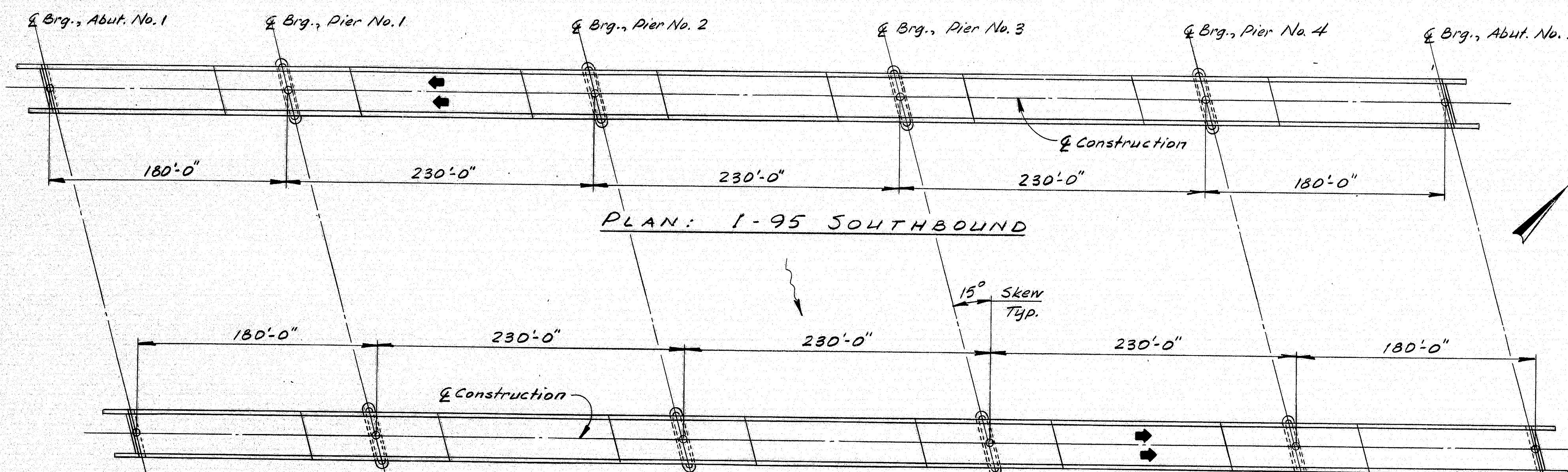


STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	IR-95-RV01/201	1	9



### SPECIFICATIONS

CONTRACT: State of Maine, Department of Transportation, Standard Specifications, Highways and Bridges, Revision of January 1984.

### TRAFFIC DATA N.B. or S.B. Both

AADT 1984	1920	3840
AADT 2004	2305	4610
DHV	329	599
T%	20	20
D%	100	55
V	70	70
18 Kip P2.5		517

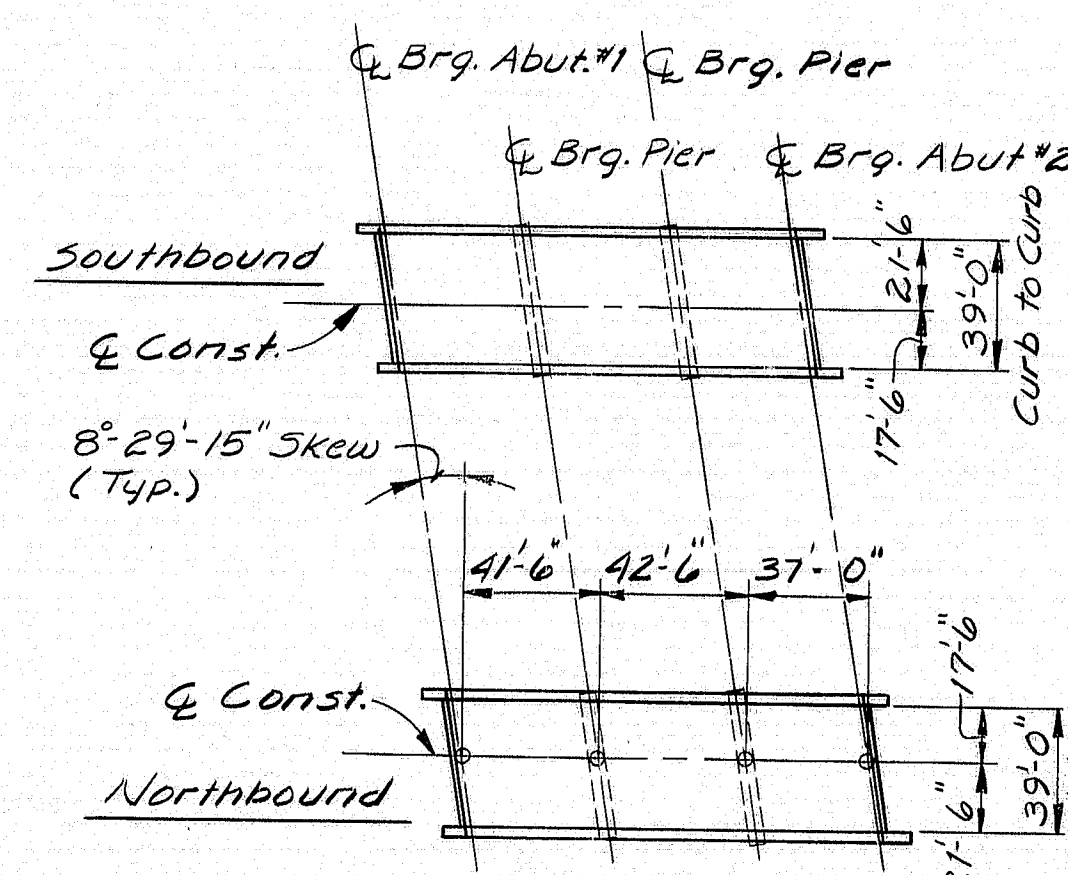
### MATERIALS

CONCRETE:  
Curb Renovation... Class AA modified  
All other .... Class AA

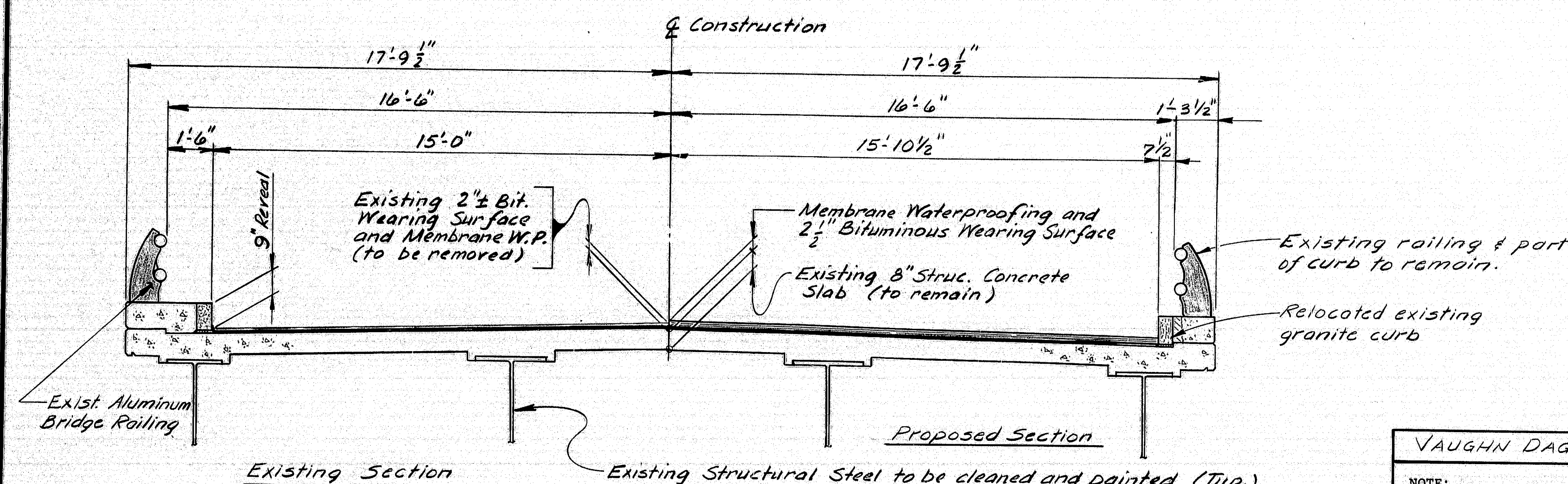
REINFORCING STEEL: ...ASTM A615 Grade 60  
STRUCTURAL STEEL: ...ASTM A36

### BASIC DESIGN STRESSES

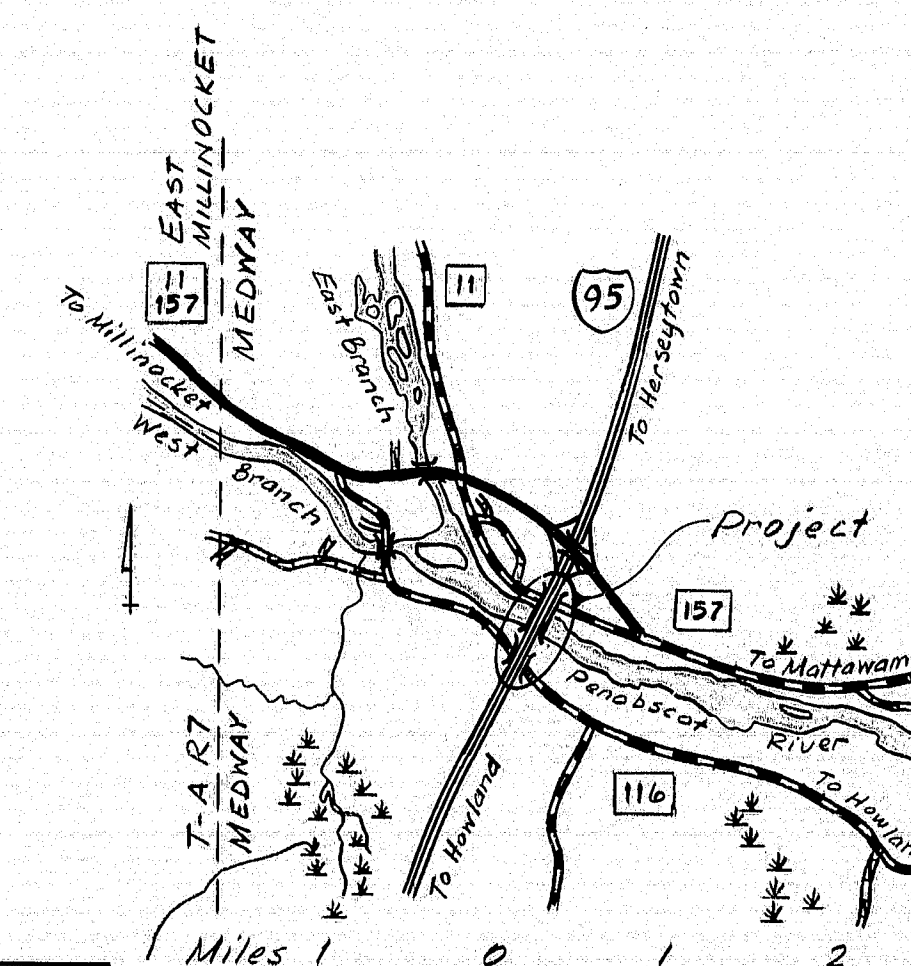
CONCRETE:  $f_c = 4,000$  psi  
REINFORCING STEEL:  $f_y = 60,000$  psi  
STRUCTURAL STEEL:  $f_y = 36,000$  psi



Project Complete November 1985.  
As Built



TRANSVERSE SECTION  
Northbound and Southbound  
(VAUGHN - DAGGETT)



LOCATION MAP

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
VAUGHN DAGGETT MEMORIAL  
BRIDGE OVER PENOBSCOT RIVER  
INTERSTATE 95 OVER  
ROUTE 116  
IN THE TOWN OF  
MEDWAY  
PENOBSCOT COUNTY  
GENERAL PLAN

SHEET 1 OF 9 AUGUSTA, MAINE

VAUGHN DAGGETT BRIDGE NO. 6078	I-95 OVER ROUTE 116 BRIDGE NO. 6077
NOTE: All work contemplated under this contract shall be governed by and in conformity with the Standard Specifications (Revision of January 1984) and supplements thereto, except as modified on the plans and in the Special Provisions.	Plans of the existing bridge are available for the Contractor's reference at the Bridge Design Office in Augusta. The plans are reproductions of original drawings as prepared for the construction of the bridge and it is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.
Approved: State of Maine Department of Transportation <i>David L. ...</i> Commissioner 3-26-85 Date	United States Department of Transportation Federal Highway Administration Region 1 Approved: Division Administrator Date
Approved: <i>Robert Coleman</i> Chief Engineer 3-26-85 Date	

R94-195

DATE	BY
2-25	LSB
2-25	ATA
2-25	ATA

PLANS

Preliminary Plan: JMD 10-84

BRUNING 44-32 4270-1



PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAIL	2-85
CHECKED	LSG
REVISIONS	RTD
FIELD CHANGES	7-82
PLANS	

BRUNING 44-122 25713-1

ESTIMATED QUANTITIES					
ITEM NO.	DESCRIPTION	QUANTITY			UNIT
		VAUGHN-DAGGETT	I-95 over ROUTE 116	TOTAL	
202.127	Removal of Existing Bituminous Pavement	0.9	0.1	1	L.S.
403.08	Hot Bituminous Pavement Grading C	1020	250	1,270	Ton
503.12	Reinforcing Steel Fabricated & Delivered	12,900	—	12,900	LBS.
503.13	Reinforcing Steel Placing	12,900	—	12,900	LBS.
506.142	Field Painting Existing Structural Steel	0.9	0.1	1	L.S.
506.16	Surface Preparation of Existing Structural Steel	4,500	300	4,800	M.H.
507.49	Resetting Bridge Railing	1	—	1	L.S.
508.13	Membrane Waterproofing	0.9	0.1	1	L.S.
514.06	Curing Box for Concrete Cylinders	0.9	0.1	1	Eq.
515.21	Protective Coating for Concrete Surfaces	1	—	1	L.S.
518.30	Rehabilitation of Structural Concrete Slab to Reinforcing Steel	6,600	900	7,500	S.F.
518.31	Rehabilitation of Structural Concrete Slab to Below Reinforcing Steel	660	90	750	S.F.
520.2401	Bridge Joint Modification	4	—	4	Eq.
520.2402	Bridge Joint Modification	—	4	4	Eq.
526.301	Temporary Concrete Barrier Type 1	0.9	0.1	1	L.S.
609.384	Resetting Granite Bridge Curb	4,340	—	4,340	L.F.
627.611	6" Solid White Pavement Marking Line	1,950	1,000	2,950	L.F.
627.621	6" Broken White Pavement Marking Line	2,600	1,700	4,300	L.F.
627.631	6" Solid Yellow Pavement Marking Line	1,950	1,000	2,950	L.F.
627.67	Removing Pavement Markings	100	100	200	S.F.
627.691	Temp. 6" Plastic Pavement Marking Line, Yellow or White	1,400	1,400	2,800	L.F.
639.20	Field Office Type C	0.9	0.1	1	Eq.
652.30	Flashing Arrow Board	1	1	2	Eq.
652.31	Type I Barricade	30	30	60	Eq.
652.33	Drum	5	5	10	Eq.
652.34	Cone	10	10	20	Eq.
652.35	Construction Signs	300	300	600	S.F.
652.36	Maint. of Traffic Control Devices	126	14	140	C.D.
652.38	Flagger	360	40	400	M.H.
659.10	Mobilization	0.9	0.1	1	L.S.
Estimate of Lump Sum Quantities					
202.127	Removal of Existing Bituminous Pavement	7,000	1,065	8,065	S.Y.
507.49	Resetting Bridge Railing	4,320	—	4,320	L.F.
	Weight of Existing Structural Steel	3,660,000	193,000	3,853,000	LBS.
508.13	Membrane Waterproofing	7,420	1,070	8,490	S.Y.

#### SYMBOLS

	Concrete, Plan & Elevation
	Existing Concrete to Remain, Section
	Existing Concrete to be Removed, Plan & Section
	New Concrete, Section
	Bituminous Pavement
	Granite Curb

#### GENERAL CONSTRUCTION NOTES

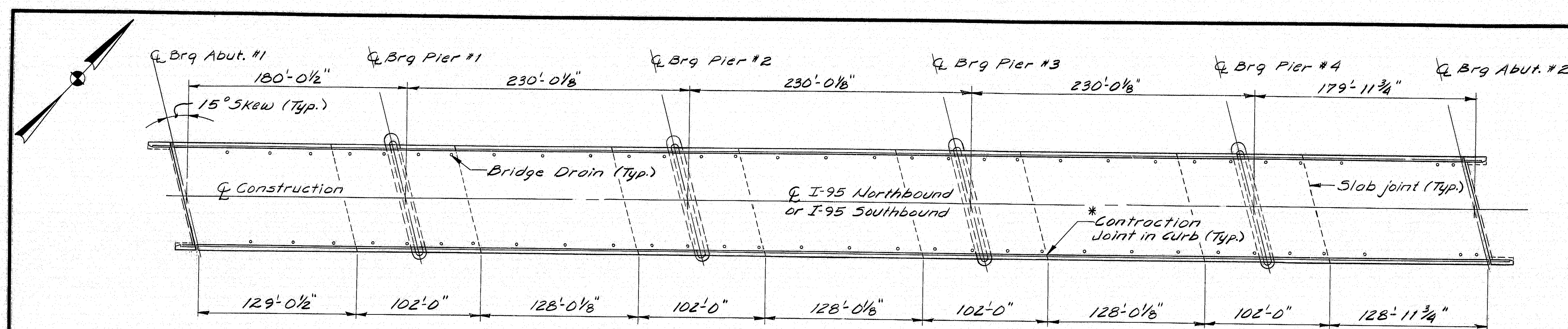
1. All utility facilities shall be adjusted by the respective utilities unless noted.
2. All existing structural steel shall be cleaned and painted.
3. A minimum 12' width of one lane traffic shall be maintained at each structure at all times.
4. The existing railings on the Vaughn Daggett bridges shall be removed and reset as required. See Special Provisions section 507.
5. The existing granite bridge curb on the Vaughn Daggett bridges shall be removed and reset. See Special Provisions section 609.

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
VAUGHN DAGGETT MEMORIAL	
INTERSTATE 95 OVER ROUTE 116	
MEDWAY	
ESTIMATED QUANTITIES & SYMBOLS	
SHEET 2 OF 9	AUGUSTA, MAINE

R94-196

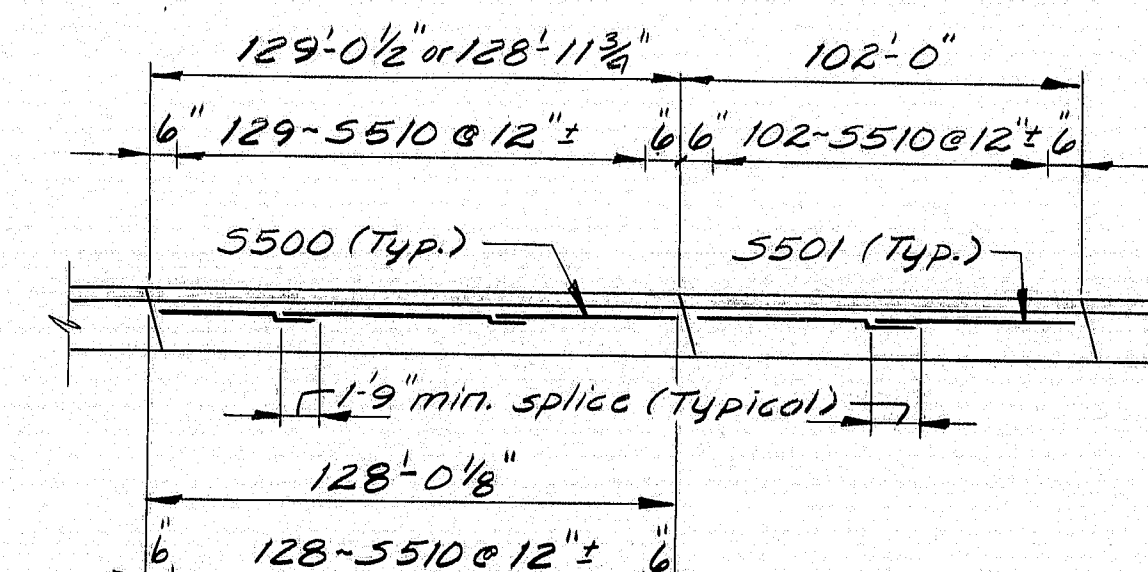


F.R.W.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	TR-95-9(107)	3	

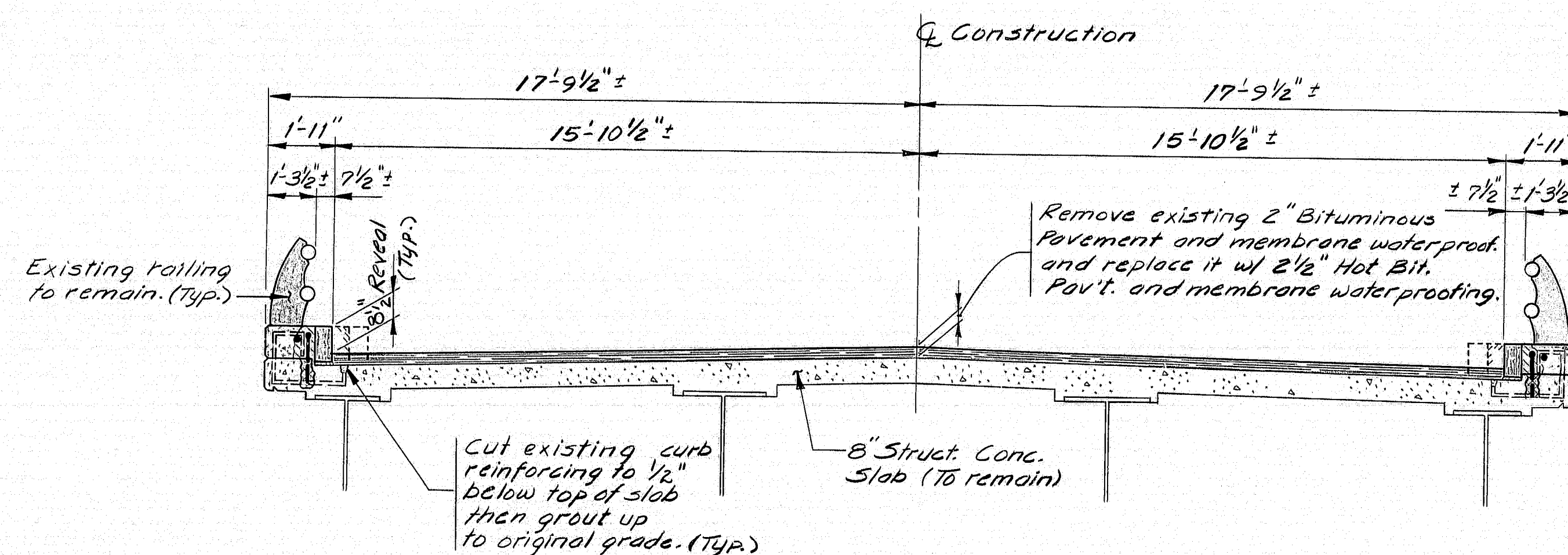


### PLAN

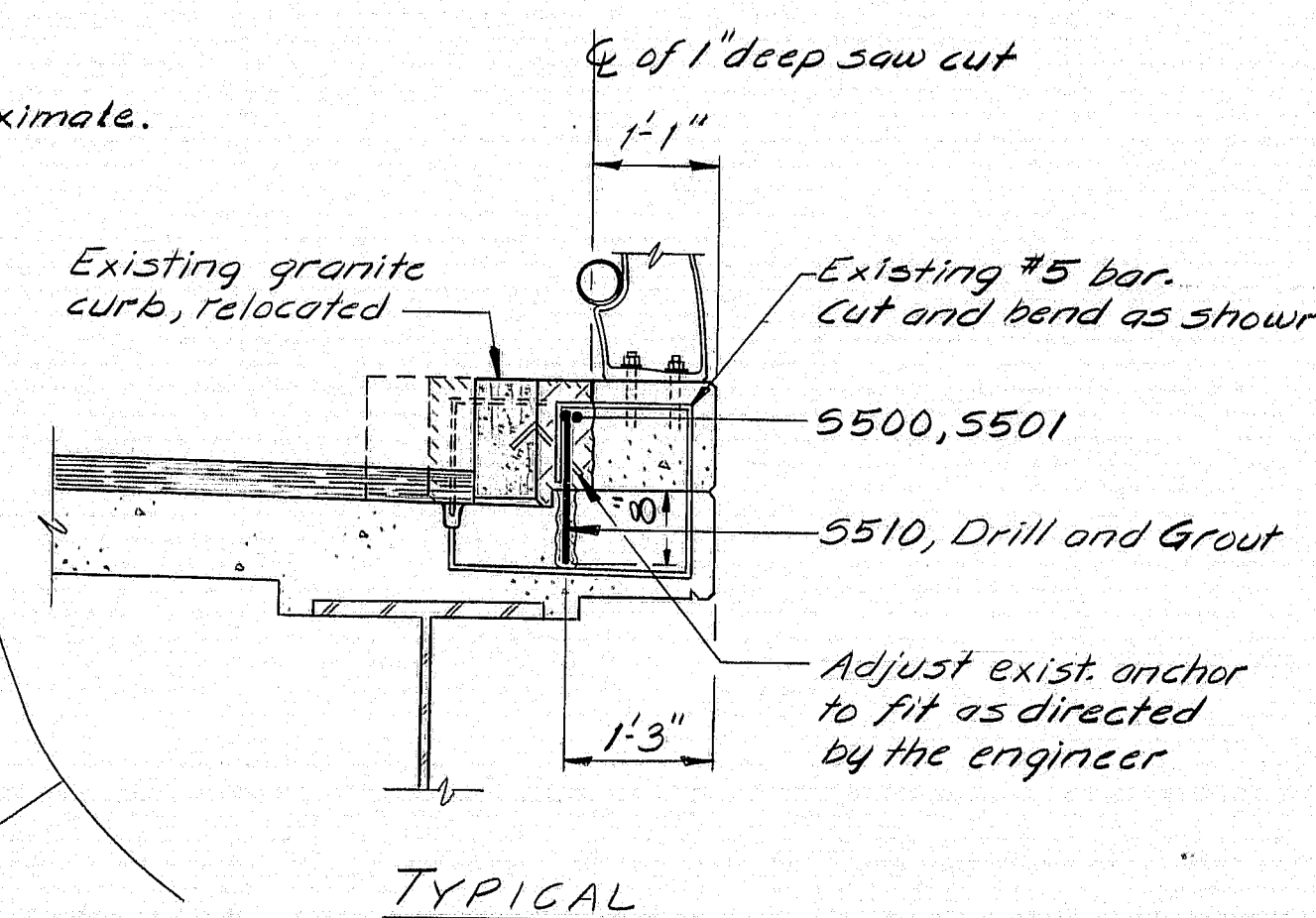
\* The Contraction Joint locations shown are approximate.



### TYPICAL REINFORCING PLACEMENT FOR SUPERSTRUCTURE CURBS



### TRANSVERSE SECTION



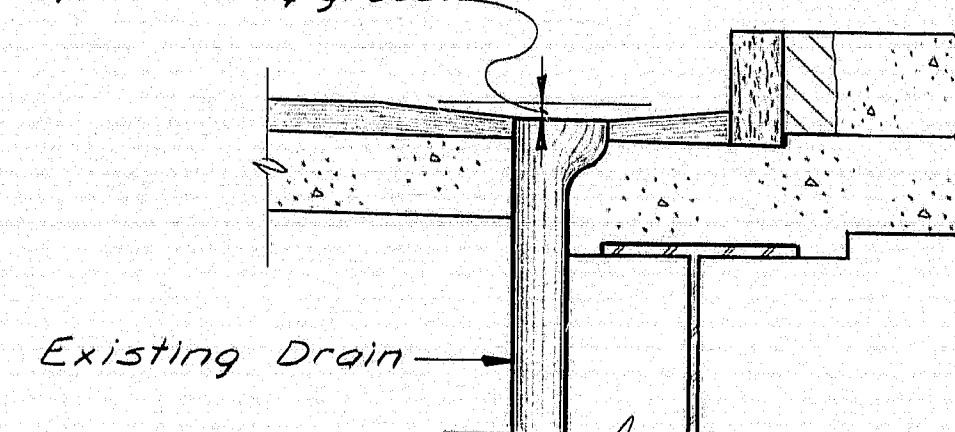
### TYPICAL

### SUPERSTRUCTURE NOTES

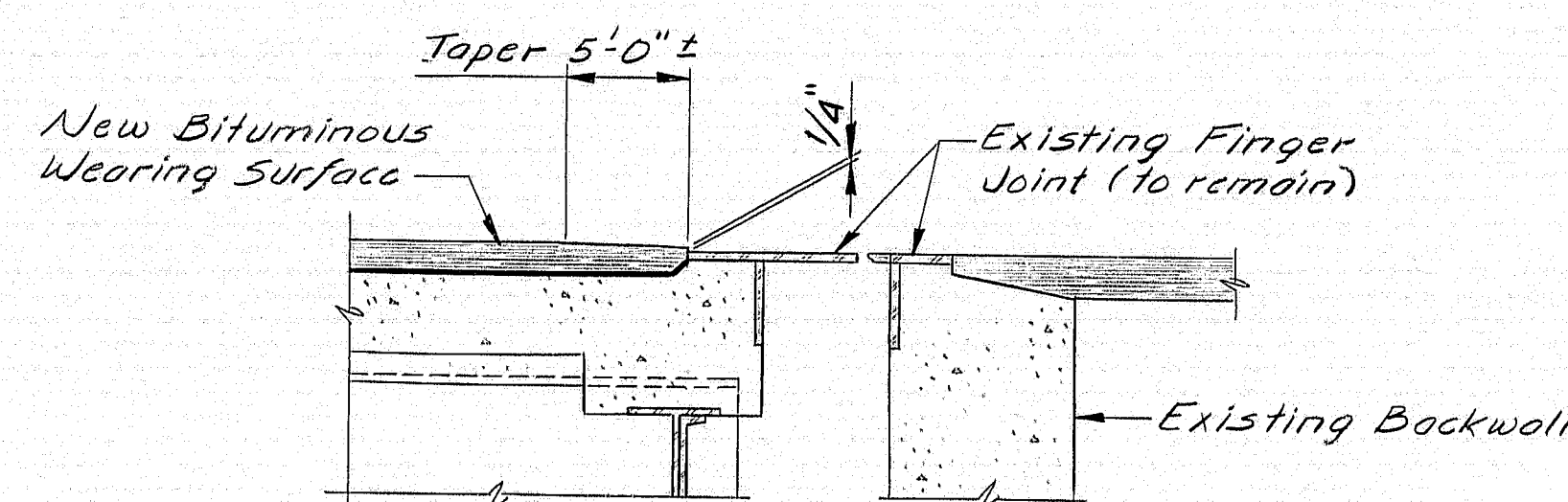
1. Reinforcing steel shall have a minimum cover of 2" unless otherwise indicated.
2. All existing reinforcing that will be exposed and re-used shall be cleaned as approved by the Engineer. Payment to be made under item 609.384.
3. Mortar for bedding and for joints in granite curb shall contain an approved non-shrink additive.
4. Protective coating for concrete surfaces shall be applied to the top of concrete curbs.
5. Holes for grouting the reinforcing in the concrete slab shall be 1 1/2 to 2 inches in diameter. Holes shall be filled with water for a minimum of two hours before grouting, at which time all water shall be removed. The grouted area shall be kept wet from the time of initial set for a minimum of twelve hours, with burlap or other suitable means. The grout shall be non-shrink and approved by the Engineer and used in accordance with the manufacturer's recommendations. No separate payment will be made for drilling and grouting, and all such work will be considered incidental to item 508.13.

As Built  
1985

Depress wearing surface.  
Shape to fit crown & grade.



### PAVEMENT AROUND EXISTING DRAIN



### DETAIL AT END OF SLAB

R94-197

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

VAUGHN - DAGGETT  
MEMORIAL BRIDGE  
IN  
MEDWAY

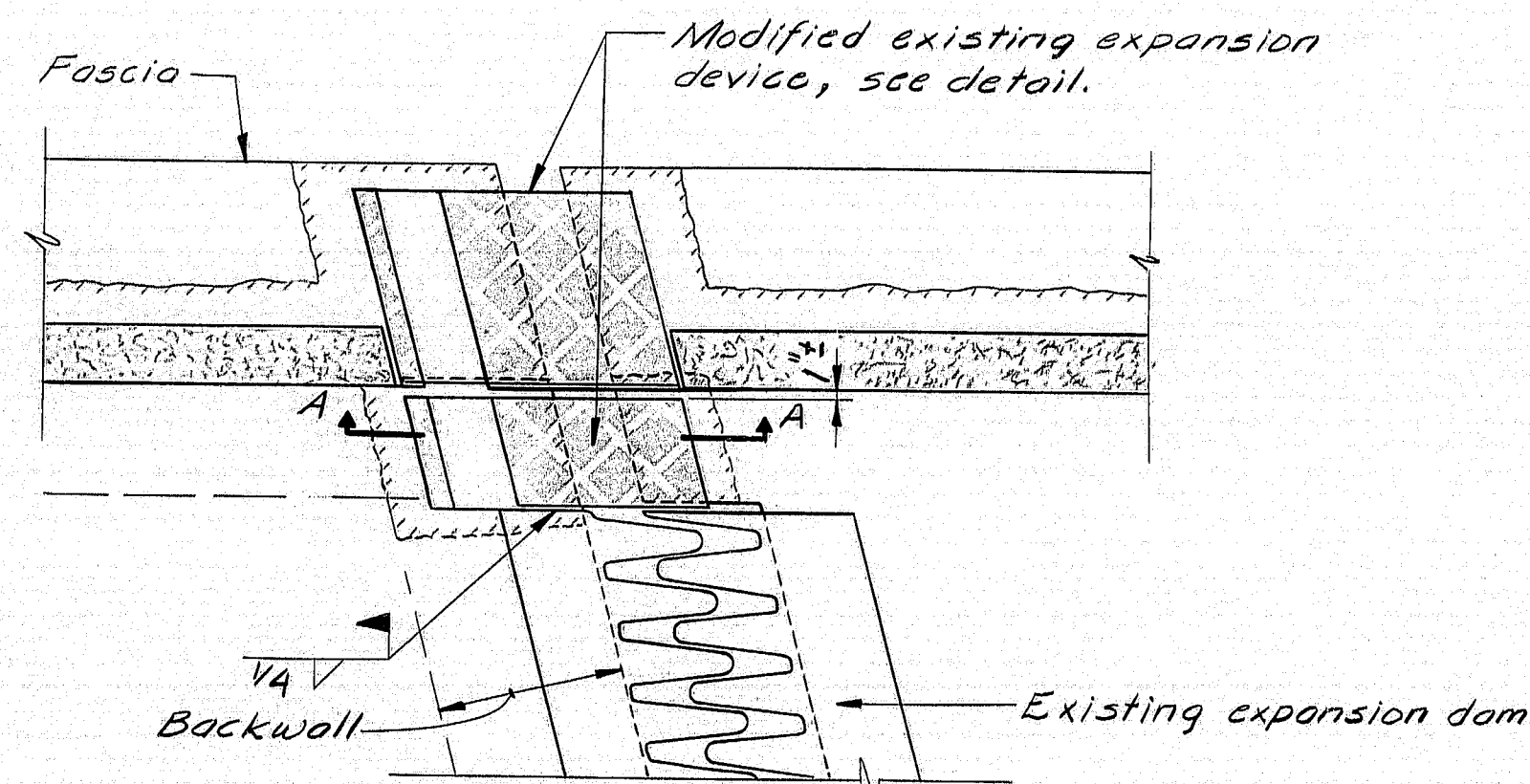
SUPERSTRUCTURE

SHEET 3 OF 9 AUGUSTA, MAINE

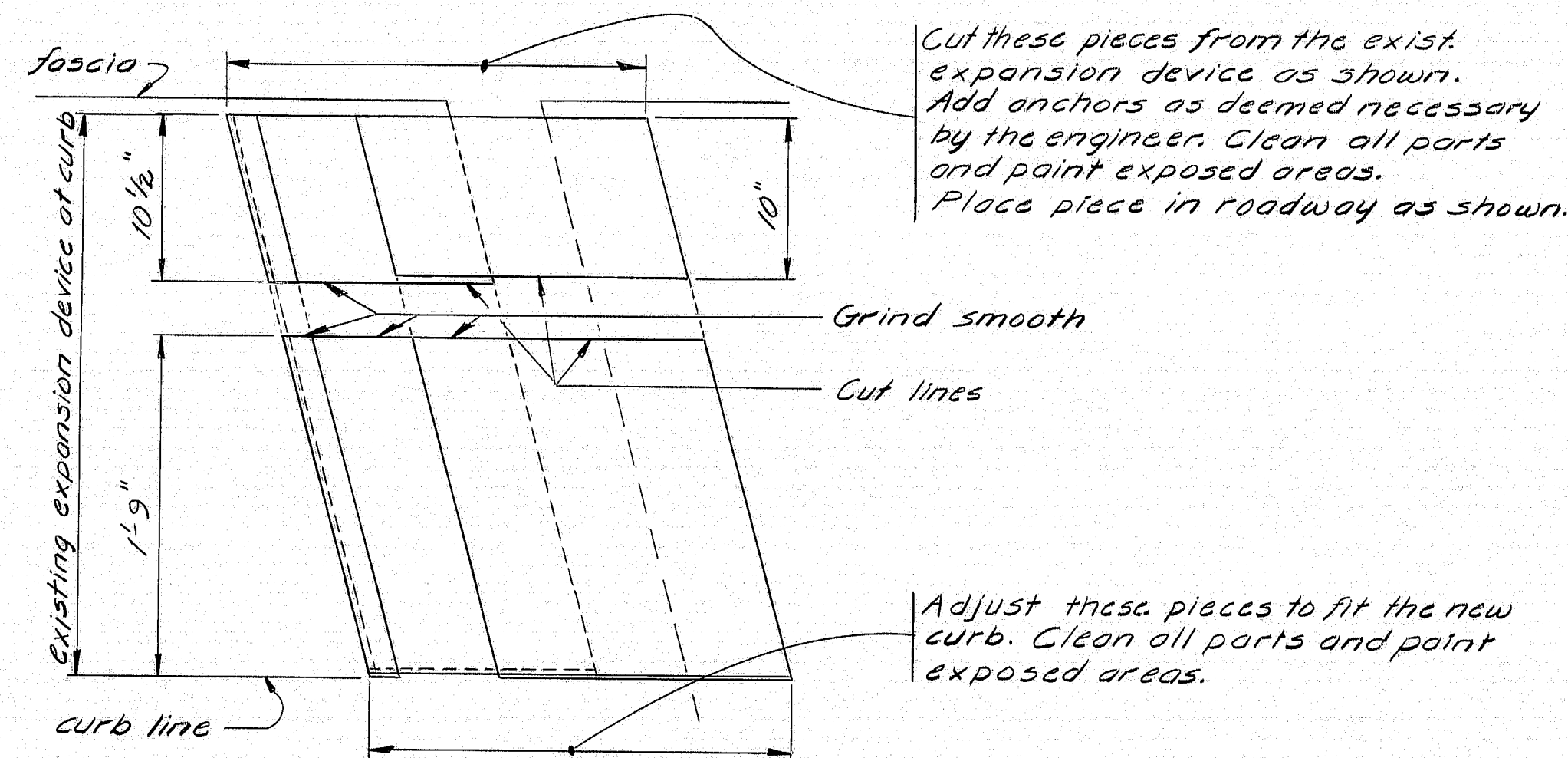
PROJECT DESIGN ENGINEER	DATE
BY L.S.B.	7-85
CHECKED E.T.A.	2-86
REVISIONS	
FIELD CHANGES	

BRUNING 44-132 49710-1

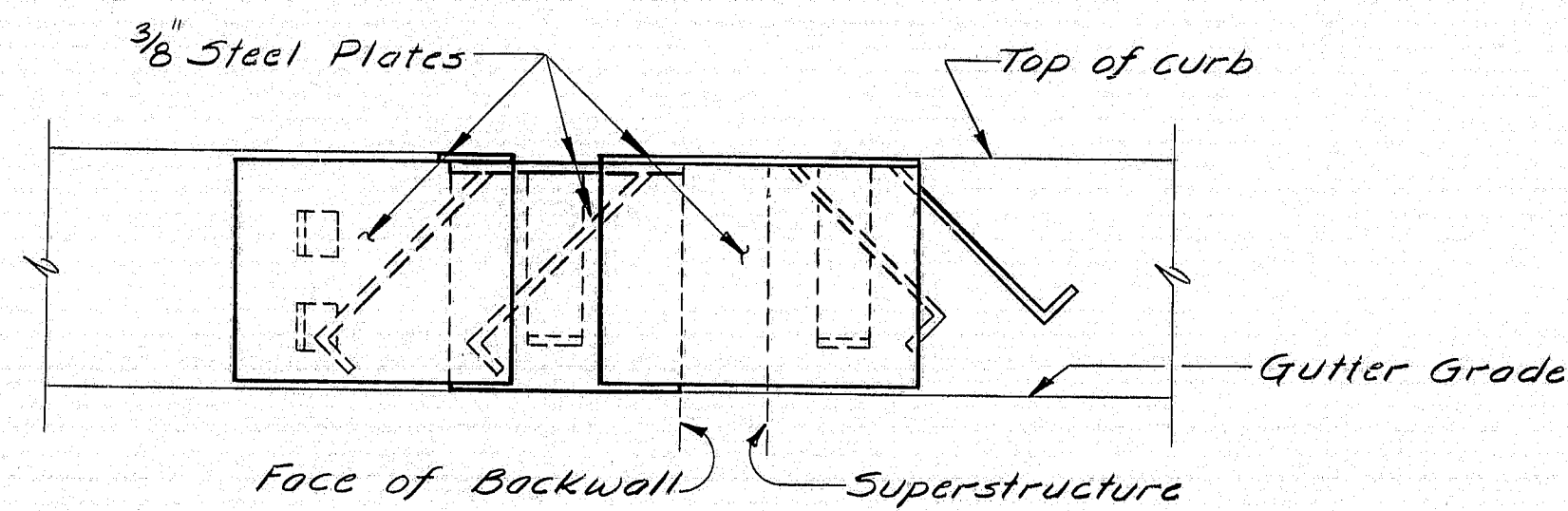




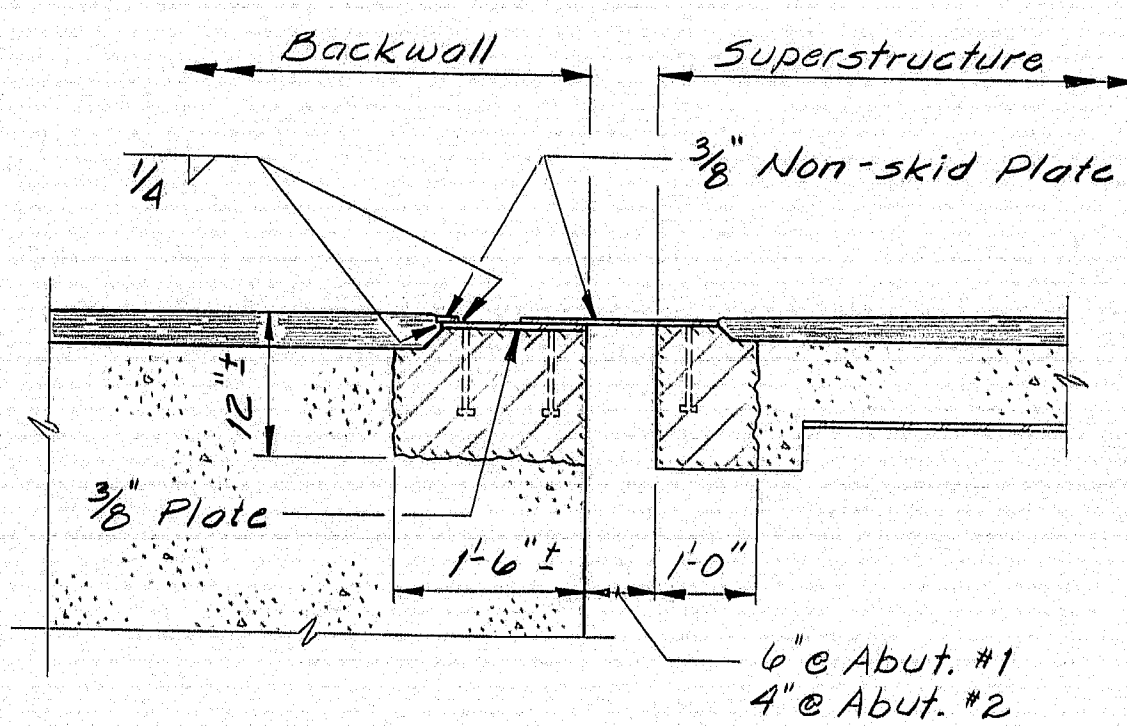
PLAN OF EXPANSION DAM AT CURBS



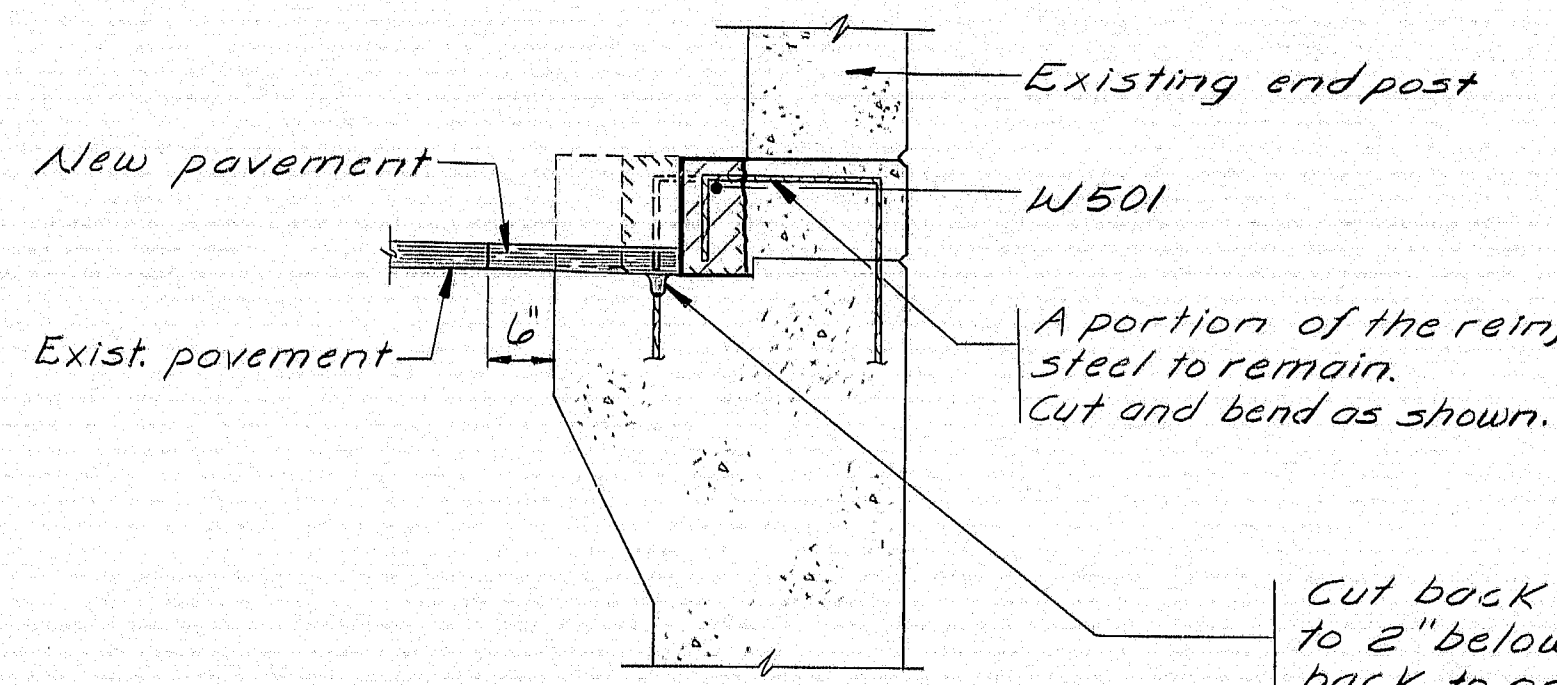
EXISTING EXPANSION DEVICE  
(MODIFIED)  
(The detail of the opposite side is similar)



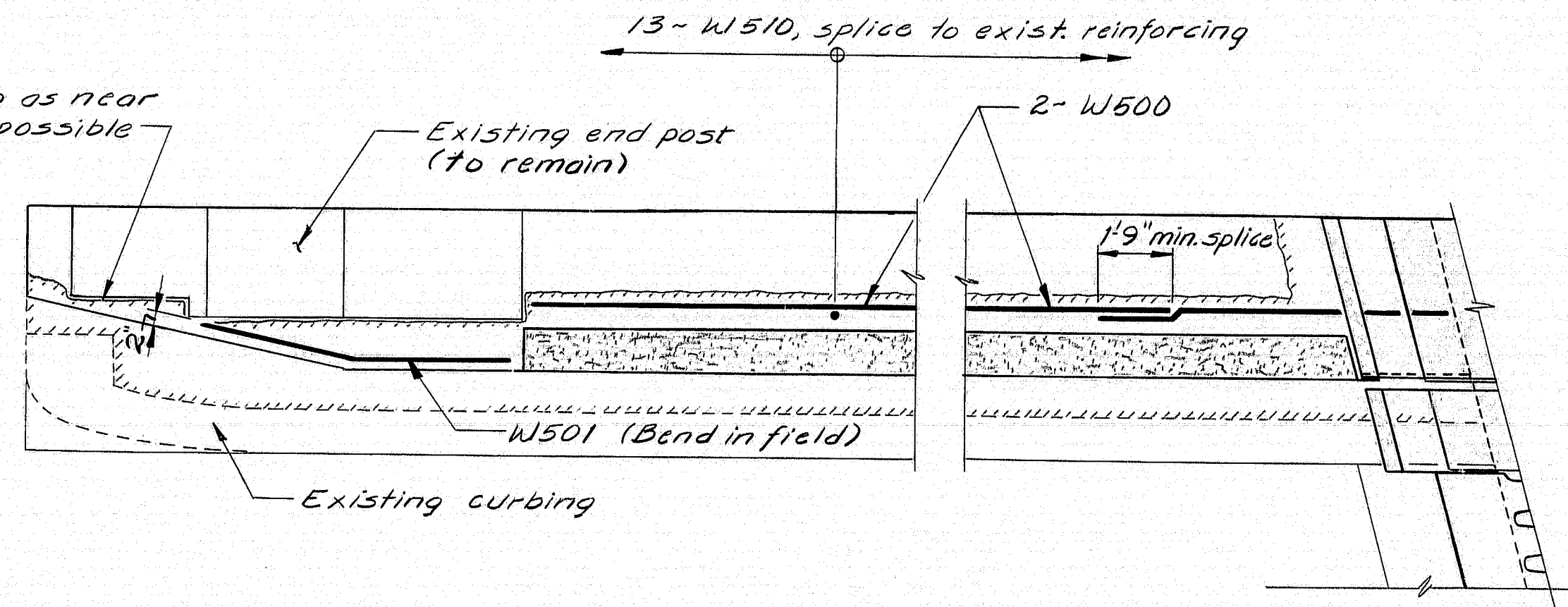
EXIST. EXPANSION DAM AT CURB



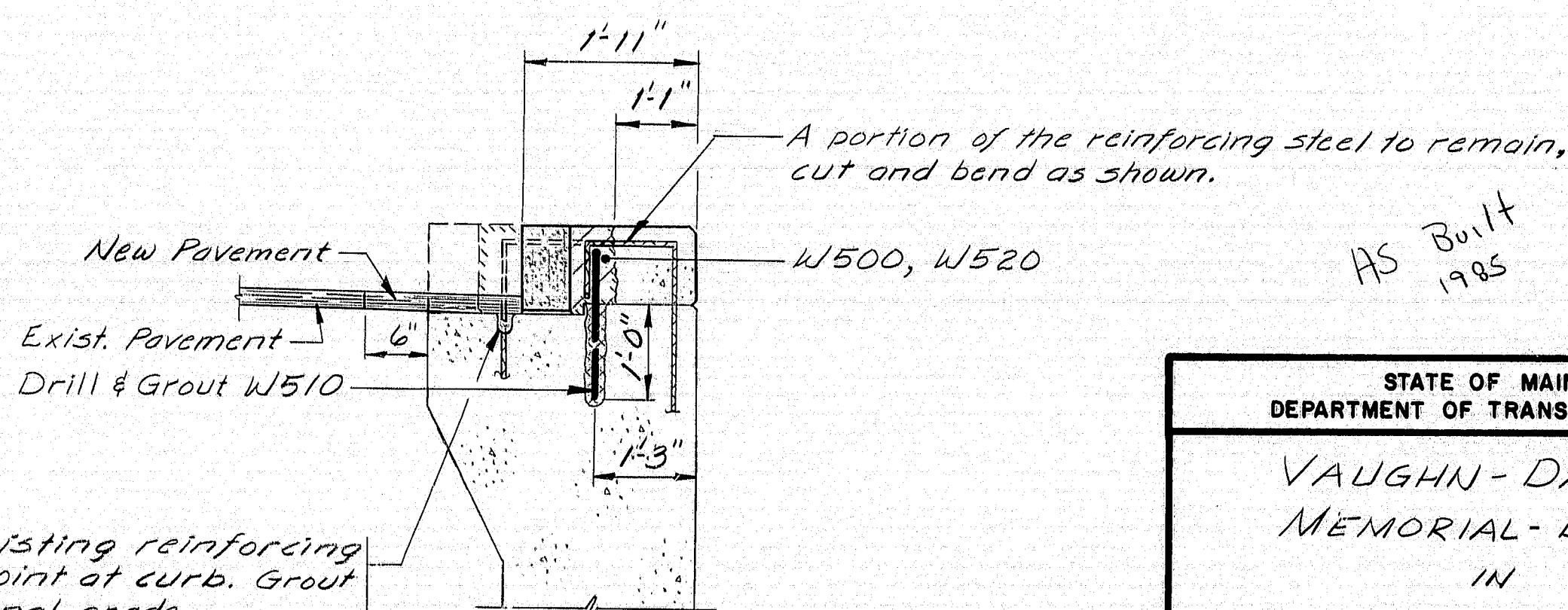
SECTION A-A



TYP. SECTION AT END POST



PLAN OF ADJUSTED WINGWALL



TYP. WING SECTION

F.R.A. REV. NO.		STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1		MAINE	IR-95-9(107)	4	

## REINFORCING STEEL SCHEDULE

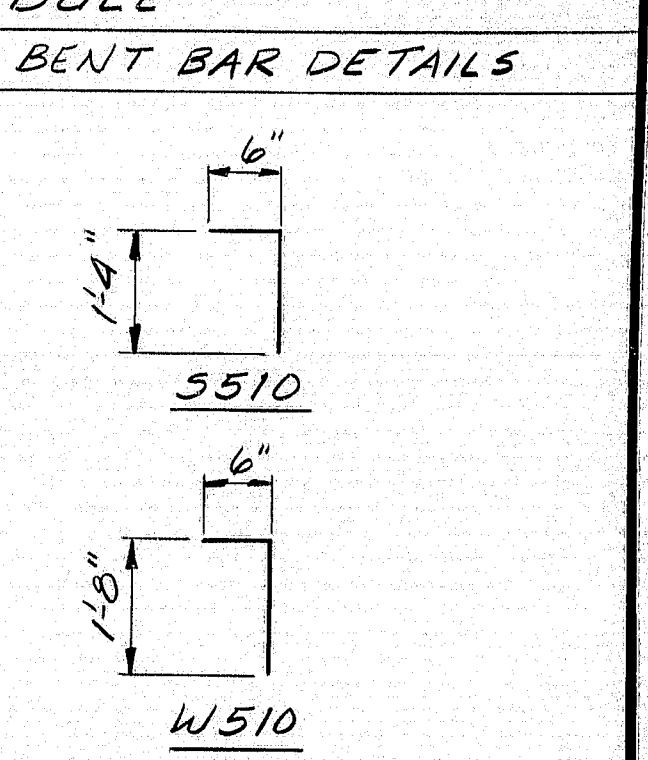
STRAIGHT BARS				BENT BAR DETAILS
MARK	NO.	LENGTH	LOCATION	
VAUGHN - DAGGETT				
Superstructure				
5500	60	43'-8"	Curb	
5501	32	51'-8"	Curb	
Wingwall				
W500	16	7'-3"	Curb	
W501	8	3'-6"	Curb	
BENT BARS				
Superstructure				
5510	4,200	1'-10"	Dowel	
Wingwall				
W510	104	2'-2"	Dowel	
ROUTE 116				
STRAIGHT BAR				
*C500	8	45'-9"	Superstructure	

All dimensions are out to out of reinforcing.

Bending details shall conform to the recommendations of the current revision of ACI Standard 31B.

\* Payment to be incidental to item 520.24.

F.R.W.A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IR-95-9(107)	4	



All dimensions are out to out of reinforcing.  
Bending details shall conform to the recommendations of the current revision of ACI Standard 31B.

\* Payment to be incidental to item 520.24.

AS BUILT  
1985

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
VAUGHN - DAGGETT MEMORIAL - BRIDGE IN MEDWAY
MISCELLANEOUS DETAILS
SHEET 4 OF 9 AUGUSTA, MAINE

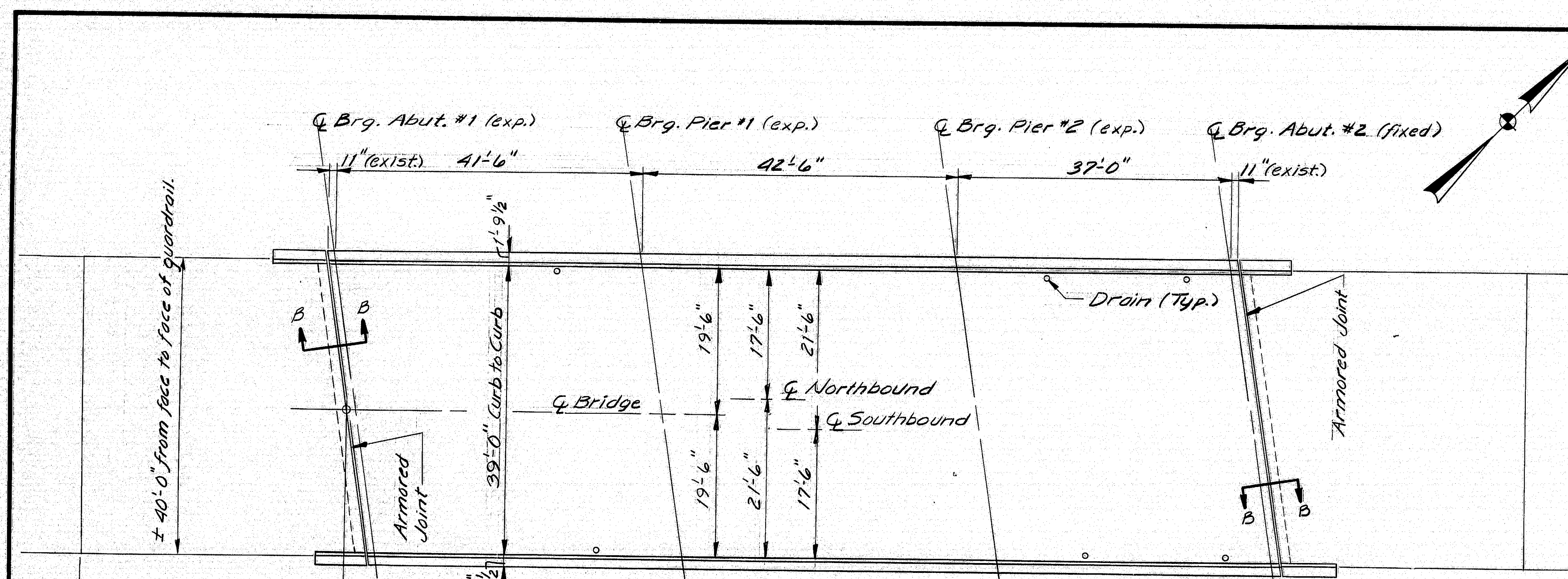
R94-198

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	1-85
CHECKED	2-85
REVISIONS	
FIELD CHANGES	

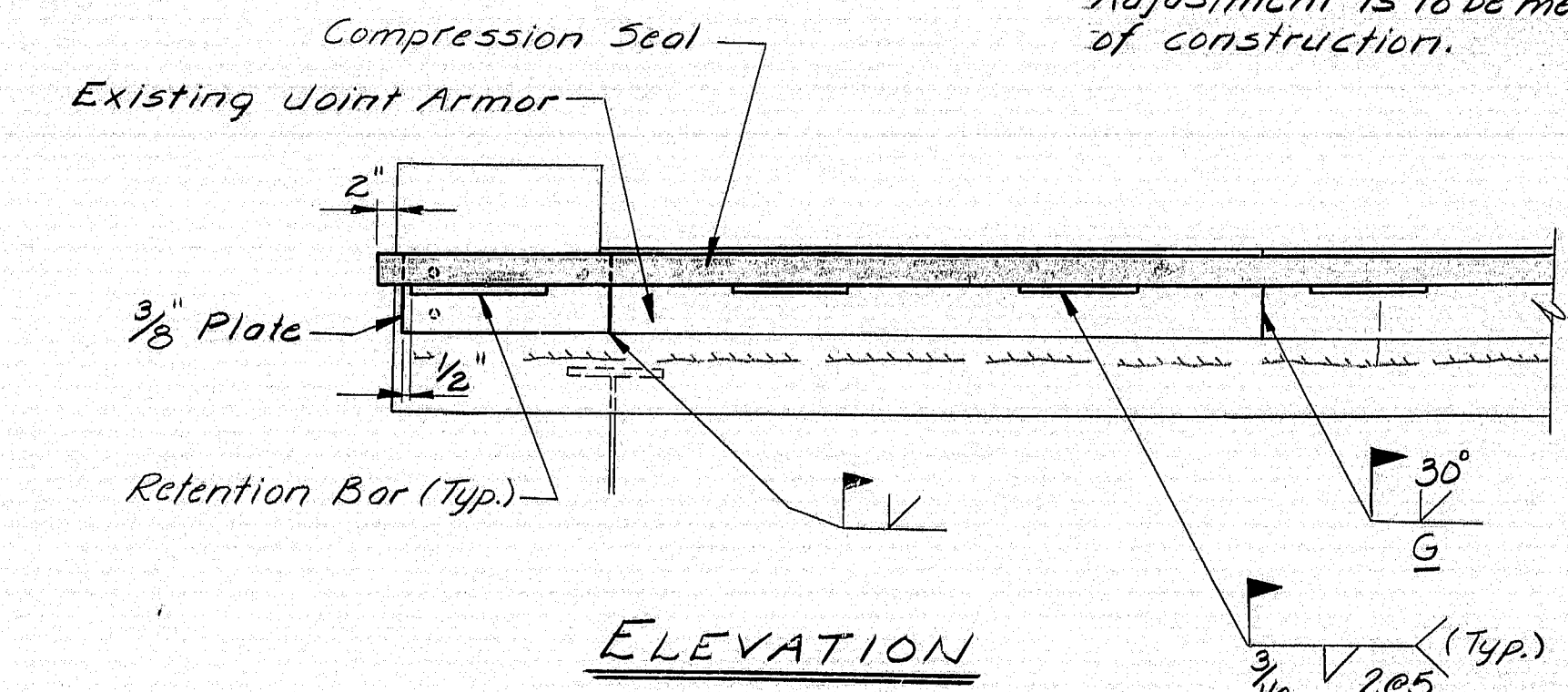
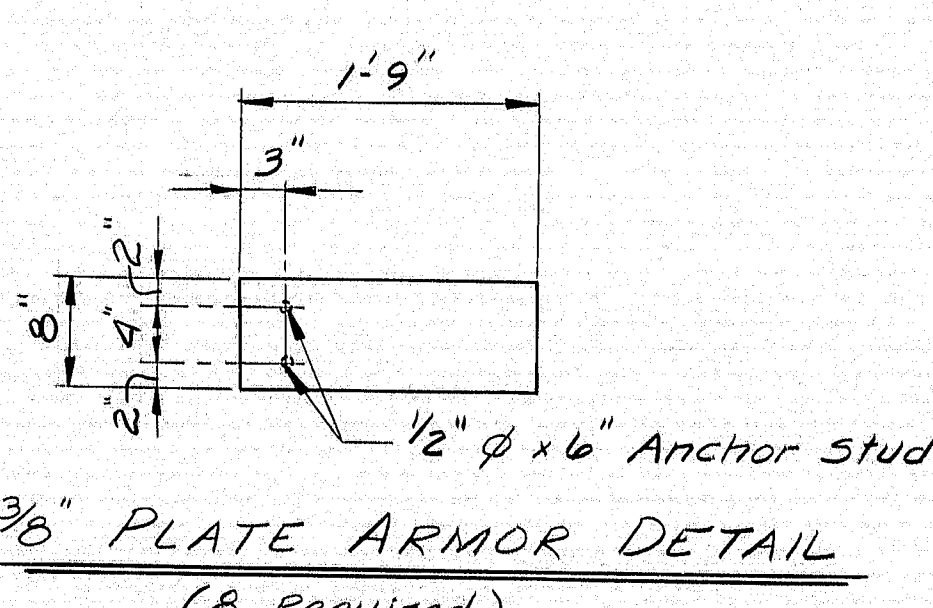
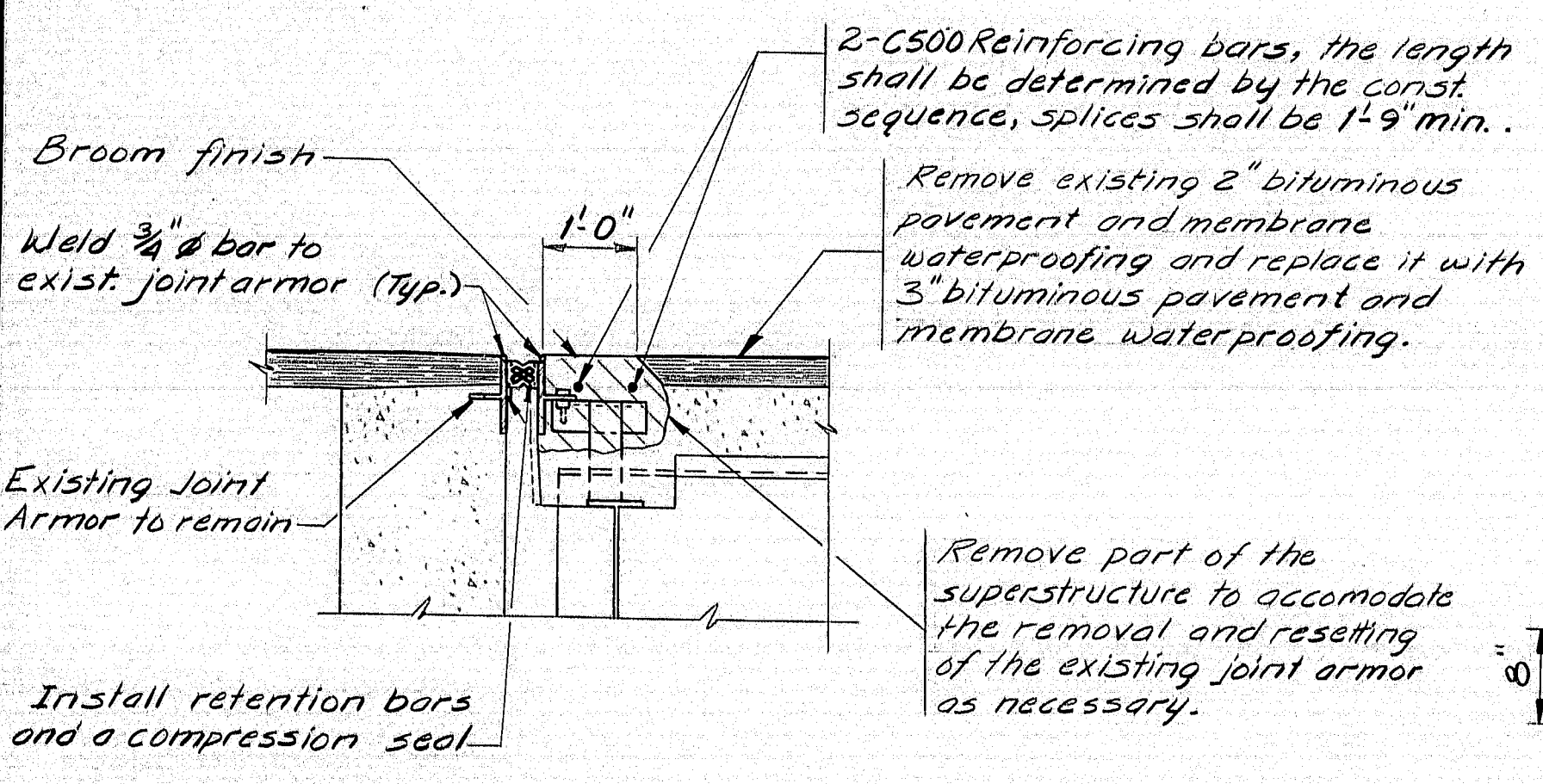
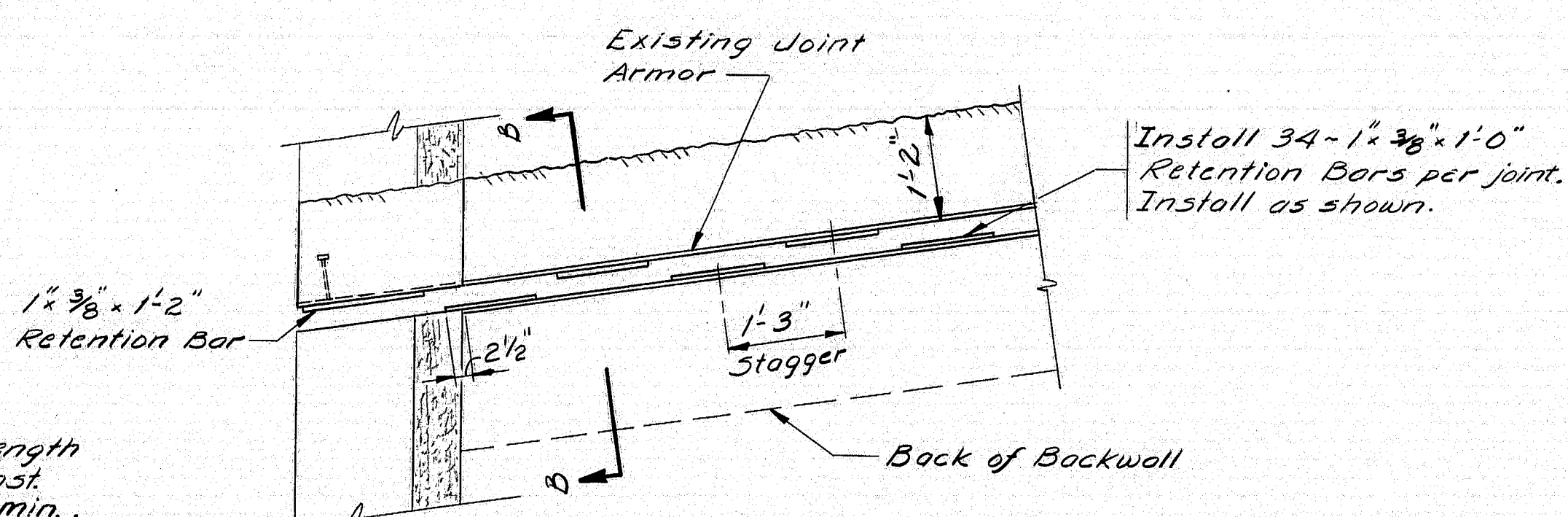
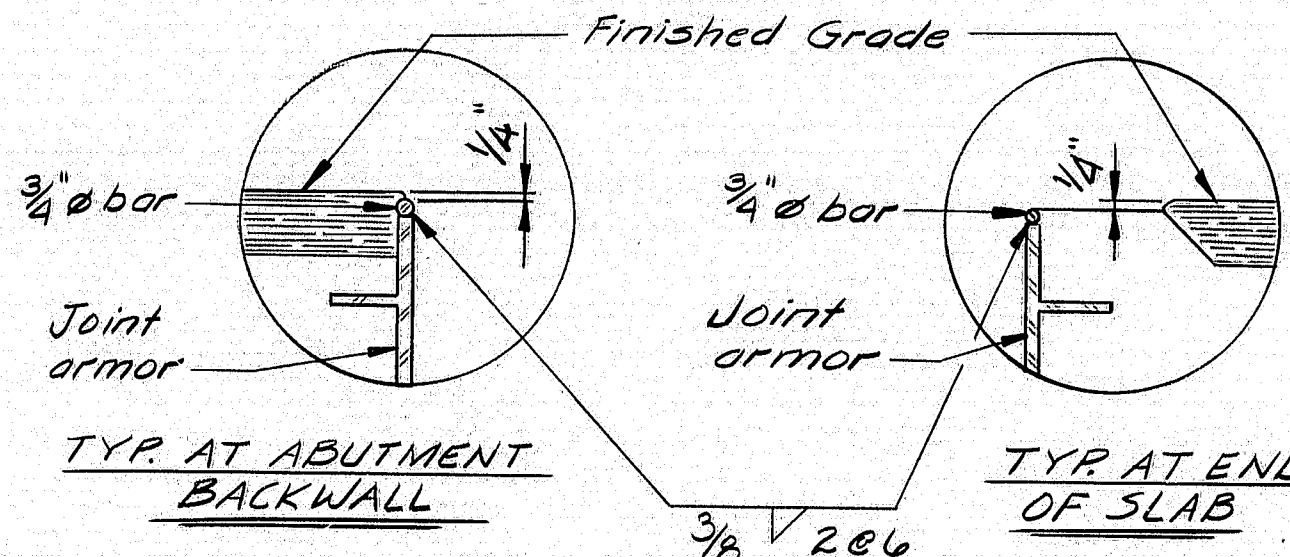
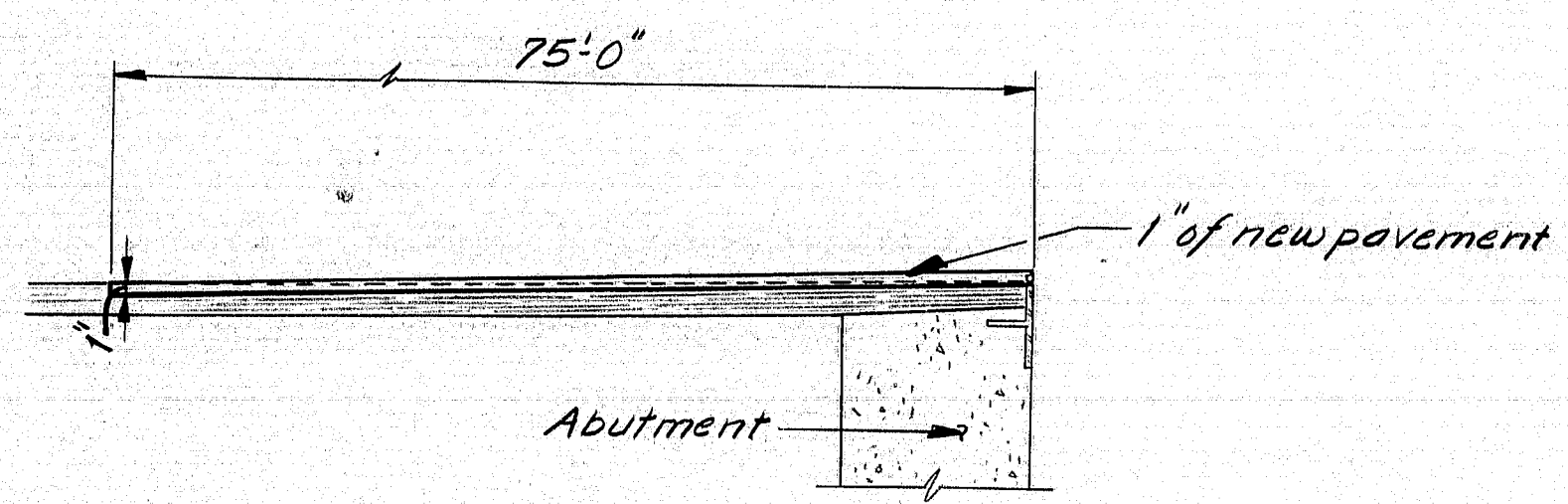
BRUNING 44129-207151



F.R.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IR-95-9(107)	5	

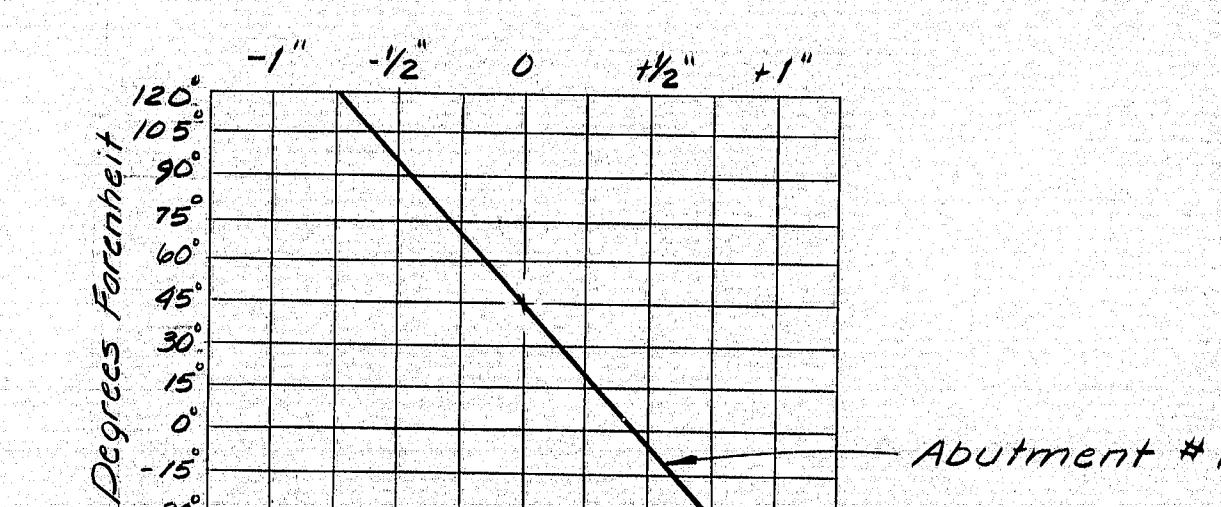


Pave 75'-0" of Approach as detailed (Typ.)  
Overlayed Full Length Between Bridges.



### GENERAL NOTES:

- Form a 1" V-groove on the fascias at the horizontal joint between the curb and slab.
- Depress new pavement around drain, shape to fit crown and grade.
- Reinforcing steel to have 2" min. cover unless otherwise indicated.
- The 3/8" Plate and #5 reinf bars shall be incidental to item 520.24.
- The armored joint shall be cut as required for stage construction.
- The removal of the existing bituminous pavement on the approaches shall be incidental to item 202.127.



### COMPRESSION SEAL ADJUSTMENT CHART

- The seals to be furnished shall have a minimum Movement Rating of 1/2" at Abut. #1, 1/2" at Abut. #2.
- The seal shall be approved by the Engineer prior to fabrication of the joint armor, placement of retention bars.
- The joint opening will vary depending on the dimensions of the seal selected by the Contractor. The joint opening shall be set according to the opening shown on the approved shop detail drawings.
- The Compression Seal adjustment chart shows the adjustment necessary to adjust the joint opening shown on the shop detail drawings for temps other than 45°F. Adjustment is to be measured parallel to the centerline of construction.

AS BUILT 1985

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

INTERSTATE 95  
OVER  
ROUTE 116  
MEDWAY

SUPERSTRUCTURE PLAN  
& DETAILS

SHEET 5 OF 9 AUGUSTA, MAINE

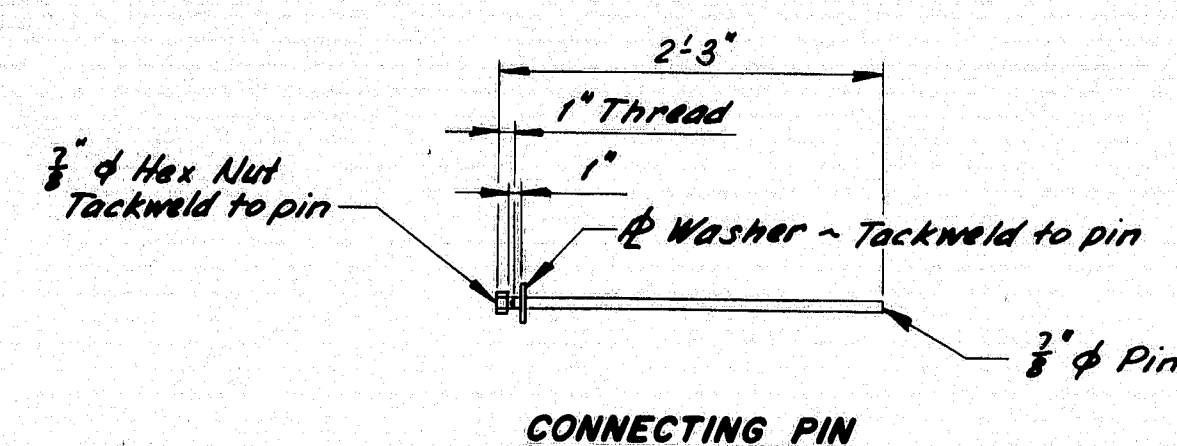
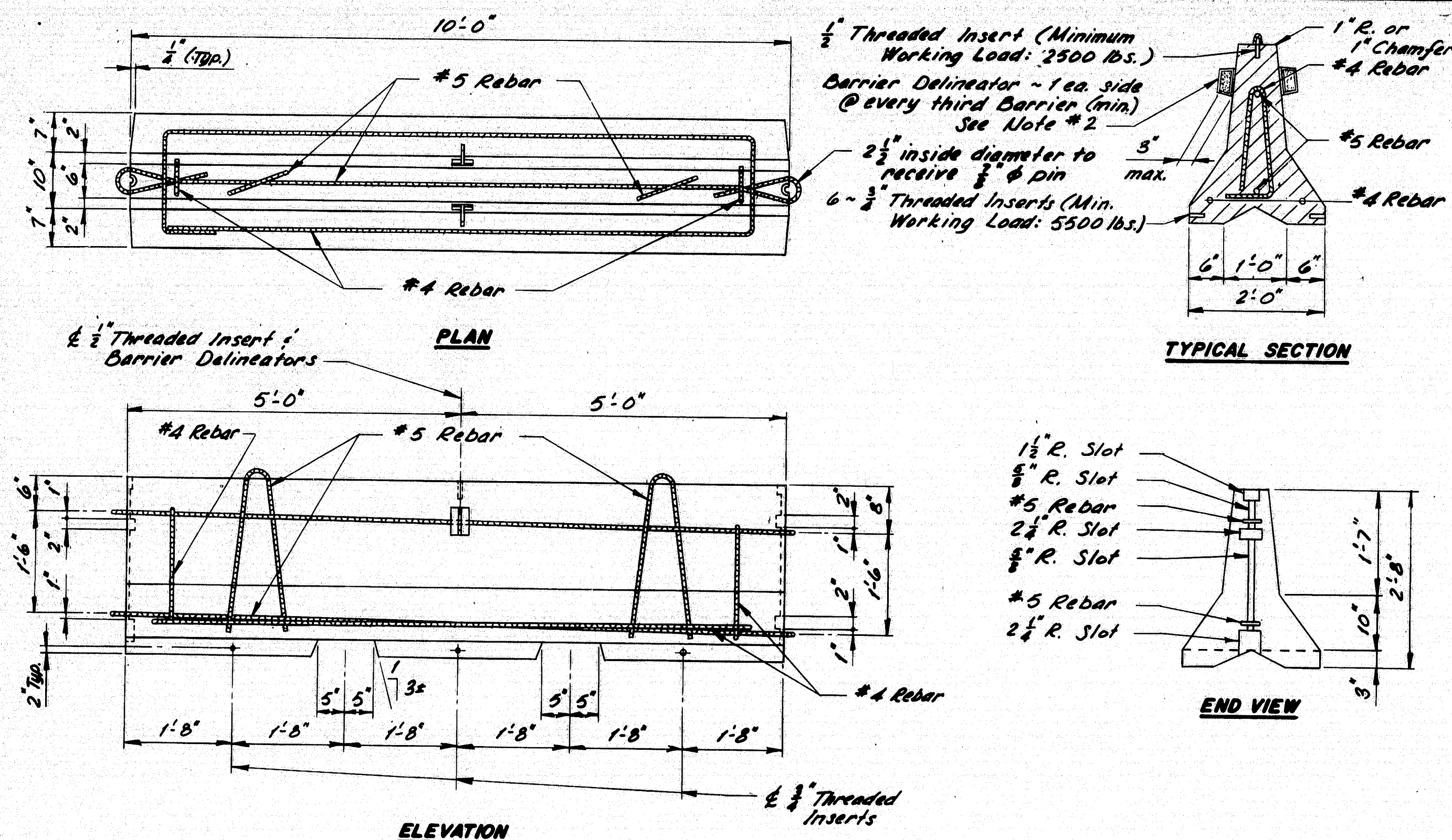
R94-199

PROJECT DESIGN ENGINEER	DATE
BY L.S.B.	7-85
CHECKED T.T.A.	7-85
REVISIONS	
FIELD CHANGES	

BRUNING 44-132-28710-1



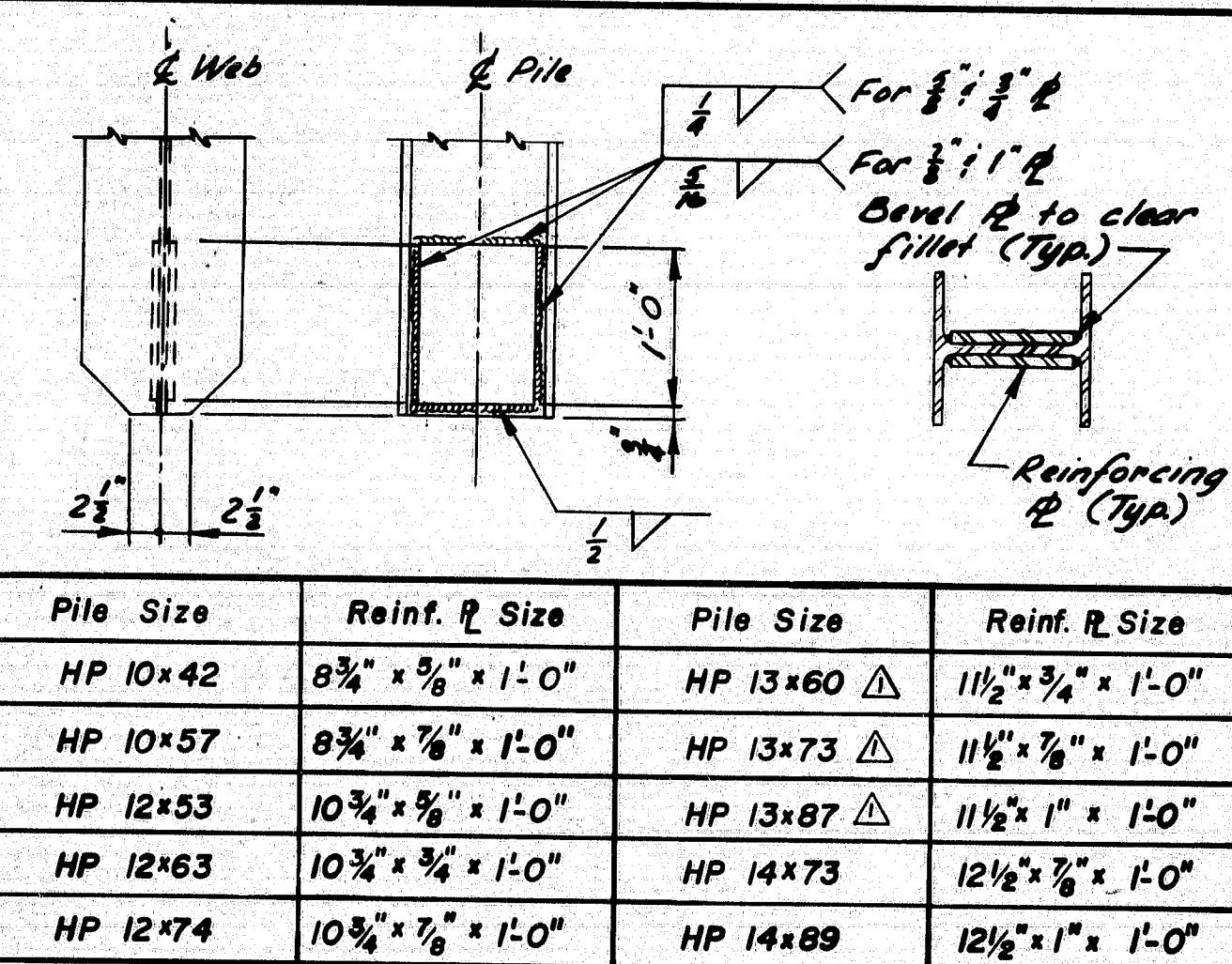
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	TR-95-9(107)	6	9



#### NOTES:

- The reinforcing steel, and connections, lifting arrangement, and sizes and locations of hold-down inserts are advisory only. It shall be the Contractor's responsibility to provide adequate reinforcing, and connections, lifting points, and hold-down arrangements.
- Barrier Delineators shall be bi-directional with a minimum effective reflex area of 8.0 square inches as approved by the Engineer. The Reflector shall preferably be of Methyl Methacrylate, and the Housing of Acrylonitrile Butadiene Styrene.

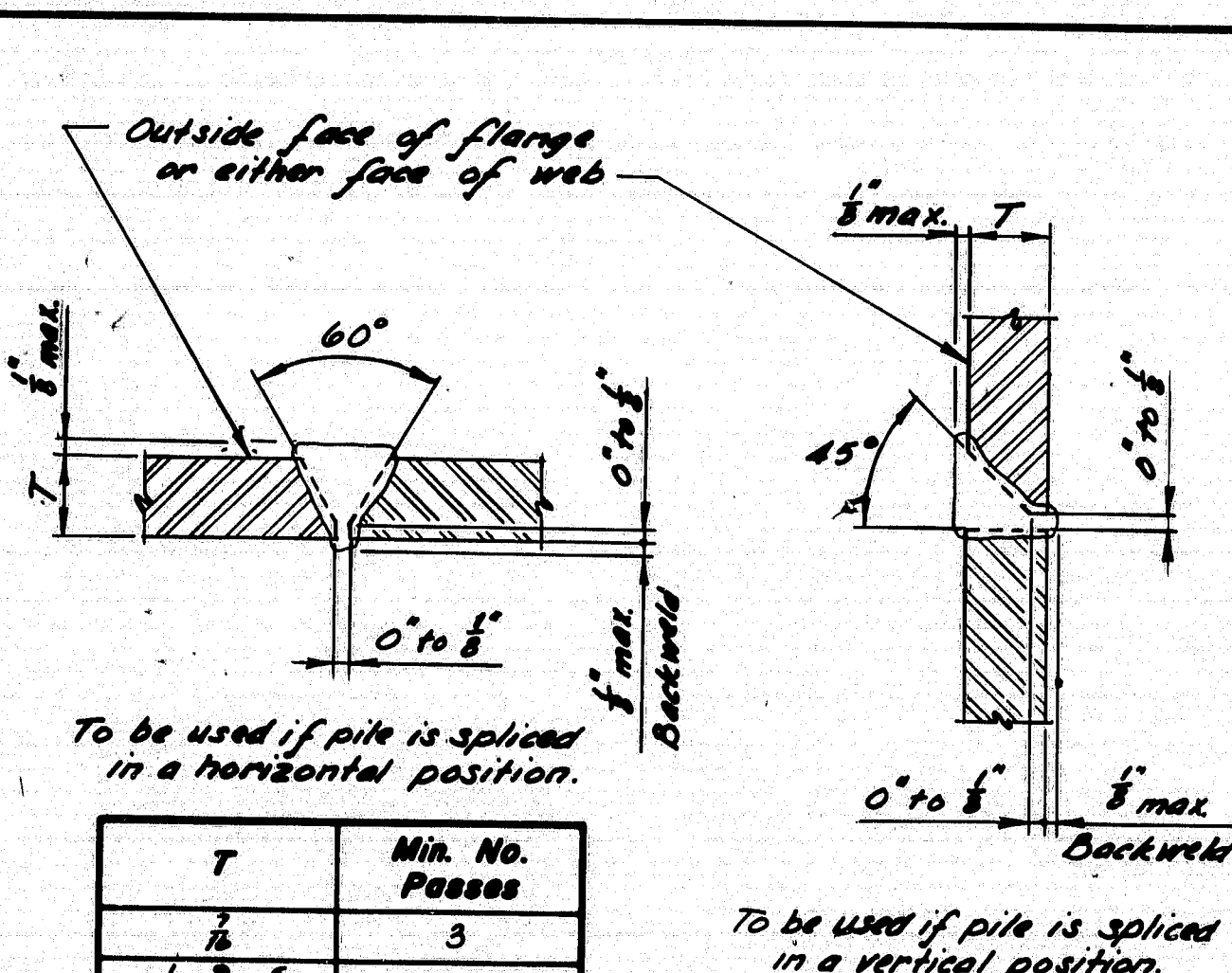
**TEMPORARY CONCRETE BARRIER - TYPE 1**



#### NOTES:

- Alternate Pointed Reinforced Pile Tip may be used if they have at least the cross-sectional area of the pile tip shown and are approved by the Engineer.
- Plates may be shop or field welded.
- Use Manual Shielded Metal-Arc Process and 6010, 6011, or 6012 electrodes, unless a different process has been approved by the Engineer.
- Electrodes shall be dry when used, in accordance with the provisions of A.W.S. Spec. D1.1, as amended by AASHTO.

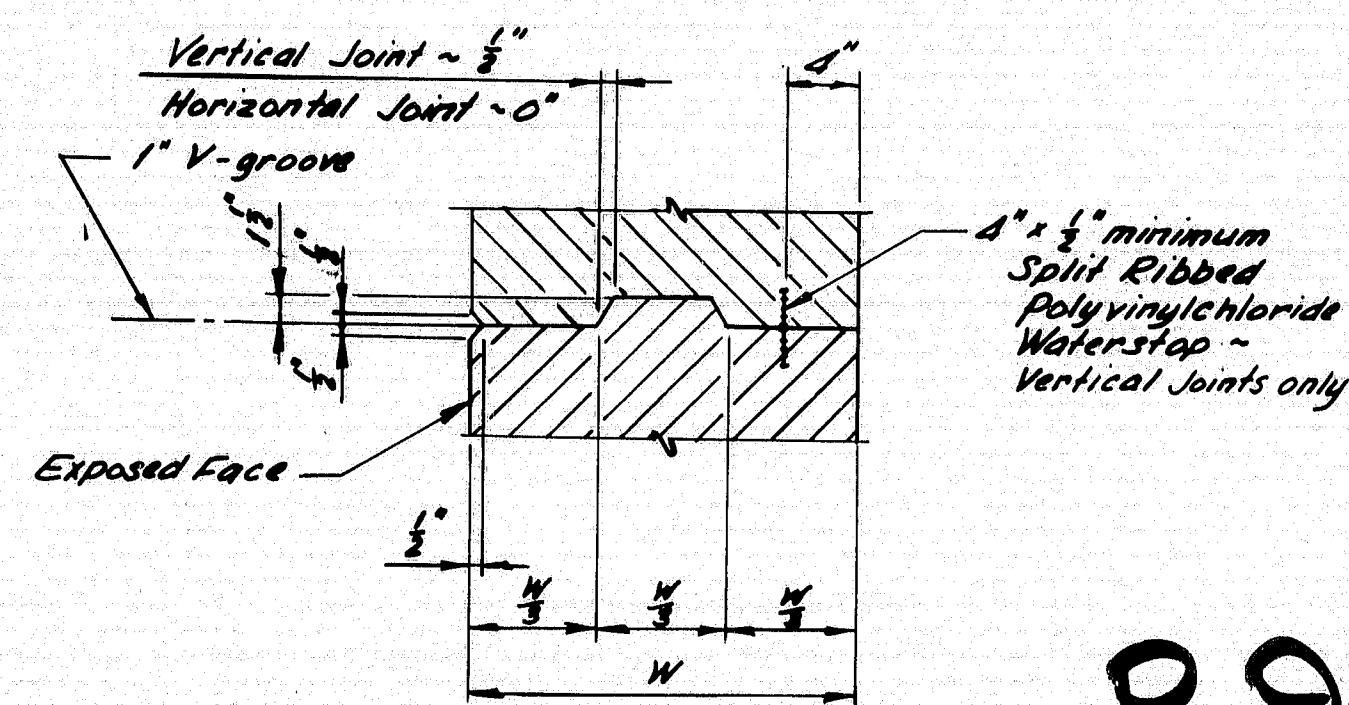
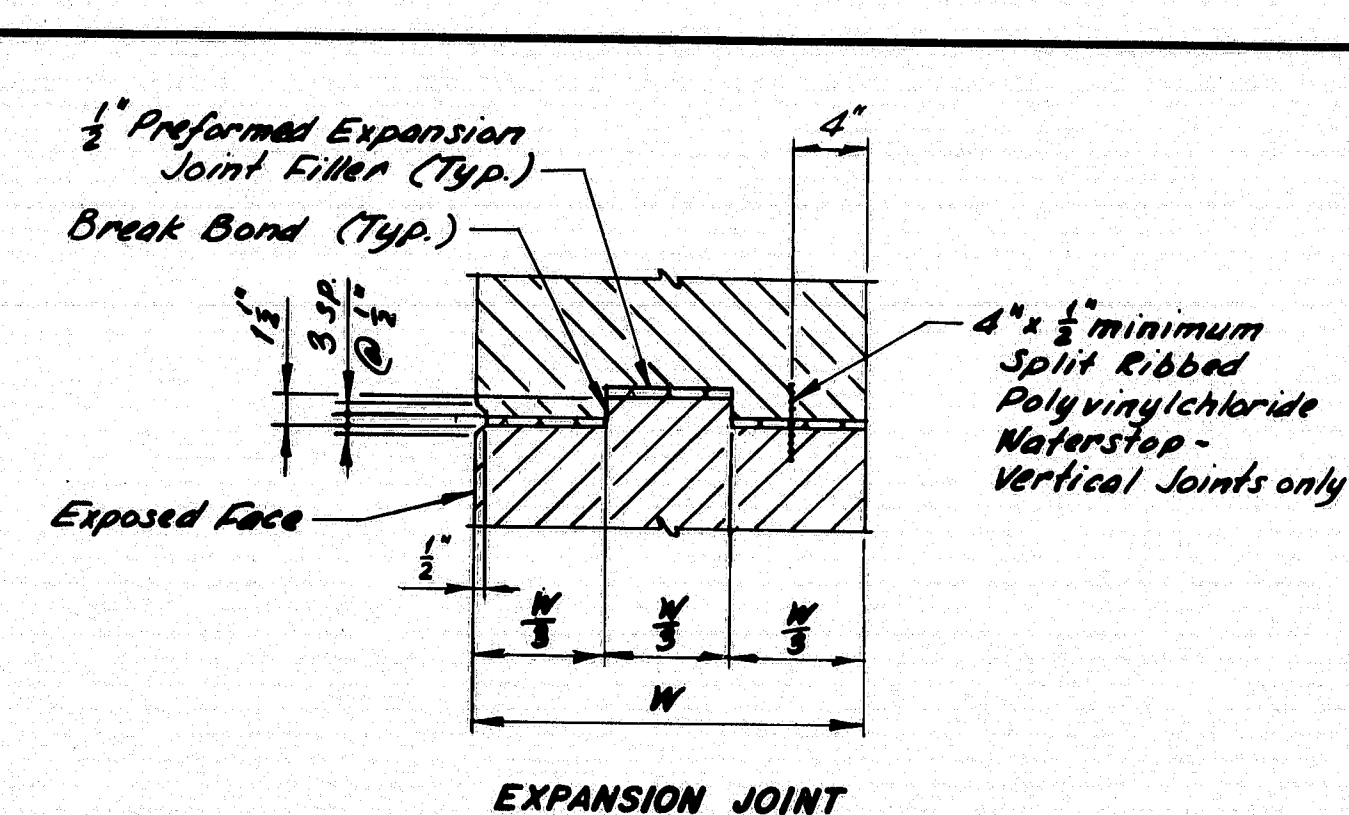
**POINTED REINFORCED PILE TIP**



#### NOTES:

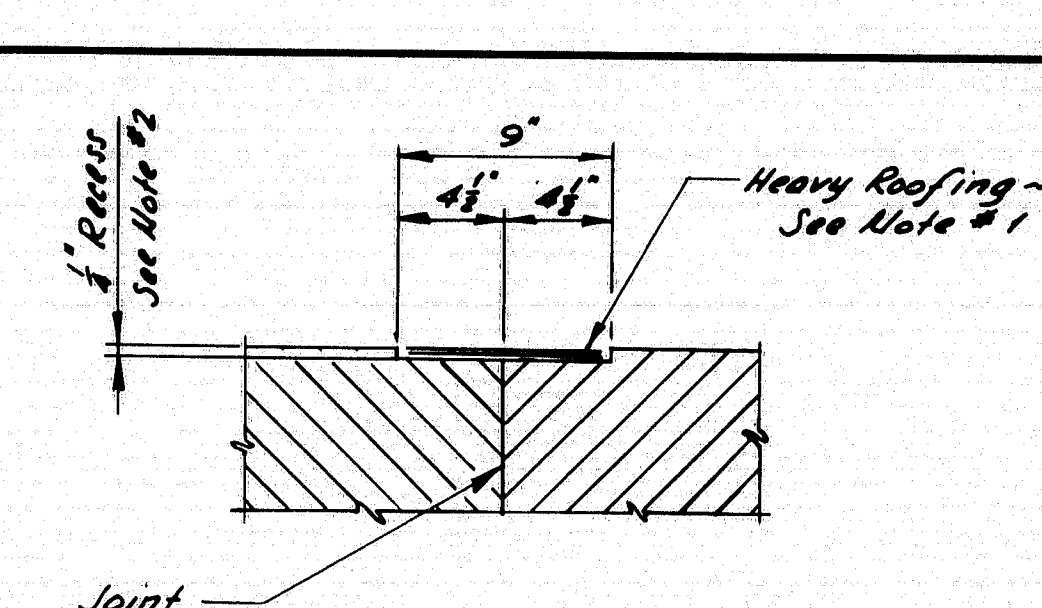
- All cutting shall be done with the use of a mechanical guide.
- Use Manual Shielded Metal-Arc Process and 6010, 6011, or 6012 electrodes, unless a different process has been approved by the Engineer.
- Electrodes shall be dry when used, in accordance with the provisions of A.W.S. Spec. D1.1, as amended by AASHTO.
- Gouge root before welding second side.

**PILE SPLICE**



**CONSTRUCTION OR CONTRACTION JOINTS**

**CONCRETE JOINTS**



#### NOTES:

- Where called for, cover horizontal and vertical construction, contraction, or expansion joints with two (2) 9" wide layers of heavy roofing felt. Coat the concrete and back of each layer as applied with plastic roofing cement.
  - Recess the covered area 1/8" unless otherwise indicated on Design Drawings.
- NOTE: If there is a conflict between this Standard Detail and the Design Drawings, the requirements of the Design Drawings shall be followed.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**STANDARD DETAILS**  
(BD 127-81)

**MISCELLANEOUS DETAILS**  
TEMP. CONC. BARRIER - TYPE 1  
POINTED REINFORCED PILE TIP  
PILE SPLICE - CONC. JOINTS  
CONCRETE JOINT COVER

ADDED NOTE	1-85
Added 13 HP's	7-83
REVISIONS	Date

SHEET 6 OF 9 AUGUSTA, MAINE JUNE 1981

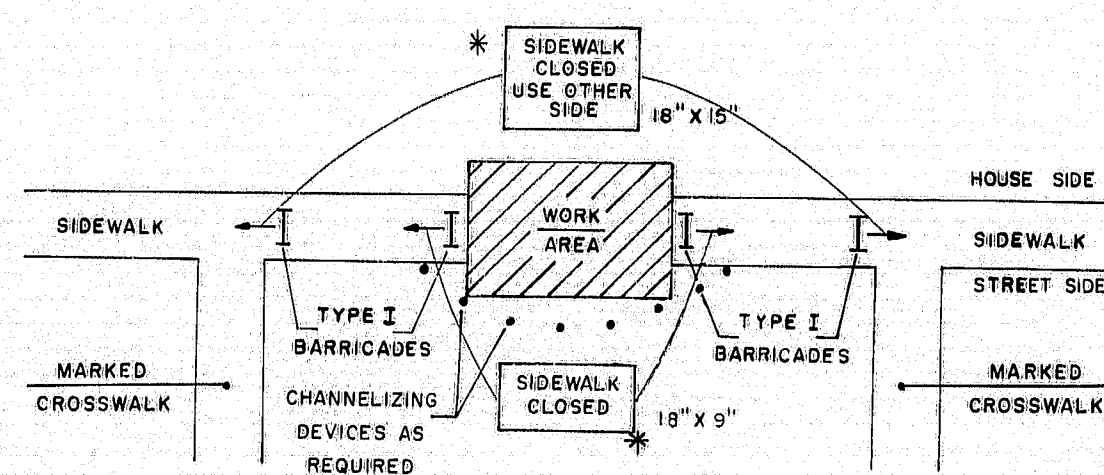
Medway

**R94-200**

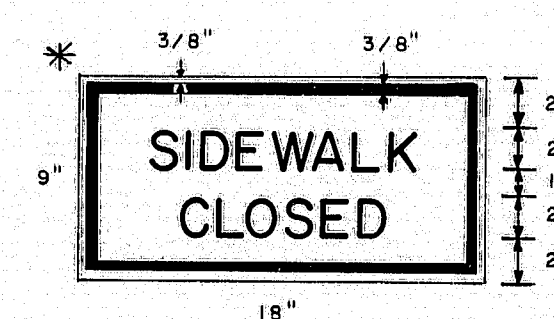
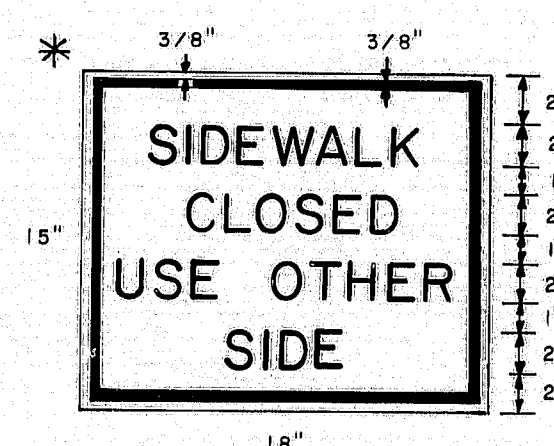


F.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IR 95-9007	7	9

\* NON-REFLECTORIZED WHITE BACKGROUND, BLACK TEXT  
AND BORDER-2" SERIES C UPPER CASE LETTERS

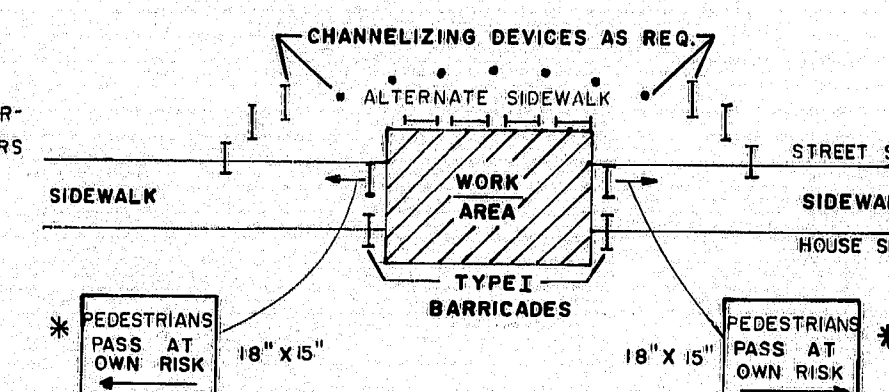


**SIDEWALK CLOSURE  
WITHOUT ALTERNATE SIDEWALK**

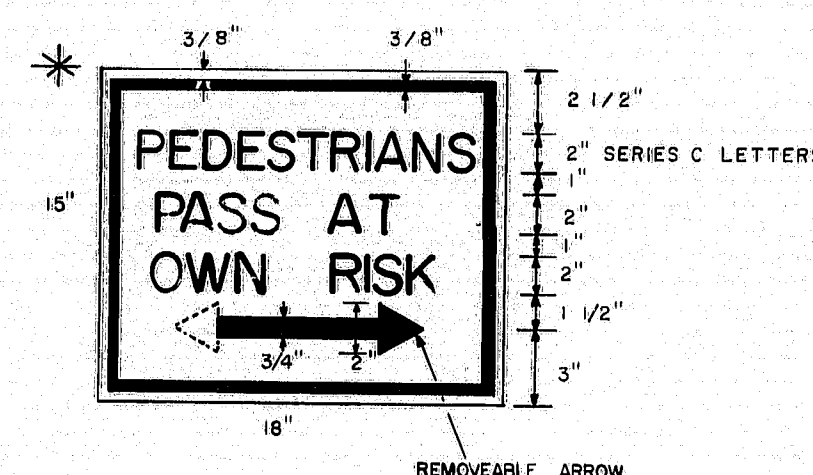


A

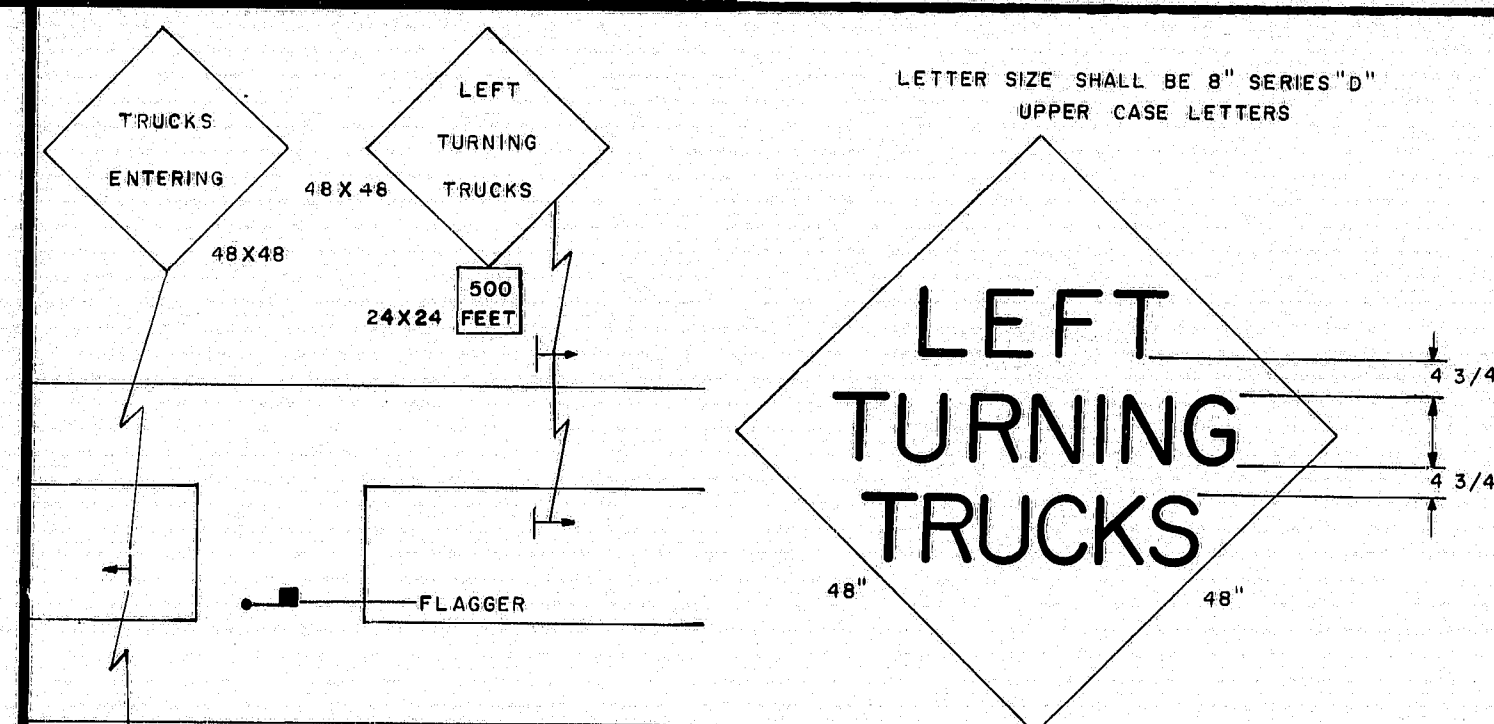
\* NON-REFLECTORIZED WHITE BACKGROUND, BLACK TEXT AND BORDER-2" SERIES C UPPER CASE LETTERS



**SIDEWALK CLOSURE  
WITH ALTERNATE SIDEWALK**



B



**MEDIAN CROSSOVER**

E

#### GENERAL NOTES

- Distances shown for sign placement are nominal, exact locations shall be determined by the Engineer.
- Grades on temporary roadways through the construction zone used by the public shall not exceed 10 percent.
- Advisory speed consistent with prevailing conditions shall be as determined by the Engineer.
- Use shaded signs when specified in the Special Provisions.
- The length of tapers shall be determined from the following formulae:

$$\text{If } S \text{ is equal to or less than } 40 \text{ MPH} \\ L = (W \times S \times S) / 60$$

$$\text{If } S \text{ is equal to or greater than } 45 \text{ MPH} \\ L = WS$$

Where:

L = taper length in feet  
S = operating speed in MPH  
W = width of roadway to be closed in feet

Taper lengths shall be rounded to the nearest five feet.

It may be required to extend lane closure tapers to provide a smooth transition where geometric alignment reduces sight distance.

- The maximum longitudinal spacing of channelizing devices shall conform to the following:
  - 50' feet through work areas
  - A distance in tapers equal to the numerical value of the operating speed, i.e., 45 MPH = 45 feet
  - In all areas not covered above maximum spacing shall be as follows:
 

Radius of curve	Spacing
80' to 300'	25'
301' to 700'	50'
701' to 1000'	75'

The maximum transverse spacing in tapers shall be determined from the following formula:

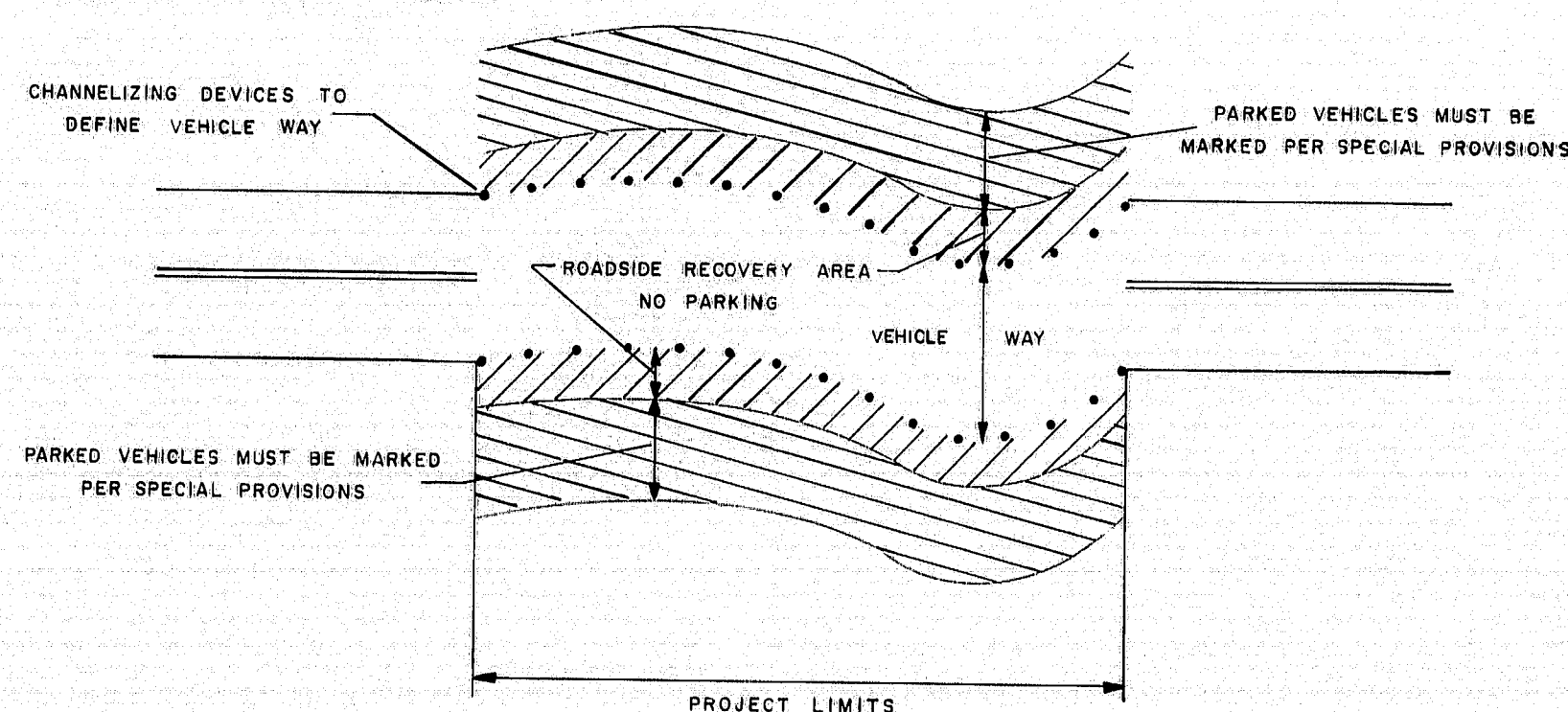
$$D = (W \times S) / L$$

Where:

D = transverse spacing in feet  
W = width of roadway to be closed in feet  
L = taper length in feet  
S = operating speed in MPH

- BORDER DIMENSIONS AND LEGEND DESIGN SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS BOOKLET.

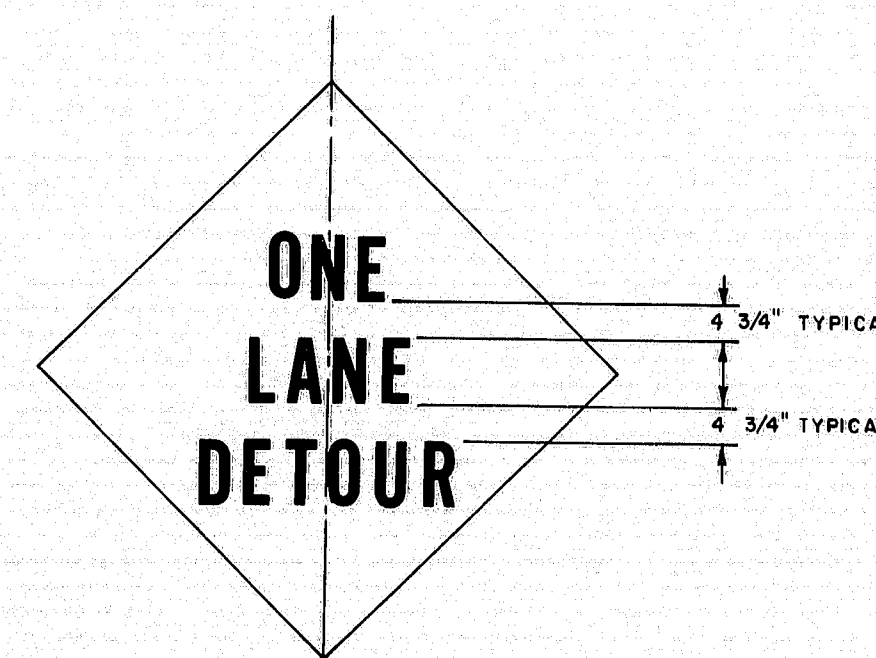
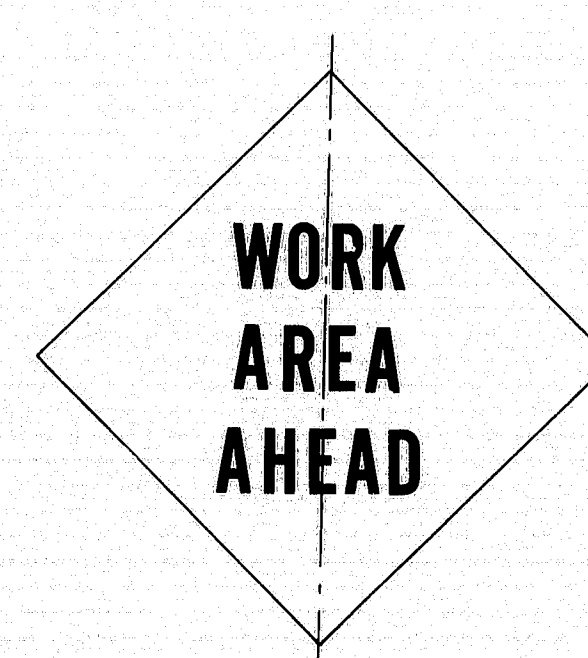
ALL DIMENSIONS AND OTHER REQUIREMENTS AS SPECIFIED IN THE SPECIAL PROVISIONS



**ROADSIDE RECOVERY AREA**

C

#### CONSTRUCTION WARNING SIGN DETAIL



- Letter size shall be 8" Series 'D'.
- Border dimensions and legend design shall conform to "Standard Highway Signs".

D

PROJECT DESIGN ENGINEER	DATE
BY	
DESIGN - DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

PLANS

#### REVISIONS

NO.	DATE	DESCRIPTION
3-4-80		GENERAL NOTES
4/3/80 PF		A,B,C,G,N

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**MAINTENANCE  
OF  
TRAFFIC  
IN CONSTRUCTION ZONES**

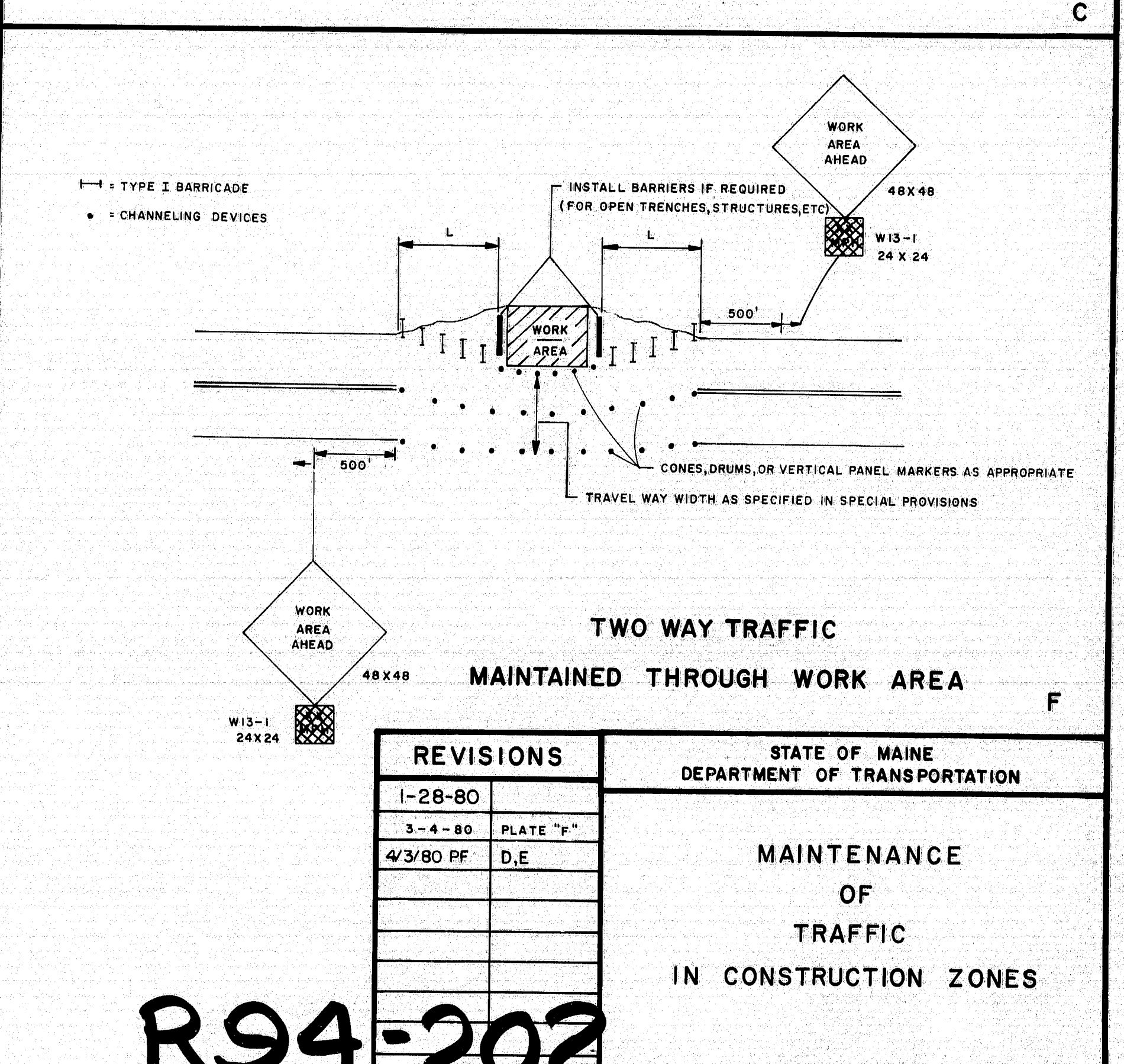
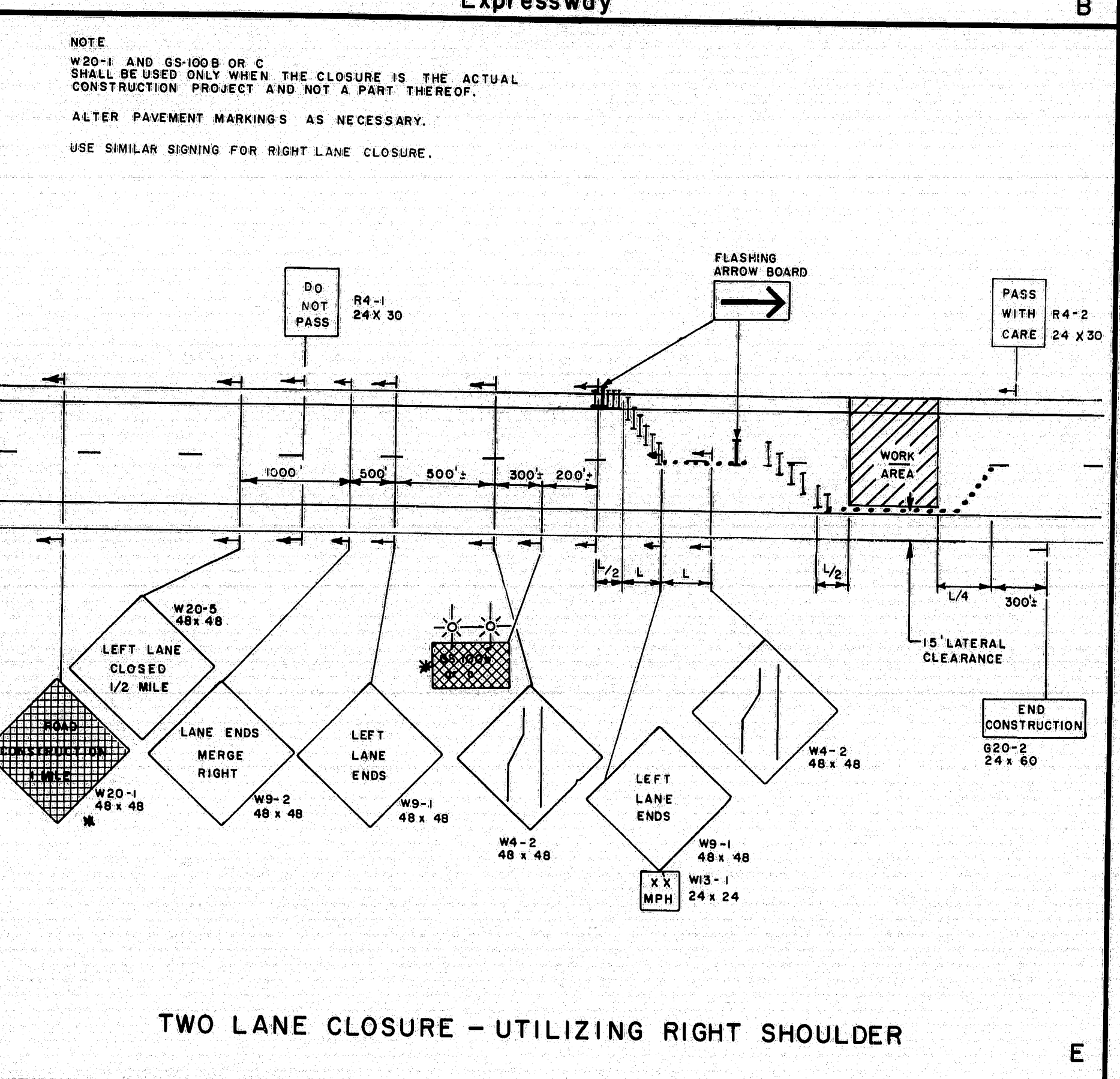
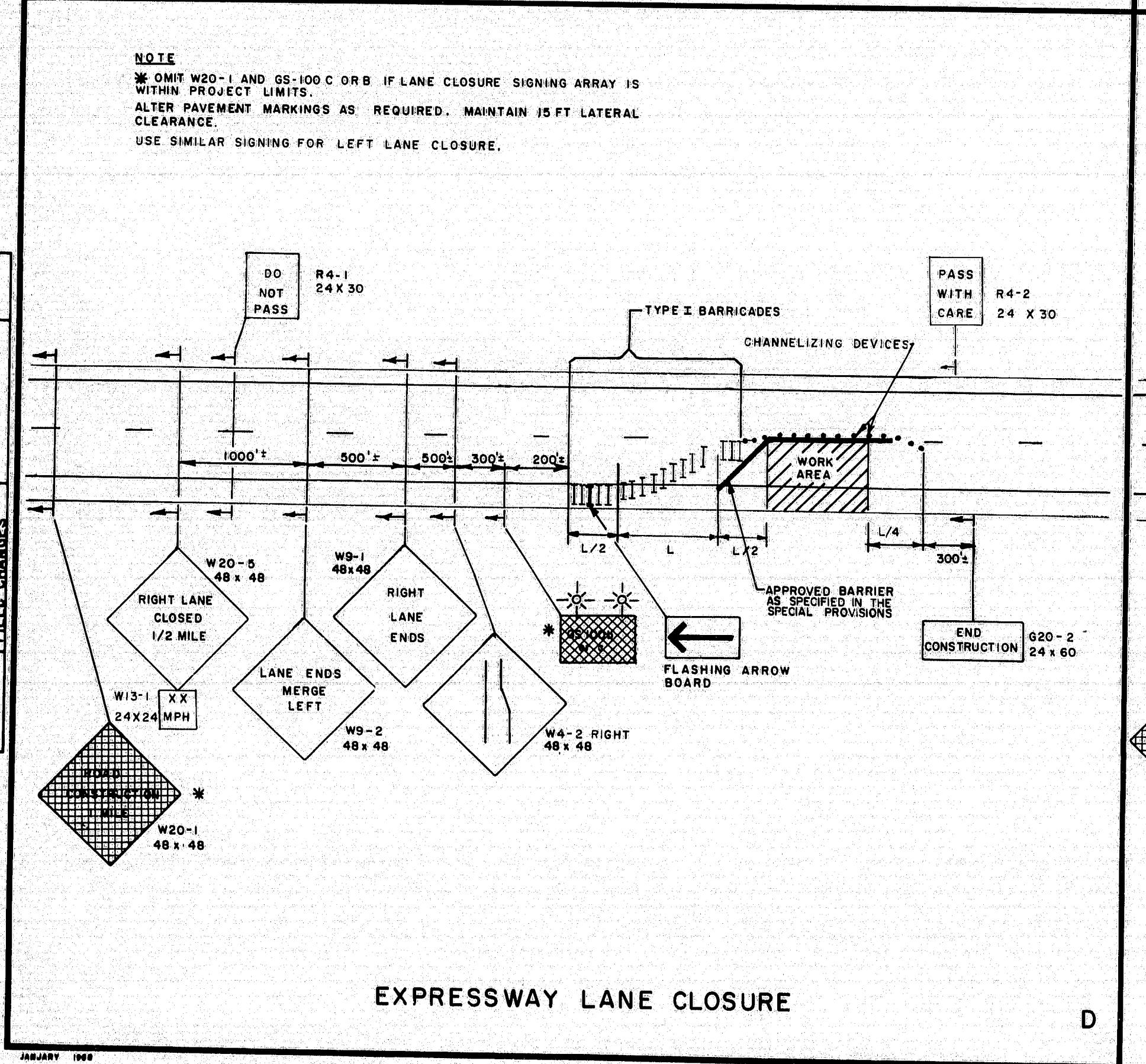
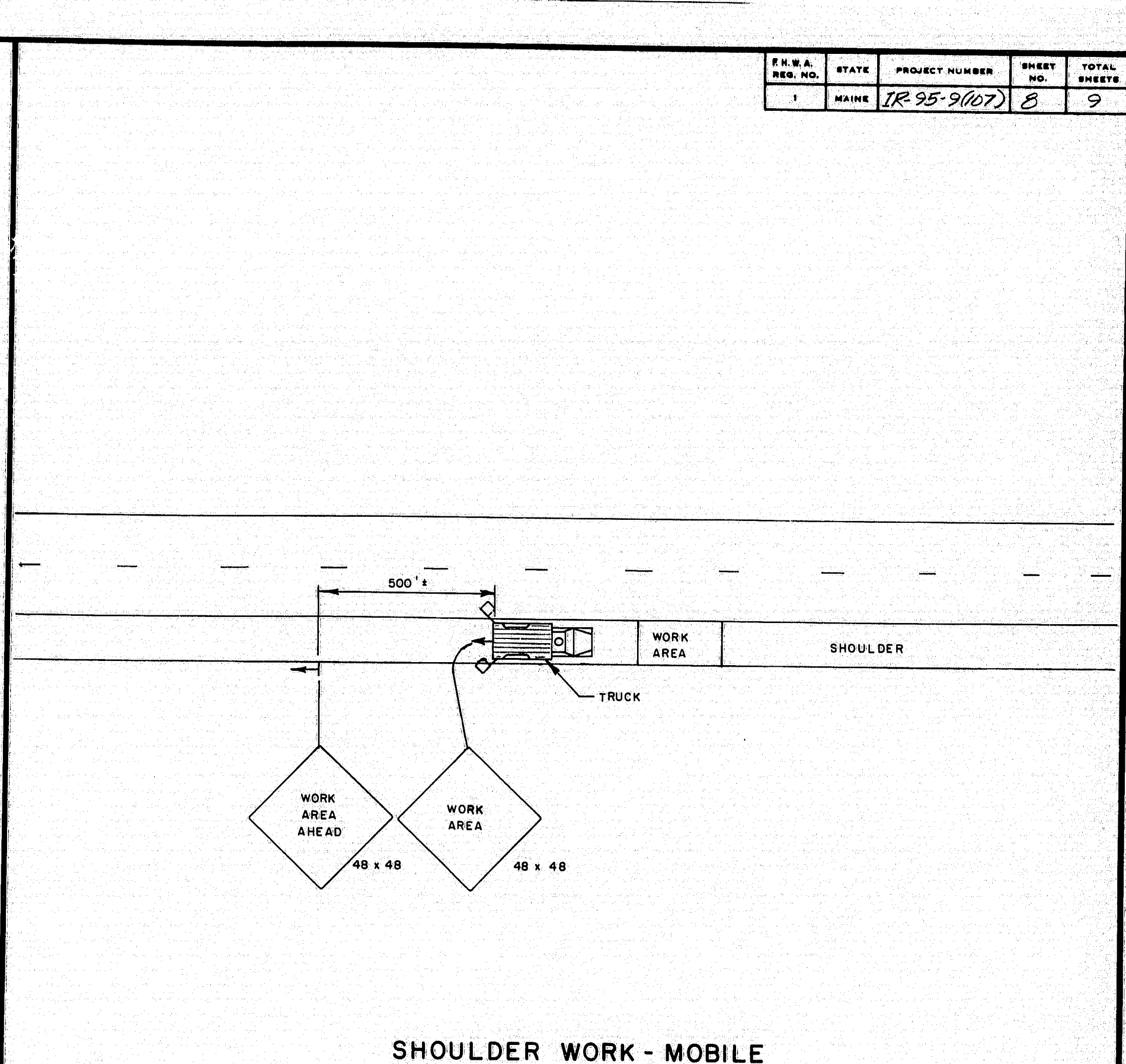
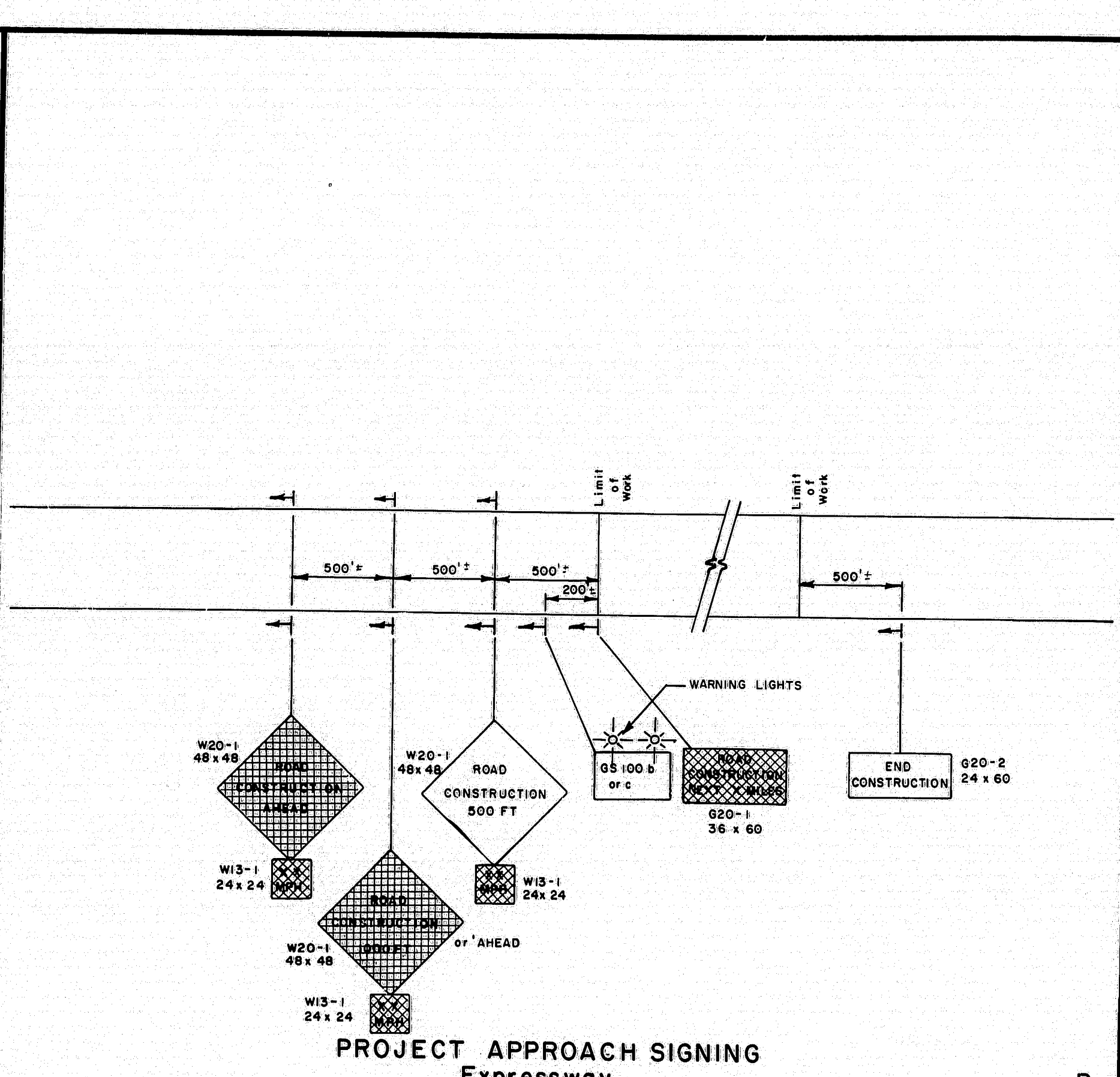
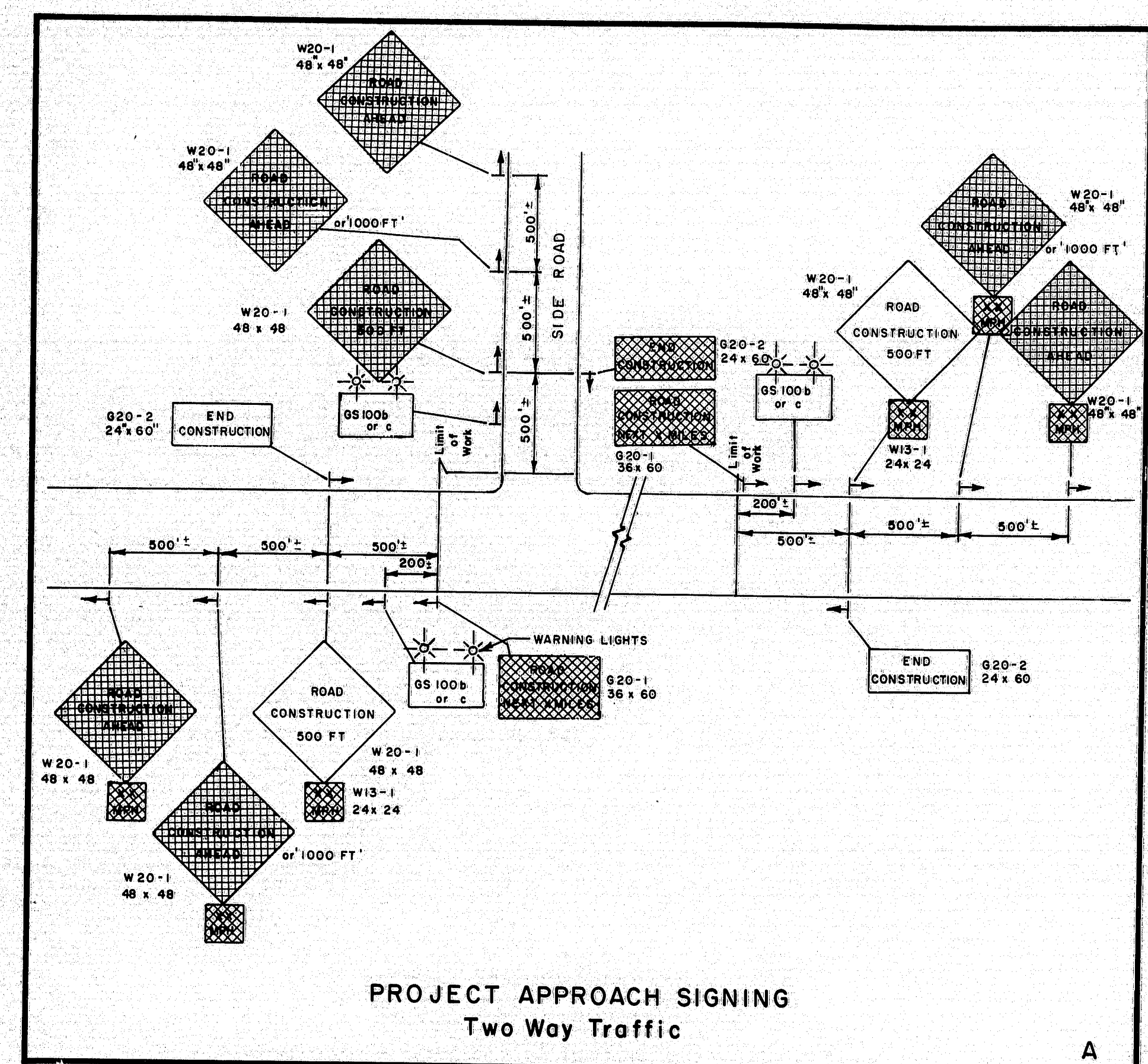
**R94-201**

SHEET 1 OF 3 AUGUSTA, MAINE

Medway



F.R.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	TR 95-9/07	8	9



NOTE  
 \* OMIT W20-1 AND GS-100C OR B IF LANE CLOSURE SIGNING ARRAY IS WITHIN PROJECT LIMITS.  
 ALTER PAVEMENT MARKINGS AS REQUIRED. MAINTAIN 15 FT LATERAL CLEARANCE.  
 USE SIMILAR SIGNING FOR LEFT LANE CLOSURE.

NOTE  
 W20-1 AND GS-100B OR C SHALL BE USED ONLY WHEN THE CLOSURE IS THE ACTUAL CONSTRUCTION PROJECT AND NOT A PART THEREOF.  
 ALTER PAVEMENT MARKINGS AS NECESSARY.  
 USE SIMILAR SIGNING FOR RIGHT LANE CLOSURE.

— TYPE I BARRICADE  
 • CHANNELIZING DEVICES

# REVISIONS

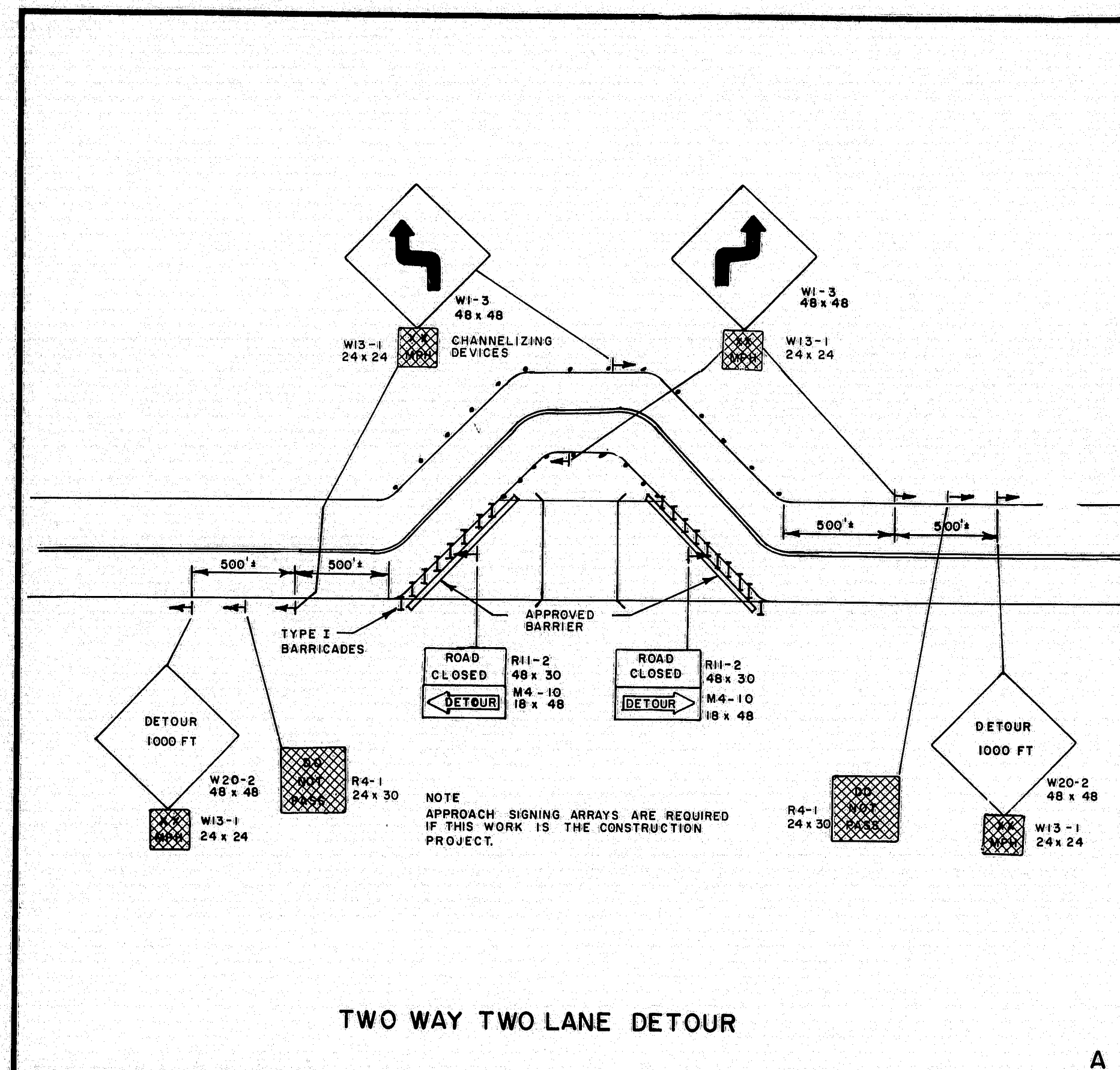
1-28-80	
3-4-80	PLATE "F"
4/3/80 PF	D,E

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION

MAINTENANCE  
 OF  
 TRAFFIC  
 IN CONSTRUCTION ZONES

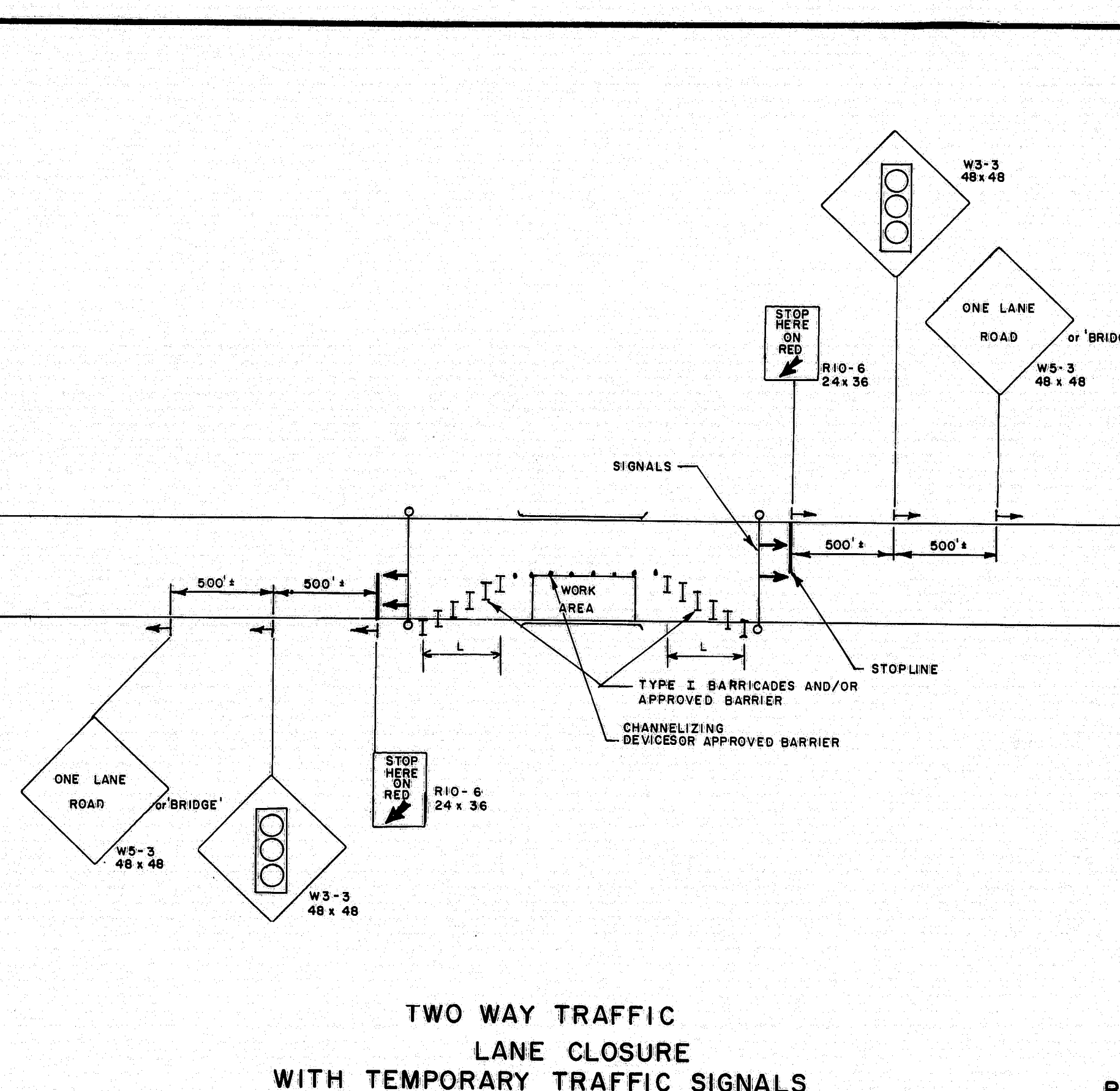
R94-202





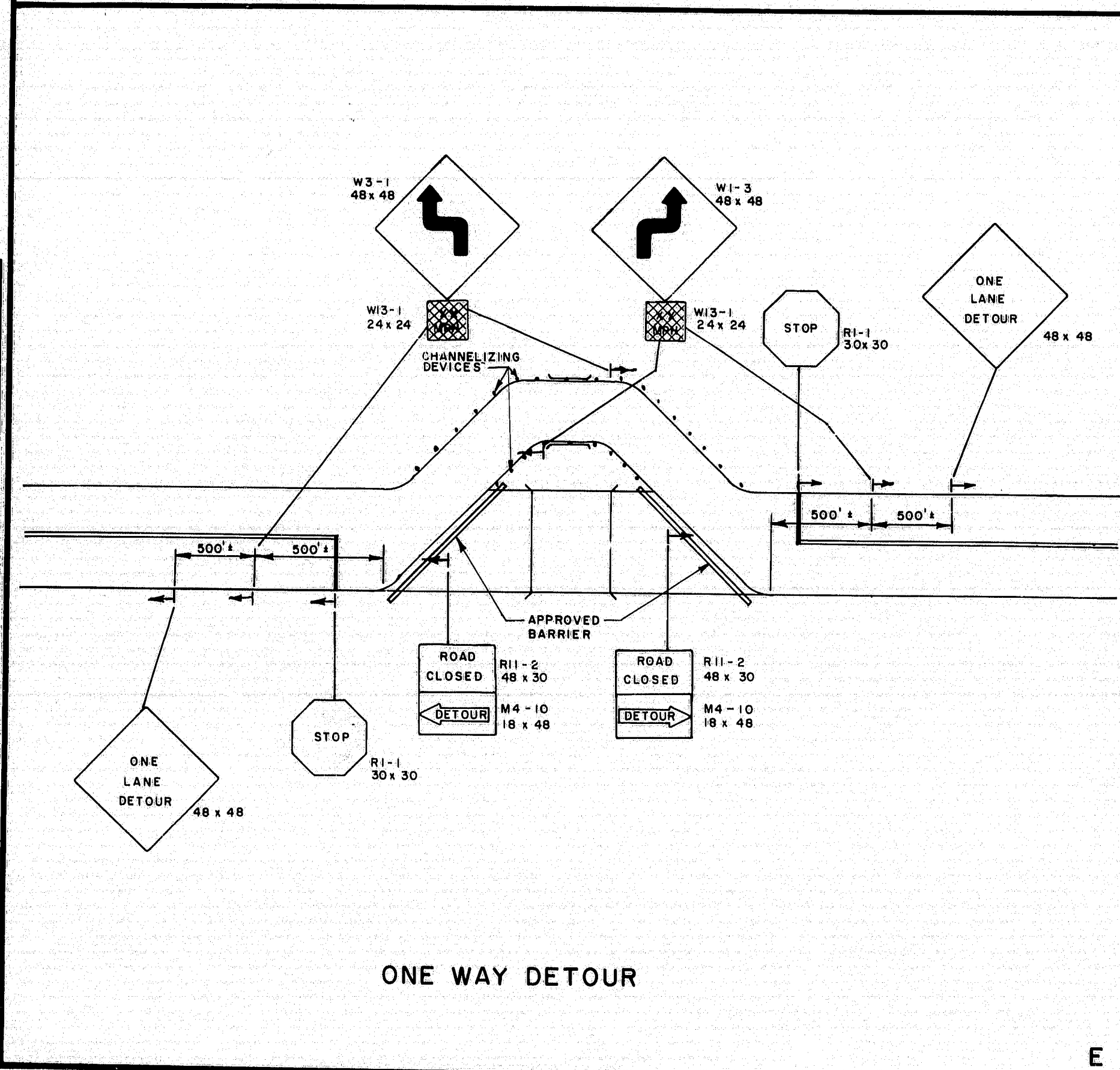
TWO WAY TWO LANE DETOUR

A



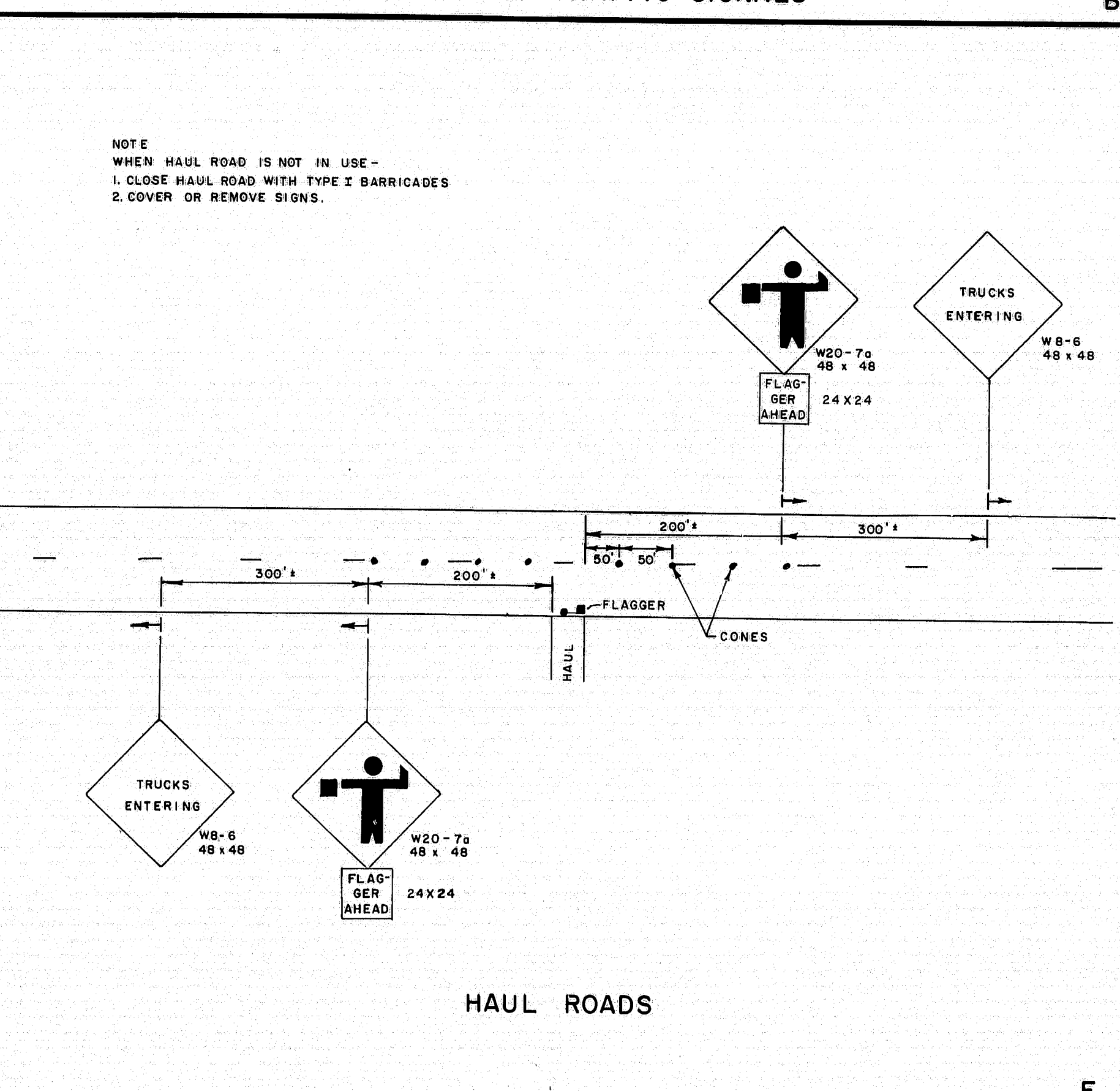
TWO WAY TRAFFIC  
LANE CLOSURE  
WITH TEMPORARY TRAFFIC SIGNALS

B



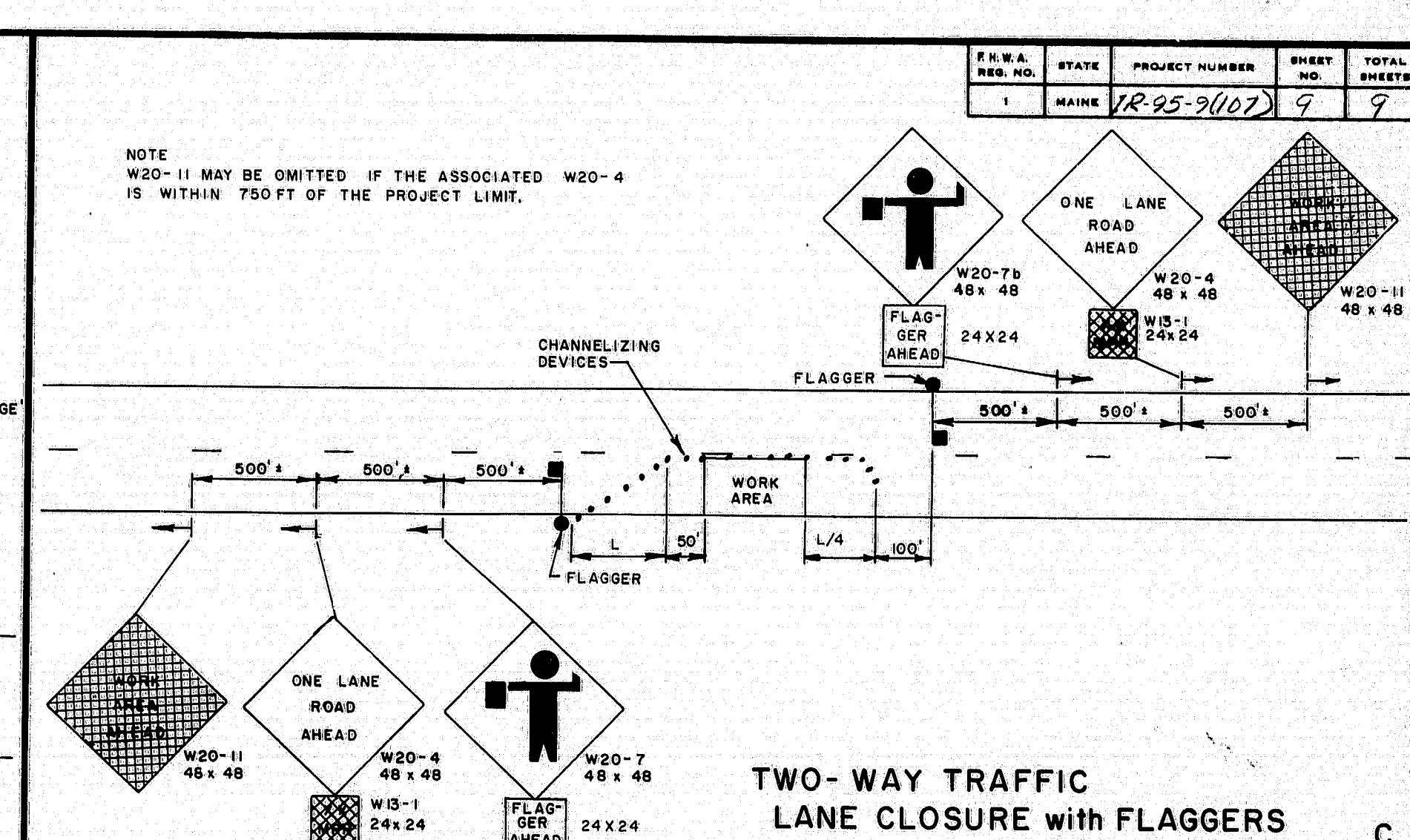
ONE WAY DETOUR

E



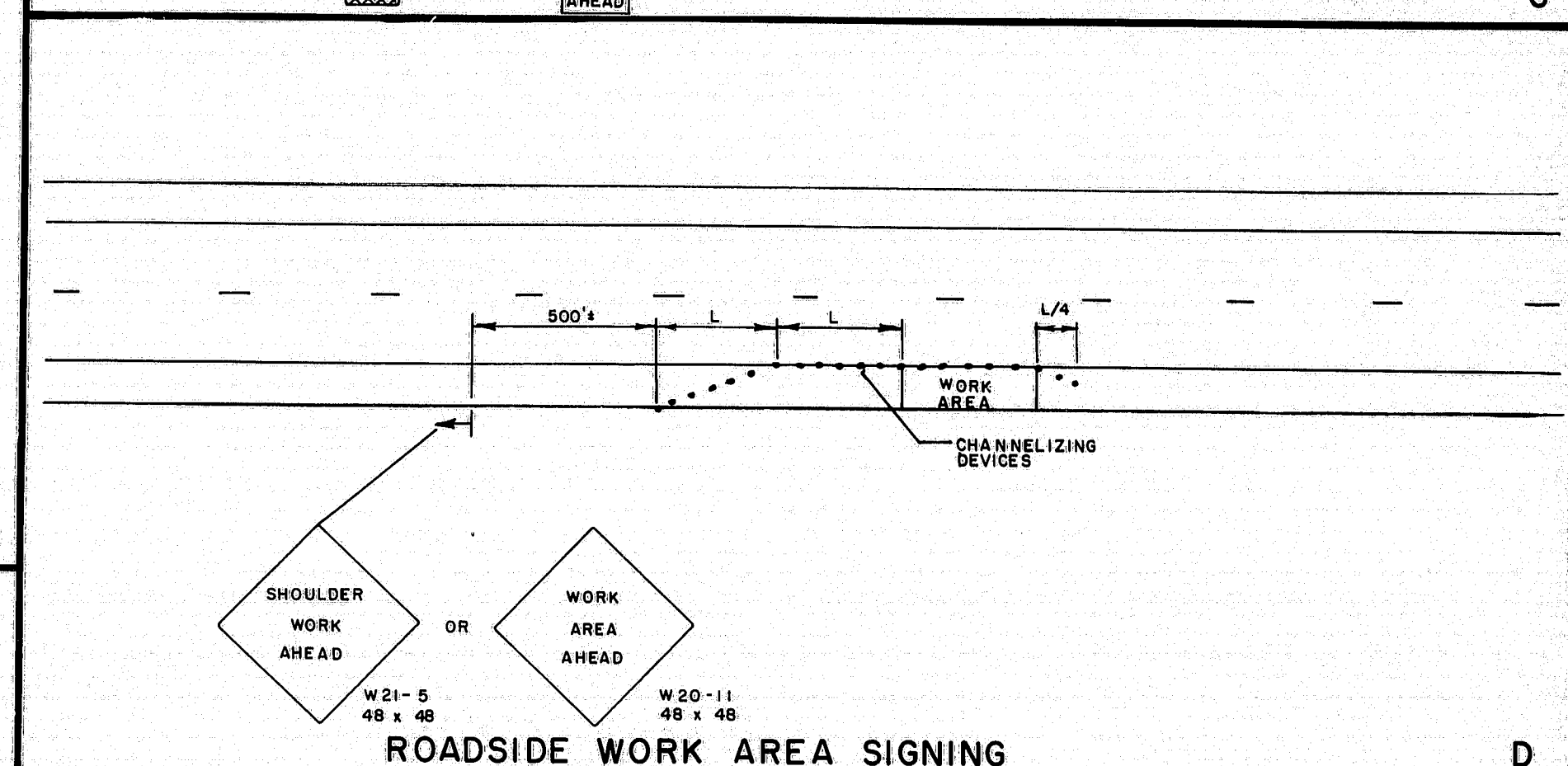
HAUL ROADS

F



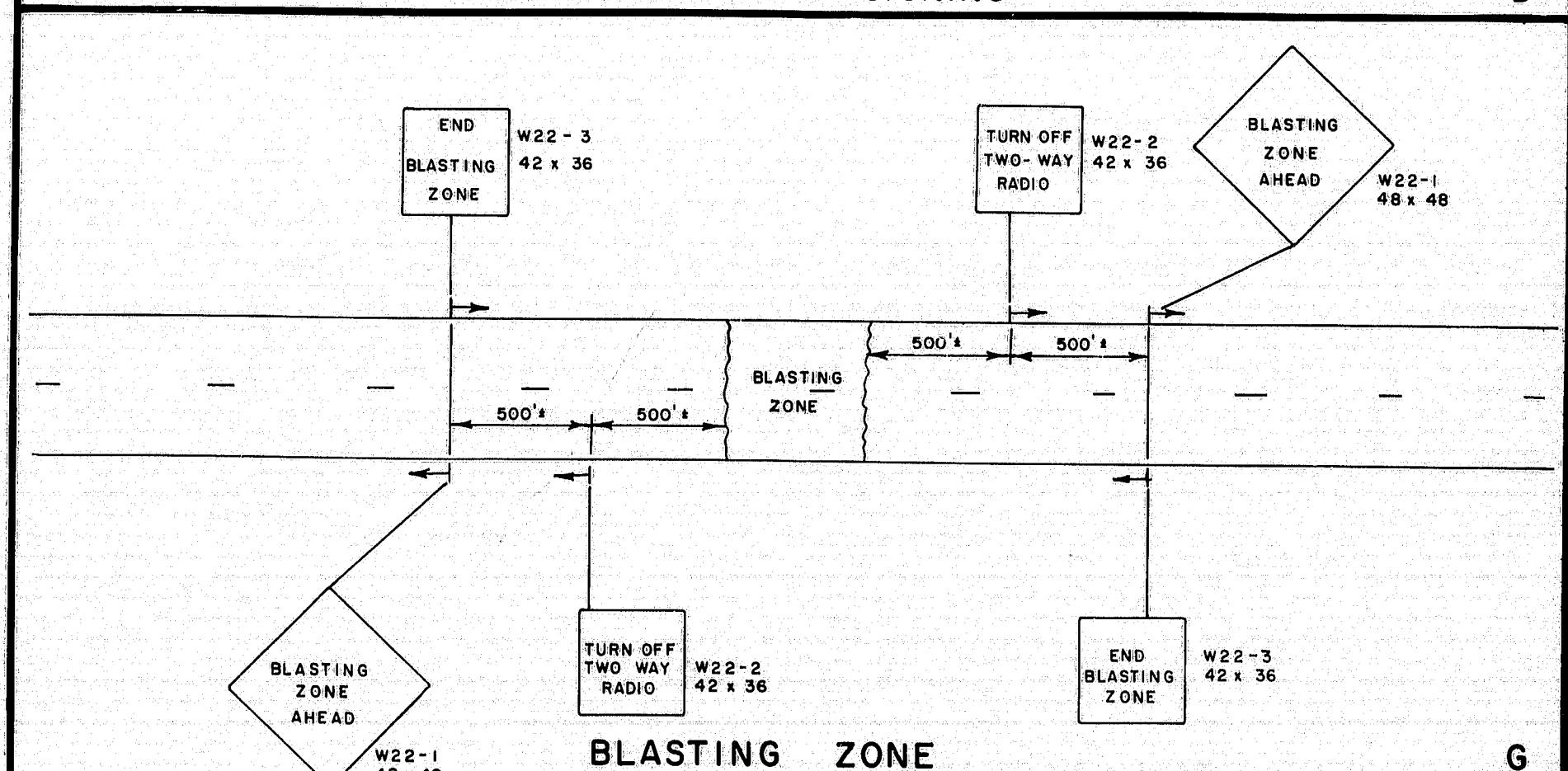
TWO-WAY TRAFFIC  
LANE CLOSURE WITH FLAGGERS

C



ROADSIDE WORK AREA SIGNING

D



BLASTING ZONE

G

REVISIONS

4/3/80 PF B, C, D

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

MAINTENANCE  
OF  
TRAFFIC  
IN CONSTRUCTION ZONES

R94-203

SHEET 3 OF 3 AUGUSTA, MAINE

JULY, 1979

Medway

5004 3500

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	
PLANS	



REEL #94  
PP. 204  
TO  
300