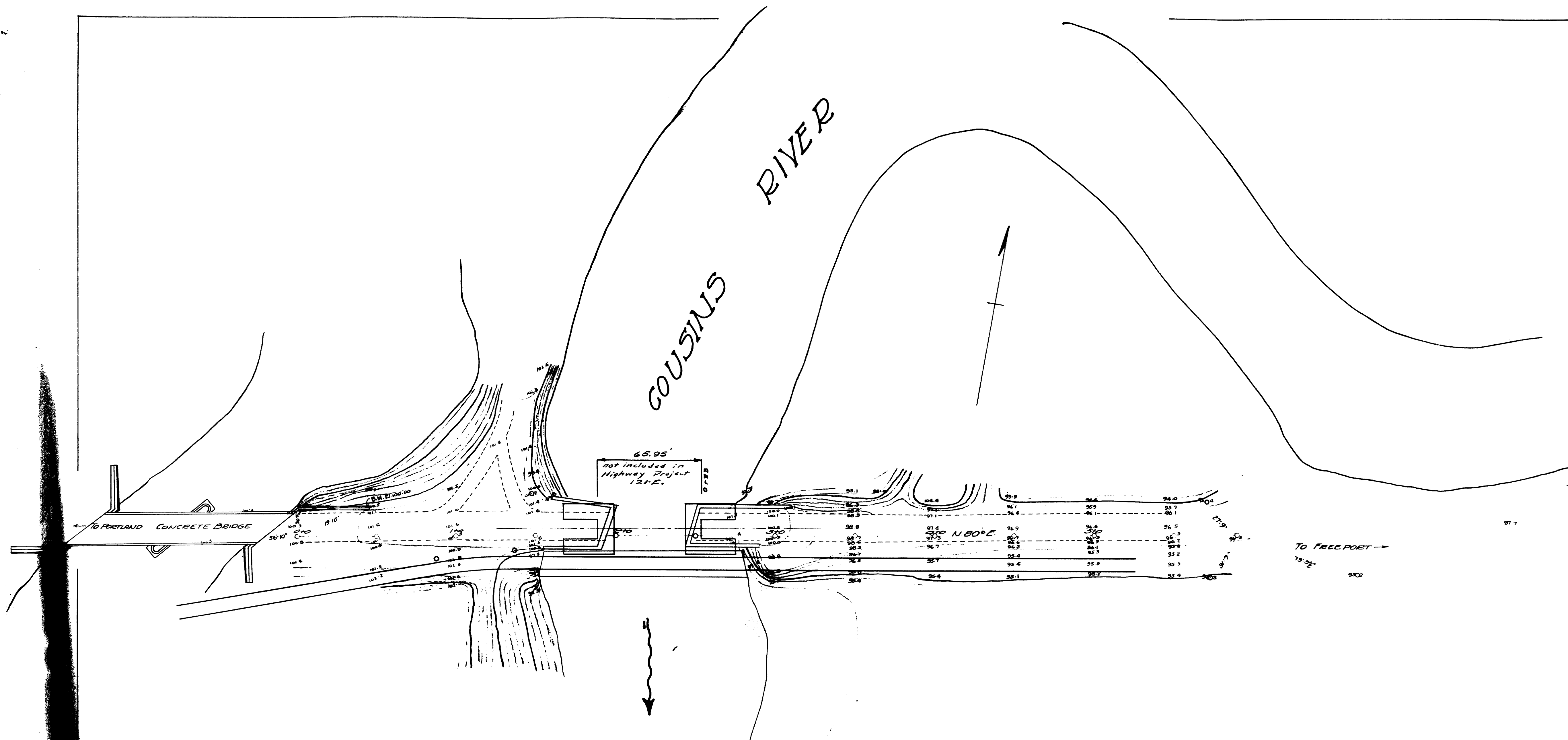
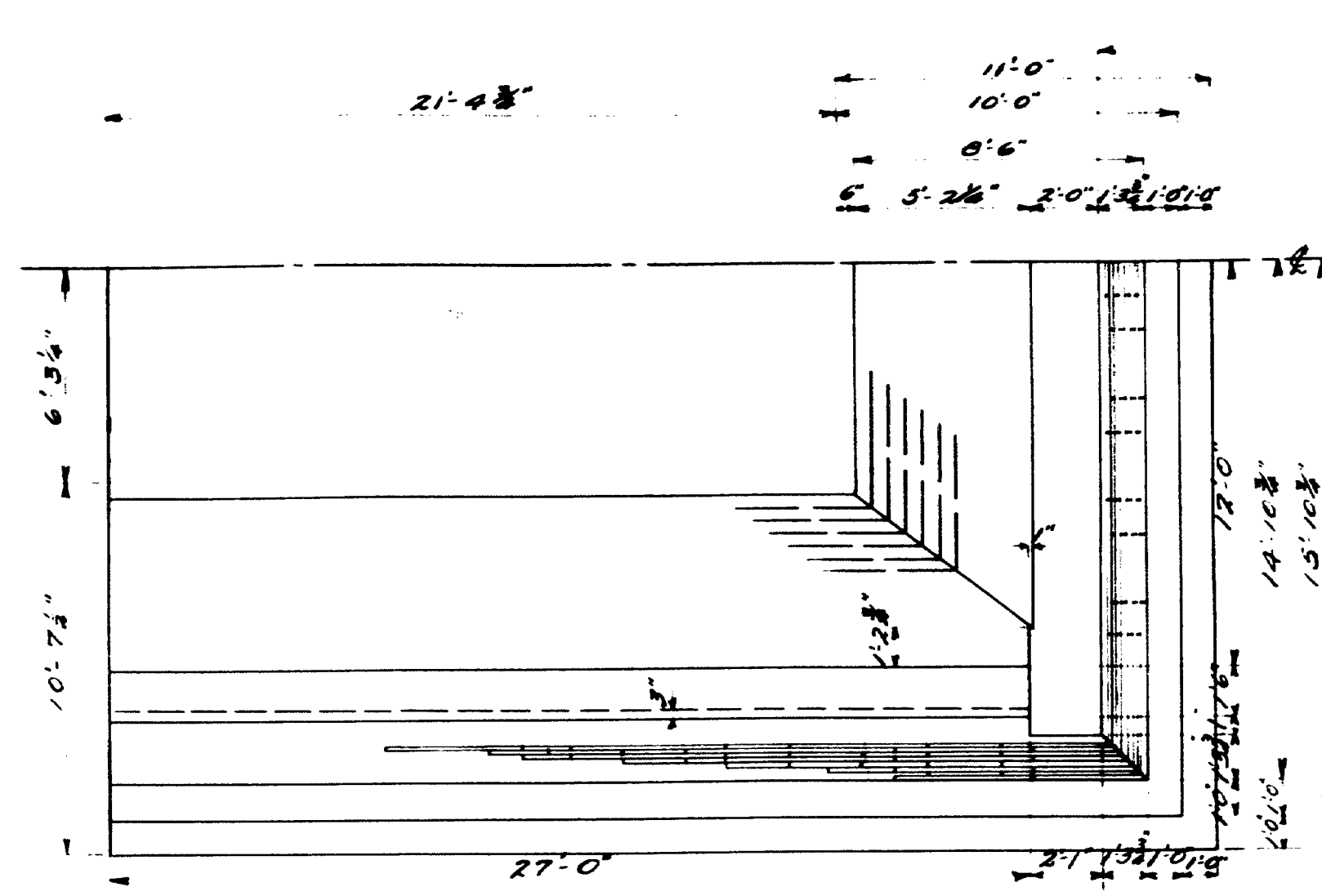


MAINE HIGHWAY COMMISSION
BRIDGE DIVISION
COUSINS BRIDGE
OVER THE
EAST BRANCH-COUSINS RIVER
BETWEEN THE TOWNS OF
YARMOUTH AND FREEPORT
CUMBERLAND CO.
SHEET No. 1 of 4. SURVEY PLAN AUG. 1926.

11-49

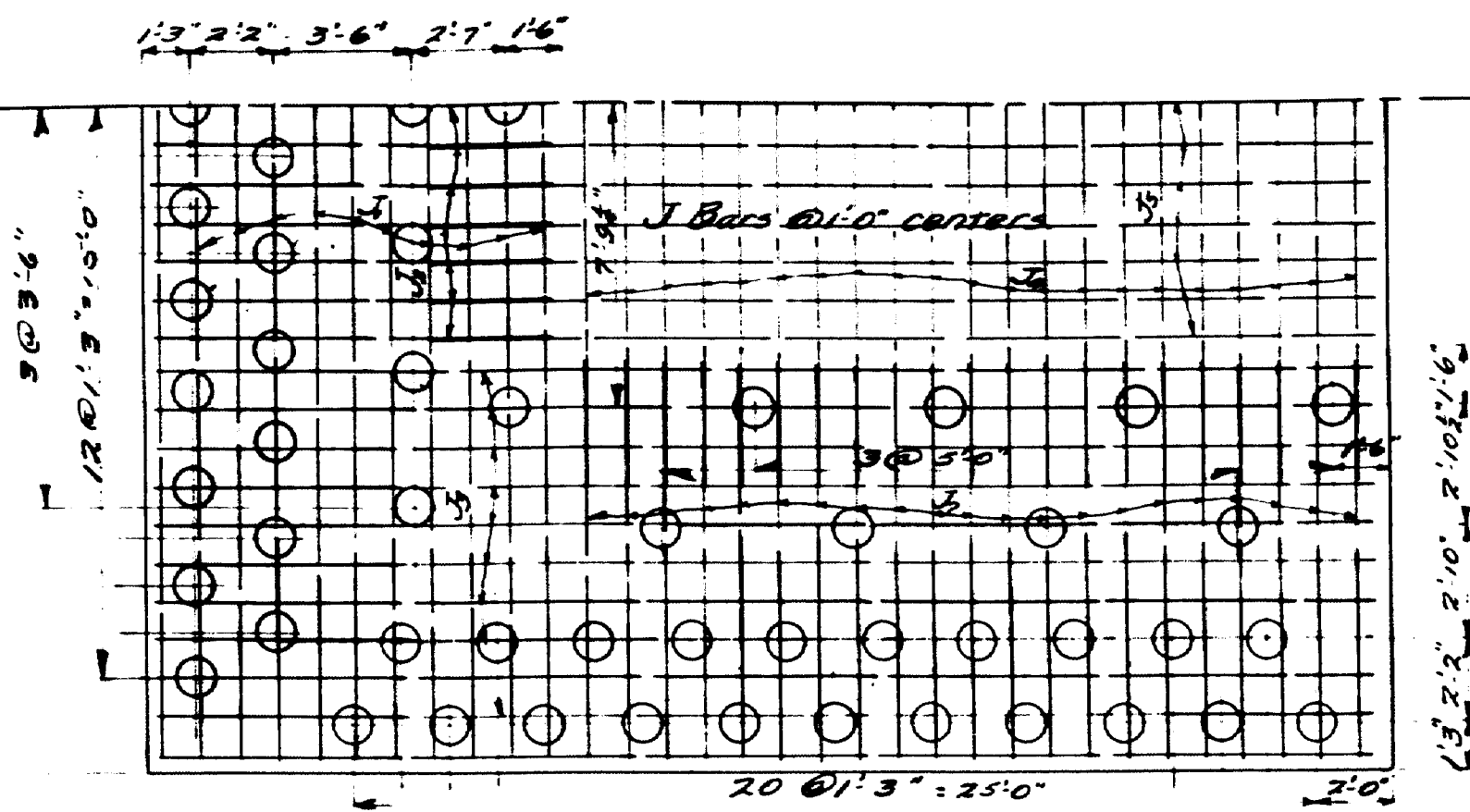
0 1 2 3 4 5 INCHES



HALF ABUT. PLAN.

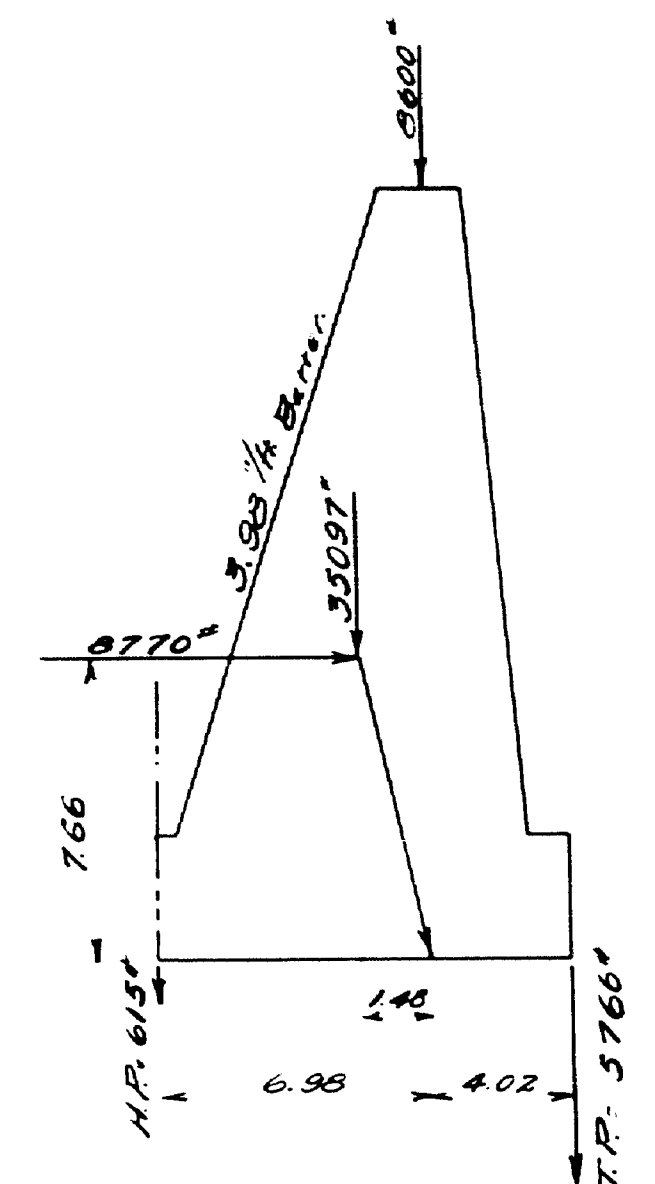
50'-0" Clear Span.

Bridge Symmetrical about both Center Lines

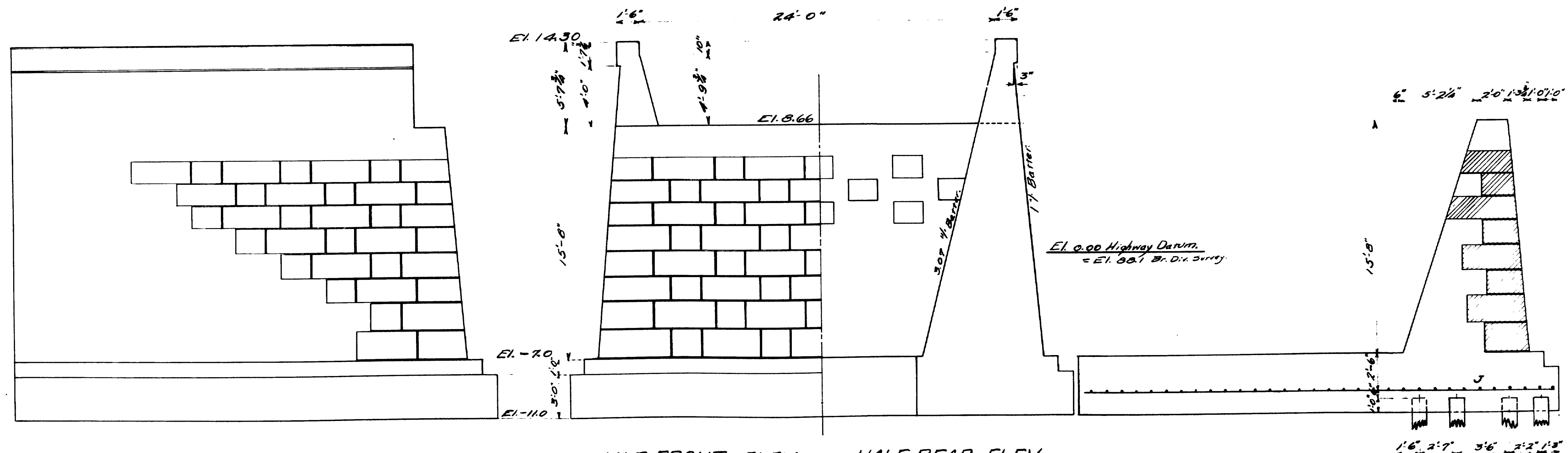


LAYOUT OF PILING AND FOOTING STEEL.

Required, 186 Piles. Load per pile - about 15 Tons.



ABUT. ANALYSIS.



SIDE ELEVATION.

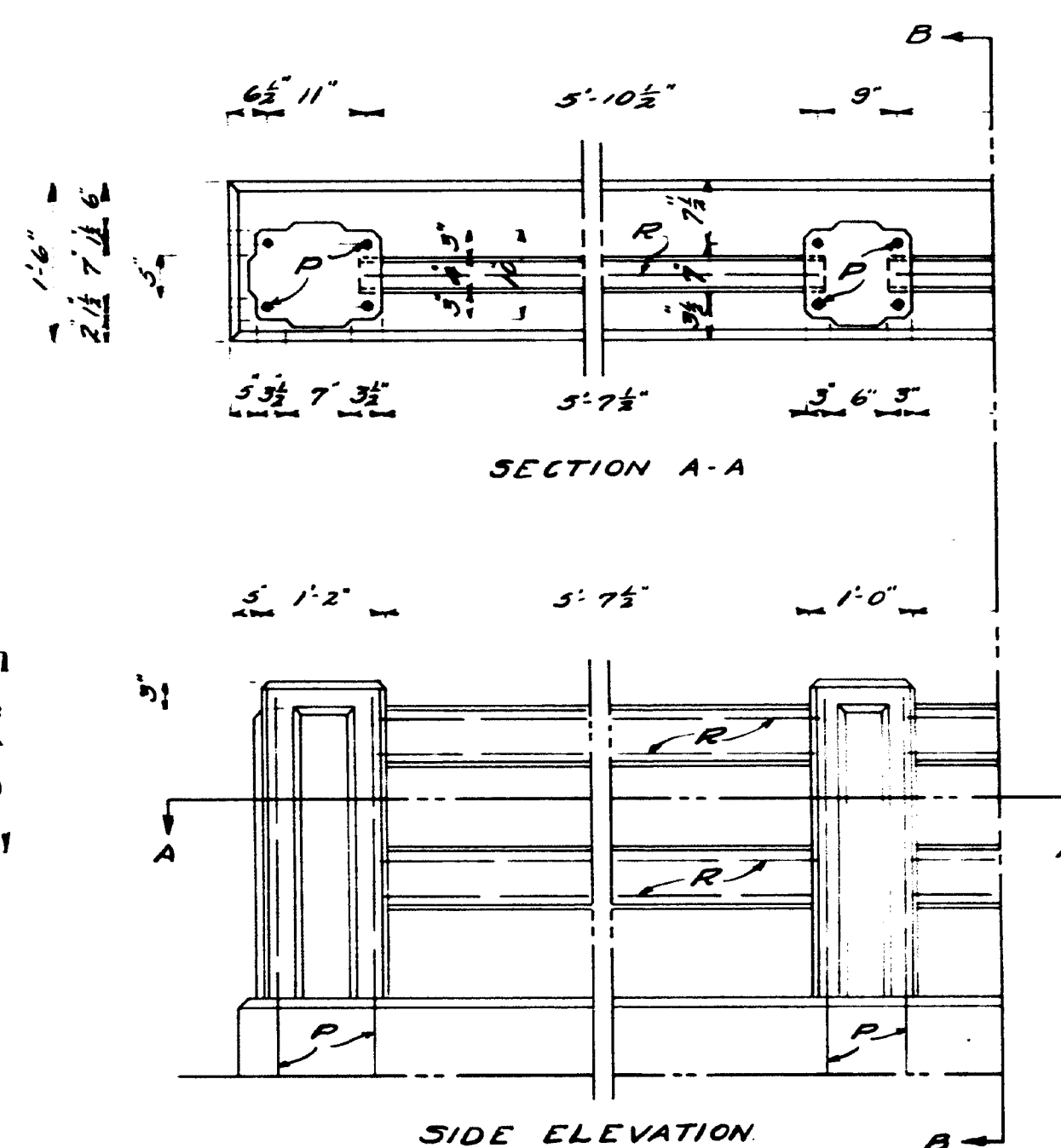
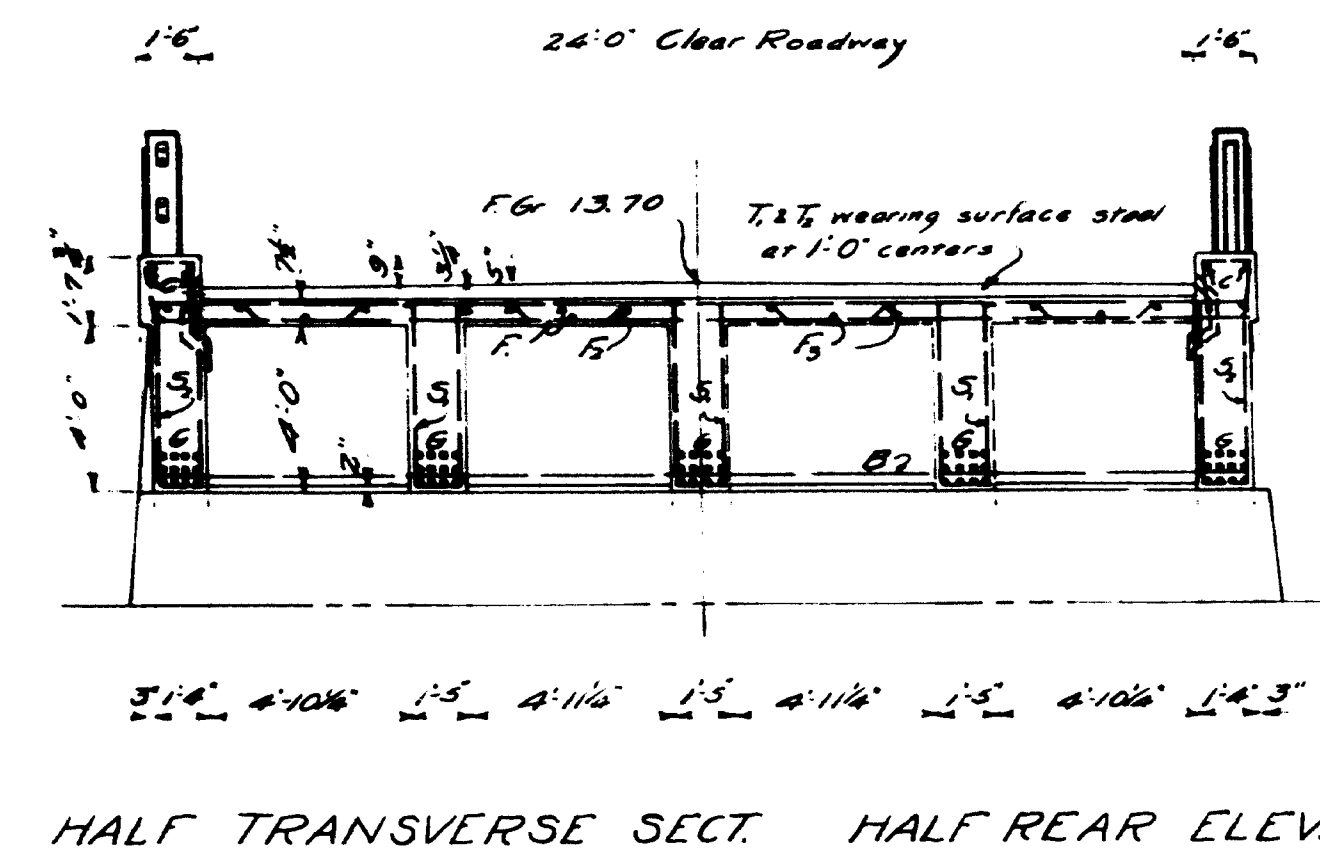
HALF FRONT ELEV.
ABUT. #1.

HALF REAR ELEV.
ABUT. #2.

ABUT. SECTION.

MARK	SIZE	N.B.	LENGTH	LOCATION
J ₁	3/4"	42	20'-0"	Splice for section.
J ₂	"	26	20'-0"	

MAINE HIGHWAY COMMISSION
BRIDGE DIVISION.
COUSINS BRIDGE
OVER
EAST BRANCH COUSINS R.
BETWEEN THE TOWNS OF
YARMOUTH AND FREEPORT
CUMBERLAND CO.
Abutment Plan.
Sheet 2 of 4. Augusta, Me. Oct. 1930.



Note:— Cover the 1st vertical slot between the superstructure and retaining wall and the 2nd opening on the back side with two layers of heavy roofing felt. Coat surface and each layer as applied with hot tar or asphalt. Felt to be 10' wide. The area to be covered is to be recessed $\frac{1}{4}$ " by nailing thin strips to the forms.

STEEL SCHEDULE.
BENT BARS.

Note -- All dimensions are to centerlines of bars.

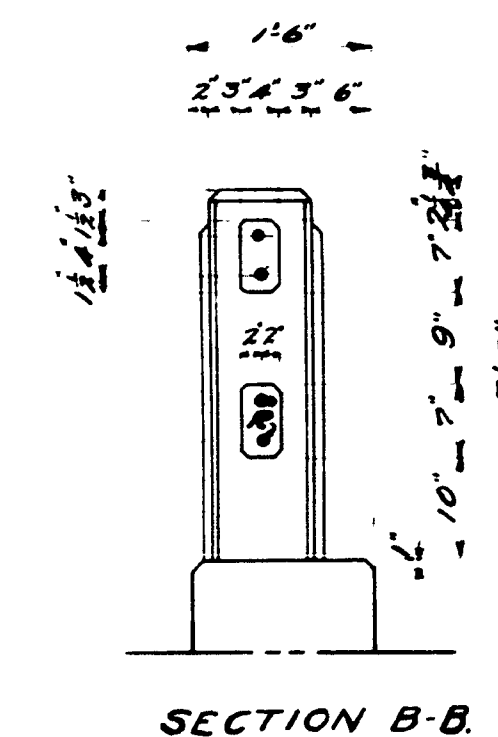
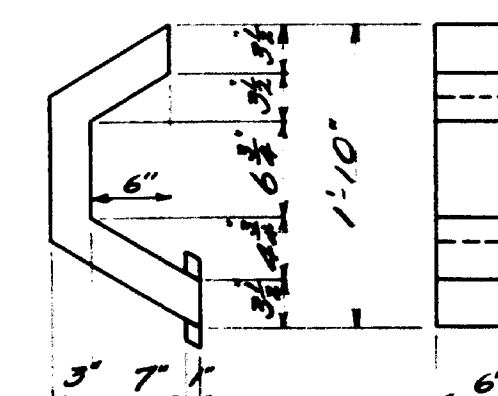
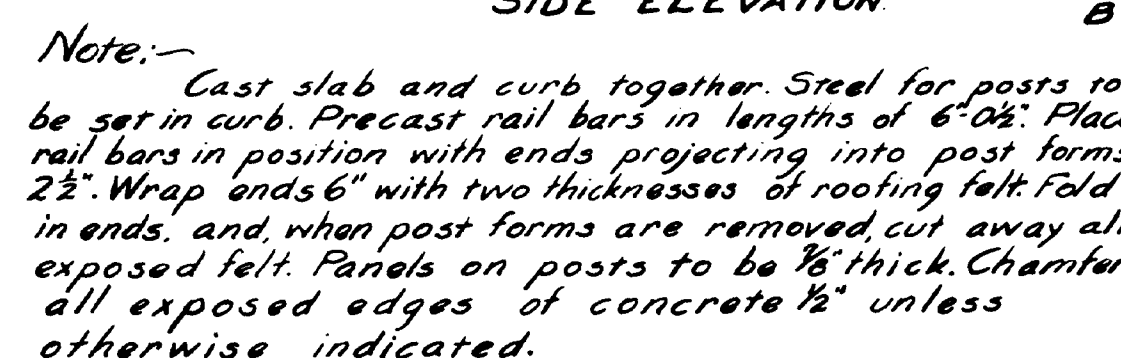
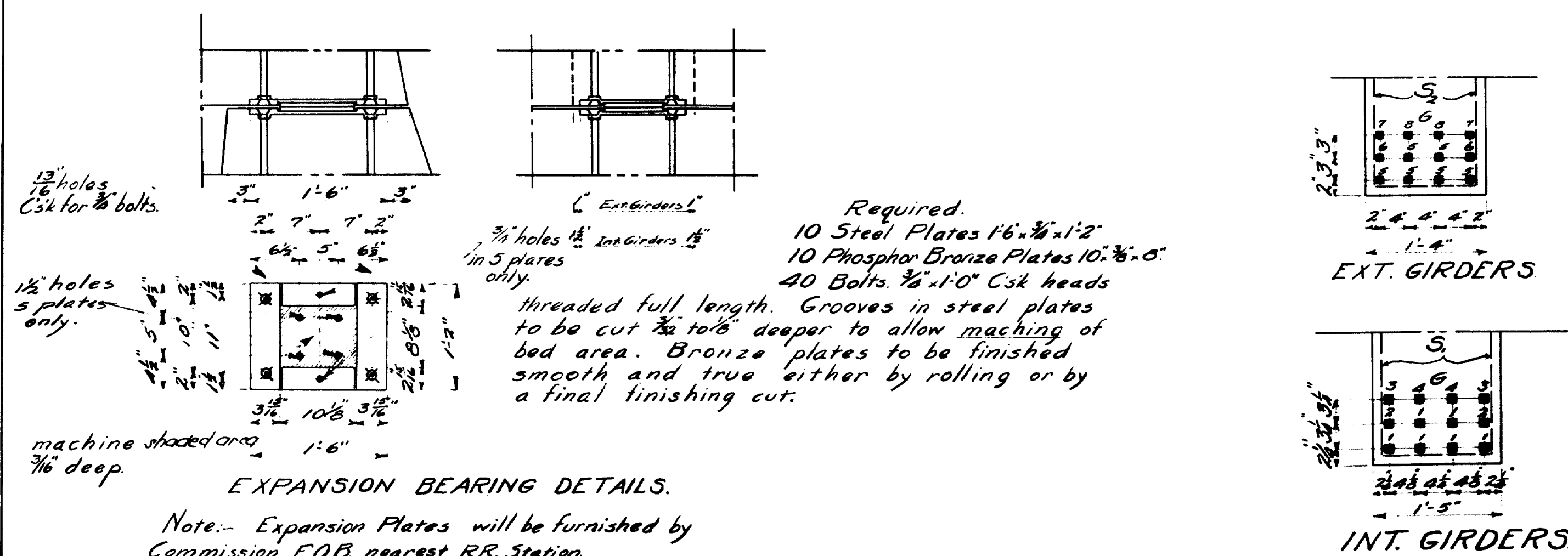
MARK	SIZE	No R _b 's	A	B	C	D	Total Length	Location.
G ₂	1/8" Ø	4	43'-0"	4'-1/8"	3'-9"	5'-7"	36'-0 3/8"	Intr. Girders.
G ₃	" "	6	33'-3 3/4"	3'-0"	3'-6"	5'-2"	40'- 3/4"	" "
G ₄	" "	6	27'-7"	3'-0"	3'-6"	5'-2"	40'- 6 1/8"	" "
G ₅	1" Ø	4	42'-10"	5'-2"	4'-9"	7'-0"	39'- 6 1/8"	Ext. "
G ₆	" "	4	33'-0"	4'-11"	4'-6 1/2"	4'-11"	40'-11"	" "
G ₈	" "	4	23'-3"	4'-11"	4'-6 1/2"	6'-0"	39'- 1 1/8"	" "

S.	Ø	177	11'-0"	Intr. Girders	S.	Ø	70	14'-1 1/2"	Ext. Girders.
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STRAIGHT BARS

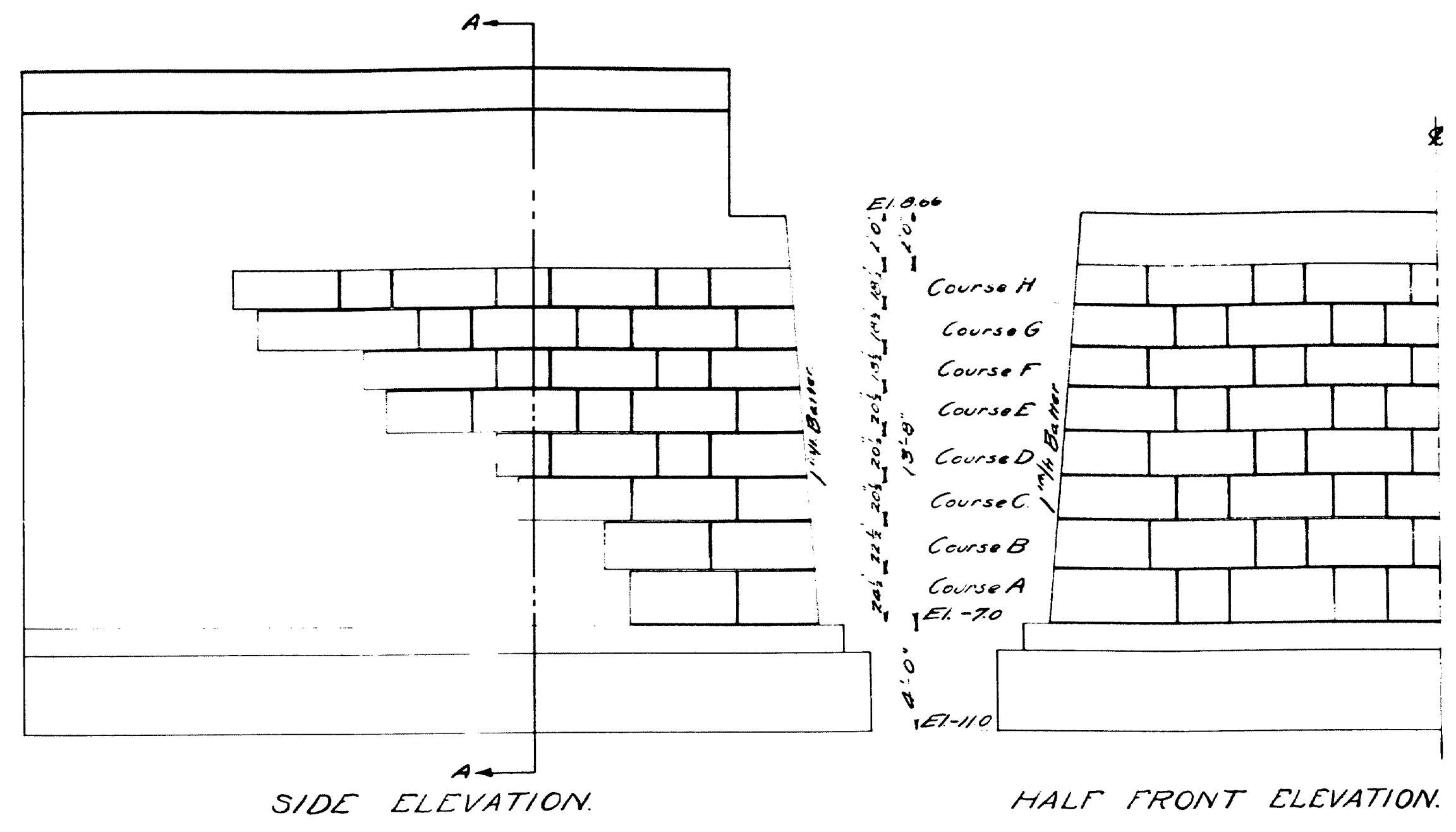
B	1" Ø	12	26'-3"	Cross Beams.
C	3/4" Ø	4	53'-9"	Curbs.
F	3/8" Ø	9	26'-9"	Slab
G	1/2" Ø	14	51'-10"	" "
H	1/2" Ø	10	53'-5"	Intr. Girders.
I	1" Ø	12	53'-5"	Ext. "
J	3/8" Ø	16	25'-0"	Roofs.
K	3/8" Ø	120	51'-10"	Rail
L	3/8" Ø	33	23'-10"	Wearing Surface
M	3/8" Ø	25	51'-11"	" "
N	3/8" Ø	22	53'-4"	Footing
O	3/8" Ø	110	10'-5"	" "
P	3/8" Ø	44	32'-0"	" "
R	3/8" Ø	24	5'-0"	Auto's.

Steel to plain bars of structural grade.

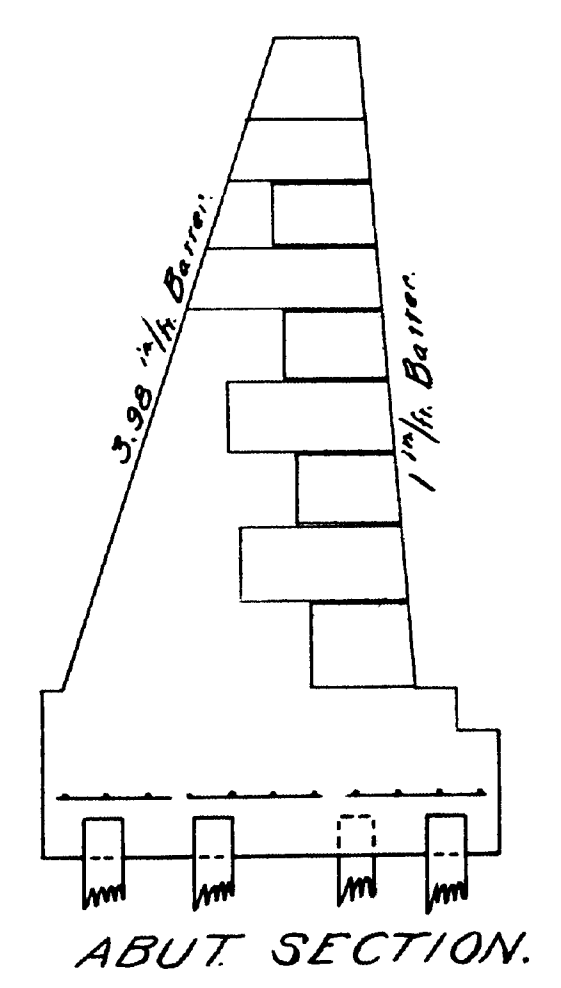
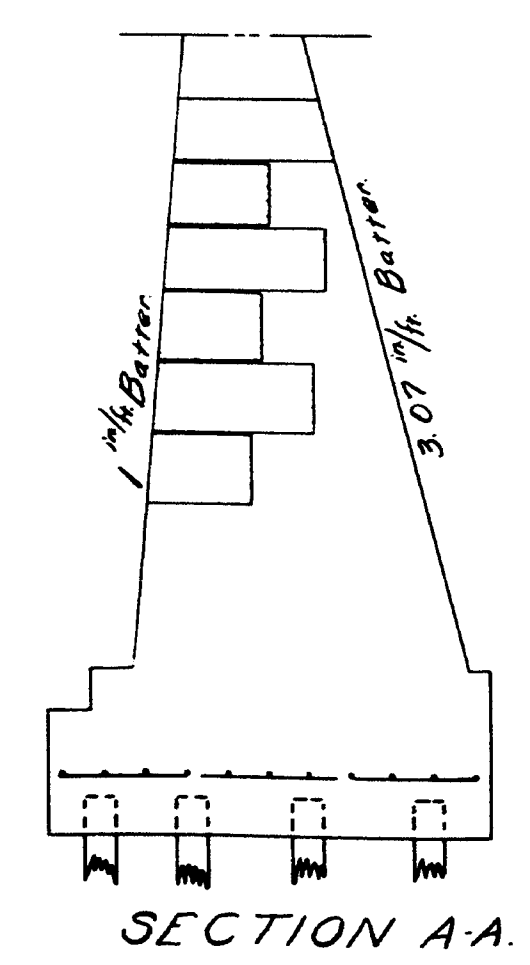
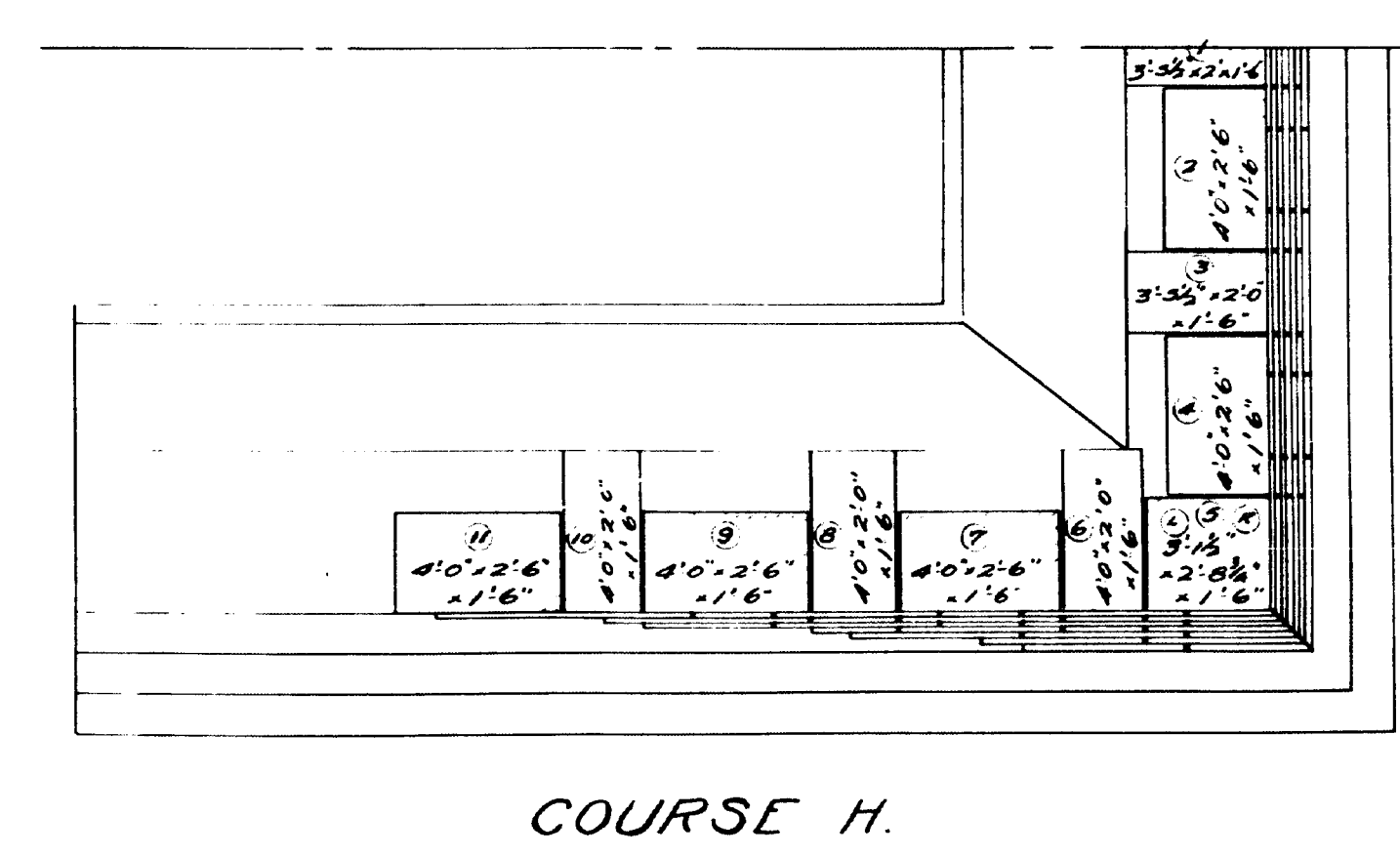
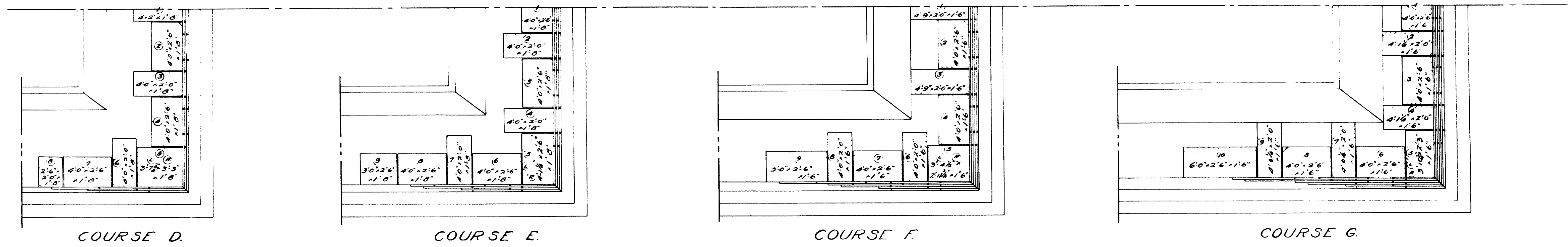
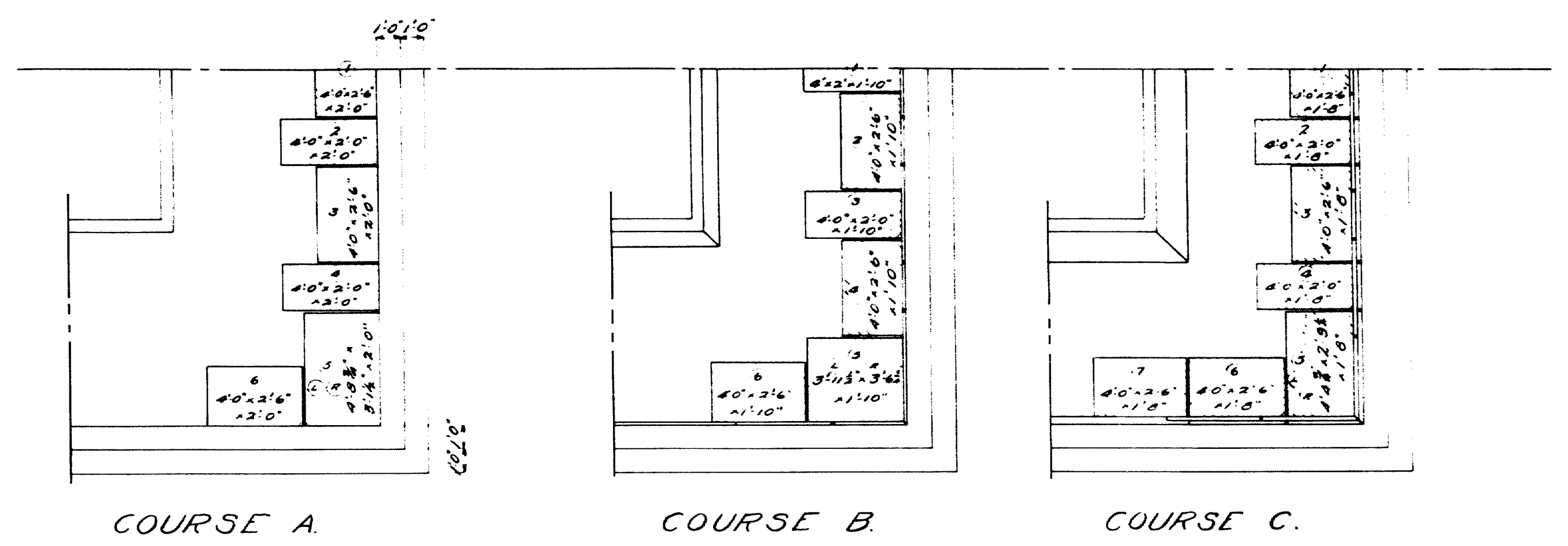


MAINE HIGHWAY COMMISSION
BRIDGE DIVISION.
COUSINS BRIDGE
OVER
EAST BRANCH, COUSINS R.
BETWEEN THE TOWNS OF
YARMOUTH AND FREEPORT
CUMBERLAND CO.
Superstructure Plan.
Sheet 3 of 4. Augusta, Me. Oct. 1930.





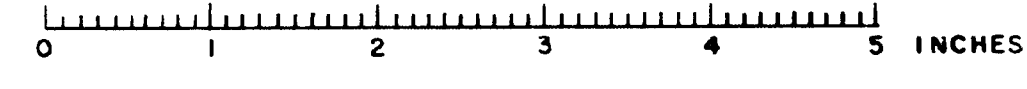
Note:— Dimensions shown are at sections taken at bottom surface of Courses.



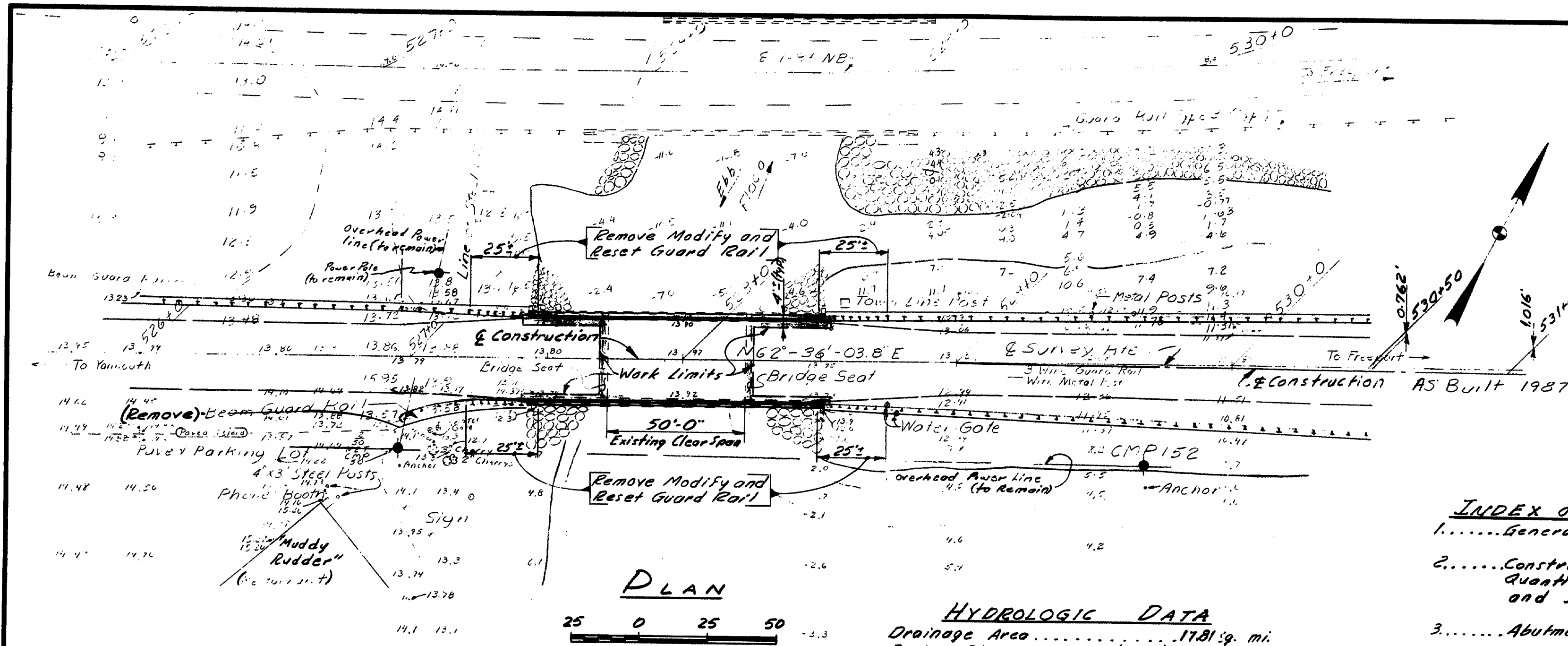
Note:— Headers in courses F, G, H to be rough dressed only to back barren.

Design—G. L. S.
Checked—W. L. S.

MAINE HIGHWAY COMMISSION
BRIDGE DIVISION.
COUSINS BRIDGE
OVER
EAST BRANCH, COUSINS R.
BETWEEN THE TOWNS OF
YARMOUTH AND FREEPORT
CUMBERLAND CO.
Masonry Plan.
Sheet 4 of 4. Augusta, Me. Nov. 1930.



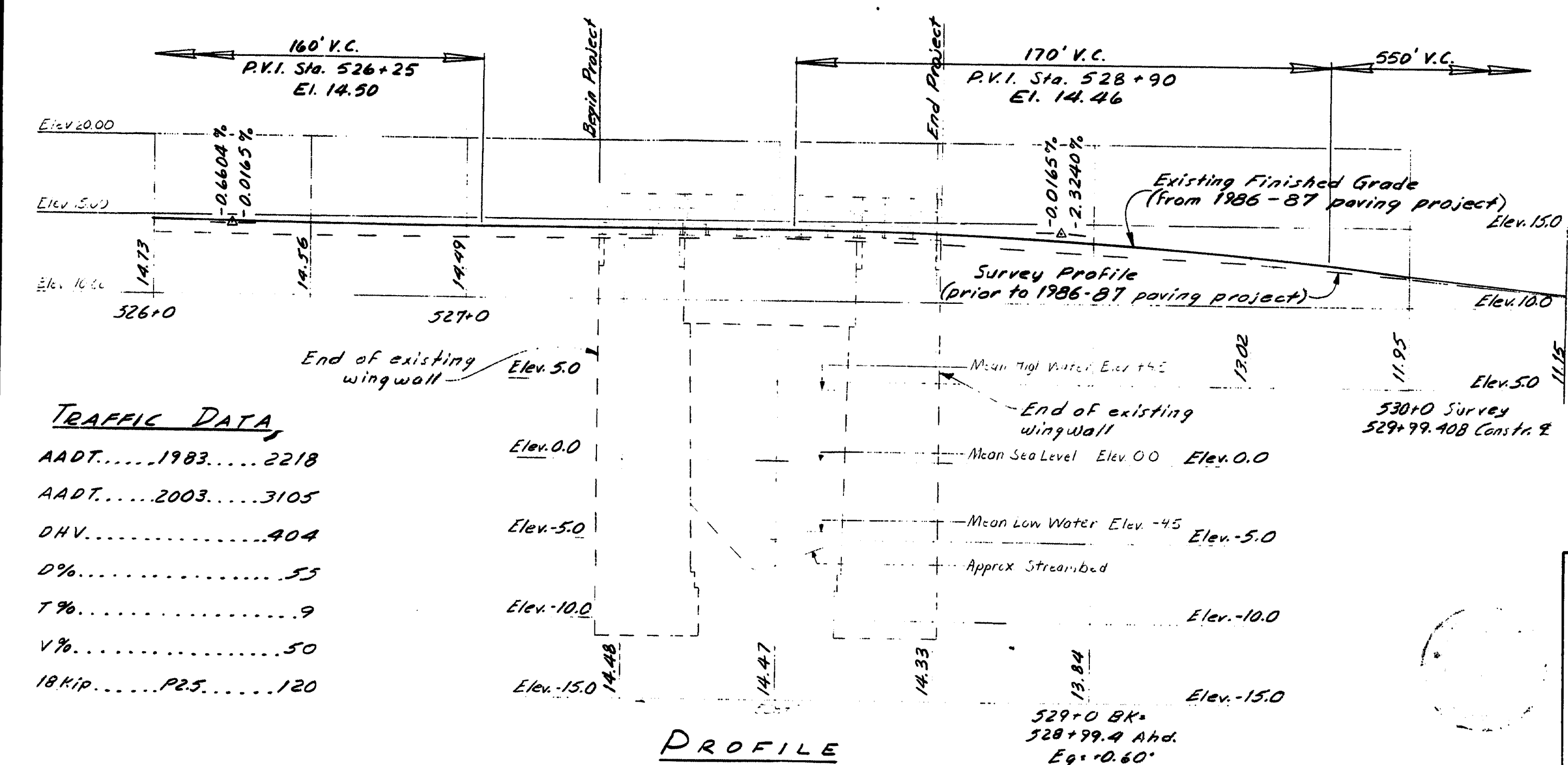
SHEET NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	99-406(14)	1	13



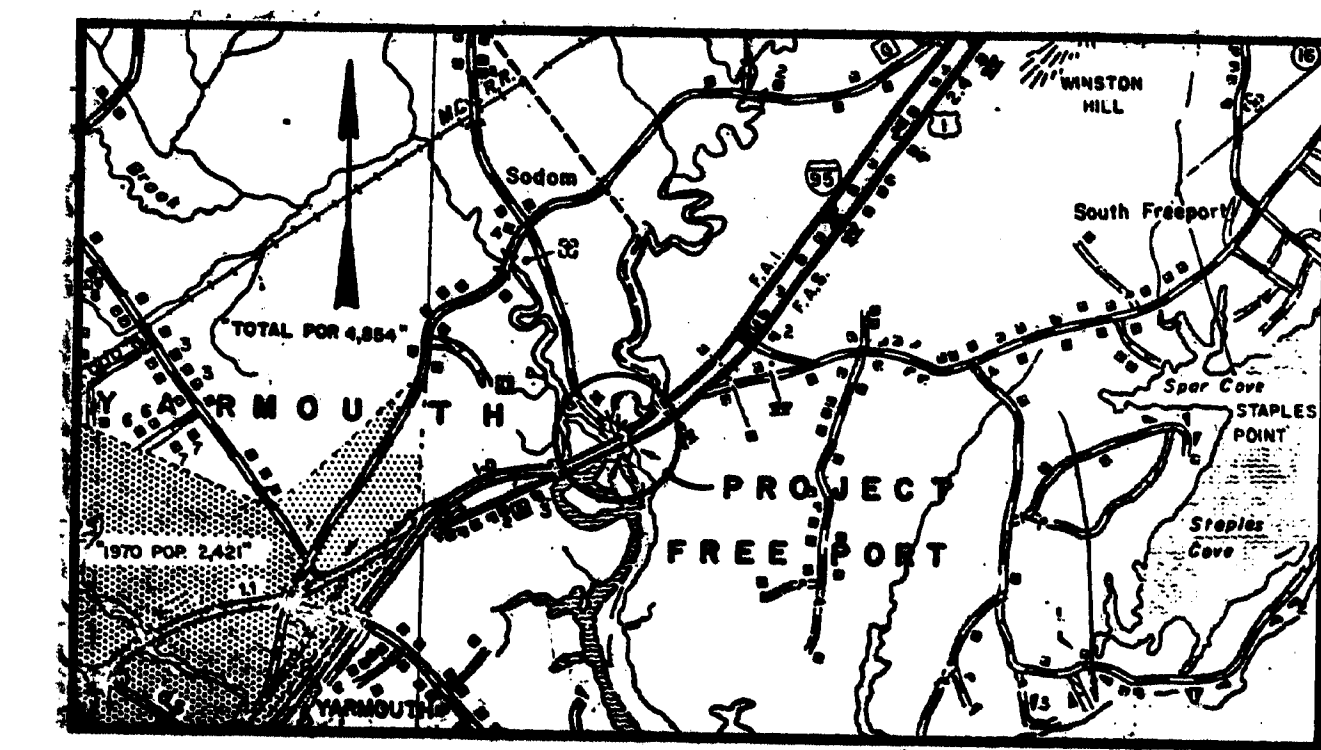
PROJECT DESCRIPTION
 The scope of work will consist of replacing the existing bituminous and concrete wearing surfaces, bridge curb and railing; repainting existing granite masonry, and other incidental work.

HYDROLOGIC DATA
 Drainage Area 17.81 sq. mi.
 Design Discharge (Q50) ... 1700 cfs
 Check Discharge (Q100) ... 2000 cfs
 Mean Low Water Elev. -4.5
 Mean Sea Level Elev. 0.0
 Mean High Water Elev. 4.5
 1984 Predicted High Tide Elev. 6.6

Project Completed 1987



TRAFFIC DATA
 AADT.....1983.....2218
 AADT.....2003.....3105
 DHV.....404
 D%.....55
 T%.....9
 V%.....50
 18 Kip.....P25.....120



INDEX OF SHEETS

- General Plan
- Construction Sequence, Estimated Quantities, Construction Notes and Symbols
- Abutment Repair
- Superstructure and Abutment Wingwalls
- Reinforcing Steel Schedule
- Traffic Control Plans
- BD 11A-51 Aluminum Bridge Rolling Z-Bar Semi-Ellipse
- BD 120-81 Concrete End Post
- BD 126-81 Miscellaneous Details
- BD 127-81 Miscellaneous Details
- Type 3 Guard Rail

SPECIFICATIONS

Design: Load Factor Design per AASHTO Standard Specifications for Highway Bridges 1983 and Interim Specifications thru 1984.

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

DESIGN LOADING
 Existing Loading: H20-S16-44

MATERIALS
 New: Concrete Class A
 New: Reinforcing Steel ASTM A615 Grade 60
 High Strength Bolts: ASTM A325, Type 3

Existing: Concrete Class A
 Existing: Reinforcing Steel ASTM A305-49.

BASIC DESIGN STRESSES
 New: Existing Original
 F_s = 20,000 psi F_s = 21,000 psi F_s = 21,000 psi
 F_c = 3,000 psi F_c = 1,200 psi F_c = 750 psi
 n = 10 n = 10 n = 10

New Reinforcing Steel: F_y = 60,000 psi

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.

99-406

UNITED STATES DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION REGION 1 APPROVED: _____ DIVISION ADMINISTRATION DATE		APPROVED: STATE OF MAINE DEPARTMENT OF TRANSPORTATION COMMISSIONER DATE 9/9/86 CHIEF ENGINEER DATE 9/9/86		Survey Book No.'s 6275, 6280, 6390, 6437. Bridge No. 2183 STATE OF MAINE DEPARTMENT OF TRANSPORTATION COUSINS RIVER BRIDGE SOUTH BETWEEN THE TOWNS OF YARMOUTH & FREEPORT CUMBERLAND COUNTY GENERAL PLAN SHEET 1 OF 14 AUGUSTA, MAINE
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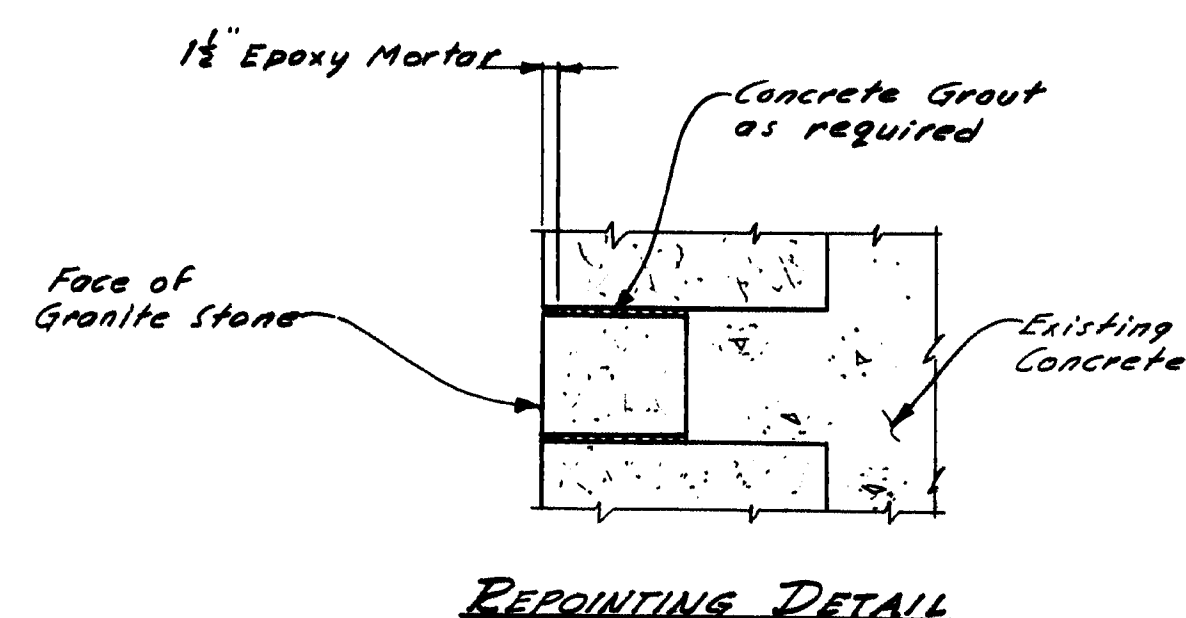
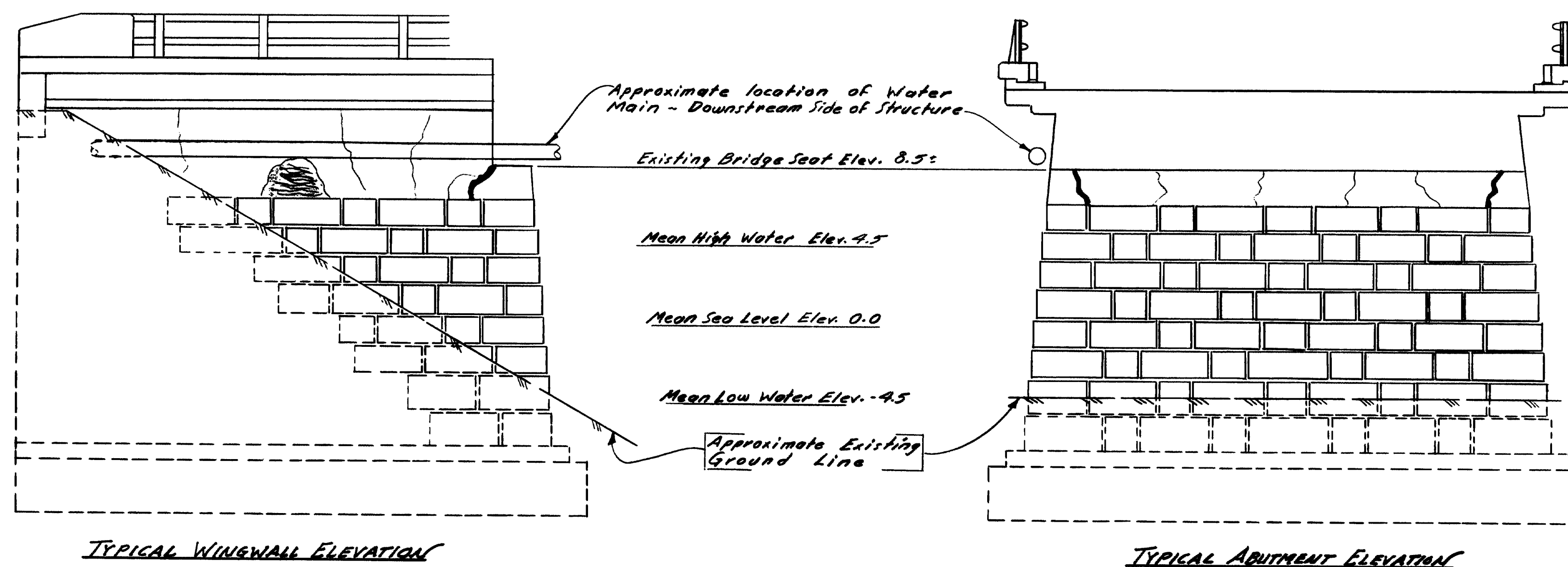
Preliminary Plan: DWD 5-7-84
 PROJECT DESIGN ENGINEER
 DESIGN - DETAIL
 CHECKED
 REVISIONS
 FIELD CHANGES

Revised 10/11/86 Revised 10/11/86

F.R.E.S. No.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0141(4)	3	13

NOTES

- All loose and deteriorated concrete in the following areas of the abutments shall be removed and repaired as directed by the Engineer. Payment will be made under the provisions of Subsection 104.03, Extra Work.
 - Face of north wing of easterly abutment.
 - Crack area on north corner of easterly abutment.
 - Face of bridge seat cap of easterly abutment.
 - Other area as designated by the Engineer.
- Granite masonry shall be grouted and repointed in accordance with Special Provision Section 525.



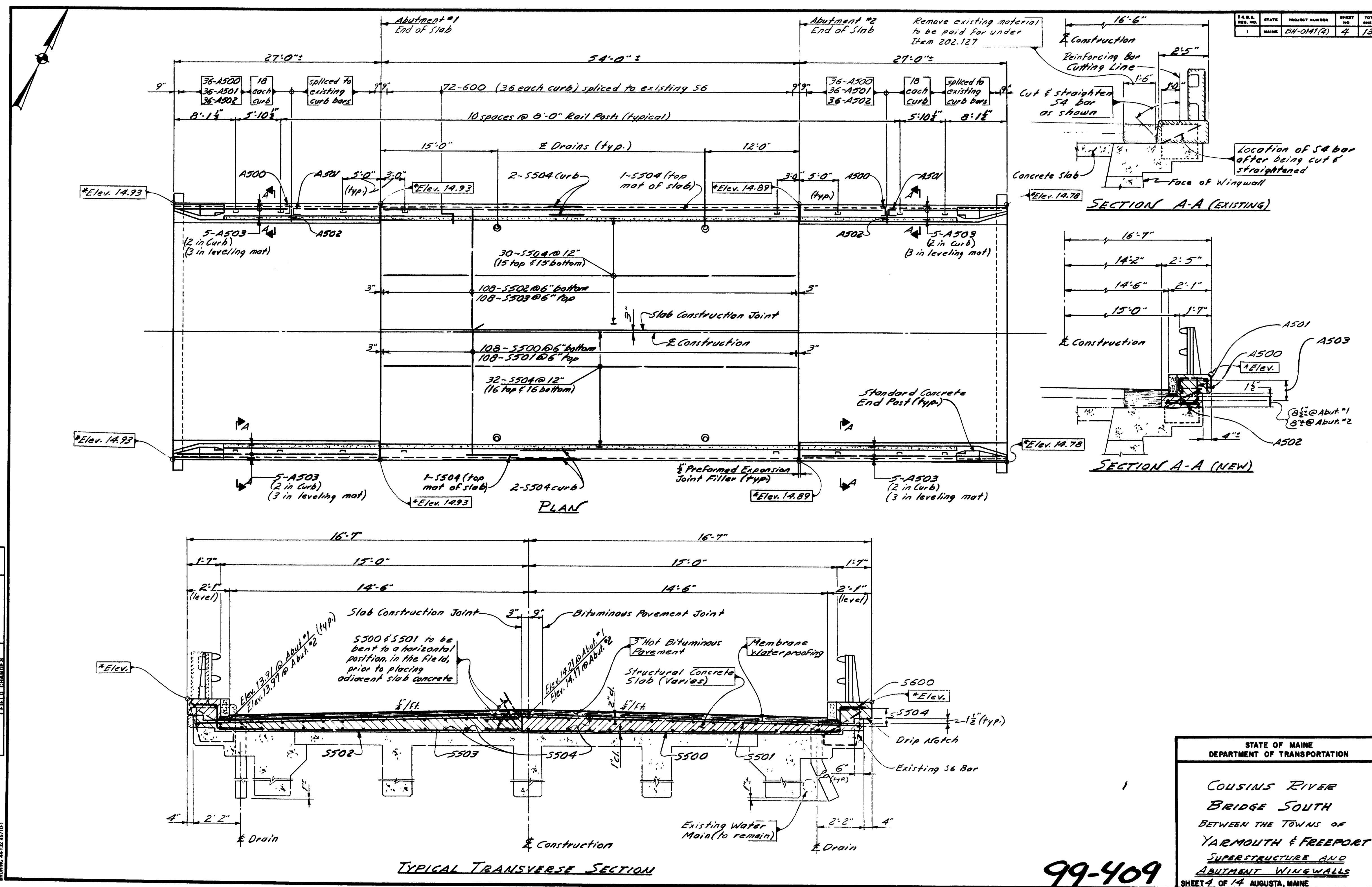
PROJECT DESIGN ENGINEER	DATE
BY	10/27/89
DESIGN - DETAILED	LCI
CHECKED	5-85
REVISIONS	
FIELD CHANGES	
PLANS	

BRUNING 44-132-427(1)

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
COUSINS RIVER BRIDGE SOUTH BETWEEN THE TOWNS OF YARMOUTH & FREEPORT
<u>ABUTMENT REPAIRS</u>
SHEET 3 OF 4 AUGUSTA, MAINE

99-408

Revised As Built by Richard H. Cannon, 1/3/89



[illegible]

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TO SHEET
1	MAINE	BH-0141(4)	5	1-3

[illegible]

All dimensions are out to out of reinf. bar
Bending details and hooks shall conform to
the recommendations of the current revision
of ACI Standard 318. Δ
Reinforcing Bar: ASTM A615 Grade 60

1. First digit(s) following the letter of the Mark indicates size of reinf. bar.
Mark (A 502) bar size - #5
Mark (P 1001) bar size - #10
Mark (S 603) bar size - #6
2. Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.

	<i>New Bent Bar Type SJ</i>	<i>9-26-8</i>
	<i>Revised ACI Standard</i>	<i>5-12-8</i>
REVISIONS		DATE

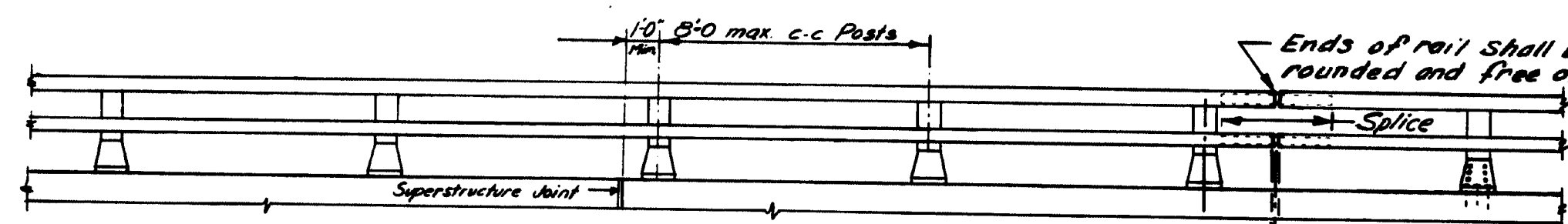
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COUSINS RIVER
BRIDGE SOUTH
BETWEEN THE TOWNS OF
YARMOUTH & FREEPORT
REINFORCING STEEL SCHEDULE

SHEET 5 OF 14 AUGUSTA, MAINE

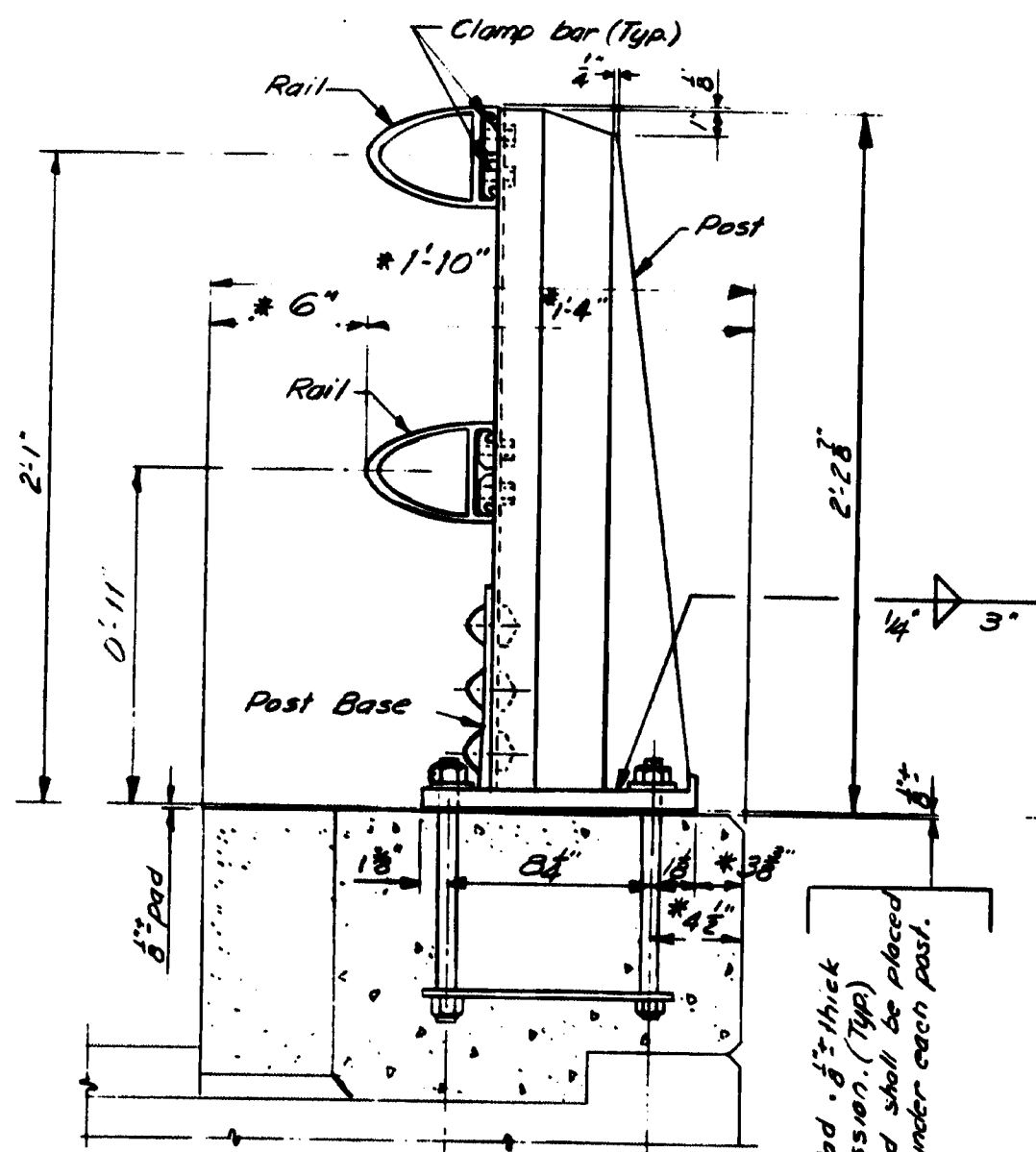
Revised As Built by Richard H. Cunningham 3/8

R LOCATION **99-410**



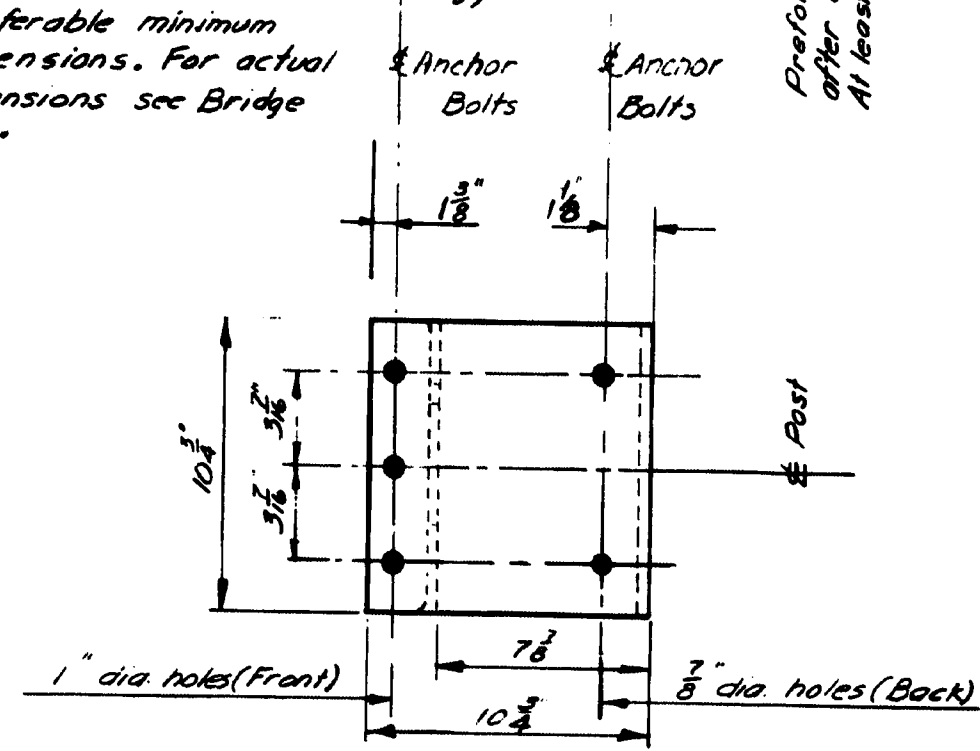
RAILING - ELEVATION

Lengths of rail shall be attached to a minimum of four (4) rail posts wherever possible, and in any case never less than two (2). Rail posts are to be set normal to grade unless otherwise shown on the Bridge Plans.

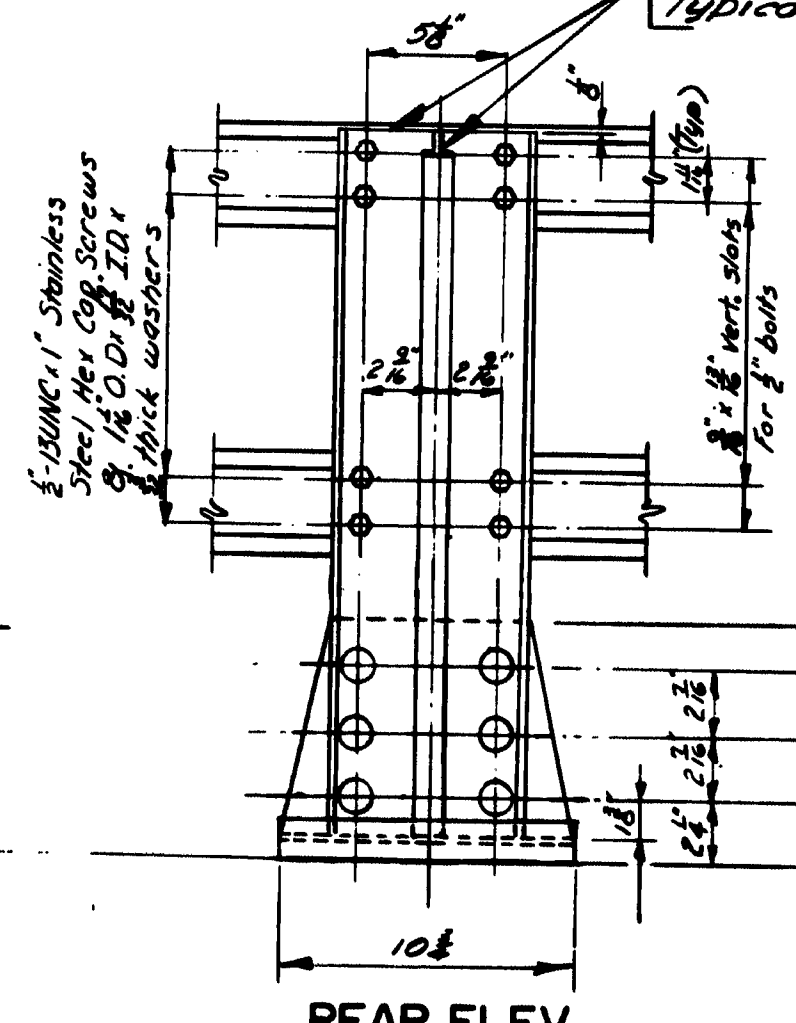


BRIDGE RAILING (Assembly)

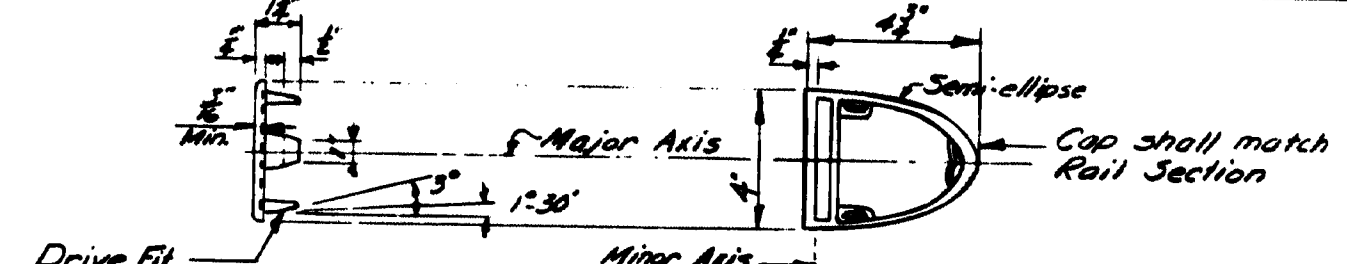
* Preferable minimum dimensions. For actual dimensions see Bridge Plan.



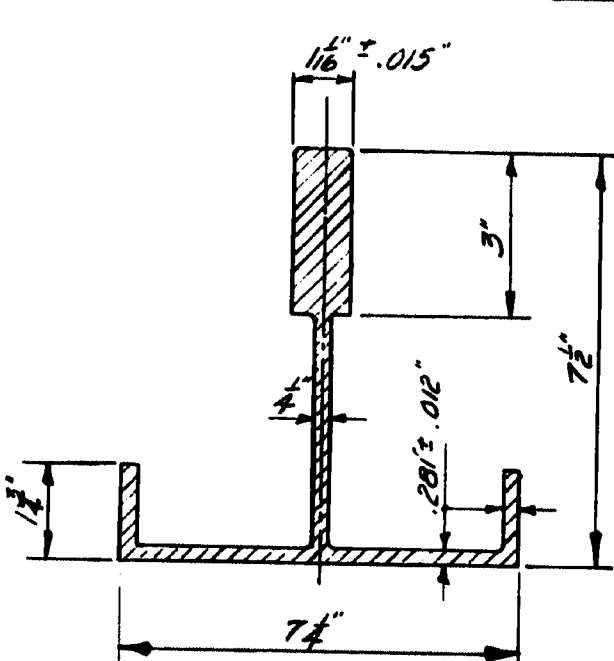
POST BASE (Bottom View)



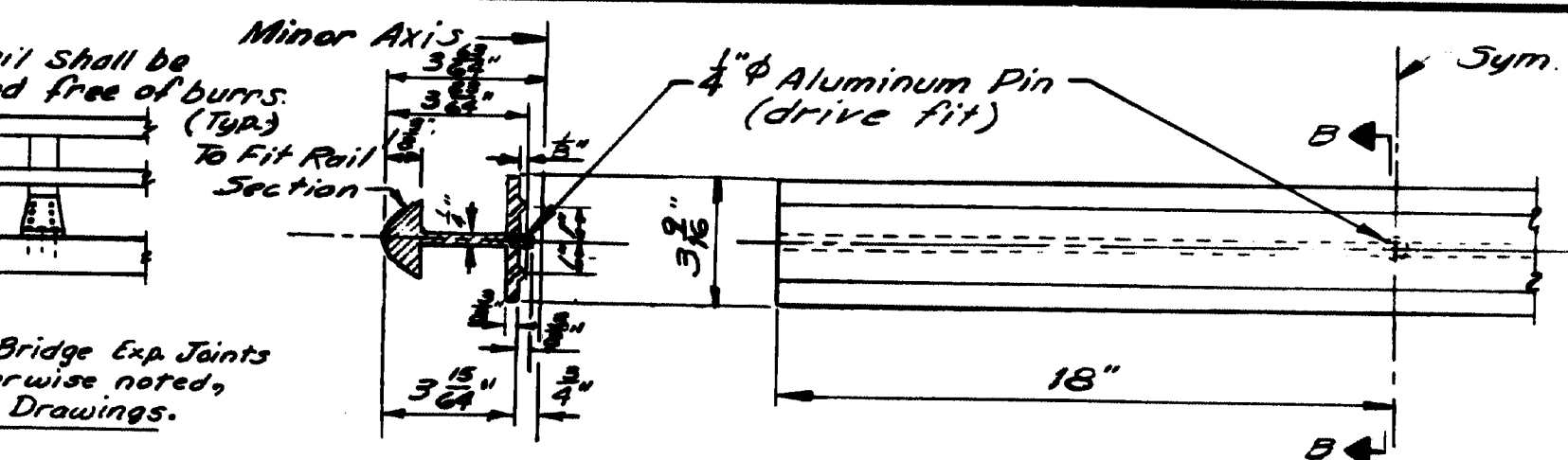
REAR ELEV.



RAIL CAP



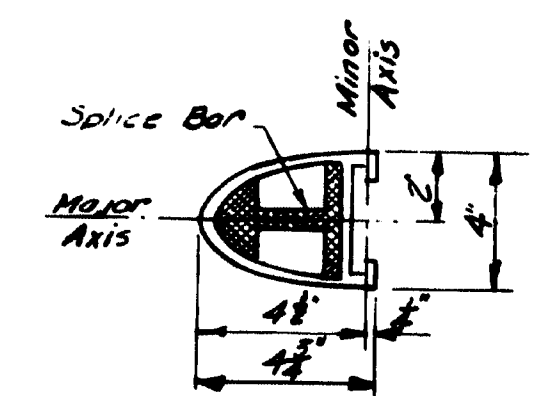
POST SECTION



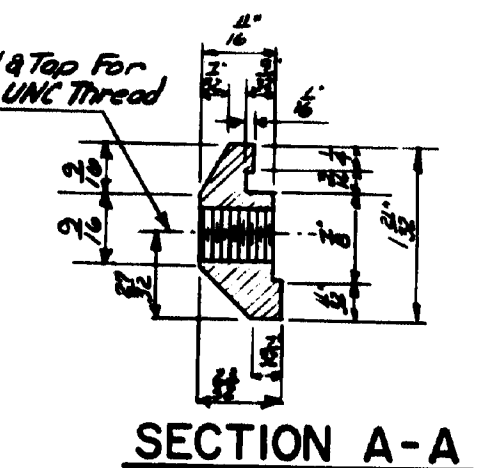
SECTION B-B

SPLICE BAR

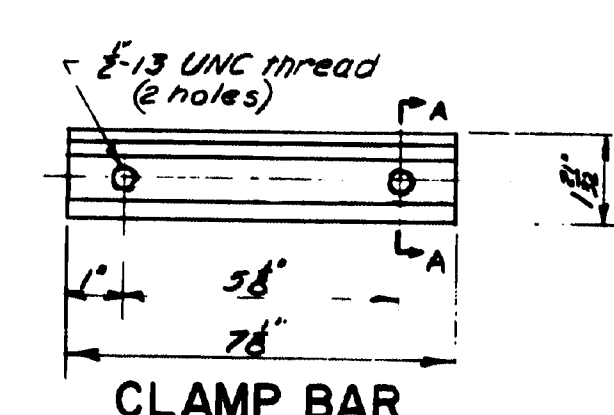
Alternate splice bars may be substituted if approved by the Engineer.



RAIL SECTION
See "Rail Detail"

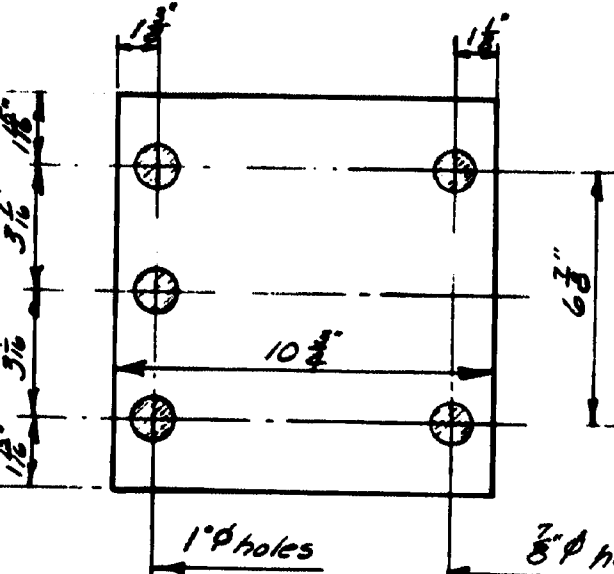


SECTION A-A

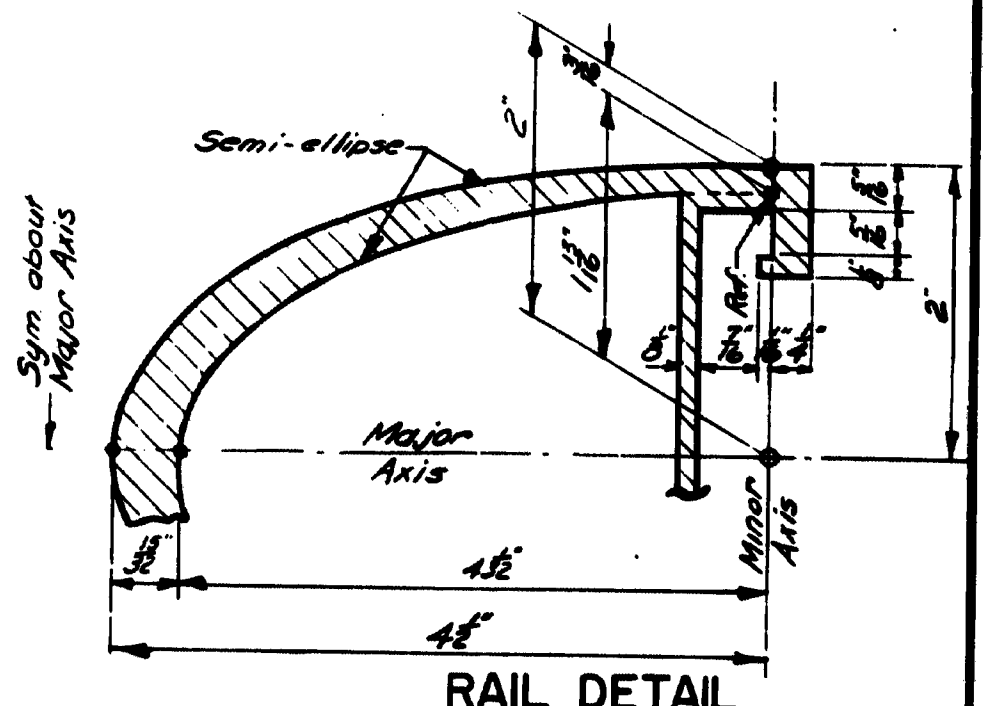


CLAMP BAR

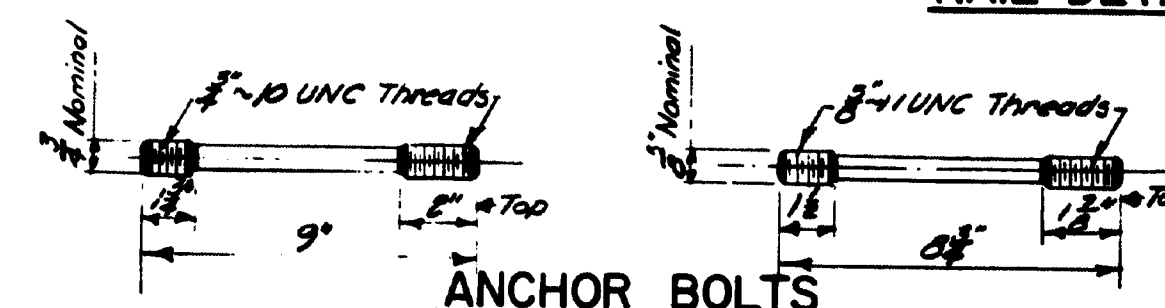
POST BASE SECTION



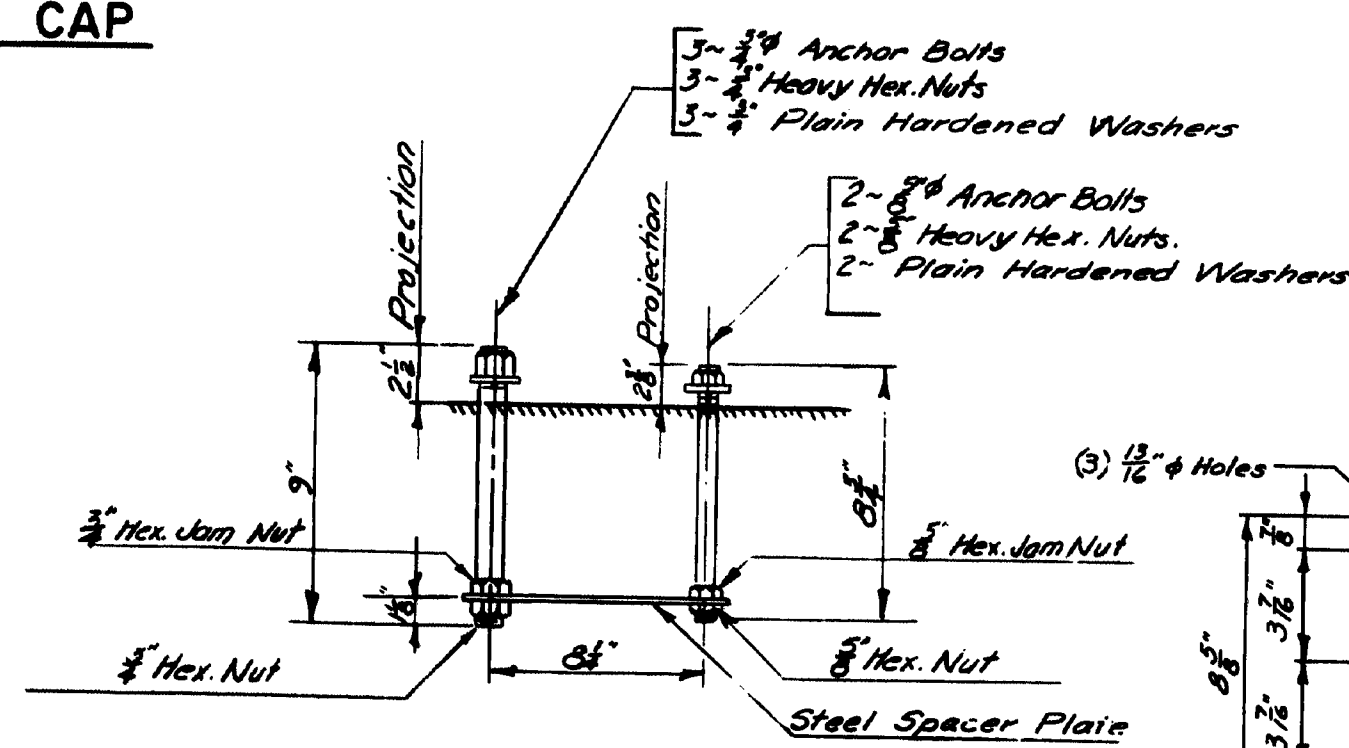
PREFORMED PAD



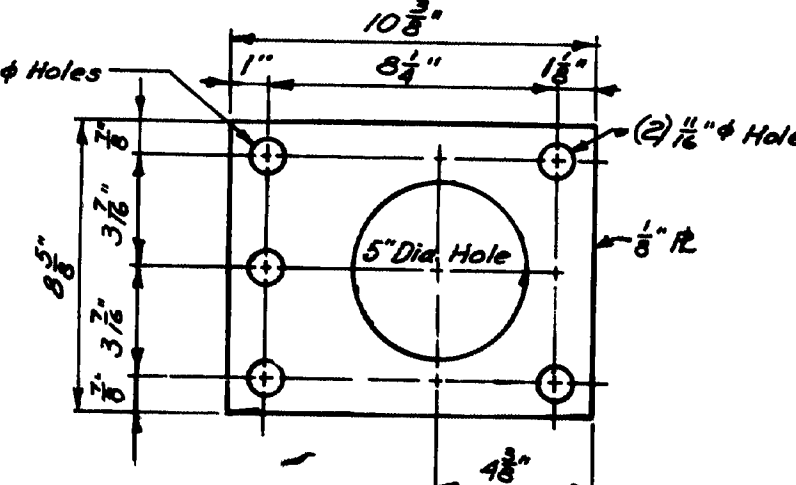
RAIL DETAIL



ANCHOR BOLTS



RAIL POST ANCHORAGE (Assembly)



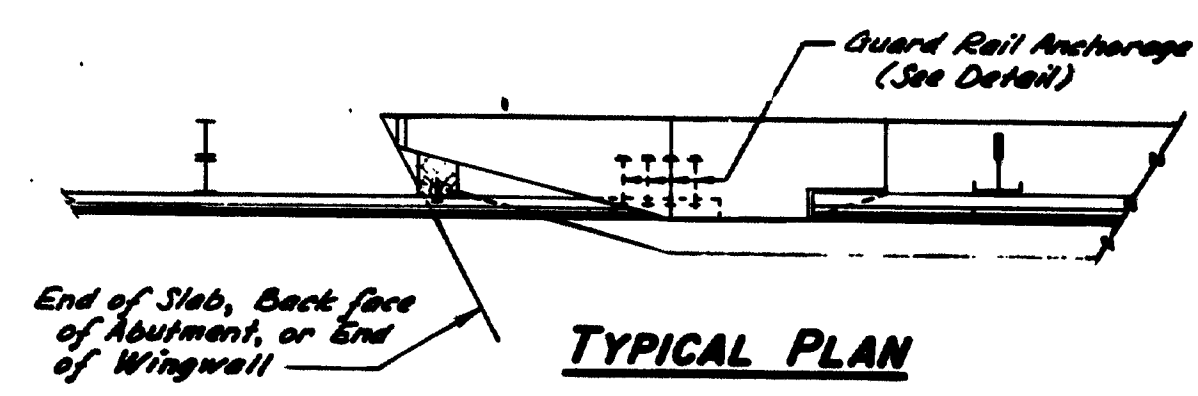
STEEL SPACER PLATE (For Anchorage)

Added Note	12-84
Revised Post Base	8-84
Altered base dimensions	7-83
REVISIONS	
STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
STANDARD DETAILS	
(BD 114 - 81)	
ALUMINUM BRIDGE RAILING	
2 - BAR (SEMI-ELLIPSE)	
SHEET 9 OF 13 AUGUSTA, MAINE JUNE 1981	

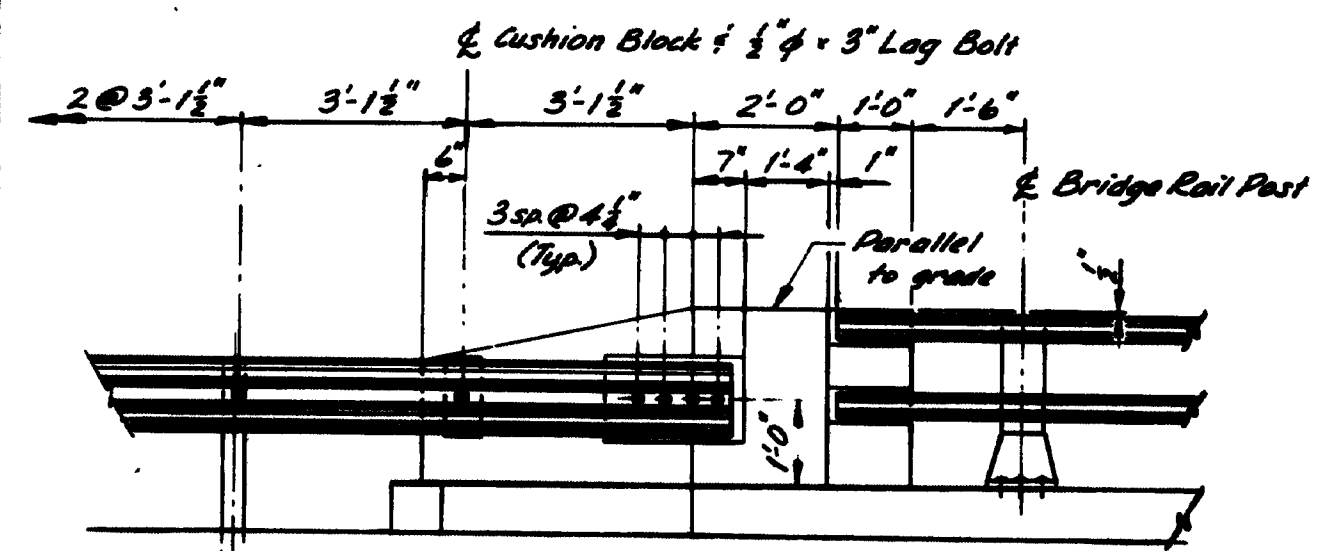
Yarmouth - Freeport

DESIGN	DATE
DETAILED	1/2/81
CHECKED	
REVISIONS	
FIELD CHANGES	
PLANS	

REV. NO.	DATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	NA	88-0141(4)	10	13

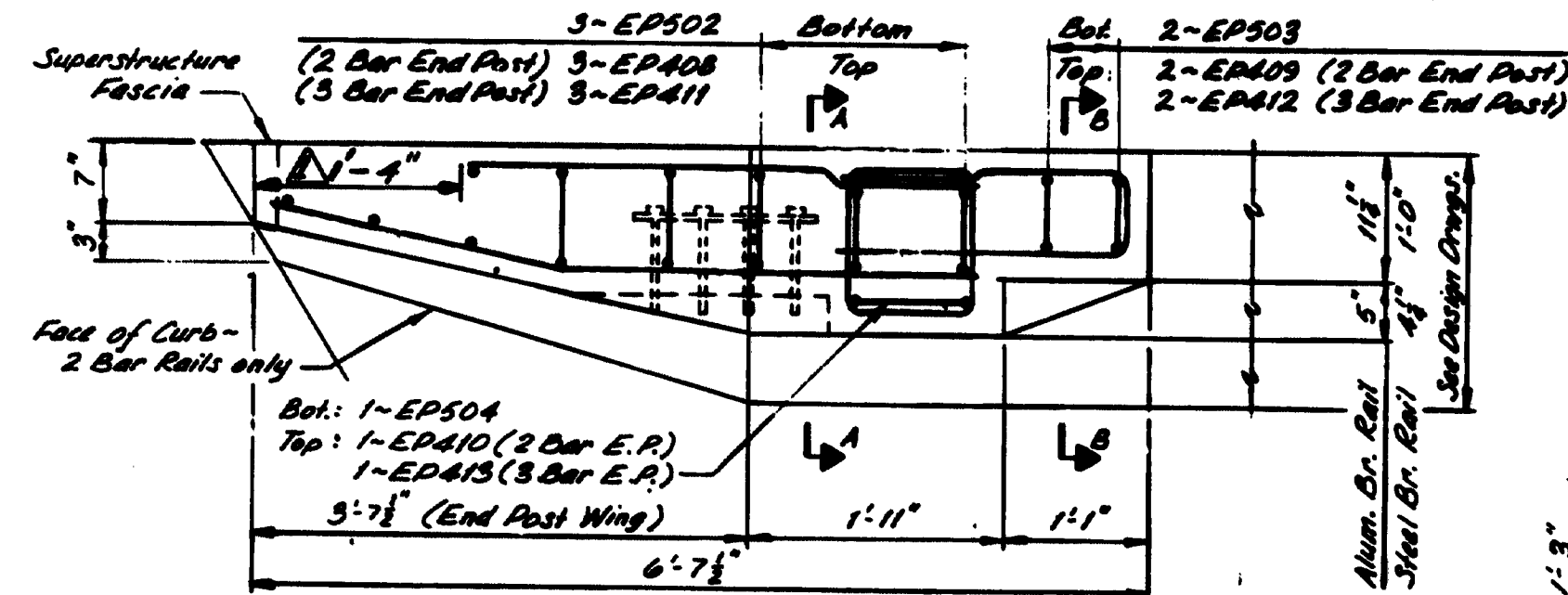


TYPICAL PLAN

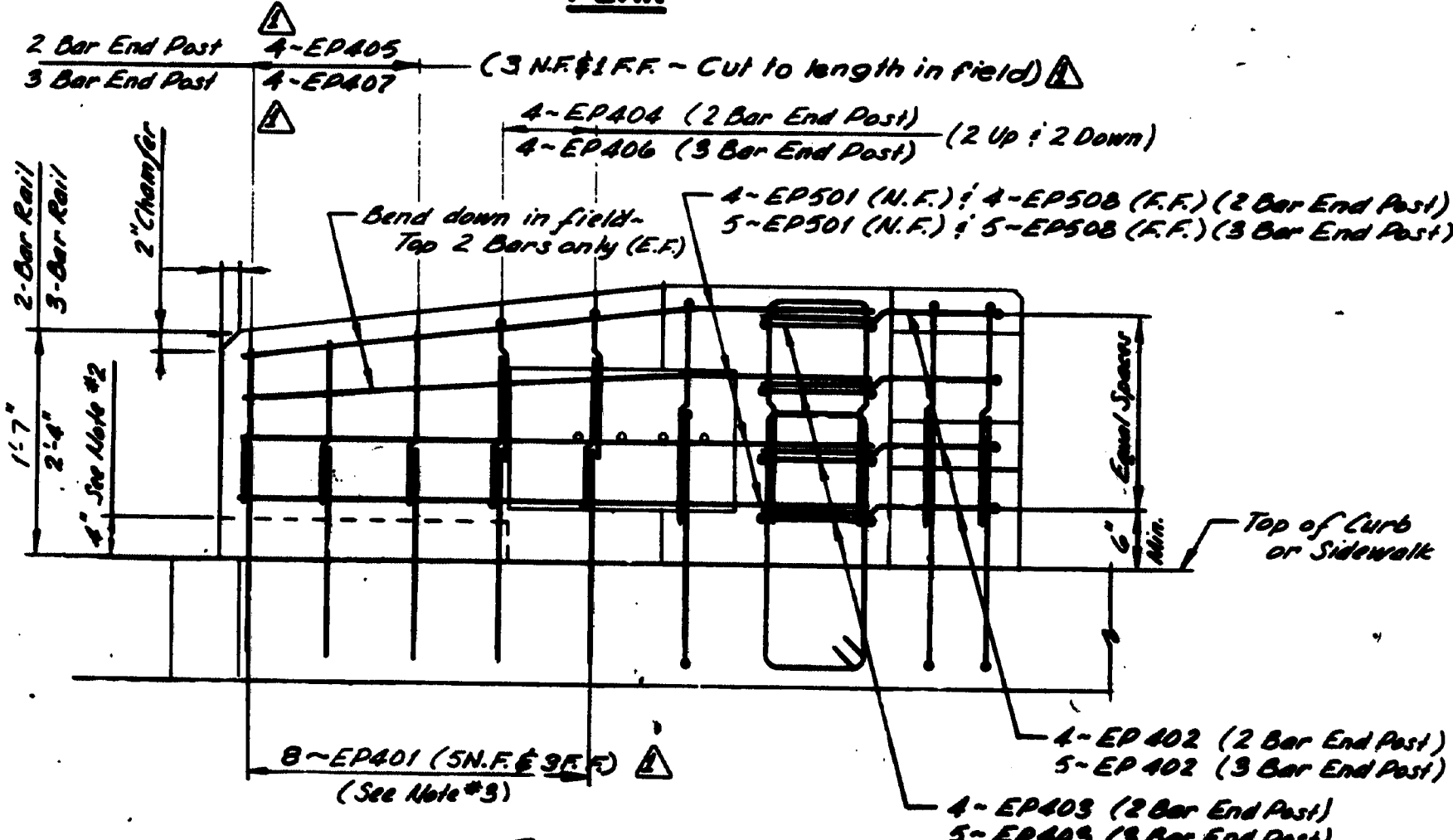


ELEVATION

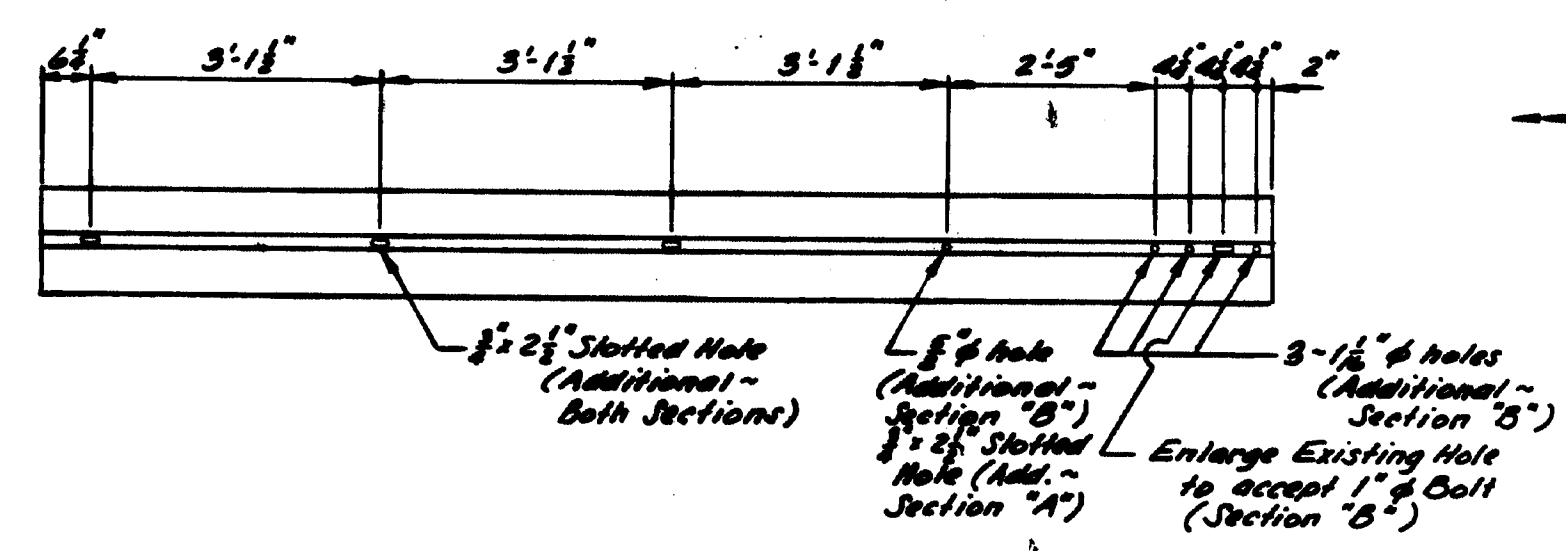
2-Bar Bridge Rail (Aluminum or Steel)



PLAN

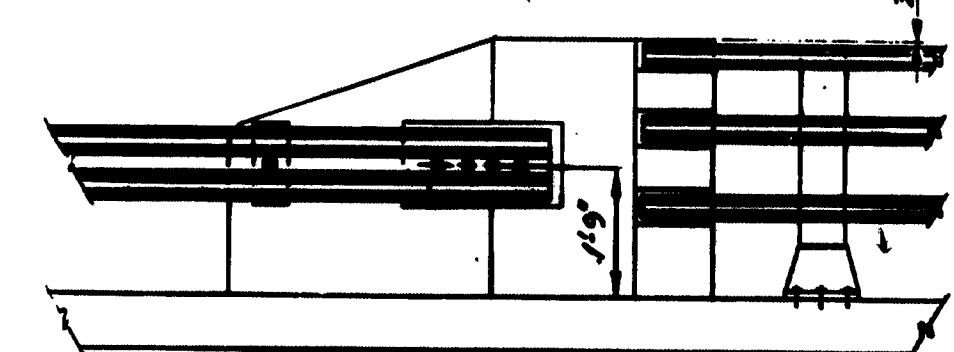


ELEVATION



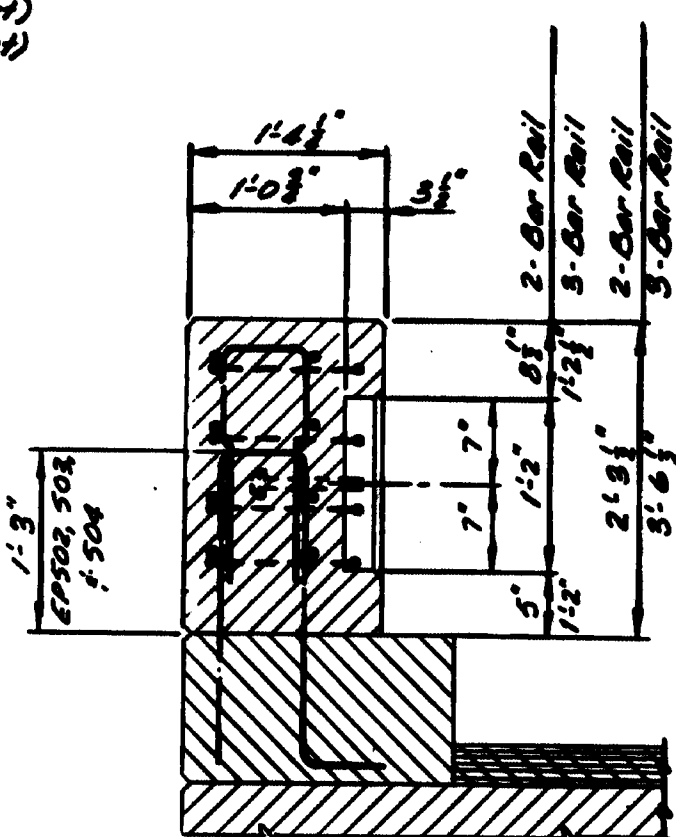
MODIFIED GUARD RAIL SECTIONS

(See Note #6)

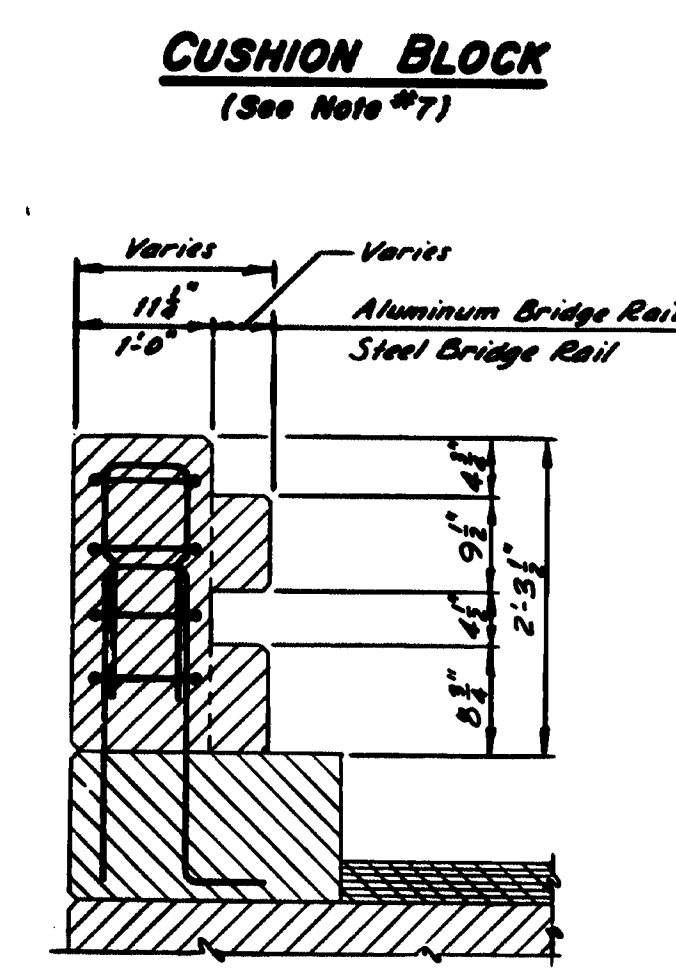


ELEVATION

3-Bar Bridge Rail (Aluminum or Steel)

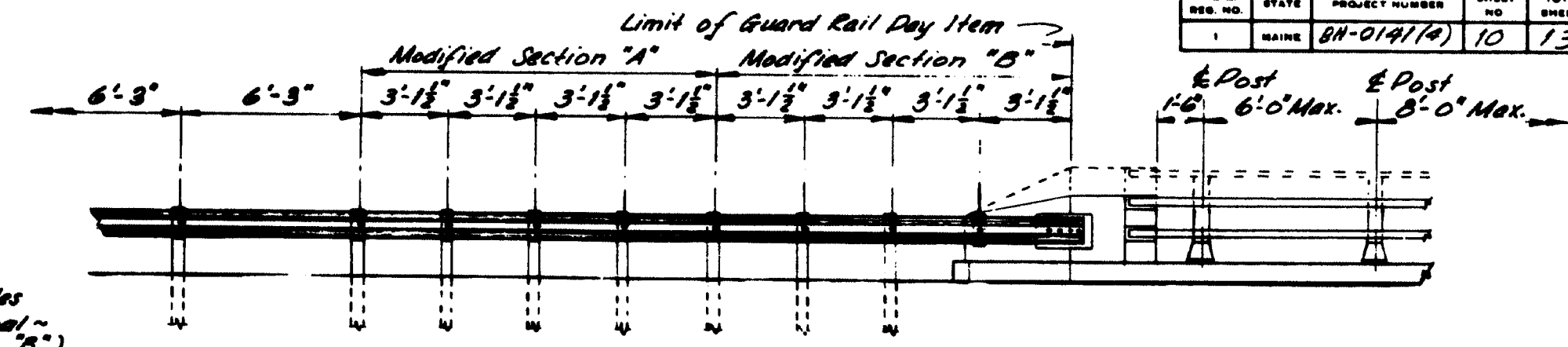


SECTION A-A

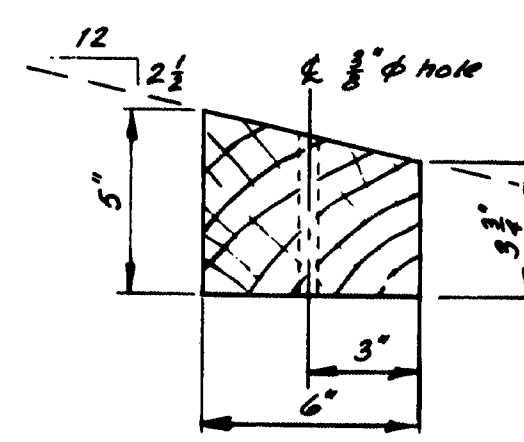


SECTION B-B

2-Bar Bridge Rail (Aluminum or Steel)



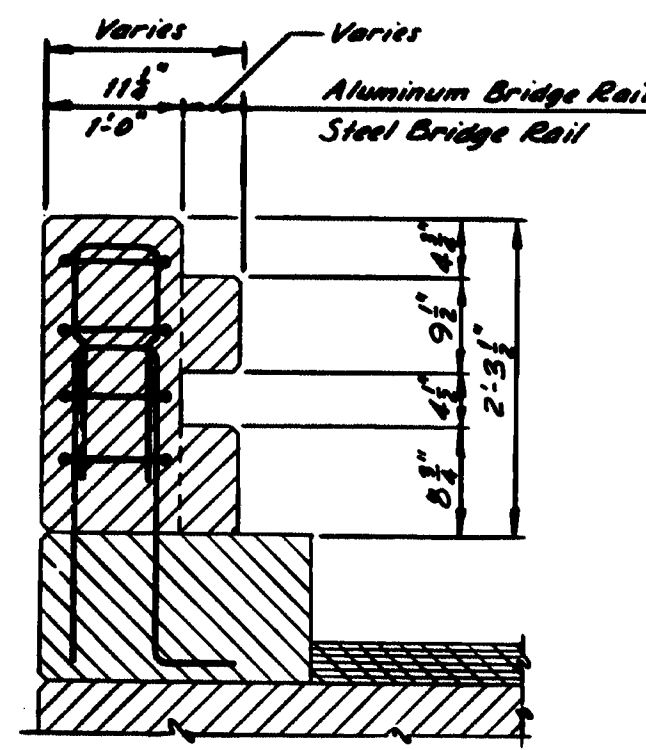
RAILING - ELEVATION



SECTION M-M

CUSHION BLOCK

(See Note #7)



SECTION B-B

3-Bar Bridge Rail (Aluminum or Steel)

LEGEND

N.F. = Near Face E.F. = Each Face
F.F. = Far Face

- NOTES**
- For locations of End Posts on the structure, see Design Drawings.
 - At times, an End Post Wing may be cantilevered for all or part of its length. For details, see Design Drawings.
 - If an End Post Wing is cantilevered, bars EP401 to be omitted as needed.
 - When End Post Wing is cantilevered more than 2'-0", all #5 bars shall be replaced by #7 bars.
 - Nuts for 3/4" anchor bolts shall be incidental to Guard Rail Pay Items. Nuts shall conform to A.S.T.M. A563, Grade DH, galvanized in accordance with A.S.T.M. A153, or Grade C3, plain.
 - Additional holes in the Modified Guard Rail Sections may be made by drilling, punching, or any other method that produces a neat, clean hole of the required size. Burning of holes will not be allowed.
 - Cushion Block material shall be as specified for Wood Posts in Subsection 710.07 (a). Payment for Cushion Blocks and Log Bolts shall be incidental to the Guard Rail Pay Items.
 - Reinforcing Steel shall have 2" min. concrete cover.
 - After installation of Guard Rail is complete, upset the thread on the anchor bolts in three places around each bolt, at the junction of the nut and the exposed thread, with a center punch or similar tool.
 - Guard Rail Anchorage shall be incidental to the applicable concrete pay item.
 - End Posts shall be constructed normal to grade unless otherwise shown on Design Drawings.
 - If there is a conflict between this Standard Detail and the Design Drawings, the requirements of the Design Drawings shall be followed.

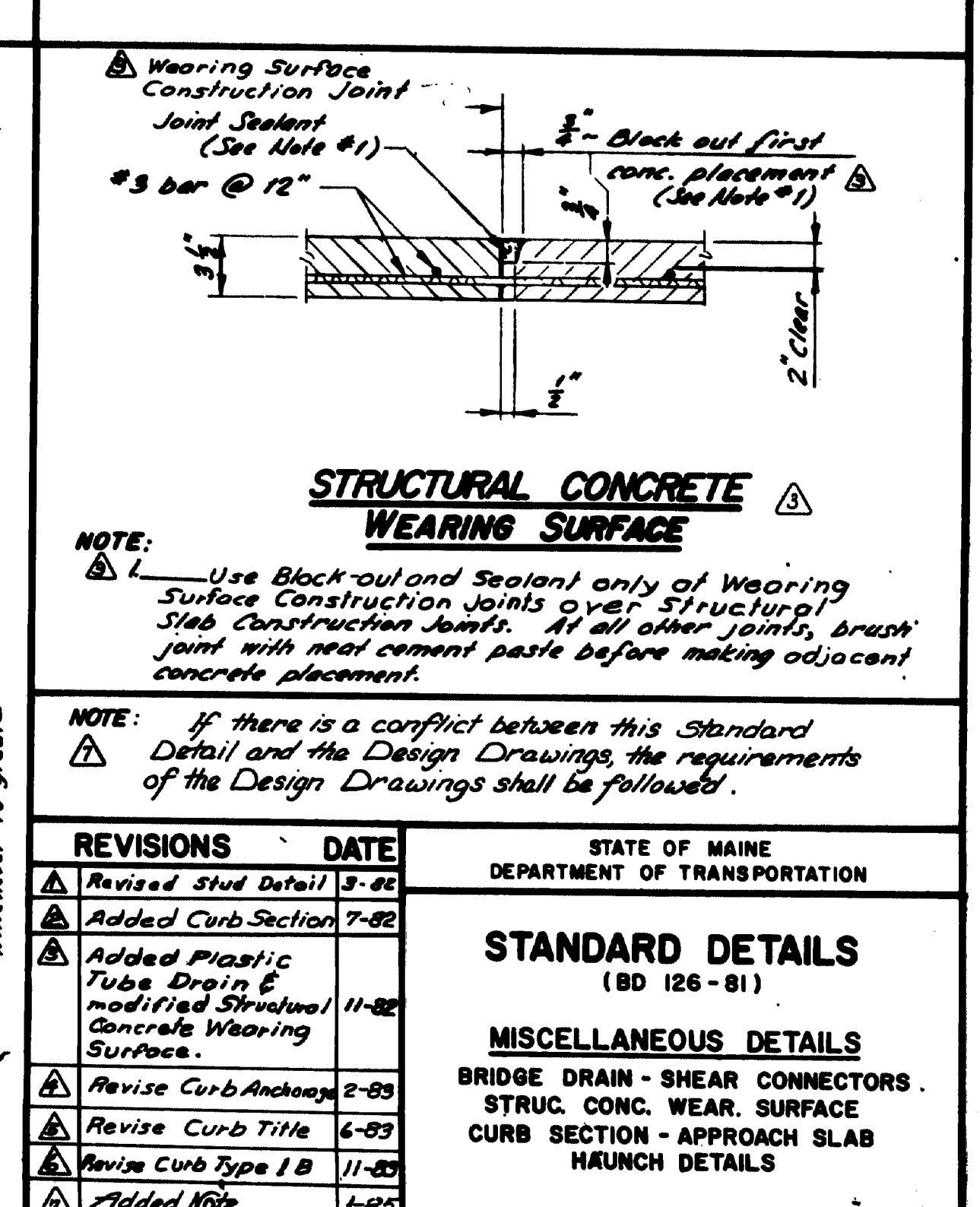
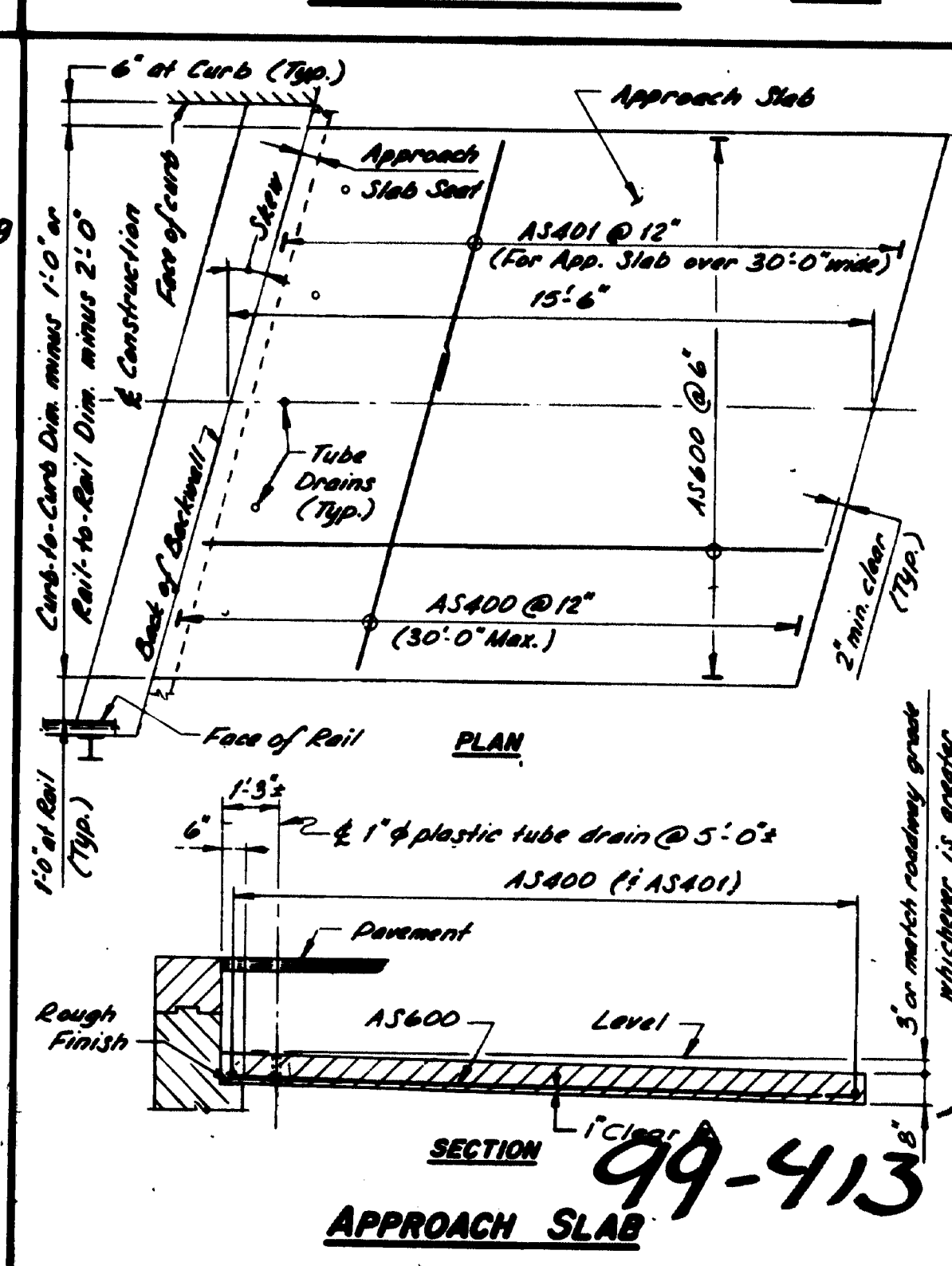
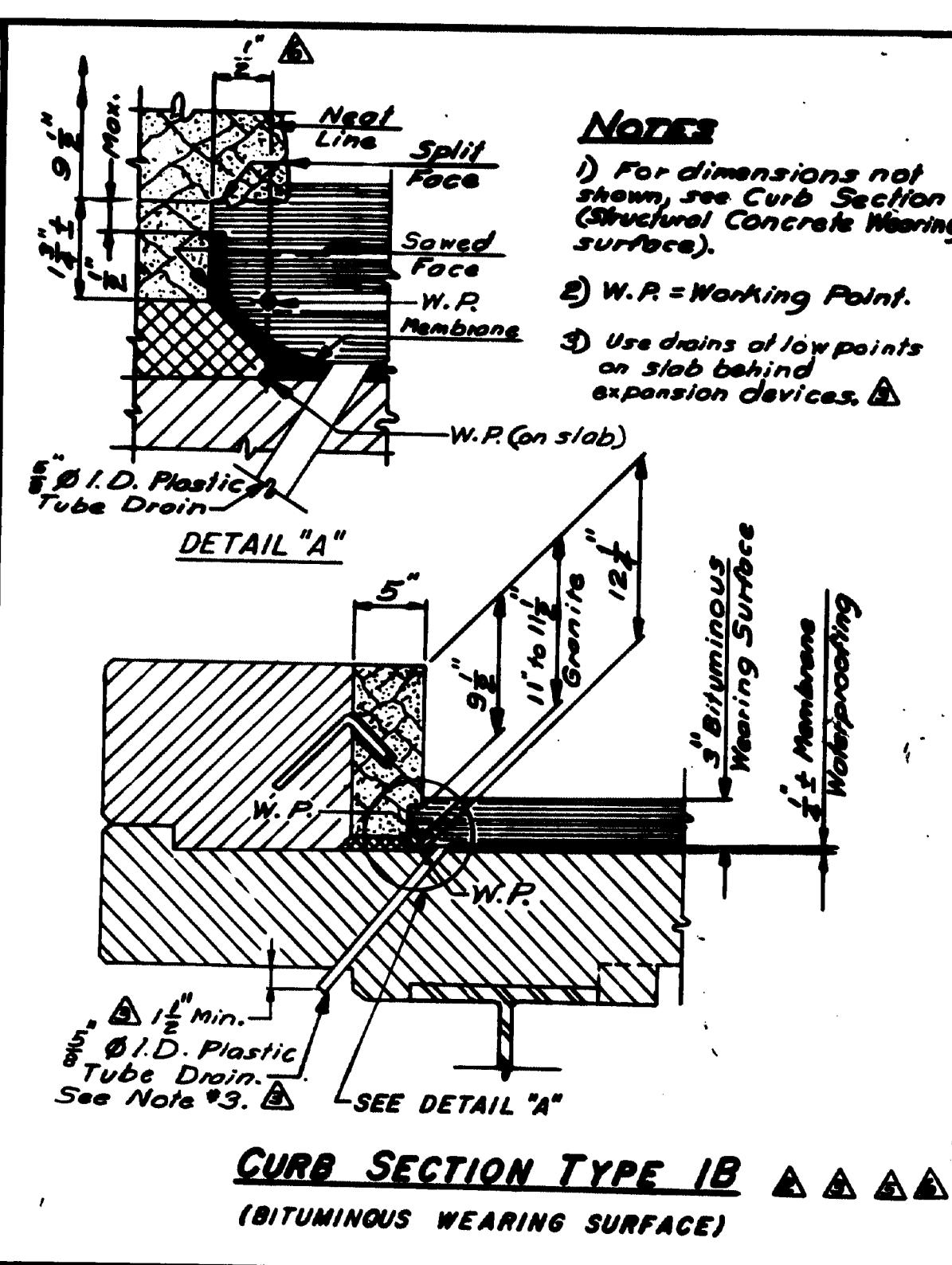
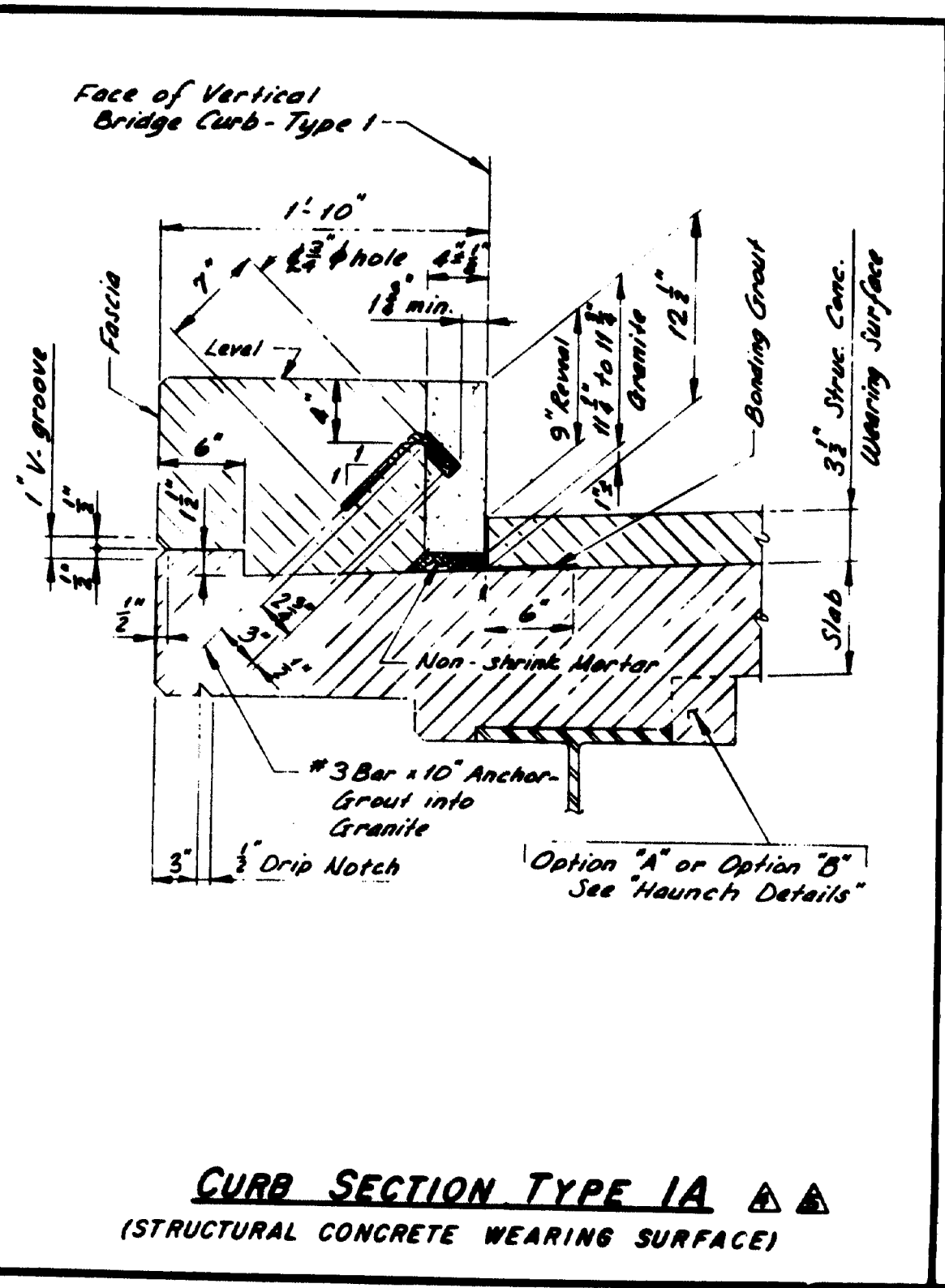
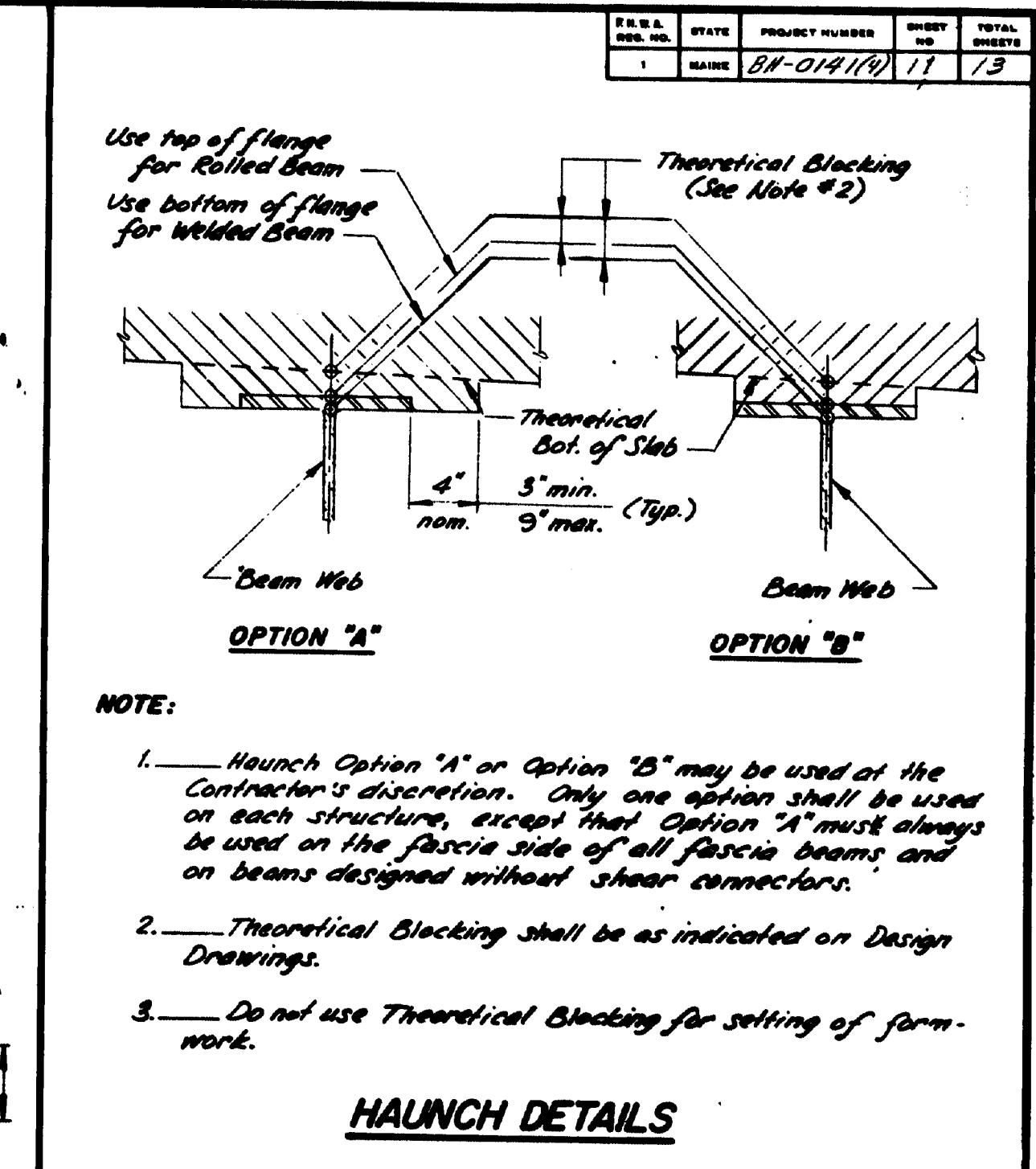
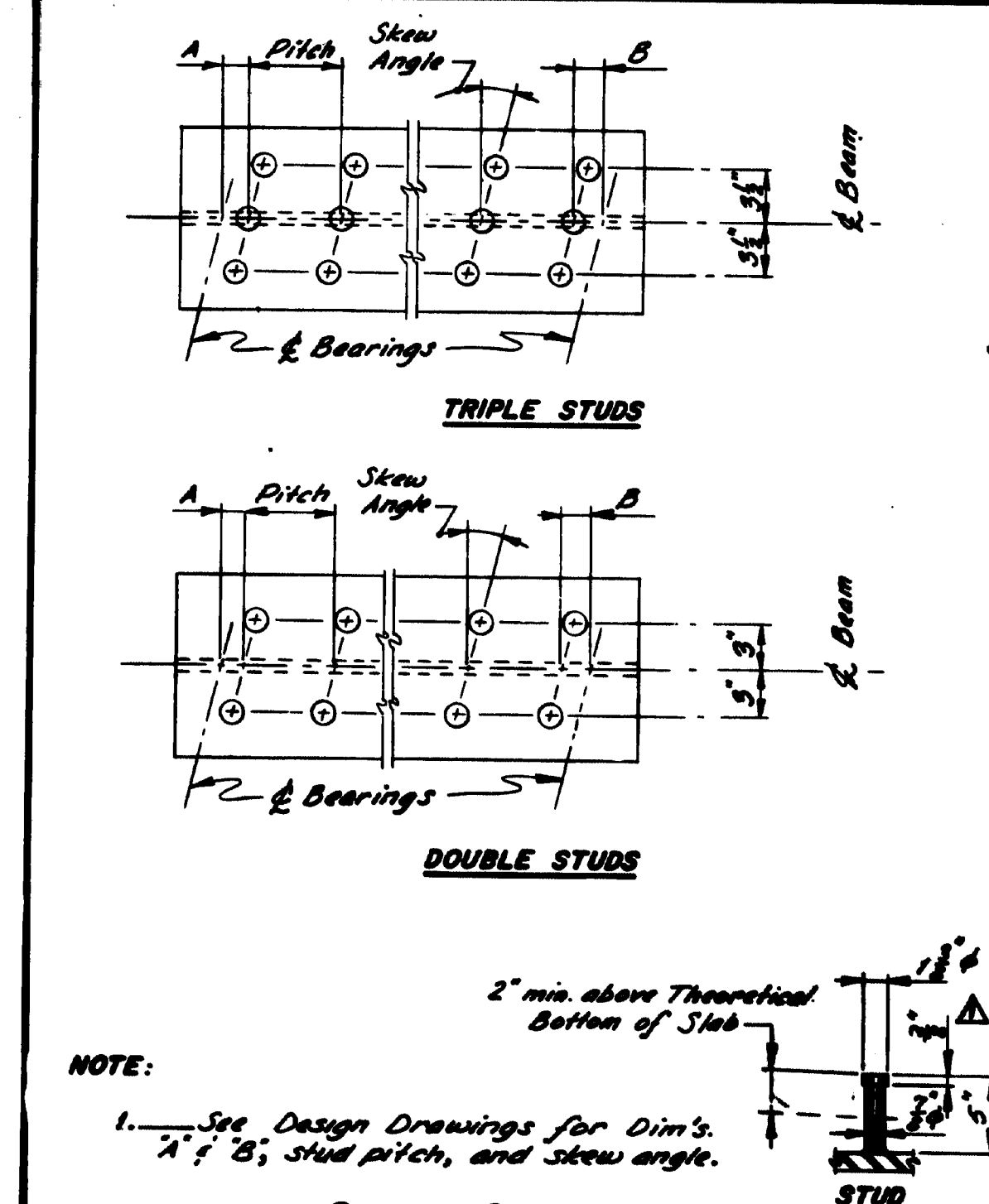
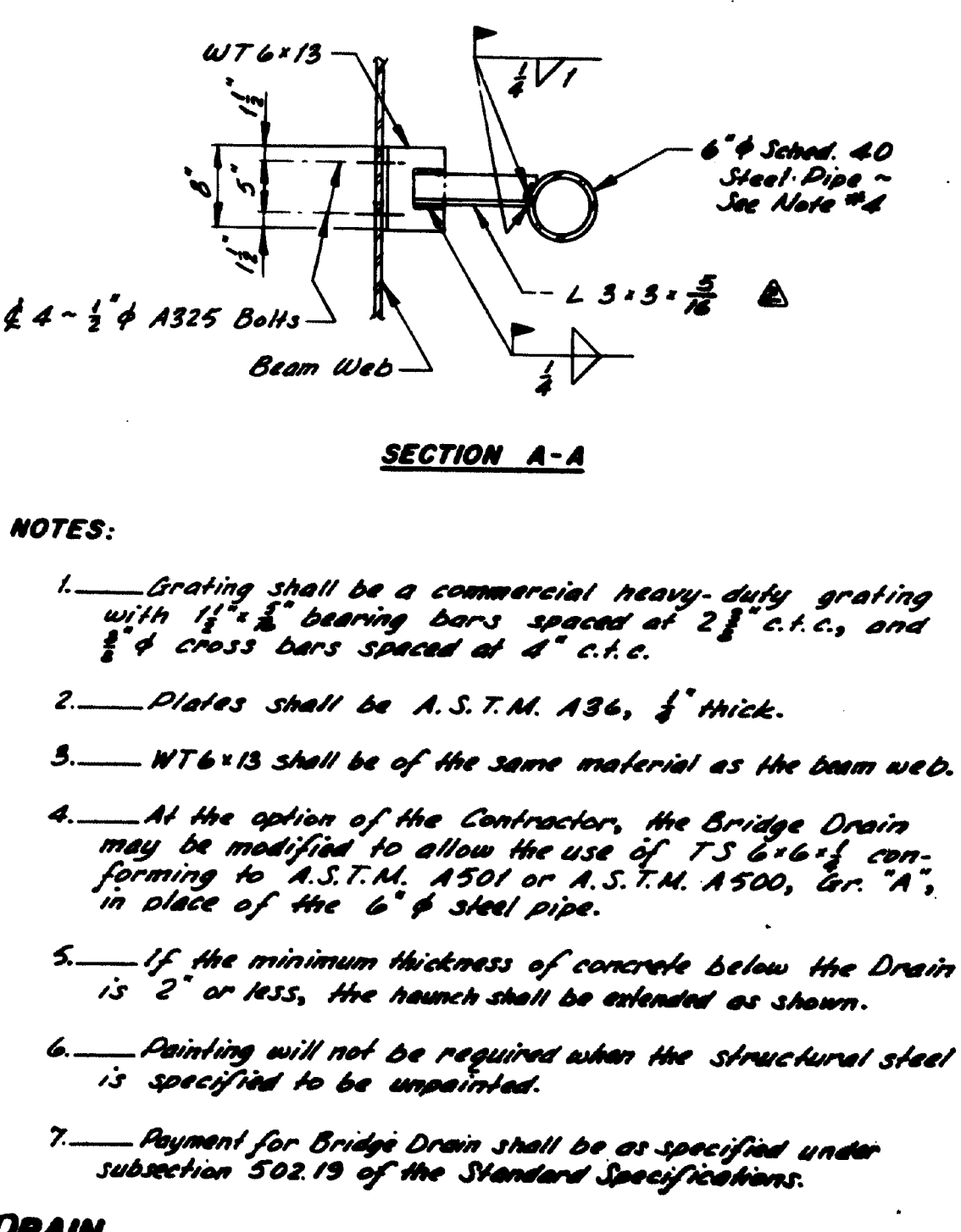
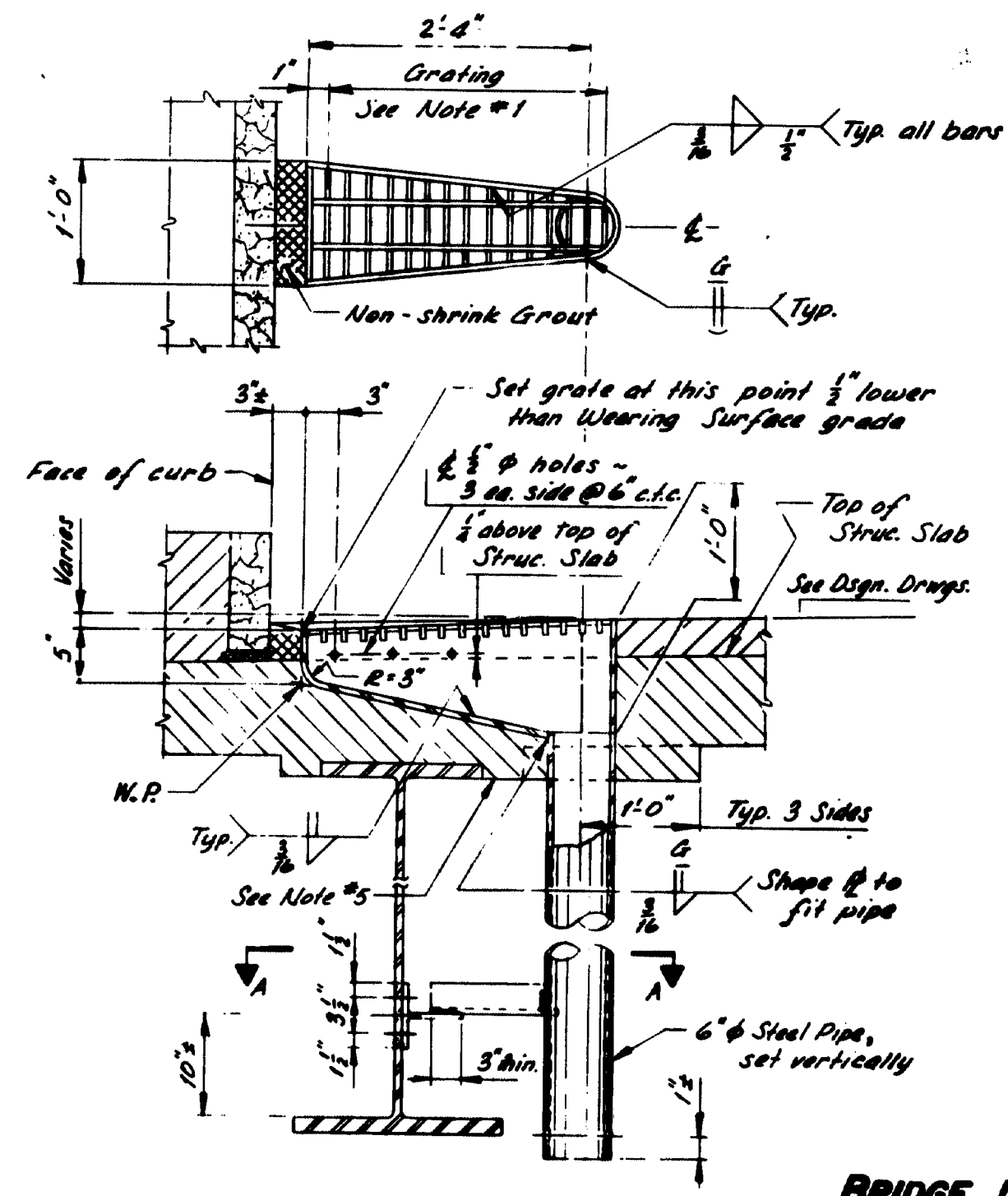
REVISIONS	DATE
General Revisions 1-93	
Added Note # 12	1-85

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
STANDARD DETAILS (BD 120-81)
CONCRETE END POSTS

GUARD RAIL ANCHORAGE

VIEW N-N

99-412



REVISIONS	DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION
Revised Stud Detail	3-82	
Added Curb Section	7-82	
Added Plastic Tube Drain & modified Structural Concrete Wearing Surface.	11-82	
Revise Curb Anchorage	2-83	
Revise Curb Title	6-83	
Revise Curb Type 1B	11-83	
Added Note	1-85	

STANDARD DETAILS
(BD 126-81)

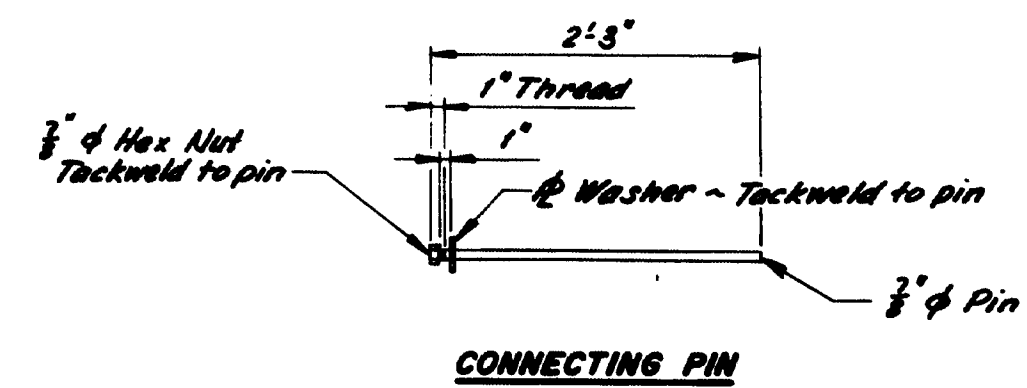
MISCELLANEOUS DETAILS
BRIDGE DRAIN - SHEAR CONNECTORS
STRUC. CONC. WEAR. SURFACE
CURB SECTION - APPROACH SLAB
HAUNCH DETAILS

SHEET 11 OF 13 AUGUSTA, MAINE JUNE 1981
Yarmouth - Freeport

PROJECT ENGINEER	DATE
DESIGNED BY	10/28/82
CHECKED BY	
REVISIONS	
FIELD CHANGES	

PLANS

BRUNING 44 132 45710



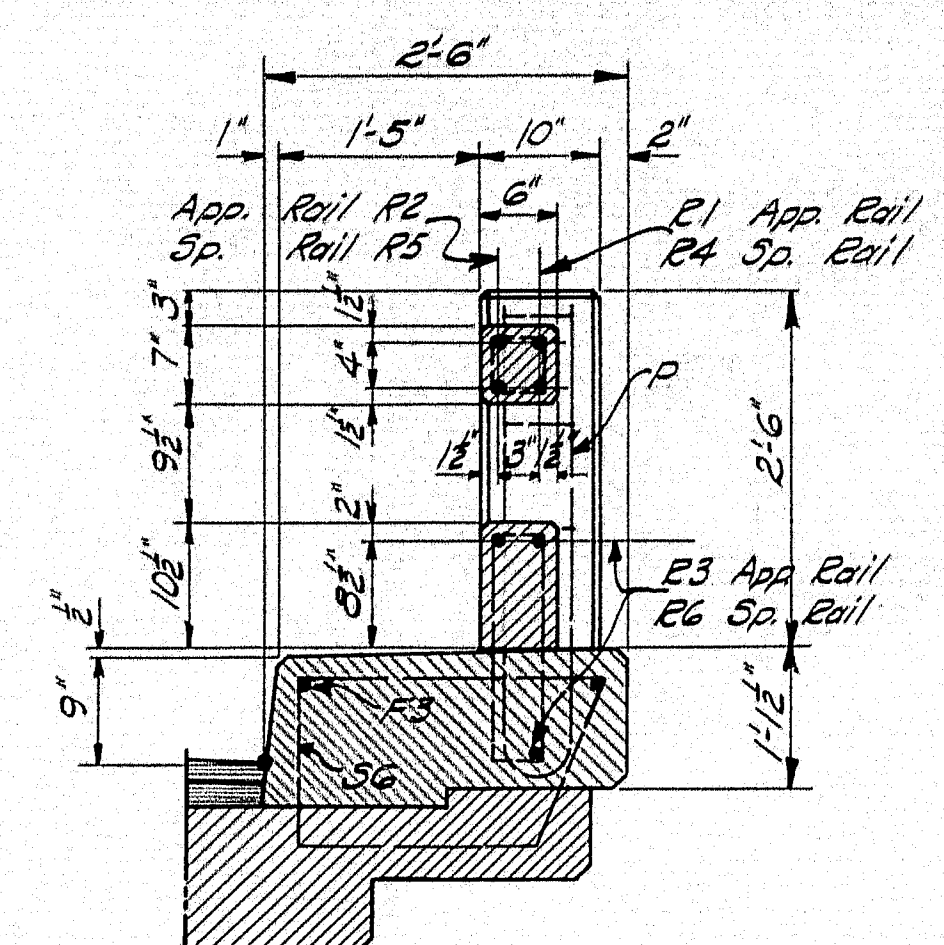
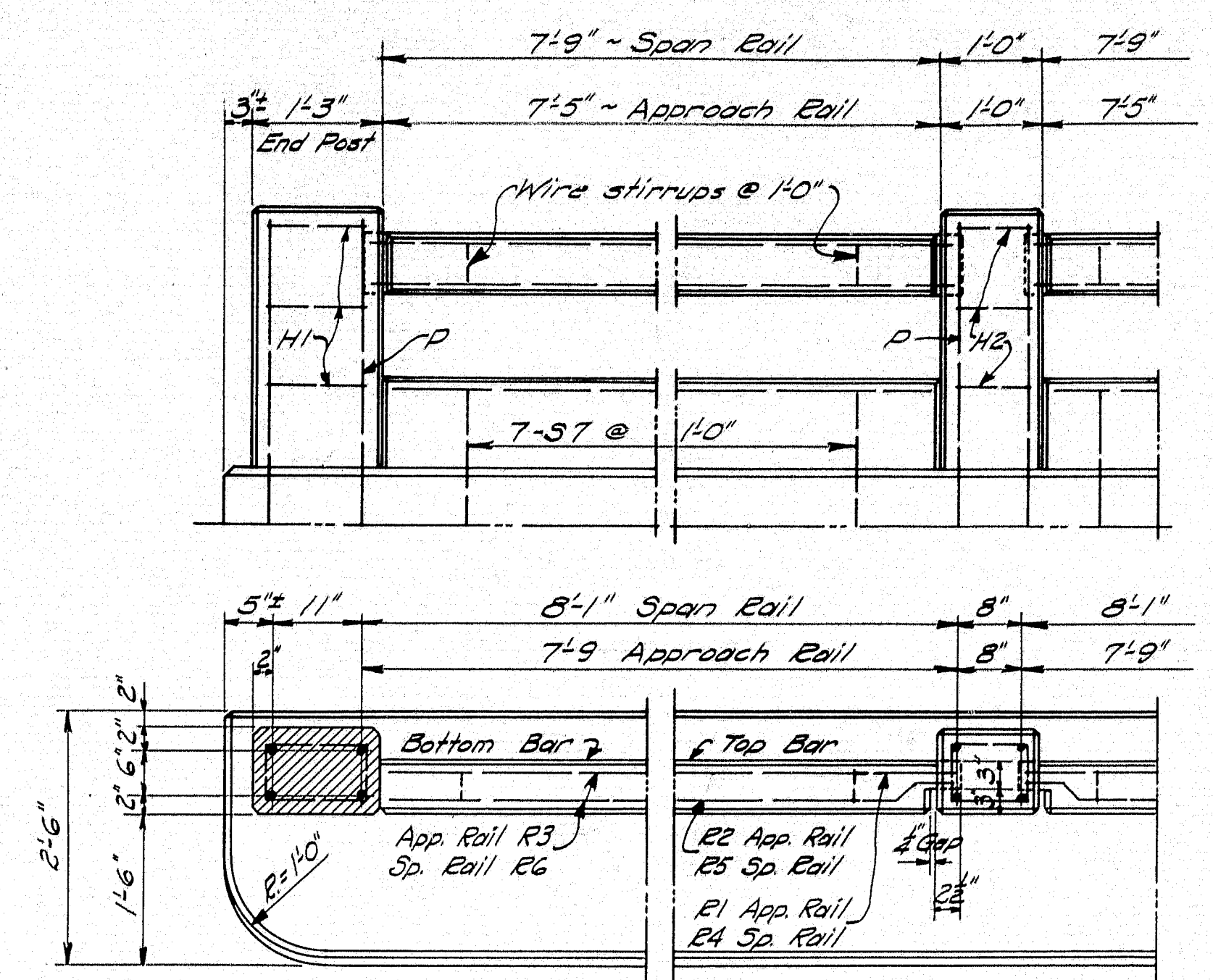
1. The reinforcing steel, and connections, lifting arrangement, and sizes and locations of hold-down inserts are advisory only. It shall be the Contractor's responsibility to provide adequate reinforcing, and connections, lifting points, and hold-down arrangements.
2. Barrier Delineators shall be bi-directional 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.

CONCRETE JOINTS

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

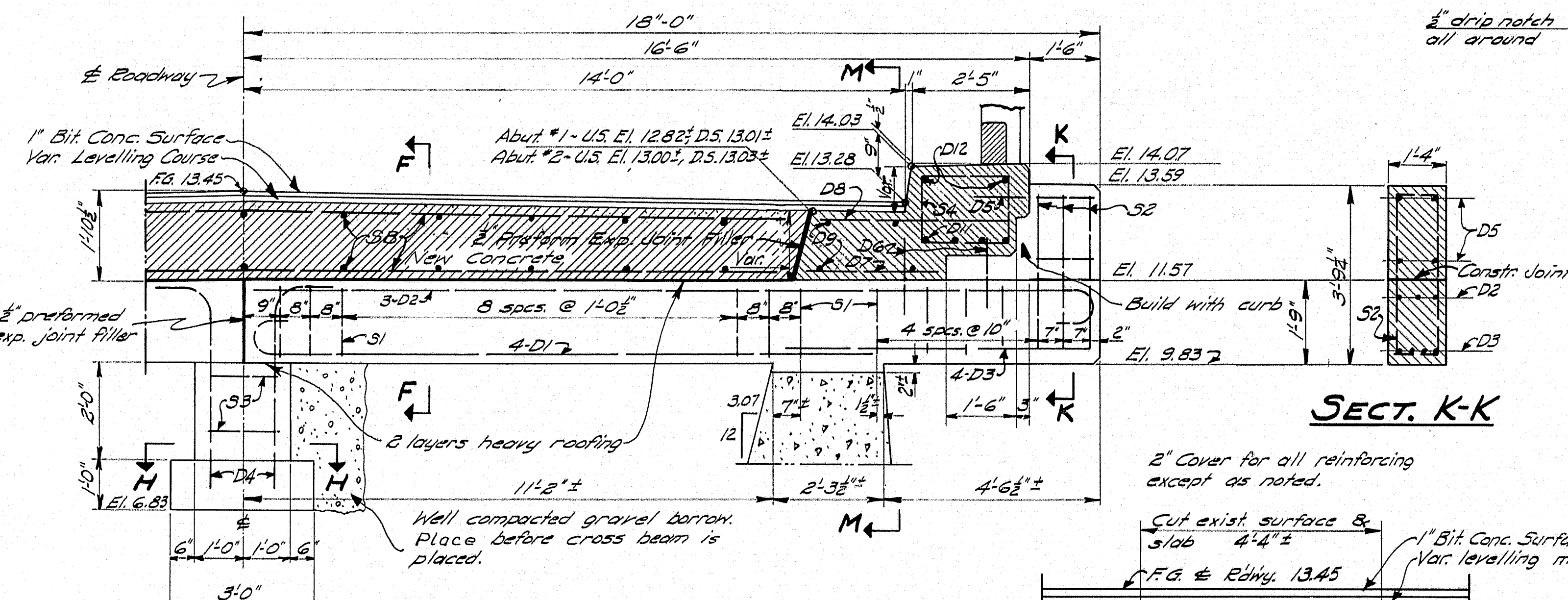
 ADDED NOTE	1-85
 Added 13 HP's	7-83
REVISIONS	Date

SHEET 12 OF 13 AUGUSTA, MAINE JUNE 1981
Vermouth - Freeport

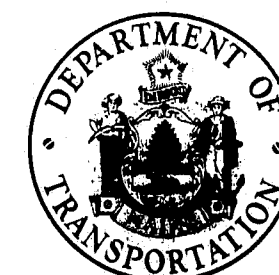


Posts to be vertical. Steel for posts and bottom bars to be in position before curb is cast. The bottom bar is cast in place. The top bar is to be precast and set in position so that the torque ends project into post forms. Wrap the torque ends with 2 layers of heavy roofing. All exposed edges of concrete to be chamfered $\frac{1}{2}$ " unless otherwise indicated. Wire stirrups to be constructed in the field from a single strand of #9 annealed wire. In forming the stirrups make a complete turn around each reinforcing bar.

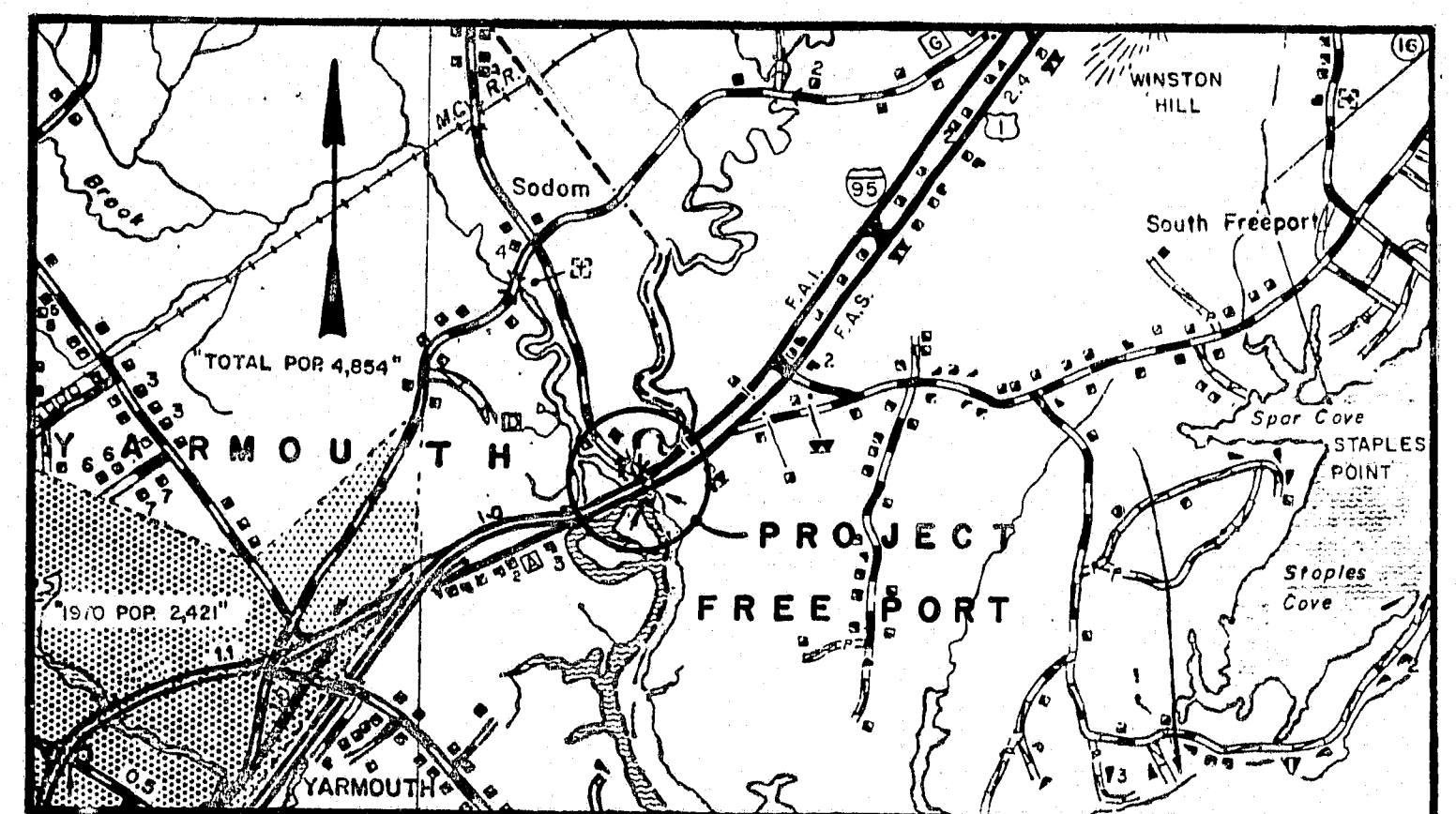
RAIL DETAIL



STATE OF MAINE DEPARTMENT OF TRANSPORTATION



YARMOUTH-FREEPORT CUMBERLAND COUNTY MAINE FEDERAL AID INTERSTATE PROJECT NO. I-95-4 142162 OVER COUSINS RIVER PROJECT LENGTH 0.019 MILES



0 1 2 3 miles

SCALE
LOCATION MAP

Coast Guard Permit No. I-84-1

CONVENTIONAL SIGNS	
COUNTY LINES	=====
TOWN LINES	-----
PROPERTY LINES	=====
R/W LINES-EXISTING	=====
R/W LINES-NEW-ACCESS CONTROL	=====
R/W LINES-NEW-NO ACCESS CONTROL	=====
CULVERT-EXISTING	=====
CULVERT-PROPOSED	=====
CURBING-EXISTING	=====
CURBING-PROPOSED	=====
TRAVELLED WAY-EXISTING	=====
TRAVELLED WAY-PROPOSED	=====
UNDERGROUND UTILITIES-EXISTING	=====
UNDERGROUND UTILITIES-PROPOSED	=====
RAILROAD-SINGLE TRACK	=====
RAILROAD-DOUBLE TRACK	=====
UTILITY POLE-EXISTING	=====
UTILITY POLE-JOINT OCCUPANCY	=====
PROPOSED UTILITY POLE-TEMPORARY	=====
PROPOSED UTILITY POLE-PERMANENT	=====
TREES	=====
WOODS	=====

DESIGN: Load Factor Design per AASHTO Standard Specifications for Highway Bridges
1977 and interim specifications thru 1983.
CONTRACT: State of Maine, Department of Transportation, Standard
Specifications, Highways and Bridges, Revisions of June 1981.

DESIGN LOADING

LIVE LOAD HS 25
STRESS CYCLES 500,000

MATERIALS

CONCRETE Class A
REINFORCING STEEL ASTM A615, Grade 60
STRUCTURAL STEEL:
Beams ASTM A572
All Other ASTM A36
High Strength Bolts ASTM A325, TYPE I

BASIC ALLOWABLE STRESSES

CONCRETE $f'_c = 3000$ psi $n=9$
REINFORCING STEEL $f_y = 60,000$ psi
STRUCTURAL STEEL:
ASTM A572 $f_y = 50,000$ psi
ASTM A36 $f_y = 36,000$ psi
ASTM A325 $f_y = 33,000$ psi

TRAFFIC DATA			
DESCRIPTION	N.B.	S.B.	BOTH DIR.
ADT 1983	10679	10933	21612
ADT 2003	14955	15310	30265
DHV	2164	2164	3934
DHV-% of ADT D.D.H.V.			DHV 13
T% (AADT)	9	9	9
T% D.HOUR	5	5	5
D%	100	100	55
18KIP EQ, P2.5			1015

Plans of existing bridge and a hydrologic report of the bridge site 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. The hydrologic report is based on the interpretation by the Department of information obtained for the subject site and no assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.

NOTE

All work contemplated under this contract to be governed by and in conformity with the STANDARD SPECIFICATIONS (revision of June 1981) and supplementals thereto, except as modified on the plans and in the special provisions.

F.R.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	1	34

INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
QUANTITIES	2
GENERAL PLAN	3
SURVEY	4
PROFILES	5-6
FOUNDATION SURVEY	7-8
ABUTMENT NO. 1	9-12
ABUTMENT NO. 2	13-16
STRUCTURAL STEEL	17
BLOCKING PLAN	18
SUPERSTRUCTURE	19-20
REINFORCING STEEL SCHEDULE	21-23
STANDARD DETAILS	24-30
TRAFFIC MAINTENANCE	31-33
RIGHT-OF-WAY MAP	34

STANDARD DETAILS

BD 101-81	BEARING PEDESTALS
BD 113-81	DIAPHRAGMS and CROSSFRAMES
BD 114-81	ALUMINUM BRIDGE RAILING 2-BAR
BD 120-81	CONCRETE END POSTS
BD 125-82	EXPANSION DEVICE-COMPRESSION SEAL (BIT.W.S.)
BD 126-81	MISC. DETAILS-SUPERSTRUCTURE, APPR.SLAB
BD 127-81	MISC. DETAILS-SUPERSTRUCTURE

APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
David White
COMMISSIONER

DATE

12-27-83

Richard Coleman
CHIEF ENGINEER

12-27-83

AS BUILT 1985 R/P

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION I

APPROVED:

DIVISION ADMINISTRATOR DATE

R93-56

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-44262	2	34

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.19	Removing Existing Bridge	1	L.S.
203.25	Granular Borrow	5000	C.Y.
203.26	Gravel Borrow	110	C.Y.
206.081	Str. Earth Exc. - Abuts., Ret. Walls, Box Culverts, & Struc. Plate Units	10	C.Y.
403.08	Hot Bituminous Pavement, Grading C	145	Ton
501.217	Steel H Beam Piles 89 lbs/Ft	6120	L.F.
502.21	Str. Concrete, Abuts. & Retaining Walls	542	C.Y.
502.260	Str. Concrete Roadway & Sidewalk Slabs on Steel Bridges	1	L.S.
502.310	Str. Concrete Approach Slabs	1	L.S.
503.12	Reinforcing Steel Fab & Delivered	87,800	LBS.
503.13	Reinforcing Steel Placing	87,800	LBS.
504.700	Str. Steel Fab & Delivered	1	L.S.
504.710	Str. Steel Erection	1	L.S.
505.080	Shear Connectors	1	L.S.
506.141	Field Painting New Structural Steel	1	L.S.
507.092	Aluminum Bridge Railings, 2 Bar	400	L.F.
508.10	Membrane Waterproofing	880	S.Y.
511.0701	Cofferdam Abut. 1	1	L.S.
511.0702	Cofferdam Abut. 2	1	L.S.
512.08	French Drains	276	L.F.
514.06	Curing Box for Concrete Cylinders	1	Each
515.21	Protective Coating for Concrete Surfaces	1	L.S.
520.22	Expansion Device - Compression Seal	2	Each
609.132	Vertical Bridge Curb Type 1B	422	L.F.
610.03	Plain Riprap	1800	C.Y.
616.08	Sodding	50	S.Y.
618.15	Temporary Seeding	30	LBS.
619.12	Mulch	9	Unit
639.19	Field Office Type B	1	Each

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
652.31	Type I Barricades	10	Each
652.35	Construction Signs	300	S.F.
652.361	Maintenance of Traffic Control Devices	1	L.S.
652.38	Flagger	300	M.H.
656.50	Baled Hay, In Place	15	Each
656.51	Sandbags, In Place	15	Each
657.24	Seeding Pits	15	Unit
659.10	Mobilization	1	L.S.
660.21	On-the-Job Training (Bid)	1000	M.H.

Estimate of Lump Sum Quantities

502.26	Str. Concrete Roadway & Sidewalk Slabs on Steel Bridges	262	C.Y.
502.31	Str. Concrete Approach Slabs	60	C.Y.
504.70	Str. Steel Fab & Delivered	288,000	LBS.
504.71	Str. Steel Erection	288,000	LBS.
505.08	Shear Connectors	3048	Each

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAIL	2/24/84
CHECKED	2/24/84
REVISIONS	
FIELD CHANGES	

AS BUILT 1985 Rep

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I-95
OVER
COUSINS RIVER
YARMOUTH AND FREEPORT

QUANTITIES

SHEET 2 OF 34 AUGUSTA, MAINE Feb 1984

R93-57

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	I-95-44268	3	34

SPECIFICATIONS

DESIGN - Load Factor Design per AASHTO Standard Specifications for Highway Bridges, 1977 and Interim Specifications thru 1983.

CONTRACT - State of Maine, Department of Transportation, Standard Specifications Highways and Bridges, Revision of June 1983.

DESIGN LOAD - HS-25

MATERIALS - Concrete: Class A
Reinforcing Steel: ASTM A615 Grade 60
Structural Steel: Beam ASTM A572
High Strength Bolt: ASTM A325
All other ASTM A36

BASIC ALLOWABLE STRESSES

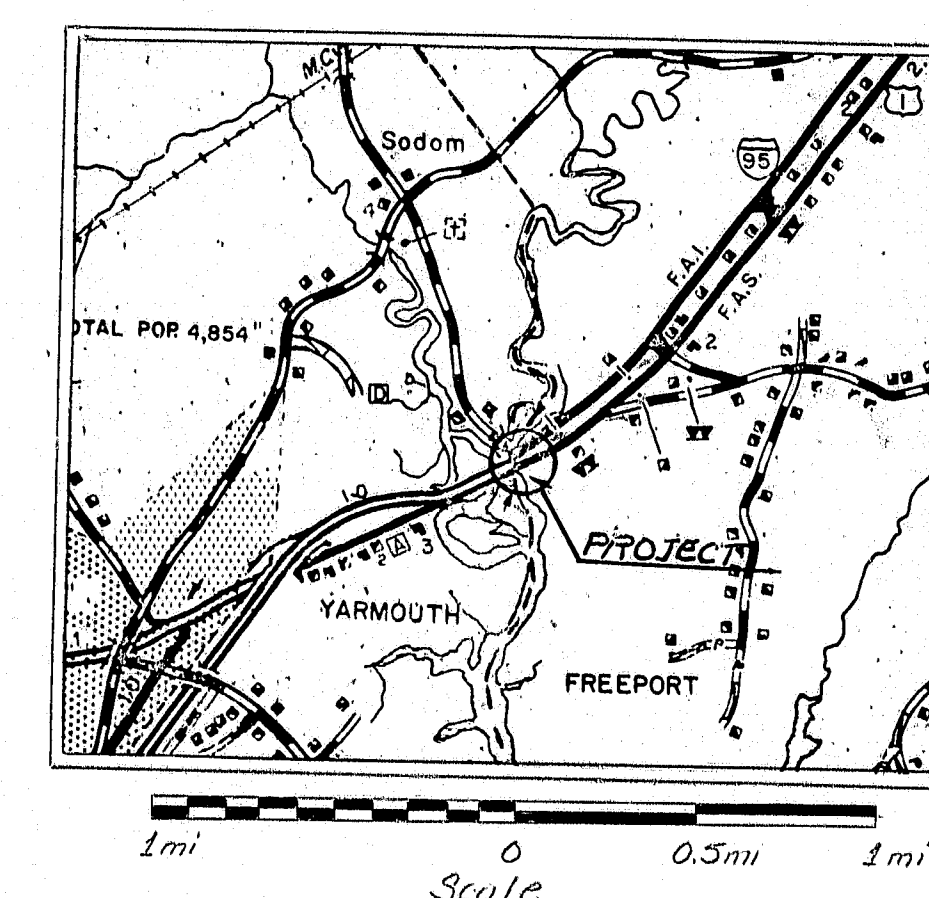
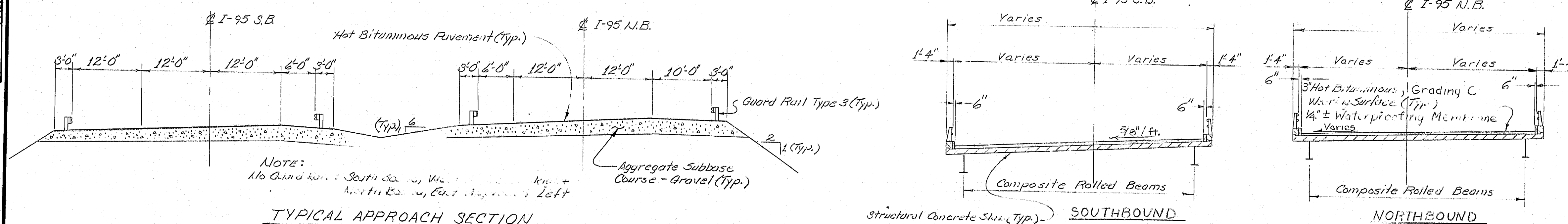
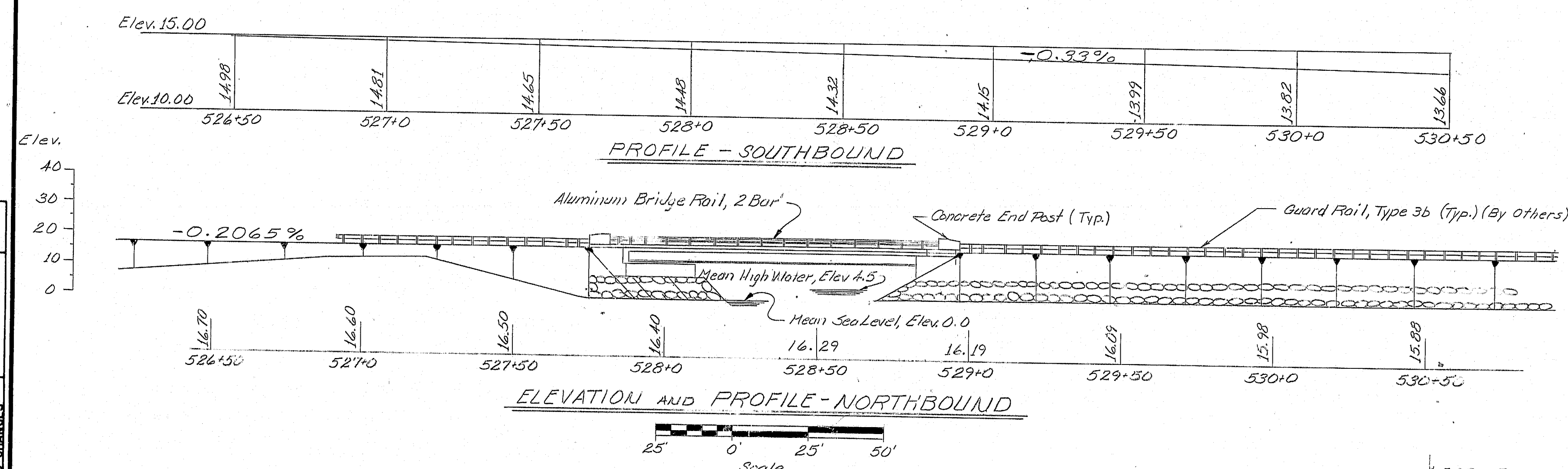
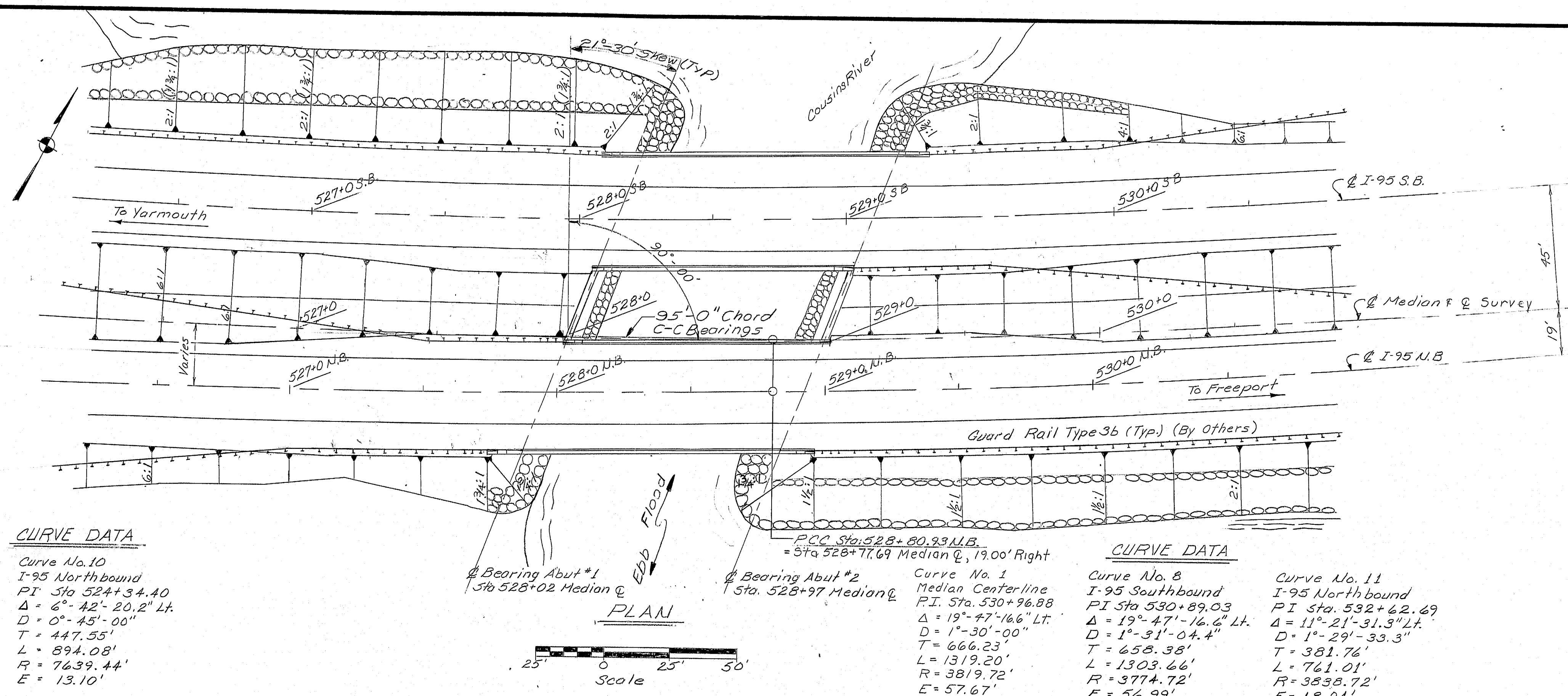
Concrete $f_c = 3,000$ psi $n = 9$
Reinforcing Steel $f_y = 60,000$ psi
Structural Steel $f_y = 50,000$ psi
ASTM A325 $f_t = 33,000$ psi
ASTM A36 $f_y = 36,000$ psi

TRAFFIC DATA

AADT (1983) 10,935
AADT (2003) 15,310
DHV 2.164
D (%) 100
T (%) 9
18 h.p. P2.5 1,015

HYDROLOGICAL DATA

Drainage Area 17.81 Sq. Miles
Design Discharge (Q50) 1,700 cfs
Check Discharge (Q100) 2,000 cfs
Mean Low Water Elev. -4.5
Mean Sea Level Elev. 0.0
Mean High Water Elev. +4.5
1983 Predicted High Tide Elev. +6.7



LOCATION MAP

AS BUILT 1985 Rep
Bridge No. 5621

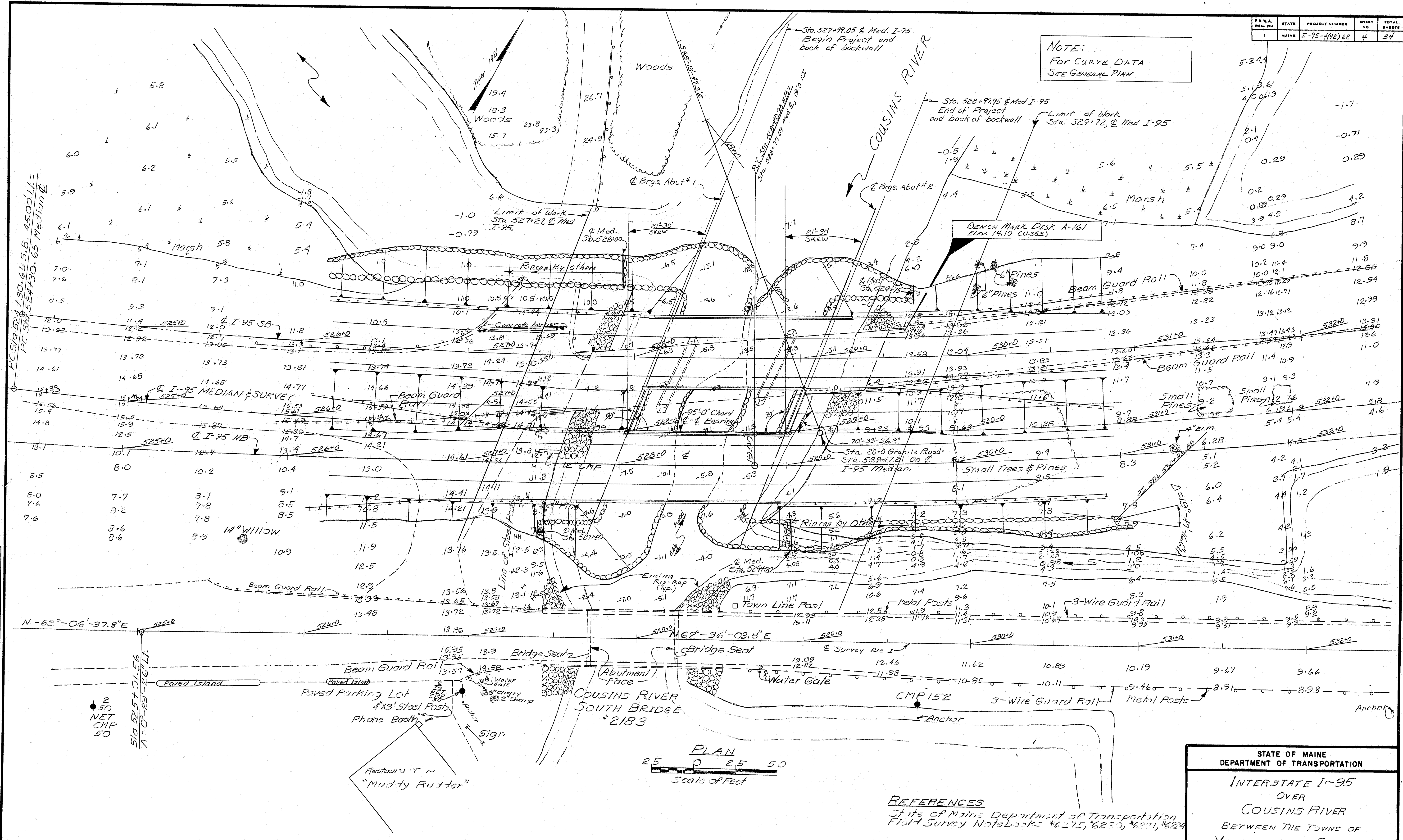
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I-95
OVER
COUSINS RIVER
BETWEEN THE TOWNS OF
YARMOUTH AND FREEPORT
GENERAL PLAN

R93-58

SHEET 3 OF 34 AUGUSTA, MAINE Feb. 1984

Survey Plotted
 PROJECT DESIGN ENGINEER JMB
 DATE 1/25/82
 DESIGN - DETAILED JMB
 REVISIONS
 PLANS
 FIELD CHANGES



NOTE:
 FOR CURVE DATA
 SEE GENERAL PLAN

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	I-95-442	62	4

REFERENCES
 State of Maine Department of Transportation
 Field Survey Notebooks Nos. 6215, 6253, 6251, 6254

R93-59

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 INTERSTATE I-95
 OVER
 COUSINS RIVER
 BETWEEN THE TOWNS OF
 YAKMOUTH AND FREEPORT
 SURVEY PLAN
 SHEET 4 OF 34 AUGUSTA, MAINE Feb. 1984

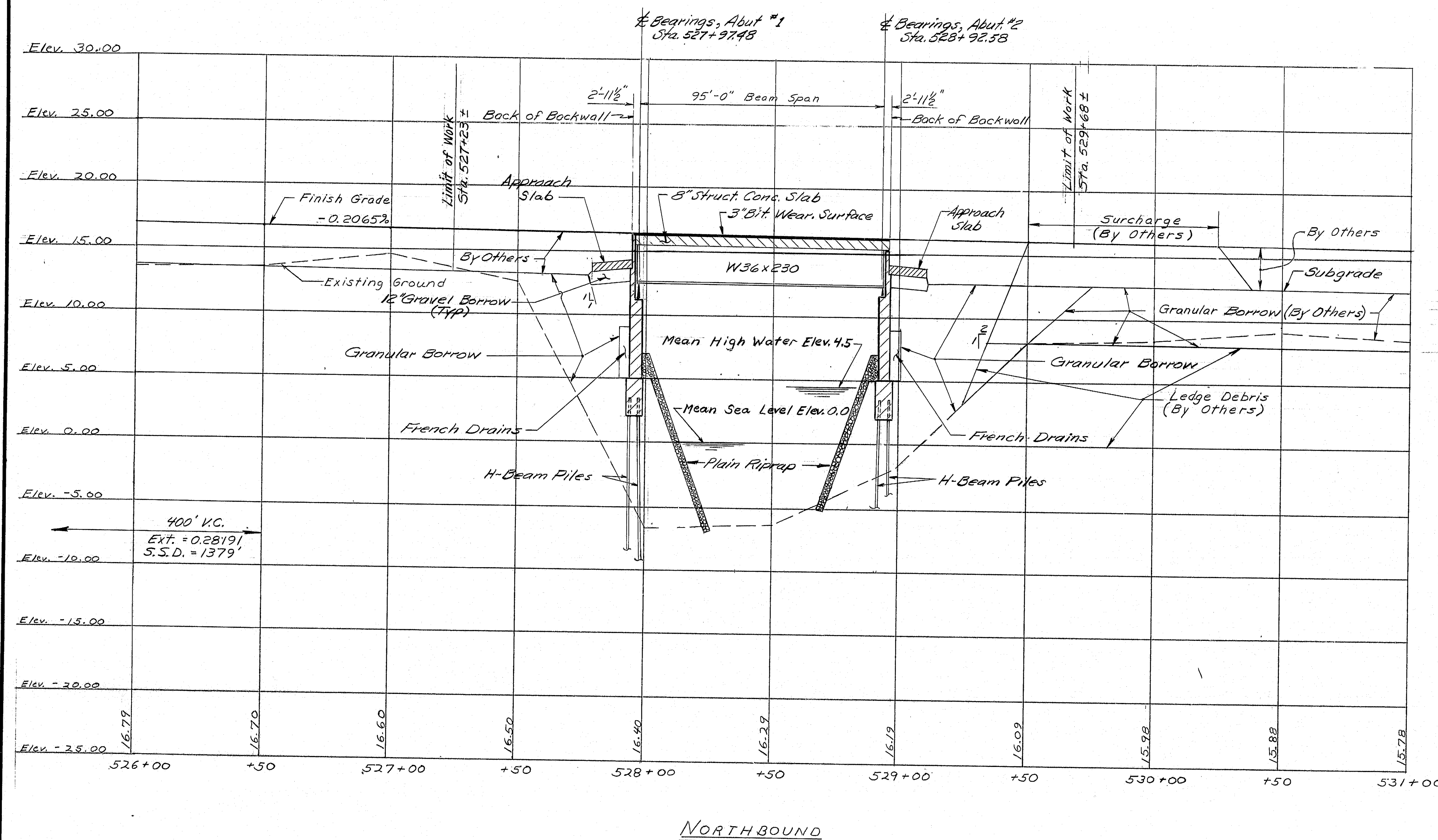
F.R.R.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	5	34

GENERAL CONSTRUCTION NOTES

1. All utility facilities shall be adjusted by the respective utilities unless noted.
2. For easements, construction limits and right-of-way lines refer to Right-of-Way Map.
3. Place a 2 foot wide strip of sod on the side slopes along the top of the riprap.
4. All embankment material, except as otherwise shown, placed below Elevation 6.00, shall be granular borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.
5. Removal of the Existing Bridge shall include the removal of the superstructure, removal of the abutment backwalls down to the bridge seat elevations, removal of wingwalls down to the elevation of adjacent bridge seats, and removal of the piers to a depth of 5 feet below the face of riprap or to the top of the distribution slab, whichever is higher. Payment will be made under Item 202.19, Removing Existing Bridge, Lump Sum.
6. This Project shall be built in two stages described as follows:
 Stage I - The abutments (stage I) for northbound and the northbound superstructure shall be constructed and backfill placed as shown on the plans.
 A detour (by others) shall be constructed to route southbound traffic over the northbound span.
 Stage II - The existing southbound bridge shall be removed to the limits described in note (5). The abutments (stage II) for southbound and the southbound superstructure shall be constructed, and backfill placed as shown on the plans.

AS BUILT NOTE

The abutments moved towards each other and as a result the armored joint opening at abutment 1 stage 1 (northbound structure) closed to the point that we were unable to install the compression seal. *Rp*



NORTHBOUND

PROJECT	DESIGN	ENGINEER	DATE
PLANS	DESIGNED	WED	5/84
	CHECKED	WED	5/84
	REVISIONS		
	FIELD CHANGES		

BRUNING 44-12 6710-1

AS BUILT 1985 *Rp*

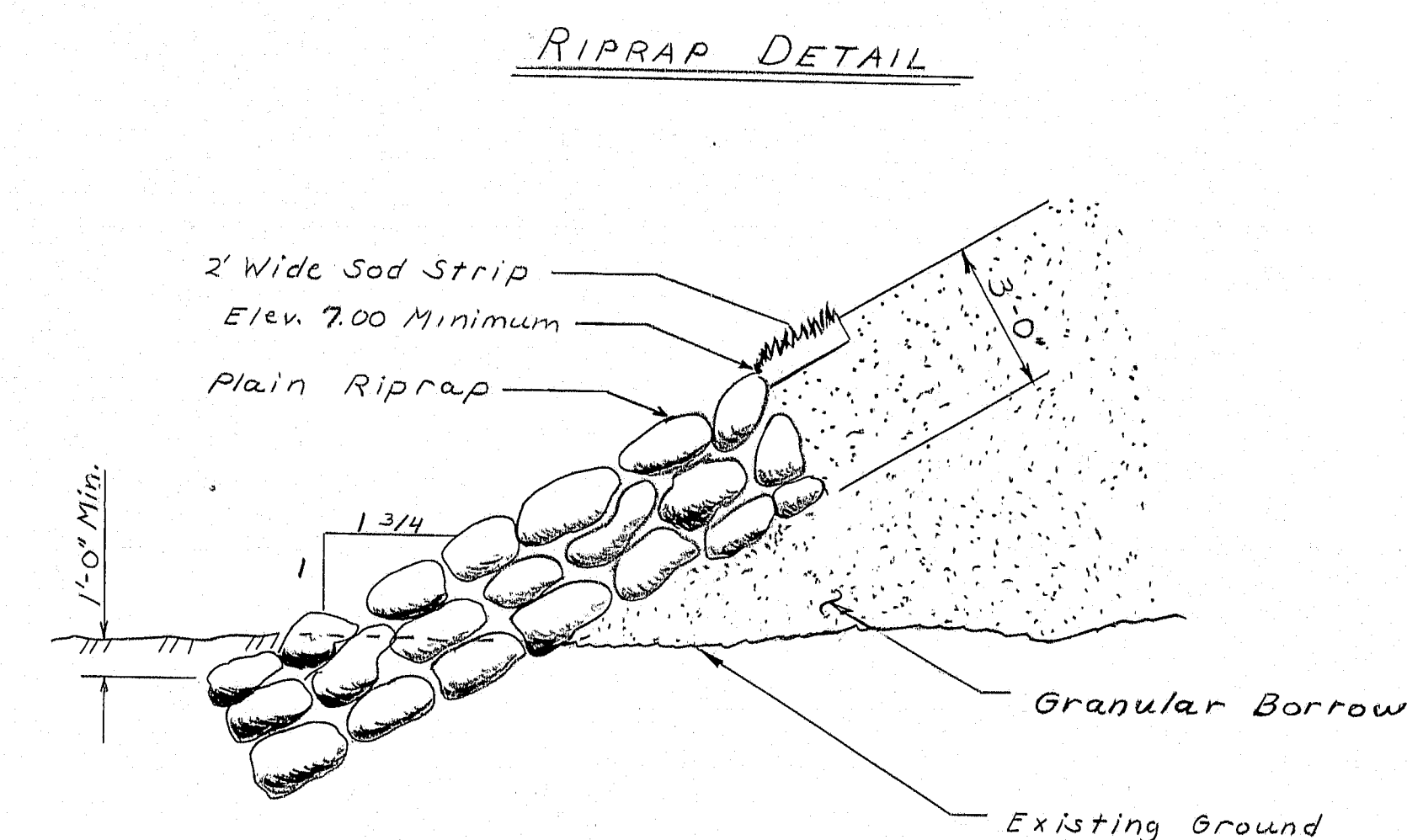
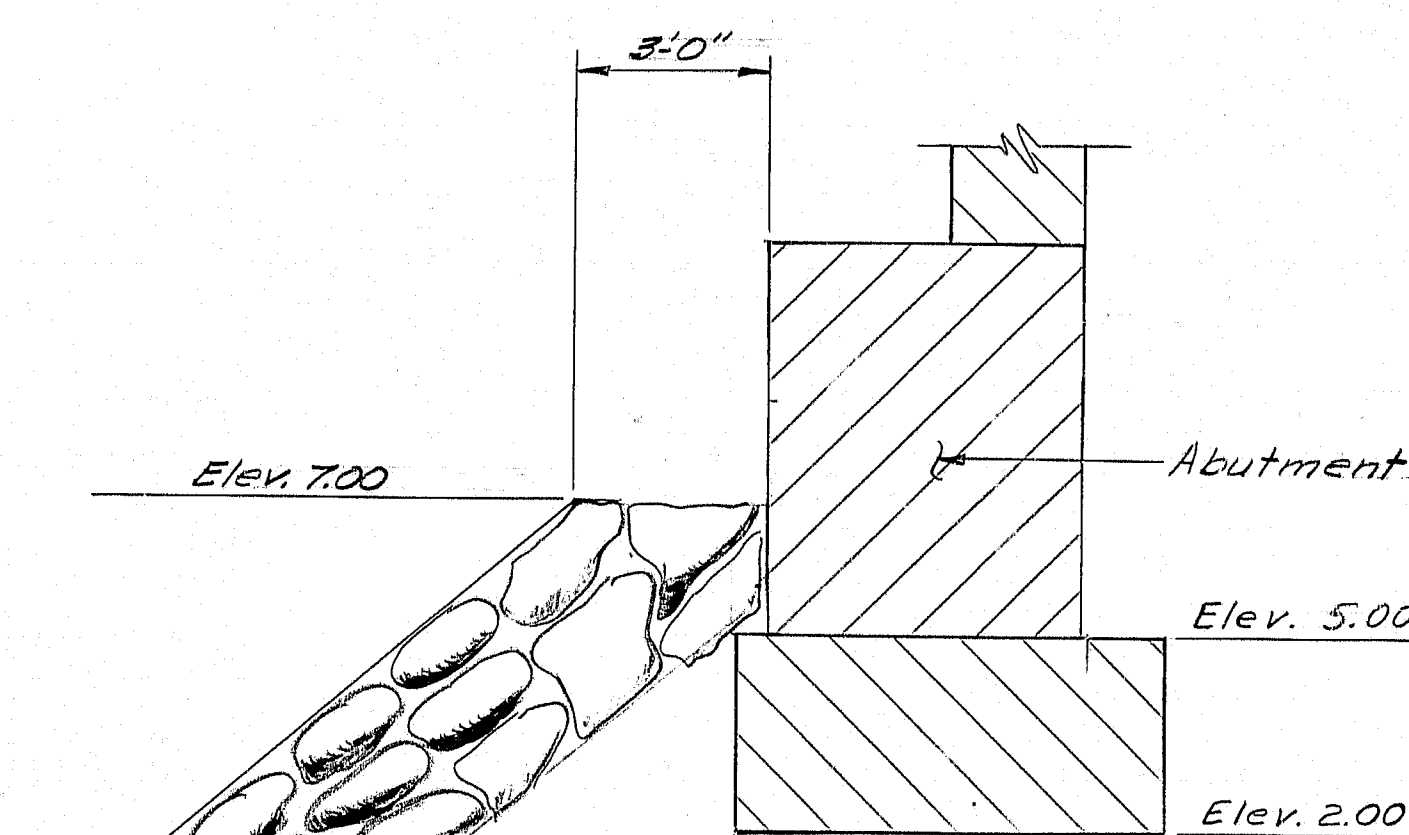
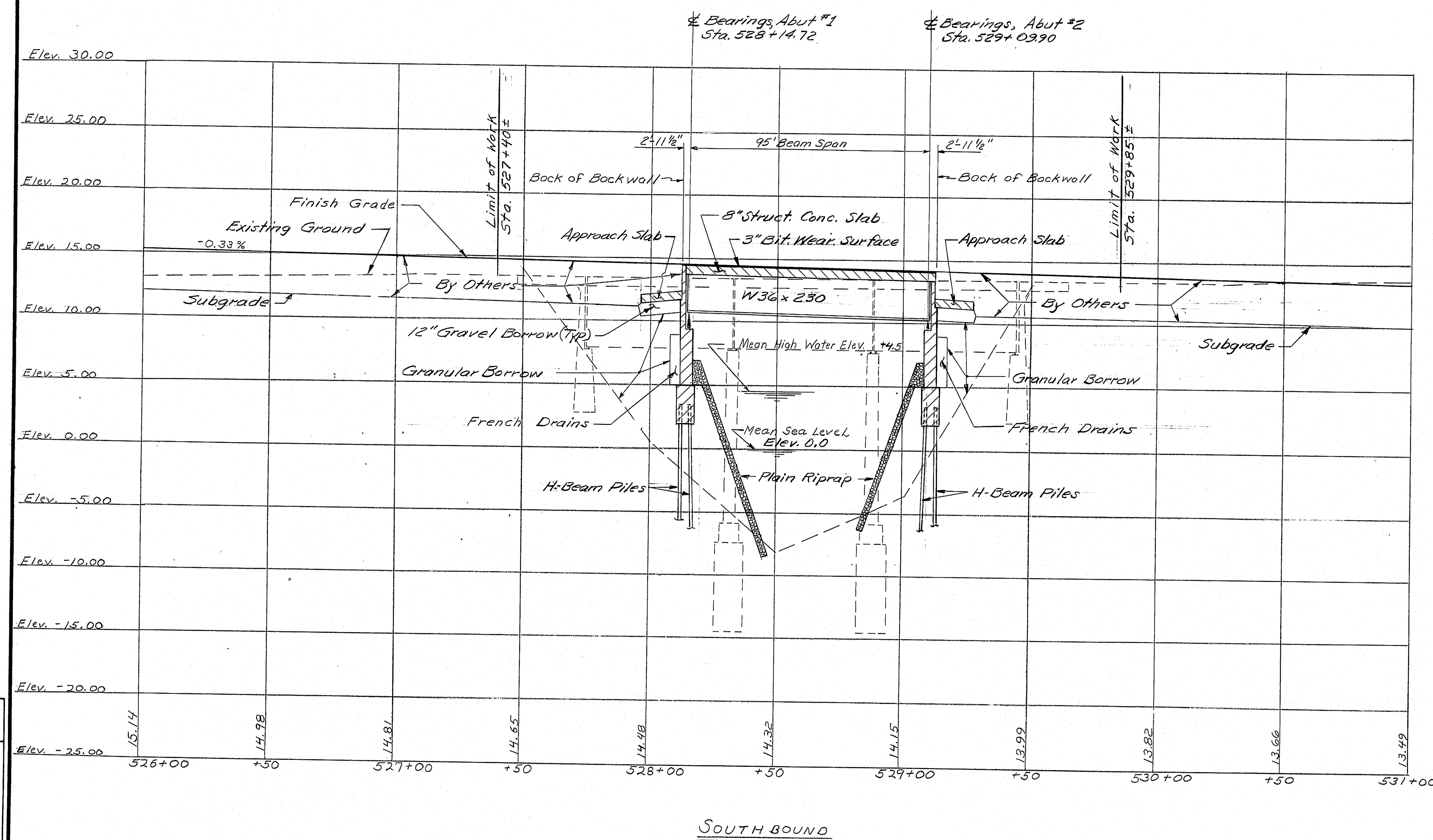
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I-95
OVER
COUSINS RIVER
YARMOUTH AND FREEPORT
PROFILE AND CONSTRUCTION LIMIT
(Northbound)

R93-60

SHEET 5 OF 34 AUGUSTA, MAINE Feb 1984

F.R. No.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	6	34



TYPICAL RIPRAP SECTION

AS BUILT 1985 ROP

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I-95
OVER
COUSINS RIVER
YARMOUTH AND FREEPORT
PROFILE AND CONSTRUCTION LIMIT
(Southbound)

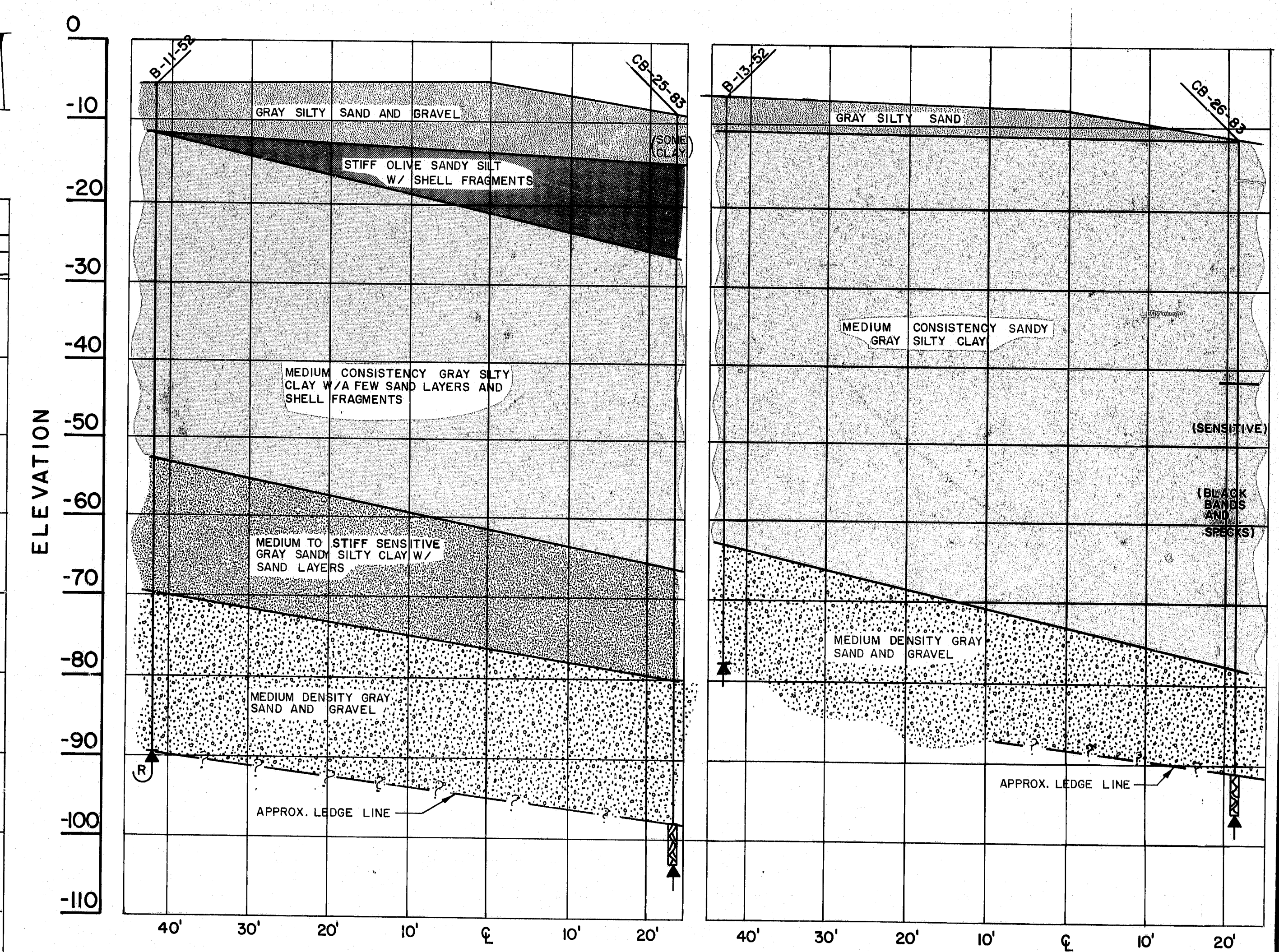
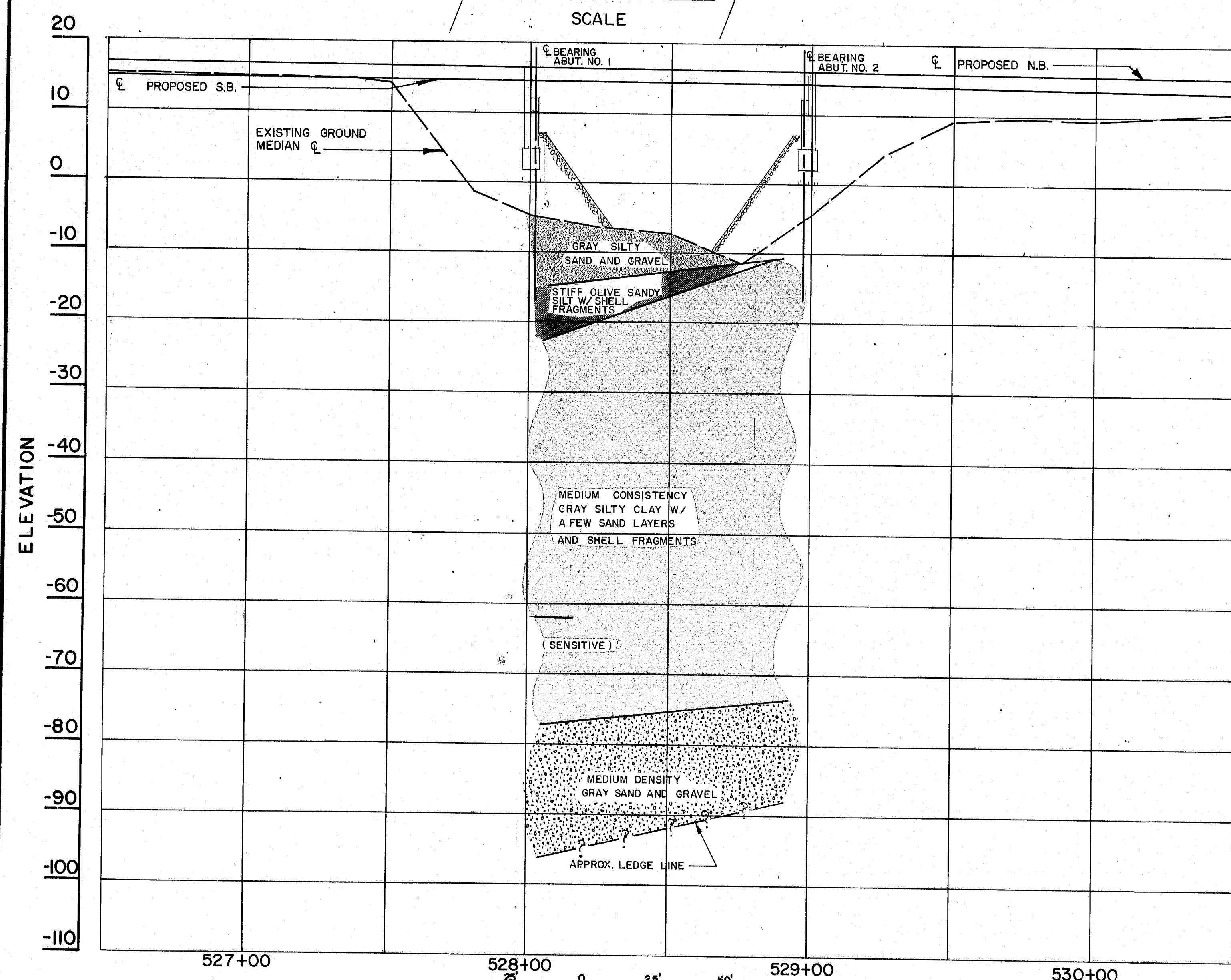
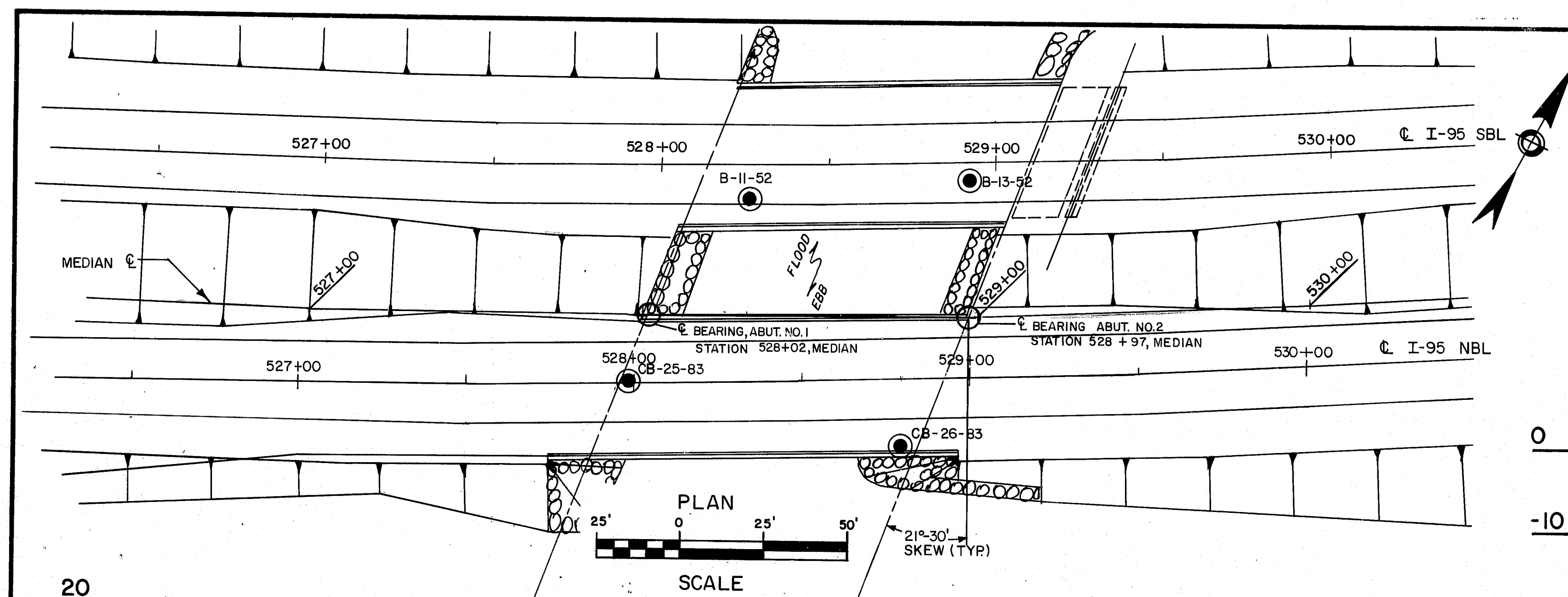
R93-61

SHEET 6 OF 34 AUGUSTA, MAINE Feb 1984

PROJECT DESIGN ENGINEER	DATE
MEB	12/83
DESIGN - CHECKED	DATE
MEB	2/84
REVISIONS	DATE
FIELD CHANGES	

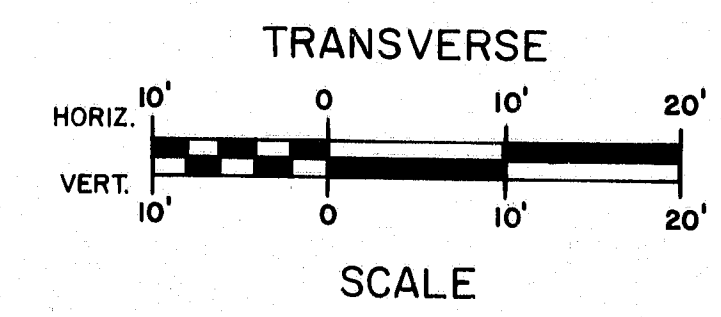
BRUNING 4412 27101

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	7	34



ABUT. NO. 1
STATION 528+09
(APPROX.)

ABUT. NO. 2 AS BUILT 1955
STATION 528+86 (APPROX.)



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-95
OVER
COUSINS RIVER
BETWEEN THE TOWNS OF
YARMOUTH AND FREEPORT
CUMBERLAND COUNTY
FOUNDATION SURVEY

R93-62

SHEET 7 OF 34 AUGUSTA, MAINE Feb 1984

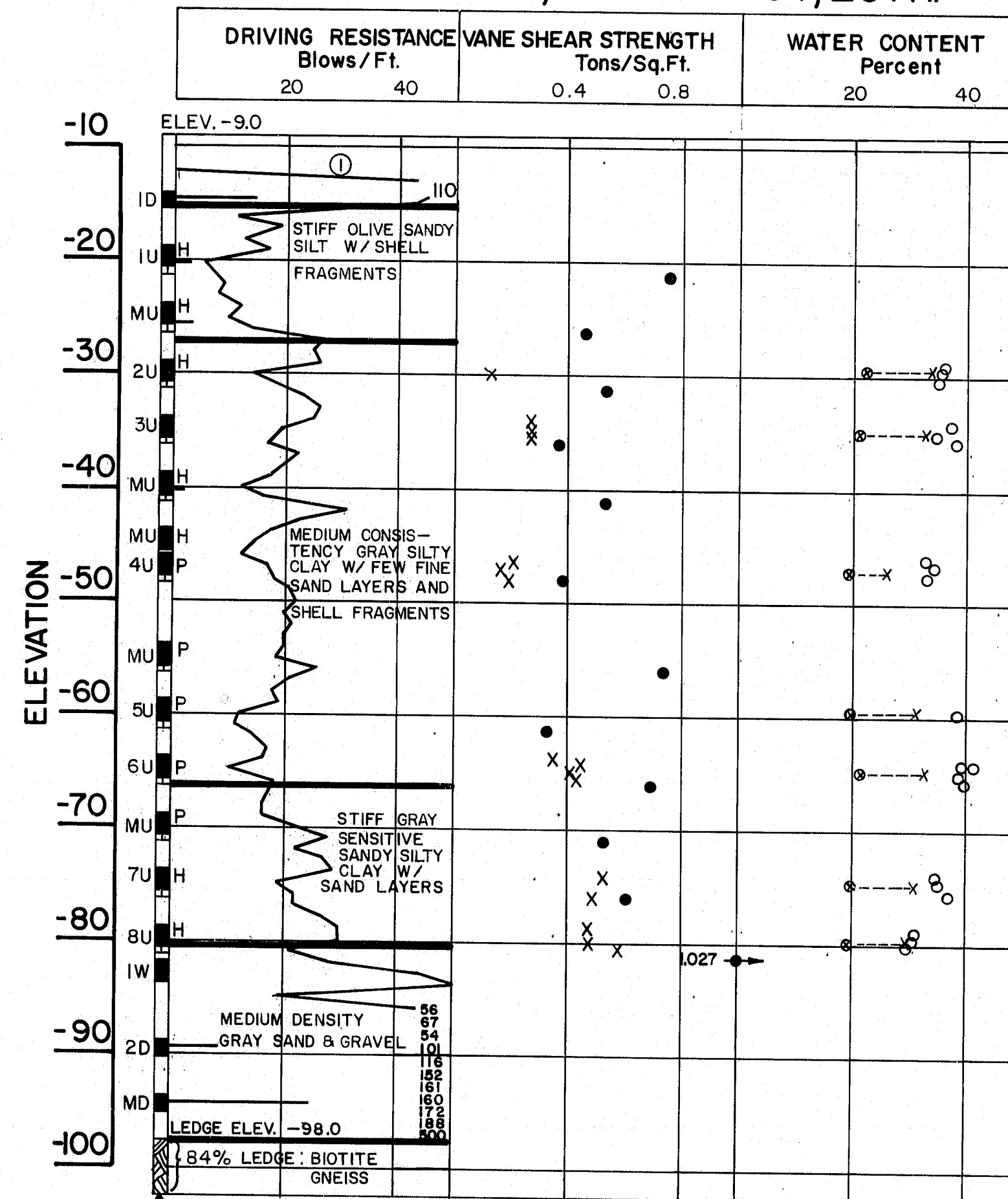
PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	7/84
CHECKED	
REVISIONS	
FIELD CHANGES	

BRUNING 44132-45710

BORING DETAILS

F.R.W.A. SHEET NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-4(42)62	8	34

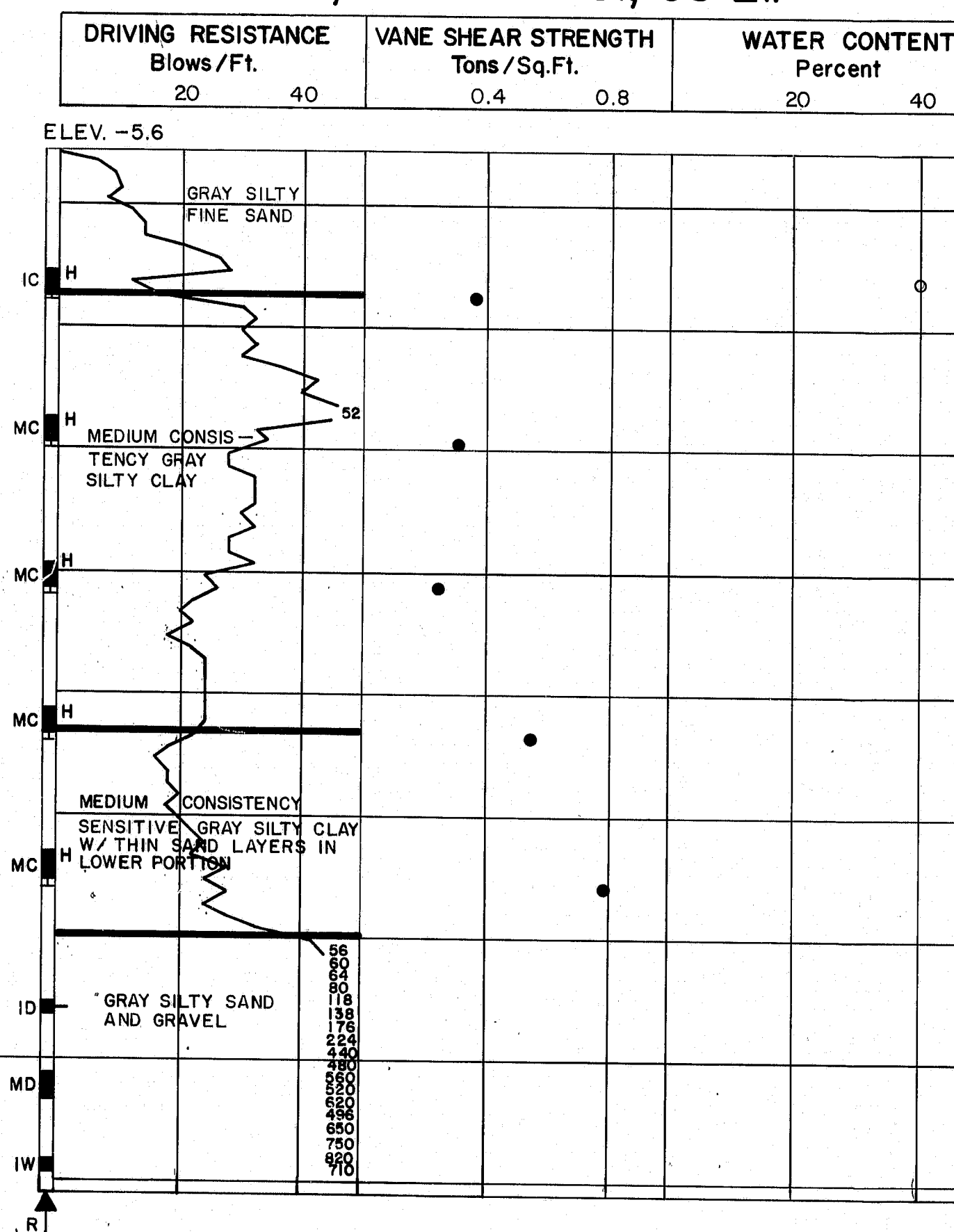
BORING CB-25-83, STA. 527+97, 20' RT.



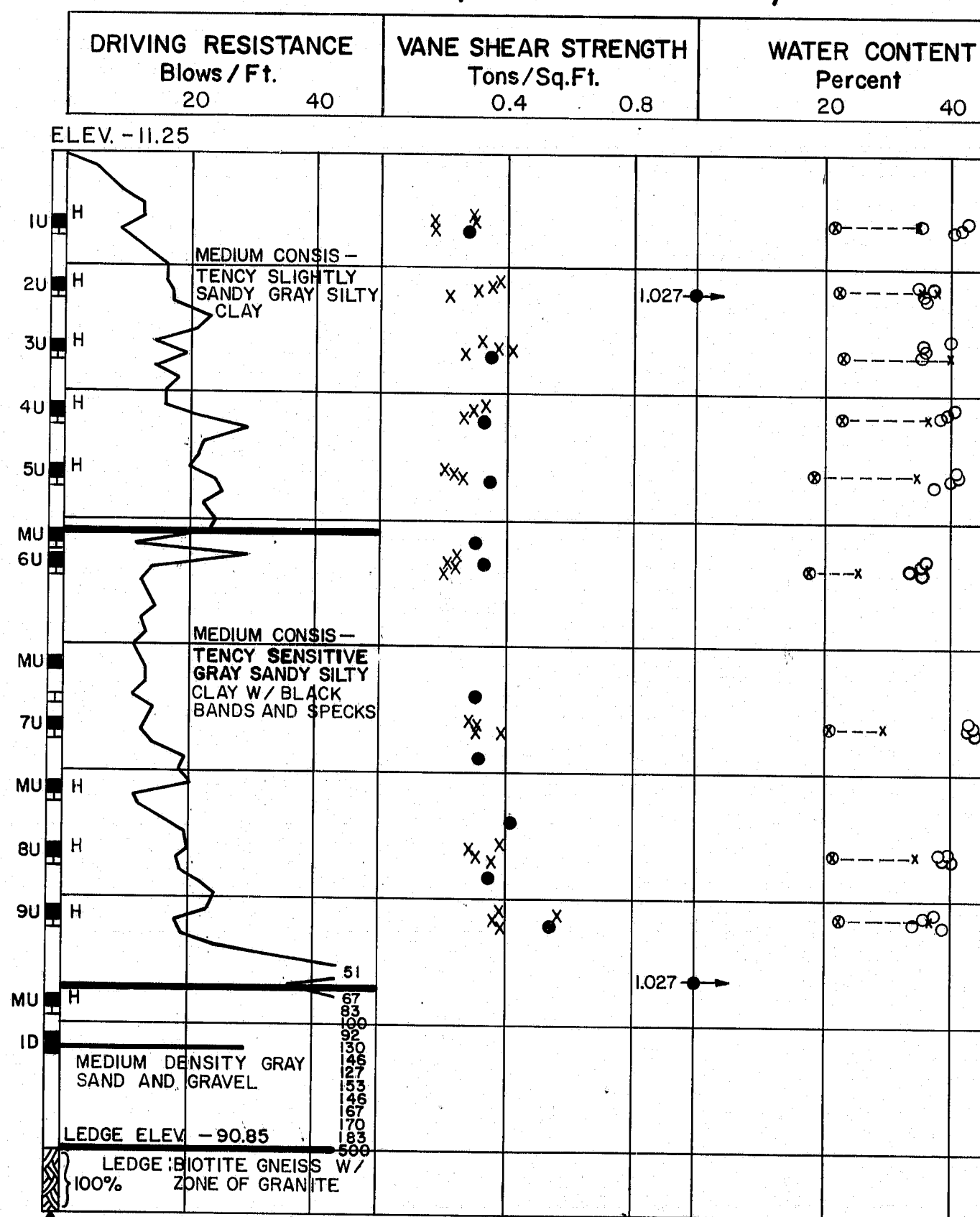
NOTE: ESTIMATED 60 GAL/MIN. WATER FLOW AFTER REMOVING LEDGE CORE

① MEDIUM DENSITY GRAY SILTY SAND AND GRAVEL W/ PIECES OF WOOD AND SHELL FRAGMENTS. SOME CLAY IN UPPER PORTION

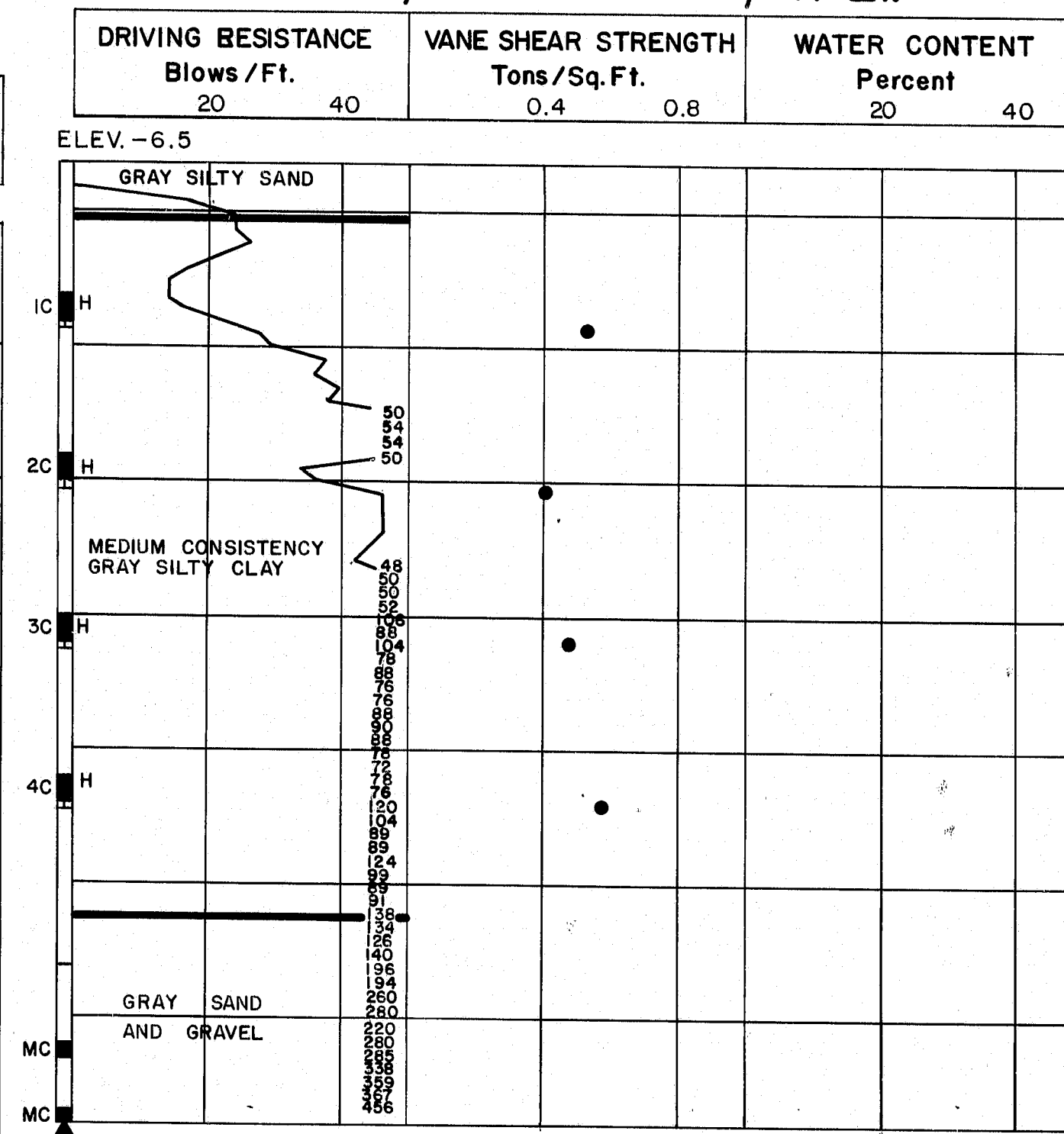
BORING NO. 11, STA. 528+31, 35' LT.



BORING CB-26-83, STA. 528+80, 20' RT.



BORING NO. 13, STA. 528+97, 41' LT.



BORING NOTES

- All samples and vane are made ahead of casing
- Number of blows required to drive extra heavy casing one foot with 400 ft. lbs. of energy per blow
- Location of sample or sample attempt
- Number and type of dry sample
 - ID S & H Sampler #1290's
 - IC 2" O.D. 16 ga. seamless tubing
 - IU 3 1/2" O.D. 16 ga. seamless tubing
- Wash sample and number
- Unsuccessful sample attempt and type of sampler
- Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow
- H Sampling spoon or seamless tubing driven by static weight of drill rods and hammer
- P Piston sampler
- Field vane test
- Bottom of boring (may not be bottom of soil strata)
- ① Locations cored by diamond bit and percent recovery of rock

SHEAR NOTES

- Field vane shear strengths
- × Laboratory vane shear strengths
- Shear strengths in excess of capacity of equipment

WATER CONTENT NOTES

- Natural water contents given as a percent of dry weight
- ⊗ Plastic and liquid limits
- Ignition losses are given as percent of dry weight

PROJECT DESIGN ENGINEER	DATE
BY	11/20/84
CHECKED	
REVISIONS	
FIELD CHANGES	

BORING 44-132-45710

R93-63

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-95
OVER
COUSINS RIVER
BETWEEN THE CITIES OF
YARMOUTH AND FREEPORT
CUMBERLAND COUNTY
BORING DETAILS

SHEET 8 OF 34 AUGUSTA, MAINE Feb 1984

Technical drawing of a bridge deck layout, showing two stages (Stage 1 and Stage 2) and a reference line. The drawing includes dimensions for various components, reinforcement details, and a reference line.

Stage 1 Dimensions:

- 52'-4"
- 41'-2"
- 77'-2 1/2"
- 65'-6 3/4"
- 6'-6"
- 4'-8"
- 7'-0"
- 1'-6"
- 4'-0"
- 1'-6"
- 6'-5"
- 12'-0 1/2"
- 5'-6"
- 13'-0"
- 1'-0 3/4"
- 6'-2"
- 6'-0"
- 11'-0"
- 13'-3"
- 13'-0"
- 12'-0"
- 13'-0"
- 11'-0"
- 5'-0 3/4"
- 2'-5"
- 8'-5 1/2"
- 12"
- 9'-0"
- 1'-6"
- 3'-6"
- 1'-6"
- 2'-0"
- 5'-10"
- 5'-10"
- 5'-10"
- 4'-9 3/4"
- 11'-11"
- 4'-11"
- 0'-3"
- 11'-55'-27"
- 4 A505, 2 each top and bottom

Stage 2 Dimensions:

- 68'-30"
- 13'-9 1/2"
- 2'-0"
- 1'-0"
- 6'-2 3/4"
- 1'-0 1/4"
- 45'-1"
- 46'-1 1/4"
- 2'-5"
- 4'-6 1/2"
- 2'-5"
- 4'-6 1/2"
- 1'-8 3/4"
- 1'-9"
- 17'-1"
- 2'-2 3/4"

Reinforcement Details:

- 14 A507 @ 12", 7 each top & bot.
- 21 A500 @ 6", 11 each top & bot.
- 80-A503 @ 18", 40 each top & bot.
- 14 A500 @ 12", 7 each top & bot.
- 80-A503 @ 18", 40 each top & bot.
- 14 A501 @ 12", 7 each top & bot.
- 14 A502 @ 12", 7 each top & bot.

Other Labels:

- Median Long Chord
- Reference Line
- Construction Joint
- 21'-30" Skew
- 6 Spaces @ 7'-0" = 42'-0"
- 10 Spaces @ 7'-0" = 70'-0"
- STAGE 1
- STAGE 2

FOOTING PLAN-ABUTMENT No. 1
Note: All Piles are HP14x89

~ Pile Notes ~

- [illegible]

HP14x89

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HP 14x89

SECTION X-X

SECTION Y-Y

SECTION Z-Z

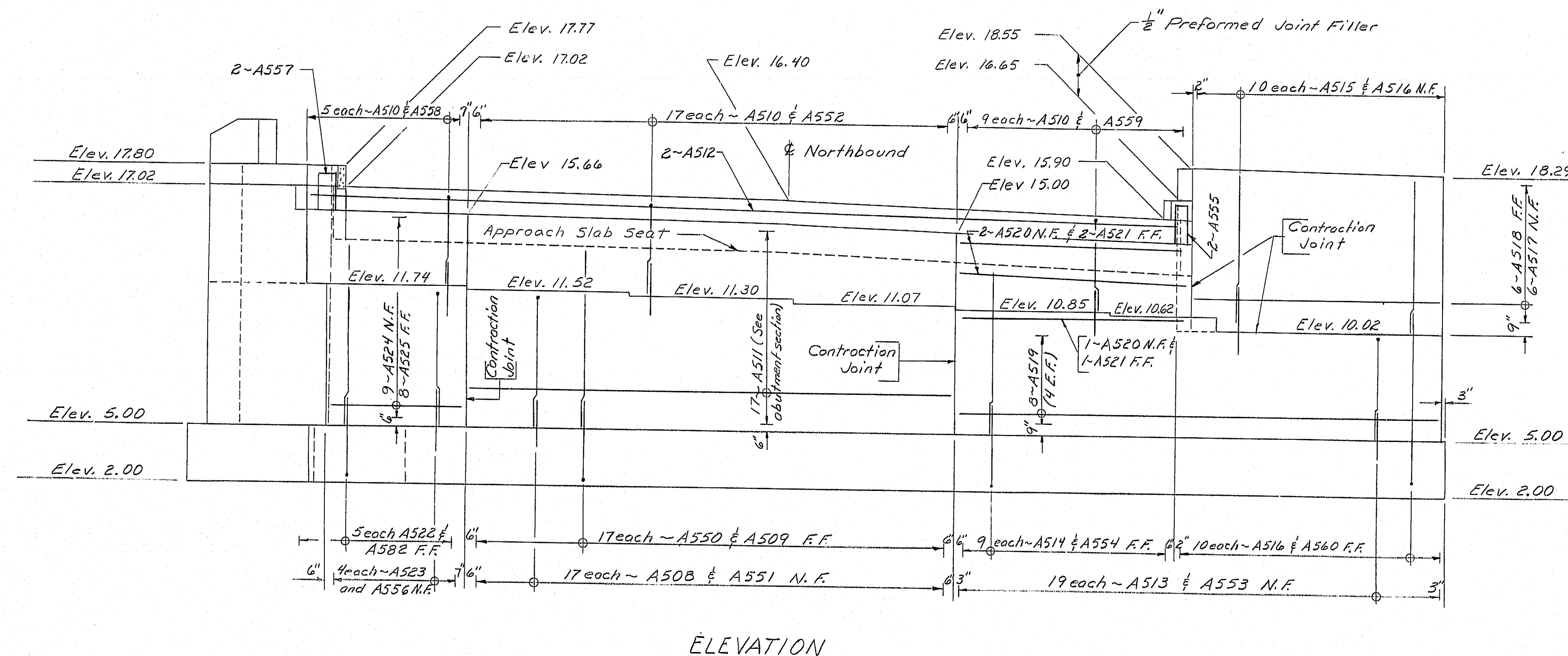
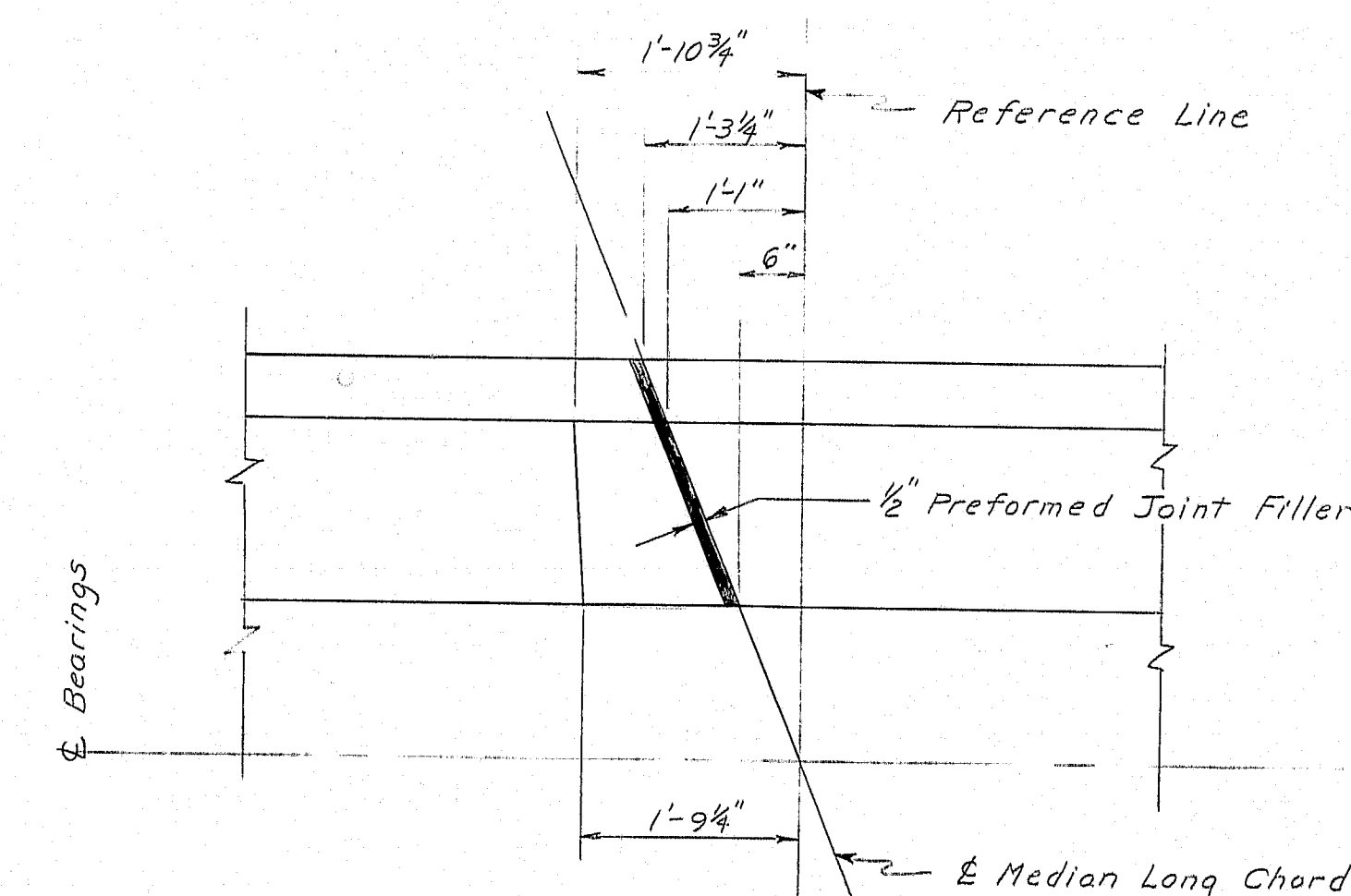
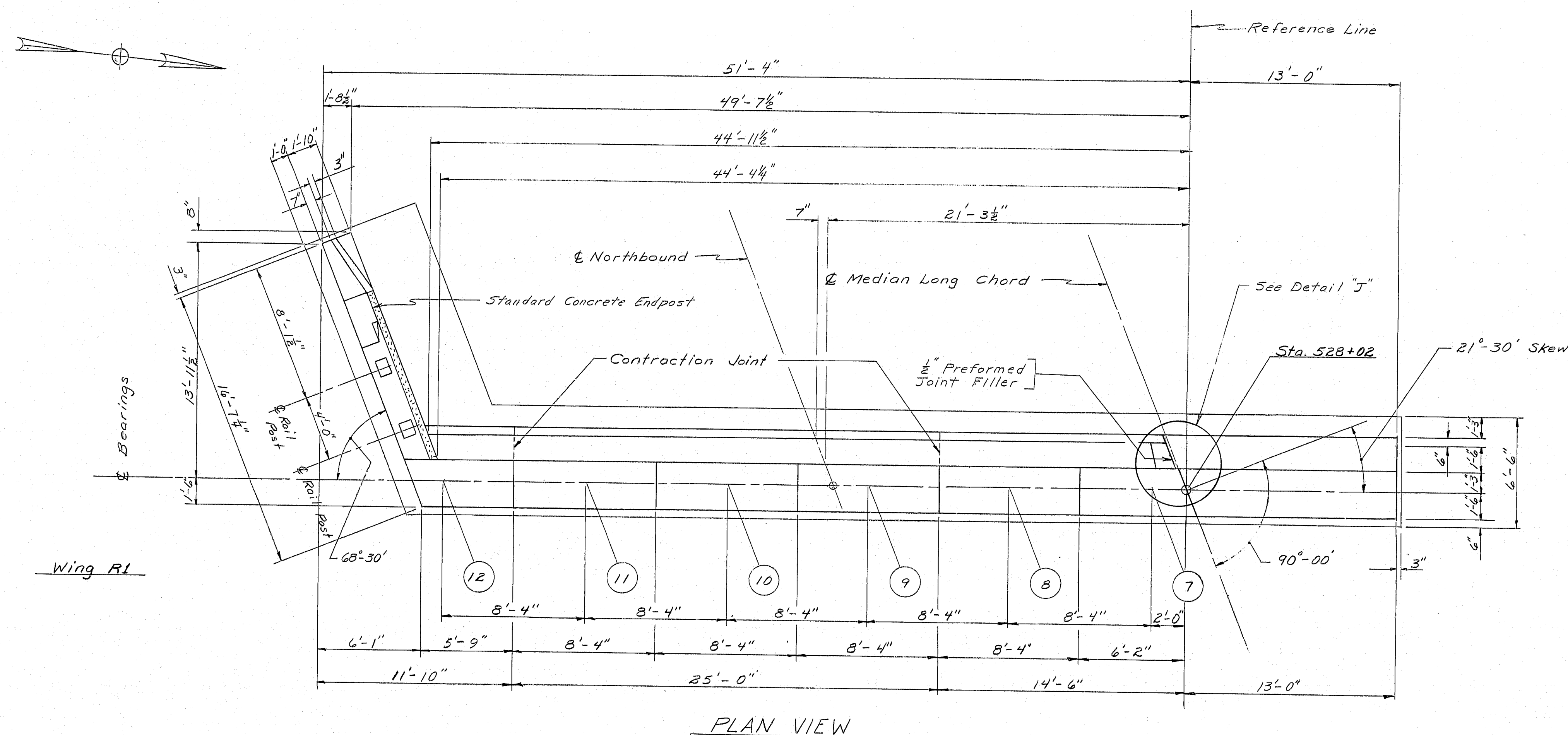
INTERSTATE I 95
over
COUSINS RIVER
between the towns of
YARMOUTH and FREEPORT
FOOTING PLAN-ABUTMENT #

R93-64

SHEET 9 OF 34 AUGUSTA, MAINE Feb 1984

~ ABUTMENT NOTES ~

1. ~ Payment for all concrete endposts will be incidental to item 502.260, Structural Concrete Roadway and Sidewalk Slabs on Steel Bridges.
2. ~ Reinforcing steel shall have 2 inches cover unless otherwise indicated.
3. ~ Reinforcing steel shall be placed at 18 inches maximum spacing unless otherwise indicated.
4. ~ Cover expansion joints on the back with two layers of heavy roofing. See BD 127 for detail.
5. ~ Protective coating for concrete surfaces shall be applied to the following areas:
 - Top of concrete Curbs & All exposed surfaces of Concrete End Posts.
 - Top of abutment backwalls and 1' below top of backwalls on the back side.
 - Top of wingwalls and 1' below below top of wall on the back side. Top of median backwall and the back of the median wall to 1' below finished grade.
6. ~ Place 4" diameter drains in breastwall and wings at 20 feet maximum spacing. Exact location to be determined by the Engineer in the field.
7. ~ See the General Construction Notes for a description of the Stage Construction Sequence.



PLANS	PROJECT DESIGN ENGINEER	MEB	BY	MEB	DATE	10/93
	DESIGN - DETAILED			MEB		2/84
	CHECKED			WBD		
	REVISIONS					
						FIELD CHANGES

AS BUILT 1985

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE 195
over
COUSINS RIVER
Between the towns of
YARMOUTH and FREEPORT
ABUTMENT No. 1 - STAGE No. 1
(NORTHBOUND)
SHEET 10 OF 34 AUGUSTA, MAINE Feb 1984

R93-65

Reference Line

13'-0 1/2"

62'-10 3/4"

57'-8 1/2"

54'-9 3/4"

5'-2 1/4"

34'-0 3/4"

7"

13'-1 1/4"

2 1/2"

Sta 528+02

21°-30' Skew

90°-00'

Median Long Chord

Expansion Joint

See Detail "K"

1/2" Preformed Joint Filler

Southbound

Contraction Joint (No Key)

Standard Concrete Endpost

1'-8 1/2"

1'-10"

1'-0"

3"

8 1/2"

1'-0"

1'-2 1/2"

3'-0"

8'-1 1/2"

4'-0"

16'-10 1/2"

10'-3"

11'-4 1/2"

111°-55'-27"

6"

6'-6"

1'-6 1/2"

1'-6"

6"

8'-4"

8'-4"

8'-4"

8'-4"

8'-4"

8'-4"

21'-11 3/4"

25'-0"

15'-11"

13'-0 1/2"

62'-10 3/4"

6

5

4

3

2

1

Wing L1



PLAN VIEW

1/2" Preformed Joint Filler

Elev. 18.02

Elev. 16.12

Elev. 15.37

Elev. 14.44

10 each - A535 & A536 N.F.

9' each - A528 & A562

17 each - A528 & A562

10 each - A529 & A581

Elev. 13.19

Elev. 13.80

Elev. 12.56

Elev. 13.94

Elev. 10.02

Elev. 9.61

Elev. 9.19

Elev. 8.78

Elev. 8.37

Elev. 7.95

Elev. 5.00

Elev. 2.00

2 - A568

3 - A542 N.F.

3 - A509 F.F.

2 - A540

2 - A557

1 - A532

6 - A537 F.F.

6 - A538 N.F.

16 - A547

5 - A530

5 - A532 F.F.

6 - A531 N.F.

6 - A536

9' each - A535 & A566 F.F.

9' each - A539 & A547 F.F.

17 each - A527 & A569 F.F.

11 each - A529 & A564 F.F.

15 each - A533 & A565 N.F.

17 each - A526 & A561 N.F.

11 each - A528 & A563 N.F.

Contraction Joint

Contraction Joint

Contraction Joint

Approach Slab Seat

Southbound

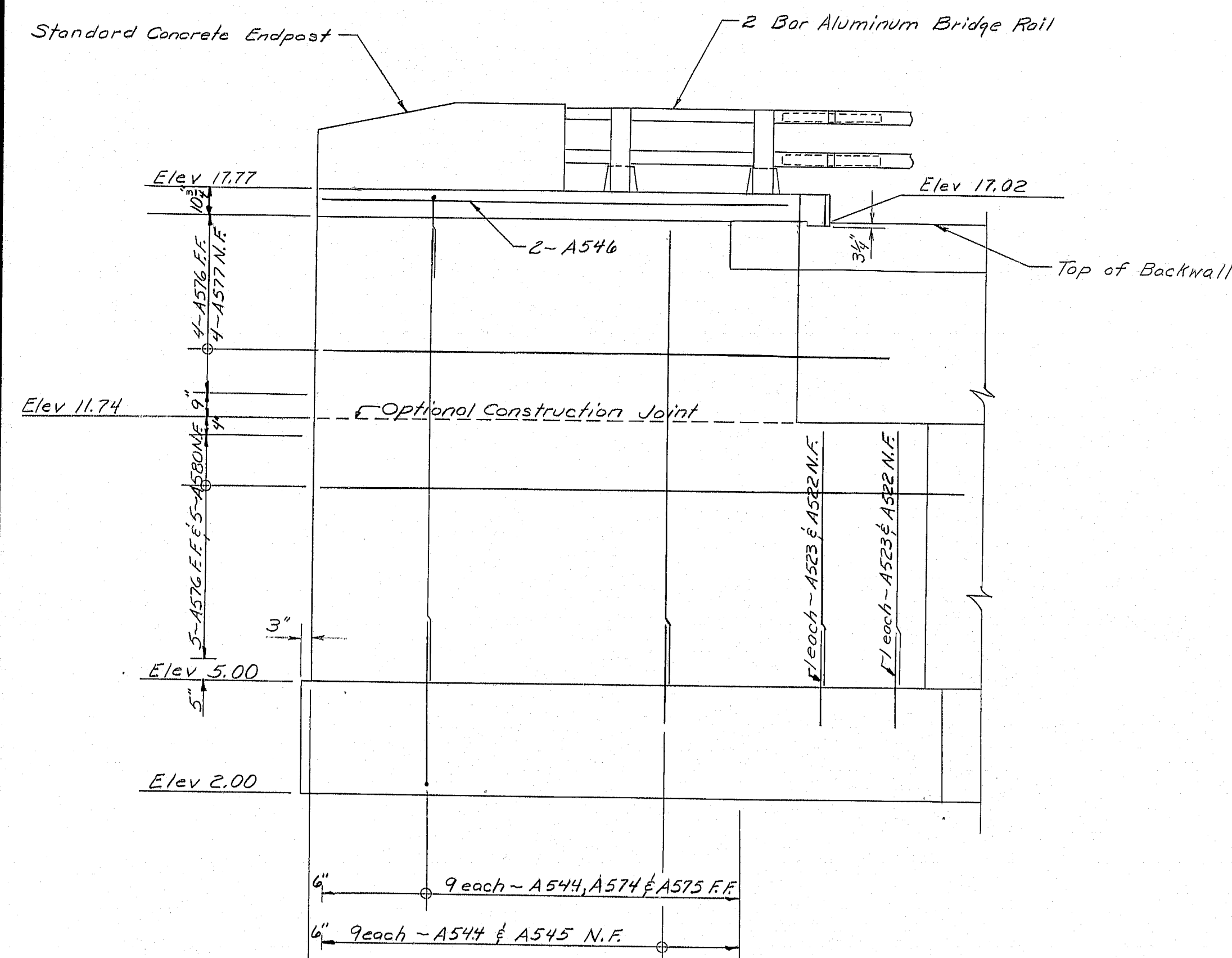
Sec Section

R93-66

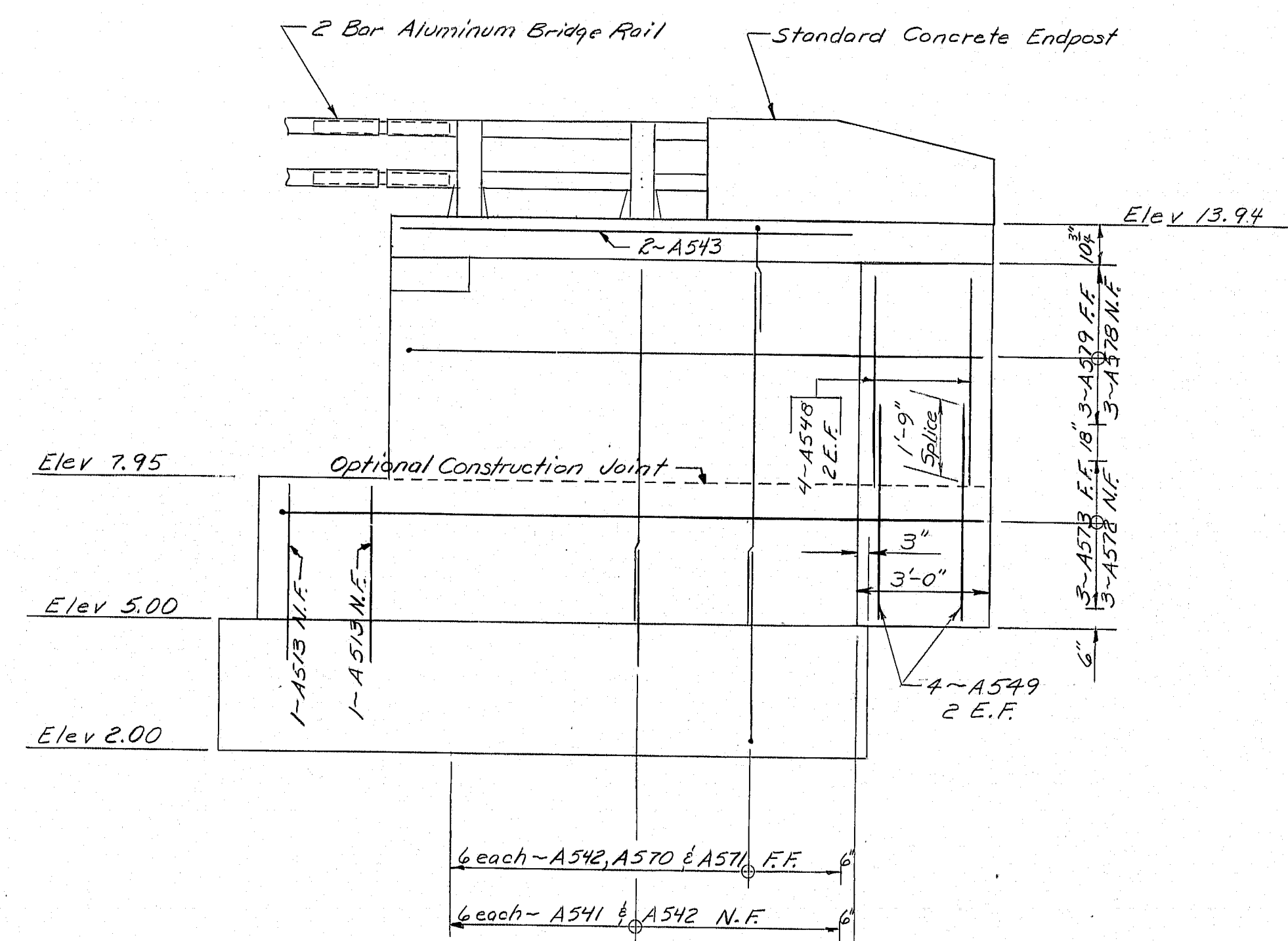
AS BUILT 1985 *Rsp*

STATE OF MAINE DEPARTMENT OF TRANSPORTATION INTERSTATE I95 over COUSINS RIVER Between the towns of YARMOUTH and FREEPORT ABUTMENT No. 1 - STAGE No. 2 (SOUTHBOUND) SHEET 11 OF 34 AUGUSTA, MAINE Feb 1984

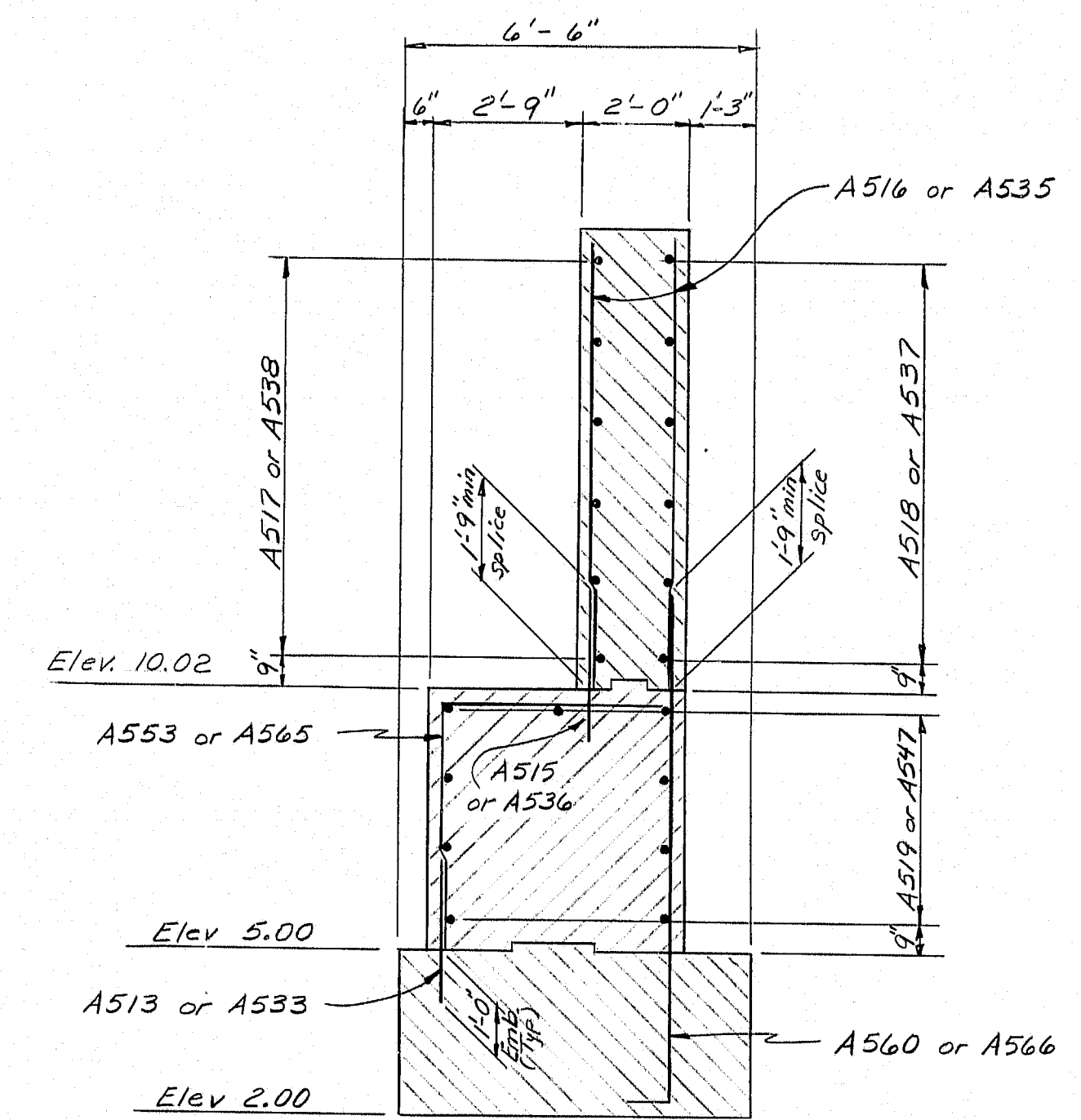
F.R.D. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(19)62	12	34



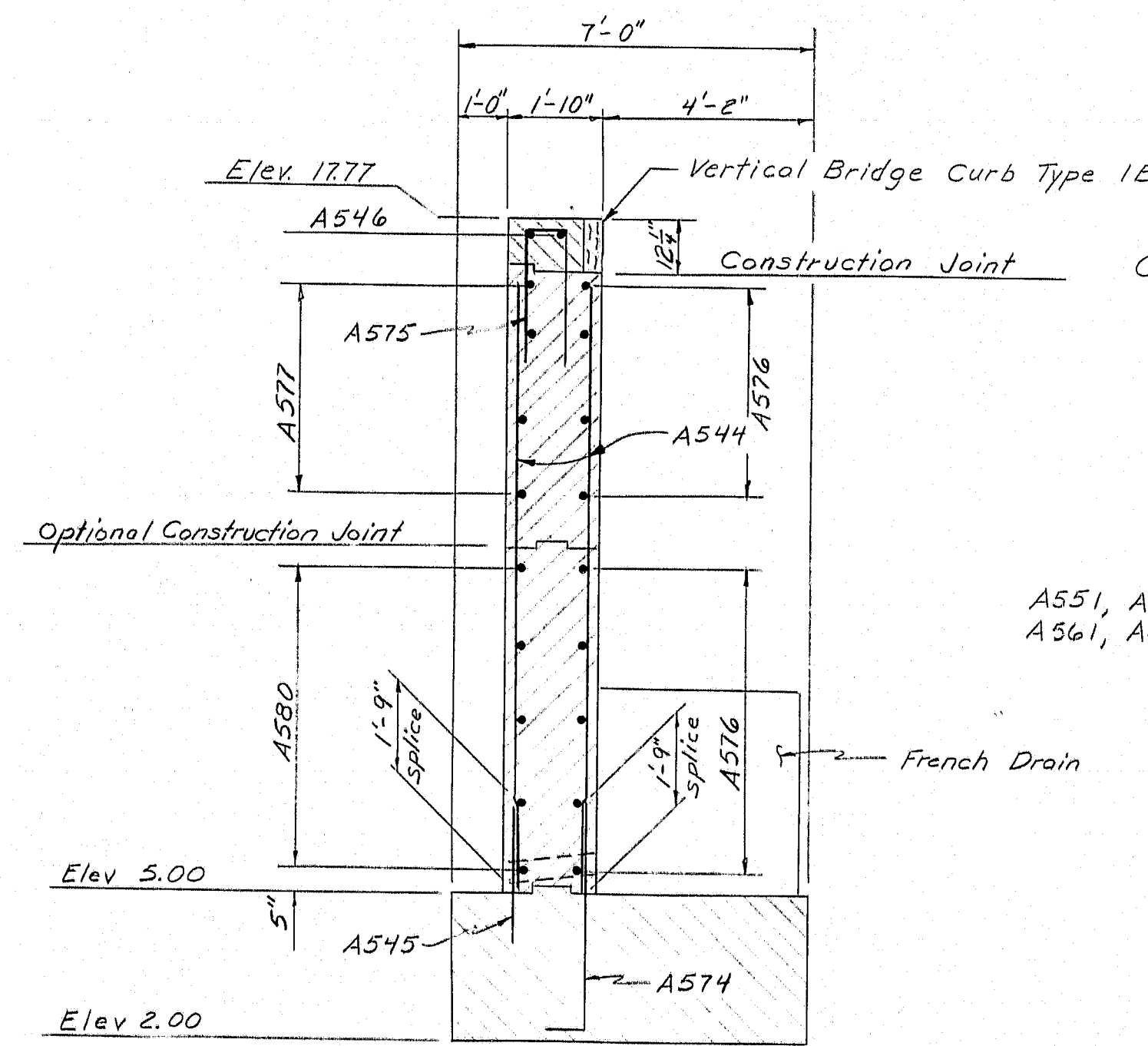
WING R1 ELEVATION



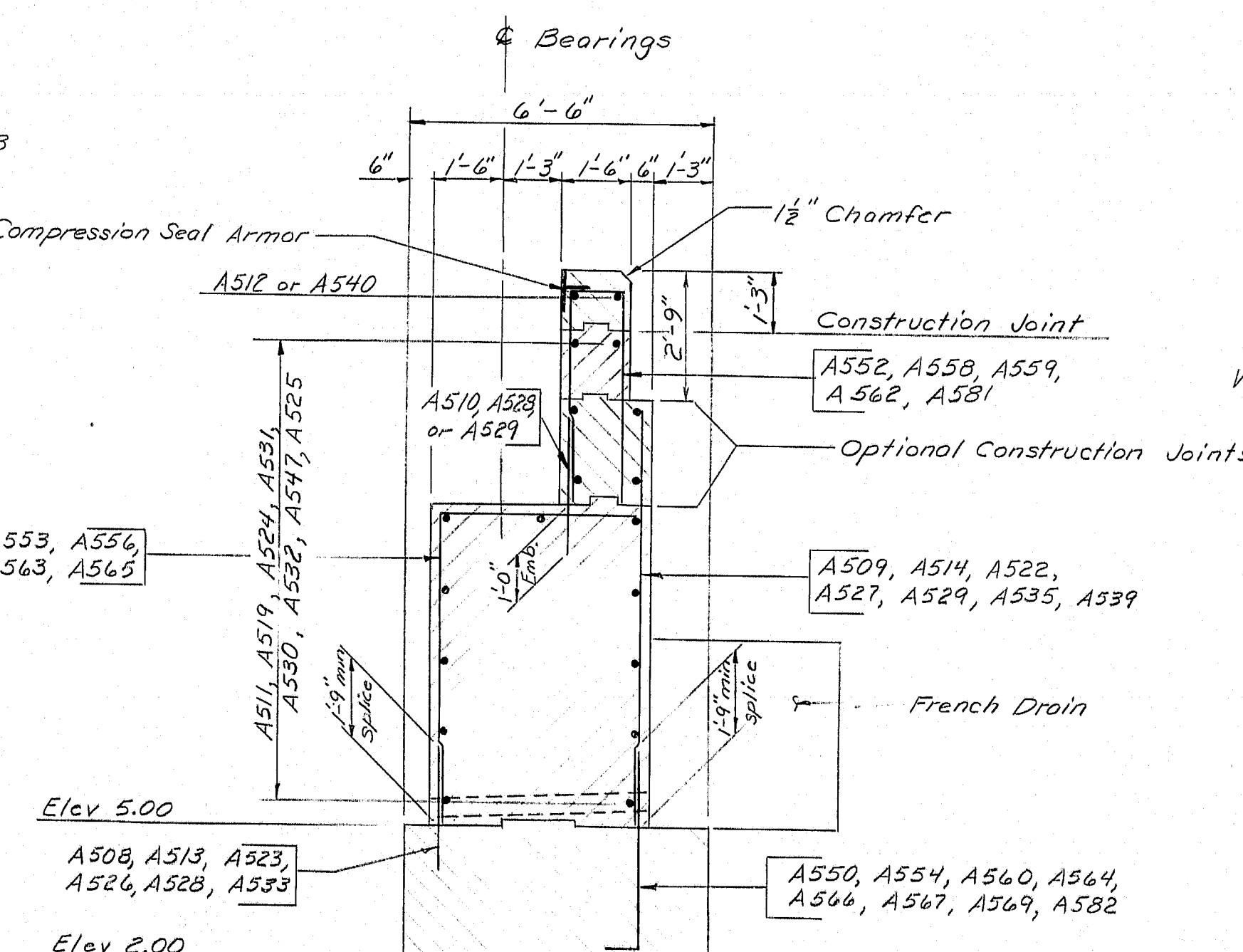
WING L1 ELEVATION



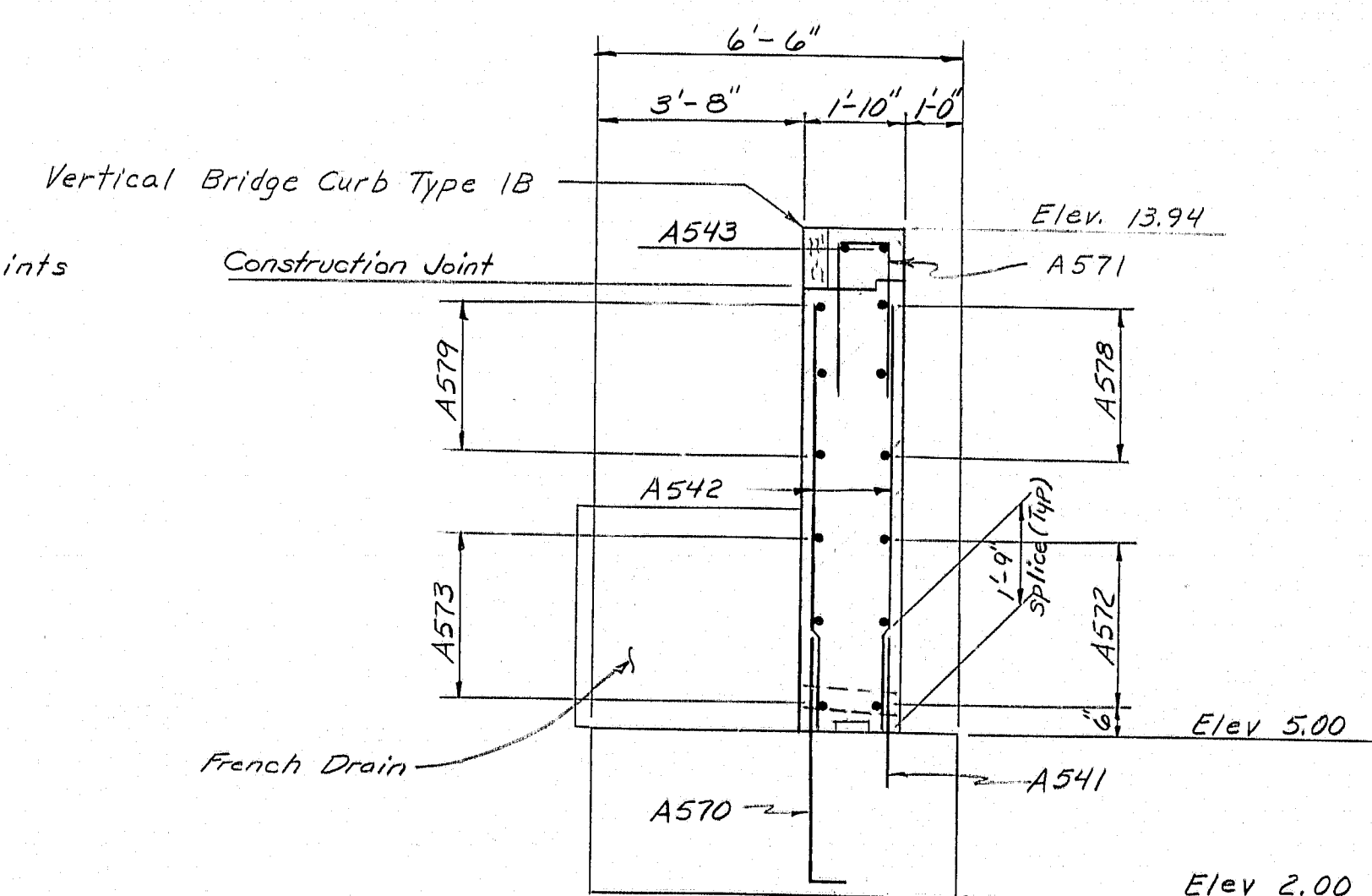
MEDIAN SECTION



WING R1 SECTION



ABUTMENT SECTION



WING L1 SECTION

AS BUILT 1985 - RSP

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I95
over
COUSINS RIVER
Between the towns of
YARMOUTH and FREEPORT

ABUTMENT No. 1 SECTIONS

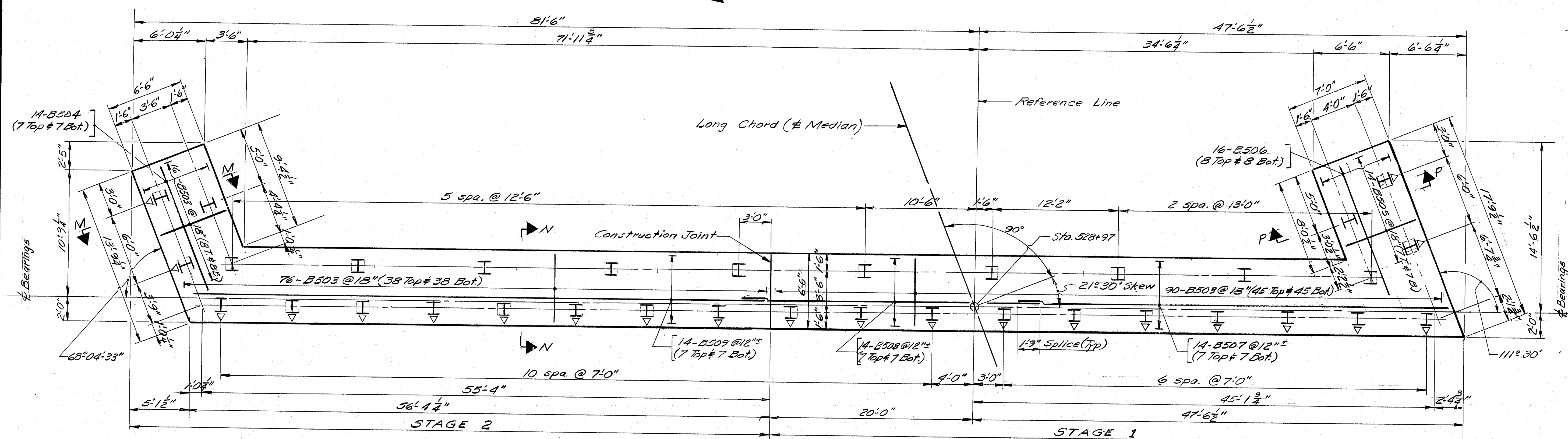
SHEET 12 OF 34 AUGUSTA, MAINE Feb 1984

R93-67

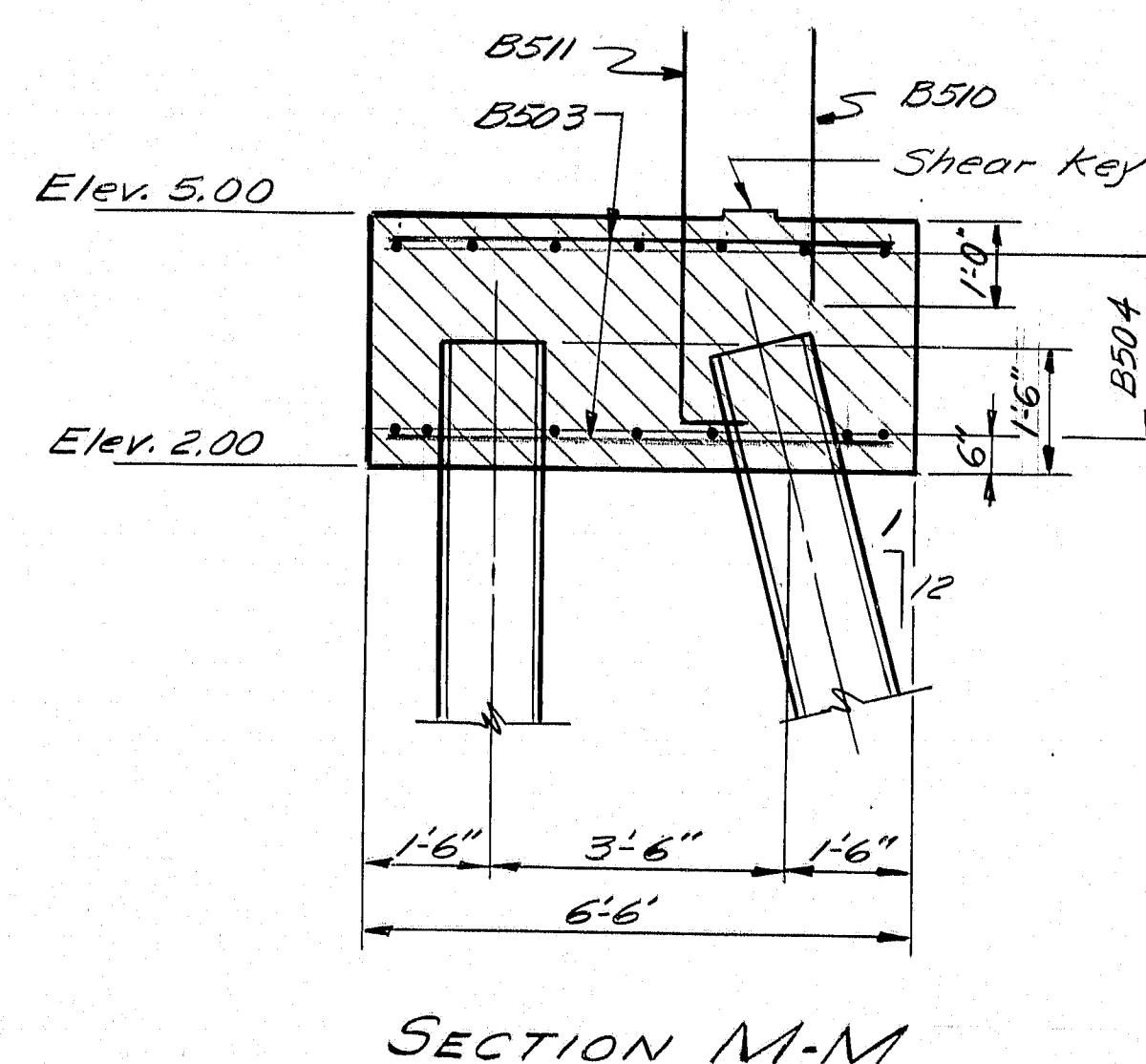
PLANS	PROJECT DESIGN ENGINEER		MES	BY	DATE
	DESIGN - DETAILED	MES	MES	10/93	
	CHECKED		MED	3/94	
	REVISIONS				
	FIELD CHANGES				

BRUNING 44.132.6710.1

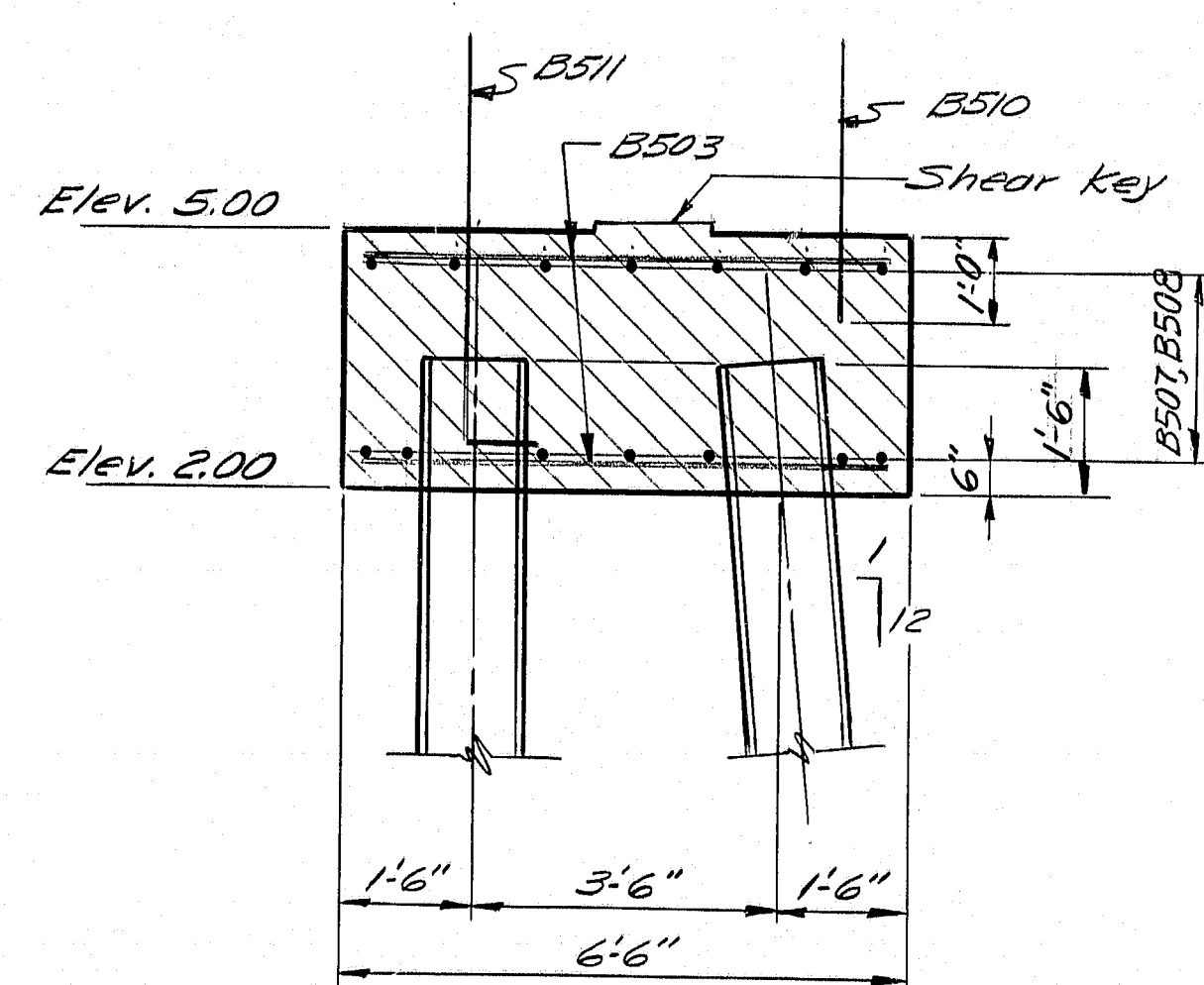
F.R.E.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-11(42)62	13	34



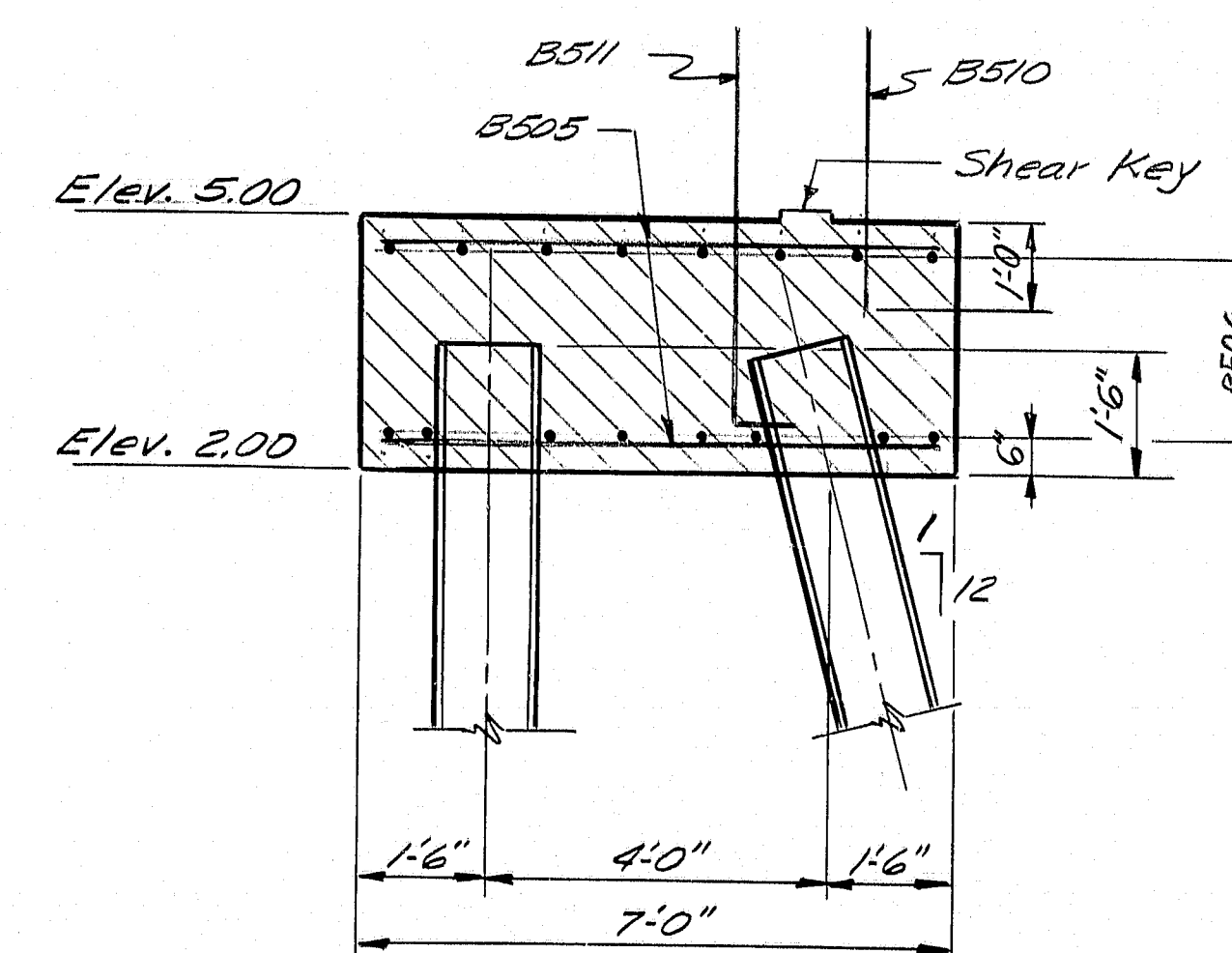
FOOTING PLAN - ABUTMENT No. 2
Note: All Piles are HP 14x59



SECTION M-M



SECTION N-N



SECTION P-P

AS BUILT 1985 R.P.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I95
over
COUSINS RIVER
between the towns of
YARMOUTH & FREEPORT

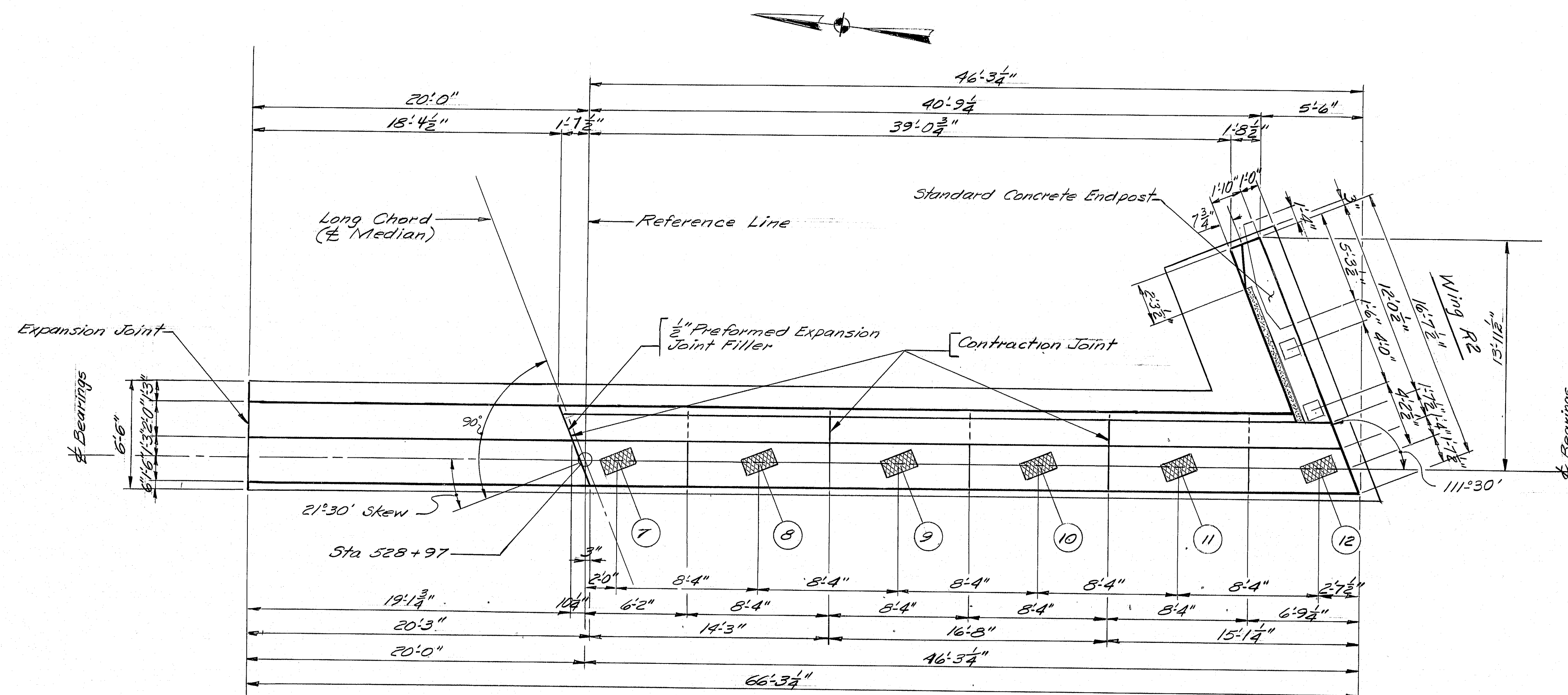
FOOTING PLAN - ABUTMENT #2
SHEET 13 OF 34 AUGUSTA, MAINE Feb 1984

R93-68

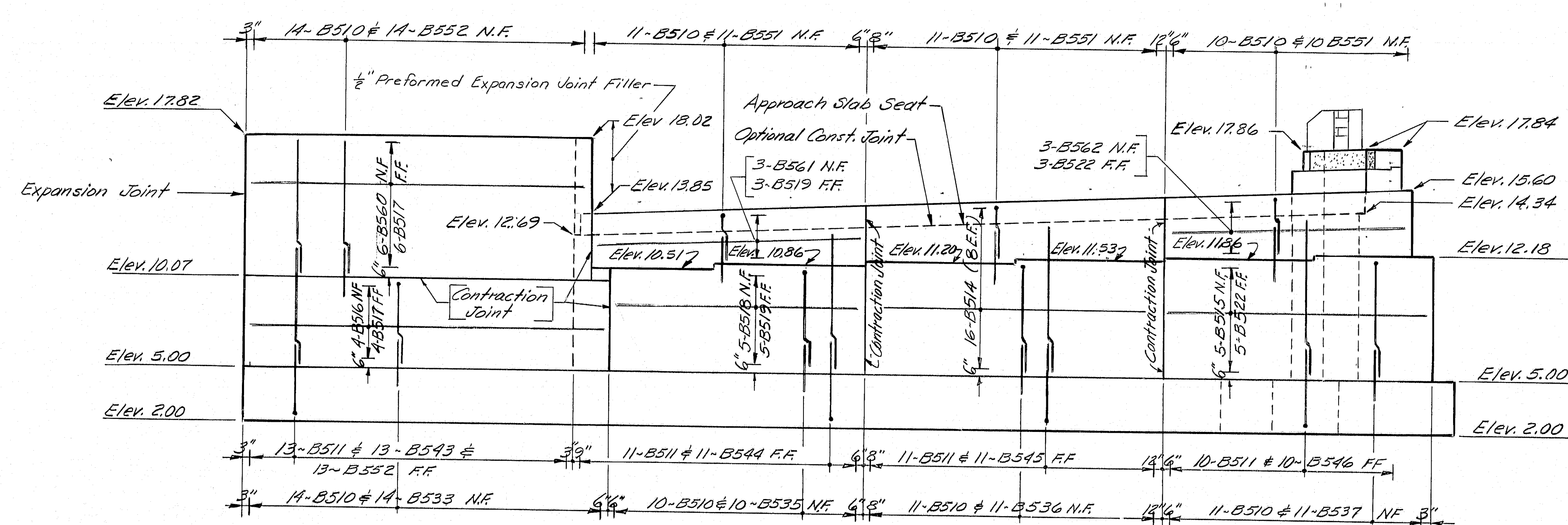
PROJECT DESIGN ENGINEER	MEB	DATE	10-93
DESIGN - CHECKED	MEB	DATE	10-93
REVISIONS	WJD	DATE	2/94
FIELD CHANGES			

REVISION 44-52 45710-1

F.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(42)62	14	34



PLAN



ELEVATION

PROJECT DESIGN ENGINEER	DATE
MEB	10/93
CHECKED	DATE
WBD	2/94
REVISIONS	FIELD CHANGES

BRUNING 44122 25713-1

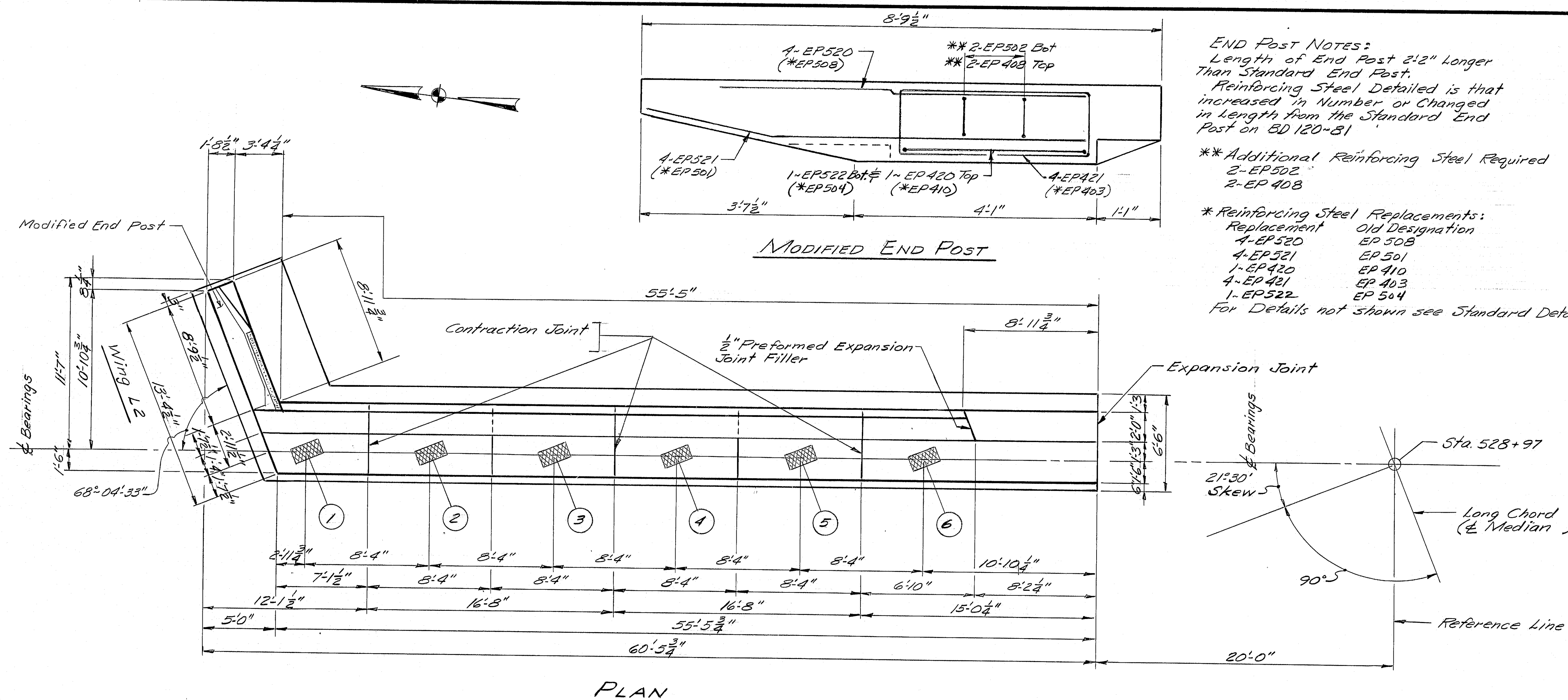
AS BUILT 1985 P.O.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I 95
OVER
COUSINS RIVER
between the TOWNS of
YARMOUTH & FREEPORT
ABUTMENT #2 - STAGE #1
(NORTHBOUND)
SHEET 14 OF 34 AUGUSTA, MAINE FEB 1984

R93-69

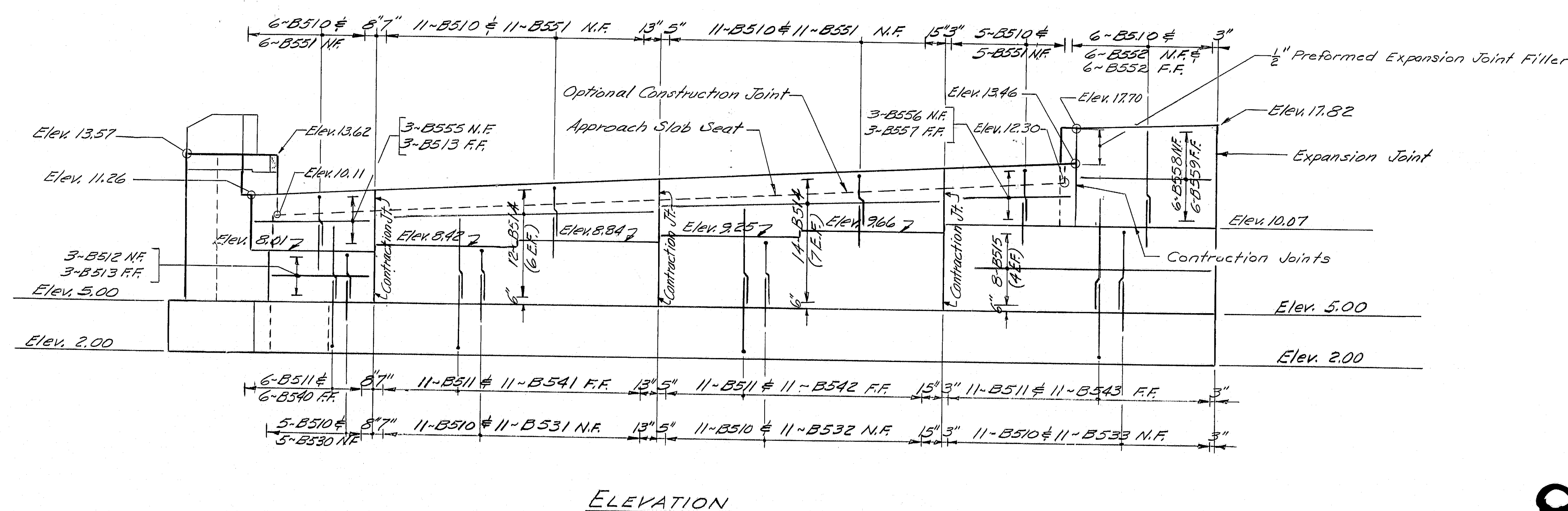
F.R.W.A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(10)62	15	34



END POST NOTES:
 Length of End Post 2'-2" Longer Than Standard End Post.
 Reinforcing Steel Detailed is that increased in Number or Changed in Length from the Standard End Post on BD 120-81

**** Additional Reinforcing Steel Required**
 2-EP502
 2-EP408

*** Reinforcing Steel Replacements:**
 Replacement Old Designation
 4-EP520 EP 508
 4-EP521 EP 501
 1-EP420 EP 410
 4-EP421 EP 403
 1-EP522 EP 504
 For Details not shown see Standard Details.



AS BUILT 1985 RCP

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

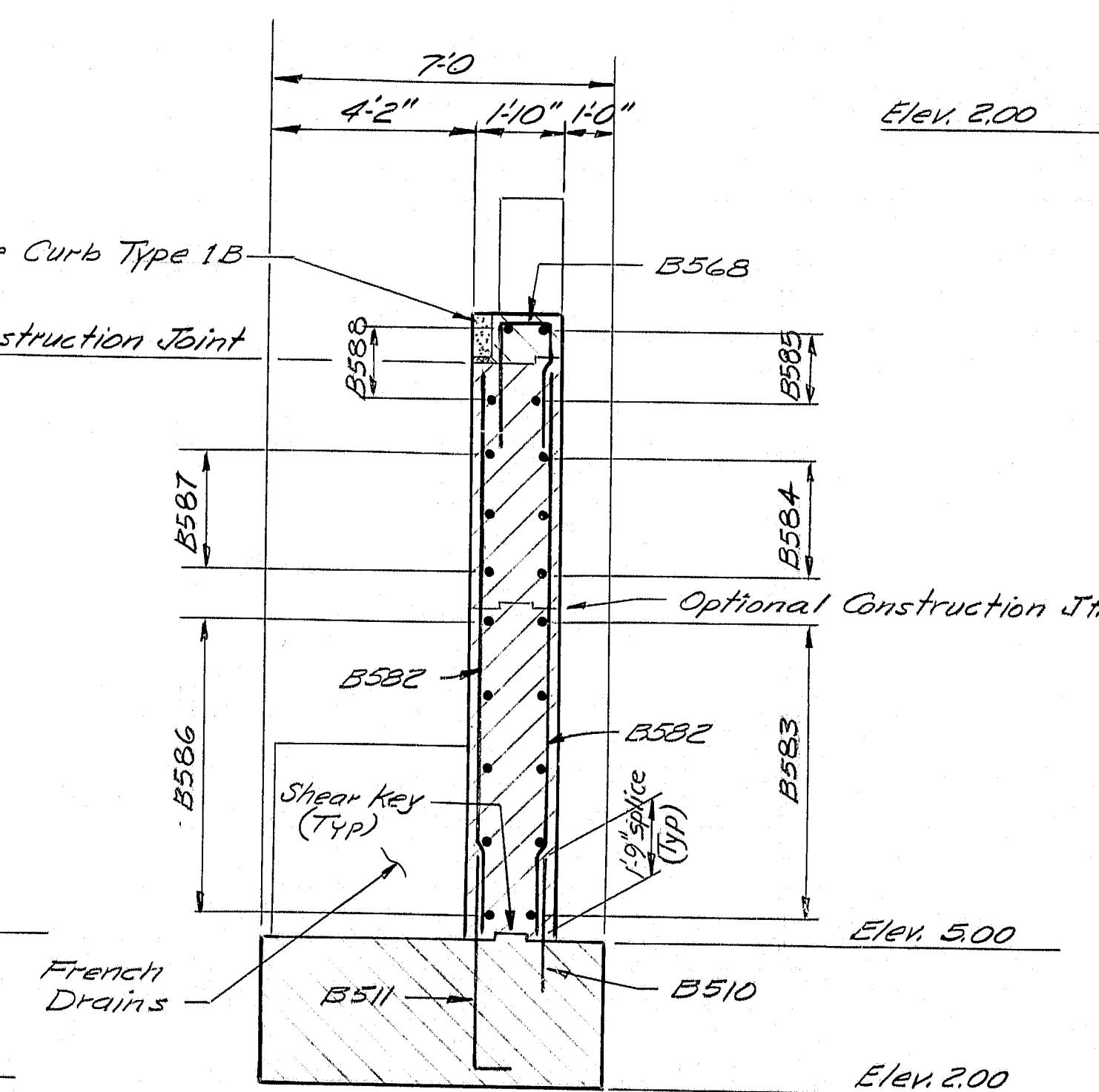
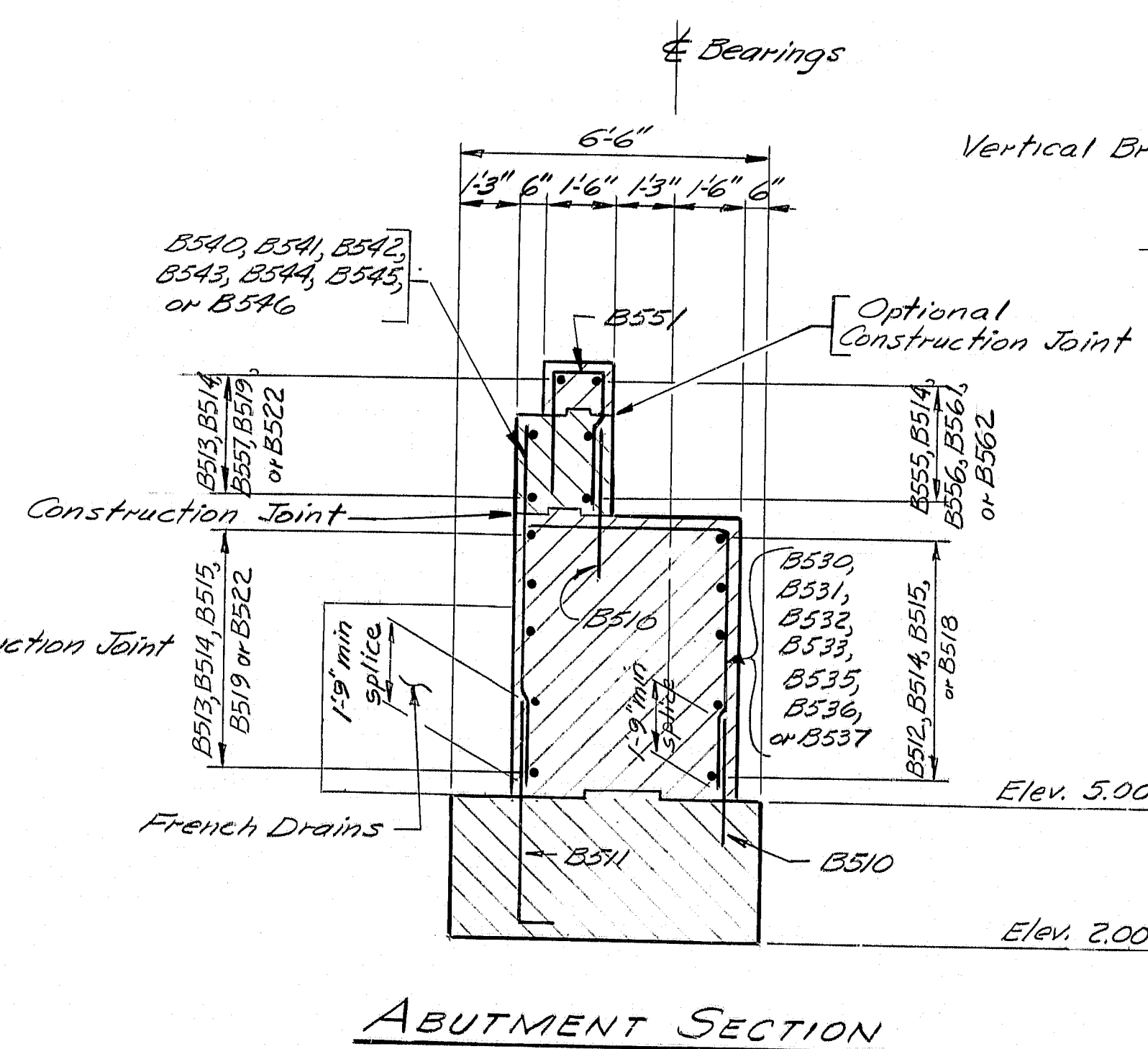
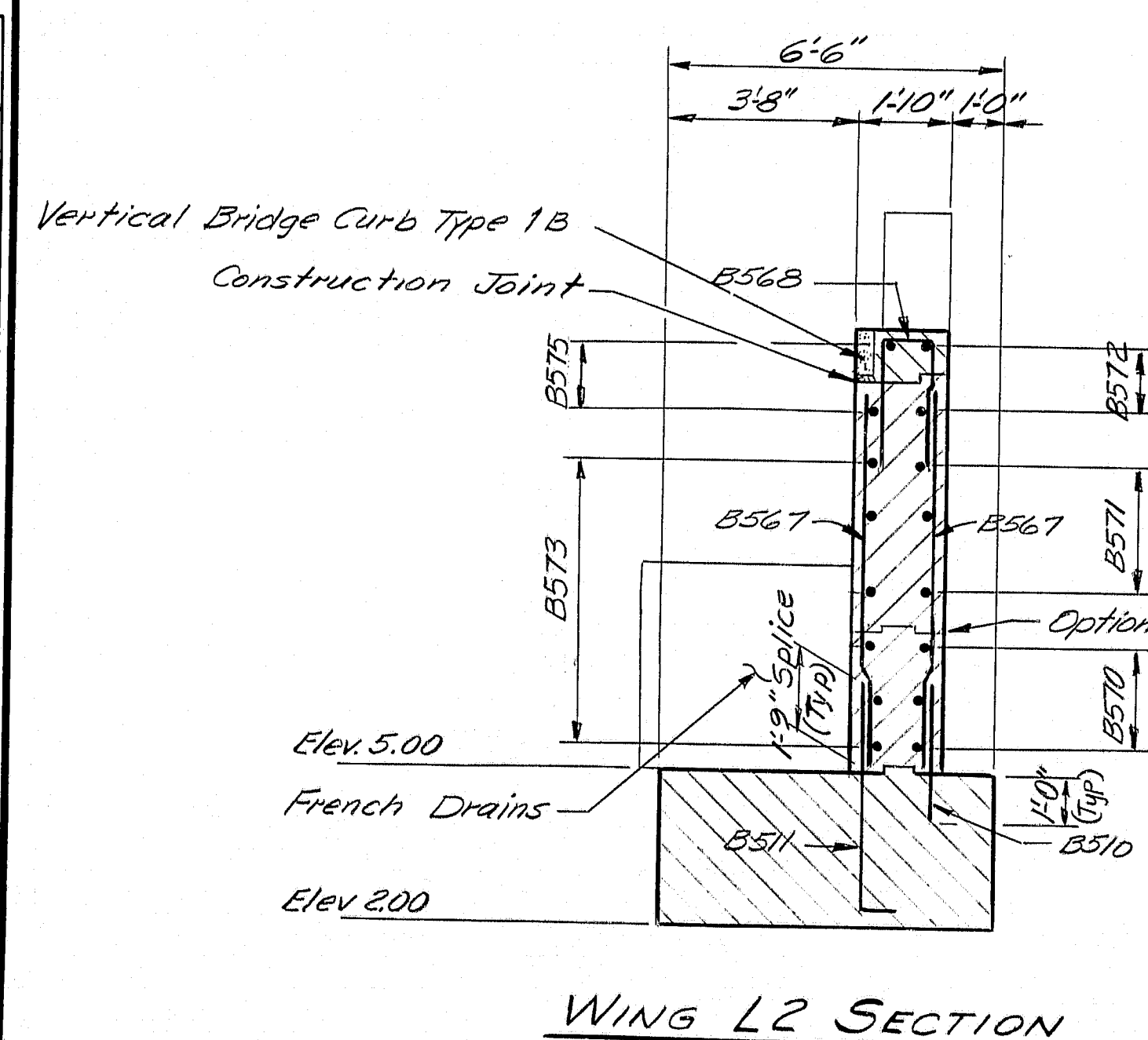
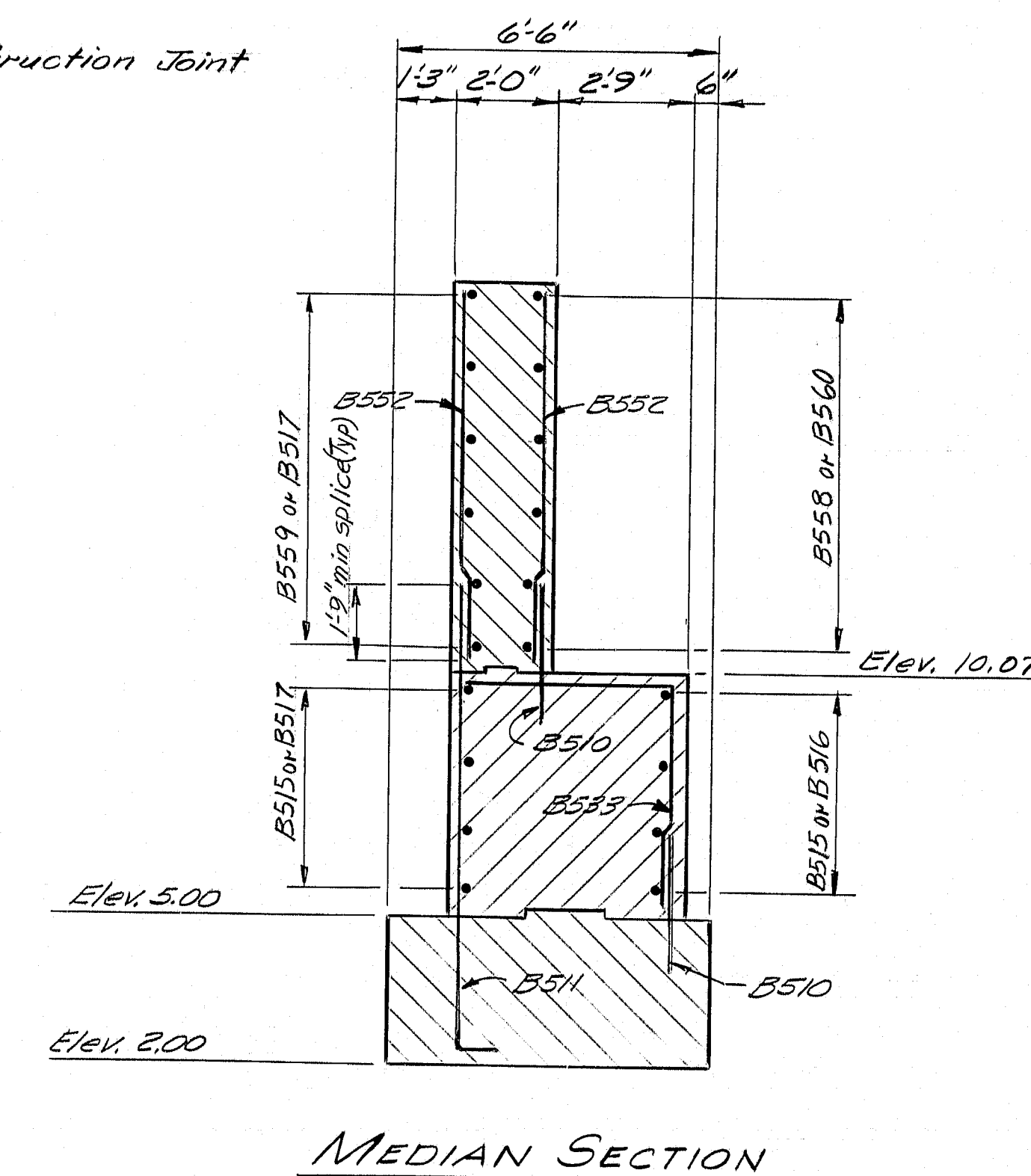
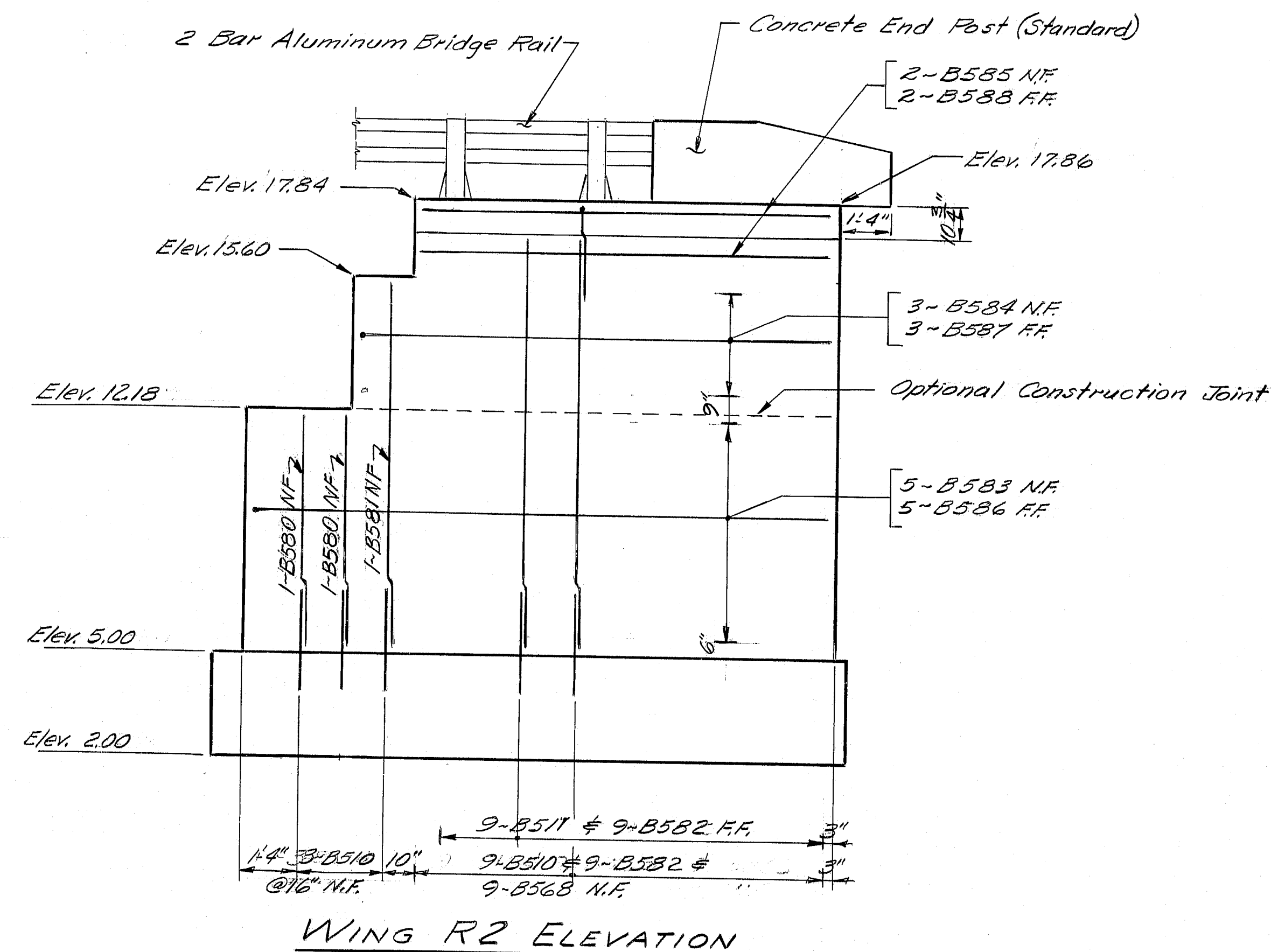
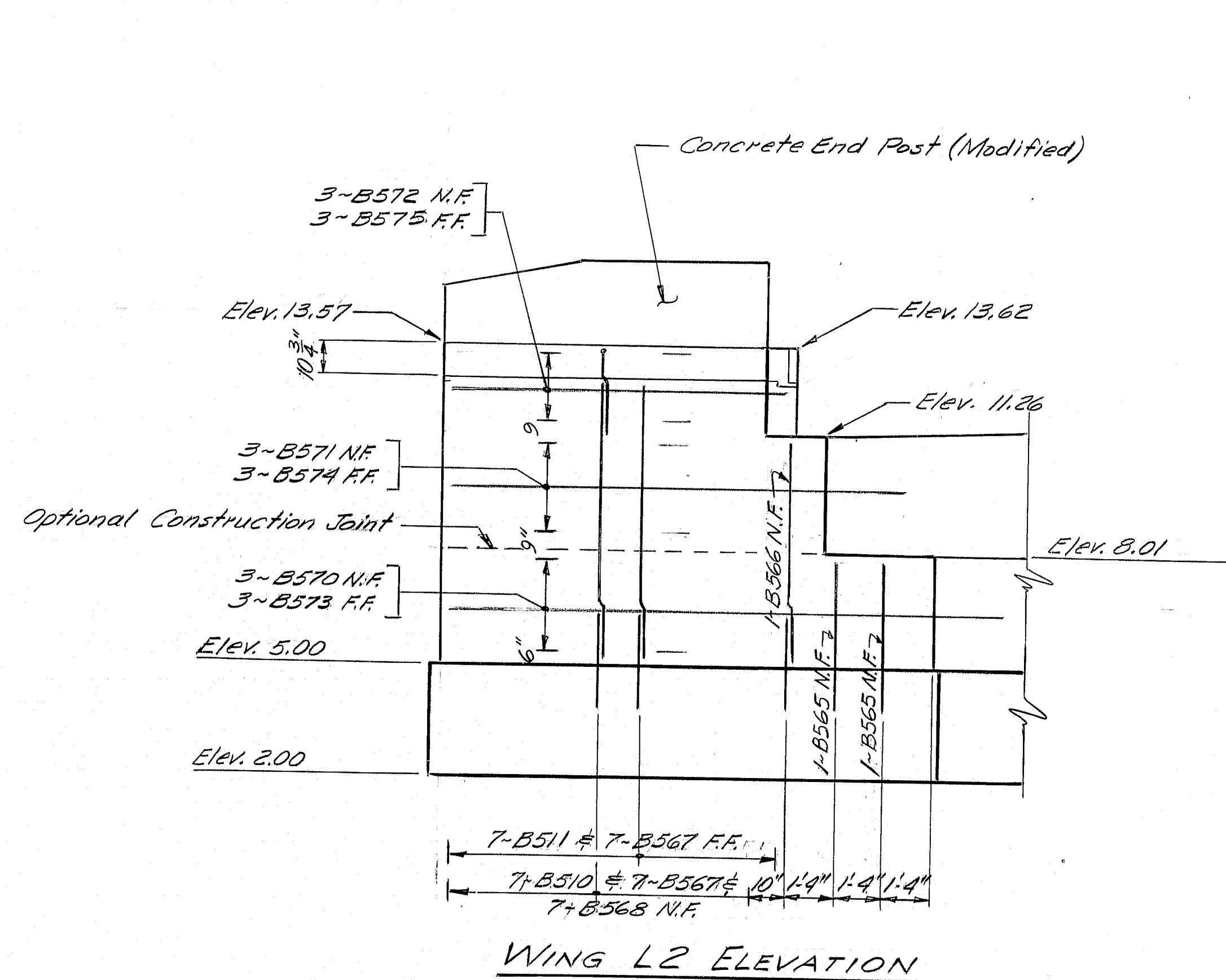
INTERSTATE I 95
 over
 COUSINS RIVER
 between the towns of
 YARMOUTH & FREEPORT
 ABUTMENT #2 - STAGE #2
 (SOUTHBOUND)
 SHEET 15 OF 34 AUGUSTA, MAINE Feb 1984

R93-70

PROJECT DESIGN ENGINEER	DATE
MES	10-83
DESIGN - DETAILED	MEB
CHECKED	WBD
REVISIONS	2/84
FIELD CHANGES	

BRUNING 44-132-25710-1

F.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	T-95-1412	62	16



AS BUILT 1985

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE 195
OVER
COUSINS RIVER
between the towns of
YARMOUTH & FREEPORT
ABUTMENT #2 ~ SECTIONS

SHEET 16 OF 34 AUGUSTA, MAINE Feb 1984

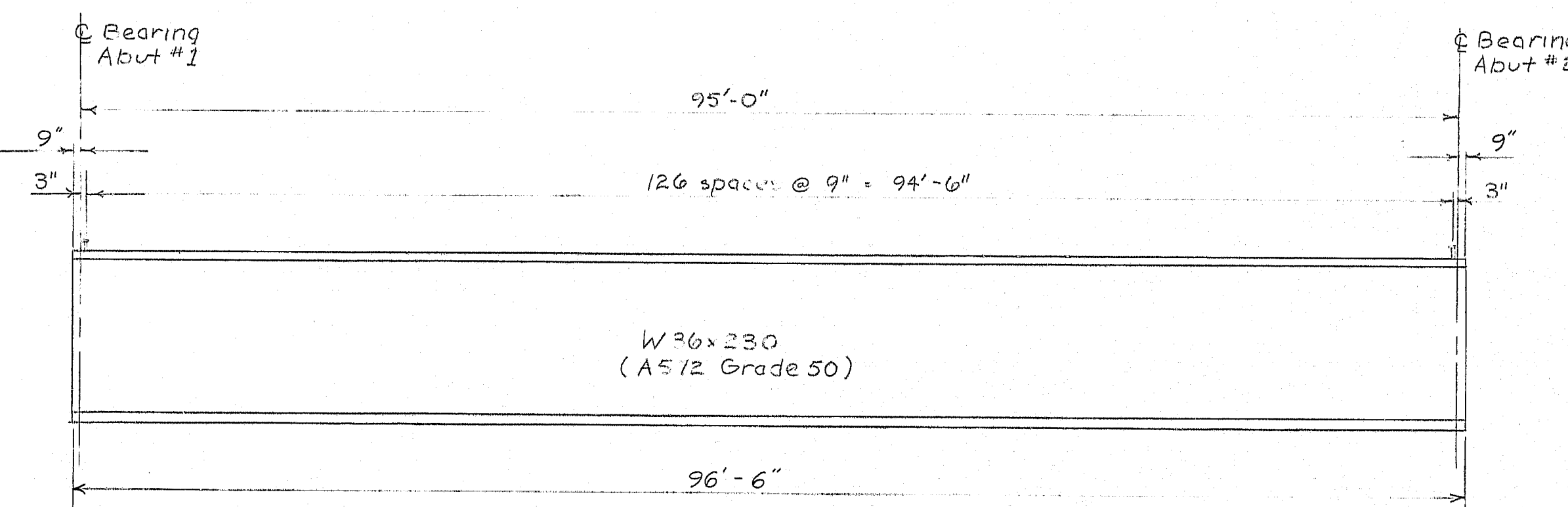
PROJECT DESIGN ENGINEER	DATE
MES	1/28/83
DESIGN - DETAIL	WED 2/22/84
CHECKED	
REVISIONS	
FIELD CHANGES	

BRUNING 44-132-65710-1

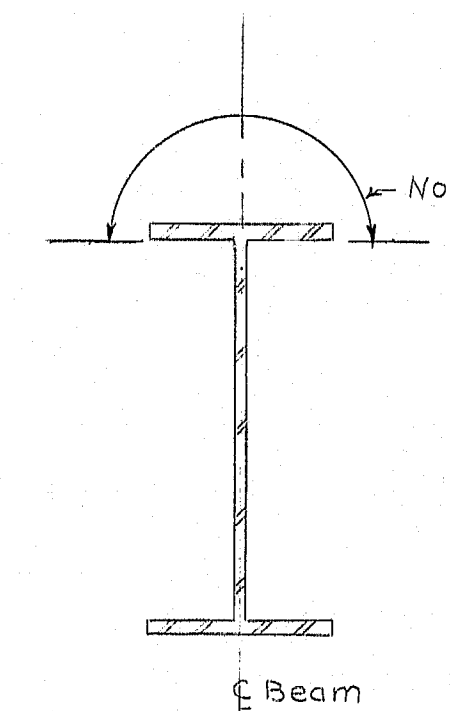
R93-71

F.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-442/62	17	34

Double Shear Connector Spacing
Studs / Stringer = 254
Total Studs = 3048



BEAM ELEVATION



BEAM SECTION

STRUCTURAL STEEL NOTES

1. Camber each beam 4.74" up. The camber is to compensate for all dead load deflections.

2. Cross-frame or diaphragm connection plate may be either plumb or normal to the top flange.

BASIC ALLOWABLE STRESSES

Structural Steel:
A512M A572 --- $F_y = 50,000 \text{ psi}$
A512M A36 --- $F_y = 36,000 \text{ psi}$
A512M A325 --- $F_y = 33,000 \text{ psi}$

MATERIALS

Structural Steel Stringer --- A512M A572
Grade 50
High Strength Bolt --- ASTM A325, $T_b 1$
All Other --- ASTM A36

AS BUILT 1985

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

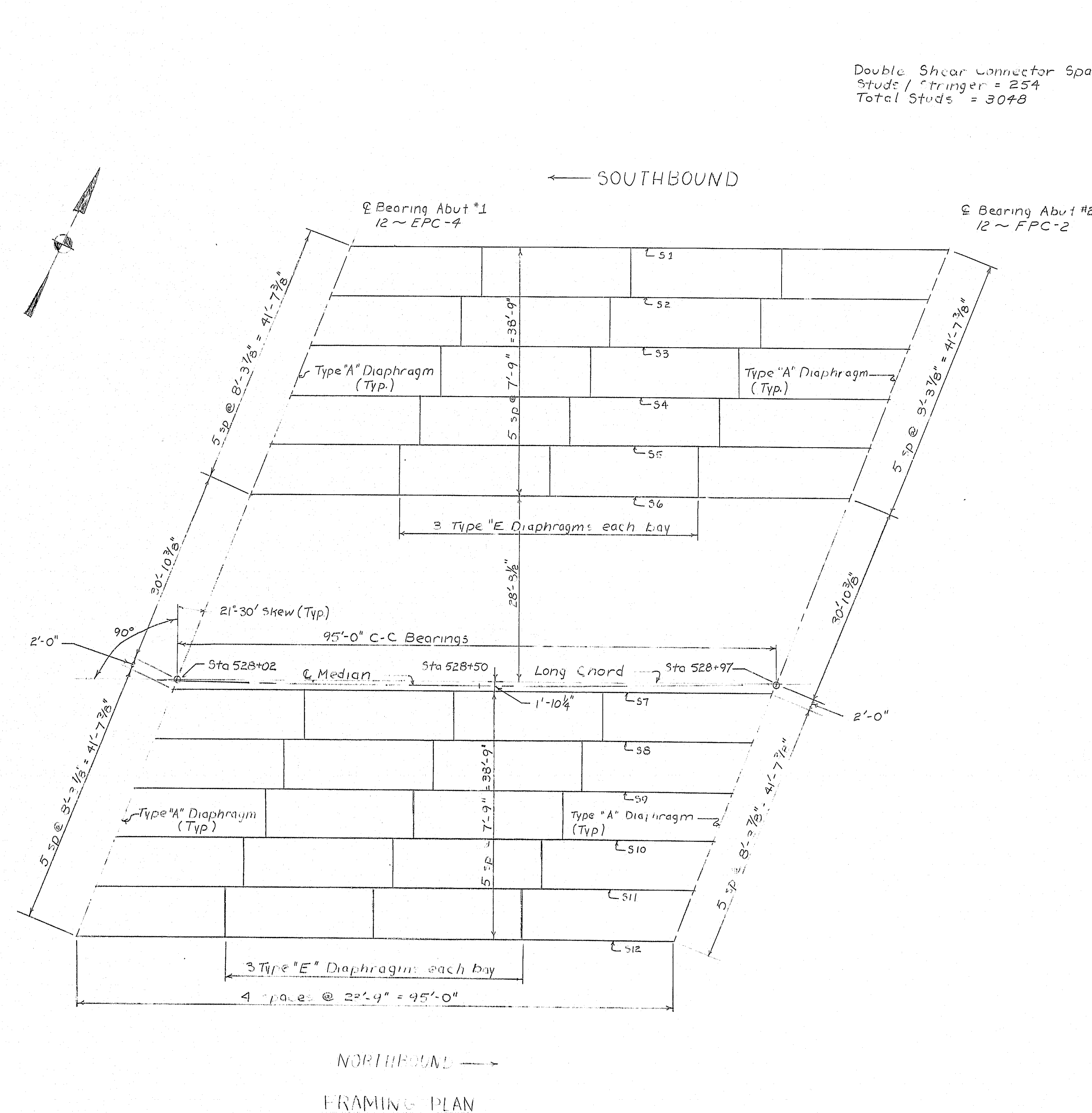
INTERSTATE I-95
OVER

COUSINS RIVER
BETWEEN THE TOWNS OF
YARMOUTH AND FREEPORT

STRUCTURAL STEEL
SHEET 17 OF 34 AUGUSTA, MAINE Feb 1984

R93-72

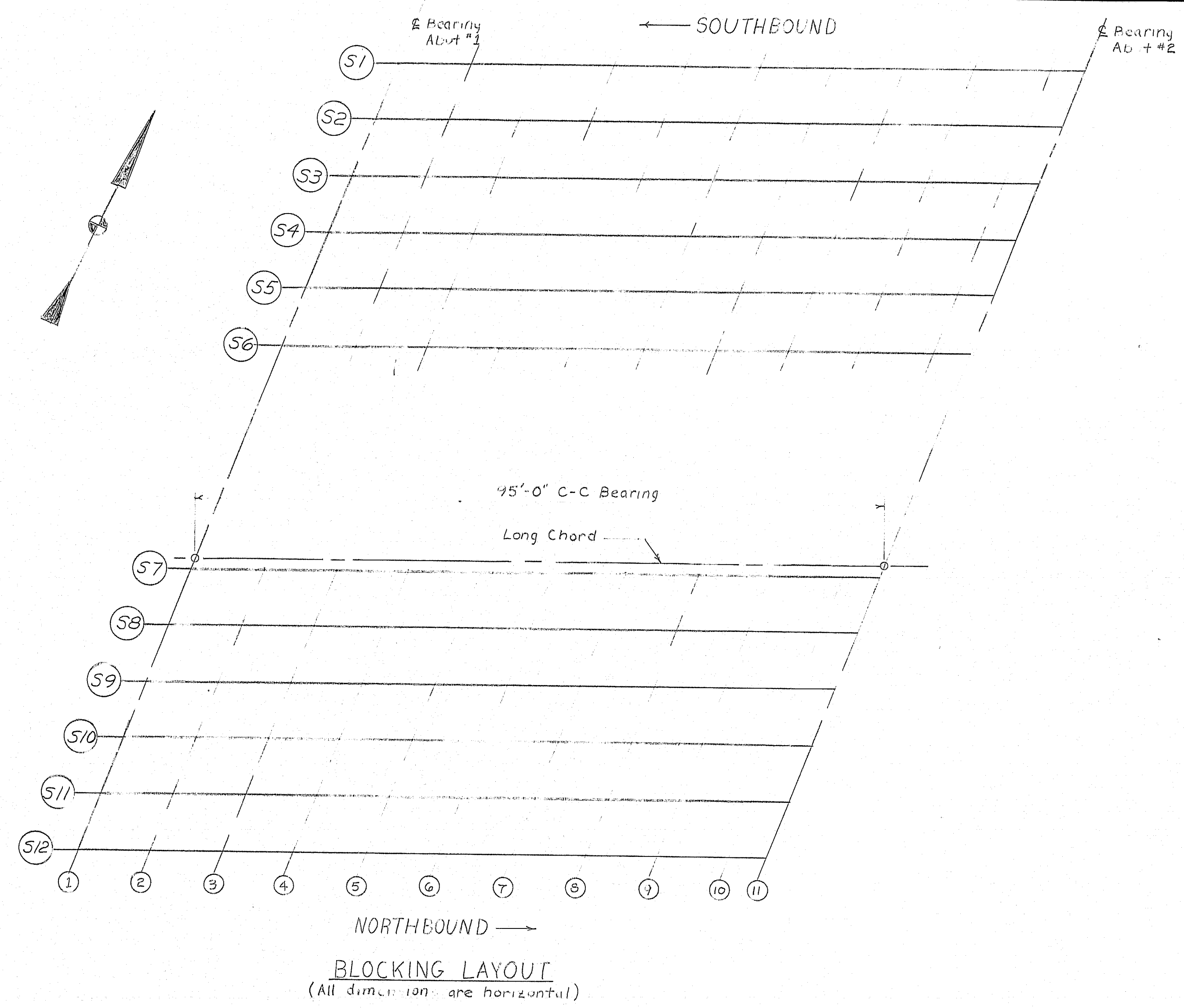
PROJECT DESIGN ENGINEER / MES	BY	DATE
DESIGN - DETAIL	DP	2/84
CHECKED	WD	
REVISIONS		
FIELD CHANGES		



NORTHBOUND
FRAMING PLAN

BRUNN 44132 457101

F.H.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-442)62	18	34

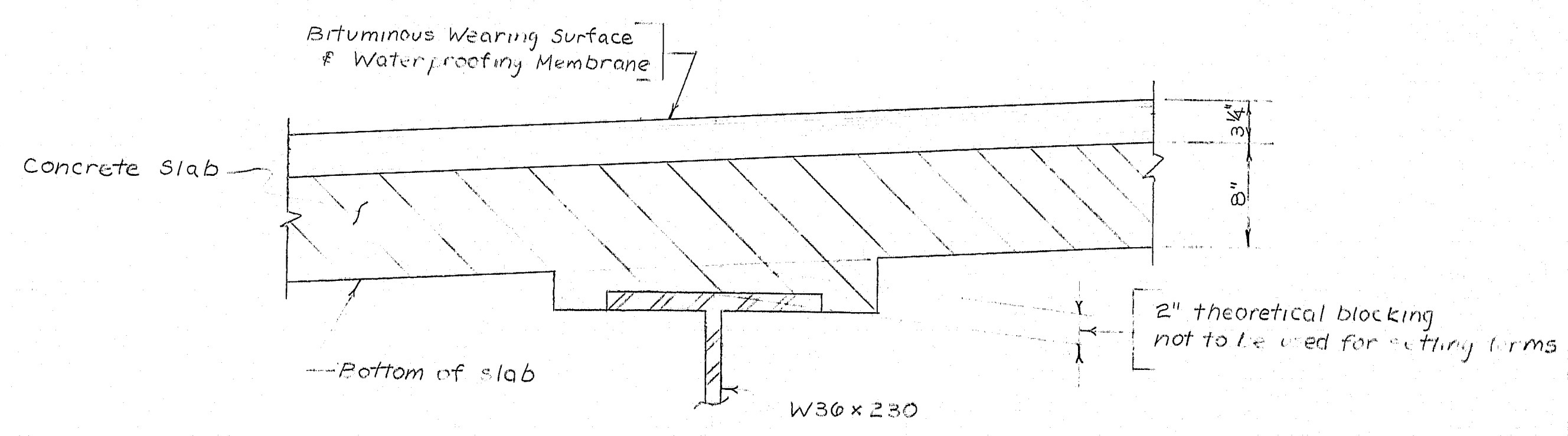


BOTTOM OF SLAB ELEVATIONS											
Span Points	1	2	3	4	5	6	7	8	9	10	11
S1	12.28	12.36	12.43	12.48	12.49	12.47	12.42	12.33	12.21	12.07	12.00
S2	12.70	12.78	12.85	12.89	12.91	12.88	12.83	12.74	12.62	12.48	12.41
S3	13.11	13.19	13.26	13.30	13.32	13.30	13.24	13.15	13.03	12.90	12.83
S4	13.53	13.61	13.67	13.72	13.73	13.71	13.65	13.56	13.44	13.31	13.24
S5	13.94	14.02	14.09	14.13	14.15	14.12	14.07	13.97	13.86	13.72	13.65
S6	14.36	14.44	14.50	14.55	14.56	14.54	14.48	14.39	14.27	14.13	14.06
S7	14.95	15.02	15.07	15.10	15.09	15.06	14.98	14.87	14.73	14.58	14.50
S8	15.18	15.26	15.33	15.37	15.38	15.35	15.29	15.19	15.07	14.92	14.85
S9	15.40	15.50	15.57	15.63	15.65	15.64	15.59	15.50	15.39	15.26	15.19
S10	15.63	15.73	15.82	15.88	15.92	15.92	15.88	15.81	15.71	15.59	15.52
S11	15.85	15.95	16.05	16.13	16.18	16.19	16.16	16.10	16.01	15.91	15.85
S12	16.07	16.16	16.28	16.37	16.43	16.45	16.44	16.39	16.32	16.22	16.17

BEARING SETTING DATA	
After erecting structural steel and before concrete slab is placed.	
(+) sign indicates distance is away from Abutment No. 1 Backwall.	Temp. Abutment No. 1
	120° -1/16"
	105° +1/16"
	90° +3/16"
	75° +1/4"
	60° +3/8"
	45° +1/2"
	30° +5/8"
	15° +3/4"
	0° +13/16"
	-15° +15/16"
	-30° +1 1/16"

BEARING SETTING NOTE

The Bearing Setting Data is to set bearings after erecting structural steel and before the concrete slab is placed. It is anticipated that the bearings at Abutment No. 1 will move 1/2 inch away from the fixed bearings due to the placement of the superstructure concrete. No separate payment will be made for resetting bearings to the final position if an adjustment is required.



BLOCKING DETAIL

AS BUILT 1985

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE 1-95
OVER
COUSIN RIVER
BETWEEN THE TOWNS OF
YARMOUTH AND FREETPORT
BLOCKING PLAN

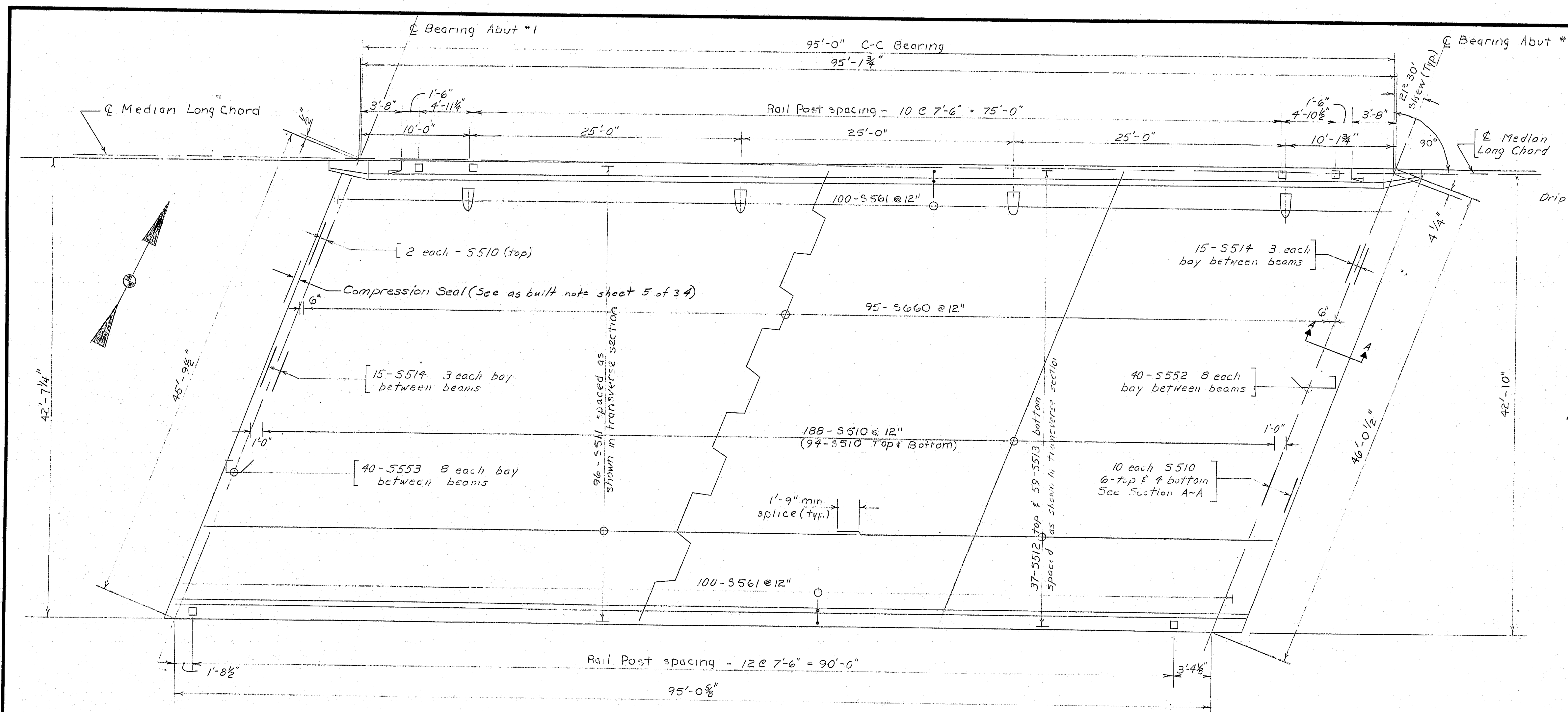
SHEET 18 OF 34 AUGUSTA, MAINE Feb 1984

R93-73

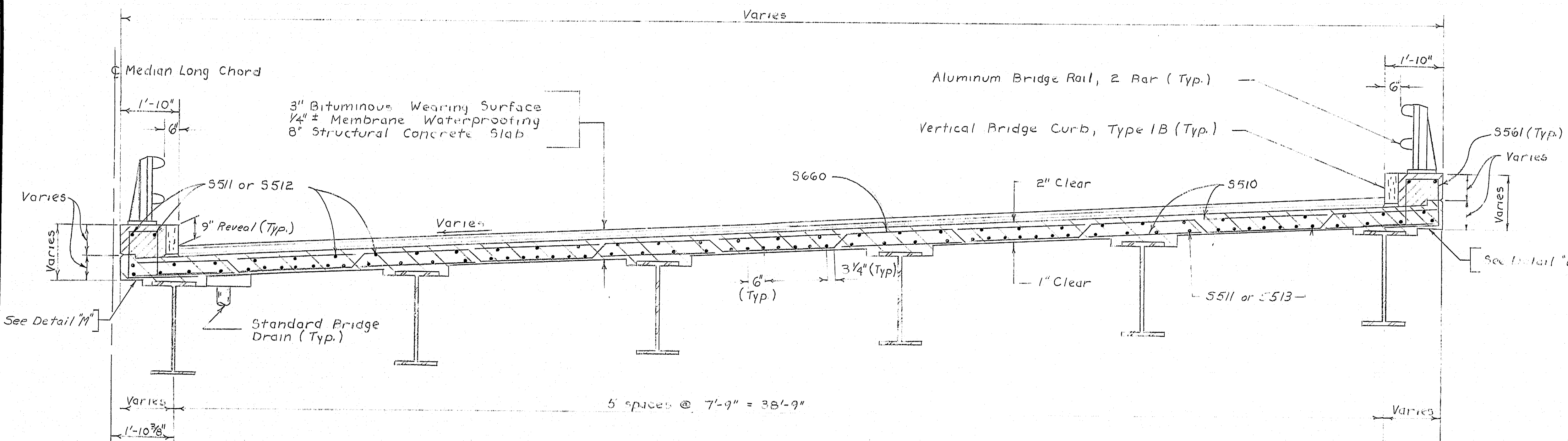
PROJECT DESIGN ENGINEER	DATE
MAEB	10/83
DESIGN-DETAILED	DP
CHECKED	WBD
REVISIONS	2/84
FIELD CHANGES	

DRAWING 44-32-5710-1

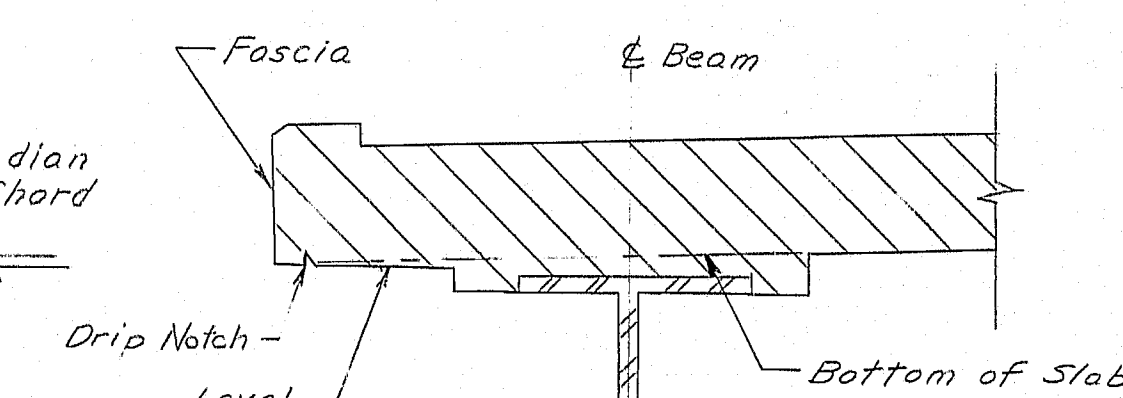
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1	MAINE	I-95-4(14)62	19	34



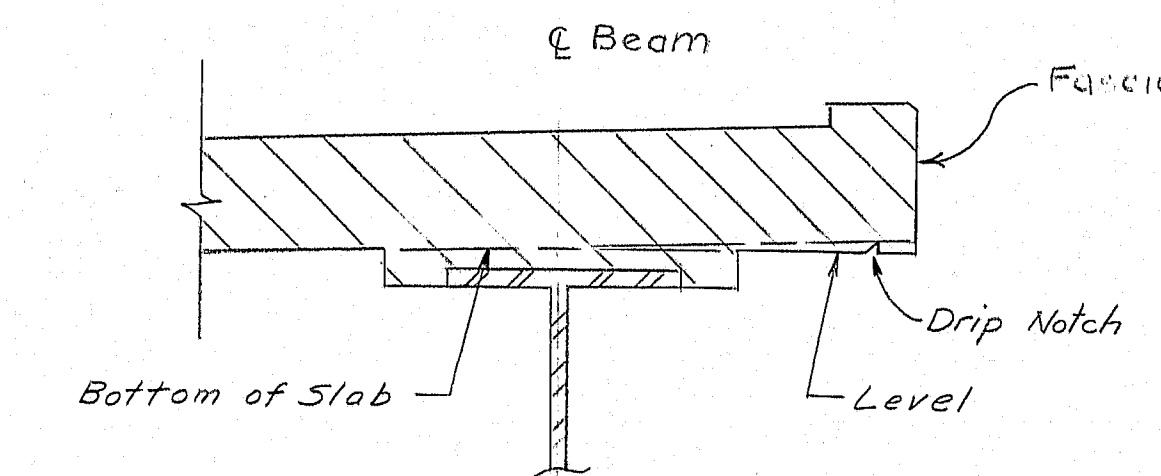
PLAN (NORTHBOUND)



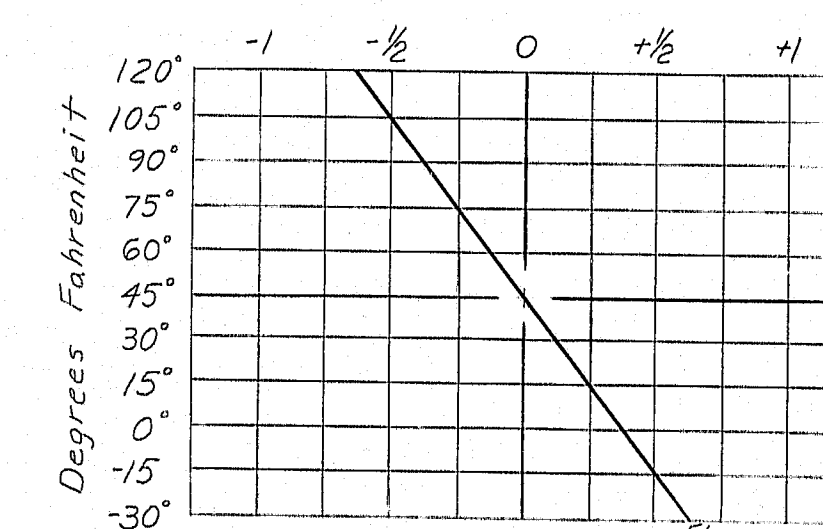
TRANSVERSE SECTION (NORTHBOUND)



DETAIL "M"



DETAIL "L"



COMPRESSION SEAL ADJUSTMENT CHART
(See as built note sheet 5 of 34)

1. The seals to be furnished shall have a minimum Movement Rating of 1/4 inch at Abutment No. 1.
2. The seal shall be approved by the Engineer prior to fabrication of the joint armor.
3. 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.
4. It is anticipated that the slab and backwall concrete will be in place before the final adjustment to the joints is made and no allowance for movement due to dead load deflections is needed.
5. The Compression Seal Adjustment Chart shows the adjustment necessary to adjust the joint opening shown on the shop detail drawings for temperatures 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 I-95

OVER

COUSINS RIVER

BETWEEN THE TAVNS OF

YAKMOUTH AND FREEPORT

Northbound Superstructure

SHEET 19 OF 34 AUGUSTA, MAINE Feb. 1984

R93-74

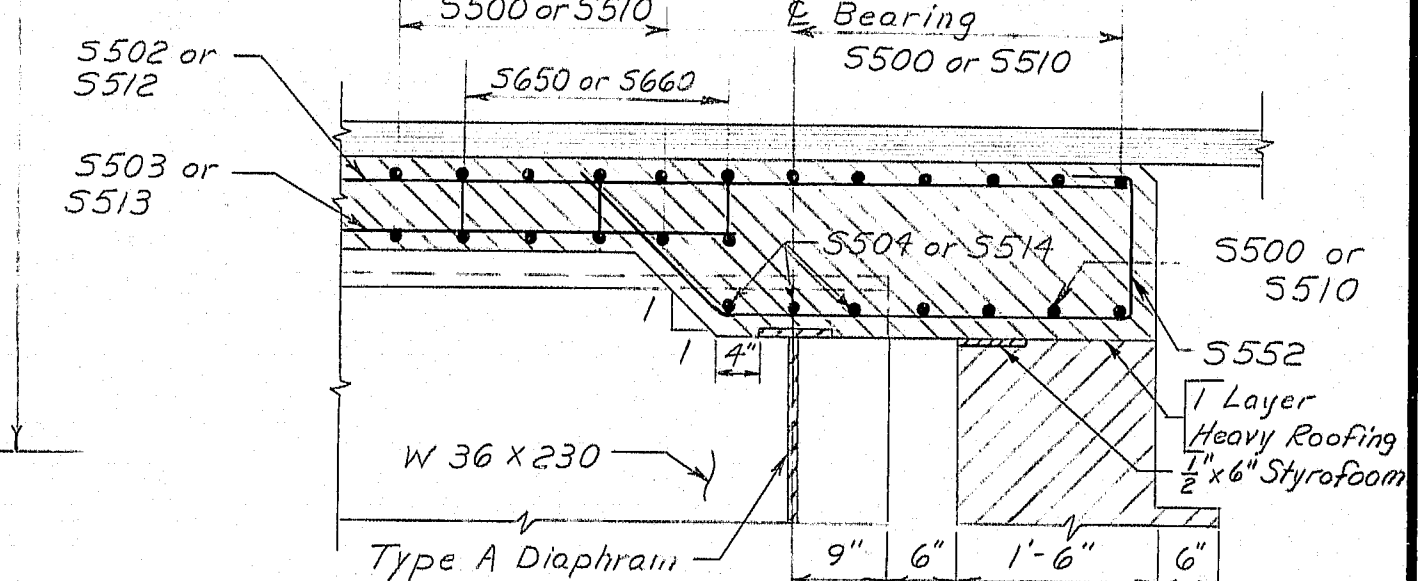
PROJECT DESIGN ENGINEER	DATE
WMB	4/85
DESIGN-DETAILED	BY
WMB	WMB
REVISIONS	DATE
1	2/84
FIELD CHANGES	

BRUNING 44-132 45710-1

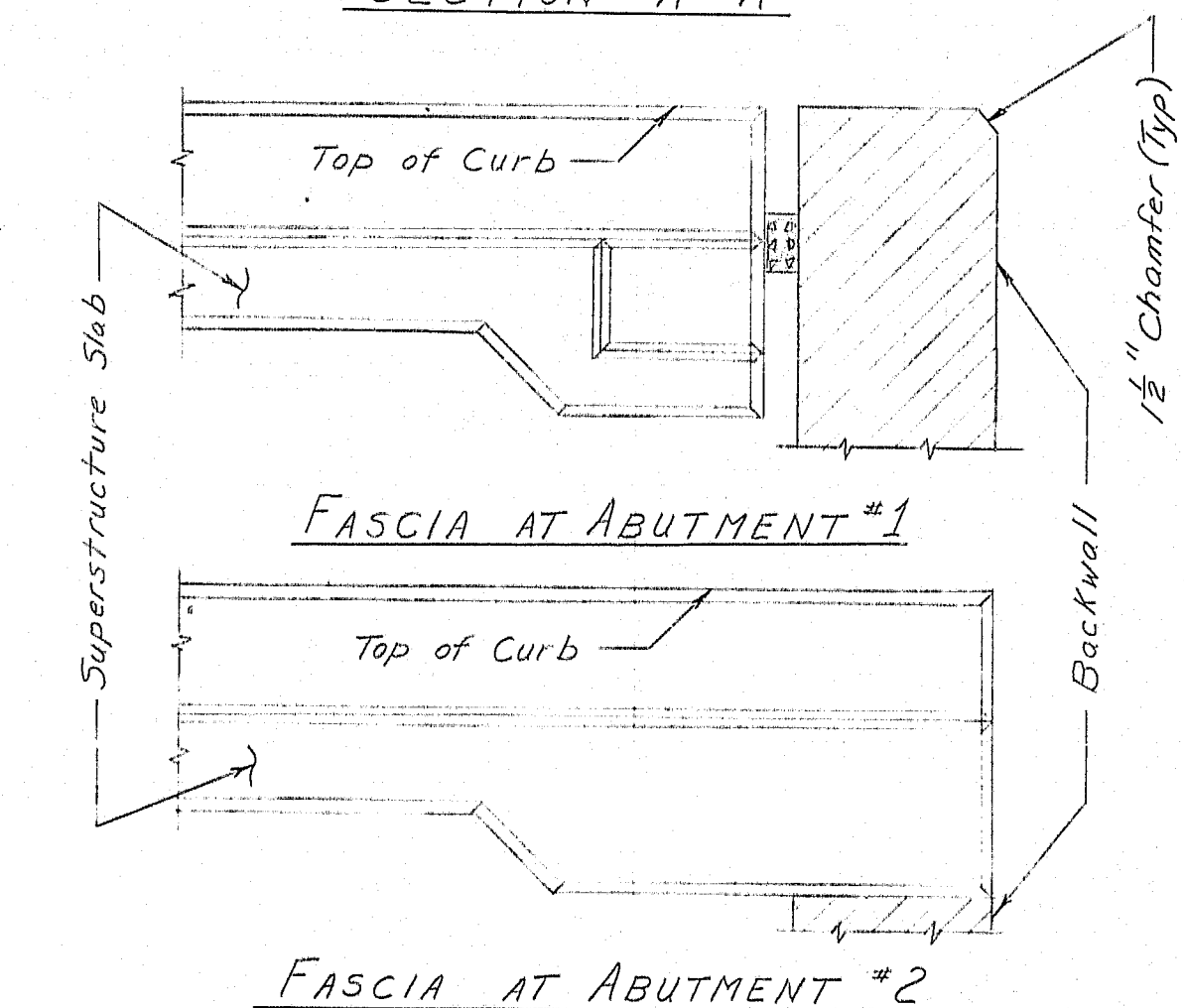
F.R.E.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-1(12)62	20	34

SUPERSTRUCTURE NOTES

1. Payment for all concrete endposts will be incidental to item 502.260, Structural Concrete Roadway and Sidewalk Slabs on Steel Bridges.
2. Form a 1" V-groove on the fascias at the horizontal joint between the curb and slab.
3. Reinforcing steel shall have a minimum cover of 2" unless otherwise indicated.
4. Adjust reinforcing steel to fit around the drains in a manner approved by the Engineer. Do not cut transverse reinforcing bars.
5. The superstructure slab concrete for the span shall be placed continuously and shall be kept plastic until the entire span has been placed.
6. Mortar for bedding and for joints in the granite curb shall contain an approved non-shrink additive.
7. Protective coating for concrete surfaces shall be applied to the following areas:
Top of concrete curbs.
Fascia down to the drip notch.
All exposed surfaces of concrete end posts.

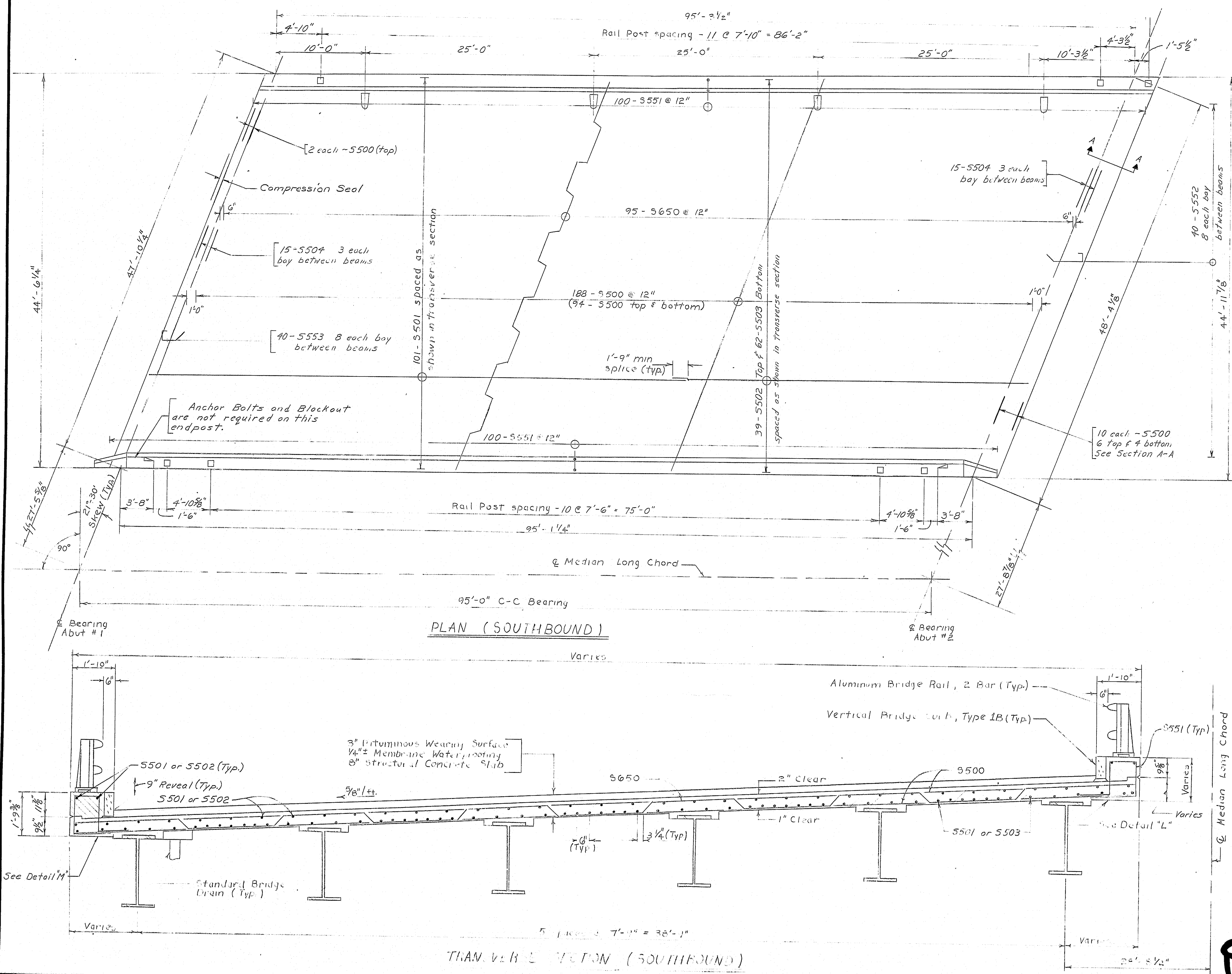


SECTION A-A



STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
INTERSTATE I-95 OVER COUSINS RIVER 12 MILES THE TOWNS OF YARMOUTH AND FREEPORT	
Southbound Superstructure SHEET 20 OF 34 AUGUSTA, MAINE Feb 1984	

R93-75



PROJECT DESIGN ENGINEER	MEB	BY	DATE
DESIGN - DETAILED	MEB	D.P	6/83
PLANS		WJD	2/84

BRUNING 44-132-6710-1

REINFORCING STEEL SCHEDULE																											
STRAIGHT BARS				STRAIGHT BARS				STRAIGHT BARS				BENT BARS															
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	
				A500	14	60'0"	Footing	A549	4	4'6"	Vertical	A550	17	5'7"	L	0'9"	4'10"										Dowel
				A501	14	35'0"	"					A551	17	10'4"	L	4'5"	5'11"										Vertical Breastwa
				A502	14	22'0"	"					A552	17	10'6"	S	—	4'8"	1'2"	4'8"				—				Vertical Backwall
				A503	180	6'0"	"					A553	19	9'3"	L	4'5"	4'10"										Vertical Breastwa
				A504	18	11'6"	"					A554	9	5'10"	L	0'9"	5'1"										Dowel
				A505	4	5'0"	"					A555	2	4'6"	S	—	2'0"	0'6"	2'0"				—				Curb
				A506	22	6'6"	"					A556	4	10'10"	L	4'5"	6'5"										Vertical Breastwall
				A507	14	16'0"	"					A557	4	4'9"	S	—	2'0"	0'9"	2'0"				—				Curb
				A508	17	3'3"	Dowel					A558	5	11'0"	S	—	4'11"	1'2"	4'11"				—				Vertical Backwall
				A509	20	8'4"	Breastwall					A559	9	10'8"	S	—	4'9"	1'2"	4'9"				—				" "
				A510	31	2'9"	Vertical Backwall					A560	10	11'6"	L	0'9"	10'9"										Dowel
				A511	17	24'8"	Horizontal Breastwall					A561	17	8'0"	L	4'5"	3'7"										Vertical Breastwall
				A512	2	45'2"	Horizontal Backwall					A562	23	9'4"	S	—	3'5"	1'2"	4'9"				—				Vertical Backwall
				A513	21	3'7"	Dowel					A563	11	7'2"	L	4'5"	2'9"										Vertical Breastwall
				A514	9	7'9"	Vertical Breastwall					A564	11	5'11"	L	0'9"	5'2"										Vertical Backwall
				A515	10	3'0"	Dowel Median Wall					A565	15	9'3"	L	4'5"	4'10"										Vertical Median
				A516	20	8'1"	Vertical Median Wall					A566	9	10'0"	L	0'9"	9'3"										" "
				A517	6	13'4"	Horizontal Median Wall					A567	6	5'6"	L	0'9"	4'9"										Vertical Breastwall
				A518	6	14'1"	" " "					A568	2	4'6"	S	—	2'0"	0'6"	2'0"				—				Curb
				A519	8	26'11"	Horizontal Breastwall					A569	17	6'6"	L	0'9"	5'9"										Dowel
				A520	3	13'6"	Horizontal Backwall					A570	6	5'3"	L	0'9"	4'6"										Dowel Wing L I
				A521	3	12'8"	" "					A571	6	6'3"	S	—	2'9"	0'9"	2'9"				—				Curb " " "
				A522	7	6'6"	Vertical					A572	3	18'3"	J	3'9"	1'0"	13'6"							6"		Horizontal " " "
				A523	6	2'9"	Dowel																				

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	21	34

All dimensions are out to out of reinf. bar
Bending details and hooks shall conform to
the recommendations of the current revision
of ACI Standard 318. 
Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

1. First digit(s) following the letter of the Mark indicates size of reinf bar.
Mark (A 502) bar size - #5
Mark (P 1001) bar size - #10
Mark (S 608) bar size - #6
2. Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.

AS BUILT 1985

Revised ACI Standard

5-12-83

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

INTERSTATE I-95

OVER

COUSINS RIVER

YARMOUTH AND FREEPORT

ABUTMENT # 1

REINFORCING STEEL SCHEDULE

SHEET 21 OF 34 AUGUSTA, MAINE Feb 1984

R93-76

REINFORCING STEEL SCHEDULE

STRAIGHT BARS												BENT BARS														
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
				B503	182	6'0"	Footing	B552	39	7'4"	Median Barrier	B511	100	5'5"	L	4'8"	9"									
				B504	14	11'0"	"																			
				B505	14	6'6"	"	B555	3	7'8"	Backwall	B530	5	7'1"	L	2'9"	4'4"									Breastwall
				B506	16	12'0"	"	B556	3	6'5"	"	B531	11	7'6"	L	3'2"	4'4"									"
				B507	14	41'0"	"	B557	3	5'8"	"	B532	11	8'4"	L	4'0"	4'4"									"
				B508	14	30'0"	"	B558	6	7'10"	Median Barrier	B533	25	9'2"	L	4'10"	4'4"									"
				B509	14	56'0"	"	B559	6	8'6"	"															
				B510	188	3'3"	Dowell	B560	6	18'8"	"	B535	10	9'10"	L	5'6"	4'4"									"
								B561	3	15'0"	Backwall	B536	11	10'4"	L	6'0"	4'4"									"
				B512	3	6'9"	Breastwall	B562	3	13'8"	"	B537	11	10'9"	L	6'5"	4'4"									"
				B513	6	7'0"	Breastwall + Backwall																			
				B514	42	16'4"	"	B565	2	3'10"	Wing L2	B551	65	6'10"	S		2'10"	1'2"	2'10"							Backwall
				B515	13	14'8"	Breastwall	B566	1	6'0"	"															
				B516	4	19'8"	"	B567	14	7'4"	"	B568	16	6'10"	S		2'10"	1'2"	2'10"							Wings L2 + R2
				B517	10	17'11"	Median Breastwall + Barrier																			
				B518	5	14'2"	Breastwall	B572	2	8'5"	"	B570	3	15'0"	V				13'0"	2'0"				1'10"		Wing L2
				B519	8	15'11"	Breastwall + Backwall					B571	3	12'0"	V				10'0"	2'0"				1'10"		"
								B575	2	8'11"	"															"
				B522	8	12'8"	"					B573	3	10'10"	V				8'10"	2'0"				1'10"		"
								B580	2	7'0"	Wing R2	B574	3	11'5"	V				9'5"	2'0"				1'10"		"
				B540	6	4'10"	Breastwall + Backwall	B581	1	10'5"	"															"
				B541	11	5'3"	"	B582	18	11'7"	"	B583	5	18'2"	VV				16'2"	2'0"				9"		Wing R2
				B542	11	6'1"	"					B584	3	15'2"	VV				13'2"	2'0"				9"		"
				B543	24	6'11"	"	B585	2	11'7"	"															"
				B544	11	7'7"	"					B586	5	12'10"	VV				10'10"	2'0"				9"		"
				B545	11	8'1"	"	B588	2	10'11"	"	B587	3	13'4"	VV				11'4"	2'0"				9"		"
				B546	10	8'6"	"																			"

FWA NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	22	34

TYPE-BENDING DIAGRAMS

All dimensions are out to out of reinf. bar.
Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318.Δ
Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

- First digit(s) following the letter of the Mark indicates size of reinf. bar.
Mark (A502) bar size - #5
Mark (P1001) bar size - #10
Mark (S603) bar size - #6
- Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.

AS BUILT 1985_{B.P.}

Revised ACI Standard	5-12-83
REVISIONS	DATE
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
INTERSTATE I-95 OVER COUSINS RIVER YARMOUTH AND FREEPORT ABUTMENT # 2 REINFORCING STEEL SCHEDULE	
SHEET 22 OF 34 AUGUSTA, MAINE Feb 1984	

R93-77

REINFORCING STEEL SCHEDULE																										
STRAIGHT BARS												BENT BARS														
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
						(S.B.)	SUPERSTRUCTURE			END	POSTS															
				SS500	200	47'6"	Transverse																			
				SS501	101	60'0"	Longitudinal	EP401	60	1'10"	End Posts	SS551	200	6'11"	SB	1'3"	1'4"	1'1"	1'5"	1'10"						Curb
				SS502	39	40'2"	Longitudinal (top)					SS552	40	6'5"	X	1'7"	3'4"	1'0"	6"							Slab Haunch Abut #
				SS503	62	35'9"	" (bottom)	EP405	32	1'5"	End Posts	SS553	40	4'6"	X	1'7"	1'5"	1'0"	6"							" " #
				SS504	30	7'11"	Haunch (3 each bay)																			
								EP508	24	4'0"	End Posts	SS650	95	49'3"	B		4'5 1/2"	7 1/2"	3'9 1/2"	3'7 3/4"	5'0"			47'5 3/4"	Transverse	
						(N.B.)	SUPERSTRUCTURE											x 10	x 5	x 4						
				SS510	200	45'1"	Transverse	EP520	4	6'2"	Modified End Post															
				SS511	101	60'0"	Longitudinal																			
				SS512	39	40'2"	Longitudinal (top)	EP708	4	4'0"	" " "															
				SS513	62	36'6"	" (bottom)					SS551	200	6'11"	SB	1'3"	1'4"	1'1"	1'5"	1'10"						Curb
				SS514	30	7'11"	Haunch (3 each bay)					SS552	40	6'5"	X	1'7"	3'4"	1'0"	6"							Haunch Abut #2
												SS553	40	4'6"	X	1'7"	1'5"	1'0"	6"							" " #1
						APPROACH SLABS						SS660	95	46'11"	B		3'5 1/2"	7 1/2"	3'9 1/2"	3'7 3/4"	3'8"			45'1 3/8"	Transverse	
				AS400	64	30'0"	NB + SB											x 10	x 5	x 4						
				AS401	32	14'0"	SB Lane																			
				AS403	32	11'10"	NB Lane																			
				AS600	312	15'0"	NB + SB					EP402	32	4'9"	S	0	2'1"	0'7"	2'1"			0				End Posts
												EP403	28	4'8"	H	0'4"	1'0"	1'0"	1'0"	1'0"		0'4"				" "
												EP404	32	3'1"	S	0	1'3"	0'7"	1'3"			0				" "
												EP408	26	4'3"	S	0	1'10"	0'7"	1'10"			0				" "
												EP409	16	4'												

FHWA RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOT SHE
1	MAINE	I-95-4(42)62	23	3

Figure 1 consists of 18 diagrams, labeled A through X, illustrating various types of structural connections and joints. The diagrams are arranged in a grid-like fashion, with each diagram showing a different configuration of members and joints. The labels and their corresponding descriptions are as follows:

- A**: A simple joint connecting two members at a right angle.
- B**: A joint connecting two members at an angle, with a dimension 'O' indicated.
- C**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- D**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- E**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- F**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- G**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- H**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- I**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- J**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- K**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- L**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- M**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- N**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- O**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- P**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- Q**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- R**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- S**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- T**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- U**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- V**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- W**: A joint connecting two members at a right angle, with a dimension 'O' indicated.
- X**: A joint connecting two members at a right angle, with a dimension 'O' indicated.

*All dimensions are out to out of reinf. bar
Bending details and hooks shall conform to
the recommendations of the current revision
of ACI Standard 318. 
Reinforcing Bar: ASTM A 615 Grade 60*

1. First digit(s) following the letter of the Mark indicates size of reinf. bar.
Mark (A 502) bar size - #5
Mark (P 1001) bar size - #10
Mark (S 603) bar size - #6
2. Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.

AS BUILT 1985 Rep

 Revised ACI Standard

5-12-83

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

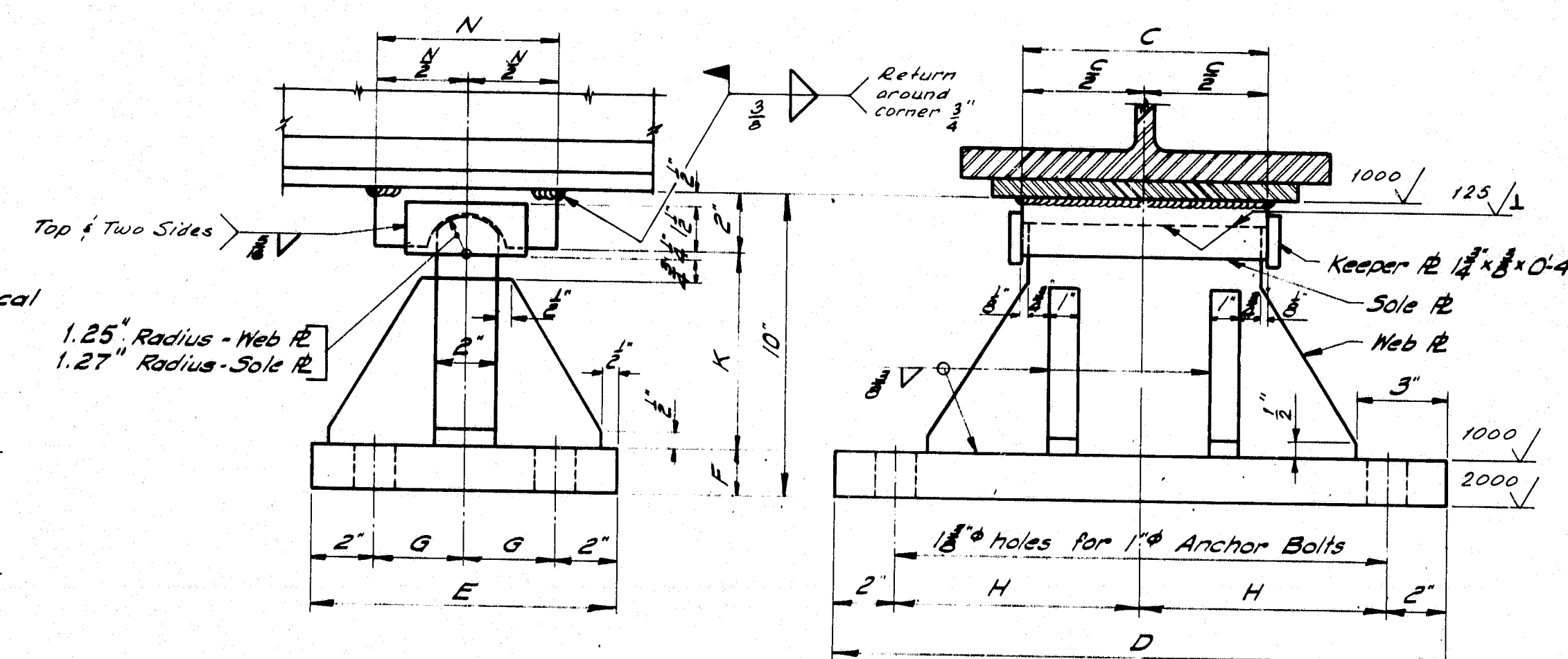
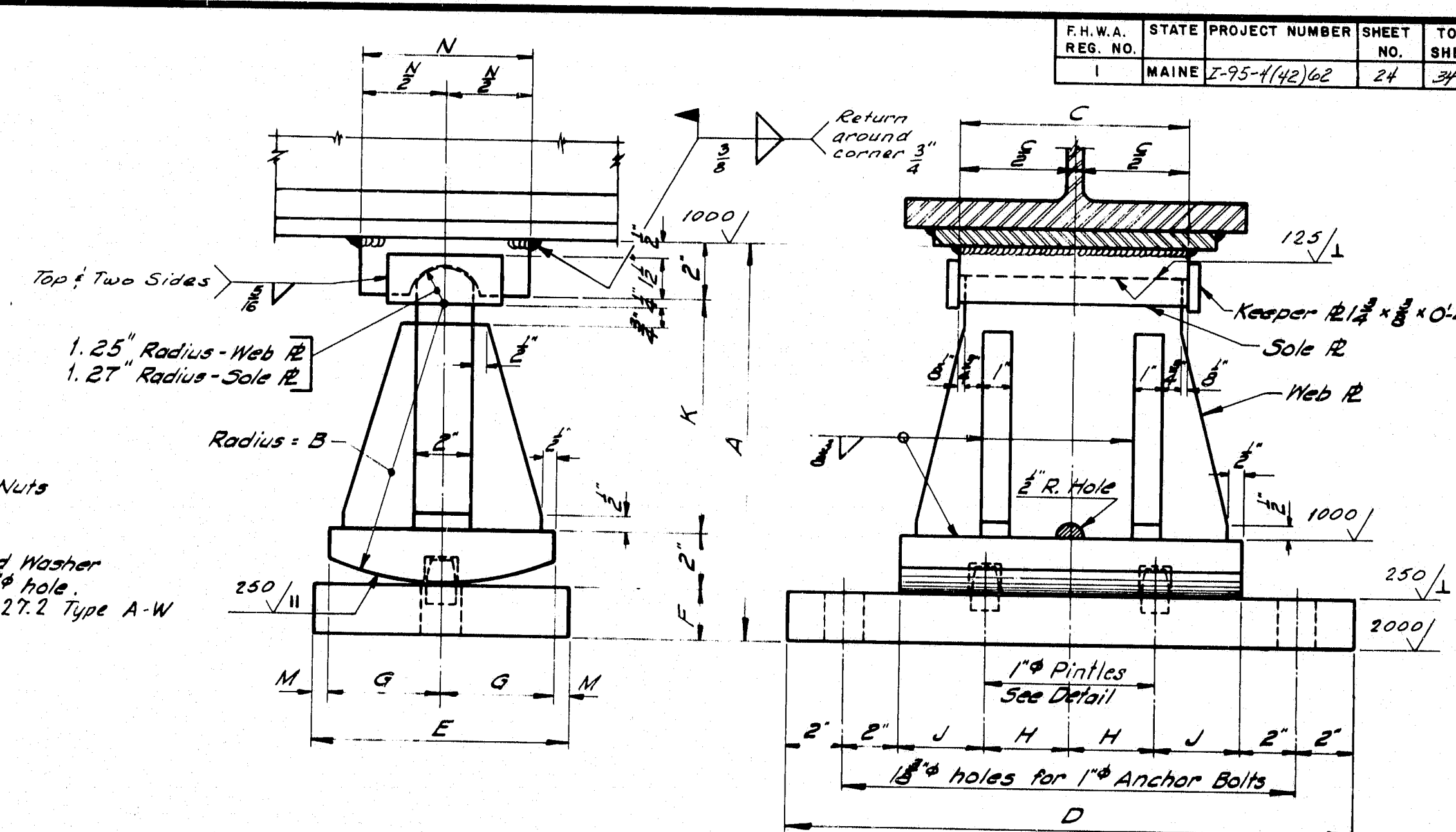
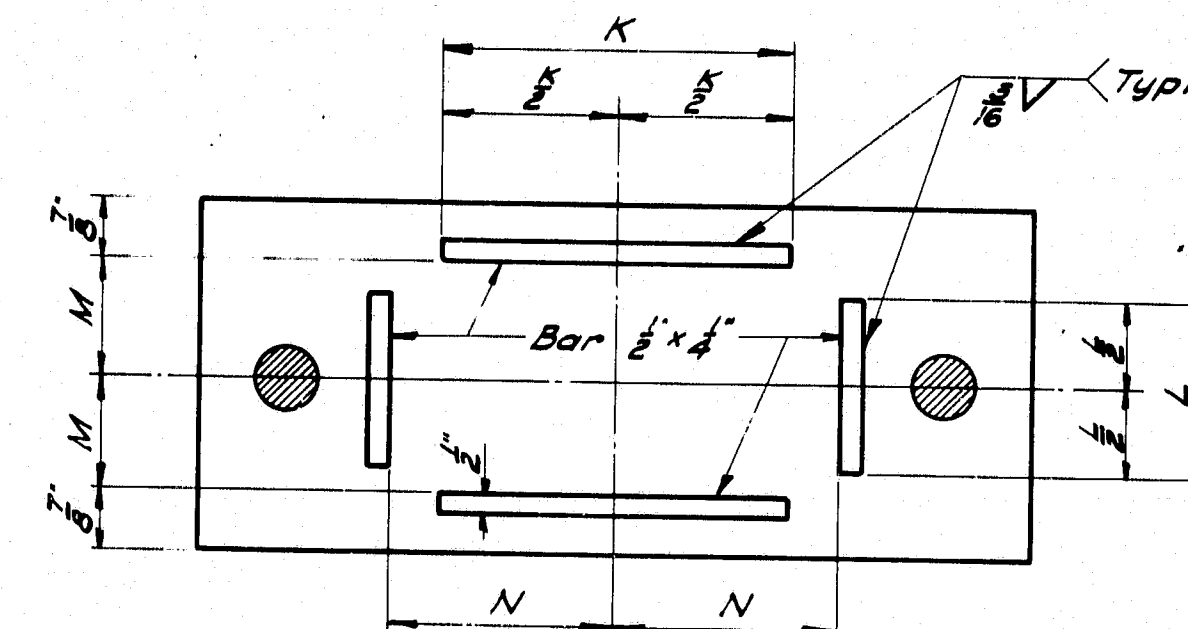
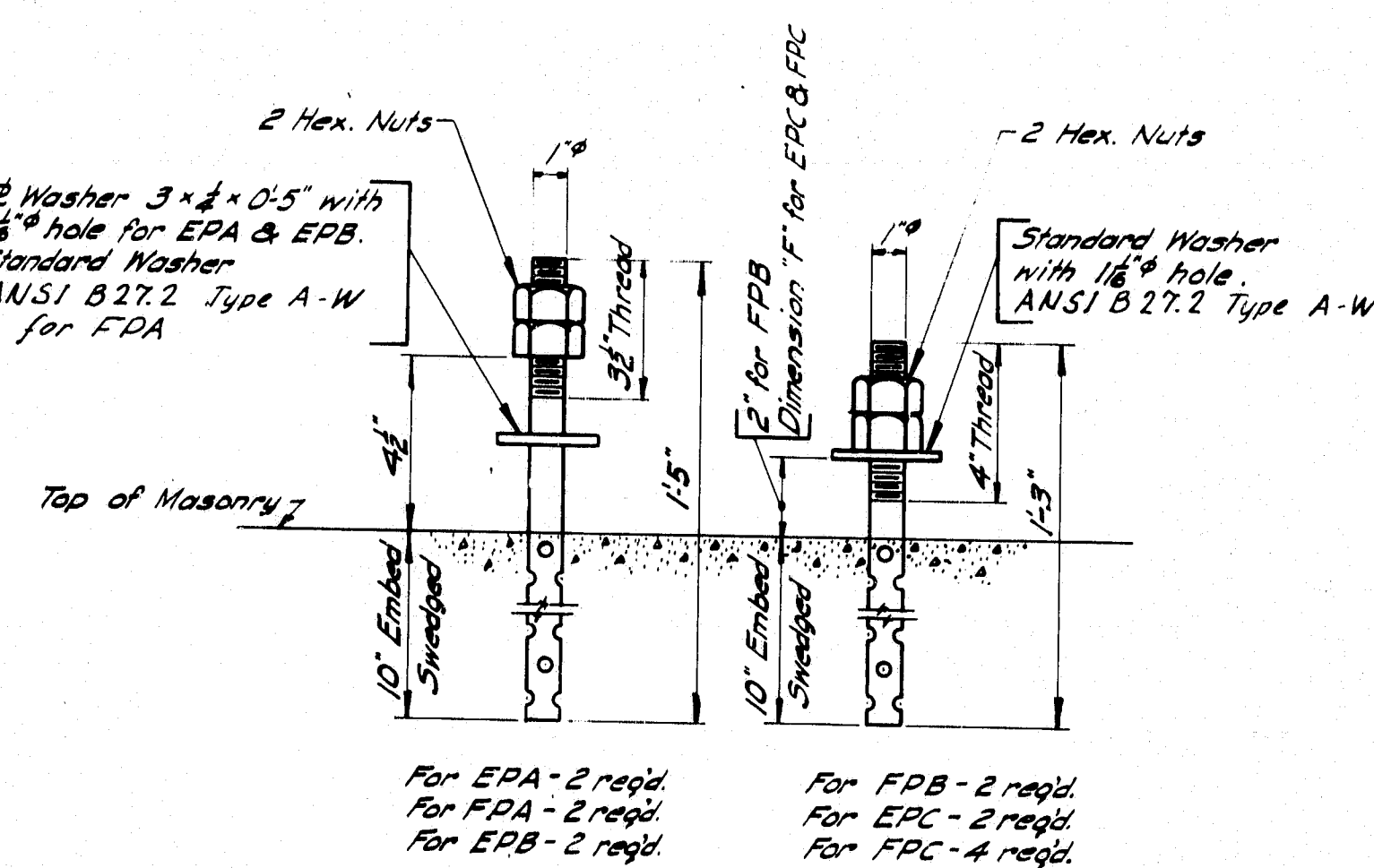
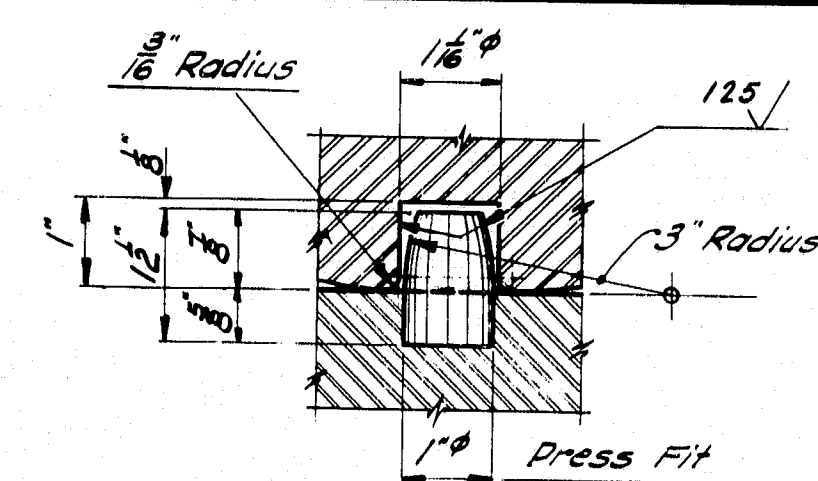
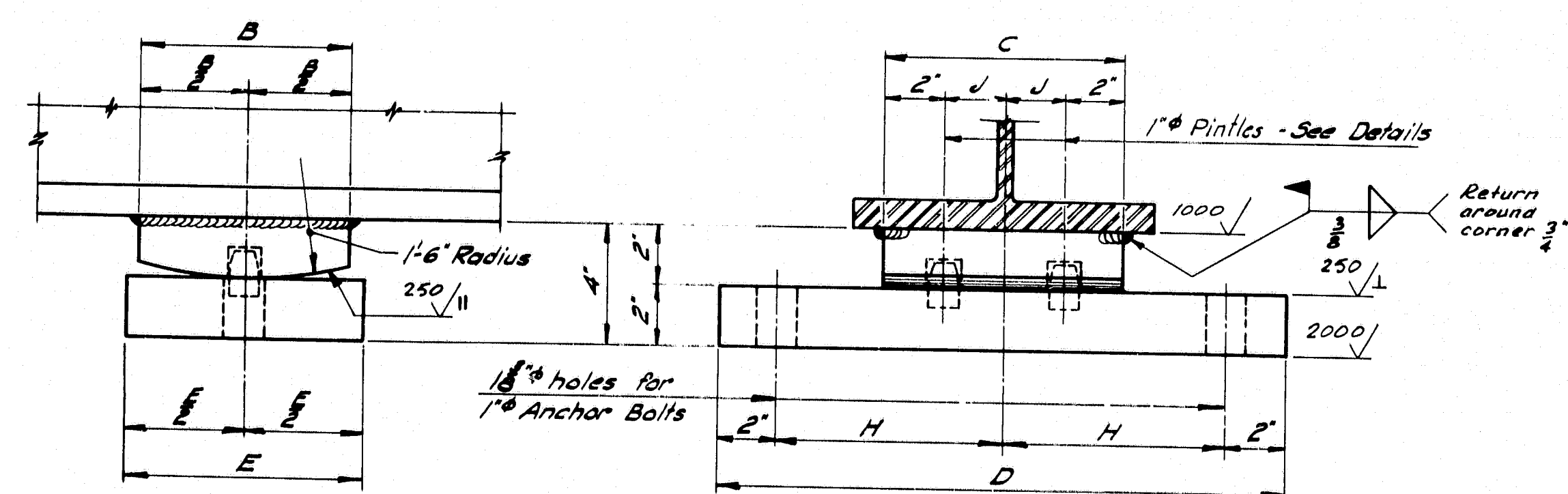
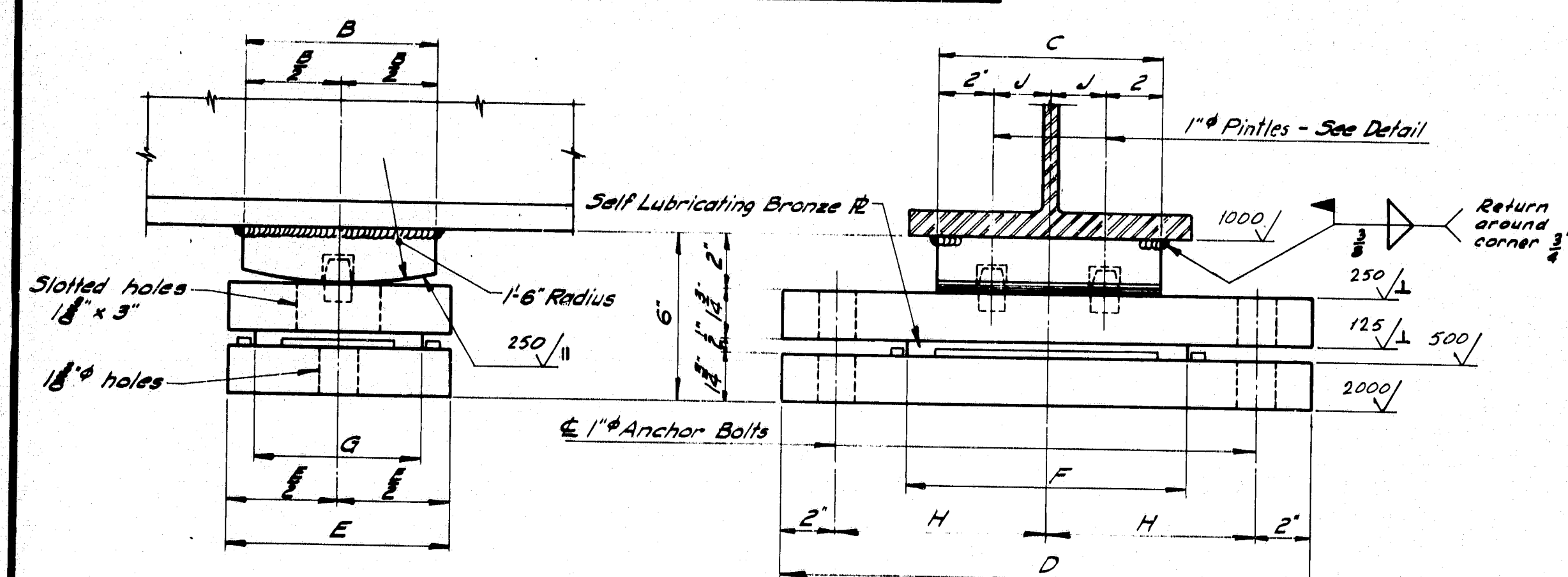
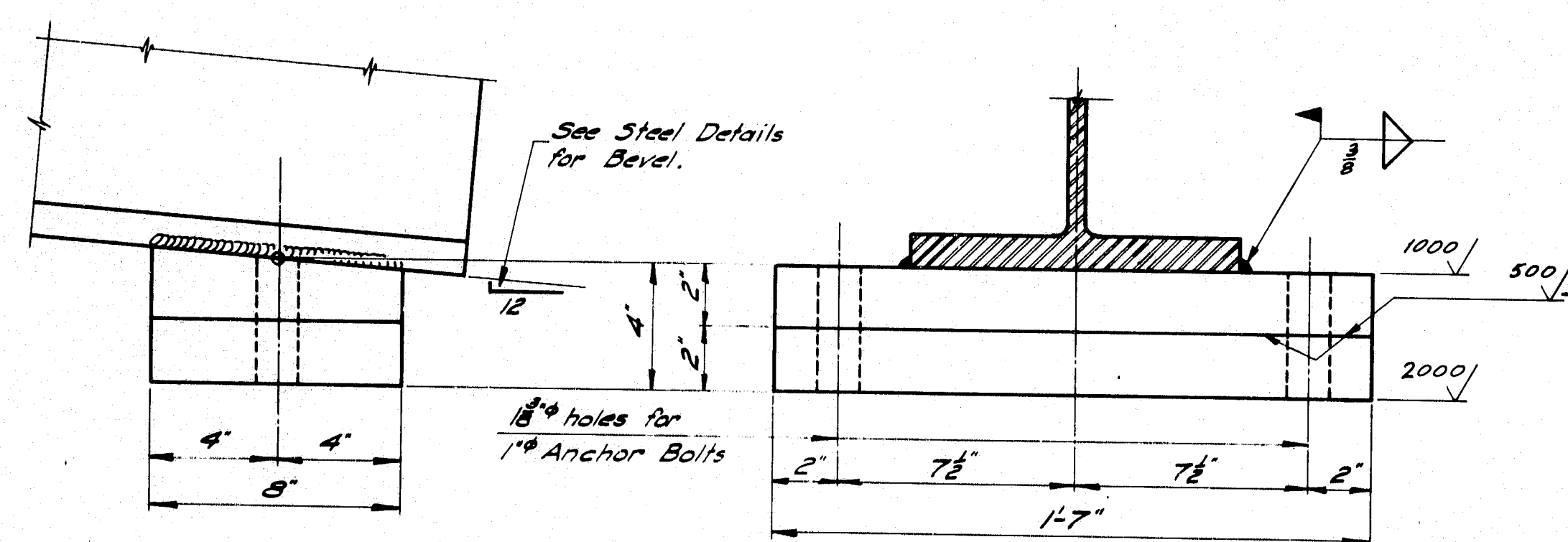
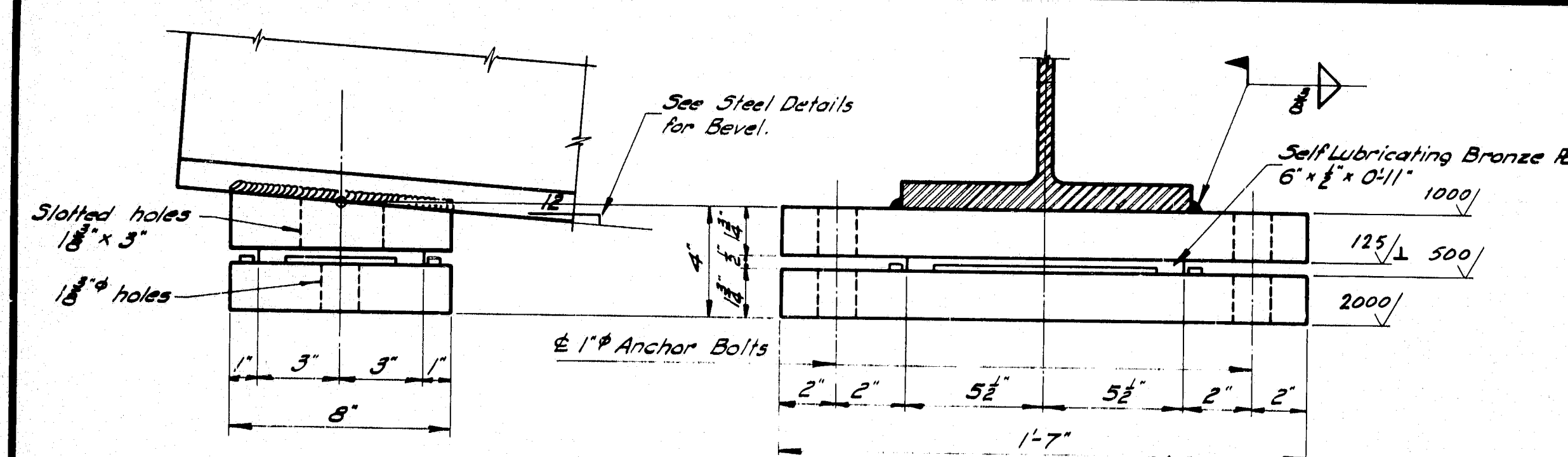
INTERSTATE I-95
OVER
COUSINS RIVER
YARMOUTH AND FREEPORT

REINFORCING STEEL SCHEDULE

SHEET 23 OF 34 AUGUSTA, MAINE Feb 1984

R93-78

PLANS	DESIGN - DETAIL	BY	DATE
	CHECKED	MES BAY	2/84
	REVISIONS	WJD	2/84
	FIELD CHANGES		



PEDESTALS		ALLOWABLE LOADS & DIMENSIONS													
<i>Pedestal</i>	<i>Load</i>	A	B	C	D	E	F	G	H	J	K	L	M	N	
EPA	132 ^K	—	—	—	—	—	—	—	—	—	8"	4"	3½"	5½"	
FPA	150 ^K	—	—	—	—	—	—	—	—	—	8"	4"	3½"	5½"	
EPB-1	120 ^K	—	6"	8"	14 ⁷ "	8"	10"	6"	7½"	2"	8"	4"	3½"	5½"	
EPB-2	165 ^K	—	7"	10"	14 ⁸ "	9"	14 ⁷ "	7"	8"	3"	10"	5"	3½"	5½"	
EPB-3	224 ^K	—	8"	11 ¹⁰ "	20 ¹⁰ "	14 ⁸ "	8"	10"	4½"	14 ² "	5"	4½"	3½"	5½"	
FAB-1	120 ^K	—	6"	8"	14 ⁷ "	8"	—	—	7½"	2"	—	—	—	—	
FAB-2	165 ^K	—	7"	10"	14 ⁸ "	9"	—	—	8"	3"	—	—	—	—	
FAB-3	224 ^K	—	8"	11 ¹⁰ "	20 ¹⁰ "	—	—	—	10"	5"	—	—	—	—	
EPC-1	70 ^K	2½"	6"	8"	14 ⁸ "	8"	1½"	3½"	3"	3"	4½"	—	1"	6"	
EPC-2	100 ^K	1½"	8"	8"	14 ⁸ "	8"	1½"	3½"	3"	3"	6½"	—	1"	6"	
EPC-3	130 ^K	1½"	10"	8"	14 ⁸ "	9"	1½"	4"	3"	3"	6½"	—	1"	7"	
ERC-4	160 ^K	1½"	10"	8"	14 ¹⁰ "	9"	1½"	4"	4"	3"	8½"	—	1"	7"	
ERC-5	190 ^K	1½"	10"	9"	21 ¹⁰ "	10"	2"	4½"	5"	3"	8½"	—	1"	8"	
ERC-6	220 ^K	1½"	14 ¹⁰ "	10"	21 ¹⁰ "	10"	2½"	5"	5"	3"	10½"	—	1"	8"	
ERC-7	250 ^K	1½"	14 ¹⁰ "	14 ¹⁰ "	21 ¹⁰ "	10"	2½"	5"	5"	4"	10½"	—	1"	8"	
FPC-1	100 ^K	—	—	8"	14 ⁸ "	9"	14 ⁸ "	8"	—	—	6½"	—	—	6"	
FPC-2	160 ^K	—	—	8"	14 ⁸ "	10"	14 ⁸ "	3"	8"	—	6½"	—	—	7"	
FPC-3	190 ^K	—	—	9"	21 ¹⁰ "	10"	1½"	3"	10"	—	6½"	—	—	8"	
FPC-4	220 ^K	—	—	10"	21 ¹⁰ "	14 ¹⁰ "	1½"	4"	10"	—	6½"	—	—	9"	
FPC-5	250 ^K	—	—	14 ¹⁰ "	21 ¹⁰ "	14 ¹⁰ "	2"	4"	10"	—	6½"	—	—	9"	

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 elevations 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 6" and min. slope of 1/8 inch per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

A.S.T.M. STEEL CLASSIFICATION

1. Charpy V-Notch tests are not required for steel used in bearing pedestals.
2. When structural steel is specified to be unpainted, all steel including anchor bolts shall be A588 unpainted.
3. When structural steel is specified to be painted, all steel including anchor bolts shall be A36.

AS BUILT 1985 REP

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS

BEARING PEDESTALS

R93-75

REVISIONS

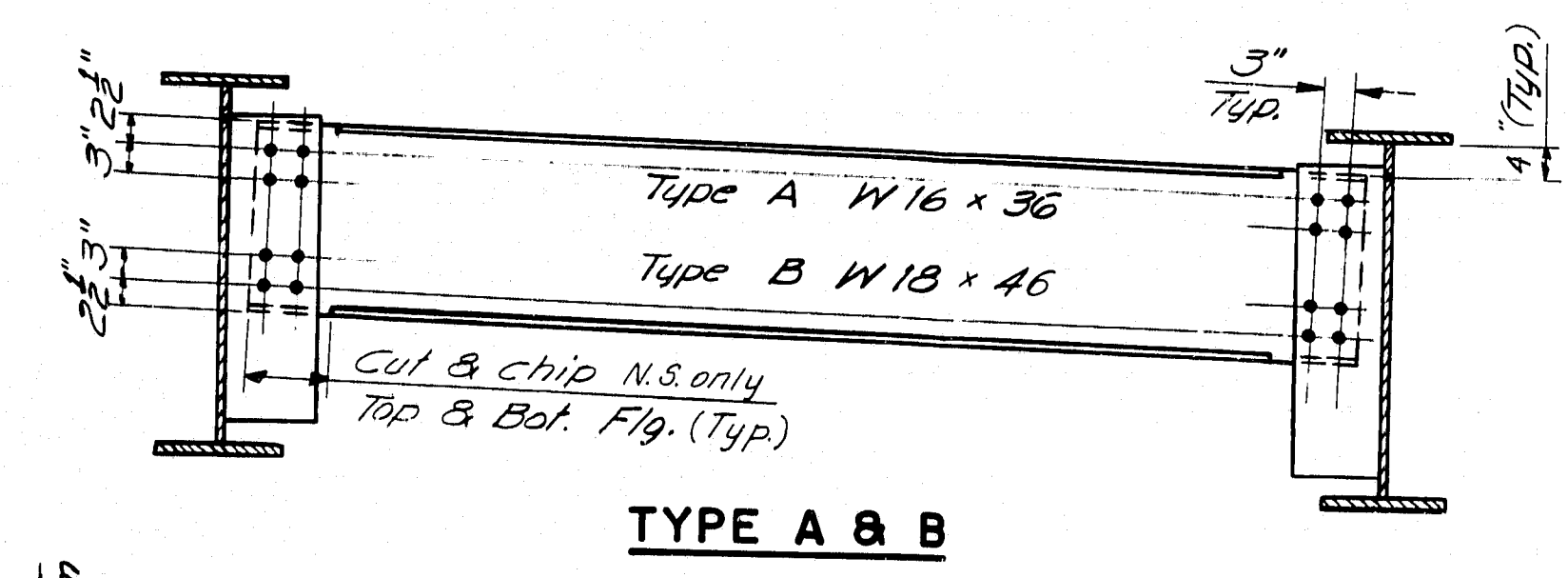
DATE _____

E SHEET 24 OF 34 AUGUSTA, MAINE JUNE 1981

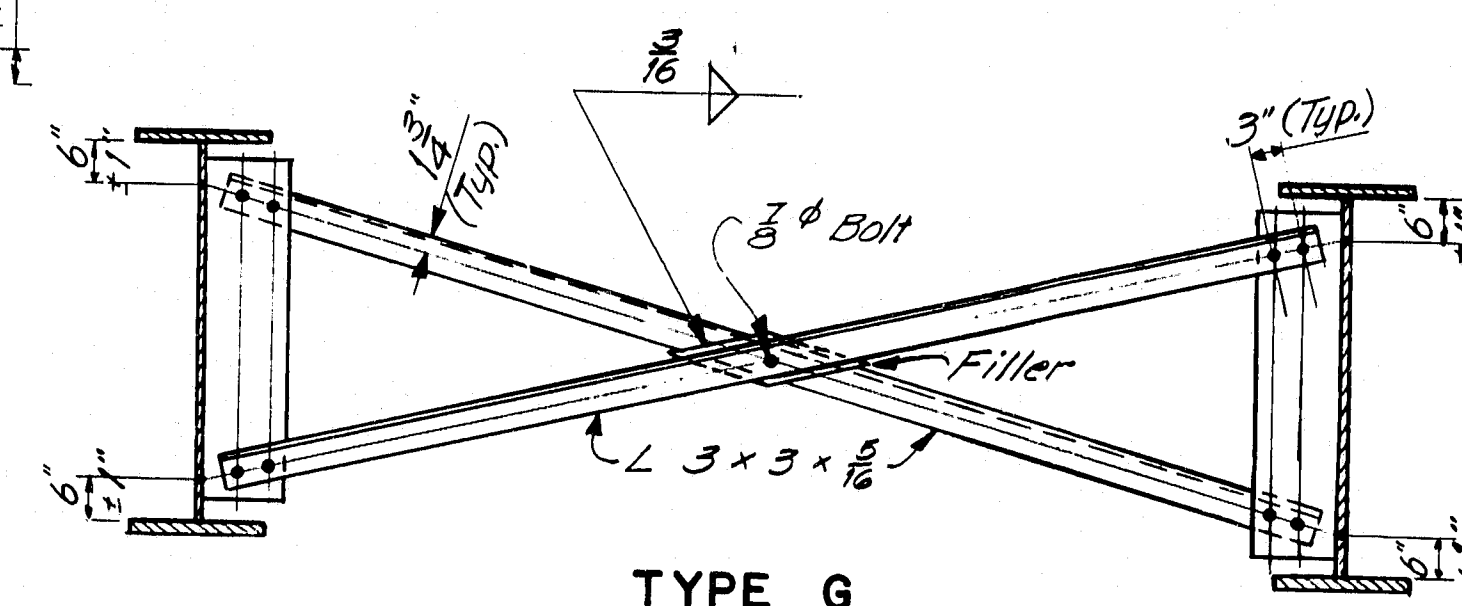
C.D. & S.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	2-95-442	62	25

FABRICATION NOTES

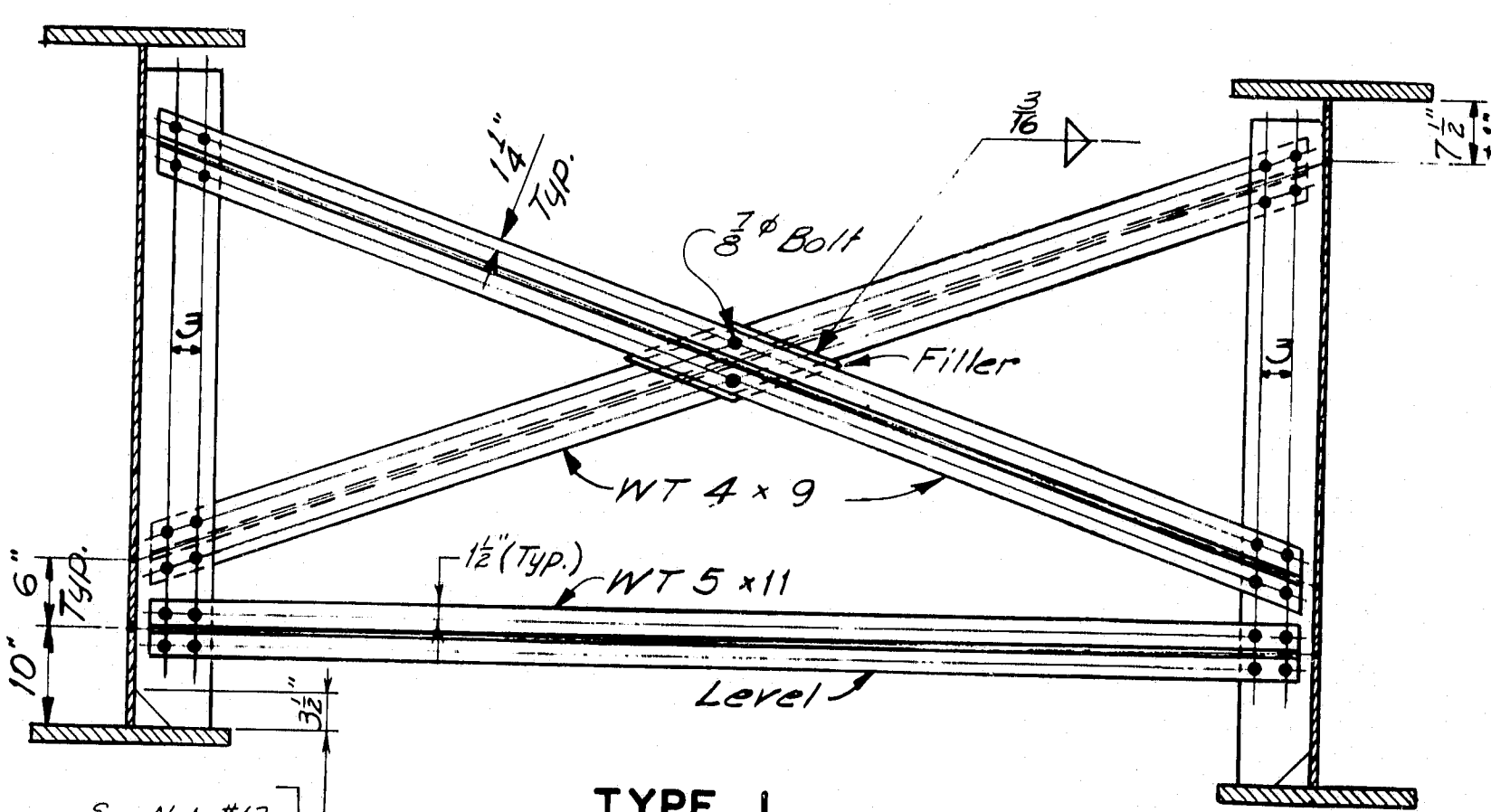
- 1.) All bolts shall be 7/8" H.S. Bolts. Hole sizes for bolts shall conform to Section 504.23 of the Standard Specifications, and edge-distances shall be 1 1/2" min. unless otherwise shown.
- 2.) Connection Plates and gusset plates shall have a minimum thickness of 3/8" and shall have sufficient width to provide erection clearances. For bearing stiffeners or intermediate stiffeners and for bent connection plates the plate size will be given on the design drawings.
- 3.) Connection Plates shall be fastened to web plates by fillet welds as shown. All fillet welds shall be the minimum size as specified in A.A.S.H.T.O. Standard Specifications for Highway Bridges, Art. 1.7.21, unless otherwise shown on design drawings.
- 4.) Connection Plates shall be 3/8" clear from flanges, except as indicated by notes 5 & 6.
- 5.) Connection Plates on welded beams and girders shall extend to the top flange in areas where the top flange is always in compression.
- 6.) Connection Plates shall extend to the bottom flange at points where lateral bracing is attached and on welded beams and girders in areas where the bottom flange is always in compression.
- 7.) When a connection plate is extended to a flange it shall fit within 1/16" except if the design drawings show it is to be welded.
- 8.) Bearing Stiffeners at end bearings shall extend to both top and bottom flanges and shall be welded to both flanges. Weld at bottom flange shall be a full penetration weld. Weld at top flange shall be a fillet weld both sides (see Note 3).
- 9.) Bearing Stiffeners at other than end bearings shall extend to both top and bottom flanges, shall be welded to the bottom flange with a full penetration weld and shall fit within 1/16" at top flange.
- 10.) Intermediate Stiffeners shall extend to both top and bottom flanges, shall be welded to the compression flange with a fillet weld on both sides (see Note 3) and shall fit within 1/16" at the tension flange.
- 11.) Use only those items called for on the design drawings in case of conflict between these standard details and design drawings, the design drawings shall be followed.
- 12.) All dimensions shown as " - ± 1/8" are variable in order to allow a series of crossframes to have the same slopes and/or dimensions.
- 13.) All connection plates and stiffeners that are extended to a flange shall be clipped 3/8", except as indicated by note 14.
- 14.) Bearing stiffeners at end bearings shall be clipped 1/4" at top and bottom. Bearing stiffeners at all other bearings shall be clipped 1/2" at the compression flange.
- 15.) For unpainted applications all steel for diaphragms and crossframes shall be A.S.T.M.-A588. For bridges specified to be painted the steel for diaphragms and connection plates shall be A.S.T.M.-A36, except other steel classifications may be used subject to the approval of the Engineer.



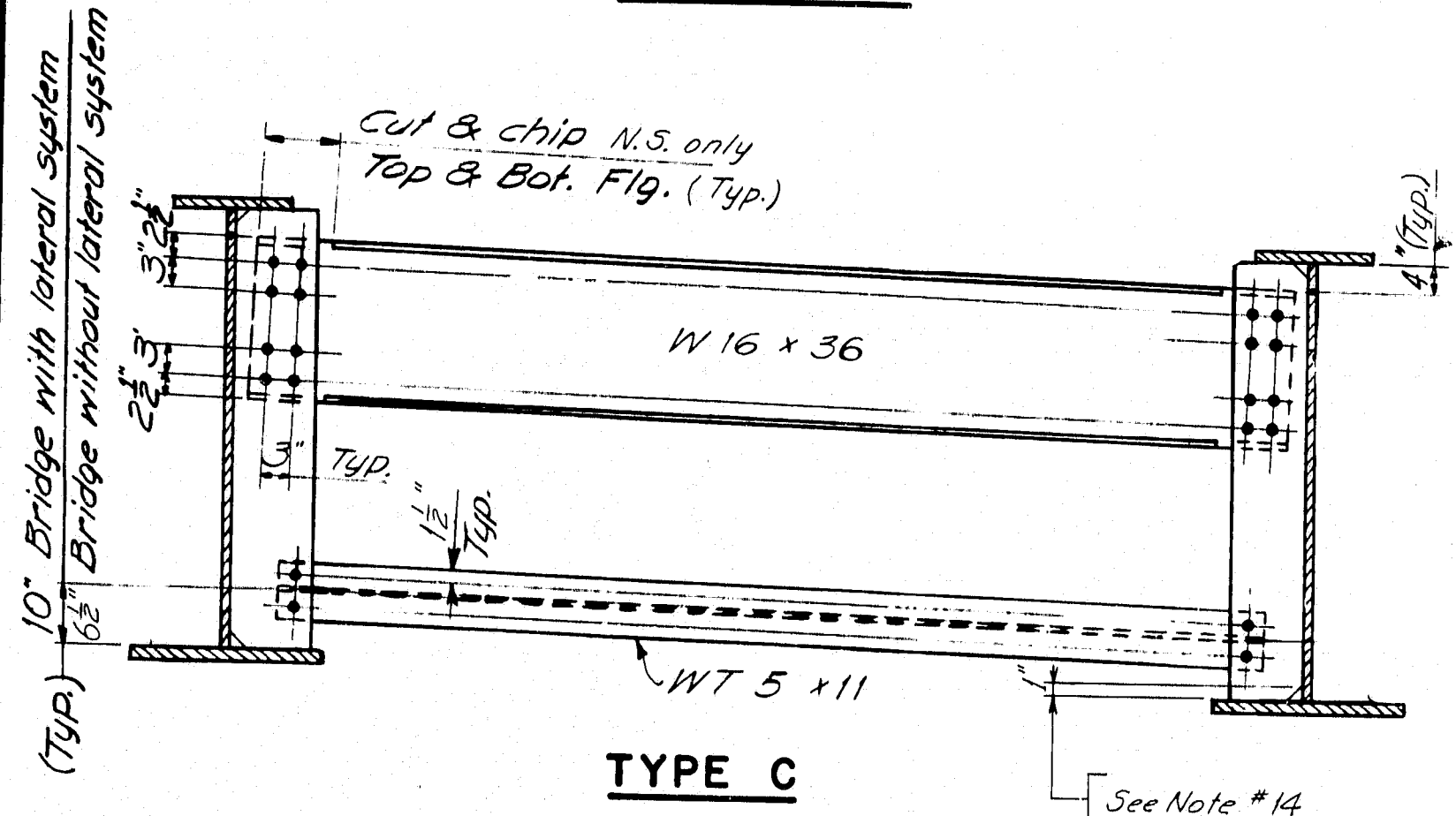
TYPE A & B



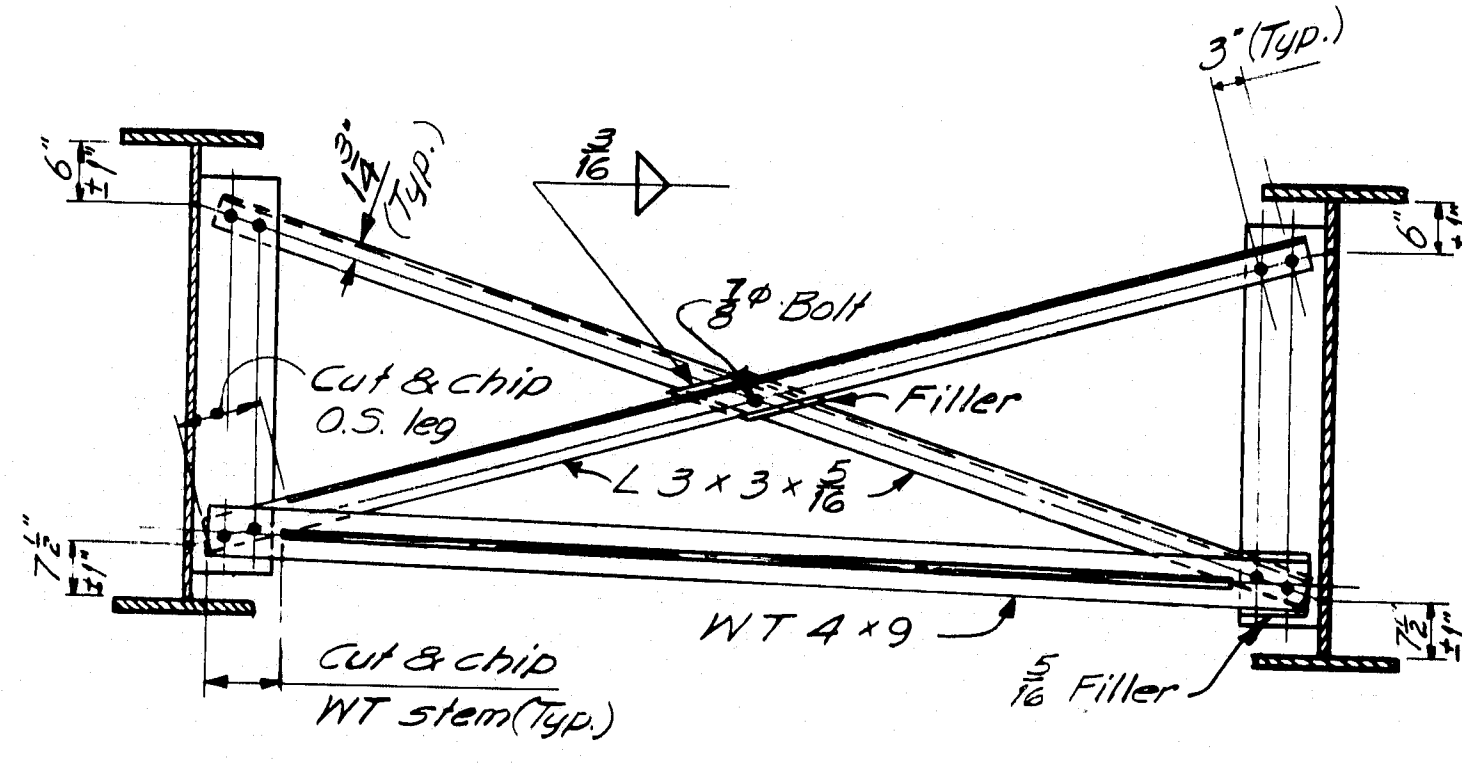
TYPE G



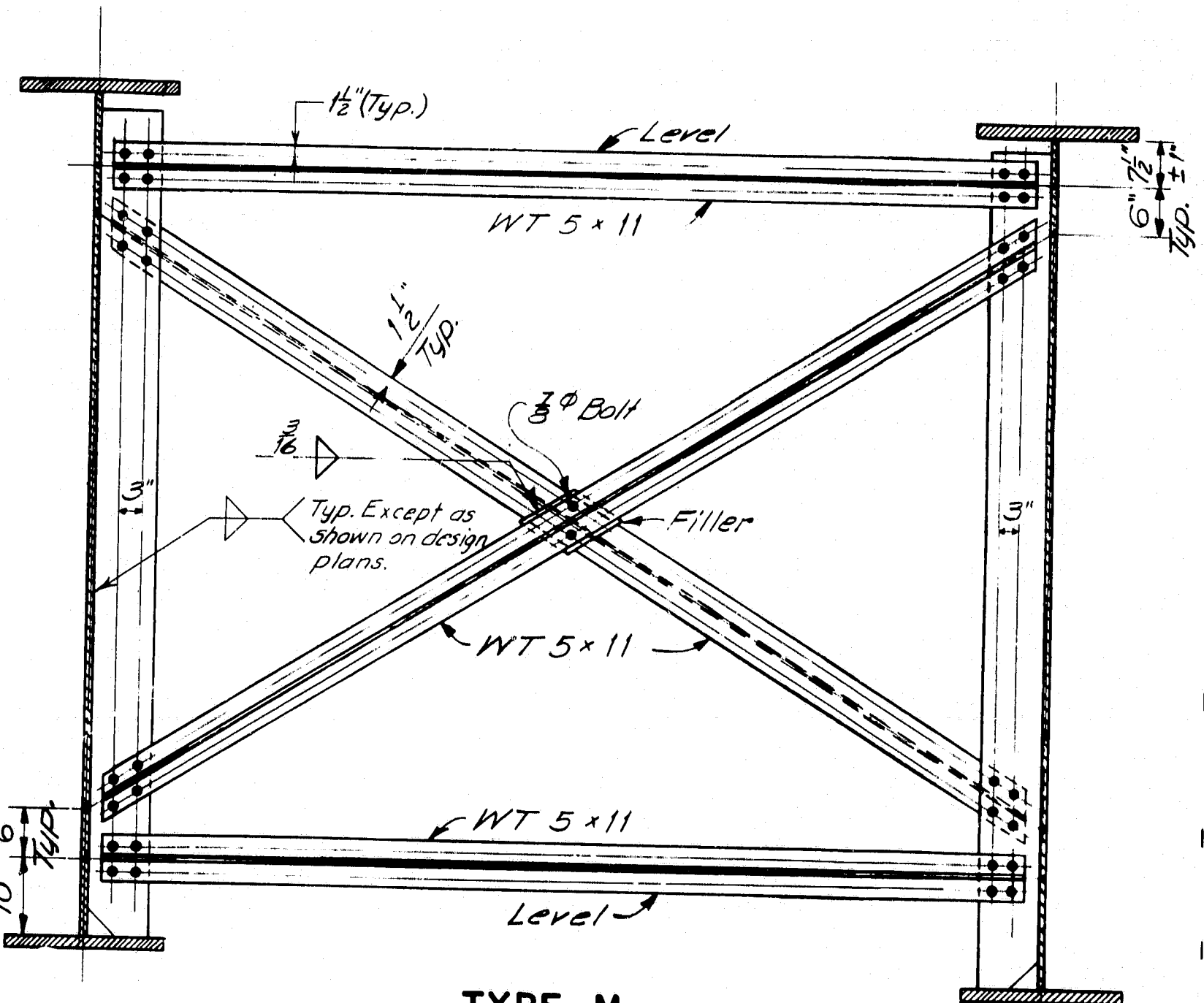
TYPE L



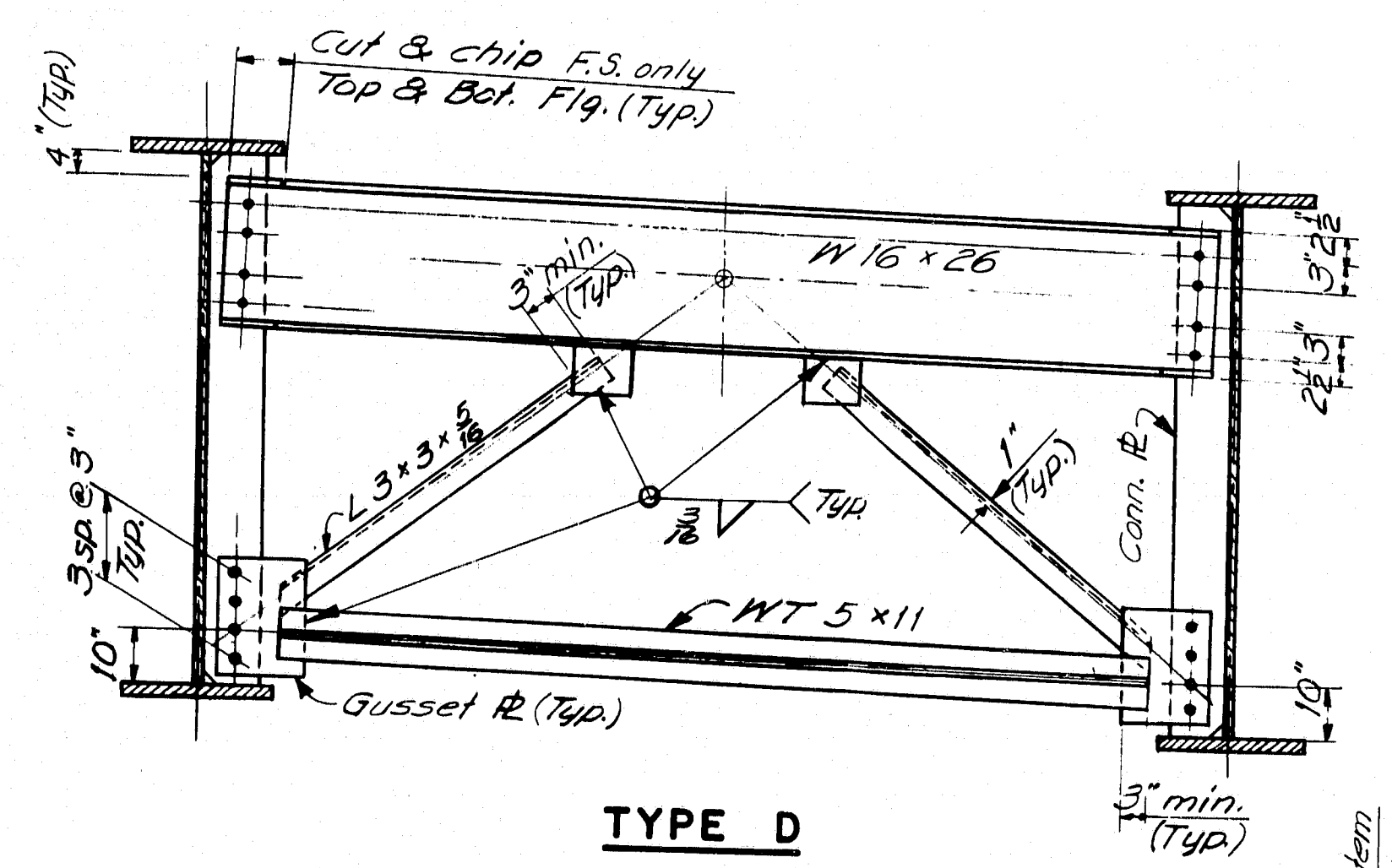
TYPE C



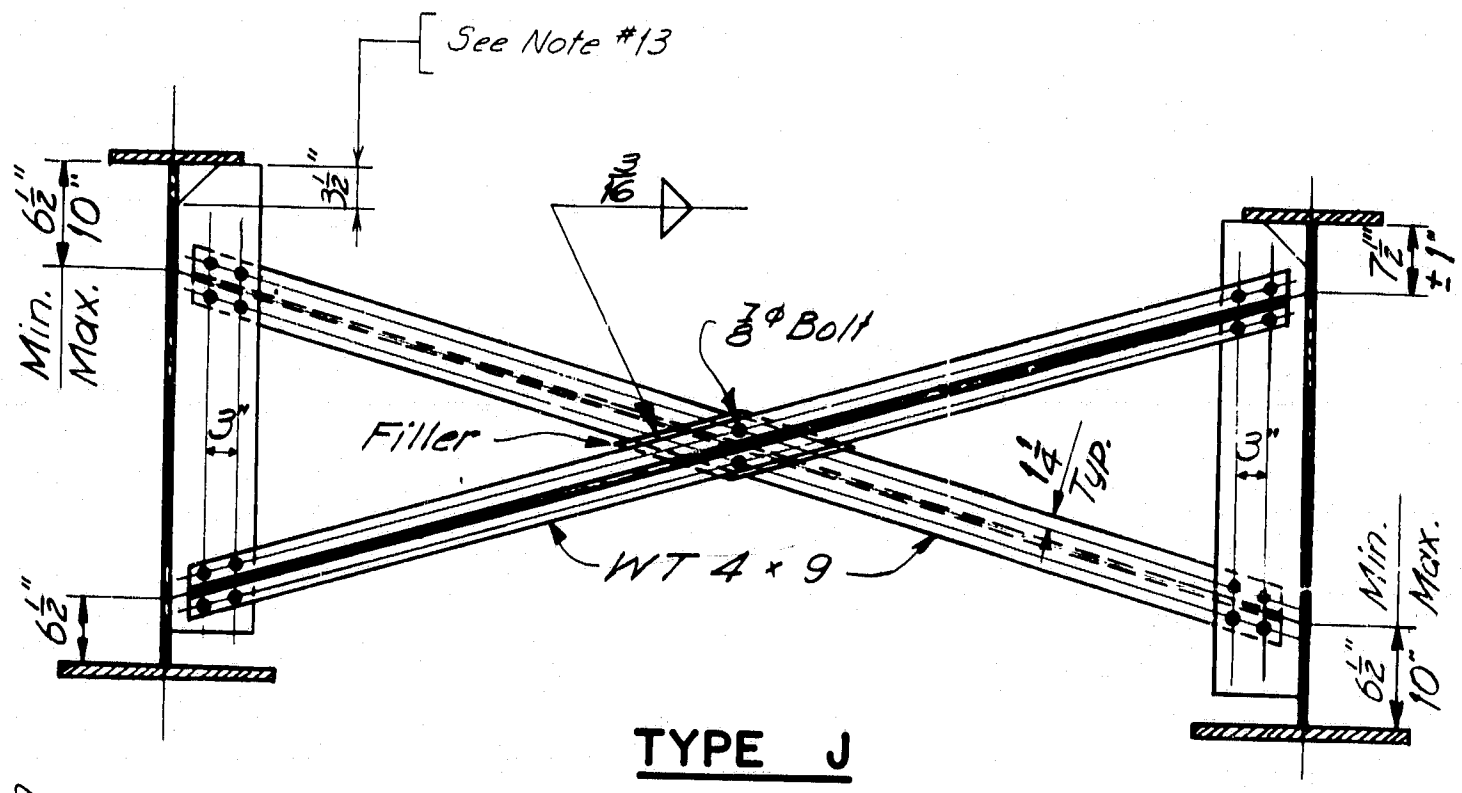
TYPE H



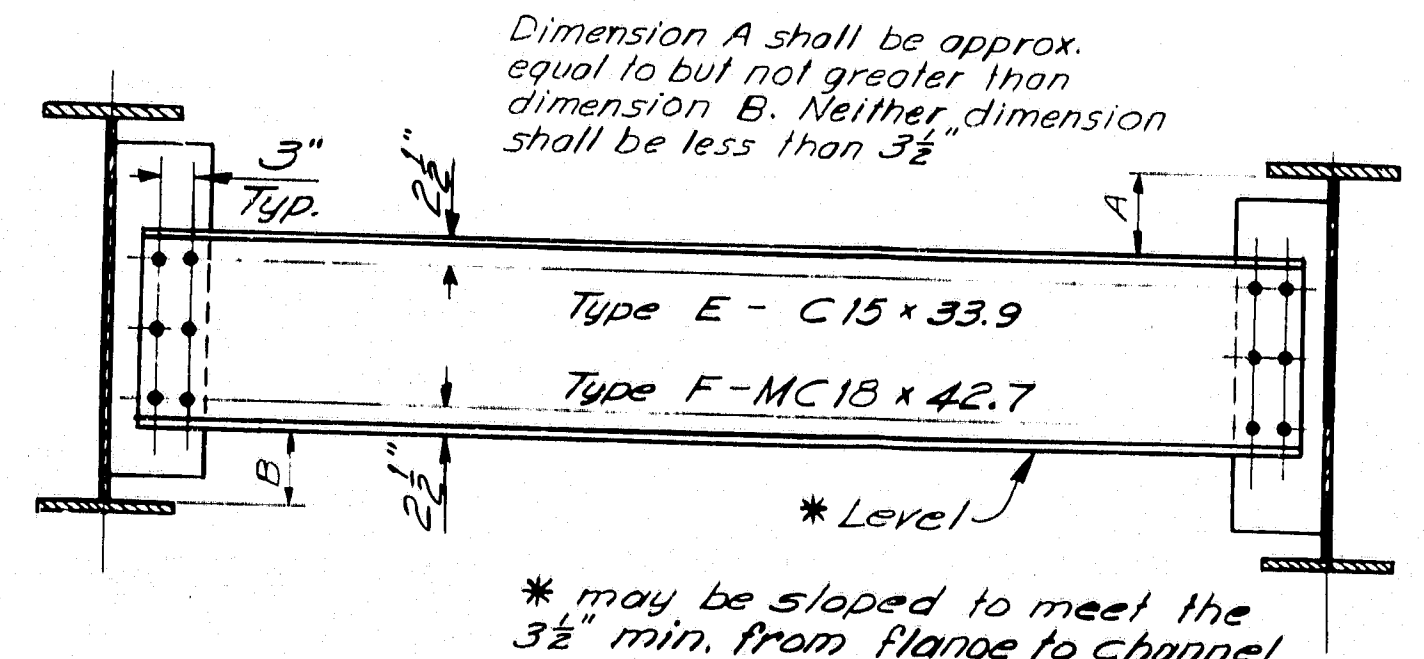
TYPE M



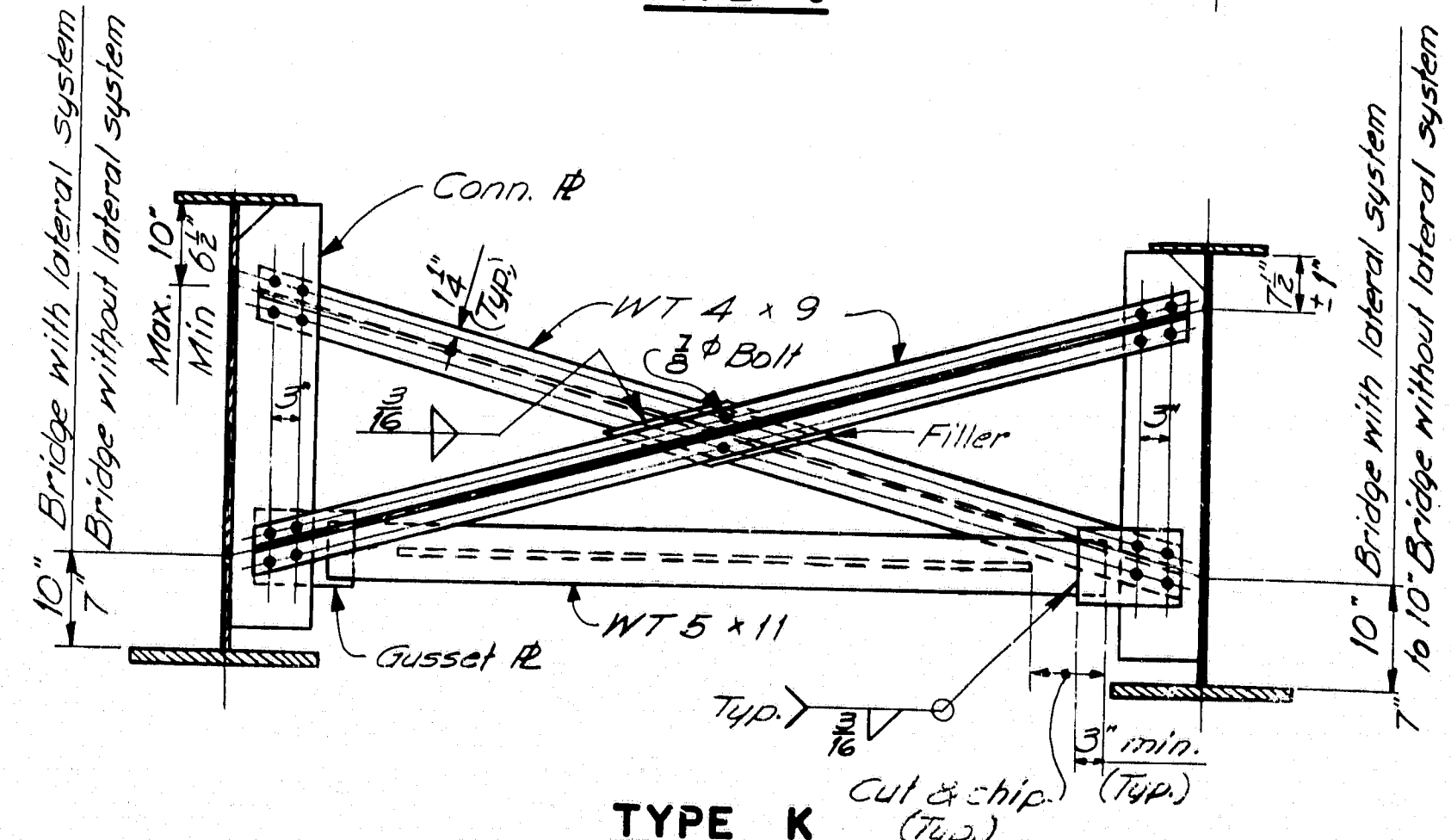
TYPE D



TYPE J



TYPE E & F



TYPE K

AS BUILT 1985
R.P.

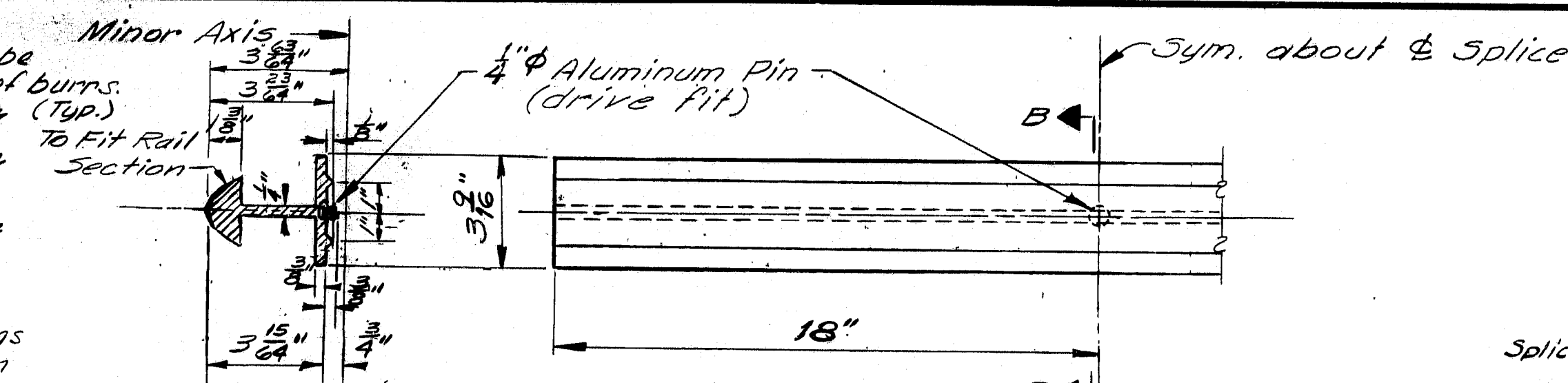
R93-80

REVISIONS	DATE
Revised notes 2, 3, 7, 11	1-68

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
STANDARD DETAILS (BD 113-81)	
DIAPHRAGMS & CROSSFRAMES	
SHEET 25 OF 34	AUGUSTA, MAINE JUNE 1981

DATE	BY
DESIGN - DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

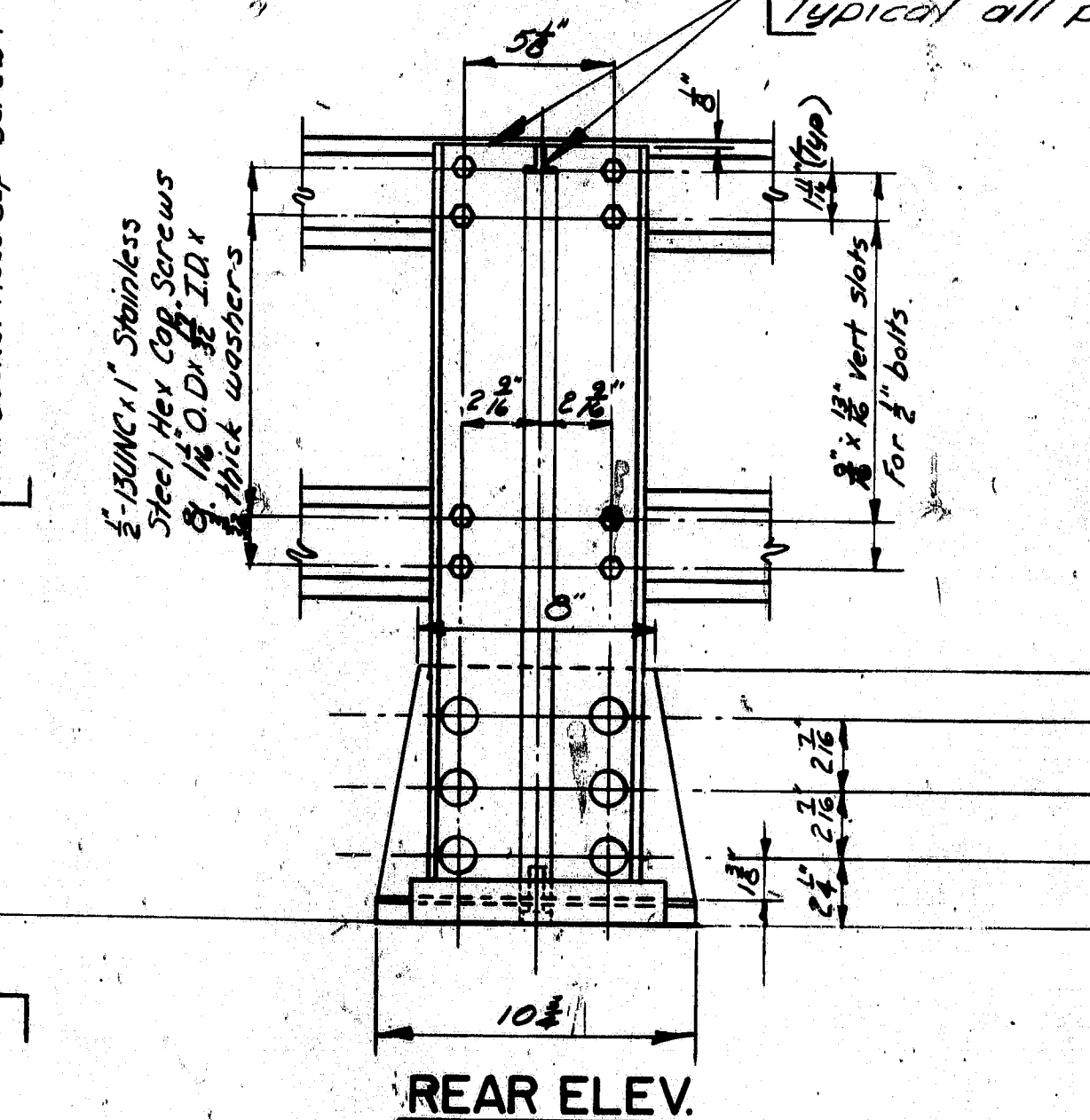
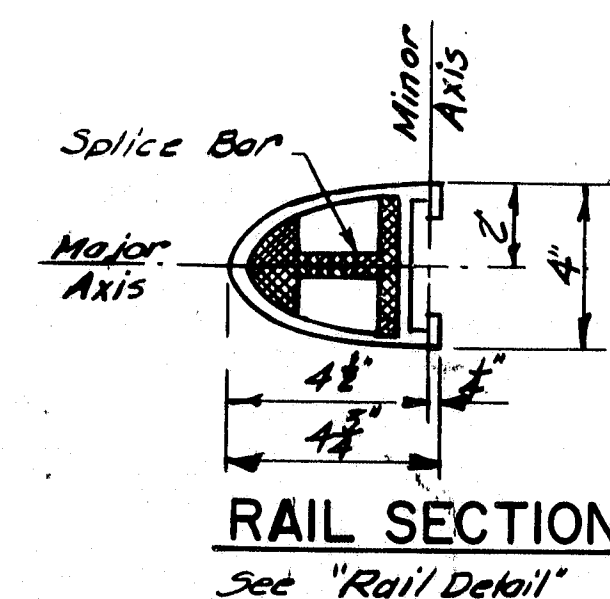
PLANS



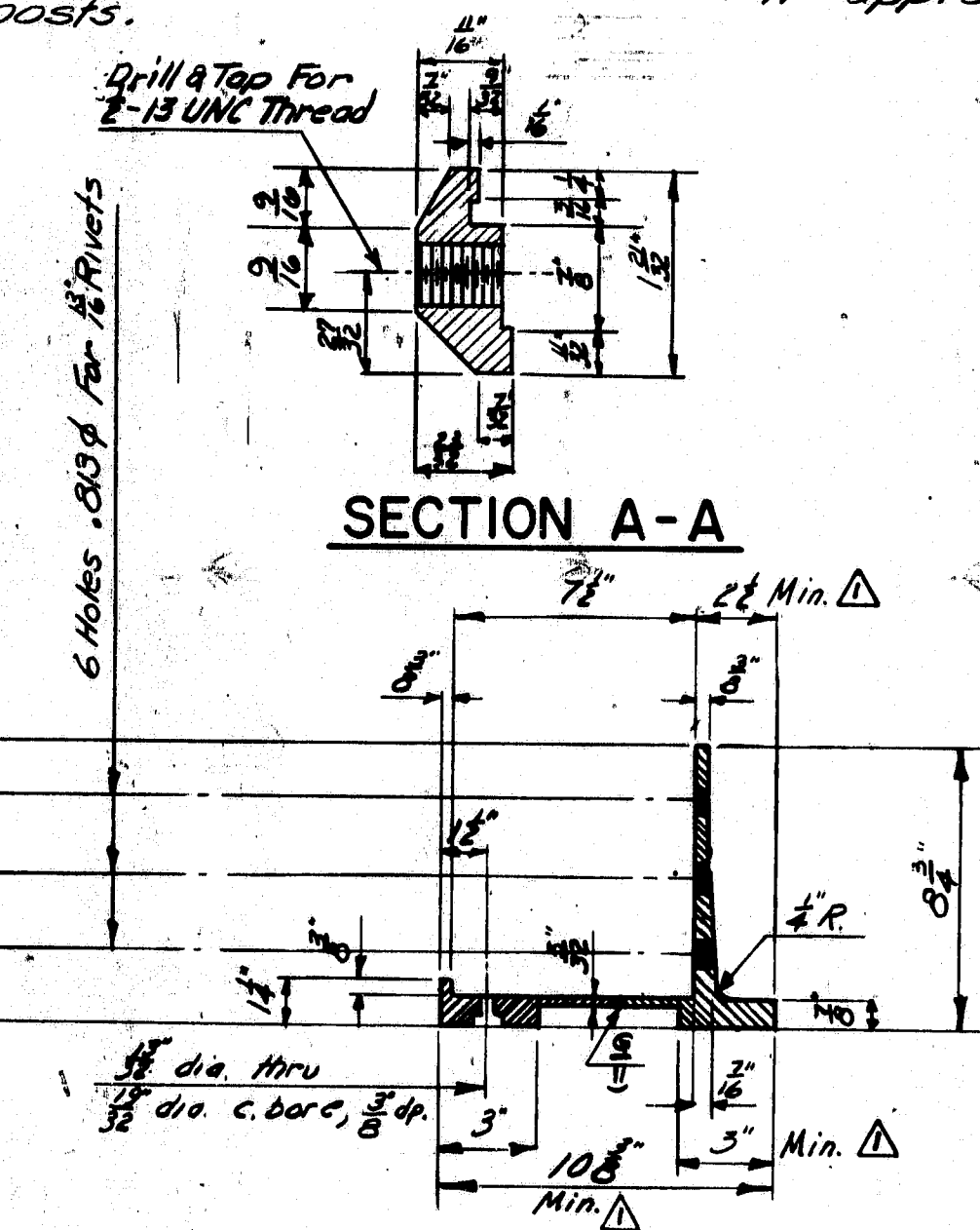
SECTION B-B

SPLICE BAR

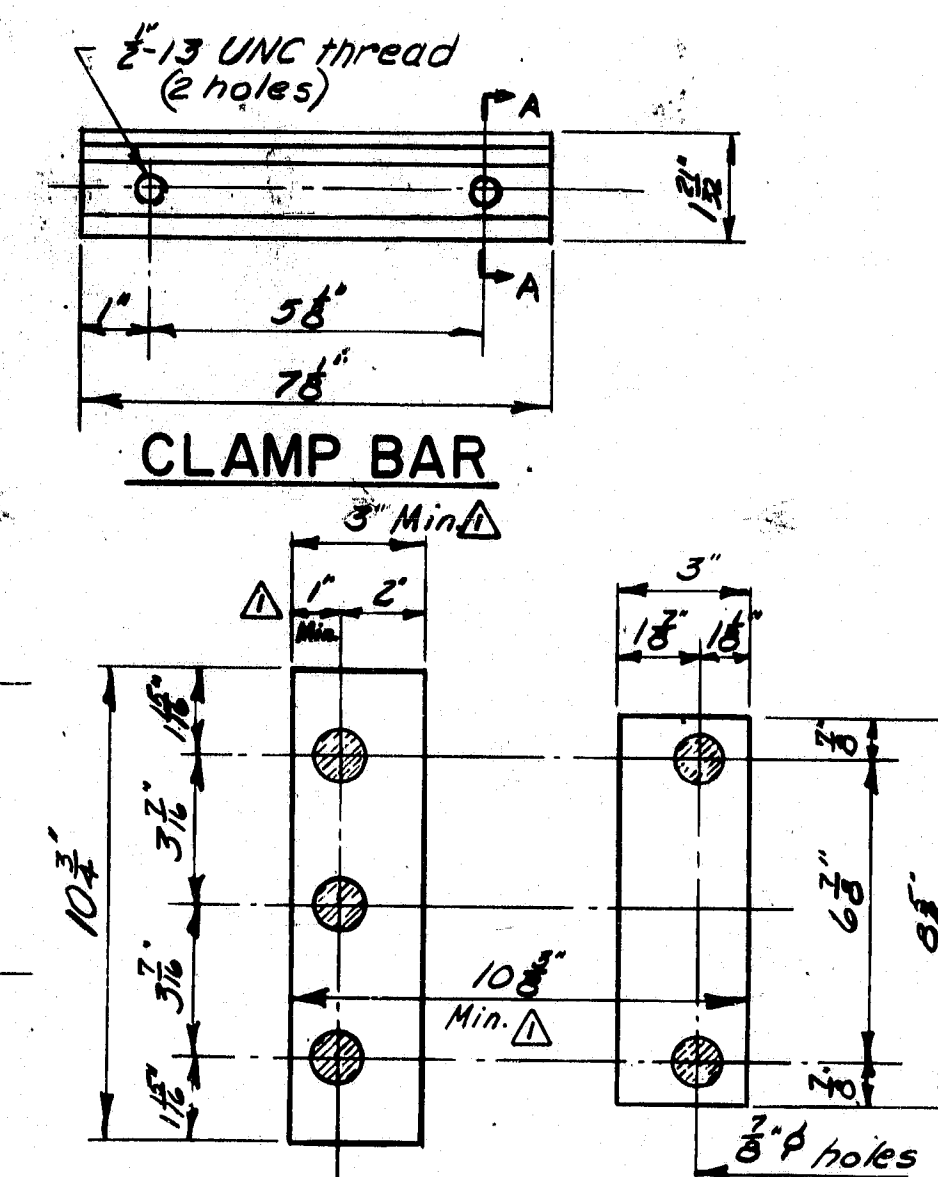
*Alternate splice bars may be substituted
if approved by the Engineer*



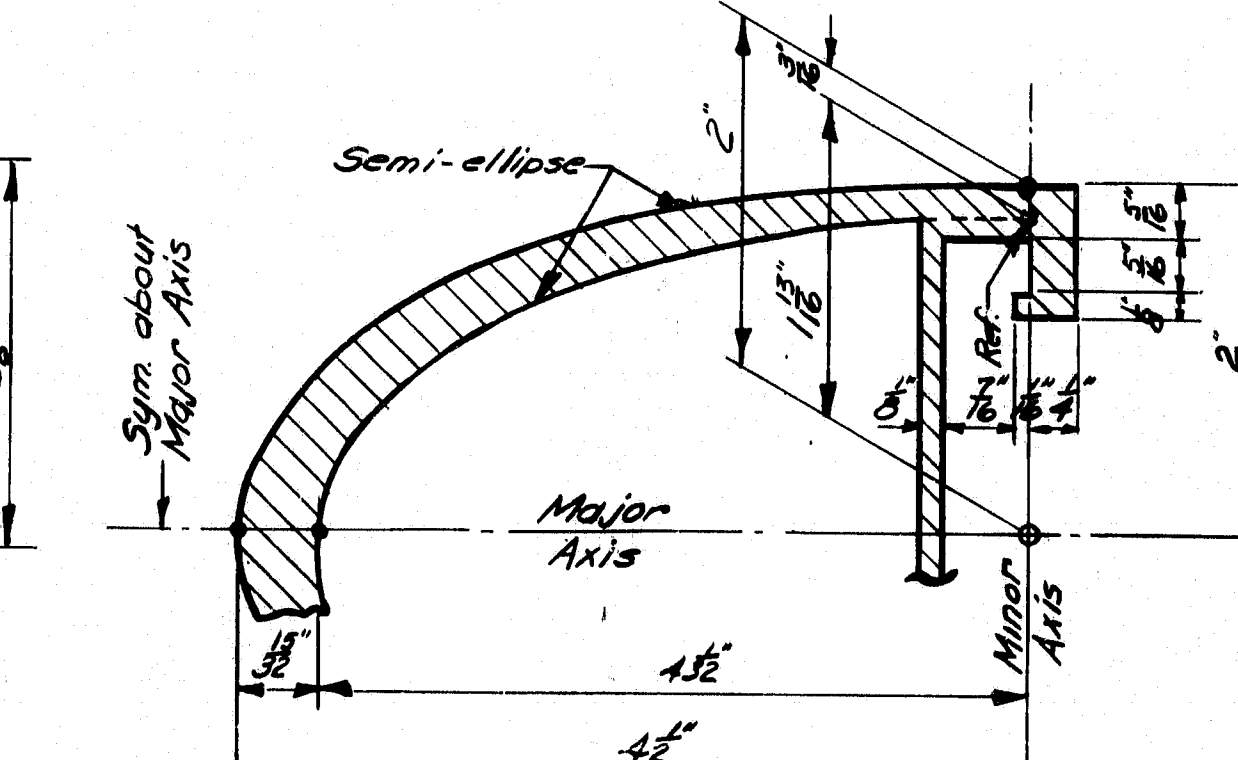
REAR ELEV.



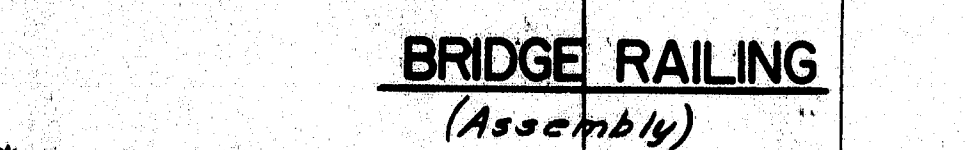
POST BASE SECTION



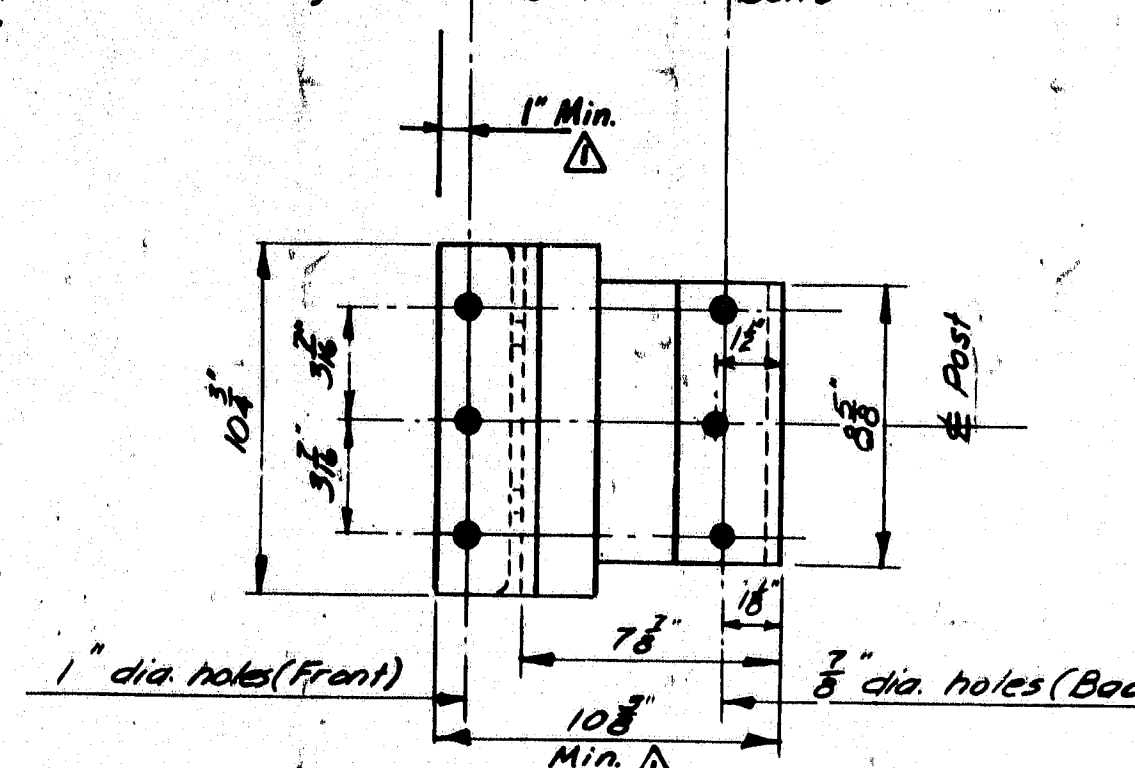
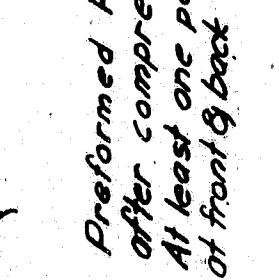
CLAMP BAR



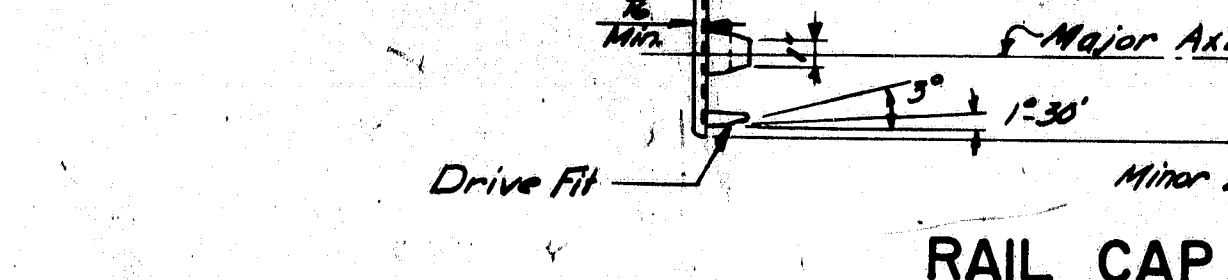
RAIL DETAIL



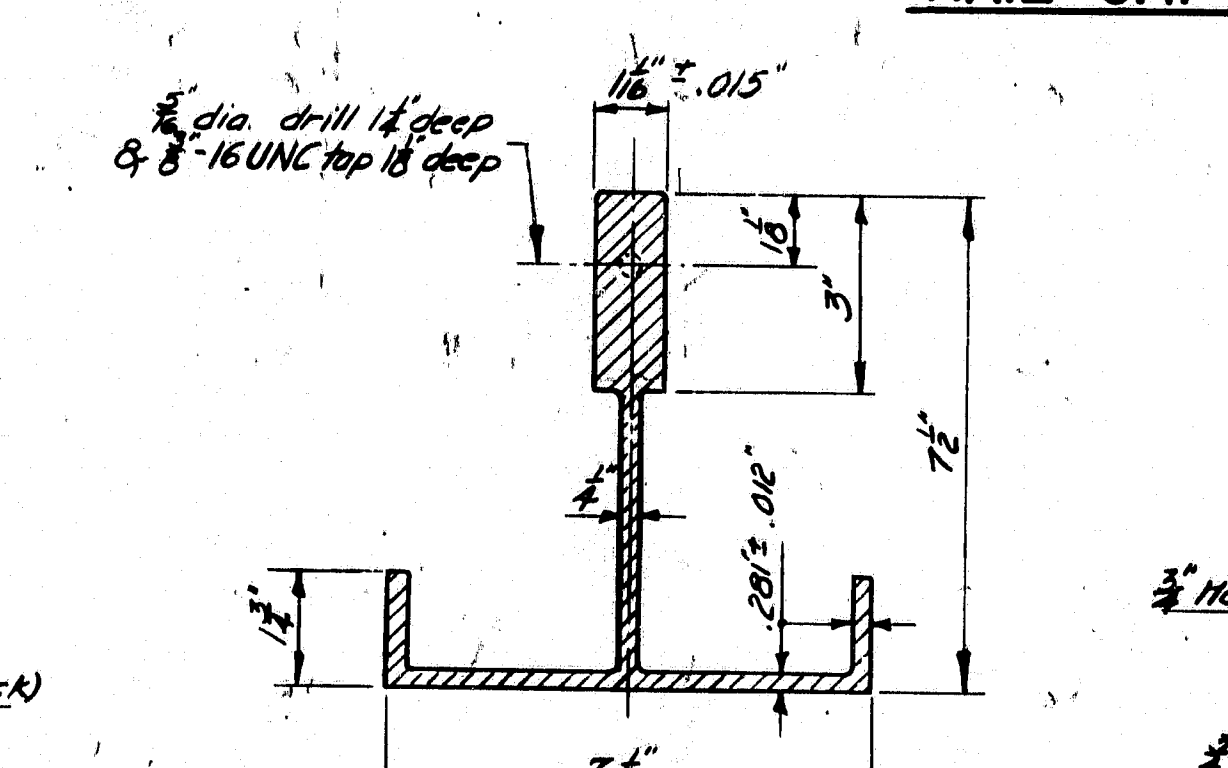
* *Preferable minimum dimensions. For actual dimensions see Bridge Plan.*



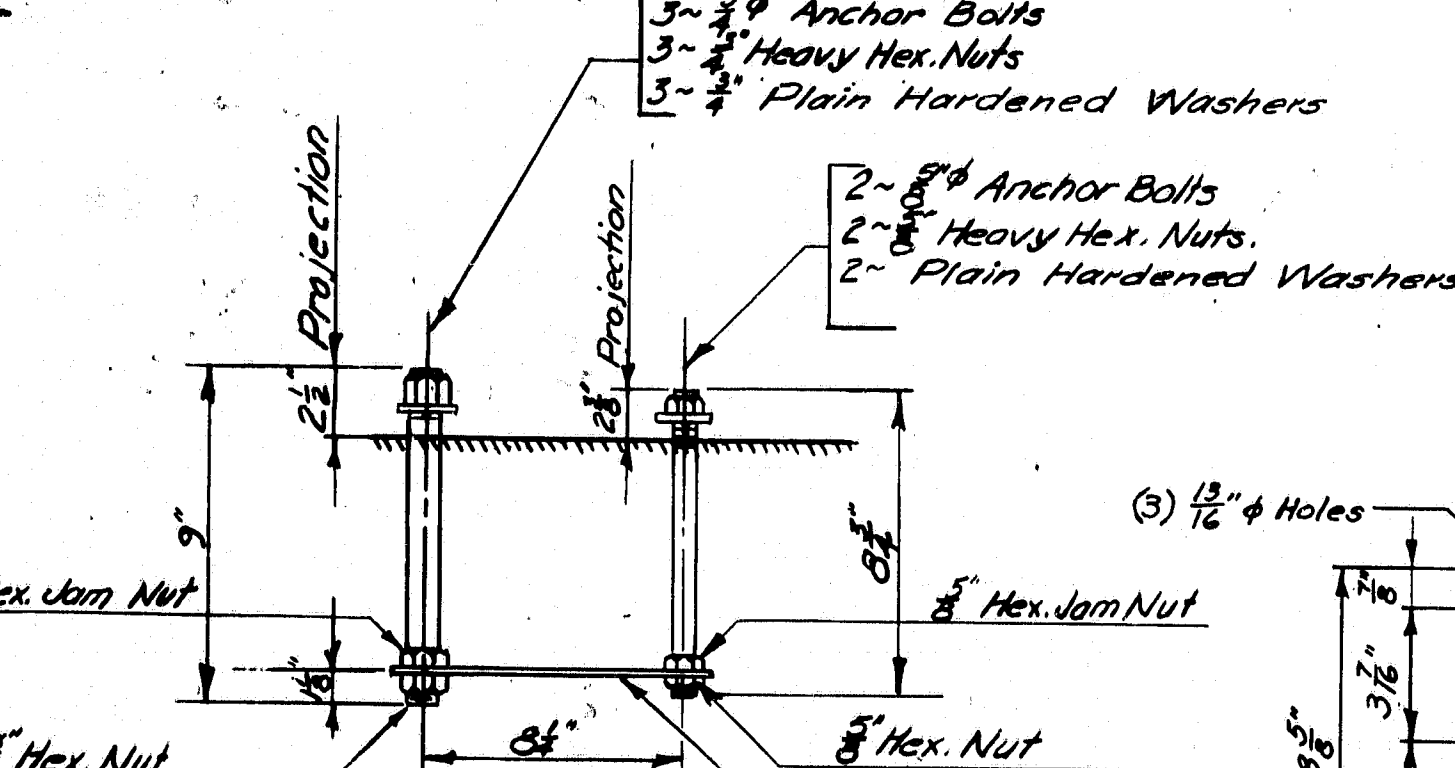
POST BASE
(Bottom View)



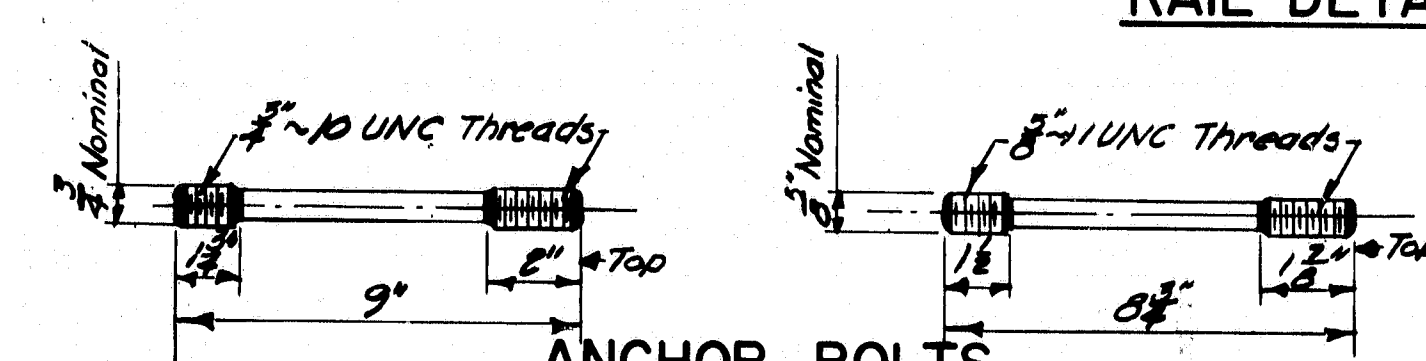
RAIL CAP



POST SECTION

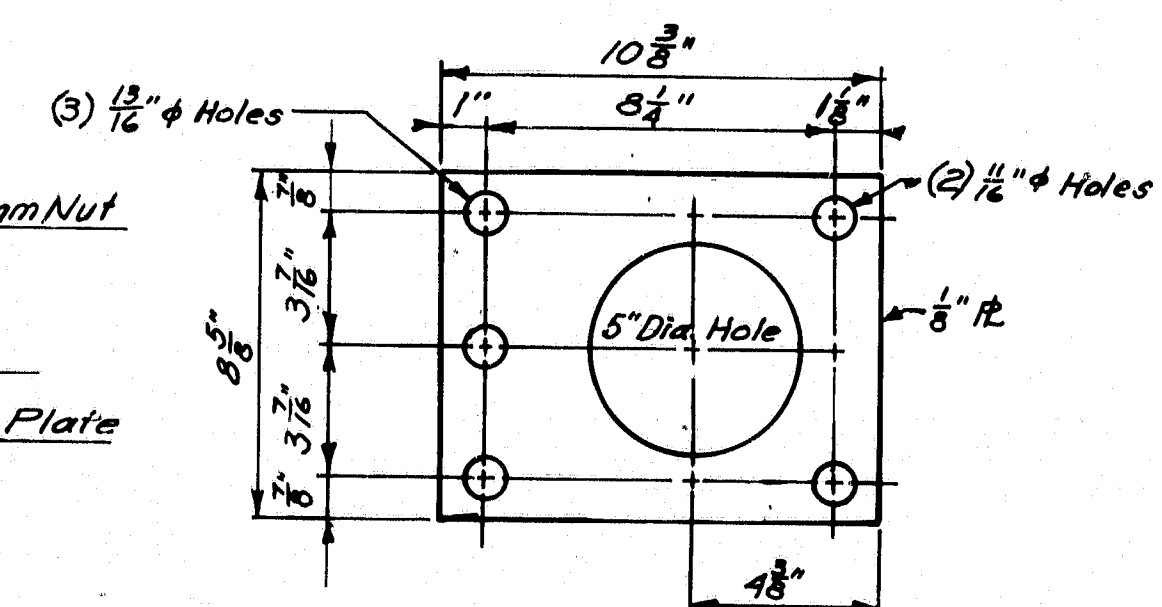


RAIL POST ANCHORAGE
(Assembly)



ANCHOR BOLTS

If cut threads are used, body diameter shall be not less than nominal diameter r .
If rolled threads are used, body diameter shall be not less than pitch diameter of the threads.



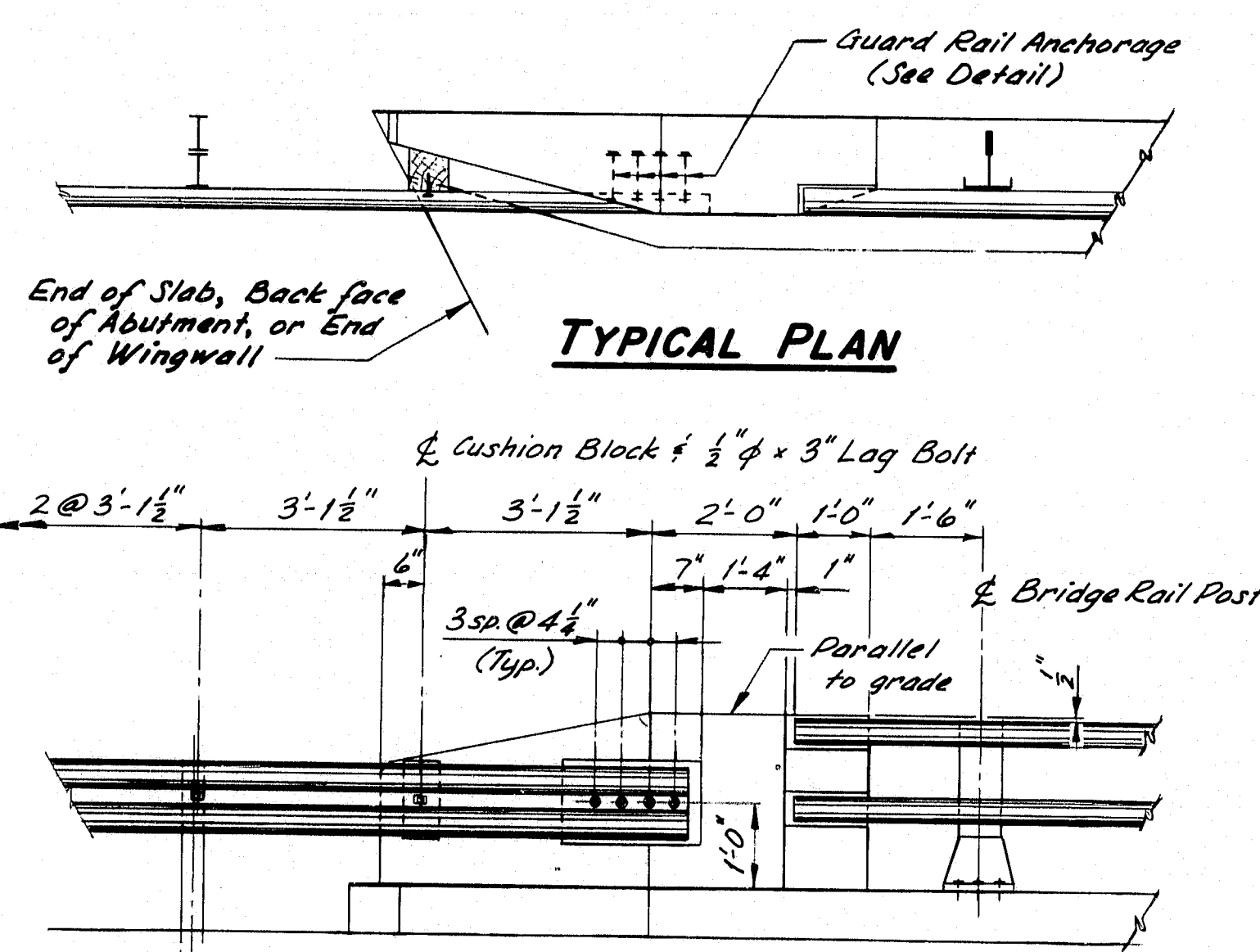
STEEL SPACER PLATE
(For Anchorage)

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	I-95-4(42)62	26	34

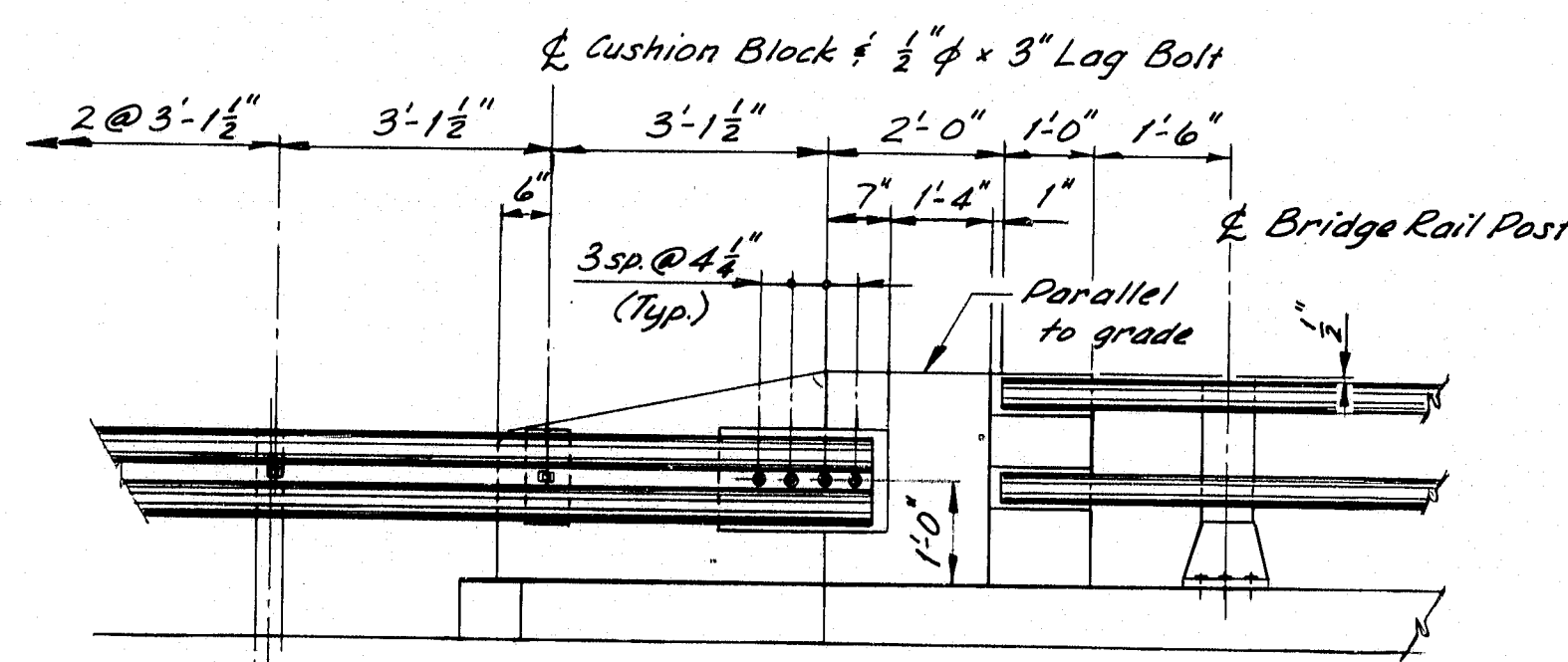
PLANS	DESIGN - DETAILED	BY	DATE
	CHECKED	<i>K. Leach</i>	<i>Apr 1950</i>
	REVISIONS		
	FIELD CHANGES		

AS BUILT 1985 <i>Rfp</i>		7-83
△	Altered base dimensions	DATE
REVISED STATE OF MAINE DEPARTMENT OF TRANSPORTATION		
STANDARD DETAILS (BD 114 - 81) ALUMINUM BRIDGE RAILING 2 - BAR (SEMI-ELLIPSE)		
SHEET 26 of 34 AUGUSTA, MAINE JUNE 1981		

~~R93-81~~

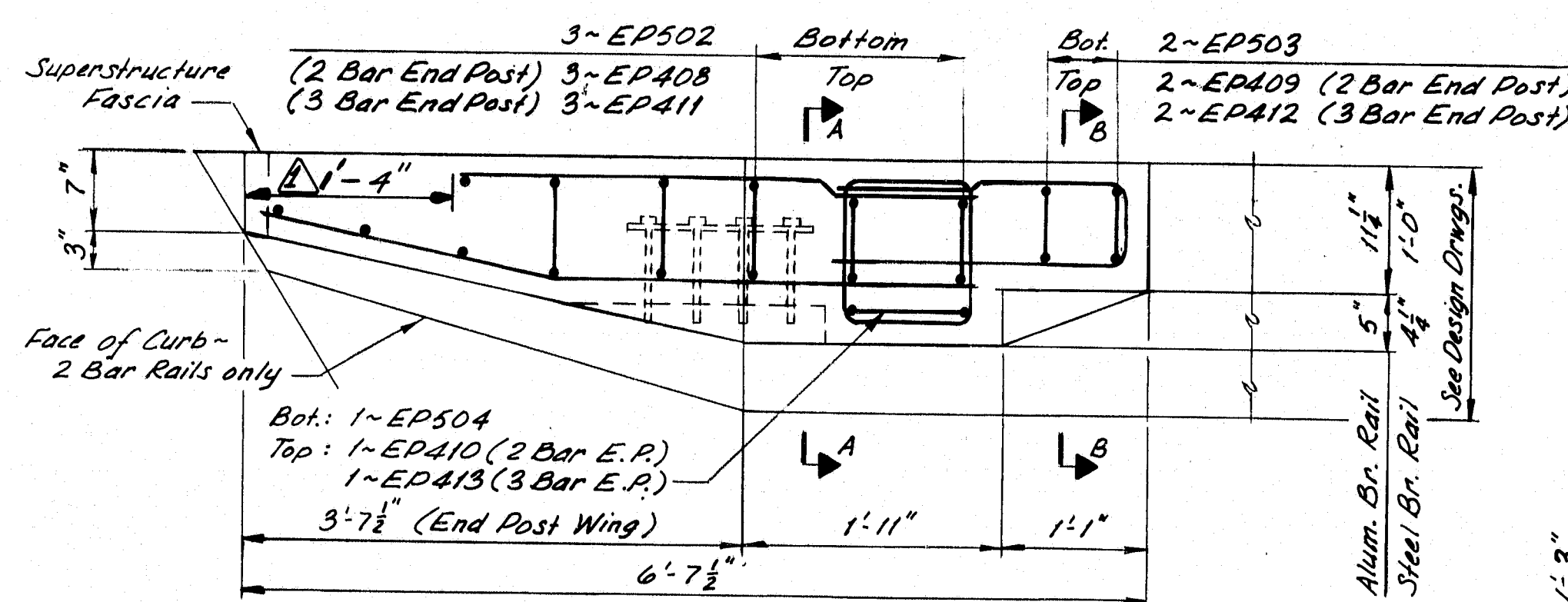


TYPICAL PLAN



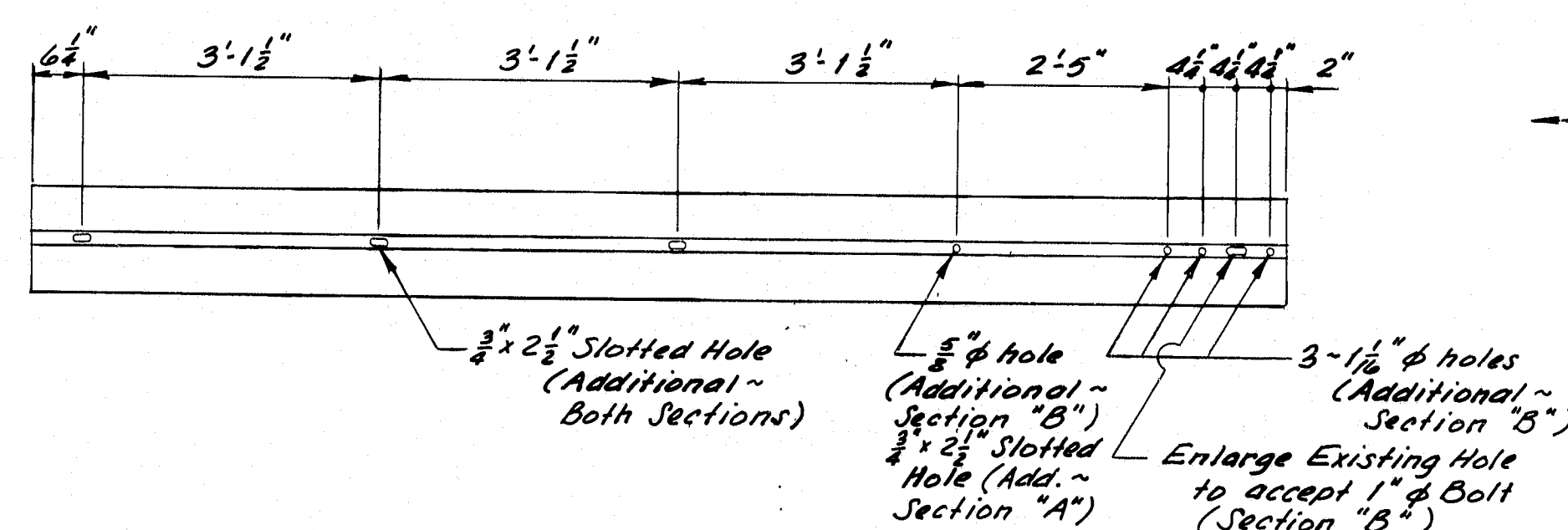
ELEVATION

2-Bar Bridge Rail (Aluminum or Steel)



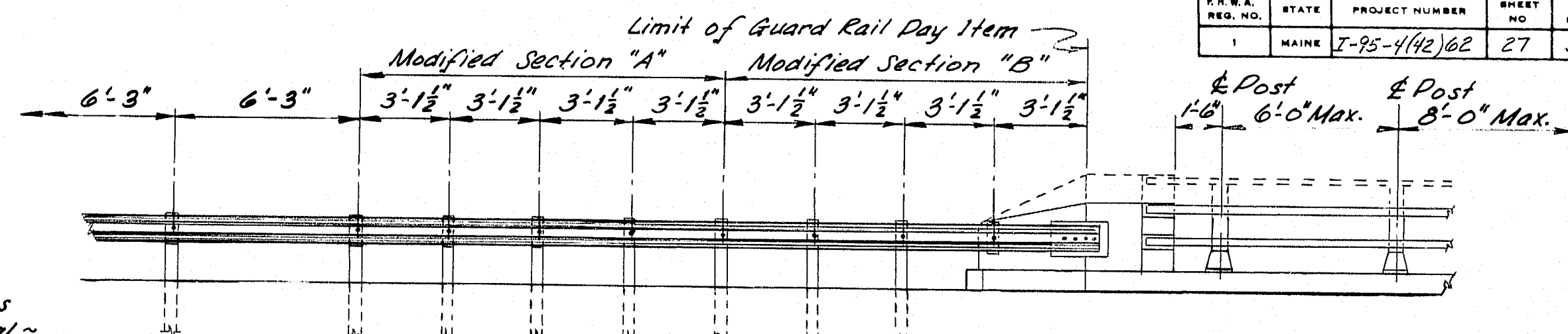
ELEVATION

3-Bar Bridge Rail (Aluminum or Steel)



MODIFIED GUARD RAIL SECTIONS

(See Note #6)



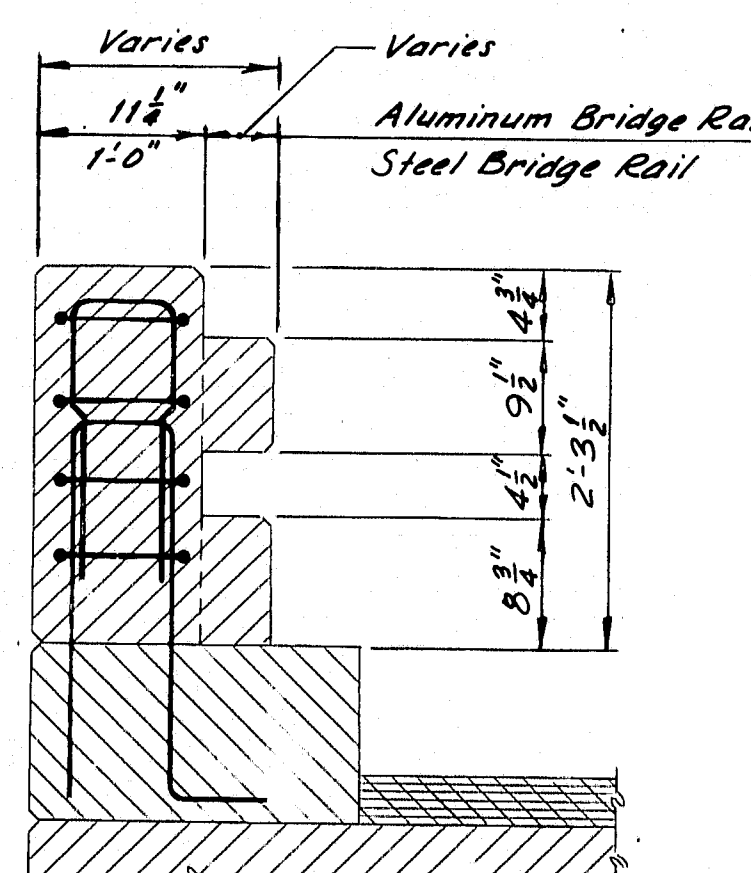
RAILING - ELEVATION

NOTES

- For locations of End Posts on the structure, see Design Drawings.
- At times, an End Post Wing may be cantilevered for all or part of its length. For details, see Design Drawings.
- If an End Post Wing is cantilevered, bars EP401 to be omitted as needed.
- When End Post Wing is cantilevered more than 2'-0", all #5 bars shall be replaced by #7 bars.
- Nuts for 3/4" anchor bolts shall be incidental to Guard Rail Pay Items. Nuts shall conform to A.S.T.M. A563, Grade DH, galvanized in accordance with A.S.T.M. A153, or Grade C3, plain.
- Additional holes in the Modified Guard Rail Sections may be made by drilling, punching, or any other method that produces a neat, clean hole of the required size. Burning of holes will not be allowed.
- Cushion Block material shall be as specified for Wood Posts in Subsection 710.07 (a). Payment for Cushion Blocks and Lag Bolts shall be incidental to the Guard Rail Pay Items.
- Reinforcing Steel shall have 2" min. concrete cover.
- After installation of Guard Rail is complete, upset the thread on the anchor bolts in three places around each bolt, at the junction of the nut and the exposed thread, with a center punch or similar tool.
- Guard Rail Anchorage shall be incidental to the applicable concrete pay item.
- End Posts shall be constructed normal to grade unless otherwise shown on Design Drawings.

CUSHION BLOCK

(See Note #7)



SECTION A-A

SECTION B-B

2-Bar Bridge Rail (Aluminum or Steel)

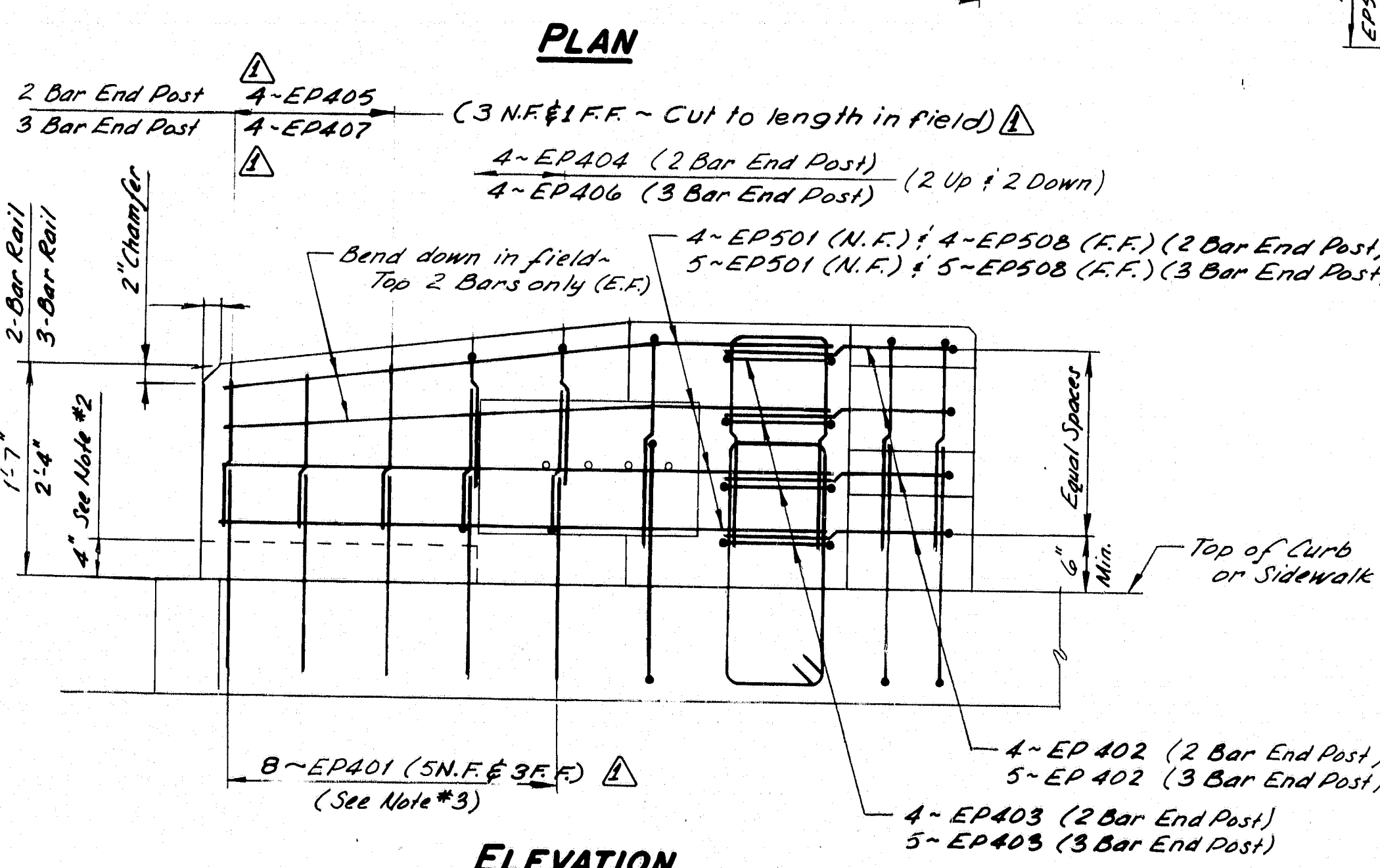
SECTION B-B

3-Bar Bridge Rail (Aluminum or Steel)

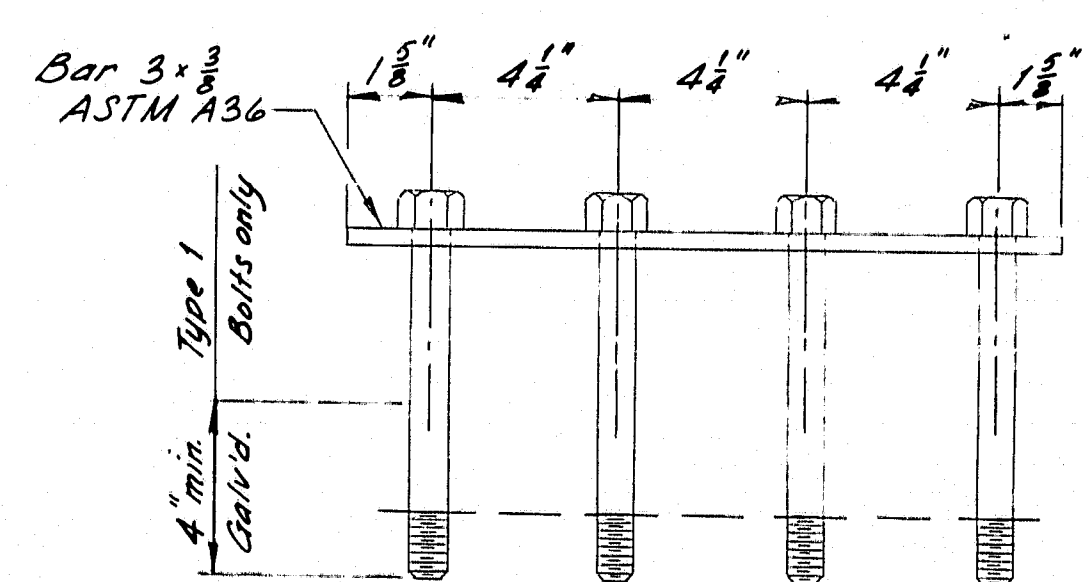
LEGEND

N.F. = Near Face E.F. = Each Face
F.F. = Far Face

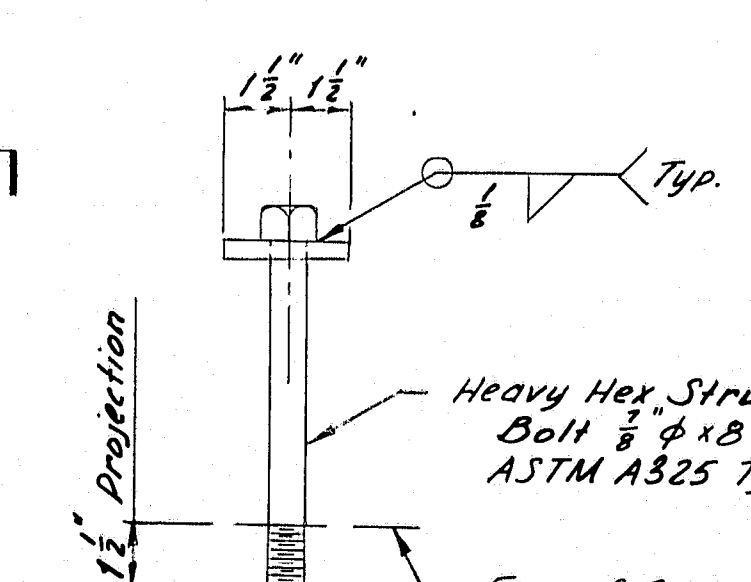
AS BUILT 1985



ELEVATION



GUARD RAIL ANCHORAGE



VIEW N-N

R93-82

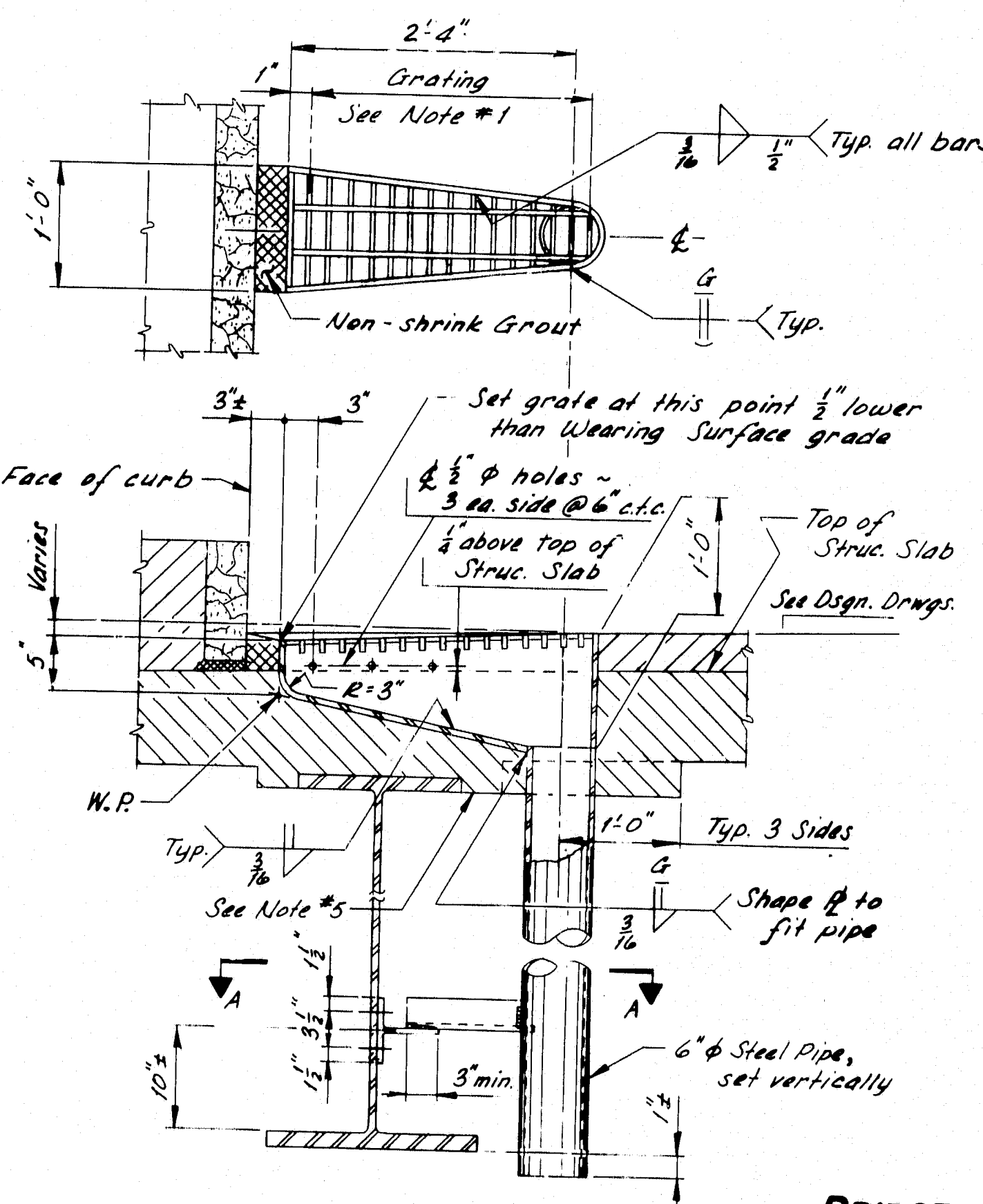
REVISIONS	DATE
General Revisions 1-83	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 120-81)

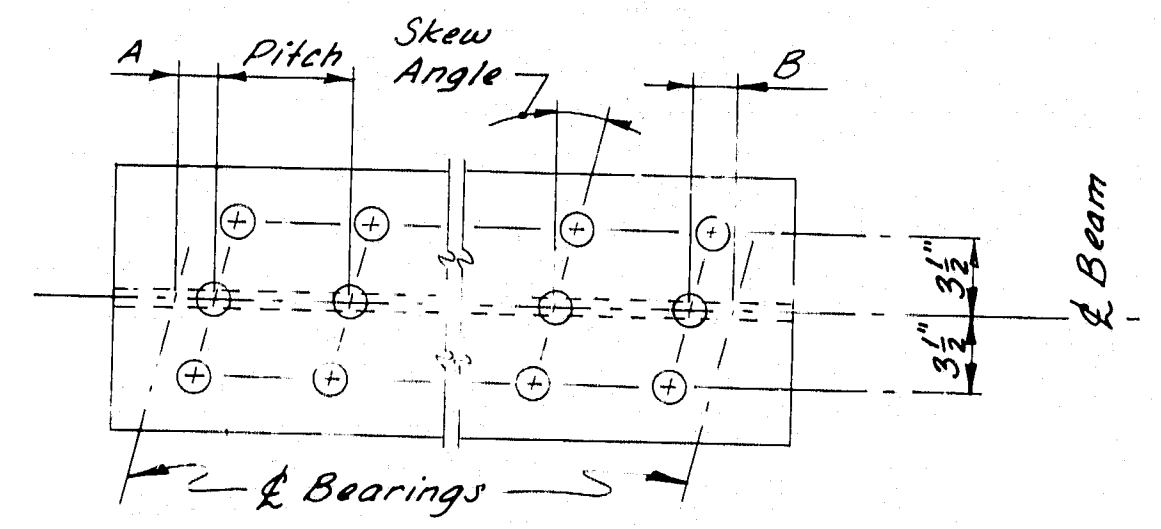
CONCRETE END POSTS

1/k R93-83

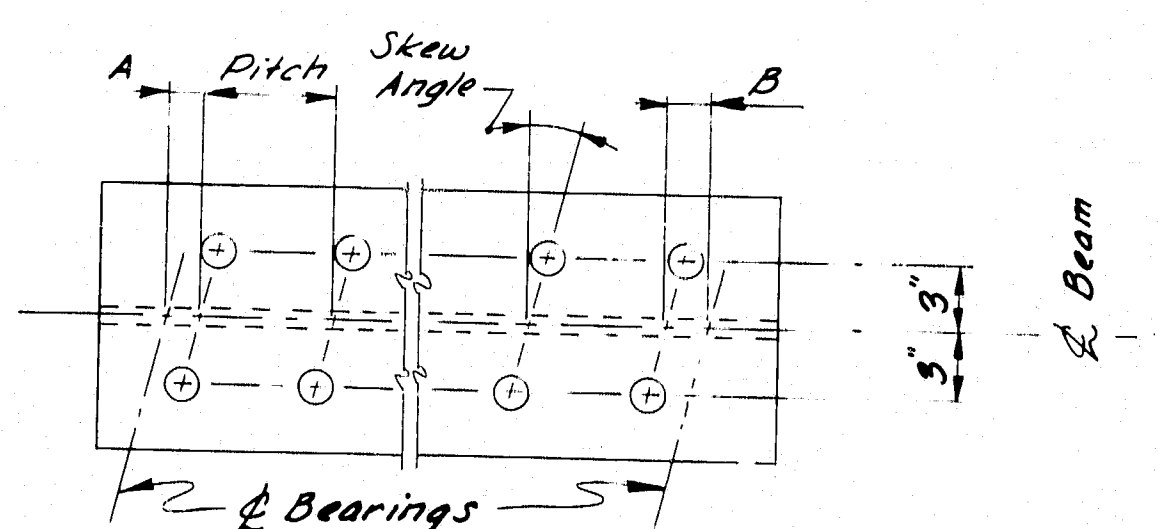


- SECTION A-A**
- NOTES:**
- Grating shall be a commercial heavy-duty grating with $1\frac{1}{2} \times \frac{3}{4}$ bearing bars spaced at $2\frac{3}{4}$ c.t.c., and $\frac{3}{4}$ cross bars spaced at 4" c.t.c.
 - Plates shall be A.S.T.M. A36, $\frac{1}{4}$ " thick.
 - WT 6x13 shall be of the same material as the beam web.
 - At the option of the Contractor, the Bridge Drain may be modified to allow the use of T.S. 6x6x $\frac{1}{2}$ conforming to A.S.T.M. A501 or A.S.T.M. A500, Gr. "A", in place of the 6" ϕ steel pipe.
 - If the minimum thickness of concrete below the Drain is 2" or less, the haunch shall be extended as shown.
 - Painting will not be required when the structural steel is specified to be unpainted.
 - Payment for Bridge Drain shall be as specified under subsection 502.19 of the Standard Specifications.

BRIDGE DRAIN



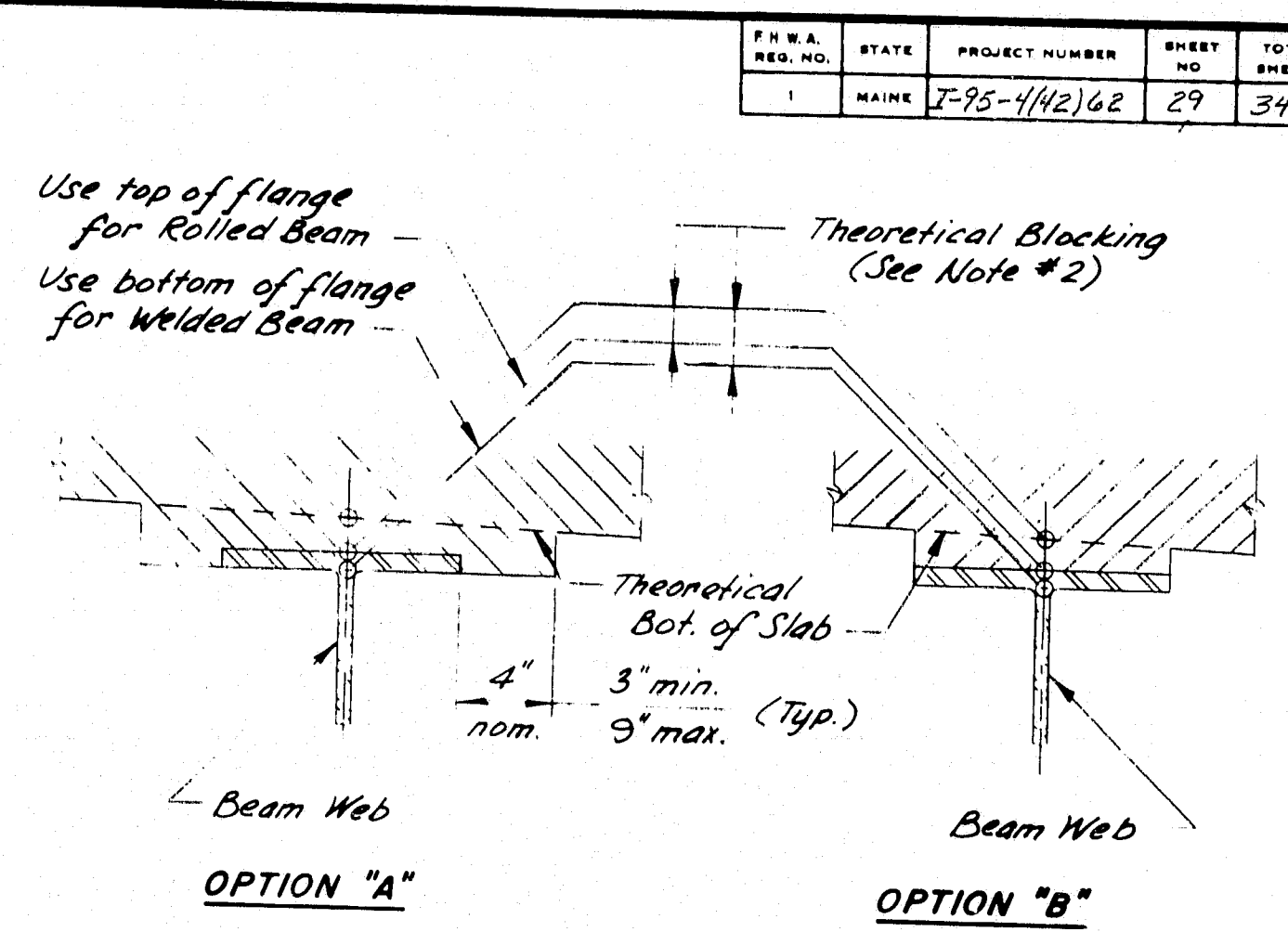
TRIPLE STUDS



DOUBLE STUDS

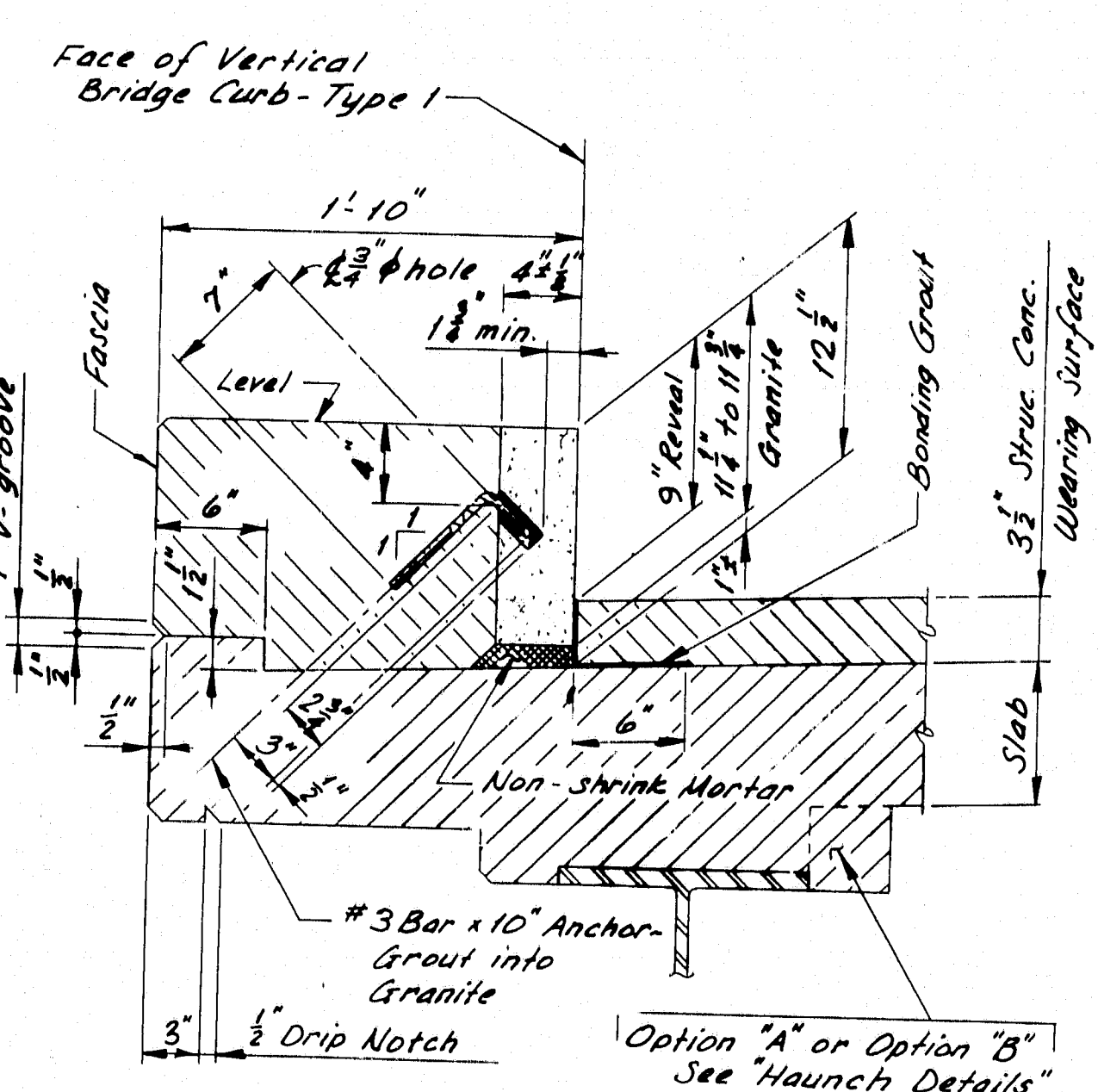
- NOTE:**
- See Design Drawings for Dim's. "A", "B", stud pitch, and skew angle.
- STUD DETAIL**
- 2" min. above Theoretical Bottom of Slab

SHEAR CONNECTORS

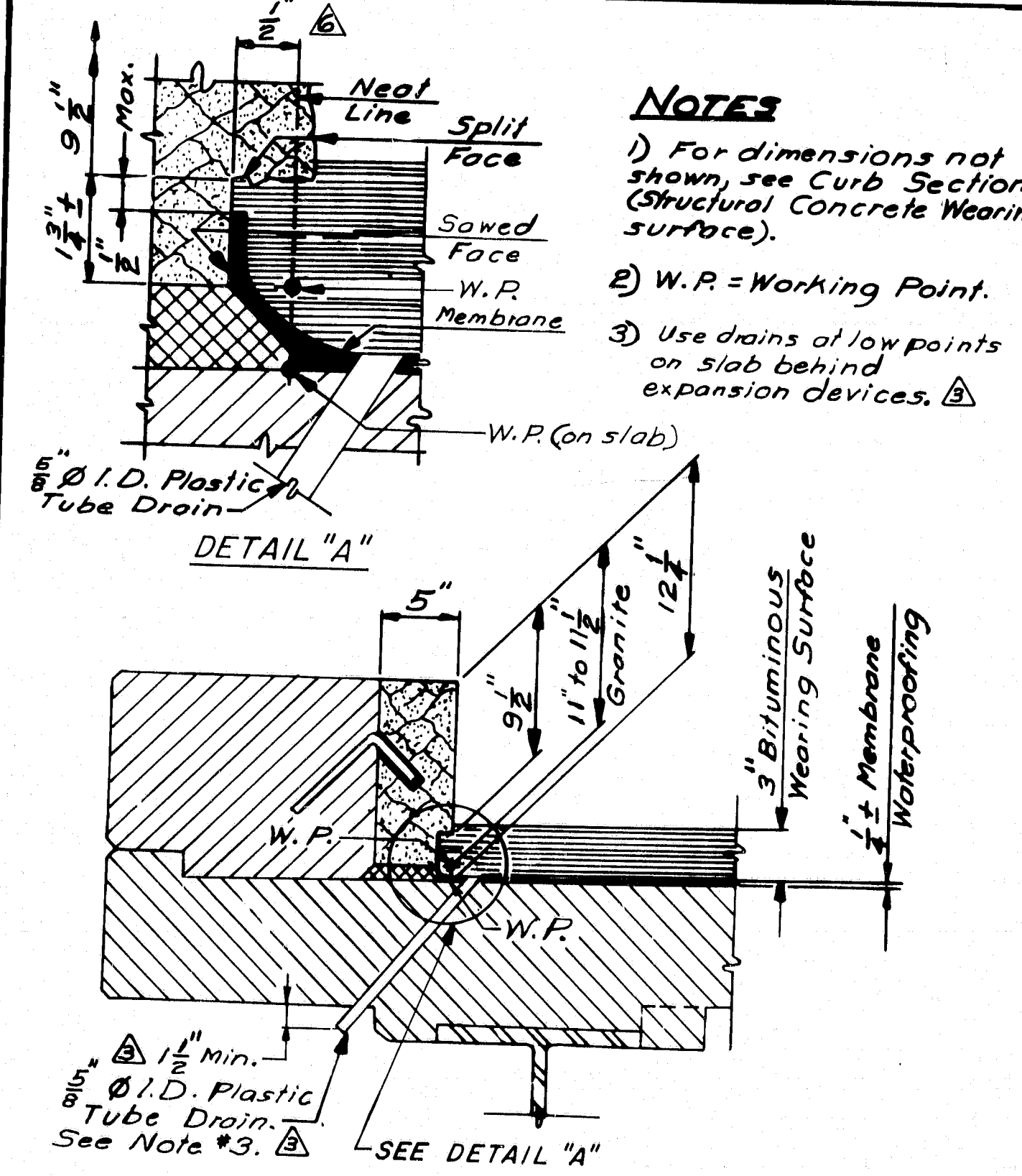


- NOTE:**
- Haunch Option "A" or Option "B" may be used at the Contractor's discretion. Only one option shall be used on each structure, except that Option "A" must always be used on the fascia side of all fascia beams and on beams designed without shear connectors.
 - Theoretical Blocking shall be as indicated on Design Drawings.
 - Do not use Theoretical Blocking for setting of form-work.

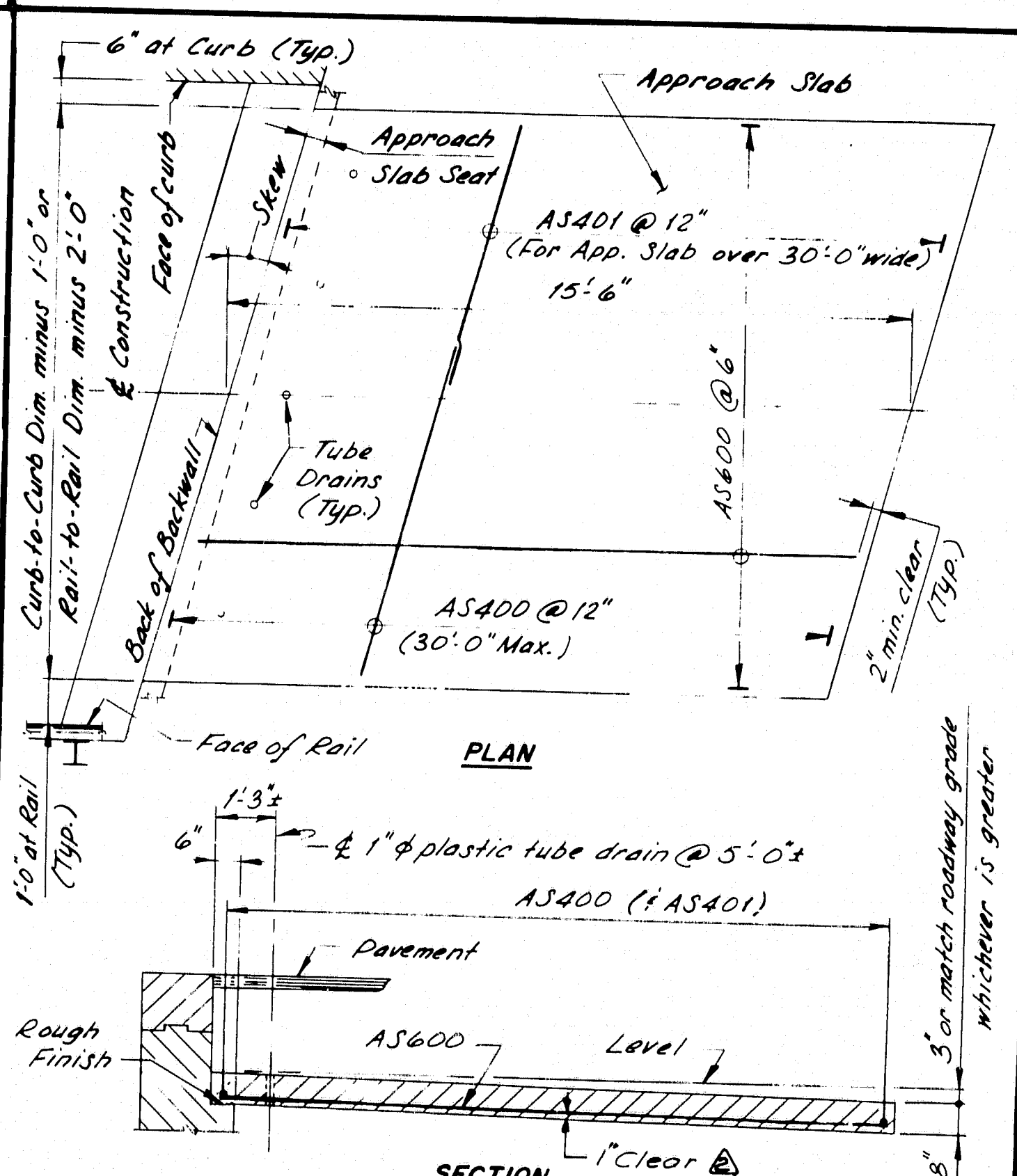
HAUNCH DETAILS



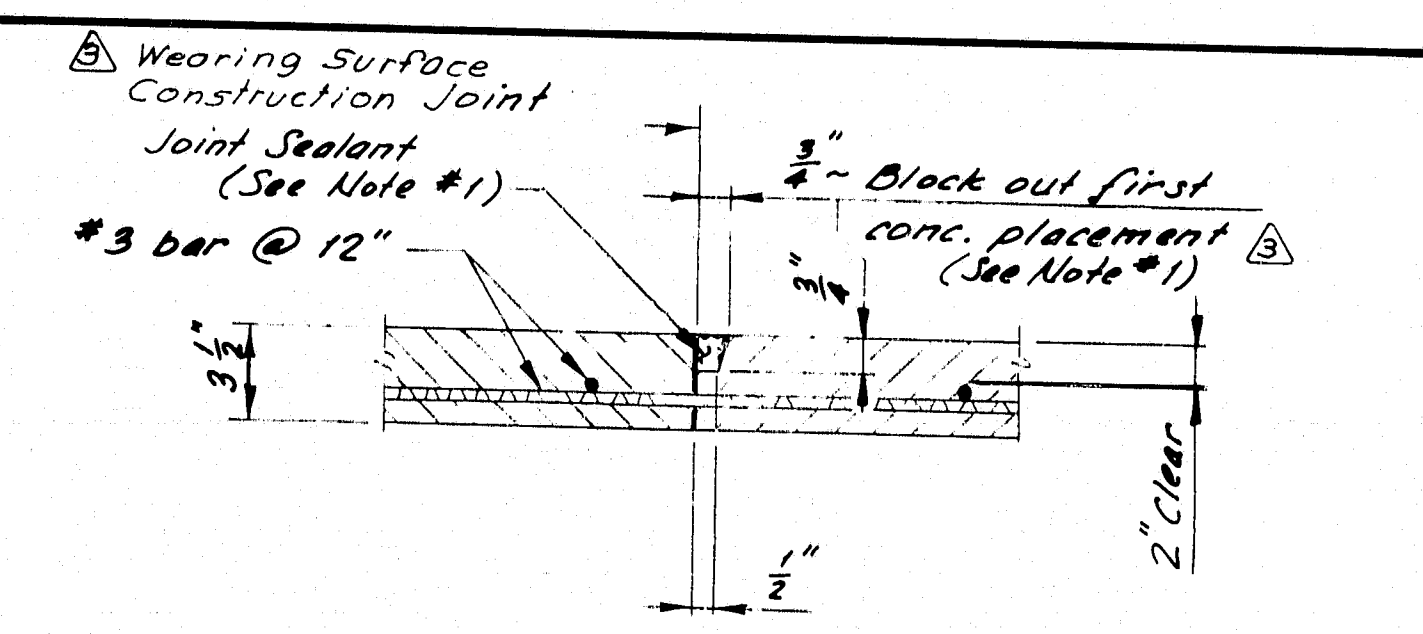
CURB SECTION TYPE 1A
(STRUCTURAL CONCRETE WEARING SURFACE)



CURB SECTION TYPE 1B
(BITUMINOUS WEARING SURFACE)



APPROACH SLAB R93-84



WEARING SURFACE DETAIL

- NOTE:**
- Use Block-out and Sealant only at Wearing Surface Construction Joints over Structural Slab Construction Joints. At all other joints, brush joint with neat cement paste before making adjacent concrete placement.

STRUCTURAL CONCRETE WEARING SURFACE

REVISIONS	DATE
Revised Stud Detail 3-82	
Added Curb Section 7-82	
Added Plastic Tube Drain & modified Structural Concrete Wearing Surface.	11-82
Revised Curb Anchorage	2-83
Revised Curb Title	6-83
Revised Curb Type 1B	11-83

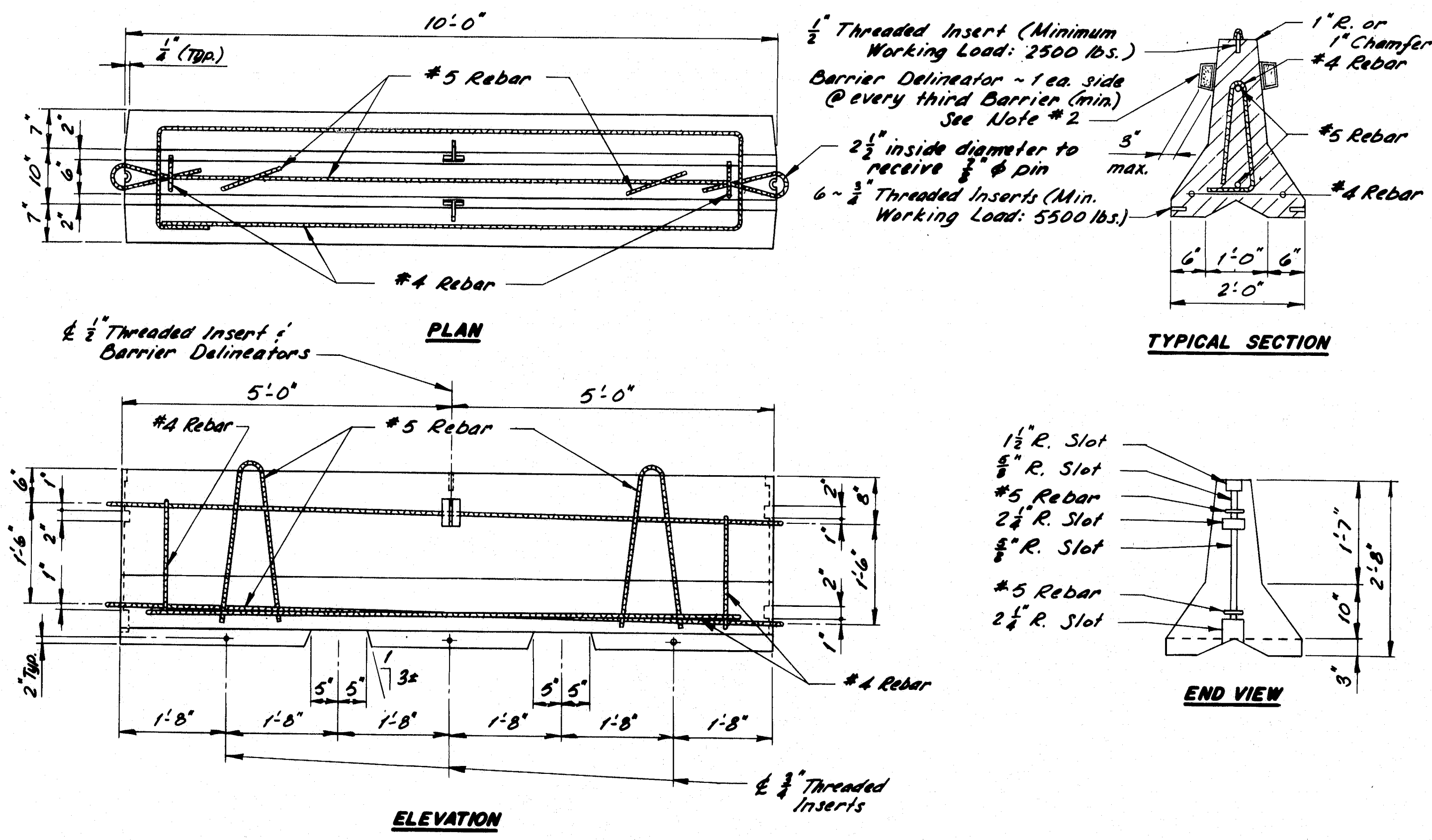
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 126-81)
AS BUILT 1985
MISCELLANEOUS DETAILS
BRIDGE DRAIN - SHEAR CONNECTORS
STRUC. CONC. WEAR. SURFACE
CURB SECTION - APPROACH SLAB
HAUNCH DETAILS

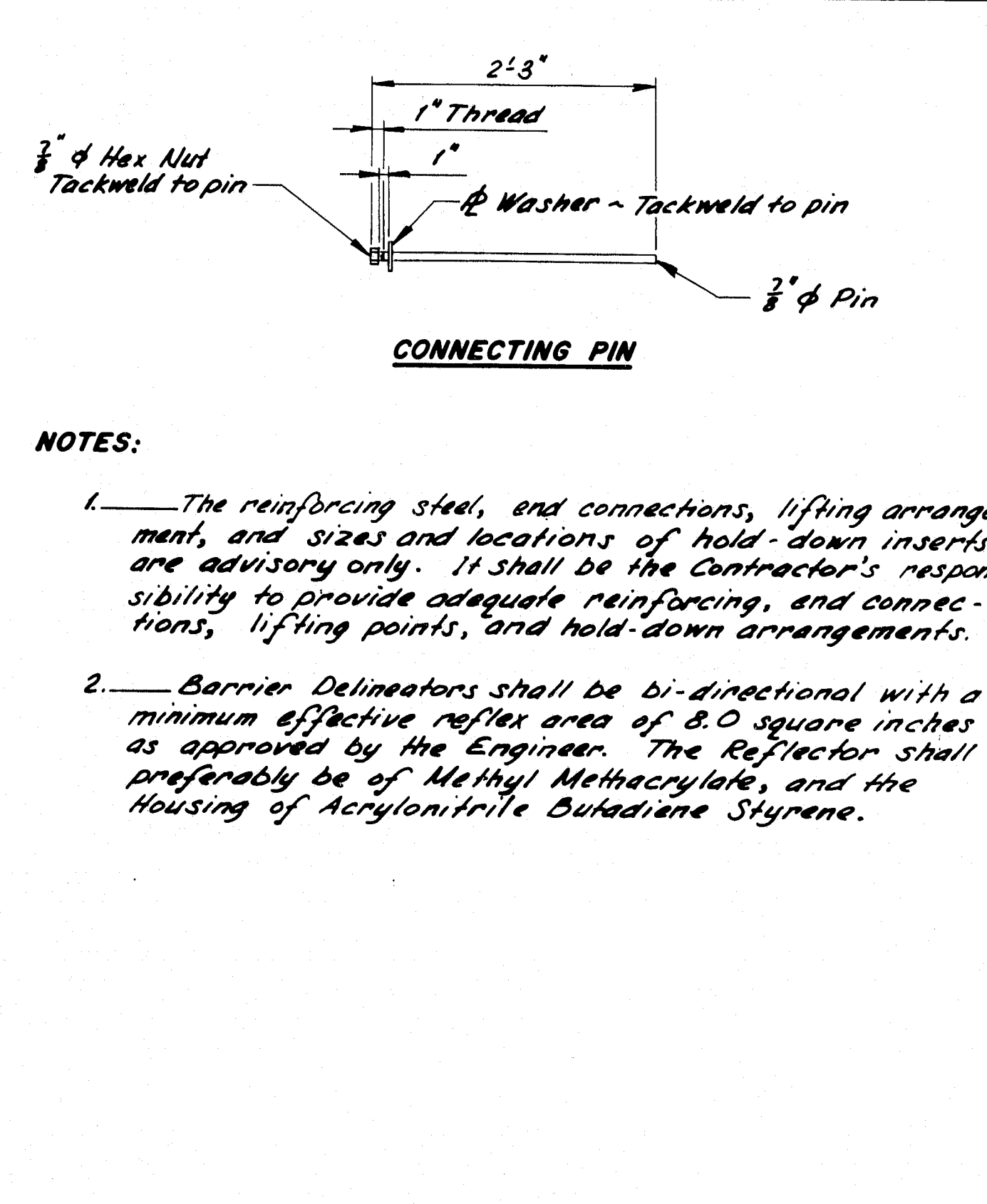
SHEET 29 OF 34 AUGUSTA, MAINE JUNE 1981

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	1/2/81
CHECKED	
REVISIONS	
FIELD CHANGES	

BRIDGING 44-132-8710

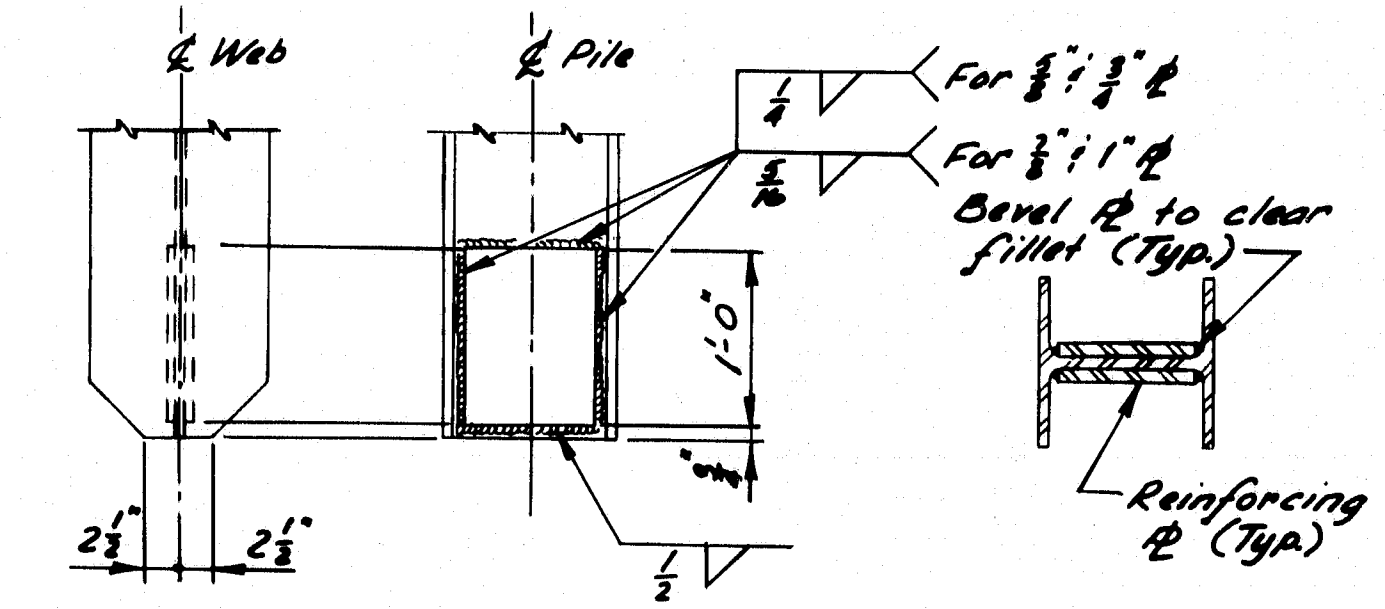


TEMPORARY CONCRETE BARRIER - TYPE I



- 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 reflect 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.

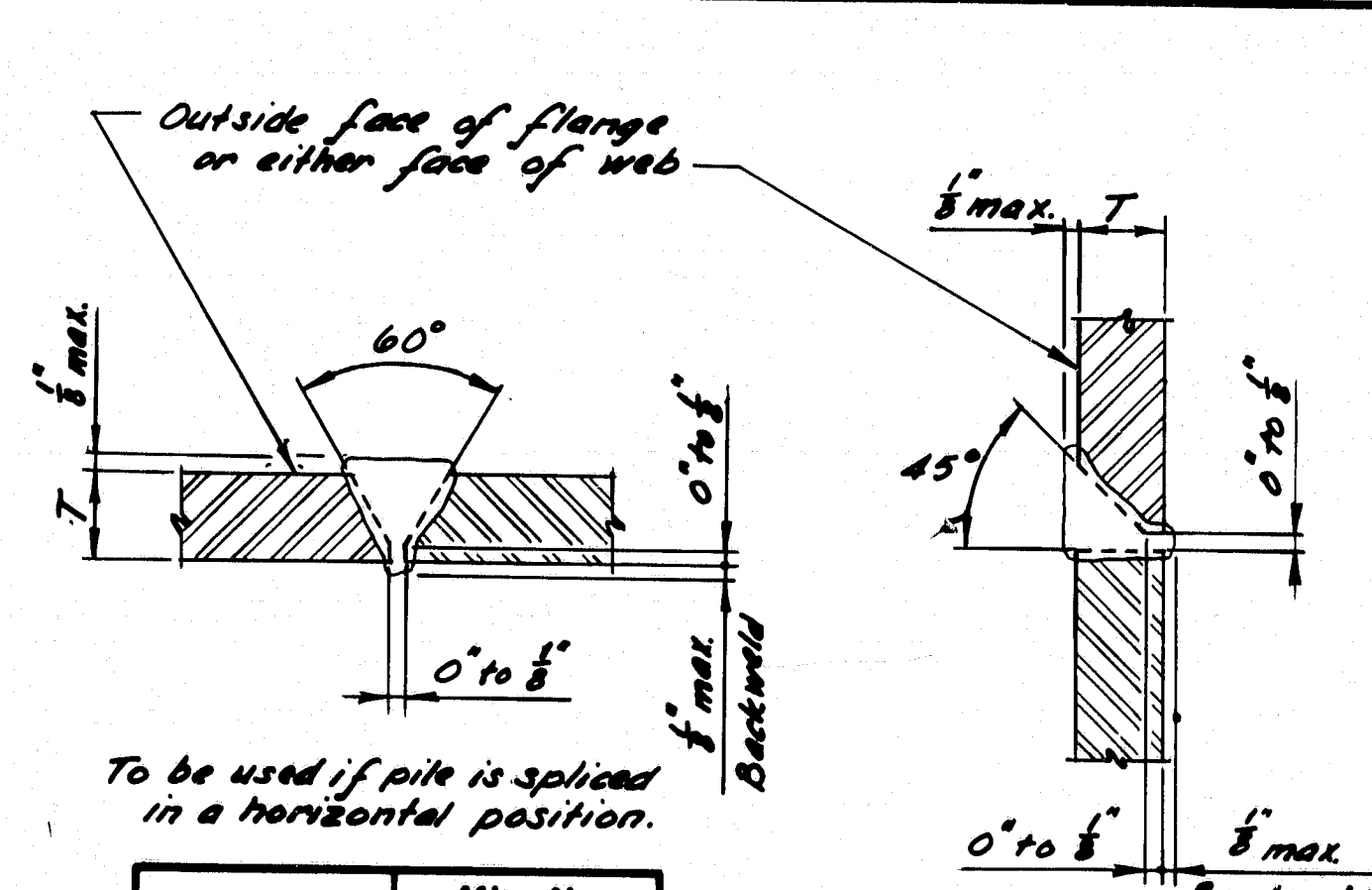
F.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	E-95-1142	30	34



Pile Size	Reinf. ϕ Size	Pile Size	Reinf. ϕ Size
HP 10x42	8 $\frac{3}{4}$ " x $\frac{5}{8}$ " x 1'-0"	HP 13x60 Δ	11 $\frac{1}{2}$ " x $\frac{3}{4}$ " x 1'-0"
HP 10x57	8 $\frac{3}{4}$ " x $\frac{7}{8}$ " x 1'-0"	HP 13x73 Δ	11 $\frac{1}{2}$ " x $\frac{7}{8}$ " x 1'-0"
HP 12x53	10 $\frac{3}{4}$ " x $\frac{5}{8}$ " x 1'-0"	HP 13x87 Δ	11 $\frac{1}{2}$ " x 1" x 1'-0"
HP 12x63	10 $\frac{3}{4}$ " x $\frac{3}{4}$ " x 1'-0"	HP 14x73	12 $\frac{1}{2}$ " x $\frac{7}{8}$ " x 1'-0"
HP 12x74	10 $\frac{3}{4}$ " x $\frac{7}{8}$ " x 1'-0"	HP 14x89	12 $\frac{1}{2}$ " x 1" x 1'-0"

- NOTES:**
- Alternate Pointed Reinforced Pile Tips 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.M.S. Spec. D.1.1, as amended by AASHTO.

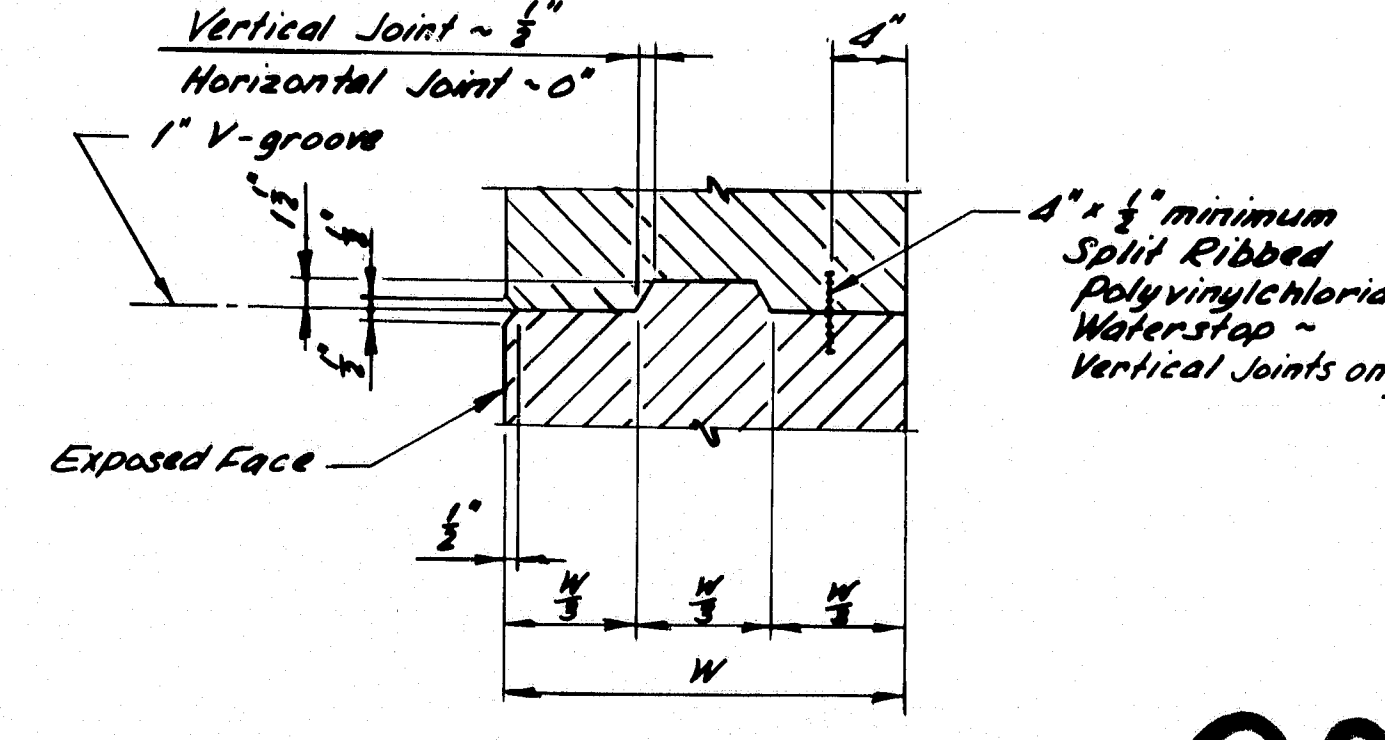
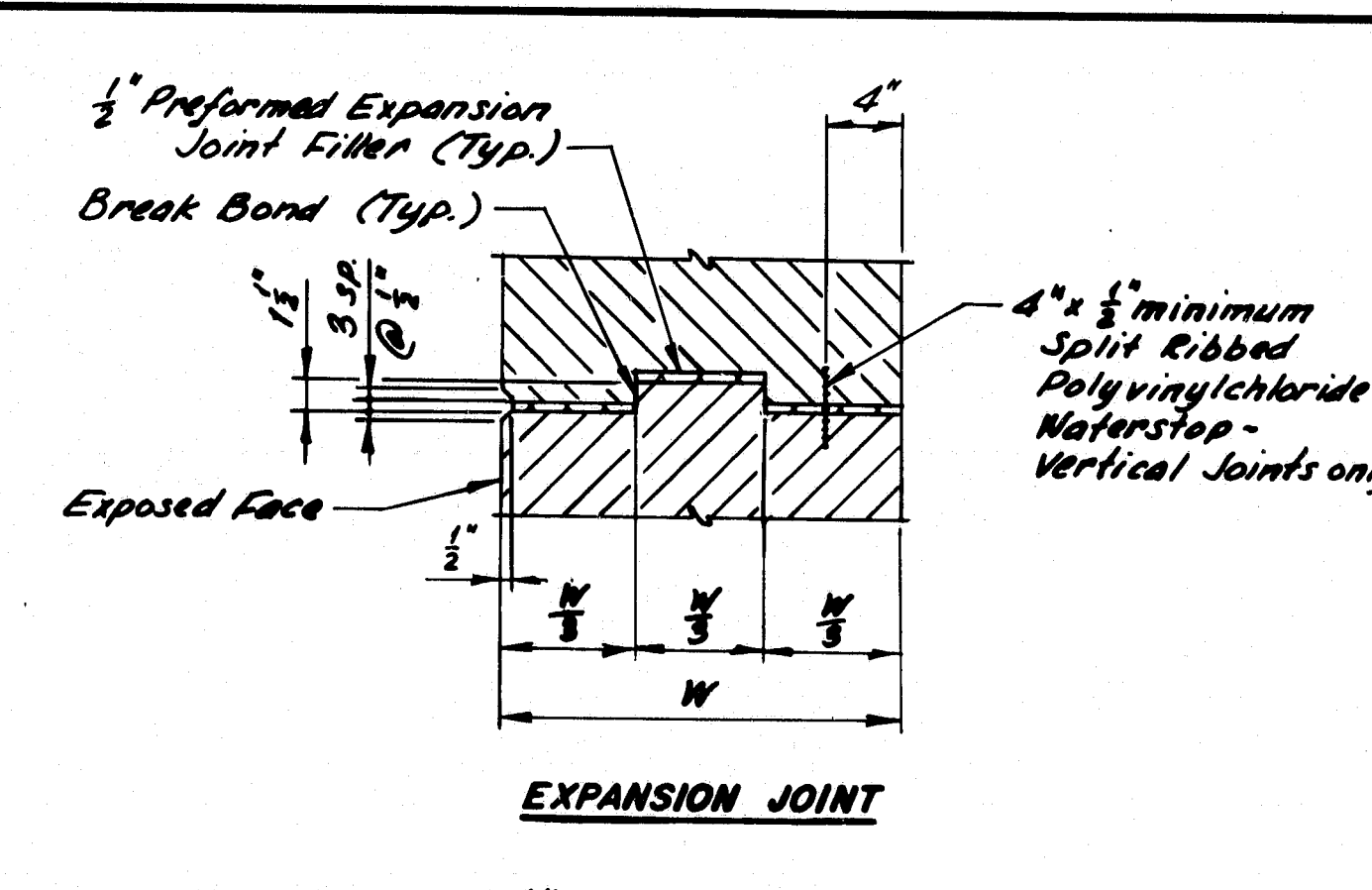
POINTED REINFORCED PILE TIP



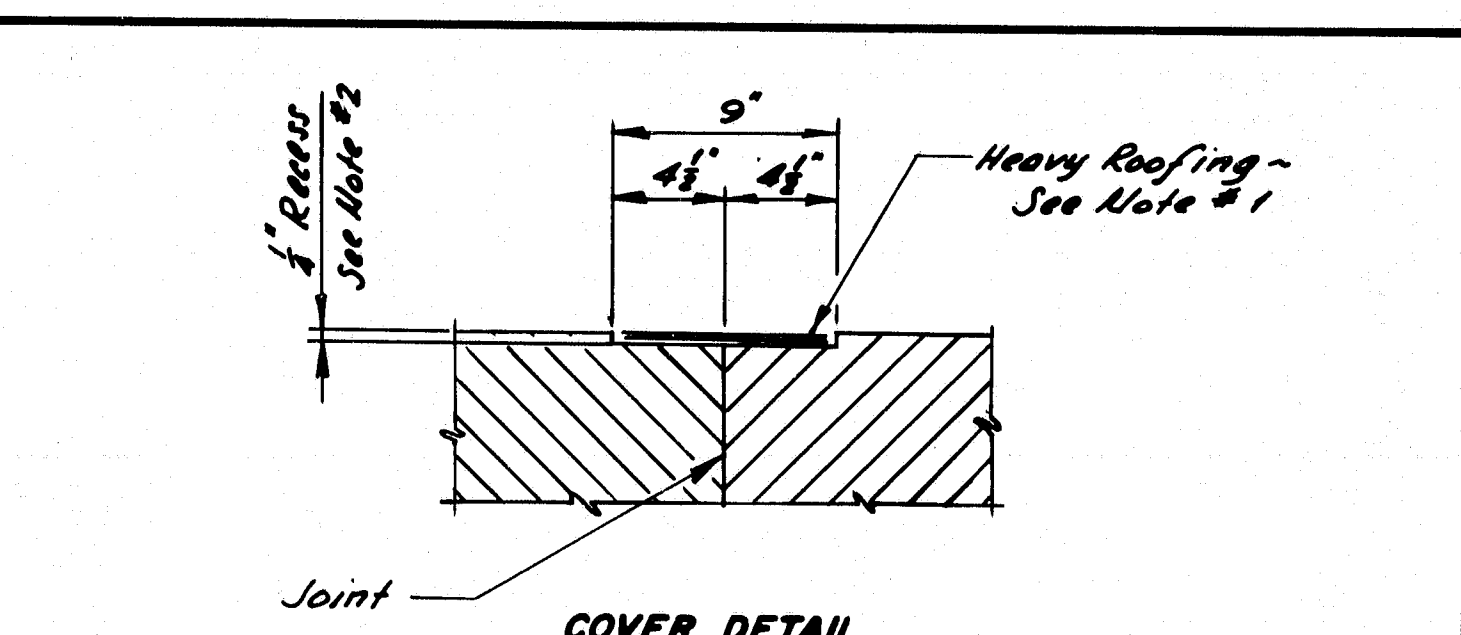
T	Min. No. Passes
1/2"	3
3/4"	4
1"	5

- 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.M.S. Spec. D.1.1, as amended by AASHTO.
 - Gauge root before welding second side.

PILE SPLICE



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 1/4" unless otherwise indicated on Design Drawings.

CONCRETE JOINT COVER

AS BUILT 1985 RFP

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 127-81)

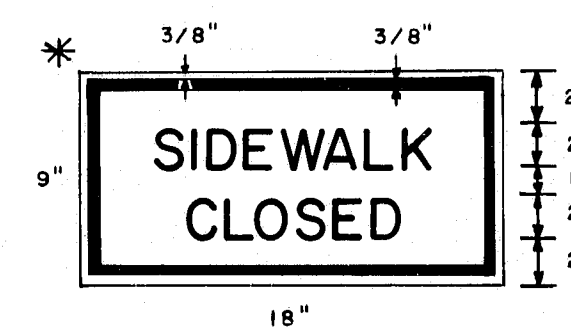
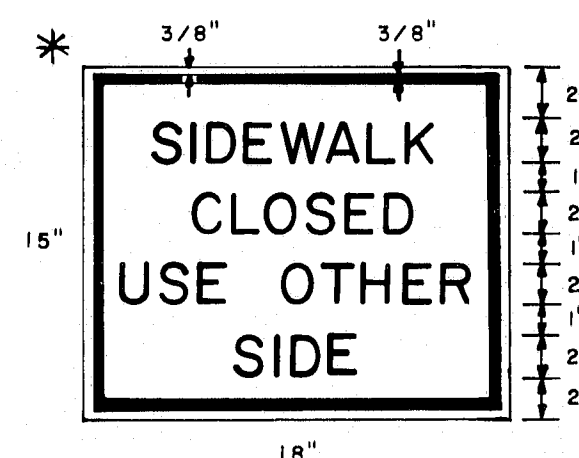
MISCELLANEOUS DETAILS
TEMP. CONC. BARRIER - TYPE I
POINTED REINF. PILE TIP
PILE SPLICE - CONC. JOINTS
CONCRETE JOINT COVER

R93-85

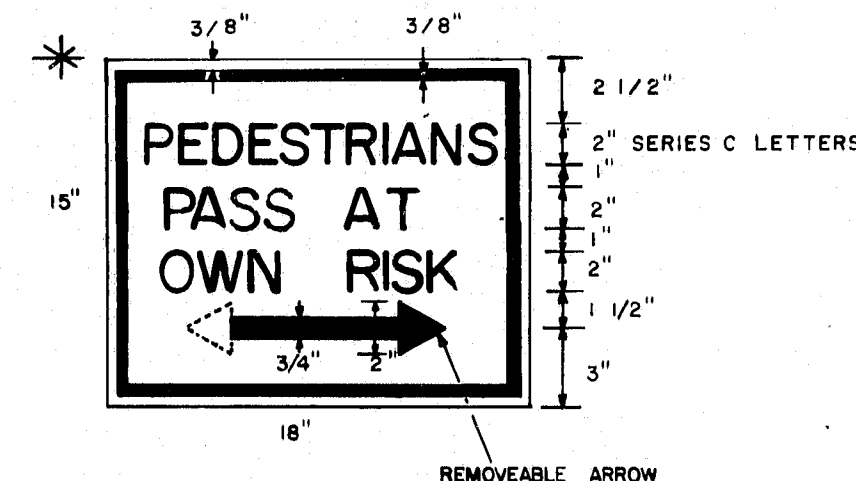
Added 13 HP's 7-83
REVISIONS Date

SHEET 30 OF 34 AUGUSTA, MAINE JUNE 1981

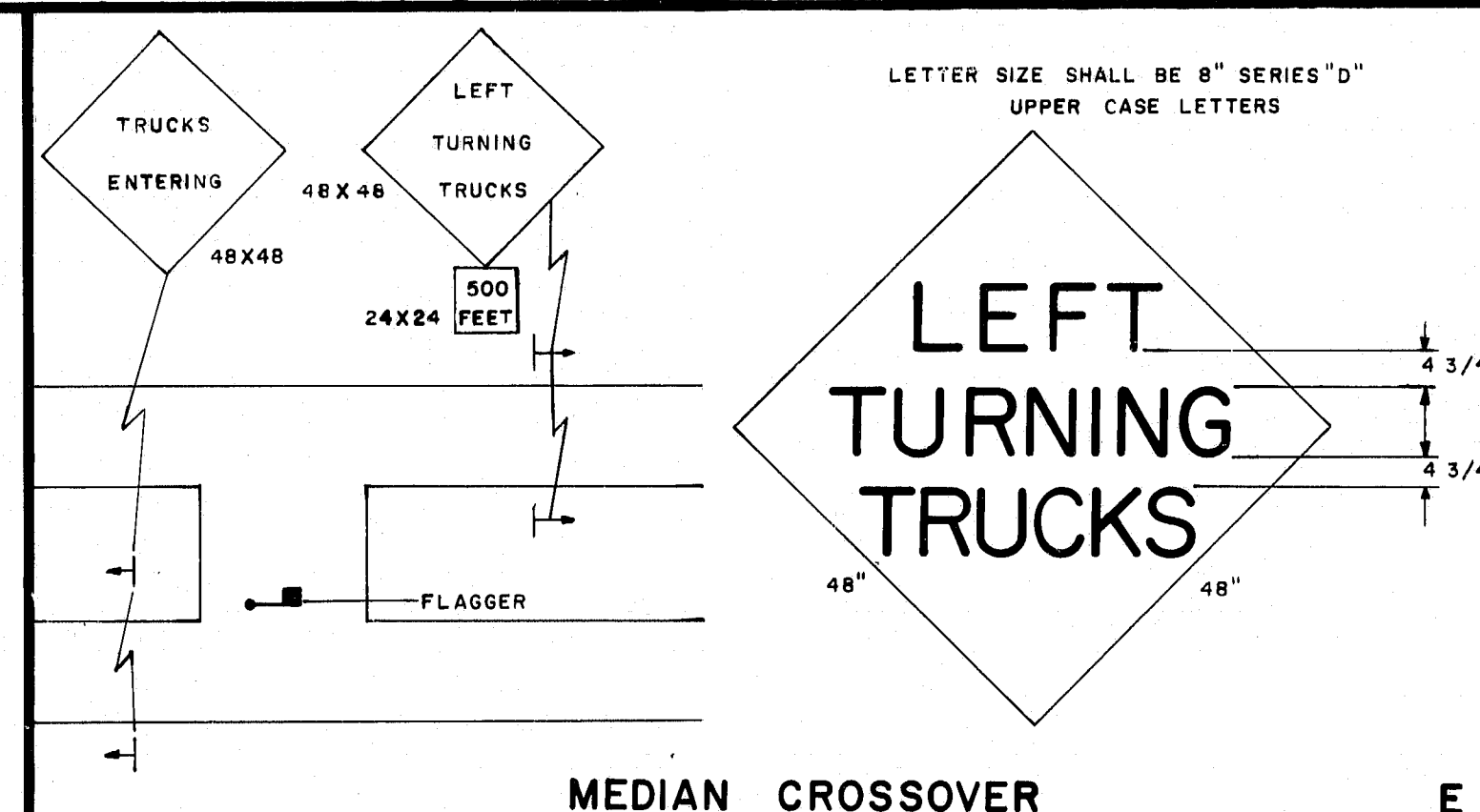
* NON-REFLECTORIZED WHITE BACKGROUND, BLACK TEXT
AND BORDER-2" SERIES "C" UPPER CASE LETTERS



A

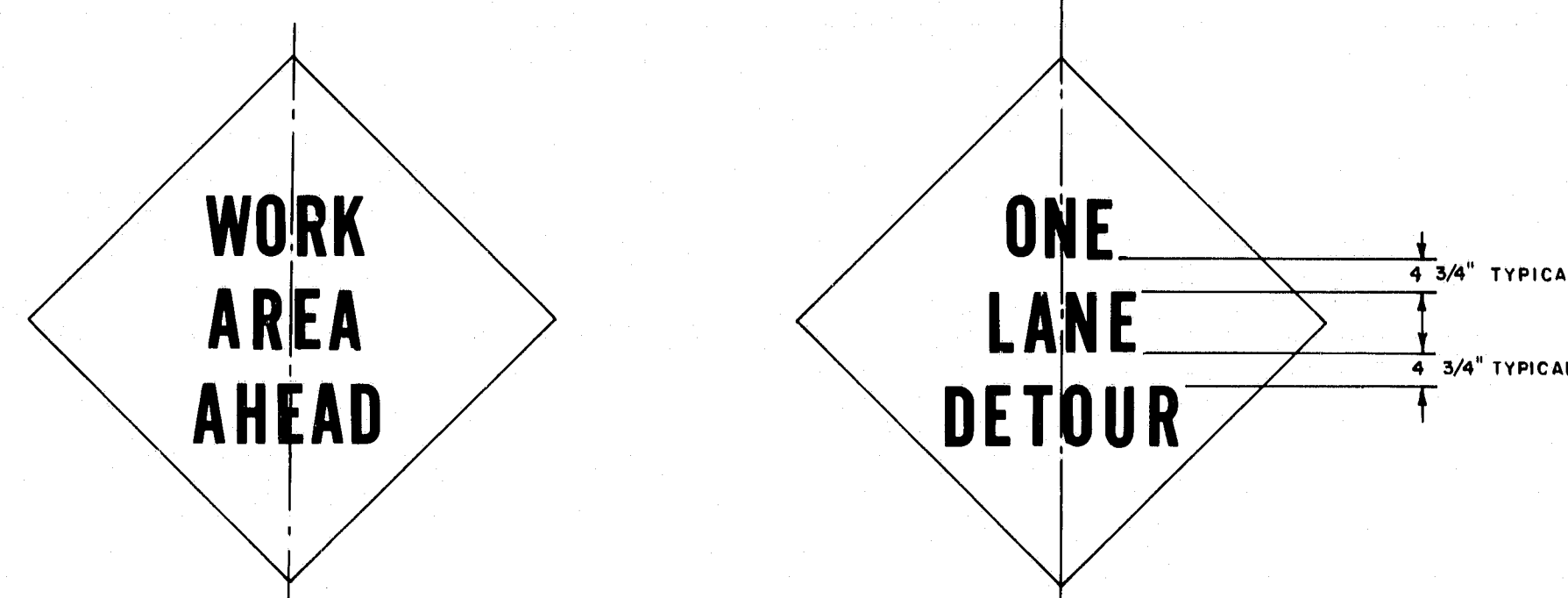


B



MEDIAN CROSSOVER

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



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

ROADSIDE RECOVERY AREA

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

[illegible]

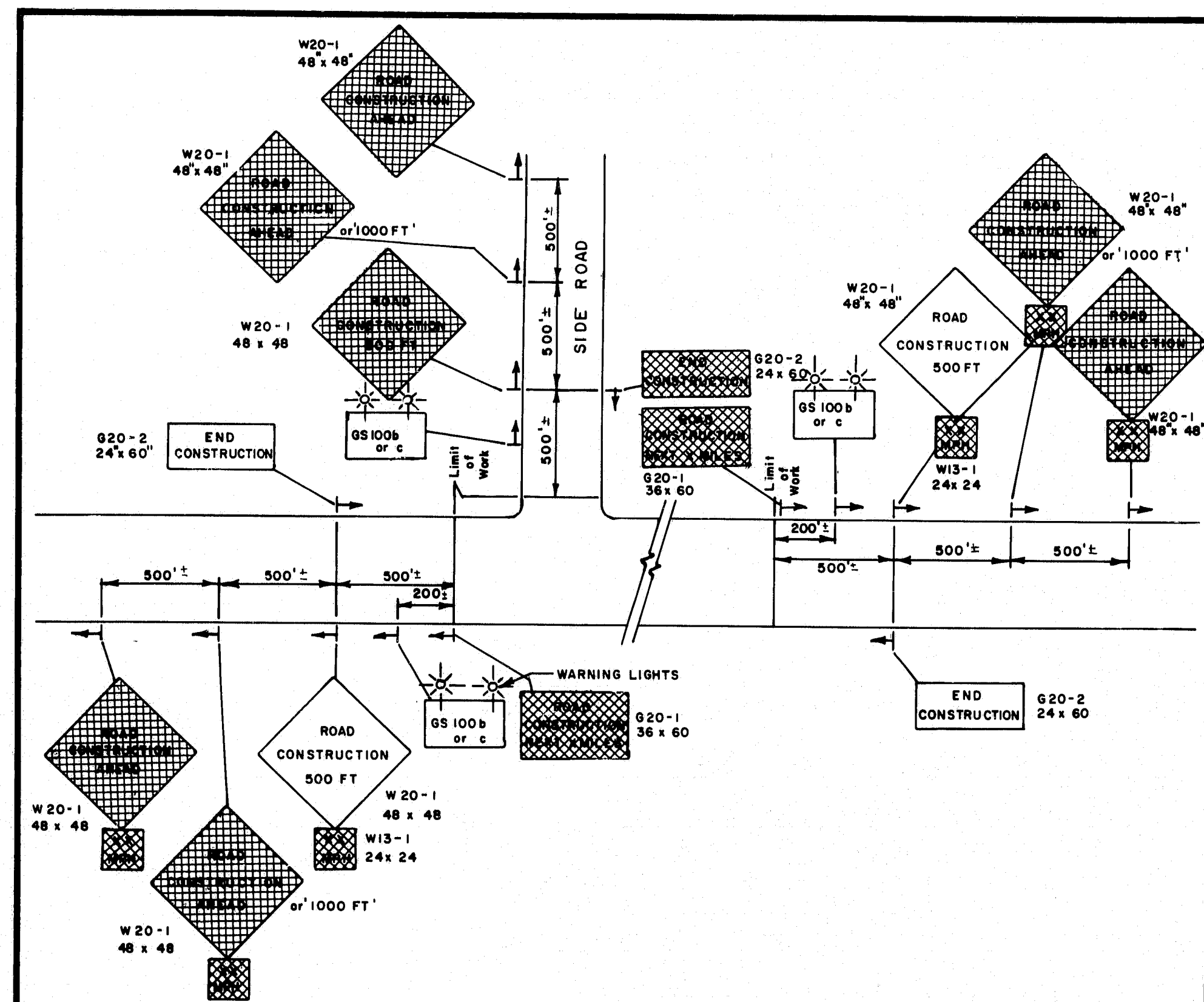
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONES

SHEET 1 OF 3 AUGUSTA, MAINE Feb 1984

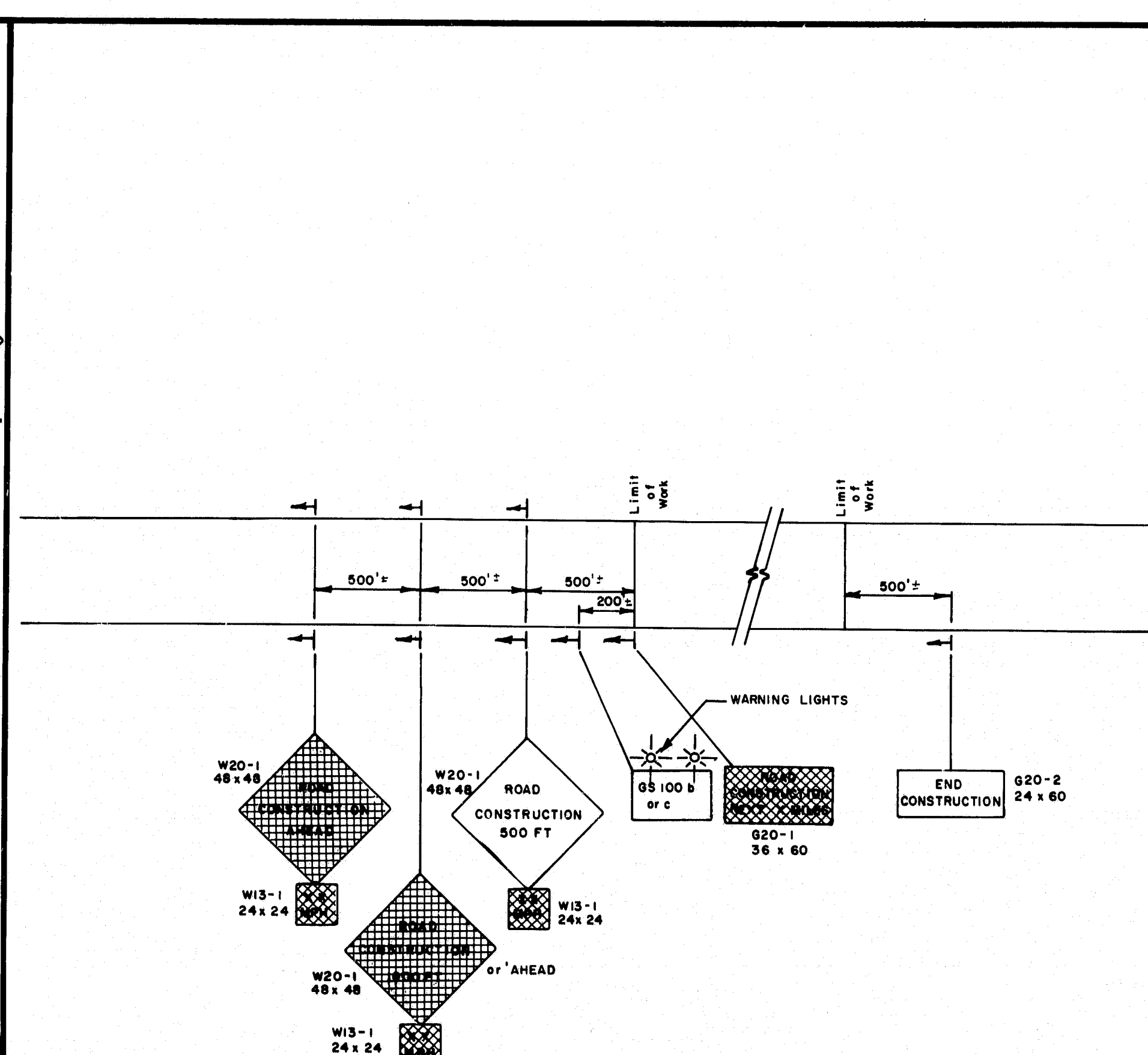
820.4

F.H.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	7-95-1(42)62	32	34



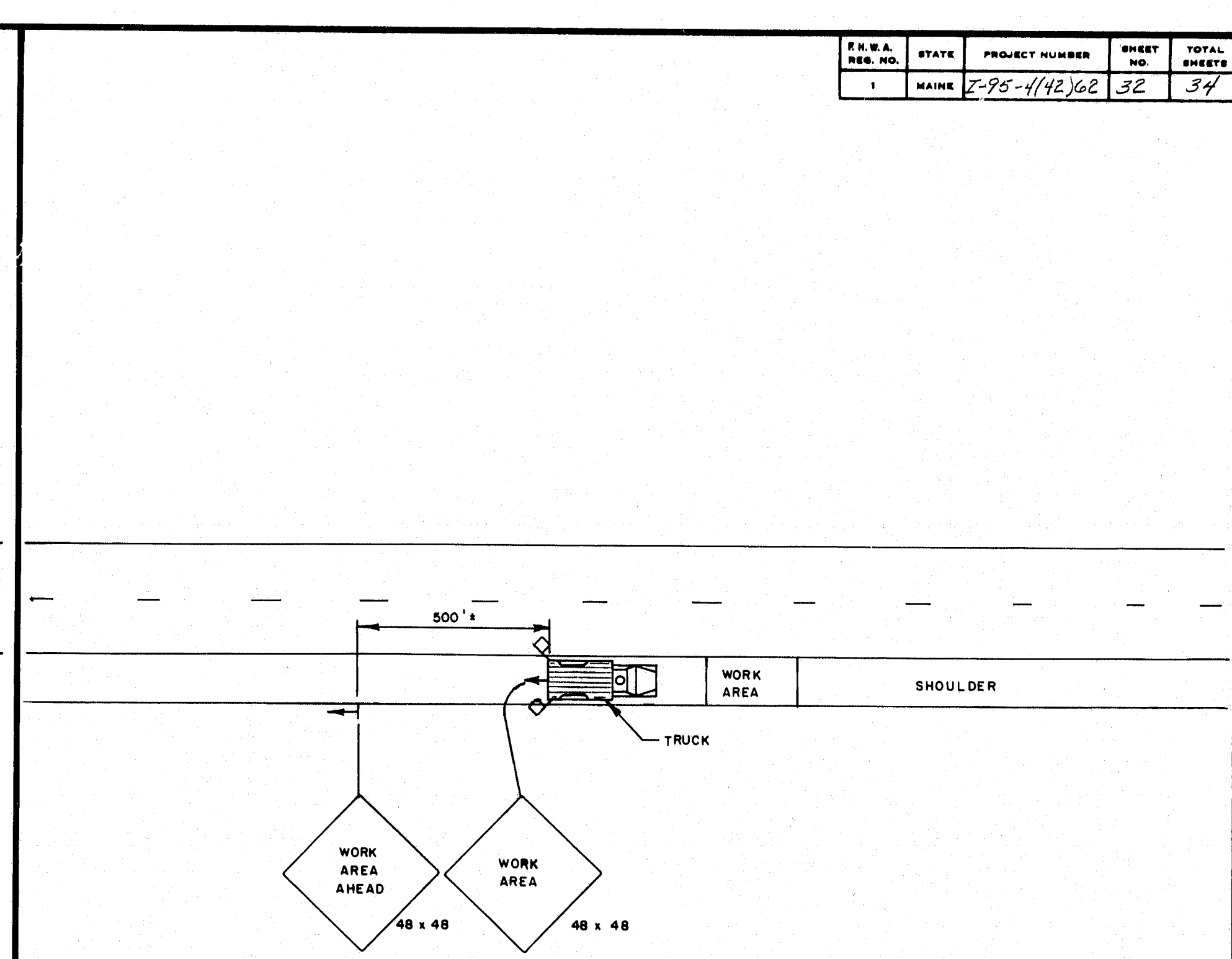
PROJECT APPROACH SIGNING
Two Way Traffic

A



PROJECT APPROACH SIGNING
Expressway

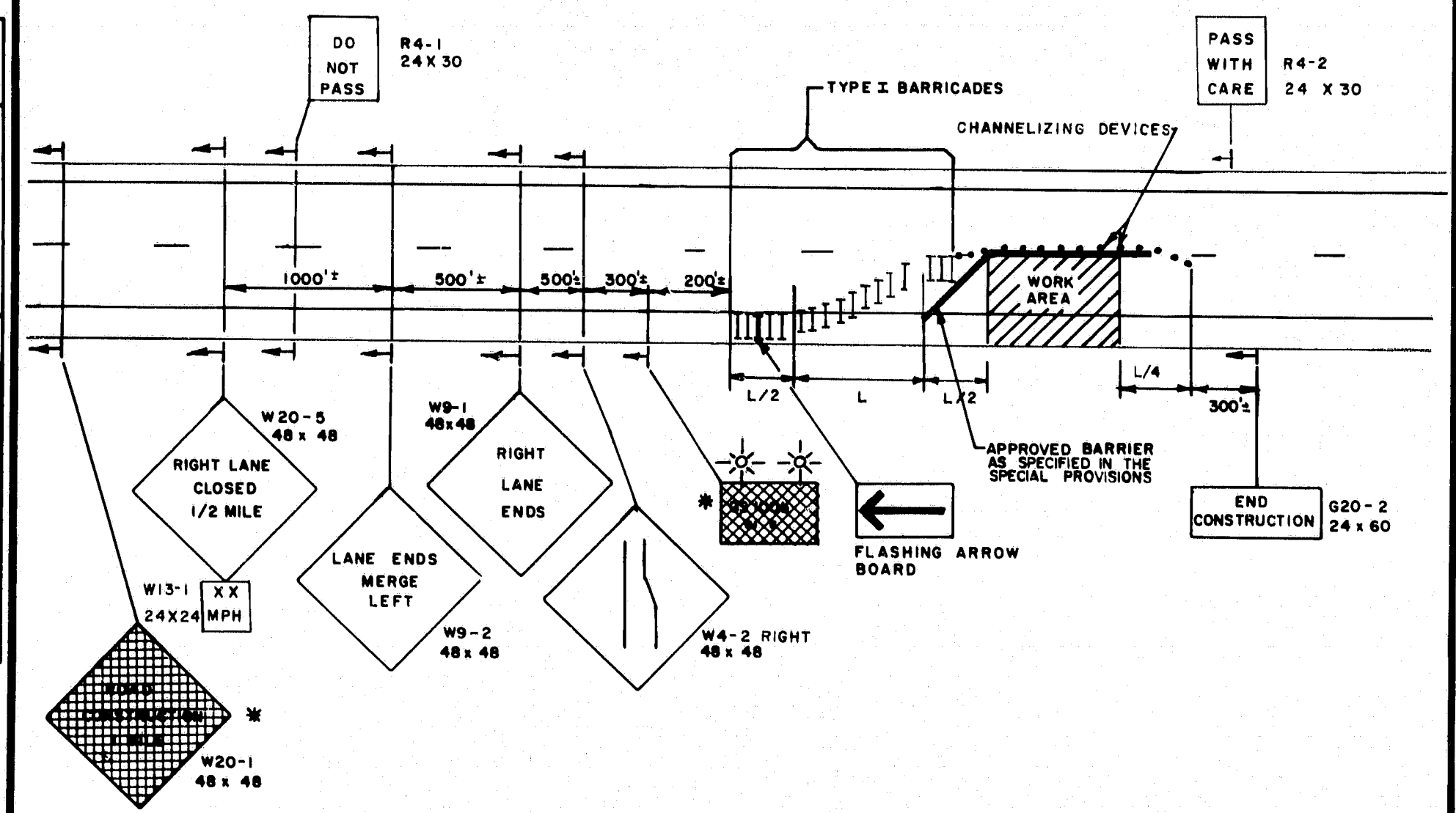
B



SHOULDER WORK - MOBILE

C

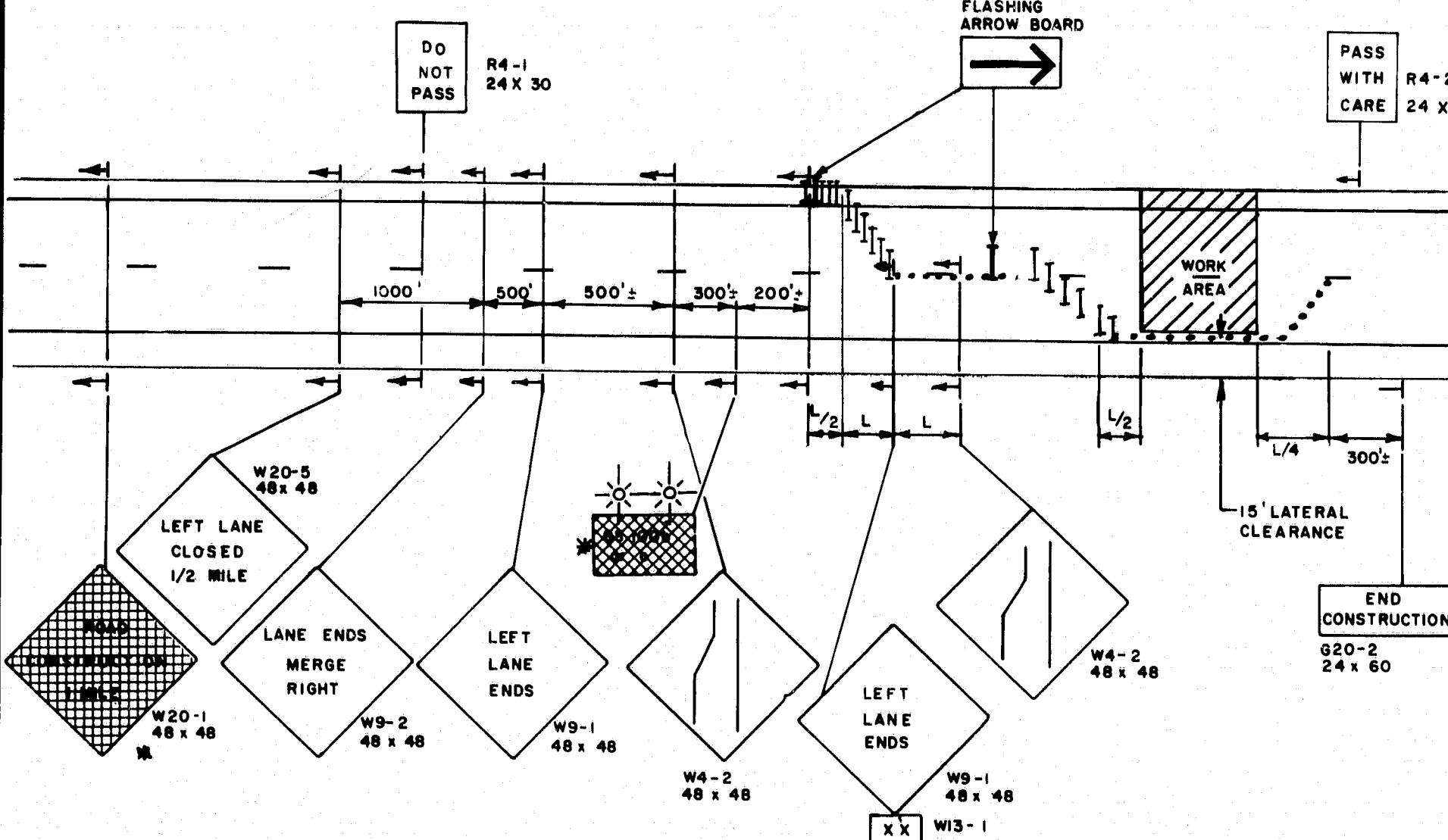
NOTE
* OMIT W20-1 AND GS-100B OR C IF LANE CLOSURE SIGNING ARRAY IS WITHIN PROJECT LIMITS.
ALTER PAVEMENT MARKINGS AS REQUIRED. MAINTAIN 15 FT LATERAL CLEARANCE.
USE SIMILAR SIGNING FOR LEFT LANE CLOSURE.



EXPRESSWAY LANE CLOSURE

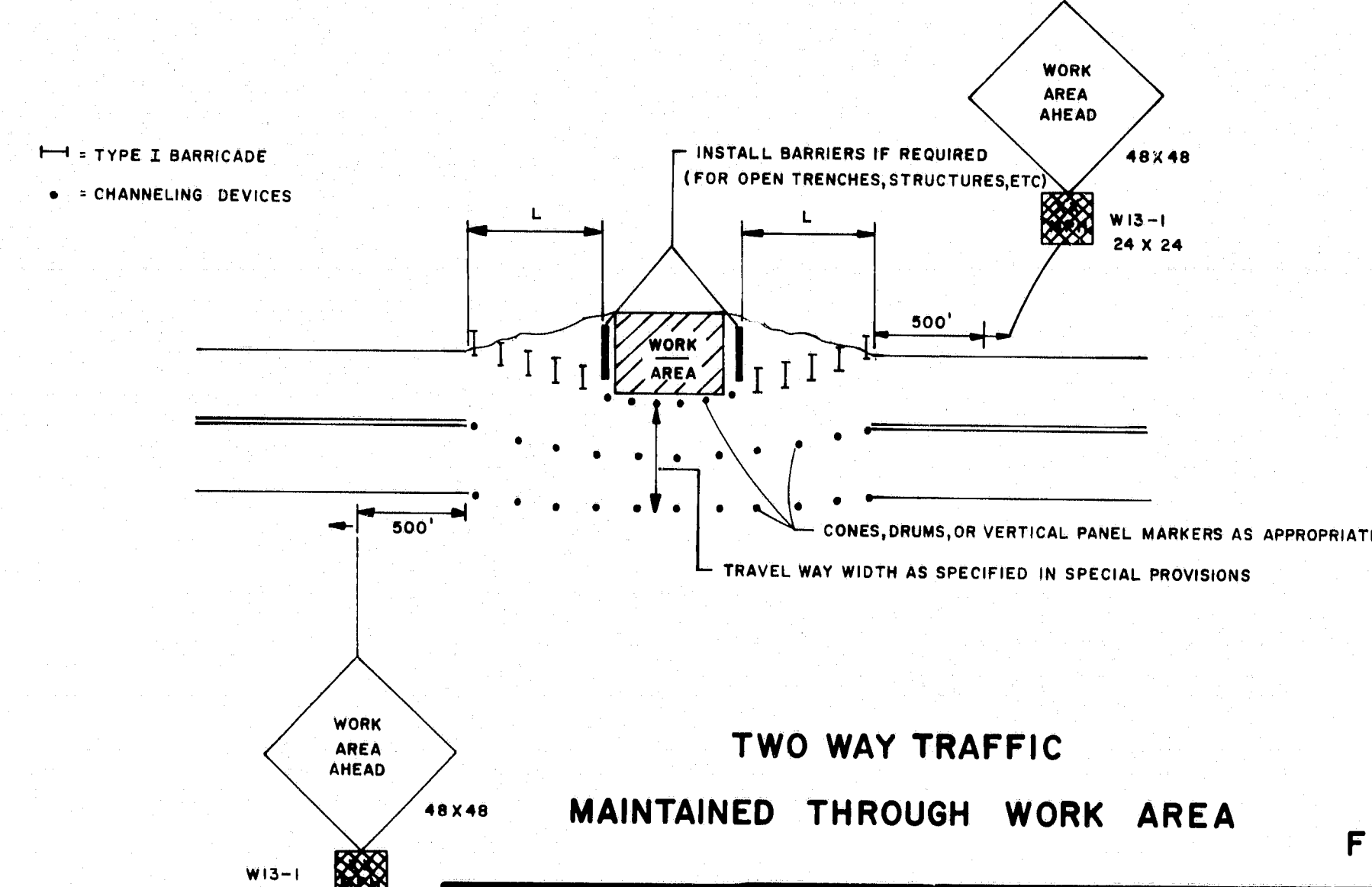
D

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.



TWO LANE CLOSURE - UTILIZING RIGHT SHOULDER

E



TWO WAY TRAFFIC
MAINTAINED THROUGH WORK AREA

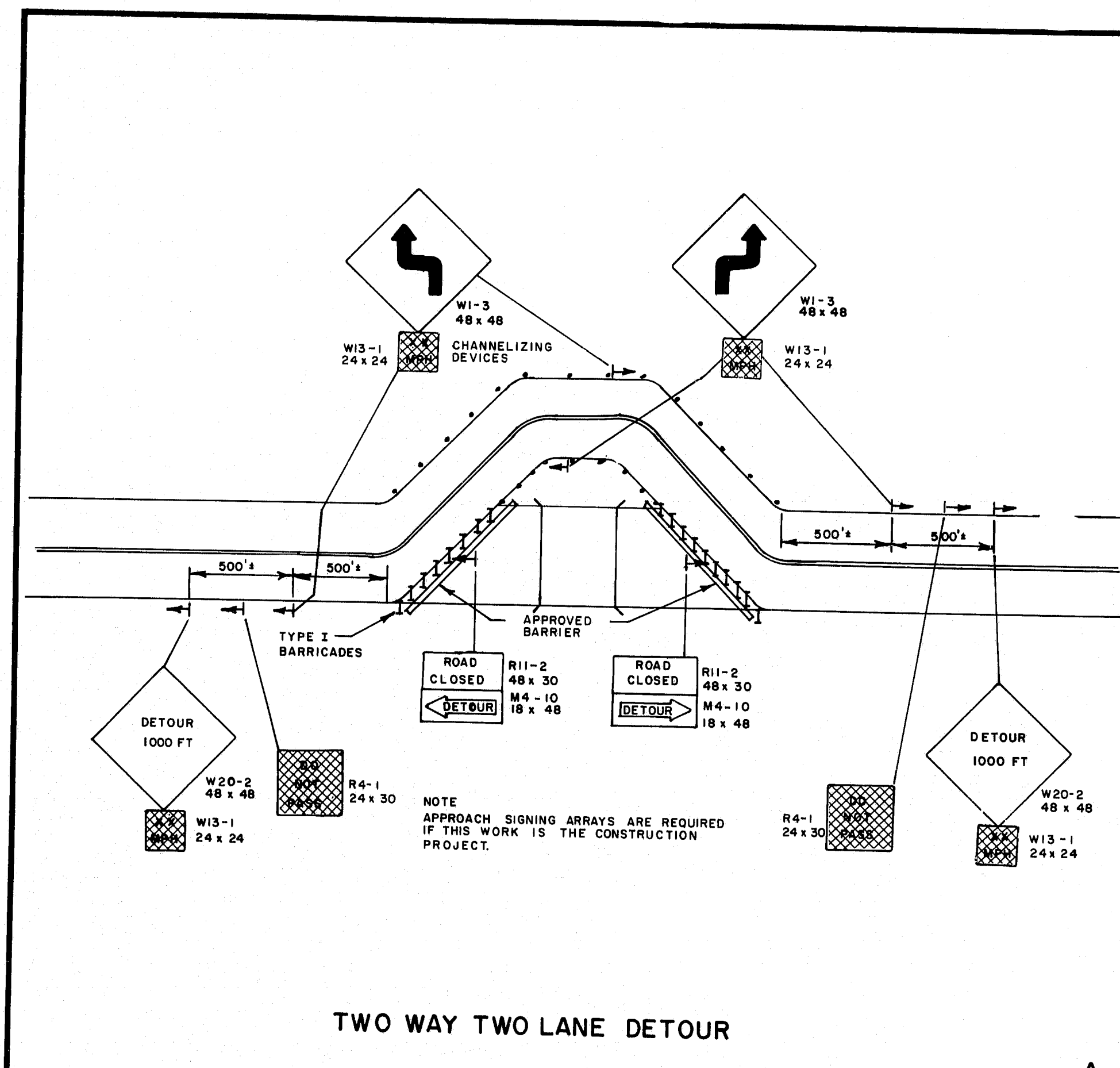
F

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

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

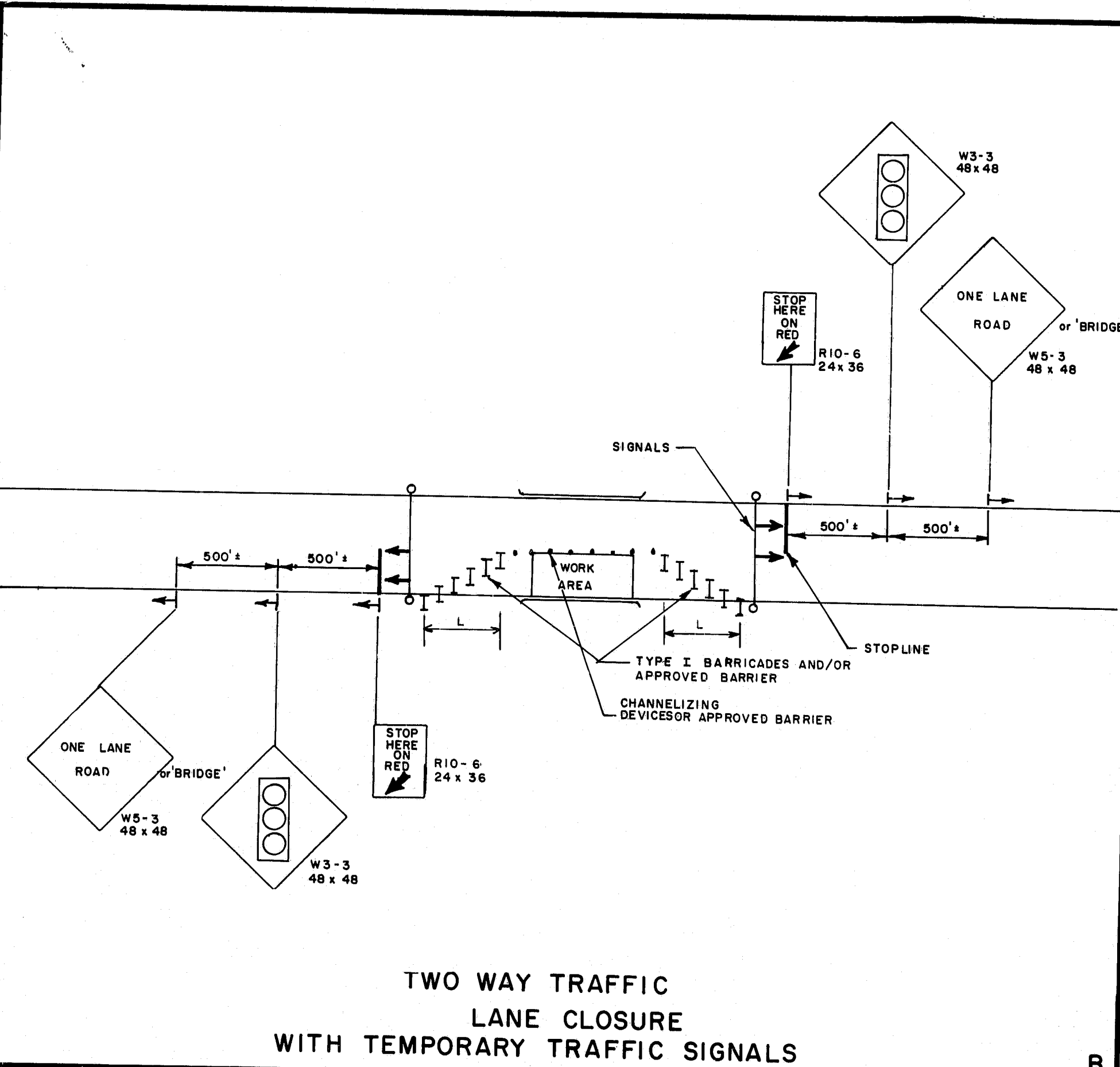
MAINTENANCE
OF
TRAFFIC
IN CONSTRUCTION ZONES

R93-87



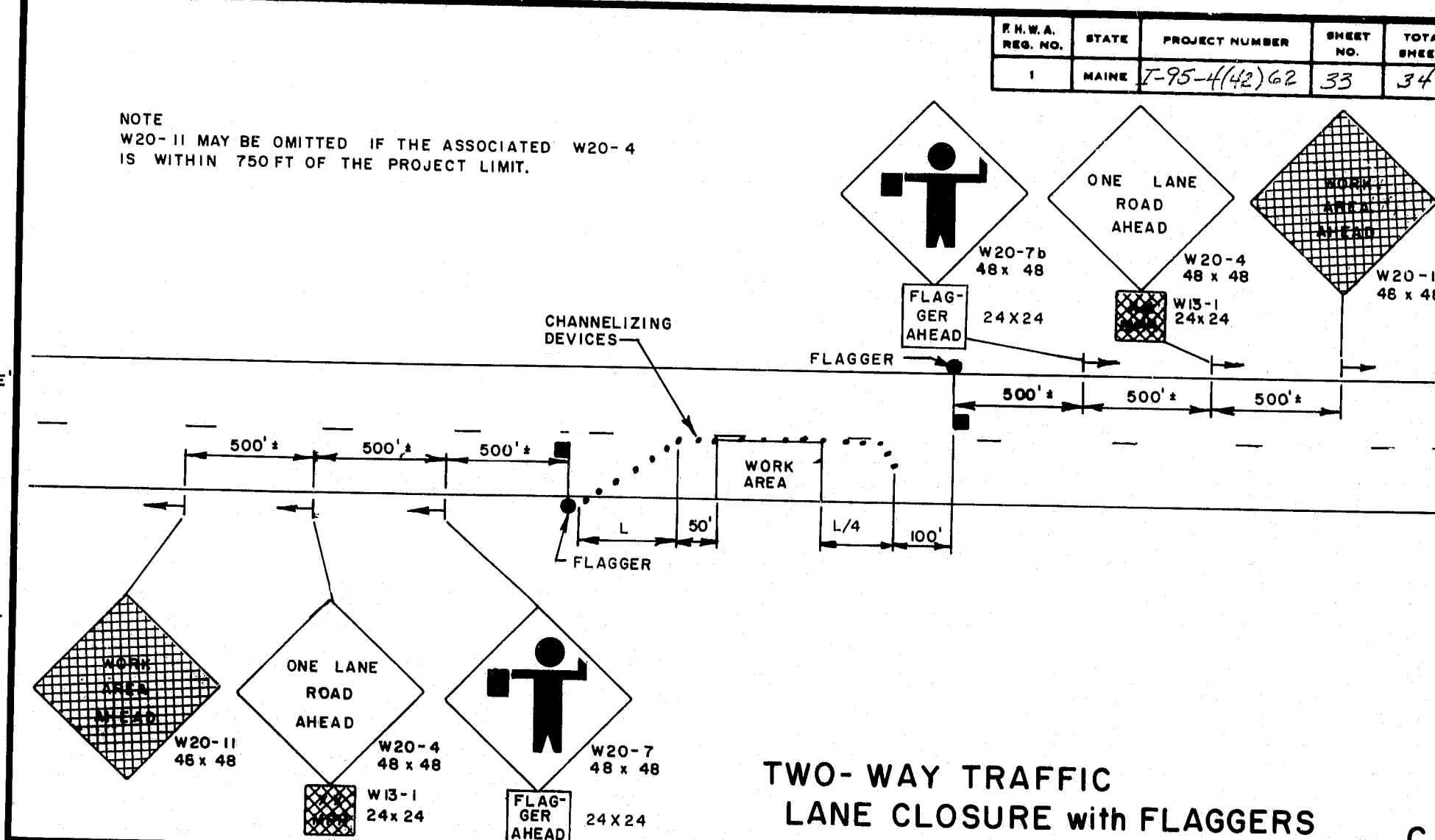
TWO WAY TWO LANE DETOUR

A



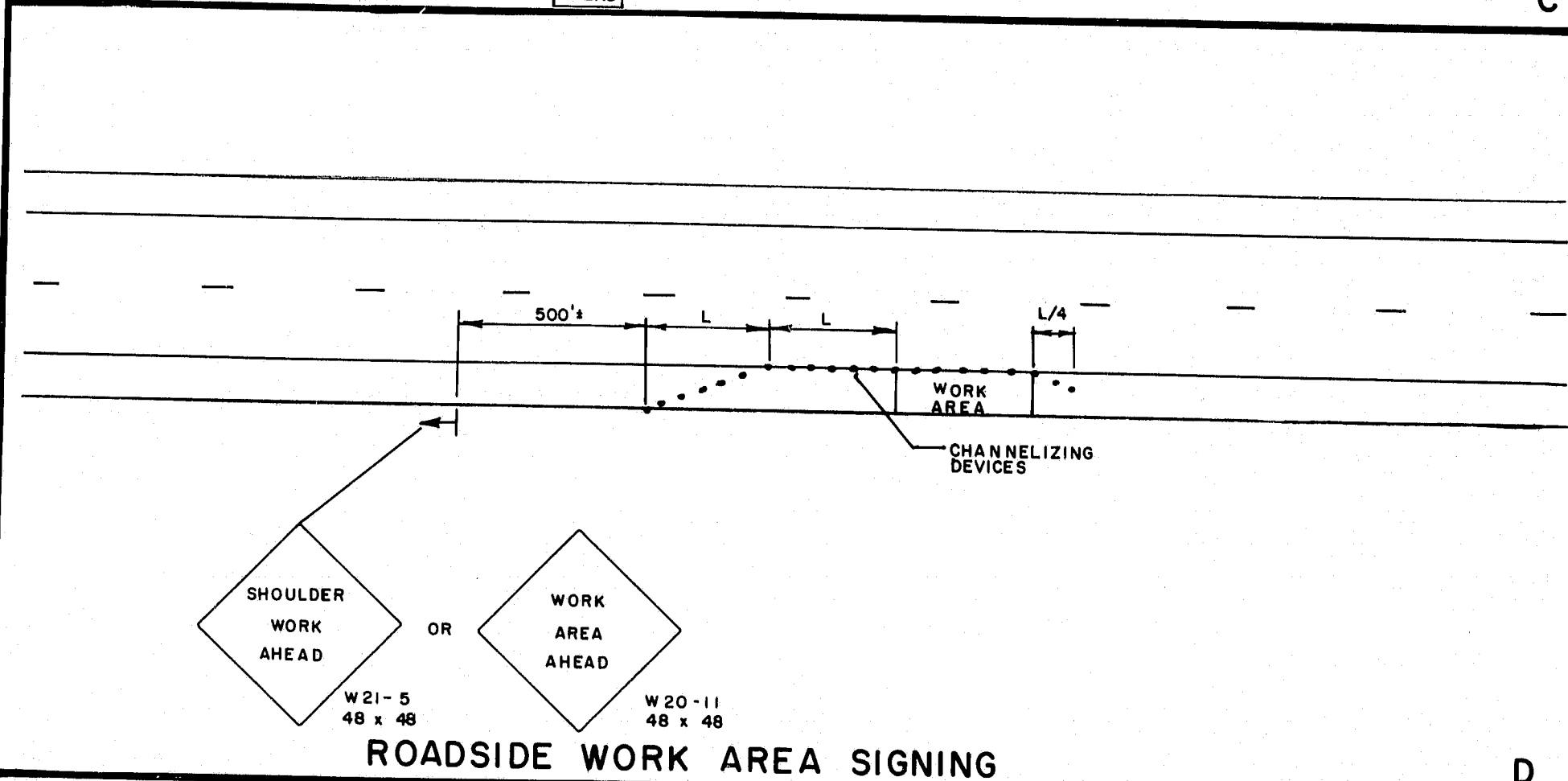
TWO WAY TRAFFIC LANE CLOSURE WITH TEMPORARY TRAFFIC SIGNALS

B



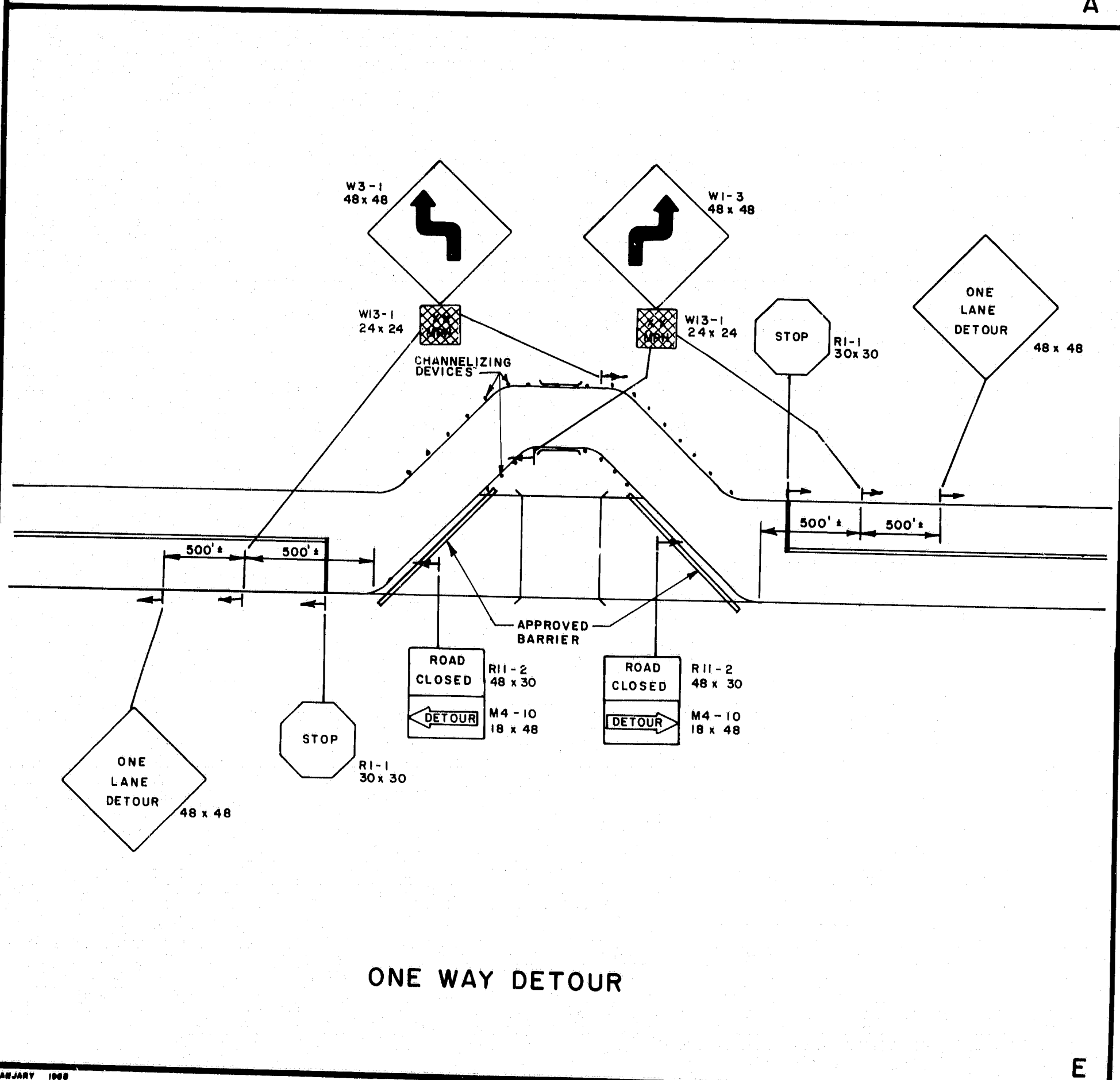
TWO-WAY TRAFFIC LANE CLOSURE with FLAGGERS

C



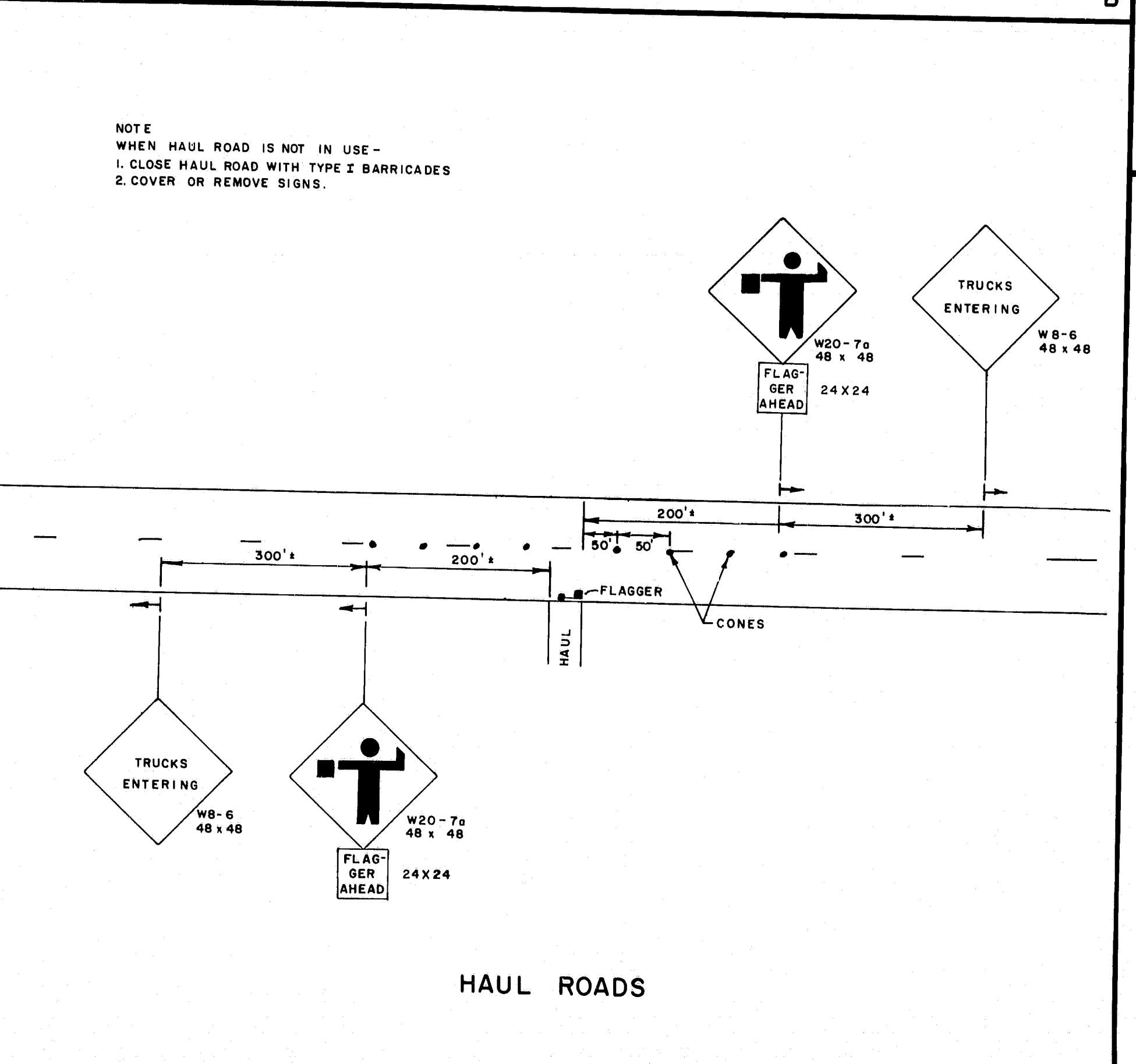
ROADSIDE WORK AREA SIGNING

D



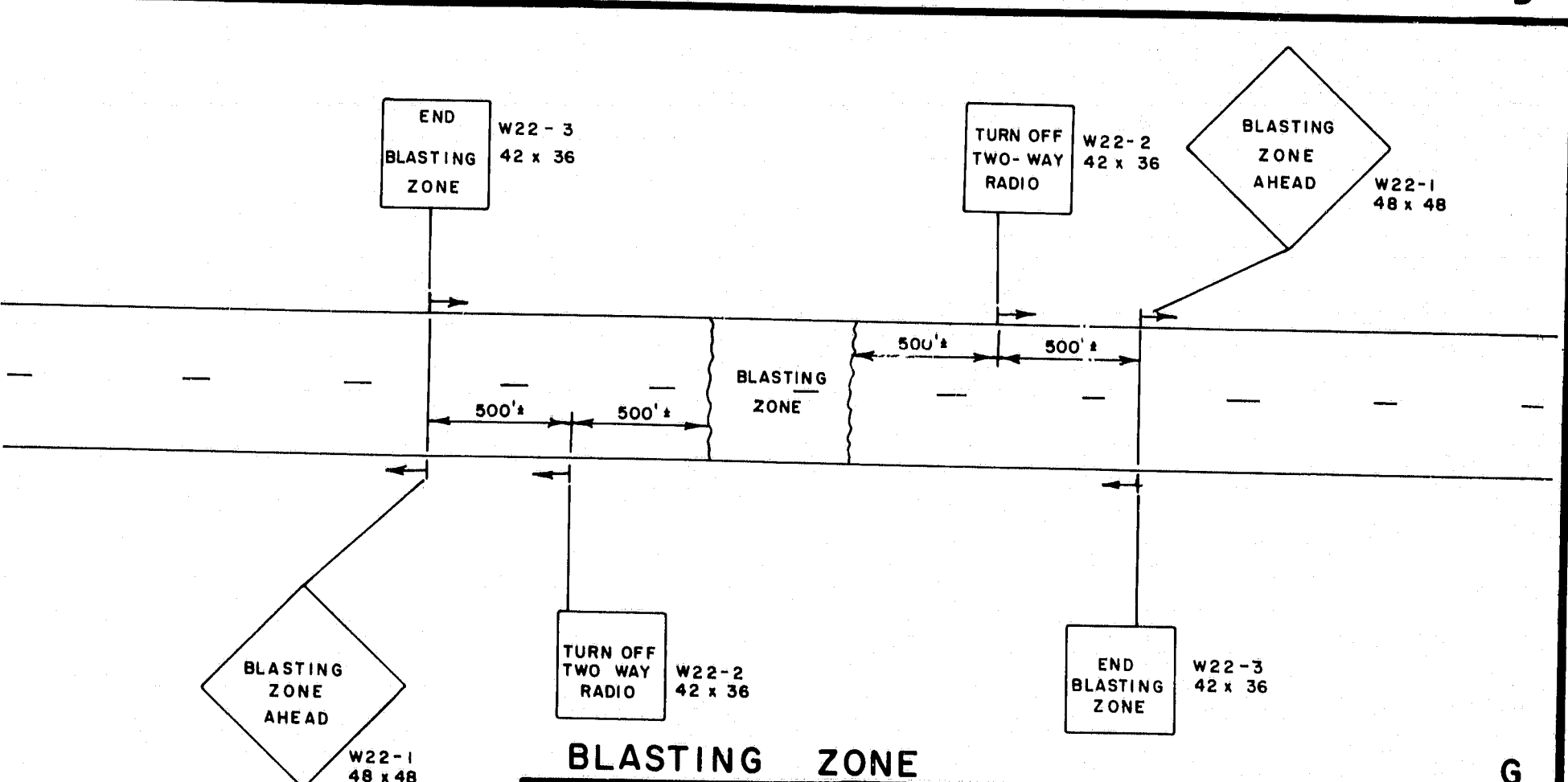
ONE WAY DETOUR

E



HAUL ROADS

F



BLASTING ZONE

G

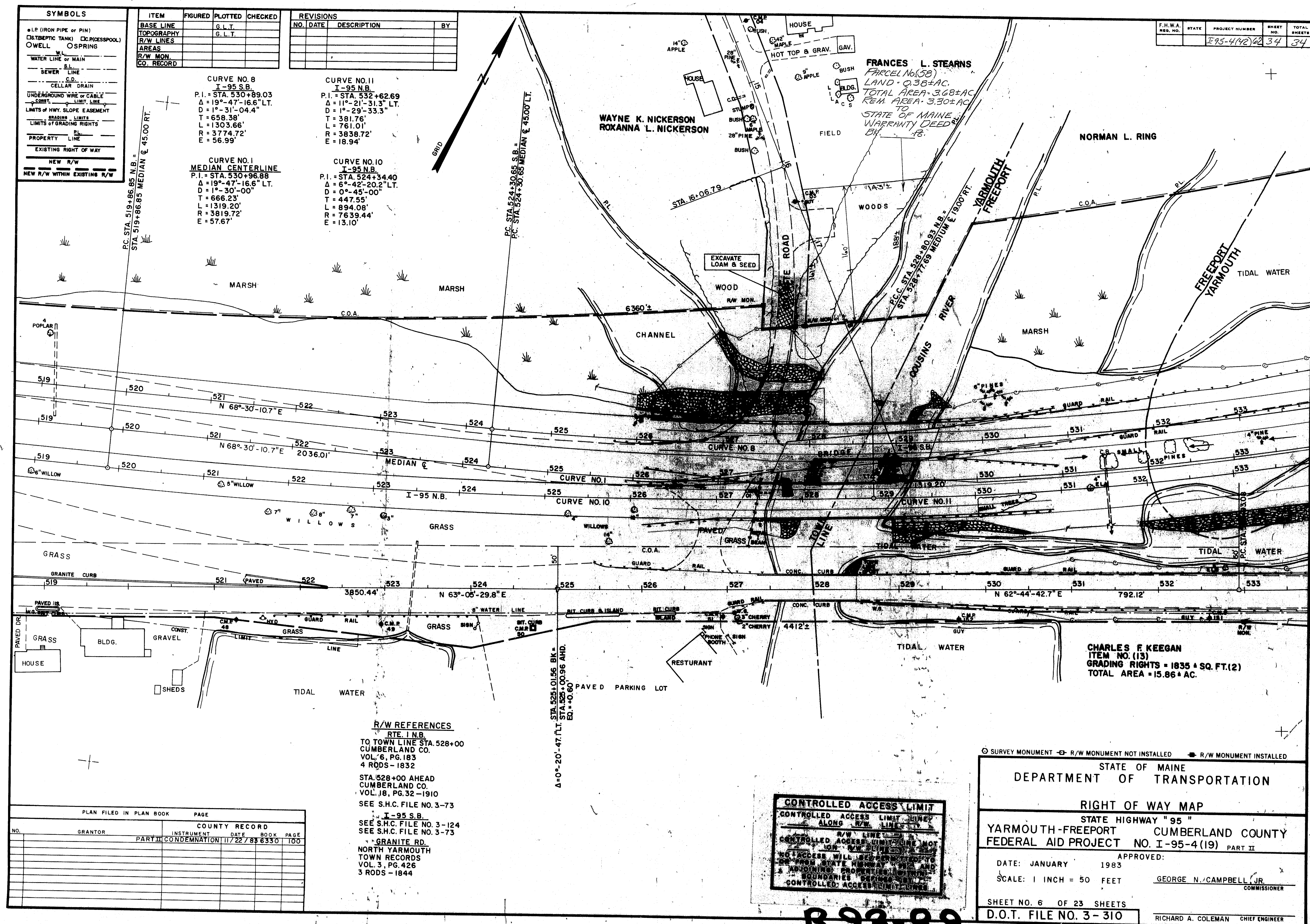
NOTE: SIMILAR SIGN SEQUENCE SHALL BE ERECTED ON ALL SIDE ROADS WITHIN 1000 FT OF THE BLASTING ZONE.

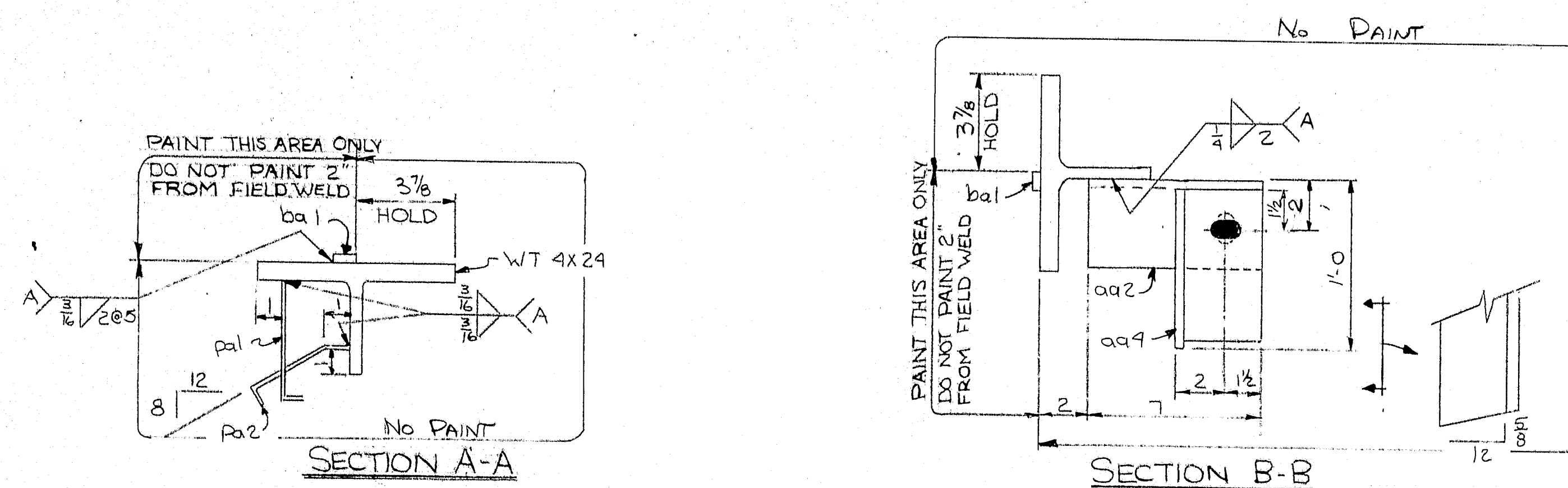
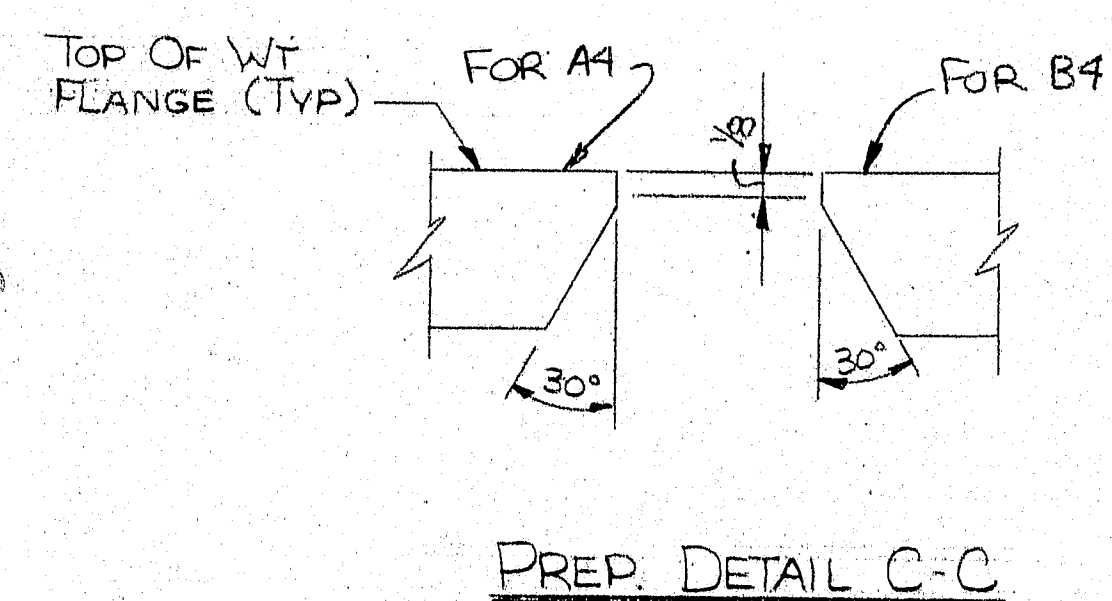
REVISIONS	DATE	BY	DESCRIPTION
4/3/80	PF	B, C, D	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE
OF
TRAFFIC
IN CONSTRUCTION ZONES

R93-88

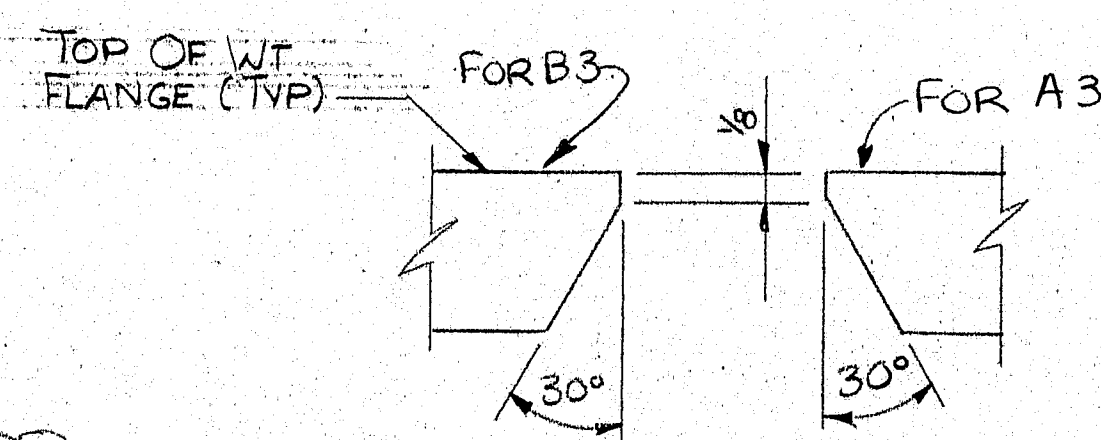




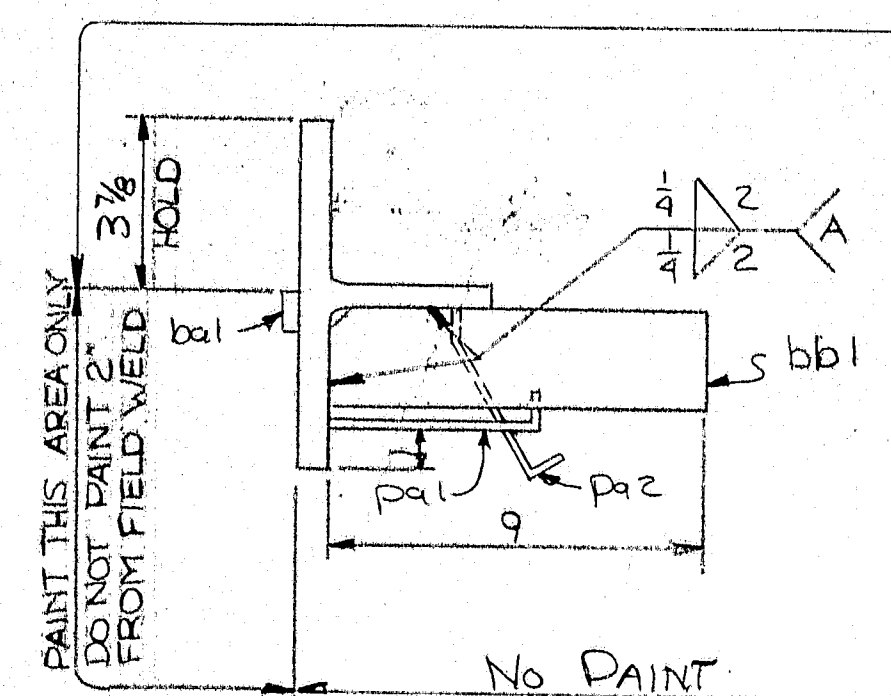
MATERIAL SCHEDULE											
SHIPPING MARK	NO. PCS.	SUB-ASSEM.	SHAPE	LENGTH		O OR S	CUT FROM		REMARKS	WT.	
				FT.	IN.		NO.	FT.			IN.
A4	1		WT 4 X 29	23	9 1/2	23556	1	25	0	B2E (639)	57
B4	1		DO	23	9 1/2	+	1	25	0	1 (637)	57
	19	ba1	BAR 1X3/8	1	0	CMPI	1	14	70		2
	24	pa1	BAR 1X1/4	0	8	CMPI				BEND 6/2	1
	24	pa2	BAR 1X1/4	0	9	1				BEND 6/2	1
	6	aa2	2 3 1/2 X 3 1/2 X 3/8	0	7	stk					36
	6	aa4	DO		11 1/2	stk					4
	6	SHGP	3/8 # A325	0	2	stk				W/NUTS & WASH	

Br. # 1138

R89-26



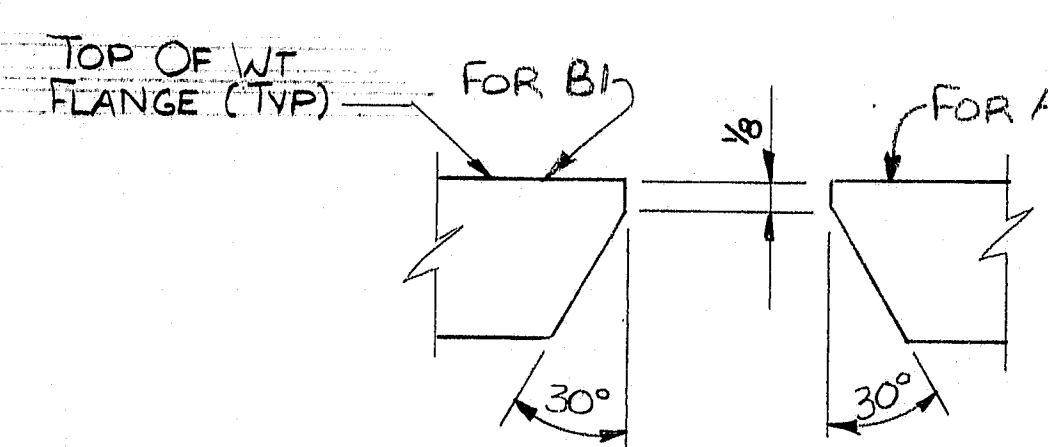
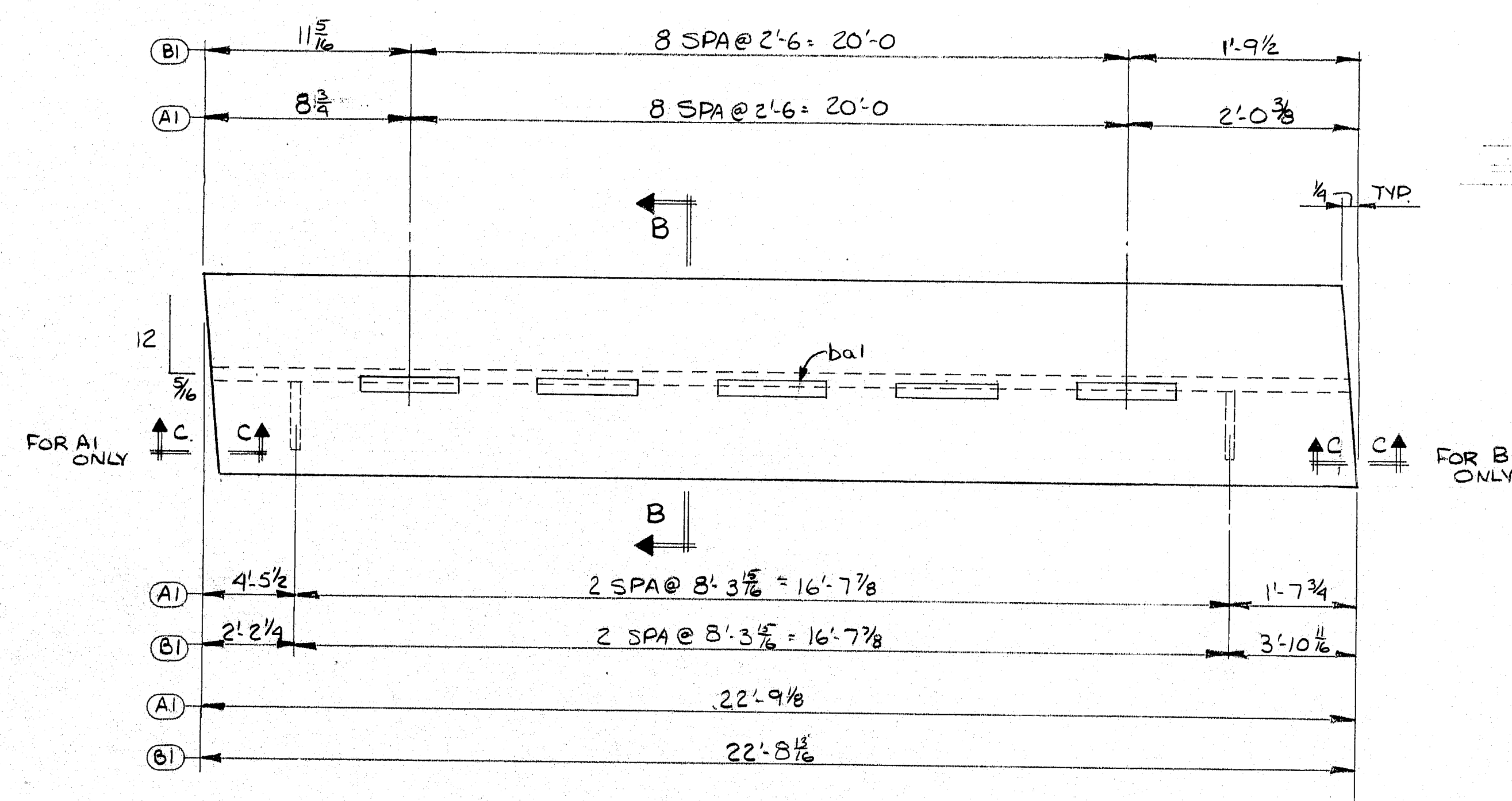
TOP OF WT
FLANGE (TYP)



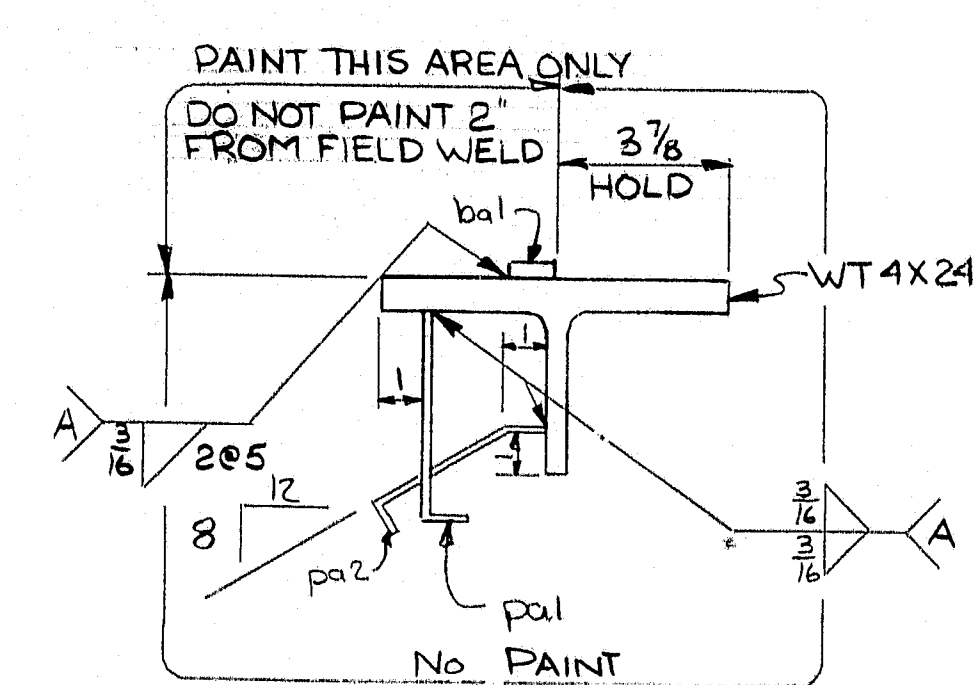
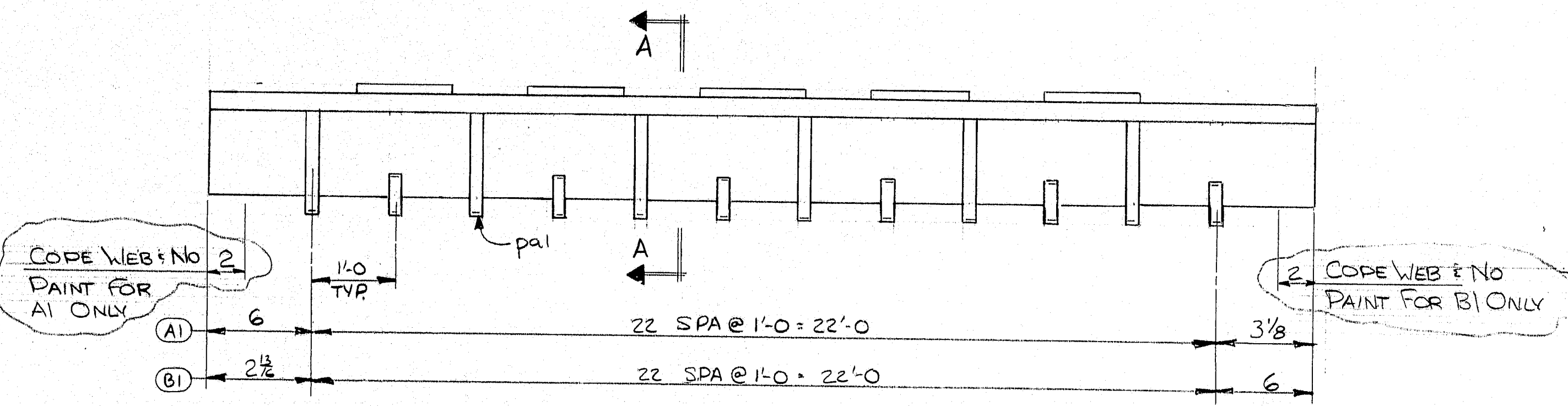
SECTION B-B

PRINT DISTRIBUTION	MATERIAL A3G	HOLES
FA 9-20-74	BOLTS	ELECTRODE WELD PROCEDURE
FA 9-27-89	SURFACE PREP SPG	REF. DWG.
SKJP 10-5	PRIMER 3 COATS OF BASIC LEAD SILICO CHROMATE	
	FINISH PAINT TO MEET SEC. 708.02 MOOT STD SPEC	
	4.0 MILS WET FILM EACH COAT UNO	
	MAINE-CASCADE IRON WORKS BAKER STREET, CLINTON, MAINE 04927 PHONE 207-428-2871	
	DESCRIPTION SOUTHBOUND BACKWALL	
	PROJECT COUSINS RIVER BRIDGE; I-95-4(42)62	
	LOCATION YARMOUTH-FREEPORT, MAINE	
	DESIGNER M.D.O.T.	
	CUSTOMER REED & REED	
REV. Δ		
CHK'D 7/17/90		
DRWN JHS 9-19-89	JOB NO. 8204	DWG. NO. 3
		REV. Δ

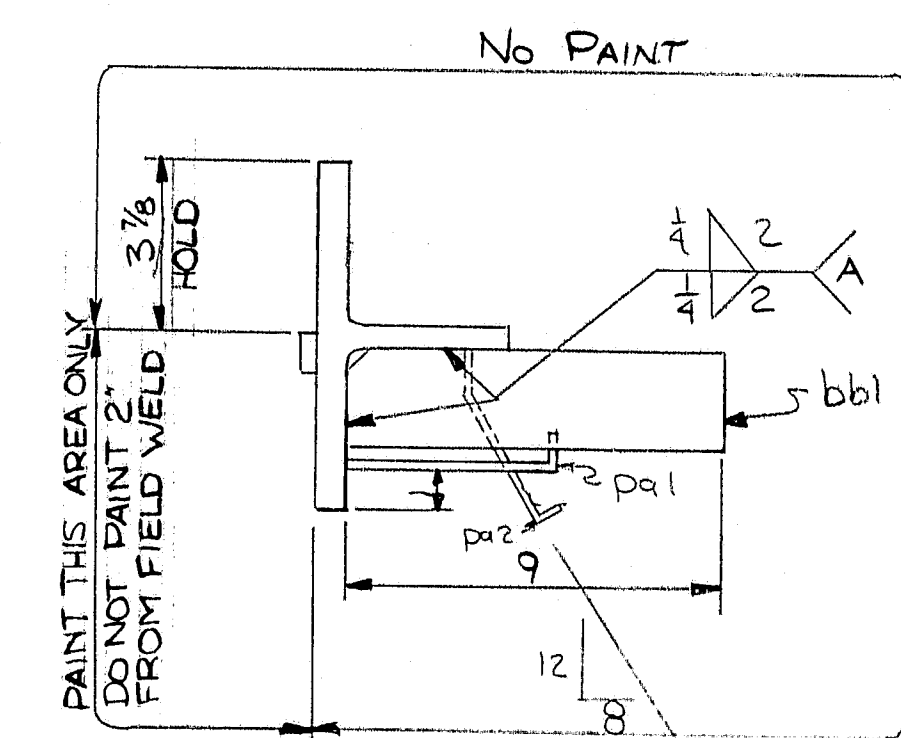
R89-27



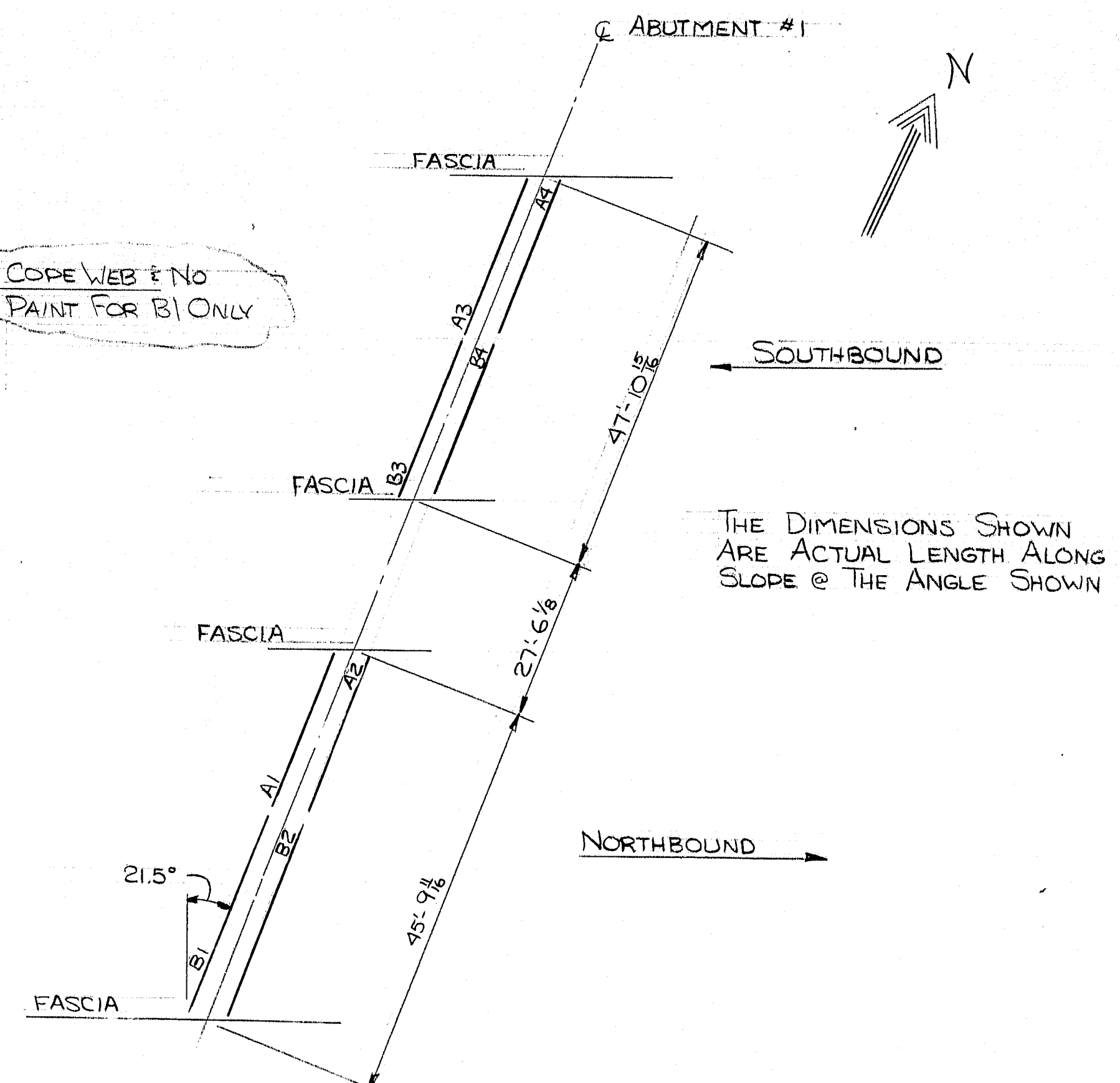
PREP DETAIL C-C



SECTION A-A



SECTION B-B



ERECTION DIAGRAM

MATERIAL SCHEDULE

SHIPPING MARK	NO. PCS.	SUB-ASSEM.	SHAPE	LENGTH	Q OR S	CUT FROM	REMARKS	WT.
A1	1		WT 4 X 24	22 9/16	3556	1 25 0	B2E	546
B1	1		DO	22 8 1/16			USE 1/2" 80	546
18	ba1		BAR 1 X 3/8	1 0	KMP	1 20 1		23
6	bb1		BAR 3 X 1/2	0 9	CMP	SHEAR		23
23	pa1		BAR 1 X 1/4	0 8	STK		BEND 21 6	13
23	pa2		BAR 1 X 1/4	0 9	STK		BEND 6 1	15
NORTH BOUND								
C1	1		COMP SEAL	46 1 1/16	2366	Ship	WATSON BOWMAN WA 300	
SOUTH BOUND								
D1	1		COMP SEAL	48 2 1/16	2366	Ship	WATSON BOWMAN WA 300	

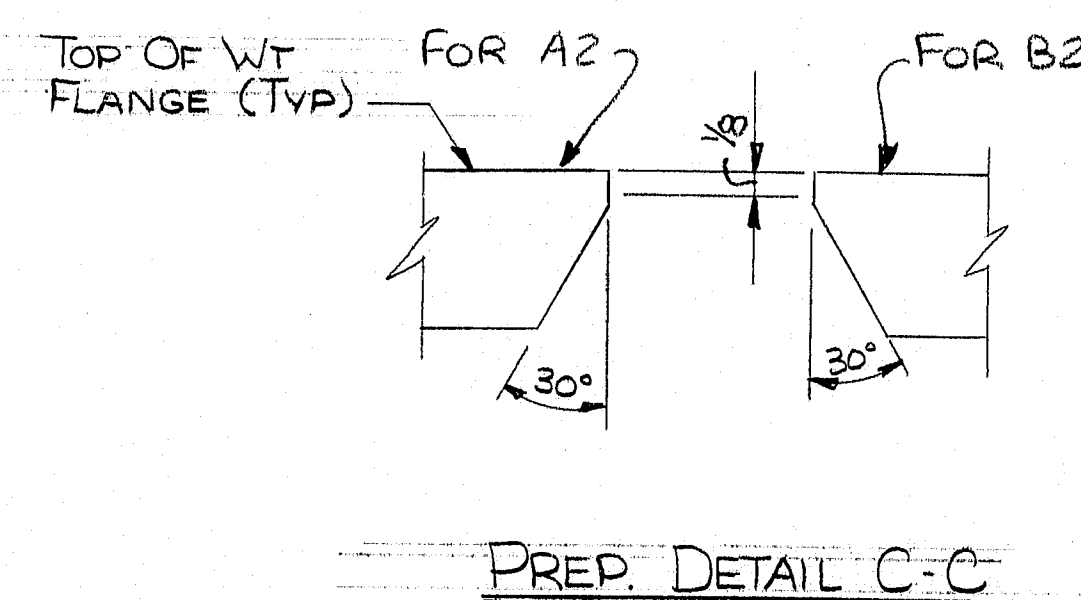
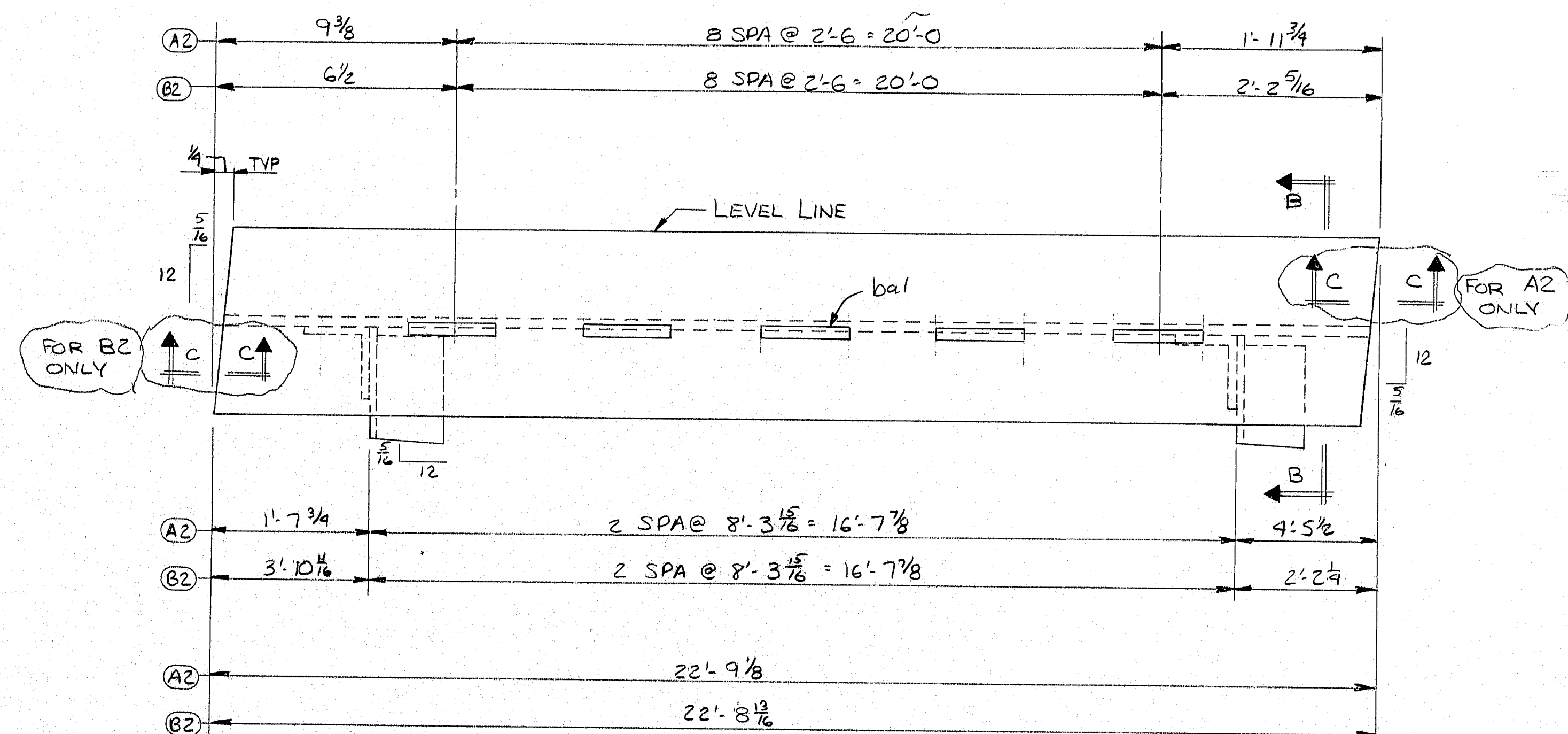
MIN. MOVEMENT = 1.25
JOINT OPENING @ 45° = 1 1/2"

WELDING PROCEDURES
"A" = FC-12F-03PA, SM-2F-01P; FC-12F-04PA

PRINT DISTRIBUTION		MATERIAL A36		TOTAL WEIGHT 1146	
30 FA	9-20-78	BOLTS		HOLES	
88 FA	9-27-84	SURFACE PREP SP6		ELECTRODE WELD PROCEDURES	
1540	10-5	PRIMER 3 COATS OF BASIC LEAD SILICO CHROMATE		REF. DWG.	
		FINISH PAINT TO MEET SEC. 708.02 MDOT STD. SPEC.			
		4.0 MILS WET FILM EACH COAT UNO			
		MAINE-CASCADE IRON WORKS			
		BAKER STREET, CLINTON, MAINE 04927			
		PHONE 207-426-2871			
		DESCRIPTION NORTHBOUND BACKWALL & ERECTION DIAGRAM			
		PROJECT COUSINS RIVER BRIDGE ; I-95-4(42)62			
		LOCATION YARMOUTH - FREEPORT , MAINE			
		DESIGNER M.D.O.T.			
		CUSTOMER REED & REED			
REV Δ		JOB NO. 8204		DWG. NO. 1	
CHK'D	TK 9/20/78			REV. Δ	
DRWN	JHS 9-18-84				

Br. # 1137

R89-28



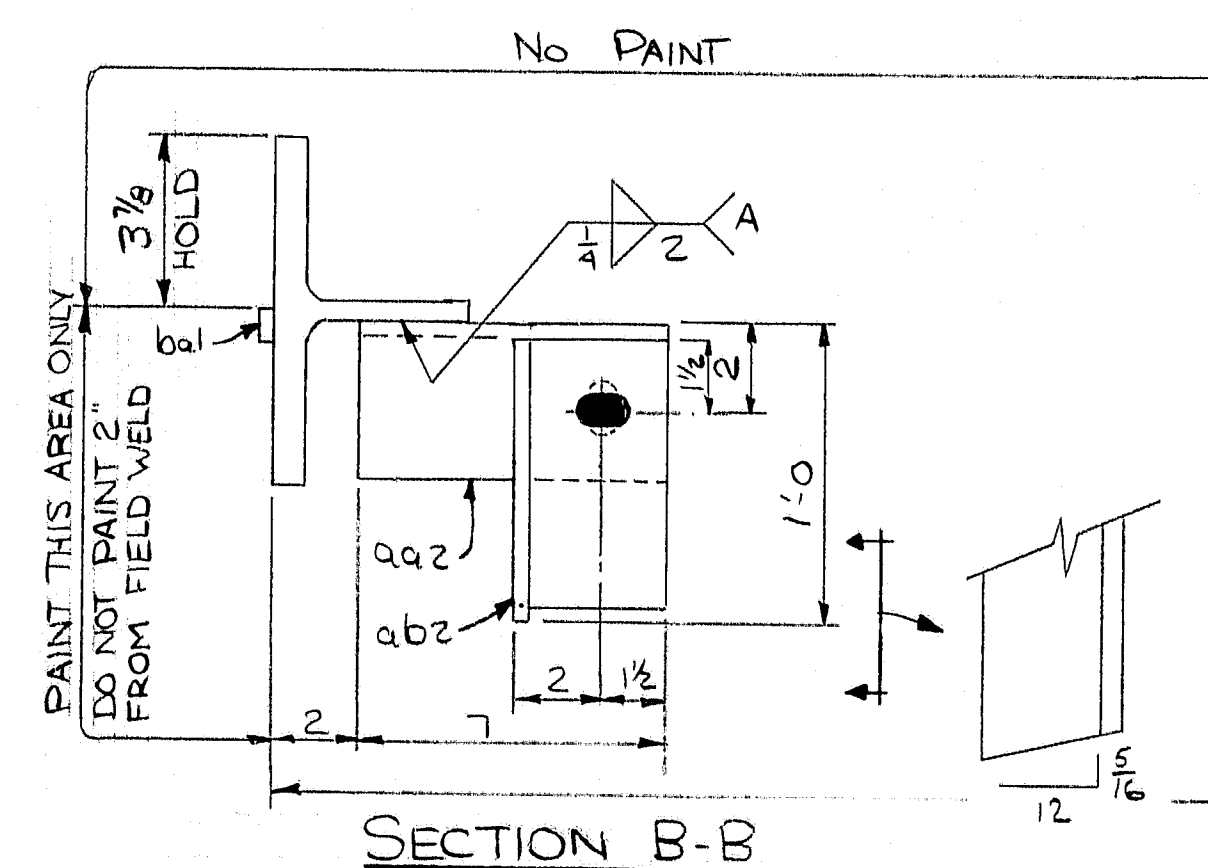
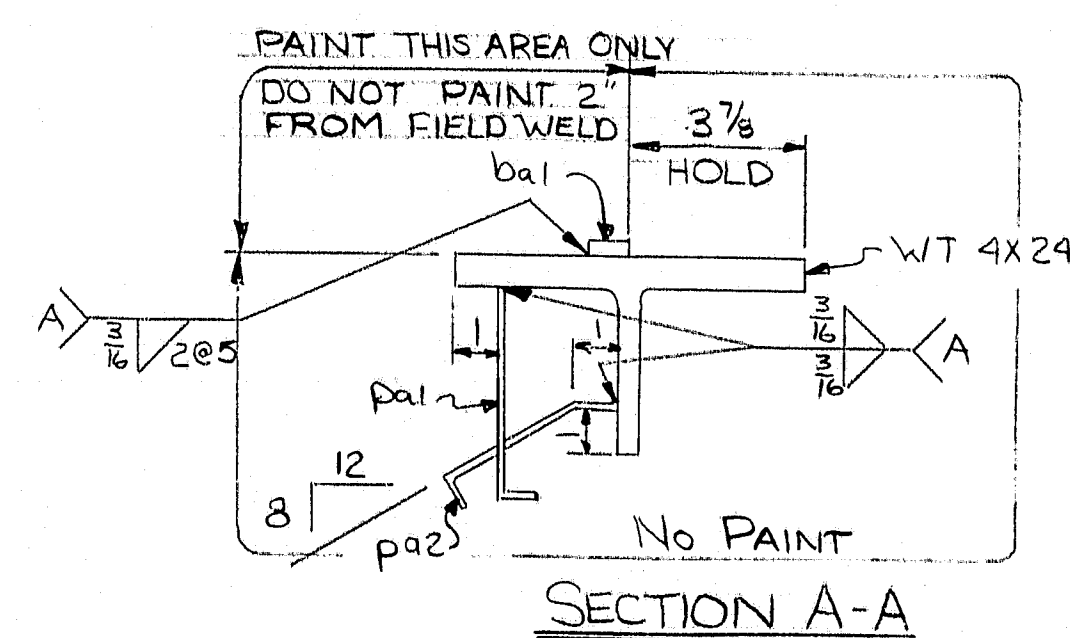
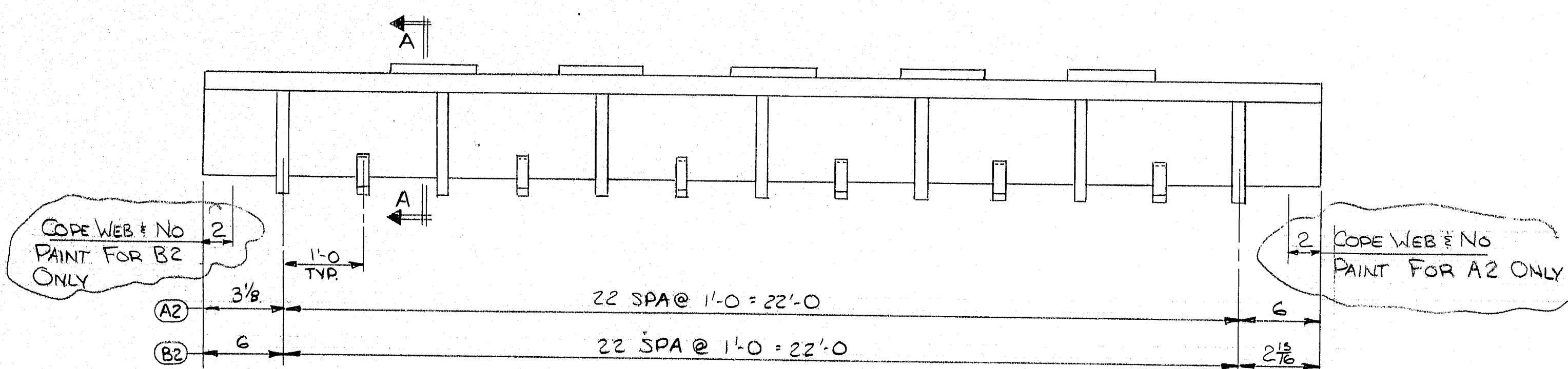
MATERIAL SCHEDULE

SHIPPING MARK	NO. POS.	SUB-ASSEM.	SHAPE	LENGTH FT. IN.	O OR S	CUT FROM NO. FT. IN.	REMARKS	WT.
A2	1		WT 4X24	22 9 7/8	13556	1 25 0	B2E (611)	544
B2	1		DO	22 8 1/2	1	1	(611)	544
18	ba1		BAR 1X3/8	1 0	OWN			23
23	pa1		BAR 1X1/4	0 8	STR		BEND 6/12	13
22	pa2		BAR 1X1/4	0 9	STR		BEND 21	14
6	aa2		2 3/8 X 3 1/2 X 3/8	0 7	STR	1 0		30
6	ab2		DO	0 11 1/2	1	1		49
6	SHOP		1/8" A325	0 2	SHA	1/8" 3/4"	W/NUTS + WASH	

WELDING PROCEDURES
 "A" = FC-12F-03PA; SM-2F-01P; FC-2F-04PA

TOTAL WEIGHT 1321

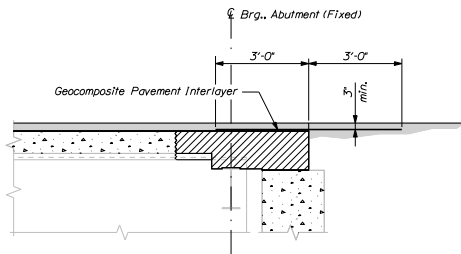
PRINT DISTRIBUTION	MATERIAL A36	HOLES 5/8" X 2 SLOTS
FA 9-20-89	BOLTS A 325	ELECTRODE WELD PROCEDURES
FA 9-27-89	SURFACE PREP SP6	REF. DWG.
SP6 10-5	PRIMER 3 COATS OF BASIC LEAD SILICO CHROMATE	
	FINISH PAINT TO MEET SEC 708.02 MDOT STD. SPEC.	
	4.0 MILS WET FILM EACH COAT UNO	
	MAINE-CASCADE IRON WORKS	
	BAKER STREET, CLINTON, MAINE 04927	
	PHONE 207-428-2871	
	DESCRIPTION NORTHBOUND SUPERSTRUCTURE	
	PROJECT COUSINS RIVER BRIDGE - I-95-4(42)62	
	LOCATION YARMOUTH-FREEPORT, MAINE	
	DESIGNER MDOT	
	CUSTOMER REED & REED	
REV. A	JAS 9-18-84	JOB NO. 8204
CHK'D	JAS 9-18-84	DWG. NO. 2
DRWN	JAS 9-18-84	REV. A



R89-29

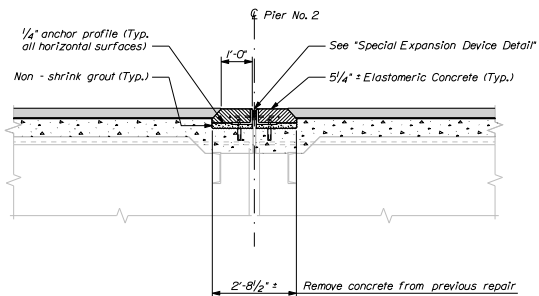
ITEM NO.	DESCRIPTION	ESTIMATED BRIDGE QUANTITIES						UNIT
		Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	
		Presumpscot River Bridge No. 5828	Route 88 Bridge No. 5832	Royal River Bridge No. 5834	U.S. Route 1 Bridge No. 5833	Cousins River Bridge No. 1137	Total	
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES	--	--	--	--	--	1	LS
518.50	REPAIR OF UPWARD FACING SURFACE TO RESTEEL	25	25	25	25	25	125	SF
518.61	REPAIR OF UPWARD FACING SURFACE TO BELOW RESTEEL	10	10	10	10	10	50	SF
518.60	REPAIR OF VERTICAL SURFACES < 7.9 IN.	10	10	10	10	10	50	SF
518.61	REPAIR OF VERTICAL SURFACES > 7.9 IN.	3	3	3	3	3	15	CY
520.24	BRIDGE JOINT MODIFICATION	--	1	--	--	--	1	EA
520.241	BRIDGE JOINT MODIFICATION TYPE 1	1	1	1	2	1	6	EA
520.242	BRIDGE JOINT MODIFICATION TYPE 2	1	--	--	--	--	1	EA
520.243	BRIDGE JOINT MODIFICATION TYPE 3	--	--	1	--	--	1	EA
520.26	LONGITUDINAL BRIDGE JOINT MODIFICATION	5	2	2	2	2	13	LF
526.34	PERMANENT CONCRETE TRANSITION BARRIER	4	4	4	4	4	20	EA
606.1721	BRIDGE TRANSITION - TYPE 1	4	4	4	4	4	20	EA

Notes: Estimated Quantities for each bridge are provided here for reference purposes only.



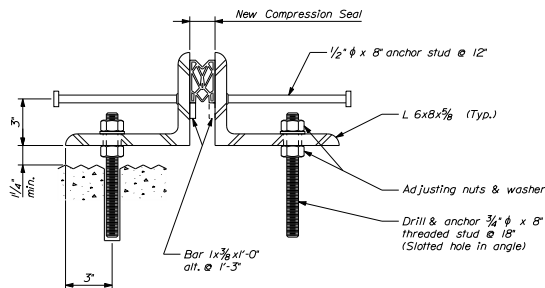
COMPOSITE PAVEMENT INTERLAYER

Typical of all existing or reconstructed slab - over - backwall locations



BRIDGE JOINT MODIFICATION

For use at I-295 N.B. over Route 88, Pier No. 2



SPECIAL EXPANSION DEVICE DETAIL

INDEX OF BRIDGE DRAWINGS

Estimated Bridge Quantities & General Construction Notes	1
I-295 N.B. over Presumpscot River (5828) and Route 88 (5832)	2
I-295 N.B. over Royal River (5834) and U.S. Route 1 (5833)	3
I-295 N.B. over Cousins River (1137)	4
Typical Transition Barriers	5
Cousins River Transition Barriers	6
Typical Details	7

MATERIALS

Concrete (Unless noted otherwise)	Class 'A'
Concrete (Curbs & Transition Barriers)	Class 'LP'
Reinforcing Steel	ASTM A 615/A 615M, Grade 60
Structural Steel; All Material	ASTM A 36/A 36M

BASIC DESIGN STRESSES

Concrete	f'c = 4,350 psi
Reinforcing Steel	fy = 60,000 psi

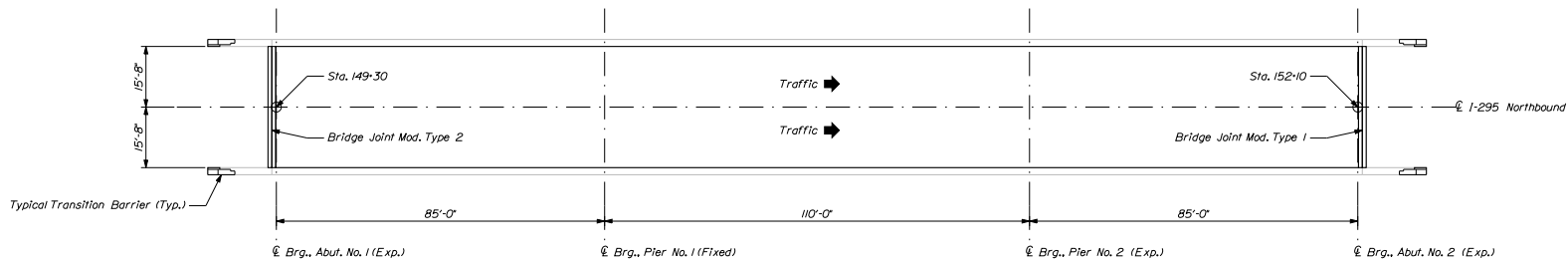
MAINTENANCE OF TRAFFIC

The Contractor shall coordinate all maintenance of traffic with the Highway Contractor.

GENERAL CONSTRUCTION NOTES

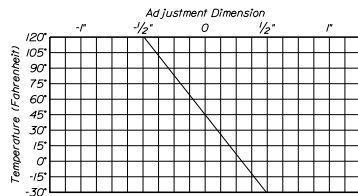
- Bidders and Contractors may obtain a copy of the existing bridge plans by faxing a Request for Information to the Bid Contact Person. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.
- All dimensions based on or relating to the existing bridges shall be verified in the field by the Contractor, i.e., existing joint opening, joint length and backwall width.
- Payment for removing concrete end posts will be considered incidental to related Contract items.
- Reinforcing Steel Schedules will be the responsibility of the Contractor. Refer to Subsection 503.03 of the Standard Specifications for more information. Payment for all work associated with developing reinforcing steel schedules will be considered incidental to related Contract items.
- Granite curb salvaged from the project site will be substituted for Terminal Curb Type 2 where available. Payment for reuse of granite curb or for Terminal Curb Type 2 will be considered incidental to Item No. 526.34, Concrete Transition Barrier.
- Protective Coating for Concrete Surfaces shall be applied to the following areas of new concrete:
All exposed surfaces of concrete curbs,
Fascias down to the drip notch,
All exposed surfaces of Concrete Transition Barriers,
12 inches below the top of backwalls on the back side.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		IN-1677(40)JE		PIN 1677A00		BRIDGE PLANS	
As Noted		SIGNATURE		P.L. NUMBER		DATE	
INTERSTATE 295 NORTHBOUND BRIDGE WEARING SURFACE REHABILITATION FALMOUTH TO FREEPORT		ESTIMATED BRIDGE QUANTITIES & GENERAL CONSTRUCTION NOTES		SHEET NUMBER		1	
						OF 7	

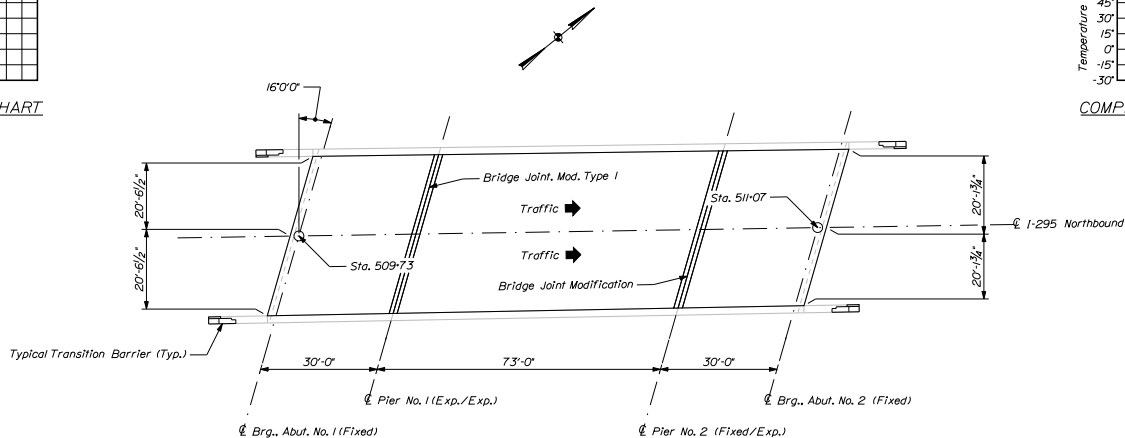


INTERSTATE 295 NORTHBOUND OVER PRESUMPCOT RIVER
Falmouth ~ Bridge No. 5828

Remove existing pavement and membrane
Install High Performance Waterproofing Membrane
Place Hot Mix Asphalt Pavement equal to the depth of the existing pavement

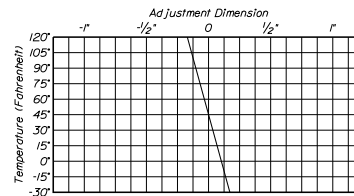


COMPRESSION SEAL ADJUSTMENT CHART
I-295 N.B. over Presumpscot River ~ Pier No. 2

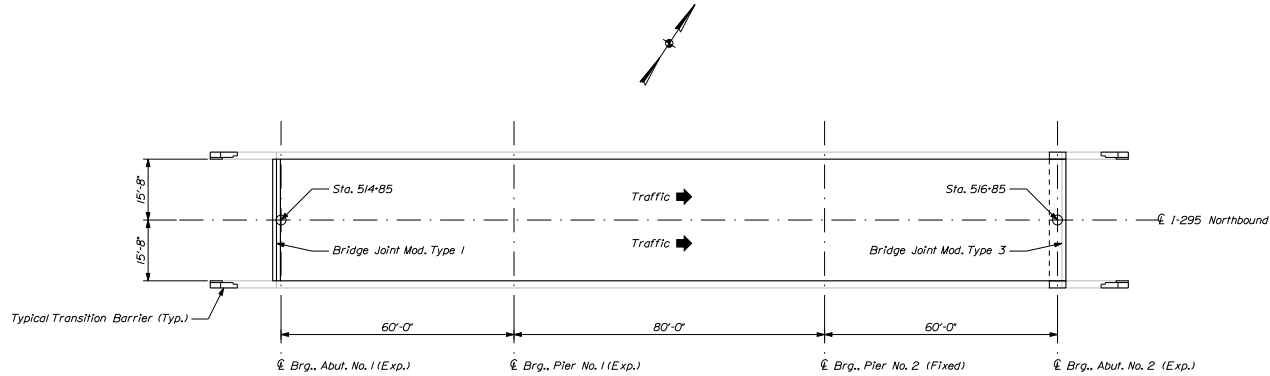


INTERSTATE 295 NORTHBOUND OVER ROUTE 88
Yarmouth ~ Bridge No. 5832

Remove existing pavement and membrane
Install High Performance Waterproofing Membrane
Place Hot Mix Asphalt Pavement equal to the depth of the existing pavement

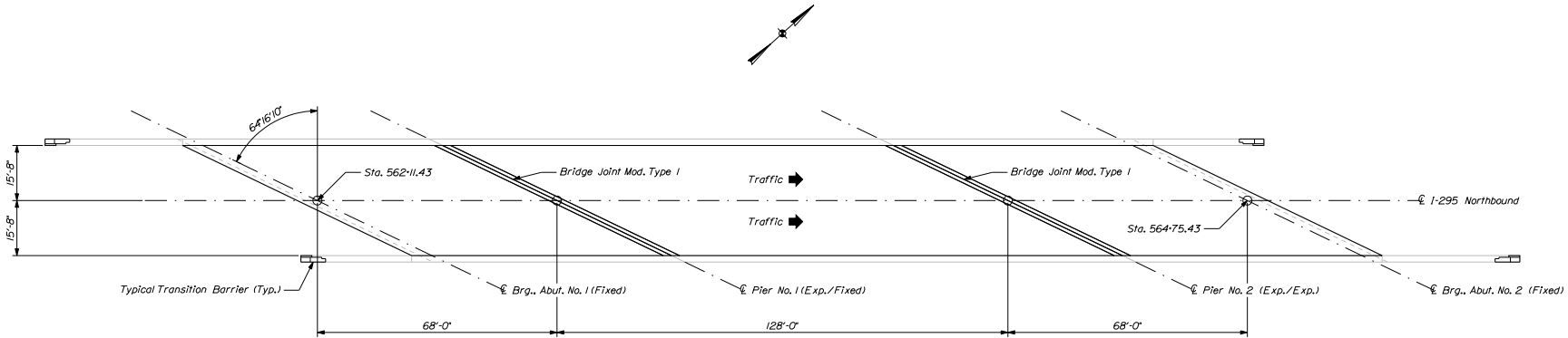


COMPRESSION SEAL ADJUSTMENT CHART
I-295 N.B. over Route 88 ~ Pier No. 2



INTERSTATE 295 NORTHBOUND OVER ROYAL RIVER
Yarmouth ~ Bridge No. 5834

Remove existing pavement and membrane
Install High Performance Waterproofing Membrane
Place Hot Mix Asphalt Pavement equal to the depth of the existing pavement



INTERSTATE 295 NORTHBOUND OVER U.S. ROUTE 1
Yarmouth ~ Bridge No. 5833

Remove existing pavement and membrane
Install High Performance Waterproofing Membrane
Place Hot Mix Asphalt Pavement equal to the depth of the existing pavement

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1677(400)E

PIN
BRIDGE NO. 5834 & 5833 16774.00 BRIDGE PLANS



SIGNATURE

P.L. NUMBER

DATE

PROJ. MANAGER	DATE	BY
DESIGN DETAIL	DESIGN	D. Darren
DESIGN DETAIL	DESIGN	D. Darren
DESIGN DETAIL	DESIGN	D. Darren
REVISIONS 1	REVISIONS 1	REVISIONS 1
REVISIONS 2	REVISIONS 2	REVISIONS 2
REVISIONS 3	REVISIONS 3	REVISIONS 3
REVISIONS 4	REVISIONS 4	REVISIONS 4
FIELD CHANGES	FIELD CHANGES	FIELD CHANGES

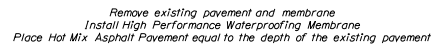
INTERSTATE 295 NORTHBOUND
FALMOUTH TO FREEPORT
CUMBERLAND COUNTY

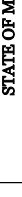
BRIDGE PLANS

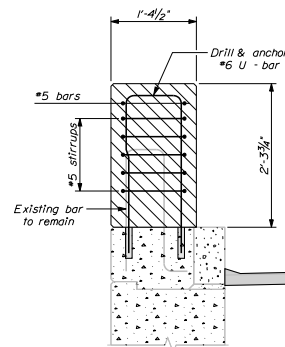
SHEET NUMBER

3

OF 7



SHEET NUMBER		INTERSTATE 295 NORTHBOUND FALMOUTH TO FREEPORT CUMBERLAND COUNTY		PERM. NUMBER DESIGN-STARTED CHECKED-REVISED DESIGN-OF-FILED DESIGN-IT-FILED REVISED 1 REVISED 2 REVISED 3 REVISED 4 FIELD CHANGES		BY D. Dwyer		DATE 10/1/00		STATE OF MAINE DEPARTMENT OF TRANSPORTATION 1M-1677(400)E	
4		BRIDGE PLANS		SIGNATURE P.E. NUMBER DATE				BRIDGE NO. 1157 16774.00		BRIDGE PLANS	



Existing rail post (to remain)

5 stirrups

6 U-bars (Drill & anchor)

6 stirrups

5/8 anchor plate

7/8 ϕ x 1'-8" threaded rods

1'-0"

2'-10 1/2"

4"

8"

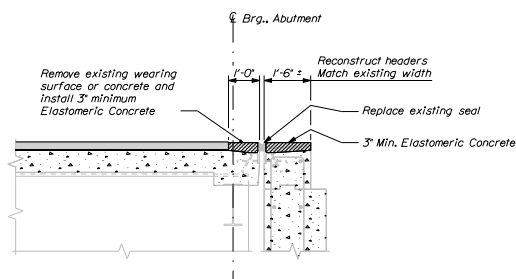
1'-8"

3'-11 1/2"

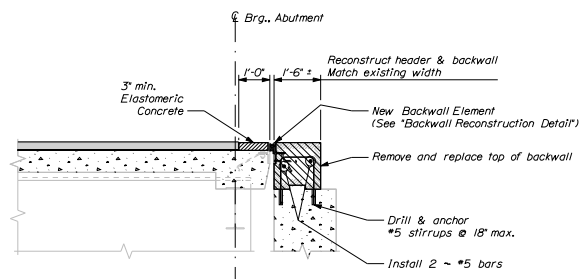
2'-8"

6'-7 1/2"

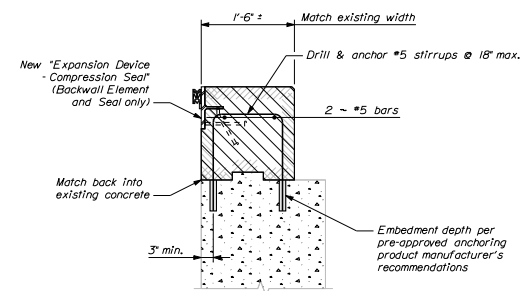
1. Refer to Standard Details Section 526 - Concrete Transition Barrier for details and information not shown.
2. Reinforcing steel for the Transition Barriers is based on details shown in the Standard Details. Reinforcing steel shall be modified to fit the details and conditions shown on the plans. Payment for modifying reinforcing steel and for drilling and anchoring bolts as shown will be considered incidental to Item No. 526.34, Permanent Concrete Transition Barrier.
3. Anchor plates and threaded rods shall be galvanized in accordance with the Standard Specifications and the Standard Details.
4. The bridge rail post bolt anchorage system shall be from MaineDOT's Qualified Products List or an approved equal. The Contractor shall submit the proposed system to the Resident for review prior to use. The bolt anchorages shall be installed in strict accordance with the selected manufacturer's recommendations. The anchor bolts shall have an ultimate tension capacity of 30 kips. Payment for bridge rail post relocation and associated materials, equipment, labor and incidentals necessary to complete the work will be considered incidental to Item No. 526.34, Permanent Concrete Transition Barrier.
5. The contractor shall locate existing curb reinforcing steel and adjust dead and bridge rail post anchor stud locations to avoid cutting existing bars. Any adjustments from plan dimensions shall be approved by the Resident.



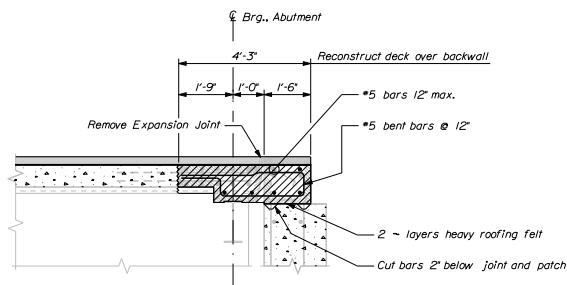
BRIDGE JOINT MODIFICATION TYPE 1



BRIDGE JOINT MODIFICATION TYPE 2

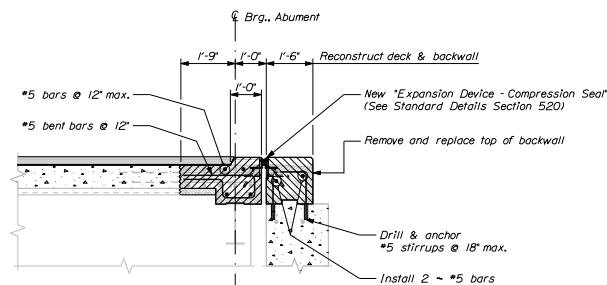


BACKWALL RECONSTRUCTION DETAIL
See Standard Details Section 520 for "Expansion Device"

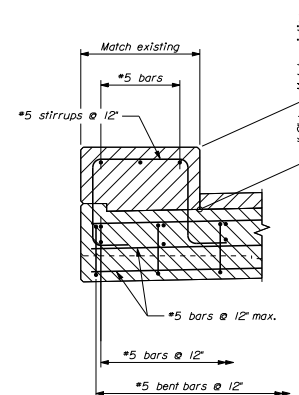


BRIDGE JOINT MODIFICATION TYPE 3

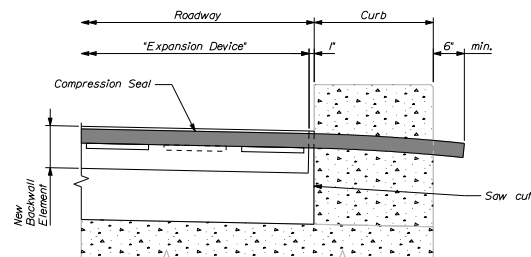
Refer to "Reconstructed Deck & Overhang Detail" for more information



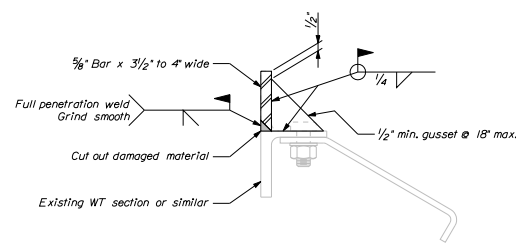
BRIDGE JOINT MODIFICATION TYPE 5



RECONSTRUCTED CURB & OVERHANG DETAIL



BRIDGE JOINT DETAIL AT CURB



LONGITUDINAL BRIDGE JOINT MODIFICATION
For existing superstructure elements where required

For existing superstructure elements where required

BRIDGE JOINT MODIFICATION NOTES

- 1. Refer to Standard Details Sections 502 and 520 for details and information not shown.*
- 2. All concrete surfaces where elastomeric concrete is to be applied shall have a 1/4-in. minimum anchor profile or roughened surface.*
- 3. Elastomeric concrete shall be applied according to the manufacturer's recommendations.*
- 4. All new steel supplied for the bridge joint modification shall be uncoated.*
- 5. The Contractor shall be fully responsible for selecting the appropriate seal based on the movement rating from the approved products list.*