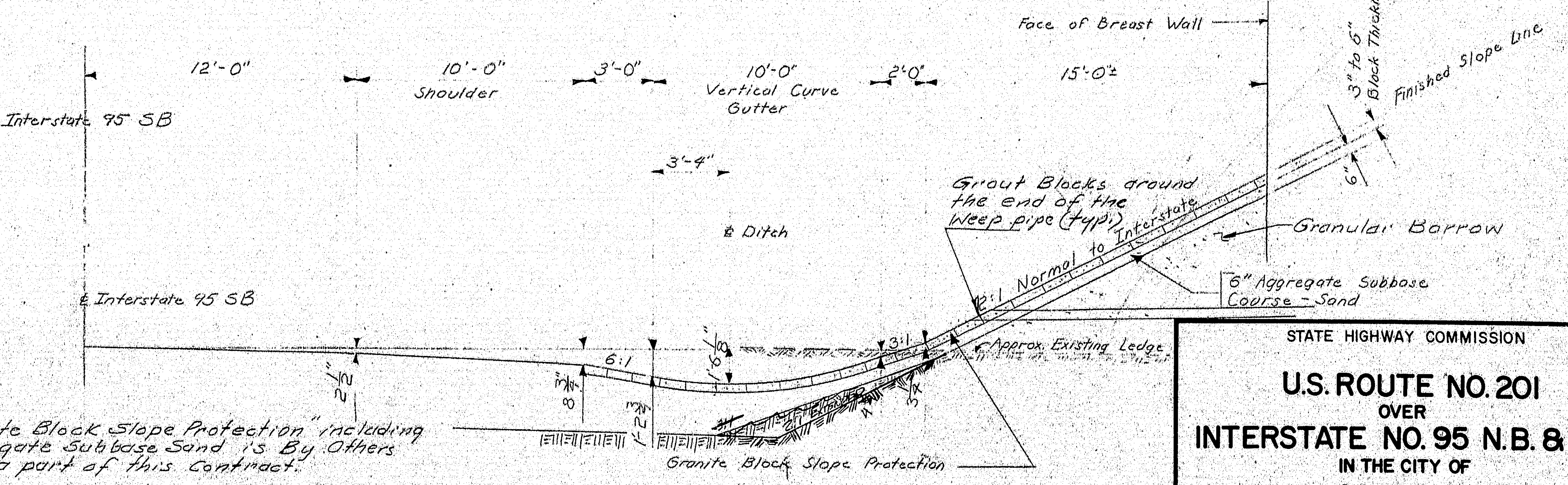
PLAN

*NOTES: 1. Offsets are from Edge of Shoulder.
2. Slope Protection to be by Others.



SECTION B-B

Note: "Granite Block Slope Protection" including the 6" Aggregate Subbase Sand is By Others and is not a part of this Contract.



SECTION A-A

ORIGINAL SHEET USED
IN I-95-5(26)
PAVING PROJECT

PLANS	Proj. Des. Eng.: ALL	BY		DATE
	DESIGN - DETAILED	CR	WK	9-71
	CHECKED	EBC		
	REVISIONS			
As Built	FIELD CHANGES	M.C.E.		3/5/74

STATE HIGHWAY COMMISSION

U.S. ROUTE NO. 201
OVER
INTERSTATE NO. 95 N.B. & S.B.
IN THE CITY OF
GARDINER
KENNEBEC COUNTY
SLOPE PROTECTION BR. NO. 1
SHEET 29 OF 55 AUGUSTA, MAINE **APRIL 1971**

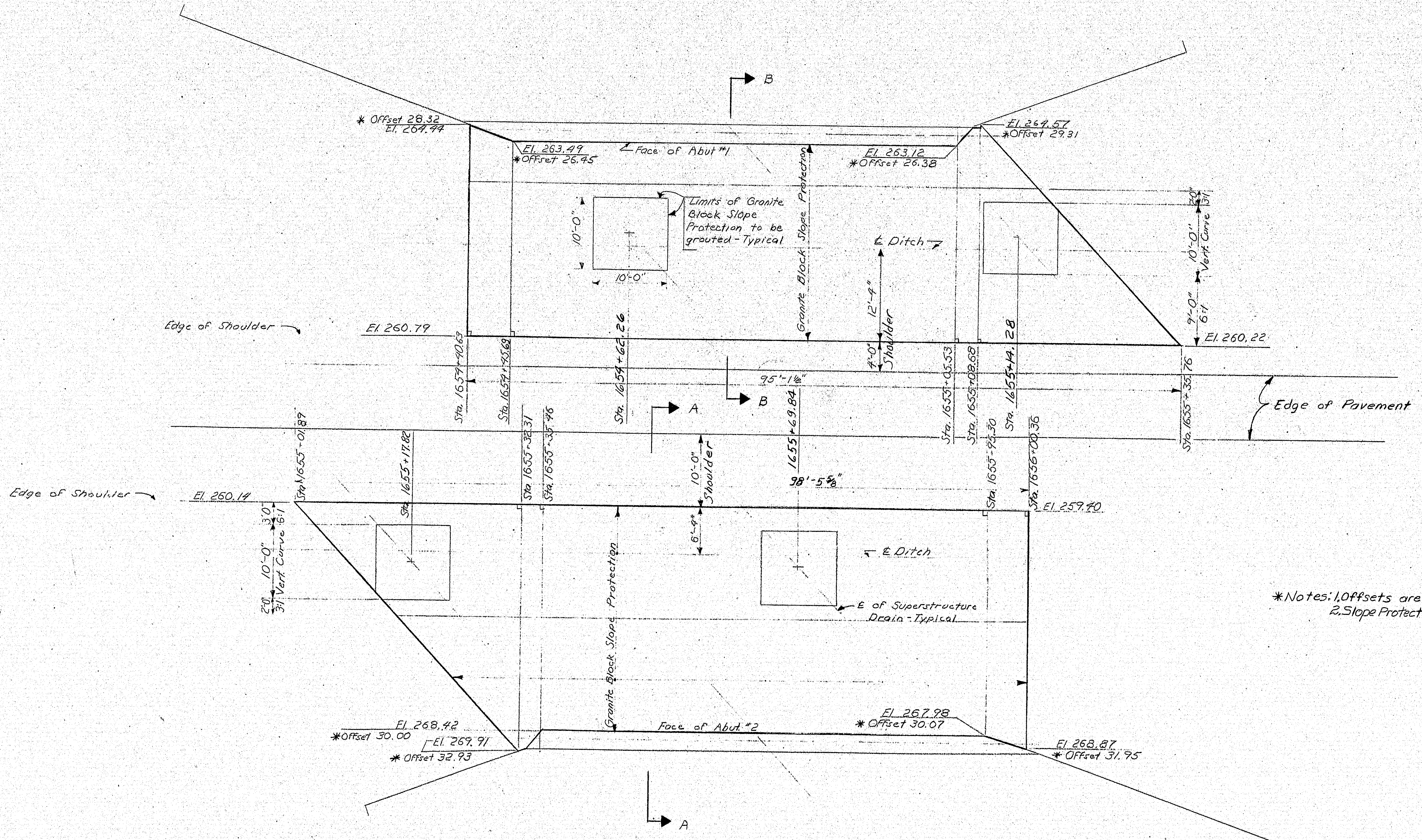
JANUARY 1968

203-1 2080

152-60

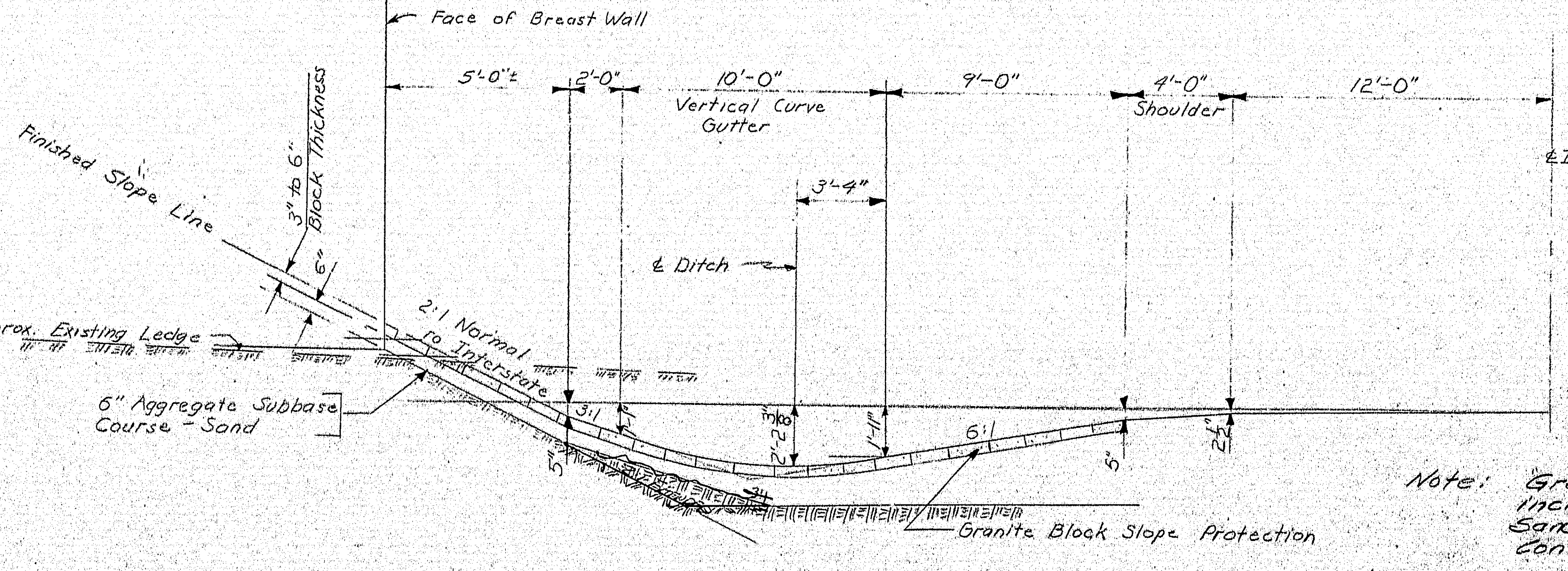
touraine paints TRUFLEX ☆ SILKY ☆ TRIPLE WHITE ☆ RYPLEX

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	30	55



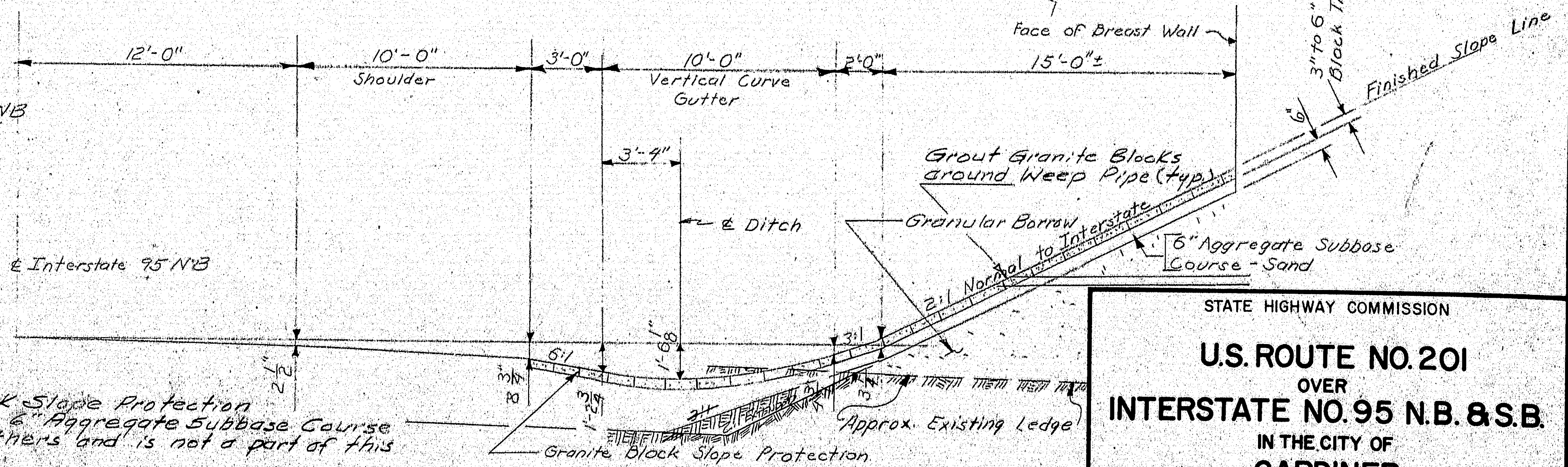
*Notes: 1. Offsets are from edge of shoulder.
2. Slope Protection to be by Others.

PLAN



SECTION B-B

Note: Granite Block Slope Protection including the 6" Aggregate Subbase Course Sand is By Others and is not a part of this Contract.



SECTION A-A

ORIGINAL SHEET
USED IN I-95-5(26)
PAVING PROJECT

PLANS		BY	DATE
	Pro. Des. Eng.: All		
	DESIGN - DETAILED	CR WK	9-71
	CHECKED	EBC	
	REVISIONS		
As Built	FIELD CHANGES	W.C.E.	3/5/74

JANUARY 1969

STATE HIGHWAY COMMISSION

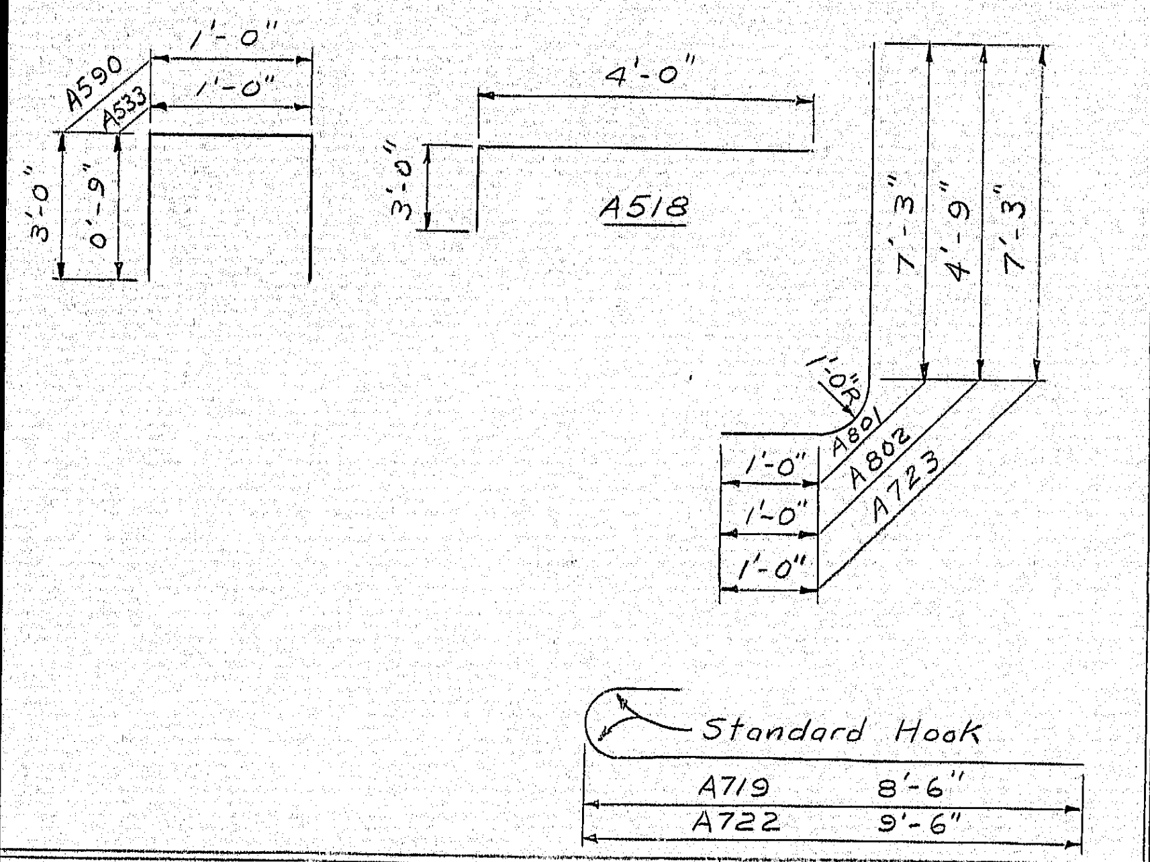
U.S. ROUTE NO. 201
OVER
INTERSTATE NO. 95 N.B. & S.B.
IN THE CITY OF
GARDINER
KENNEBEC COUNTY
SLOPE PROTECTION BR. NO. 2
SHEET 30 OF 55 AUGUSTA, MAINE APRIL 1971

203-1 2080

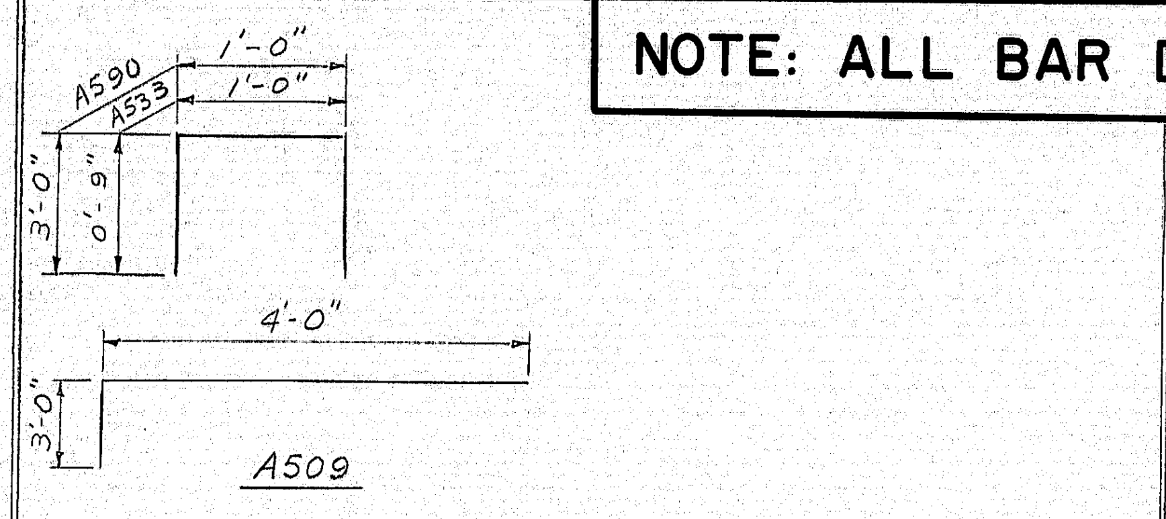
152-61

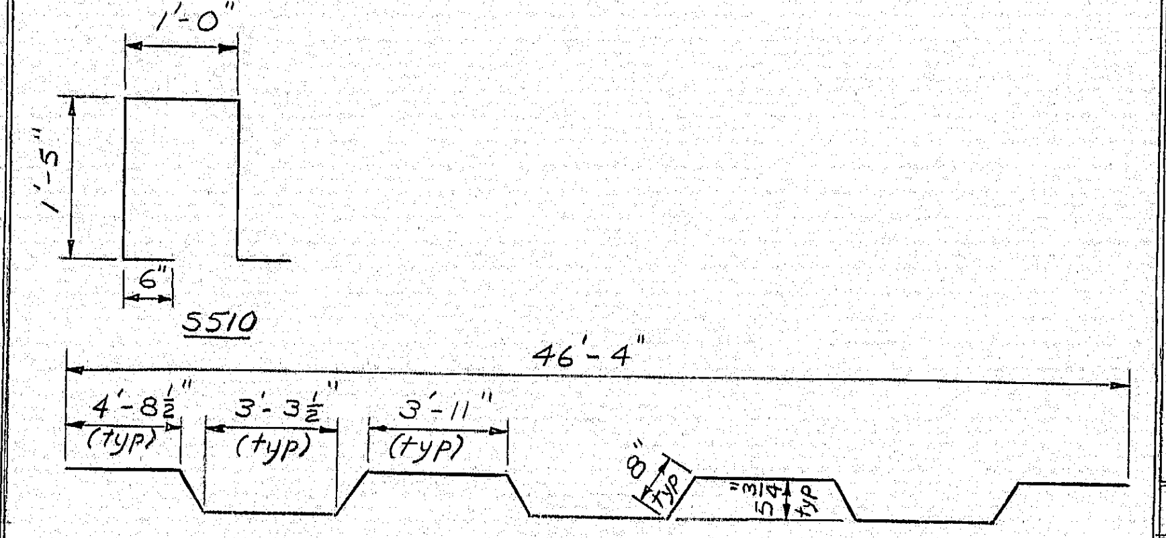
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	31	55

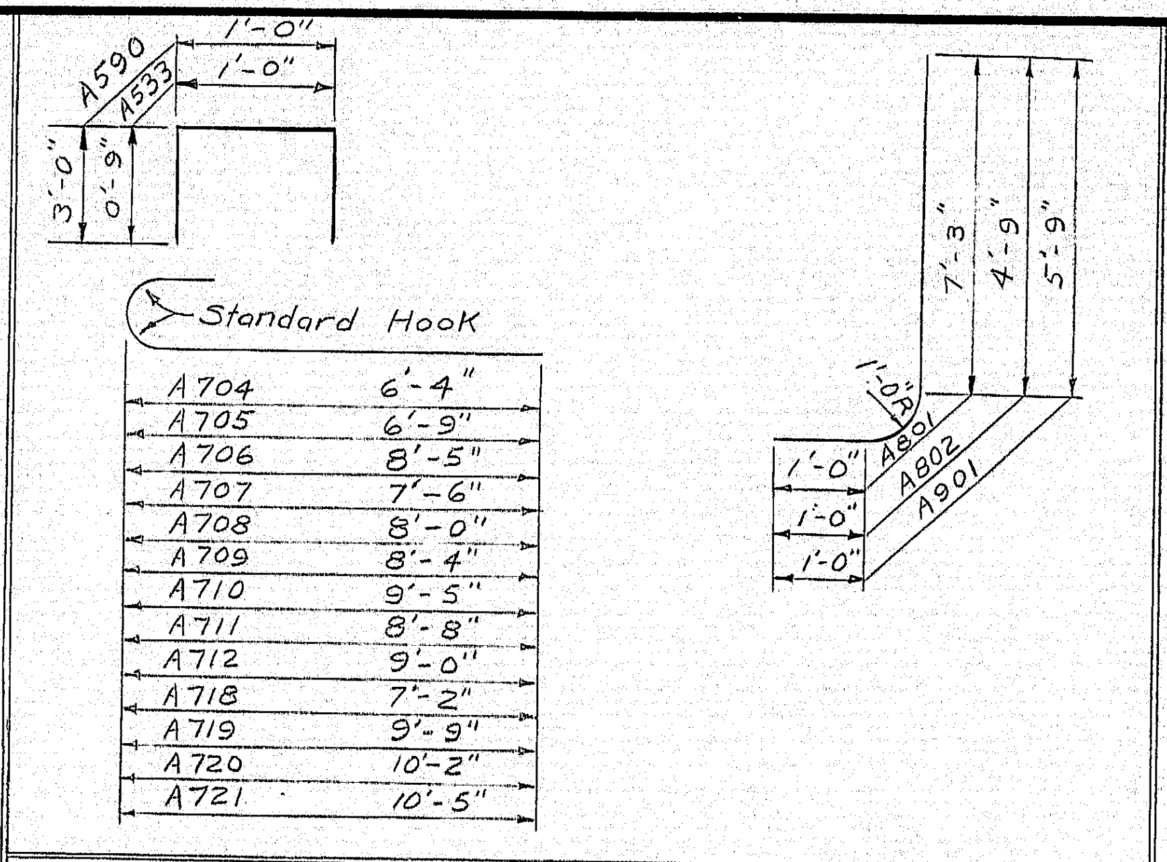
NOTE: ALL BAR DIMENSIONS ARE OUT TO OUT



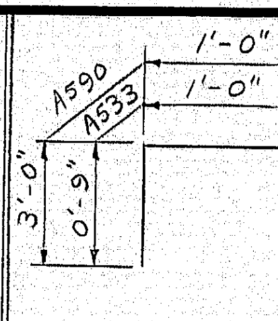
A719	8'-6"
A722	9'-6"

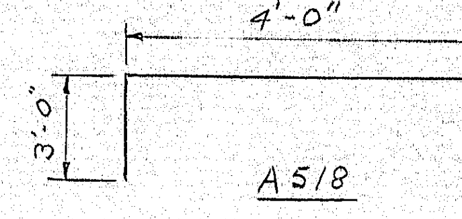






A704	6'-4"
A705	6'-9"
A706	8'-5"
A707	7'-6"
A708	8'-0"
A709	8'-4"
A710	9'-5"
A711	8'-8"
A712	9'-0"
A718	7'-2"
A719	9'-9"
A720	10'-2"
A721	10'-5"





BRIDGE NO. 1

ABUTMENT NO. 1

Bent Bars

Mark	Size	No.	Length	Location
A518	5	48	7'-0"	Breastwall, Top
A533	5	24	2'-6"	Under Bearing Pedestals
A590	5	8	7'-0"	Top of Backwall
A719	7	118	9'-3"	Bottom Footing
A722	7	63	10'-3"	Bottom Wing Footing
A723	7	77	9'-10"	Footing to Breastwall
A801	8	29	9'-10"	Footing to Breastwall
A802	8	16	7'-4"	Footing to Breastwall

Straight Bars

Mark	Size	No.	Length	Location
A505	5	8	20'-0"	Breastwall (FF)
A516	5	120	5'-0"	Breastwall, Backwall, Wingwall-Dowels
A526	5	8	21'-6"	Breastwall
A534	5	96	6'-3"	Backwall
A535	5	26	21'-9"	Backwall & Breastwall
A536	5	8	25'-9"	Breastwall (NF)
A537	5	8	25'-6"	Breast wall (FF)
A538	5	1	21'-11"	Bridge seat (NF)
A539	5	1	25'-7"	Bridge Seat
A540	5	48	10'-8"	Breastwall (NF)
A541	5	1	19'-9"	Bridge Seat (FF)
A542	5	1	19'-5"	Bridge Seat (NF)
A543	5	5	20'-0"	Backwall (FF)
A544	5	2	28'-3"	Top of Wing Wall
A545	5	2	5'-9"	Wing Wall
A546	5	2	11'-0"	Wing Wall
A547	5	16	12'-0"	Wing Wall (NF)
A548	5	2	22'-3"	Wing Wall
A549	5	10	27'-6"	Wing Wall
A550	5	6	23'-0"	Wing Wall
A551	5	16	5'-6"	Wing Wall, top (NF)
A552	5	16	10'-0"	Wing Wall, top (FF)
A553	5	5	25'-3"	Backwall (FF)
A554	5	5	25'-6"	Backwall (NF)
A555	5	5	19'-10"	Backwall (NF)
A556	5	2	7'-10"	Wing Wall
A557	5	2	7'-6"	Wing Wall
A558	5	2	7'-0"	Wing Wall
A559	5	2	16'-6"	Wing Wall (EF)
A591	5	4	4'-6"	Backwall, Top
A601	6	40	6'-6"	Haunch
A612	6	39	3'-6"	Approach Slab
A613	6	79	8'-6"	Footing, Top
A615	6	20	34'-0"	Wing Wall, footing
A617	6	1	4'-0"	Footing
A618	6	1	8'-0"	Footing
A624	6	36	32'-0"	Footing
A702	7	16	10'-0"	Wing Wall (FF)
A714	7	1	8'-0"	Footing, Bottom
A720	7	42	9'-6"	Footing, Top
A721	7	1	4'-0"	Footing, Bottom
A718	7	48	9'-2"	Breastwall (FF)

ABUTMENT NO. 2

Bent Bars

Mark	Size	No.	Length	Location
A509	5	41	7'-0"	Breastwall
A533	5	24	2'-6"	Under Bearing Pedestals
A590	5	8	7'-0"	Backwall

Straight Bars

Mark	Size	No.	Length	Location
A501	5	92	6'-9"	Backwall
A502	5	46	3'-8"	Backwall & Breastwall
A503	5	46	7'-10"	Breastwall
A504	5	10	25'-3"	Backwall
A505	5	7	25'-6"	Breastwall
A506	5	17	21'-9"	Backwall
A507	5	10	20'-4"	Backwall
A508	5	7	21'-6"	Breastwall
A591	5	4	7'-0"	Backwall
A612	6	39	3'-6"	Approach Slab Seat
A690	6	4	18'-0"	Wing Wall

SUPERSTRUCTURE

Bent Bars

Mark	Size	No.	Length	Location
S500	5	184	48'-2½"	Slab
S510	5	540	4'-10"	Curb

Straight Bars

Mark	Size	No.	Length	Location
S300	3	540	29'-9"	Wearing Surface
S301	3	344	30'-0"	Wearing Surface
S302	3	86	20'-0"	Wearing Surface
*S401	4	64	57'-10"	Approach Slab
S501	5	364	46'-4"	Slab
S505	5	728	30'-0"	Slab
S506	5	182	22'-3"	Slab
S511	5	72	14'-8"	Curb
S513	5	24	44'-9"	Slab
S514	5	16	43'-6"	Slab
S515	5	16	42'-6"	Slab
S516	5	16	41'-6"	Slab
S517	5	16	40'-3"	Slab
S518	5	16	39'-3"	Slab
S519	5	16	38'-3"	Slab
S520	5	16	37'-0"	Slab
S521	5	16	36'-0"	Slab
S522	5	16	35'-0"	Slab
S523	5	16	33'-9"	Slab
S524	5	16	32'-9"	Slab
S525	5	16	31'-9"	Slab
S526	5	16	30'-6"	Slab
S527	5	16	29'-6"	Slab
S528	5	16	28'-6"	Slab
S529	5	16	27'-3"	Slab
S530	5	18	26'-3"	Slab
S531	5	16	25'-3"	Slab
S532	5	16	24'-0"	Slab
S533	5	16	23'-0"	Slab
S534	5	16	22'-0"	Slab
S535	5	16	20'-9"	Slab
S536	5	16	19'-9"	Slab
S537	5	16	18'-9"	Slab
S538	5	16	17'-6"	Slab
S539	5	16	16'-6"	Slab
S540	5	16	15'-6"	Slab
S541	5	16	14'-3"	Slab
S542	5	16	13'-3"	Slab
S543	5	16	12'-3"	Slab
S544	5	16	11'-0"	Slab
S545	5	16	10'-0"	Slab
S546	5	16	9'-0"	Slab
S547	5	16	7'-9"	Slab
S548	5	16	6'-9"	Slab
S549	5	16	5'-9"	Slab
S550	5	16	4'-6"	Slab
S551	5	16	3'-6"	Slab
S552	5	16	2'-6"	Slab
S553	5	32	2'-0"	Slab
*S613	6	680	14'-6"	Approach Slab

* = By Others

BRIDGE NO. 2

ABUTMENT NO. 2

Bent Bars

Mark	Size	No.	Length	Location
A533	5	24	2'-6"	Under Bearing Seats
A590	5	8	7'-0"	Backwall
A704	7	6	7'-2"	Footing
A705	7	6	7'-7"	Footing
A706	7	49	9'-3"	Footing
A707	7	6	8'-4"	Footing
A708	7	6	8'-10"	Footing
A709	7	6	9'-2"	Footing
A710	7	118	10'-3"	Footing
A711	7	6	9'-6"	Footing
A712	7	6	9'-10"	Footing
A718	7	6	8'-0"	Footings
A719	7	6	10'-7"	Footings
A720	7	6	11'-0"	Footings
A721	7	31	11'-3"	Footings
A801	8	114	9'-10"	Wing Walls (FF) Breastwall
A802	8	24	7'-4"	Wing Walls
A901	9	29	8'-4"	Left Wing Wall

Straight Bars

Mark	Size	No.	Length	Location
A501	5	15	12'-3"	Left Wing Wall
A502	5	2	8'-3"	Right Wing Wall
A503	5	95	13'-6"	Wing Walls & Bridge Seat
A504	5	87	3'-10"	Footing Dowels
A505	5	10	20'-0"	Backwall (FF)
A506	5	2	6'-3"	Top Left Wing Wall
A507	5	10	20'-0"	Top Backwall
A508	5	18	9'-0"	Left & Right Wing Wall (FF)
A509	5	12	6'-6"	Left Wing Wall
A510	5	2	16'-0"	Right Wing Wall
A511	5	10	22'-6"	Left Wing Wall, top
A512	5	54	6'-9"	Wing Walls & Backwall (FF)
A513	5	2	17'-0"	Wing Walls
A514	5	2	5'-4"	Left Wing Wall
A515	5	2	5'-0"	Left Wing Wall
A516	5	56	4'-6"	Backwall (NF)
A517	5	50	6'-9"	Backwall (NF) & Wing
A518	5	48	7'-0"	Backwall (NF)
A519	5	21	25'-6"	Breastwall (FF)
A520	5	12	25'-9"	Breastwall (NF)
A521	5	34	21'-9"	Breastwall (EF) & Backwall (EF)
A522	5	38	21'-6"	Breastwall (NF) & Left Wing
A523	5	2	10'-0"	Top Right Wing Wall
A524	5	14	17'-6"	Left Wing Wall, Bottom
A525	5	12	22'-6"	Right Wing Wall
A526	5	2	19'-6"	Right Wing Wall
A527	5	2	13'-0"	Right Wing Wall
A528	5	2	4'-0"	Right Wing Wall
A529	5	21	10'-4"	Wing Walls (NF)
A530	5	6	5'-7"	Right Wing Wall (NF)
A531	5	2	25'-0"	Right Wing Wall, Top
A532	5	2	9'-0"	Right Wing Wall
A591	5	4	4'-6"	Backwall
A601	6	40	6'-6"	Haunch
A602	6	75	9'-6"	Footing

ABUTMENT NO. 1

Bent Bars

Mark	Size	No.	Length	Location
A518	5	41	7'-0"	Breastwall
A533	5	24	2'-6"	Under Bearing Seat
A590	5	8	7'-0"	Backwall

Straight Bars

Mark	Size	No.	Length	Location
A504	5	46	3'-9"	Breastwall & Back wall
A505	5	17	21'-9"	Backwall
A509	5	30	6'-0"	Backwall
A517	5	62	6'-3"	Backwall
A548	5	12	25'-3"	Left Backwall
A556	5	46	7'-10"	Breastwall
A557	5	5	24'-6"	Left Breastwall
A558	5	12	20'-2"	Right Backwall
A559	5	5	21'-3"	Right Breastwall
A591	5	4	4'-6"	Backwall
A612	6	39	3'-6"	Approach Slab Seat
A690	6	2	18'-0"	Wing Wall

ABUTMENT NO. 2 - Continued

Mark	Size	No.	Length	Location
A603	6	14	53'-0"	Footing
A604	6	2	51'-0"	Footing
A605	6	2	42'-8"	Footing
A606	6	2	34'-5"	Footing
A607	6	2	26'-2"	Footing
A609	6	20	54'-0"	Footing
A610	6	18	26'-0"	Footing
A611	6	33	8'-6"	Footing
A612	6	39	3'-6"	Approach Slab Seat
A701	7	29	12'-0"	Left Wing Wall
A702	7	24	10'-0"	Wing Walls
A703	7	92	11'-0"	Breast Wall (FF)
A713	7	4	6'-6"	Footing
A714	7	4	6'-10"	Footing
A715	7	4	7'-3"	Footing
A716	7	4	7'-7"	Footing
A717	7	4	8'-0"	Footing
A803	8	4	8'-4"	Footing
A804	8	4	8'-9"	Footing
A805	8	4	9'-1"	Footing
A806	8	4	9'-6"	Footing
A807	8	4	9'-10"	Footings
A808	8	4	10'-3"	Footings
A809	8	21	10'-6"	Footings

Note: Reinforcing Steel shall conform to ASTM A615 (Gr. 60)

PLANS
As Built

Proj. Des. Eng. ALL

	BY	DATE
DESIGN - DETAILED	DEW	3 Dec 71
CHECKED	EBC	
REVISIONS		
FIELD CHANGES	NCE	3/6/74

JANUARY 1968

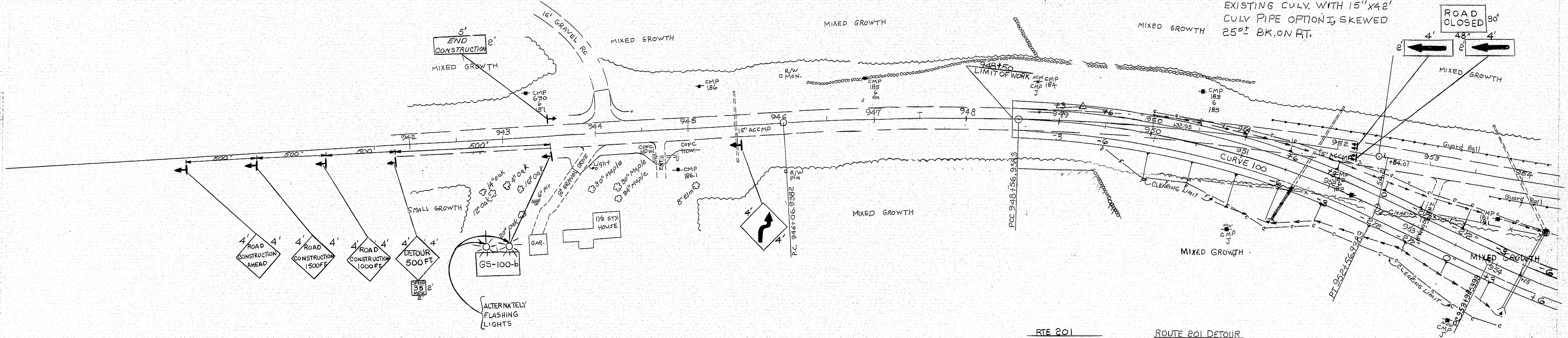
STATE HIGHWAY COMMISSION

U.S. ROUTE NO. 201
OVER
INTERSTATE NO. 95 N.B. & S.B.
IN THE CITY OF
GARDINER
KENNEBEC COUNTY
REINFORCING STEEL
SHEET 31 OF 55 AUGUSTA, MAINE

203-1 2080

152-62

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	32	55



RTE 201
Δ = 12°-51' RT.
D = 2°-00'
T = 322.7'
L = 642.5'
R = 2865.'
E = 18.1'

ROUTE 201 DETOUR
CURVE 100
Δ 24°-00'-00"
D= 6°-00'
T= 202.9766'
L= 400.00'
R= 954.93'
E= 21.337'

0 25' 50'
SCALE

GENERAL NOTES

① UTILITY

THE UTILITIES INVOLVED IN THIS CONTRACT ARE:
CENTRAL MAINE POWER CO.
NEW ENGLAND TELEPHONE AND TELEGRAPH

② UTILITY ADJUSTMENT

ALL UTILITIES ARE TO BE ADJUSTED BY THE RESPECTIVE UTILITIES.

③ CLEARING

CLEARING LIMITS ARE AS SHOWN ON THE PLANS. THE QUANTITY OF CLEARING FOR PAYMENT SHALL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.

④ PRESPLITTING ROCK

THE AREAS TO BE PRESPLIT ARE AS FOLLOWS:
NB STA 1653+00 TO STA 1656+25 LT.
NB STA 1653+00 TO STA 1657+00 RT.
SB STA 1647+50 TO STA 1650+50 LT.
SB STA 1647+50 TO STA 1651+25 RT.
NOTE: SEE NOTE SHEET NO. 12 INVOLVING LEDGE IN THE AREAS OF THE STRUCTURES.

⑤ EXCAVATION LIMITS NB. AND SB.

THE AREAS TO BE EXCAVATED ARE AS FOLLOWS:
NB STA 1653+50 TO STA 1656+00 LT.
NB STA 1654+00 TO STA 1656+75 RT.
SB STA 1648+00 TO STA 1650+25 LT.
SB STA 1648+50 TO STA 1651+00 RT.
THE AREAS THAT ARE NOT TO BE EXCAVATED ARE CROSS HATCHED ON THE PLAN SHEETS.

⑥ COMMON BORROW

COMMON BORROW HAS BEEN ESTIMATED TO COMPLETE THE 201 DETOUR IN THE EVENT THAT THE EXCAVATION GENERATED IS NOT SUFFICIENT TO COMPLETE THE DETOUR.

⑦ SEEDING

ALL SEEDING ON THIS PROJECT SHALL BE SEEDING METHOD No. 2 WITH HAY MULCH. NO LOAM WILL BE USED ON THE PROJECT. THE THREE INCH GROWTH REQUIREMENT IS WAIVED ON THIS PROJECT.

⑧ LOAM

NO LOAM REQUIRED ON THIS PROJECT.

⑨ EROISION CONTROL MESH, SODDING

ALL EROSION CONTROL MESH AND SODDING WILL BE PLACED WITHOUT LOAM. THE AREAS REQUIRING THE ABOVE WILL BE HAND RAKED TO LOSEN THE EXISTING GROUND PRIOR TO INSTALLATION.

⑩ SURPLUS EARTH EXCAVATION

ALL SUITABLE EARTH EXCAV. IN ACCESS OF THAT REQUIRED TO CONSTRUCT THE ROUTE 201 DETOUR WILL BE PLACED WITHIN THE LIMITS OF EXISTING ROUTE 201. EXCEPT THE AREAS REQUIRING GRANULAR BORROW AT THE ABUTMENTS. THE SURPLUS EARTH EXCAVATION SHALL BE PLACED UNIFORMALLY AND GRADED TO DRAIN AS DIRECTED BY THE RESIDENT ENGINEER.

⑪ SURPLUS ROCK EXCAVATION

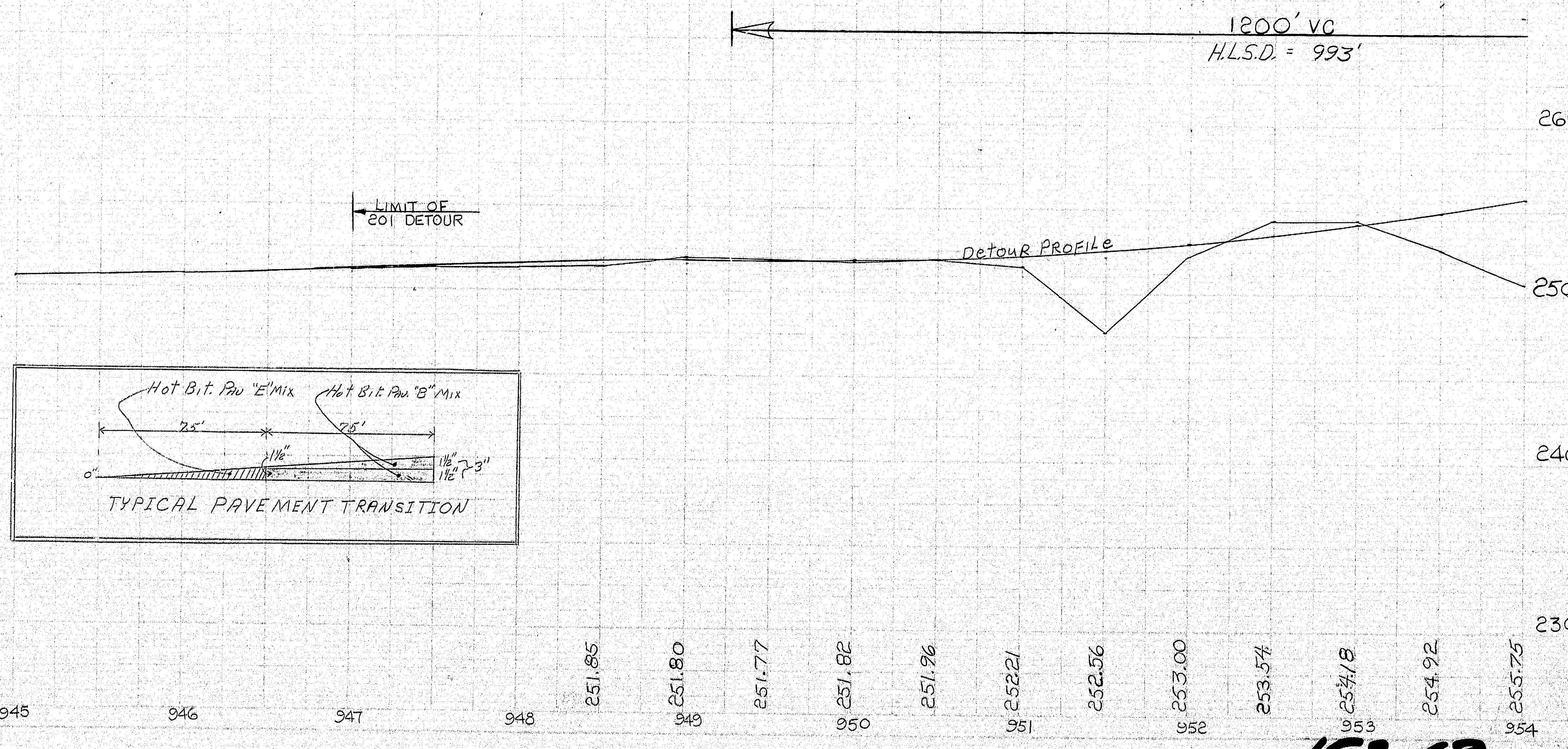
SEE NOTE: ROCK EXCAVATION SHEET NO. 4

⑫ RESERVED AREA ACCESS

THE CONTRACTOR WILL PROVIDE SUITABLE ACCESS TO THE RESERVED AREA SHOWN ON THE PLANS, STA 955+00± TO STA 956+50± LEFT OF ROUTE 201.
THE ACCESS SHALL BE MAINTAINED UNTILL NO LATER THAN JULY 1st 1972.

⑬ EXISTING PICNIC HARDWARE

ALL EXISTING HARDWARE IN THE EXISTING 201 PICNIC AREA SHALL BE REMOVED BY OTHERS.

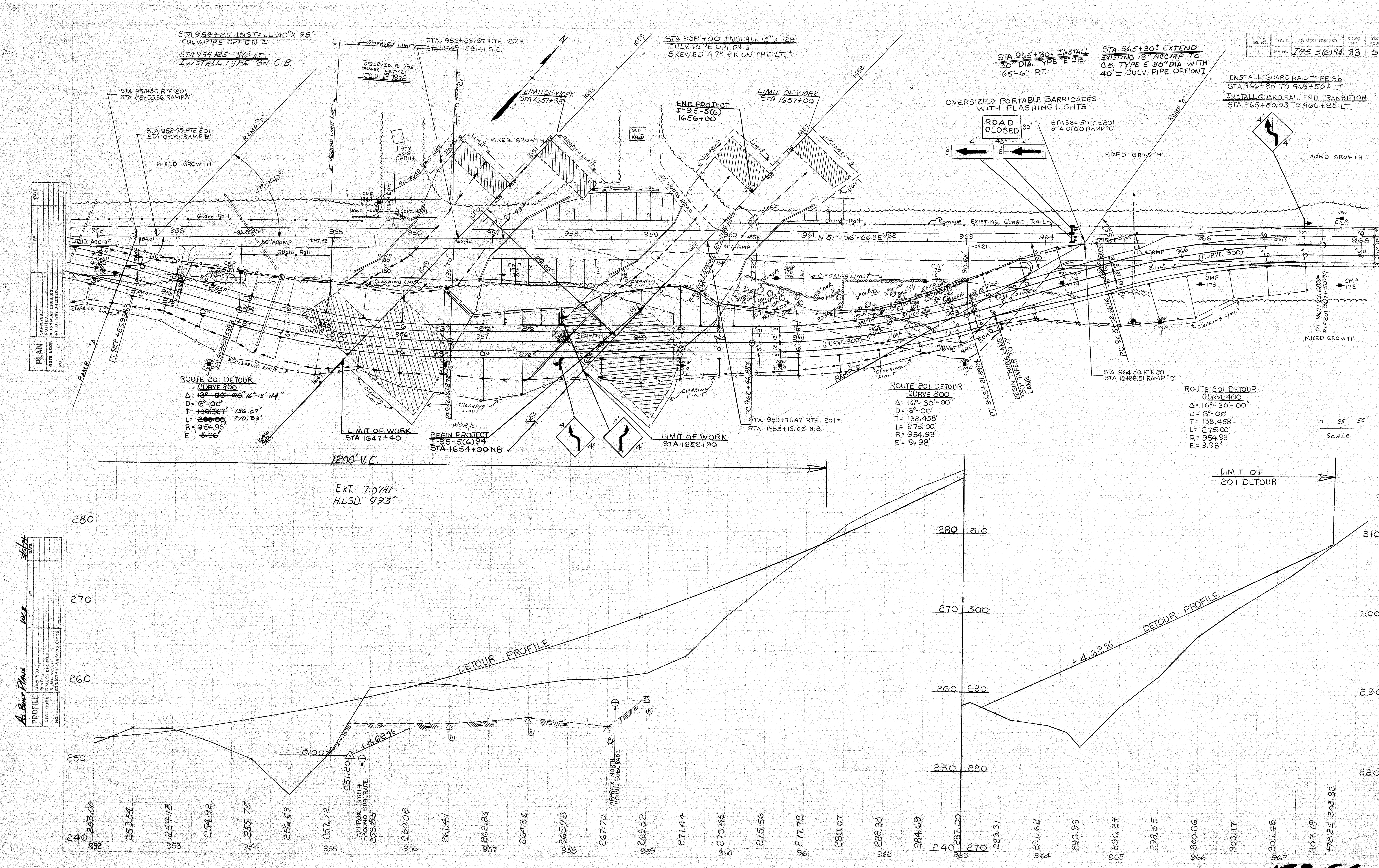


TYPICAL PAVEMENT TRANSITION

152-63

As Built Plans WES 3/5/74

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	33	55.

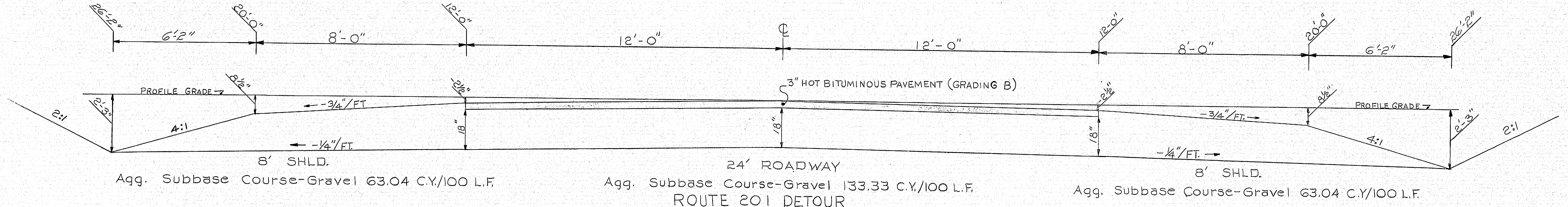


152-64

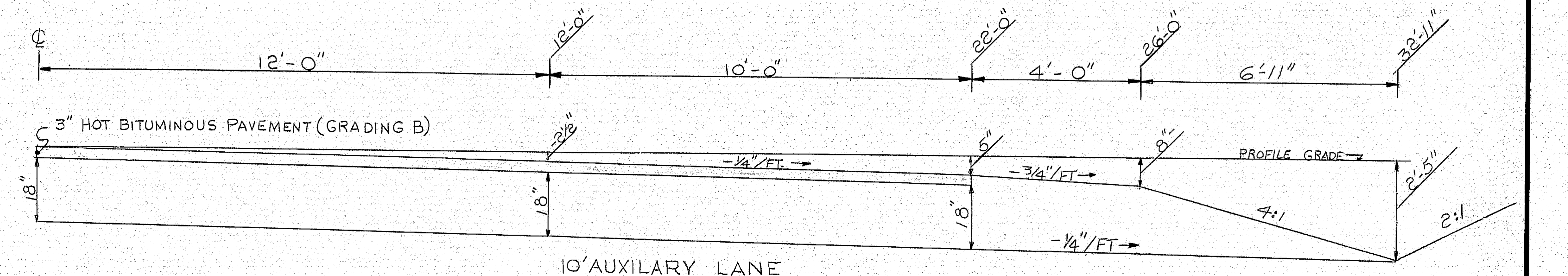
[redacted]

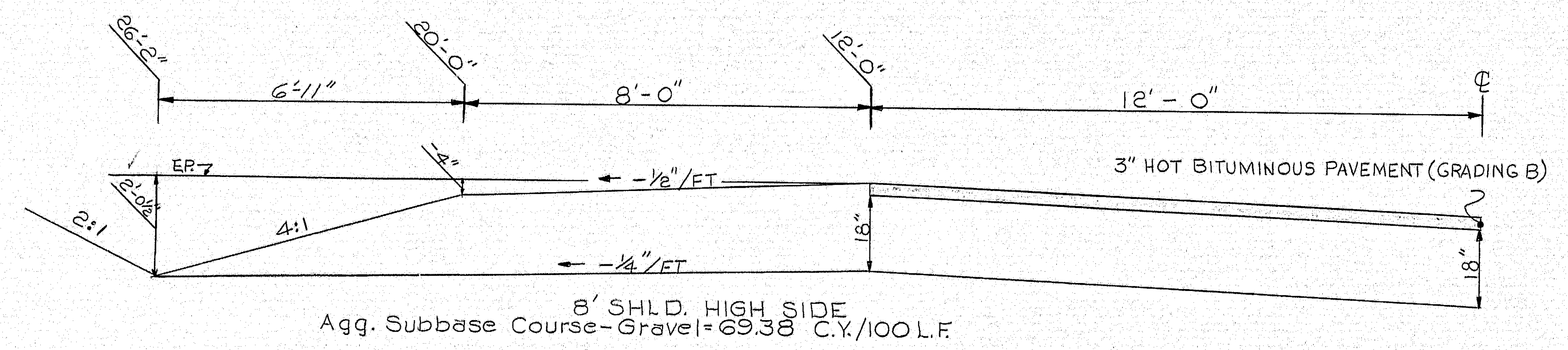
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	34-	55

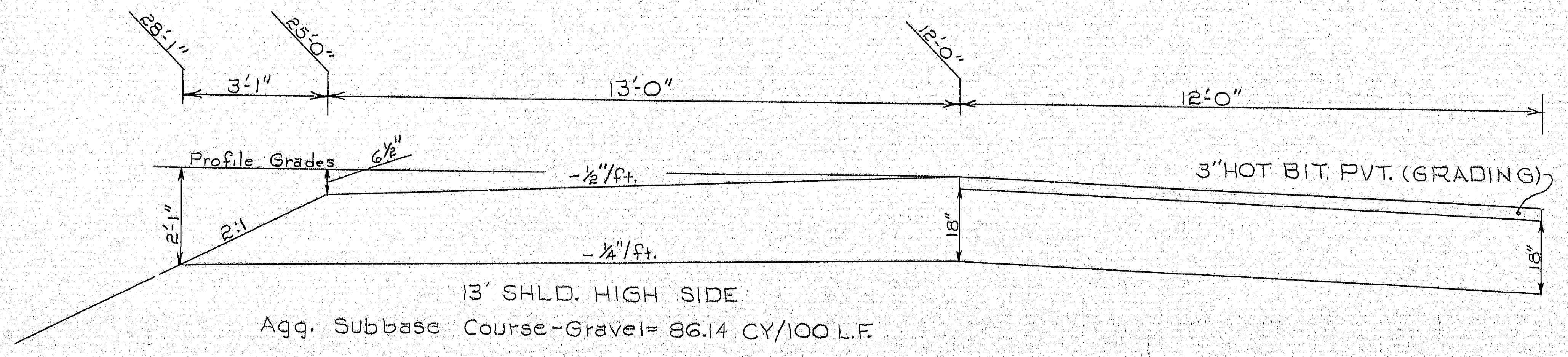
3" HOT BITUMINOUS PAVEMENT
ROUTE 201 DETOUR



ROUTE 201 DETOUR
NORMAL SECTION







BITUMINOUS PAVEMENT ITEMS

DESCRIPTION OF COURSE	GRADATION DESIGNATION	ITEM NO.	BITUMEN CONTENT PERCENT MIX	TOTAL THICKNESS INCHES	NUMBER OF LAYERS	NOTES
Hot BIT. PAVEMENT	"B"	403.07	5.0- 6.5	3"	2	1, 2
Hot BIT. PAVEMENT	"E"	403.121	6.5-8.0	VARIABLE	1	1, 2 & 3

1. THE BITUMINOUS MATERIAL SHALL BE ASPHALT CEMENT PENETRATION GRADE 120-150 OR VISCOSITY GRADE AC 10.
2. THE ASPHALT CONTENTS SHOWN ARE TO SERVE AS A GUIDE ONLY.
3. DENSITY REQUIREMENTS ARE WAIVED.

PLANS		BY	DATE
As Built	DESIGN - DETAILED		
	CHECKED		
	REVISIONS		
	FIELD CHANGES	WCE	3/5/74

STATE HIGHWAY COMMISSION

TYPICAL SECTIONS
ROUTE 201 DETOUR

SCALE 1"-2'

SHEET 34 OF 55 AUGUSTA, MAINE

JANUARY 1968

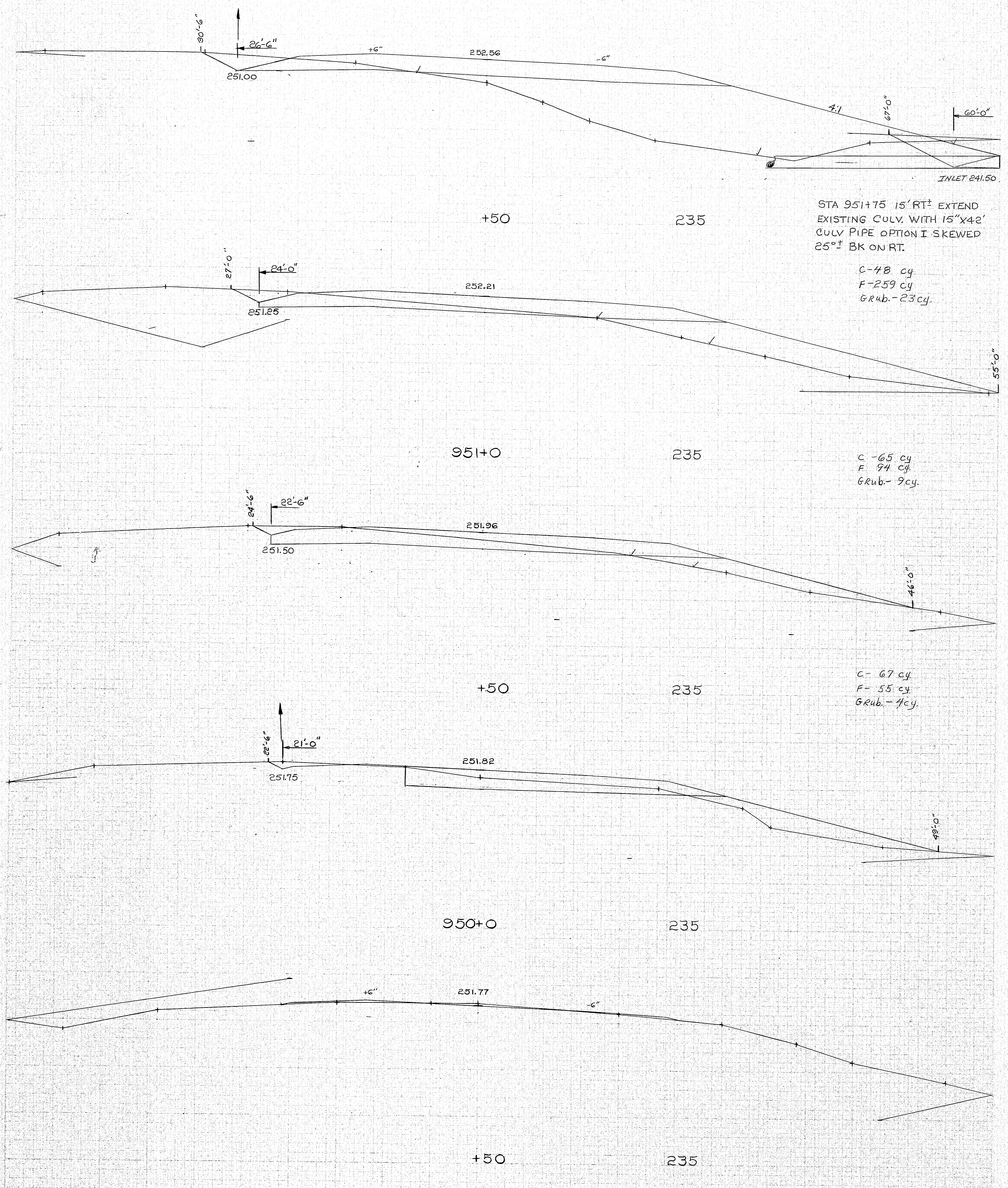
152-65

203-1 2080

TRUFLEX ☆ SILKY ☆ TRIPLE WHITE ☆ RYPLEX

ORIGINAL SURVEY		BY	DATE
	SURVEYED	Interpolated	Dec 71
	PLOTTED	Briggs	Dec 71
NOTE BOOK	TEMPLATE	M Pray	12-71
	AREAS	M Pray	12-71
NO.	AREAS CHECKED	DPB	

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



STA 951+75 15' RT± EXTEND
EXISTING CULV. WITH 15"X42'
CULV PIPE OPTION I SKEWED
25°± BK ON RT.

C-48 cy
F-259 cy
Grub.-23 cy.

C -65 cy
F 94 cy
Grub.- 9 cy.

C- 67 cy
F- 55 cy
Grub.- 4 cy.

LIMIT OF WORK 948+50

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	35	55

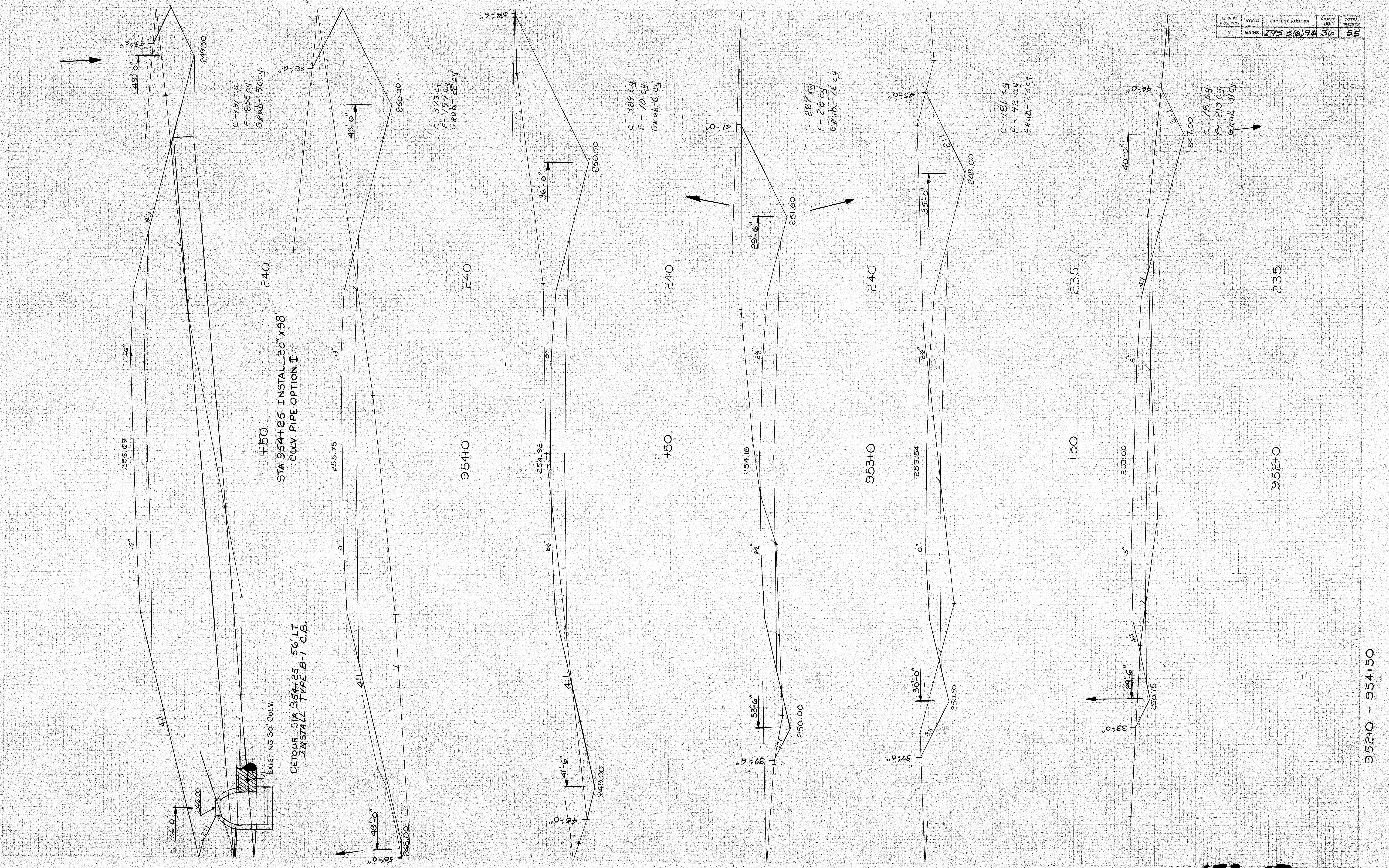
152-66

949+0—951+50 ℄

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	36	55

ORIGINAL SURVEY		BY	DATE
	SURVEYED	Interpolated	Dec 71
	PLOTTED	Briggs	Dec 71
NOTE BOOK	TEMPLATE	M. PRAY	12-71
	AREAS	M. PRAY	12-71
NO. —	AREAS CHECKED	DPB	

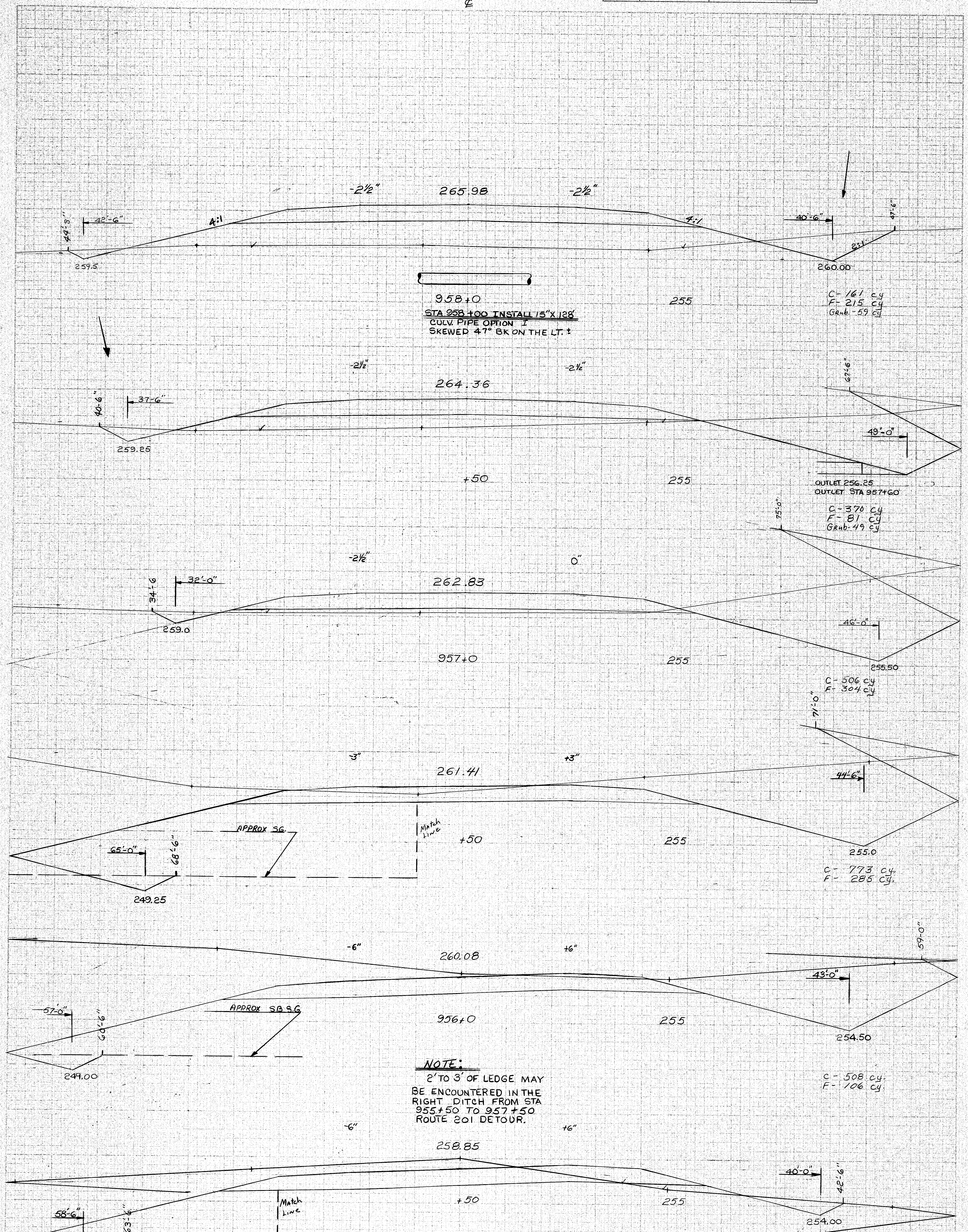
FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



[redacted]

ORIGINAL SURVEY		BY	DATE
	SURVEYED	BROWN & CREW	9/71
	PLOTTED	JONES	10/71
NOTE BOOK	TEMPLATE	M. PRAY	10-71
	AREAS	M. Pray	10-71
NO.	AREAS CHECKED	DPB	

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



STA 958+00 INSTALL 15"x 128' CULV. PIPE OPTION I SKEWED 47° BK ON THE LT. ±

NOTE:
2' TO 3' OF LEDGE MAY
BE ENCOUNTERED IN THE
RIGHT DITCH FROM STA
955+50 TO 957+50
ROUTE 201 DETOUR.

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
	MAINE	I95 5(6)94	37	55

955+00 - 958+00

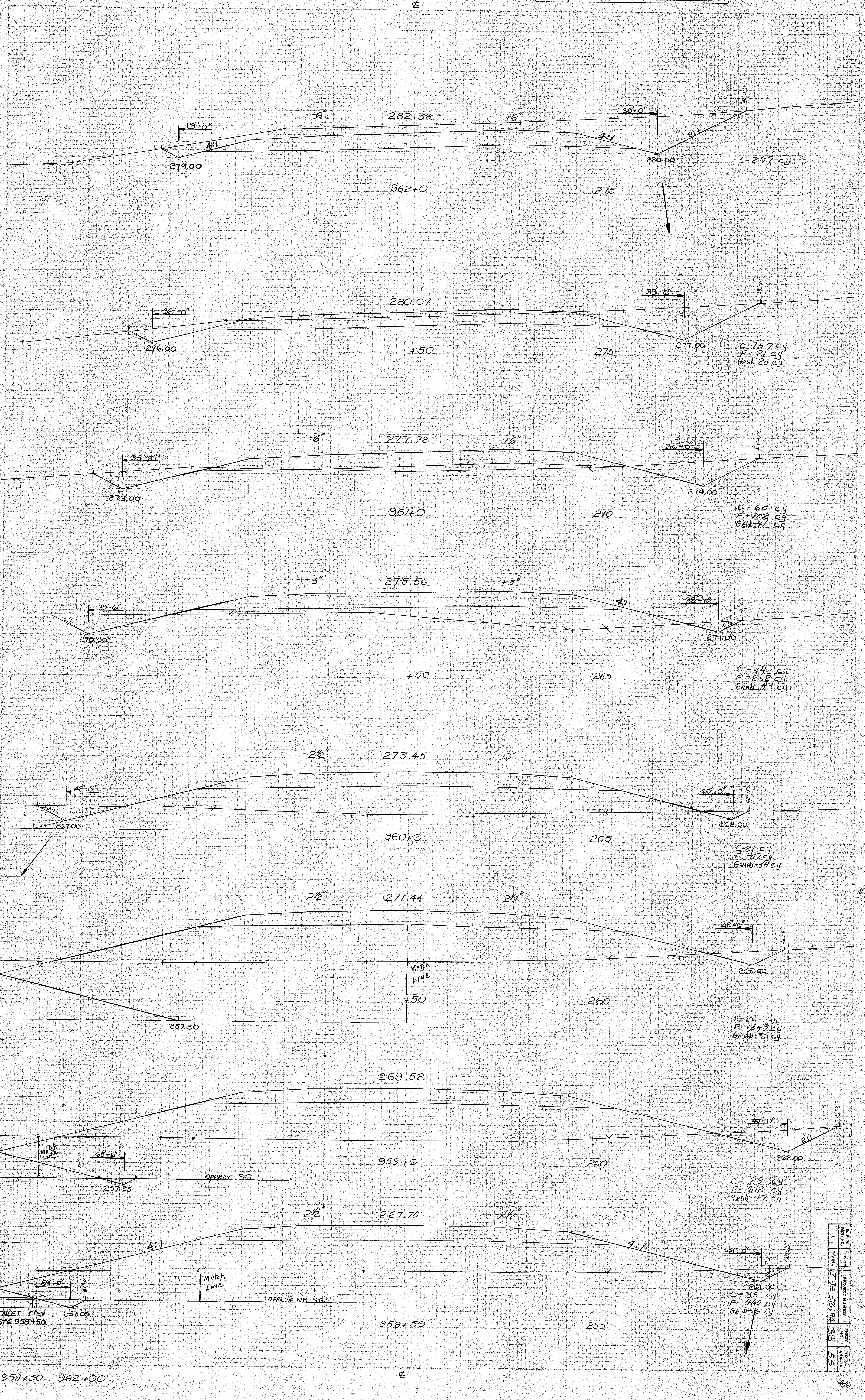
152-68

[redacted]

[redacted]

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED	BROWN & CREW	9/71
NO.	PLOTTED	JONES	10/71
	TEMPLATE	M. PRAY	10-71
	AREAS	M. PRAY	10-71
	AREAS CHECKED		

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		



F.A.P. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95-5(6)94	33	55

958+50 - 962+00

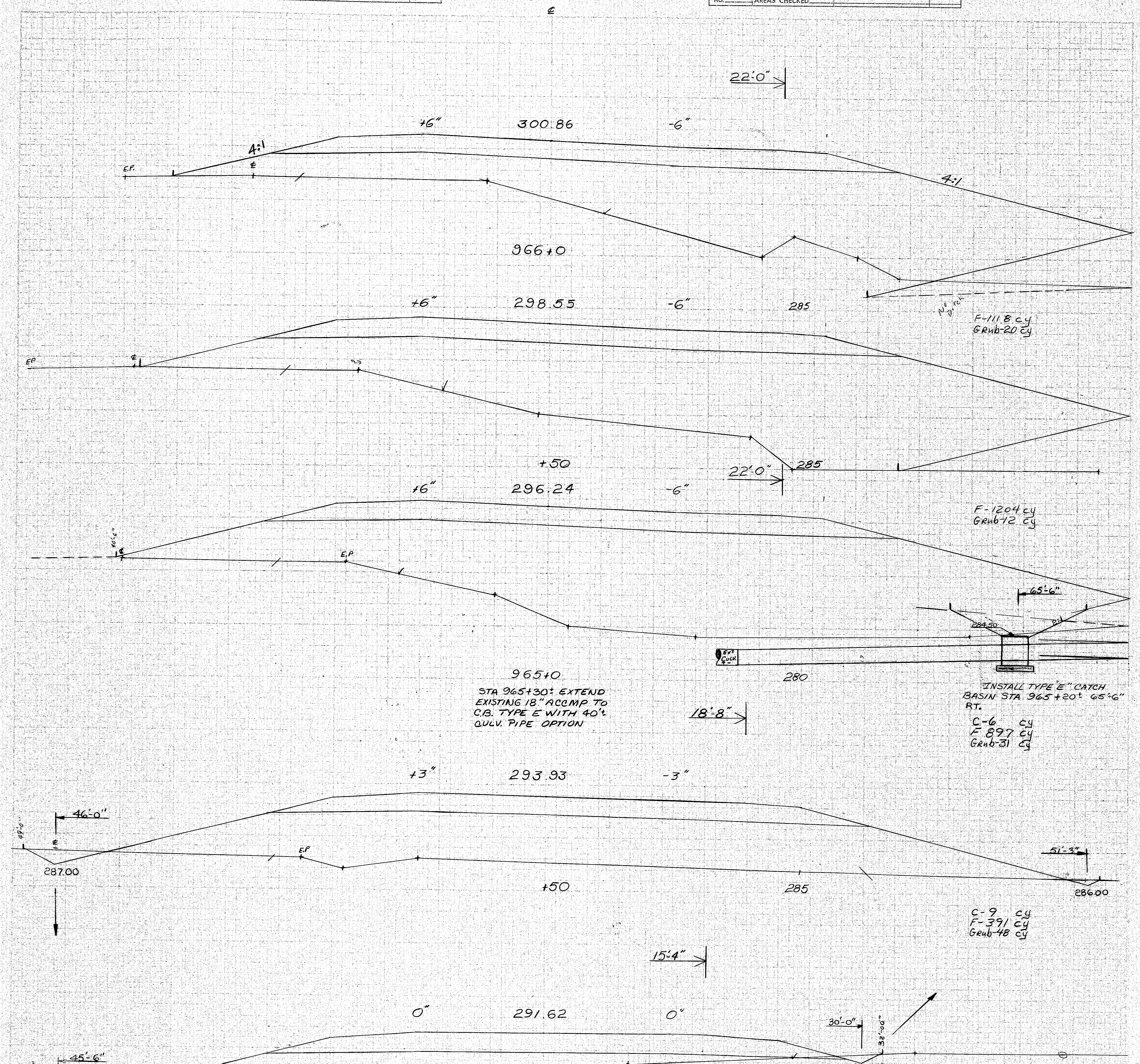
4/6

152-69

[redacted]

ORIGINAL SURVEY		BY	DATE
	SURVEYED	BROWN & CREW	9/71
	PLOTTED	JONES	10/71
NOTE BOOK	TEMPLATE	M. PRAY	10-71
	AREAS	M-PRAY	10-71
NO.	AREAS CHECKED		

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



152-70

962+50 - 966+00

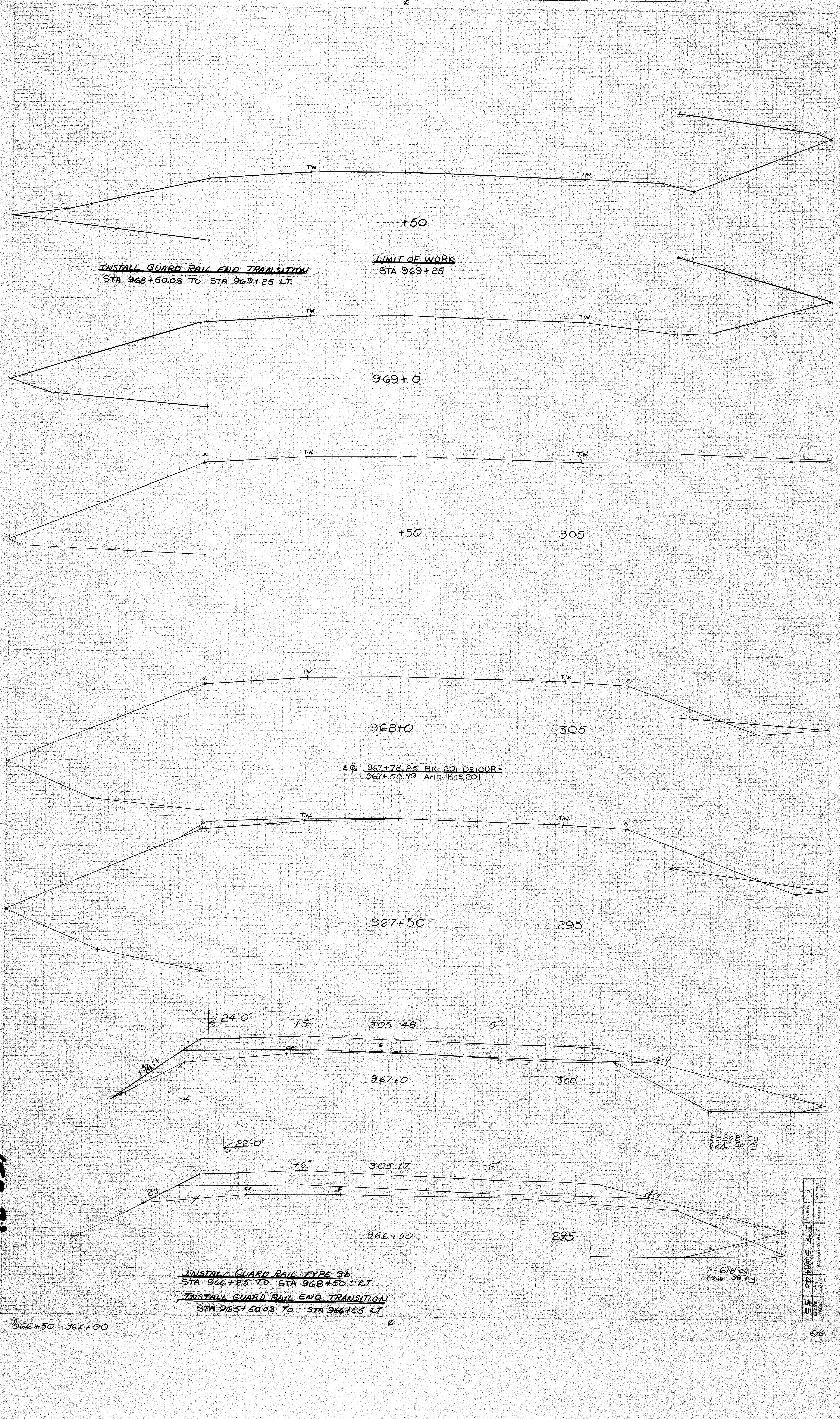
F.A.P. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	39	55

5/6

[redacted]

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED	BROWN & CREW	9/71
NO.	PLOTTED	JONES	10/71
	TEMPLATE	M. PRAY	10-71
	AREAS	M. PRAY	10-71
	AREAS CHECKED		

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		



INSTALL GUARD RAIL END TRANSITION
STA 968+50.03 TO STA 969+25 LT.

LIMIT OF WORK
STA 969+25

EQ. 967+72.25 BK. 201 DETOUR =
967+50.79 AHD RTE 201

F-208 cy
Grub-50 cy

F-618 cy
Grub-38 cy

INSTALL GUARD RAIL TYPE 3b
STA 966+25 TO STA 968+50 ± LT

INSTALL GUARD RAIL END TRANSITION
STA 965+50.03 TO STA 966+25 LT

966+50 - 967+00

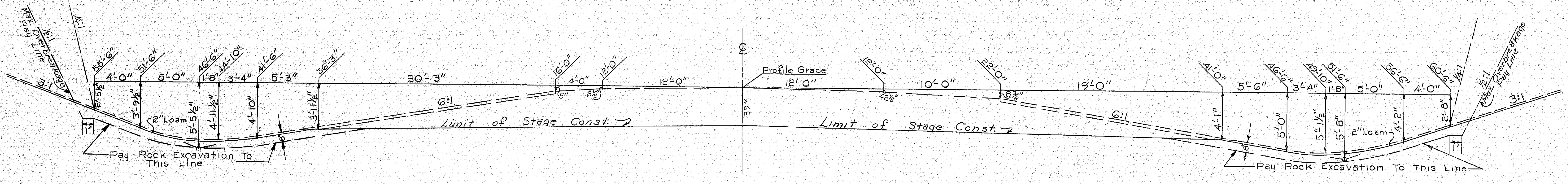
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	40	55

6/6

152-71

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	41	55

I-95 STAGE CONSTRUCTION



DRAINAGE

STATION	RCP			BCCMP		CMP		CULVERT PIPE		CATCH BASINS							MAN HOLES	UNDERDRAINS				REMARKS
																		'B'	'C'		'B' OUTLET	
	SIZE	LENGTH	CLASS	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	A1	A2	B1	B2	C1	C2	E		LENGTH	SIZE	LENGTH	LENGTH	
951+50								15"	84'													OPTION I
951+50 40' Lt.																1						
954+50								30"	104'													OPTION I
958+0								15"	128'													OPTION I
965+20 65.5' RT.																1						
965+30								18"	48'													OPTION I

STATE HIGHWAY COMMISSION

TYPICAL SECTIONS
I - 95

DRAINAGE
LIST

SHEET 41 OF 55 AUGUSTA, MAINE

PLANS

	BY	DATE
DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

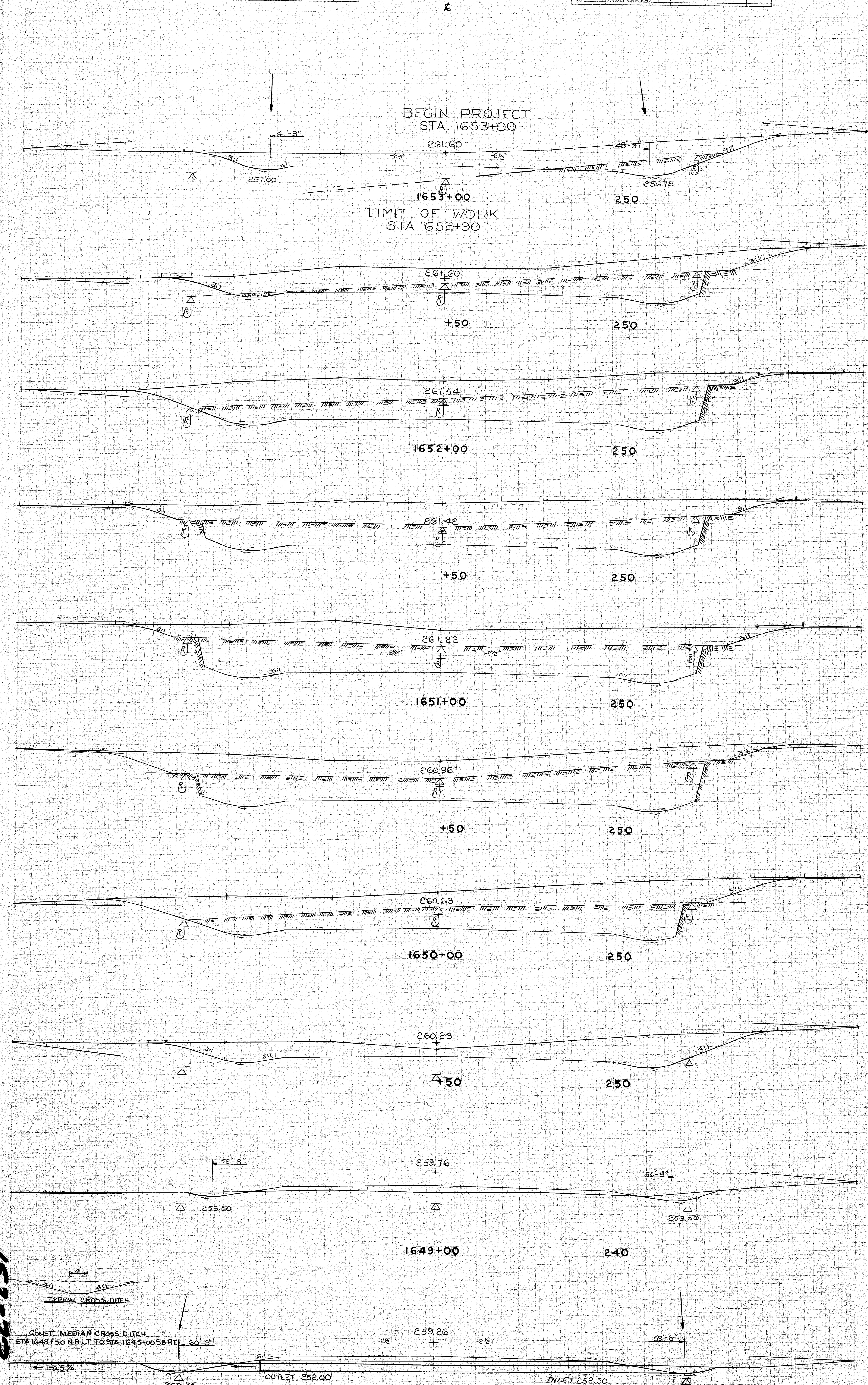
JANUARY 1960

152-72

203-1 2080

ORIGINAL SURVEY		BY	DATE
	SURVEYED	LANDERKIN + CREW	3-14-66
	PLOTTED	BRIGGS + BEAULIEU	10-4-68
NOTE BOOK	TEMPLATE		
	AREAS	M. PRAY	11-71
NO. 95/2515	AREAS CHECKED		

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



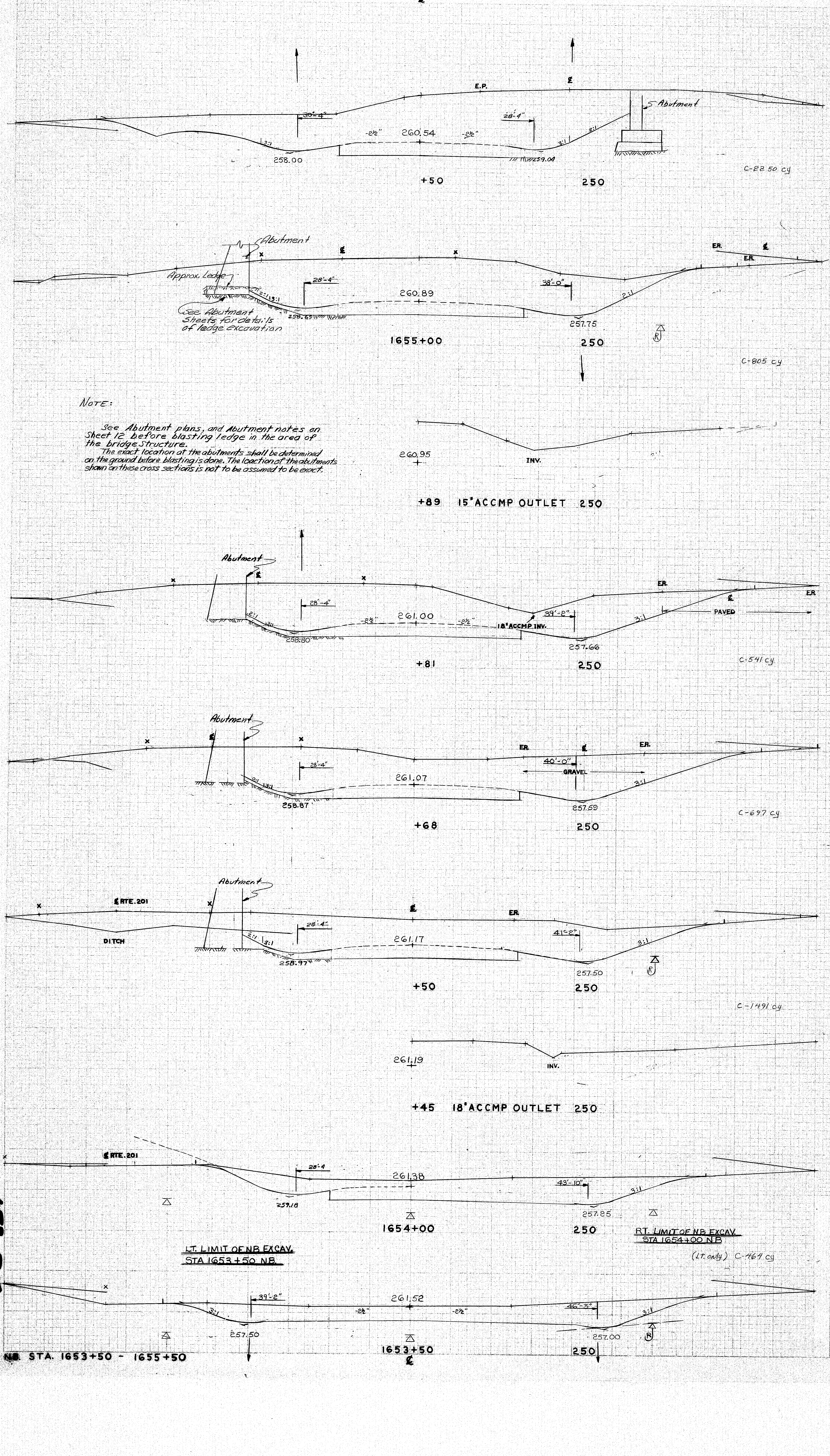
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)96	42	55

152-73

[redacted]

ORIGINAL SURVEY		BY	DATE
	SURVEYED	LANDERKIN + CREW	3-14-66
	PLOTTED	BRIGGS + BEAULIEU	10-4-68
NOTE BOOK	TEMPLATE		
NO. 95/2515	AREAS	M. Pray	11-71
	AREAS CHECKED		

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



NOTE:

See Abutment plans, and Abutment notes on Sheet 12 before blasting ledge in the area of the bridge structure.
The exact location at the abutments shall be determined on the ground before blasting is done. The location of the abutments shown on these cross sections is not to be assumed to be exact.

NB STA. 1653+50 - 1655+50

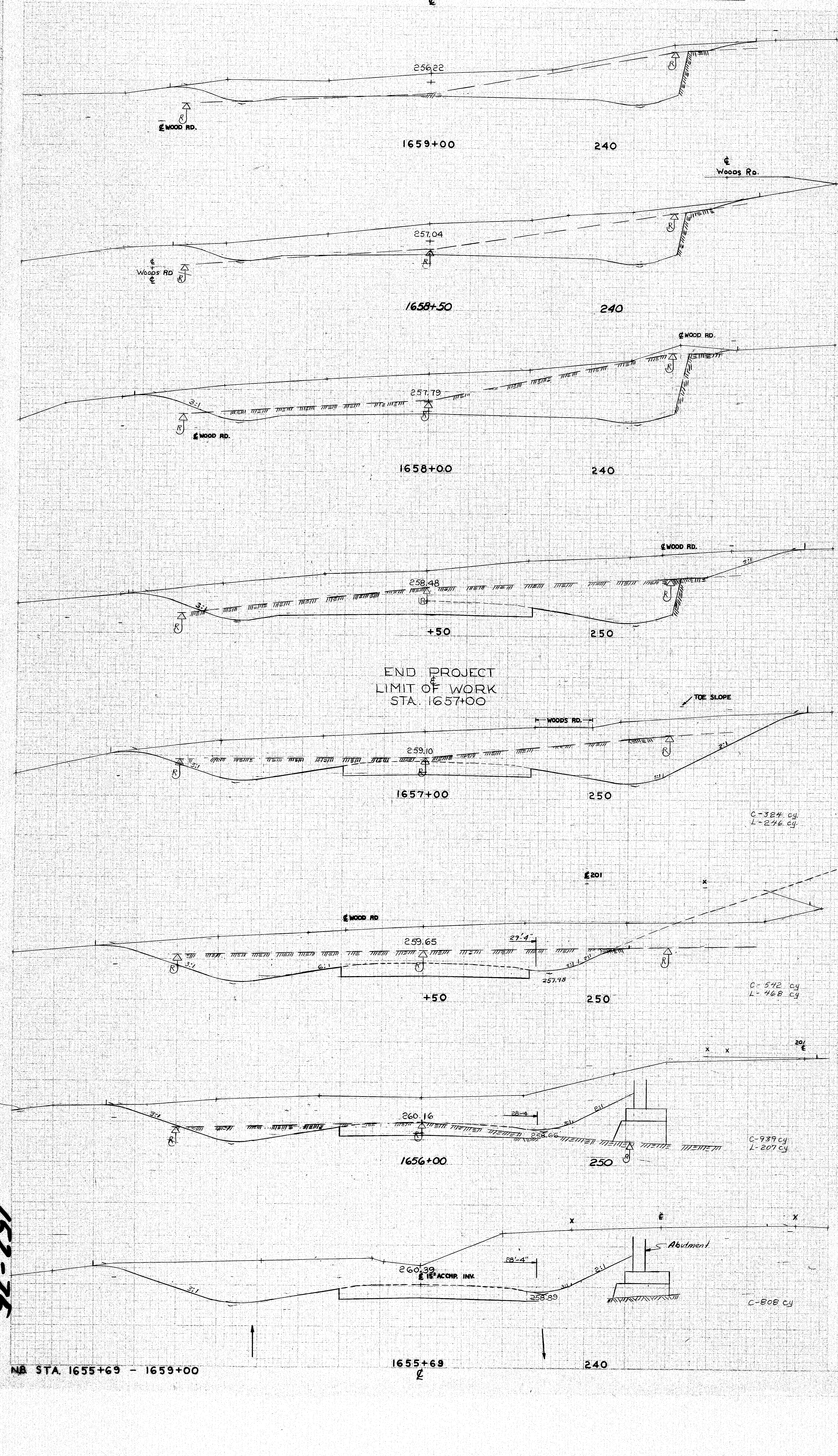
152-74

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
	MAINE	I95 5(6)94	43	55

[redacted]

ORIGINAL SURVEY		BY	DATE
	SURVEYED	LANDERKIN + CREW	1-10-65
	PLOTTED	BRIGGS + BEAULIEU	10-14-68
NOTE BOOK NO. 95/2517	TEMPLATE		
	AREAS	M. Pray	11-71
	AREAS CHECKED		

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		



D.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	44	55

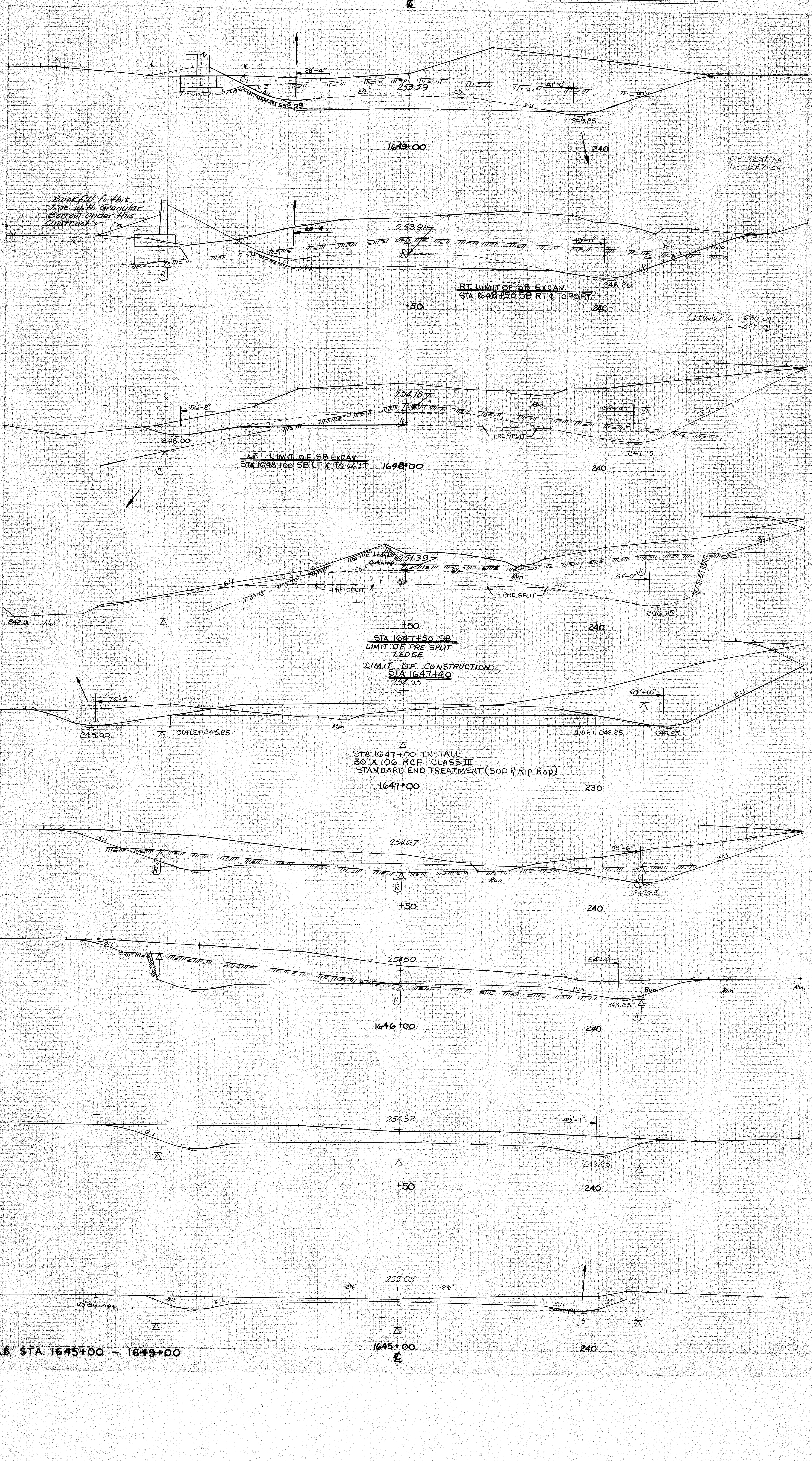
152-75

NB STA. 1655+69 - 1659+00

[redacted]

ORIGINAL SURVEY		BY	DATE
	SURVEYED	Hinds & Crew	2-24-66
	PLOTTED	Briggs & Beaulieu	
NOTE BOOK	TEMPLATE	"	~~10-8-68~~
NO. 95/2520	AREAS	M. Pray	11-71
	AREAS CHECKED		

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		



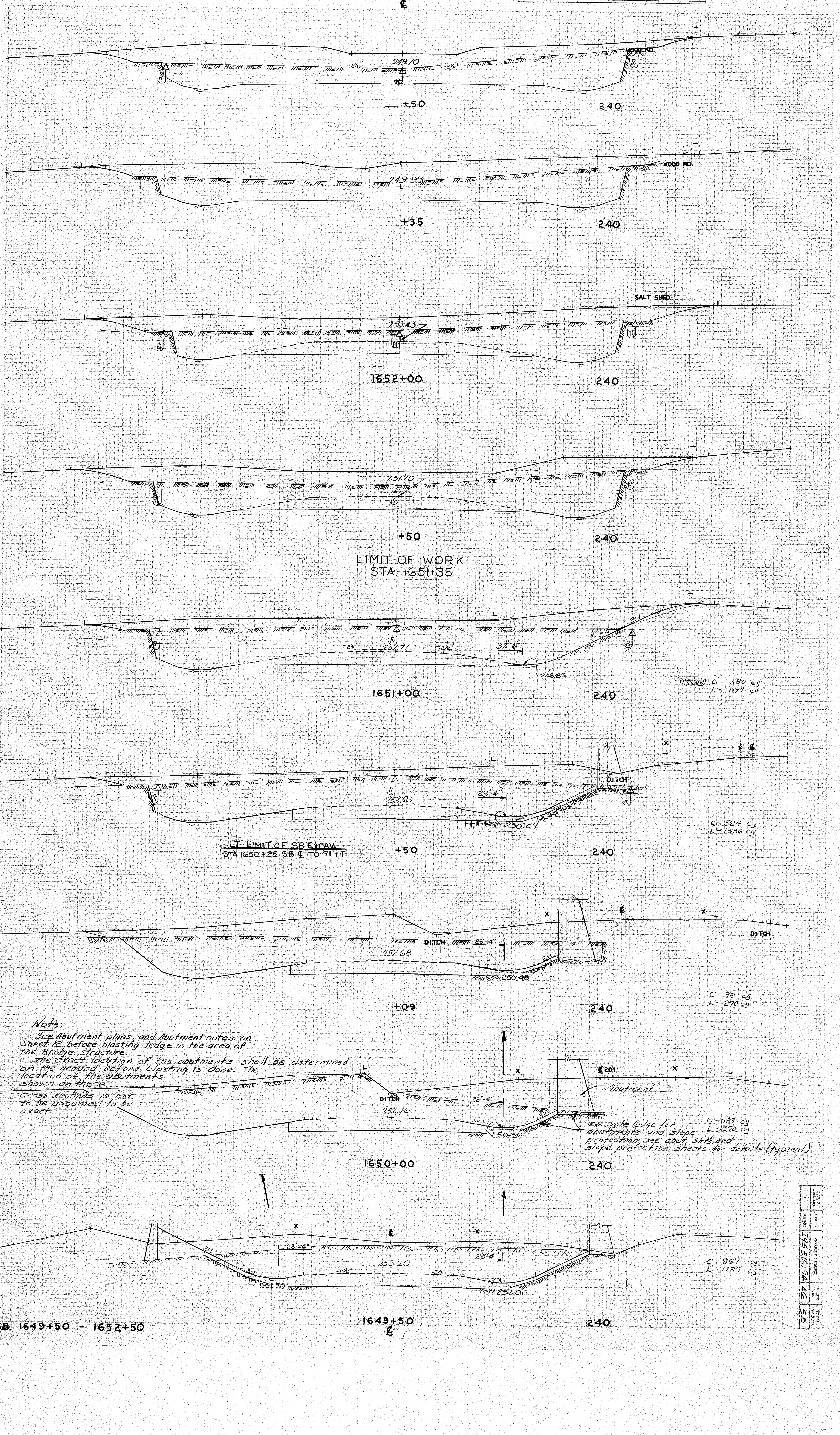
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	45	55

S.B. STA. 1645+00 — 1649+00

152-76

ORIGINAL SURVEY		BY	DATE
	SURVEYED	DION + CREW	10-7-65
	PLOTTED	BRIGG + BEAULIEU	10-8-68
NOTE BOOK	TEMPLATE		
NO. 95/2518	AREAS	M. PRAY	11-71
	AREAS CHECKED		

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		



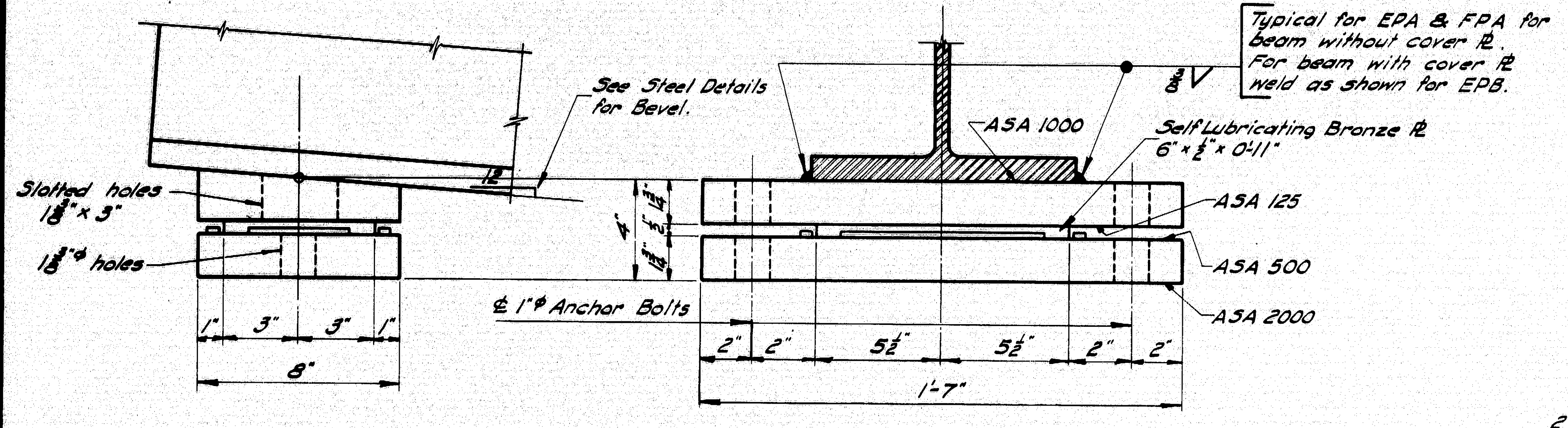
Note:
See Abutment plans, and Abutment notes on Sheet 12 before blasting ledge in the area of the Bridge structure.
The exact location of the abutments shall be determined on the ground before blasting is done. The location of the abutments shown on these Cross sections is not to be assumed to be exact.

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6) 94	46	55

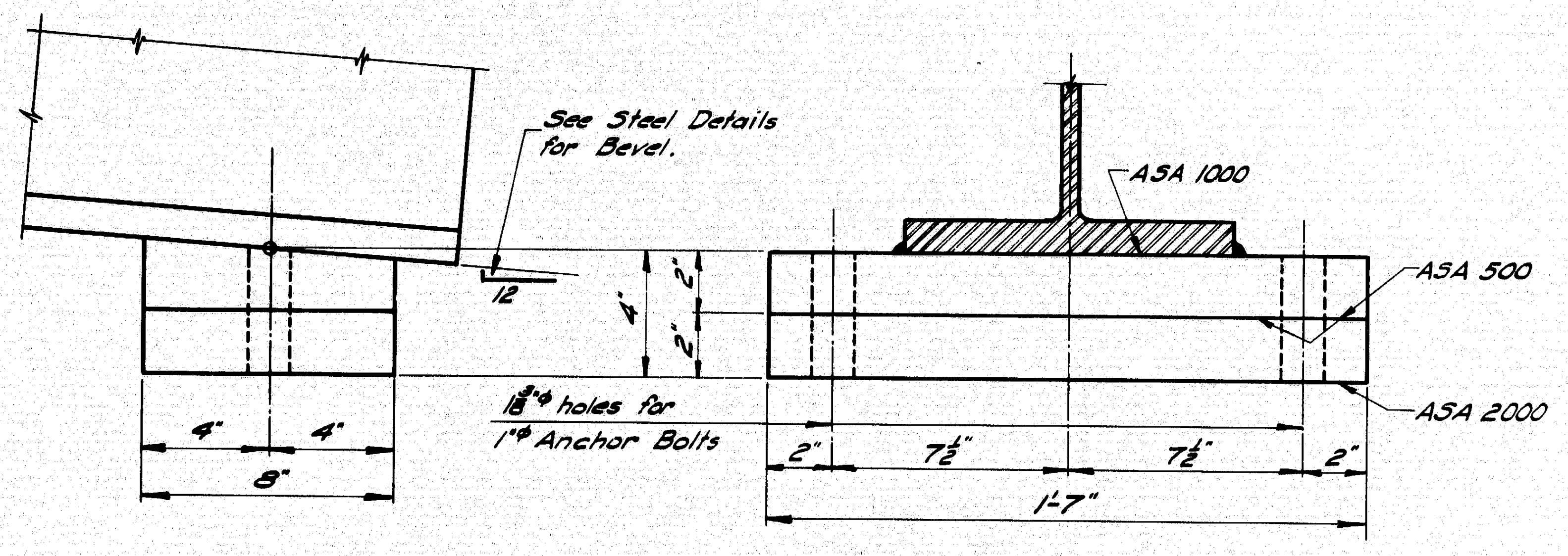
S.B. 1649+50 - 1652+50

152-79

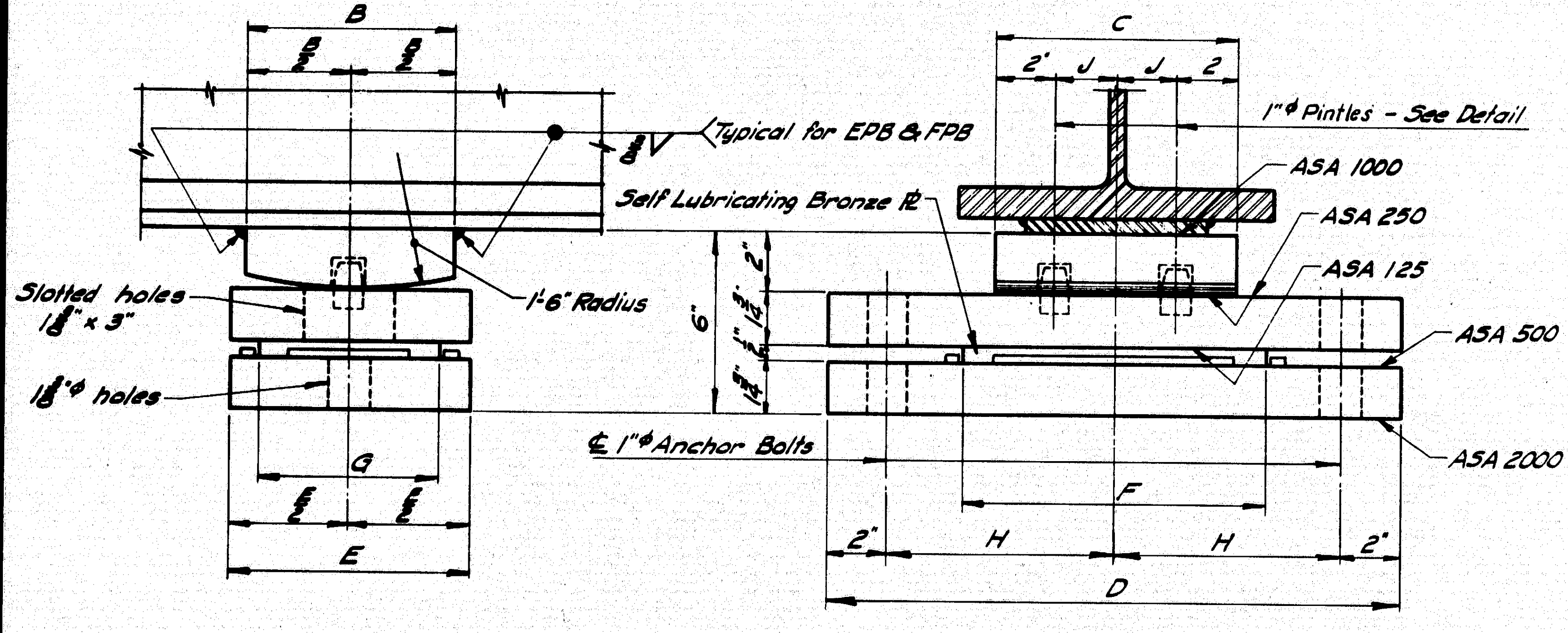
B.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	47	55.


Typical for EPA & FPA for beam without cover ℞. For beam with cover ℞ weld as shown for EPB.
See Steel Details for Bevel.
Slotted holes $1\frac{3}{8}$" × 3"
$1\frac{3}{8}$"ϕ holes
℄ 1"ϕ Anchor Bolts
ASA 1000
Self Lubricating Bronze ℞ 6" × $\frac{1}{2}$" × 0'-11"
ASA 125
ASA 500
ASA 2000
1" 3" 3" 1"
8"
2" 2" $5\frac{1}{2}$" $5\frac{1}{2}$" 2" 2"
1'-7"
4"

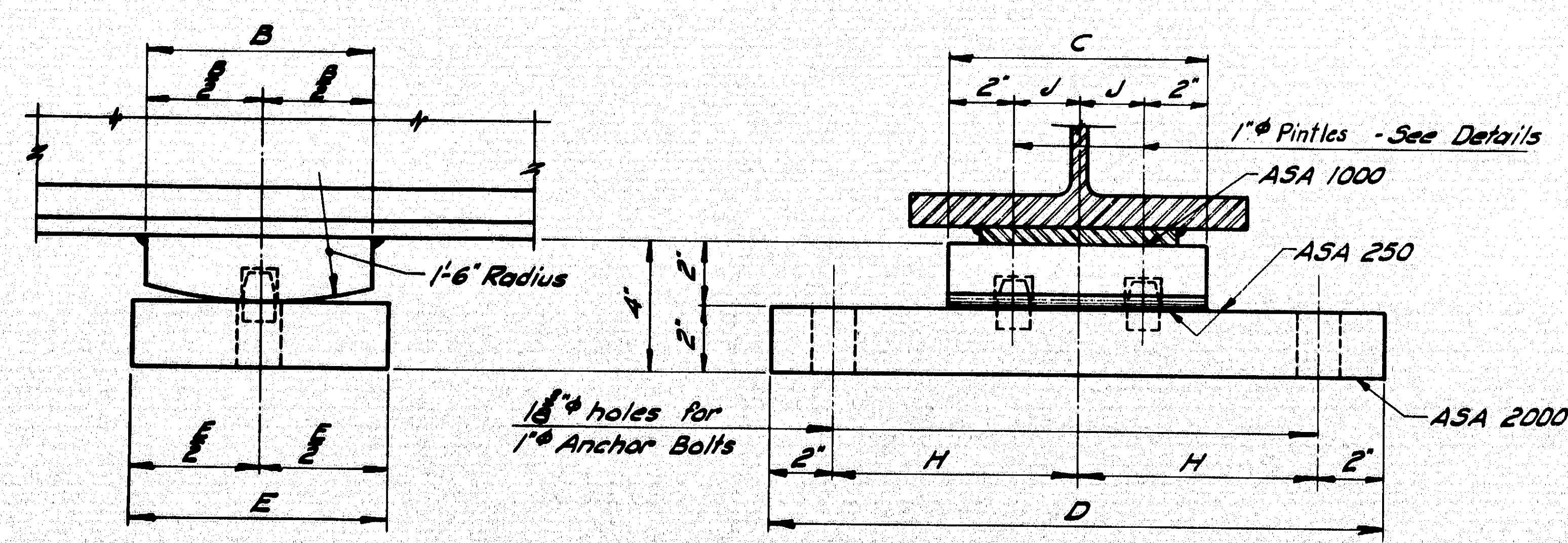
EXPANSION PEDESTAL - EPA


See Steel Details for Bevel.
ASA 1000
ASA 500
ASA 2000
$1\frac{3}{8}$"ϕ holes for 1"ϕ Anchor Bolts
4" 4"
8"
2" $7\frac{1}{2}$" $7\frac{1}{2}$" 2"
1'-7"
4"

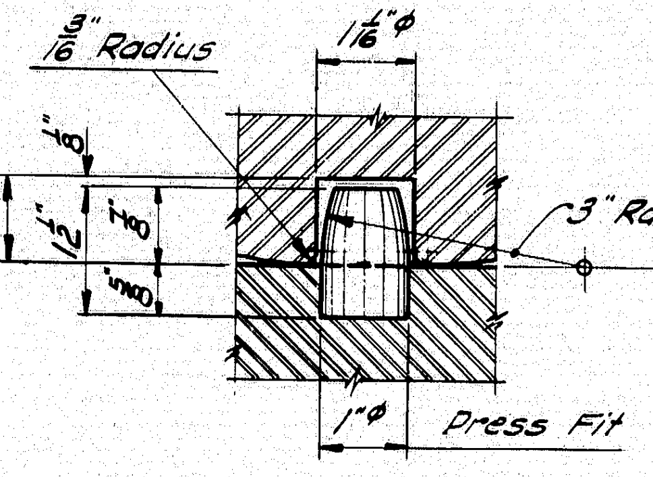
FIXED PEDESTAL - FPA



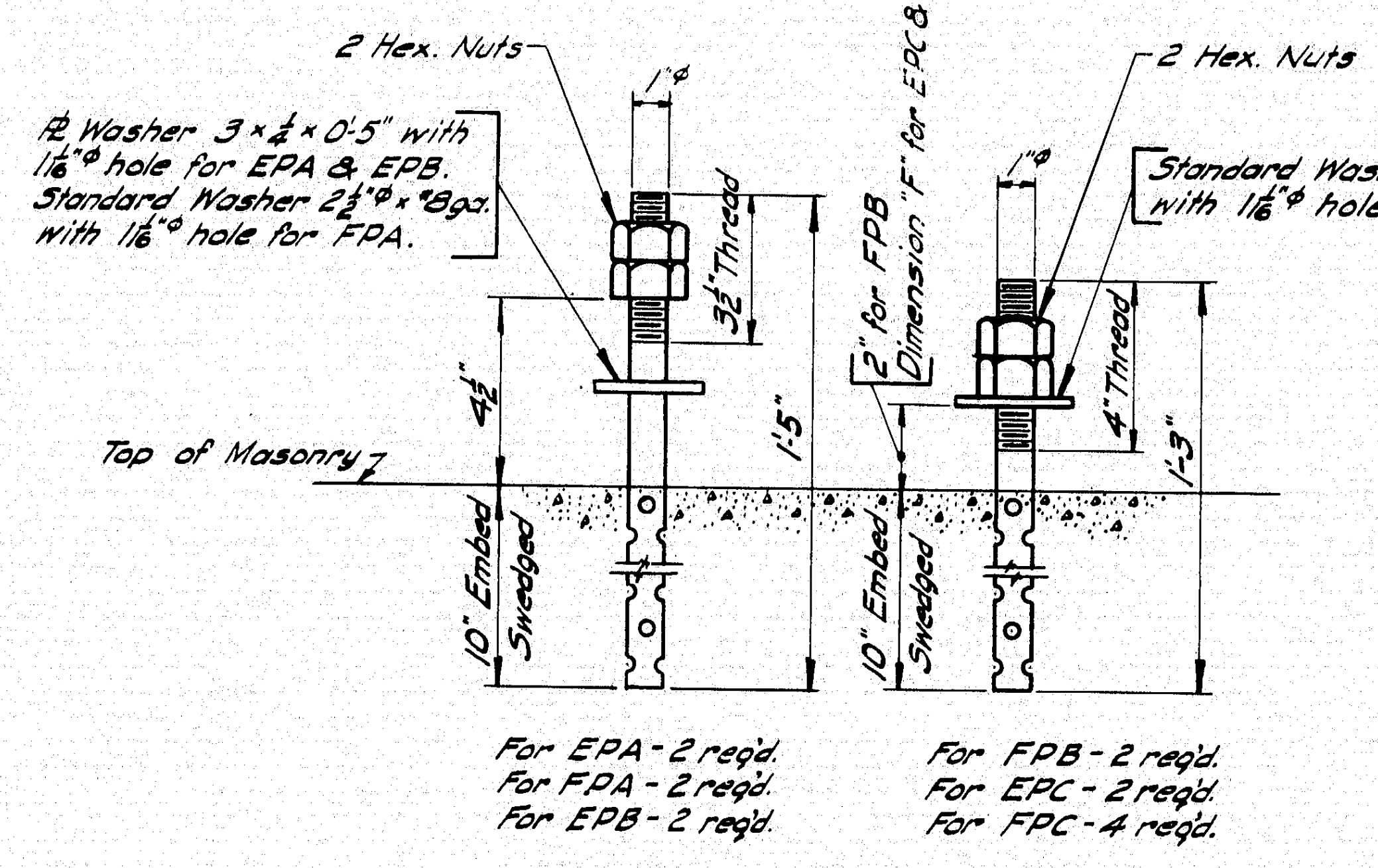
EXPANSION PEDESTAL - EPB


B
C
2" J J 2"
1"ϕ Pintles - See Details
ASA 1000
ASA 250
ASA 2000
1'-6" Radius
$1\frac{3}{8}$"ϕ holes for 1"ϕ Anchor Bolts
E
2" H H 2"
D
4"

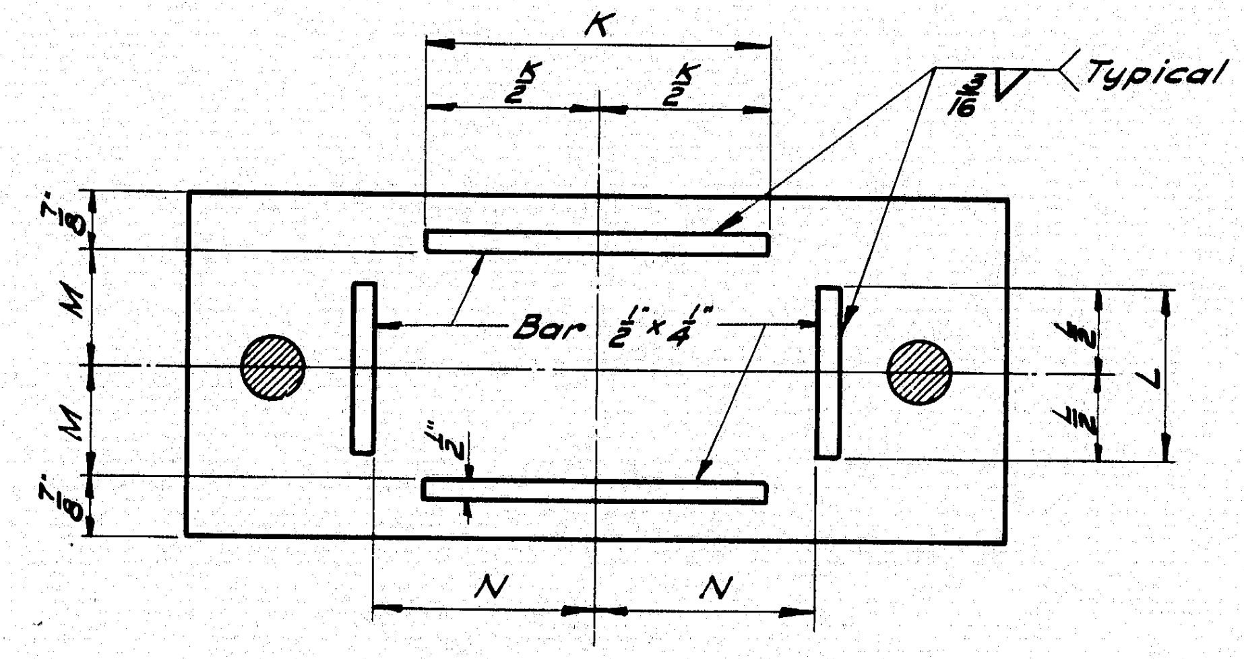
FIXED PEDESTAL - FPB



PINTLE DETAIL


2 Hex. Nuts
℞ Washer 3 × $\frac{1}{4}$ × 0'-5" with $1\frac{1}{16}$"ϕ hole for EPA & EPB. Standard Washer $2\frac{1}{4}$"ϕ × #8 ga. with $1\frac{1}{16}$"ϕ hole for FPA.
1"ϕ
$3\frac{1}{4}$" Thread
$4\frac{1}{2}$"
1'-5"
Top of Masonry
10" Embed. Swedged
2" for FPB Dimension "F" for EPC & FPC
Standard Washer $2\frac{1}{4}$"ϕ × #8 ga. with $1\frac{1}{16}$"ϕ hole.
4" Thread
1'-3"
For EPA - 2 reqd. For FPA - 2 reqd. For EPB - 2 reqd.
For FPB - 2 reqd. For EPC - 2 reqd. For FPC - 4 reqd.

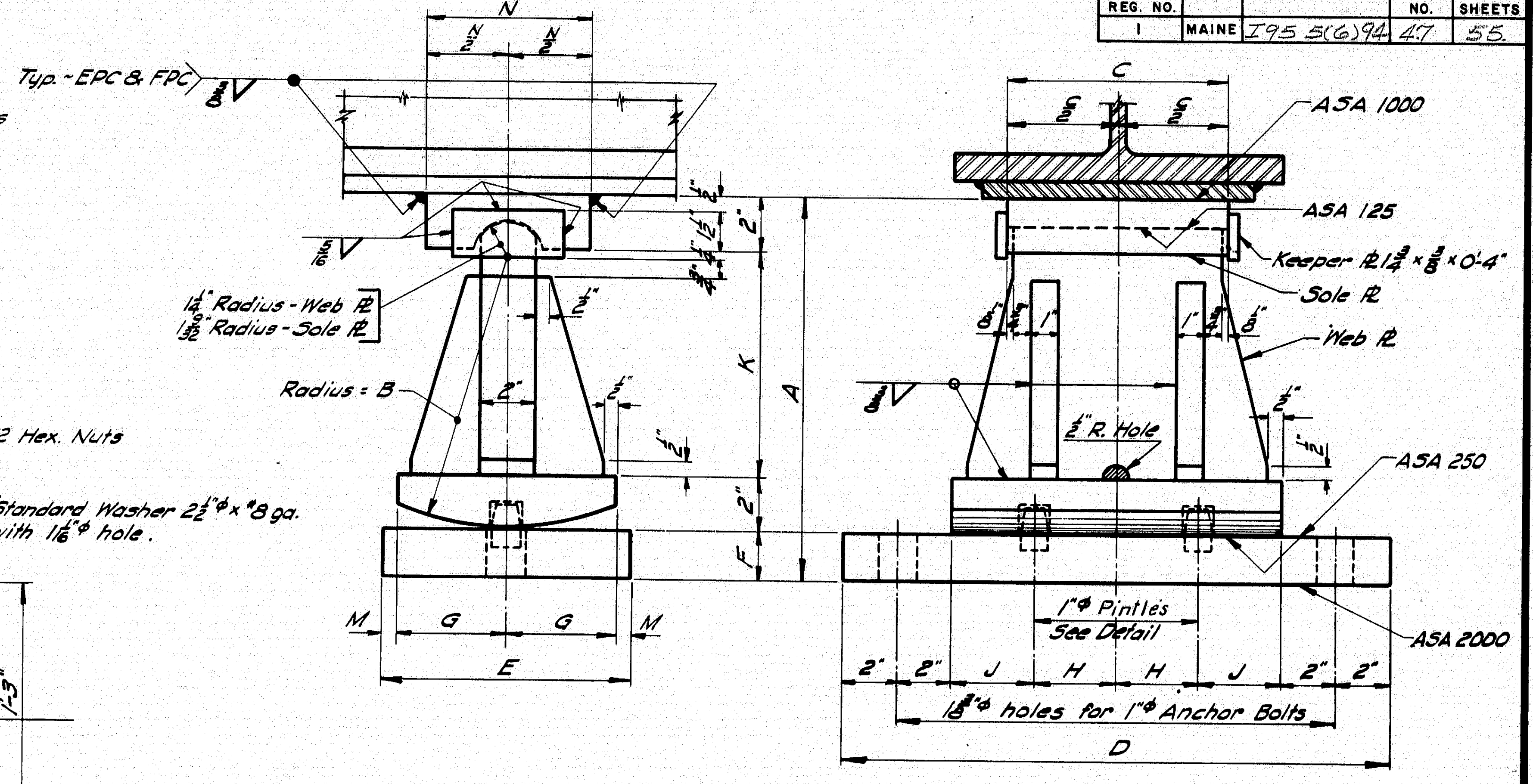
ANCHOR BOLT DETAIL



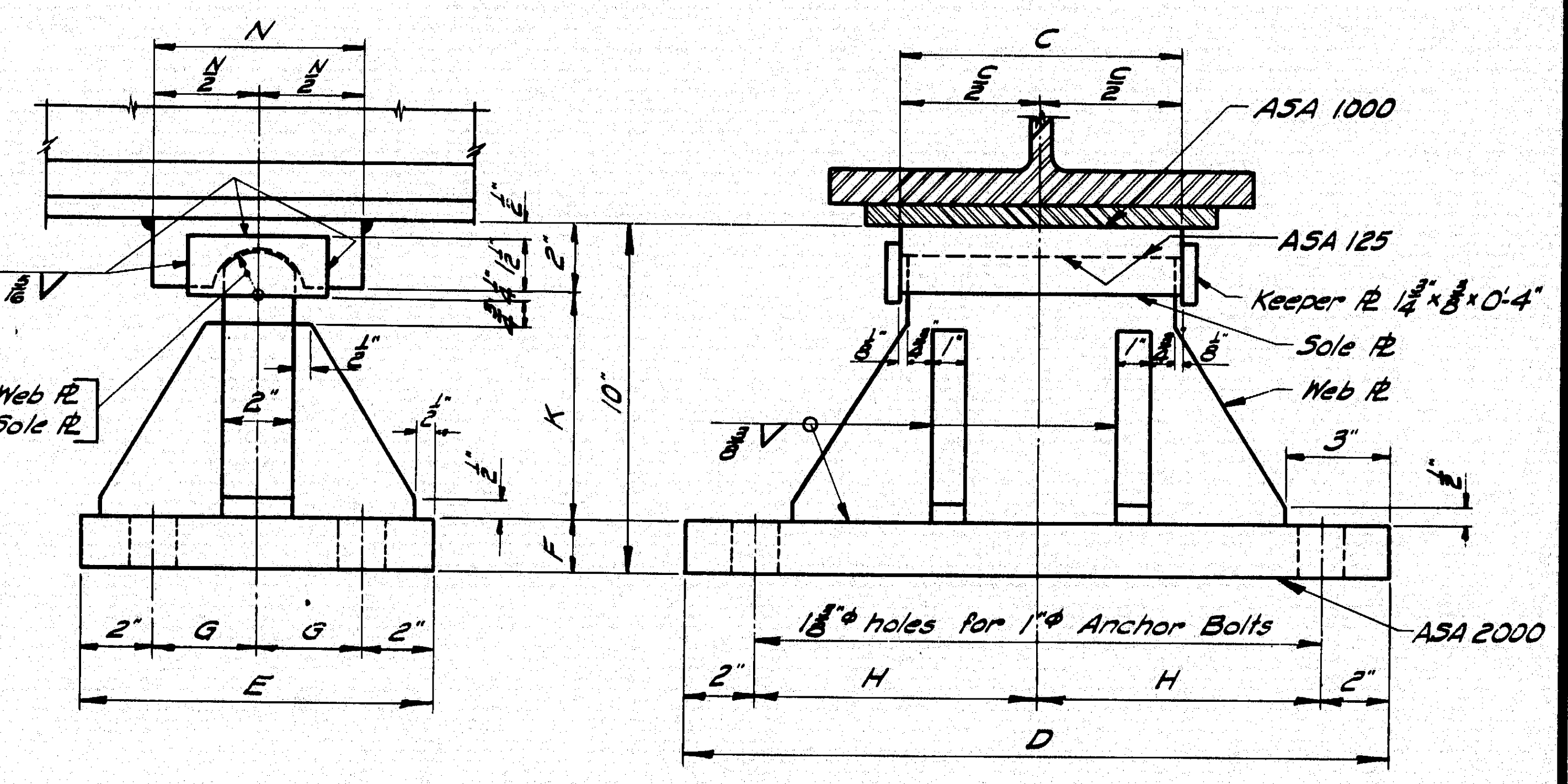
For EPA & EPB

MASONRY PLATE

PEDESTALS — ALLOWABLE LOADS & DIMENSIONS														
Pedestal	Load	A	B	C	D	E	F	G	H	J	K	L	M	N
EPA	132ᴷ	—	—	—	—	—	—	—	—	—	8"	4"	$3\frac{1}{8}$"	$5\frac{5}{8}$"
FPA	150ᴷ	—	—	—	—	—	—	—	—	—	—	—	—	—
EPB-1	120ᴷ	—	6"	8"	1'-7"	8"	10"	6"	$7\frac{1}{2}$"	2"	8"	4"	$3\frac{1}{8}$"	$5\frac{1}{8}$"
EPB-2	165ᴷ	—	7"	10"	1'-8"	9"	1'-0"	7"	8"	3"	10"	5"	$3\frac{5}{8}$"	$6\frac{1}{8}$"
EPB-3	224ᴷ	—	8"	1'-1"	2'-0"	10"	1'-4"	7"	10"	$4\frac{1}{2}$"	1'-2"	5"	$3\frac{5}{8}$"	$8\frac{1}{8}$"
FPB-1	120ᴷ	—	6"	8"	1'-7"	8"	—	—	$7\frac{1}{2}$"	2"	—	—	—	—
FPB-2	165ᴷ	—	7"	10"	1'-8"	9"	—	—	8"	3"	—	—	—	—
FPB-3	224ᴷ	—	8"	1'-2"	2'-0"	10"	—	—	10"	5"	—	—	—	—
EPC-1	70ᴷ	$9\frac{3}{4}$"	6"	8"	1'-8"	8"	$1\frac{1}{2}$"	$3\frac{1}{2}$"	3"	3"	$4\frac{1}{4}$"	—	$\frac{1}{2}$"	6"
EPC-2	100ᴷ	$11\frac{3}{4}$"	8"	8"	1'-8"	8"	$1\frac{1}{2}$"	$3\frac{1}{2}$"	3"	3"	$6\frac{1}{4}$"	—	$\frac{1}{2}$"	6"
EPC-3	130ᴷ	1'-2"	10"	8"	1'-8"	9"	$1\frac{3}{4}$"	4"	3"	3"	$8\frac{1}{4}$"	—	$\frac{1}{2}$"	7"
EPC-4	160ᴷ	1'-2"	10"	8"	1'-10"	9"	$1\frac{3}{4}$"	4"	4"	3"	$8\frac{1}{4}$"	—	$\frac{1}{2}$"	7"
EPC-5	190ᴷ	1'-$2\frac{1}{4}$"	10"	9"	2'-0"	10"	2"	$4\frac{1}{2}$"	5"	3"	$8\frac{1}{4}$"	—	$\frac{1}{2}$"	8"
EPC-6	220ᴷ	1'-$4\frac{1}{2}$"	1'-0"	10"	2'-0"	1'-0"	$2\frac{1}{4}$"	5"	5"	3"	$10\frac{1}{4}$"	—	1"	8"
EPC-7	250ᴷ	1'-$4\frac{1}{2}$"	1'-0"	1'-0"	2'-2"	1'-0"	$2\frac{1}{4}$"	5"	5"	4"	$10\frac{1}{4}$"	—	1"	8"
FPC-1	100ᴷ	—	—	8"	1'-8"	9"	$1\frac{1}{4}$"	$2\frac{1}{2}$"	8"	—	$6\frac{1}{4}$"	—	—	6"
FPC-2	160ᴷ	—	—	8"	1'-8"	10"	$1\frac{1}{2}$"	3"	8"	—	$6\frac{1}{2}$"	—	—	7"
FPC-3	190ᴷ	—	—	9"	2'-0"	10"	$1\frac{1}{2}$"	3"	10"	—	$6\frac{1}{2}$"	—	—	8"
FPC-4	220ᴷ	—	—	10"	2'-0"	1'-0"	$1\frac{3}{4}$"	4"	10"	—	$6\frac{1}{4}$"	—	—	8"
FPC-5	250ᴷ	—	—	1'-0"	2'-0"	1'-0"	2"	4"	10"	—	6"	—	—	8"


N
C
Typ. - EPC & FPC
ASA 1000
ASA 125
Keeper ℞ $1\frac{1}{2}$" × $\frac{3}{8}$" × 0'-4"
Sole ℞
Web ℞
$1\frac{1}{4}$" Radius - Web ℞
$1\frac{1}{2}$" Radius - Sole ℞
Radius = B
$\frac{3}{4}$" R. Hole
ASA 250
ASA 2000
K
A
F
M G G M
E
1"ϕ Pintles See Detail
2" 2" J H H J 2" 2"
$1\frac{3}{8}$"ϕ holes for 1"ϕ Anchor Bolts
D

EXPANSION PEDESTAL - EPC


N
C
ASA 1000
ASA 125
Keeper ℞ $1\frac{1}{2}$" × $\frac{3}{8}$" × 0'-4"
Sole ℞
Web ℞
$1\frac{1}{4}$" Radius - Web ℞
$1\frac{1}{2}$" Radius - Sole ℞
3"
K
10"
F
2" G G 2"
E
$1\frac{3}{8}$"ϕ holes for 1"ϕ Anchor Bolts
2" H H 2"
D
ASA 2000

FIXED PEDESTAL - FPC

NOTE: At the location of bearing pedestals the concrete bridge seats shall be dressed one inch larger all around than size of masonry plates and to exact elevations shown on the plans. If dressed areas are below the surface of the surrounding bridge seat a small channel shall be cut to the edge of the bridge seat for drainage where required by the Engineer. Channels shall have a min. width of 2" and min. slope of $\frac{1}{2}$ inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

DESIGN SPECIFICATIONS

A.A.S.H.O., Standard Specifications for Highway Bridges, 1969

A.S.T.M. STEEL CLASSIFICATION

Anchor Bolts - A36
All other - A36.

Revised - Design Specifications and A.S.T.M. Steel Classification 1969.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 101 - 70)

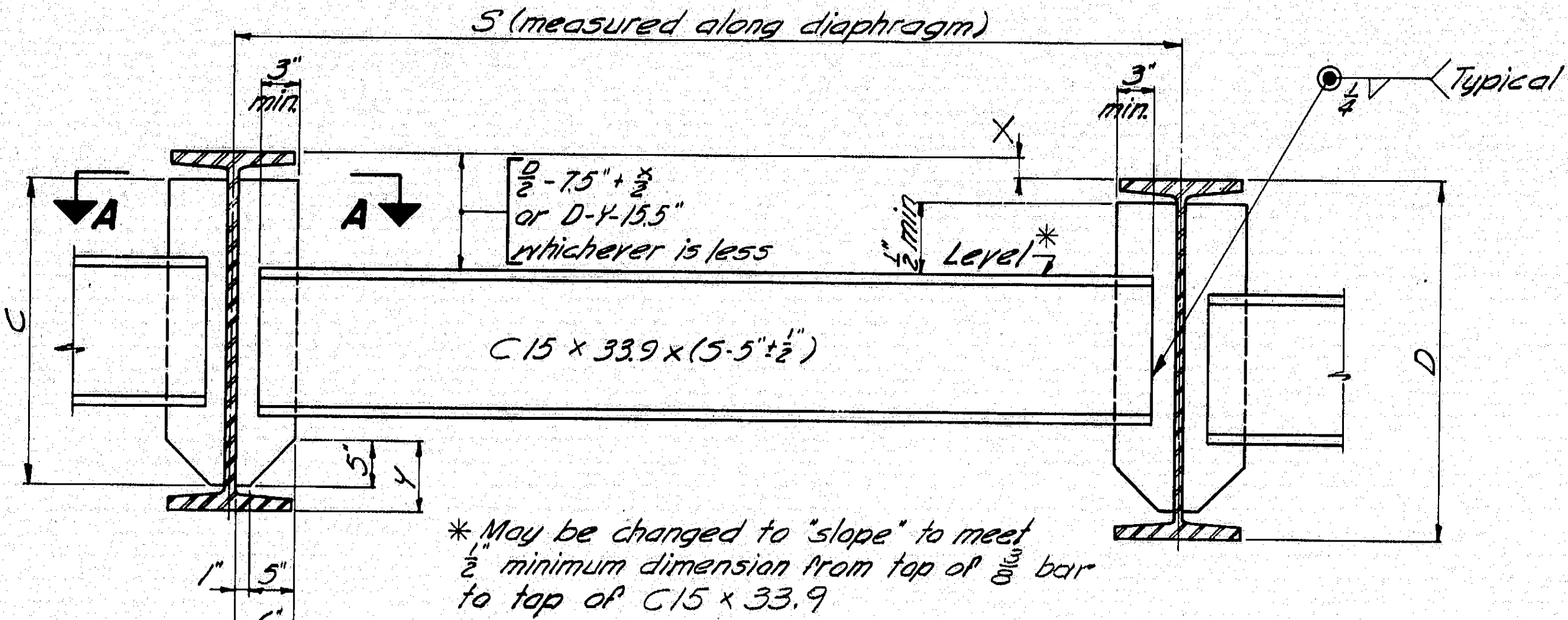
BEARING PEDESTALS

JANUARY 1970

152-78

BRUNING 44-131 11224

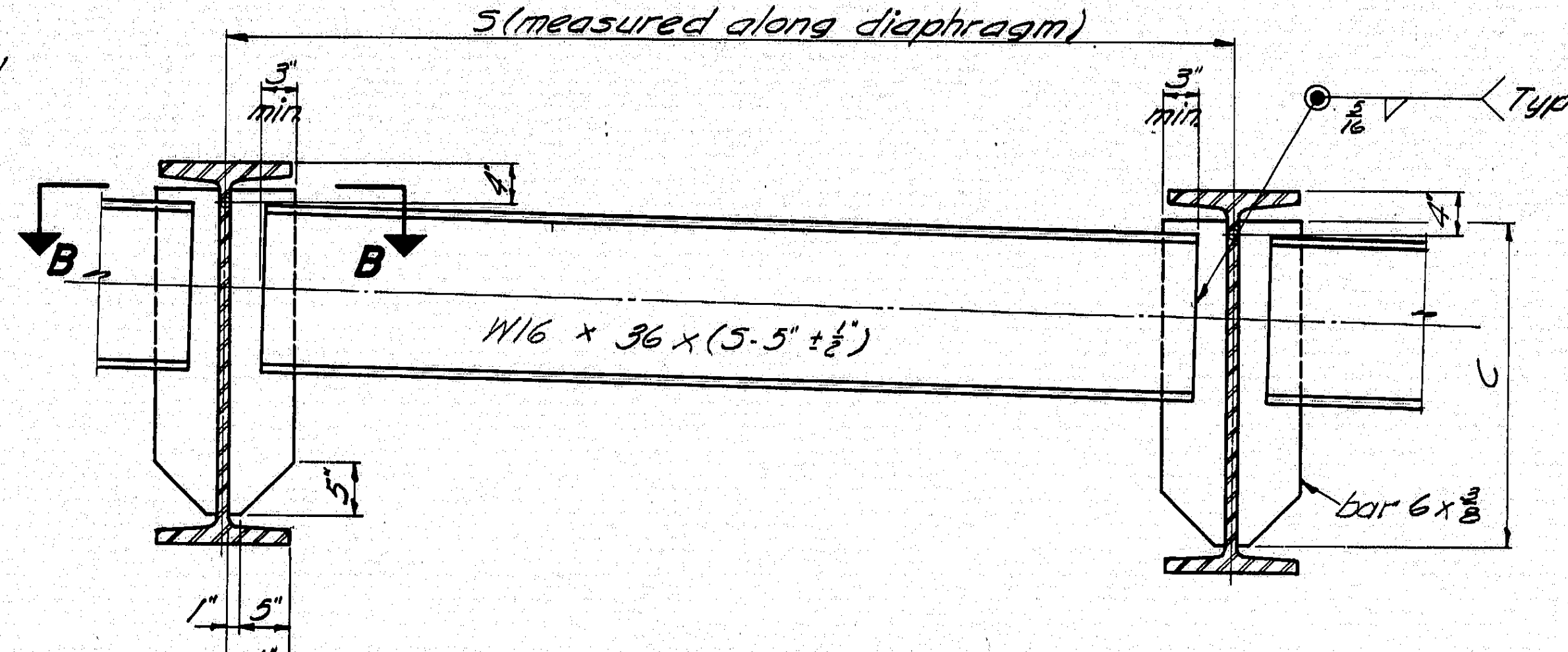
B.P.R. DIV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	48	55



S (measured along diaphragm)
3" min.
A
A
$\frac{D}{2}$ - 7.5" + $\frac{3}{4}$" or D - 4 - 13.5" whichever is less
Level
$\frac{1}{4}$ Typical
C15 × 33.9 × (S - 5 $\frac{1}{2}$")
C
D
1"
5"
6"

* May be changed to "slope" to meet $\frac{1}{2}$" minimum dimension from top of $\frac{3}{4}$" bar to top of C15 × 33.9

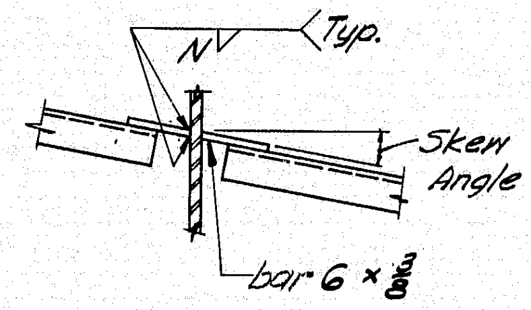
TYPE A DIAPHRAGM



S (measured along diaphragm)
3" min.
B
B
$\frac{5}{16}$ Typ.
W16 × 36 × (S - 5 $\frac{1}{2}$")
C
bar 6 × $\frac{3}{8}$
1"
5"
6"

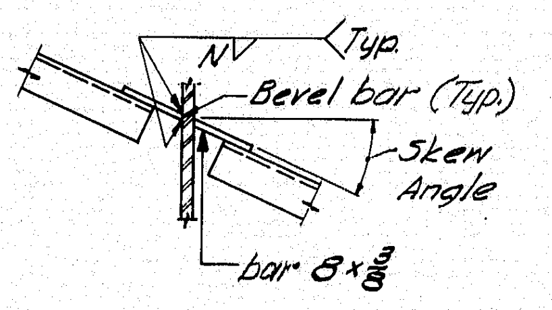
TYPE B DIAPHRAGM

Welding 6 × $\frac{3}{8}$ Bars to web same as for Type A Diaphragm.



SECTION A-A

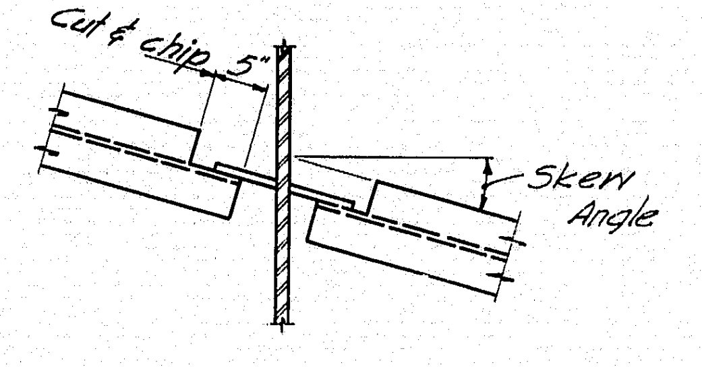
Skew Angle 0° to 10°-00'



SECTION A-A

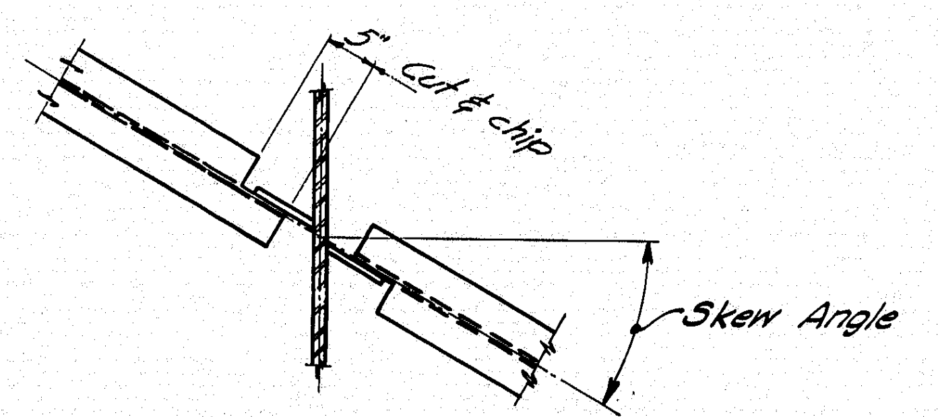
Skew Angle over 10°00' to 20°00'

FILLET WELD SIZE "N" & DIMENSION "C" FOR DIAPHRAGM BARS		
BEAM	C	N
W27×84 to 114 incl.	1'-11"	$\frac{1}{4}$"
W30×99 to 132 incl.	2'-2"	$\frac{1}{4}$"
W33×118 to 152 incl.	2'-5"	$\frac{1}{4}$"
W36×135 to 194 incl.	2'-7"	$\frac{1}{4}$"
W36×230 to 300 incl.	2'-6"	$\frac{5}{16}$"



SECTION B-B

Skew Angle 0° to 10°-00'



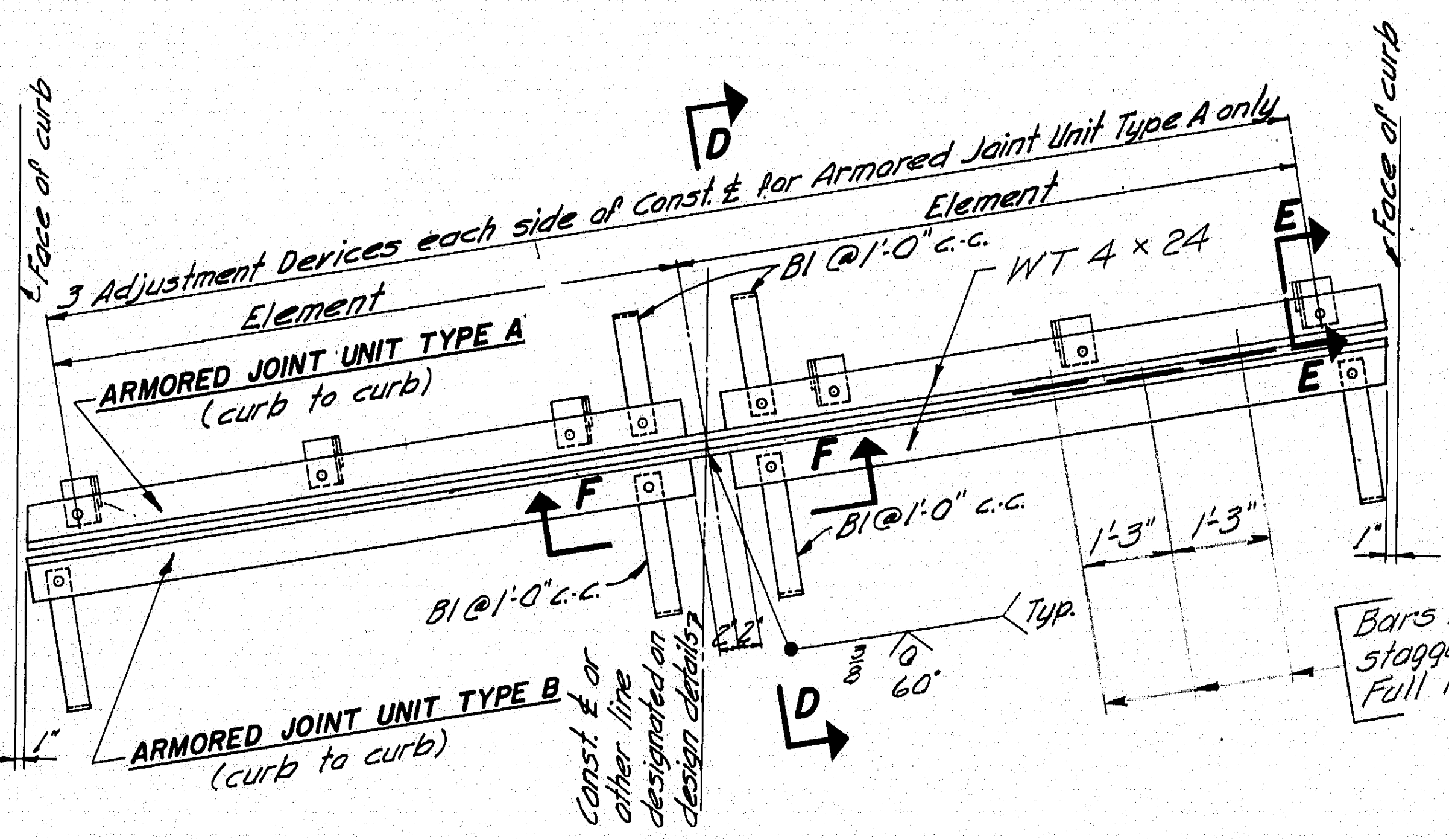
SECTION B-B

Skew Angle over 10°00'

NOTE

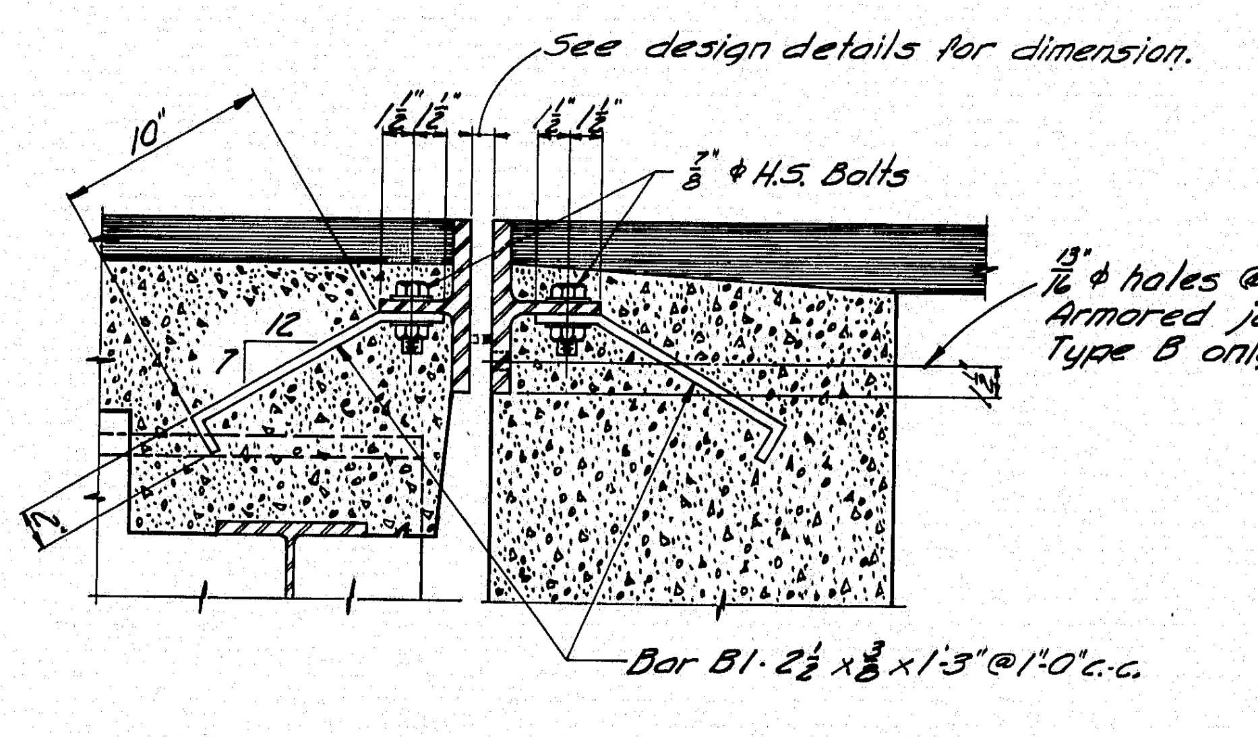
See design details for diaphragm type, location and skew.

DIAPHRAGMS



3 Adjustment Devices each side of Const. ℄ for Armored Joint Unit Type A only
Element
Element
D
D
E
E
F
F
B1 @ 1'-0" c.c.
WT 4 × 24
ARMORED JOINT UNIT TYPE A (curb to curb)
ARMORED JOINT UNIT TYPE B (curb to curb)
℄ Face of curb
℄ Face of curb
B1 @ 1'-0" c.c.
B1 @ 1'-0" c.c.
Const. ℄ or other line designated on design details
1'-3"
1'-3"
60°
Typ.
Bars $\frac{1}{4}$ × $\frac{3}{4}$ × 1'-0" stagger @ 1'-3" Full length of joint

PLAN

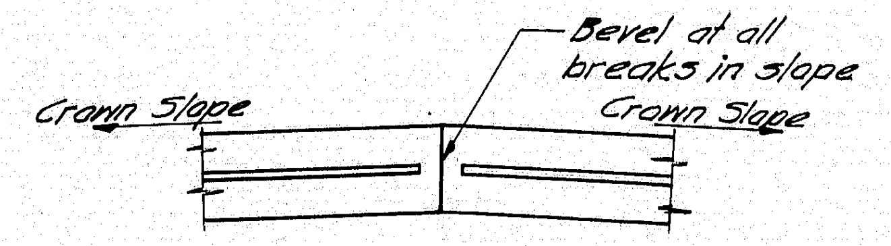


See design details for dimension.
10"
1 $\frac{1}{2}$" 1 $\frac{1}{2}$"
1 $\frac{1}{2}$" 1 $\frac{1}{2}$"
$\frac{7}{8}$" ϕ H.S. Bolts
$\frac{15}{16}$" ϕ holes @ 3'-0" c.c. Armored joint Unit Type B only.
Bar B1 - 2 $\frac{1}{2}$ × $\frac{3}{8}$ × 1'-3" @ 1'-0" c.c.

ARMORED JOINT UNIT TYPE A

ARMORED JOINT UNIT TYPE B

SECTION D-D



SECTION F-F

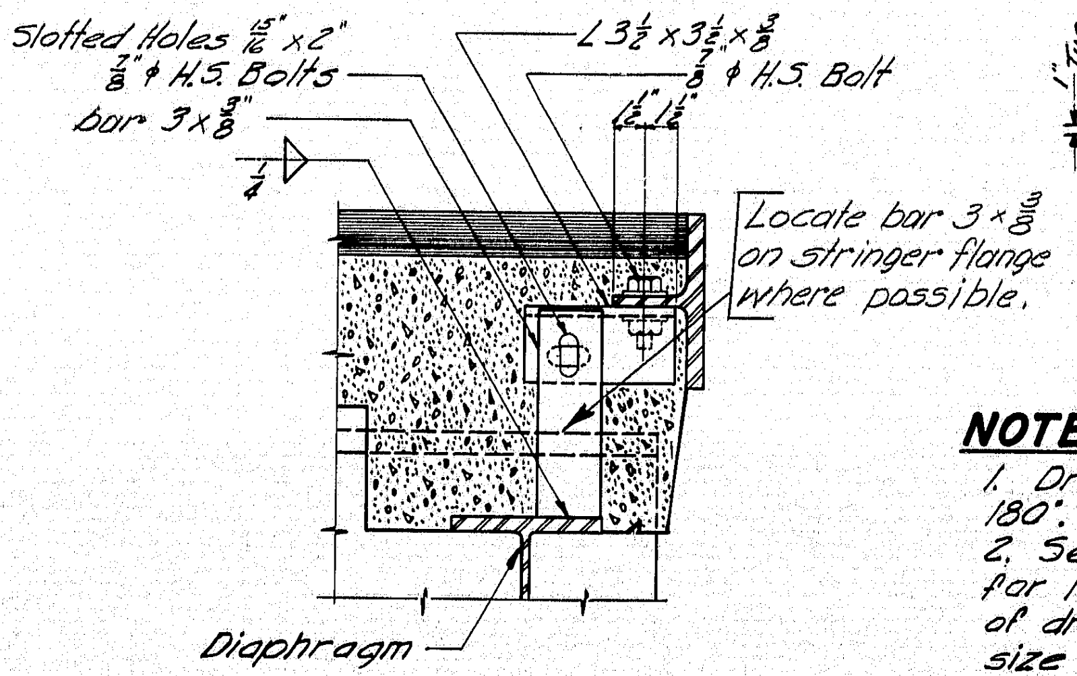
Note: See design details for Constr. ℄ to curb dimensions, skew, crown slope, slab thickness, other dimensions necessary to complete the fabrication details, and location.

NOTE

1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over piers, two (2) Type A Armored Joint Units shall be used.
2. If more elements than the two shown in the "Plan" are required by the design details, there shall be three adjustment devices for each element for Armored Joint Unit Type A and the elements of both units shall be field welded together in the same manner as shown in the "Plan".
3. Armored Joints to be paid for as Structural Steel.

ARMORED JOINT

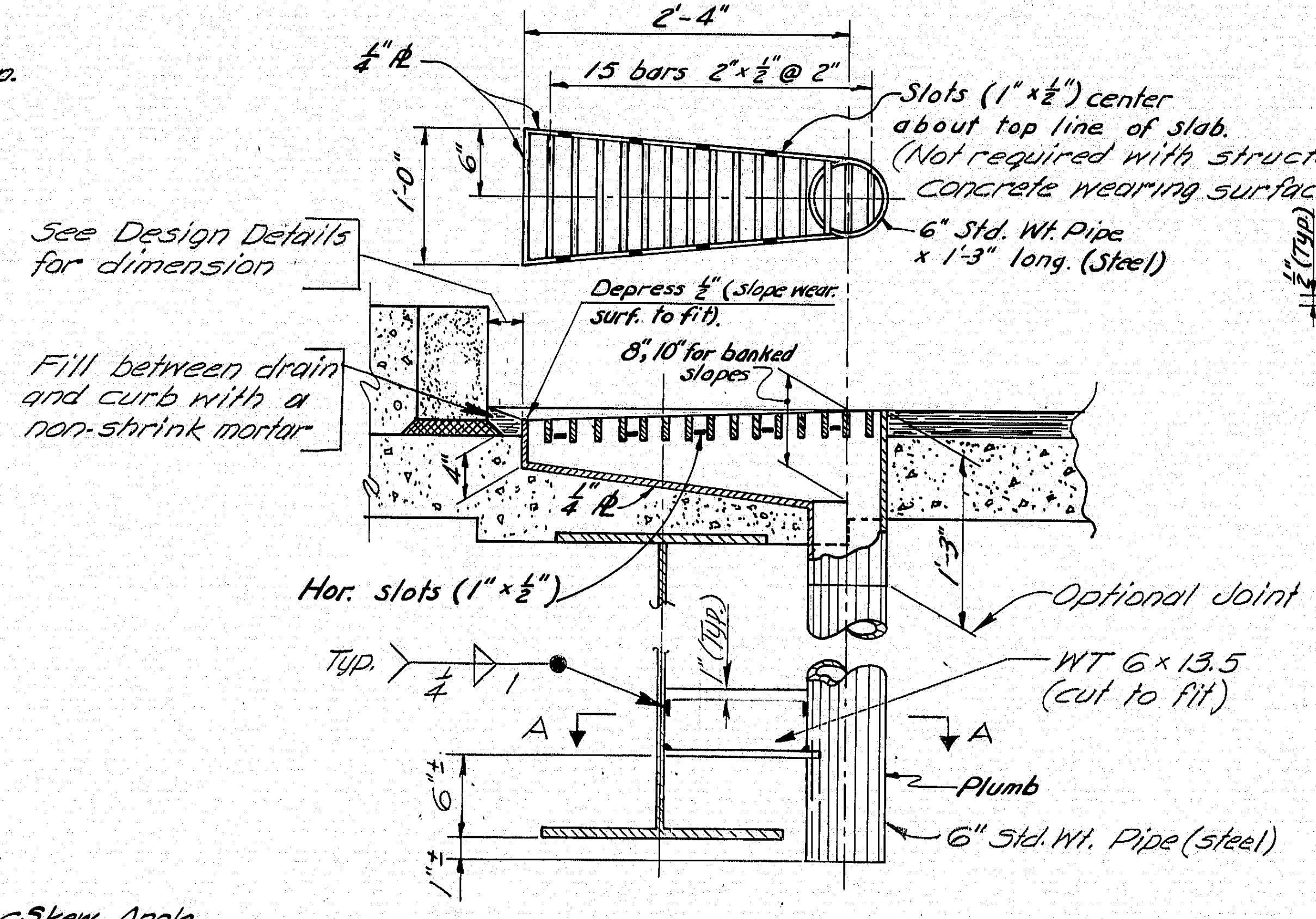
An armored joint consists of two armored joint units. See note 1.



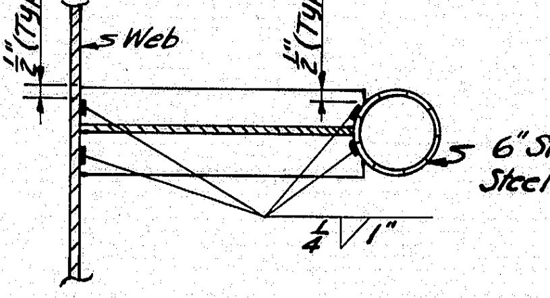
Slotted Holes $\frac{15}{16}$" × 2" $\frac{7}{8}$" ϕ H.S. Bolts
bar 3 × $\frac{3}{8}$
L 3 $\frac{1}{2}$ × 3 $\frac{1}{2}$ × $\frac{3}{8}$
$\frac{7}{8}$" ϕ H.S. Bolt
Locate bar 3 × $\frac{3}{8}$ on stringer flange where possible.
Diaphragm

SECTION E-E

Showing Adjustment Device Armored Joint Unit Type A only - After Unit is in final position weld $\frac{3}{8}$ ℞ to angle with $\frac{1}{4}$ Fillet



2'-4"
$\frac{3}{8}$ ℞
15 bars 2" × $\frac{3}{8}$" @ 2"
Slots (1" × $\frac{1}{2}$") center about top line of slab. (Not required with structural concrete wearing surface.)
6" Std. Wt. Pipe x 1'-3" long. (Steel)
See Design Details for dimension
Depress $\frac{1}{2}$" (slope wear. surf. to fit)
8", 10" for banked slopes
Fill between drain and curb with a non-shrink mortar
Hor. slots (1" × $\frac{1}{2}$")
1'-0"
6"
1'-3"
Optional Joint
WT 6 × 13.5 (cut to fit)
Plumb
6" Std. Wt. Pipe (steel)
Typ.
A
A

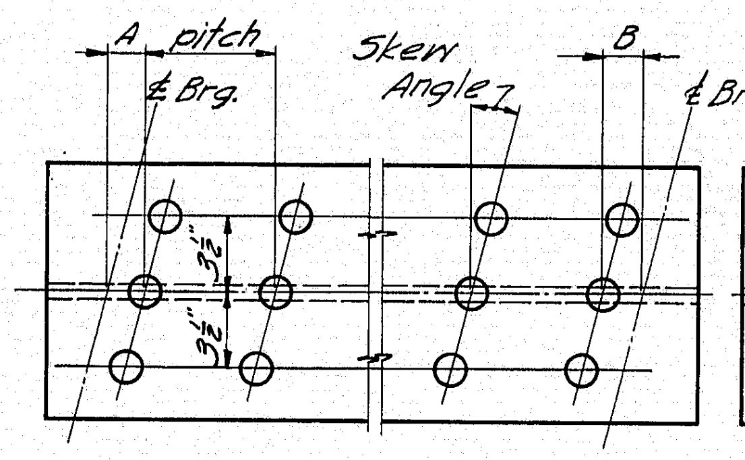


SECTION A-A

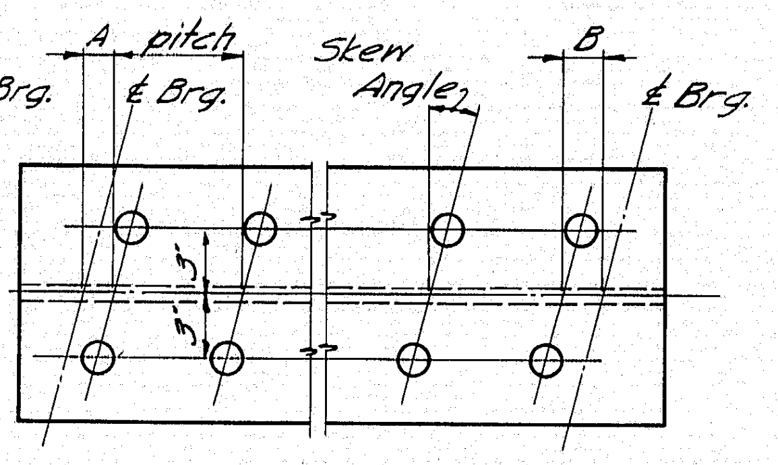
NOTE:

See design details for location and number of drains and beam size to which it is connected.

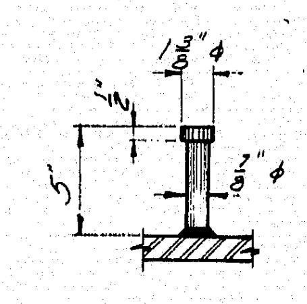
DRAIN NO. 1



TRIPLE STUDS



DOUBLE STUDS

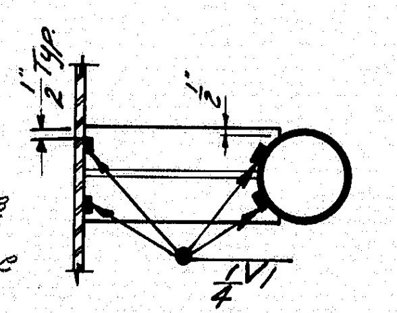


STUD DETAIL

NOTE

1. Studs shall be granular or solid flux filled and automatically end welded to top flange in the shop or field.
2. See the design details for Dimensions "A" & "B", stud pitch and skew angle for studs.

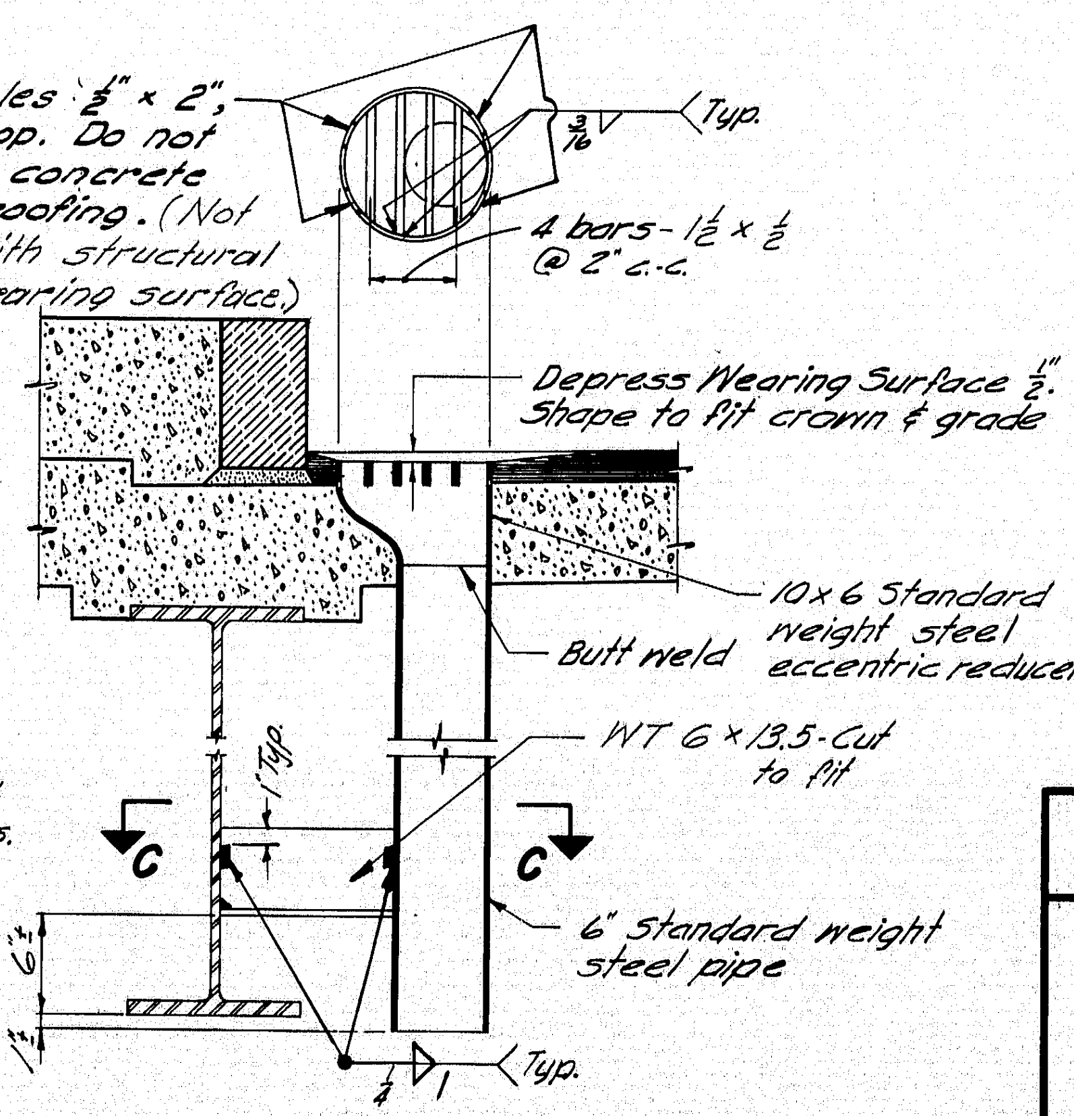
SHEAR CONNECTORS



SECTION C-C

NOTE

1. Drain may be rotated 180°. See design details.
2. See design details for location and number of drains and beam size to which it is connected.



Cut 4 holes $\frac{1}{2}$" × 2", 1 $\frac{1}{4}$" from top. Do not cover with concrete or waterproofing. (Not required with structural concrete wearing surface.)
$\frac{3}{16}$ Typ.
4 bars - 1 $\frac{1}{2}$ × $\frac{1}{2}$ @ 2" c.c.
Depress Wearing Surface $\frac{1}{2}$". Slope to fit crown & grade
10 × 6 Standard weight steel eccentric reducer
Butt weld
WT 6 × 13.5 - Cut to fit
C
C
6" Standard weight steel pipe
Typ.

DRAIN NO. 2

GENERAL NOTE

Use only those items called for on design details. In case of conflict between these Standard Details and the design details, the requirements of the design details shall be followed.

Drains to be incidental, see Section 502.20

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

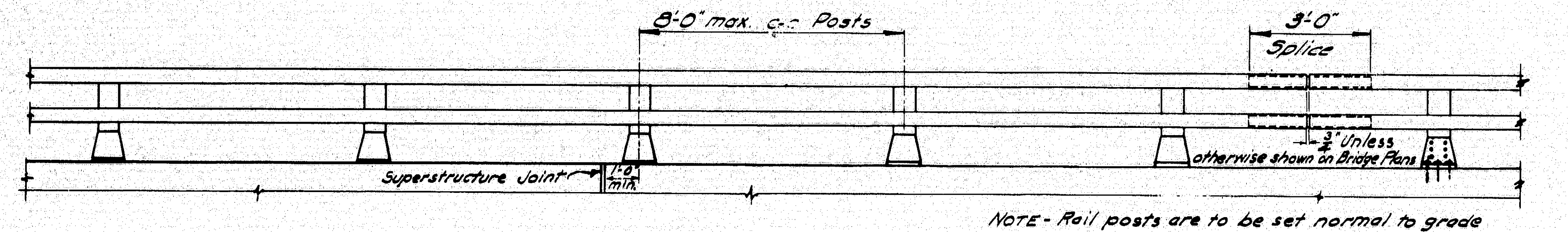
STANDARD DETAILS
(BD 104-71)
DIAPHRAGMS, ARMORED JOINT, SHEAR CONNECTORS, DRAIN

DECEMBER 1971

152-79

touraine paints TRUFLEX ☆ SILKY ☆ TRIPLE WHITE ☆ RYPLEX

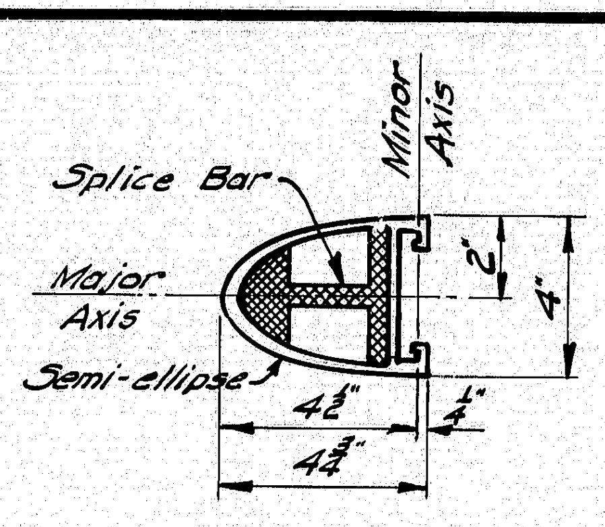
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	49	55



NOTE - Rail posts are to be set normal to grade unless otherwise shown on Bridge Plans.

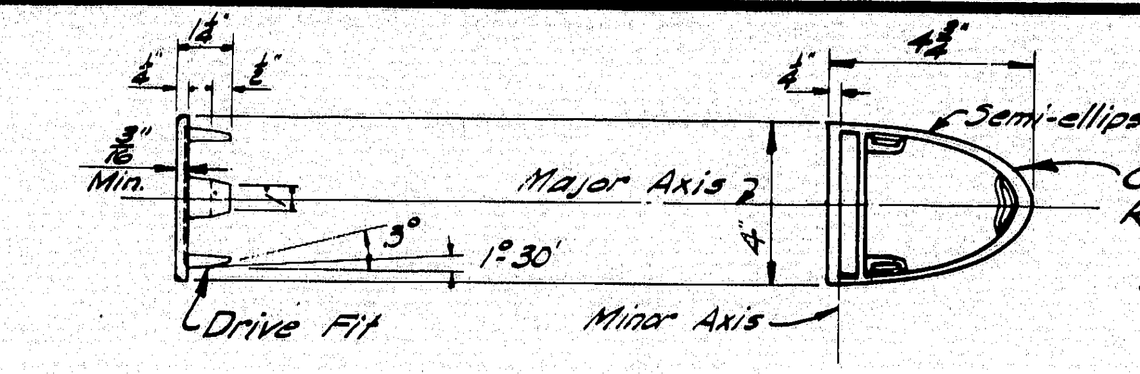
RAIL - ELEVATION

Lengths of rail shall be attached to a minimum of (4) four rail posts, wherever possible, and in any case never less than (2) two.



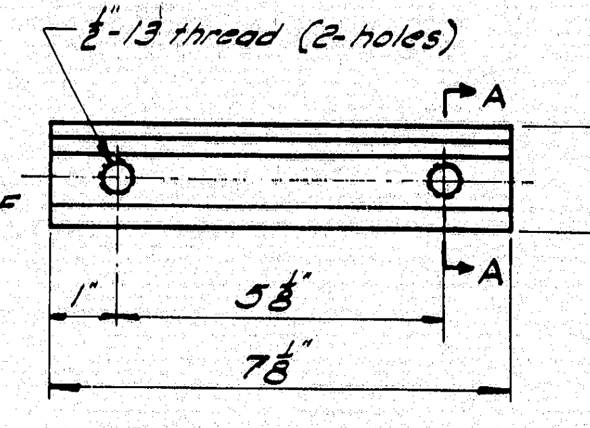
RAIL SECTION

See "Rail Detail"

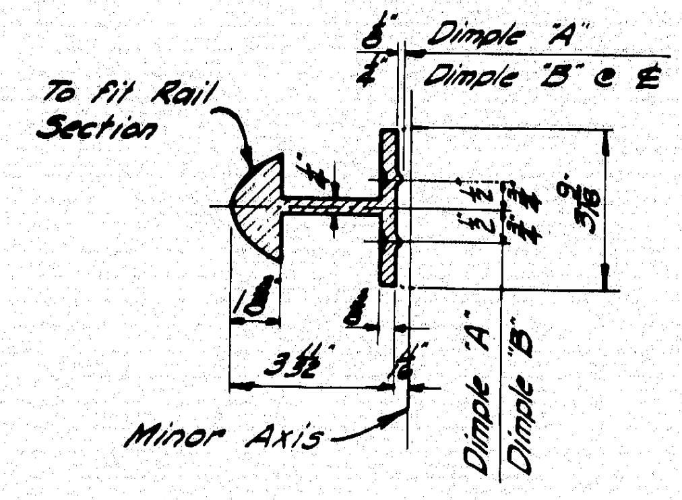


RAIL CAP

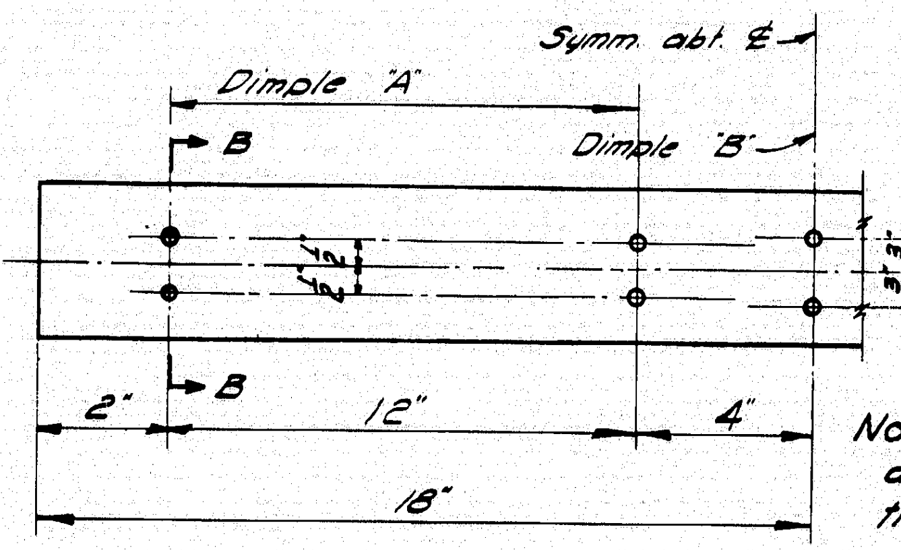
ASTM B26 or B108, Aluminum Assoc. Alloy 43-F or 356-F



CLAMP BAR



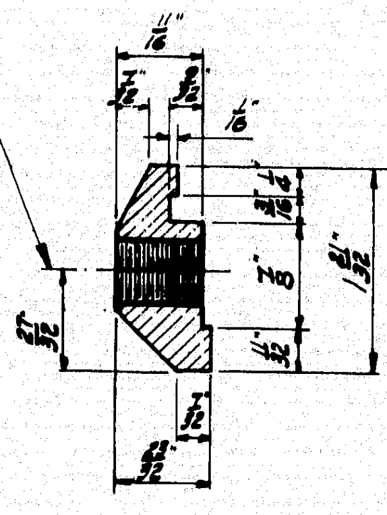
SECTION B-B



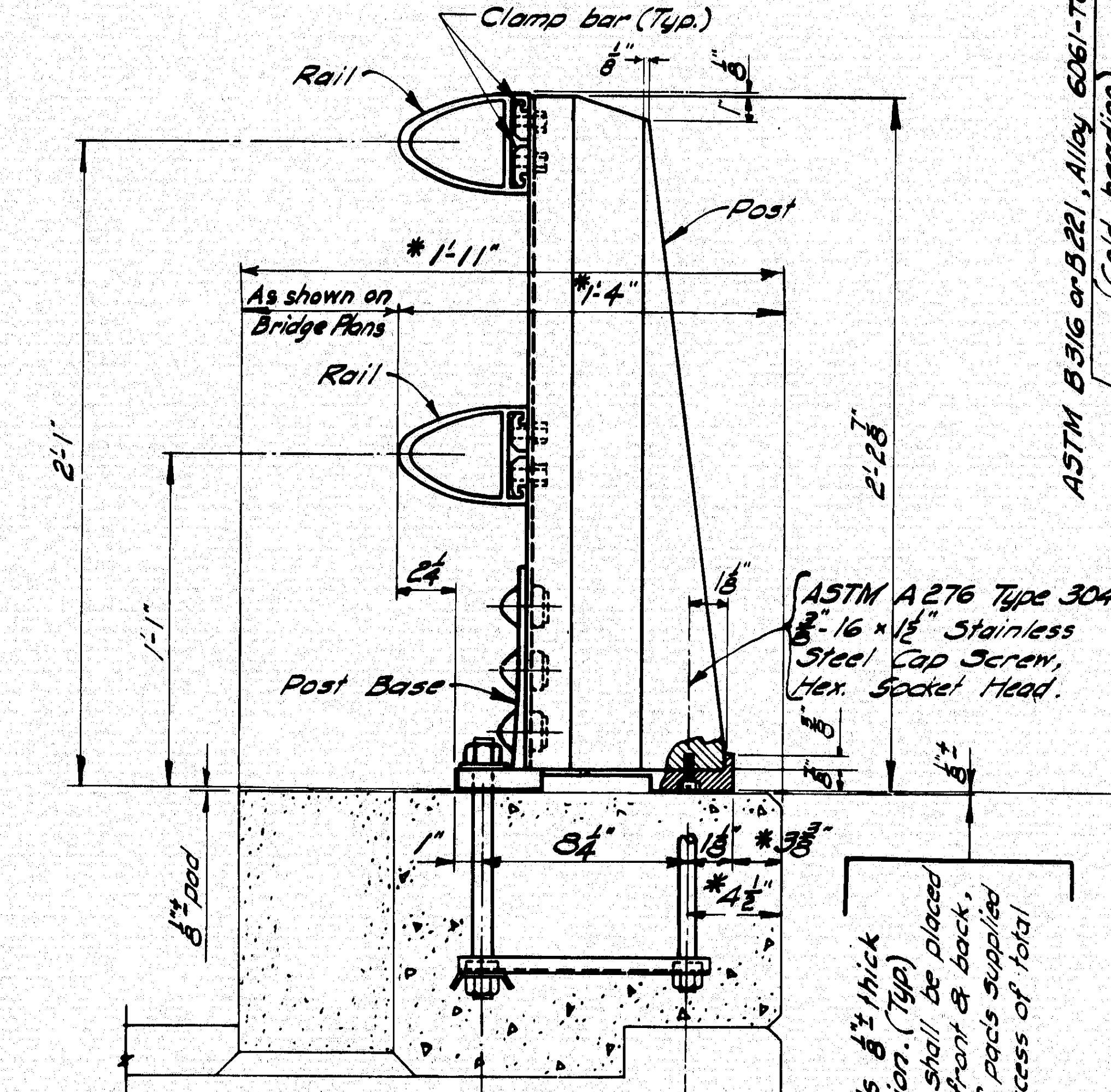
SPLICE BAR

NOTE - An alternate to the dimple system for holding the splice bar in position may be used if approved by the Engineer.

△A Rail, Splice Bar, & Clamp Bar = ASTM B221, Alloy 6351-T5 or 6061-T6.



SECTION A-A



Preformed Pads 1/4" thick after compression. (Typ.) At least one pad shall be placed under each post, front & back, and the number of pads supplied shall be 10% in excess of total number of posts.

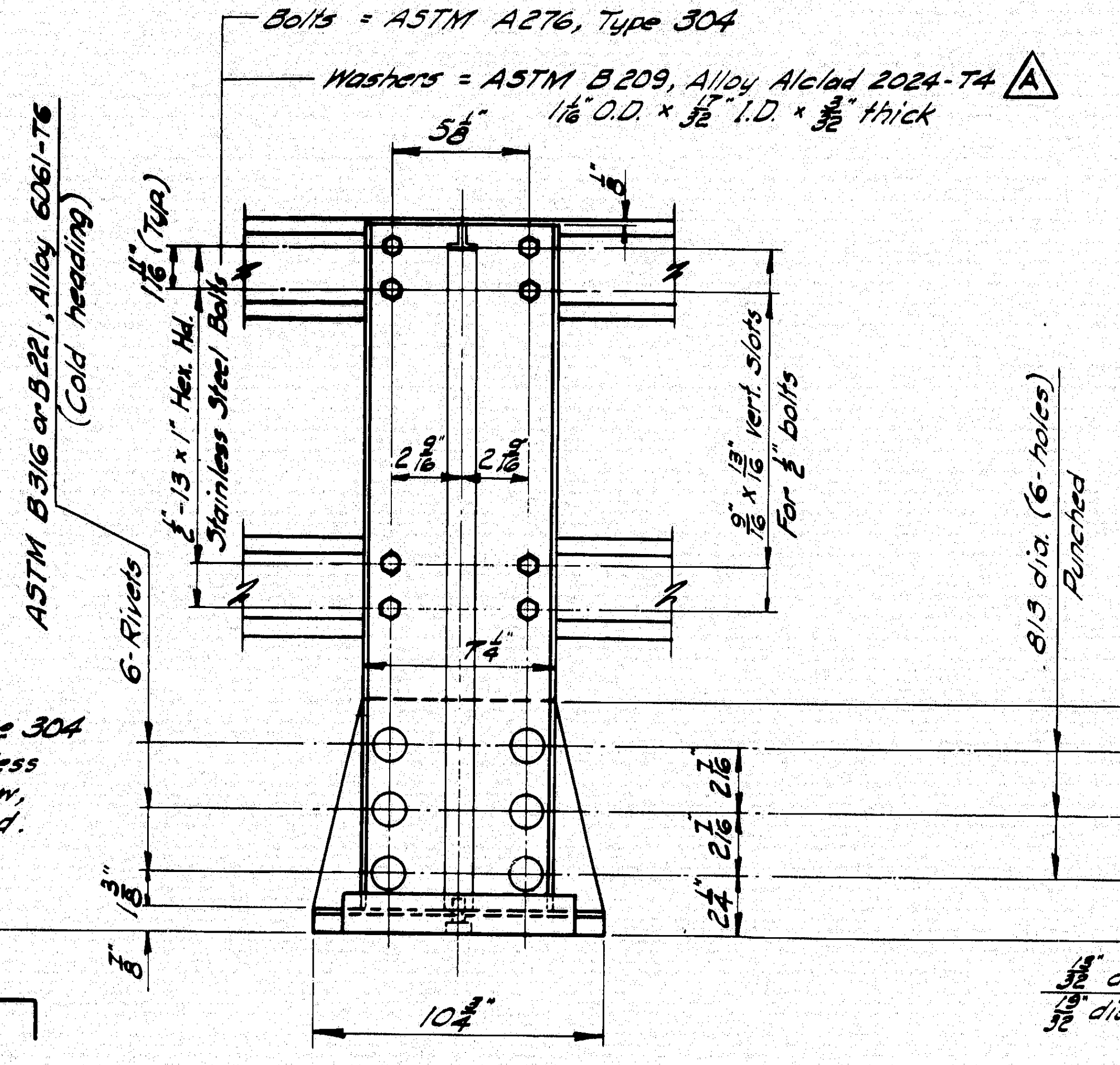
BRIDGE RAIL

Assembly

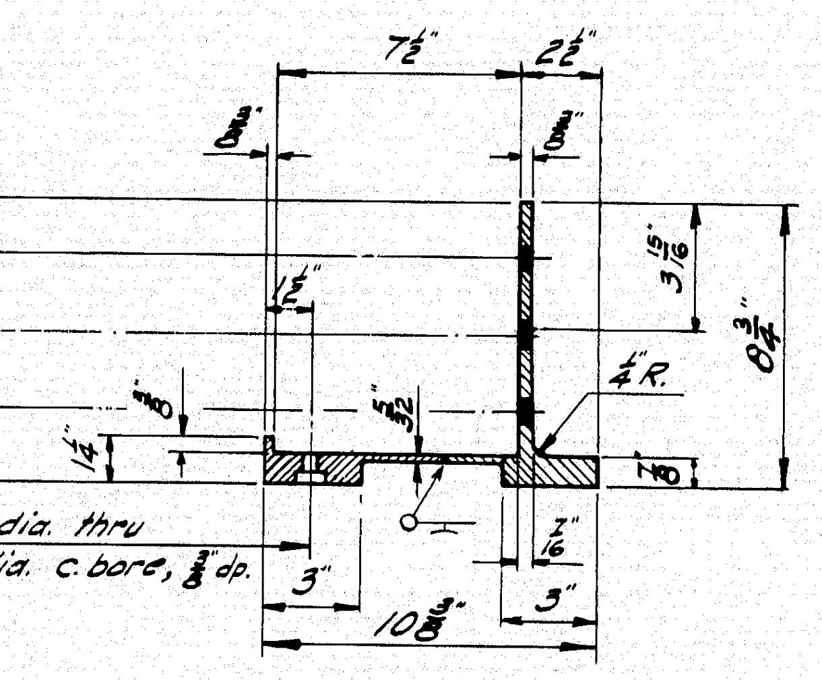
* Preferable minimum dimensions.

Bolts = ASTM A276, Type 304

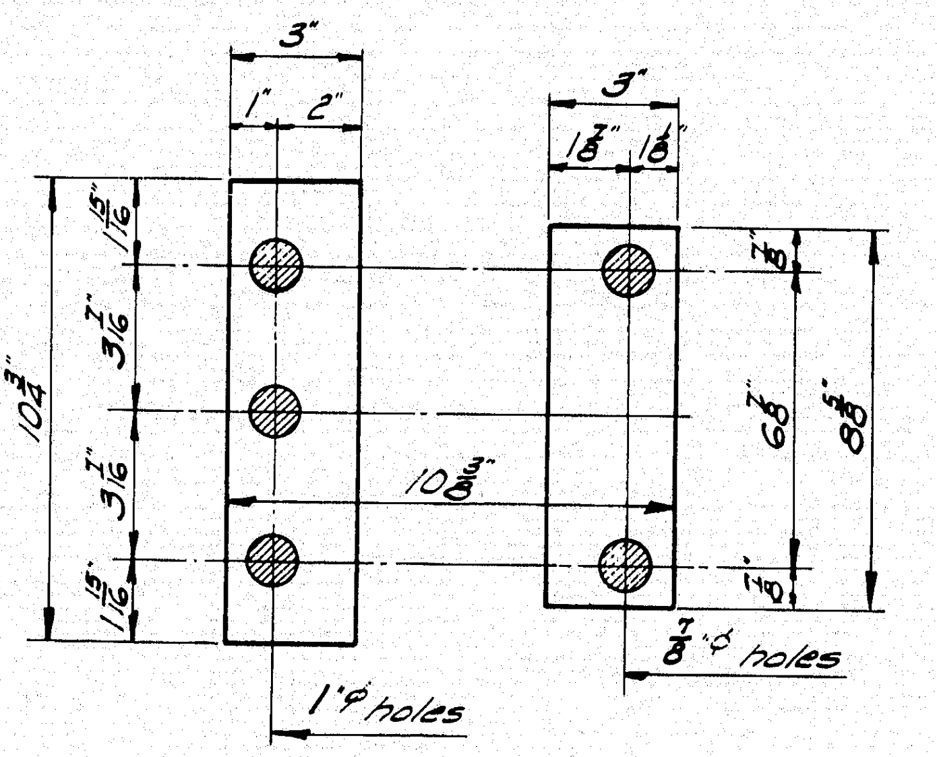
Washers = ASTM B209, Alloy Alclad 2024-T4 △A 1 1/16" O.D. × 17/32" I.D. × 3/32" thick


ASTM B316 or B221, Alloy 6061-T6 (Cold heading)
6-Rivets
1/2"-13 × 1" Hex. Hd. Stainless Steel Bolts
1 11/16" (Typ.)
5 1/8"
2 9/16"
2 9/16"
7 1/4"
9/16" × 13/16" vert. slots For 1/2" bolts
.813 dia. (6-holes) Punched
2 7/16
2 7/16
2 1/4"
10 3/4"

REAR ELEV.

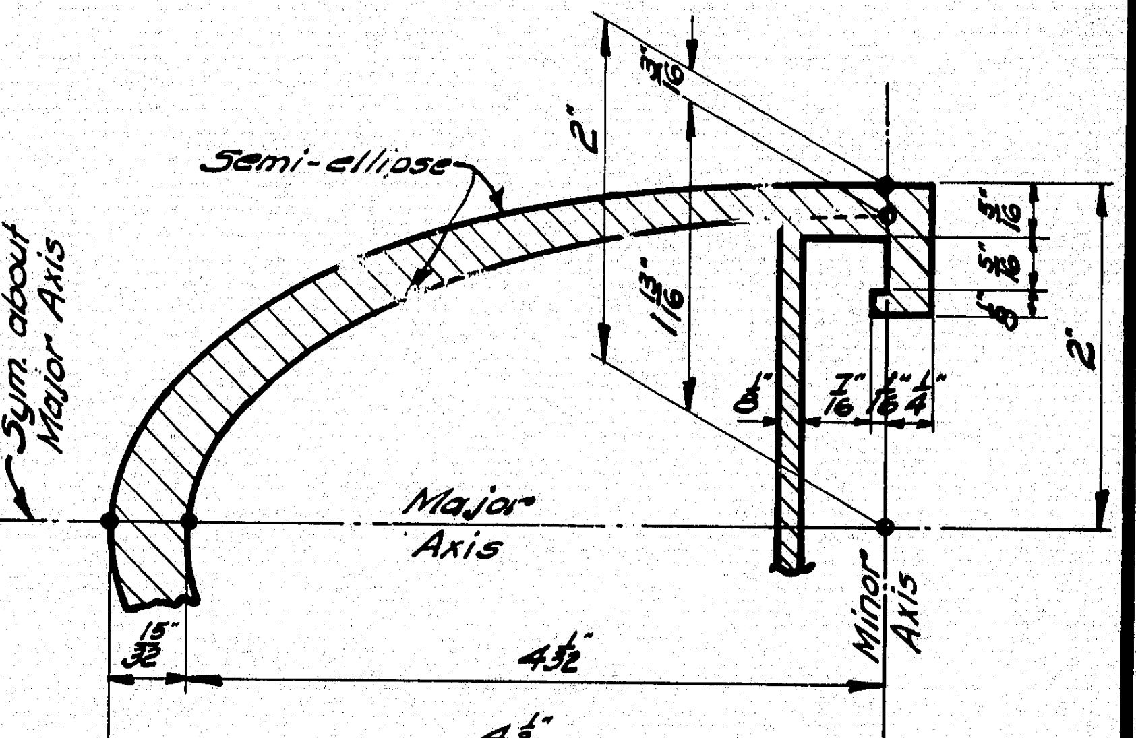


POST BASE SECTION

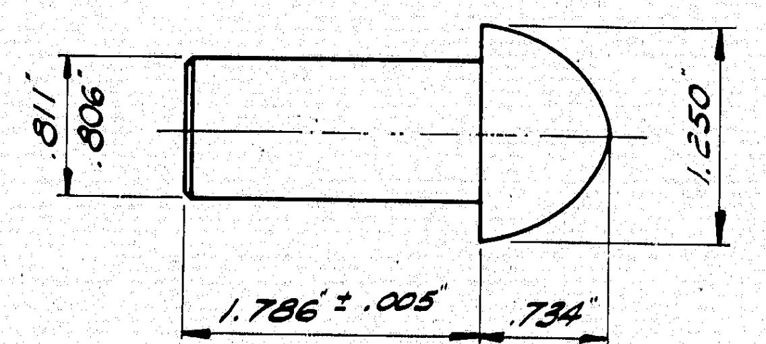


PREFORMED PADS

See Subsection 713.03 Standard Specifications Revision of June 1968 for pad.

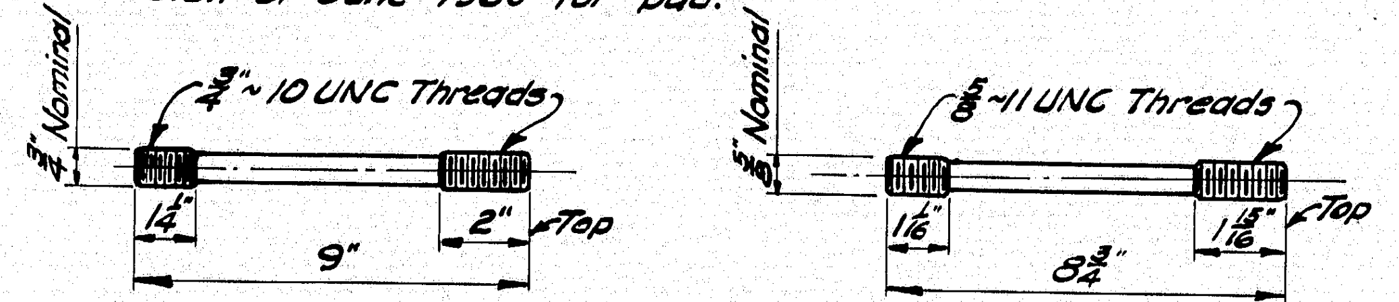


RAIL DETAIL



RIVET

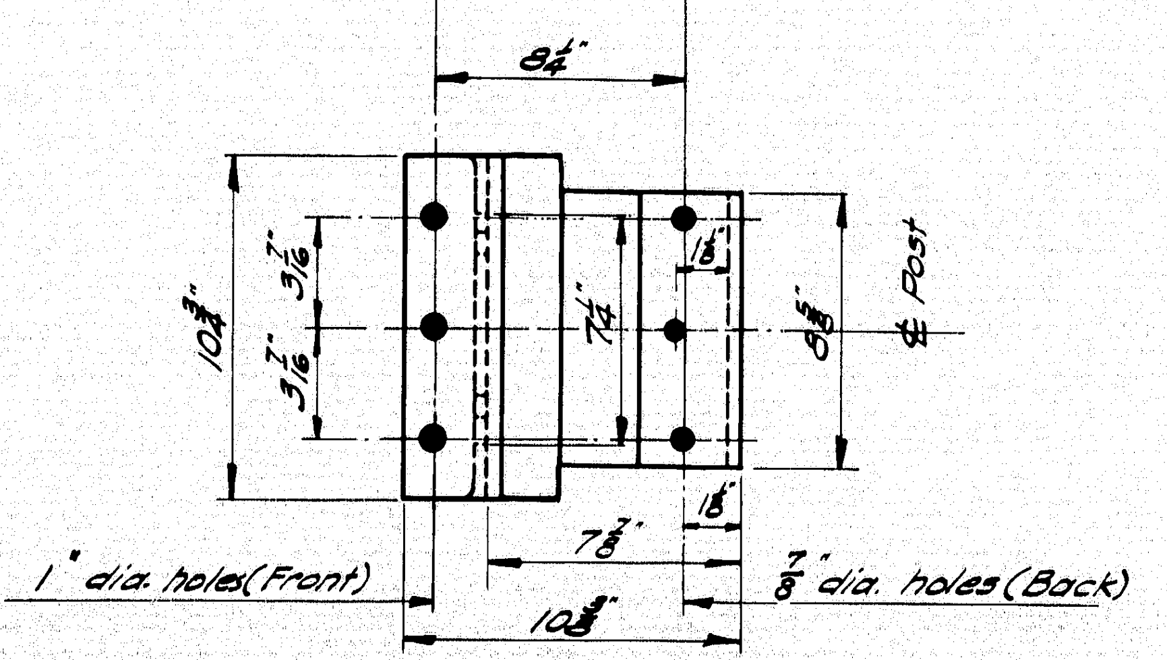
Shop rivet rail post to base



ANCHOR BOLTS

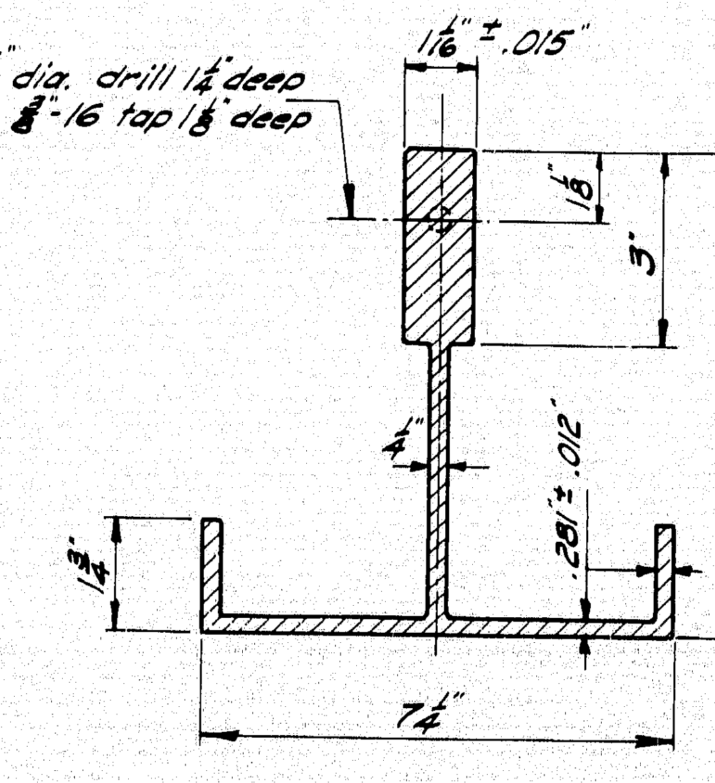
If cut threads are used bolt diameter shall be not less than nominal diameter.

If rolled threads are used bolt diameter shall be not less than root diameter of nominal diameter.



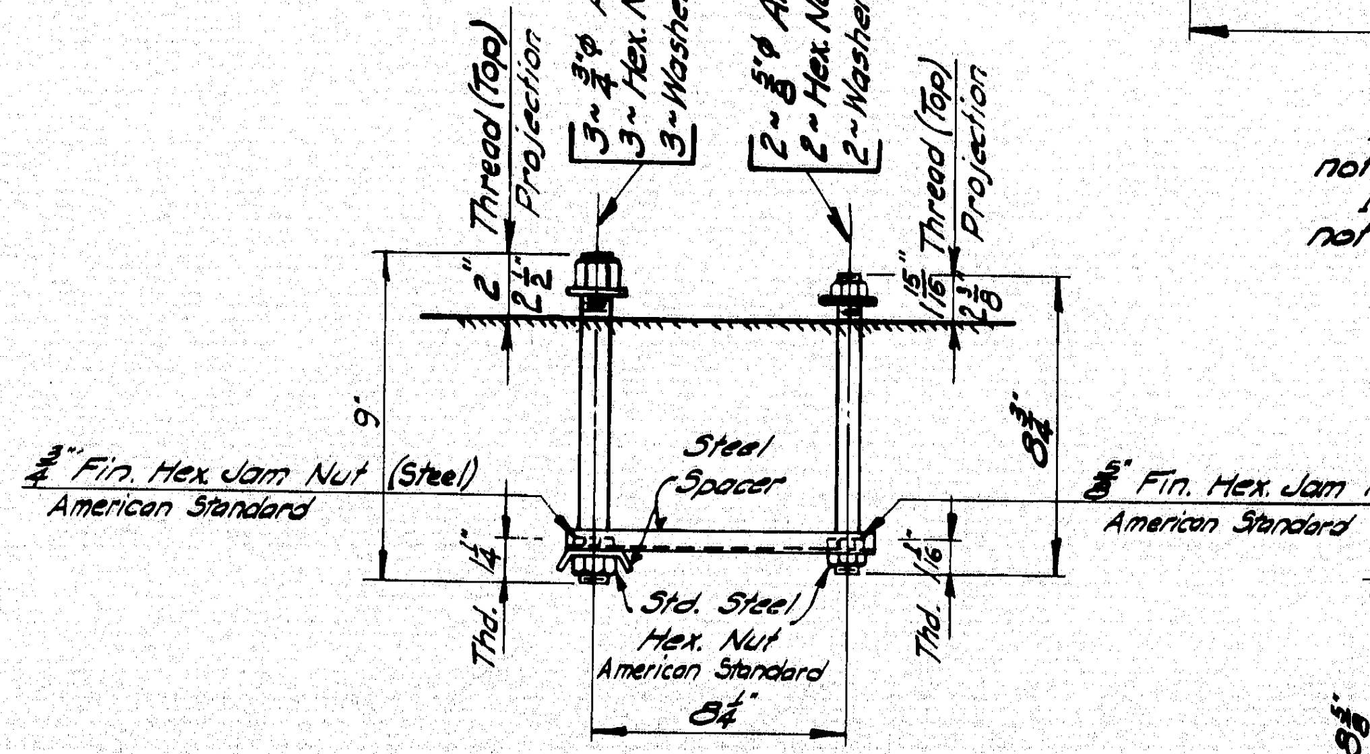
POST BASE

(Bottom View)



POST SECTION

Post & Post Base = ASTM B221, Alloy 6061-T6.


Thread (Top) Projection
3~3/4"ϕ Anchor Bolts
3~Hex. Nuts, Amer. Std. Heavy
3~Washers 1 1/2" O.D. × 13/16" I.D. × 1/8" thk.
2~5/8"ϕ Anchor Bolts
2~Hex. Nuts, Amer. Std. Heavy
2~Washers 1 5/16" O.D. × 21/32" I.D. × 1/8" thk.
Thread (Top) Projection
2"
2 1/2"
15/16"
2 1/8"
9"
8 3/4"
3/4" Fin. Hex. Jam Nut (Steel) American Standard
5/8" Fin. Hex. Jam Nut (Steel) American Standard
Steel Spacer
Std. Steel Hex. Nut American Standard
Thd.
1 1/4"
Thd.
1 1/16"
8 1/4"

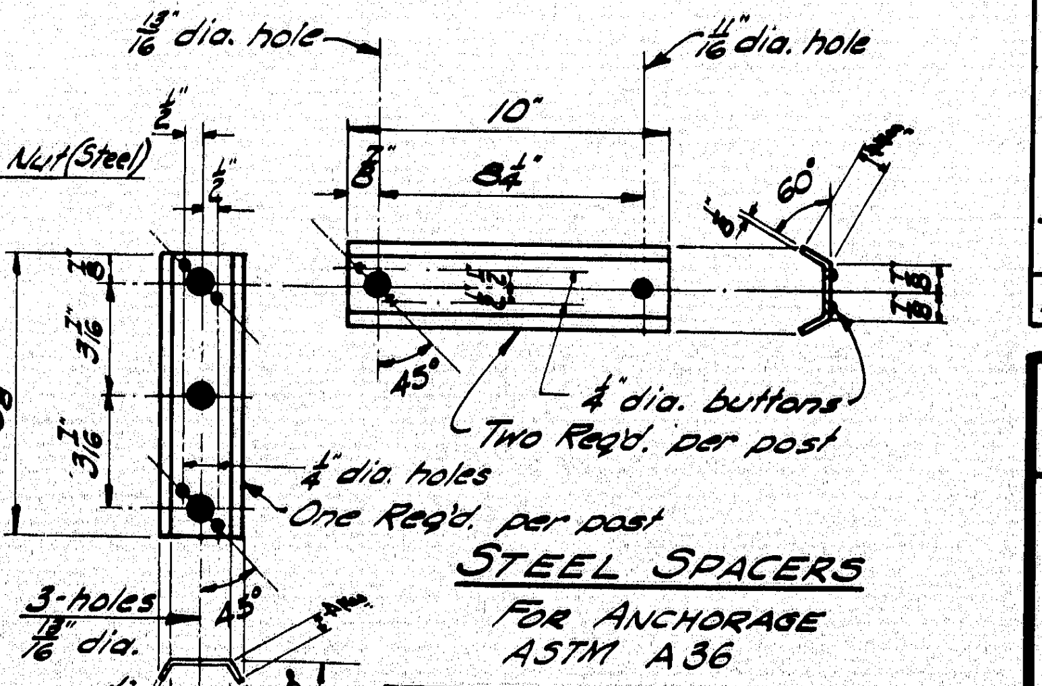
RAIL POST ANCHORAGE

Assembly

NOTE: Anchor Bolts, exposed Hex. Nuts (Amer. Std. Heavy) and washers shall conform to Designation "Stainless △A *~~ASTM A276 Type 403, Ultimate Tensile Strength 100,000 psi minimum, Elongation 15% minimum~~.

Hex. Nuts embedded in concrete shall conform to Steel Designation ASTM A 307.

* See Supplemental Specification.



STEEL SPACERS

FOR ANCHORAGE
ASTM A36

MARK	ALTERATIONS
	Changed ASTM B221, to include Alloy 6351-T5 for Rail, Splice & Clamp Bars.
△A 3-25-70	Changed ASTM Designations A276 & B209 A276 * ~~Type 430 to 403~~ (Post Anchorage) B209 ~ T3 to T4 (Washers) Changed AASHO Design Specifications from 1965 to 1969.

DESIGN SPECIFICATIONS
△A A.A.S.H.O. 1969 and Interim Specifications.

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

(BD 106 - 69)

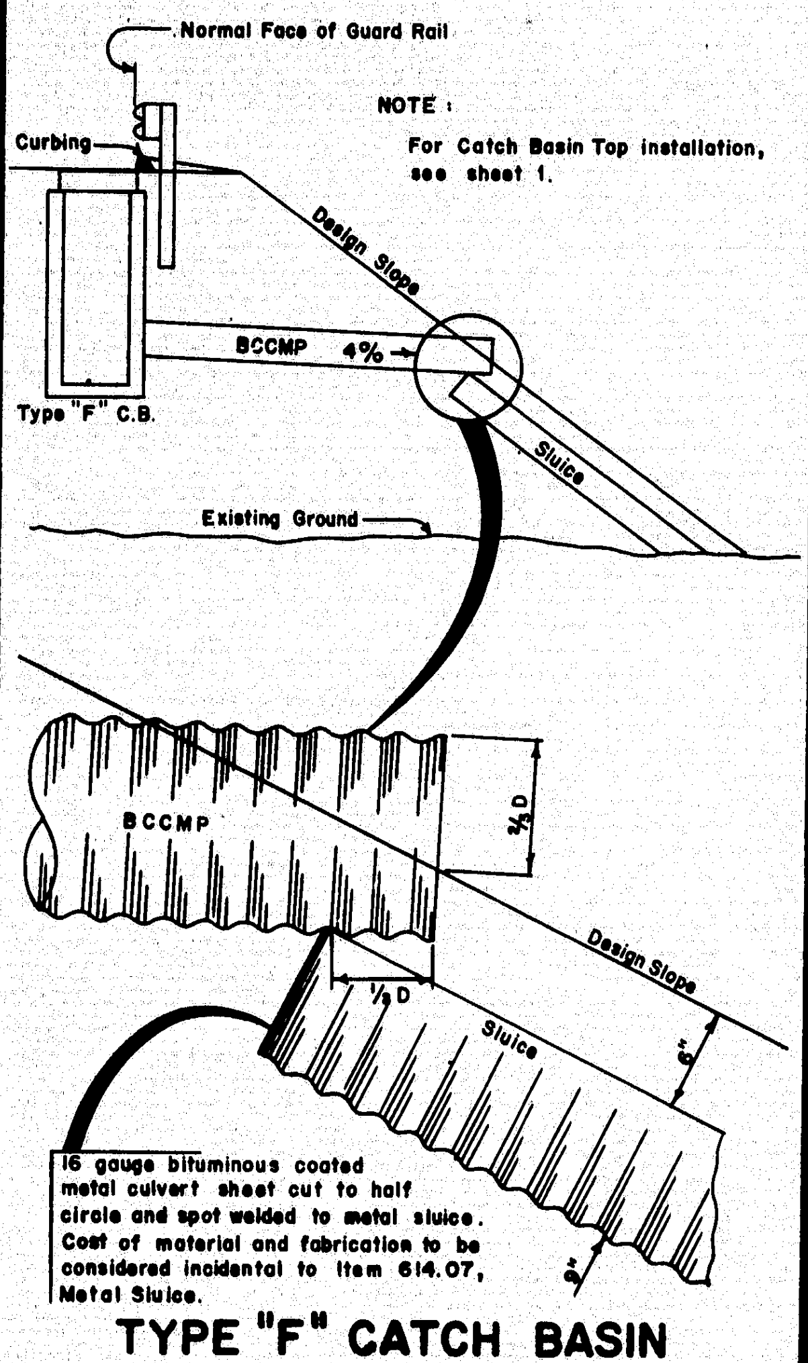
ALUMINUM RAILING

2 - BAR (SEMI-ELLIPSE)
EXTRUDED POST

JANUARY 1969

152-80

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	50	55



NOTE :
For Catch Basin Top installation, see sheet 1.

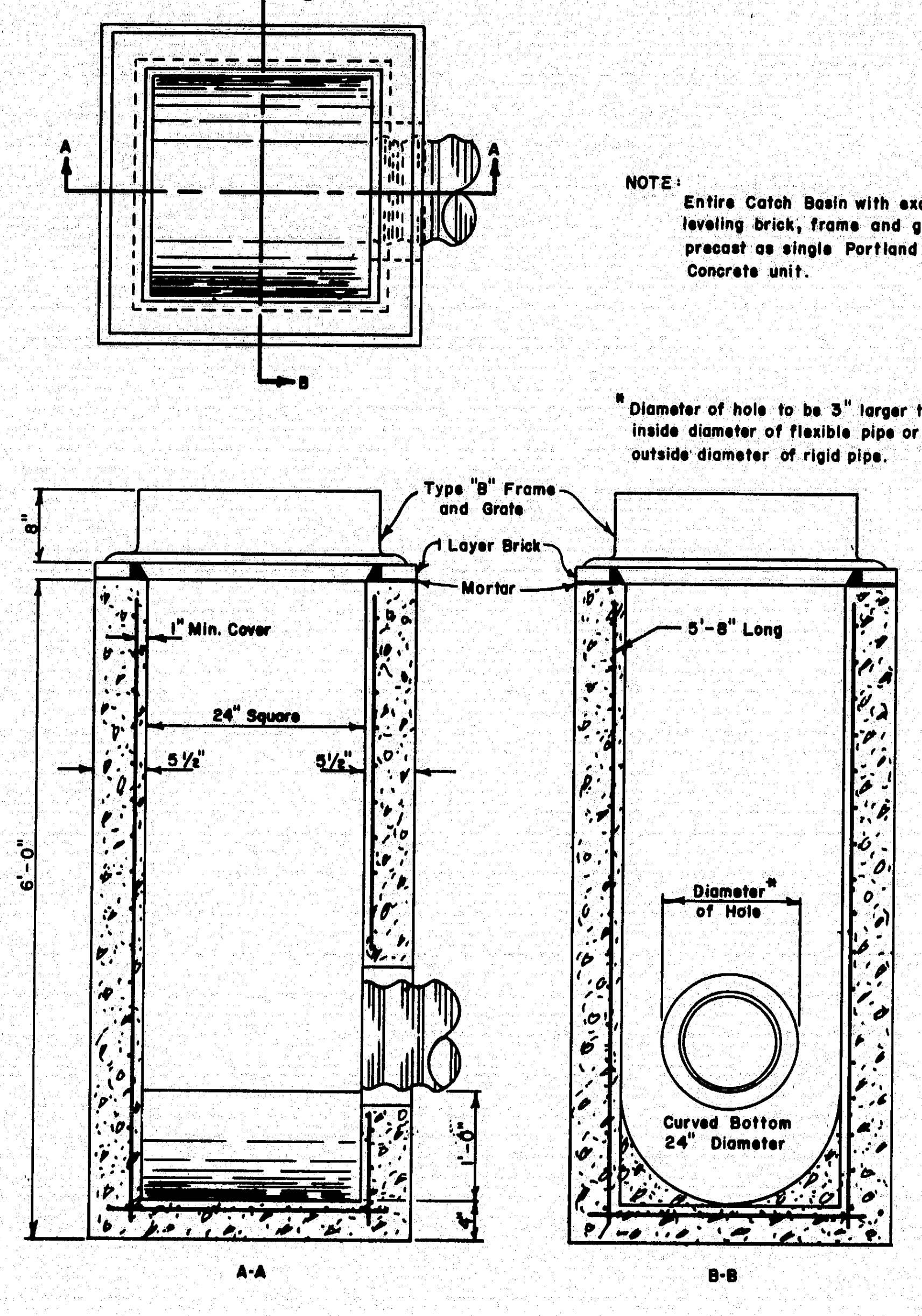
16 gauge bituminous coated metal culvert sheet cut to half circle and spot welded to metal sluice. Cost of material and fabrication to be considered incidental to Item 614.07, Metal Sluice.

TYPE "F" CATCH BASIN WITH OUTLET PIPE

(SLUICE OPTIONAL)

(SEE SHEET NO. 2 FOR STANDARD SLUICE DRAWING)

3-A

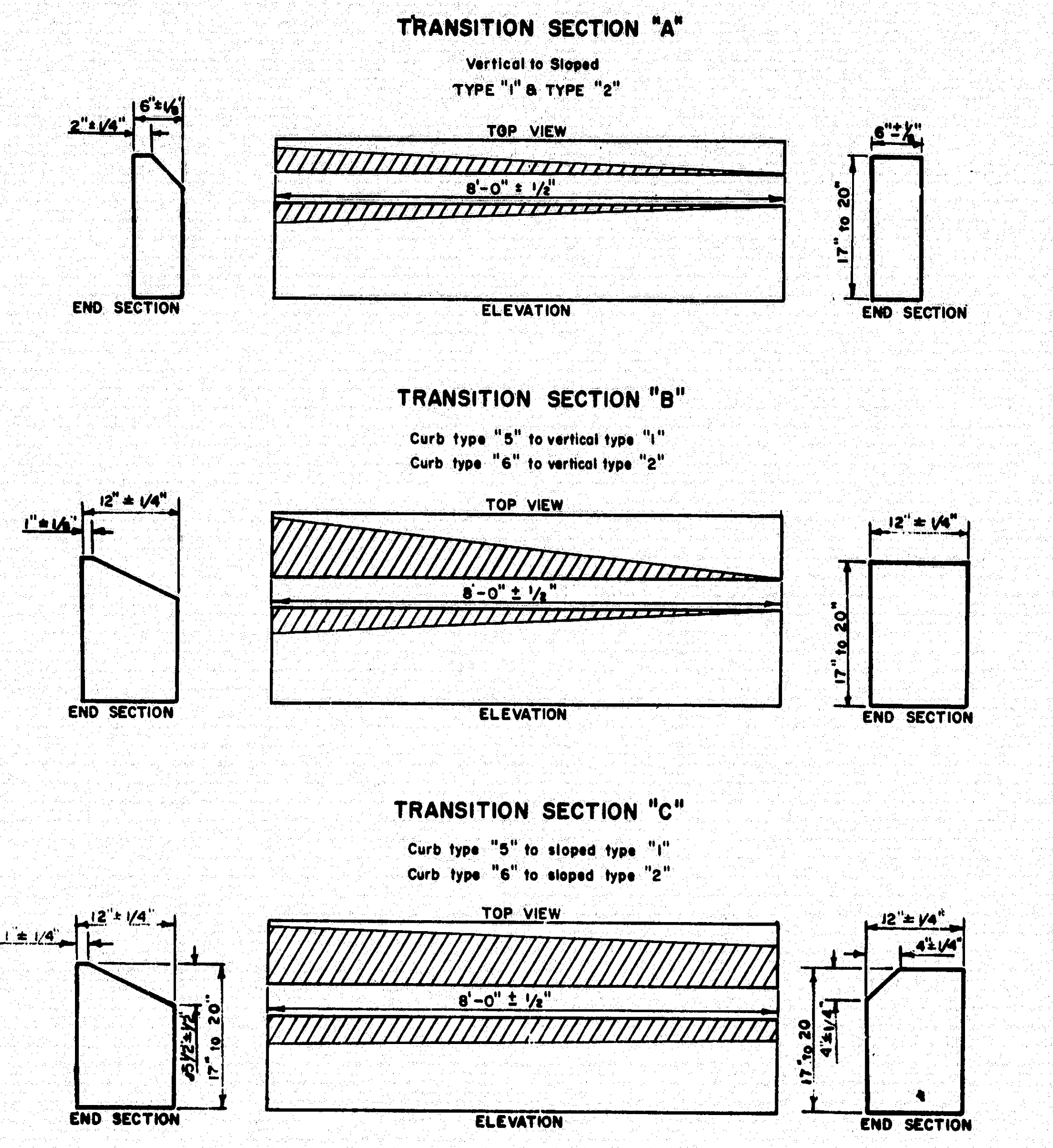


NOTE:
Entire Catch Basin with exception of leveling brick, frame and grate to be precast as single Portland Cement Concrete unit.

* Diameter of hole to be 3" larger than the inside diameter of flexible pipe or the outside diameter of rigid pipe.

CATCH BASIN TYPE "F"

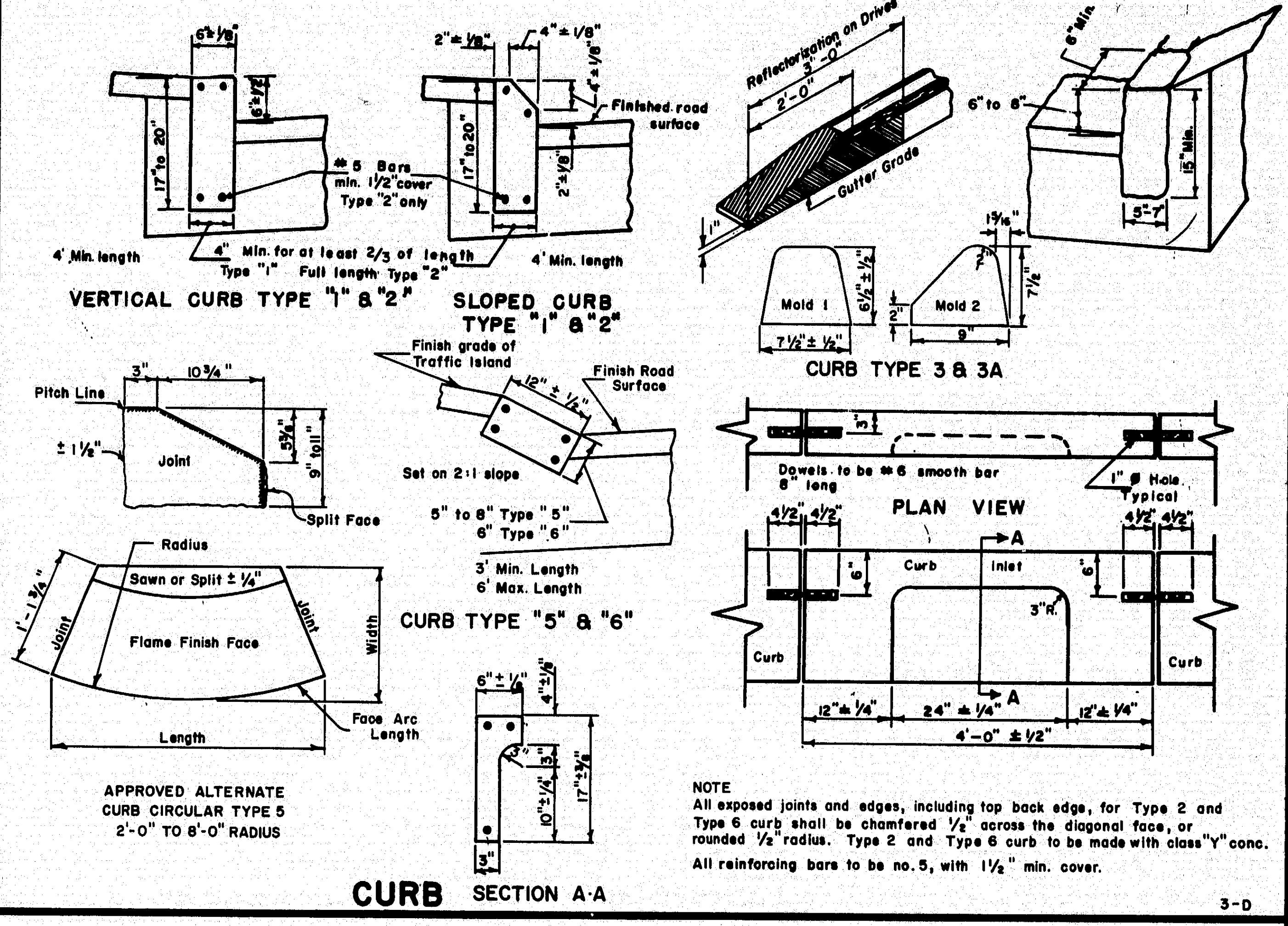
3-B



CURB TRANSITION

NOTE - TYPE 2 CURB
Precast concrete curb to be made with class "Y" concrete.
All reinf. bars to be # 5, 1 1/2" min. cover.

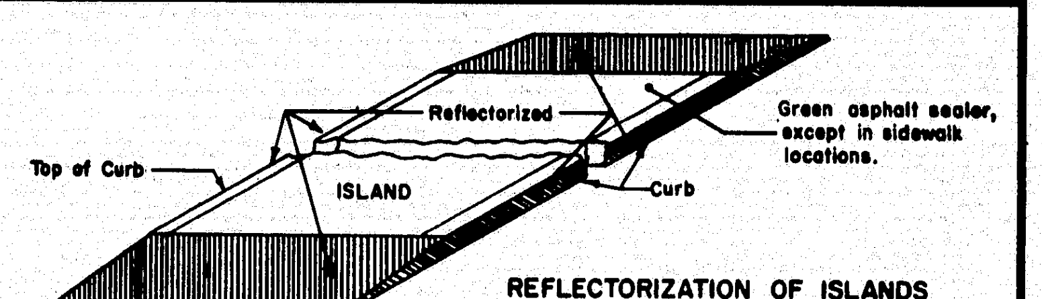
3-C



NOTE
All exposed joints and edges, including top back edge, for Type 2 and Type 6 curb shall be chamfered 1/2" across the diagonal face, or rounded 1/2" radius. Type 2 and Type 6 curb to be made with class "Y" conc.
All reinforcing bars to be no. 5, with 1 1/2" min. cover.

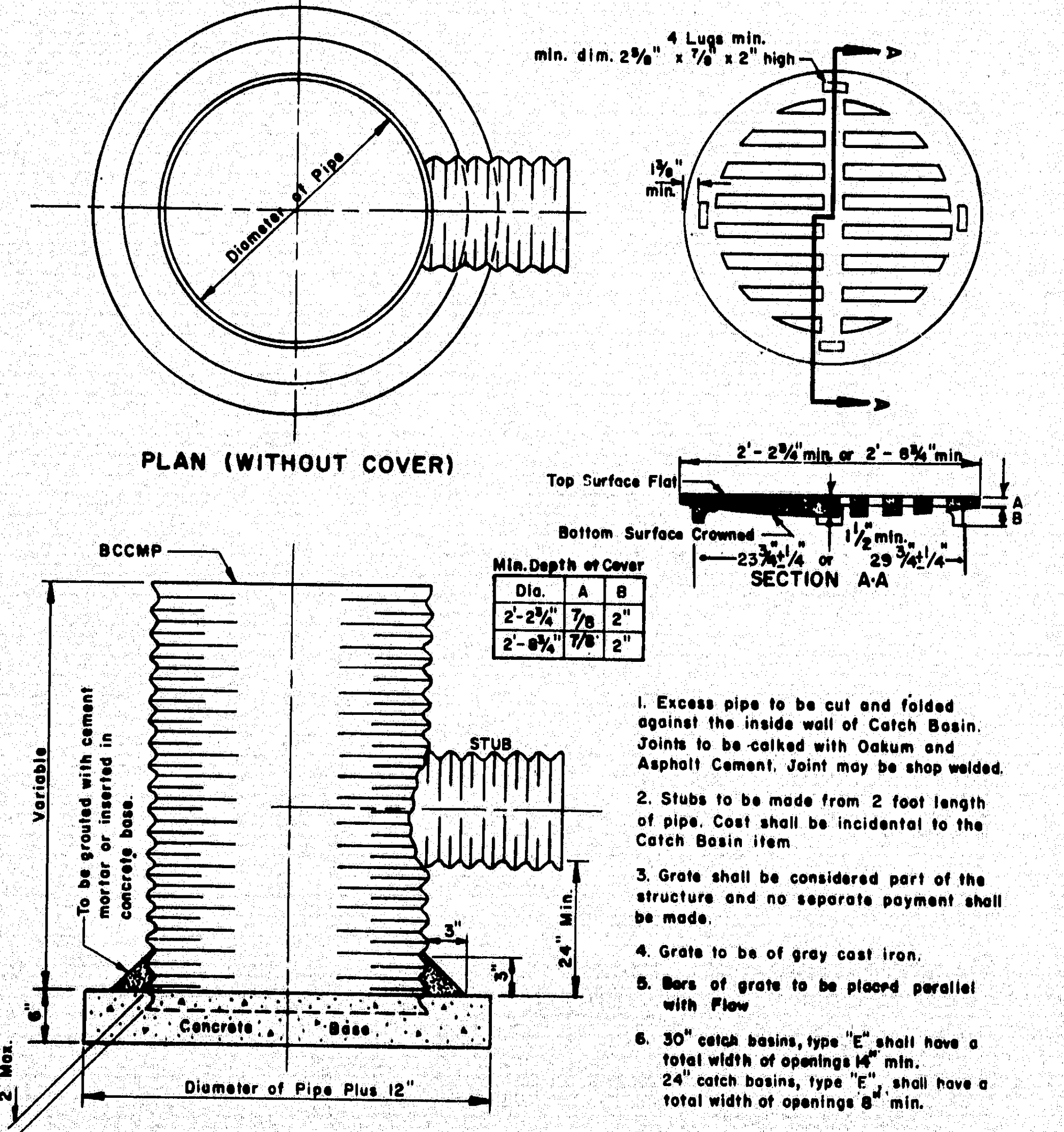
CURB

3-D



REFLECTORIZATION OF ISLANDS

3-E


PLAN (WITHOUT COVER)
Diameter of Pipe
4 Lugs min. min. dim. 2 5/8" x 7/8" x 2" high
Top Surface Flat
Bottom Surface Crowned
SECTION A-A
BCCMP
STUB
Variable
To be grouted with cement mortar or inserted in concrete base.
24" Min.
Concrete
Base
Diameter of Pipe Plus 12"
ELEVATION

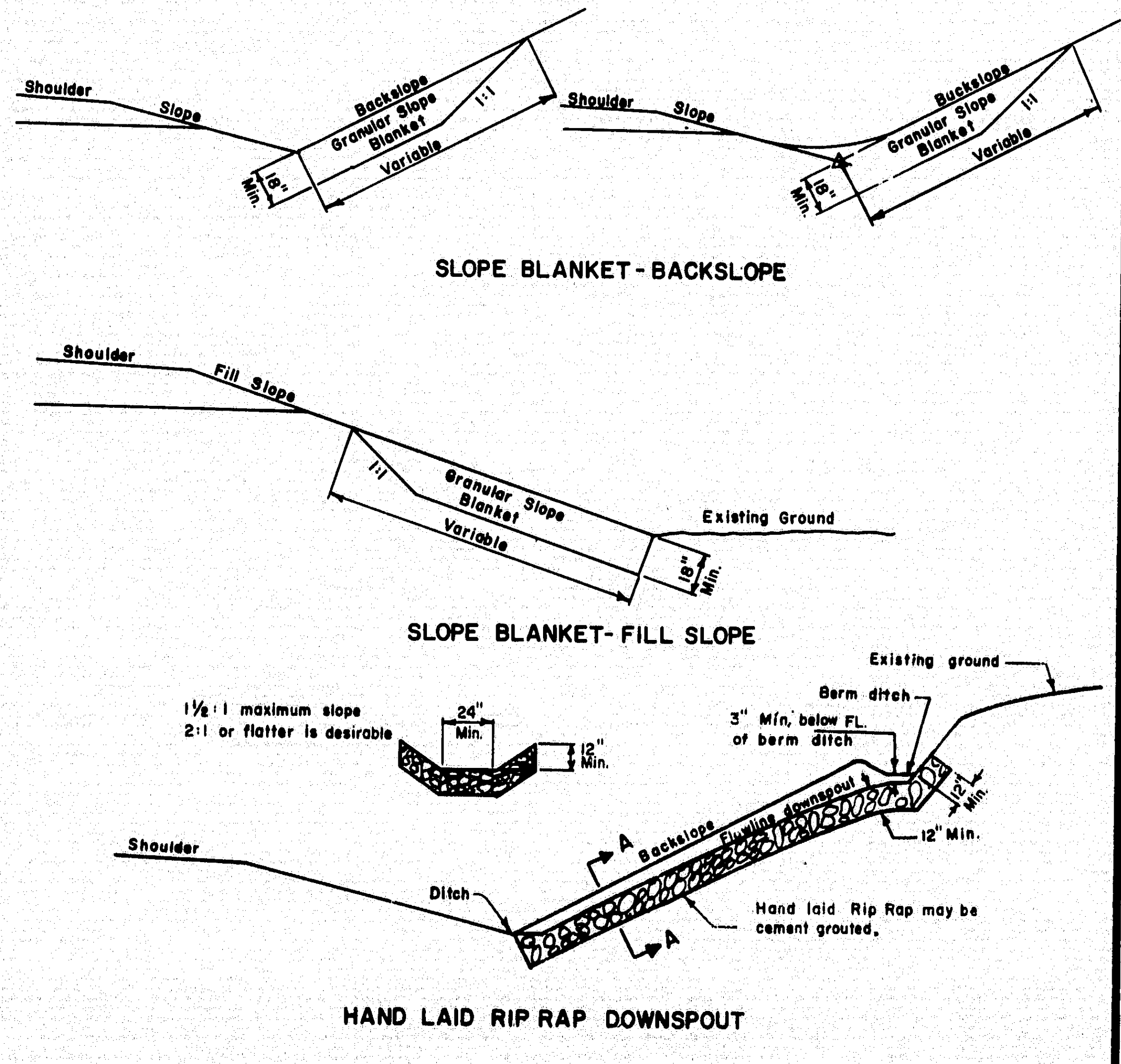
Min. Depth of Cover

Dia.	A	B
2'-2 3/4"	7/8	2"
2'-8 3/4"	7/8	2"

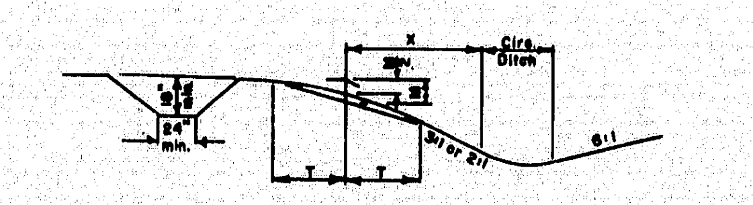
1. Excess pipe to be cut and folded against the inside wall of Catch Basin. Joints to be calked with Oakum and Asphalt Cement. Joint may be shop welded.
2. Stubs to be made from 2 foot length of pipe. Cost shall be incidental to the Catch Basin item
3. Grate shall be considered part of the structure and no separate payment shall be made.
4. Grate to be of gray cast iron.
5. Bars of grate to be placed parallel with Flow
6. 30" catch basins, type "E" shall have a total width of openings 14" min. 24" catch basins, type "E", shall have a total width of openings 8" min.
7. Corrugated metal pipe shall be 14 gauge and bituminous coated.

CATCH BASIN TYPE "E"

3-F



Hand laid Rip Rap may be cement grouted.



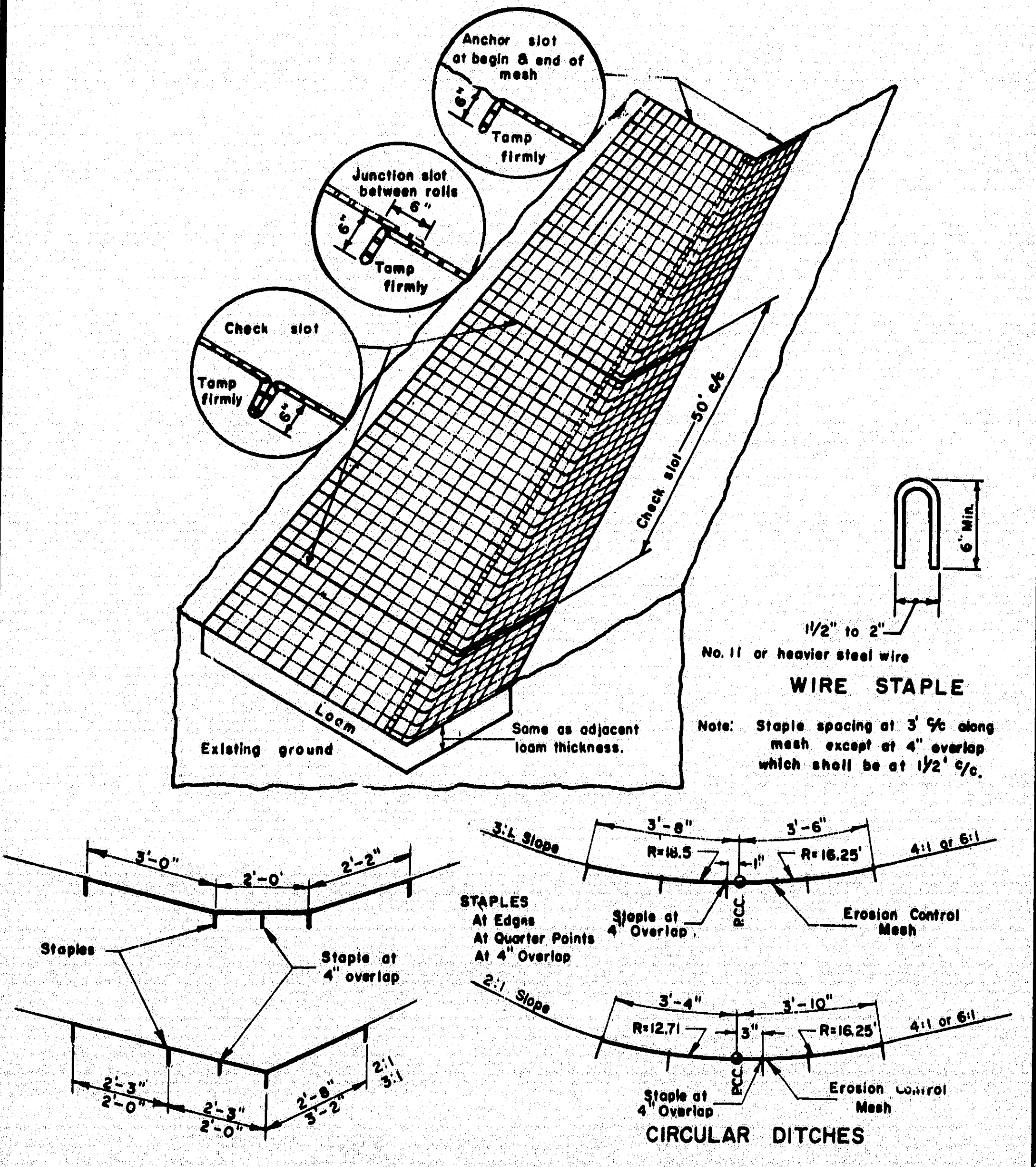
BERM DITCH

Construct berm ditch as shown on the plans or as directed by the engineer. Where a 2:1 slope is not practical, use a 1 1/2:1 slope.

Where "X" = 5 or less, "T" = X, otherwise "T" = 5. To avoid property damage and to save shade trees, this formula may be modified by the engineer.

For all sections, depth of ditch depends on local conditions.

3-G


Anchor slot at begin & end of mesh
Tamp firmly
Junction slot between rolls
Check slot
50' c/c
Loam
Existing ground
Same as adjacent loam thickness.
6" Min.
1 1/2" to 2"
No. 11 or heavier steel wire
WIRE STAPLE
Staples
Staple at 4" overlap
STAPLES At Edges At Quarter Points At 4" Overlap
3:1 Slope
2:1 Slope
4:1 or 6:1
Erosion Control Mesh
CIRCULAR DITCHES

Note: Staple spacing at 3' c/c along mesh except at 4" overlap which shall be at 1 1/2' c/c.

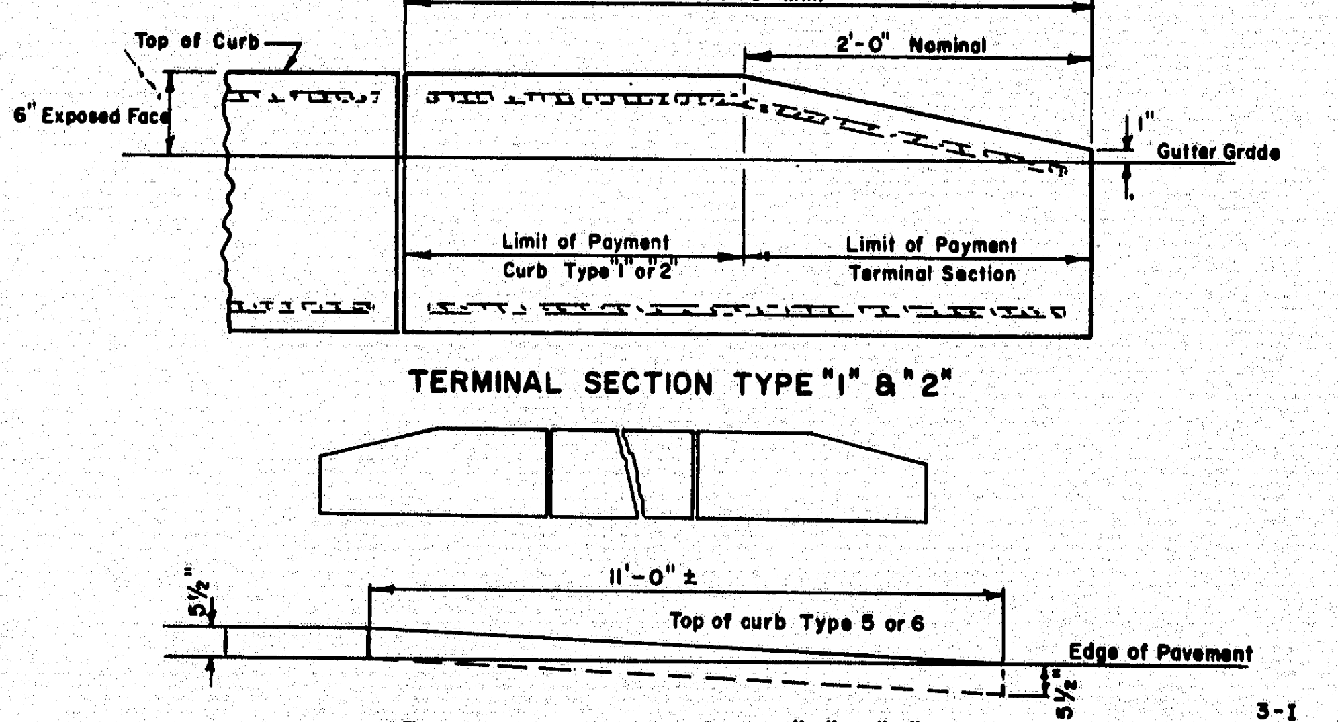
EROSION CONTROL MESH

3-H

TYPE	CURB TYPES (1 & 2), (5 & 6) ON CURVES RADIUS OF CURVE	LENGTH	PAID FOR AS	STONE IS CUT OR CAST
1 & 2	0' To 60' Incl.	4' Min.	Circular	Arc To Fit Curve
	Over 60' To 160'	4' To 6'	Straight	Straight Pieces
5 & 6	0' To 8' Incl.	2' Min.	Circular	To Fit Curve
	Over 8' To 30' Incl.	12" Min. Chord	Circular	Straight Pieces, Radial Ends
	Over 30' And Under 160'	2' To 3'	Straight	Straight Pieces
	160' And Over	3' To 6'	Straight	Straight Pieces

3-J

TERMINAL CURB SECTION



TERMINAL SECTION TYPE "1" & "2"

TERMINAL SECTION TYPE "5" & "6" (Use when shown on plans only)

3-I

REVISIONS	
Plate 3-G	12-23-69
Plate 3-F	5-27-70
Plate 3 J	7-15-70
PLATE 3G	3-4-71

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

CURB, DITCHES AND SLOPES, AND CATCH BASINS TYPE "E"

AUG. 1969

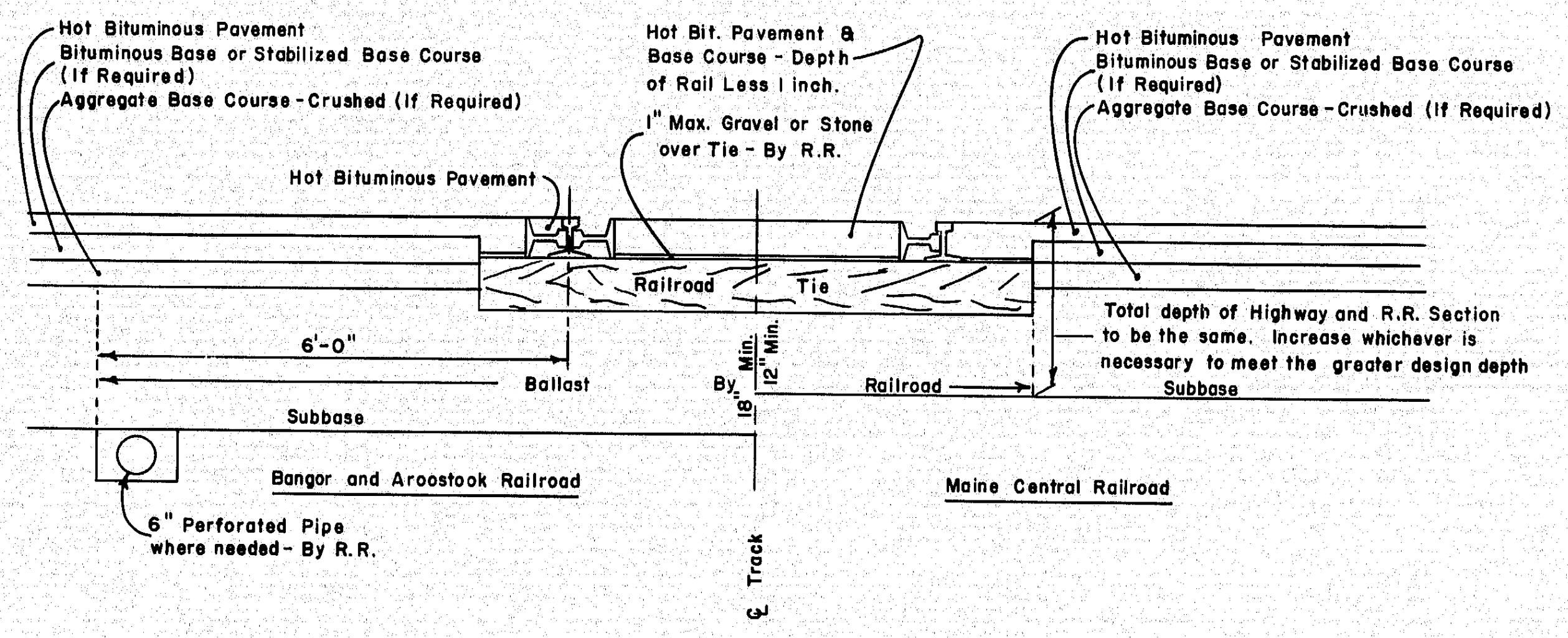
3

152-81

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	51	55

NOTES:

1. Creosote ties through crossing.
2. Rail joints in crossing to be welded
3. Stone Ballast to extend along track beyond each side of the crossing approximately 40'-0". By Railroad.
4. Work to be done by Railroad
   - A. Placement of Ballast.
   - B. Placement of Ties and Rails.
   - C. Placement of 1" max. Gravel over Ties.


Hot Bituminous Pavement
Bituminous Base or Stabilized Base Course (If Required)
Aggregate Base Course - Crushed (If Required)
Hot Bituminous Pavement
Hot Bit. Pavement & Base Course - Depth of Rail Less 1 inch.
1" Max. Gravel or Stone over Tie - By R.R.
Railroad Tie
6'-0"
Ballast
By
18" Min.
12" Min.
Railroad
Subbase
Subbase
Bangor and Aroostook Railroad
Maine Central Railroad
6" Perforated Pipe where needed - By R.R.
℄ Track
Total depth of Highway and R.R. Section to be the same. Increase whichever is necessary to meet the greater design depth

4-A

TABLE A

SIZE	NO. HOOK BOLTS REQUIRED	"X" DIMENSION
RIVETED PIPES		
60"	4	1.5
66"	4	1.5
72"	4	1.5
78"	5	1.5
84"	5	1.5
STRUCTURAL PLATE PIPE		
72"	4	1.5'
78"	5	1.625'
84"	5	1.75'
90"	5	1.875'
96"	6	2.0'
102"	6	2.125'
108"	6	2.25'
114"	7	2.375'
120"	7	2.5'
126"	7	2.625'
132"	8	2.75'
138"	8	2.875'
144"	9	3.0'
150"	9	3.125'
156"	9	3.25'
162"	10	3.375
168"	10	3.5'
174"	10	3.625'
180"	11	3.75'

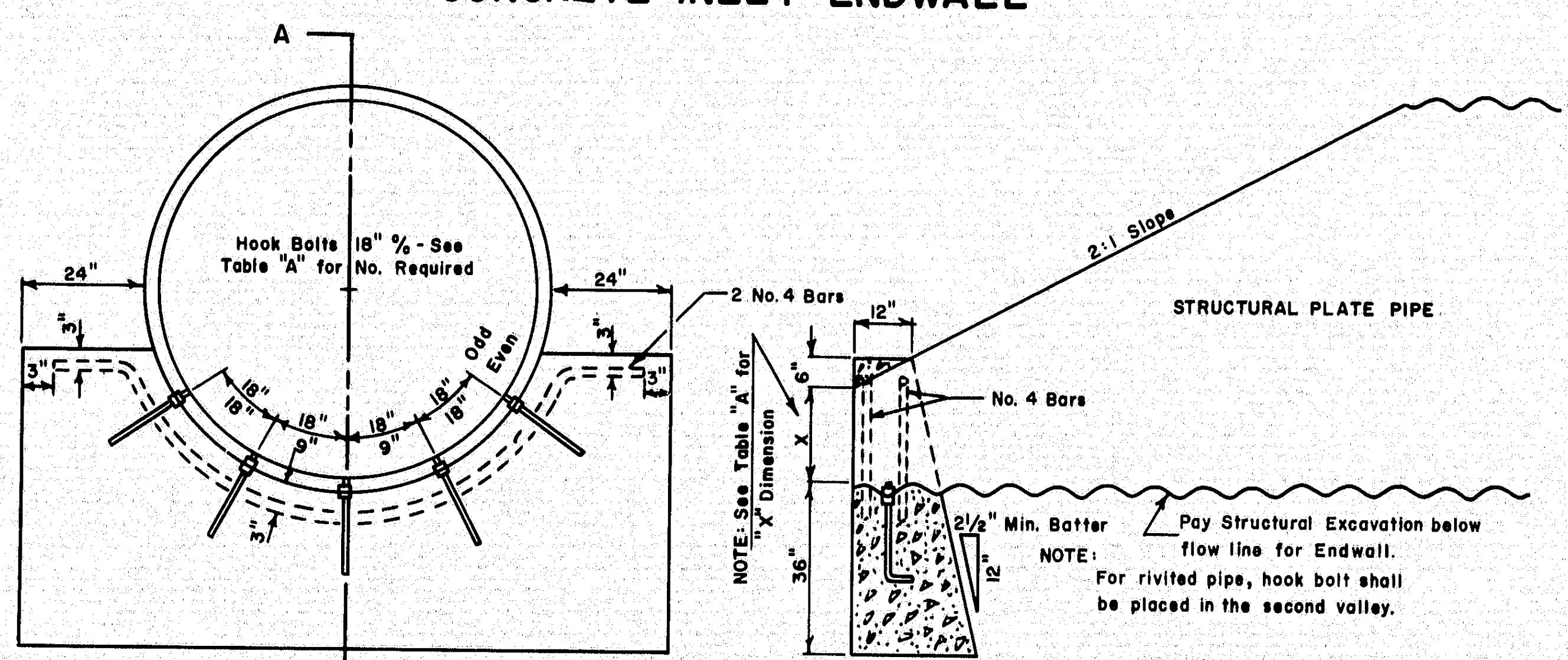
NOTES

1. Culverts installed under 2:1 slopes shall have riprap laid on 2:1 slope and no ditch transitions.
2. Excavation required to grade culvert inlets and outlets as shown will not be paid separately, but will be incidental to the culvert.

3. Hook bolts are required in metal pipes only and will be incidental to concrete item.
4. Concrete endwall shall be structural concrete class "A" and shall be paid for as item 502.32 structural concrete culvert endwalls.
5. All riprap as shown shall be hand laid.

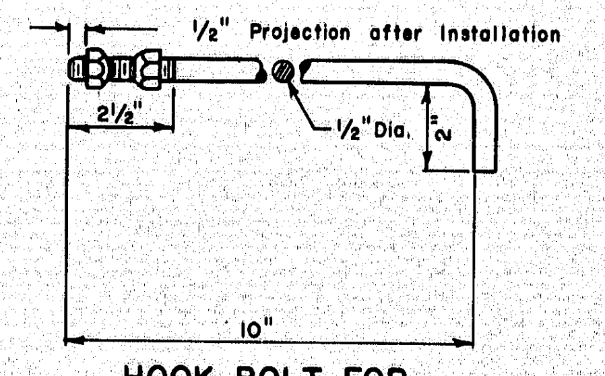
4-B

CONCRETE INLET ENDWALL

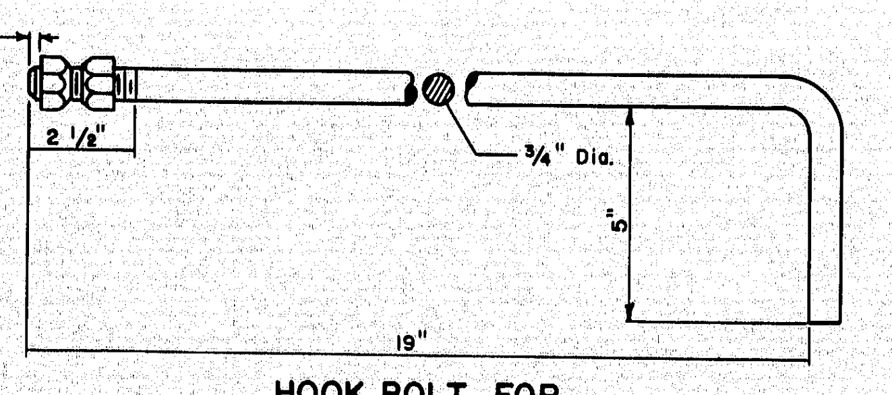

A
A
Hook Bolts 18" % - See Table "A" for No. Required
24"
24"
3"
3"
3"
3"
3"
18"
18"
18"
9"
18"
9"
18"
18"
Odd
Even
2 No. 4 Bars
12"
6"
X
36"
NOTE: See Table "A" for "X" Dimension
No. 4 Bars
2:1 Slope
STRUCTURAL PLATE PIPE
2½" Min. Batter
12"
Pay Structural Excavation below flow line for Endwall.

NOTE: For rivited pipe, hook bolt shall be placed in the second valley.

SECTION A-A



HOOK BOLT FOR RIVETED PLATE PIPES



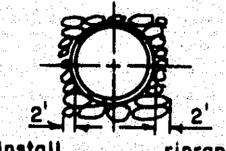
HOOK BOLT FOR STRUCTURAL PLATE PIPES

4-C

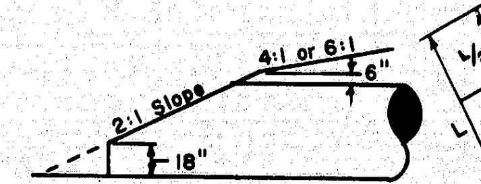
ROADWAY CULVERT END SLOPE TREATMENT
FOR METAL AND CONCRETE CULVERTS

TABLE B

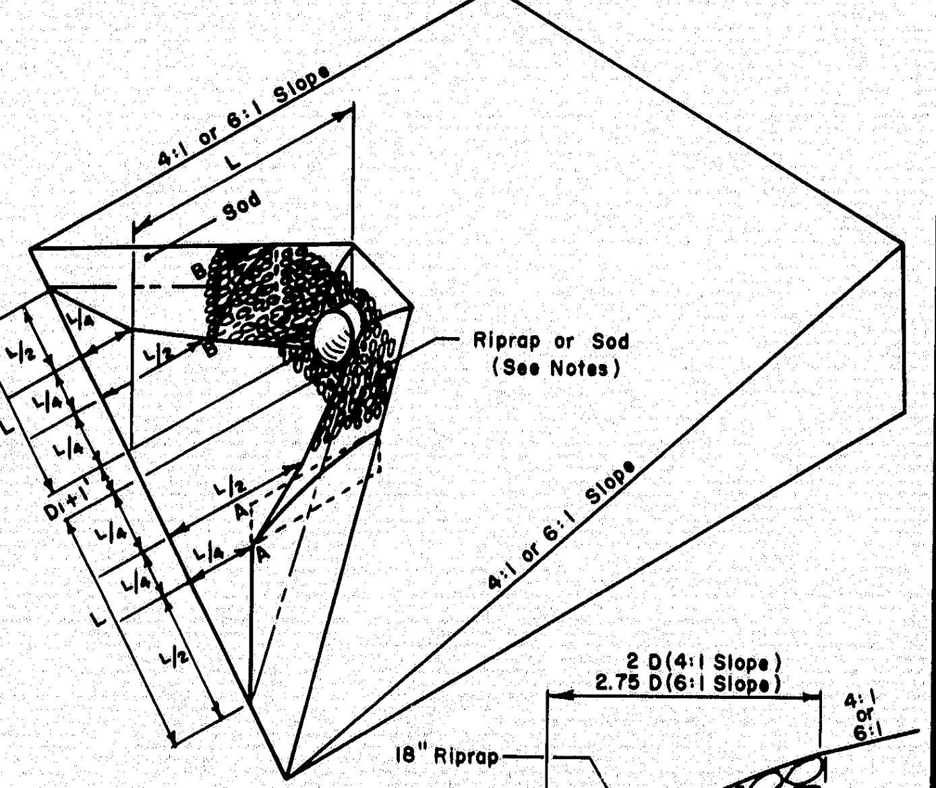
Culvert Diameter	L 4:1 Slope	L 6:1 Slope
18"	9'-0"	13'-0"
21"	10'-0"	15'-0"
24"	11'-0"	16'-6"
30"	13'-0"	20'-0"
36"	15'-6"	23'-0"
42"	17'-6"	26'-0"
48"	19'-6"	29'-6"
54"	22'-0"	32'-6"
60"	24'-0"	36'-0"
66"	26'-0"	39'-6"
72"	28'-6"	42'-6"
84"	32'-6"	49'-0"



Install riprap 2' around diameter of pipe on 2:1 guard rail slopes when called for on the plans.



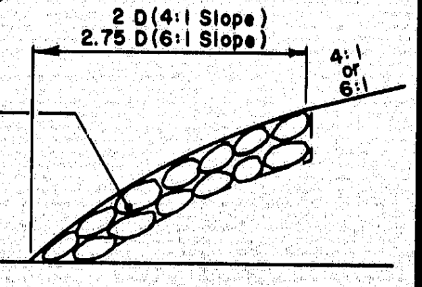
CULVERTS CUT ON A 2:1 SLOPE



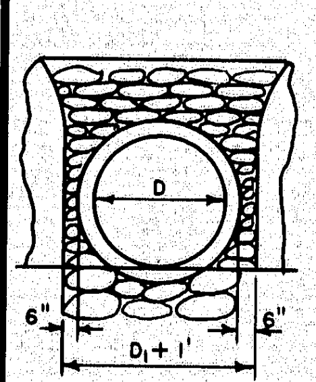
NOTES:

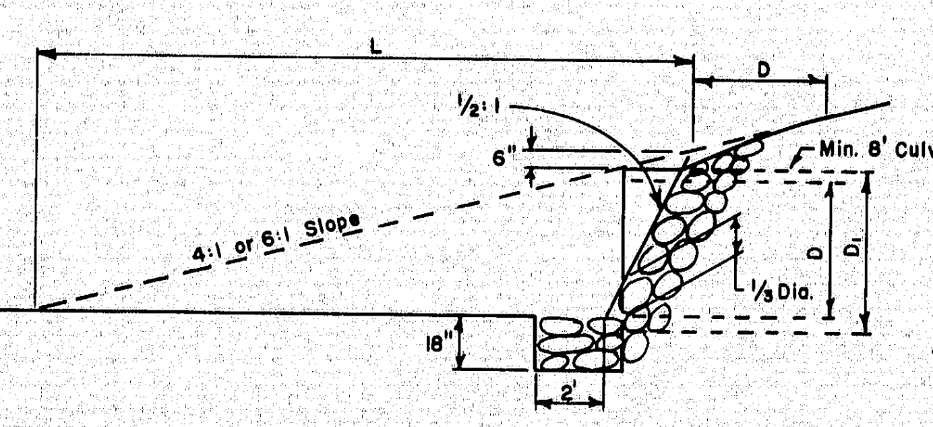
1. The dimensions shown are approximate and may be modified by the resident engineer.
2. Culverts installed under 2:1 slopes shall have riprap laid on 2:1 slope around the inlet and outlet; and no ditch transitions.

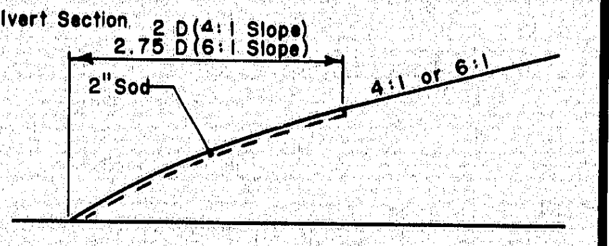
3. Riprap will be required on the portions of the culvert end treatment 1:1 and steeper. The remaining portion shall be sodded or loamed, seeded and hay mulched as directed by the engineer.
4. 24" diameter culverts and under may be sodded around ends of culvert.



SECTION B-B
90° to Roadway ℄



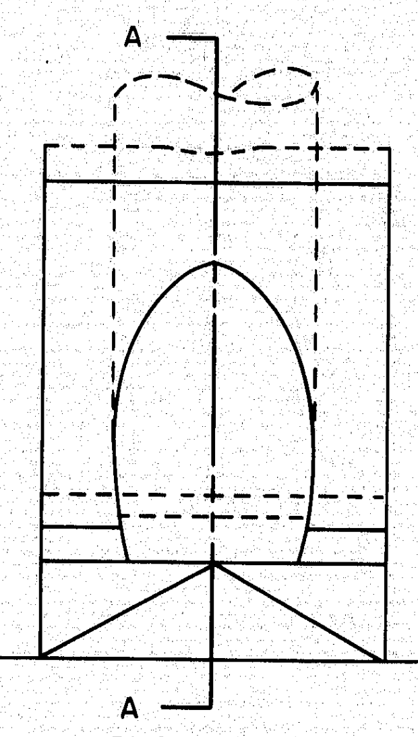




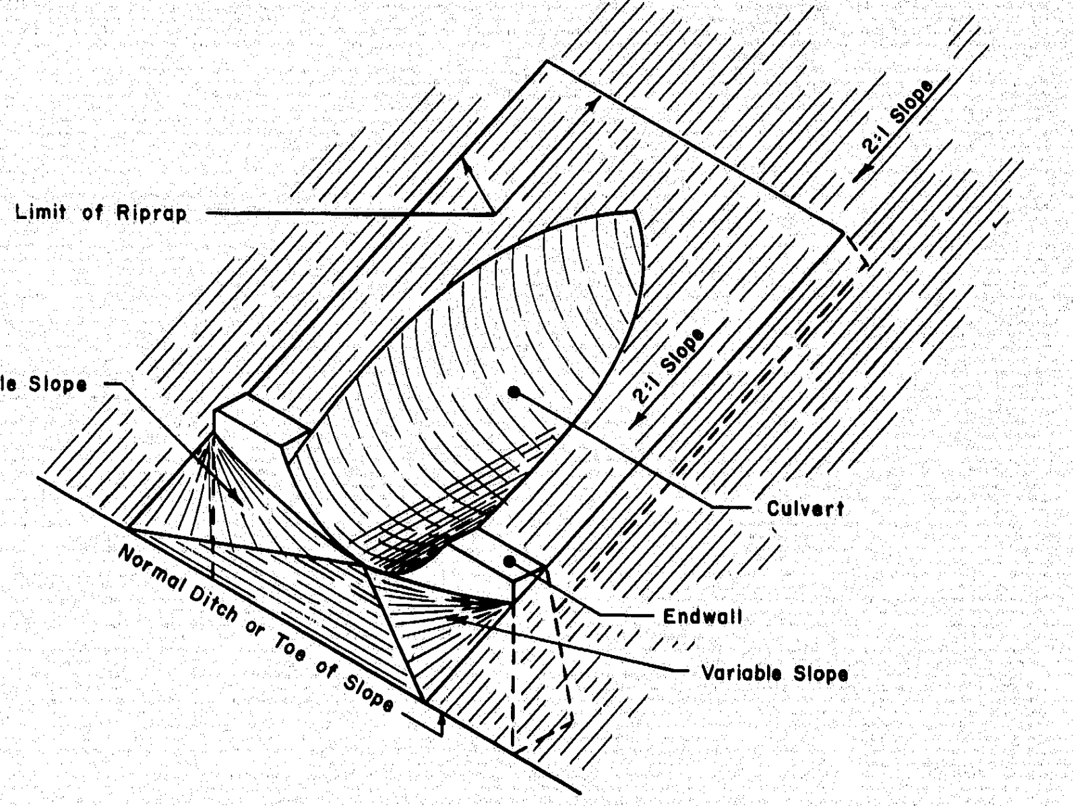
SECTION A-A
90° to Roadway ℄

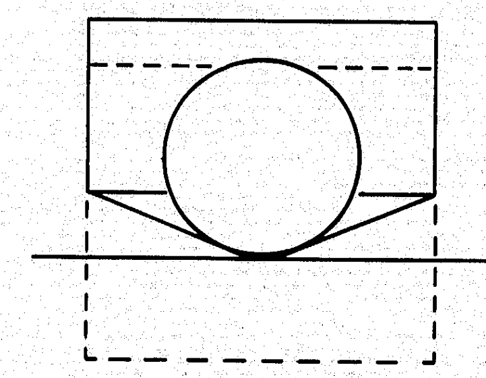
4-D

CONCRETE INLET ENDWALLS FOR RIVETED AND STRUCTURAL PLATE PIPES 60" TO 180" IN 2:1 SLOPES

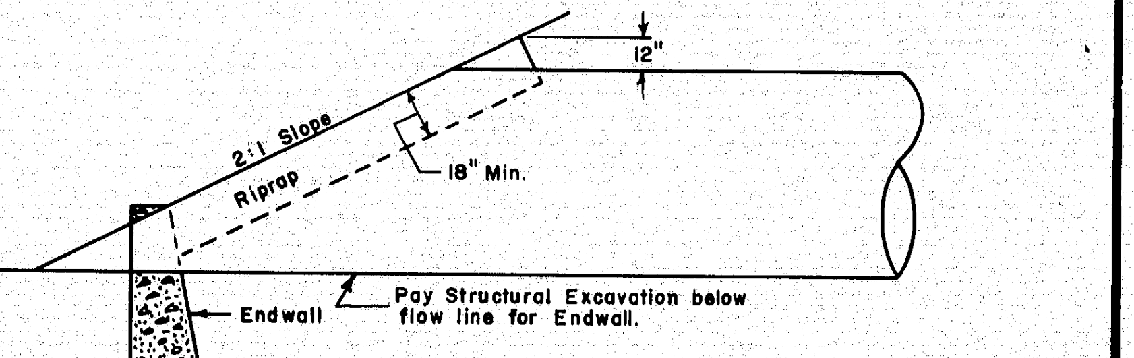


PLAN VIEW





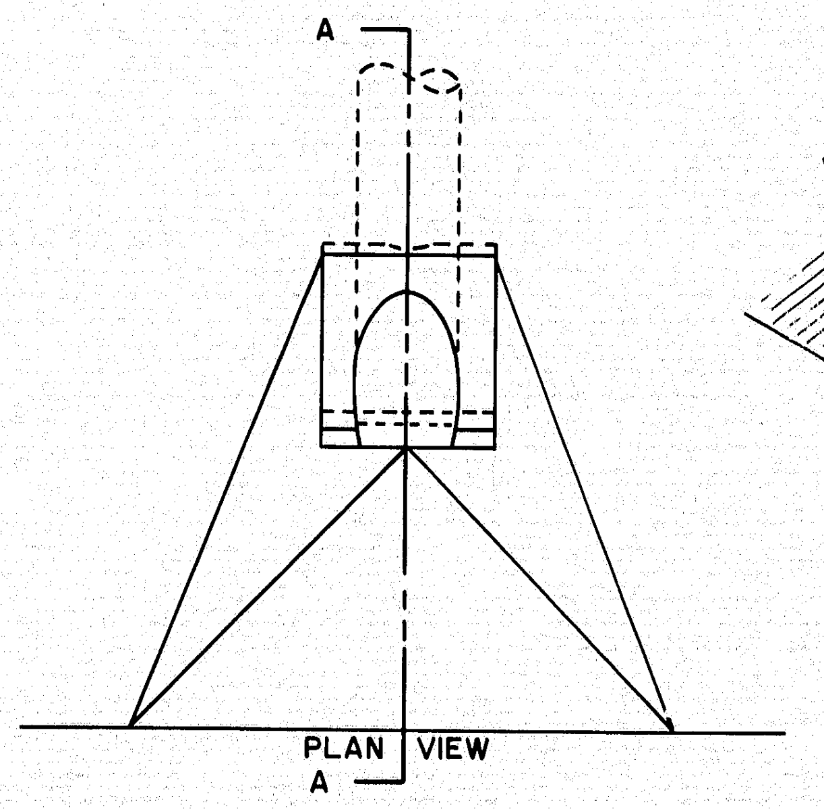
END VIEW



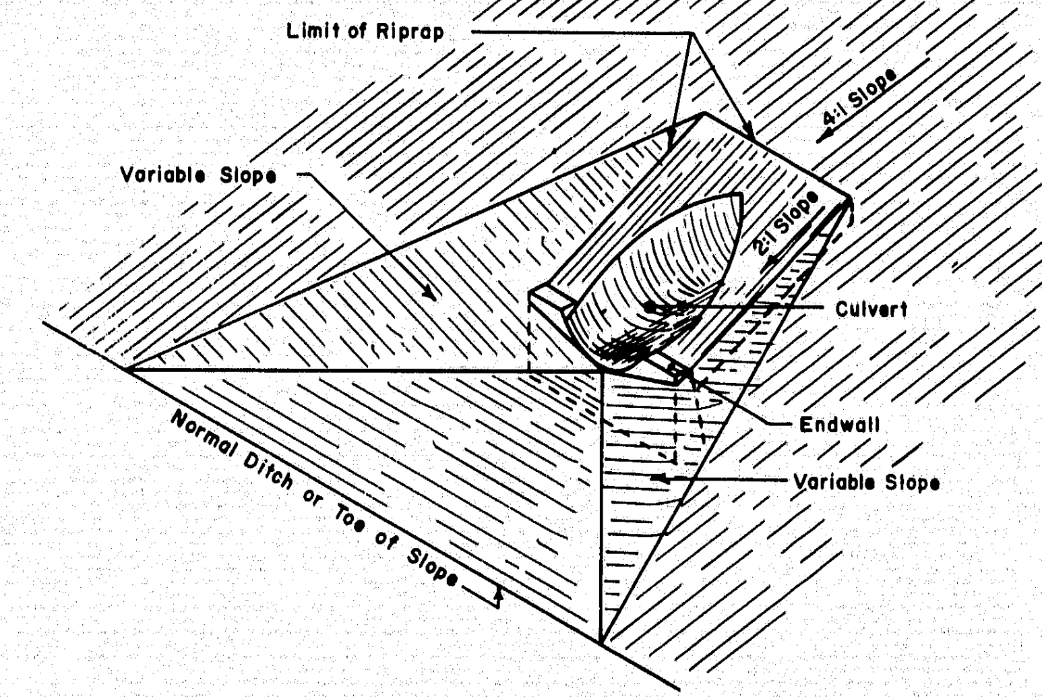
SECTION A-A

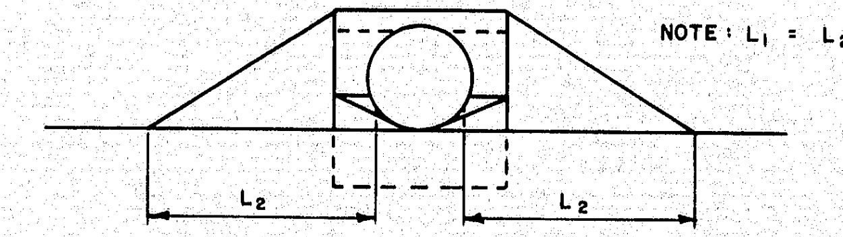
4-E

CONCRETE INLET ENDWALLS FOR RIVETED AND STRUCTURAL PLATE PIPES 60" TO 180" IN 4:1 SLOPES



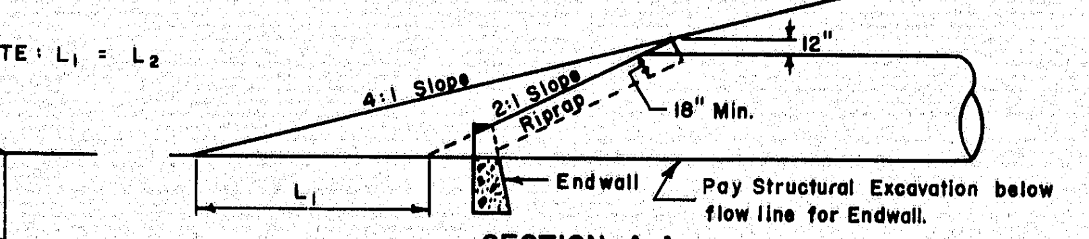
PLAN VIEW





END VIEW

NOTE: L₁ = L₂



SECTION A-A

4-F

REVISIONS	
Plate 4-D	12-23-69

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

CULVERT INLETS & OUTLETS

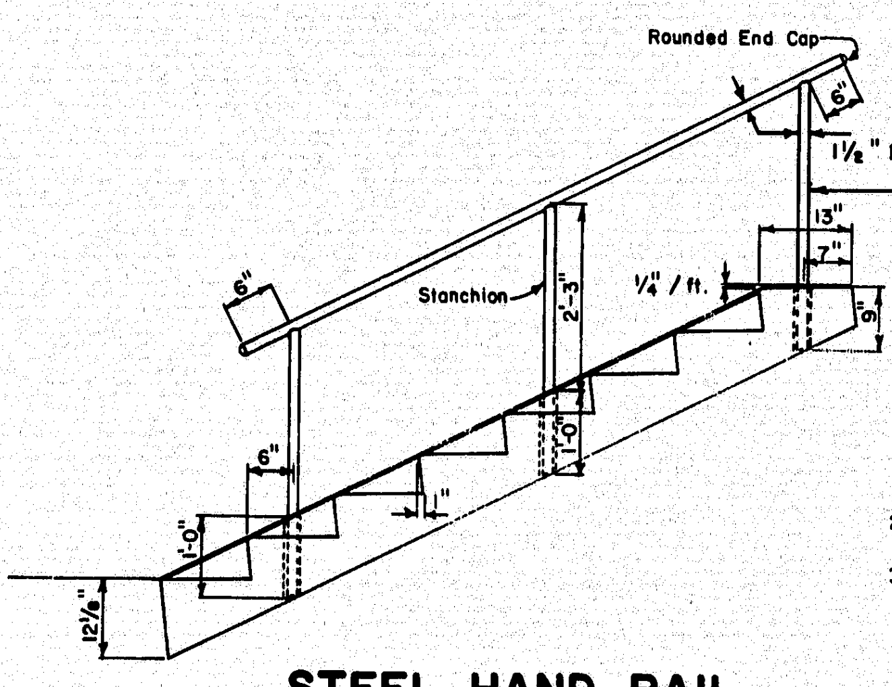
AUG. 1969

4

152-82

TRUFLEX ☆ SILKY ☆ TRIPLE-WHITE ☆ RYPLEX

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	52	55



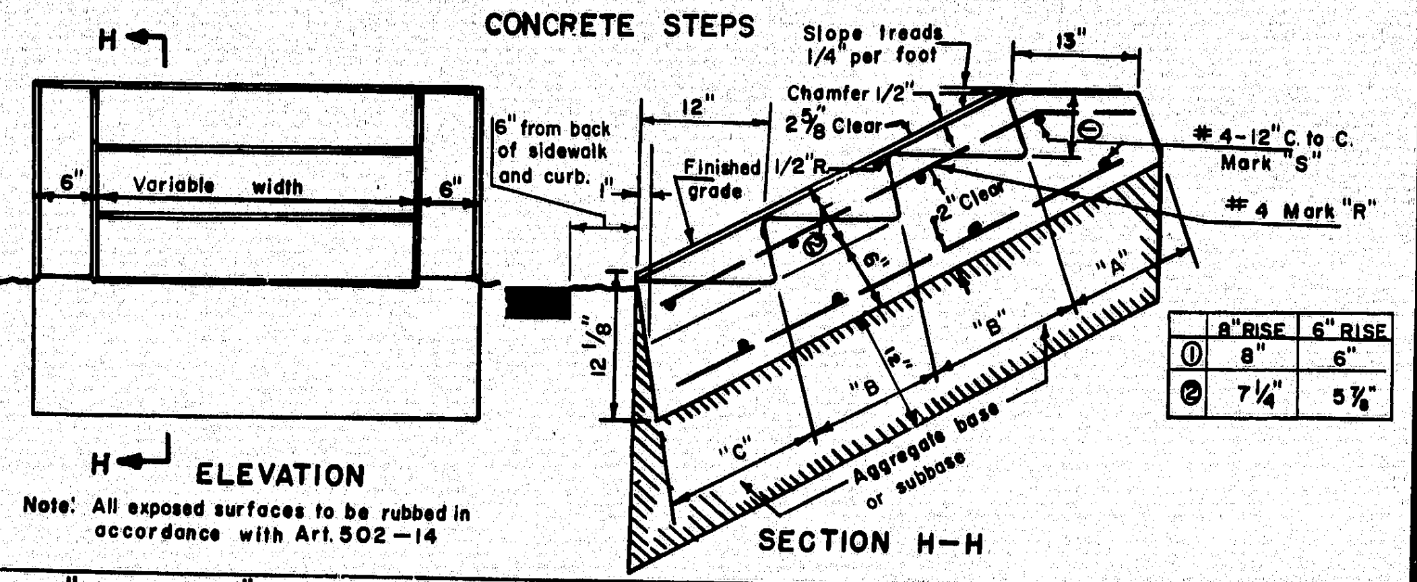
NOTES:
1. Stanchions shall be placed at a maximum horizontal distance of 5'-0". When more than two stanchions are used, spacing shall be equal between end posts and adjacent stanchions.
2. Stanchions shall be used when seven or more steps occurs.
3. Stanchions and end posts to be placed verticaly and in center of parapet wall.
4. All stanchions and rails shall be coated with an approved black enamel paint.

STEEL HAND RAIL

5-A

CONCRETE STEPS & SIDEWALK

CONCRETE STEPS



	8" RISE	6" RISE
①	8"	6"
②	7¼"	5⅞"

Note: All exposed surfaces to be rubbed in accordance with Art. 502-14

6" RISE – 12" TREAD (2:1) SLOPE

REINFORCING STEEL

Mark	Size	Number	Length (Each)
R	# 4 .668 lbs. per ft.	2 Each parapet 1 Each ft. of width	11" For "A" +13.4 For each "B" +12" For "C"
S	# 4 668 lbs. per ft.	2 For "A" 2 For each "B" 2 For "C"	4" Each parapet + 12" per ft. of width

CONCRETE CLASS "A"

Section	Steps per ft of width	Parapet each wall
"A" Header	.030 cu. yds.	.015 cu. yds.
"B" Each inter. step	.030 cu. yds.	.020 cu. yds.
"C" Footer	.030 cu. yds.	.020 cu. yds.

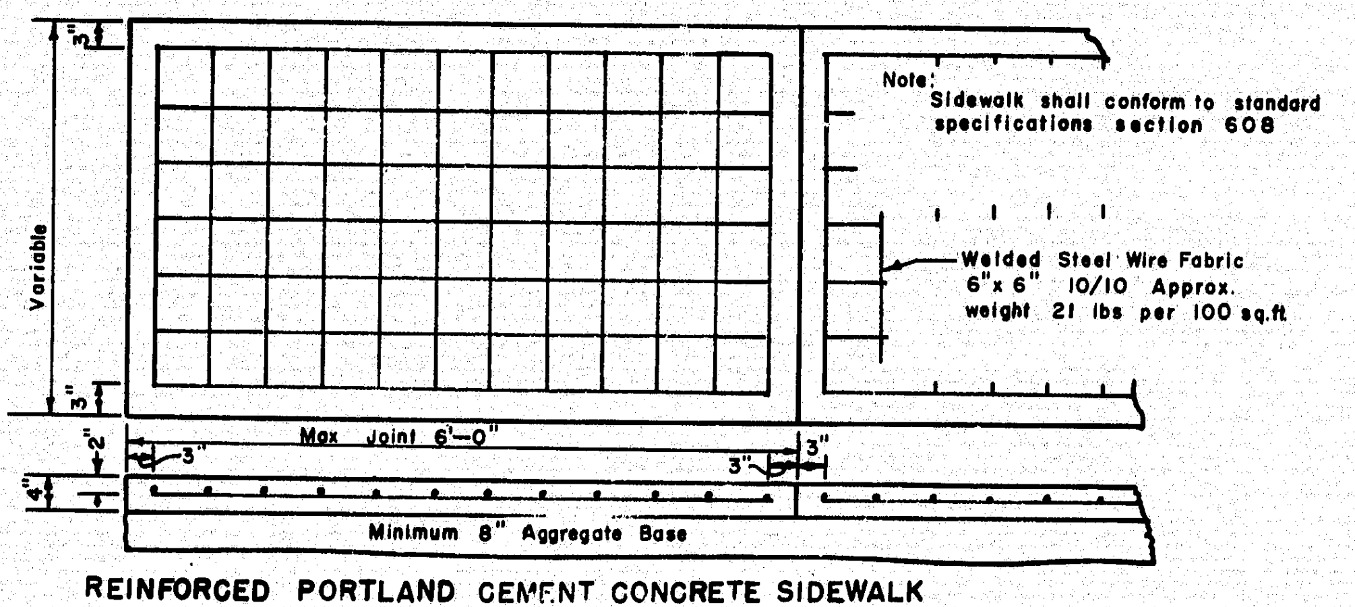
8" RISE – 12" TREAD (1½:1) SLOPE

REINFORCING STEEL

Mark	Size	Number	Length (Each)
R	# 4 .668 lbs. per ft.	2 Each parapet 1 Each ft. of width	11" For "A" +14½" For each "B" +12" For "C"
S	# 4 .668 lbs. per ft.	2 For "A" 2 For each "B" 2 For "C"	4" Each parapet + 12" per. ft. of width

CONCRETE CLASS "A"

Section	Steps per ft of width	Parapet each wall
"A" Header	.035 cu. yds.	.018 cu. yds.
"B" Each inter. step	.035 cu. yds.	.024 cu. yds.
"C" Footer	.035 cu. yds.	.024 cu. yds.



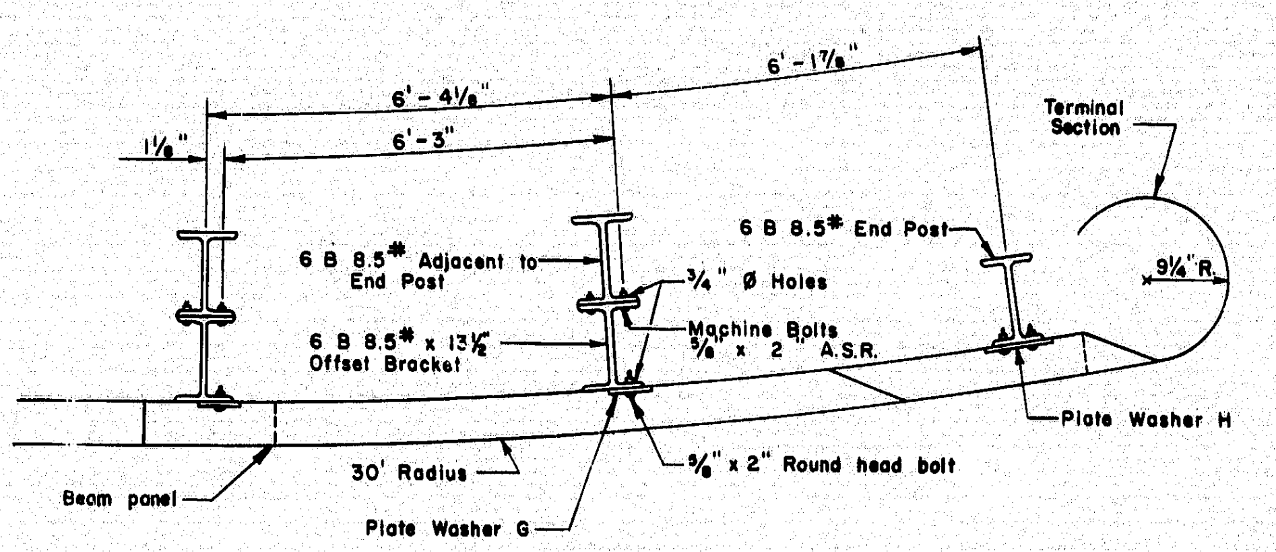
Note:
Sidewalk shall conform to standard specifications section 608

Welded Steel Wire Fabric
6" x 6" 10/10 Approx.
weight 21 lbs per 100 sq.ft.

REINFORCED PORTLAND CEMENT CONCRETE SIDEWALK

5-B

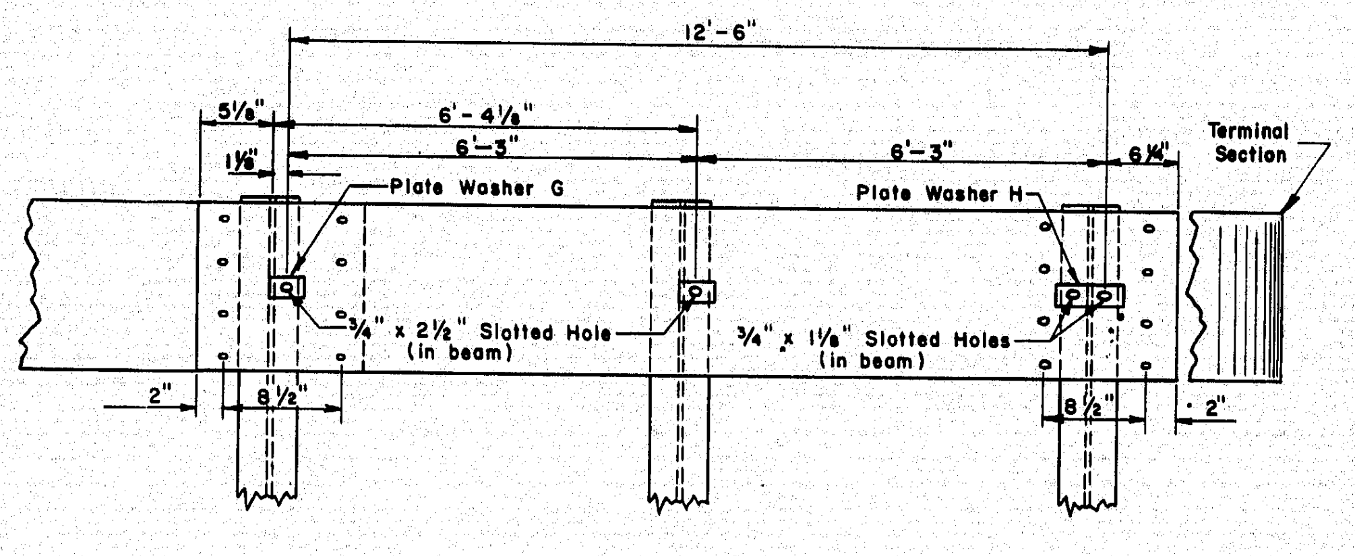
END BEAM ASSEMBLY - SPACING OF POSTS
GUARD RAIL TYPE 3a and 3b



PLAN

To be used in all locations except on the end away from traffic on 4 lane divided.

NOTE:
Offset Bracket shall be installed on all posts, except end post.

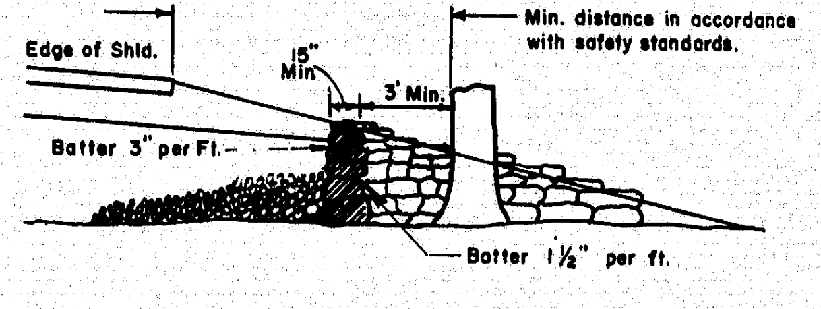


ELEVATION

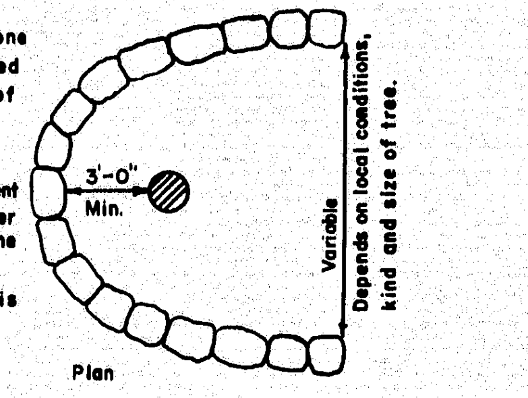
5-C

5-D

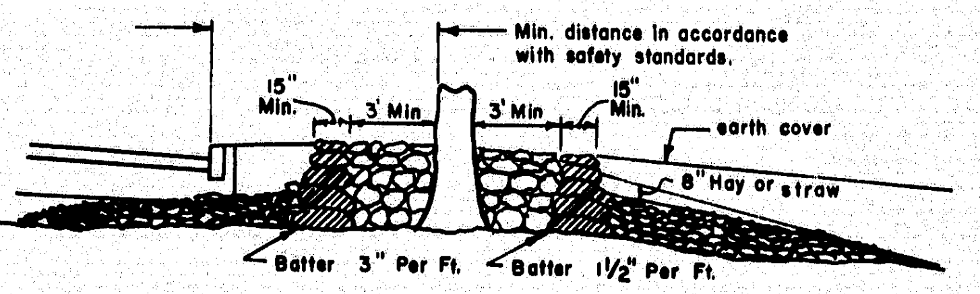
TREE WELLS

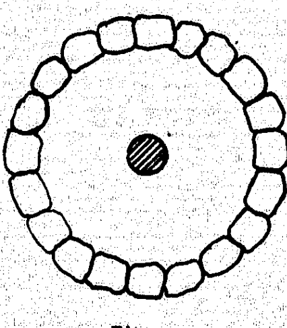


NOTES:
1. Selected ledge excavation, crushed stone or other porous material shall be used to fill around the old ground area of the tree from the tree well to the perimeter of the branches.
2. An 8" layer of hay or straw to prevent infiltration of fines shall be placed over the rock fill except in areas under the roadway and shoulders.
3. If drainage away from the tree well is necessary, underdrain outlet pipe shall be used, and will be paid for under item 605.10.



Plan

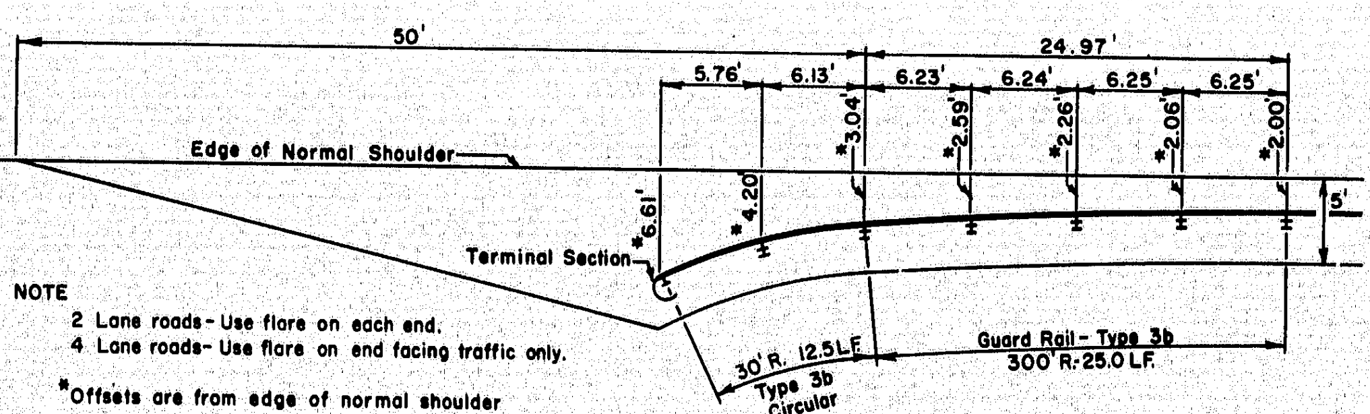




Plan

To be paid for under item
610.09 Hand laid riprap.
605.10 6" Underdrain Outlet

5-E



NOTE
2 Lane roads - Use flare on each end.
4 Lane roads - Use flare on end facing traffic only.

*Offsets are from edge of normal shoulder to face of offset guard rail.

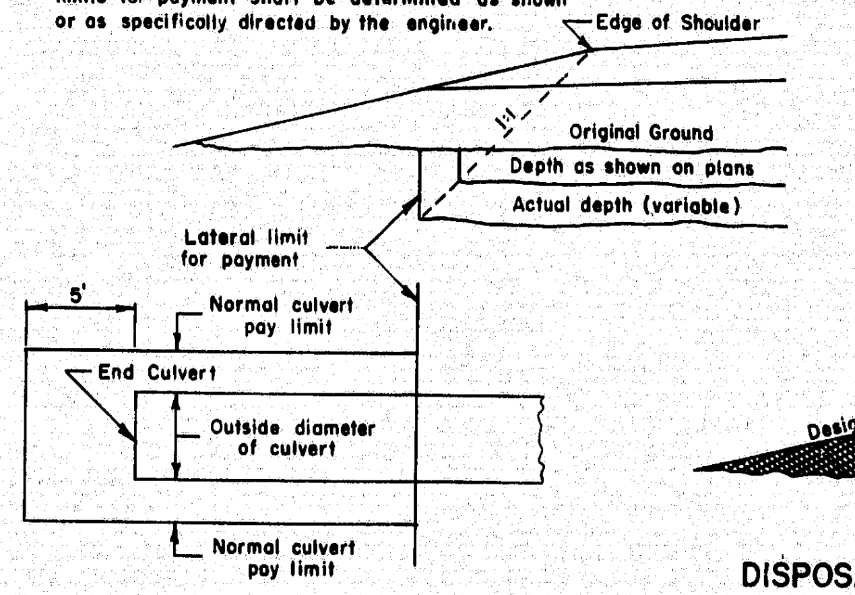
GUARD RAIL END TRANSITION

5-F

5-G

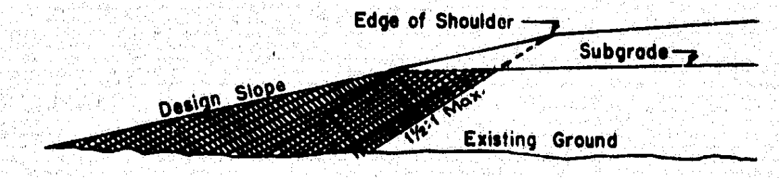
MUCK EXCAVATION
PAYMENT LIMITS

NOTE:
When muck is excavated to a depth greater or less than what is shown on the plans, the vertical limits for payment shall be determined as shown or as specifically directed by the engineer.

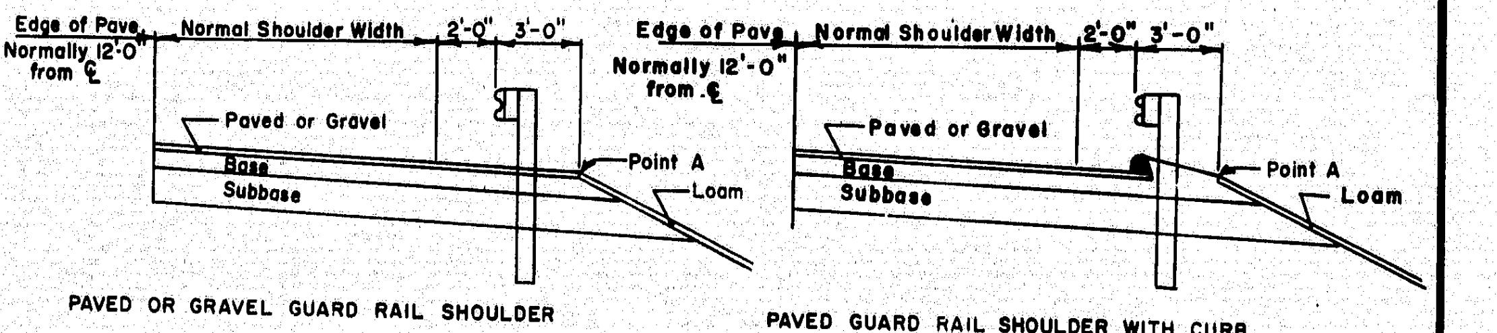


CULVERT EXCAVATION LIMITS IN MUCK AREAS
PLAN VIEW

When directed by the engineer, waste material shall be used in this area. No additional payment will be made for this work.



DISPOSAL OF WASTE MATERIALS



PAVED OR GRAVEL GUARD RAIL SHOULDER

PAVED GUARD RAIL SHOULDER WITH CURB

Point A = Normal Slope Break

LOCATION OF GUARD RAIL

5-H

REVISIONS	
Plate 5-A	12-24-69
PLATE 5B	1-27-71
PLATE 5 H	5-12-71

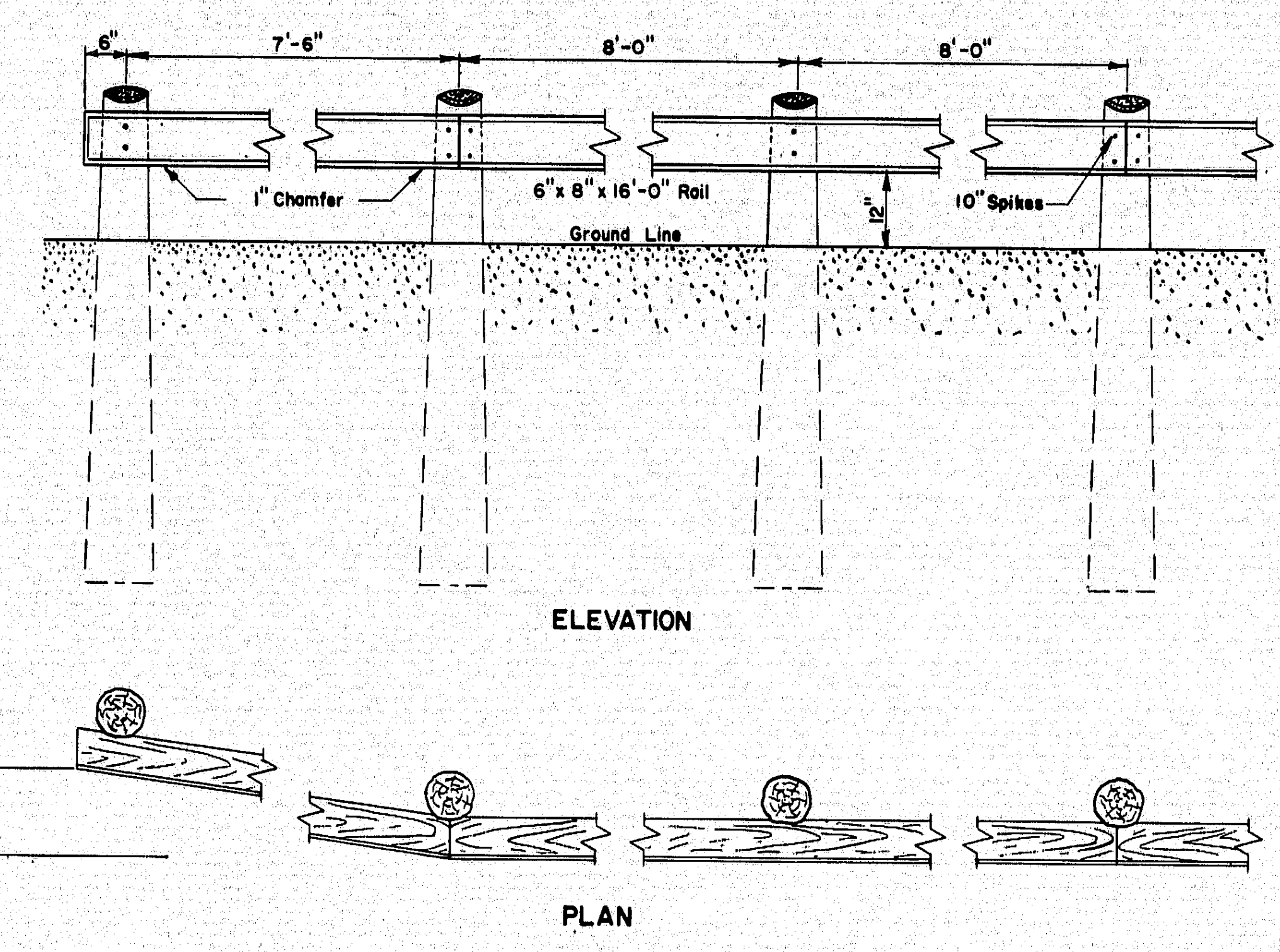
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
GUARD RAIL, MUCK EXCAVATION
CONCRETE STEPS & SIDEWALK
GUYING TREES
TREE WELLS

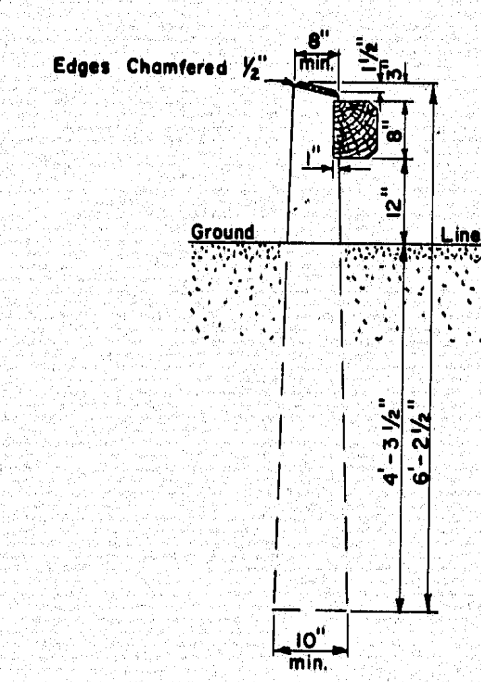
AUG. 1969 ⑤

152-83

TRUFLEX ☆ SILKY ☆ TRIPLE WRITE ☆ KYPLEX

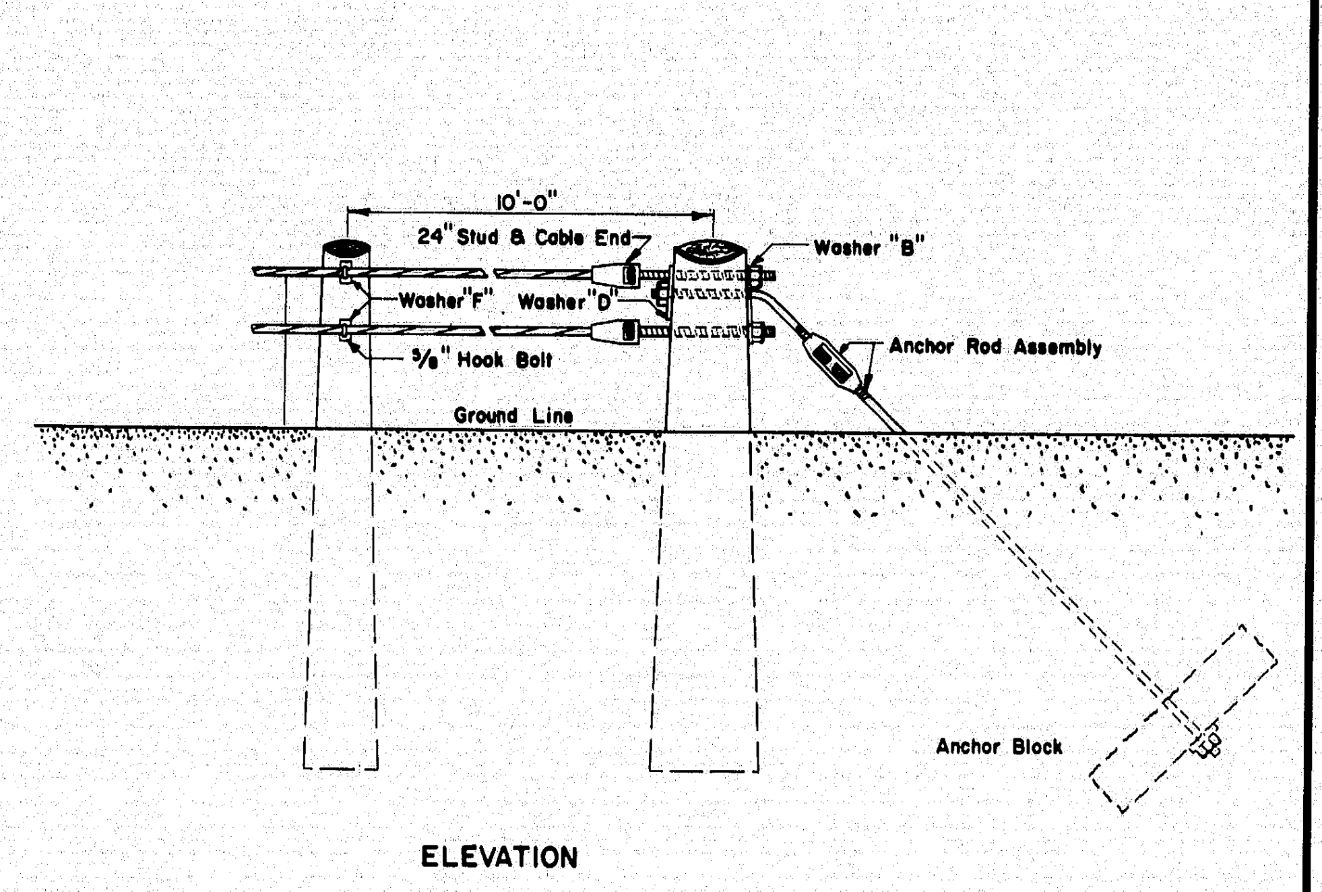


NOTE :
1. This guardrail should not be used adjacent to public highways. Location should be limited to driveways, dead ended roads, etc.
2. Unless otherwise specified, all exposed wood above ground, both posts and rails shall be painted with 2 coats of white paint.



FOR TYPE 6 GUARD RAIL SEE STANDARD DETAIL SHEET 21

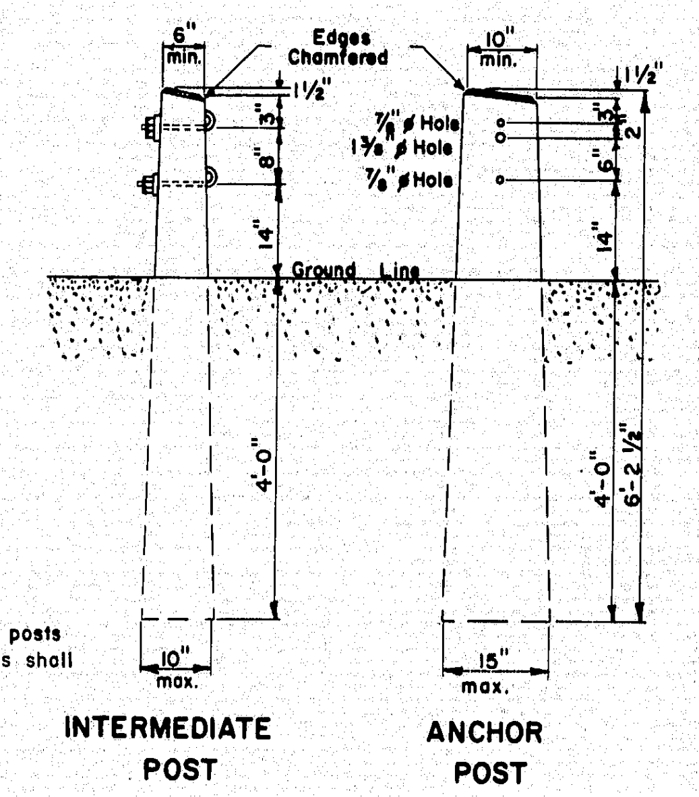
GUARD RAIL type "5"

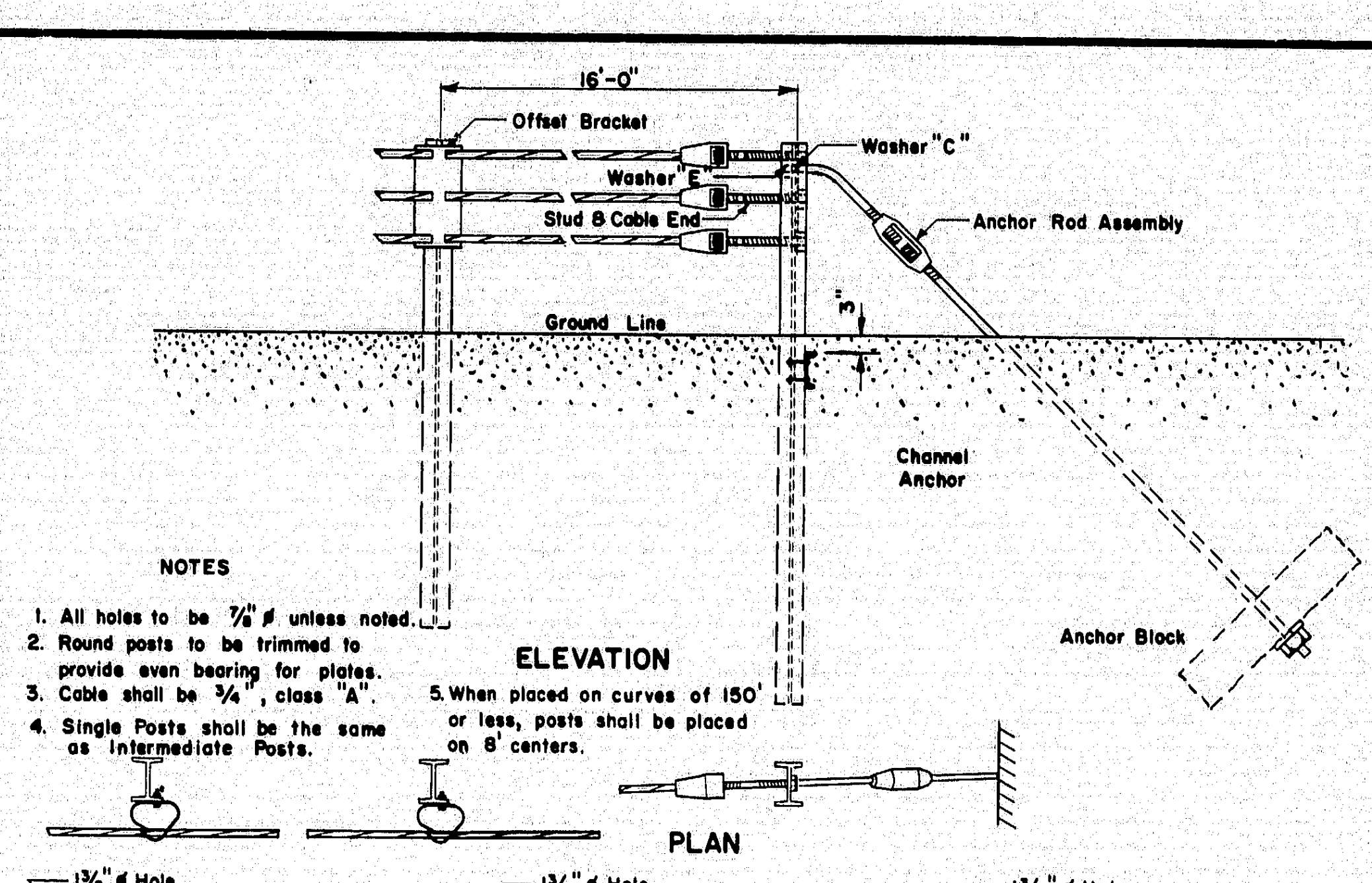


NOTES

1. Anchor posts shall be White Oak.
2. Alignment - see types 2a, 2b and 2c.
3. Posts to be trimmed to provide even bearing for plates.
4. Unless otherwise specified all wood above ground to be painted with 2 coats of white paint, - for type 1a.
5. Single Posts shall be the same as Intermediate Posts.
6. Cable shall be ¾" class "A".
7. When type 1, 1a, 2 and 2a wood posts are to be installed in paved areas or behind bituminous curb the posts shall be installed prior to the placing of pavement or bituminous curb.
8. Use of this guardrail should be limited to very low volume highways.
9. If the Contractor chooses to drive posts, then all posts on the project, whether driven or placed in dug holes shall be set with the larger diameter at the top

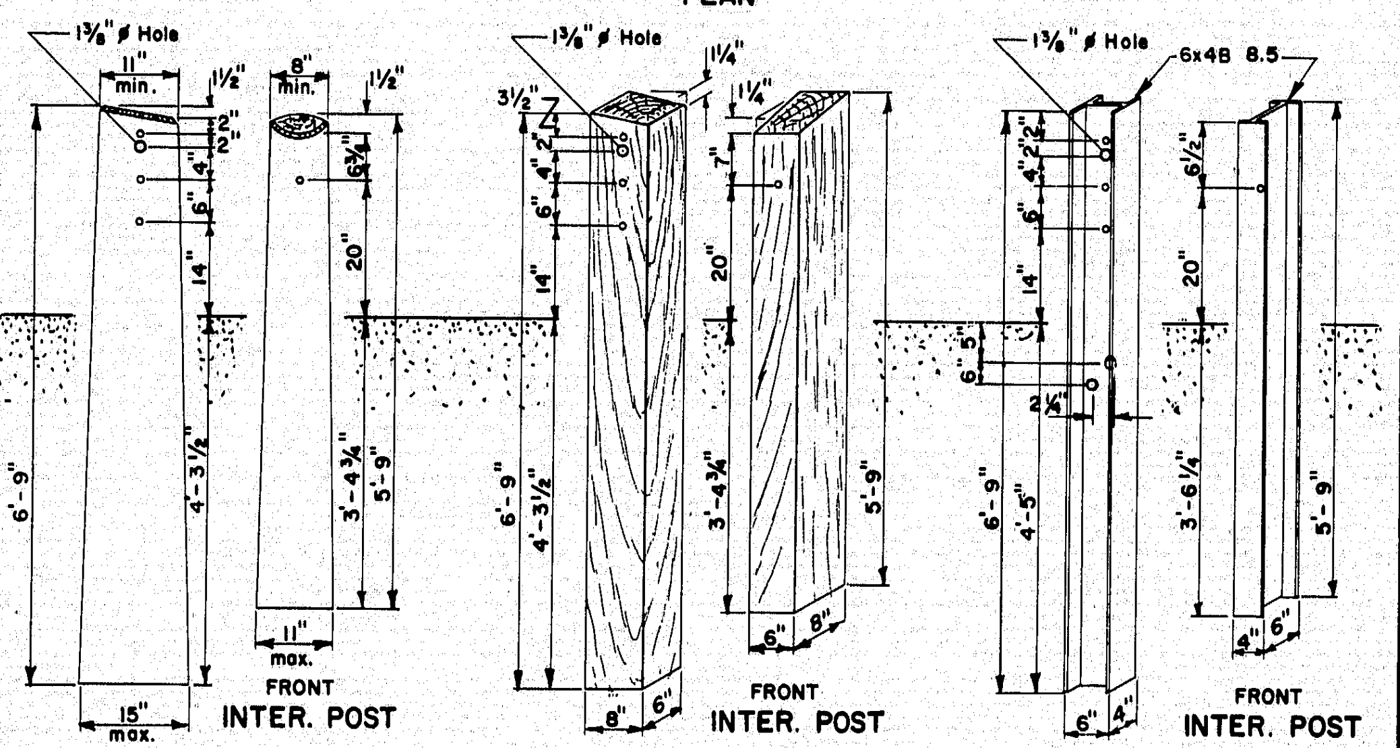
GUARD RAIL type "1a"-"1b"





NOTES

1. All holes to be ⅞" ø unless noted.
2. Round posts to be trimmed to provide even bearing for plates.
3. Cable shall be ¾", class "A".
4. Single Posts shall be the same as Intermediate Posts.
5. When placed on curves of 150' or less, posts shall be placed on 8' centers.



NOTE:
If the Contractor chooses to drive posts, then all posts on the project, whether driven or placed in dug holes shall be set with the larger diameter at the top.

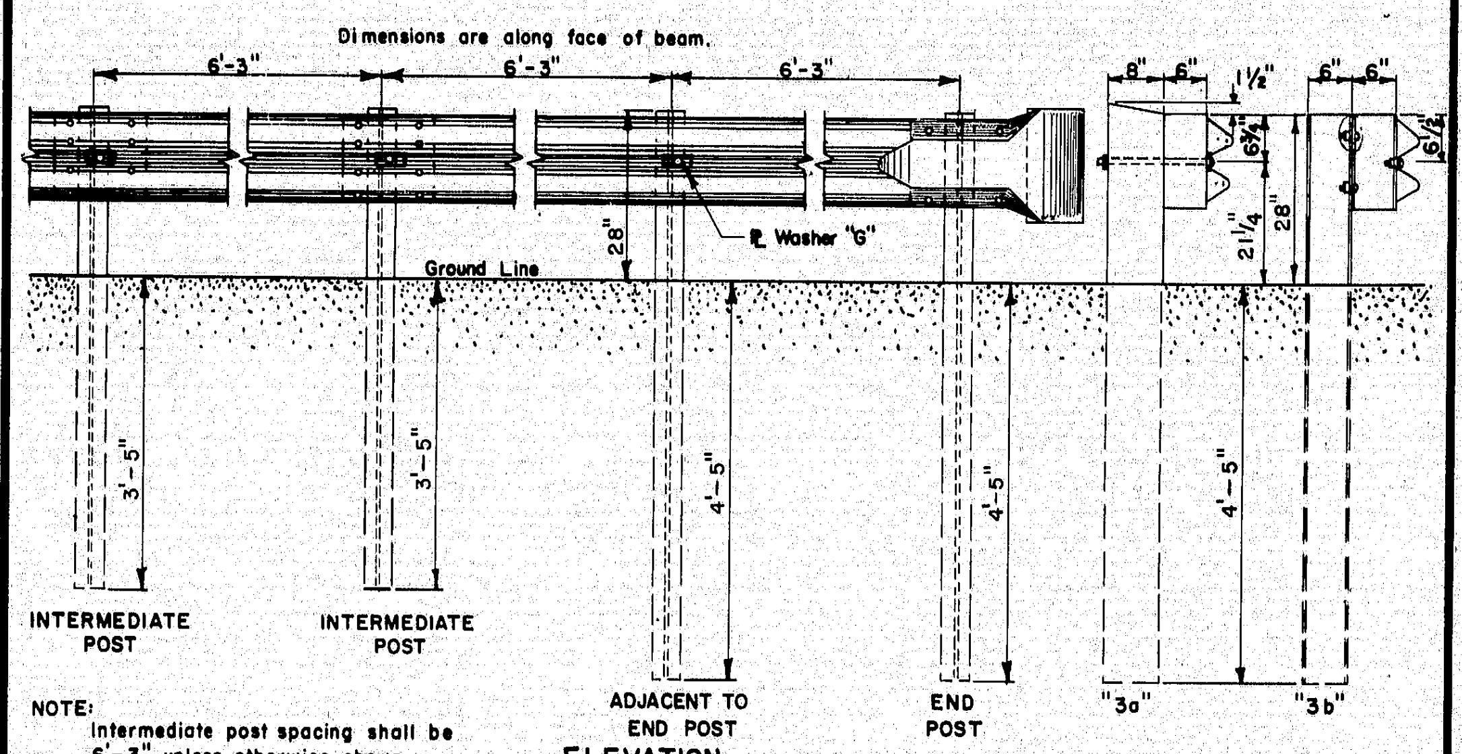
GUARD RAIL type "2a"-"2b"-"2c"

FOR BEAM TYPE GUARD RAIL

Beam Type Guard Rail set on radius of 150' or less to be Circular.

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	53	55

Dimensions are along face of beam.



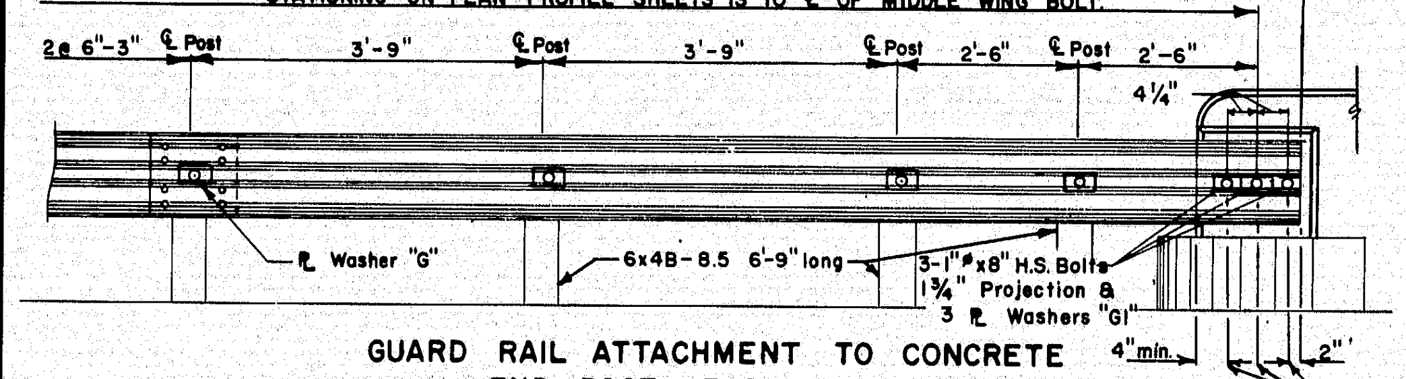
NOTE:
Intermediate post spacing shall be 6'-3" unless otherwise shown.

ELEVATION

1. Posts for type "3a" Guard Rail shall be 6"x 8" and offset blocks for type "3a" Guard Rail shall be 6"x 6".
2. Posts and offset brackets for type "3b" Guard Rail shall be 6" B 8.5
3. All holes in beam to be shop-punched before galvanizing.
4. Steel posts punched with holes in addition to those specified, to accomodate other types of Guard Rail, will be accepted subject to the approval of the engineer.

MEASUREMENT FOR TYPE 3a & 3b GUARD RAIL SHALL BE TO END OF BEAM

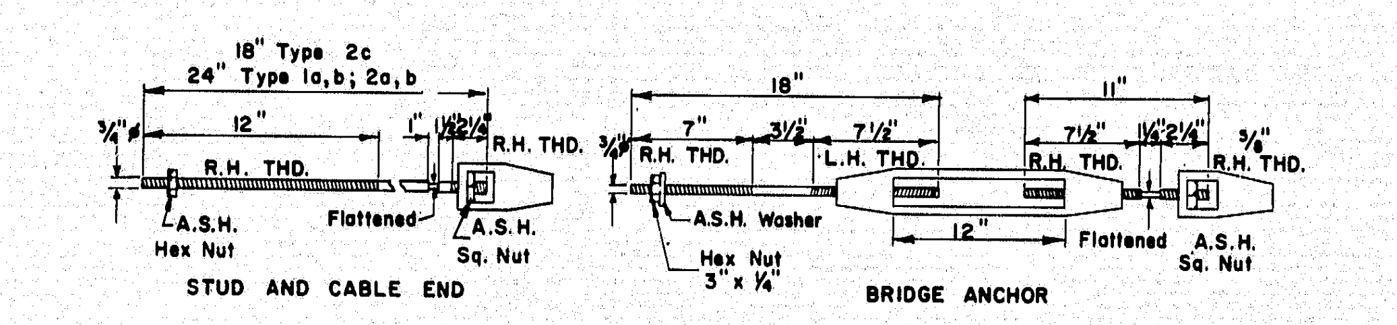
STATIONING ON PLAN-PROFILE SHEETS IS TO ℄ OF MIDDLE WING BOLT.



GUARD RAIL ATTACHMENT TO CONCRETE END POST AT BRIDGE END

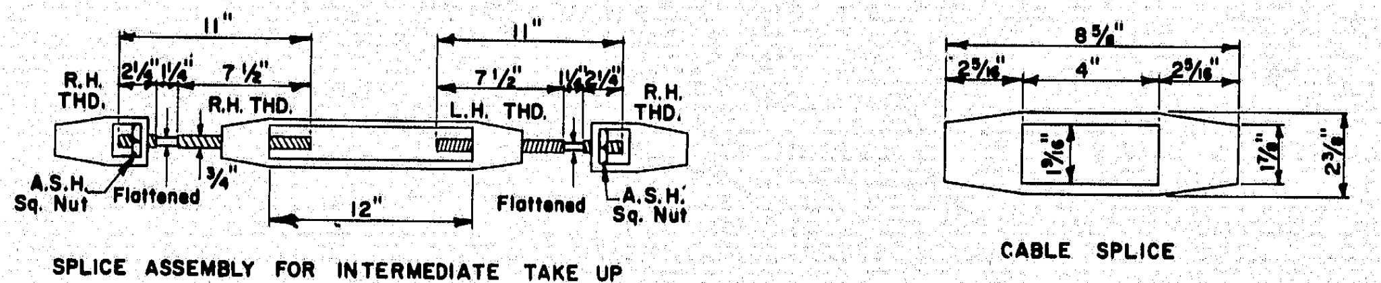
NOTES:
1. Where Bridge expansion is required at Connection, it will be detailed on the Construction Plans.
2. Guard Rail shall be connected to the structure as shown. Payment for the connection to the structure and additional posts shall be incidental to the Guard Rail Item.
3. Splice holes in Guard Rail Beam that are not used in connection, to be plugged with button head bolts. or omitted.

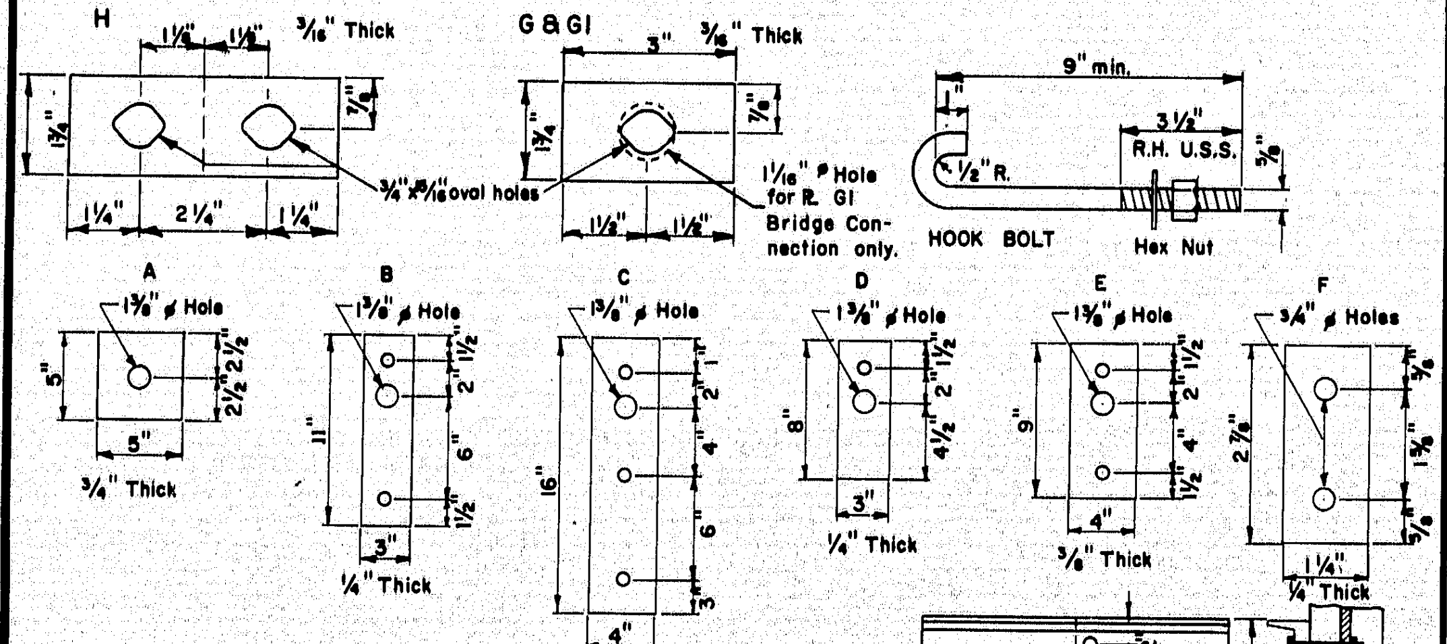
GUARD RAIL type "3a" & "3b" *PLATE "D"*



NOTES
1. Other designs may be used subject to the engineers approval.
2. All turnbuckles shall be installed midway of the threaded portion of each rod.

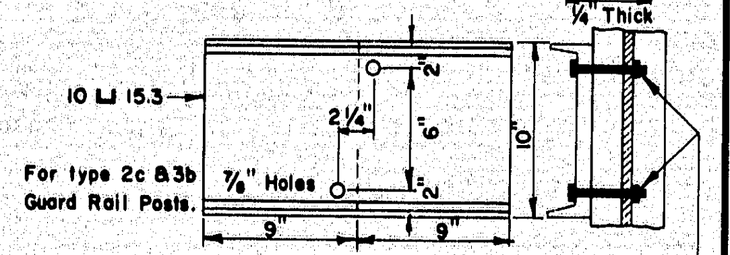
STANDARD FITTINGS



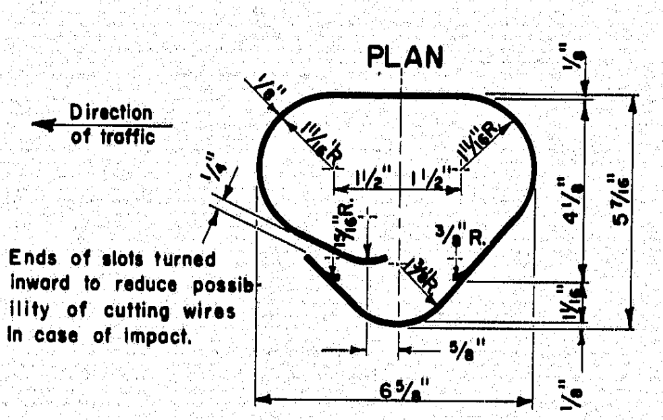


NOTES
1. All holes to be ⅞" ø unless otherwise noted.
2. Holes shall be drilled or punched before galvanizing.

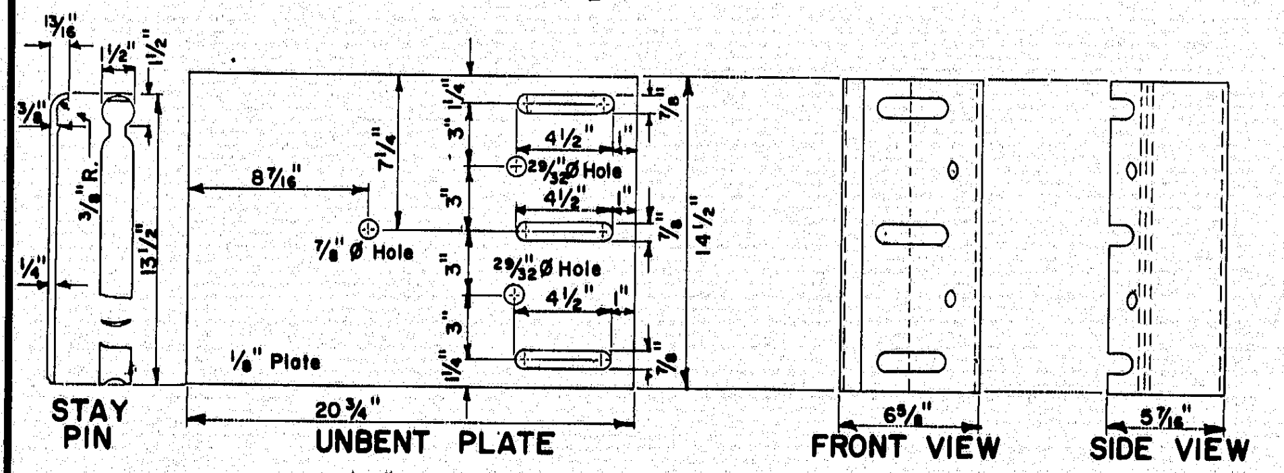
PLATE WASHERS

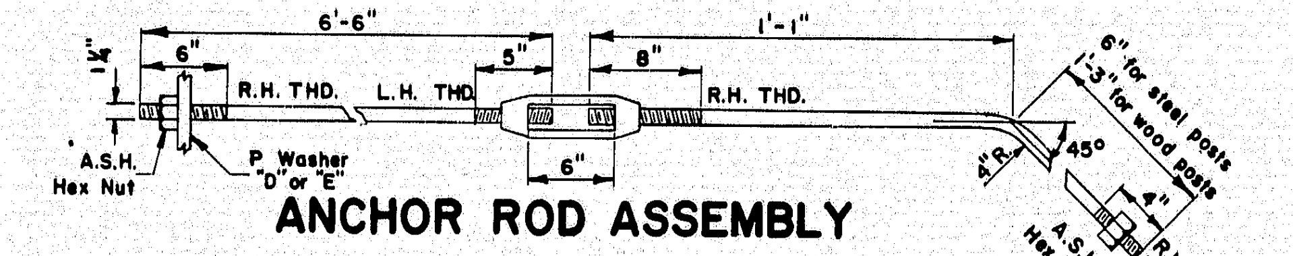

10 ⊔ 15.3
For type 2c & 3b Guard Rail Posts.
⅞" Holes
2¼"
6"
10"
9"
9"
¾" x 4" Galv. Machine Bolts Sq. Heads and Hex Nuts

CHANNEL ANCHOR

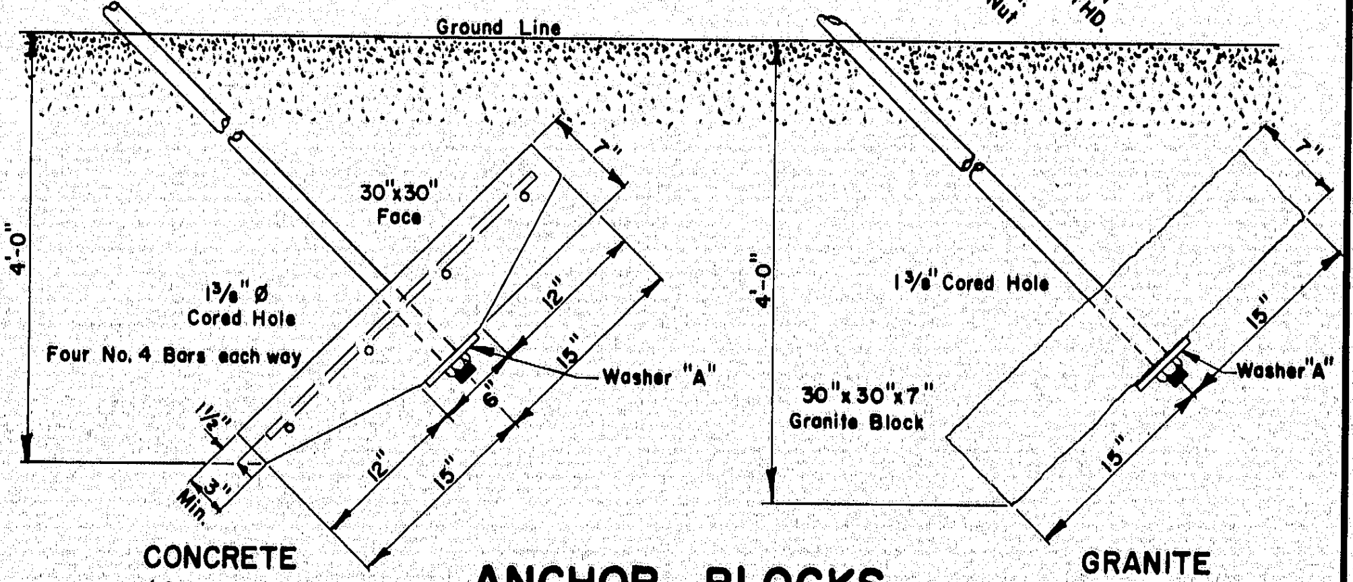

PLAN
Direction of traffic
Ends of slots turned inward to reduce possibility of cutting wires in case of impact.
1½"
⅜" R.
6¾"

OFFSET BRACKET

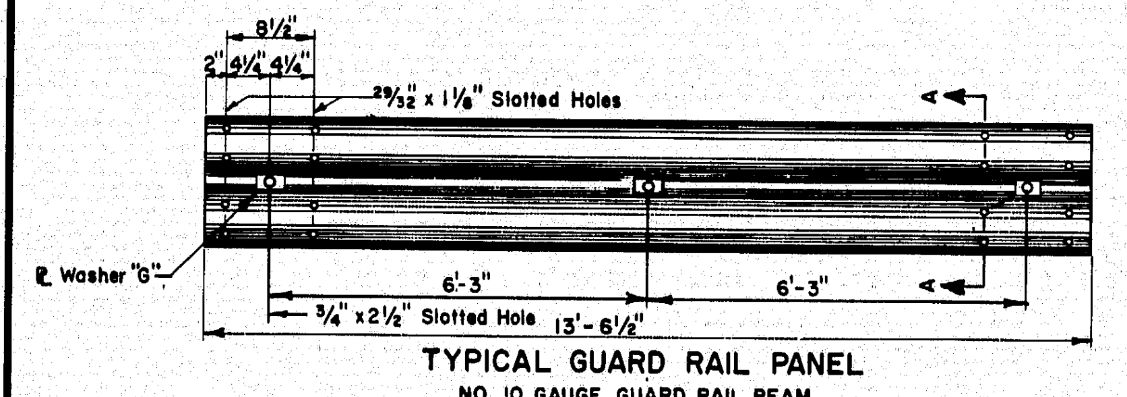




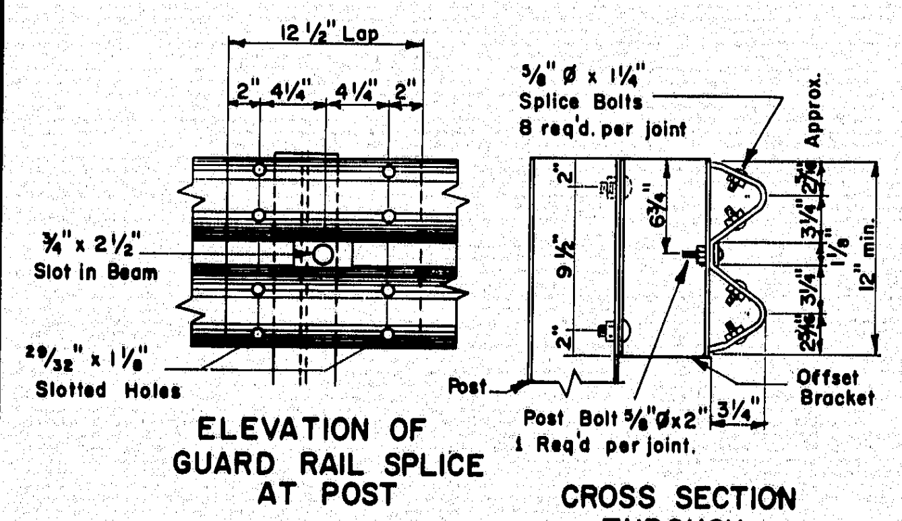
ANCHOR ROD ASSEMBLY



ANCHOR BLOCKS



TYPICAL GUARD RAIL PANEL
NO. 10 GAUGE GUARD RAIL BEAM

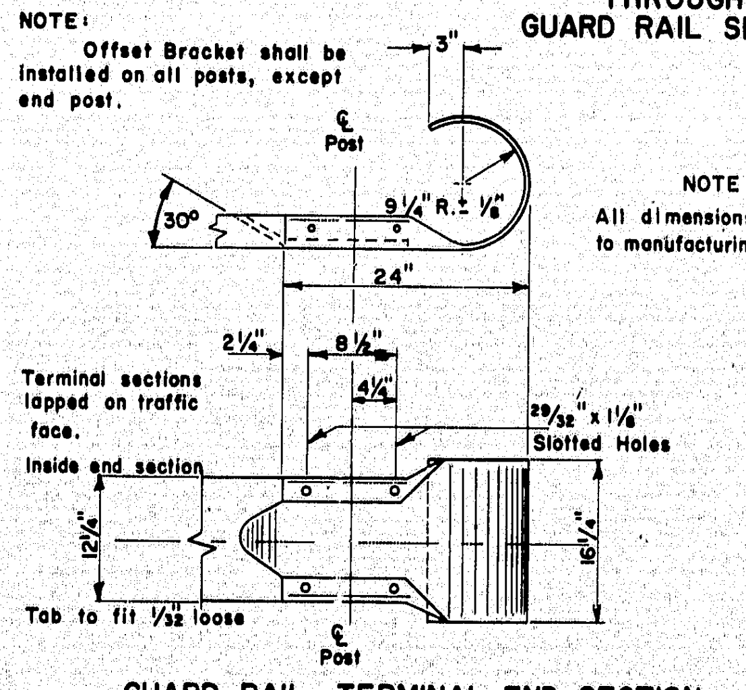


ELEVATION OF GUARD RAIL SPLICE AT POST

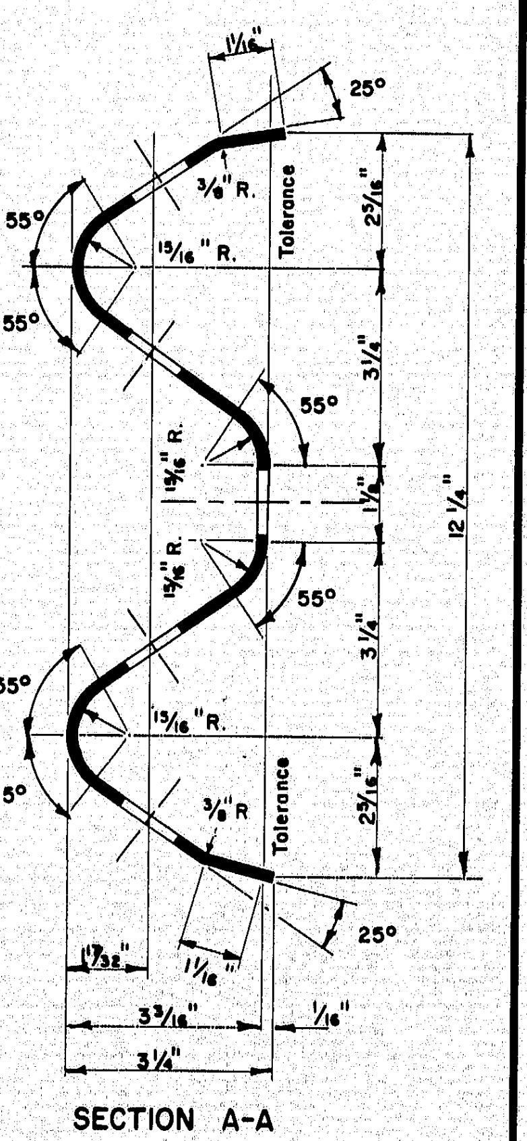
CROSS SECTION THROUGH GUARD RAIL SPLICE

NOTE:
Offset Bracket shall be installed on all posts, except end post.

NOTE
All dimensions subject to manufacturing tolerances.

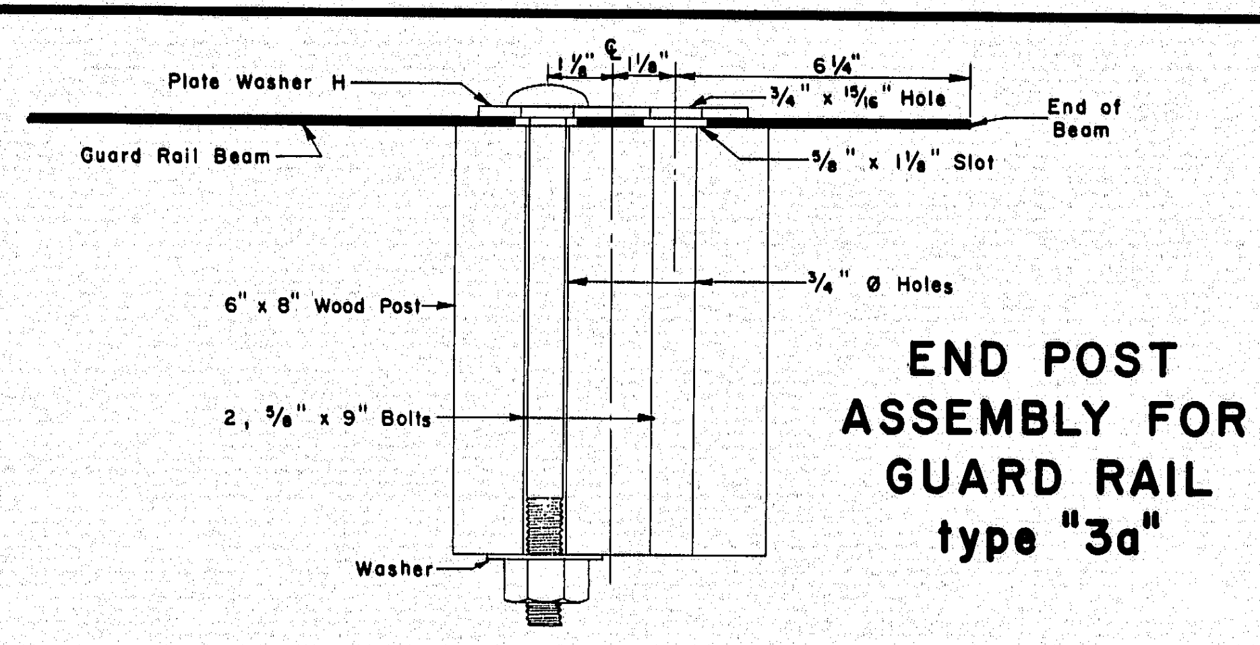


GUARD RAIL - TERMINAL END SECTION

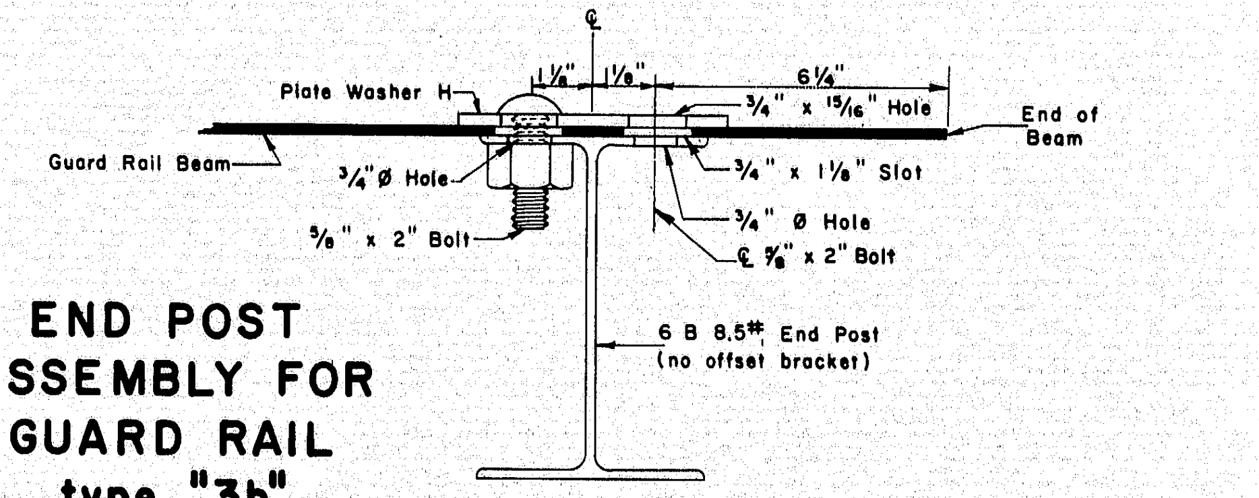


SECTION A-A
TYPE 3a & 3b

GUARD RAIL BEAM DETAIL



END POST ASSEMBLY FOR GUARD RAIL type "3a"



END POST ASSEMBLY FOR GUARD RAIL type "3b"

REVISIONS	
Plate "D"	11-22-71

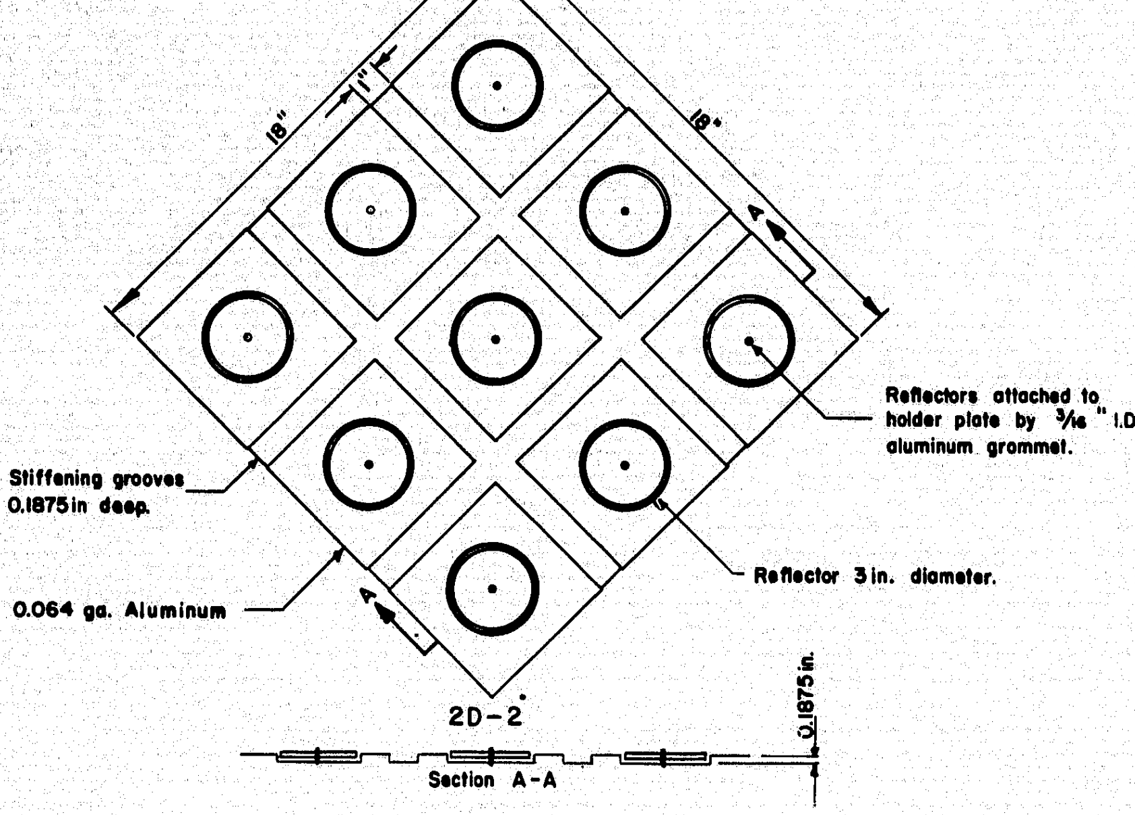
MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

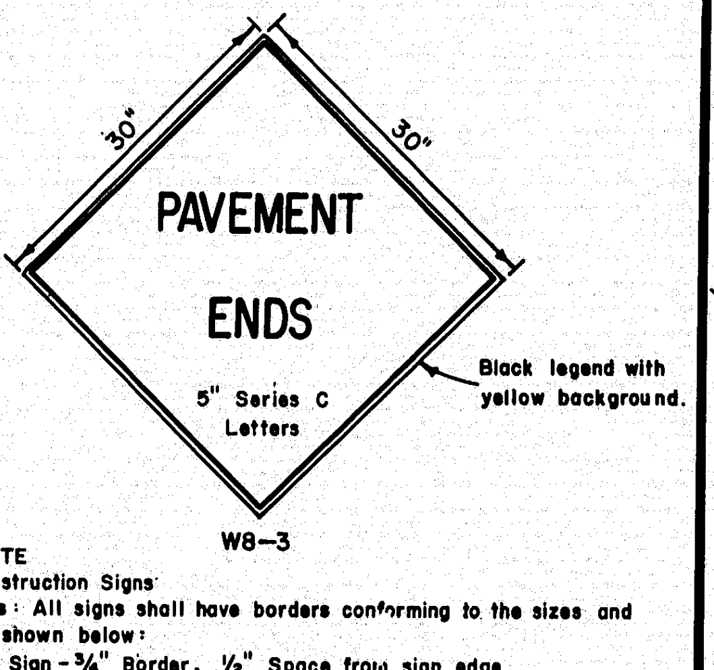
GUARD RAILS, ANCHOR ASSEMBLIES, PLATE WASHERS and STANDARD FITTINGS

AUG. 1969 ⟨6⟩

152-84


18"
18"
1"
A
A
Reflectors attached to holder plate by 3/16" I.D. aluminum grommet.
Stiffening grooves 0.1875in deep.
Reflector 3in. diameter.
0.064 ga. Aluminum
2D-2
0.1875 in.
Section A-A

HAZARD MARKER

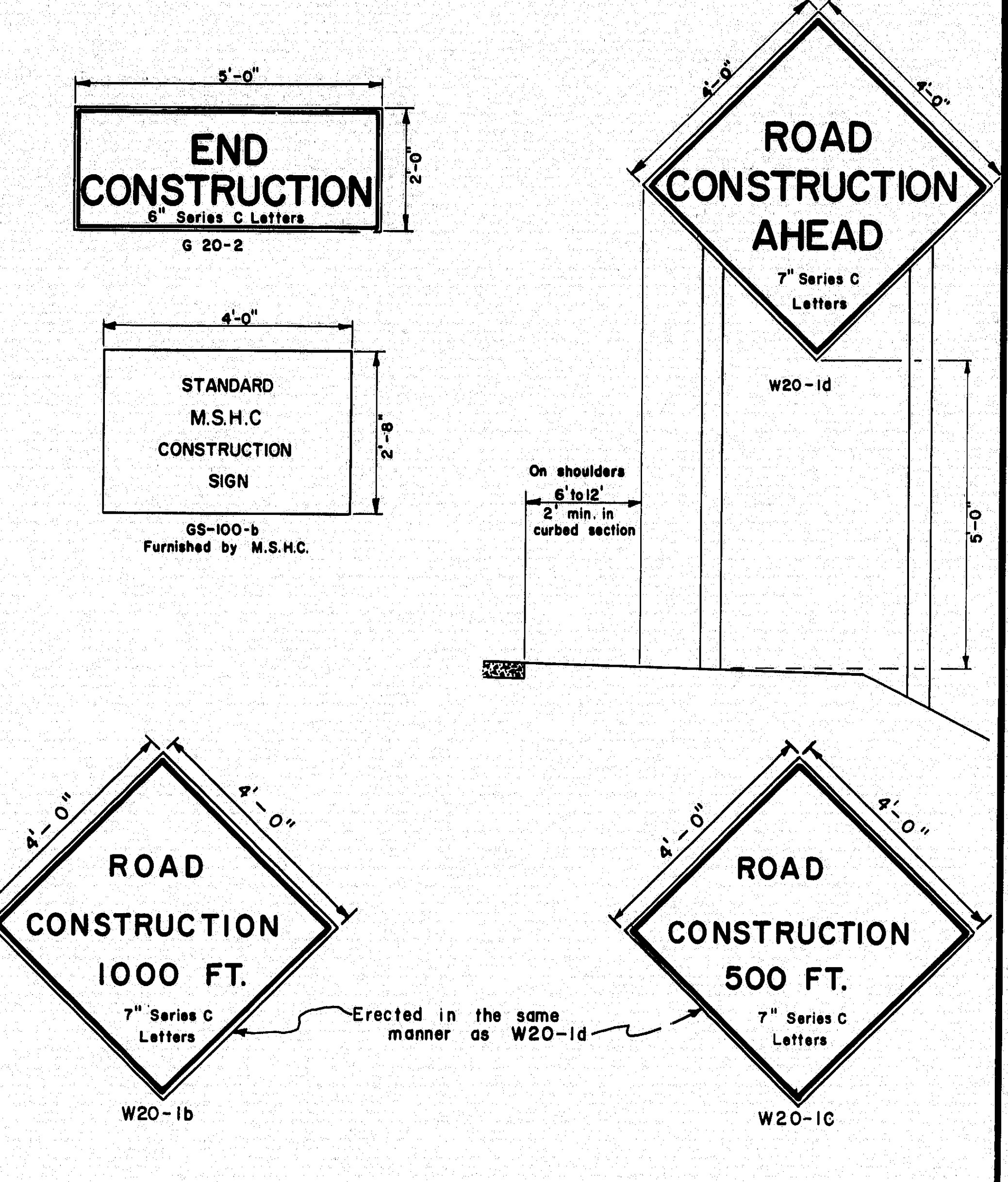


NOTE

SIGNING IN AN AREA WHERE BLASTING IS NECESSARY SHALL BE PLACED AS OUTLINED IN THE "MANUAL", AND THE PRECAUTIONS OF SUBSECTION 107.12 OF THE STANDARD SPECIFICATIONS SHALL BE OBSERVED.

GENERAL NOTE
Construction Signs
1. Sign Borders: All signs shall have borders conforming to the sizes and spacing as shown below:
   - a. 30"x30" Sign - 3/4" Border, 1/2" Space from sign edge.
   - b. 2' x 5' Sign - 5/8" Border, 3/8" Space from sign edge.
   - c. 3' x 4' Sign - 3/4" Border, 1/2" Space from sign edge.
   - d. 4' x 4' Sign - 1 1/4" Border, 3/4" Space from sign edge.

A



CONSTRUCTION SIGNS

B

GENERAL NOTES - BARRICADES

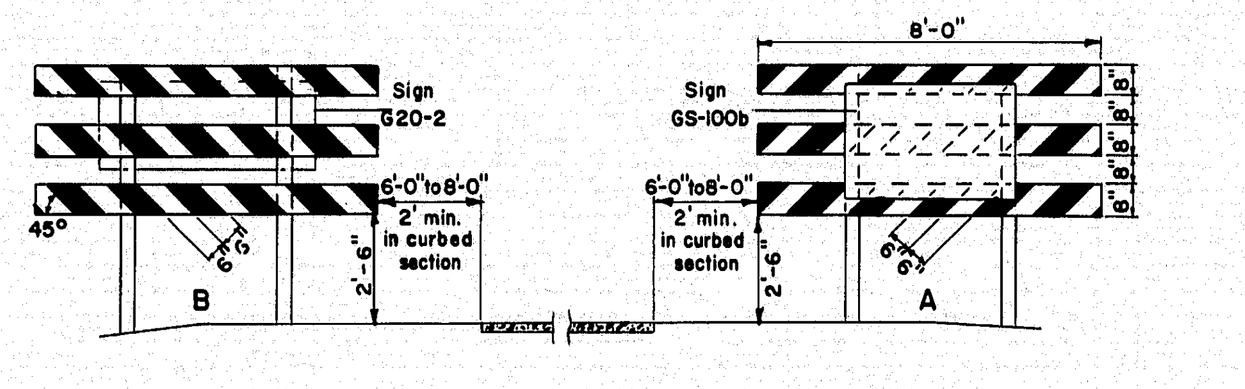
1. Unless otherwise designated, sign designation letters shall refer to the "Manual of Uniform Traffic Control Devices for Streets and Highways," published by the U.S. Department of Transportation, Federal Highway Administration, 1971.
2. White stripes shall be of silver reflective sheeting bonded to 0.019 minimum gauge aluminum, 16 minimum gauge galvanized steel, or 1/4" plywood. Individual white sheets may be attached to a black or orange painted background to form the black or orange and white stripes. At the Contractor's option the reflective sheeting and backing may extend the full width of the barricade with an opaque film or paint applied to form the stripes.
3. All signs shall be of reflective sheeting on 5/8" thick plywood. The plywood shall conform to subsection 712.25, Maine State Highway Commission, Standard Specifications, June 1968.
4. Pressure sensitive reflective sheeting will be an acceptable alternate to the reflective sheeting required by Maine State Highway Commission, Standard Specifications.

NOTES - PORTABLE BARRICADES

1. Lumber sizes for portable barricades shall be 2" x 8" except posts which shall be 4" x 4" (nominal sizes).
2. The detour sign shall be an oversized M4-10 sign with a demountable "DETOUR" message which shall be made of screened reflective sheeting on 1/4" plywood, masonite, sheet steel or sheet aluminum.
3. Hazard markers shall be attached to the barricade with a bolt assembly of steel cadmium plated 5/16" bolt, lock washer and vandal resistant nuts.
4. When two W1-6 signs are required, R11-2, R11-3, or R11-4 signs shall be omitted.
5. Flashing lights housings shall be mounted to permit rotating in a vertical axis to allow for adjustment to face oncoming traffic.
6. Location of electric service and meter to be determined after the power source has been located.

NOTES-WING BARRICADES

1. Lumber sizes for wing barricades shall be 1" x 8" except posts which shall be 4" x 4" (nominal sizes).
2. Wing barricades will not be required unless specifically called for in the special provisions.
3. Location of signs and barricades will be determined by the Engineer.

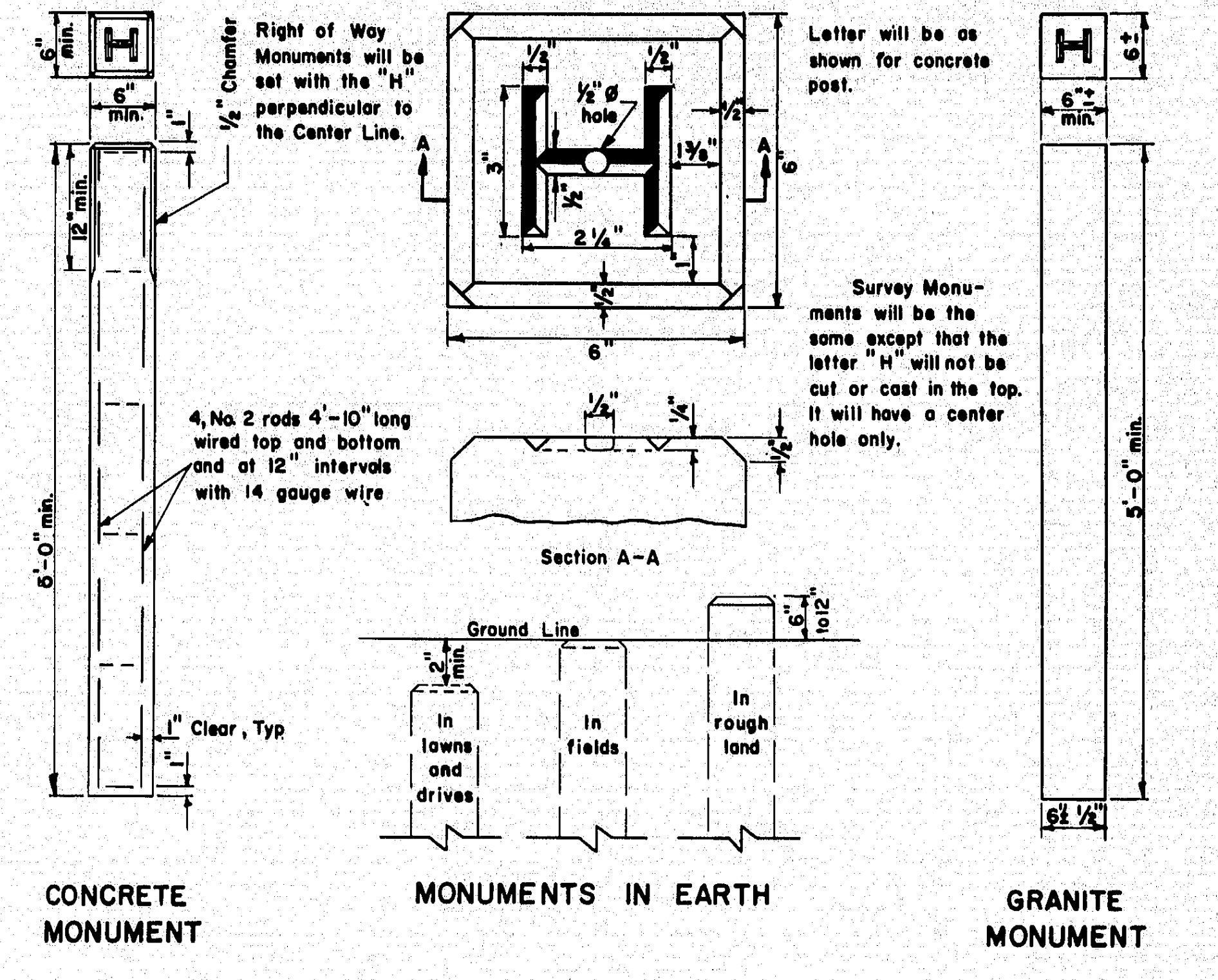


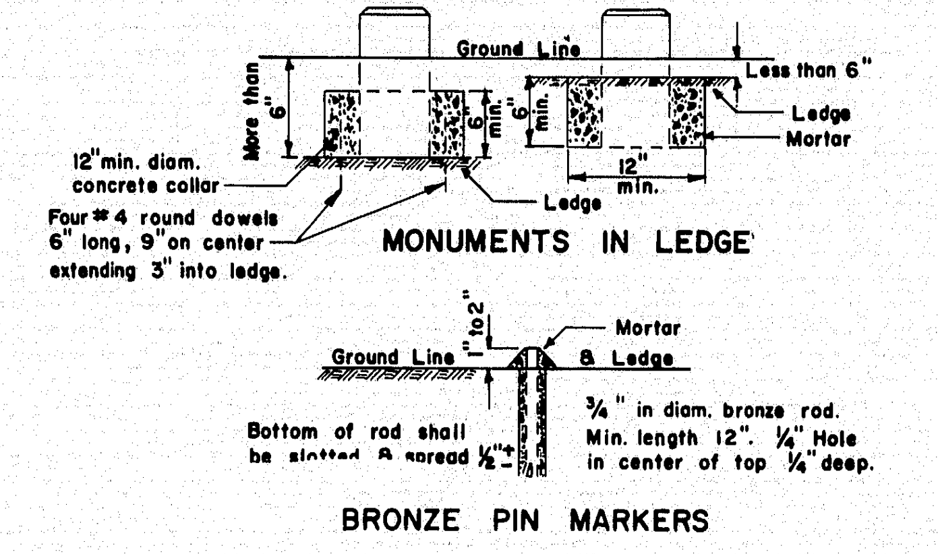
WING BARRICADES

C

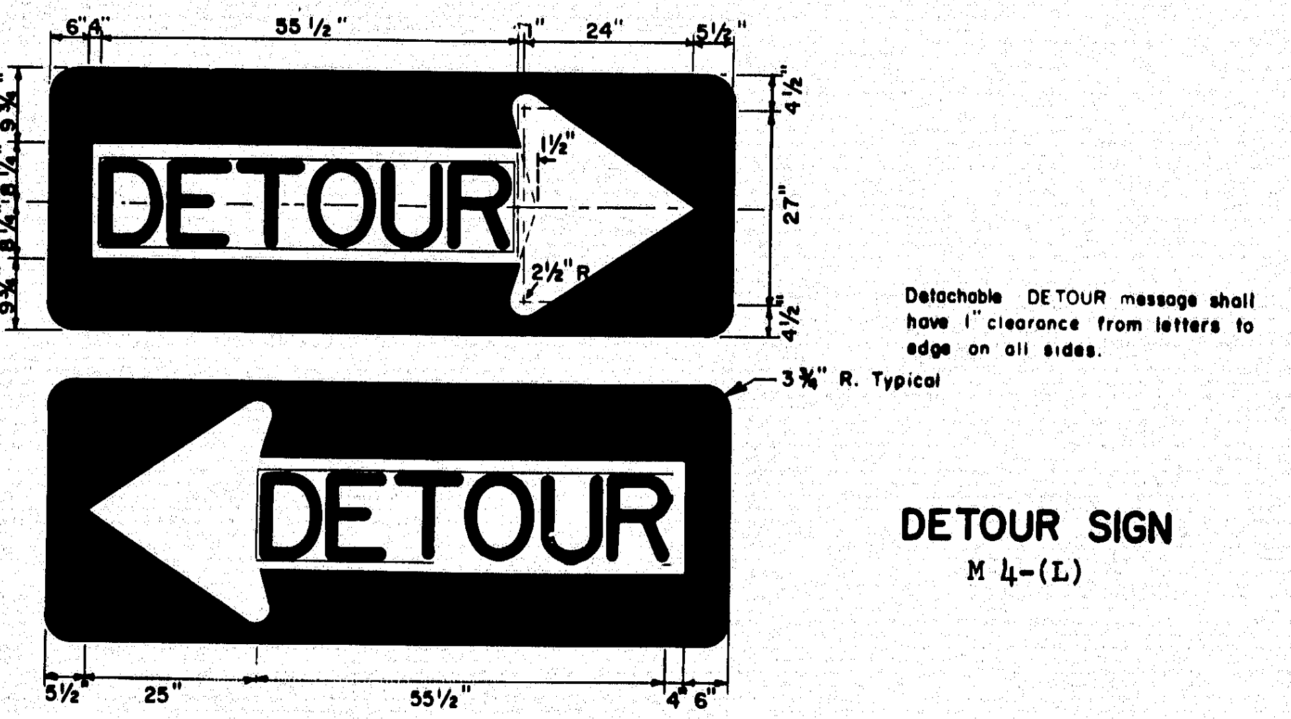
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

RIGHT OF WAY & SURVEY MONUMENTS


6" min.
6" min.
1/2" Chamfer
Right of Way Monuments will be set with the "H" perpendicular to the Center Line.
12" min.
1"
4, No. 2 rods 4'-10" long wired top and bottom and at 12" intervals with 14 gauge wire
5'-0" min.
1" Clear, Typ
1"
1/2"
1/2"
1/2" ø hole
3"
1/2"
1 3/8"
2 1/4"
1"
1/2"
6"
6"
A
A
Letter will be as shown for concrete post.
Survey Monuments will be the same except that the letter "H" will not be cut or cast in the top. It will have a center hole only.
1/2"
1/4"
1/2"
Section A-A
Ground Line
2" min.
In lawns and drives
In fields
6" to 12"
In rough land
6"± min.
6"±
5'-0" min.
6± 1/2"
CONCRETE MONUMENT
MONUMENTS IN EARTH
GRANITE MONUMENT

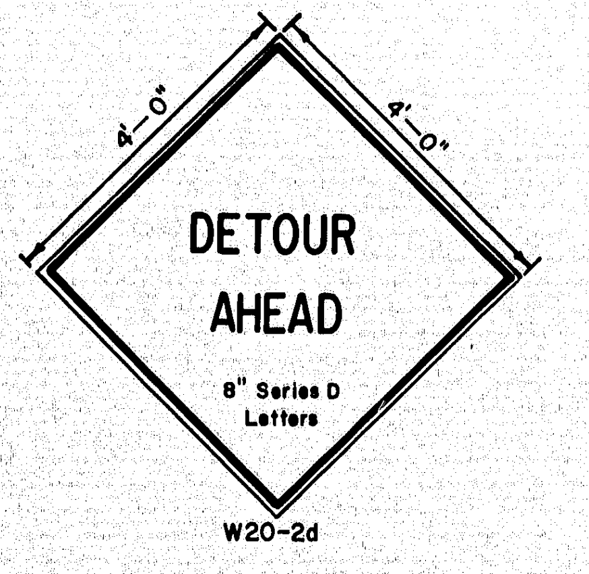

Ground Line
More than 6"
6" min.
6" min.
Less than 6"
Ledge
Mortar
12" min.
12" min. diam. concrete collar
Four #4 round dowels 6" long, 9" on center extending 3" into ledge.
Ledge
MONUMENTS IN LEDGE
1" to 2"
Ground Line
Mortar
& Ledge
3/4" in diam. bronze rod. Min. length 12". 1/4" Hole in center of top 1/4" deep.
Bottom of rod shall be slotted & spread 1/2"±
BRONZE PIN MARKERS

D



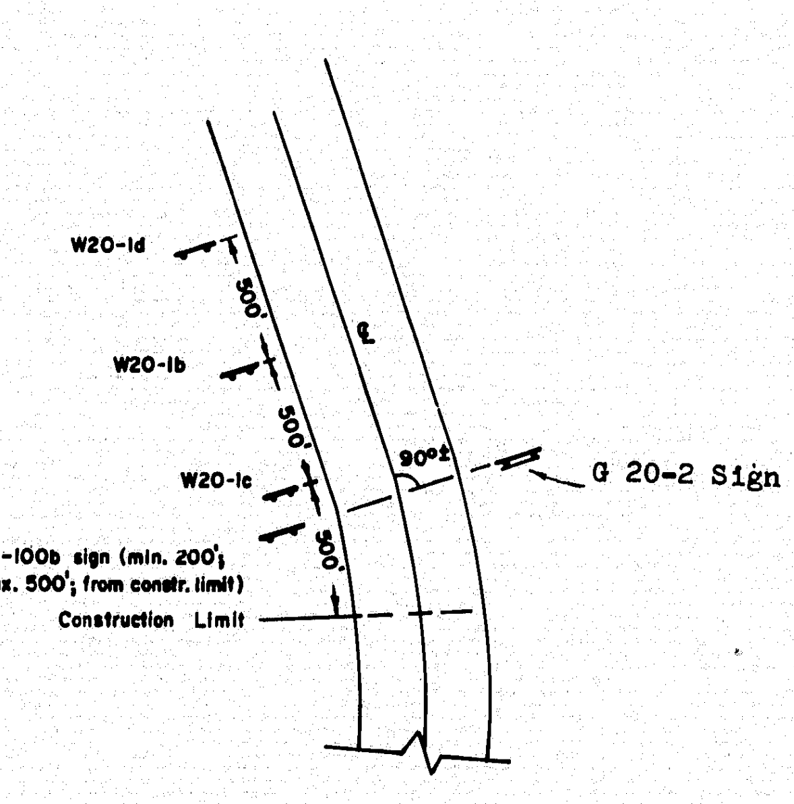
Detachable DETOUR message shall have 1" clearance from letters to edge on all sides.

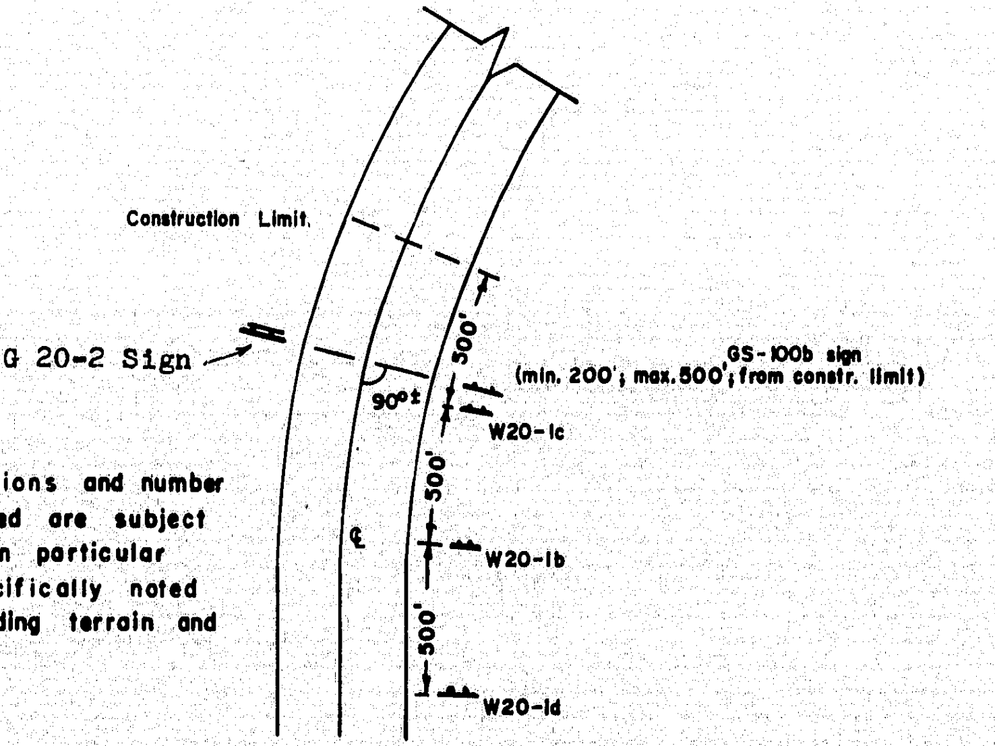
DETOUR SIGN
M 4-(L)



E

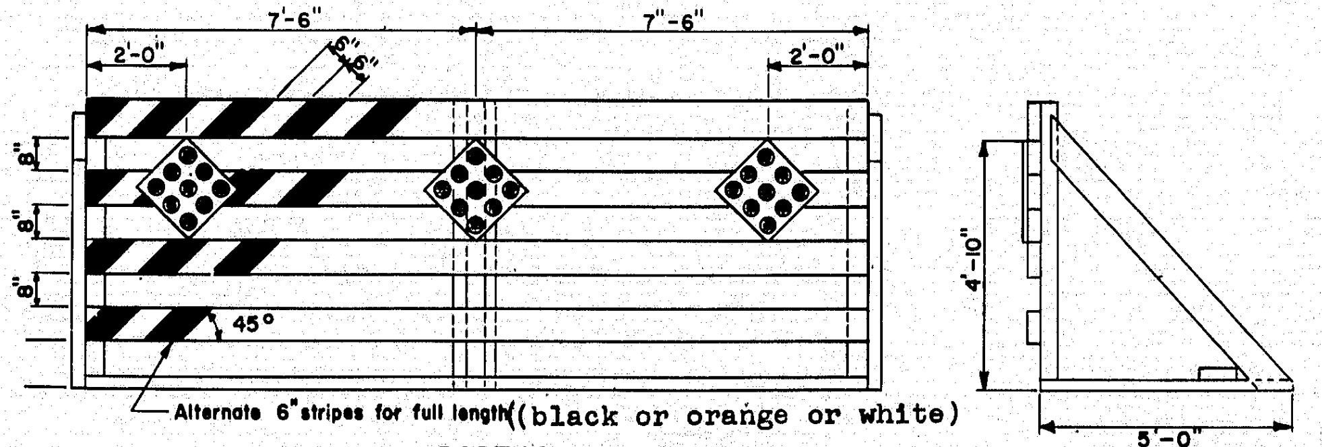
STANDARD SIGN LOCATIONS



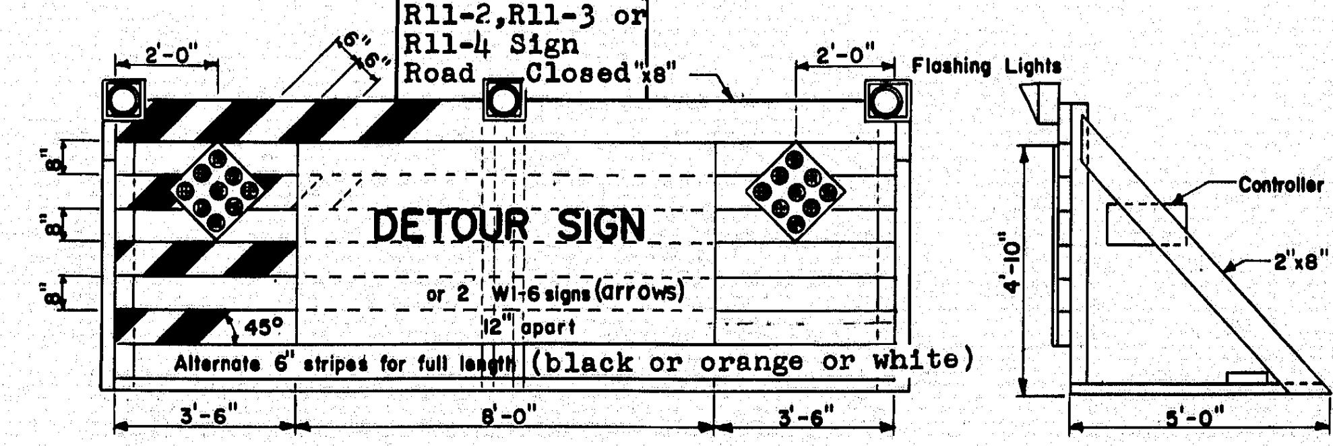


NOTE:
Standard locations and number of signs required are subject to variation on particular projects if specifically noted due to surrounding terrain and land use.

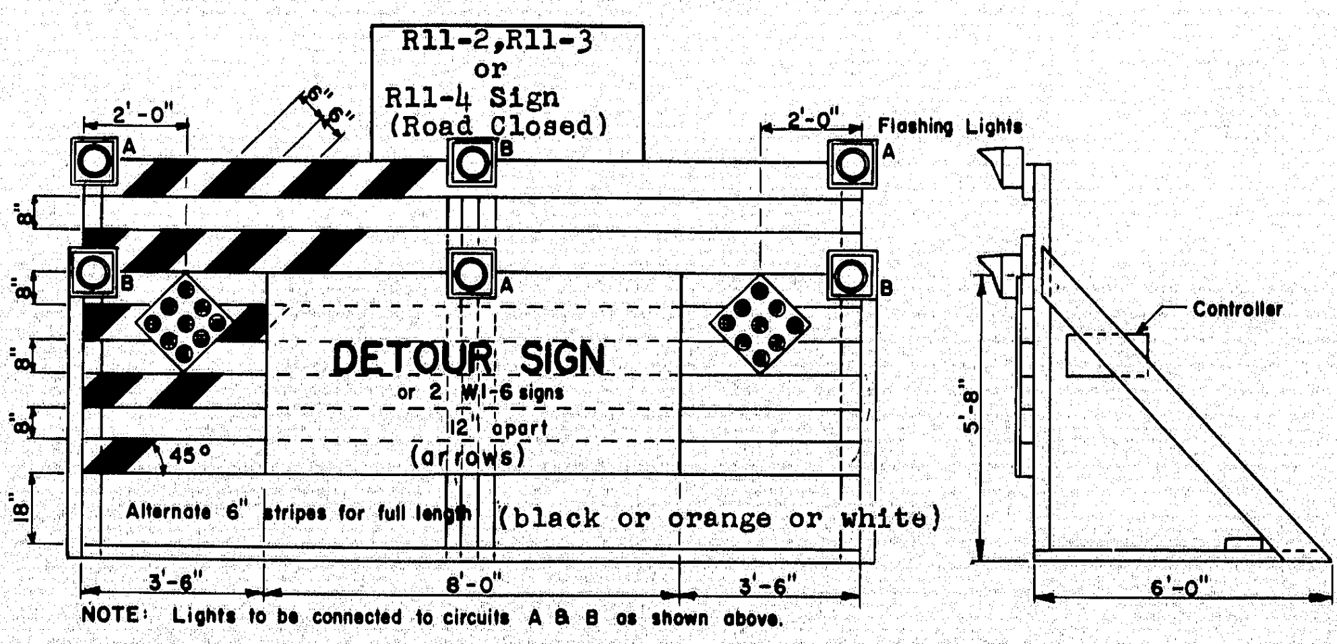
F


7'-6"
7"-6"
2'-0"
6"
6"
2'-0"
8"
8"
8"
45°
4'-10"
5'-0"
Alternate 6" stripes for full length (black or orange or white)

PORTABLE BARRICADE



PORTABLE BARRICADE WITH FLASHING LIGHTS (NORMAL SIZE)

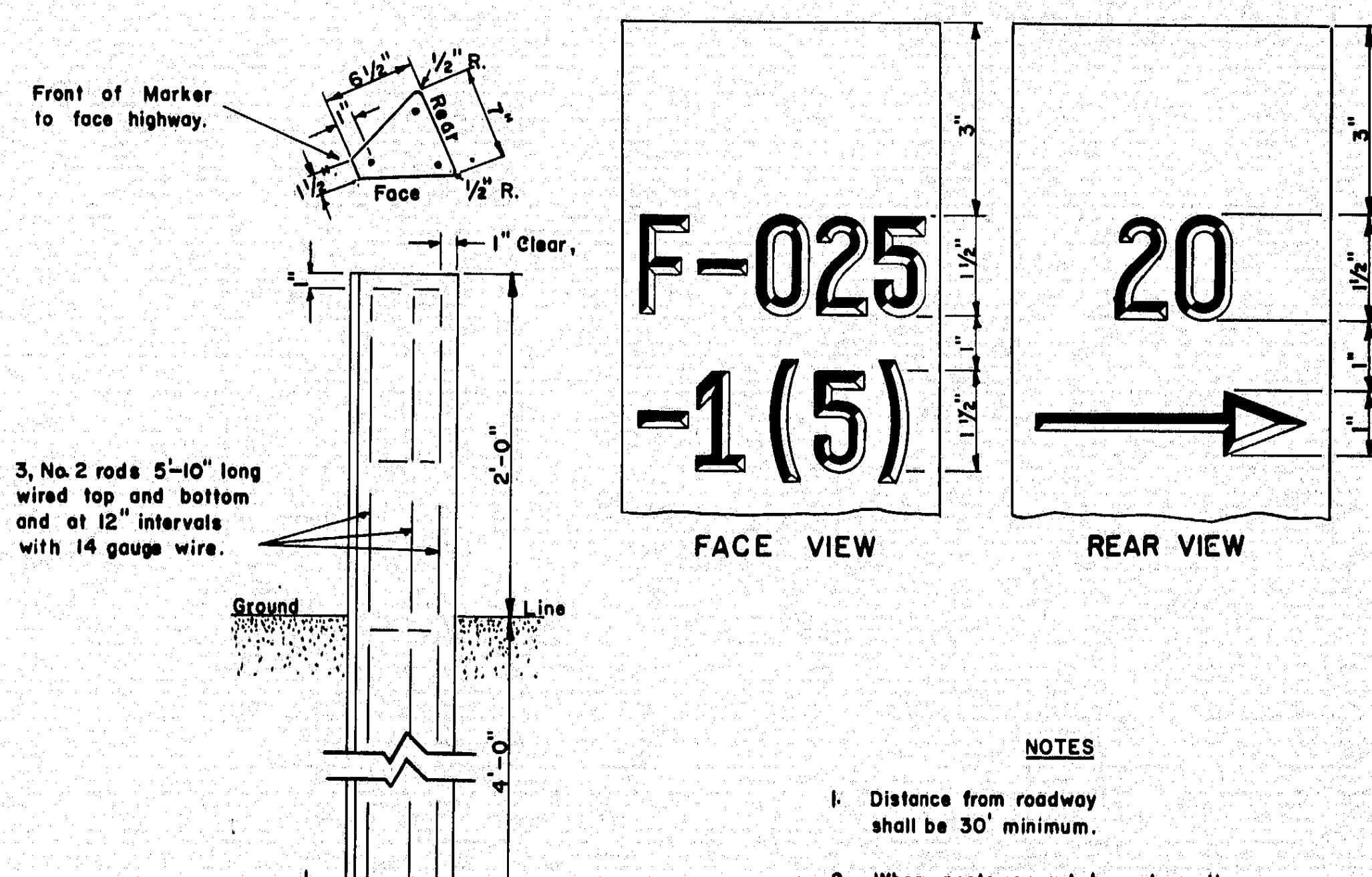


NOTE: Lights to be connected to circuits A & B as shown above.

OVERSIZED PORTABLE BARRICADE WITH FLASHING LIGHTS

BARRICADES

G



NOTES

1. Distance from roadway shall be 30' minimum.
2. When posts cannot be set on the exact station, the front of the post shall be painted black from the top to 3" down, and the offset distance marked on rear with an arrow pointing in direction of beginning or end of project.
3. All markings to be 1/4" deep and 3/16" wide.

PROJECT MARKERS

H

REVISION	
PLATE B	12-21-70
PLATES A, C, E, F & G	12-15-71

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

BARRICADES
WARNING SIGNS
MONUMENTS
PROJECT MARKERS

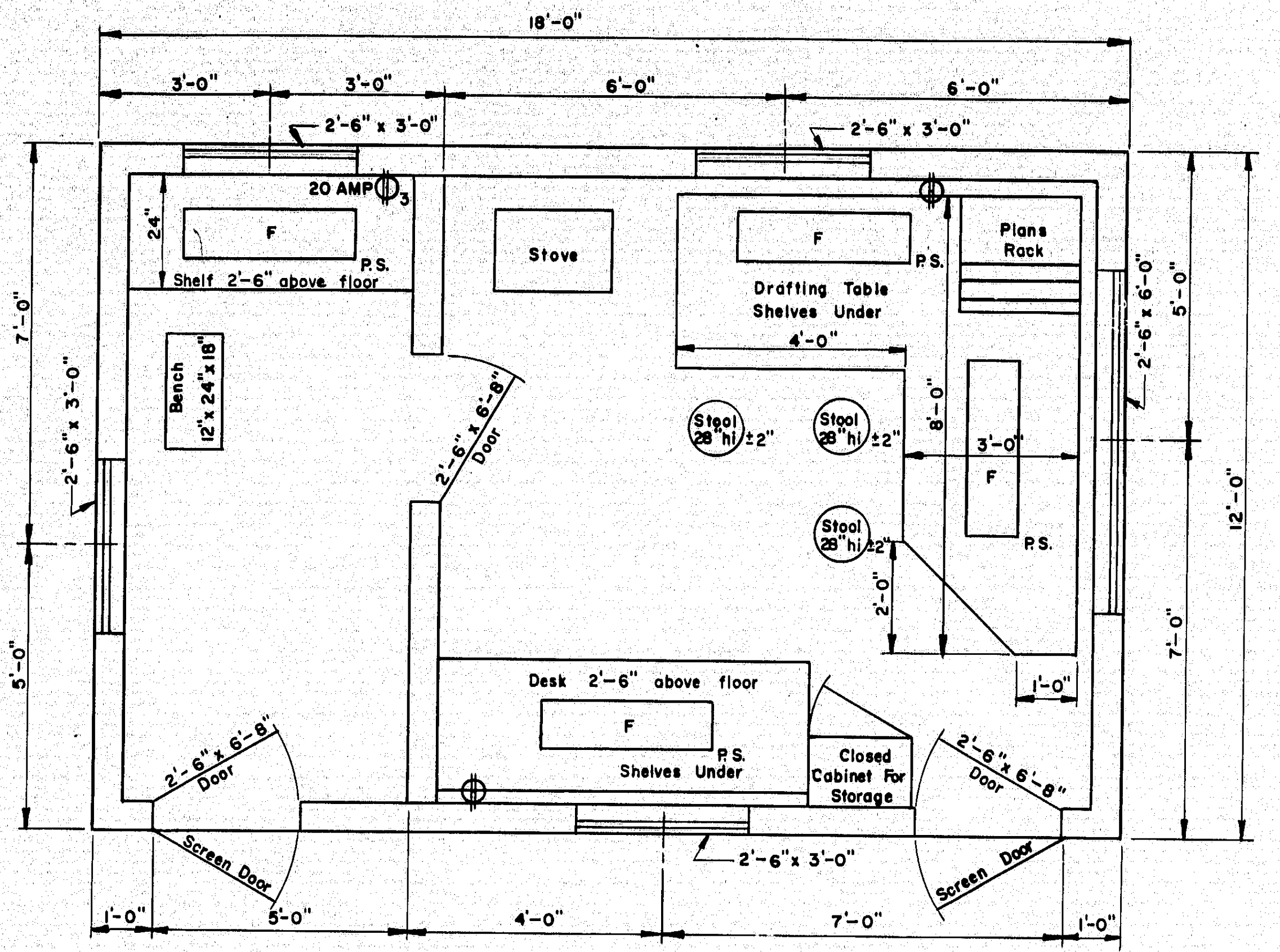
AUG. 1969

11

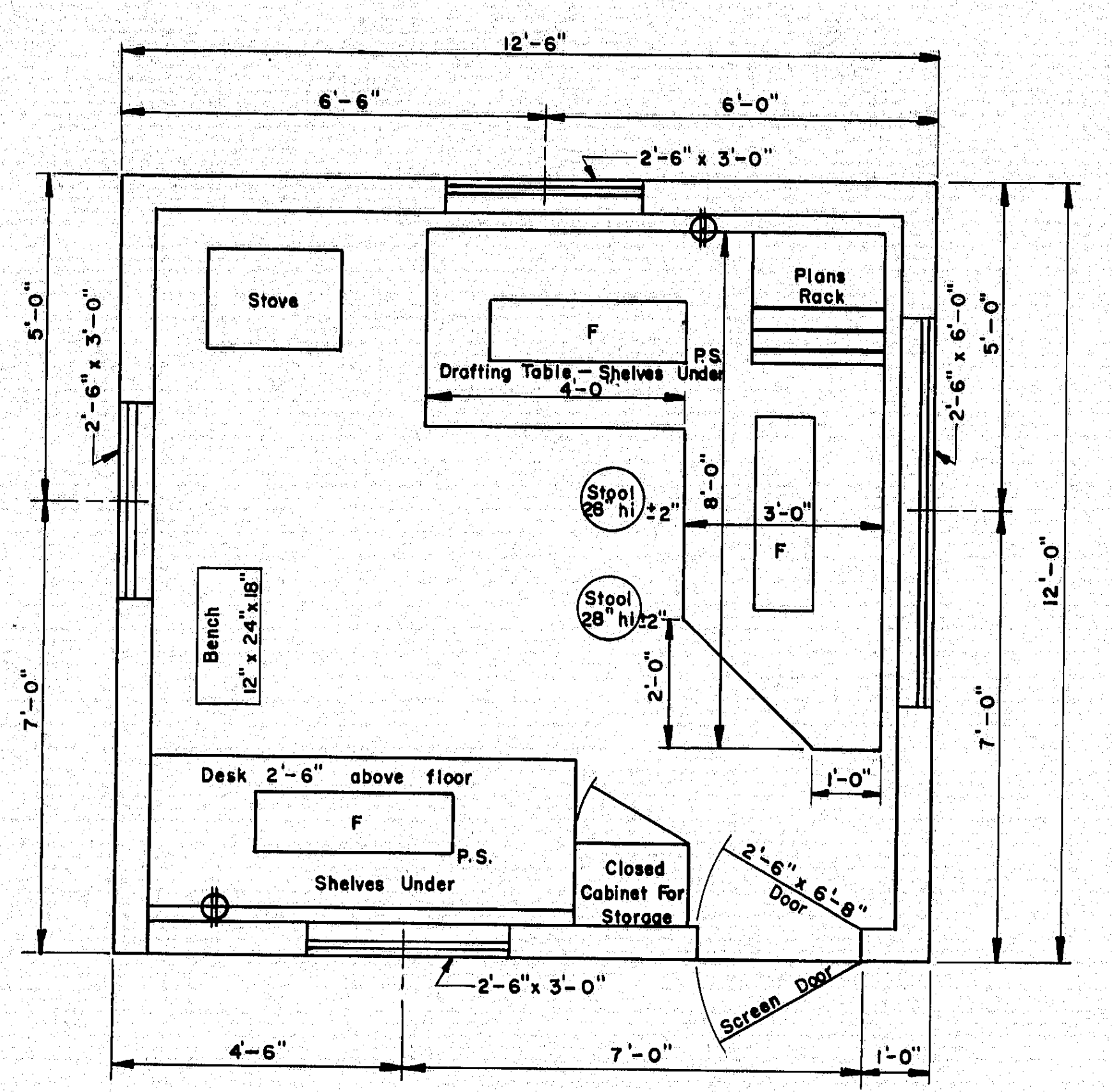
152-85

touraine paints TRUFLEX ☆ SILKY ☆ TRIPLE WHITE ☆ RYPLEX

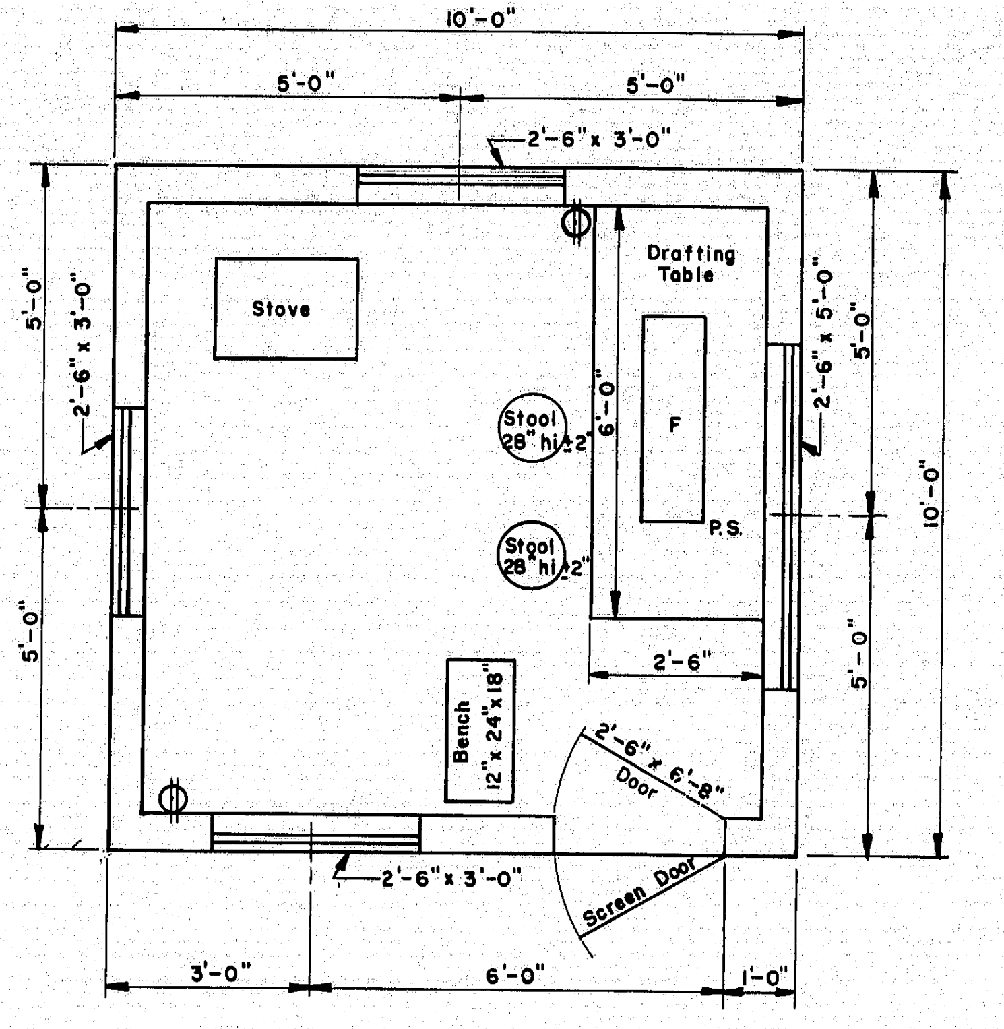
B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I95 5(6)94	55	55



FLOOR PLAN
TYPE "A"



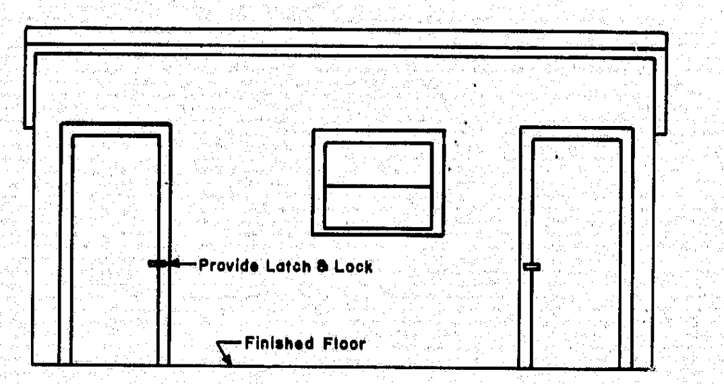
FLOOR PLAN
TYPE "B"



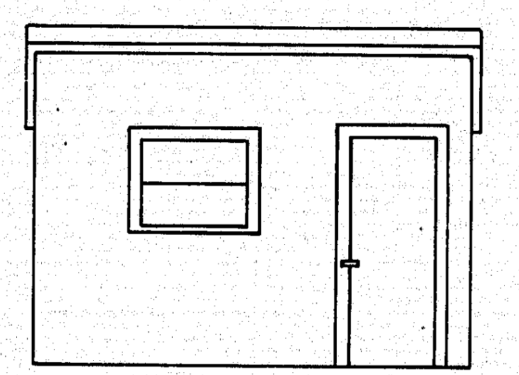
FLOOR PLAN
TYPE "C"

GENERAL NOTES

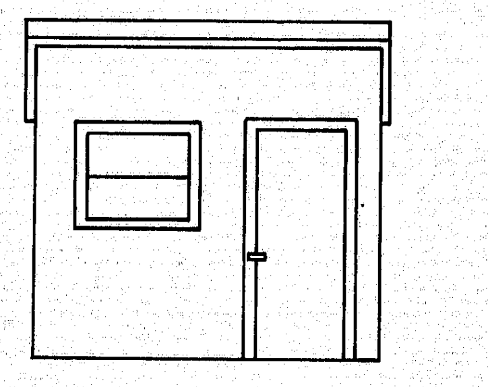
1. Drafting table shall be 3'-4" high at front edge and placed 2" from studs to allow prints to hang down behind table when in use.
2. Sheives under desk shall be constructed to received 11½" x 14" x 25" transfiles.
3. Windows shall be double hung.
4. Stovepipe shall not be in direct contact with combustible material ; the pipe shall be surrounded with at least 6" of fireproof material.
5. Continuous 110 volt 60 cycle electric service shall be supplied.
6. The engineer may rearrange the items shown on the plan views during construction of the field office.
7. FURNISHINGS TO BE SUPPLIED :
   - 2 Straight back chairs for types A and B
   - 1 Bench for types A, B & C
   - 3 Stool for type A
   - 2 Stools for types B & C
8. SYMBOLS :
   - F Florescent lights (2 light , rapid start 48" strips and 40 watt bulbs.)
   - P.S. Pull switch.
   - ⏀ Duplex wall outlet — 15 amp unless otherwise noted.
   - ⏀3 Triplex Wall Outlet
9. For the Type "A" Field Office one clean 55 gal. drum shall be supplied, installed on a suitable rack and equipped with a spigot suitable for drawing off water. The drum shall be furished with water at all times.



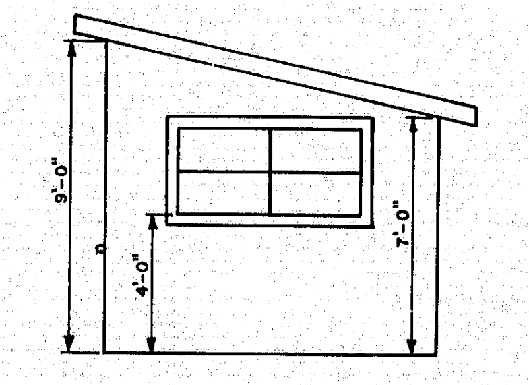
FRONT ELEVATION
TYPE "A"



FRONT ELEVATION
TYPE "B"

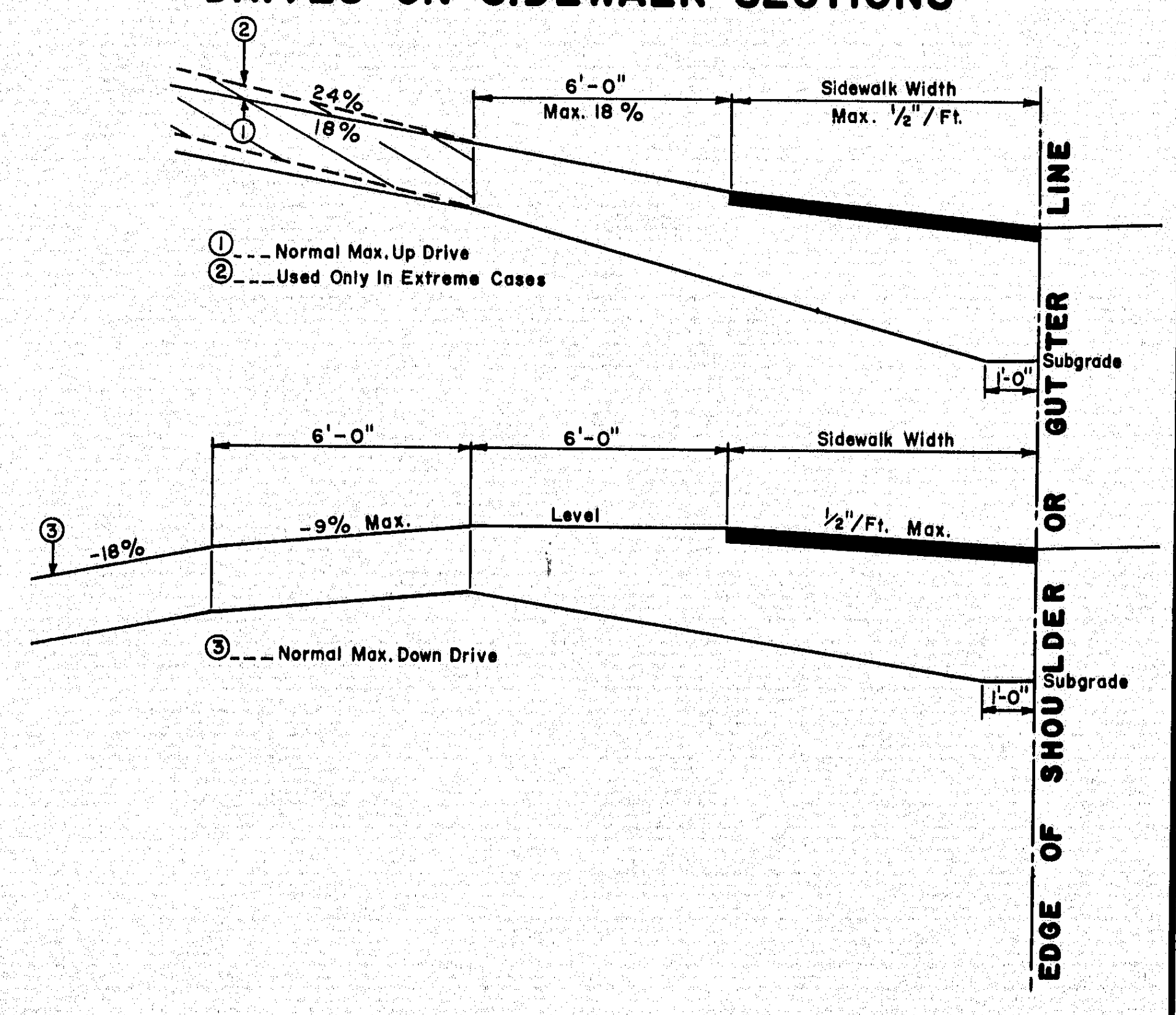


FRONT ELEVATION
TYPE "C"



SIDE ELEVATION
TYPES "A" "B" & "C"

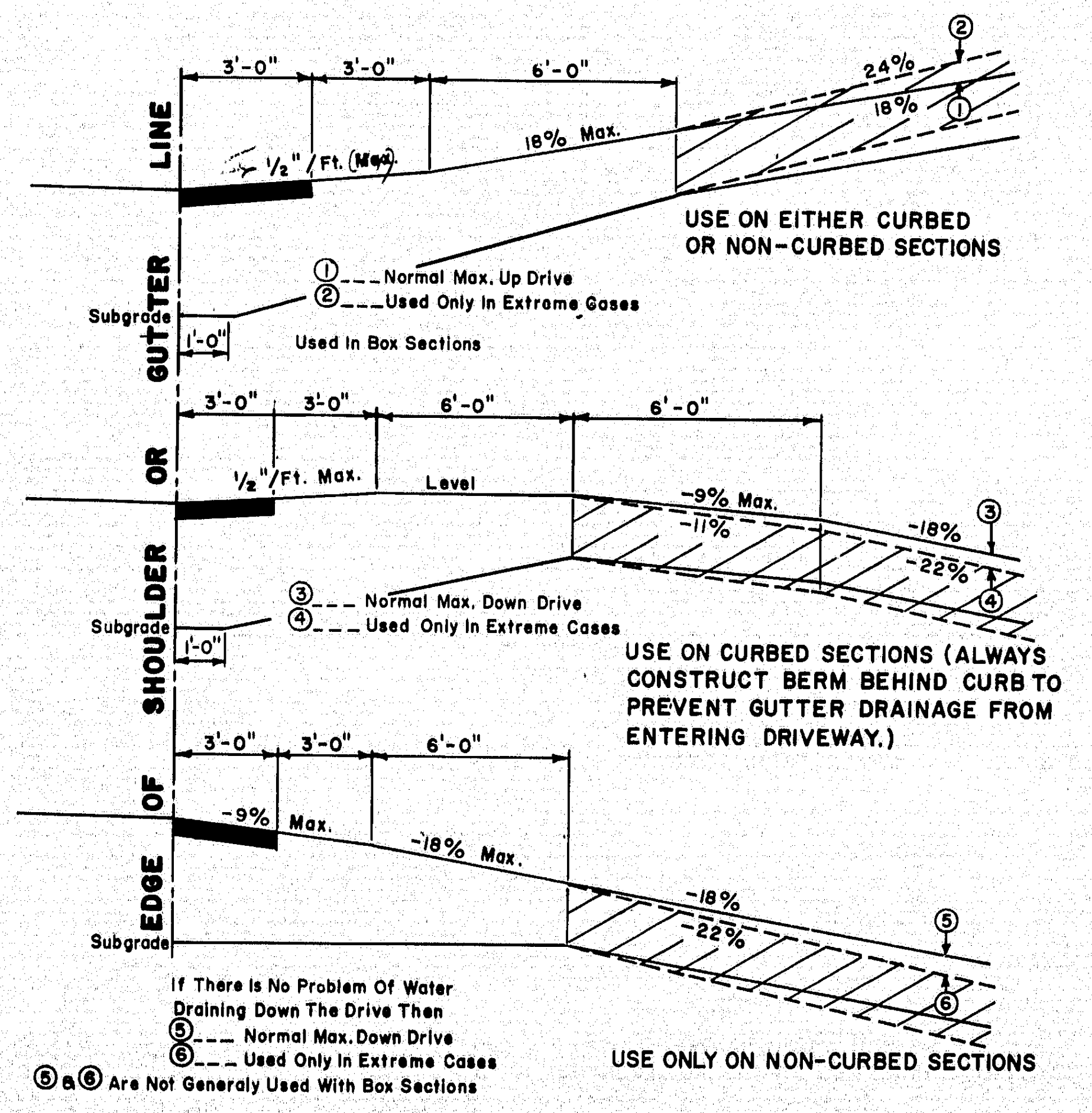
DRIVES ON SIDEWALK SECTIONS



GENERAL NOTES
1. The sidewalk width shall be paved in all cases.
2. All residential or commercial drives over 10% to be paved.

NOTES ON MAXIMUM DRIVEWAY PROFILES
1. These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the drive is unusual.
2. Generally the majority of drives on a project will be built with flatter profiles than these maximum cases.
3. When grading drives which are flatter than the maximum profiles the following rule of thumb should be used, do not exceed a grade % change of more than 9% in a 6 foot increment of driveway length. This applies to both up and down profiles.

DRIVES ON NON-SIDEWALK SECTIONS


3'-0"
3'-0"
6'-0"
½"/Ft. (Max)
18% Max.
24%
18%
②
①
USE ON EITHER CURBED OR NON-CURBED SECTIONS
① Normal Max. Up Drive
② Used Only In Extreme Cases
Subgrade
1'-0"
Used In Box Sections
3'-0"
3'-0"
6'-0"
6'-0"
½"/Ft. Max.
Level
-9% Max.
-11%
-18%
-22%
③
④
③ Normal Max. Down Drive
④ Used Only In Extreme Cases
Subgrade
1'-0"
USE ON CURBED SECTIONS (ALWAYS CONSTRUCT BERM BEHIND CURB TO PREVENT GUTTER DRAINAGE FROM ENTERING DRIVEWAY.)
3'-0"
3'-0"
6'-0"
-9% Max.
-18% Max.
-18%
-22%
⑤
⑥
Subgrade
If There Is No Problem Of Water Draining Down The Drive Then
⑤ Normal Max. Down Drive
⑥ Used Only In Extreme Cases
⑤ & ⑥ Are Not Generaly Used With Box Sections
USE ONLY ON NON-CURBED SECTIONS
EDGE OF SHOULDER OR GUTTER LINE

GENERAL NOTES
1. The first 3' shown as pavement shall be paved only when abuting a paved area.
2. All residential or commercial drives over 10% to be paved.

NOTES ON MAXIMUM DRIVEWAY PROFILES
1. These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the drive is unusual.
2. Generally the majority of drives on a project will be built with flatter profiles than these maximum cases.
3. When grading drives which are flatter than the maximum profiles the following rule of thumb should be used, do not exceed a grade % change of more than 9% in a 6 foot increment of driveway length. This applies to both up and down profiles.

REVISIONS

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

DRIVEWAY DETAILS
FIELD OFFICES
TESTING LABORATORY

AUG. 1969
⟨12⟩

152-86