

~~#110~~
183-40-82 # 2189
COVERED BRIDGE over
Acostook Riv
Prairie Isle

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.13	REMOVING SINGLE TREES, 8" to 24" TOPS ONLY	1	EACH
201.19	REMOVING SHRUBS, 8" to 24"	1	EACH
202.0801	REMOVAL OF BUILDING NO. 1	1	E.S.
202.19	REMOVAL OF EXISTING BRIDGE	1	L.S.
203.20	COMMON EXCAVATION	8500	C.Y.
203.24	COMMON BORROW		
203.25	GRANULAR BORROW	9675	C.Y.
203.26	GRAVEL BORROW	1800	C.Y.
203.26	GRAVEL BORROW	1350	C.Y.
206.061	STRUCT. EARTH ETC. - DRUG & MINOR STRS. - BELOW GRADE	20	C.Y.
206.061	STRUCT. EARTH ETC. - ABUTMENTS, RETAINING WALLS, BOX CULVERTS AND STRUCTURAL PLATE UNITS	12	C.Y.
206.10	STRUCT. EARTH ETC. - PERS	725	C.Y.
301.09	PLANT MIX BITUMINOUS BASE COURSE, GRADING B	2110	TON
304.10	AGGREGATE SURFACE COURSE - GRAVEL	9650	C.Y.
403.07	HOT BITUMINOUS PAVEMENT, GRADING B	1030	TON
403.08	HOT BITUMINOUS PAVEMENT, GRADING C	875	TON
403.10	HOT BITUMINOUS PAVEMENT, GRADING D	120	TON
403.101	HOT BIT. PAVEMENT, GRADING (SIDEWALKS, DRIVES, ETC.)	250	TON
410.15	EMULSIFIED ASPHALT APPLIED	180	GAL
410.161	COVER COT MATERIAL, SAND (LEVELING)	115	C.Y.
501.214	STEEL H-BEAM PILES 33 LBS/FT	2190	L.F.
501.216	STEEL H-BEAM PILES 73 LBS/FT	3450	L.F.
502.21	STRUCTURAL CONCRETE, ABUTMENTS & RETAINING WALLS	316	C.Y.
502.23	STRUCTURAL CONCRETE, PIERS	627	C.Y.
502.24	STRUCTURAL CONCRETE, PIERS (RANDED UNDER WATER)	722	C.Y.
502.26	STRUCTURAL CONCRETE ROWY & SUNK SLABS ON STEEL BRIDGES	1	L.S.
502.27	STRUCTURAL CONCRETE WEARING SURFACE ON BRIDGES	1	L.S.
503.31	STRUCTURAL CONCRETE APPROACH SLABS	1	L.S.
503.12	REINFORCING STEEL, FAB. & DELIVERED	220,540	LB.
503.13	REINFORCING STEEL, PLACING	220,540	LB.
504.70	STRUCTURAL STEEL, FAB. & DELIVERED	1	L.S.
504.71	STRUCTURAL STEEL, ERECTION	1	L.S.
505.08	SHEAR CONNECTORS	1	L.S.
507.141	ALUMINUM BRIDGE RAILING, TYPE "A"	466	L.F.
507.142	ALUMINUM BRIDGE RAILING, TYPE "B"	466	L.F.
511.0701	COFFERDAMS (PIER 1)	1	L.S.
511.0702	COFFERDAMS (PIER 2)	1	L.S.
512.071	BRANCH DRAINS (STONES ONLY)	17	C.Y.
512.06	CURING BOX FOR CONCRETE CYLINDERS	1	EACH
513.20	PROTECTING COATING FOR CONCRETE SURFACES	3310	S.Y.
522.06	MODULAR EXPANSION DEVICE	1	L.S.
603.15	12 INCH CULVERT PIPE, OPTION I	60	L.F.
603.158	12 INCH CULVERT PIPE, OPTION II	21	L.F.
603.16	15 INCH CULVERT PIPE, OPTION I	12	L.F.
603.168	15 INCH CULVERT PIPE, OPTION II	170	L.F.
603.17	18 INCH CULVERT PIPE, OPTION I	34	L.F.
603.178	18 INCH CULVERT PIPE, OPTION II	46	L.F.
603.195	24 INCH REINFORCED CONC. PIPE CLASS III	8	L.F.
603.208	30 INCH CULVERT PIPE, OPTION II	54	L.F.
603.21	36 INCH CULVERT PIPE, OPTION I	54	L.F.
603.218	36 INCH CULVERT PIPE, OPTION II	68	L.F.
603.238	48 INCH CULVERT PIPE, OPTION II	102	L.F.
603.77	15 INCH TRAP & GATE UNIT	1	EACH
604.092	CATCH BASINS TYPE B-1-C	12	EACH
604.11	CATCH BASINS TYPE C-1	1	EACH
604.16	ALTERING CATCH BASINS TO MANHOLES	2	EACH
604.18	ADJUSTING CATCH BASINS & MANHOLES TO GRADE	1	EACH
605.09	6 INCH UNDERDRAIN TYPE "B"	413	L.F.
605.11	12 INCH UNDERDRAIN TYPE "A"	316	L.F.
605.17	30 INCH UNDERDRAIN TYPE "D"	703	L.F.
605.174	30 INCH UNDERDRAIN TYPE "C" (0.109" THICK)	40	L.F.
606.36	TERMINALS GUOS - SINGLE RAIL	4	EACH
606.38	SINGLE PASTS, TYPE 1A	6	EACH
606.35	GUARD RAIL DELINEATOR PASTS	4	EACH
606.36	GUARD RAIL REMOVE & PASTS	20	C.F.
606.35	GUARD RAIL TYPE 3 - SINGLE RAIL	344	L.F.
606.59	GUARD RAIL TYPE 3 - CIRCULAR - 18" RADIUS & LESS	25	L.F.
606.60	GUARD RAIL TYPE 3 - CIRCULAR - GREATER THAN 18" RADIUS	38	L.F.
607.13	VERTICAL BRIDGE CURB - TYPE 1	928	L.F.
608.25	CURB TRANSITION SECTION A - TYPE 1	2	EA.
608.26	CURB TRANSITION SECTION B - TYPE 1	2	EA.
609.31	CURB TYPE 3	2220	L.F.

* UNDETERMINED LOCATION

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
609.34	CURB TYPE 5	258	L.F.
609.35	CURB - CIRCULAR - TYPE 5	22	L.F.
610.08	PLAIN RIPRAP	1570	C.Y.
610.12	PORTLAND CEMENT FOR RIPRAP GROUT	13	BBL
612.06	BITUMINOUS HAND SEALING - BLACK	370	C.Y.
615.07	LOAM	370	C.Y.
616.08	SODDING	380	S.Y.
618.14	SEEDING, METHOD #2	60	UNIT
618.15	TEMPORARY SEEDING	45	LB.
619.12	MULCH	135	UNIT
623.06	RIGHT-OF-WAY MONUMENTS	5	EACH
623.07	SURVEY MONUMENTS	5	EACH
624.06	PROJECT MARKERS	2	EACH
629.05	HAND LABOR, STRAIGHT TIME	30	M.H.
629.05	TRAFFIC OFFICERS	260	M.H.
631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	20	HR.
631.11	AIR TOOL (INC. OP.)	20	HR.
631.12	ALL PURPOSE EXCAVATOR (INC. OP.)	20	HR.
631.13	BULLDOZER (INC. OP.)	20	HR.
631.14	GRADER (INC. OP.)	10	HR.
631.171	TRUCK - SMALL (INC. OP.)	20	HR.
631.172	TRUCK - LARGE (INC. OP.)	10	HR.
631.18	CHAIN SAW RENTAL (INC. OP.)	10	HR.
631.22	FRONT END LOADER (INC. OP.)	20	HR.
632.08	WARNING LIGHTS	4	GRP.
637.07	SPRINKLING	100	M.G.
637.08	CALCIUM CHLORIDE	10	TON
639.08	FIELD OFFICE, TYPE A	1	EACH
639.11	TESTING FACILITIES, SOILS	1	L.S.
639.12	TESTING FACILITIES, BITUMINOUS MIXES	1	L.S.
645.62	4 INCH BROKEN WHITE PAVEMENT MARKING LINE	3600	L.F.
645.63	4 INCH SOLID YELLOW PAVEMENT MARKING LINE	3700	L.F.
645.64	4 INCH BROKEN YELLOW PAVEMENT MARKING LINE	300	S.F.
652.31	TYPE L BARRICADES	25	EACH
652.33	DRUMS	10	EACH
652.34	CONES	30	EACH
652.35	CONSTRUCTION SIGNS	500	S.F.
656.50	BALED HAY, IN PLACE	15	EACH
656.51	SANDPAPER, IN PLACE	15	EACH
656.55	DUMPED STONE	4	C.Y.
656.60	TEMPORARY FENCE	1500	L.F.
656.62	TEMPORARY SLOPE DRAINS	40	L.F.
657.201	SEED & APPLICATION, METHOD A	75	UNIT
658.20	PERMANENT LATEX COLOR FINISH, GREEN	32	S.Y.
659.10	MOBILIZATION	1	L.S.
660.21	ON-THE-JOB TRAINING	3000	MH

SUMMARY OF EXCAVATION AND BORROW

COMMON EXCAVATION FOR ESTIMATE	
COMMON EXCAVATION (FROM X-SECTIONS)	7235
EARTH FROM DRIVES, OLD RD. EXCAV., ETC.	561
TOTAL COMMON EXCAVATION	8496
FILL FOR COMMON BORROW CALCULATIONS	
COMMON FILL (FROM X-SECTIONS)	16077
TOTAL FILL	16077
AVAILABLE COMMON EXCAVATION FOR COMMON BORROW CALCULATIONS	
TOTAL COMMON EXCAVATION	8496
NO DEDUCTIONS	
TOTAL AVAILABLE STRUCTURAL EXCAVATION (U.D. ONLY)	565
TOTAL AVAILABLE NON-ROCK EXCAVATION	9061
COMPUTATION OF COMMON BORROW FOR ESTIMATE	
TOTAL FILL	16077
TOTAL AVAILABLE NON-ROCK EXCAV. $9061 \times 0.85 =$	7702
TOTAL AVAILABLE EXCAVATION	7702
TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATION =	8375
COMMON BORROW = 8375×1.15	9631

ITEM NO.	ESTIMATED QUANTITIES FOR LUMP SUM ITEMS	QUANTITIES	UNIT
502.26	STRUCTURAL CONCRETE, ROWY & SUNK SLABS ON STEEL BRIDGES	1030	C.Y.
502.29	STRUCTURAL CONCRETE, WEARING SURFACE ON BRIDGES	260	C.Y.
502.31	STRUCTURAL CONCRETE, WEARING SURFACE	39	C.Y.
504.70	STRUCTURAL STEEL, FAB. & DELIVERED	1,079,000	LB.
504.71	STRUCTURAL STEEL, ERECTION	1,079,000	LB.
505.08	SHEAR CONNECTORS	5082	EACH

As Built 1982 by S. R. Ginn

183-40

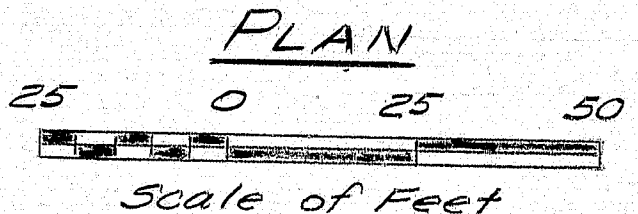
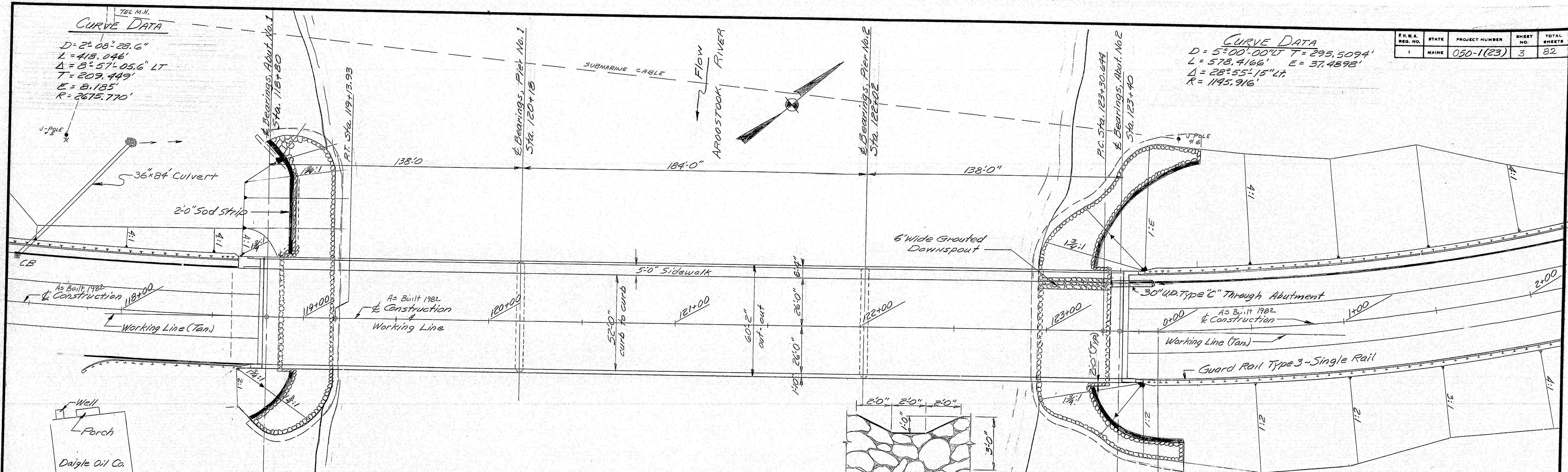
203-1 2000

CURVE DATA

D = 2° 08' 28.6"
L = 418.046'
Δ = 8° 57' 05.6" LT
T = 209.449'
E = 81.185'
R = 2675.770'

CURVE DATA
D = 5° 00' 00" LT T = 295.5094'
L = 578.4166' E = 37.4898'
Δ = 28° 55' 15" LT
R = 1145.916'

F.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(23)	3	82



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SPECIFICATIONS

Design: AASHTO Specifications for Highway Bridges 1971 with Interim Specifications 1978 & 79
Contract: State of Maine, State Highway Commission, Standard Specifications, Highways and Bridges, Revision of June 1968.

DESIGN LOADING

Live Load: HS 25

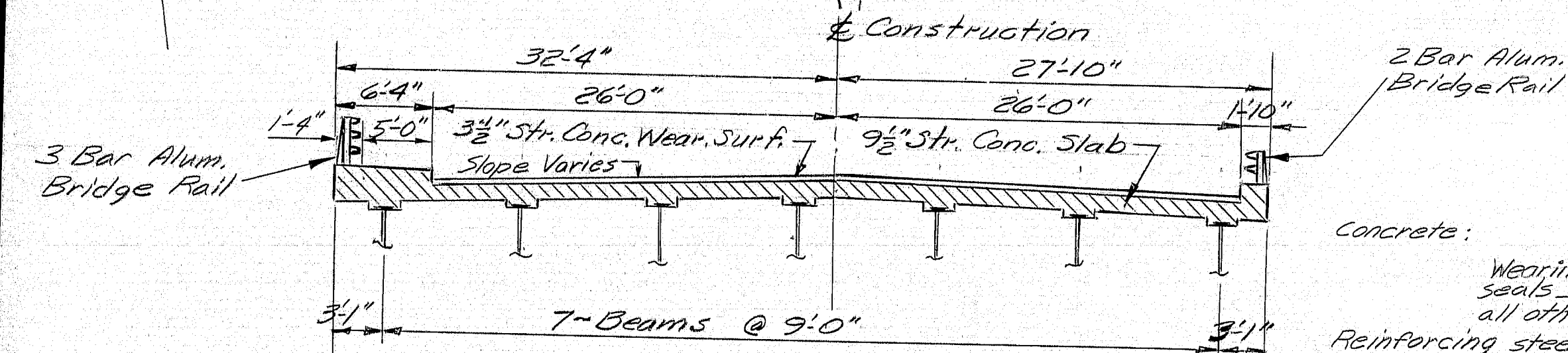
BASIC ALLOWABLE STRESSES

Concrete: $f_c = 1200$ psi $n = 9$
Reinforcing Steel: $f_s = 28,000$ psi
Structural Steel: ASTM A588 (Unpainted) $f_s = 27,000$ psi
ASTM A36 $f_s = 20,000$ psi
ASTM A325 $f_u = 25,000$ psi

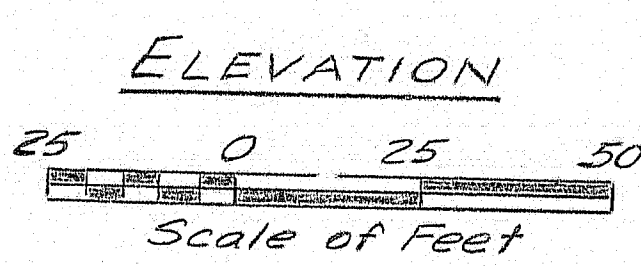
MATERIALS

Concrete: Wearing Surface - Class AA
seals - Class S
all others - Class A
Reinforcing steel - ASTM A615 Grade 60
Structural steel - A 588 unless otherwise indicated
High strength bolts - ASTM A325 Type 3

PROPOSED BRIDGE SECTION



ELEVATION



TRAFFIC DATA

AADT 1979 = 10260
AADT 1999 = 15270
DHV % of AADT = 10
DHV = 1527
Percent Trucks (AADT) = 11
Percent Trucks (Design Hour) = 6
Directional Distribution (Design Hour) = 53
18 Rip Equivalent 12.5' 400

HYDROLOGIC DATA

Drainage Area = 1879 square miles
Design Discharge Q50 = 52,000 cfs
Check Discharge Q100 = 55,000 cfs
Q50 Discharge Velocity = 6.2 fps
Q50 Headwater Elevation = 426.3
Q100 Discharge Velocity = 6.5 fps
Q100 Headwater Elevation = 427.6
Existing Opening at a Q50 stage (426.3) = 5300 sf
Proposed Opening at a Q50 stage (426.3) = 5300 sf

Revised As Built 1982 by J. McGinnis

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COVERED BRIDGE

OVER

AROOSTOOK RIVER

IN THE CITY OF

PRESQUE ISLE

AROOSTOOK COUNTY

GENERAL PLAN

SHEET 1 OF 23 AUGUSTA, MAINE AUG 1980

183-41

Plans of the 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.

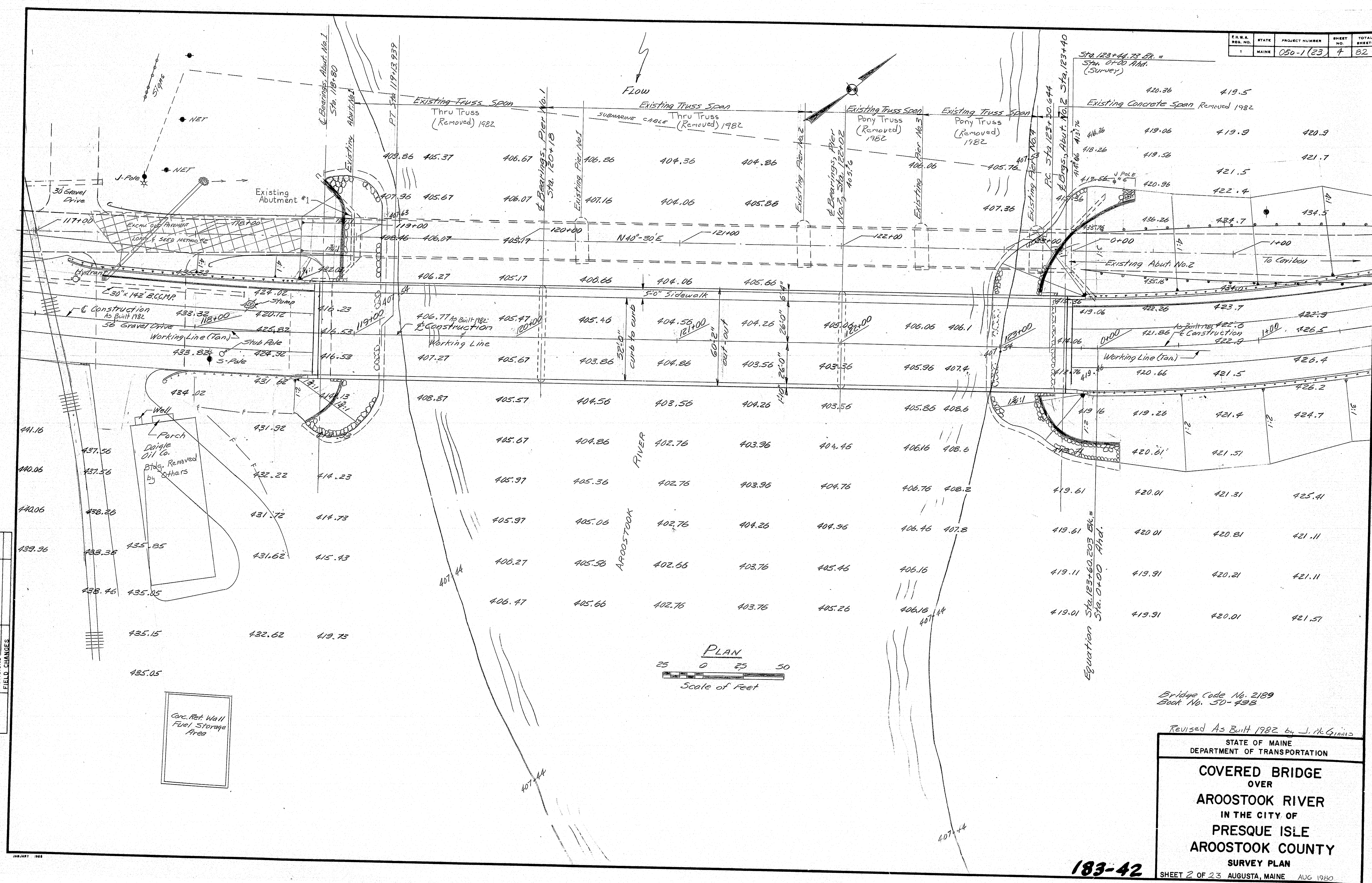
PROJECT DESIGN ENGINEER	DATE
BY	6-79
DESIGN - DETAIL	6-79
CHECKED	7-80
REVISIONS	
FIELD CHANGES	

F.R.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1 (23)	4	82

Survey Plotted by *Net*

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	7-79
CHECKED	NER
REVISIONS	8-80
FIELD CHANGES	

PLANS



Bridge Code No. 2189
Book No. 50-498

Revised As Built 1982 by J. M. Givens

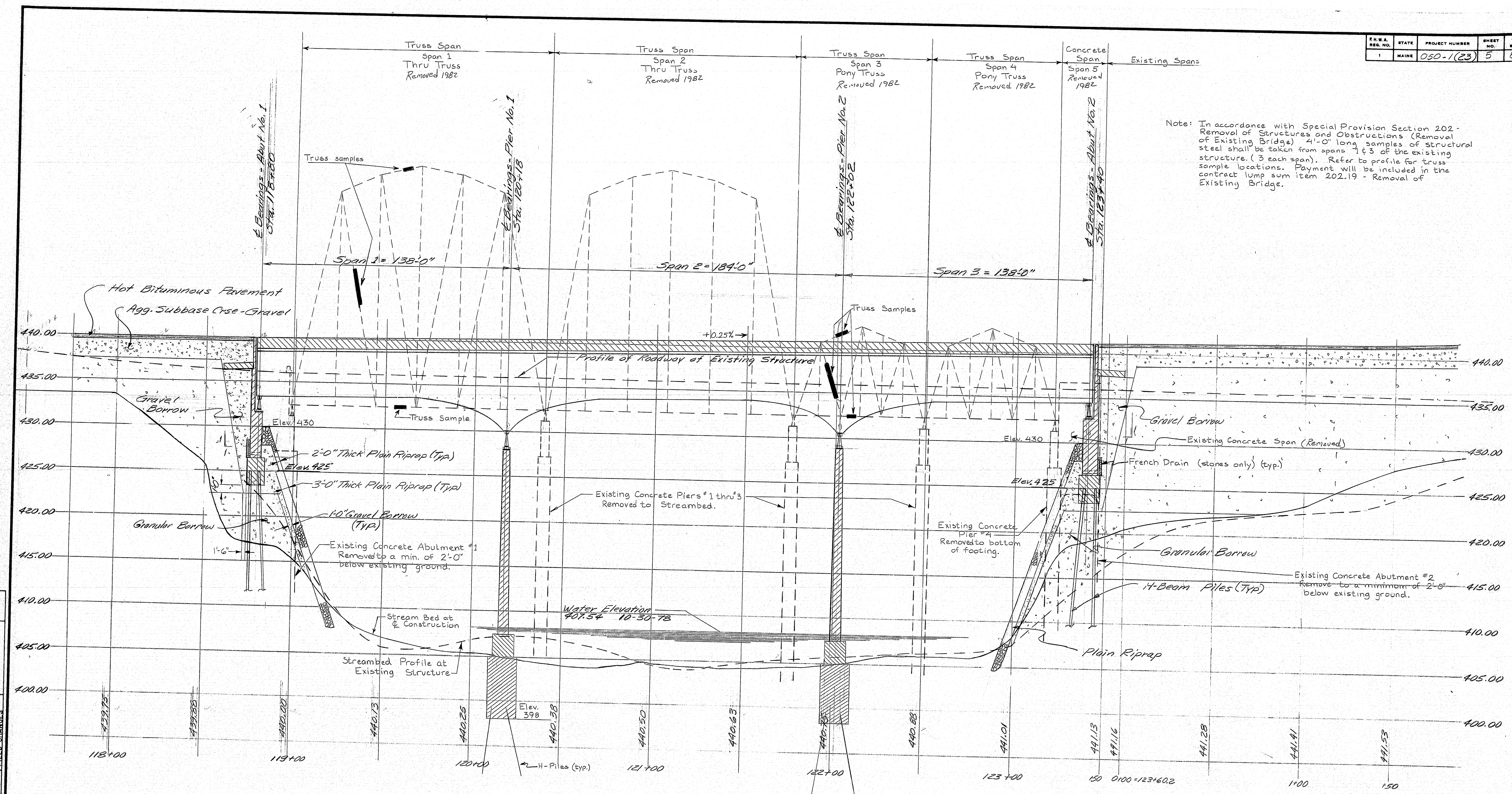
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**COVERED BRIDGE
OVER
AROOSTOOK RIVER
IN THE CITY OF
PRESQUE ISLE
AROOSTOOK COUNTY
SURVEY PLAN**

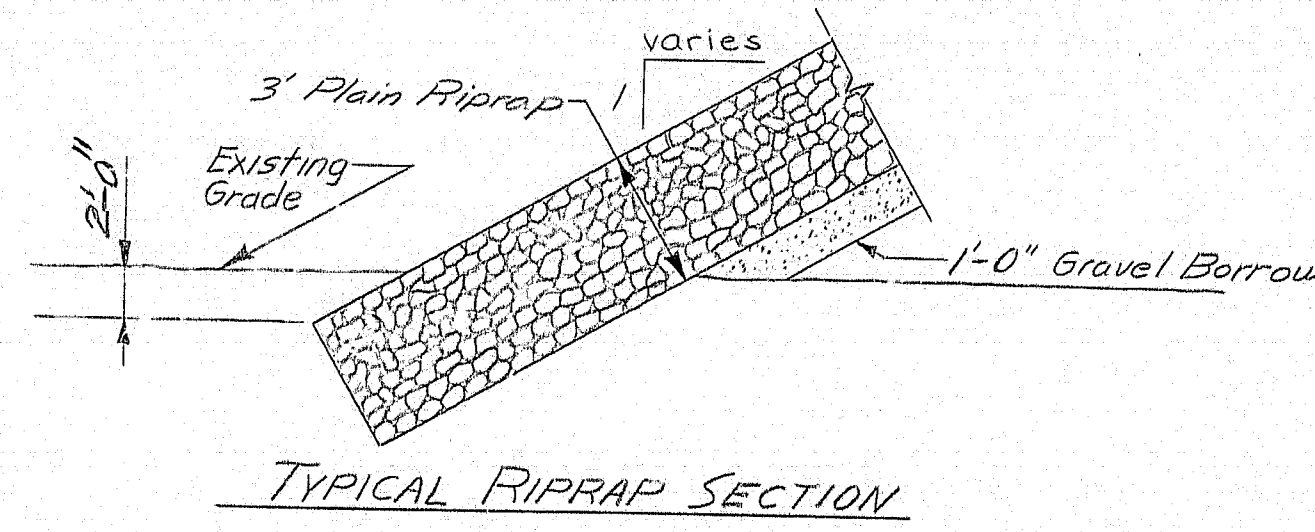
SHEET 2 OF 23 AUGUSTA, MAINE AUG 1980

F.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(23)	5	82

Note: In accordance with Special Provision Section 202 - Removal of Structures and Obstructions (Removal of Existing Bridge) 4'-0" long samples of structural steel shall be taken from spans 1 & 3 of the existing structure (3 each span). Refer to profile for truss sample locations. Payment will be included in the contract lump sum item 202.19 - Removal of Existing Bridge.



PROFILE



Survey Plotted by *RAI*

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	<i>BWP</i>	<i>8-80</i>
CHECKED	<i>ALR</i>	
REVISIONS		
FIELD CHANGES		

PLANS

Bridge Code No. 2183
Book No. 50-139B

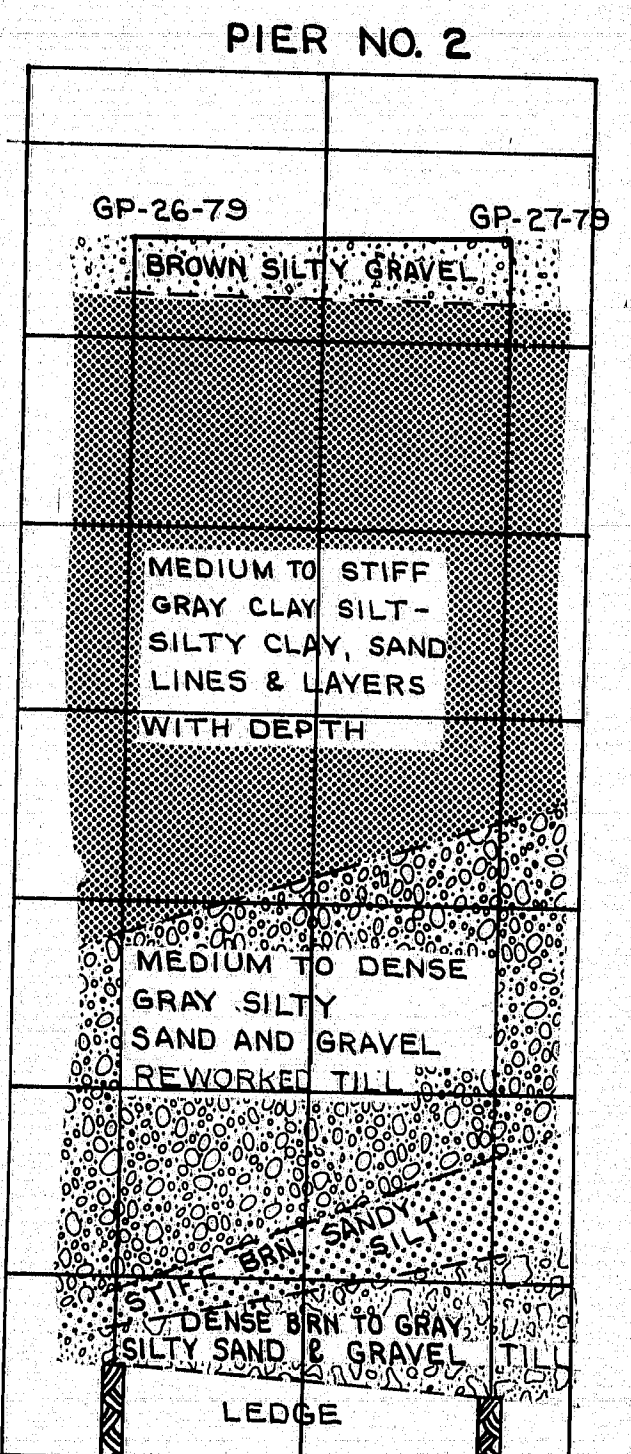
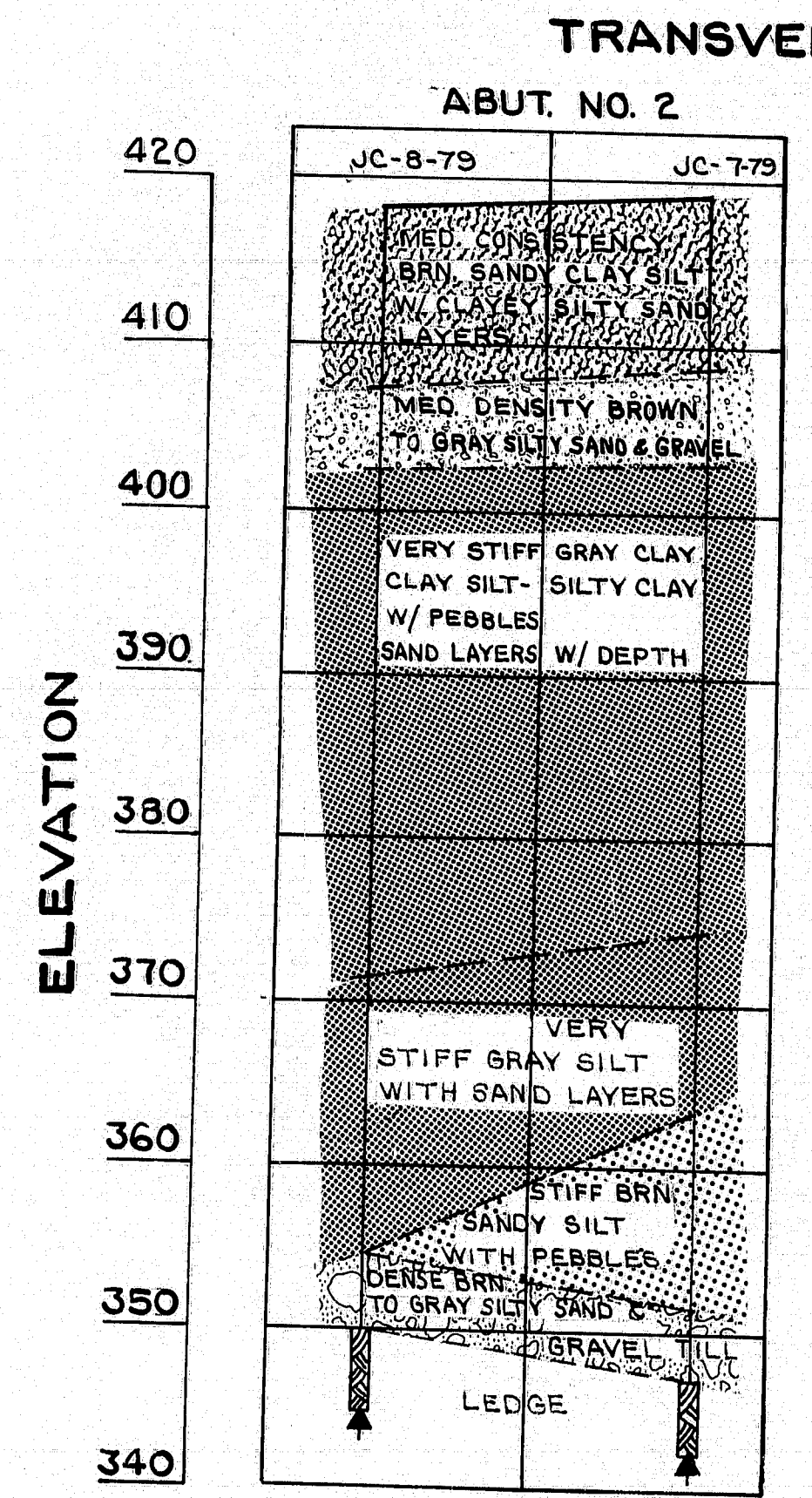
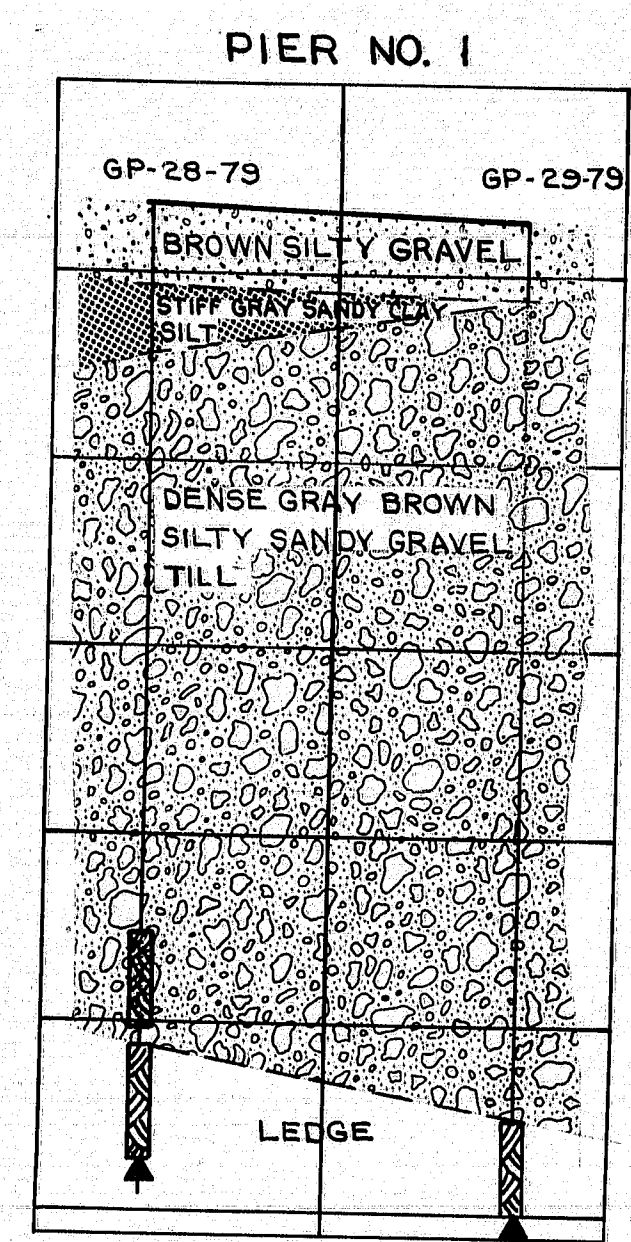
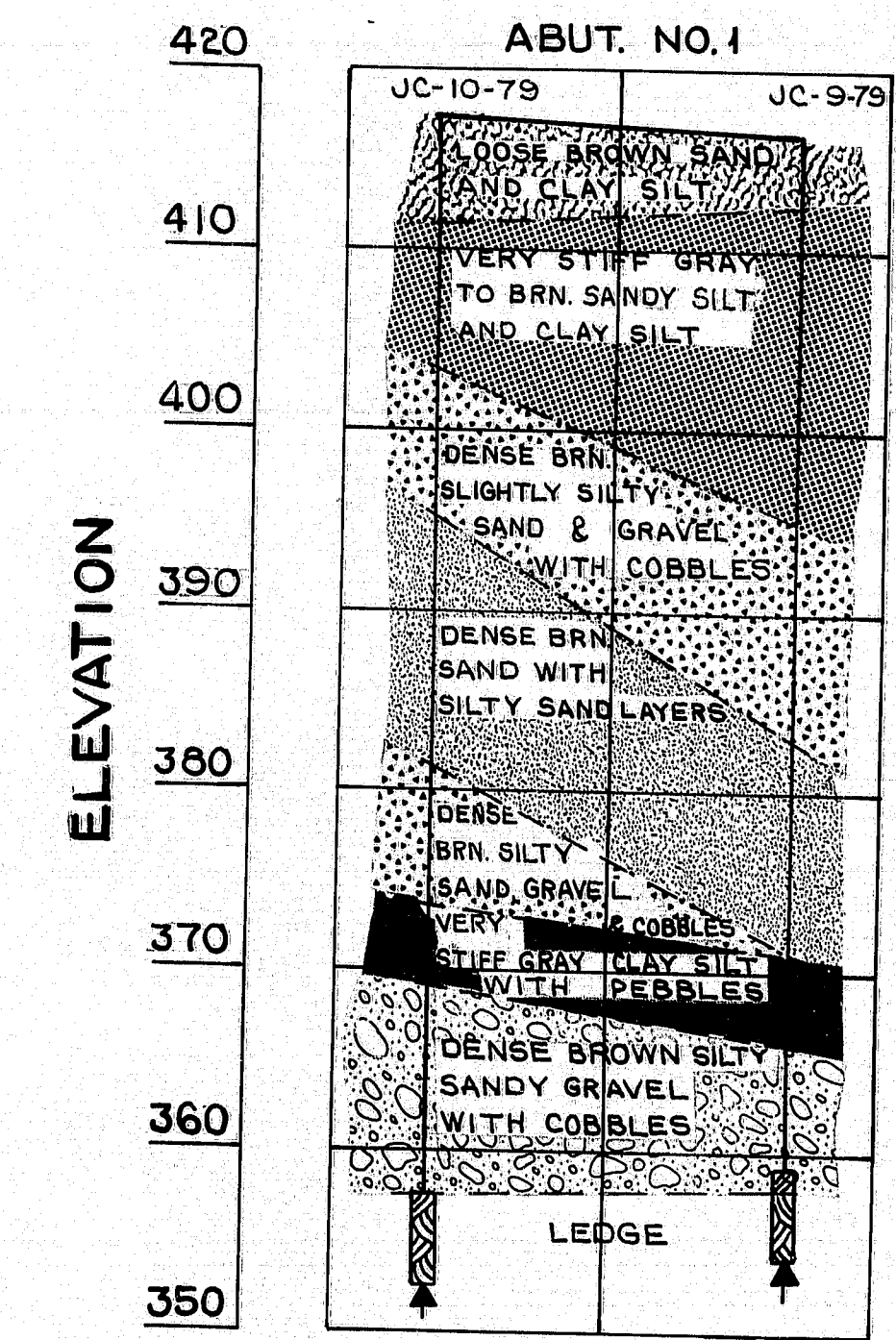
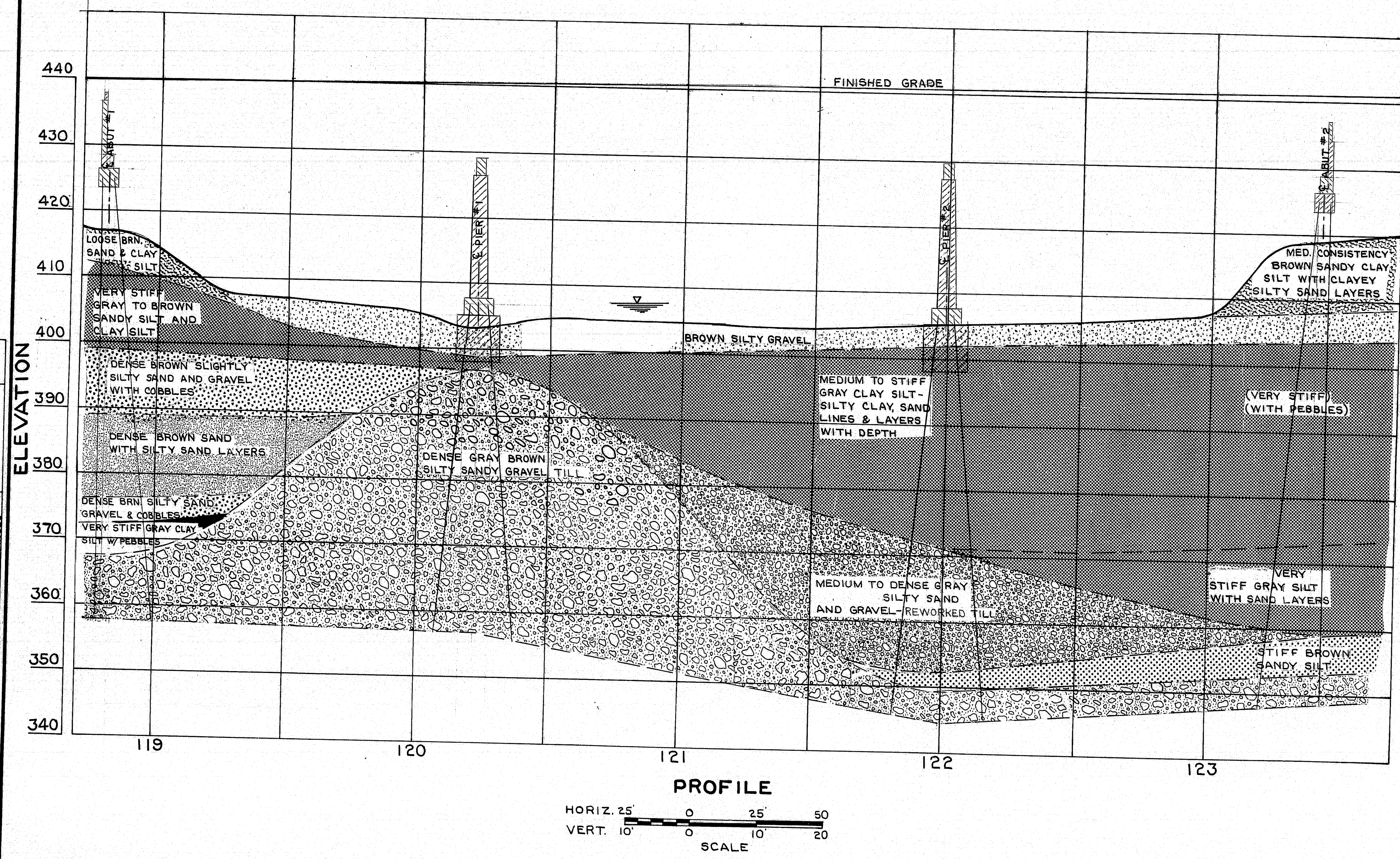
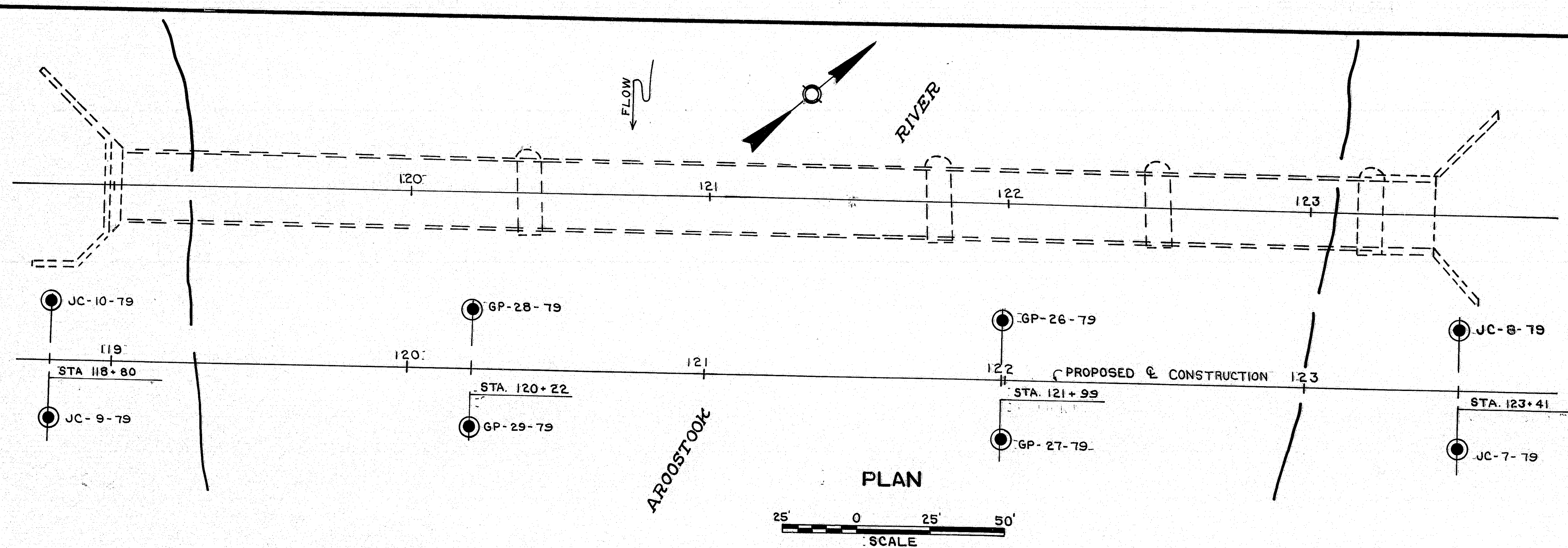
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**COVERED BRIDGE
OVER
AROOSTOOK RIVER
IN THE CITY OF
PRESQUE ISLE
AROOSTOOK COUNTY
PROFILE**

183-43
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SHEET 3 OF 23 AUGUSTA, MAINE AUG 1980

F.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(23)	6	82



PROJECT DESIGN ENGINEER	BY	DATE
DESIGN DETAILING		
CHECKING		
REVISIONS		
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COVERED BRIDGE
OVER
AROOSTOOK RIVER
IN THE CITY OF
PRESQUE ISLE
AROOSTOOK COUNTY
FOUNDATION SURVEY

183-44
As Built 1982 by J. Mc Ginnis

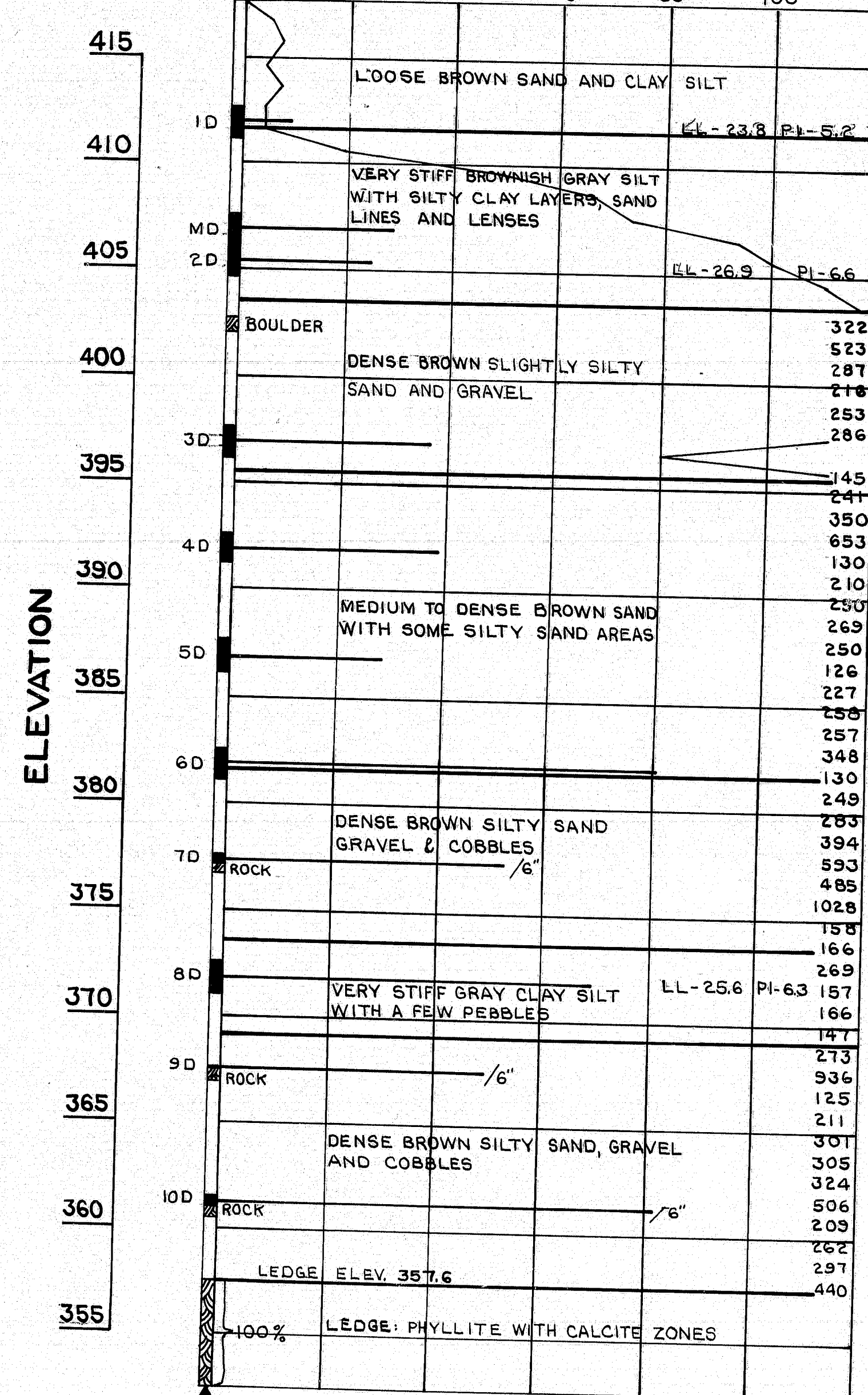
SHEET 4 OF 23 AUGUSTA, MAINE AUG 1980

F.W.A. NO. 10	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(23)	7	82

ABUTMENT NO. 1

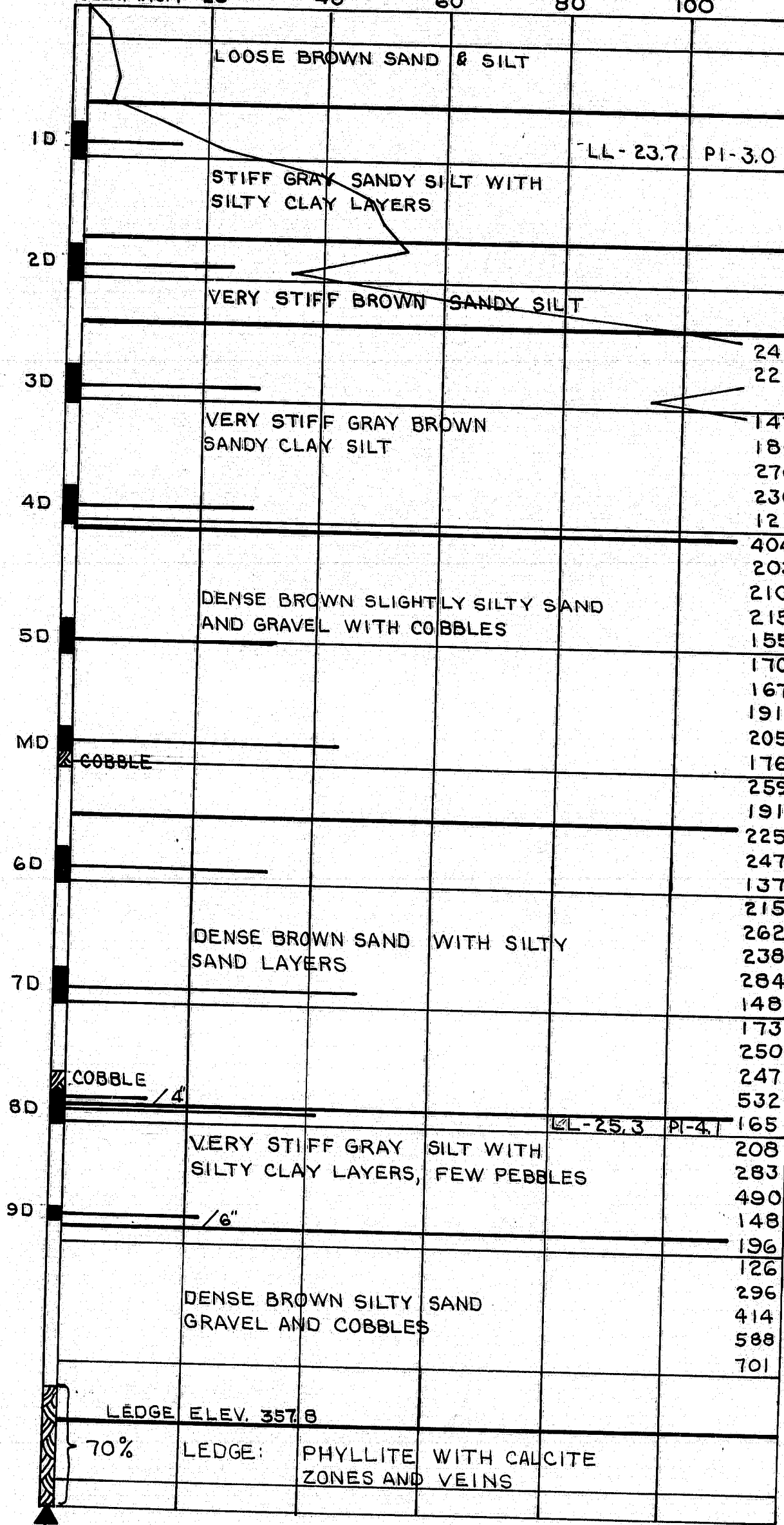
BORING JC-10-79 STATION 118+77 19'LT.

ELEV. 417.6 20 40 60 80 100



BORING JC-9-79 STATION 118+80 20'RT.

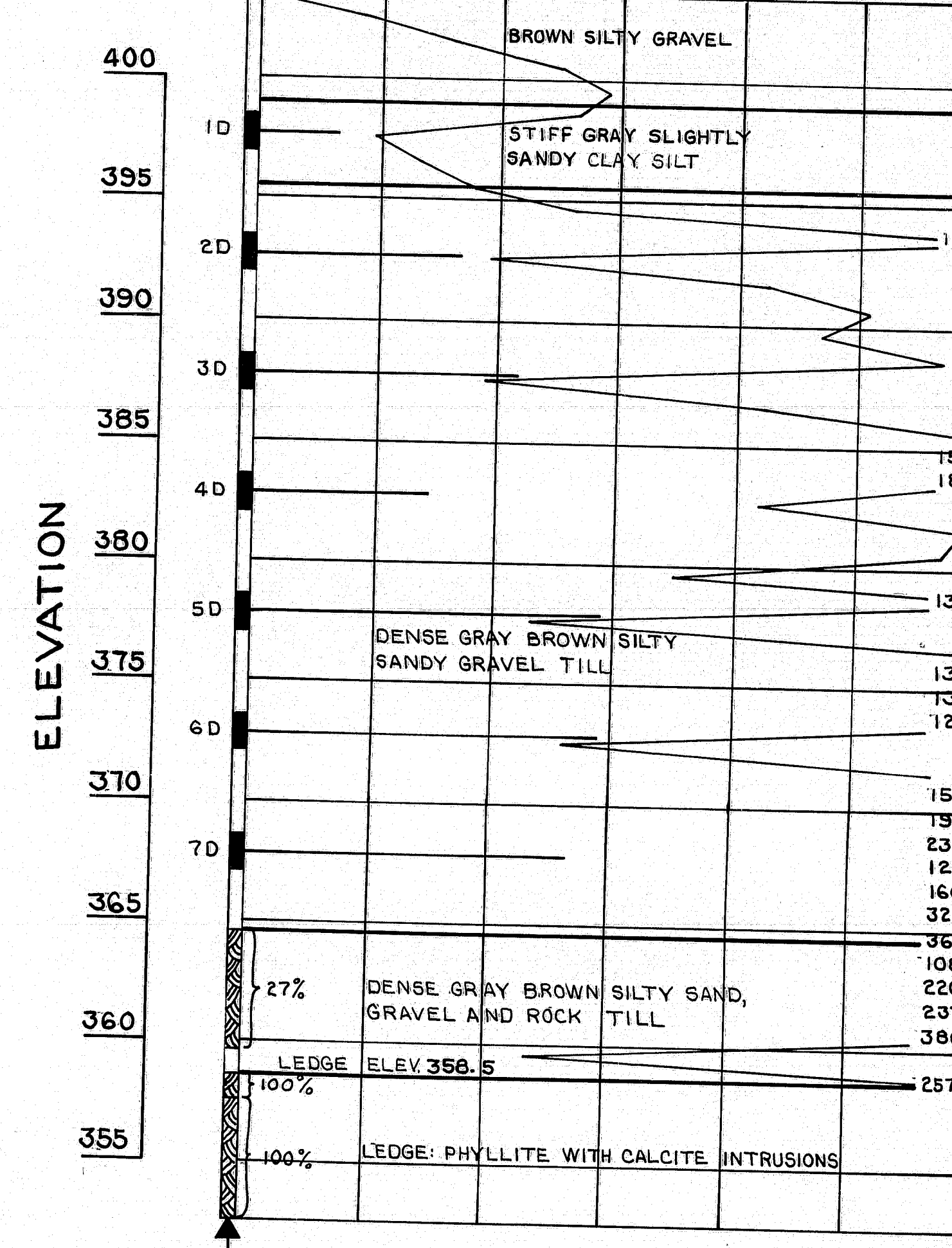
ELEV. 416.4 20 40 60 80 100



PIER NO. 1

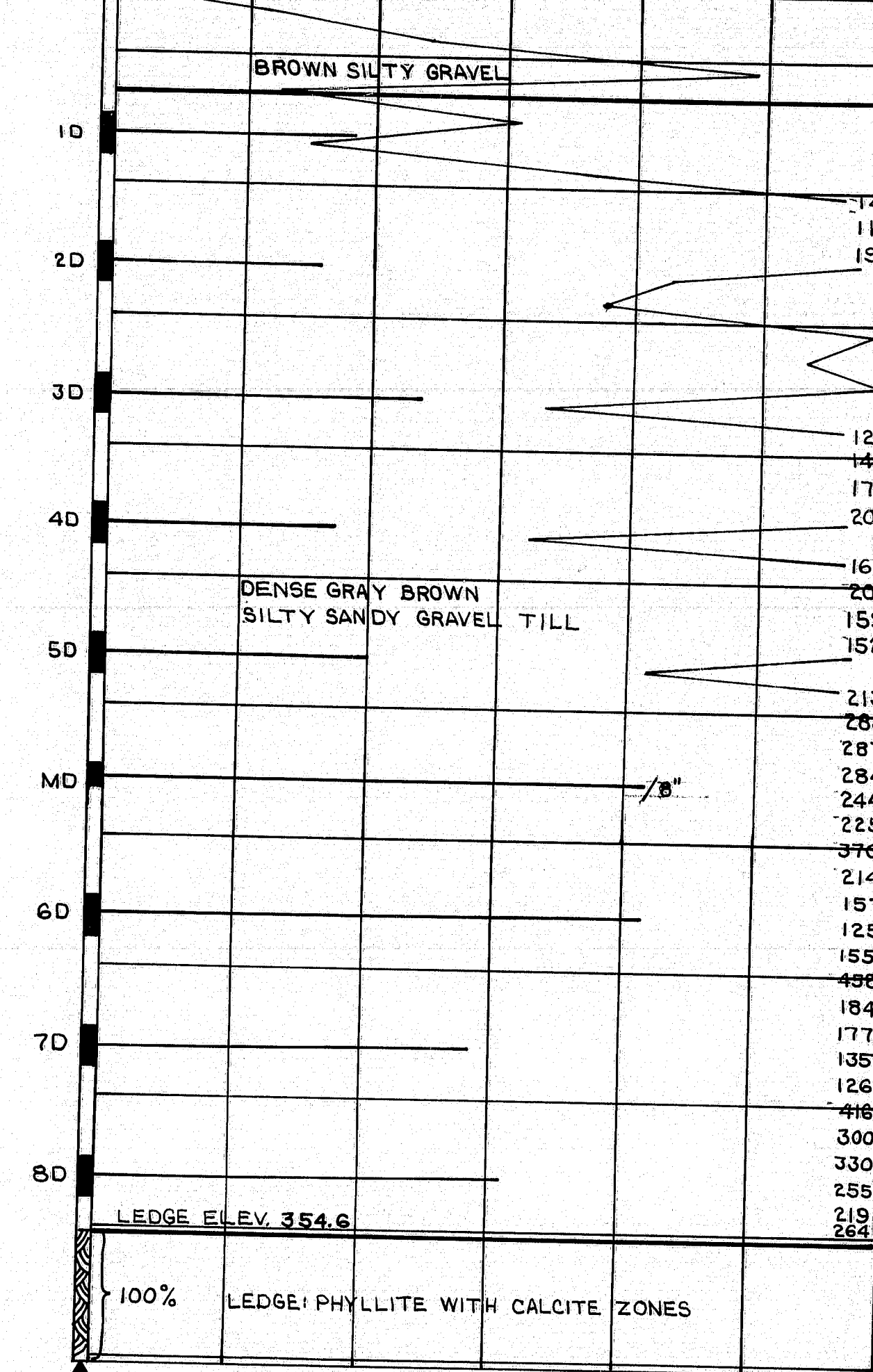
BORING GP-28-79 STATION 120+22 20'LT.

ELEV. 403.5 20 40 60 80 100



BORING GP-29-79 STATION 120+22 20'RT.

ELEV. 402.5 20 40 60 80 100



BORING NOTES

- 2 1/2" Casing size
- All samples 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
- 5 ft H Sampler # 1290's
- ID Unsuccessful sample attempt and type of sampler
- MD Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow
- Bottom of boring (may not be bottom of soil strata)
- Locations cored by diamond bit and per cent recovery of rock
- LL - Liquid Limit
- PI - Plastic Index
- NP - Non Plastic

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COVERED BRIDGE
OVER
AROOSTOOK RIVER
IN THE CITY OF
PRESQUE ISLE
AROOSTOOK COUNTY
BORING DETAILS

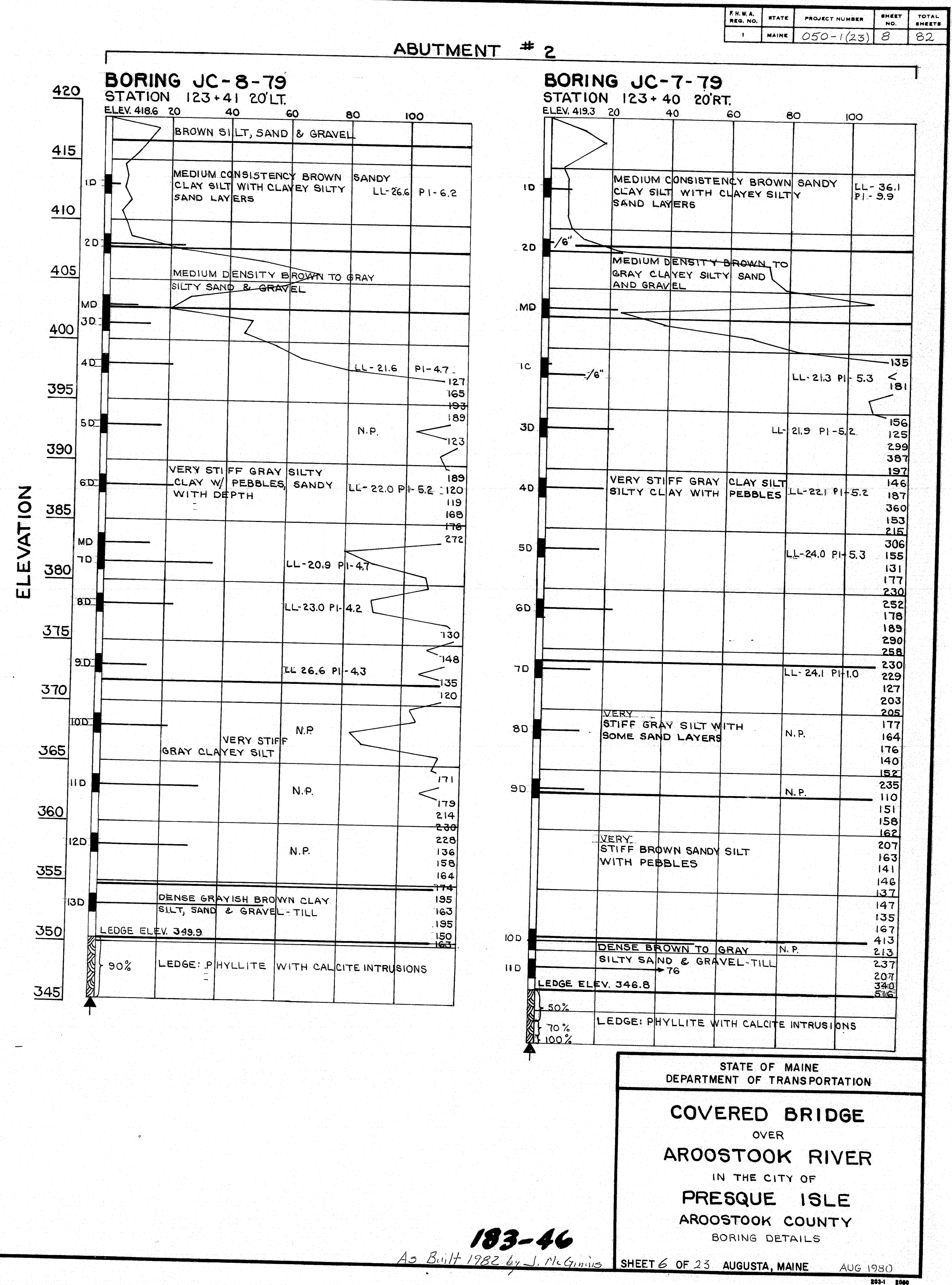
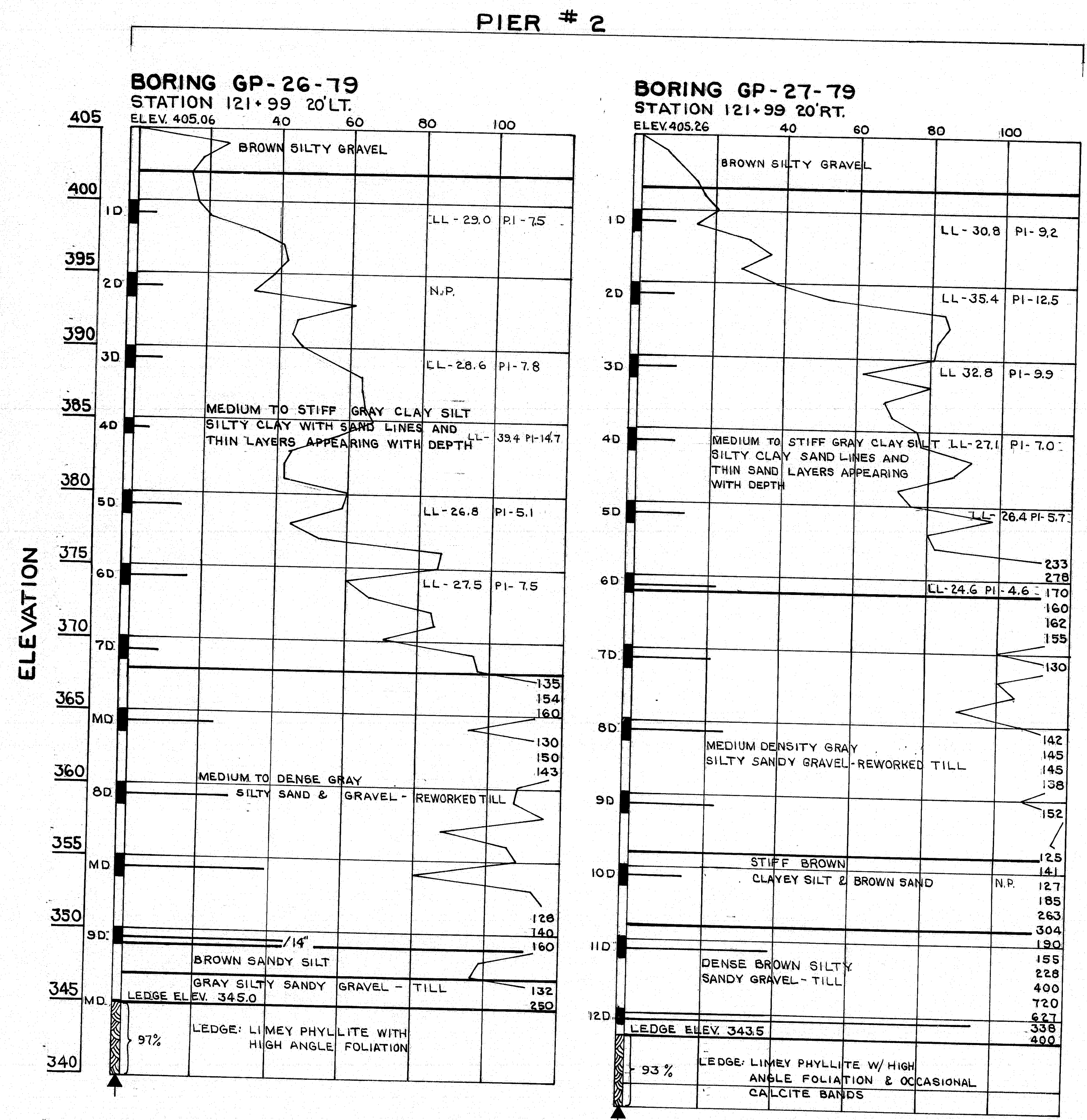
183-45

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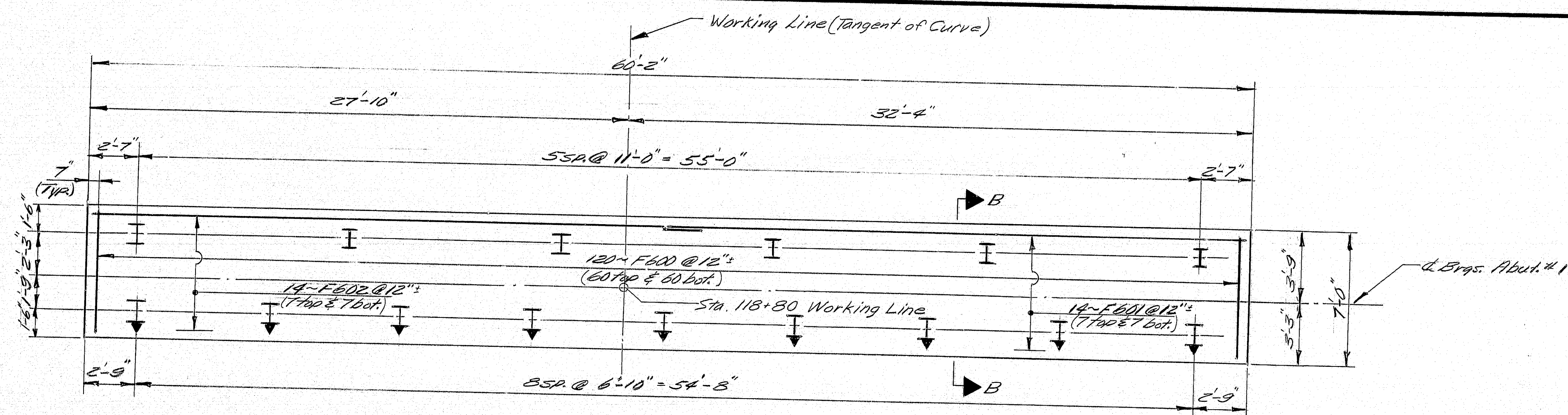
SHEET 5 OF 23 AUGUSTA, MAINE AUG 1980

80-1 300

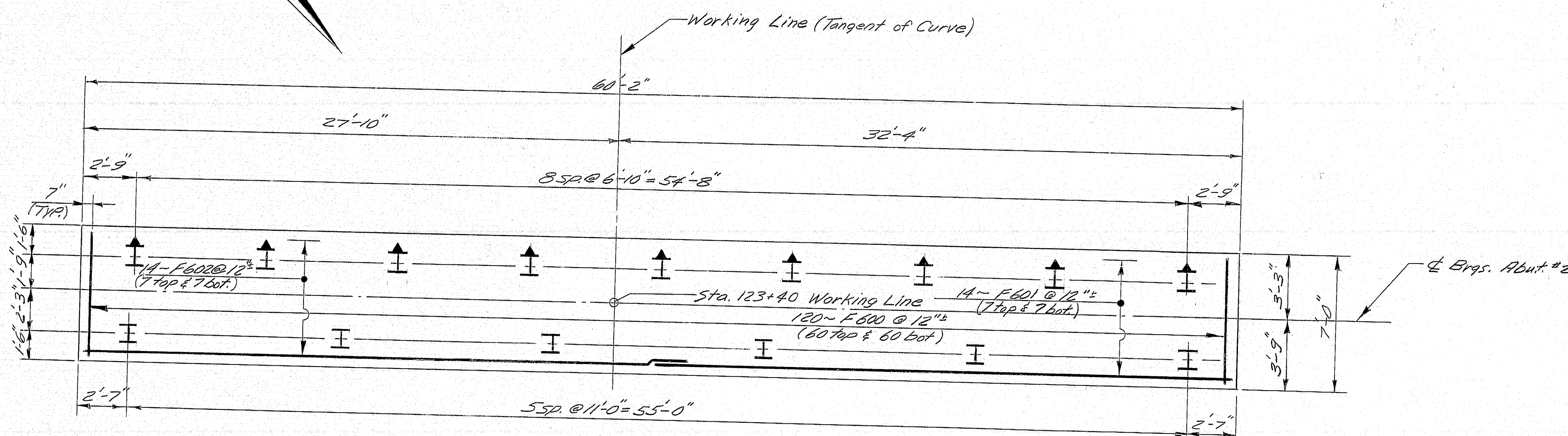
PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		



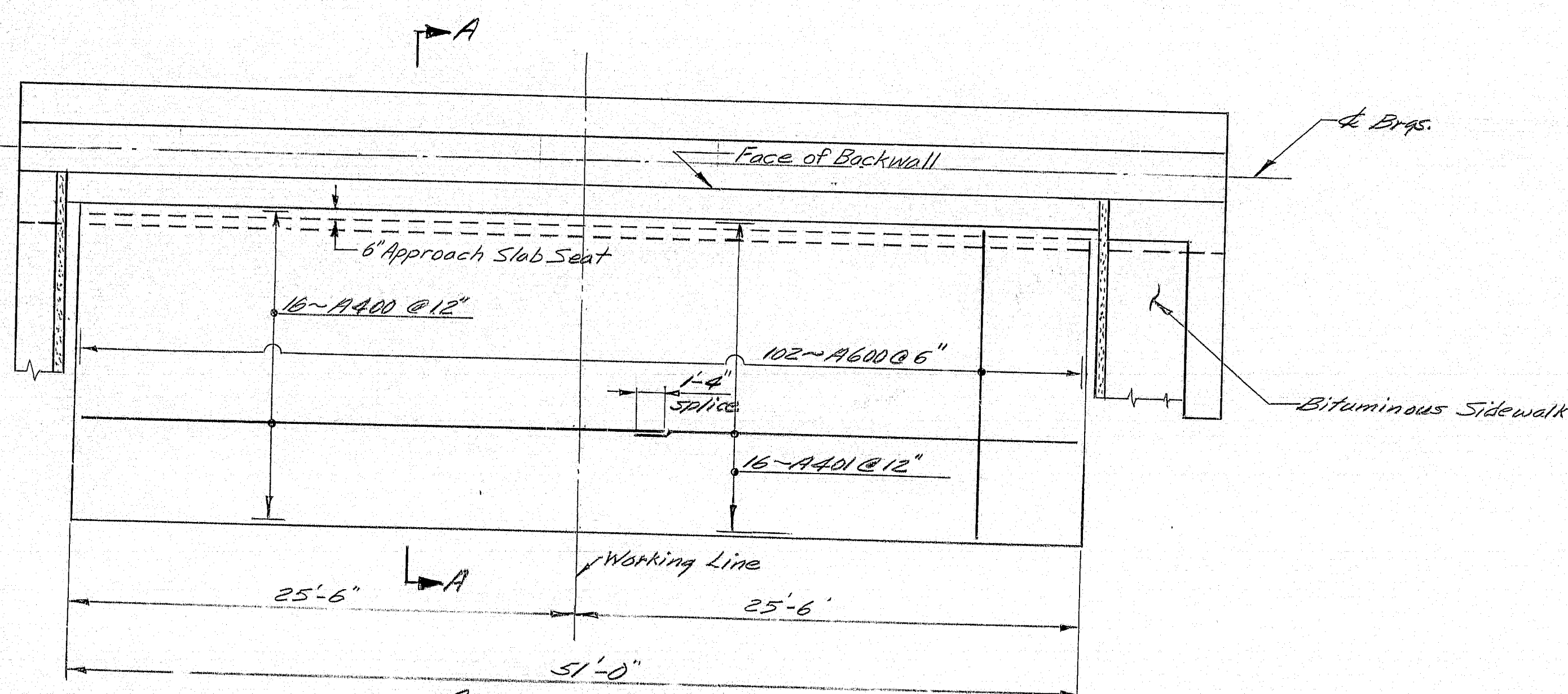
R.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-11231	9	82



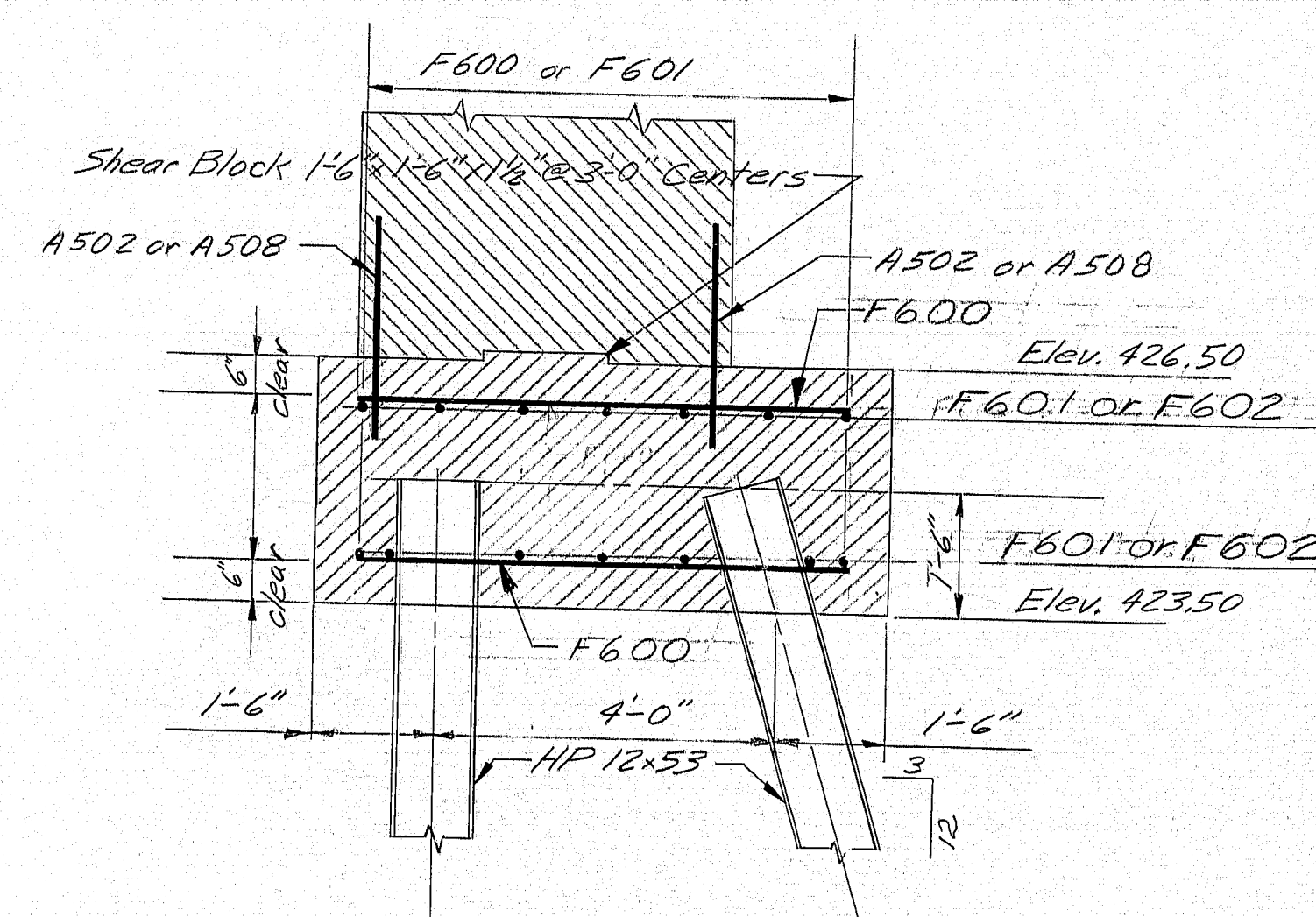
FOOTING PLAN - ABUTMENT #1



FOOTING PLAN - ABUTMENT #2



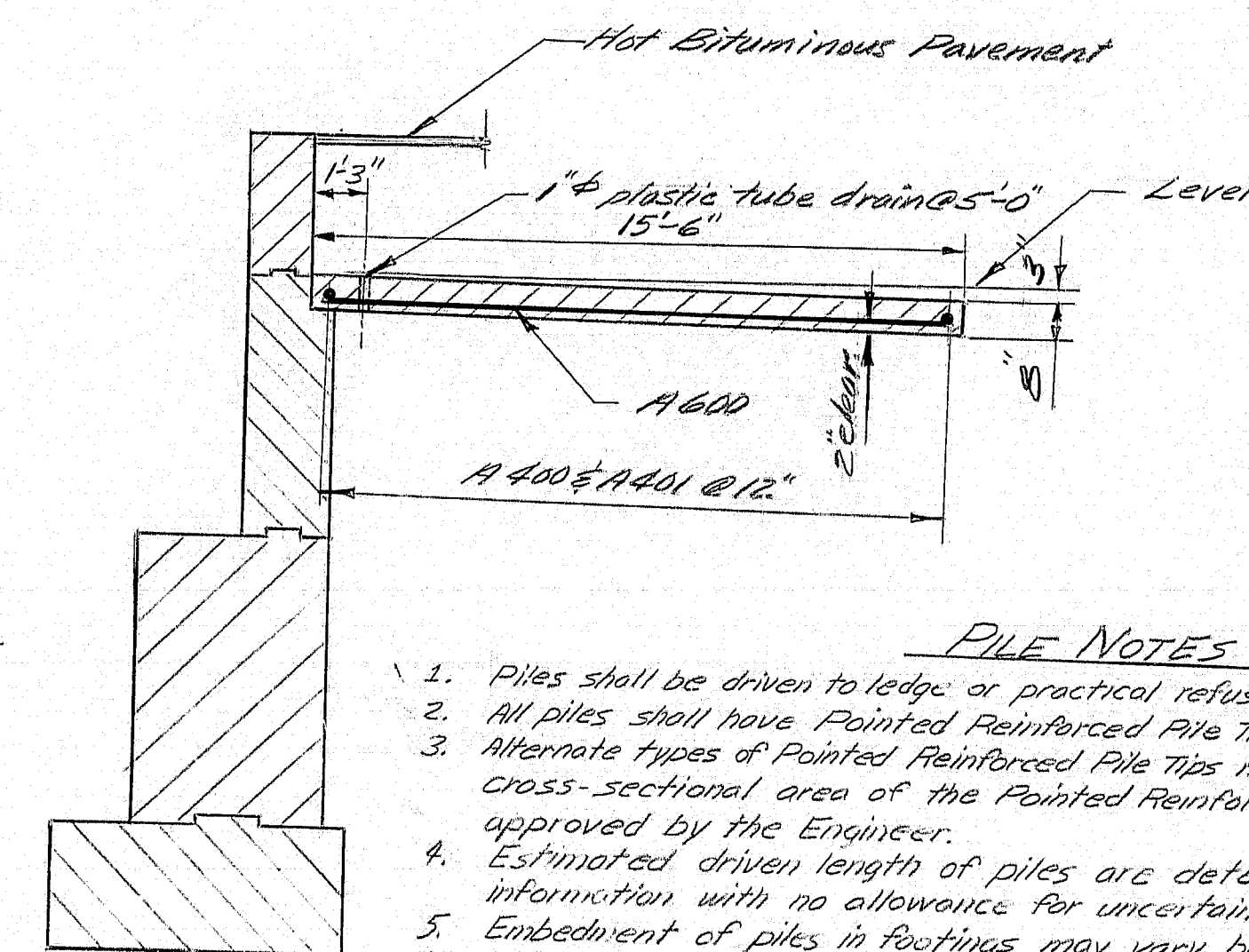
APPROACH SLAB
(TYP. ABUTMENT #2)



SECTION B-B

ABUTMENT NOTES

1. Chamfer all exposed edges of concrete a consistent dimension between $\frac{1}{2}$ " and $\frac{3}{4}$ " inclusive, unless otherwise indicated.
2. Reinforcing steel shall have 2 inches cover unless otherwise indicated.
3. Place reinforcing steel in bridge seats to clear anchor bolts.
4. Break bond at vertical contraction joints by a method approved by the Engineer.
5. Polyvinylchloride waterstops as shown on Standard Details BD 104-77 shall be placed in all vertical contraction joints.
6. Waterstops are not required in horizontal construction joints.
7. Protective coating for concrete surfaces shall be applied to the following areas:
Top of concrete curbs.
Top of abutment backwalls and 1' below top of backwalls on the back side.
8. Place 4" diameter drains in breastwall and wings at 20' maximum spacing. Exact location to be determined by the Engineer in the field.
9. Welding to reinforcing steel will be allowed in the top 2' of the abutment backwall.
10. The top portion of the abutment backwall shall be placed after all superstructure structural slab concrete is in place and after all necessary adjustment to the joint armor have been made, unless another method which allows for the proper alignment and adjustment of the joint armor is approved by the Engineer.
11. Structural steel shall be in place before backfill behind abutment is placed above the elevation of the approach slab seat.
12. Adjust reinforcing steel to fit around utility openings as directed by the Engineer.
13. The abutment bridge seats and breastwall shall be protected from rust staining by leaving forms in place temporarily or by covering the concrete after removal of forms. Polyethylene sheets or other approved material, shall be placed on and around the abutment bearing areas prior to setting the bearing pedestals, and shall extend underneath the masonry plates such that water will run off the pedestals onto the sheets. Protective coverings of either forms or polyethylene sheets shall remain in place at least until concrete placement for the structural concrete slab has been completed, and as long after that time as convenient for the Contractor. In any case, the Contractor shall obtain approval of the Engineer prior to removing the protective coating. Removal of stains will not be required unless, in the opinion of the Engineer, the Contractor has not made satisfactory effort to prevent staining.



SECTION A-A

PILE NOTES

1. Piles shall be driven to ledge or practical refusal.
2. All piles shall have Pointed Reinforced Pile Tips as shown on Standard Detail BD 104-77.
3. Alternate types of Pointed Reinforced Pile Tips may be used if they have at least the cross-sectional area of the Pointed Reinforced Pile Tip shown on the plans and approved by the Engineer.
4. Estimated driven length of piles are determined from available soils information with no allowance for uncertain pile penetration.
5. Embedment of piles in footings may vary between 1'-0" and 2'-0" and the actual embedment length up to a maximum of 1'-6" will be included in measurement for payment.
6. Piles marked thus ∇ shall be battered 3 inches per foot in the direction of the arrow.
7. Maximum calculated pile loads: 70 tons.
8. Following are pile locations, number of piles required, size of piles and estimated driven lengths:
Abutment Number 1 15-HP 12x53 @ 68 feet
Abutment Number 2 15-HP 12x53 @ 78 feet

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COVERED BRIDGE
OVER
AROOSTOOK RIVER
IN THE CITY OF
PRESQUE ISLE
AROOSTOOK COUNTY

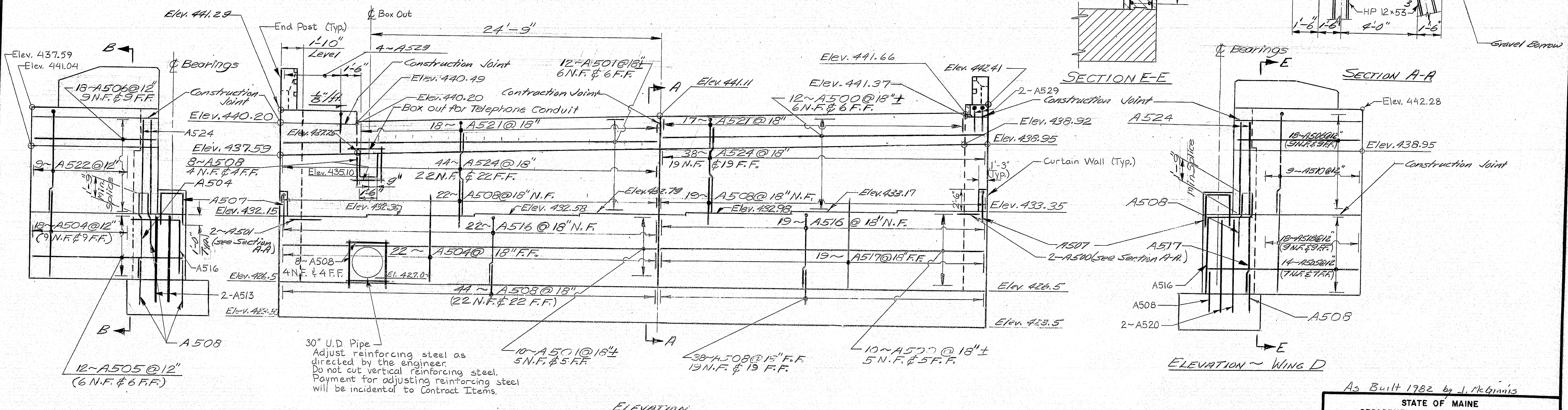
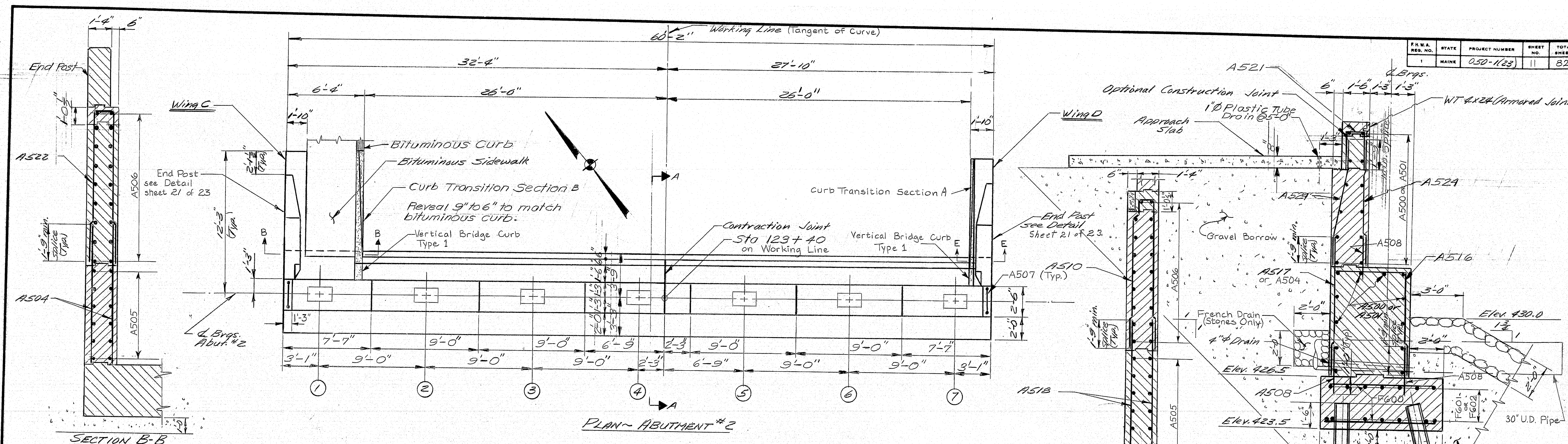
ABUTMENT FOOTINGS & APPROACH SLABS

SHEET 7 OF 23 AUGUSTA, MAINE

183-47

PROJECT DESIGN ENGINEER	DATE
BY	8-79
DESIGN - DETAIL	RES
CHECKED	W. PETERSON
REVISIONS	8-80
FIELD CHANGES	
PLANS	

F.H.W.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1123	11	82



PROJECT DESIGN ENGINEER	DATE
BY	10/79
DESIGN - CHECKED	10/79
REVISIONS	11/79
FIELD CHANGES	2-80

REFERENCES:
 For detail of Approach Slab see sheet 11 of 23.
 For detail of Footing see sheet 7 of 23.
 For detail of Curb Transition Sections A-B see sheet 15 of 23.
 For Abutment Notes see sheet 7 of 23.

As Built 1982 by J. McGinnis

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

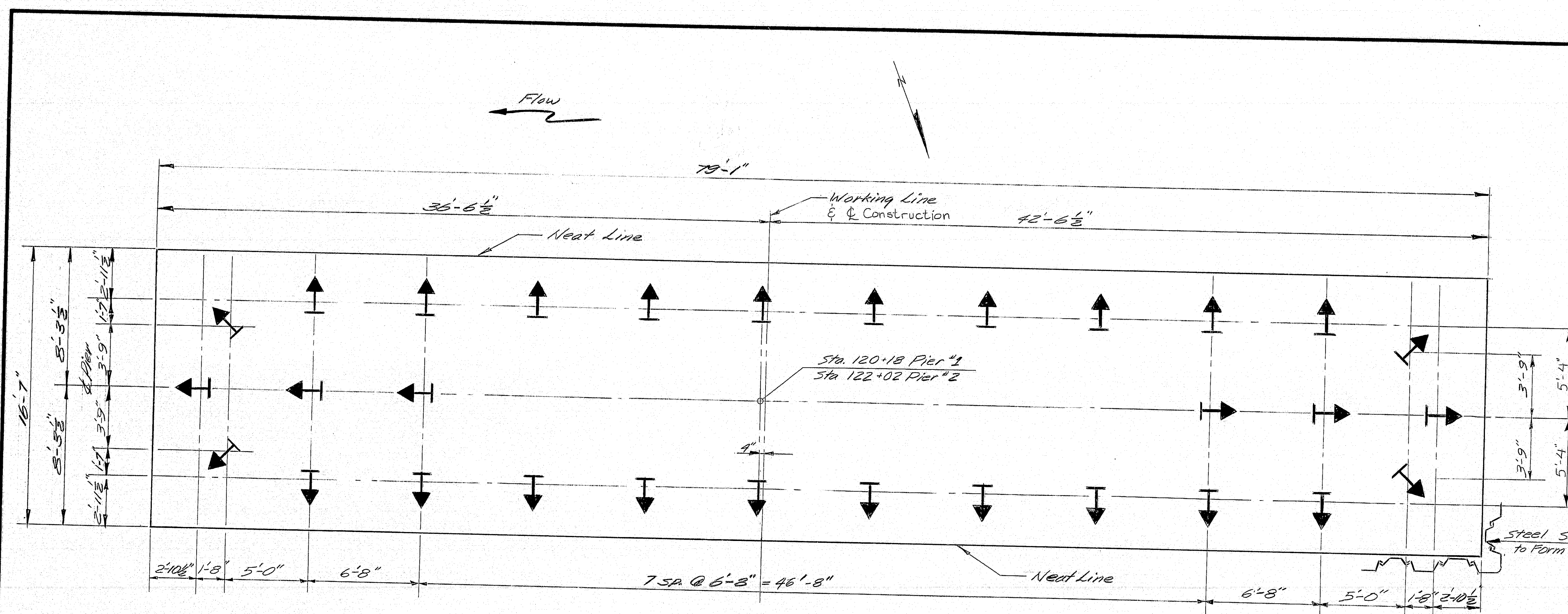
**COVERED BRIDGE
 OVER
 AROOSTOOK RIVER
 IN THE CITY OF
 PRESQUE ISLE
 AROOSTOOK COUNTY**

ABUTMENT NO. 2

183-49

SHEET 9 OF 23 AUGUSTA, MAINE AUG 1980

F.H.W.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(23)	12	82



PILE LAYOUT
PIERS 1&2

PIER NOTES

1. Chamfer all exposed edges of concrete a consistent dimension between $\frac{1}{4}$ " and $\frac{3}{4}$ " inclusive.
2. Reinforcing steel shall have 4 inches minimum cover unless otherwise indicated.
3. Place reinforcing steel on bridge seats to clear anchor bolts.
4. Seal concrete dimensions are predicated on use of PDA 27 or equivalent steel sheet piling with appropriate standard rolled corners. Lay dimensions for seal concrete shall be to the neat lines shown plus 5 inches all around.
5. The depth for the seal is set for a water elevation of #14. If the water elevation at the time of construction is higher, the depth of the seal should be adjusted.
6. Pier concrete above water shall be protected from rust staining in a manner similar to that used for the Abutments. See note 13 sheet 7 of 23. Payment will be incidental to Item 502.23 Structural Concrete Piers.
7. Seal concrete shall not be placed until at least 24 hours have passed following excavation of the pier foundation.

DESIGN CRITERIA

1. Critical AASHTO Loading Group #3.
2. Stream flow Velocity of 6.2 feet per second skewed at 15° to longitudinal centerline of pier.
3. Wind Velocity of 100 mph.
4. Ice - 30" thick, producing 300 psi at Elevation #16.0 longitudinally plus 5 kips per linear foot transverse to the centerline of bearing.
5. Buoyancy - water level assumed at elevation #16.0.

PILE NOTES

1. Piles shall be driven to ledge or practical refusal.
2. All piles shall have Painted Reinforced Pile Tips as shown on Standard Detail BD 104-77.
3. Alternate types of Painted Reinforced Pile Tips may be used if they have at least the cross sectional area of the Painted Reinforced Pile Tip shown on the plans and are approved by the Engineer.
4. Estimated driven lengths of piles are determined from available soils information with no allowance for uncertain pile penetration.
5. Embedment of piles in distribution slab may vary between 1'-0" and 2'-0", and the actual embedment length up to a maximum of 1'-6" will be included in the measurement for payment.
6. Piles marked thus \rightarrow shall be battered $2\frac{1}{2}$ inches per foot in the direction of the arrow.
7. Maximum calculated pile load: 89 tons.
8. Following are pile locations, number of piles required, size of piles and estimated driven lengths:
Pier #1 30 HP 14x73 @ 52'
Pier #2 30 HP 14x73 @ 63'

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	BWP	12/79
CHECKED	N.E.R.	8-80
REVISIONS		
FIELD CHANGES		

PLANS

As Built 1982 by J. McGinnis

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COVERED BRIDGE
OVER
AROOSTOOK RIVER
IN THE CITY OF
PRESQUE ISLE
AROOSTOOK COUNTY
SEAL & PILE LAYOUT

183-50

SHEET 10 OF 23 AUGUSTA, MAINE AUG 1980

323-1 3000

[illegible]

Hand-drawn structural drawing of a column and its base. The column is 18'-10" high and 6'-6" wide. It shows reinforcement bars P401 through P502. The base is 7'-0" high and 6'-0" wide, showing a distribution slab and reinforcement bars P600 or P601. The drawing includes dimensions for various parts and labels for reinforcement bars.

Labels and dimensions include:

- Column height: 18'-10"
- Column width: 6'-6"
- Base height: 7'-0"
- Base width: 6'-0"
- Reinforcement bars: P401, P402, P403, P404, P405, P406, P502 or P503, P600 or P601, P602
- Dimensions: 12", 1'-6", 2'-4", 2'-8", 3'-0", 3'-6", 4'-0", 5'-0", 6", 9", 10'-7", 11'-6", 1'-2" Min.
- Other labels: Distribution Slab, 1/2", 3/4", 1/4"

A diagram of a rectangular grid with a semi-circular end. The grid is composed of 10 vertical lines and 10 horizontal lines. The left side is labeled 'P 600, P 601 or P 604' with a vertical dimension line. The top is labeled 'P 602' with a horizontal dimension line. The right side is labeled 'P 603' with a horizontal dimension line. The bottom is labeled 'P 605' and 'P 604' with vertical dimension lines. A small box at the bottom left contains the text '3/4 MIN' and 'SPACED (typ)'. The grid is enclosed in a semi-circular arc on the right side.

For Pier Notes see sheet #10 of 23.
For Footing & Pile Plan see sheet #10 of 23.

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

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DEPARTMENT OF TRANSPORTATION

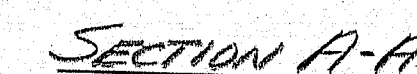
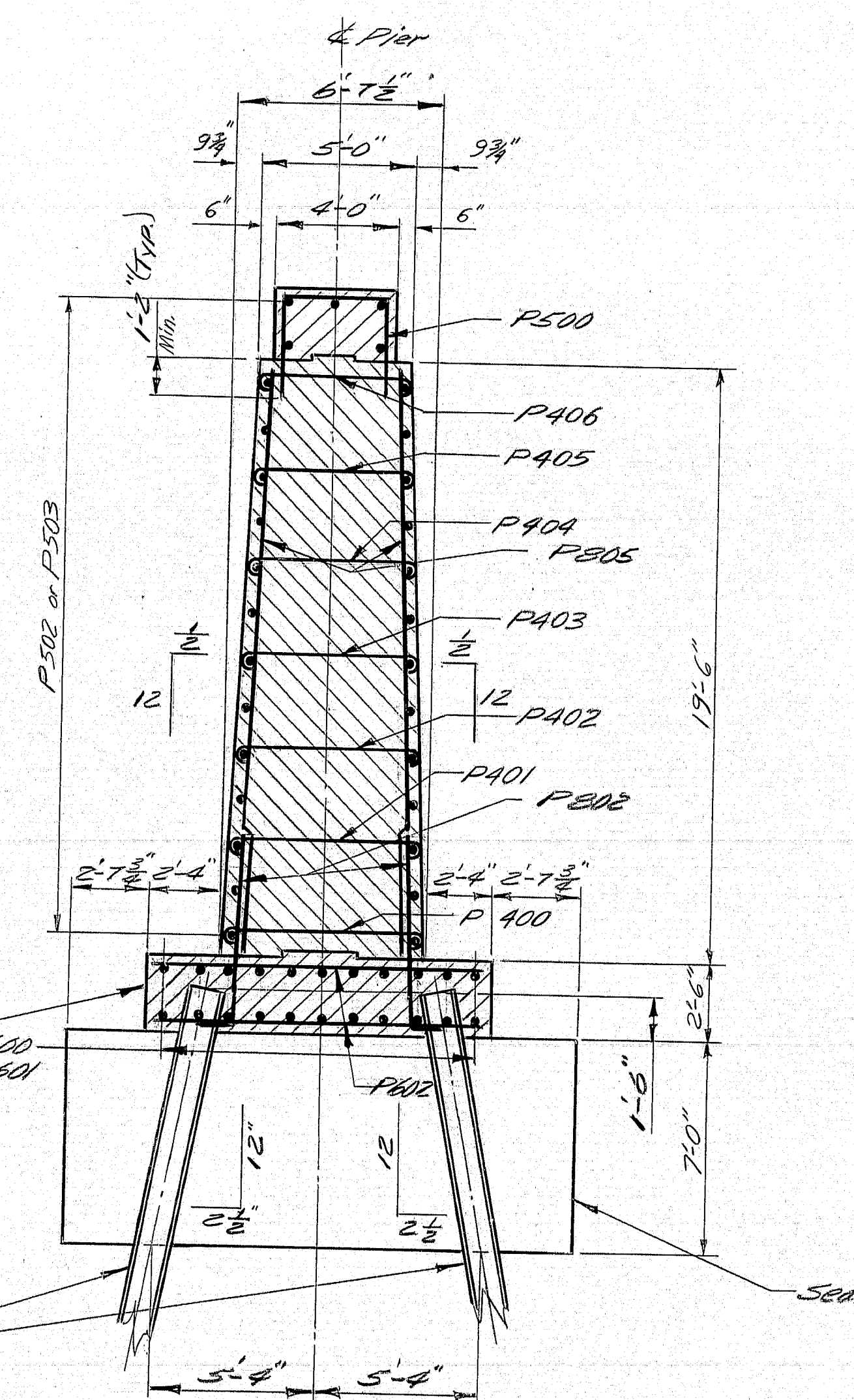
PIER NO.1

SHEET 11 OF 23 AUGUSTA, MAINE AUG 1980

183-51

203-1 2020

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	BWP RES	10/79
CHECKED	NLE R	8-80
REVISIONS		
FIELD CHANGES		



For Pier Notes see sheet # 10 of 23.
For Footing & Pile Plan see sheet # 10 of 23.
For Distribution Slab End Plan see sheet # 11 of 23.

LEGEND
E.F. = Each Face
F.F. = For Face
N.F. = Near Face

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COVERED BRIDGE
OVER

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PRESQUE ISLE
ARROSTOOK COUNTY

PIER NO.2

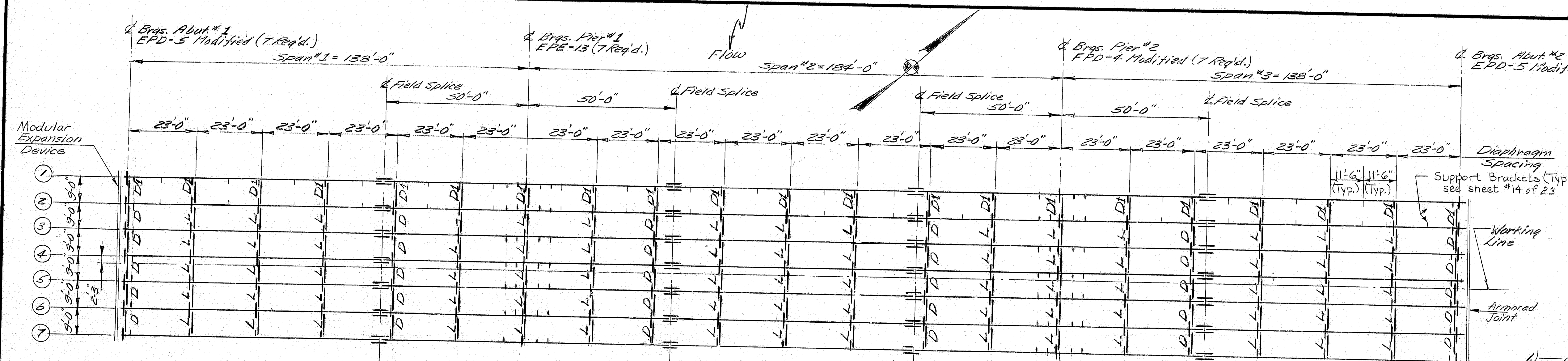
SHEET 12 OF 23 AUGUSTA, MAINE AUG 1980

183-52

1001

①	Orange Bridge sent elevations	2-27-0
REVISIONS		DATE

REV. NO.	DATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(23)	15	82



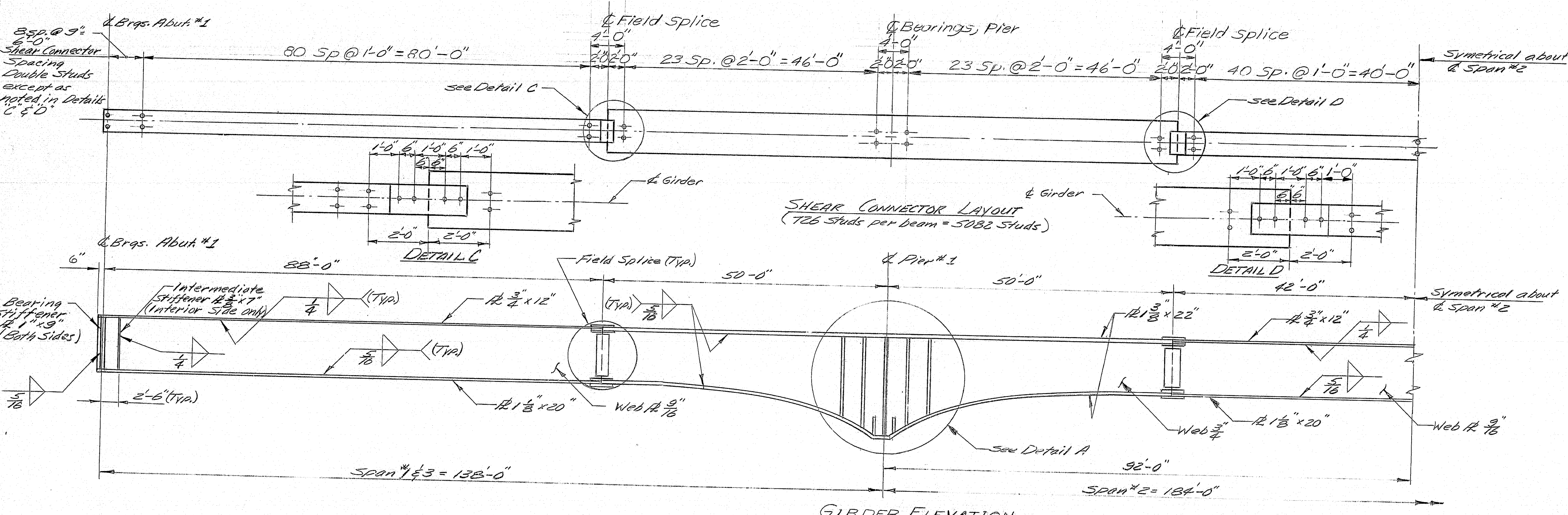
*BEARING PEDESTAL MODIFICATIONS

EDD-5	FRD-4
C = 1'-6"	C = 1'-7"
D = 2'-4"	D = 2'-5"
H = 6"	H = 1'-0"
J = 5'-8"	J = 1'-0"
G = 8"	G = 8"

*Note: For dimensions & details not given see Standard Details sh. BD100-71.

STRUCTURAL STEEL NOTES

- 1) No transverse butt weld splices will be allowed in the flange or web plates within 10 feet from the points of maximum negative moment or maximum positive moment.
- 2) Sections of flange plates or web plates between transverse butt weld splices or from field splices shall be not less than 20 feet in length unless otherwise shown on the plans.
- 3) Butt weld splices in flanges shall not be less than one foot from transverse welds in the web plates.
- 4) One longitudinal butt weld splice in the web will be allowed in the haunched sections of the girders. Feather edges between the longitudinal welds and the bottom flanges will not be allowed.
- 5) Bearing stiffeners shall be plumb after erection and dead loading of the structure. Intermediate web stiffeners and crossframe or diaphragm connection plates may be either plumb or normal to the top flange.
- 6) All bolts shall be $\frac{3}{4}$ " A.S. ASTM A325, Type 3. Bolt holes shall be $\frac{1}{16}$ " unless otherwise noted.
- 7) All dimensions are horizontal or vertical.
- 8) Final cuts of webs and flanges at bolted splices are to be made at time of shop assembly, with abutting members in the exact relative position for erection.
- 9) Mill tests for filler plate material will not be required.



BASIC ALLOWABLE STRESSES

Structural Steel: ASTM A588	$f_y = 37,000 \text{ psi}$
ASTM A36	$f_y = 29,000 \text{ psi}$
ASTM A325	$f_t = 25,000 \text{ psi}$

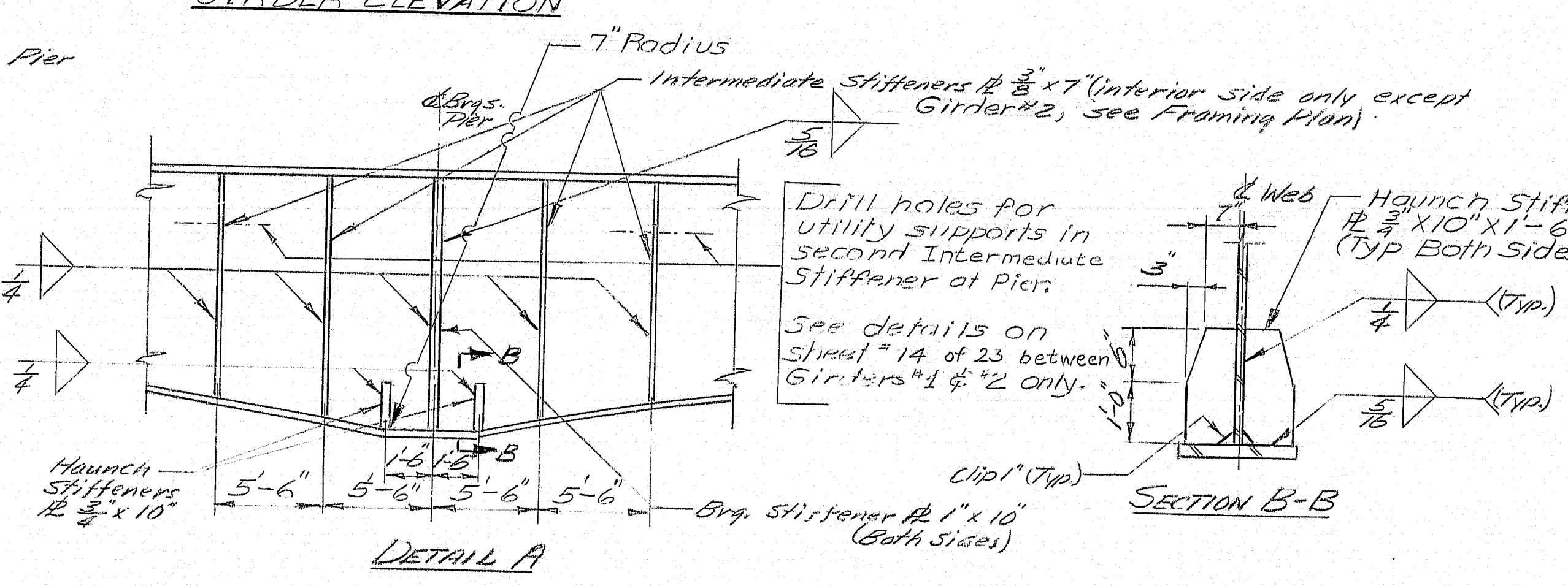
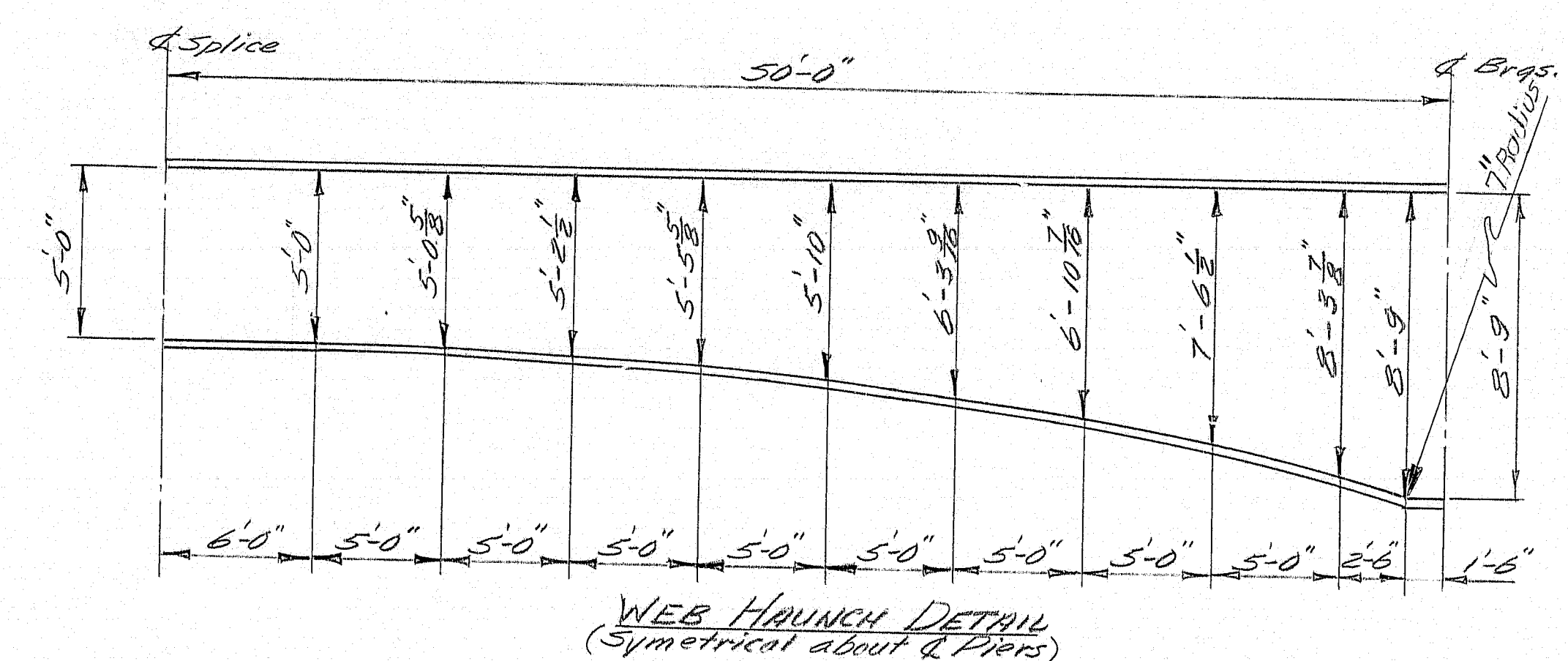
MATERIALS

Structural Steel: ASTM A588 (unpainted) except as otherwise provided.
High strength Bolts: ASTM A325, Type 3
A3 Bolt 1985 by W.P.L. 1/2" min

REFERENCES:

- For: Brg. Pedestals see BD 100-71
- Shear Connectors see BD 104-77
- Diaphragms & Crossframes see BD 113-78
- Splice Details: sh. #14 & 23
- Bearing Stiffener Chart see sh. #14 of 23
- Camber Diagrams see sh. #15 of 23
- Modular Expansion Device Details sh. #14 of 23

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAIL	W.P.L.	8/78
CHECKED	W.P.L.	8/80
REVISIONS		
FIELD CHANGES		



SECTION B-B

Clip 1" (Typ.)
Brg. Stiffener 12" x 10" (Both Sides)

For Amused Joint Details see BD104-77 sh. #18 of 23

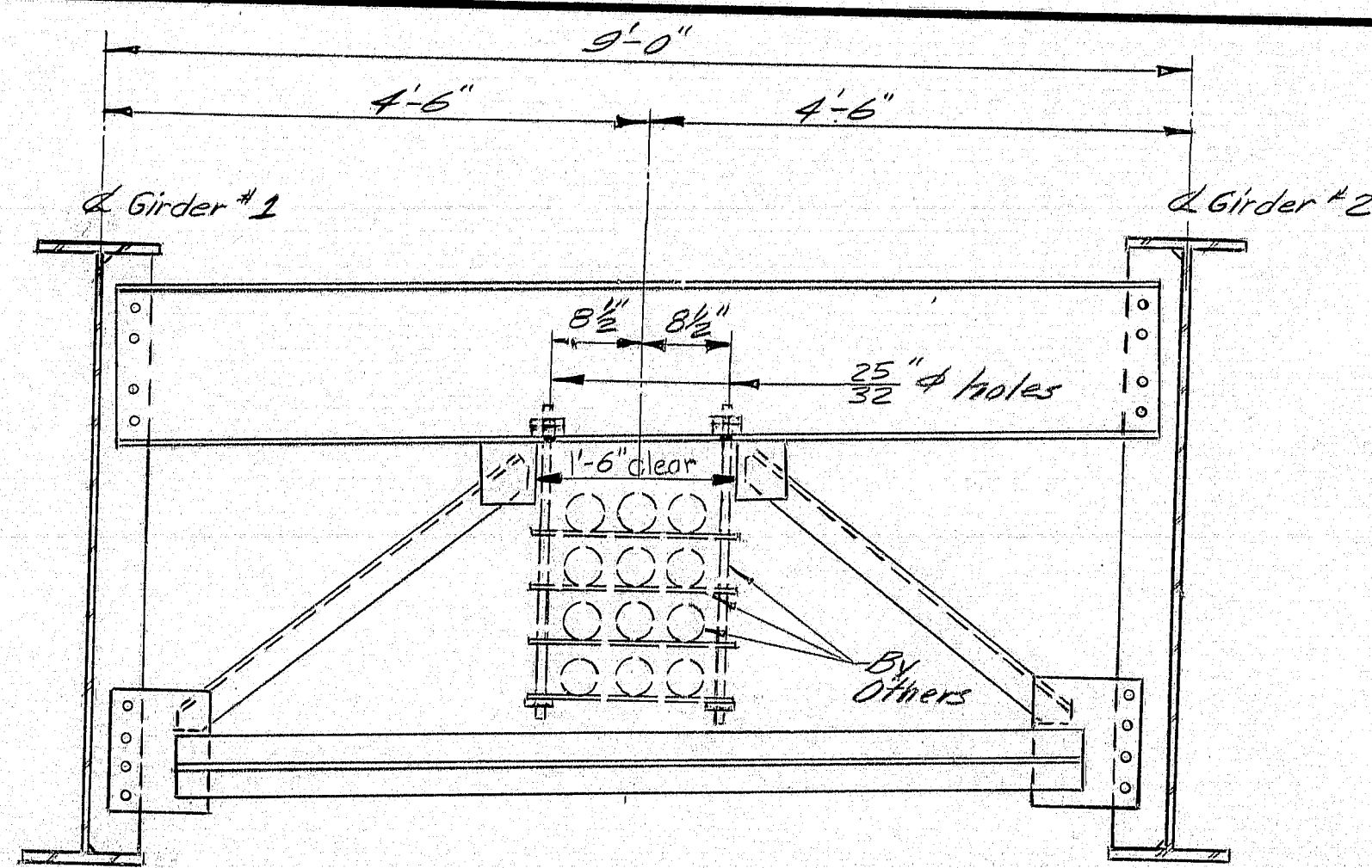
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**COVERED BRIDGE
OVER
AROOSTOOK RIVER
IN THE CITY OF
PRESQUE ISLE
AROOSTOOK COUNTY**

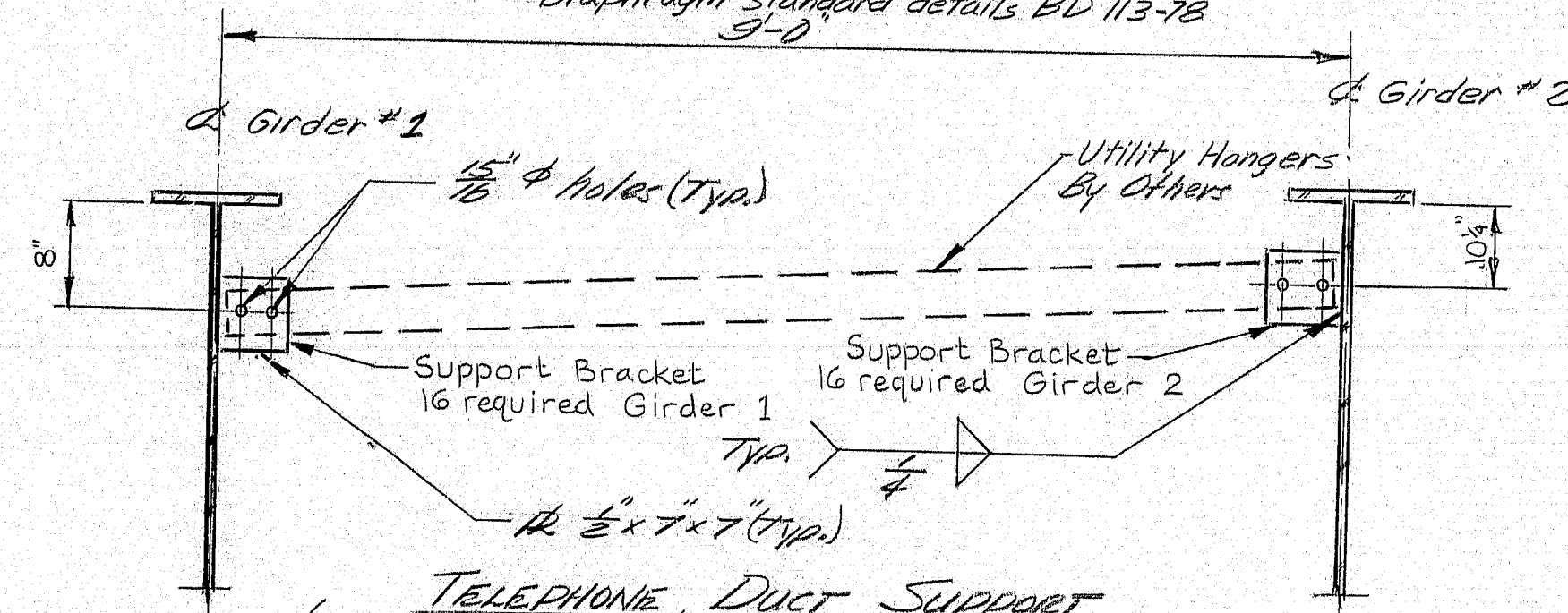
FRAMING PLAN

SHEET 13 OF 23 AUGUSTA, MAINE AUG 1980

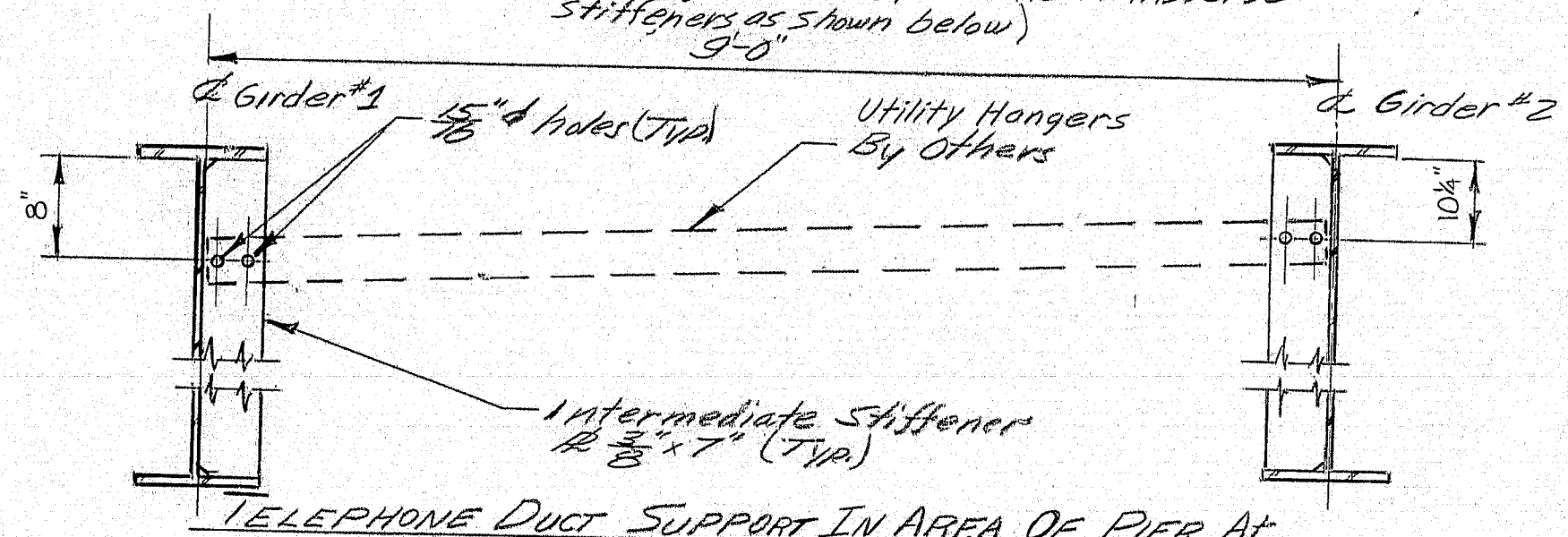
F.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1123	16	82



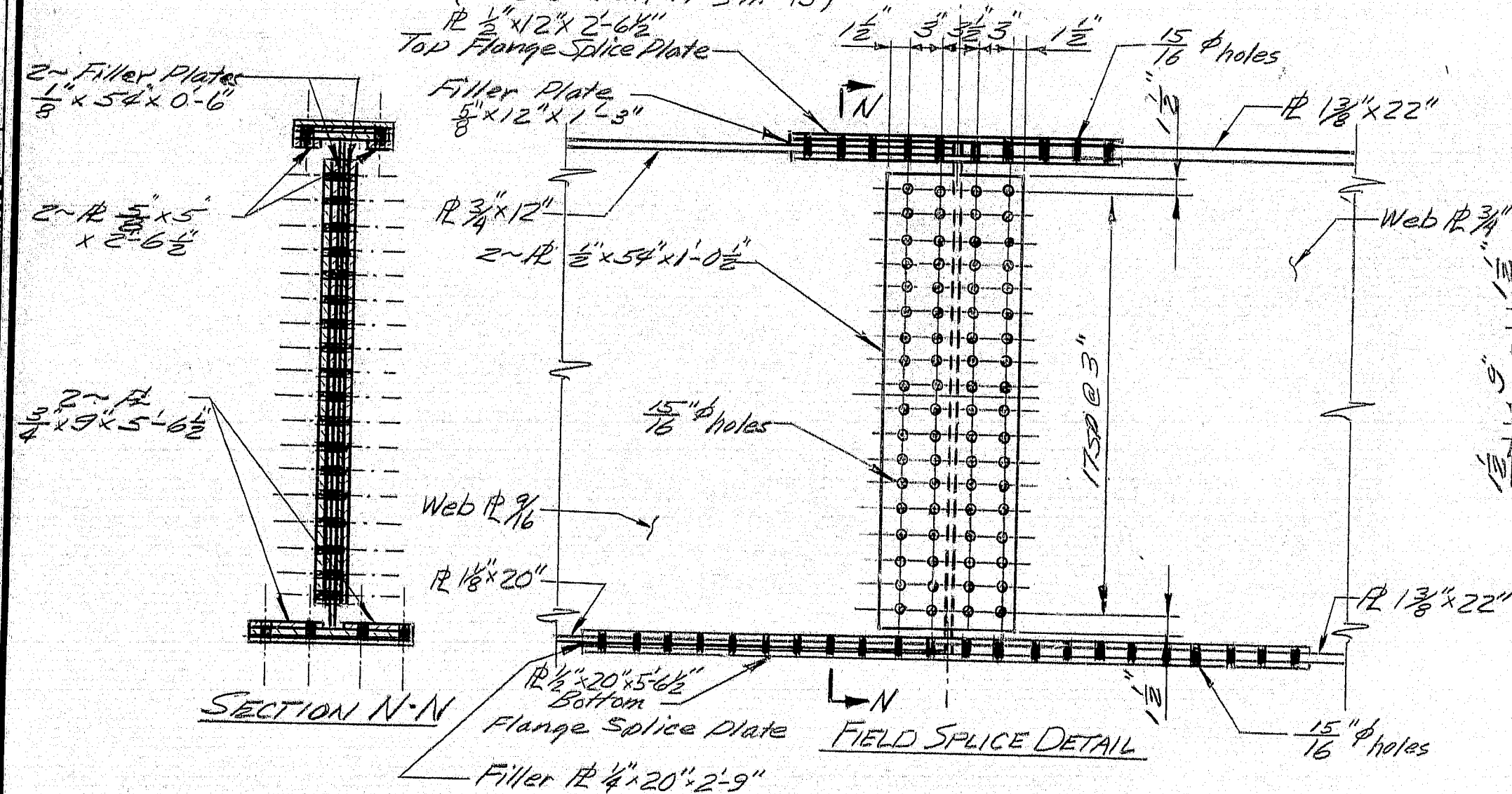
TYPE D DIAPHRAGM
(Type D Diaphragm modified
to accept utility hangers)
For details not shown see Type D
Diaphragm standard details BD 113-78
9-0



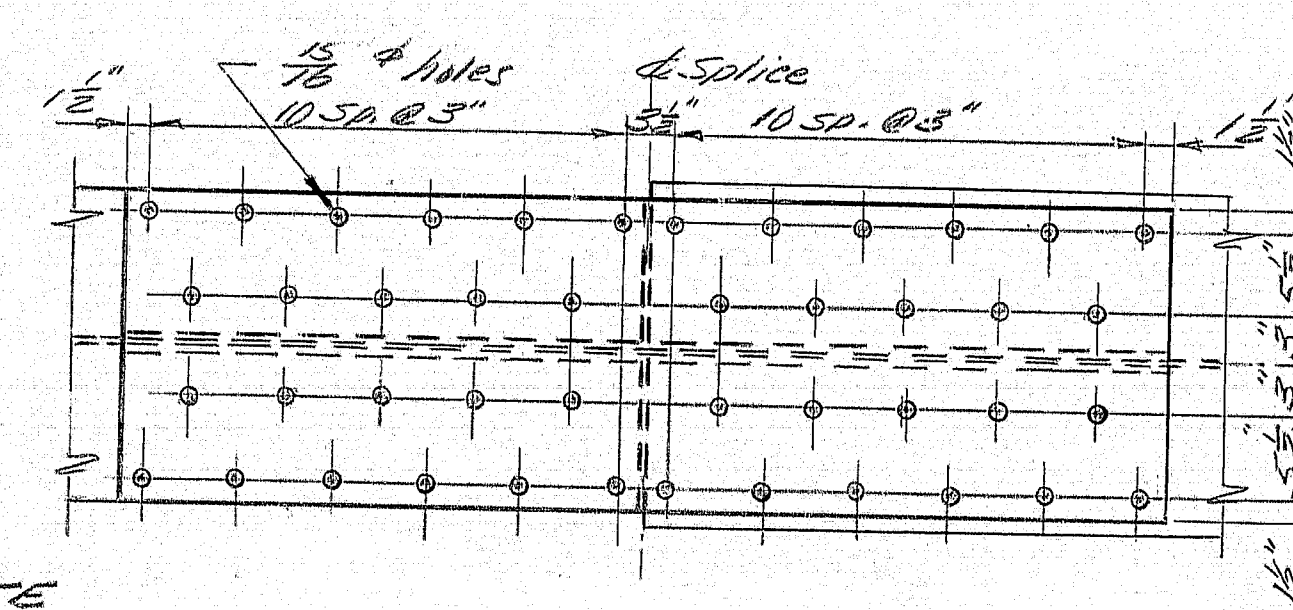
TELEPHONE DUCT SUPPORT
(Typical for all utility hangers except in area
of Pier at Bearing Stiffeners - Second Transverse
Stiffeners as shown below)
9-0



**TELEPHONE DUCT SUPPORT IN AREA OF PIER AT
SECOND TRANSVERSE STIFFENER**
(see Detail A s.h. #13)



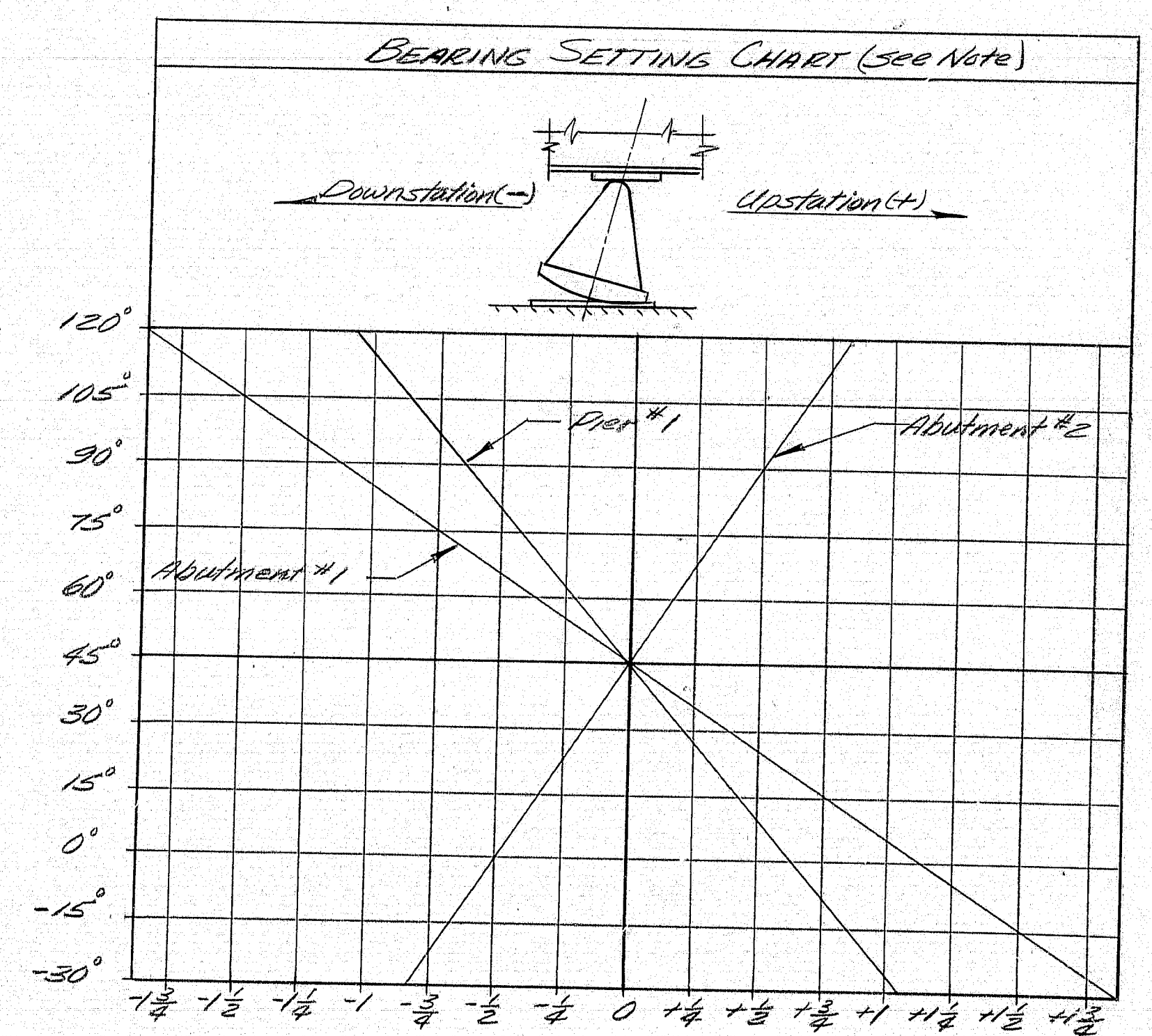
TOP VIEW SPlice PLATE



BOTTOM VIEW SPlice PLATE

REFERENCES:

For Details of Diaphragms & Crossframes see
BD 112-78
For Location of Bearing Pedestals see S.H. #13-F23
For Details of Bearing Pedestals see BD 100-71.



BEARING SETTING NOTE

The Bearing Setting Chart indicates the required final position of the bearings. It is anticipated that the bearings at abutments one and two will each move 1/2 inch away from the fixed bearings due to placement of the superstructure concrete. It is anticipated that the bearings at Pier one will not move due to placement of the superstructure concrete. No separate payment will be made for resetting bearings in the final position if an adjustment is required.

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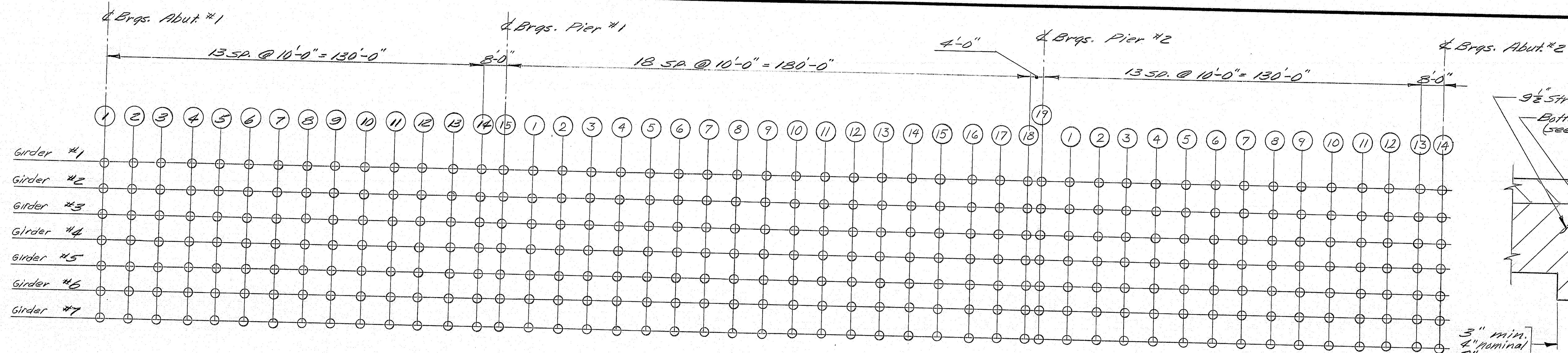
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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AROOSTOOK COUNTY**

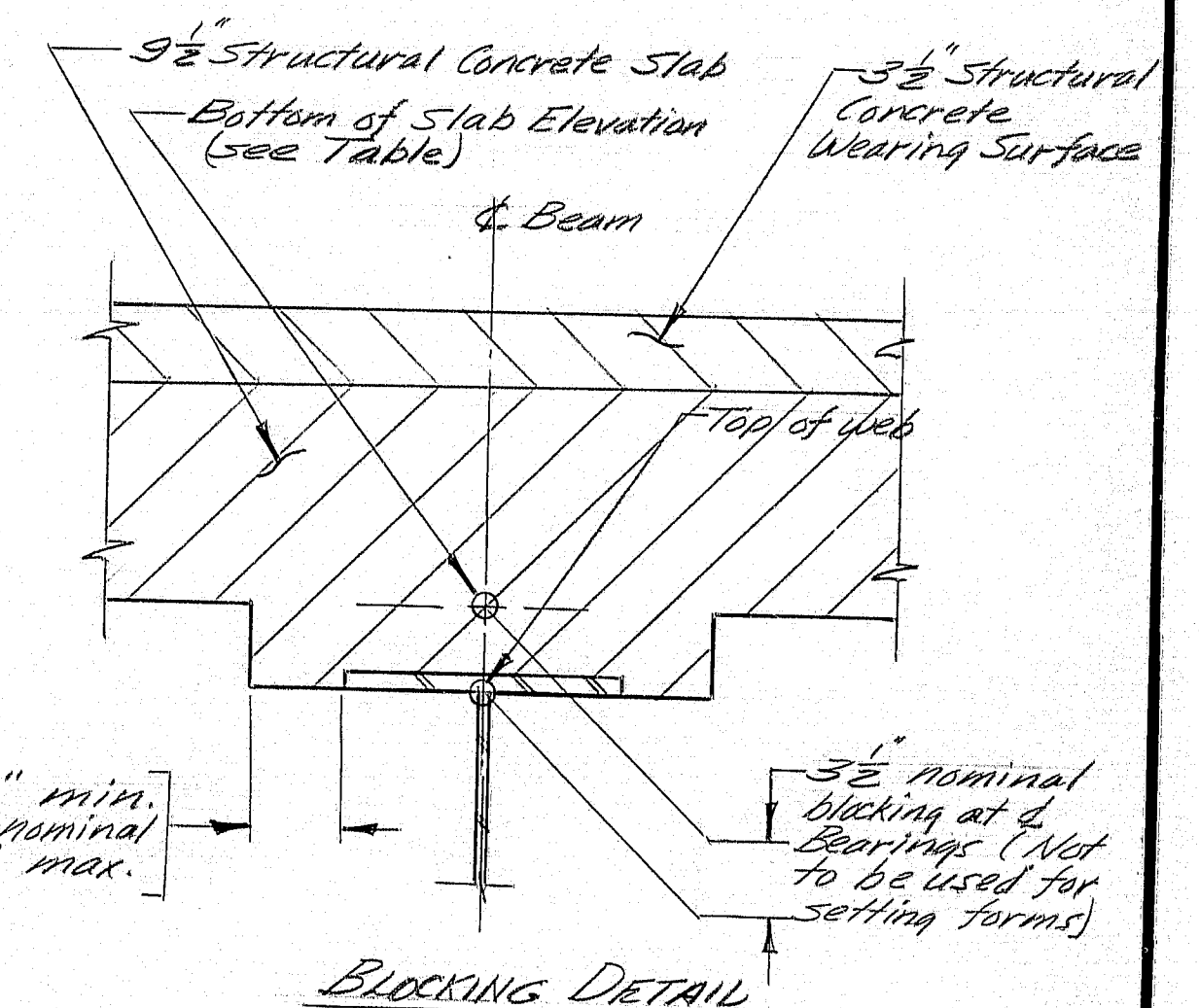
STRUCTURAL STEEL DETAILS

SHEET 14 OF 23 AUGUSTA, MAINE AUG 1980

183-54



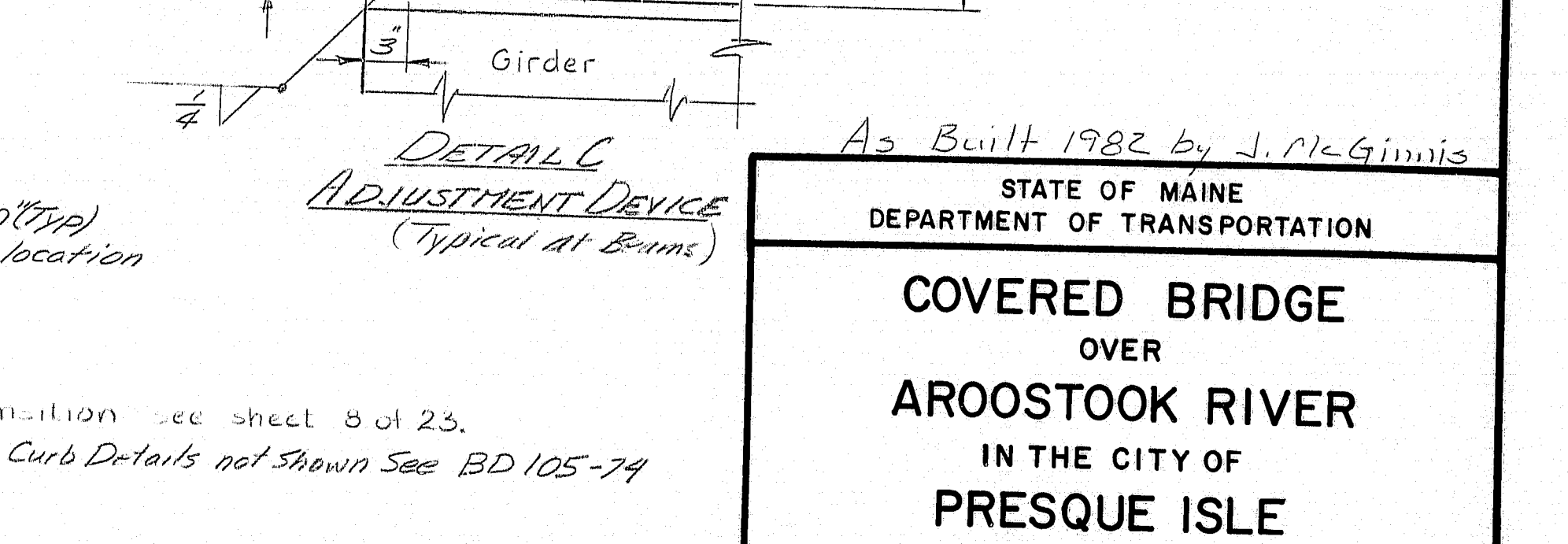
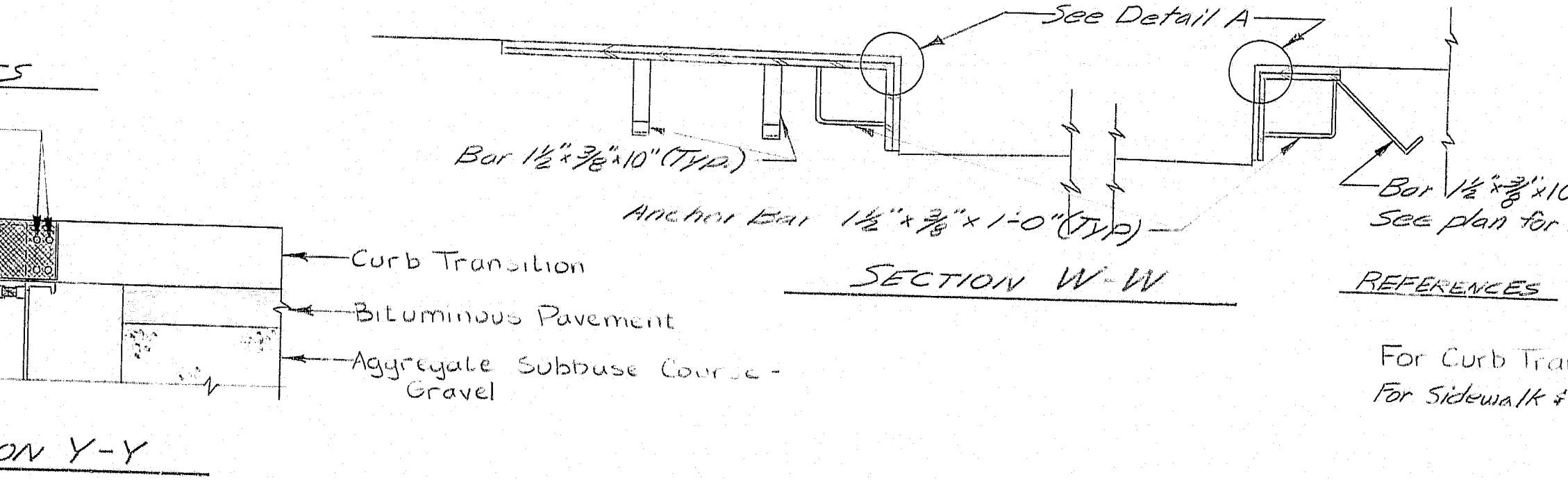
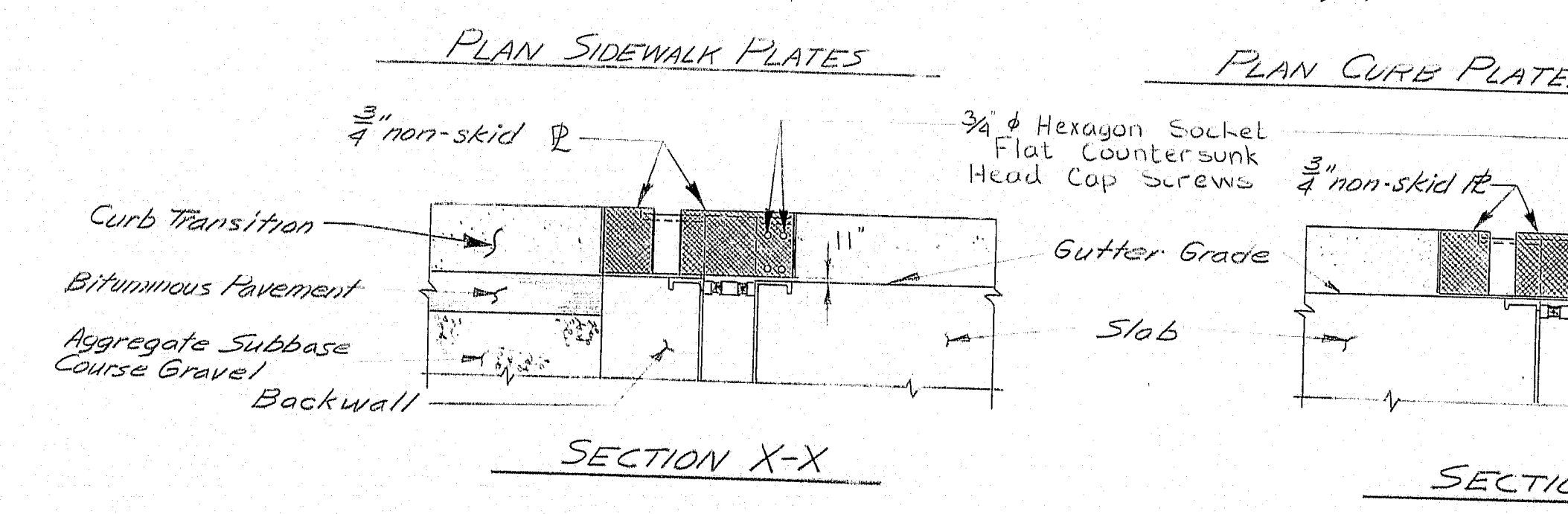
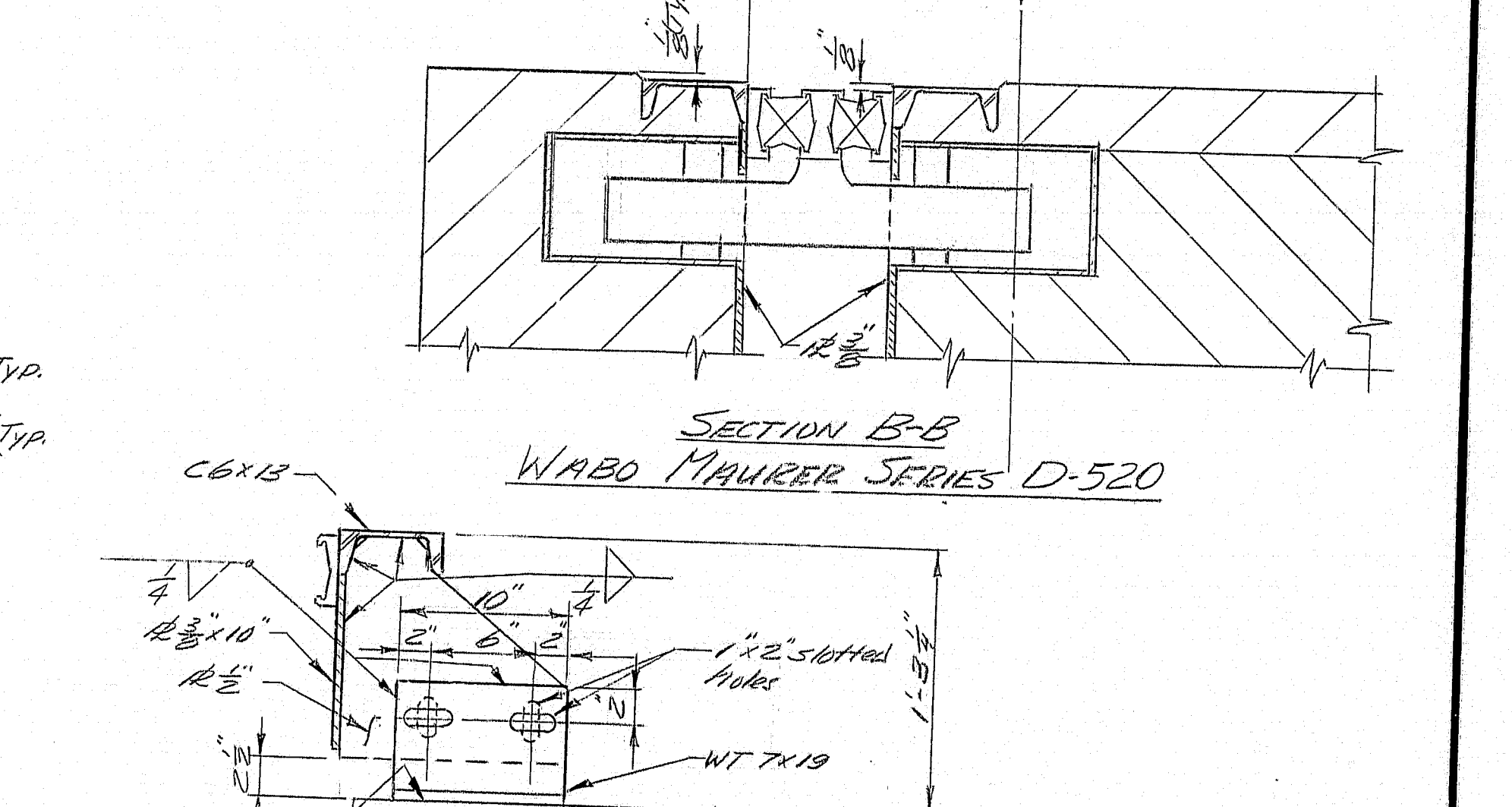
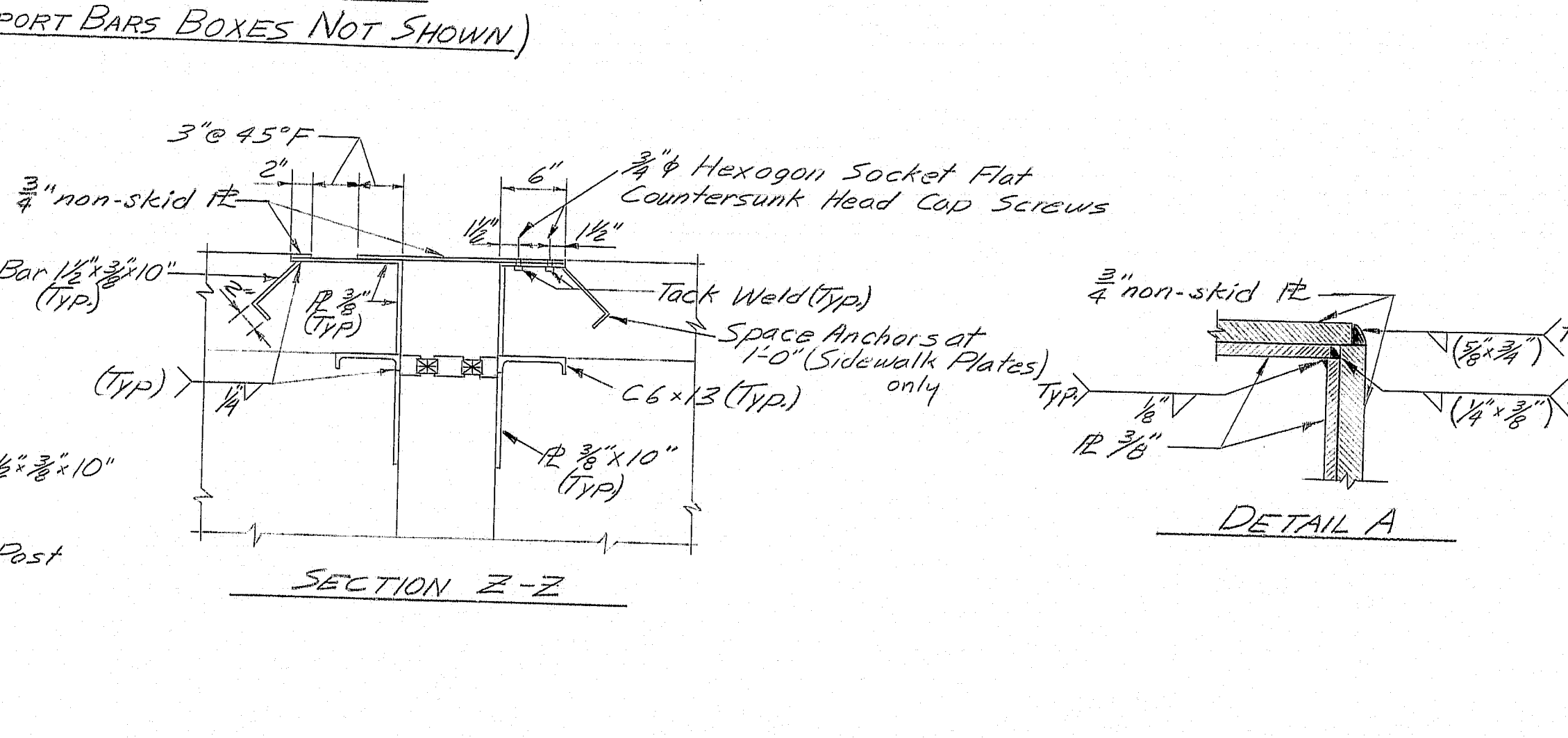
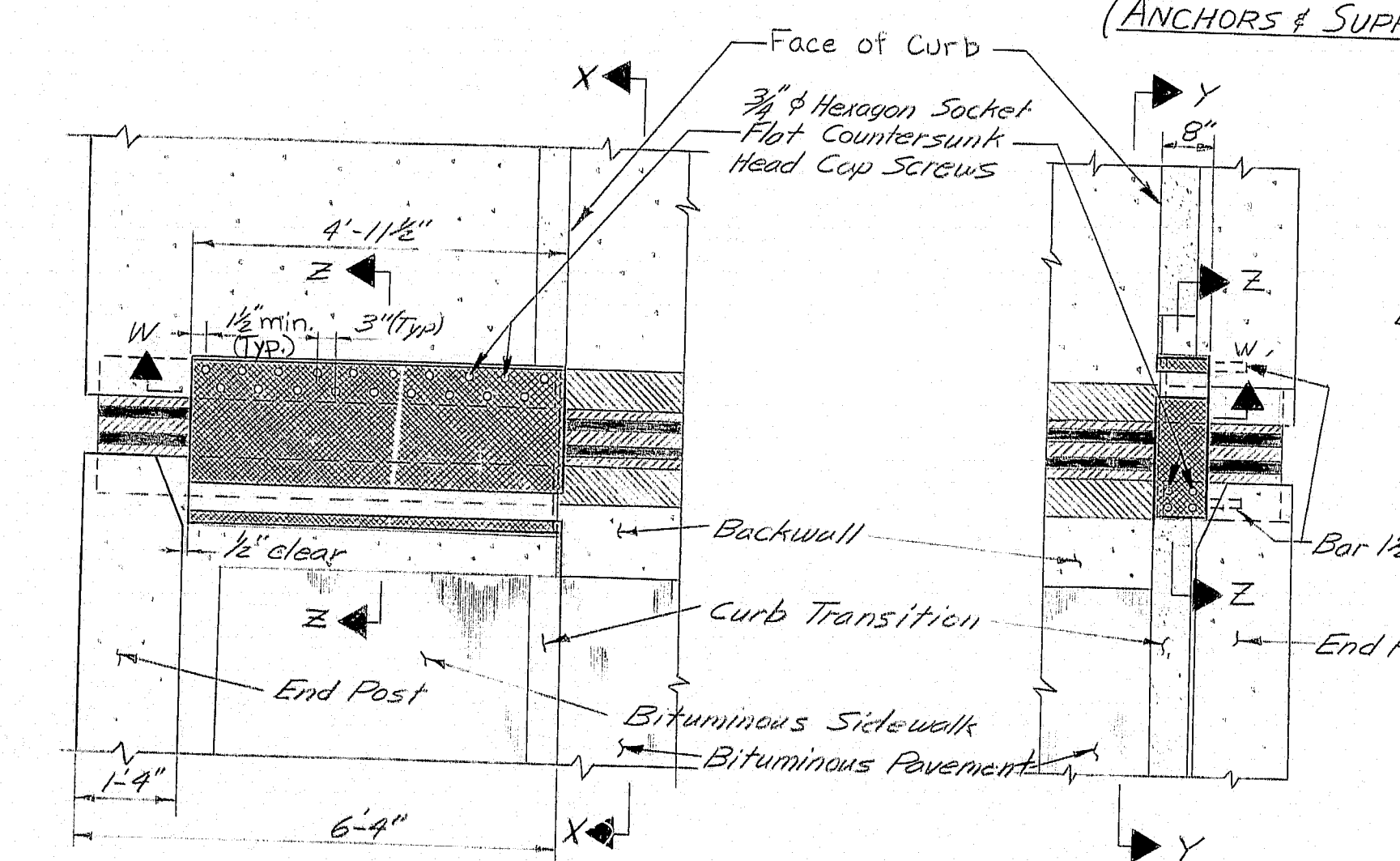
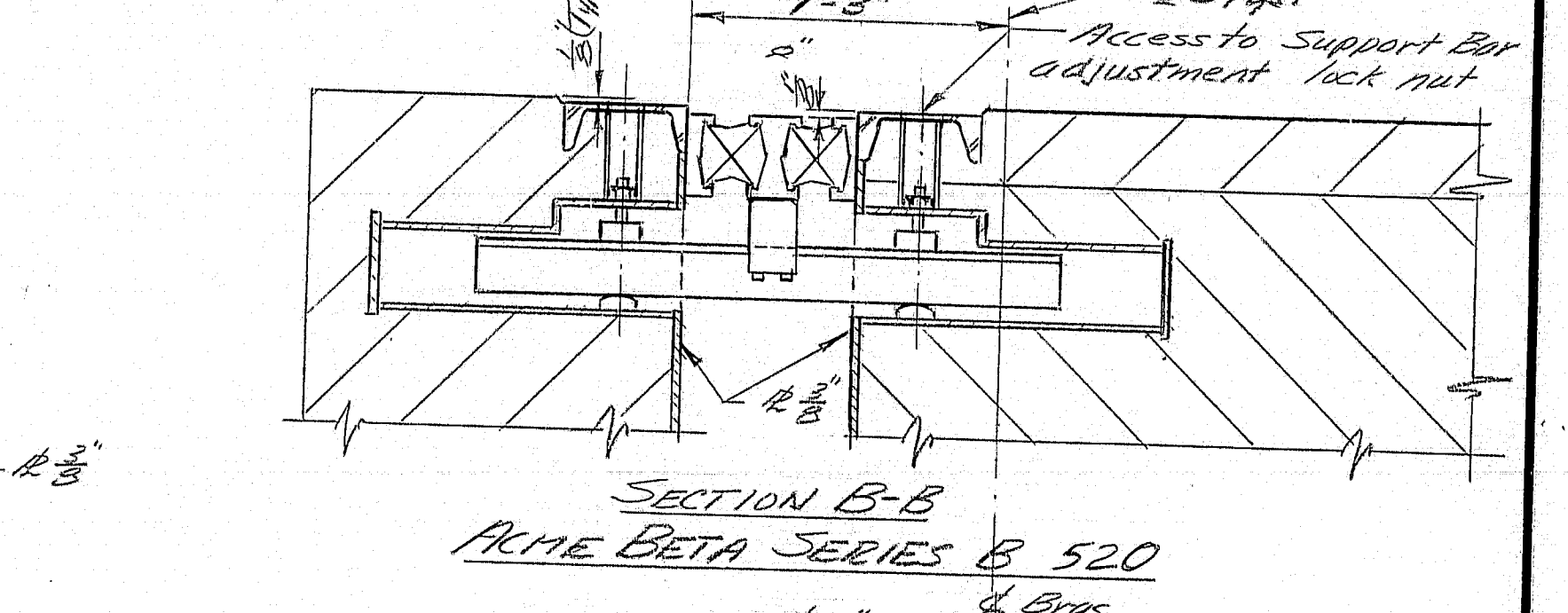
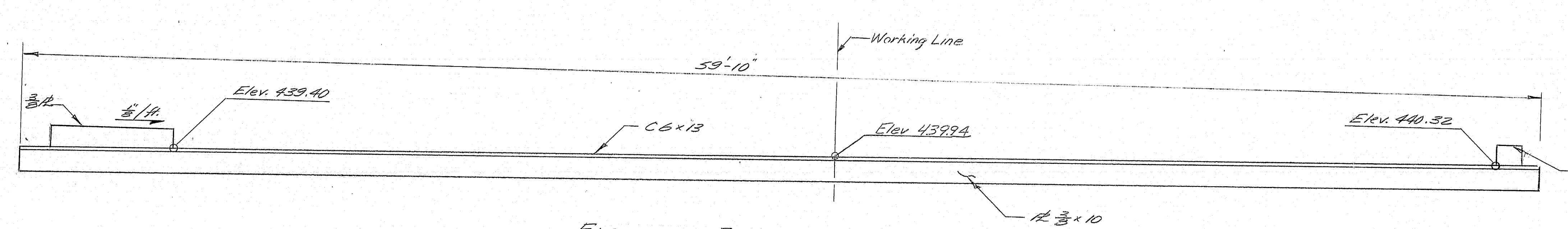
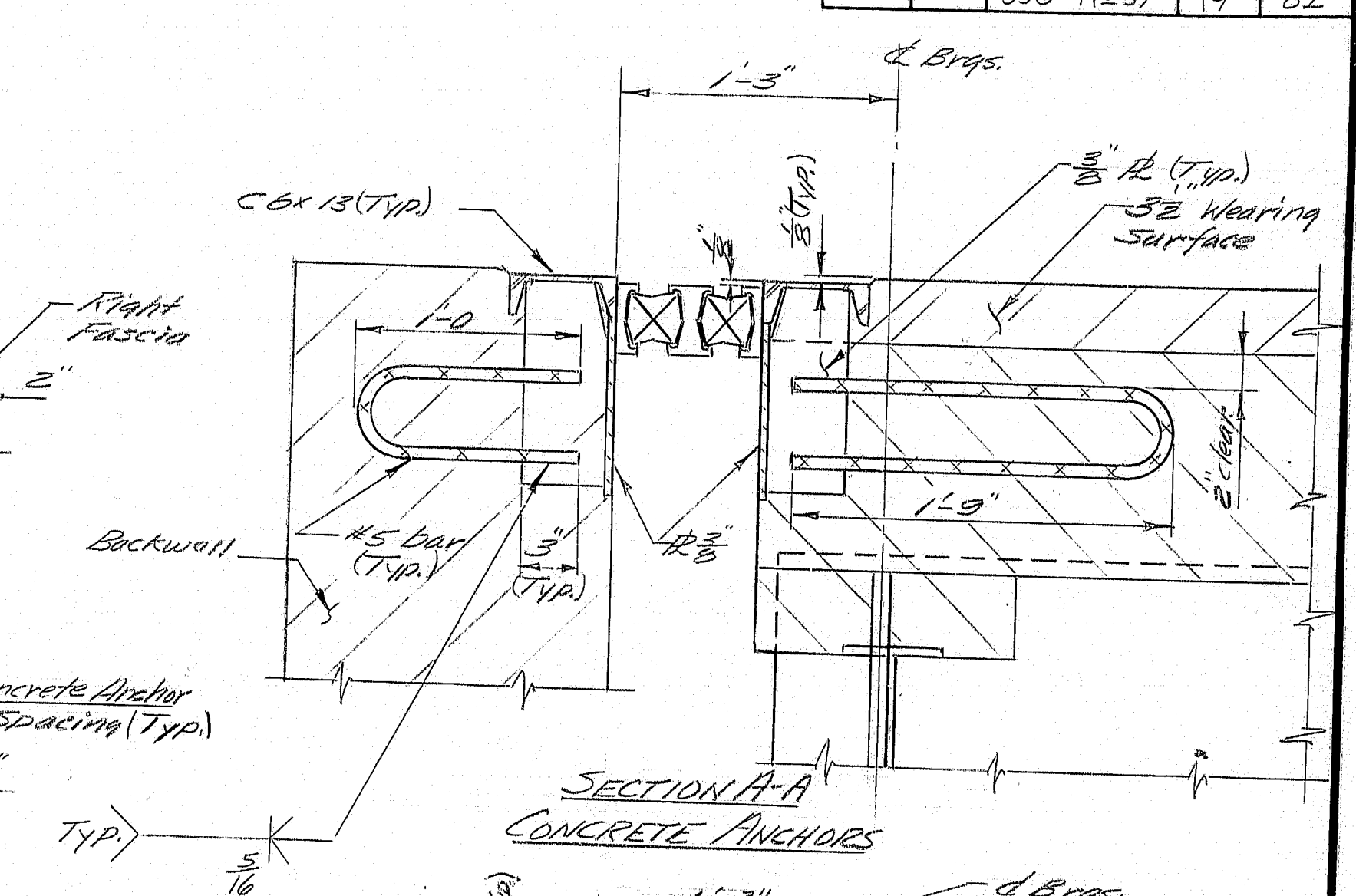
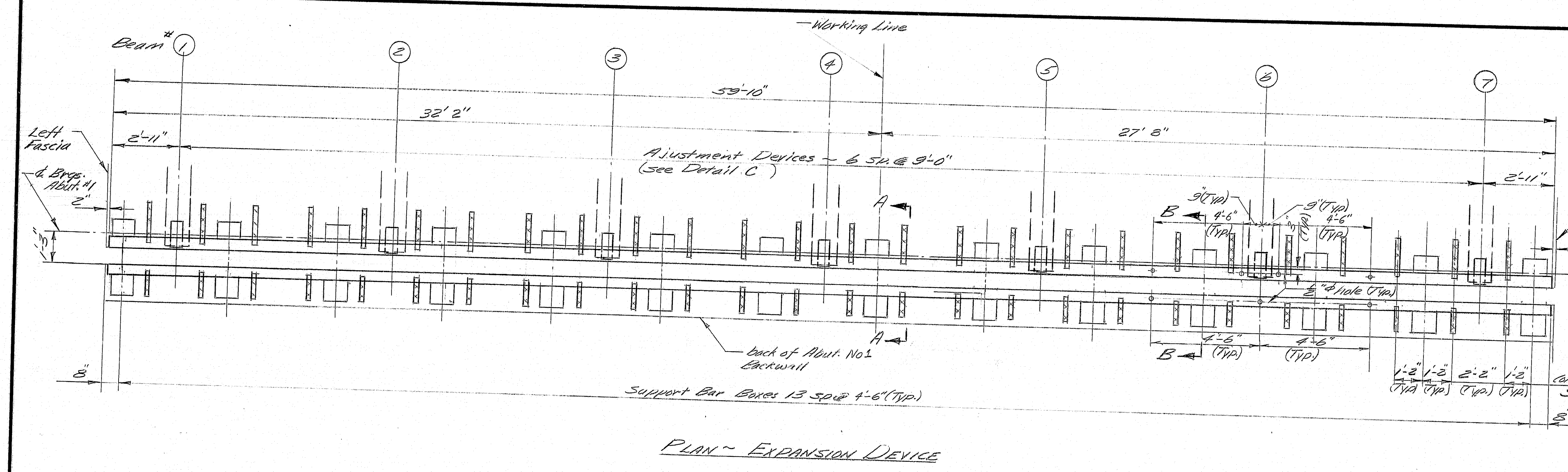
BLOCKING PLAN



BLOCKING DETAIL

SPAN #1 = 138'-0"															SPAN #2 = 184'-0"															SPAN #3 = 133'-0"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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FWA NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(23)	19	82



PROJECT DESIGN ENGINEER	DATE
BY	DATE
DESIGN - D.L.B.	8-80
CHECKED - M.E.R.	8-80
REVISIONS	
FIELD CHANGES	

As Built 1982 by J. McGinnis

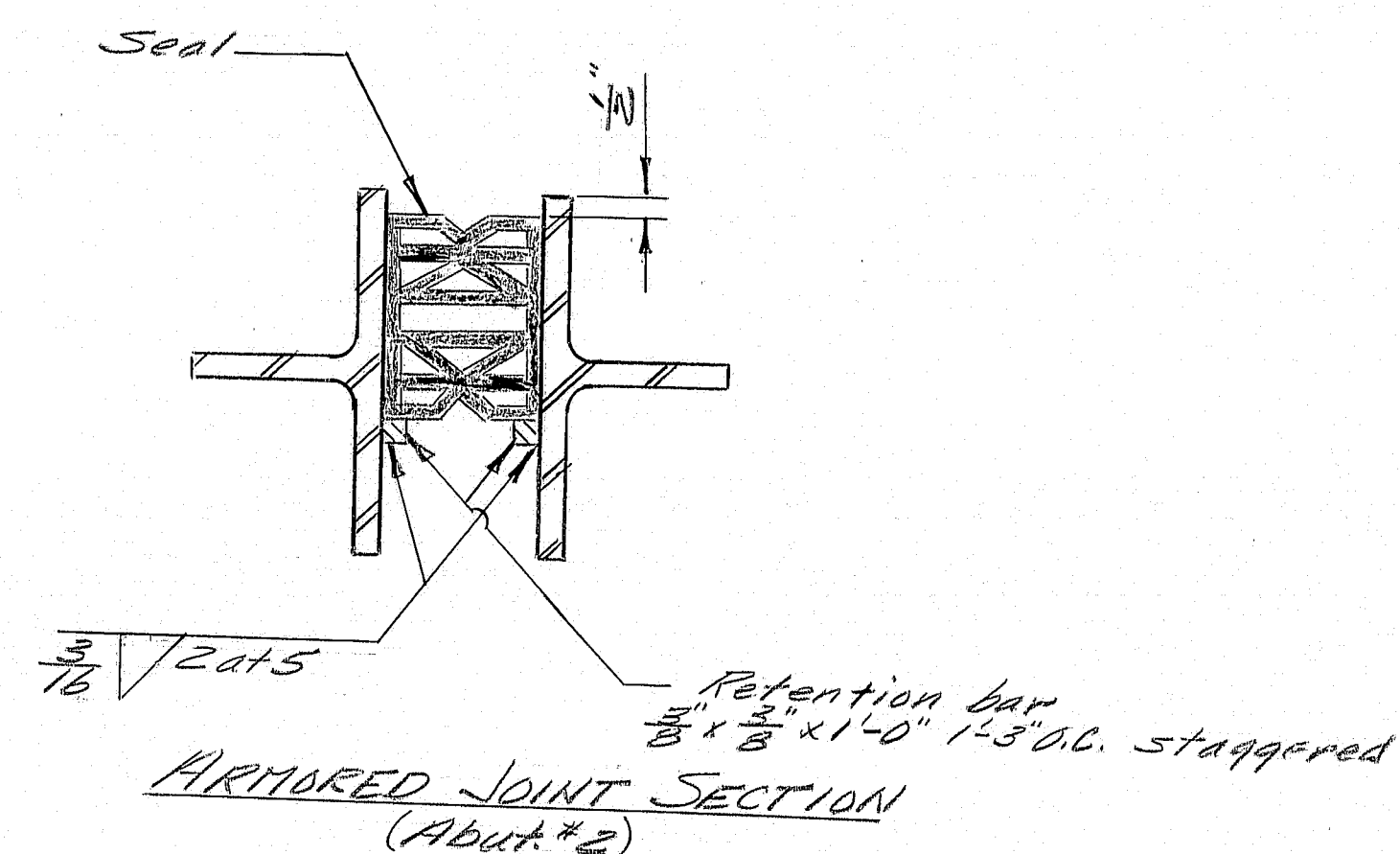
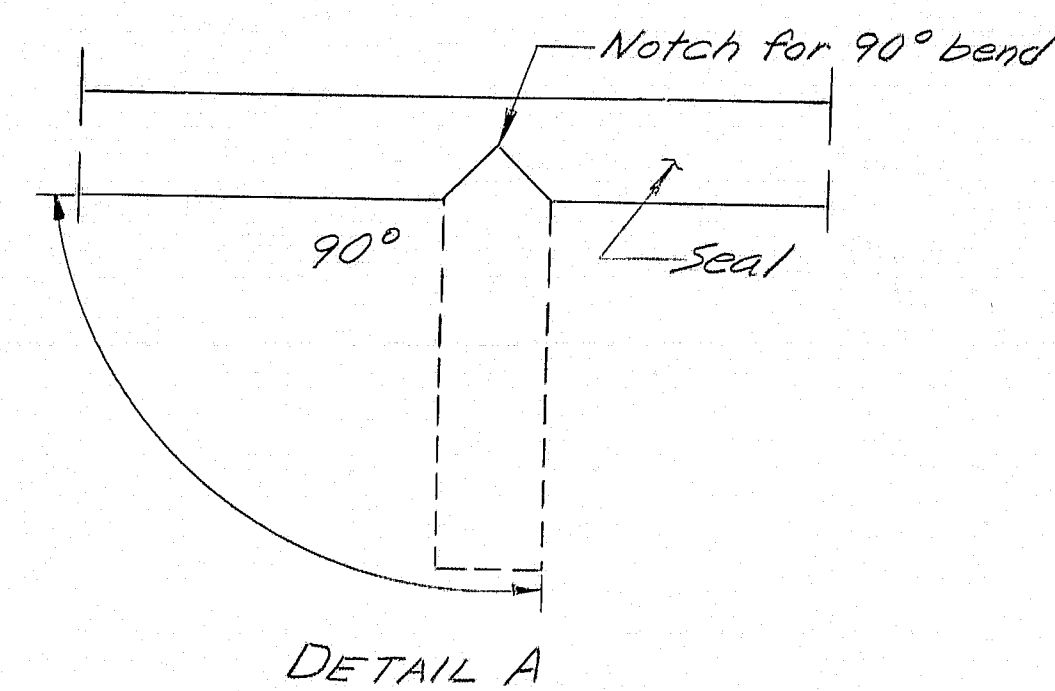
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COVERED BRIDGE
OVER
AROOSTOOK RIVER
IN THE CITY OF
PRESQUE ISLE
AROOSTOOK COUNTY
MODULAR EXPANSION DEVICE

SHEET 17 OF 23 AUGUSTA, MAINE AUG 1980

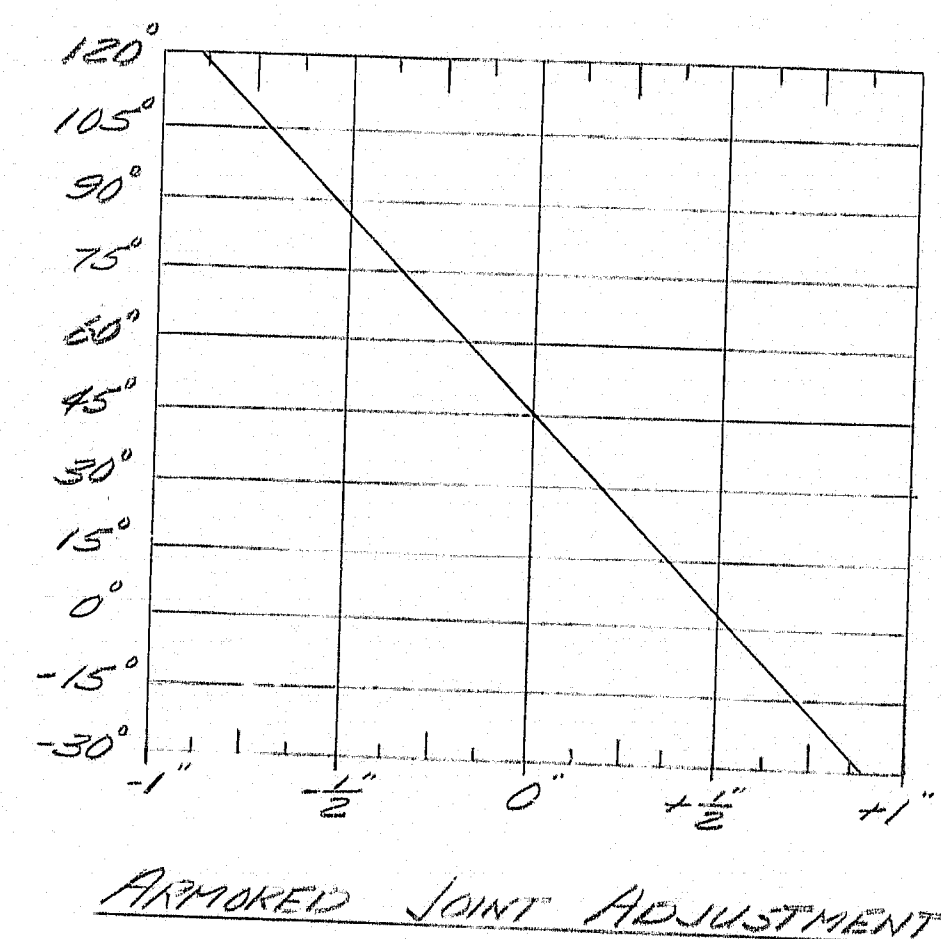
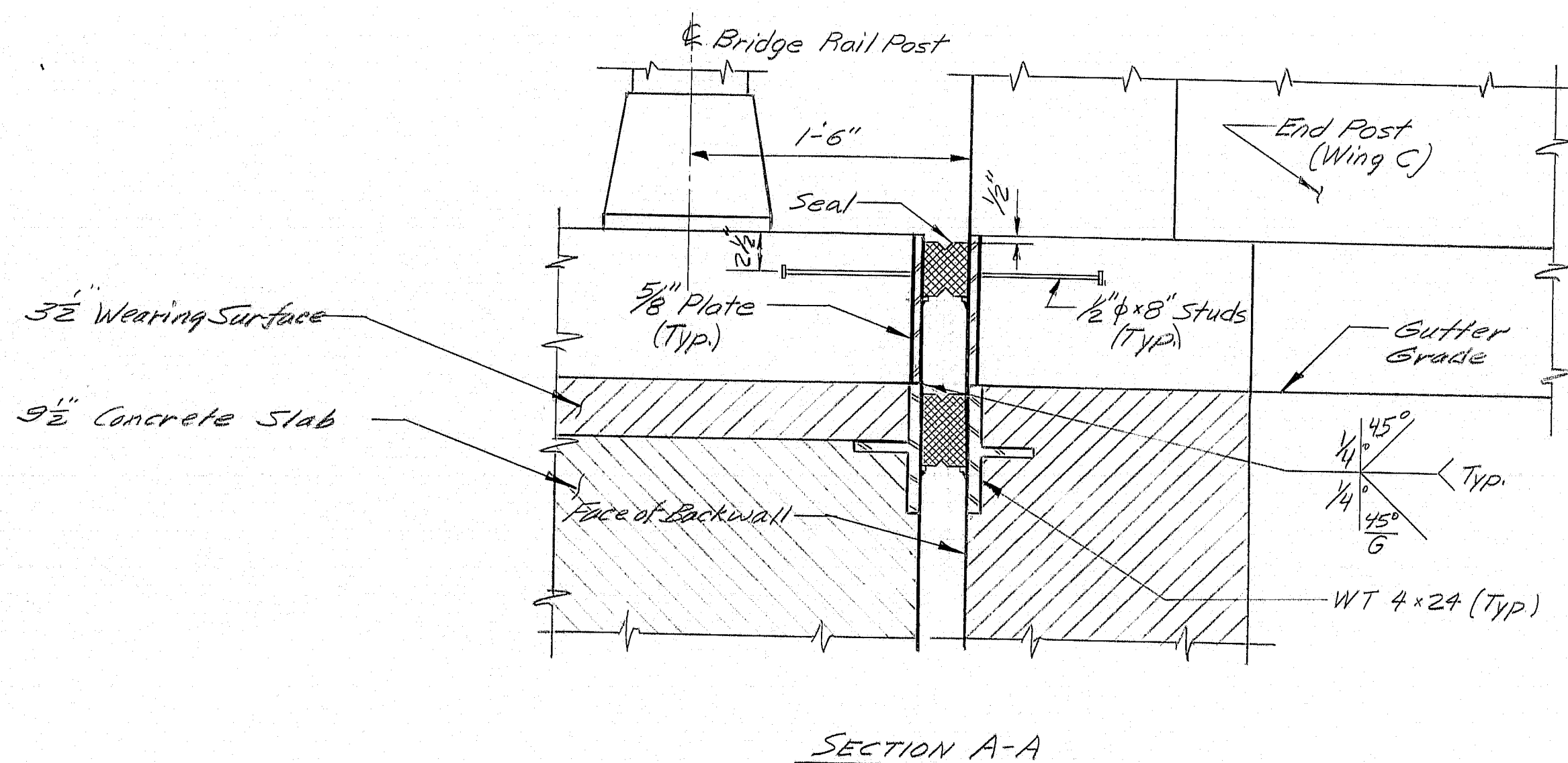
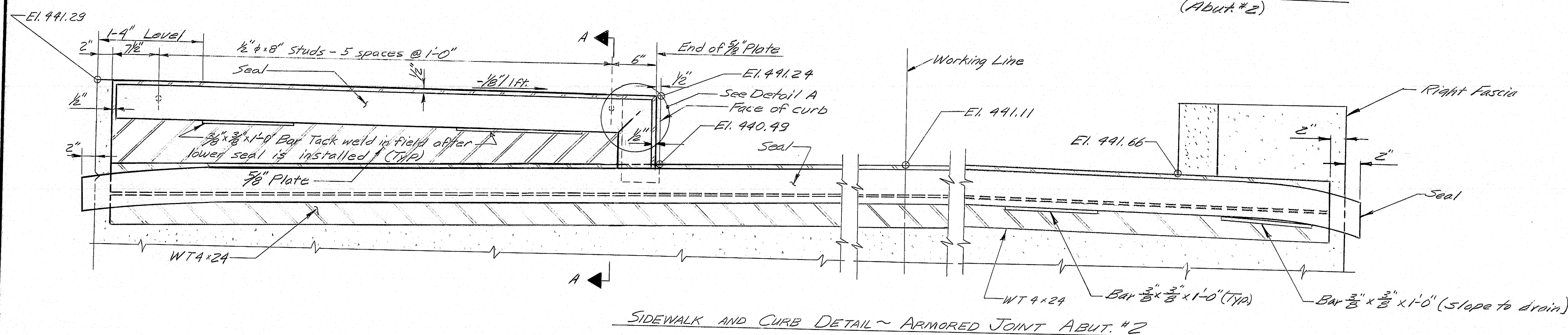
183-51

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(23)	20	82



ARMORED JOINT NOTES

1. The seal furnished for Abut #2 shall have a movement rating of $1\frac{1}{8}$ inches.
2. 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 "Armored Joint" shop detail drawings.
3. The seal shall be approved by the Engineer prior to fabrication of the armored joint.
4. The armored joint adjustment chart shows the adjustment of the joint opening to compensate for temperature only. It is anticipated that the joint will open to inch due to placement of the superstructure concrete.



REFERENCES:
For Armored Joint Details not shown see
Standard Details BD 104-77.

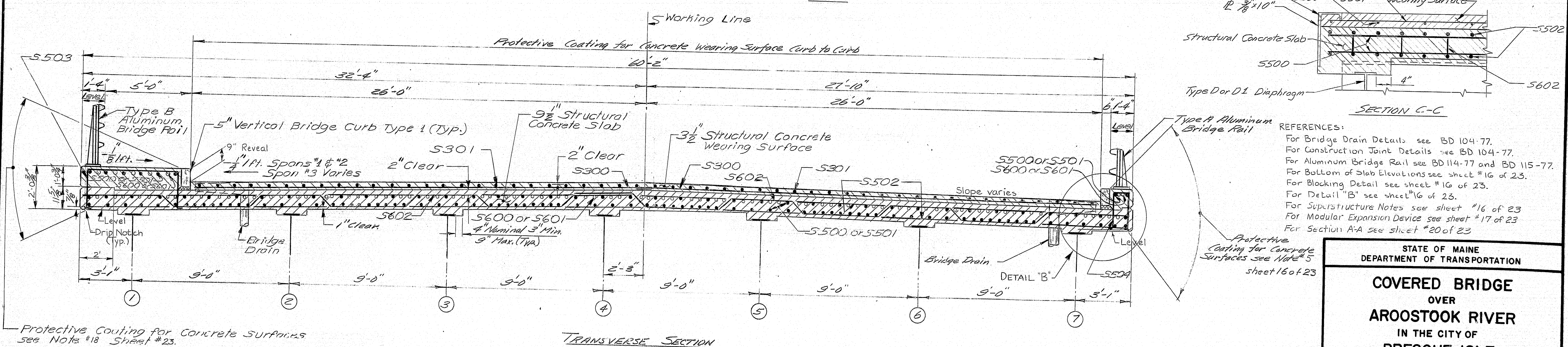
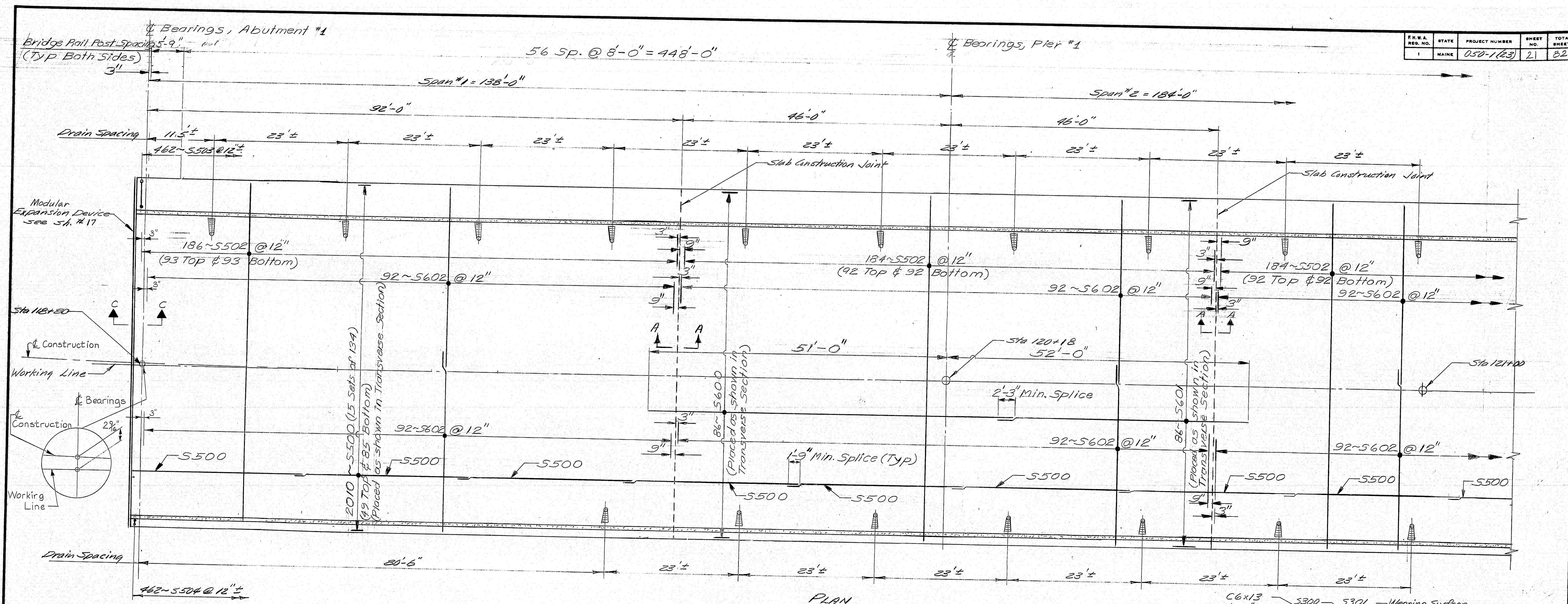
As Built 1982 by J. McGinnis
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
COVERED BRIDGE
OVER
AROOSTOOK RIVER
IN THE CITY OF
PRESQUE ISLE
AROOSTOOK COUNTY
ARMORED JOINT

183-58

SHEET 18 OF 23 AUGUSTA, MAINE AUG. 1980

303-1 3060

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEET
1	MAINE	050-1(23)	21	82



REFERENCES:

- For Bridge Drain Details see BD 104-77.
- For Construction Joint Details see BD 104-77.
- For Aluminum Bridge Rail see BD 114-77 and BD 115-77.
- For Bottom of Slab Elevations see sheet "16 of 23.
- For Blocking Detail see sheet "16 of 23.
- For Detail "B" see sheet "16 of 23.
- For Superstructure Notes see sheet "16 of 23
- For Modular Expansion Device see sheet "17 of 23
- For Section A-A see sheet "20 of 23

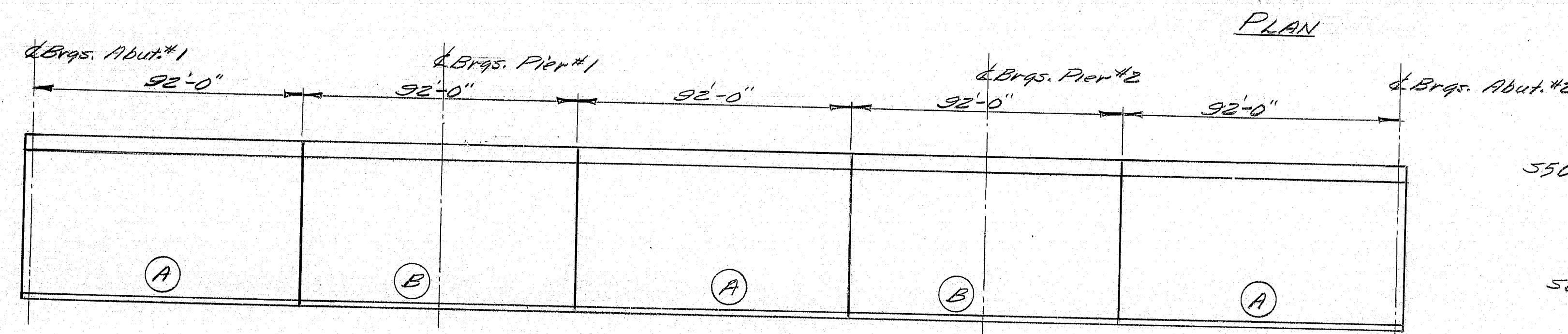
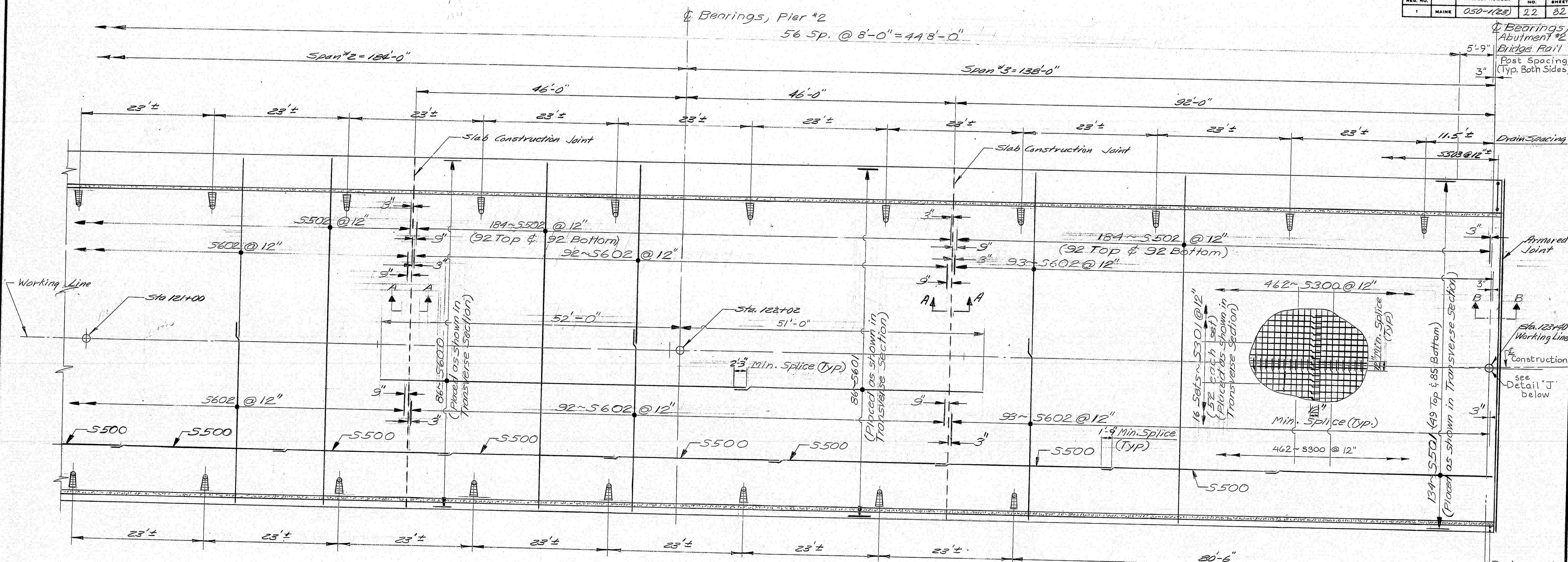
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COVERED BRIDGE
OVER
AROOSTOOK RIVER
IN THE CITY OF
PRESQUE ISLE
AROOSTOOK COUNTY
SUPERSTRUCTURE SLAB

SHEET 19 OF 23 AUGUSTA, MAINE AUG 198

183-59
As Built 1982 by J. M. Ginnie

F.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(23)	22	82



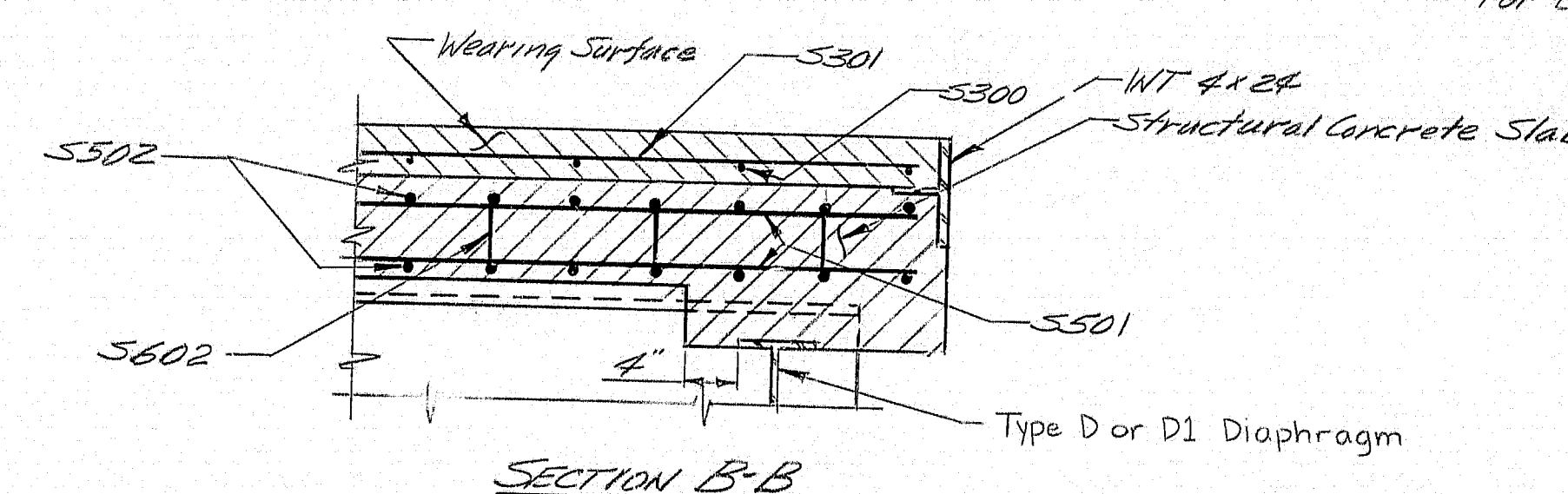
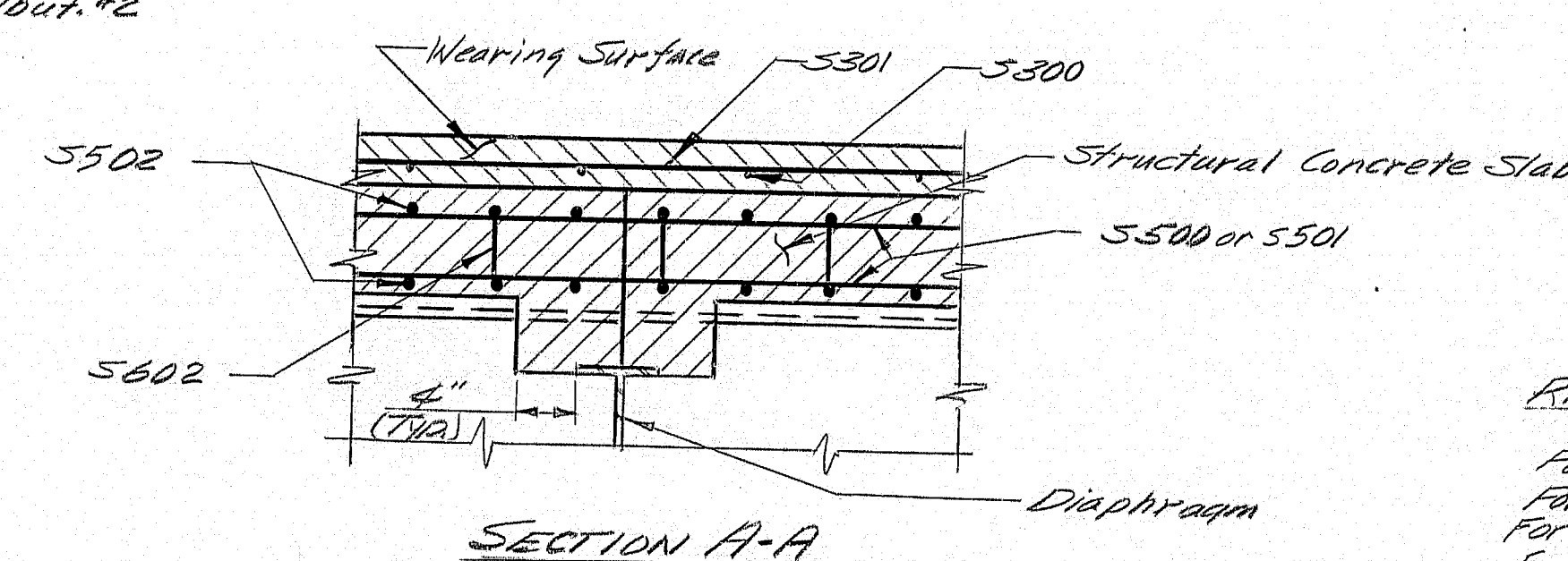
PANEL PLACEMENT DIAGRAM

NOTE:
The superstructure slab may be placed either continuously or by panels as follows:
Continuous Placement

The Contractor's method of placement shall be approved by the Engineer. The concrete shall be kept plastic one complete span back of the span being placed. The transverse slab joints and haunches shown shall be omitted. Approved set-retarding admixtures shall be used when authorized by the Engineer.

Panel Placement

All panels 'A' shall be placed before placing any panels 'B'. A minimum of 5 days shall elapse between placement of panels 'A' in adjacent spans, and between placement panels 'A' and 'B' and between placement of 'B' except simultaneous placement of panels 'A' and simultaneous placement of panels 'B' will be allowed.



REFERENCES:
For Bridge Drain Details see BD 104-77
For Construction Joint Details see BD 104-77
For Aluminum Bridge Rail Details see BD 104-77/BD 115-77
For Superstructure Notes see Sheet 16 of 23
For Armored Joint Details see Sheet 19 of 23
For Bottom of Slab Elevations see Sheet 16 of 23
For Blocking Details see Sheet 16 of 23

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

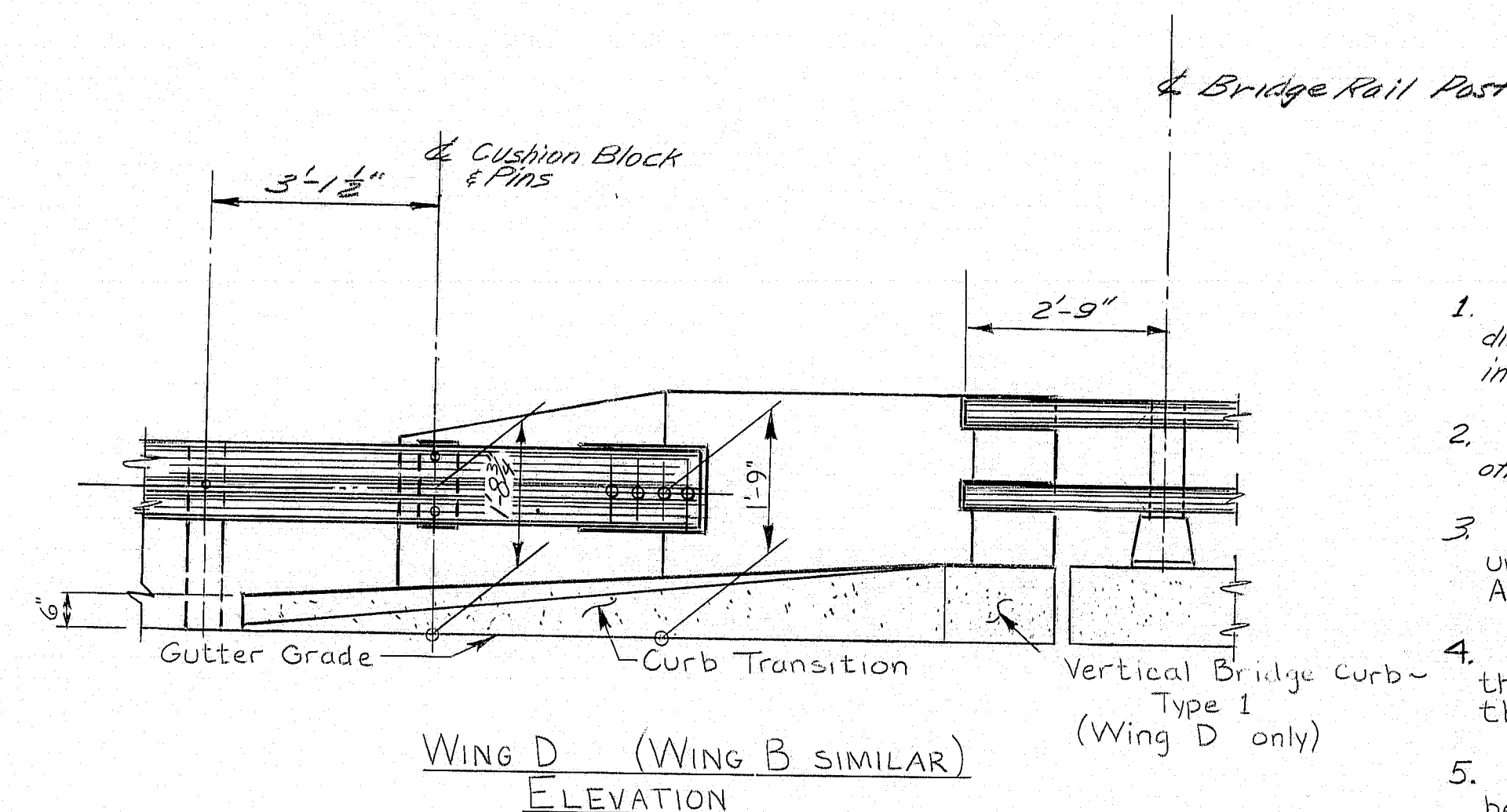
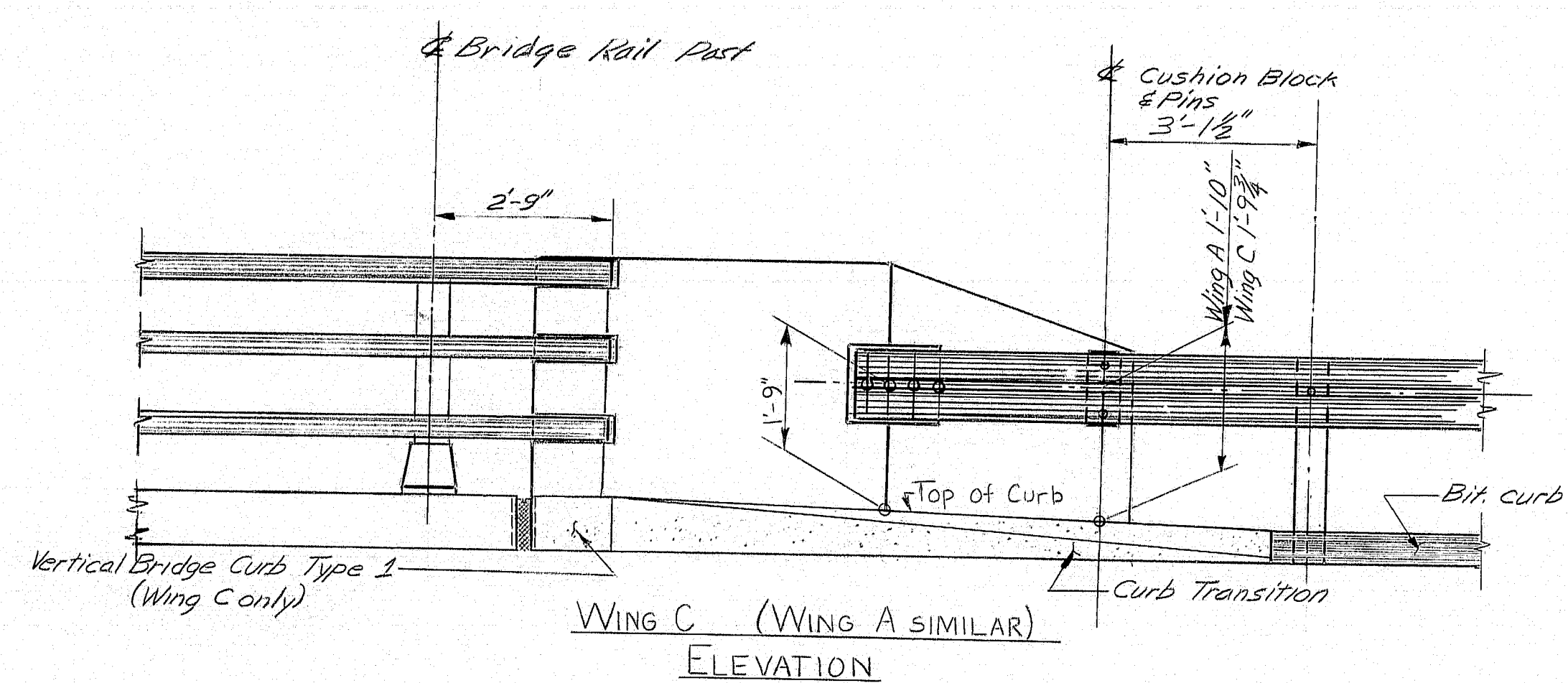
COVERED BRIDGE
OVER
AROOSTOOK RIVER
IN THE CITY OF
PRESQUE ISLE
AROOSTOOK COUNTY
SUPERSTRUCTURE SLAB

As Built 1982 by J. McGinnis

183-60

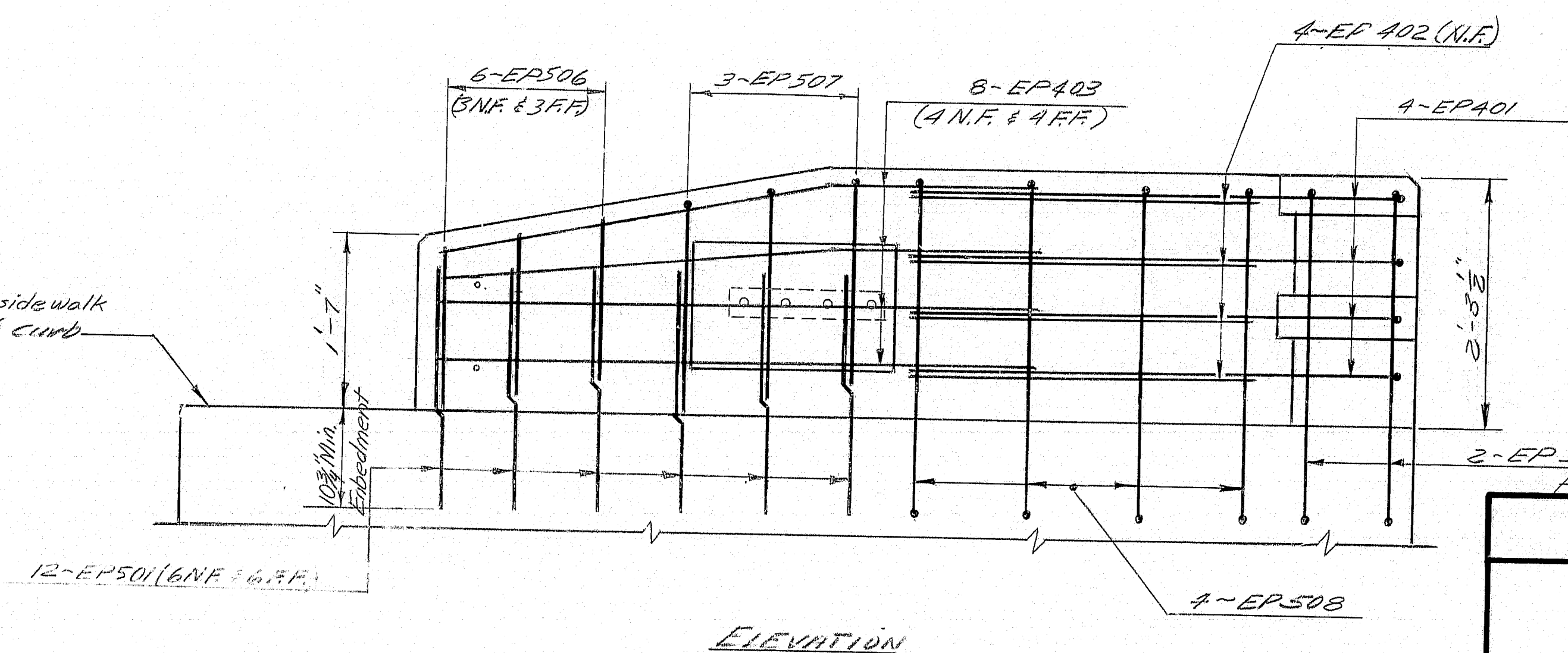
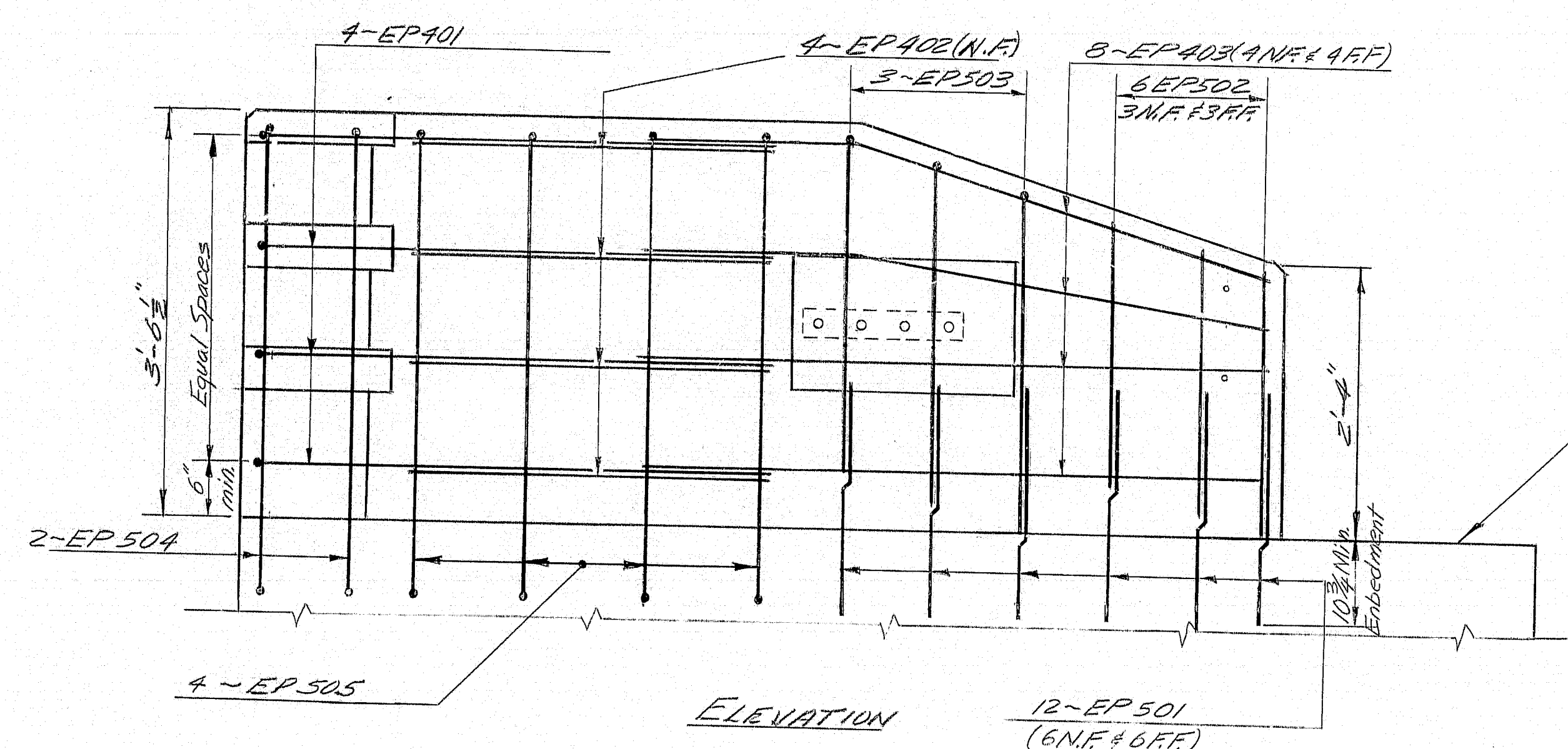
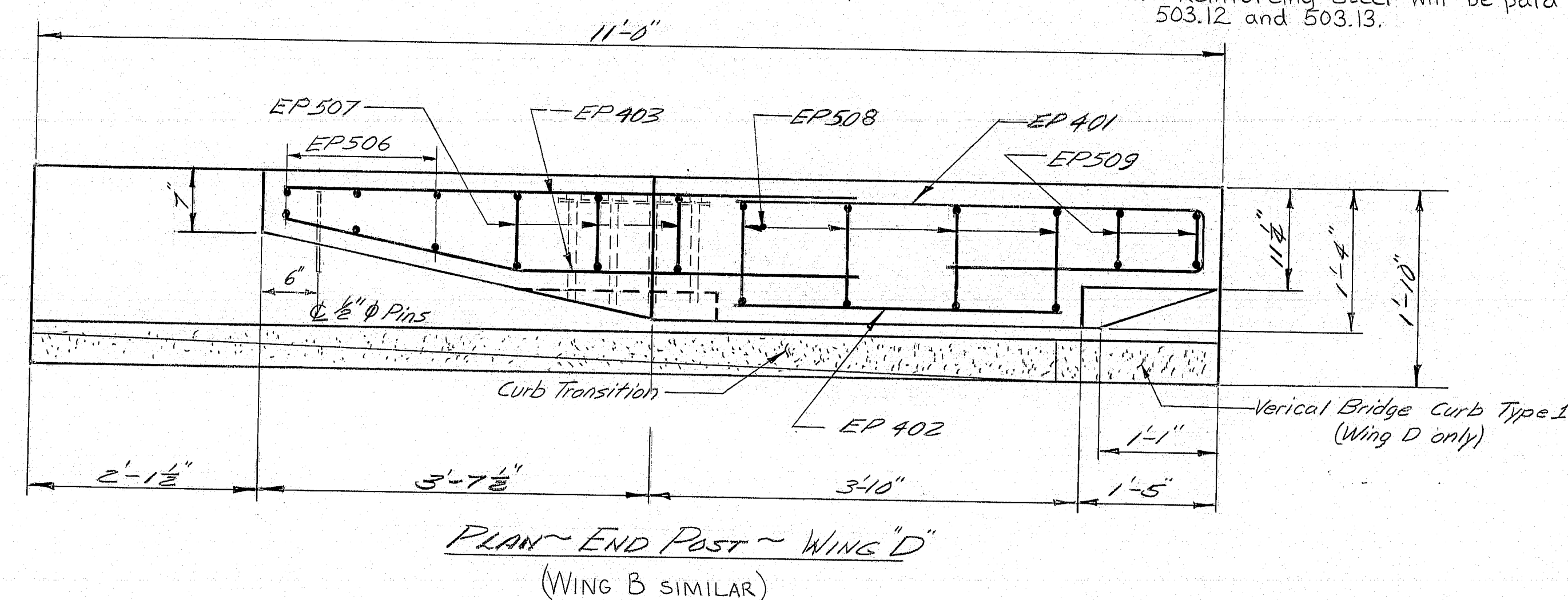
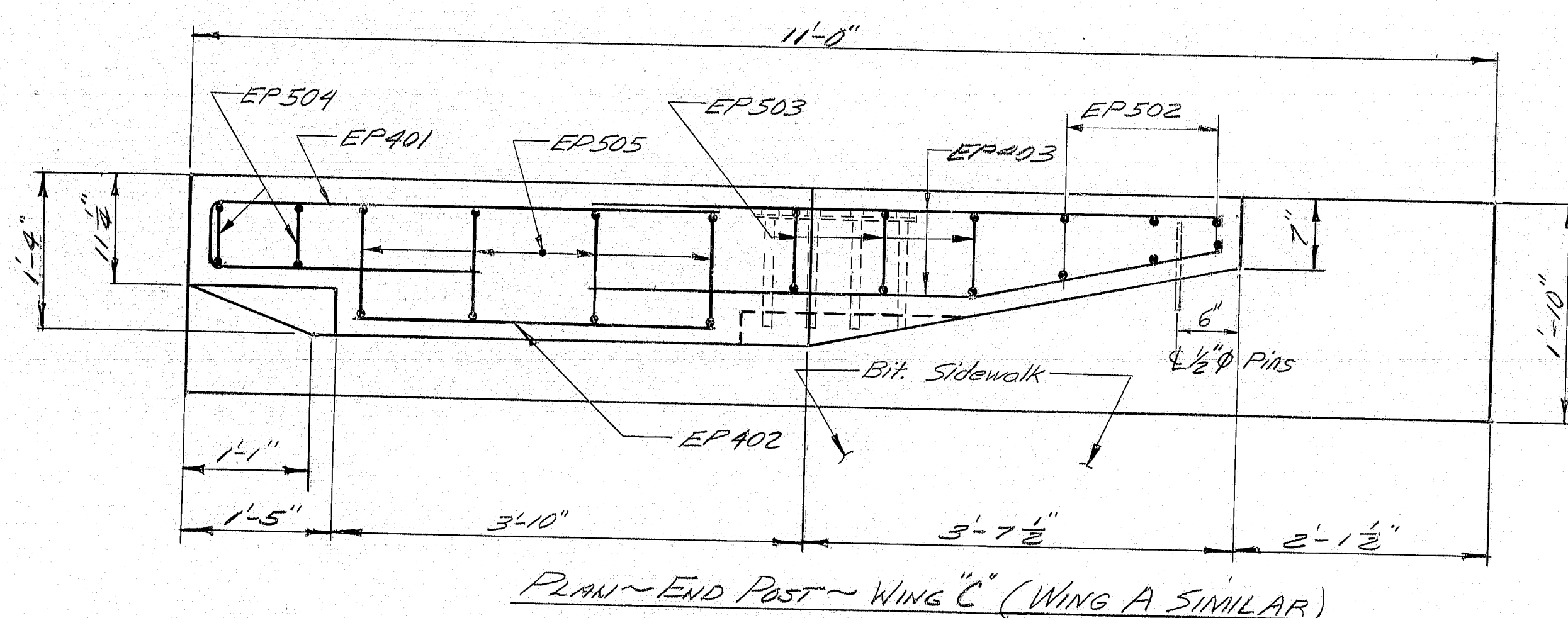
PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAIL	8-90
CHECK	
REVISION	
FIELD CHANGES	

R.H.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(23)	23	82



END POST NOTES

1. Chamfer all exposed edges of concrete a consistent dimension between $\frac{1}{8}$ " and $\frac{3}{4}$ " inclusive, unless otherwise indicated.
2. Reinforcing steel shall have 2 inches cover unless otherwise indicated.
3. Payment for all end post concrete will be made under item 502.21 - Structural Concrete, Abutments and Retaining Walls.
4. Form a 1 inch V-Groove on the fascias at the horizontal joint between the end post and the wing wall.
5. Protective coating for concrete surfaces shall be applied to all exposed areas of the end posts.
6. Reinforcing Steel will be paid under items 503.12 and 503.13.



LEGEND
E.F. = Each Face
F.F. = For Face
N.F. = Near Face

REFERENCE: For End Post details and notes not shown see (BD 120-79).
For location of wings see sheets #8 and #9 of 23.
For Bridge Rail Post spacing see sheets #20 and #21 of 23.

As Built 1982 by J. McGinnis

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COVERED BRIDGE
OVER
AROOSTOOK RIVER
IN THE CITY OF
PRESQUE ISLE
AROOSTOOK COUNTY
END POSTS

SHEET 21 OF 23 AUGUSTA, MAINE AUG 1980

183-61

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAIL	9/28
CHECKED	10/2
REVISIONS	10/2
FIELD CHANGES	10/2

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	
ABUTMENT 1				SUPERSTRUCTURE				END POSTS				ABUTMENT 1															
A500	22	27'-6"	Breastwall & Backwall									A503	41	8'-7"	L	4'-2"	4'-5"										Breastwall
A501	22	32'-0"	Breastwall & Backwall	S300	924	26'-6"	Trans ~ Wear Surf.	EP402	16	2'-11"	Horizontal	A507	2	8'-10"	S	-	3'-4"	2'-2"	3'-4"								Curtainwall
A502	123	3'-9"	Dowels	S301	832	30'-0"	Long ~ Wear Surf.	EP403	32	5'-6"	Horizontal	A510	9	18'-8"	F	8'-7"	1'-0"	1'-1"	0'-6"	7'-6"							Wing "B"
A504	59	7'-7"	Backwall									A512	9	18'-8"	S	-	8'-7"	1'-6"	8'-7"								Wing "A"
A505	22	13'-2"	Wings									A521	35	5'-10"	S	-	2'-4"	1'-2"	2'-4"								Backwall
A506	36	10'-8"	Wings	S500	2010	30'-0"	Longitudinal	EP501	48	3'-3"	Vertical Dowels	A525	6	7'-0"	S	-	3'-2"	0'-8"	3'-2"								Sidewalk & Curb
A508	8	4'-0"	Utility Opening	S501	134	38'-0"	Longitudinal	EP502	12	2'-2"	Vertical																
A511	18	6'-7"	Wing "A"	S502	922	59'-10"	Transverse	EP506	12	1'-5"	Vertical																
A513	2	6'-4"	Wing "B"																								
A514	2	5'-5"	Wing "A"																								
				S600	172	60'-0"	Long. at Piers																				
A524	82	7'-4"	Backwall	S601	172	45'-3"	Long. at Piers					A507	2	8'-10"	S	-	3'-4"	2'-2"	3'-4"								Curtainwall
												A510	9	18'-8"	F	8'-7"	1'-0"	1'-1"	0'-6"	7'-6"							Wing "D"
F600	120	6'-6"	Footing									A516	41	9'-7"	L	4'-2"	5'-5"										Breastwall
F601	14	30'-0"	Footing									A521	35	5'-10"	S	-	2'-4"	1'-2"	2'-4"								Backwall
F602	14	32'-11"	Footing									A522	9	18'-8"	S	-	8'-7"	1'-6"	8'-7"								Wing "C"
												A529	6	7'-0"	S	-	3'-2"	0'-8"	3'-2"								Sidewalk & Curb
ABUTMENT 2												SUPERSTRUCTURE															
A500	24	27'-6"	Breastwall & Backwall									S503	462	9'-9"	S	0'-6"	1'-8"	5'-7"	1'-6"								Sidewalk - Stirrups
A501	24	32'-0"	Breastwall & Backwall									S504	462	5'-1"	S	0'-6"	1'-6"	1'-1"	1'-6"								Curb - Stirrups
A504	40	7'-7"	Wing "C" & Breastwall																								
A505	26	13'-2"	Wings "C" & "D"									S602	922	32'-5"	B		3'-0"	0'-9 1/4"	4'-3"	3'-8"	4'-7"			0'-6 1/2"	30'-11"	Transverse	
A506	36	10'-8"	Wings "C" & "D"														X6	X3	X2								
A508	131	4'-0"	Utility Opening Dowels & Backwall	</																							

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOT. SHEET
1	MAINE	050-1(23)	24	82

Figure 1 displays 18 diagrams (A through W) illustrating various types of structural joints and connections. The diagrams are arranged in a grid-like fashion, with some showing multiple views or details. The joints are labeled as follows:

- A**: Simple beam end.
- B**: Beam-to-column joint.
- C**: Beam-to-wall joint.
- D**: Beam-to-column joint.
- E**: Beam-to-column joint.
- F**: Beam-to-column joint.
- G**: Beam-to-column joint.
- H**: Beam-to-column joint.
- I**: Beam-to-column joint.
- J**: Beam-to-column joint.
- K**: Beam-to-column joint.
- L**: Beam-to-column joint.
- M**: Beam-to-column joint.
- N**: Beam-to-column joint.
- O**: Beam-to-column joint.
- P**: Beam-to-column joint.
- Q**: Beam-to-column joint.
- R**: Beam-to-column joint.
- S**: Beam-to-column joint.
- T**: Beam-to-column joint.
- U**: Beam-to-column joint.
- V**: Beam-to-column joint.
- W**: Beam-to-column joint.

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. Letter of Marks A, P & S locates bars of Abutments, Piers, and Superstructure parts respectively.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

REINFORCING STEEL

SHEET 22 OF 23 AUGUSTA, MAINE AUG 1980

PLANS	DESIGN - DETAIL	BY	DATE
	CHECKED	BWP	8/30
	REVISIONS	NEP & NEL 8-80	
	FIELD CHANGES		

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	
											PIERS																
				P501	4	3'-0"	Top Shaft Piers 1 & 2																				
				P502	60	30'-0"	Shaft Piers 1 & 2	P500	74	10'-4"	S					3'-6"	3'-4"	3'-6"								Top Shaft Piers 1	
				P503	60	27'-9"	Shaft Piers 1 & 2	P504	8	10'-1"	PR					2'-5"	5'-3"	2'-5"							3'-4"	1'-8"	Top Shaft Piers 1
				P600	44	30'-0"	Dist. Slab Piers 1 & 2	P510	2	12'-4"	PR					2'-9"	6'-10"	2'-9"							4'-4"	2'-2"	Shaft Nose Upstream Piers 1 & 2
				P601	22	45'-0"	Dist. Slab Pier 1	P511	2	13'-9"	PR					3'-5"	6'-11"	3'-5"							4'-5"	2'-2½"	
				P602	254	10'-6"	Dist. Slab Piers 1 & 2	P512	2	15'-2"	PR					4'-0"	7'-2"	4'-0"							4'-7"	2'-3½"	
				P604	22	46'-0"	Dist. Slab Pier 2	P513	2	16'-10"	PR					4'-8"	7'-6"	4'-8"							4'-9"	2'-4½"	
				P614	16	7'-3"	Dist. Slab Piers 1 & 2	P514	2	18'-3"	PR					5'-3"	7'-9"	5'-3"							4'-11"	2'-5½"	
				P615	16	9'-9"	Dist. Slab Piers 1 & 2	P515	2	19'-8"	PR					5'-11"	7'-10"	5'-11"							5'-0"	2'-6"	
								P516	2	21'-1"	PR					6'-6"	8'-1"	6'-6"							5'-2"	2'-7"	
								P517	2	22'-7"	PR					7'-2"	8'-3"	7'-2"							5'-3"	2'-7½"	
								P518	2	24'-0"	PR					7'-9"	8'-6"	7'-9"							5'-5"	2'-8½"	
								P519	2	25'-6"	PR					8'-5"	8'-8"	8'-5"							5'-6"	2'-9"	
				P801	136	17'-8"	Shaft Pier 1	P520	2	26'-11"	PR					9'-0"	8'-11"	9'-0"							5'-8"	2'-10"	
				P805	136	19'-2"	Shaft Pier 2	P521	2	28'-4"	PR					9'-8"	9'-0"	9'-8"							5'-9"	2'-10½"	Shaft Nose Upstream Piers 1 & 2
								P522	1	29'-9"	PR					10'-3"	9'-3"	10'-3"							5'-11"	2'-11½"	Shaft Nose Upstream Pier 2
								P530	2	11'-10"	PR					2'-6"	6'-10"	2'-6"							4'-4"	2'-2"	Shaft Nose Downstream Piers 1 & 2
								P531	2	12'-3"	PR					2'-8"	6'-11"	2'-8"							4'-5"	2'-2½"	
								P532	2	12'-8"	PR					2'-9"	7'-2"	2'-9"							4'-7"	2'-3½"	
								P533	2	13'-4"	PR					2'-11"	7'-6"	2'-11"							4'-9"	2'-4½"	
								P534	2	13'-9"	PR					3'-0"	7'-9"	3'-0"							4'-11"	2'-5½"	
								P535	2	14'-2"	PR					3'-2"	7'-10"	3'-2"							5'-0"	2'-6"	

Figure 1: Type-Bending Diagrams. This figure contains 15 sub-diagrams labeled B through W, illustrating various bending types in structural analysis. B: A continuous beam with multiple supports and loads, labeled with points B, C, D1, E1, D2, C1, E2 etc., D3 etc., and F, with a total length O. C: A simple rectangular frame with points A, B, C, D. D: A square frame with points A, B, C, D. E: A square frame with points A, B, C, D. F: A square frame with points A, B, C, D. G: A square frame with points A, B, C, D. H: A square frame with points A, B, C, D. I: A square frame with points A, B, C, D. J: A square frame with points A, B, C, D. K: A square frame with points A, B, C, D. L: A square frame with points A, B, C, D. M: A square frame with points A, B, C, D. N: A square frame with points A, B, C, D. O: A square frame with points A, B, C, D. P: A square frame with points A, B, C, D. Q: A square frame with points A, B, C, D. R: A square frame with points A, B, C, D. S: A square frame with points A, B, C, D. T: A square frame with points A, B, C, D. U: A square frame with points A, B, C, D. V: A square frame with points A, B, C, D. W: A square frame with points A, B, C, D.

All dimensions are out to out of reinf. bar

Bending details and hooks shall conform to the recommendations of ACI Standard 315-65.

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 603) bar size - #6
2. Letter of Marks A, P & S locates bars of Abulment's, Piers, and Superstructure parts respectively.

As Built 1982 by J. McGinnis

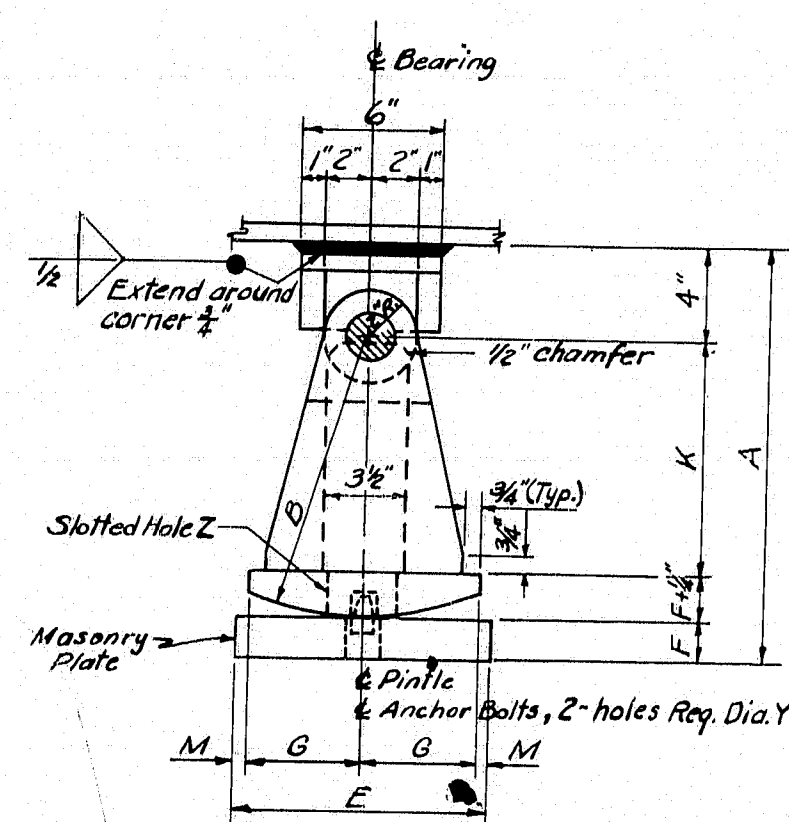
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COVERED BRIDGE
OVER
AROOSTOOK RIVER
IN THE CITY OF
PRESQUE ISLE
AROOSTOOK COUNTY
REINFORCING STEEL

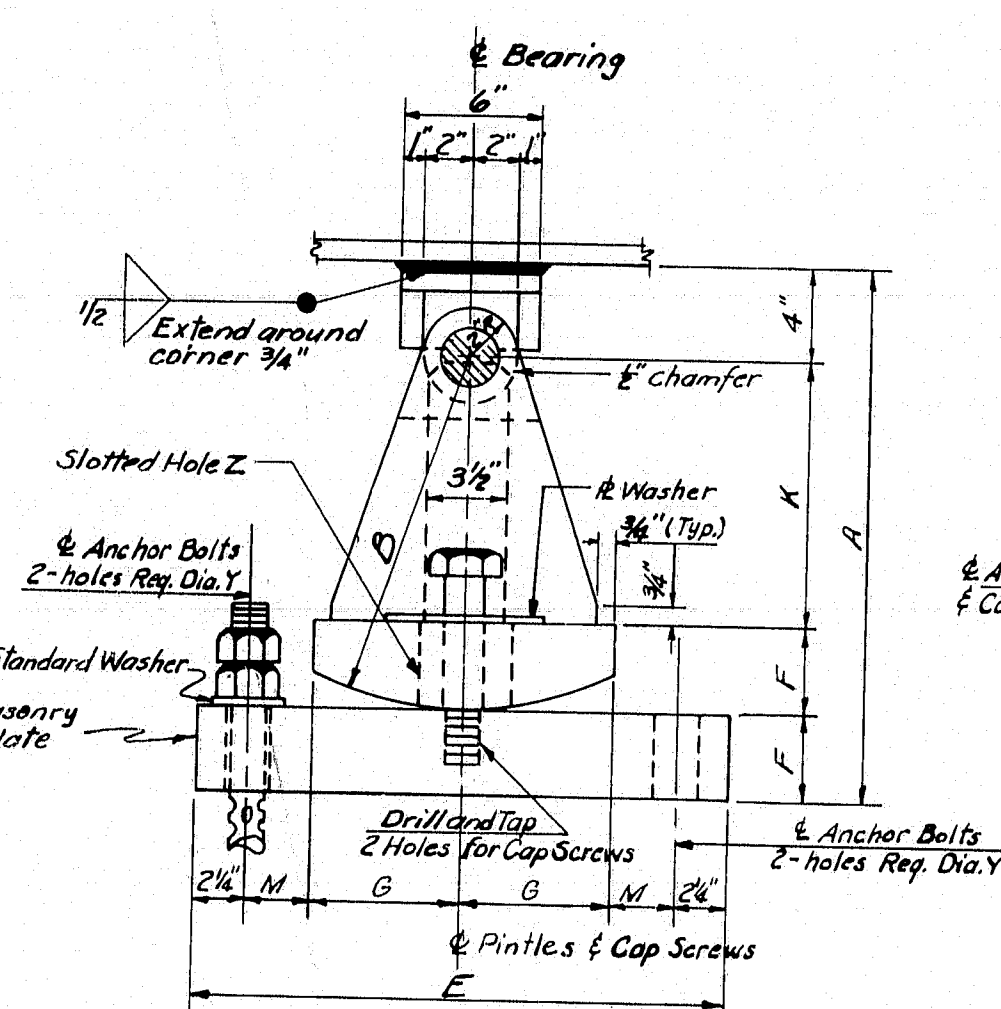
SHEET 23 OF 23 AUGUSTA, MAINE AUG 1980

183-63

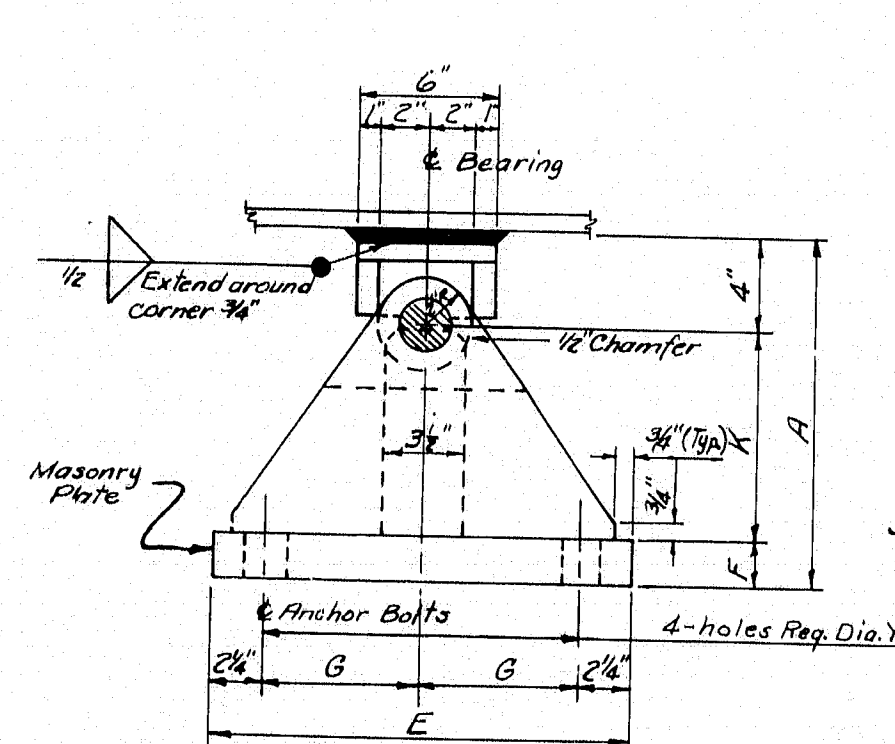
PLANS	DESIGN - DETAIL	BY	DATE
	CHECKED	<i>SWP</i>	<i>8/30</i>
	REVISIONS	<i>N.E.R</i>	<i>8/30</i>
	FIELD CHANGES		



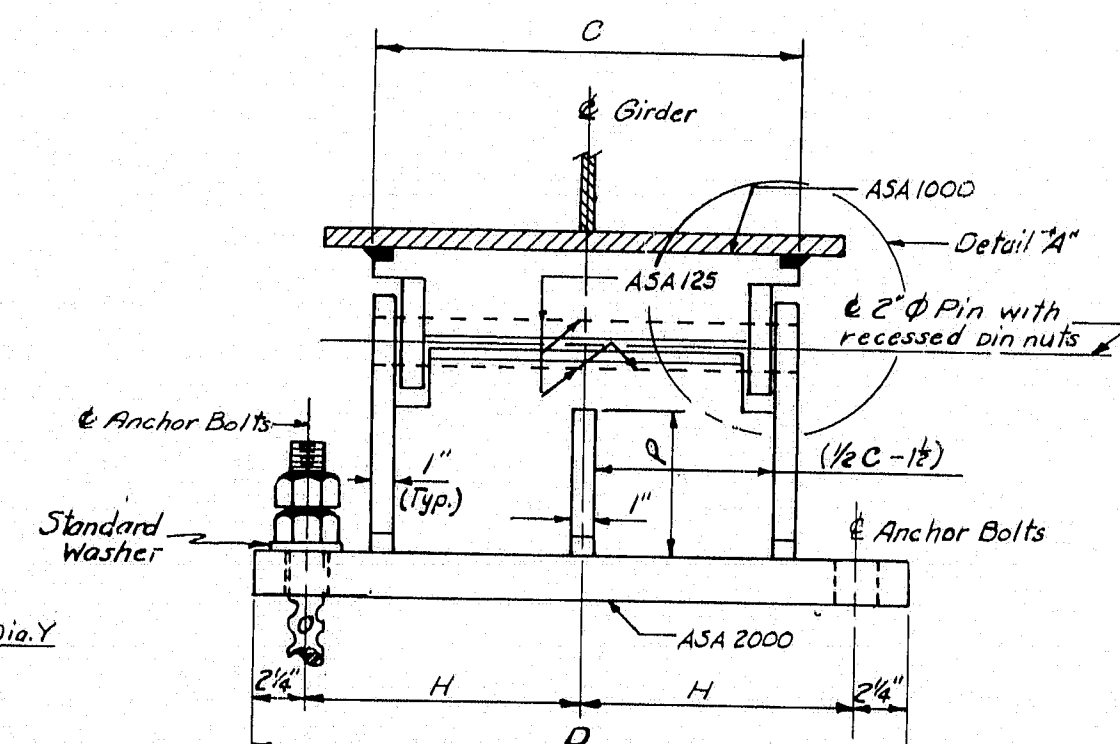
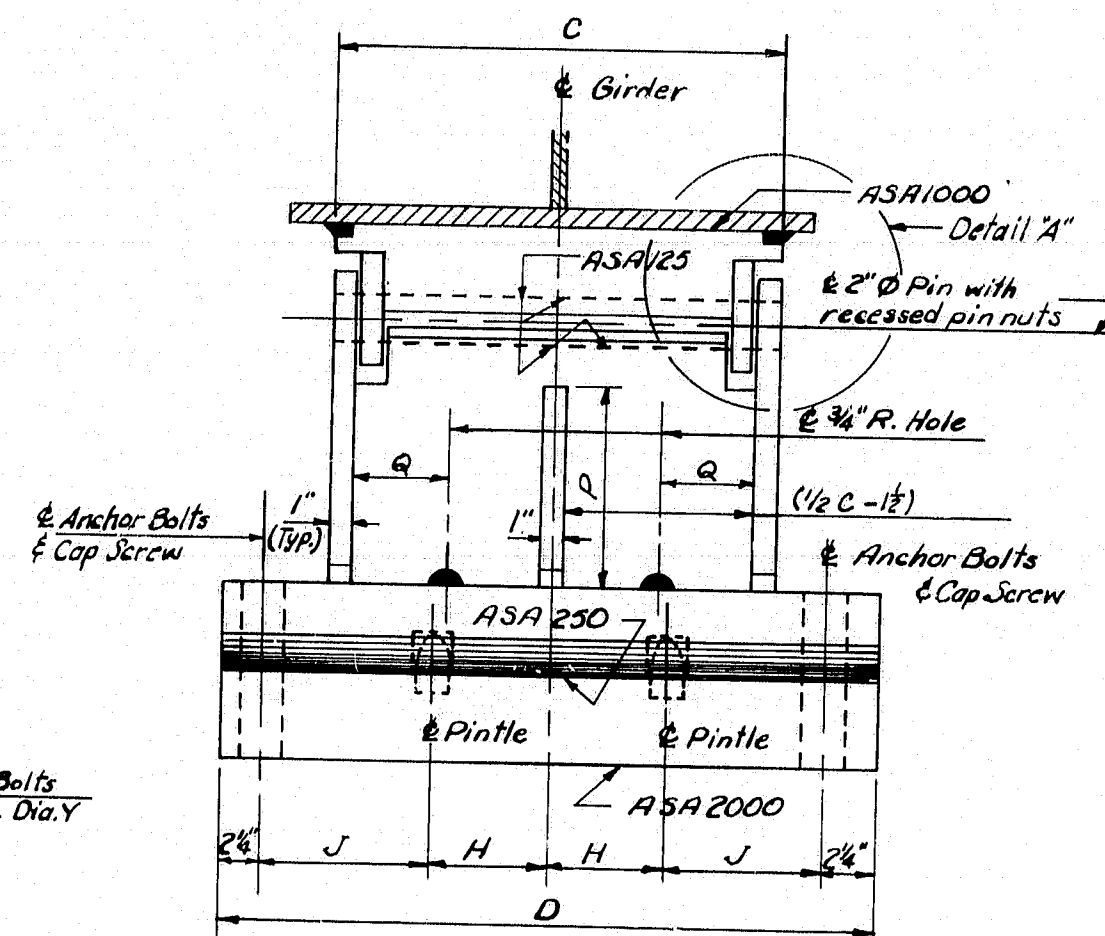
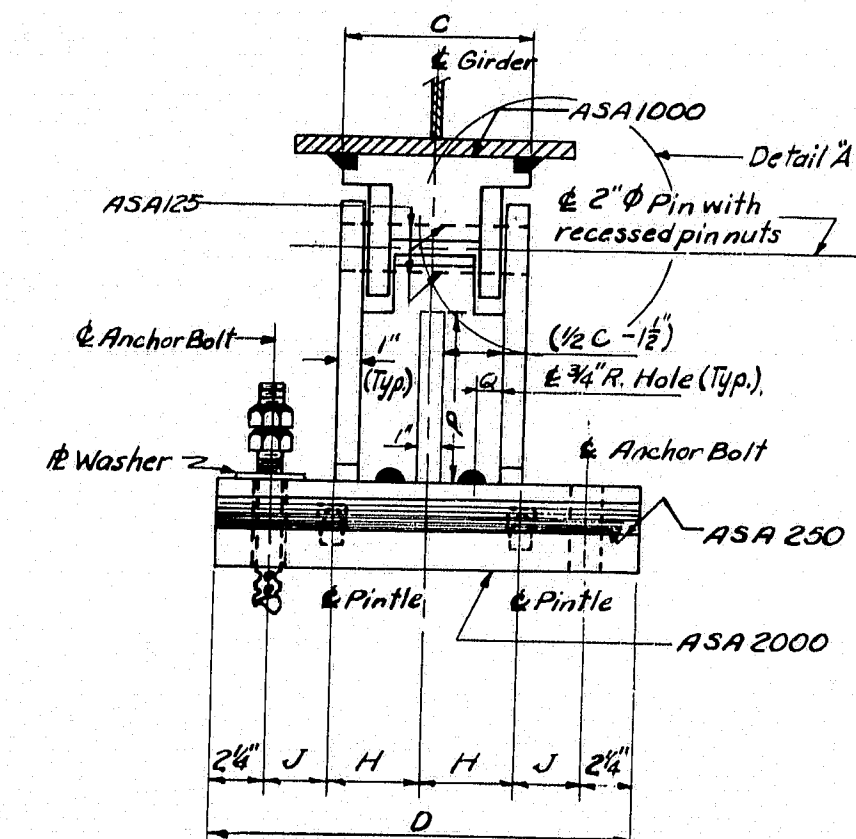
EXPANSION PEDESTAL — EPD



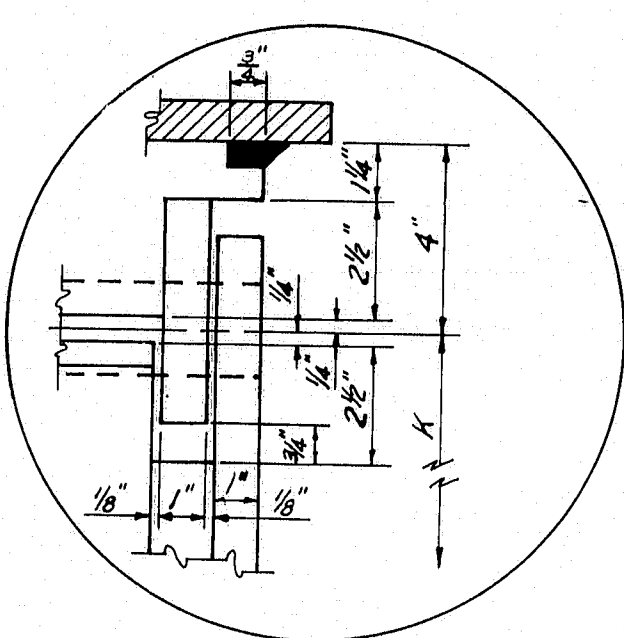
EXPANSION PEDESTAL — EPE



FIXED PEDESTAL — FPD



MARK	LOAD	A	B	C	D	E	F	G	H	J	K	M	P	Q	R	S	T	V	X-Anchor Bolt Diameter	Y-Masonry Plate Hole Size	Number Anchor Bolts Required	Z-Slotted Hole for Anchor Bolts or Cap Screws	R-Washer Size for Anchor Bolts or Cap Screws	A1 Embedment Depth	MARK
EPD-1	100K	1'-2 3/4"	9"	8"	1'-6"	8"	1 1/2"	3 1/2"	4"	2 1/2"	7"	1 1/2"	-	3"	1'-4 1/2"	3"	4 1/2"	-	1"	1 1/2"	2	3" x 1 1/2"	3" x 5" x 1/2"	10"	EPD-1
EPD-2	100K	1'-2 3/4"	9"	8"	1'-6"	9"	1 1/2"	4"	4"	2 1/2"	7"	1 1/2"	-	3"	1'-4 1/2"	3"	4 1/2"	-	1"	1 1/2"	2	3" x 1 1/2"	3" x 5" x 1/2"	10"	EPD-2
EPD-3	100K	1'-2 3/4"	9"	8"	1'-6"	10"	1 1/2"	4 1/2"	4"	2 1/2"	7"	1 1/2"	-	3"	1'-4 1/2"	3"	4 1/2"	-	1"	1 1/2"	2	3" x 1 1/2"	3" x 5" x 1/2"	10"	EPD-3
EPD-4	100K	1'-3 1/4"	1'-0"	8"	1'-6"	11"	1 1/2"	5"	4"	2 1/2"	10"	1 1/2"	-	3"	1'-5"	3"	4 1/2"	-	1"	1 1/2"	2	3" x 1 1/2"	3" x 5" x 1/2"	10"	EPD-4
EPD-5	200K	1'-9 1/4"	1'-3"	10"	1'-8"	1'-0"	2 1/2"	5 1/2"	4"	3 1/2"	1'-0 3/4"	4"	-	4"	2'-0 3/4"	4"	6 1/2"	-	1 1/2"	1 1/2"	2	4" x 1 1/2"	4" x 7" x 1/2"	1'-3"	EPD-5
EPD-6	200K	1'-9 1/4"	1'-3"	10"	1'-8"	1'-1"	2 1/2"	6"	4"	3 1/2"	1'-0 3/4"	4"	-	4"	2'-1"	4"	6 1/2"	-	1 1/2"	1 1/2"	2	4" x 1 1/2"	4" x 7" x 1/2"	1'-3"	EPD-6
EPD-7	200K	1'-9 1/4"	1'-3"	10"	1'-8"	1'-2"	2 1/2"	6 1/2"	4"	3 1/2"	1'-0 3/4"	4"	-	4"	2'-1"	4"	6 1/2"	-	1 1/2"	1 1/2"	2	4" x 1 1/2"	4" x 7" x 1/2"	1'-3"	EPD-7
EPD-8	200K	1'-9 1/4"	1'-3"	10"	1'-8"	1'-3"	2 1/2"	7"	4"	3 1/2"	1'-0 3/4"	4"	-	4"	2'-1"	4"	6 1/2"	-	1 1/2"	1 1/2"	2	4" x 1 1/2"	4" x 7" x 1/2"	1'-3"	EPD-8
EPD-9	300K	1'-10"	1'-3"	1'-2"	2'-0"	1'-4"	3"	7 1/2"	5"	4 1/2"	1 1/2"	5"	-	6"	2'-2 1/2"	4"	8"	-	1 1/2"	1 1/2"	2	5" x 1 1/2"	4" x 8" x 1/2"	1'-3"	EPD-9
EPD-10	400K	1'-10 1/2"	1'-3"	1'-6"	2'-4"	1'-6"	3 1/2"	8 1/2"	6"	5 1/2"	1 1/2"	8 1/2"	-	6"	2'-3"	4"	8 1/2"	-	1 1/2"	1 1/2"	2	5" x 1 1/2"	4" x 8" x 1/2"	1'-3"	EPD-10
EPE-1	200K	1'-10"	1'-3"	10"	1'-7"	1'-6"	3"	4"	4"	3 1/2"	1'-0"	2 1/2"	-	4"	1'-10"	4 1/2"	-	4"	1 1/2"	1 1/2"	4	3 1/2" x 1 1/2"	3 1/2" x 4 1/2" x 1/2"	1'-3"	EPE-1
EPE-2	200K	1'-10"	1'-3"	11"	1'-8"	1'-9"	3"	5 1/2"	4 1/2"	3 1/2"	1'-0"	2 1/2"	-	4"	1'-10"	4 1/2"	-	4"	1 1/2"	1 1/2"	4	4" x 1 1/2"	3 1/2" x 5 1/2" x 1/2"	1'-3"	EPE-2
EPE-3	200K	1'-10"	1'-3"	11"	1'-8"	1'-10"	3"	6"	4 1/2"	3 1/2"	1'-0"	2 1/2"	-	4"	1'-10"	4 1/2"	-	4"	1 1/2"	1 1/2"	4	4" x 1 1/2"	3 1/2" x 5 1/2" x 1/2"	1'-3"	EPE-3
EPE-4	200K	1'-10"	1'-3"	11"	1'-8"	1'-11"	3"	6 1/2"	4 1/2"	3 1/2"	1'-0"	2 1/2"	-	4"	1'-10"	4 1/2"	-	4"	1 1/2"	1 1/2"	4	4 1/2" x 1 1/2"	3 1/2" x 6" x 1/2"	1'-3"	EPE-4
EPE-5	200K	1'-10"	1'-3"	11"	1'-8"	2'-0"	3"	7"	4 1/2"	3 1/2"	1'-0"	2 1/2"	-	4"	1'-10"	4 1/2"	-	4"	1 1/2"	1 1/2"	4	4 1/2" x 1 1/2"	3 1/2" x 6" x 1/2"	1'-3"	EPE-5
EPE-6	300K	1'-10 1/2"	1'-3"	1'-2"	1'-11"	1'-8"	3 1/2"	5"	4 1/2"	3 1/2"	1'-0"	2 1/2"	-	6"	1'-10"	4 1/2"	-	4"	1 1/2"	1 1/2"	4	4 1/2" x 1 1/2"	3 1/2" x 6" x 1/2"	1'-3"	EPE-6
EPE-7	300K	1'-10 1/2"	1'-3"	1'-2"	1'-11"	1'-8"	3 1/2"	5"	4 1/2"	3 1/2"	1'-0"	2 1/2"	-	6"	1'-10"	4 1/2"	-	4"	1 1/2"	1 1/2"	4	4 1/2" x 1 1/2"	3 1/2" x 6" x 1/2"	1'-3"	EPE-7
EPE-8	300K	1'-10 1/2"	1'-3"	1'-2"	1'-11"	1'-10"	3 1/2"	6"	5"	4 1/2"	1 1/2"	2 1/2"	-	6"	1'-10"	4 1/2"	-	4"	1 1/2"	1 1/2"	4	4 1/2" x 1 1/2"	3 1/2" x 6" x 1/2"	1'-3"	EPE-8
EPE-9	300K	1'-10 1/2"	1'-3"	1'-2"	1'-11"	1'-10"	3 1/2"	7"	5"	4 1/2"	1 1/2"	2 1/2"	-	6"	1'-10"	4 1/2"	-	4"	1 1/2"	1 1/2"	4	4 1/2" x 1 1/2"	3 1/2" x 6" x 1/2"	1'-3"	EPE-9
EPE-10	300K	1'-10 1/2"	1'-3"	1'-2"	1'-11"	2'-3"	3 1/2"	8"	5"	4 1/2"	1 1/2"	2 1/2"	-	6"	1'-10"	4 1/2"	-	4"	1 1/2"	1 1/2"	4	5" x 1 1/2"	3 1/2" x 6 1/2" x 1/2"	1'-3"	EPE-10
EPE-11	400K	1'-10 1/2"	1'-3"	1'-7"	2'-4"	1'-7"	3 1/2"	4 1/2"	5"	6 1/2"	1 1/2"	2 1/2"	-	6"	1'-10"	4 1/2"	-	4"	1 1/2"	1 1/2"	4	5" x 1 1/2"	3 1/2" x 7" x 1/2"	1'-3"	EPE-11
EPE-12	400K	1'-10 1/2"	1'-3"	1'-7"	2'-4"	1'-11"	3 1/2"	6 1/2"	5"	6 1/2"	1 1/2"	2 1/2"	-	6"	1'-10"	4 1/2"	-	4"	1 1/2"	1 1/2"	4	4" x 1 1/2"	3 1/2" x 5" x 1/2"	1'-3"	EPE-12
EPE-13	400K	1'-11"	1'-3"	1'-7"	2'-4"	2'-4"	4"	8 1/2"	5"	6 1/2"	1 1/2"	2 1/2"	-	6"	1'-11"	4 1/2"	-	5"	1 1/2"	1 1/2"	4	5" x 1 1/2"	3 1/2" x 6 1/2" x 1/2"	1'-3"	EPE-13
EPE-14	600K	2'-2 1/2"	1'-6"	1'-11"	3'-0"	1'-10"	3 1/2"	6"	7"	8 1/2"	1'-2 1/2"	2 1/2"	-	6"	1'-10"	4 1/2"	-	6 1/2"	1 1/2"	1 1/2"	4	6 1/2" x 1 1/2"	3 1/2" x 8" x 1/2"	1'-3"	EPE-14
EPE-15	600K	2'-2 1/2"	1'-6"	1'-11"	3'-0"	2'-3"	4 1/2"	9"	7"	8 1/2"	1'-2 1/2"	2 1/2"	-	6"	1'-10"	4 1/2"	-	6 1/2"	1 1/2"	1 1/2"	4	4 1/2" x 1 1/2"	4" x 5 1/2" x 1/2"	1'-3"	EPE-15
EPE-16	800K	2'-2 1/2"	1'-6"	2'-6"	3'-10"	1'-11"	4"	6 1/2"	10"	10 1/2"	1'-2 1/2"	2 1/2"	-	6"	1'-11"	4 1/2"	-	6 1/2"	1 1/2"	1 1/2"	4	6 1/2" x 1 1/2"	4" x 8" x 1/2"	1'-3"	EPE-16
EPE-17	800K	2'-2 1/2"	1'-6"	2'-6"	3'-10"	2'-3"	4 1/2"	9"	10"	10 1/2"	1'-2 1/2"	2 1/2"	-	6"	1'-11"	4 1/2"	-	6 1/2"	1 1/2"	1 1/2"	4	4 1/2" x 1 1/2"	4" x 8" x 1/2"	1'-3"	EPE-17
FPD-1	100K	1'-0"	-	8"	1'-6"	9"	2"	2 1/2"	6 1/2"	-	6"	-	-	-	1'-3"	3 1/2"	-	-	1"	1 1/2"	4	-	Standard	10"	FPD-1
FPD-2	100K	1'-0"	-	10"	1'-8"	1'-2"	2"	4 1/2"	7 1/2"	-	6"	-	-	-	1'-8"	4"	-	-	1 1/2"	1 1/2"	4	-	Standard	1'-3"	FPD-2
FPD-3	300K	1'-0"	-	1'-2"	2'-0"	1'-4"	2"	5 1/2"	9 1/2"	-	6"	-	-	-	1'-8"	4"	-	-	1 1/2"	1 1/2"	4	-	Standard	1'-3"	FPD-3
FPD-4	400K	1'-3"	-	1'-6"	2'-4"	1'-6"	2"	6 1/2"	11 1/2"	-	9"	-	-	-	1'-8"	4"	-	-	1 1/2"	1 1/2"	4	-	Standard	1'-3"	FPD-4
FPD-5	600K	1'-3"	-	1'-11"	3'-0"	1'-10"	3"	8 1/2"	11 1/2"	-	9"	-	-	-	1'-9"	4"	-	-	1 1/2"	1 1/2"	4	-	Standard	1'-3"	FPD-5
FPD-6	800K	1'-3"	-	2'-6"	3'-10"	1'-11"	3"	9 1/2"	11 1/2"	-	9"	-	-	-	1'-9"	4"	-	-	1 1/2"	1 1/2"	4	-	Standard	1'-3"	FPD-6



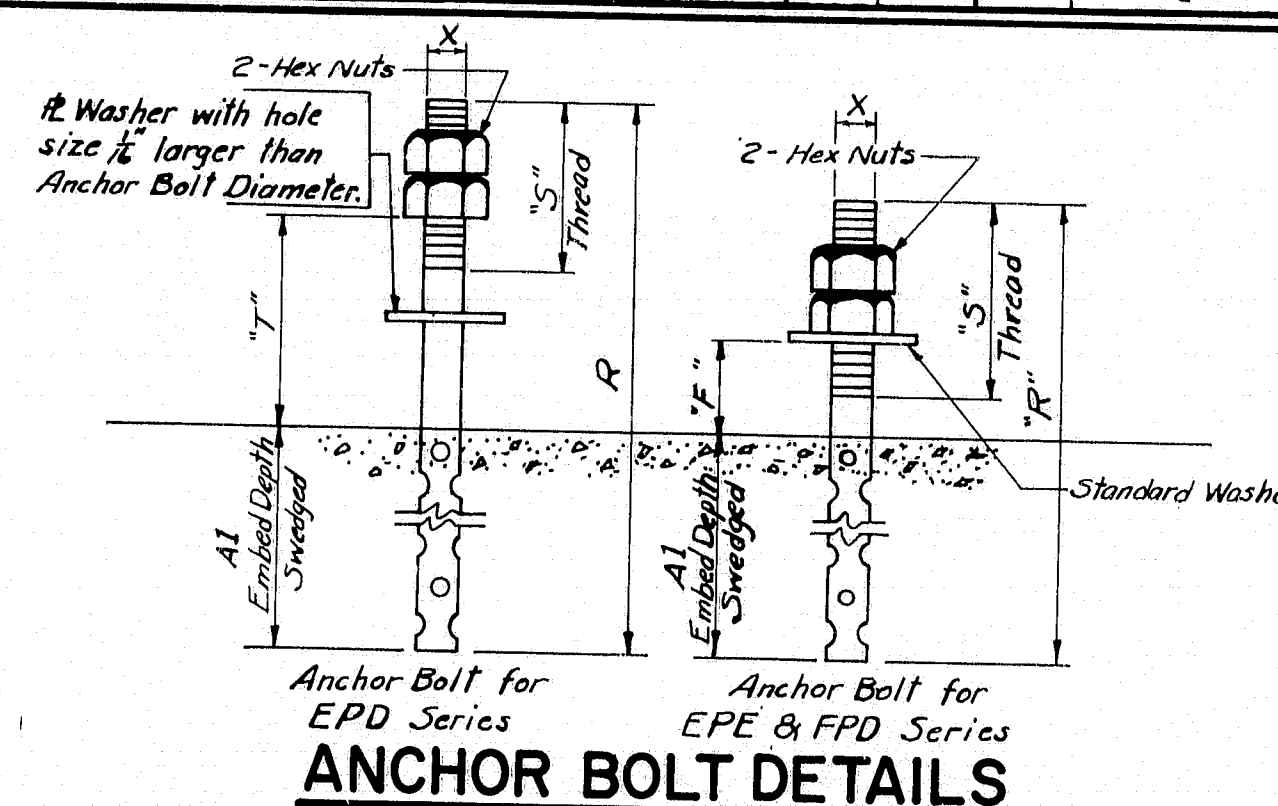
DETAIL "A"

CAP SCREW DETAIL

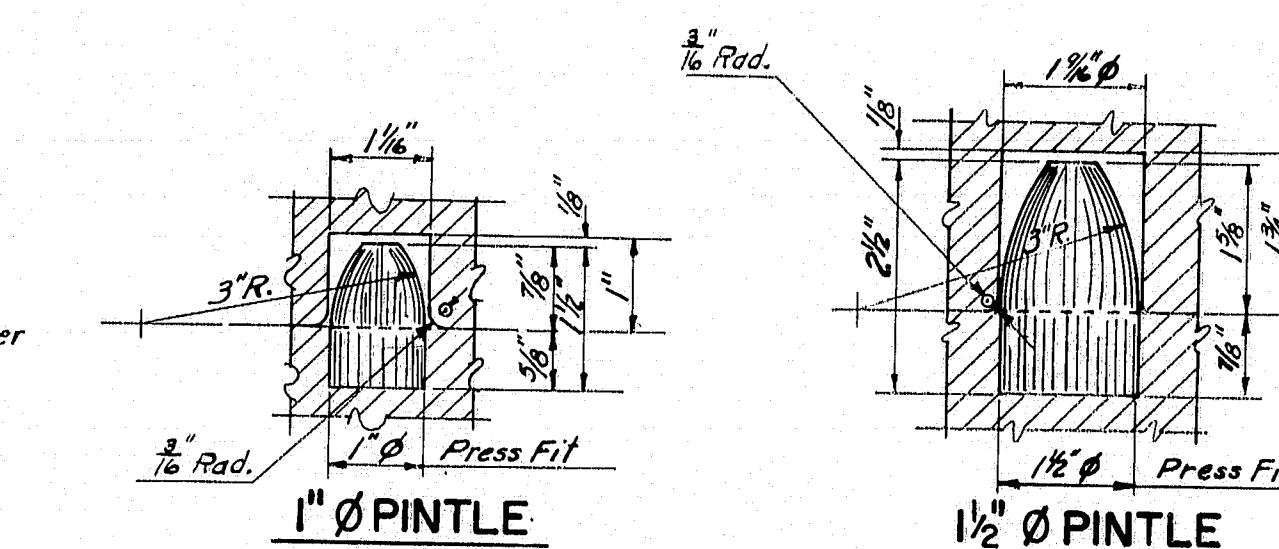
GENERAL NOTES:

At the location of bearing pedestals the concrete bridge seats shall be dressed one inch larger all around than size of masonry plates and to exact elevations shown on the plans. If dressed areas are below the surface of the surrounding bridge seat a small channel shall be cut to the edge of the bridge seat for drainage where required by the Engineer. Channels shall have a min. width of 2" and a min. slope of 1/4" per foot. No separate payment for this work will be made as it shall be considered incidental to contract items.

Fabricate pedestals with 1/2" fillet welds. The diameter of the pin hole shall not exceed that of the pin by more than 1/16 inch. Pedestals EPD-1 thru EPD-9 and EPE-1 thru EPE-10 have no center stiffeners and have only one drainage hole. Pedestals EPD-10 and EPE-11 thru EPE-17 have a center stiffener and have two drainage holes. Pedestals FPD-1 thru FPD-3 have no center stiffeners and have no drainage holes. Pedestals FPD-4 thru FPD-6 have a center stiffener and no drainage holes.



ANCHOR BOLT DETAILS



PINTLE DETAILS

NOTE: Use 1" Ø Pintles with 1" Ø Anchor Bolts & 1 1/2" Ø Pintles with 1 1/2" Ø Anchor Bolts.

DESIGN SPECIFICATIONS

AASHTO Standard Specifications for Highway Bridges 1973, Iterims 1974, 75, 76

A.S.T.M. STEEL CLASSIFICATION

(When structural steel is specified to be unpainted)
All structural steel including anchor bolts and 2" Ø pins shall be A588 unpainted.
(When structural steel is specified to be painted)
All structural steel including anchor bolts shall be A36 except the following: 2" Ø pin-A36, A66B, Class D or A10B, Grade 1016-1030 inclusive.

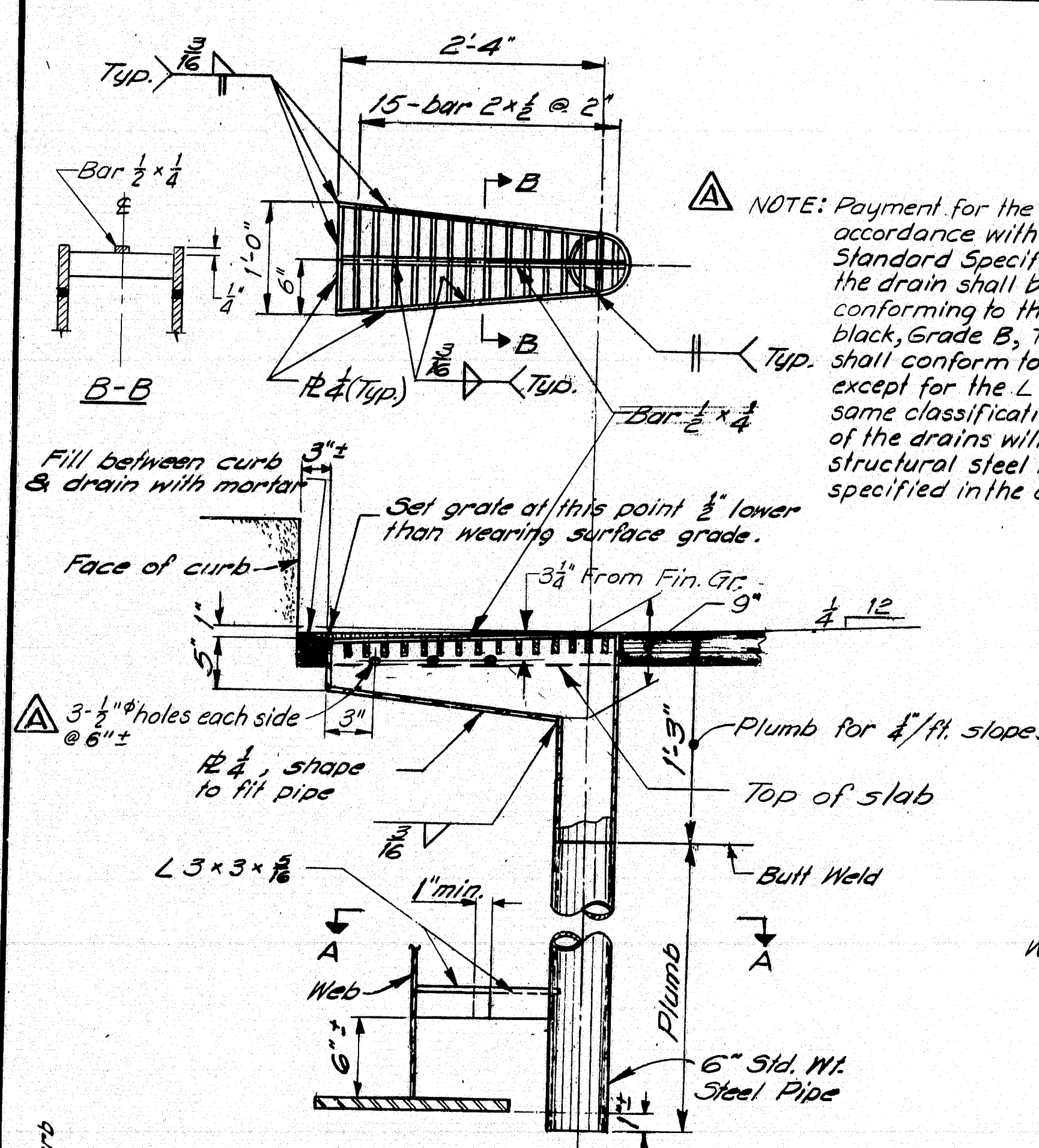
REVISIONS	DATE
Revised Dimension E	1-9-78
Change Specifications & Steel Classification	3-1-77
Charpy V-Notch tests are not required	2-5-75

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 100-71)
BEARING PEDESTALS

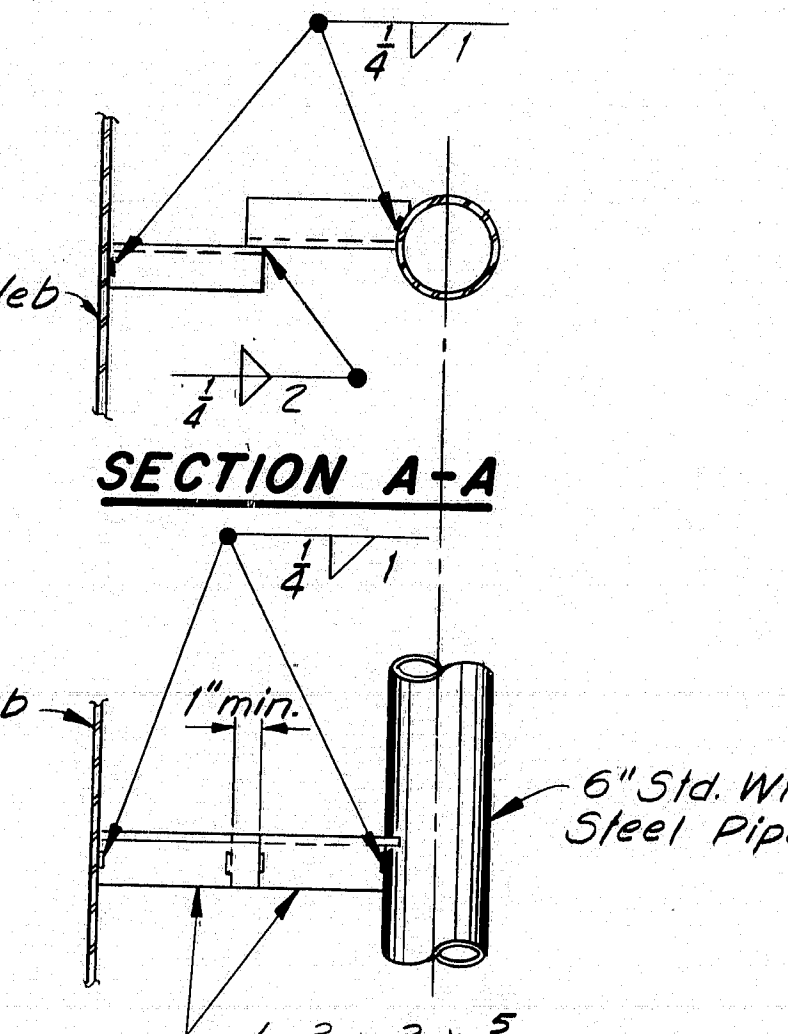
183-64

JULY 1971



NOTE:
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.

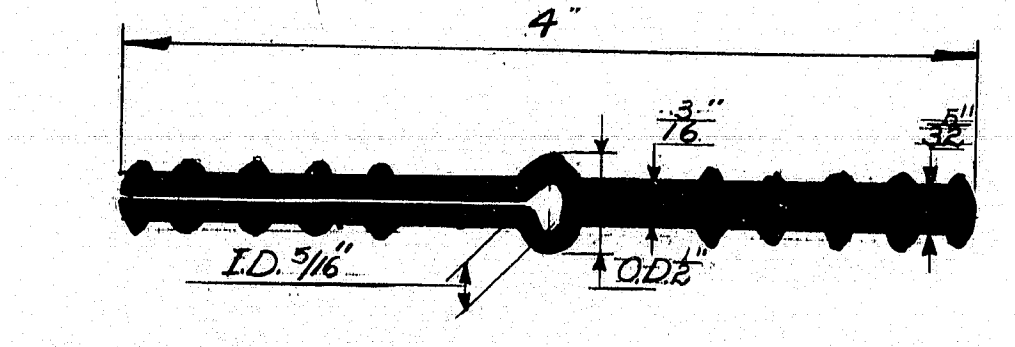
NOTE: Payment for the roadway drains shall be in accordance with subsection 502.20 of the Standard Specifications. The pipe portion of the drain shall be 6" standard weight pipe conforming to the specification for ASTM A53, black, Grade B, Type E or S. All bars and plates shall conform to the specification for ASTM A36 except for the L 3x3x1/8, which shall be of the same classification as the beam web. Pointing of the drains will not be required when the structural steel is unpainted, unless otherwise specified in the contract drawings.



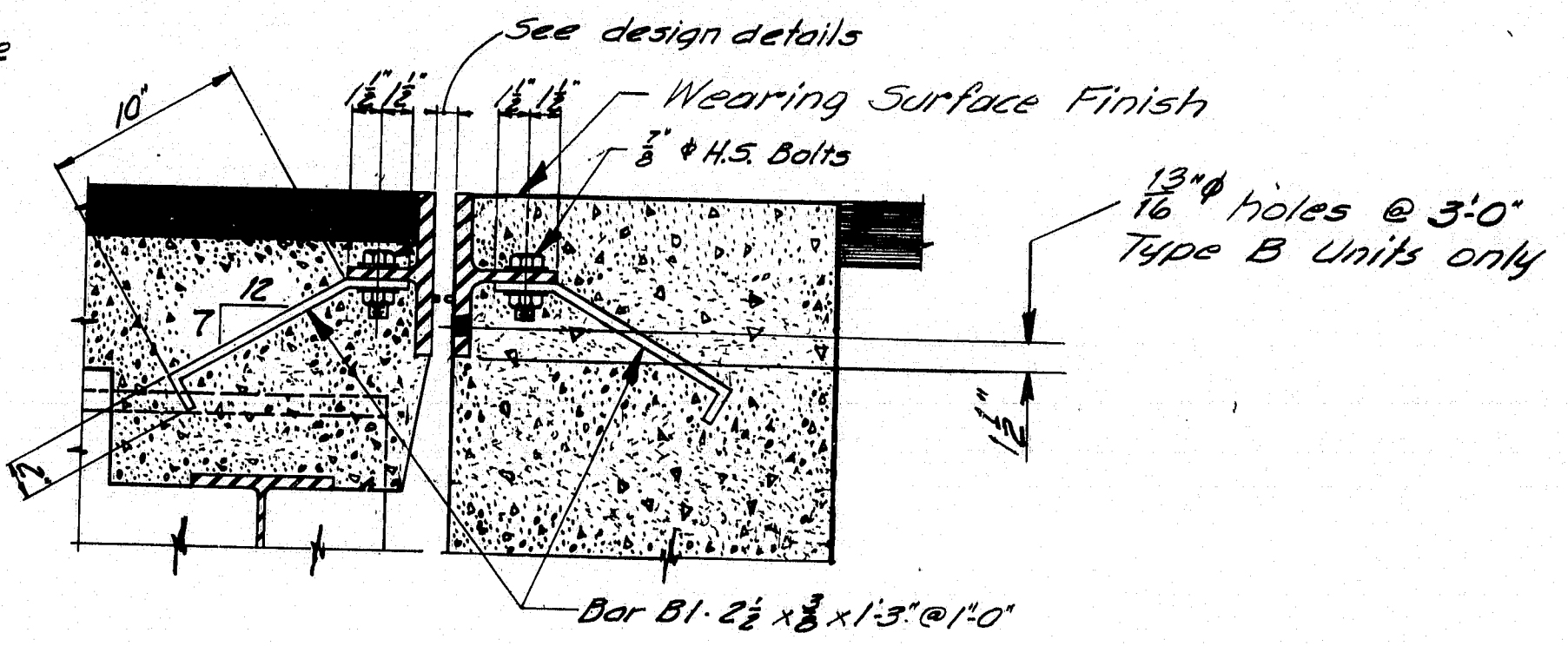
POINTED REINFORCED PILE TIP

NOTE: Plates may be shop or field welded.

PILE SIZE	REIN. # SIZE
HP 10 x 42	8 # 3/8 x 1'-0"
HP 10 x 57	8 # 3/8 x 1'-0"
HP 12 x 53	10 # 3/8 x 1'-0"
HP 12 x 74	10 # 3/8 x 1'-0"
HP 14 x 73	12 # 3/8 x 1'-0"
HP 14 x 89	12 # 1 x 1'-0"

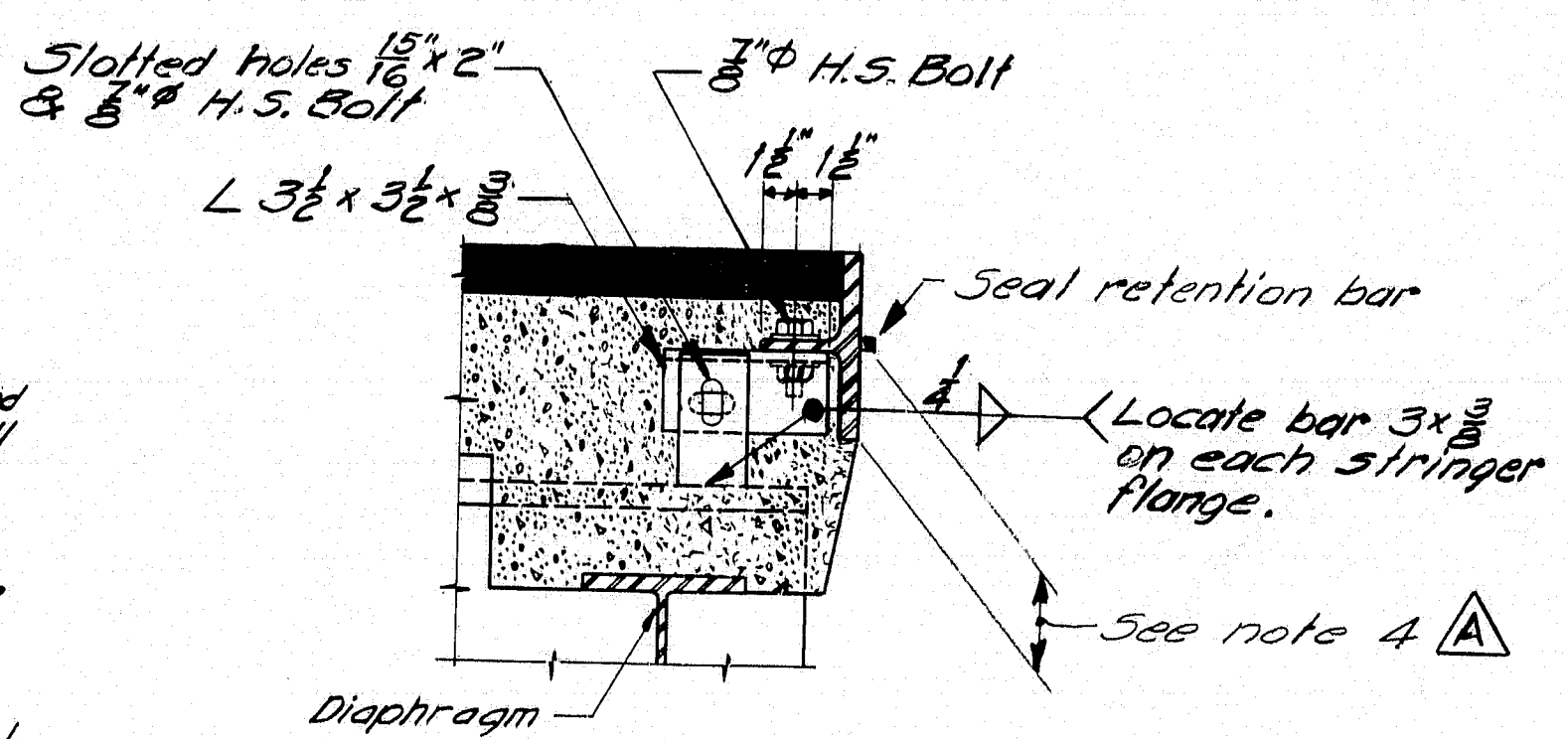


POLYVINYLCHLORIDE WATERSTOP



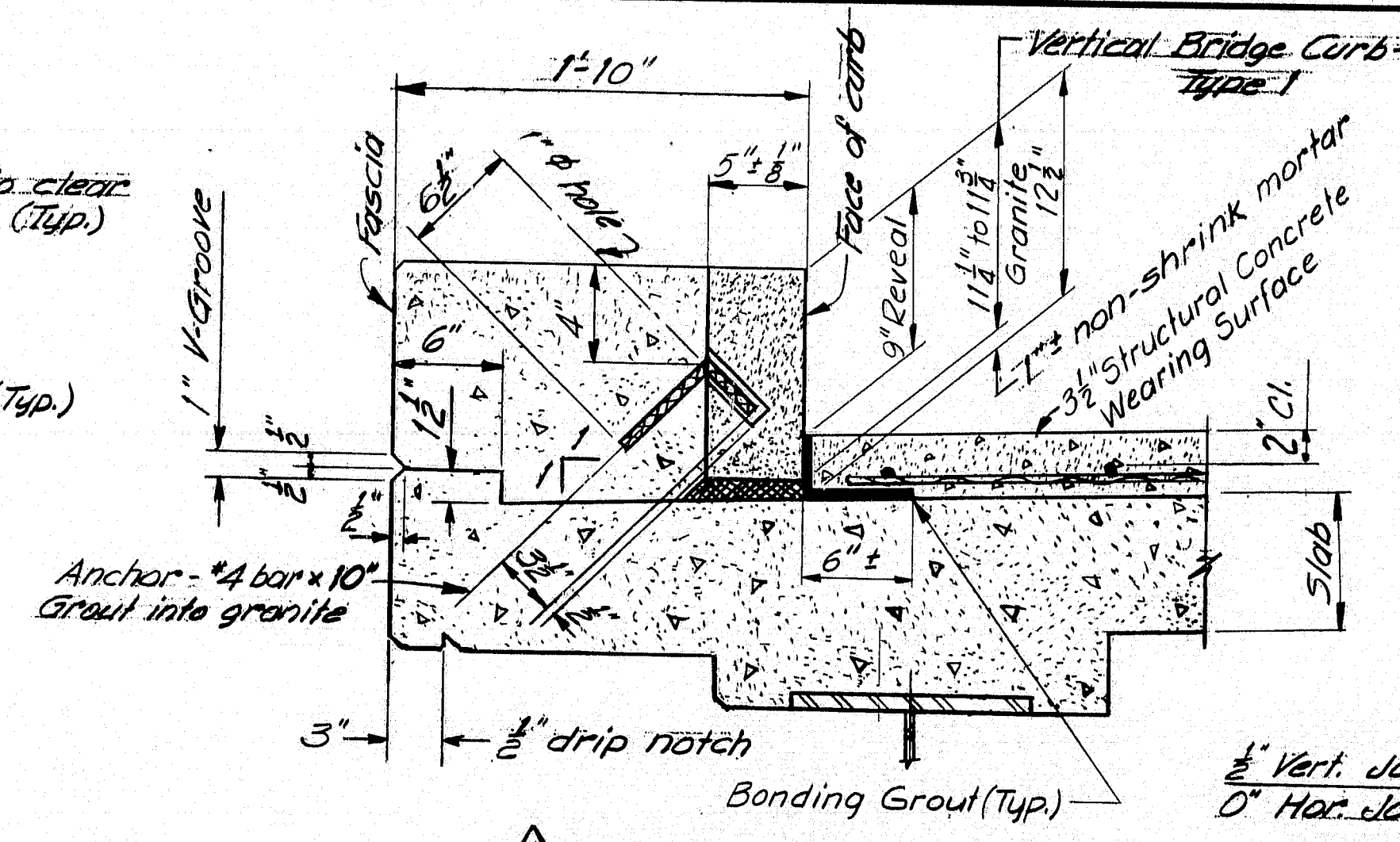
ARMORED JOINT UNIT TYPE A
ARMORED JOINT UNIT TYPE B

SECTION D-D

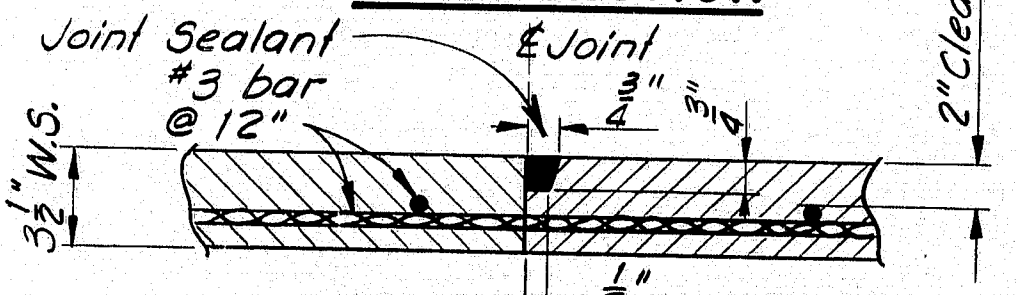


SECTION E-E

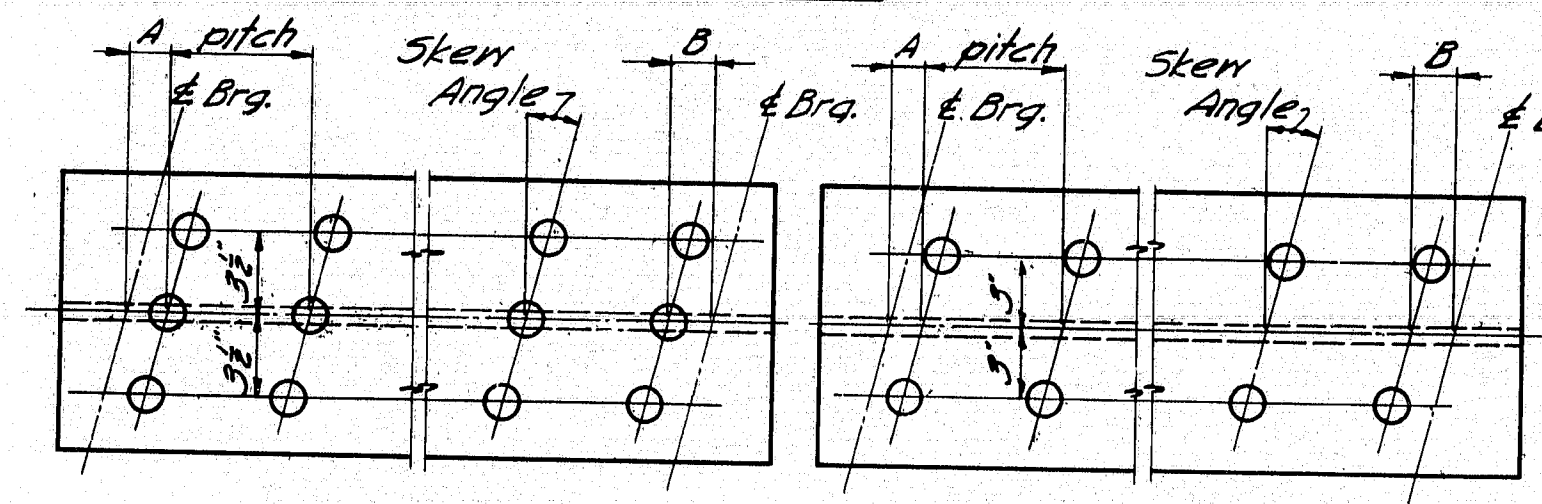
Shoring Adjustment Device
Armored Joint Unit Type A only
After Unit is in final position
weld bar to angle with 1/2" fillet



CURB SECTION



CONSTRUCTION JOINT



TRIPLE STUDS

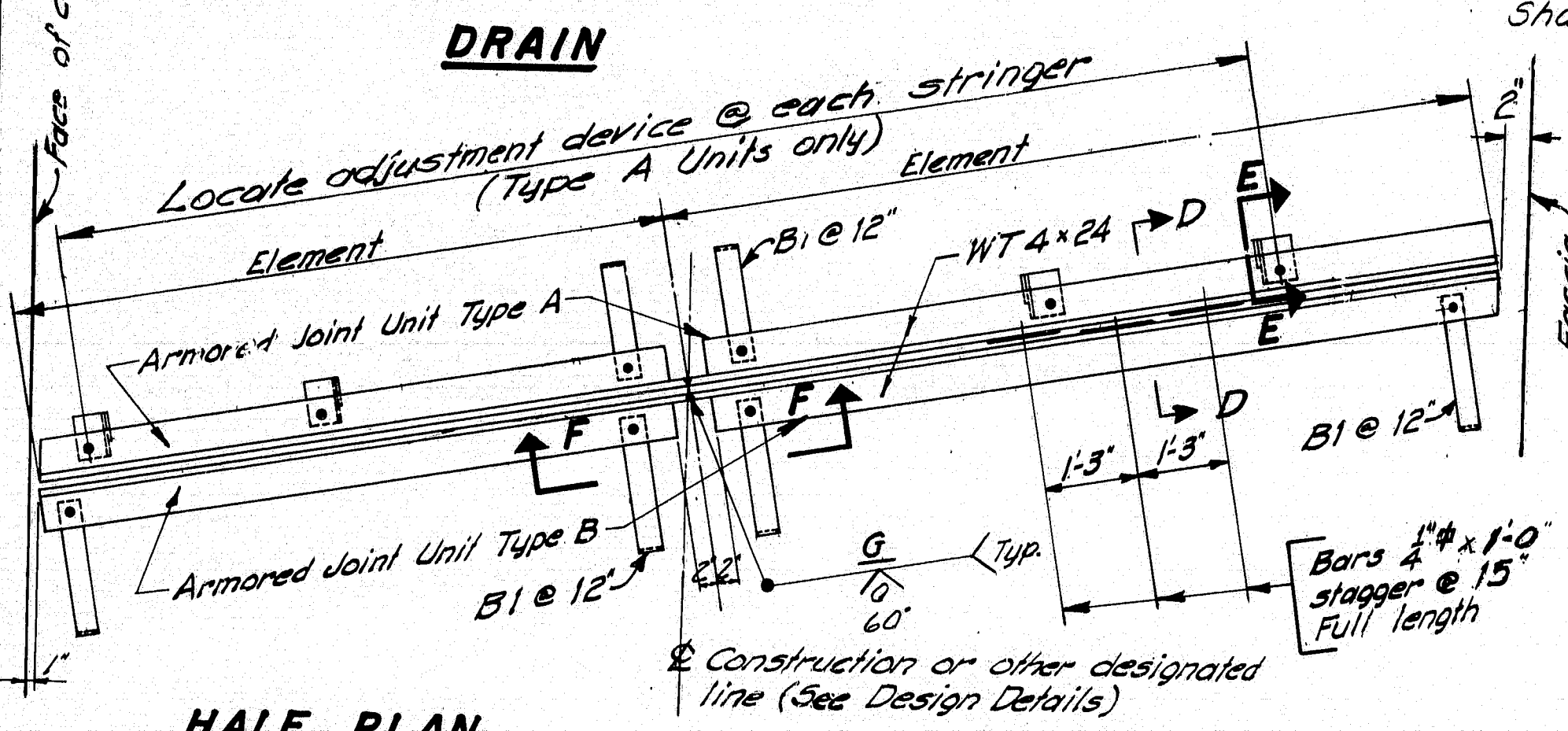
DOUBLE STUDS

STUD DETAIL

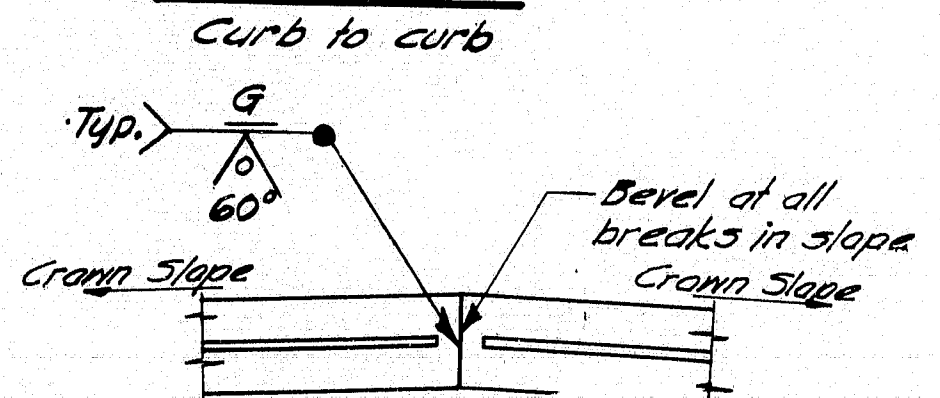
NOTE
1. Studs shall be granular or solid flux filled and automatically and welded to top flange in the shop or field.
2. See the design details for Dimensions 'A' & 'B', stud pitch and skew angle for studs.

SHEAR CONNECTORS

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



HALF PLAN



HALF PLAN

Fascia to fascia

NOTE

1. Type A Armored Joint Units are intended to be used for attachment to superstructures. Type B Armored Joint Units are intended to be used for attachment to abutments. At armored joints over piers, two (2) Type A Armored Joint Units shall be used.
2. When more elements than two (2) are required by the design details, the elements of both units shall be field welded together in the same manner as shown in Section F-F.
3. Armored Joints to be paid for as Structural Steel.
4. All structural steel shall be A36. When structural steel is specified to be unpainted, the armored joint shall receive three coats of shop paint, on exposed areas of flanges below seal retention bars.

ARMORED JOINT

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

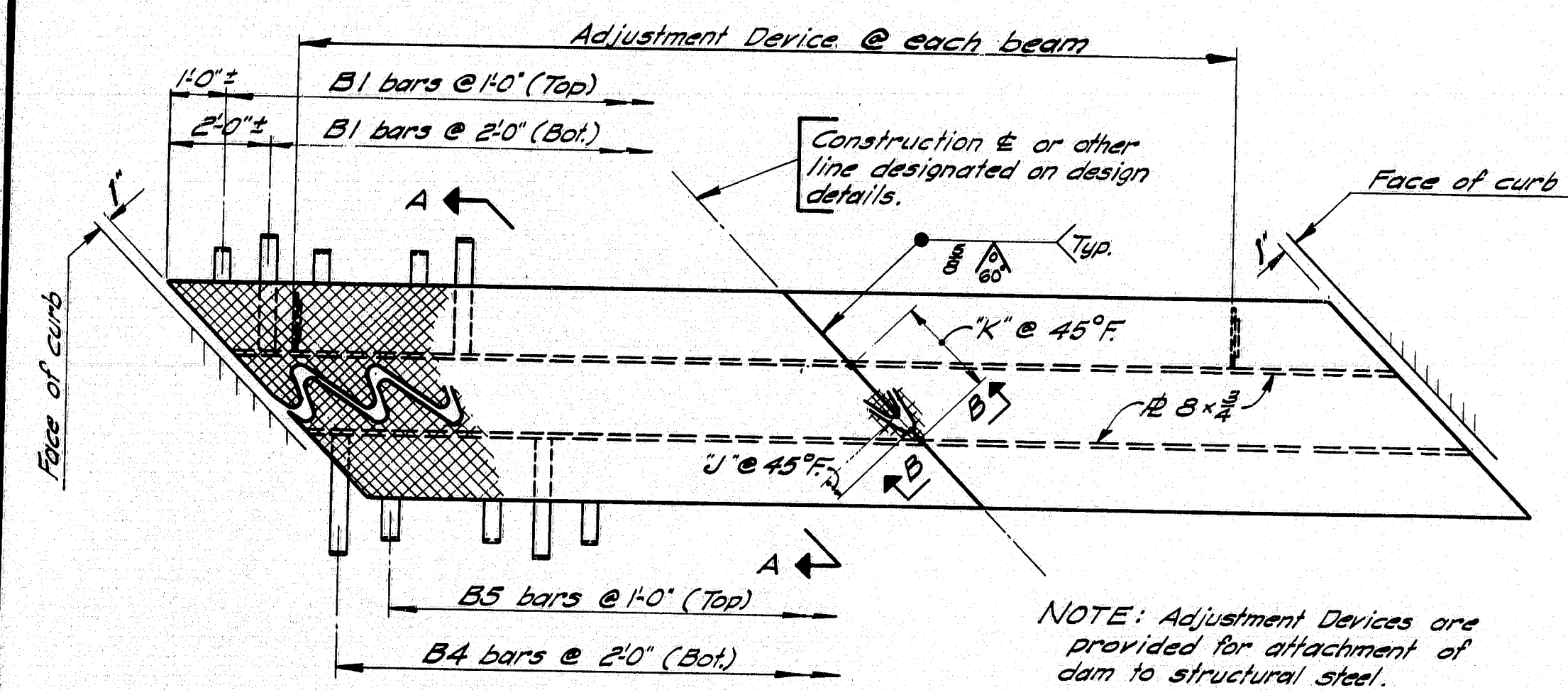
REVISIONS	DATE
Added holes and note to roadway drain.	
Add Note 4 to Armored Joint notes.	
Eliminate Hot Bit Pav't.	
Change curb and granite widths and added a concrete wearing surface	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

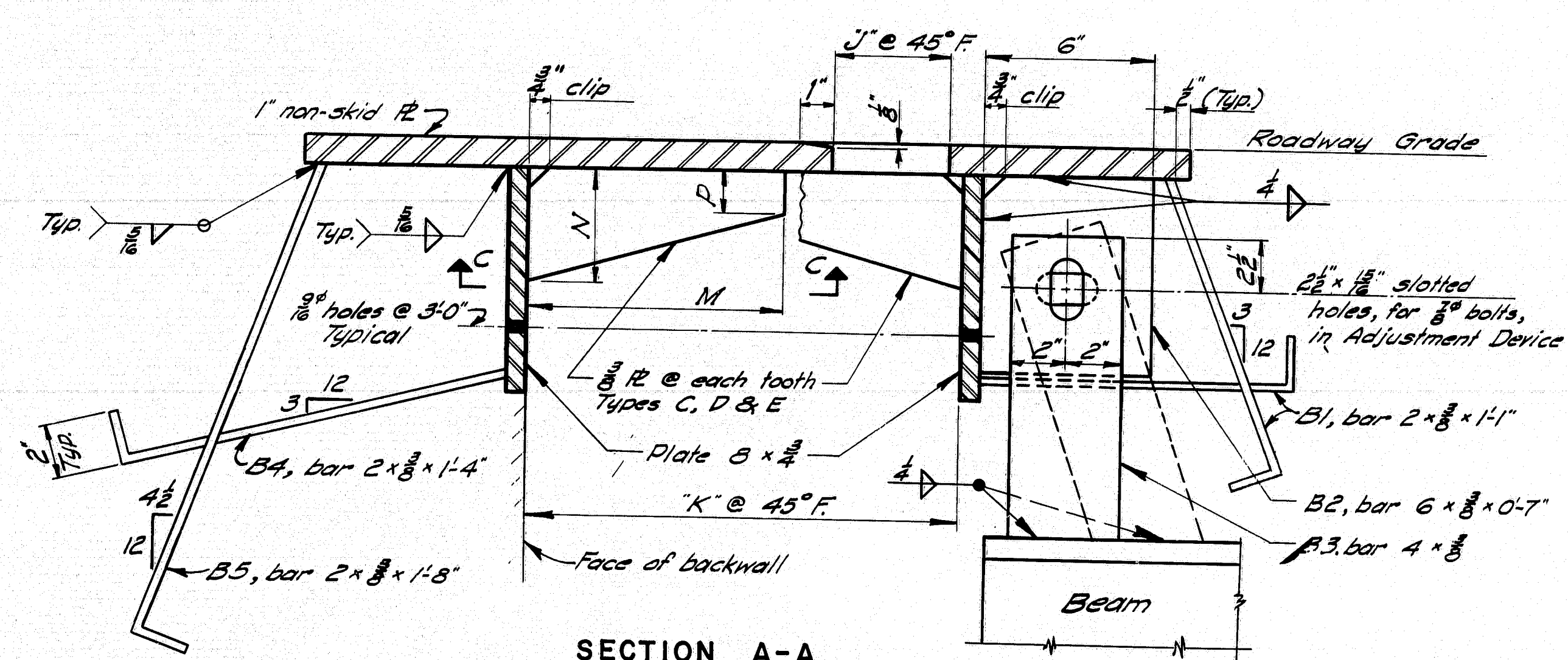
STANDARD DETAILS
(BD 104-77)

ARMORED JOINT, DRAIN
SHEAR CONNECTORS
MISC. STRUCTURAL DETAILS

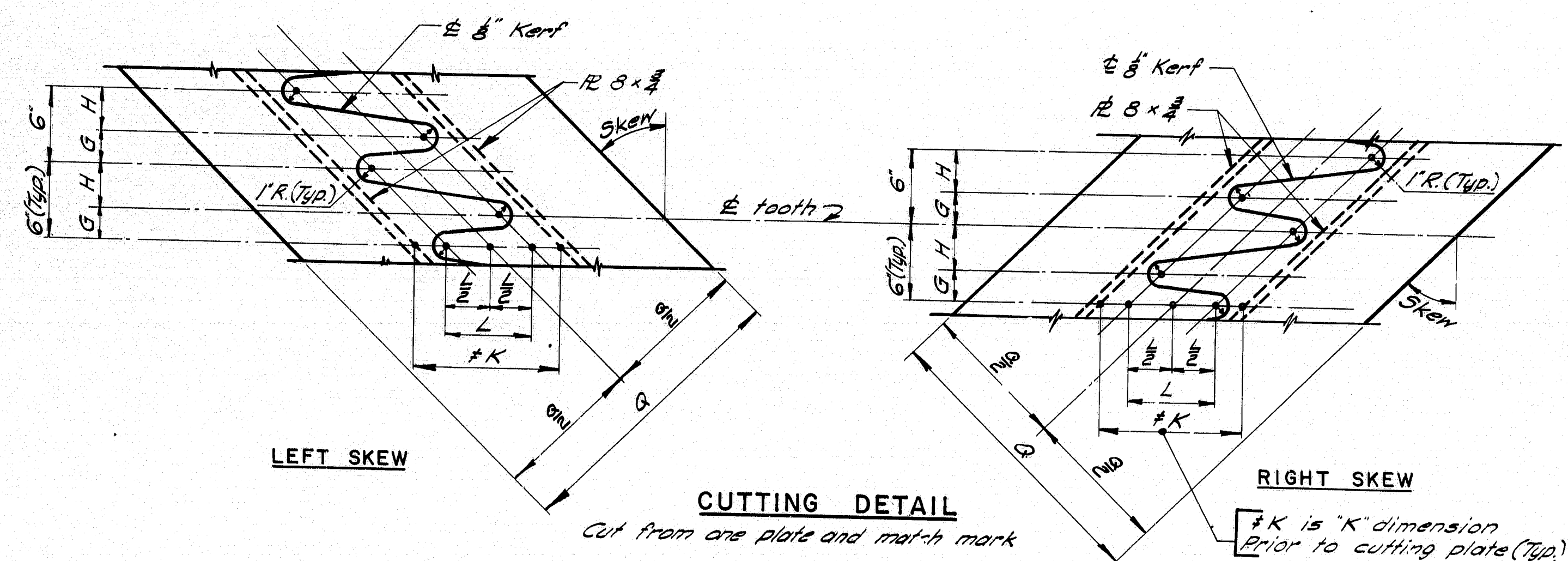
103-65 AUGUSTA, ME. FEB. 1977



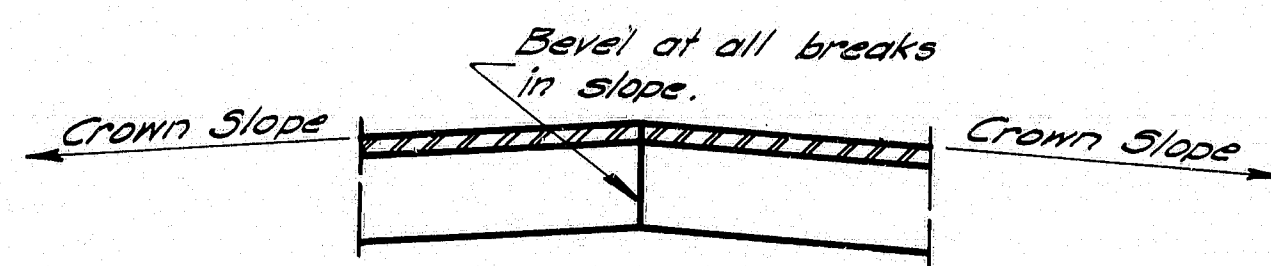
PLAN
Right skew indicated



Bar B3 may be vertical or inclined as indicated, depending on design conditions.
After Adjustment Device is in final position weld bars B2 to B3 with $\frac{1}{4}$ " fillet weld.

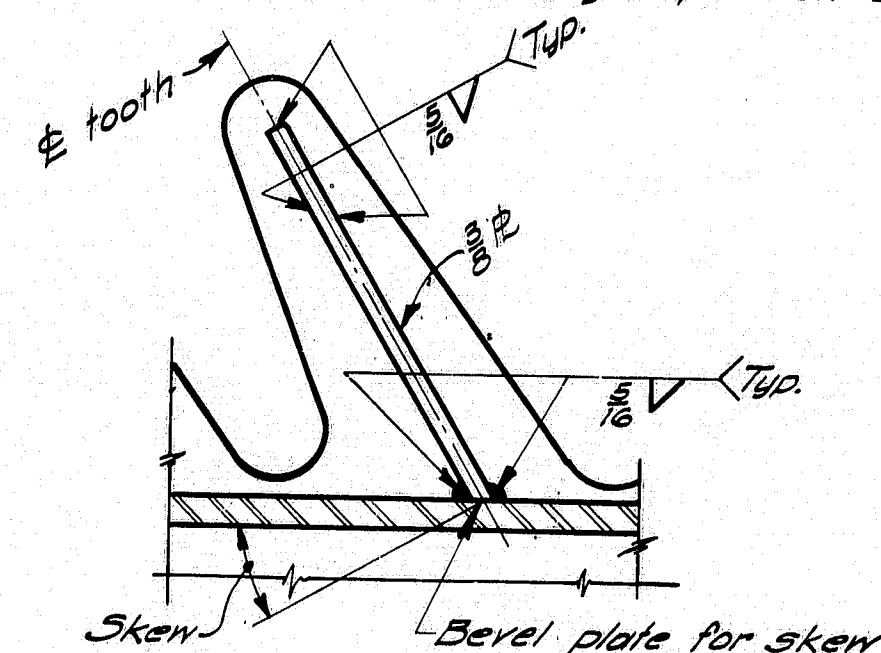


ROADWAY EXPANSION DAM - DETAILS

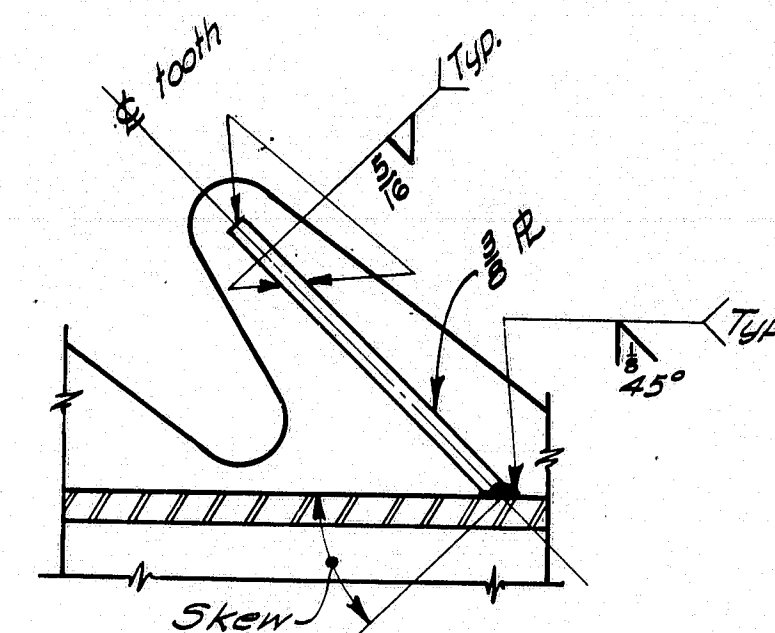


SECTION B-B

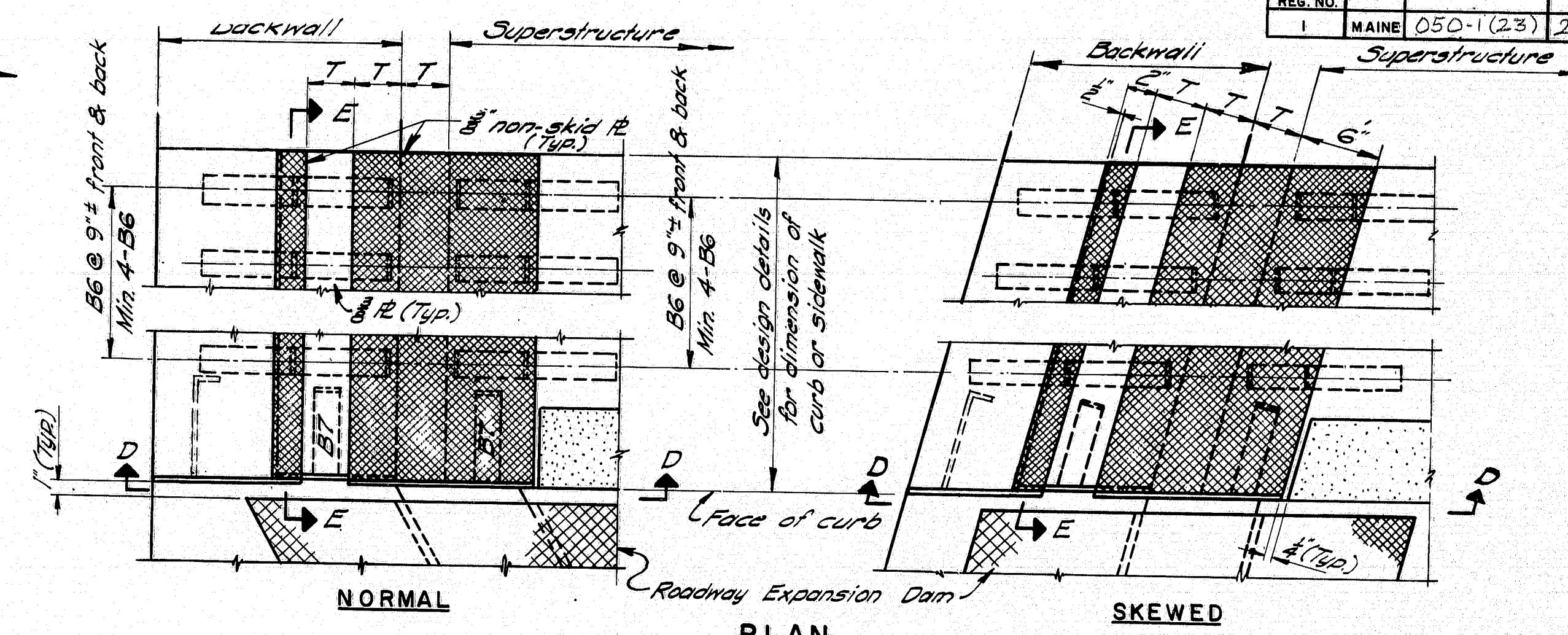
See design details for construction & to curb dimensions, skew, crown slope, slab thickness, other dimensions & angles that are necessary to complete fabrication details and location of Roadway Expansion Dam.



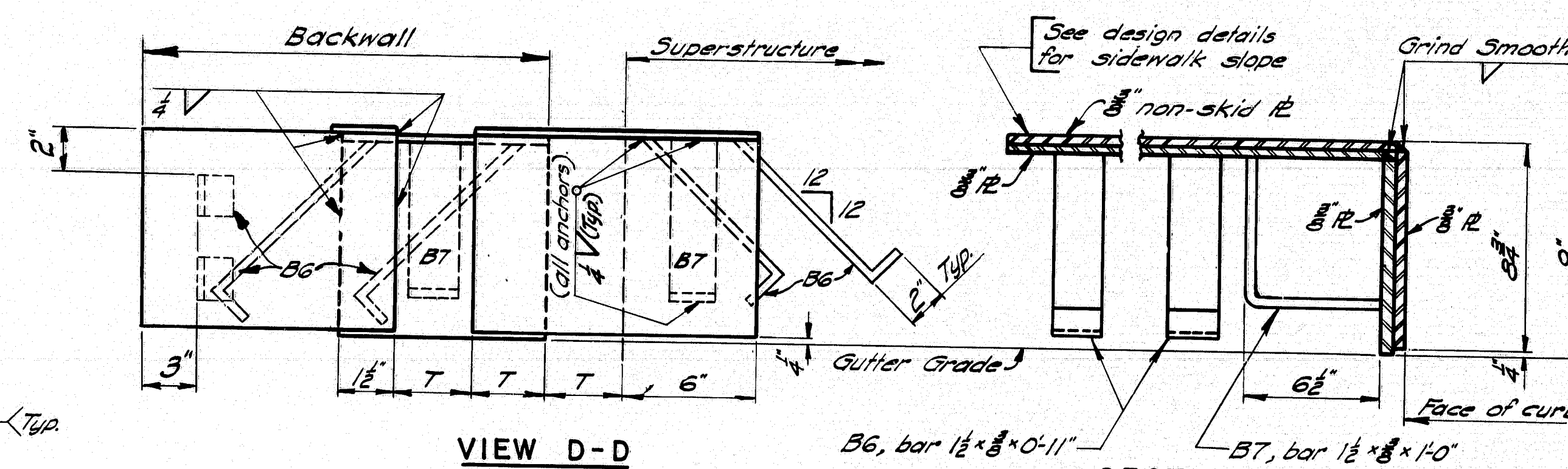
SECTION C-C
Skew ~ 0° to 30° 0'



SECTION C-C
Skew over 30°



PLAN



VIEW D-D



SECTION E-E

TYPE	V	W	X	Y	Z
Exp. Length	100'-280'	280'-440'	440'-600'	600'-760'	760'-920'
T	3"	4"	5"	6"	7"

CURB AND SIDEWALK EXPANSION DAM - DETAILS

Type	Exp. Length	Skew	# K	L	G	H	K@45°	L@45°	M	N	P	Q
A	100'-280'	0°-5° incl.	7"	4"	3"	3"	9"	28"	—	—	—	2"
		5°-10°	7 1/2"	4 1/2"	2 1/2"	3 1/2"	9 1/2"	28 1/2"	—	—	—	2 1/2"
		10°-20°	8"	4 1/2"	2 1/2"	3 1/2"	10"	28"	—	—	—	2 1/2"
		20°-30°	8 1/2"	5 1/2"	2 1/2"	3 1/2"	10 1/2"	28 1/2"	—	—	—	2 1/2"
		30°-40°	9 1/2"	5 1/2"	2 1/2"	3 1/2"	11 1/2"	28 1/2"	—	—	—	2 1/2"
		40°-50° incl.	14 1/2"	6 1/2"	2 1/2"	3 1/2"	15 1/2"	28 1/2"	—	—	—	2 1/2"
B	280°-440'	0°-5° incl.	9"	6"	3"	3"	12"	38"	—	—	—	2 1/2"
		5°-10°	9 1/2"	6 1/2"	2 1/2"	3 1/2"	12 1/2"	38 1/2"	—	—	—	2 1/2"
		10°-20°	10"	6 1/2"	2 1/2"	3 1/2"	13"	38"	—	—	—	2 1/2"
		20°-30°	10 1/2"	7 1/2"	2 1/2"	3 1/2"	13 1/2"	38 1/2"	—	—	—	2 1/2"
		30°-40°	12"	8"	2 1/2"	3 1/2"	15"	38"	—	—	—	2 1/2"
		40°-50° incl.	15 1/2"	8 1/2"	2 1/2"	3 1/2"	16 1/2"	38 1/2"	—	—	—	2 1/2"
C	440°-600'	0°-10° incl.	11 1/2"	8 1/2"	3"	3"	15 1/2"	48"	9"	4"	1 1/2"	2 1/2"
		10°-20°	12"	8 1/2"	3"	3"	16"	48"	10"	4"	1 1/2"	2 1/2"
		20°-30°	12 1/2"	9 1/2"	2 1/2"	3 1/2"	16 1/2"	48 1/2"	11"	4"	1 1/2"	2 1/2"
		30°-40°	14"	10"	2 1/2"	3 1/2"	18"	48"	11"	4"	1 1/2"	2 1/2"
		40°-50° incl.	15 1/2"	10 1/2"	2 1/2"	3 1/2"	19 1/2"	48 1/2"	12"	4"	1 1/2"	2 1/2"
		0°-10° incl.	13 1/2"	10 1/2"	3"	3"	18 1/2"	58"	11"	5"	2"	30"
D	600°-760'	10°-20°	14"	10 1/2"	2 1/2"	3 1/2"	19"	58"	12"	5"	2"	30"
		20°-30°	14 1/2"	11 1/2"	2 1/2"	3 1/2"	19 1/2"	58 1/2"	13"	5"	2"	30"
		30°-40°	16"	12"	2 1/2"	3 1/2"	21"	58"	13"	5"	2"	30"
		40°-50° incl.	17 1/2"	13"	2 1/2"	3 1/2"	22 1/2"	58 1/2"	15"	5"	2"	30"
		0°-10° incl.	15 1/2"	12 1/2"	3"	3"	21 1/2"	68"	13"	6"	2 1/2"	36"
		10°-20°	16"	12 1/2"	3"	3"	22"	68"	14"	6"	2 1/2"	36"
E	760°-920'	20°-30°	16 1/2"	13 1/2"	2 1/2"	3 1/2"	22 1/2"	68"	15"	6"	2 1/2"	36"
		30°-40°	18"	14"	2 1/2"	3 1/2"	24"	68"	15"	6"	2 1/2"	36"
		40°-50° incl.	19 1/2"	15"	2 1/2"	3 1/2"	25 1/2"	68 1/2"	17"	6"	2 1/2"	36"
		0°-10° incl.	17 1/2"	14 1/2"	3"	3"	24 1/2"	78"	16"	7"	2 1/2"	36"

GENERAL NOTES

If there is conflict between this Standard Detail and the design details, the requirements of the design details shall be followed.

A A.S.T.M. STEEL CLASSIFICATION

All structural steel shall be A36. When structural steel is specified to be unpainted, the expansion dam shall receive three coats of shop paint on the underside areas of exposed steel.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
(BD 105 - 74)

(BD 105 - 74)

EXPANSION DAMS

EXPANSTION DAMS
 A REVISED MAR. 1, 1977
 AUGUSTA, MAINE MAY 1974

AUGUSTA, MAINE MAY 1974

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	050-1(23)	29	82

FABRICATION NOTES

- 1.) All bolts shall be $\frac{7}{8}$ " H.S. Bolts. Holes for bolts shall be $\frac{1}{16}$ " and edge-distances shall be $\frac{1}{2}$ " min. unless otherwise shown.
- 2.) Connection Plates and gusset plates shall have a minimum thickness of $\frac{3}{8}$ " 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 details.
- 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. I. 7.26, unless otherwise shown on design plans.
- 4.) Connection Plates shall be $\frac{3}{8}$ " 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 $\frac{1}{16}$ " except if the design details 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 $\frac{1}{16}$ " 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 $\frac{1}{16}$ " at the tension flange.
- 11.) Use only those items called for on the design details. In case of conflict between these standard details and design details, the design details shall be followed.
- 12.) All dimensions shown as " - \pm " 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 $\frac{3}{8}$ ", except as indicated by note 14.
- 14.) Bearing stiffeners at end bearings shall be clipped 1" at top and bottom. Bearing stiffeners at all other bearings and intermediate stiffeners shall be clipped 1" 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.

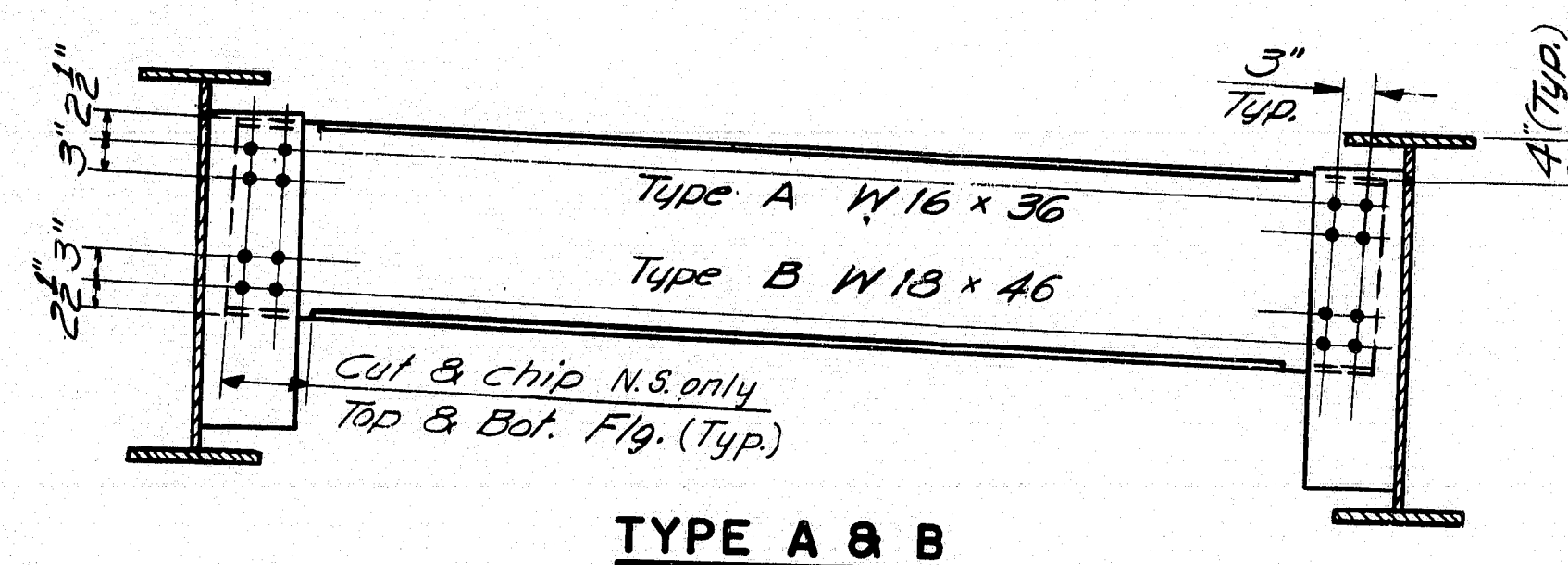
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS (BD 113 - 78) DIAPHRAGMS & CROSSFRAMES

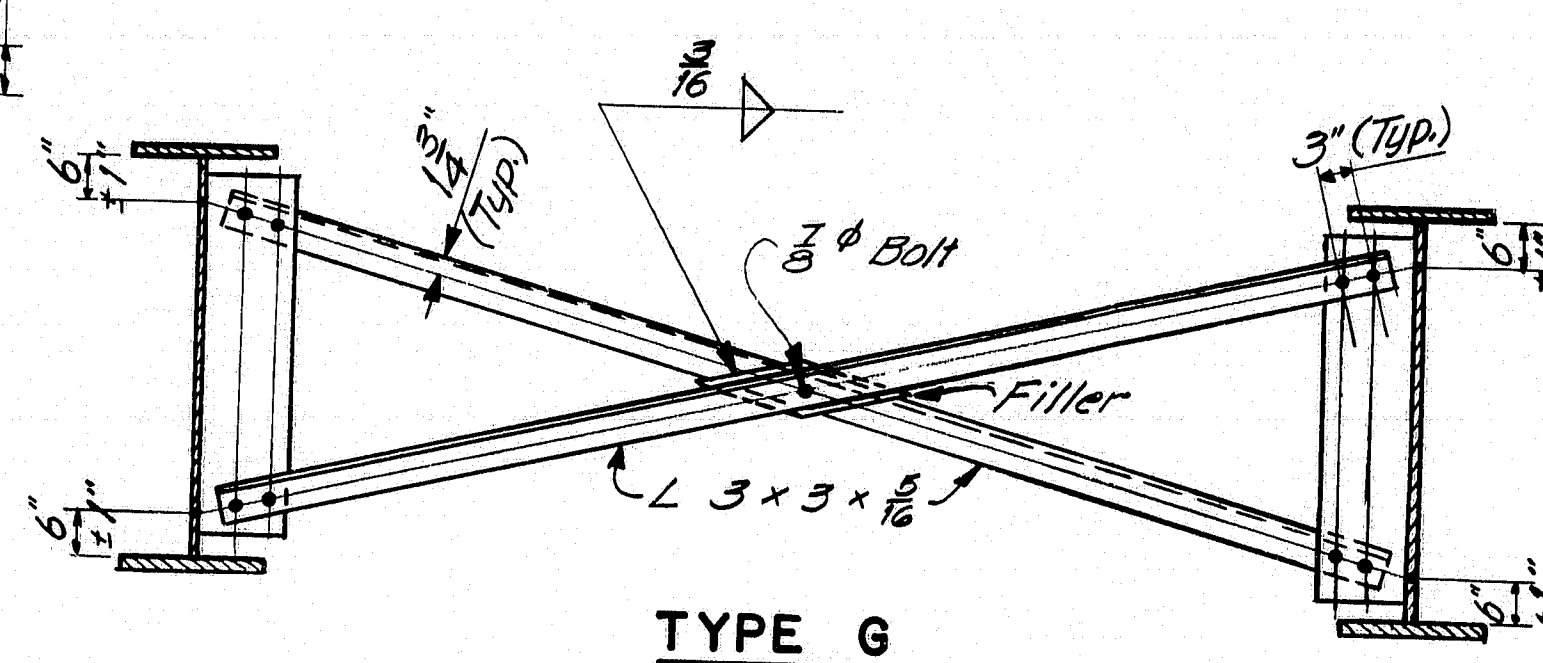
ELIMINATED - A242 G.R.W. 5-24-79

183-61

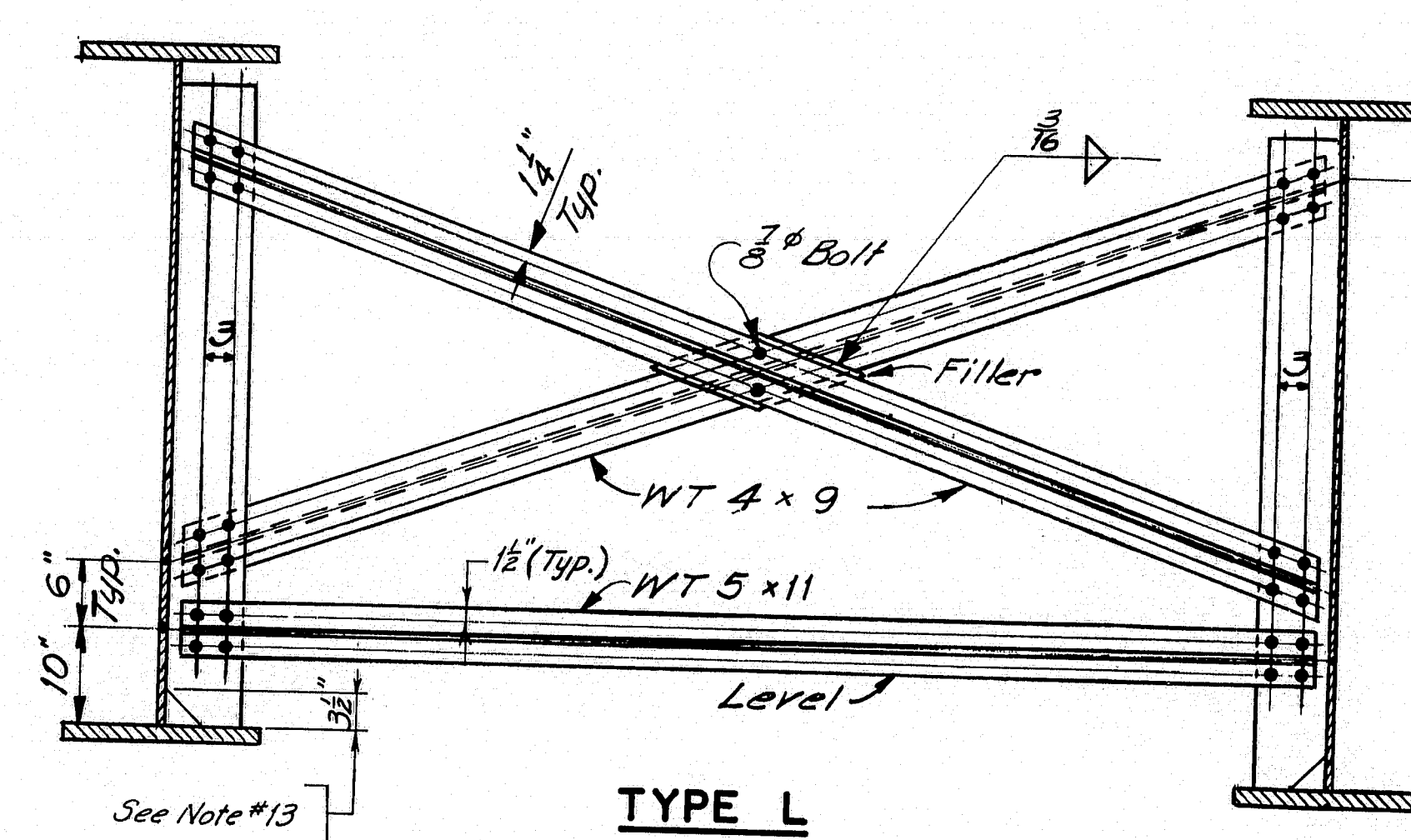
AUGUSTA, MAINE June 1978



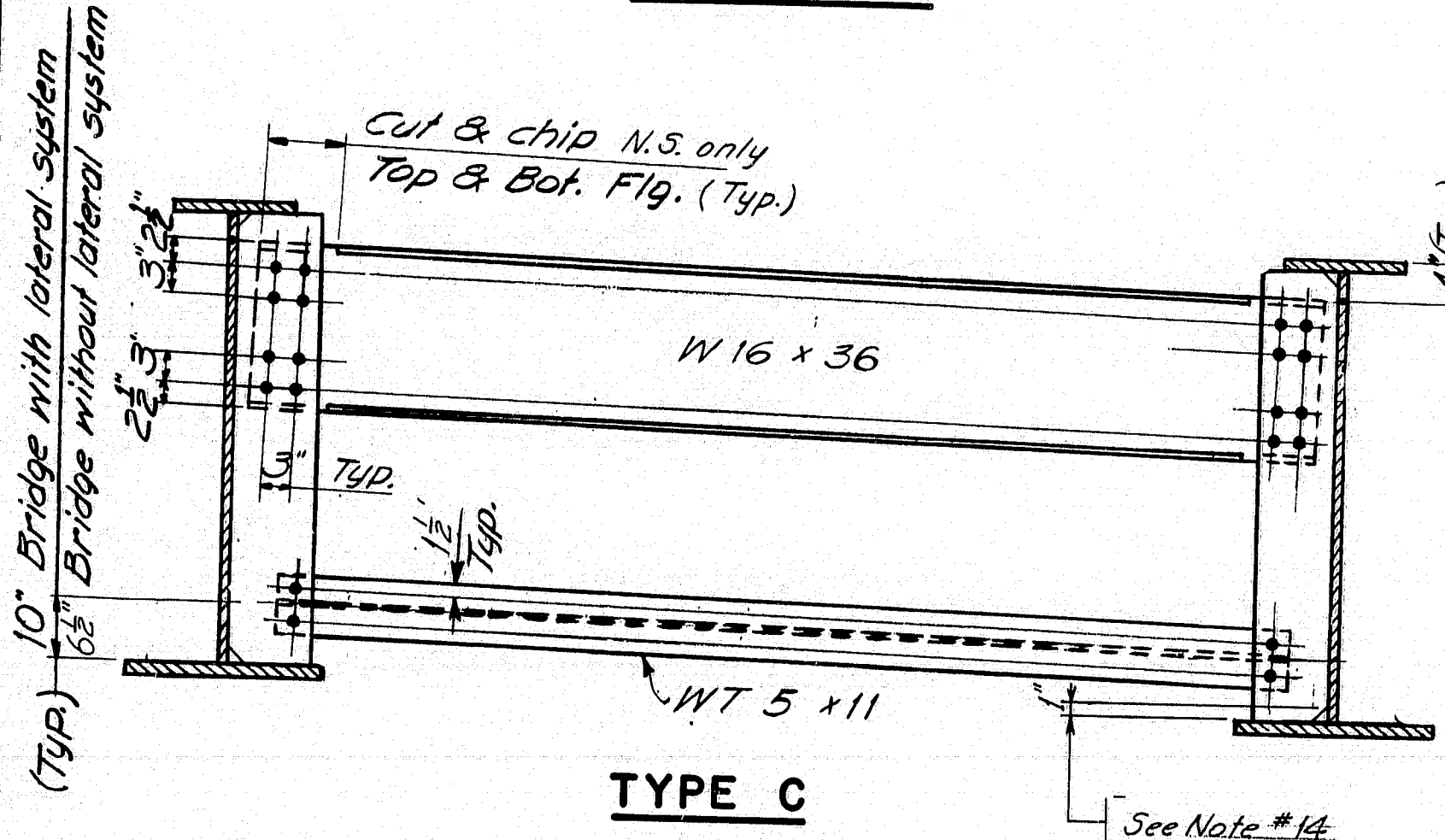
TYPE A & B



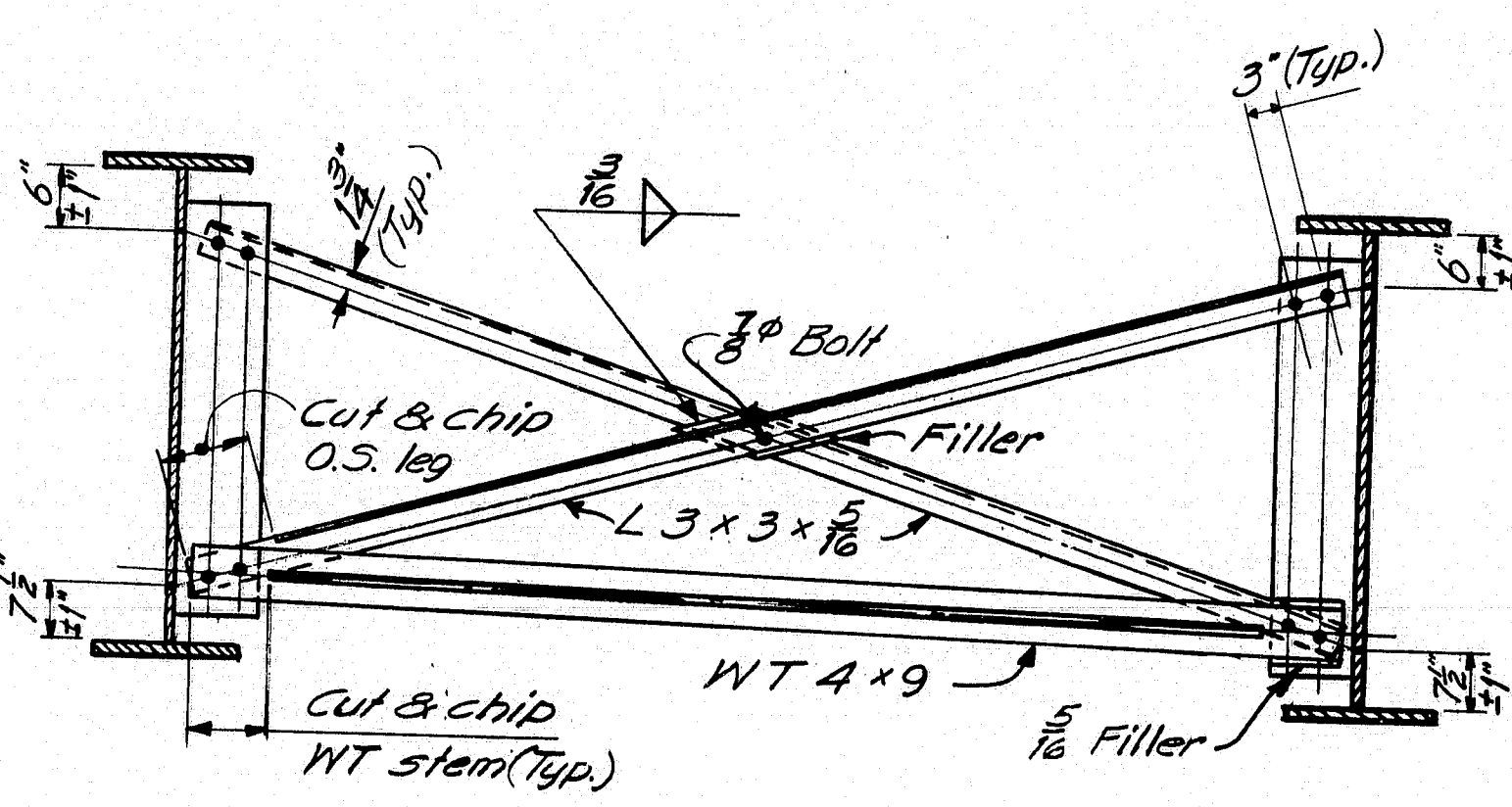
TYPE G



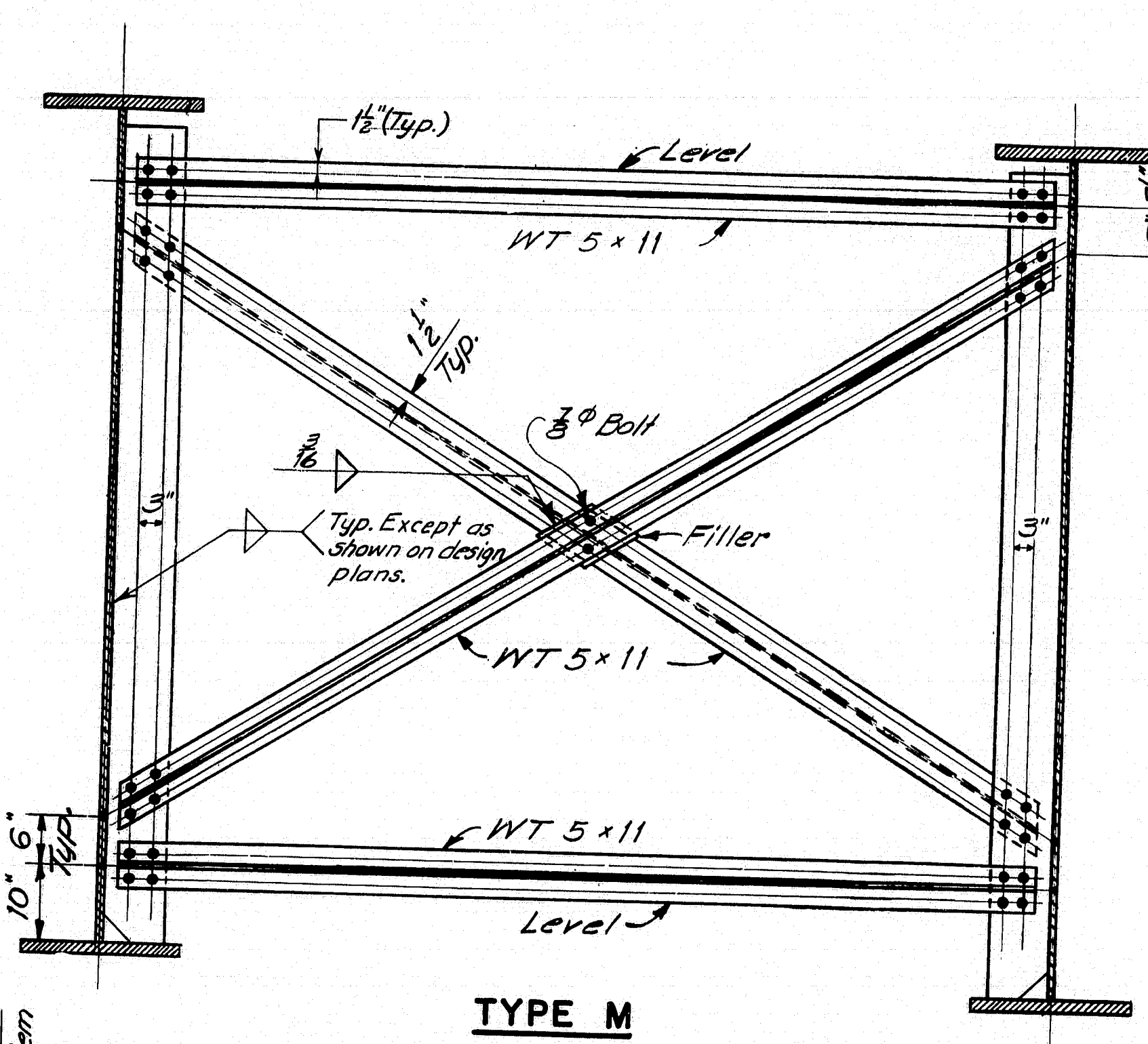
TYPE L



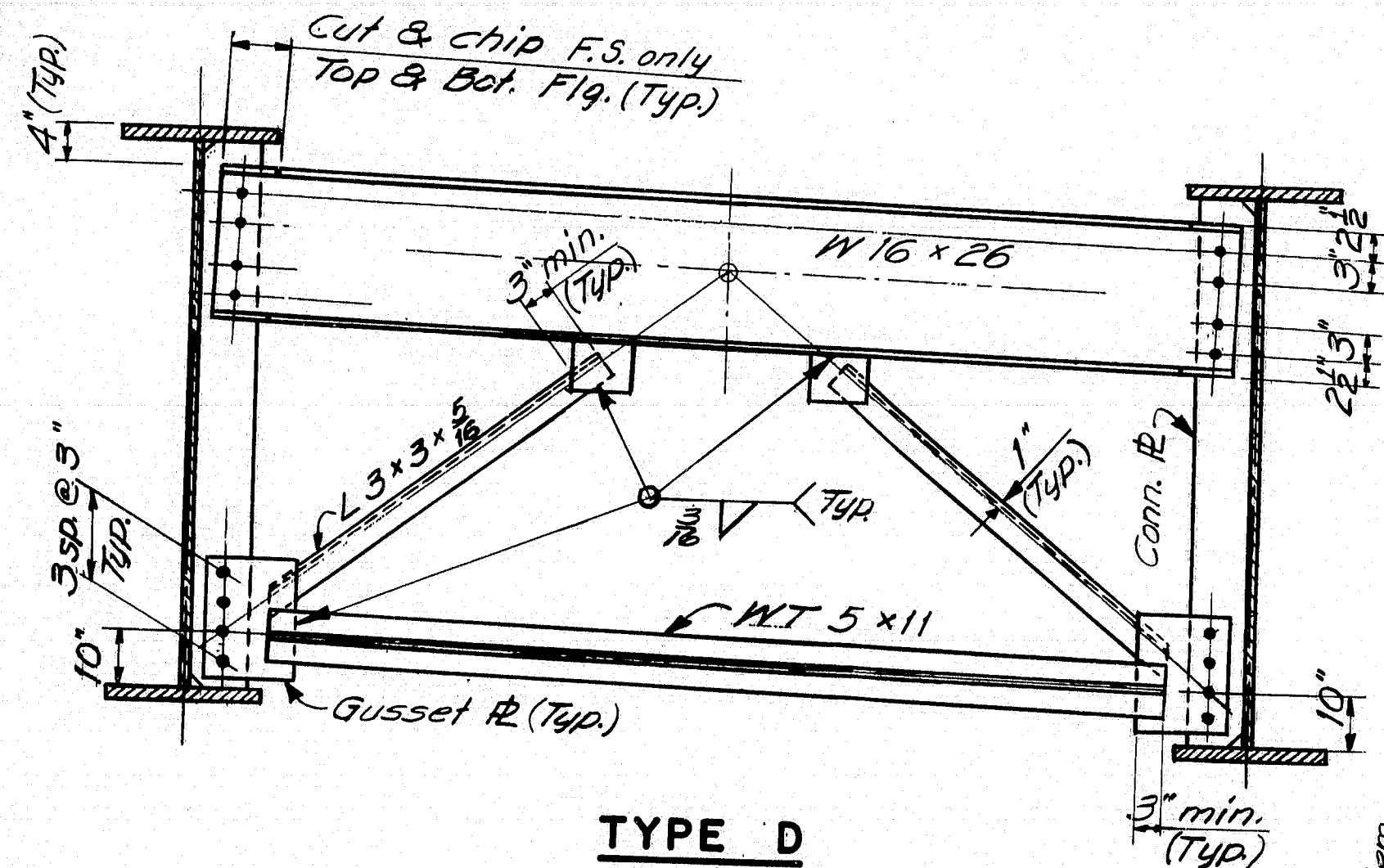
TYPE C



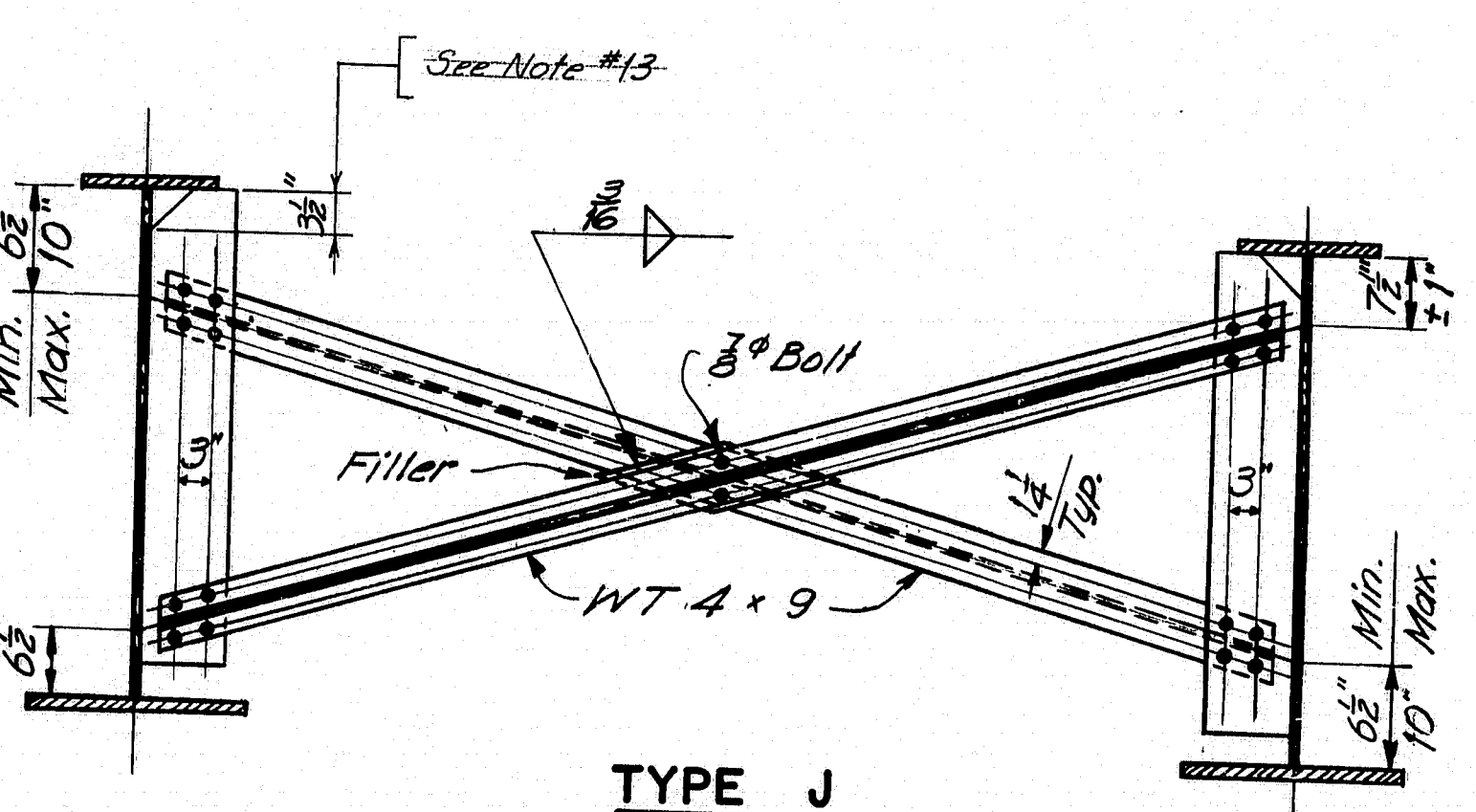
TYPE H



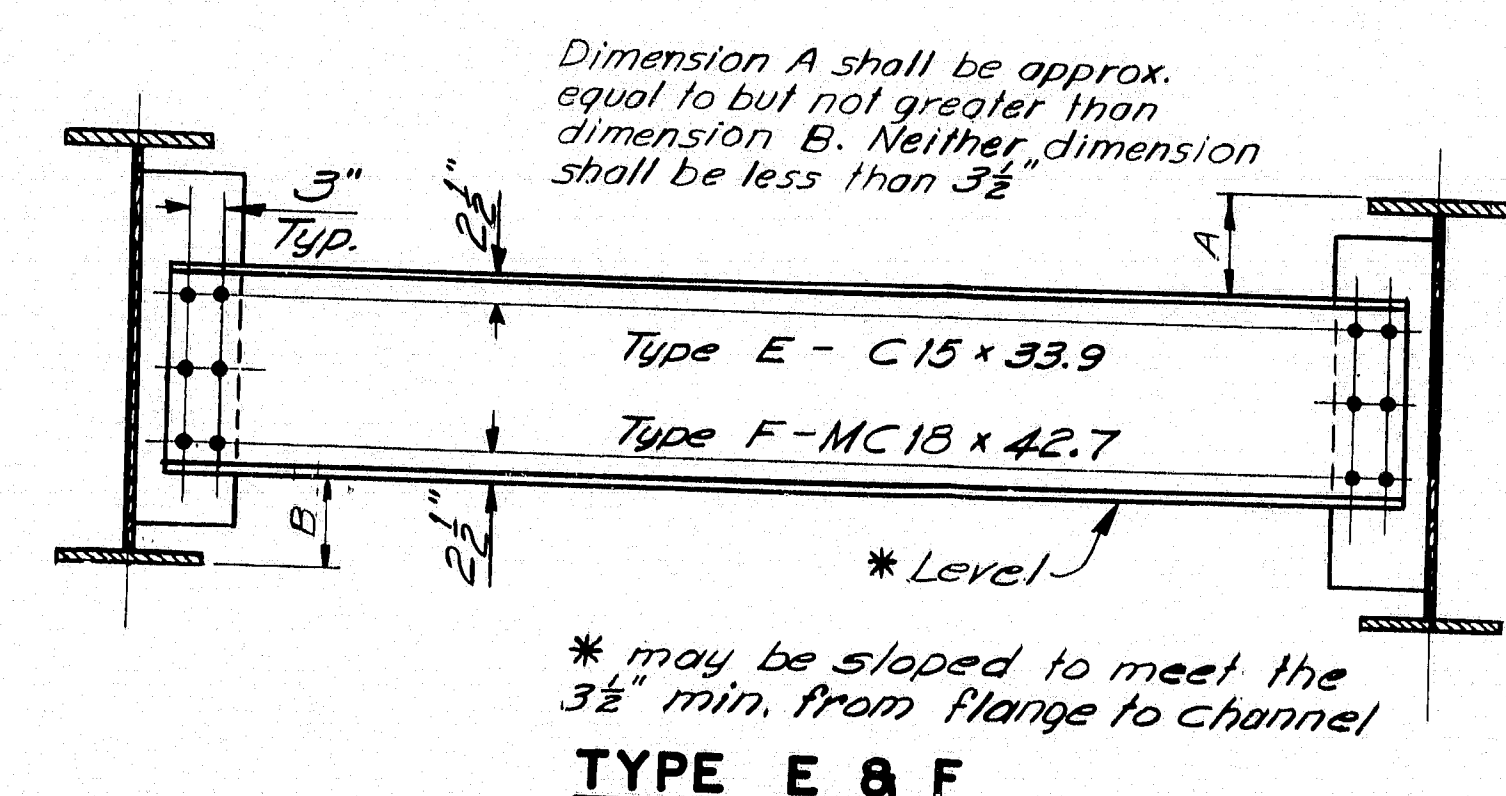
TYPE M



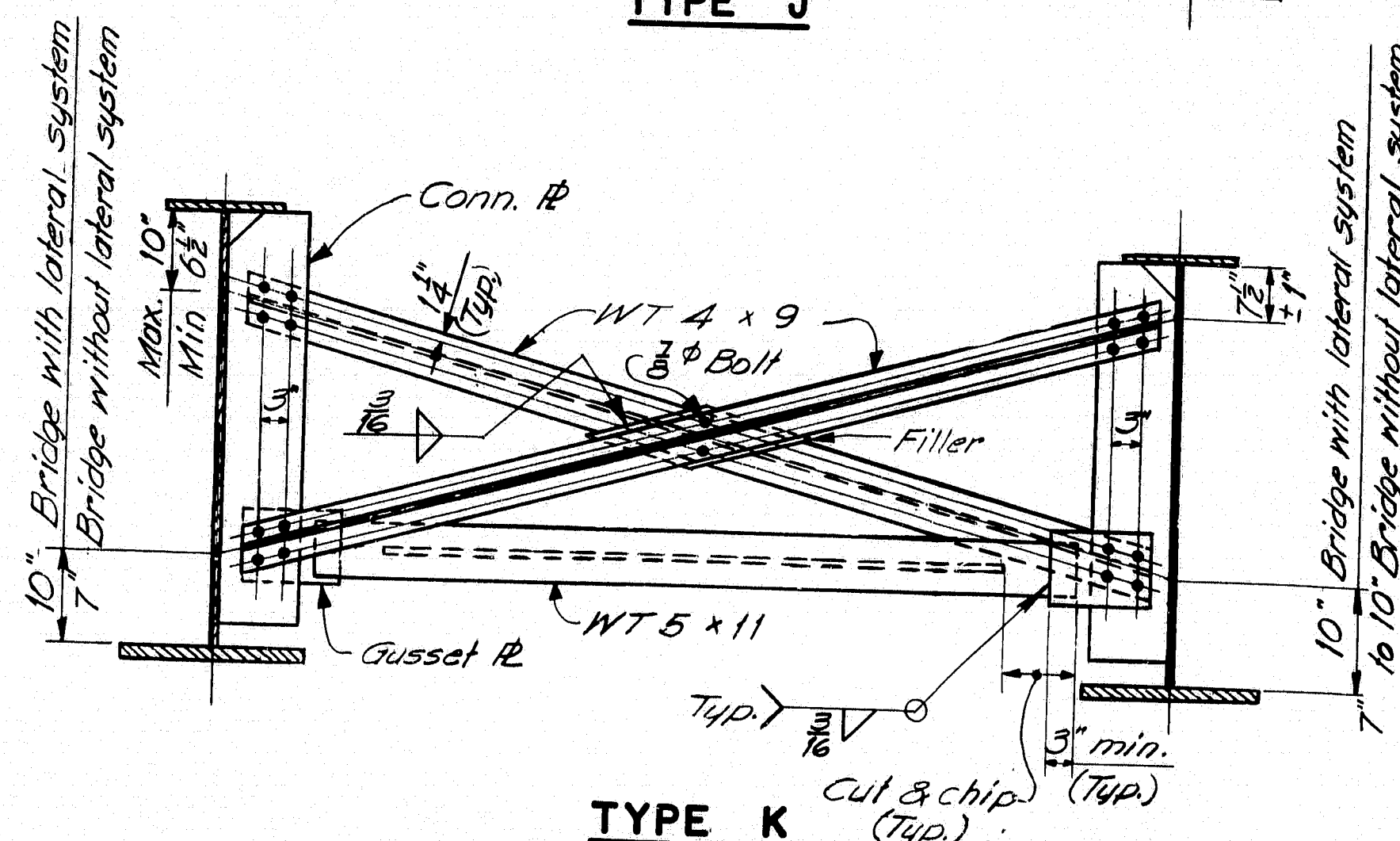
TYPE D



TYPE J



TYPE E & F



TYPE K

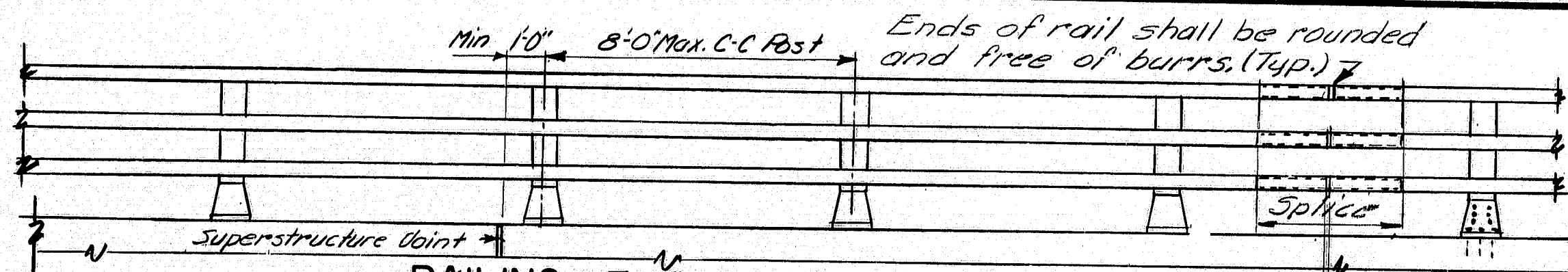
DESIGN - DETAILED
CHECKED
REVISIONS
FIELD CHANGES
PLANS

Dimension A shall be approx. equal to but not greater than dimension B. Neither dimension shall be less than $3\frac{1}{2}$ "

* may be sloped to meet the $3\frac{1}{2}$ " min. from flange to channel

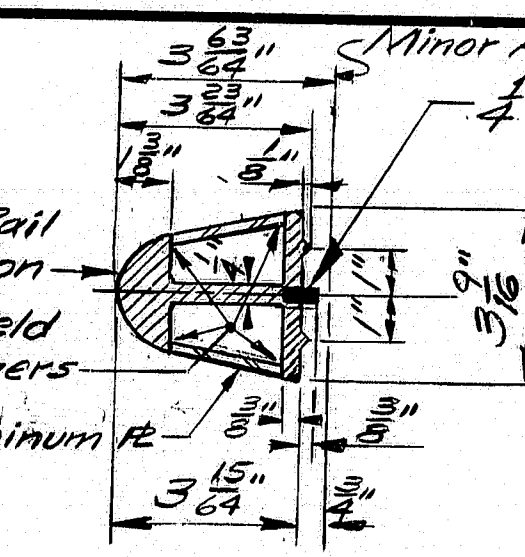
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(23)	31	82

DESIGN SPECIFICATIONS
AASHTO Standard Specifications for
Highway Bridges 1973 and
Interims 1974, '75, '76, '77

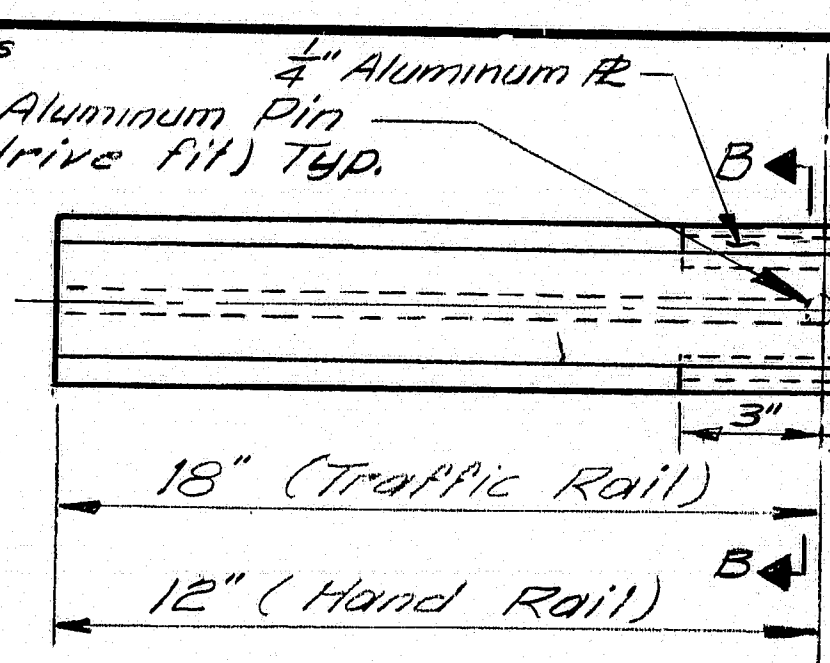


RAILING - ELEVATION

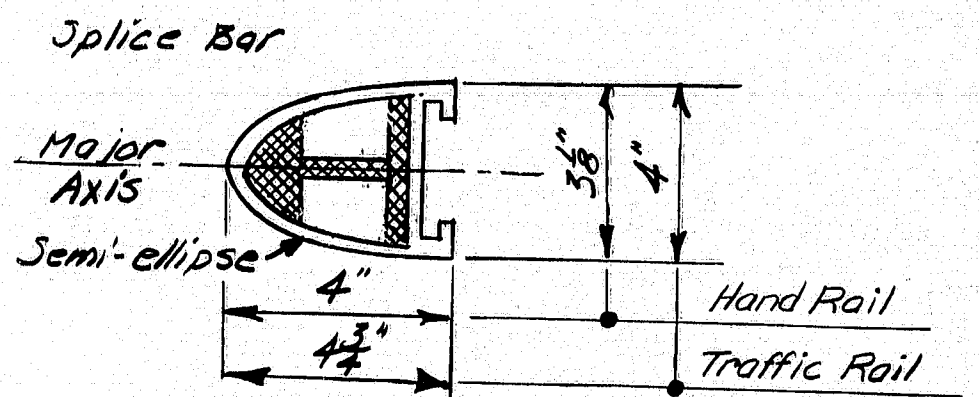
Lengths of rail shall be attached to a minimum of four (4) rail posts, wherever possible, and in any case never less than two (2). Rail posts are to be set normal to grade unless otherwise shown on Bridge Plans.



SECTION B-B TRAFFIC RAIL



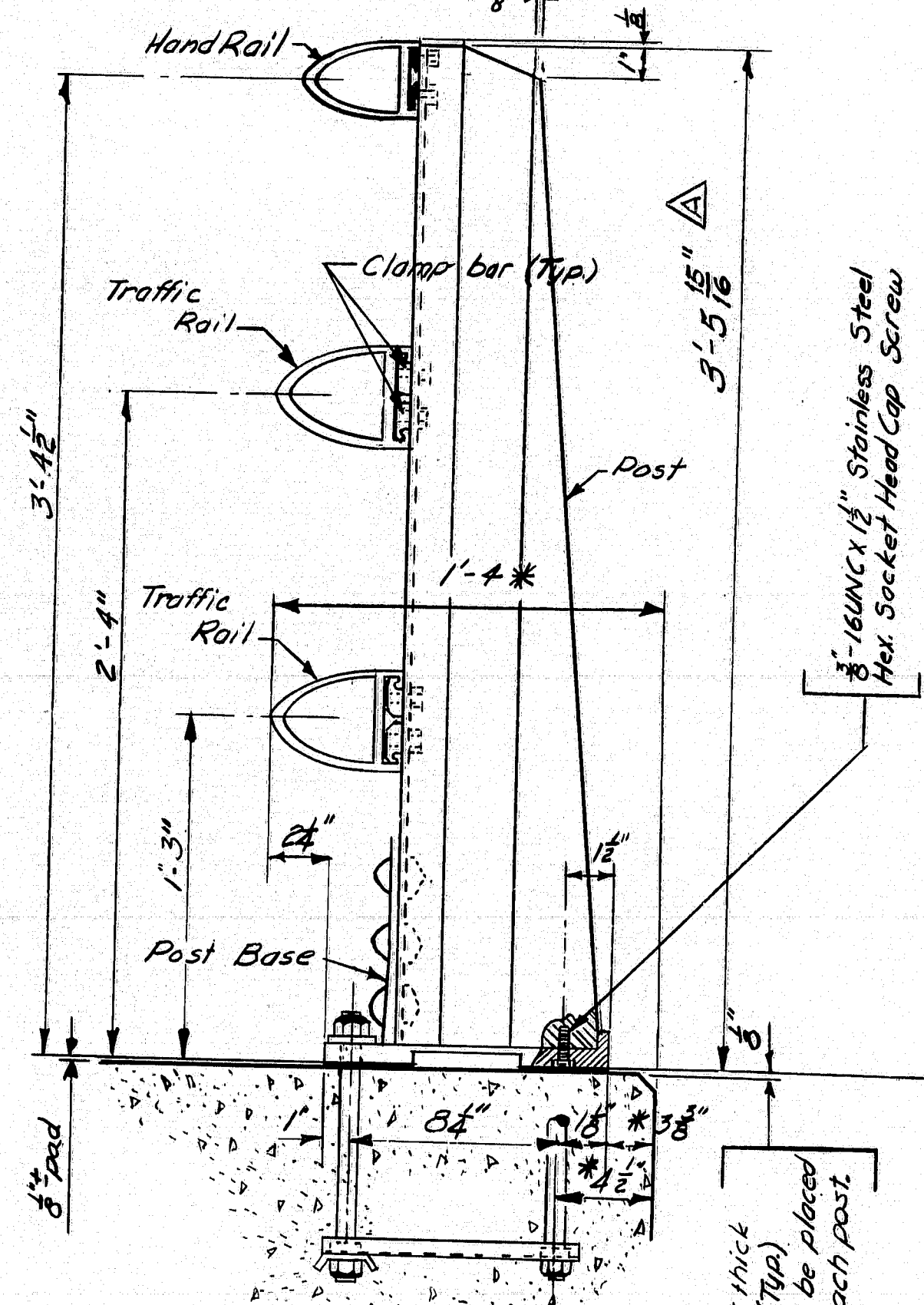
SECTION B-B HAND RAIL



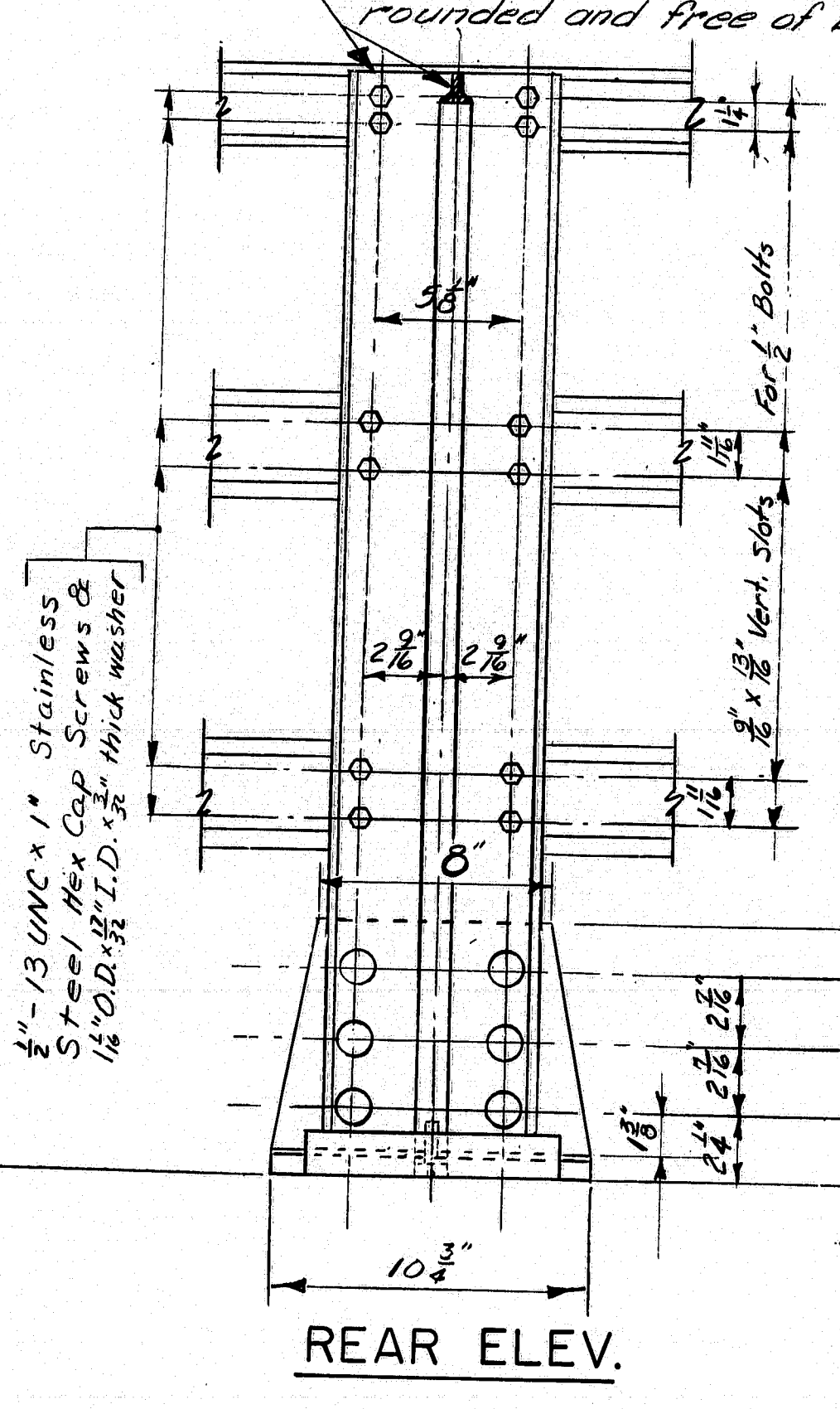
RAIL SECTION

SPLICE BAR

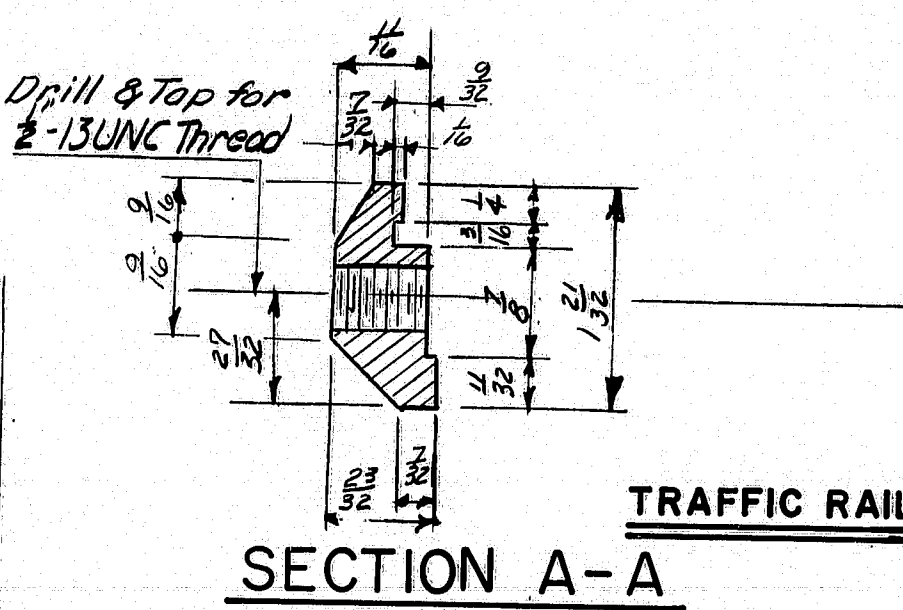
Alternate splice bars may be substituted if approved by the Engineer.



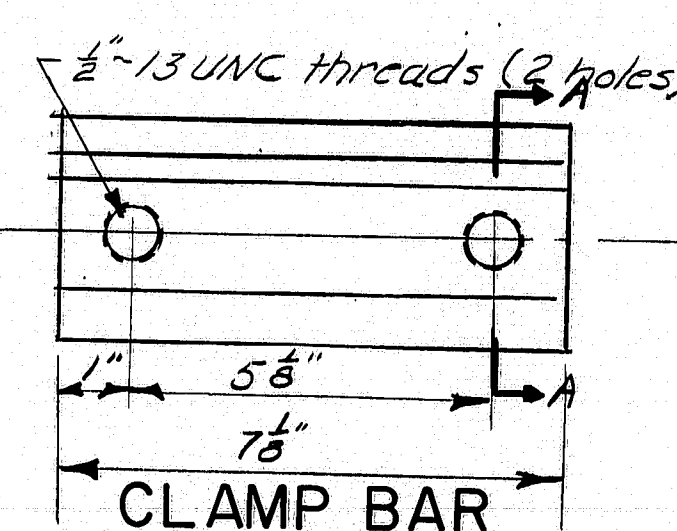
BRIDGE RAILING (Assembly)



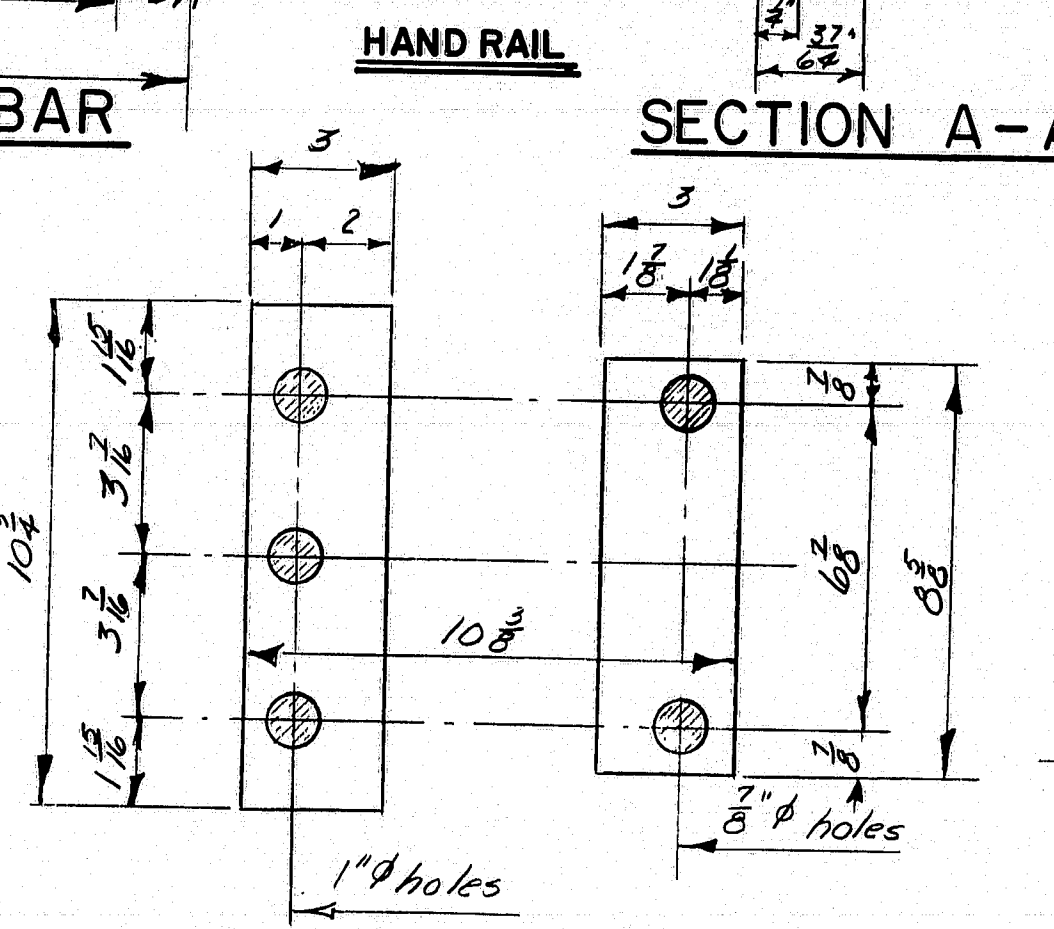
REAR ELEV.



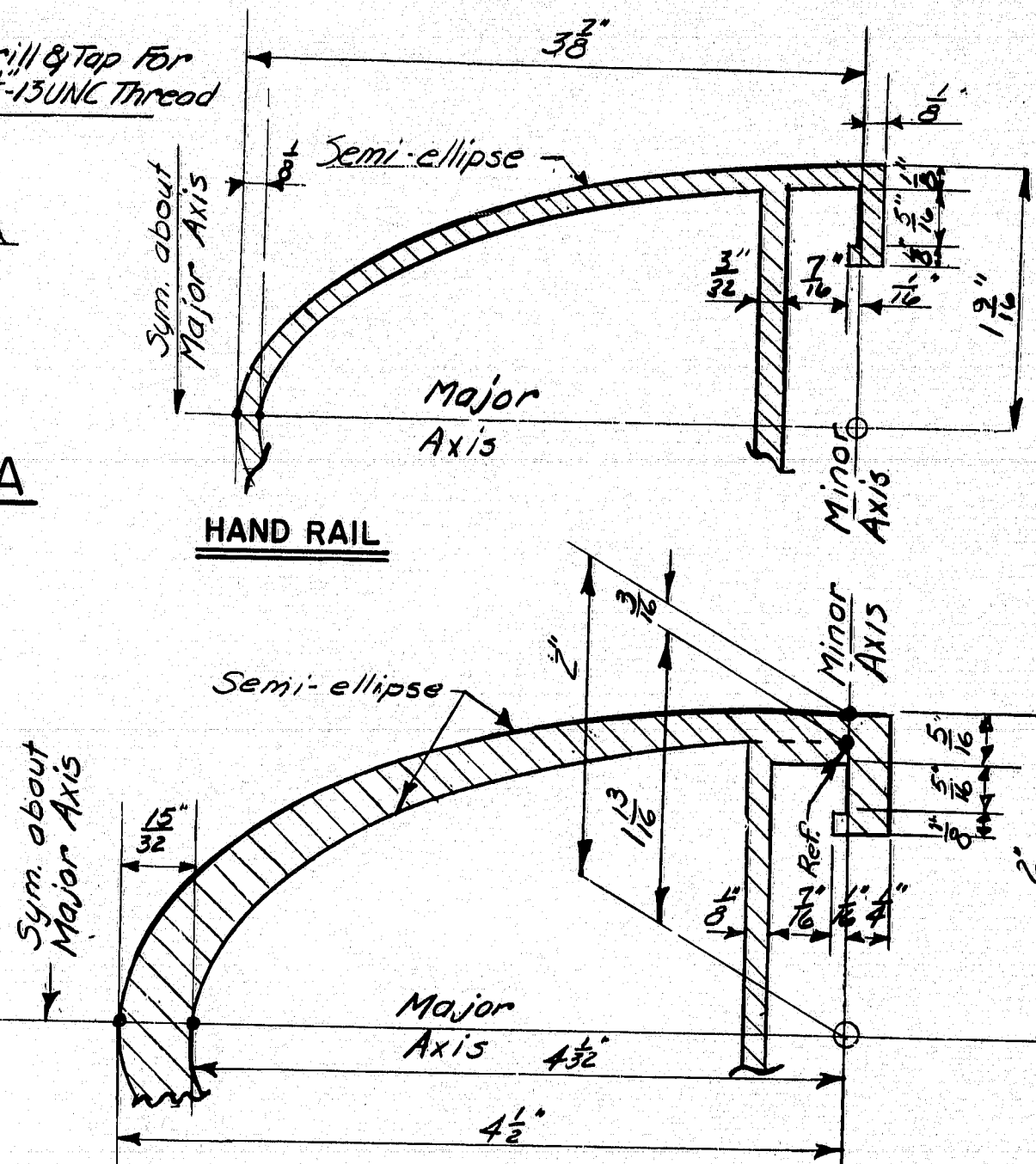
SECTION A-A TRAFFIC RAIL



CLAMP BAR

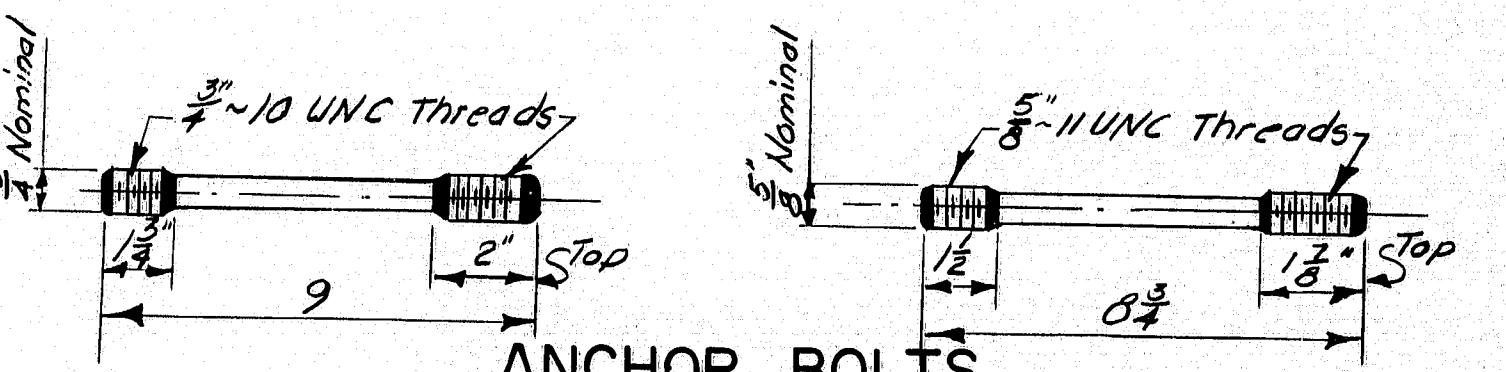


SECTION A-A HAND RAIL



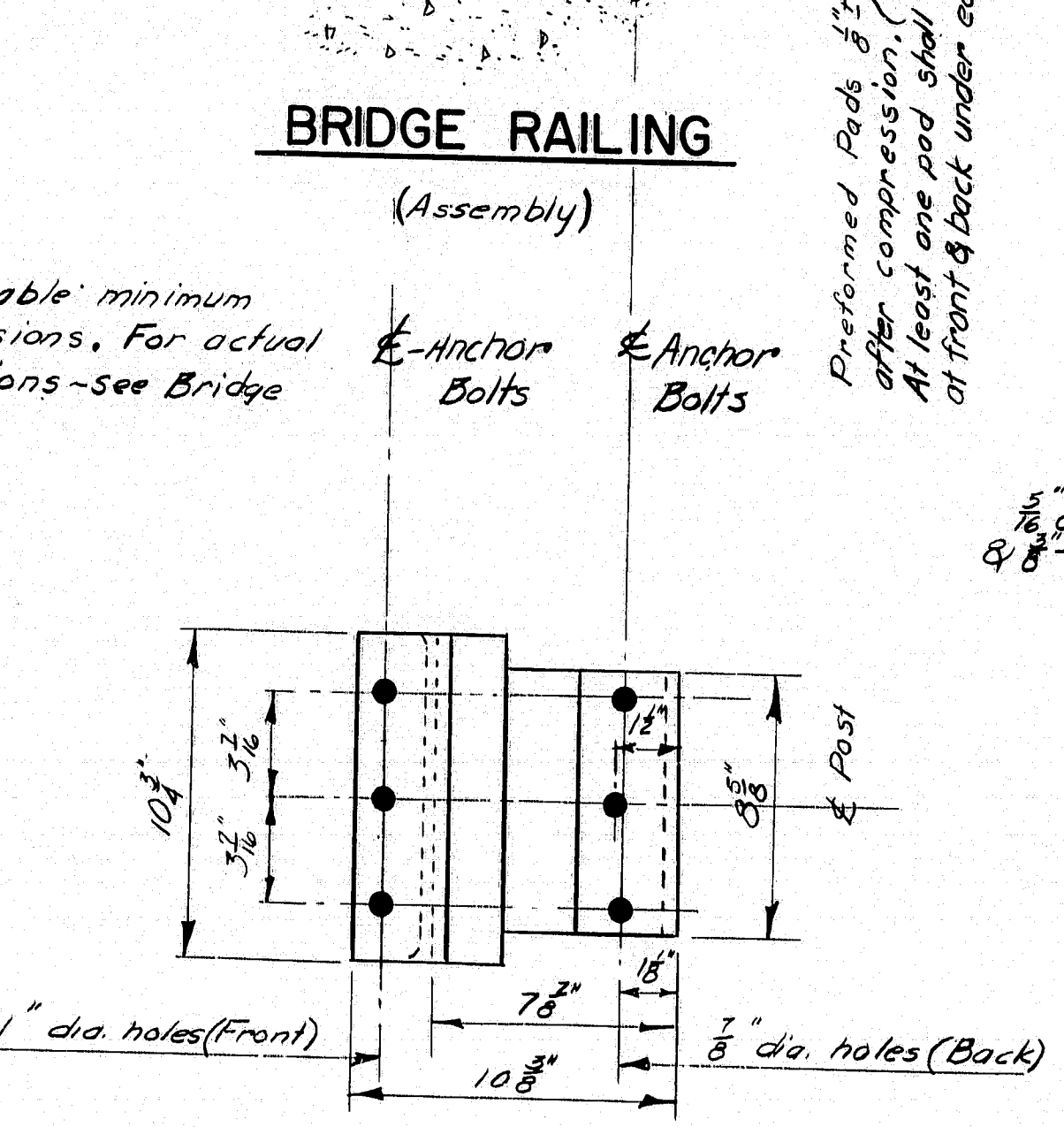
RAIL DETAILS

PREFORMED PADS

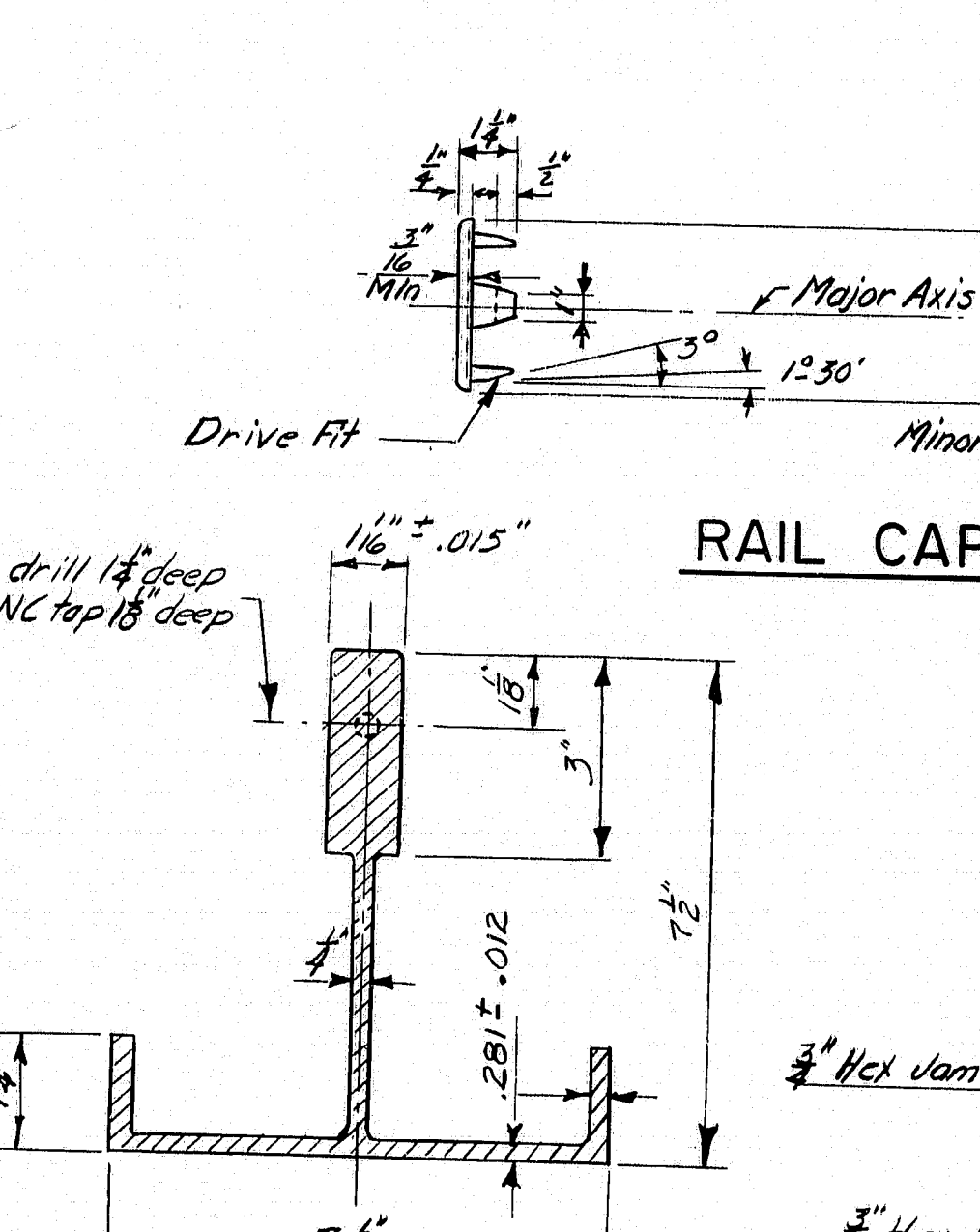


ANCHOR BOLTS

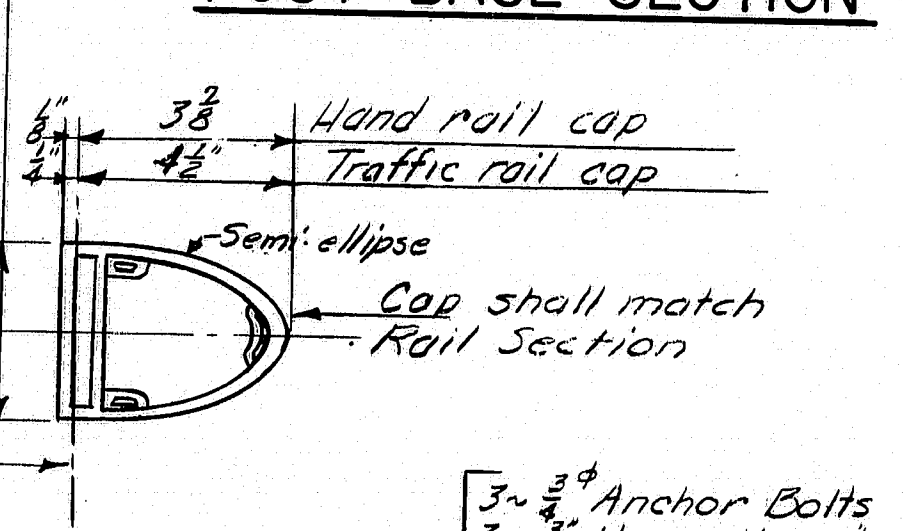
If cut threads are used, body diameter shall be not less than nominal diameter.
If rolled threads are used, body diameter shall be not less than the root diameter of the threads.



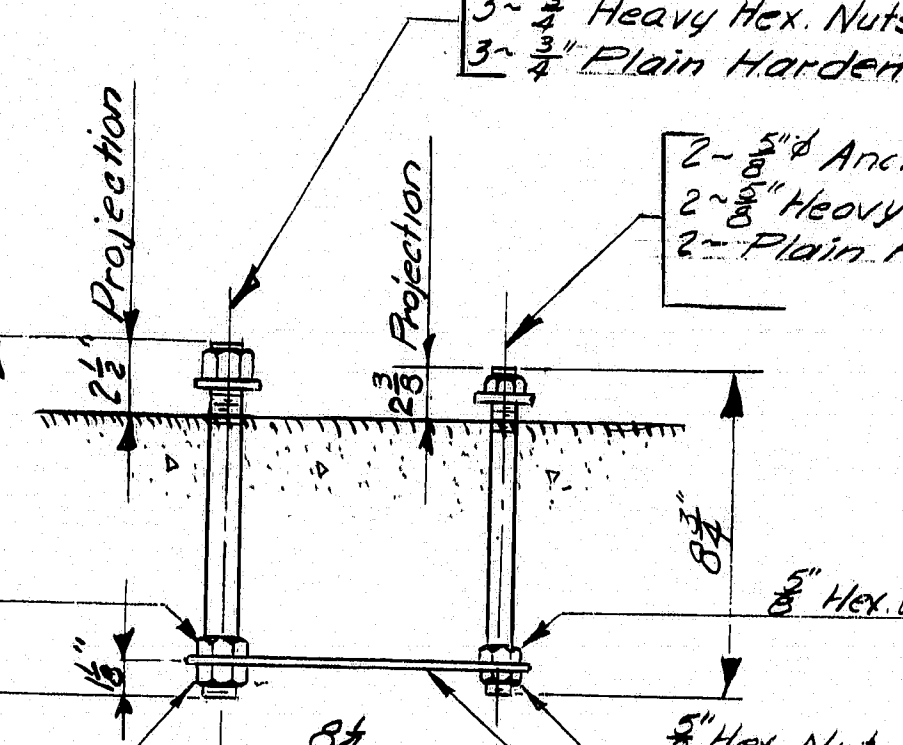
POST BASE (Bottom View)



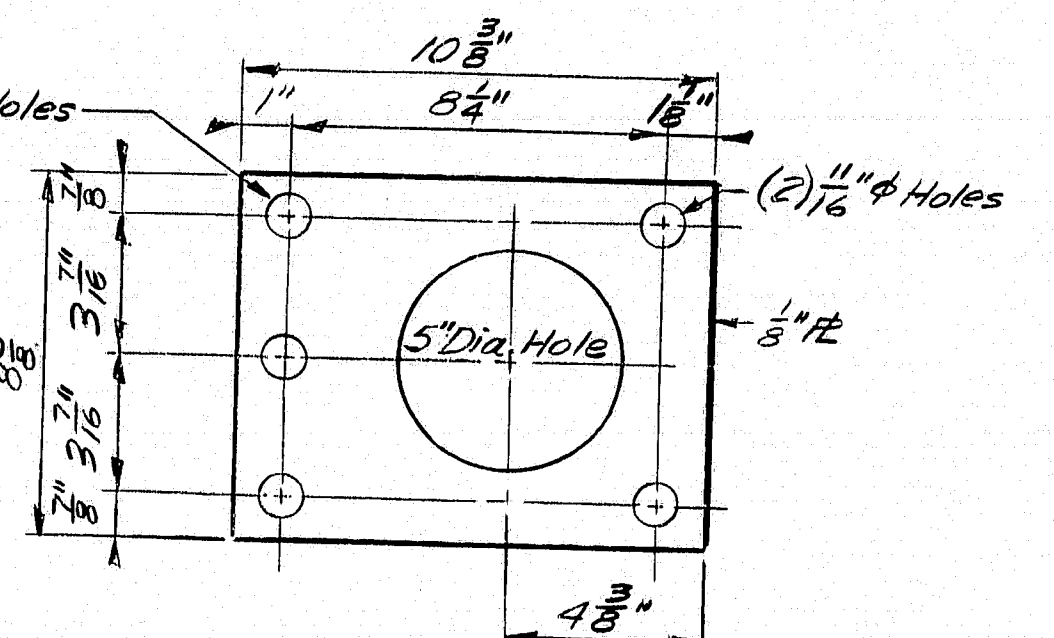
POST SECTION



RAIL CAP



RAIL POST ANCHORAGE (Assembly)



STEEL SPACER PLATE (For Anchorage)

REVISIONS	DATE

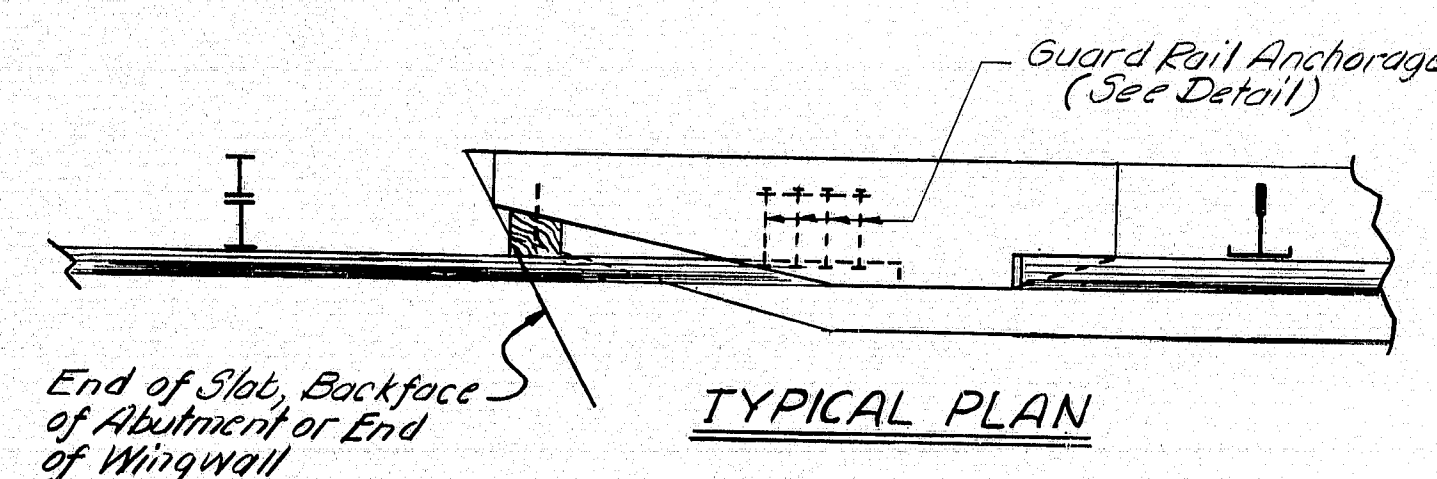
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STANDARD DETAILS
(BD 115-77)
ALUMINUM BRIDGE RAILING
3-BAR (SEMI-ELLIPSE)
TYPE "B"
183-61
AUGUSTA, MAINE DEC. 1977

PLANS	DATE	BY
DESIGN - DETAILED	1/1/78	K. L. Lench
CHECKED	1/1/78	K. L. Lench
REVISIONS		
FIELD CHANGES		

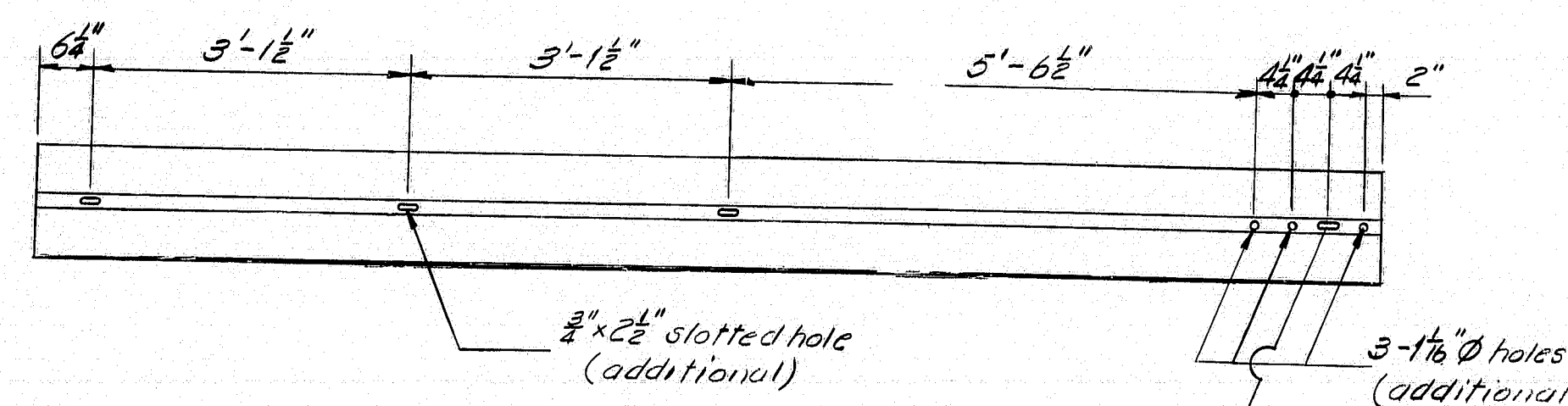
* Preferable minimum dimensions. For actual dimensions - see Bridge Plan.

Preformed Pads 2" thick after compression (Typ.) At least one pad shall be placed at front & back under each post.

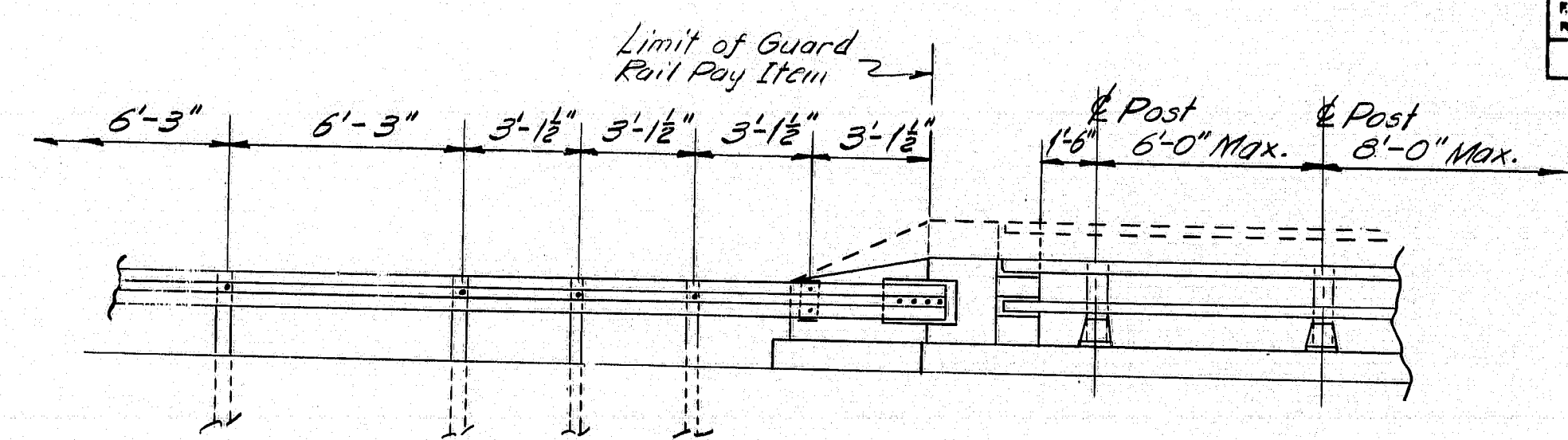
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1 (23)	32	82



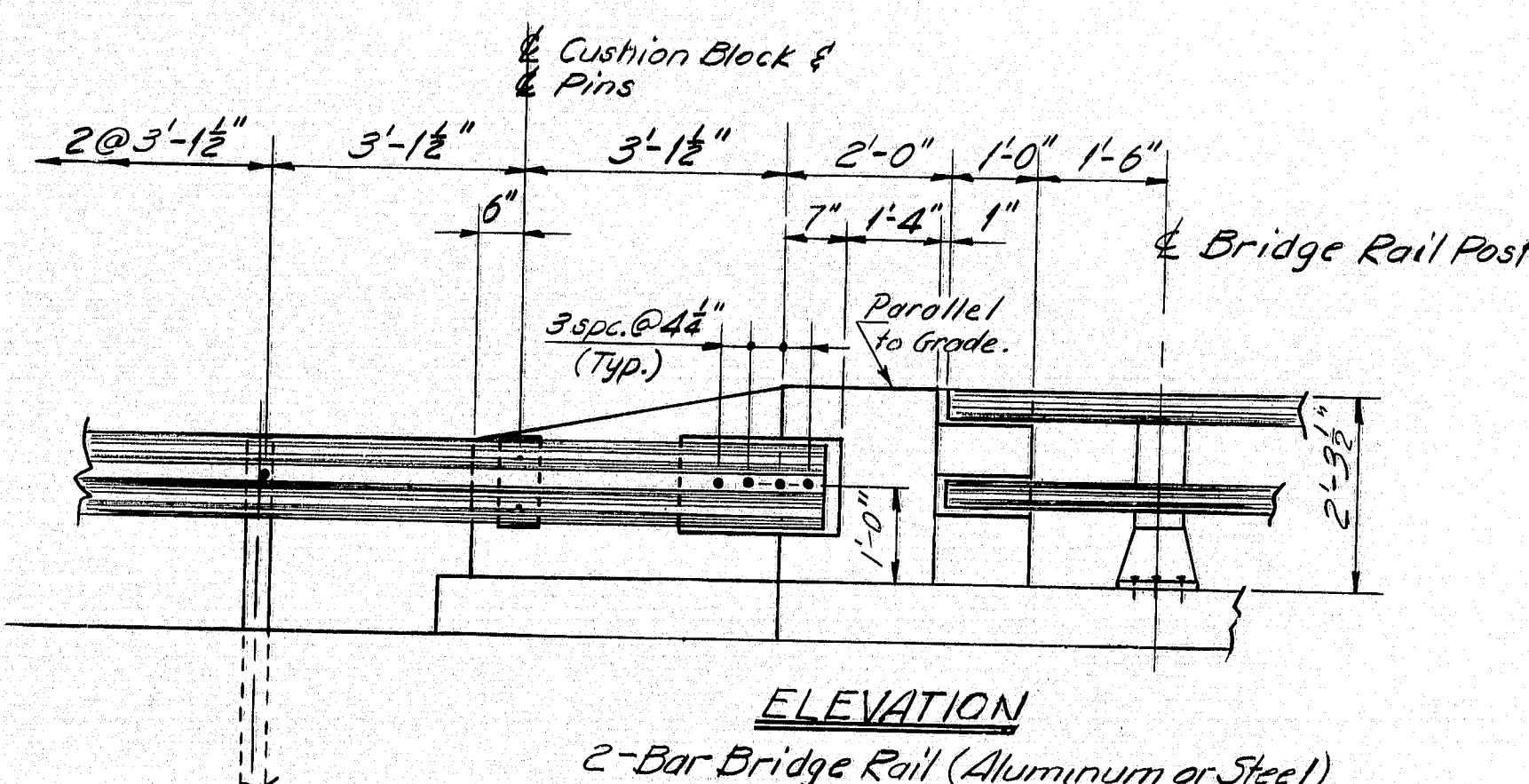
TYPICAL PLAN



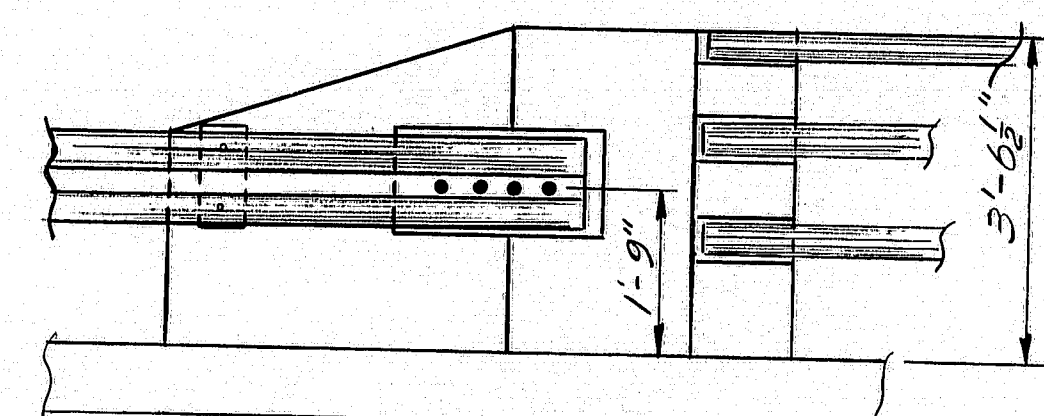
MODIFIED GUARD RAIL SECTION
See Note #5



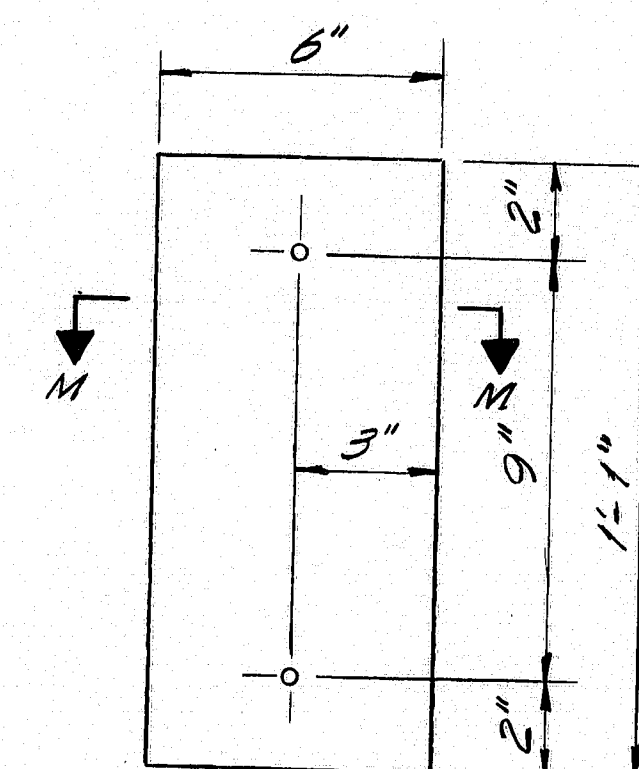
RAILING - ELEVATION



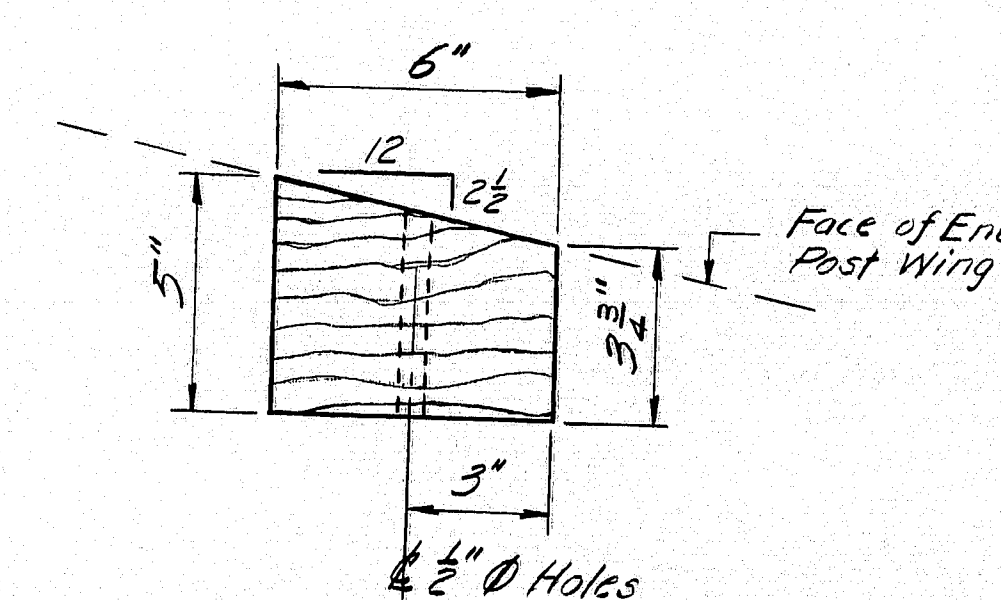
ELEVATION
2-Bar Bridge Rail (Aluminum or Steel)



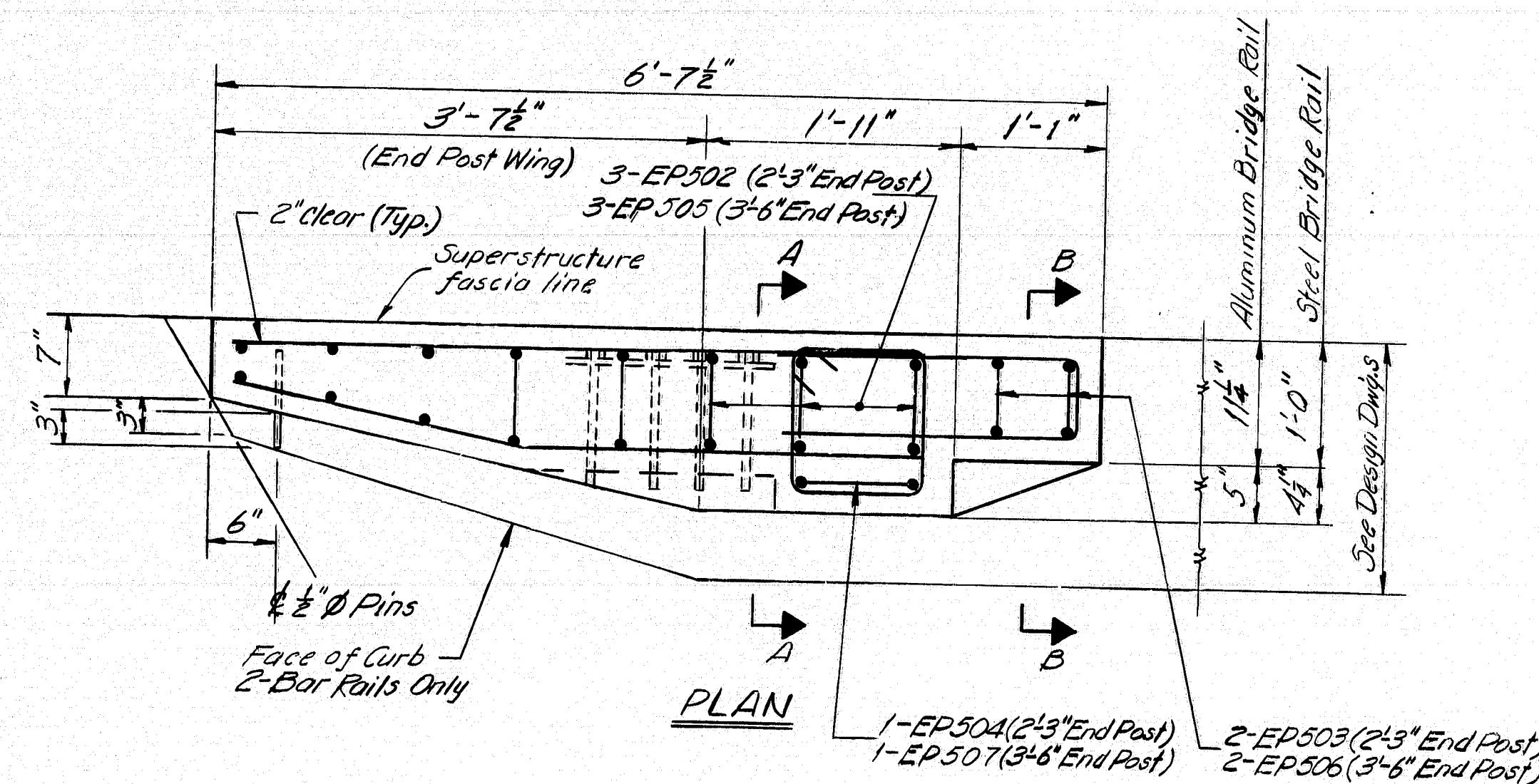
ELEVATION
3-Bar Bridge Rail (Aluminum or Steel)



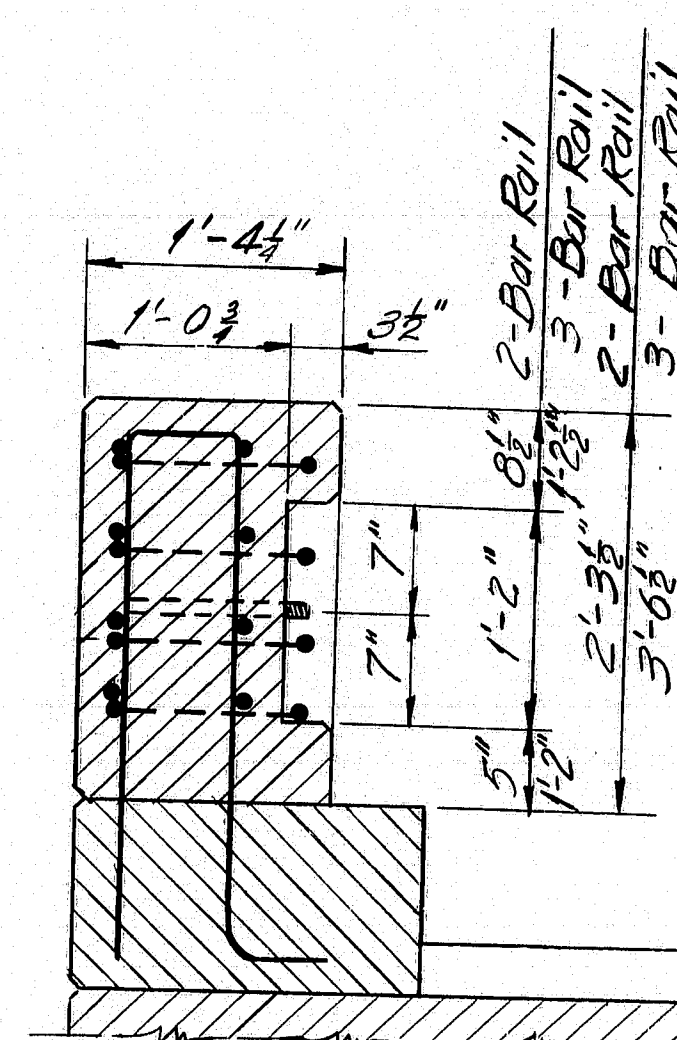
CUSHION BLOCK
(See Note #6)



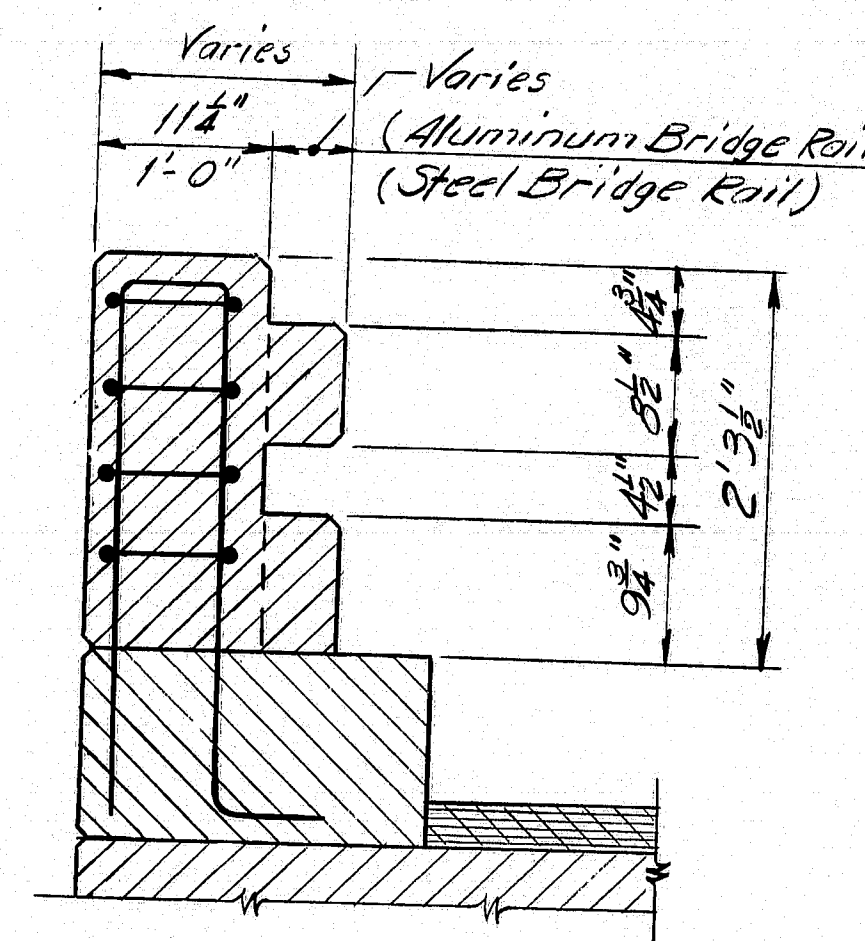
SECTION M-M



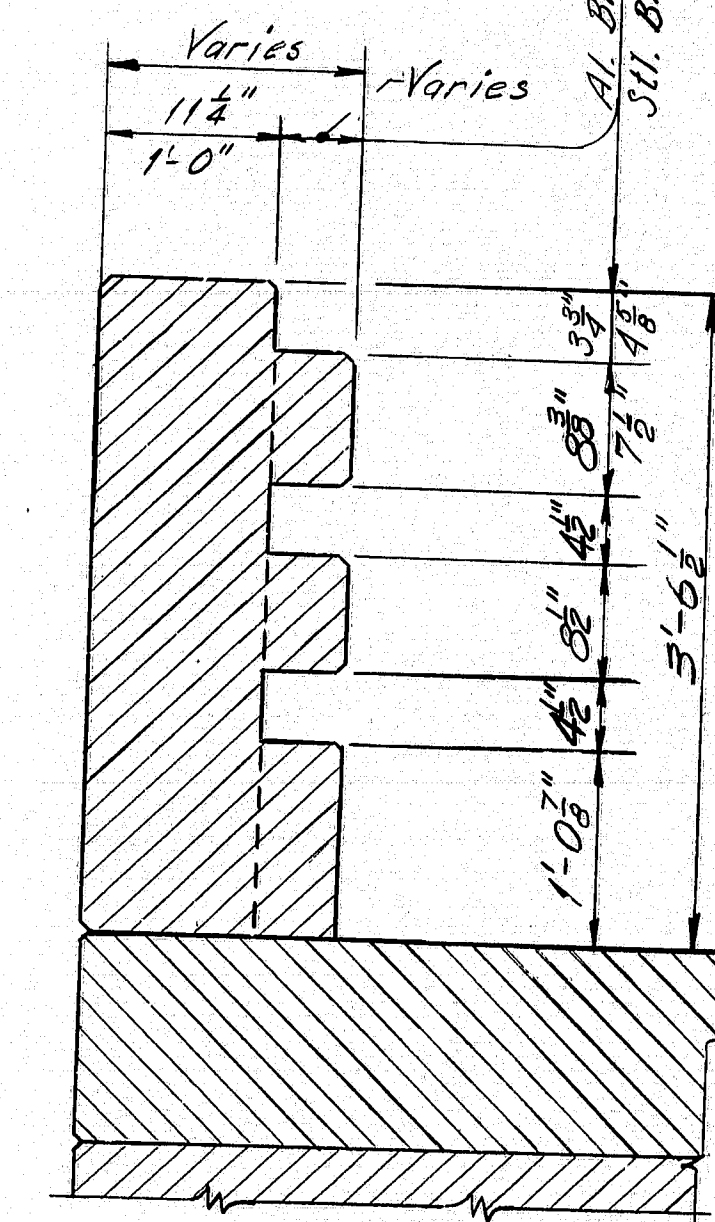
PLAN



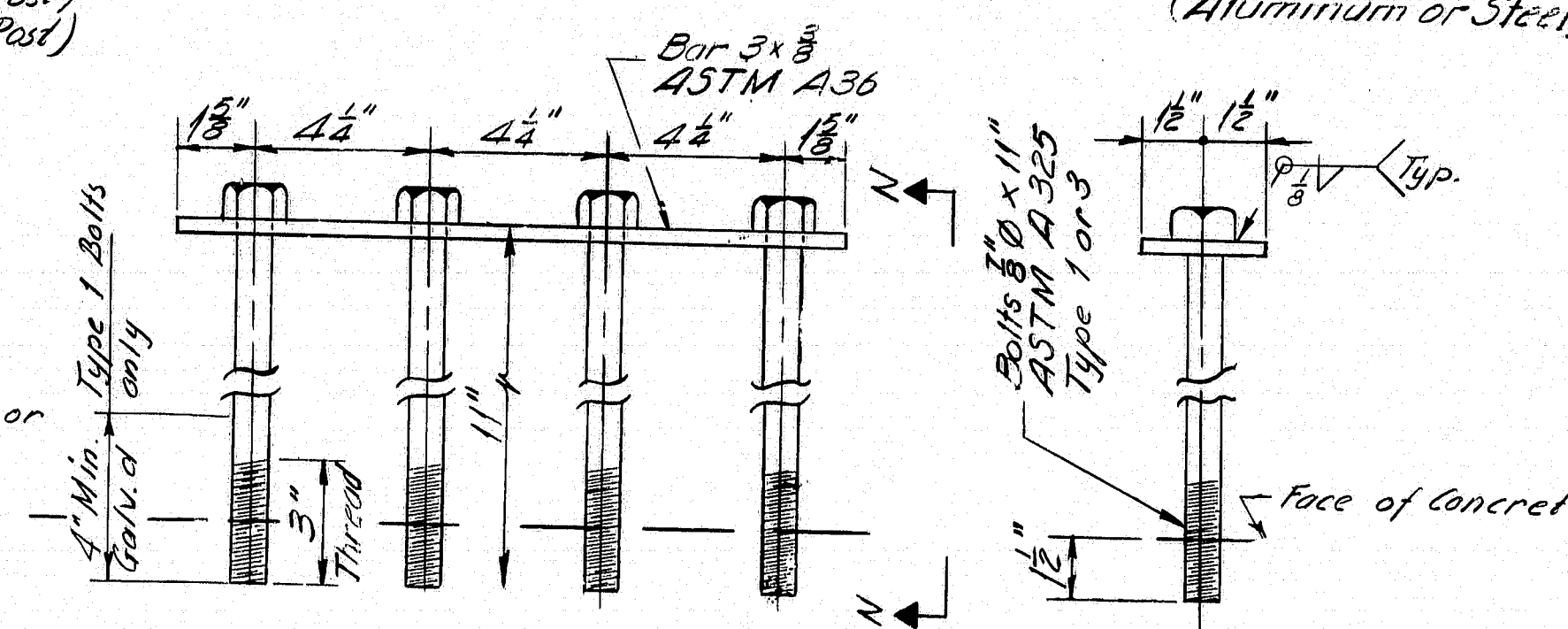
SECTION A-A



SECTION B-B
2-Bar Rail
(Aluminum or Steel)

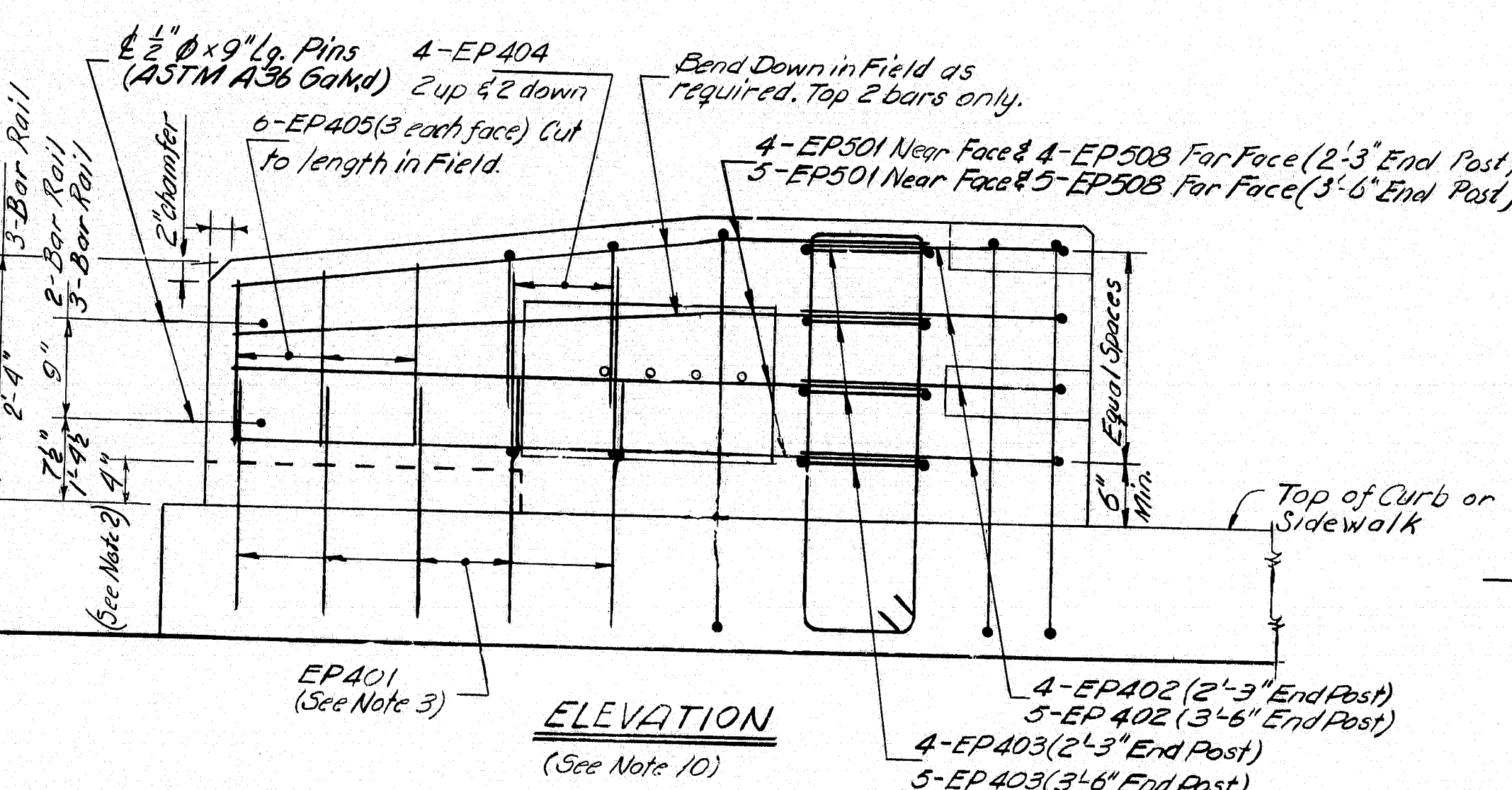


SECTION B-B
3-Bar Rail
(Aluminum or Steel)



DETAIL

VIEW N-N



ELEVATION
(See Note 10)

NOTES

- 1.) For locations of the end posts on the structure see design drawings.
- 2.) At times an End Post Wing may be cantilevered for all or part of its length. For details see design drawings.
- 3.) If End Post Wing is cantilevered bars EP 401 to be omitted as needed in cantilevered section.
- 4.) Nuts for 1/2 inch anchor bolts to 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.
- 5.) Additional holes in the Modified Guard Rail Section shall 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.
- 6.) Cushion Block material shall be as specified in subsection 710.07, paragraph b & c and treated in accordance with the provisions of subsection 606.03(b) of the standard specifications. Payment to be incidental to Guard Rail pay item.
- 7.) 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.
- 8.) Guard Rail Anchorage to be incidental to the applicable concrete pay item.
- 9.) End Posts to be constructed normal to grade unless otherwise shown on the plans.
- 10.) When End Post Wing is cantilevered more than 2'-0" all number 5 bars shall be replaced with number 7 bars.

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	8/1/74
CHECKED	8/1/74
REVISIONS	
FIELD CHANGES	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS (BD 120-79) CONCRETE END POSTS

183-70

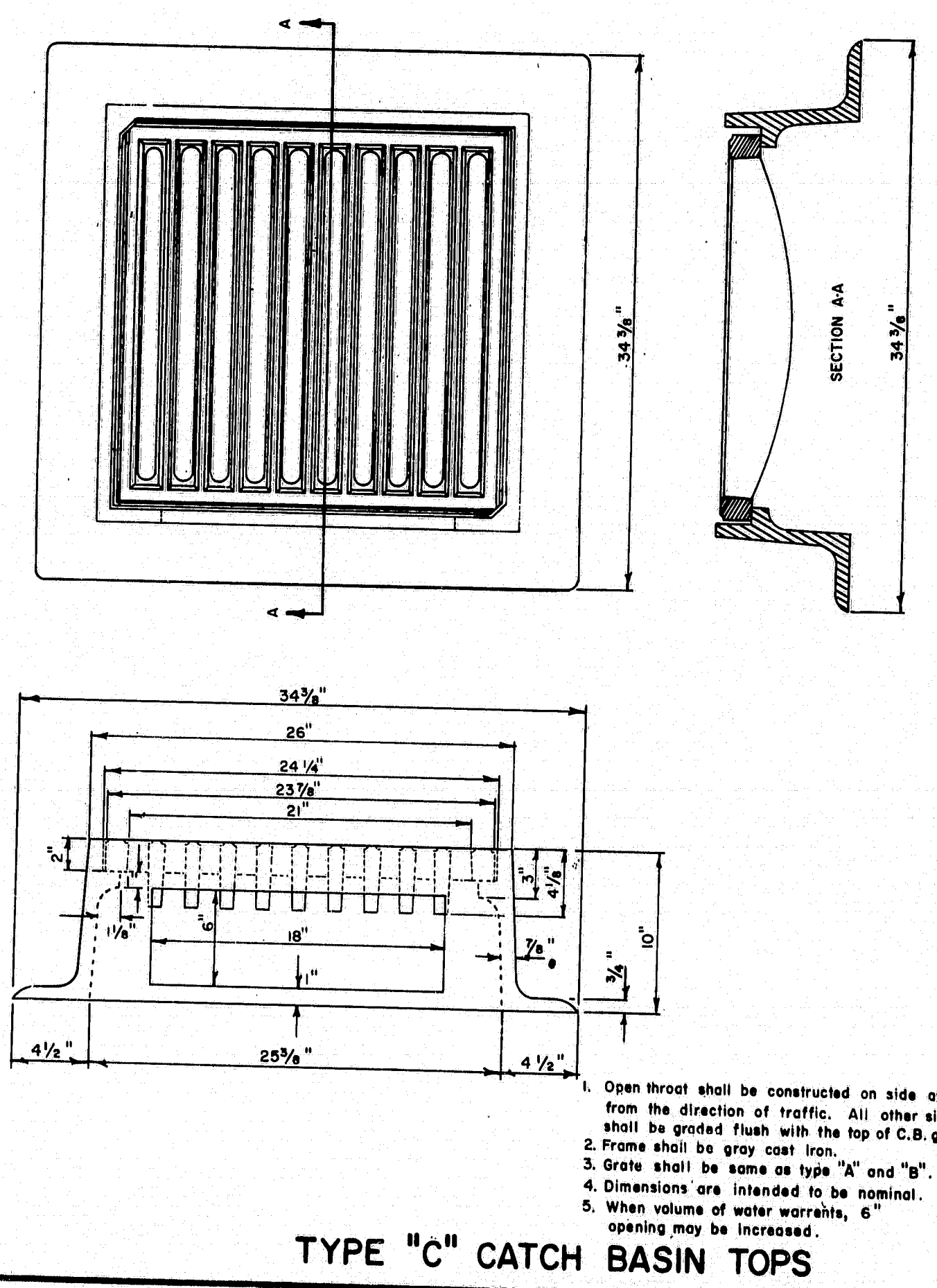
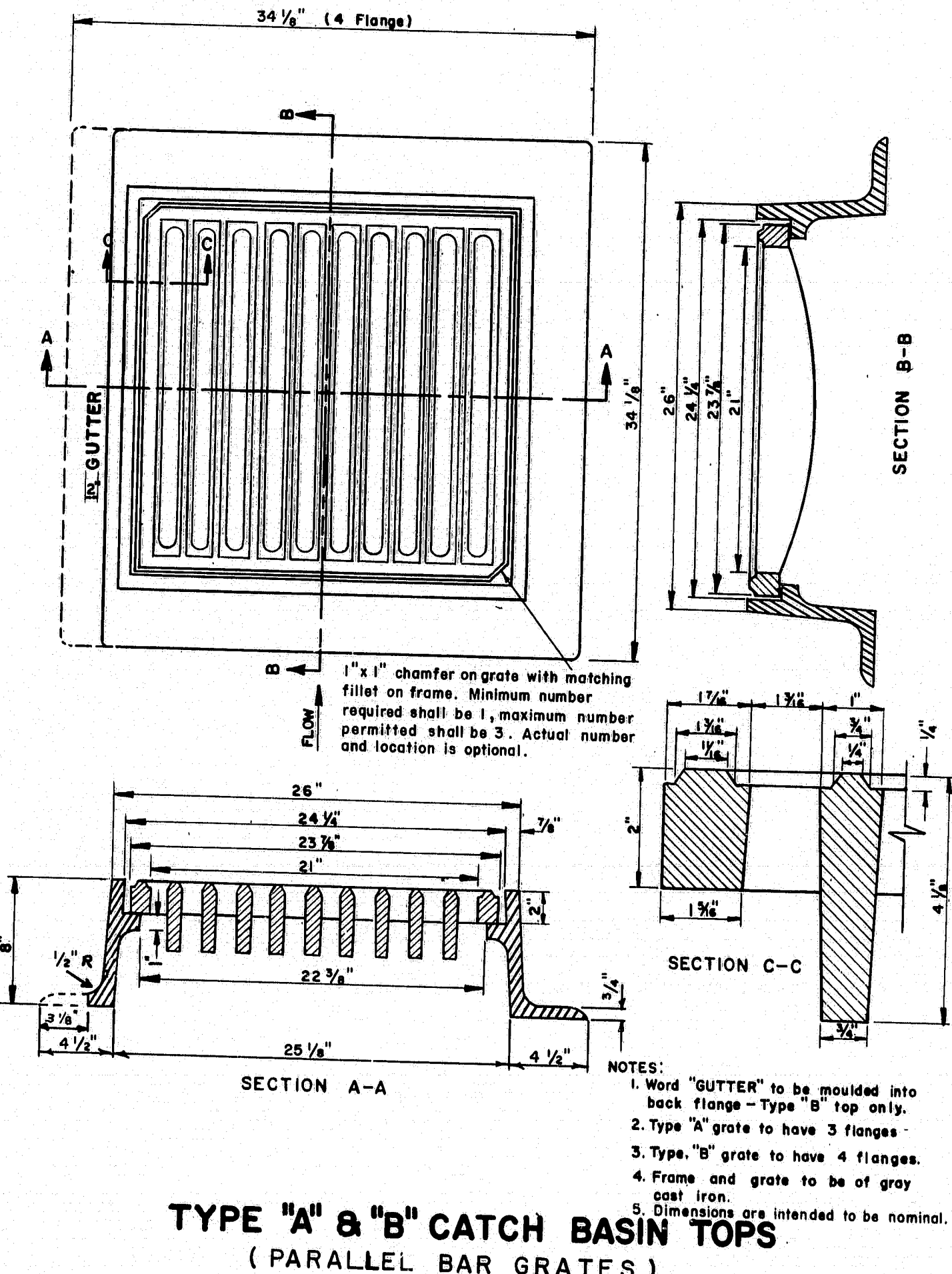
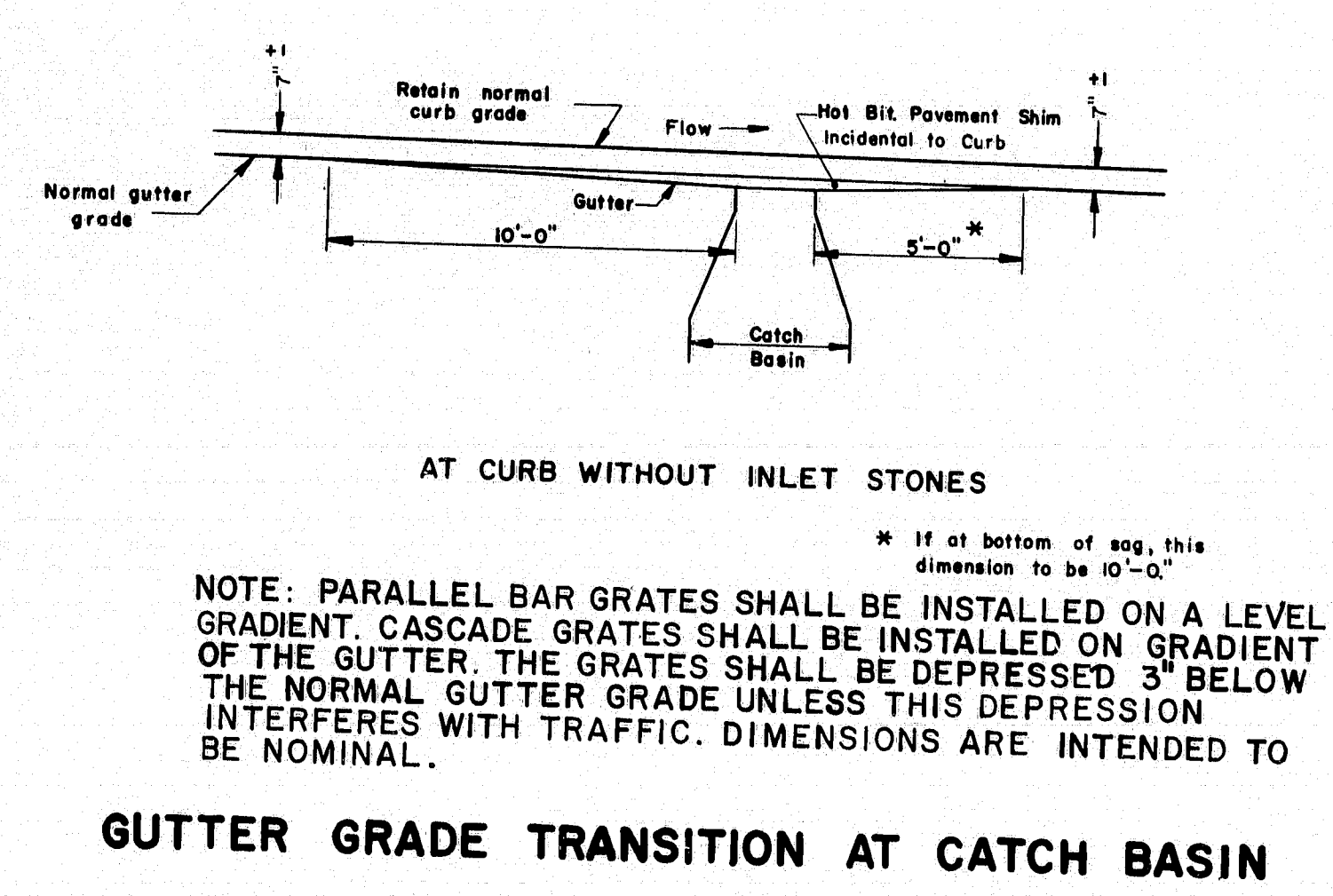
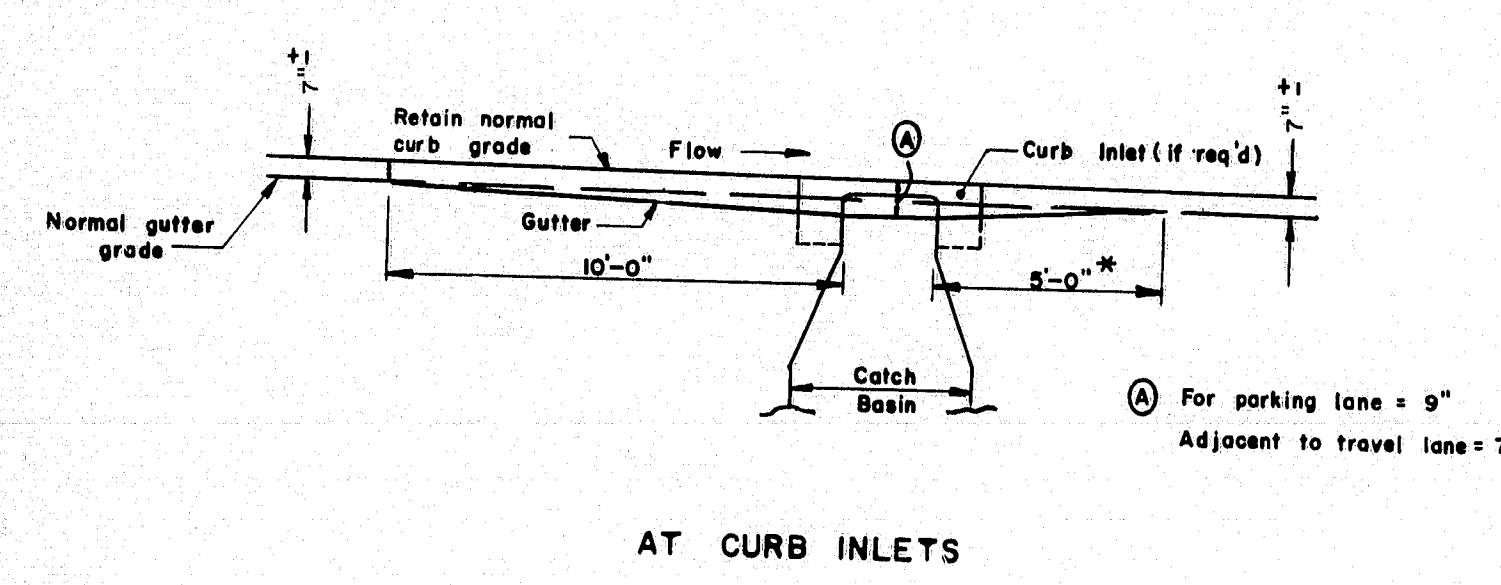
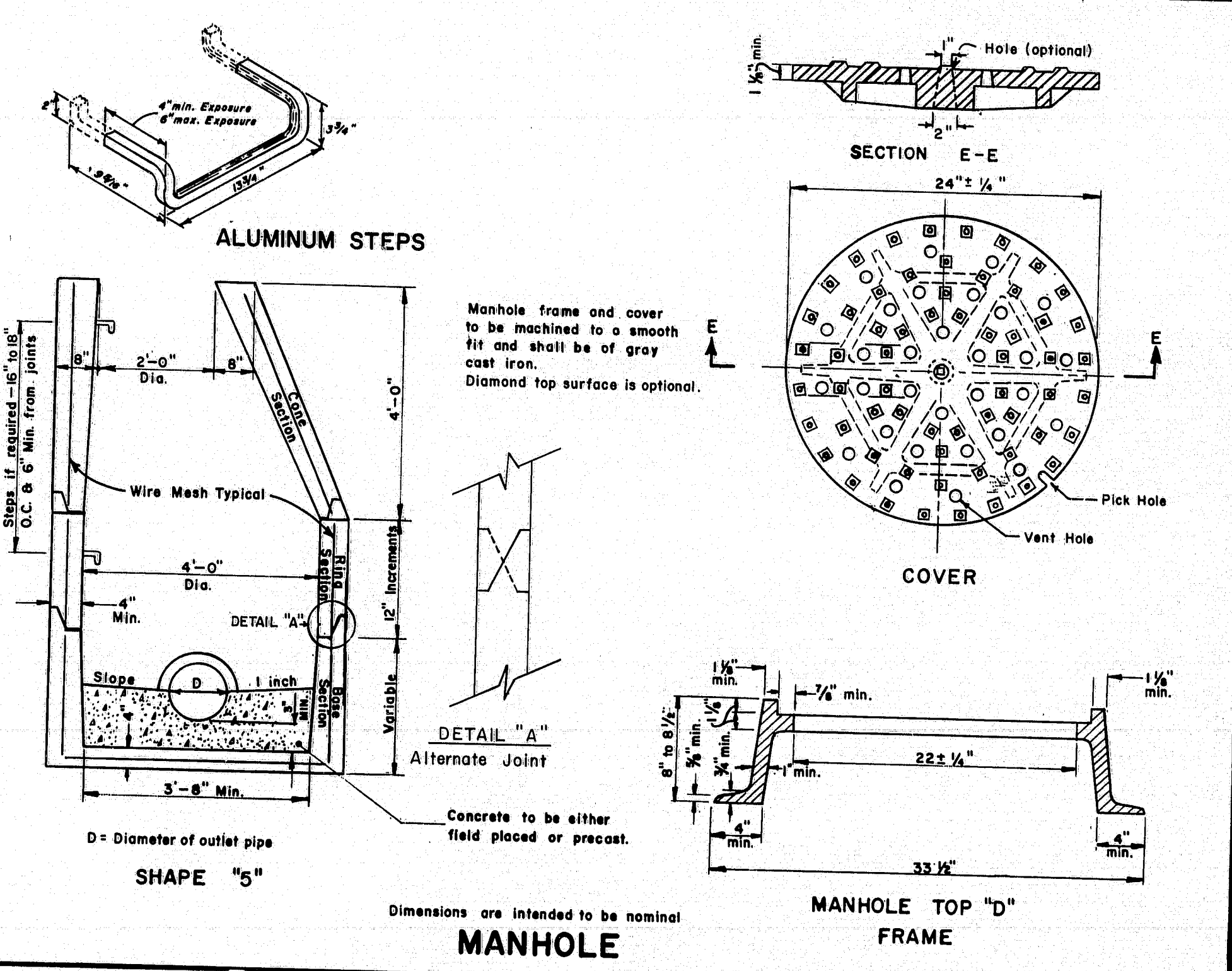
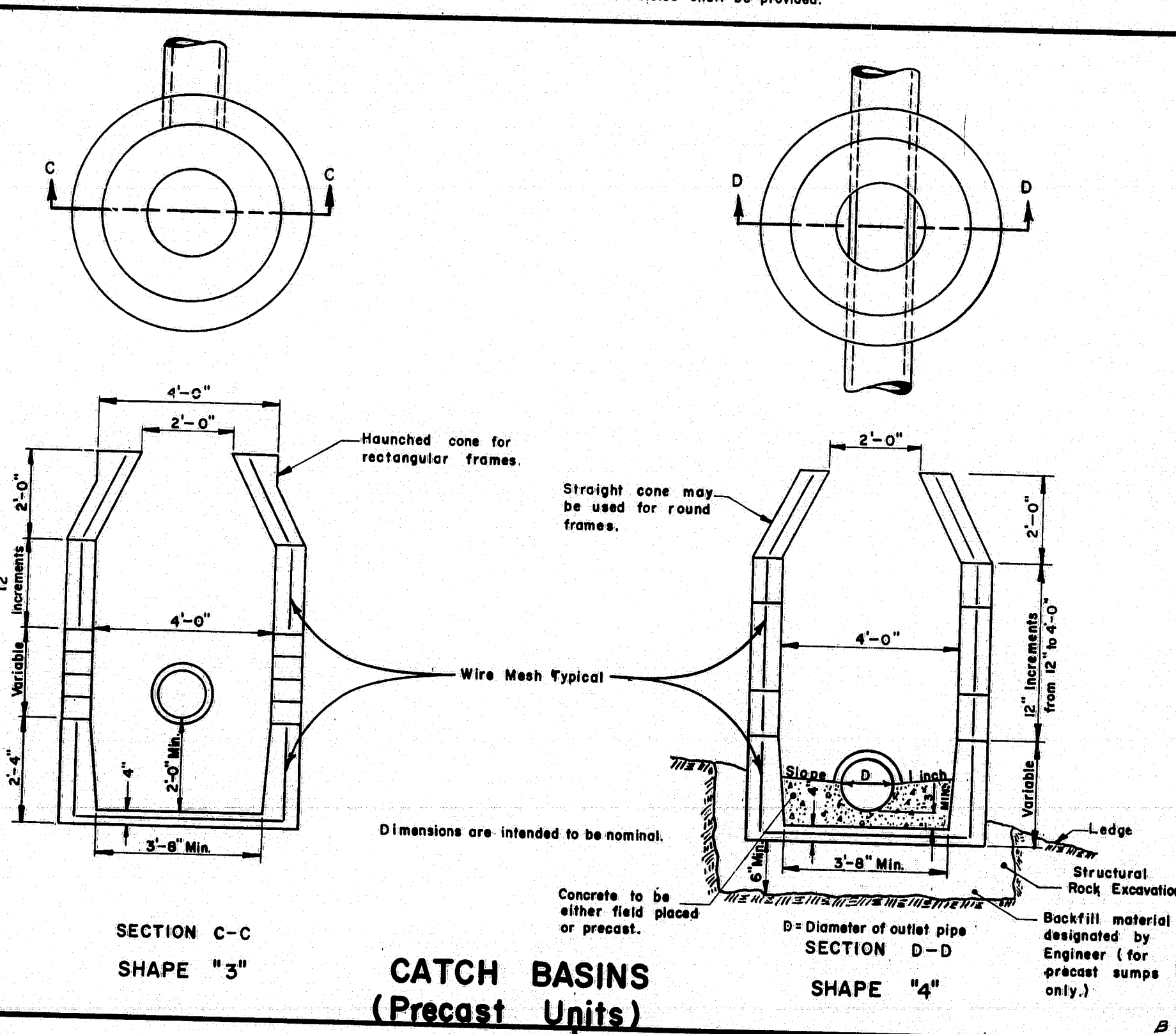
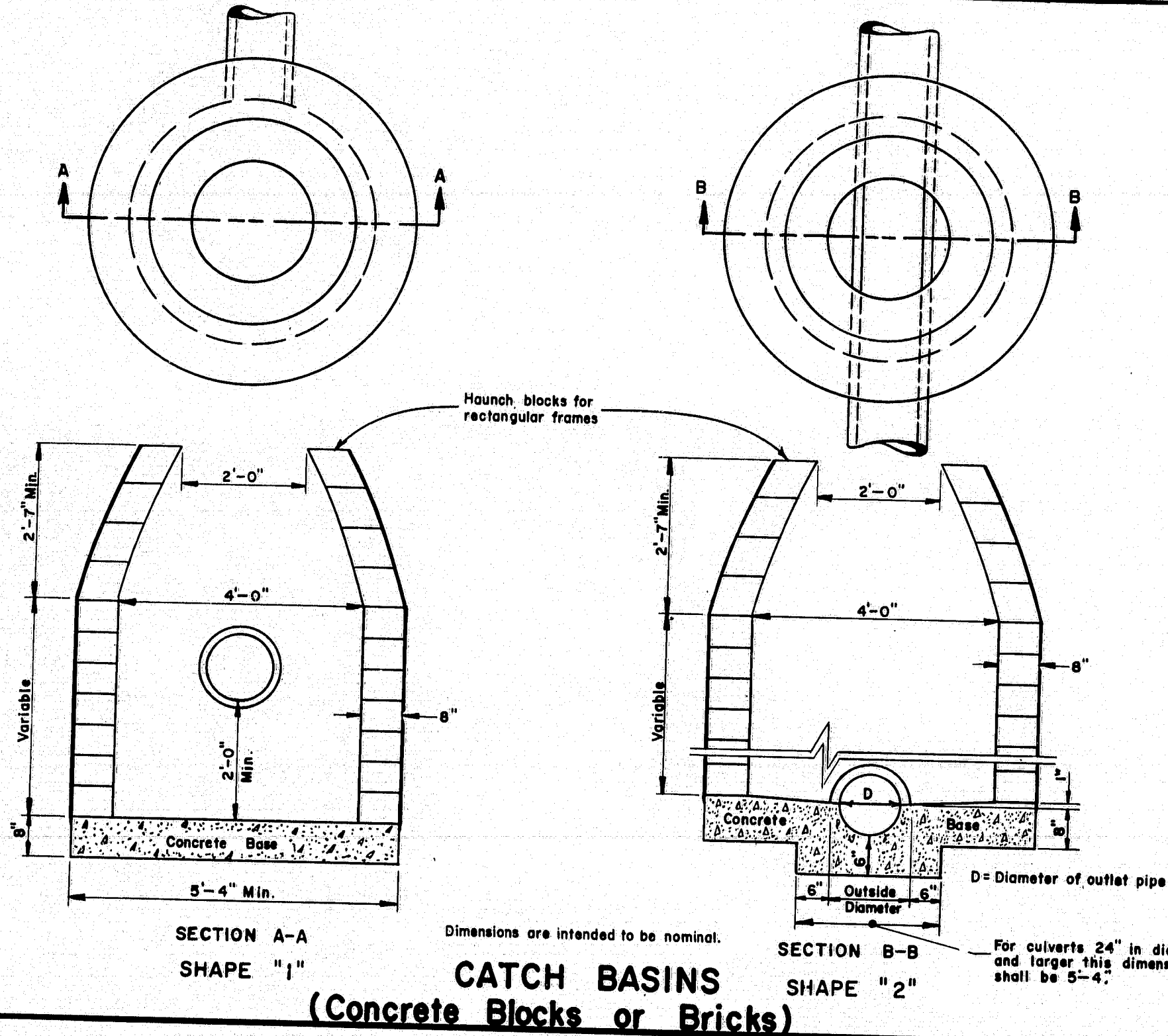
AUGUSTA, MAINE FEB. 1979

GENERAL NOTES — ALL CATCH BASINS AND MANHOLES

- Any Catch Basin in excess of 8' in depth shall, if directed by the Engineer, be provided with steps similar to those detailed for Manholes.
- Frames, Grates & Covers shall be considered as part of the structure, and no separate payment shall be made.

GENERAL NOTES — PRECAST CATCH BASINS AND MANHOLES

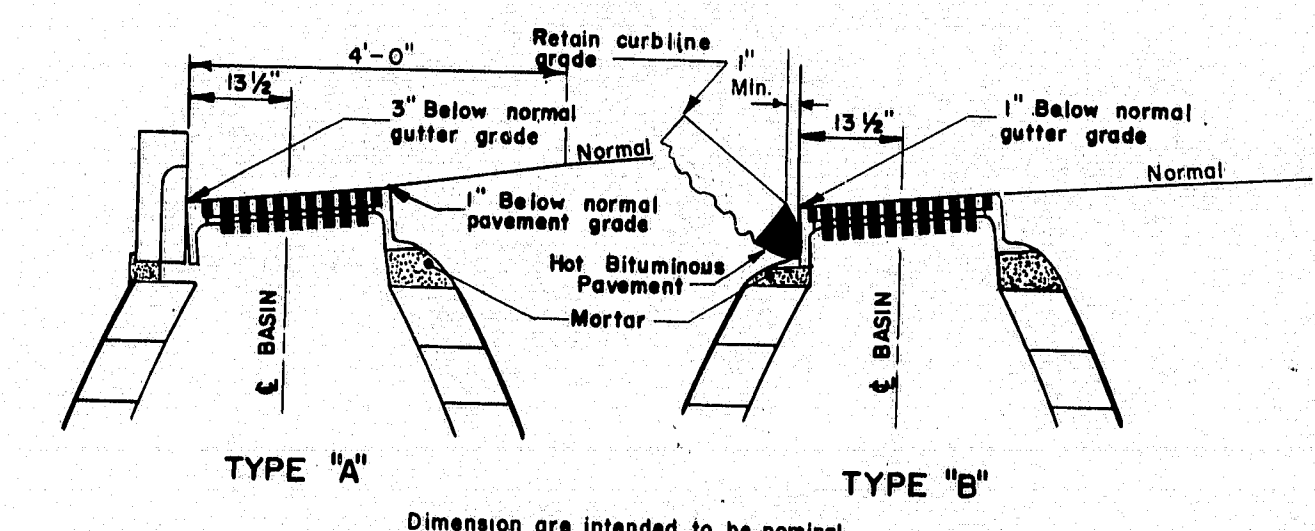
- Drain holes in precast sumps to be not over 3" in diameter, and shall be plugged with mortar when constructed.
- All precast sections of less than 8" wall thickness shall have tongue and groove joints.
- Cone and Ring sections wall thickness min. 4", max. 8".
- Minimum wall thickness of sump may be 4" as specified in A.S.T.M. C-478, however, if concrete blocks are used around the inlet and outlet pipes, the wall thickness of sump shall be 8".
- Wall around inlet and outlet pipes may be built of 8" concrete blocks or a precast ring with an opening 2" larger than the outside diameter of the pipe may be used.
- Lift Holes shall be provided.



STRUCTURE	TOP				SHAPE				
	A	B	C	D	1	2	3	4	5
CATCH BASIN									
Type A-1	X								
Type A-2	X								
Type B-1		X			X		X		
Type B-2		X			X		X		
Type C-1			X			X		X	
Type C-2			X			X		X	
MANHOLE				X		X		X	X

TABLE OF CATCH BASIN TYPES
(COMBINATION OF TOPS AND SHAPES)

For Type "E" & Type "F" C.B. See Sheet No. 3



CATCH BASIN TOP INSTALLATION

REVISIONS	
CATCH BASIN	10-21-69
PLATE "E"	4-21-71
PLATE "D-E"	8-26-75
PLATE "C"	10-14-75
PLATE "D-G"	7/31/76

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

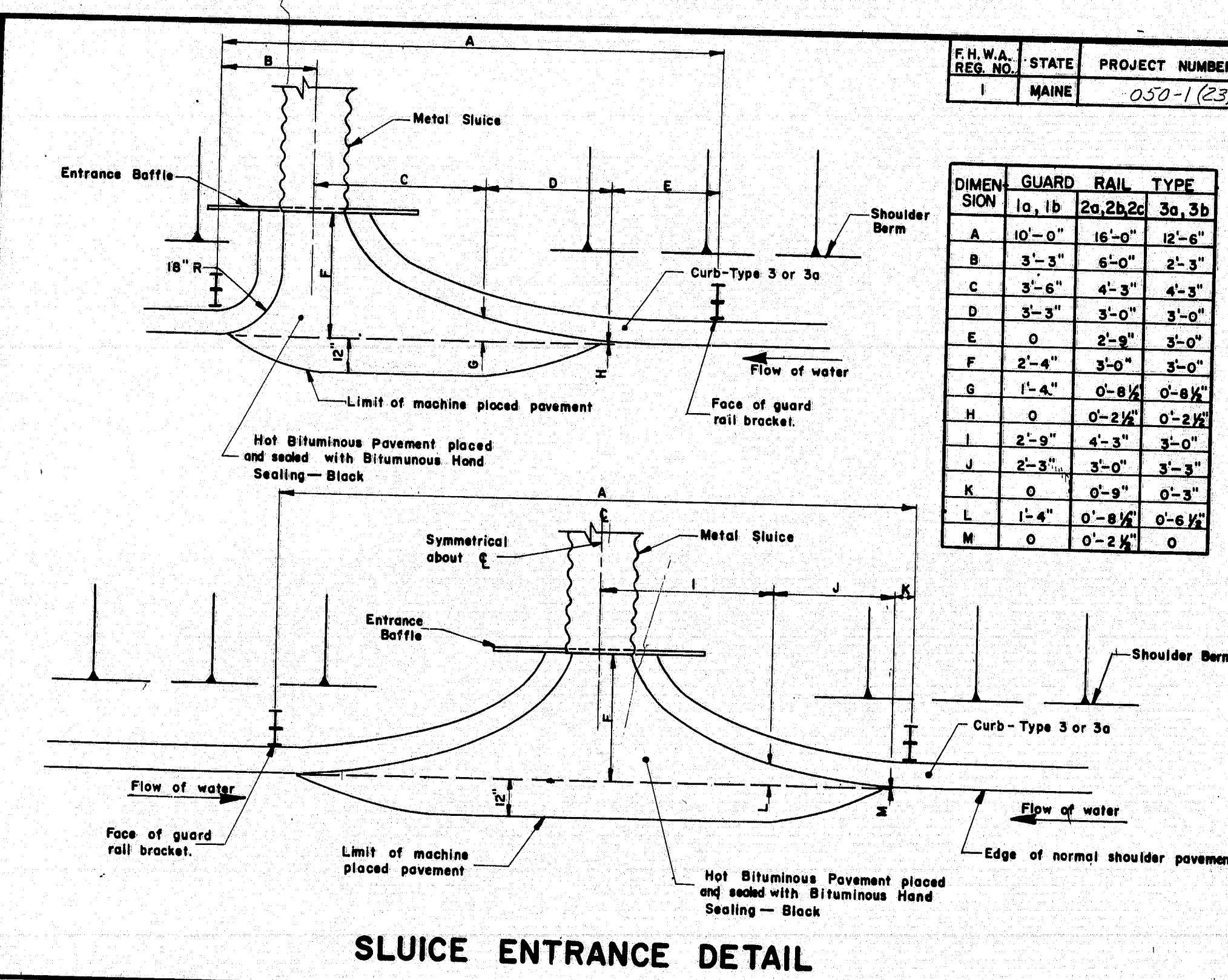
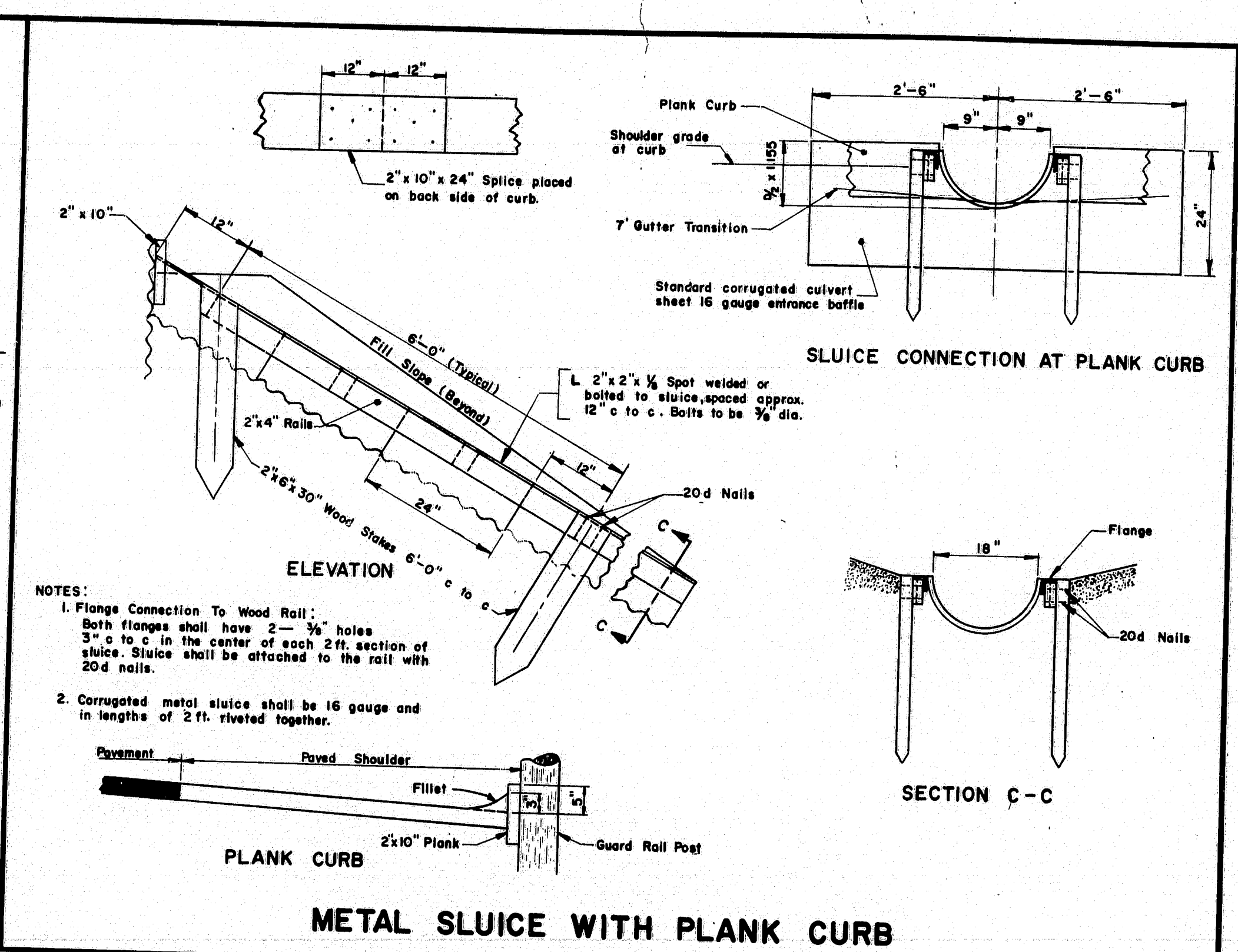
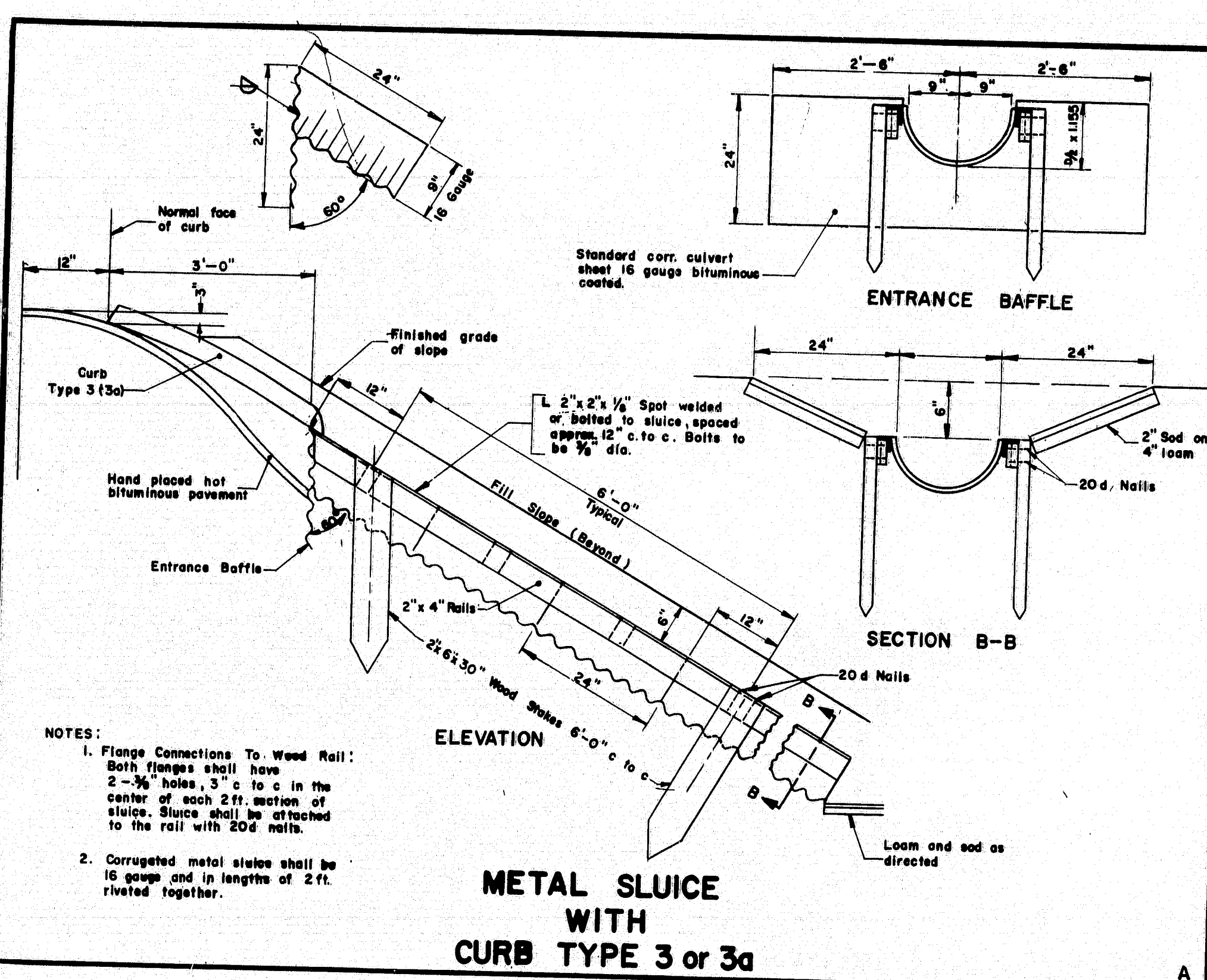
STANDARD DETAILS

CATCH BASINS
AND
MANHOLES

183-71

AUG. 1969

DIMENSION	GUARD RAIL TYPE	10, 1b	20, 2b, 2c	30, 3b
A	10'-0"	16'-0"	12'-6"	
B	3'-5"	6'-0"	2'-3"	
C	3'-6"	4'-3"	4'-3"	
D	3'-3"	3'-0"	3'-0"	
E	0	2'-9"	3'-0"	
F	2'-4"	3'-0"	3'-0"	
G	1'-4"	0'-8 1/2"	0'-8 1/2"	
H	0	0'-2 1/4"	0'-2 1/4"	
I	2'-9"	4'-3"	3'-0"	
J	2'-3"	3'-0"	3'-3"	
K	0	0'-9"	0'-3"	
L	1'-4"	0'-8 1/2"	0'-6 1/2"	
M	0	0'-2 1/4"	0	

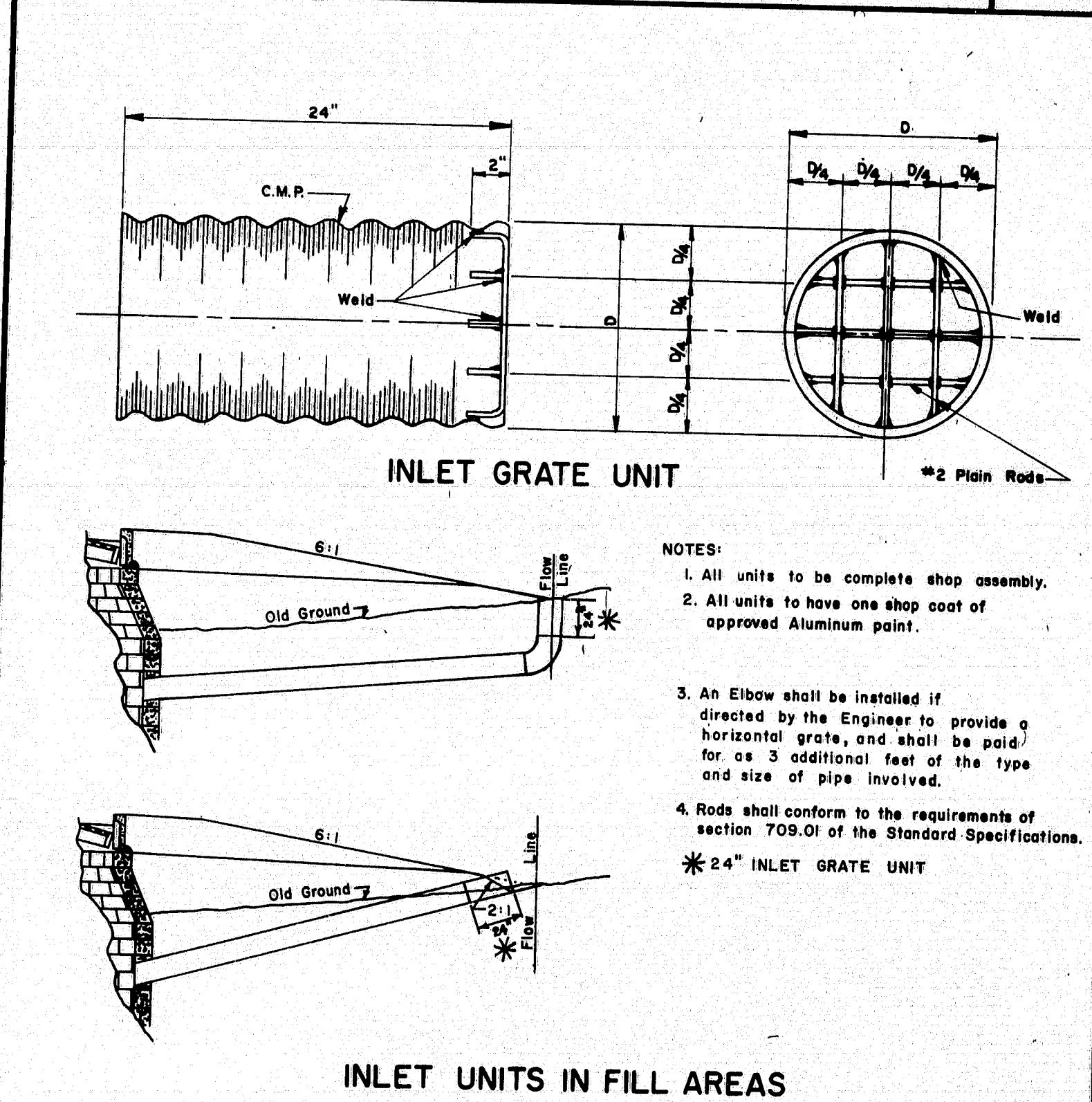
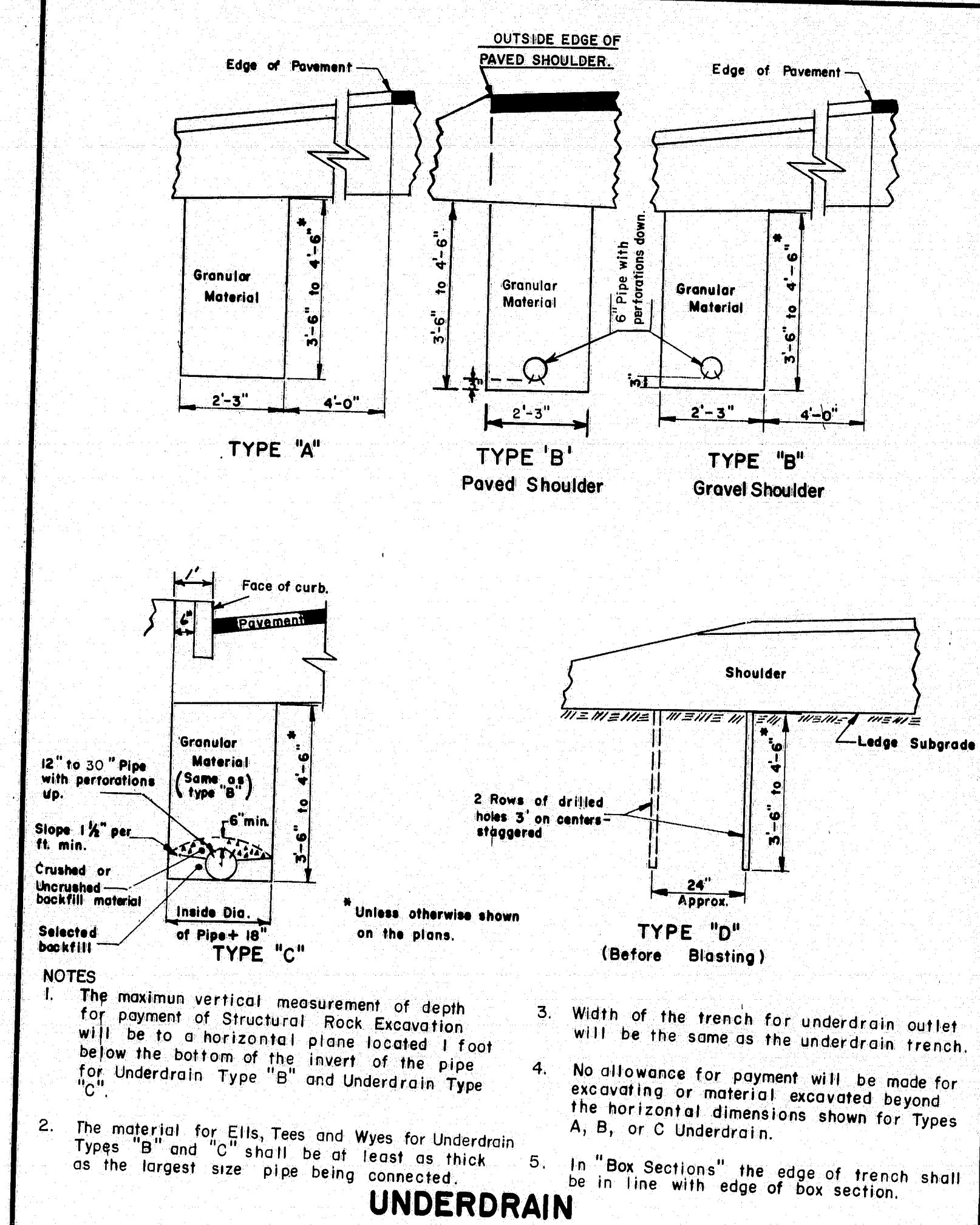
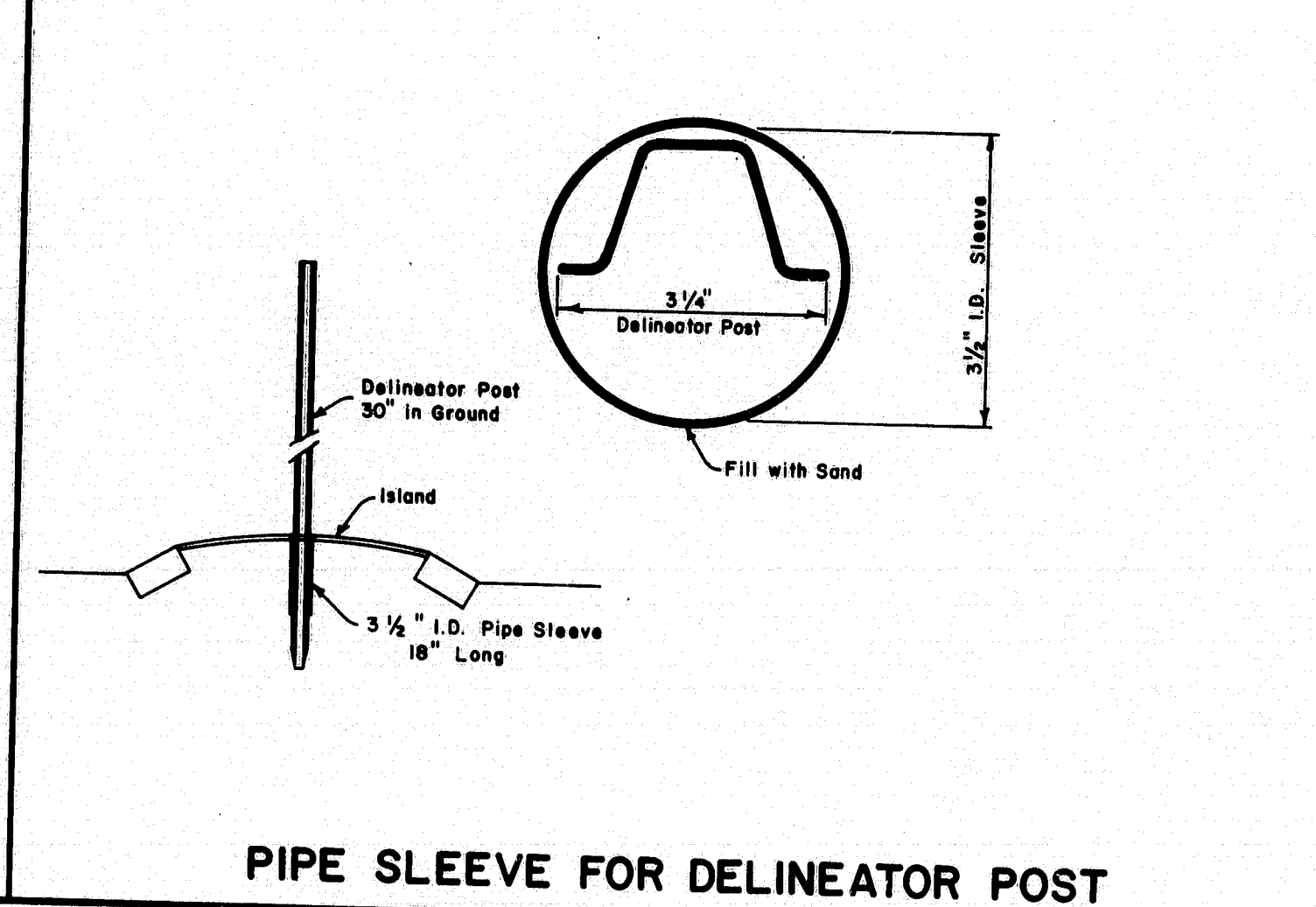
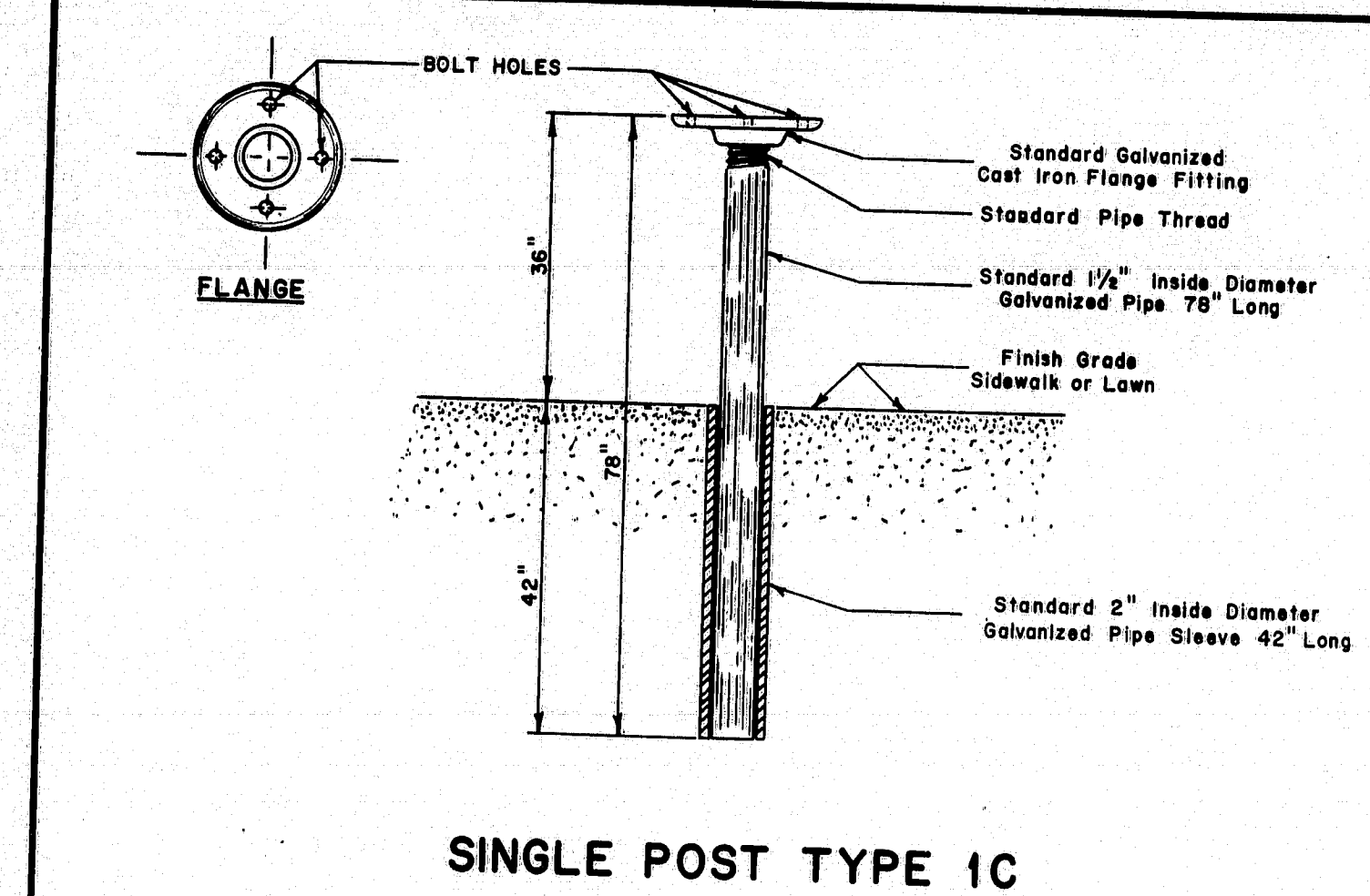


NOMINAL INSIDE DIAMETER	THICKNESS IN INCHES		CLASS AND WALL RCP	CLASS ASBESTOS CEMENT PIPE
	CMP or BCCMP	CAP		
8 inch	.064	.060		
10 "	.064	.060		
12 "	.064	.060		
15 "	.064	.060		
18 "	.064	.060		
21 "	.064	.060		
24 "	.064	.060		
30 "	.079	.075		
36 "	.079	.075		
42 "	.109	.105		
48 "	.109	.105		
54 "	.109	.105		
60 "	.138	.135		
66 "	.138	.135		
72 "	.168	.164		
84 "	.168	.164		

NOMINAL SIZES	THICKNESS (inches)	
	GAUGE BCCMPA-CMPA	CAPA
18" span x 11" rise	16	.060
22" " x 13" "	16	.060
25" " x 16" "	16	.060
29" " x 18" "	14	.075
36" " x 22" "	14	.075
43" " x 27" "	12	.105
50" " x 31" "	12	.105
58" " x 36" "	10	.135
65" " x 40" "	10	.135
72" " x 44" "	8	.164

CMP = Corrugated Metal Pipe
 BCCMP = Bituminous Coated Corrugated Metal Pipe
 CAP = Corrugated Aluminum Pipe
 RCP = Reinforced Concrete Pipe
 Above abbreviations followed by "A" indicate "Arch"
 All RCP shall be class III
 Minimum thickness, class, and wall types for culvert pipe, unless otherwise designated.

CULVERT PIPE DATA



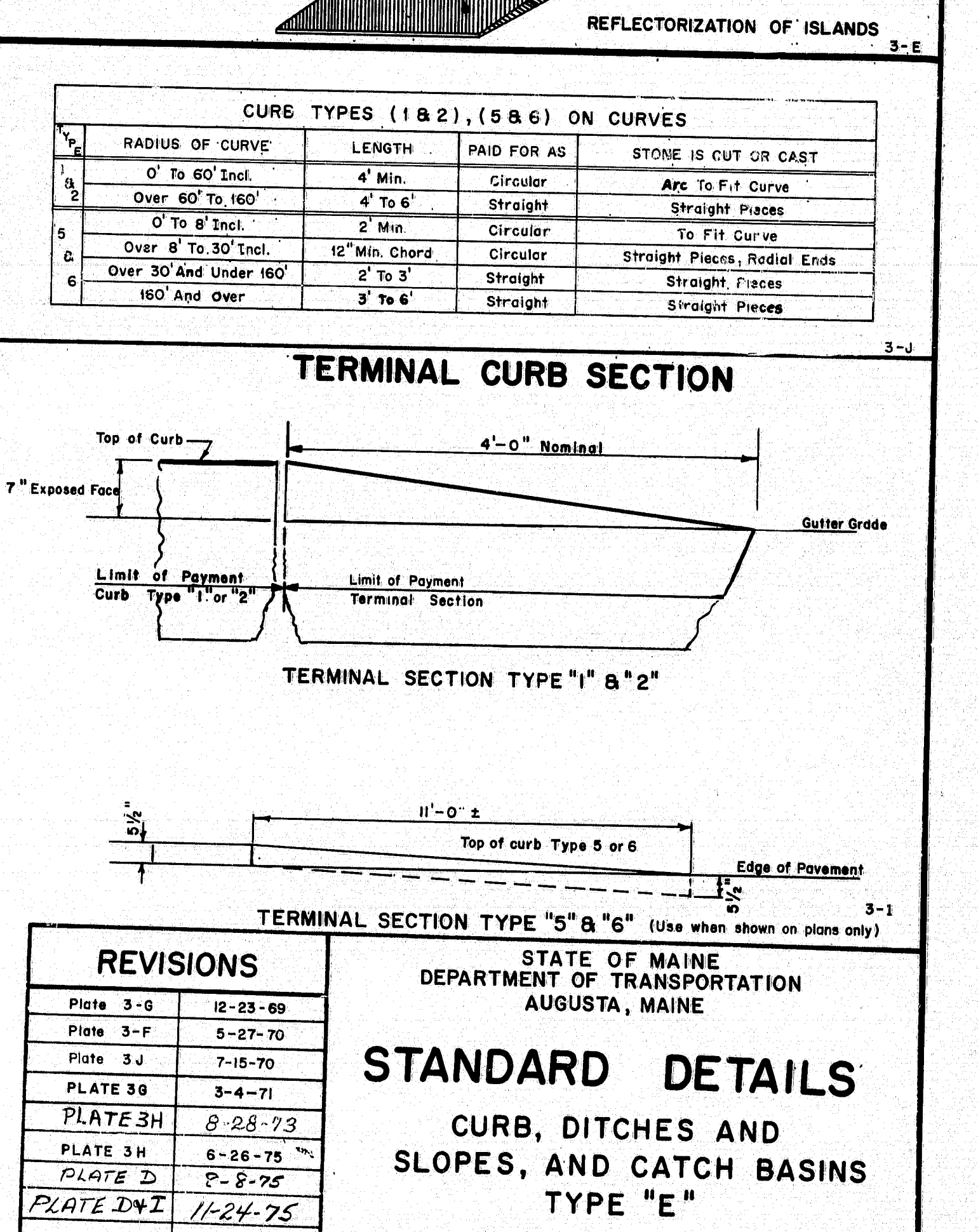
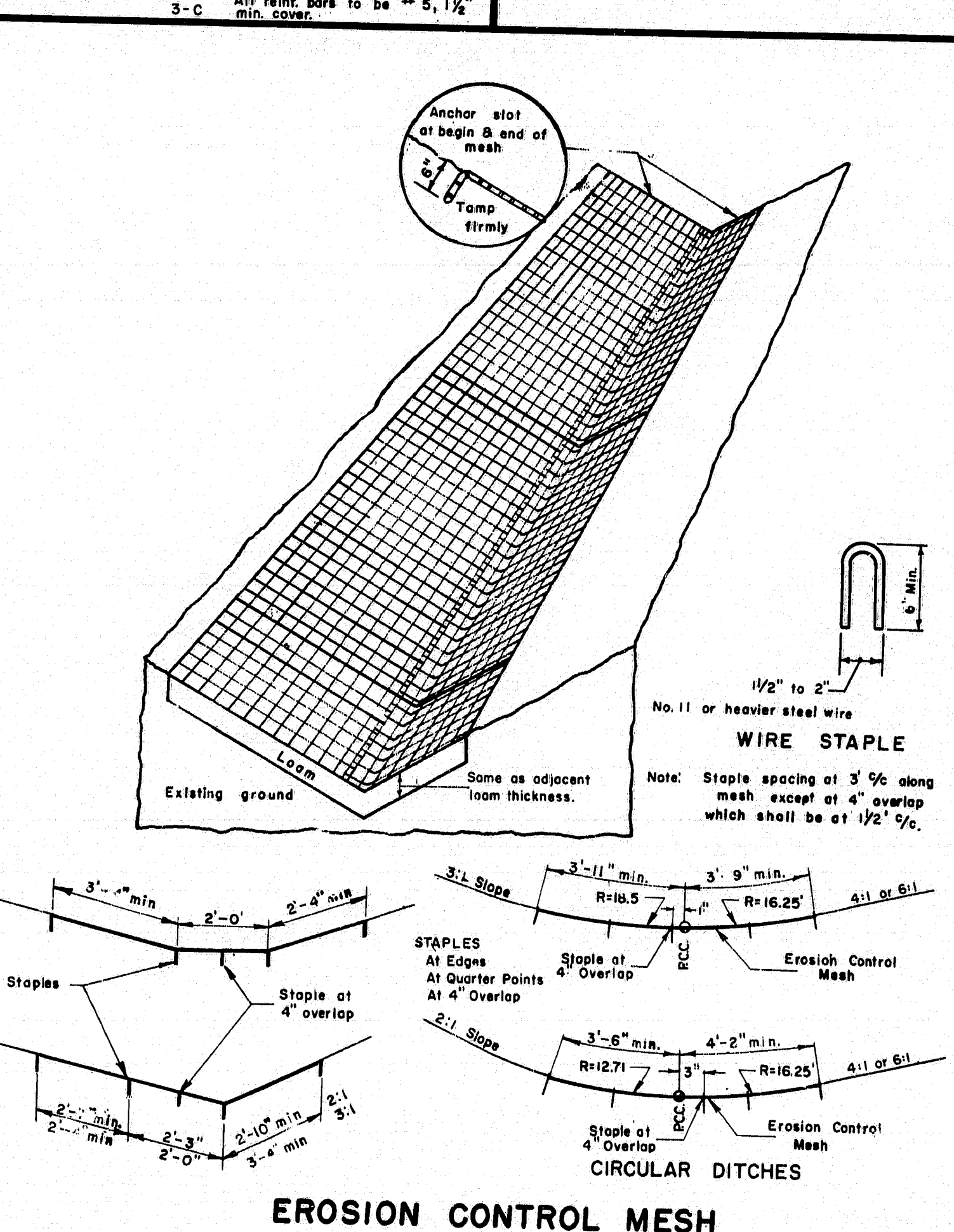
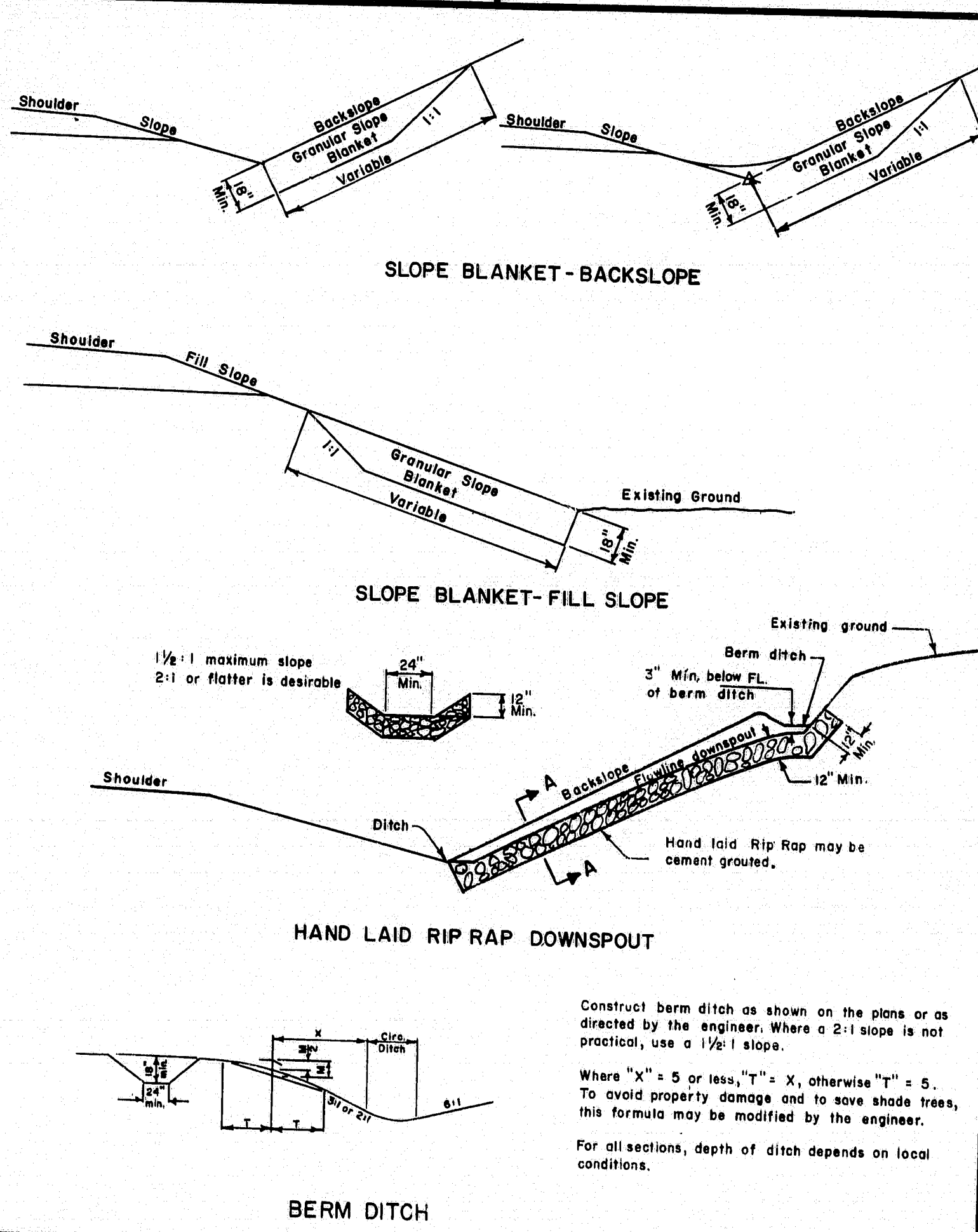
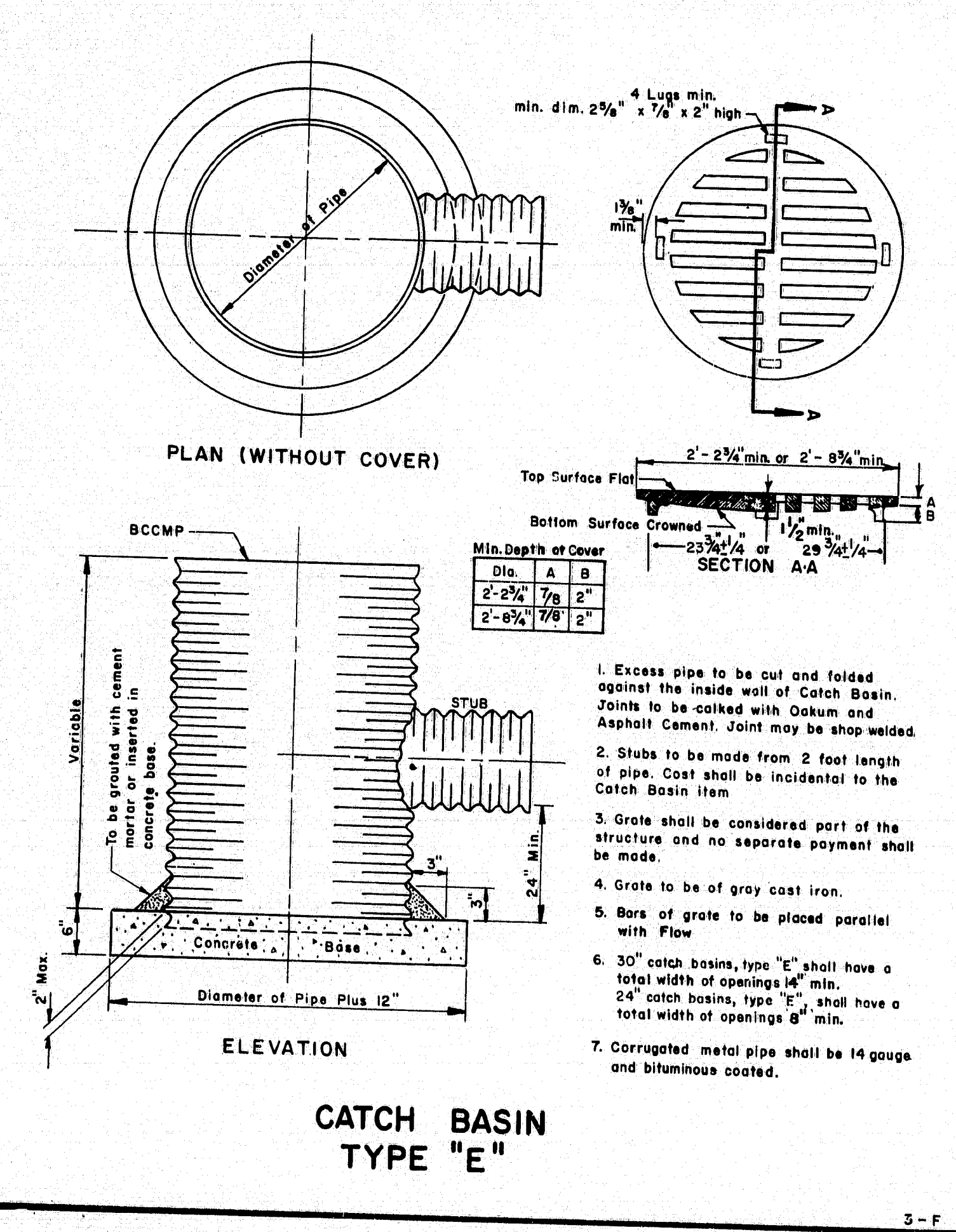
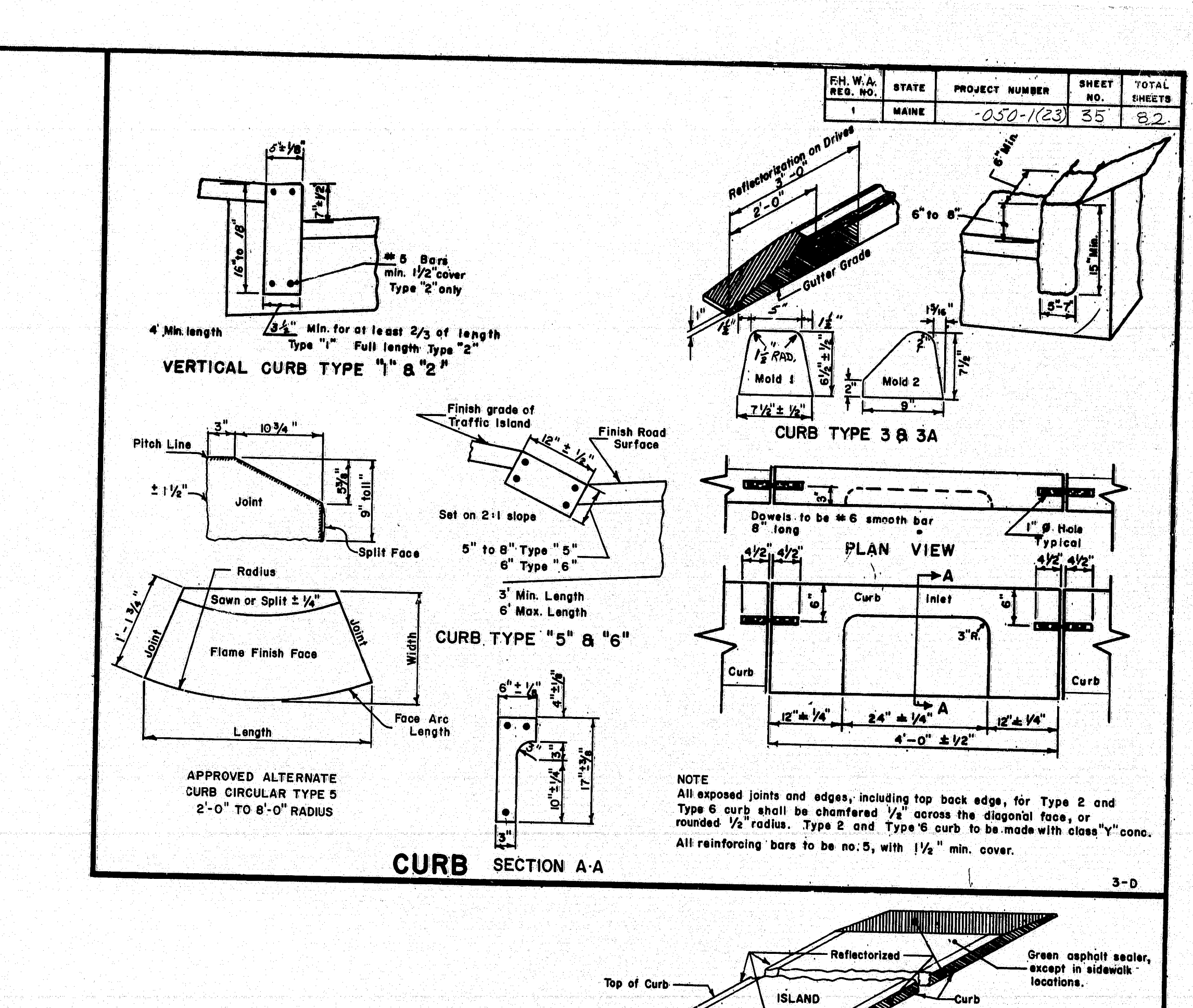
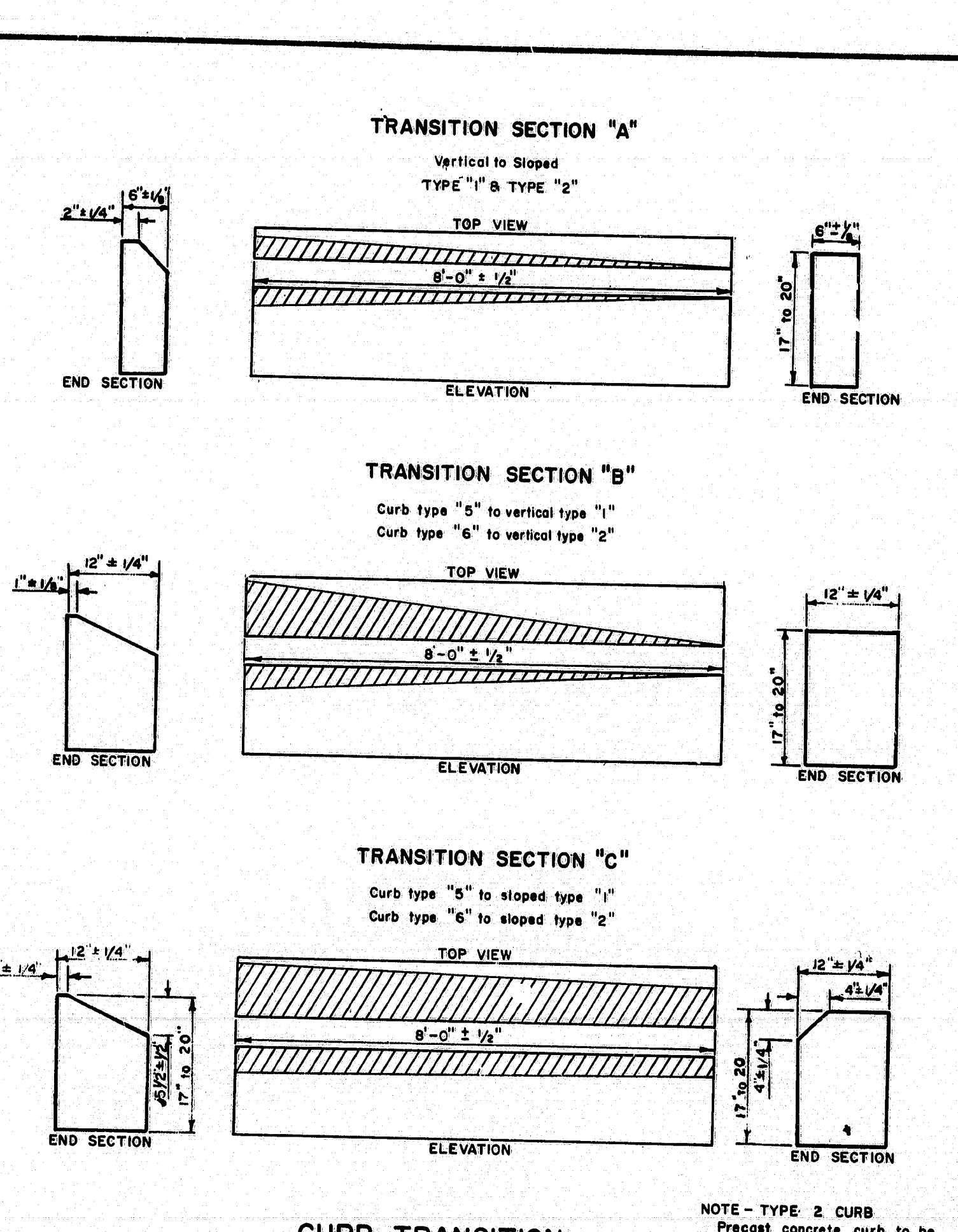
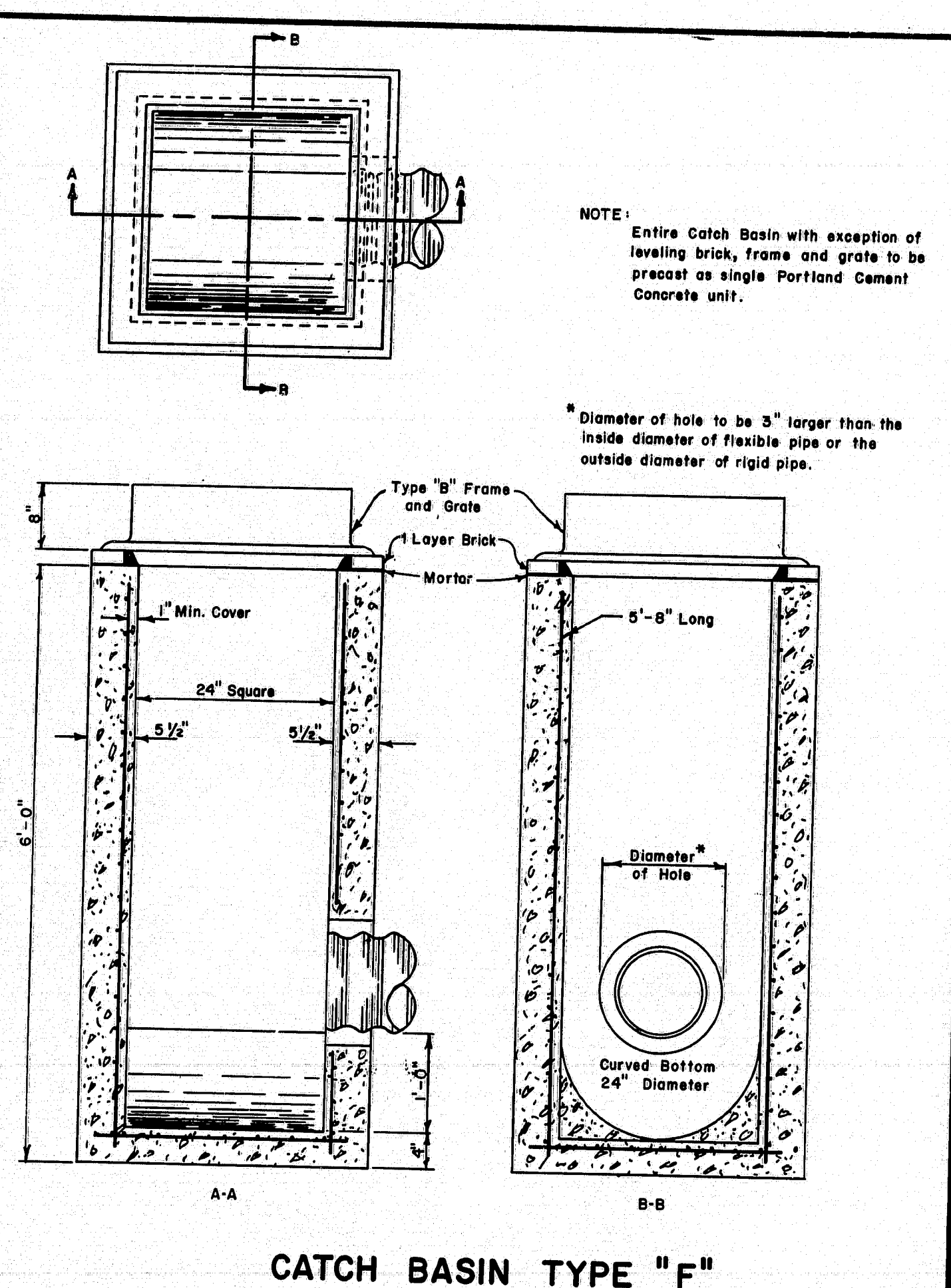
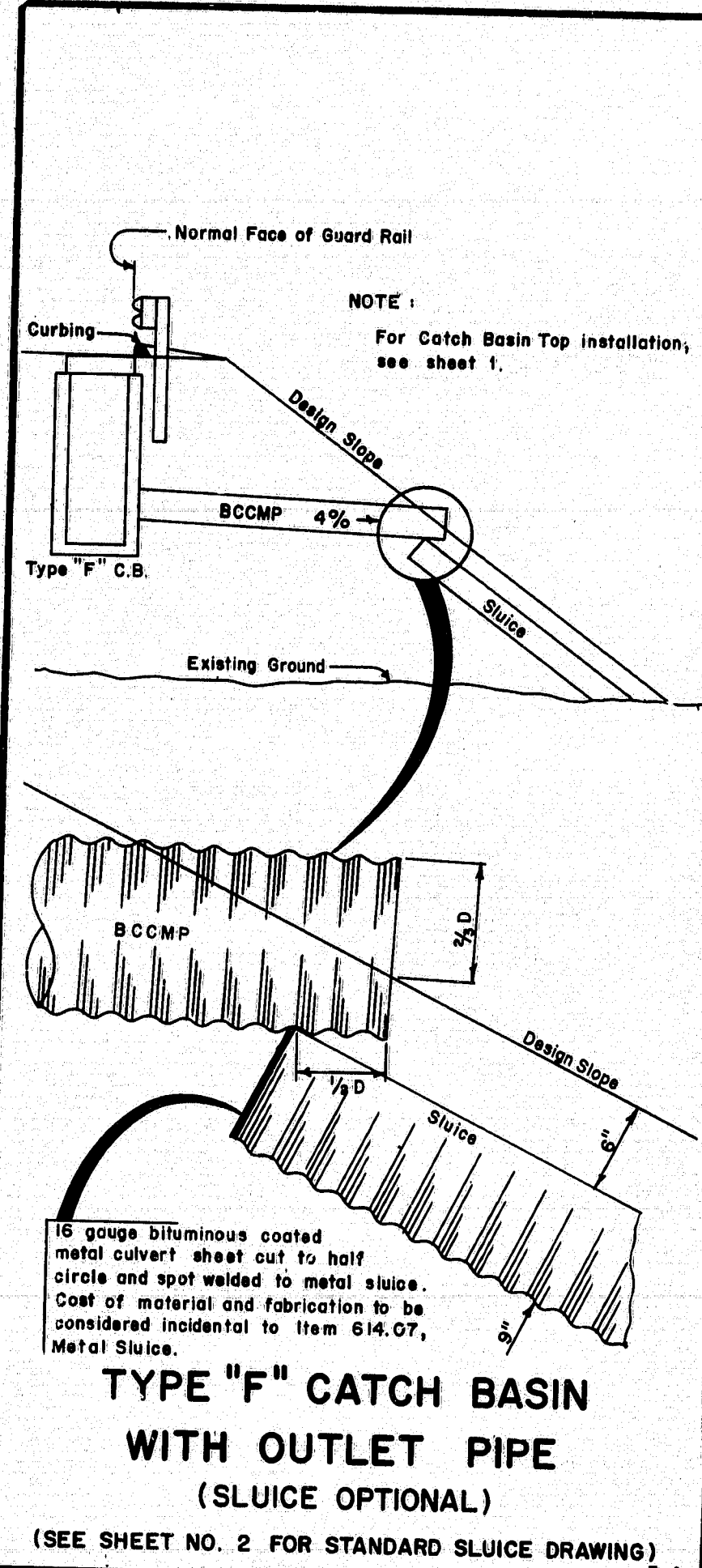
REVISIONS	
PLATE 'F'	9-17-70
PLATE 'G'	8-15-71
PLATE 'D'	12-20-71
PLATE 'F'	10-14-75

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 AUGUSTA, MAINE

STANDARD DETAILS

METAL SLUICE - UNDERDRAIN -
 CULVERT PIPE DATA
 CULVERT INLET GRATE

183-12 AUG. 1969



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

REVISIONS	
Plate 3-G	12-23-69
Plate 3-F	5-27-70
Plate 3-J	7-15-70
PLATE 3G	3-4-71
PLATE 3H	8-28-73
PLATE 3I	6-26-75
PLATE 3D	8-2-75
PLATE 3E	11-24-75
PLATE 3F	7-31-78
PLATE 3I	8-3-79

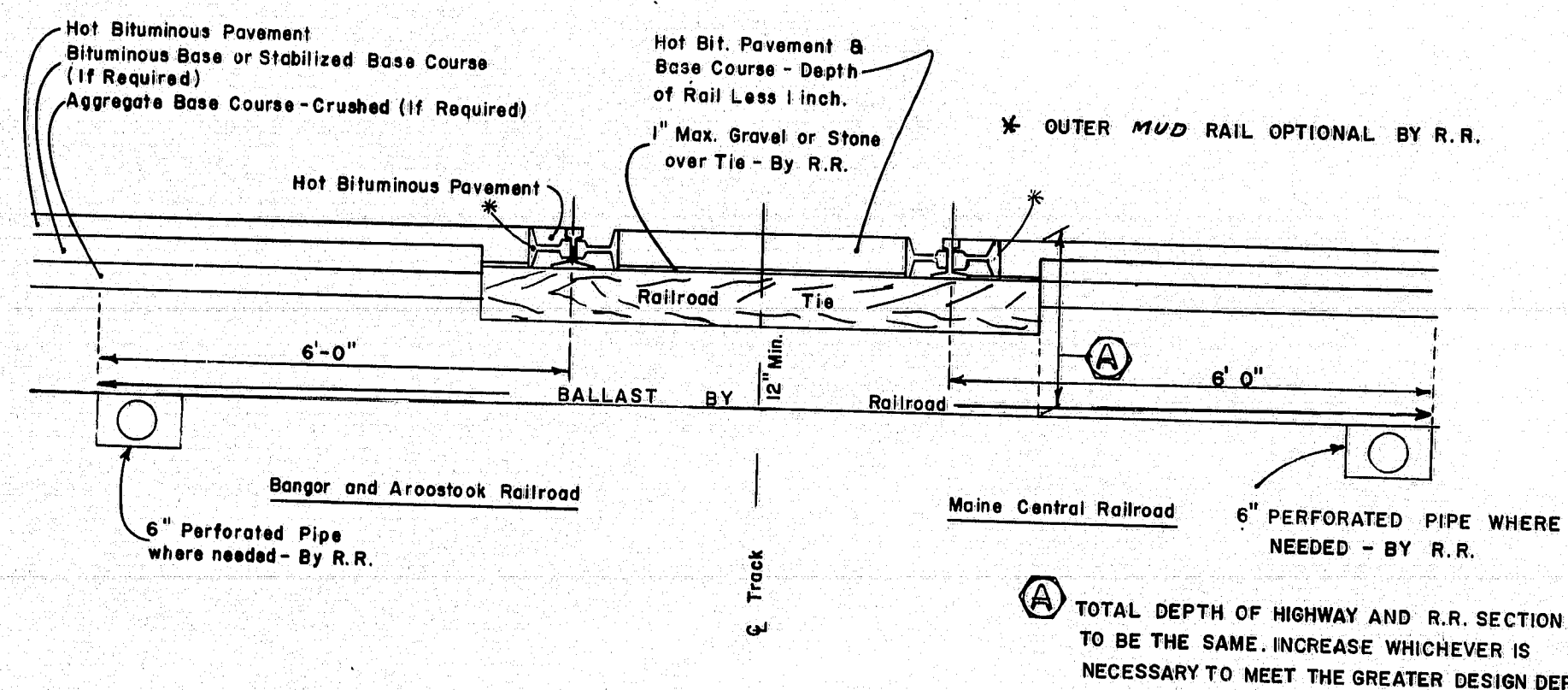
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

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

103-73

NOTES:

1. CROSSTIES THROUGH CROSSING.
2. RAIL JOINTS IN CROSSING TO BE WELDED.
3. STONE BALLAST TO EXTEND ALONG TRACK BEYOND EACH SIDE OF THE CROSSING FOR A DISTANCE OF APPROXIMATELY 40' AT SAME MINIMUM DEPTH AS THRU CROSSING - THEN TAPER TO A MIN. DEPTH UNDER TIES OF 6" IN THE NEXT 40'.
4. WORK TO BE DONE BY RAILROAD.
 - (a) PLACEMENT OF BALLAST.
 - (b) PLACEMENT OF TIES AND RAILS.
 - (c) PLACEMENT OF 1" MAX. GRAVEL OVER TIES.
5. PAVING ALONG TRACK TO BE OUT TO OUT OF SHOULDER TAPERED TO NORMAL PAVING WIDTH IN ABOUT 25 FEET.
6. NOT TO SCALE.

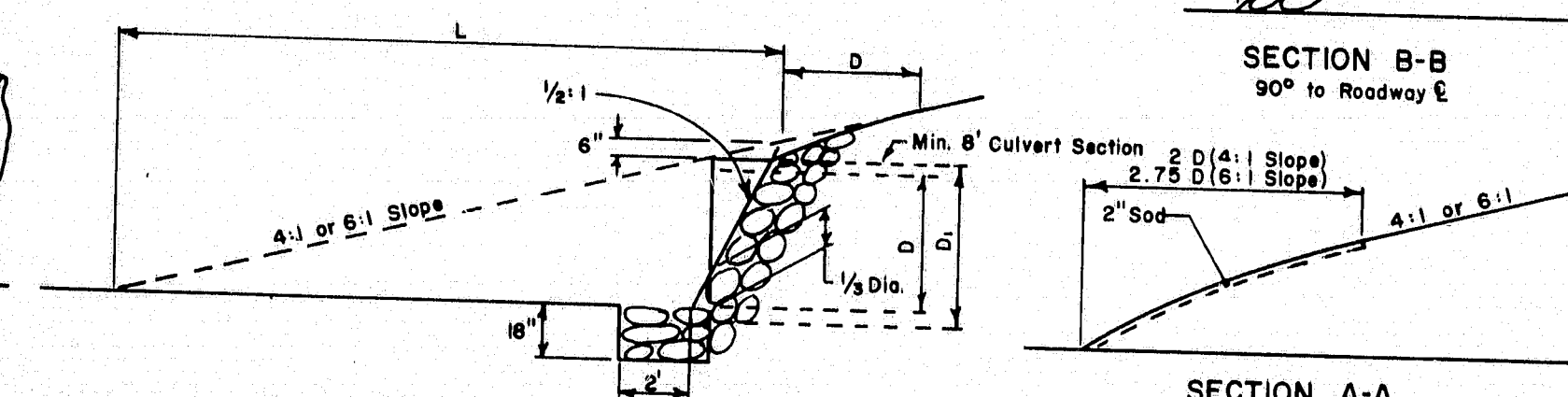
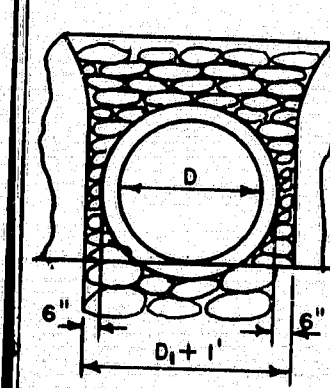


RAILROAD GRADE CROSSING DETAIL

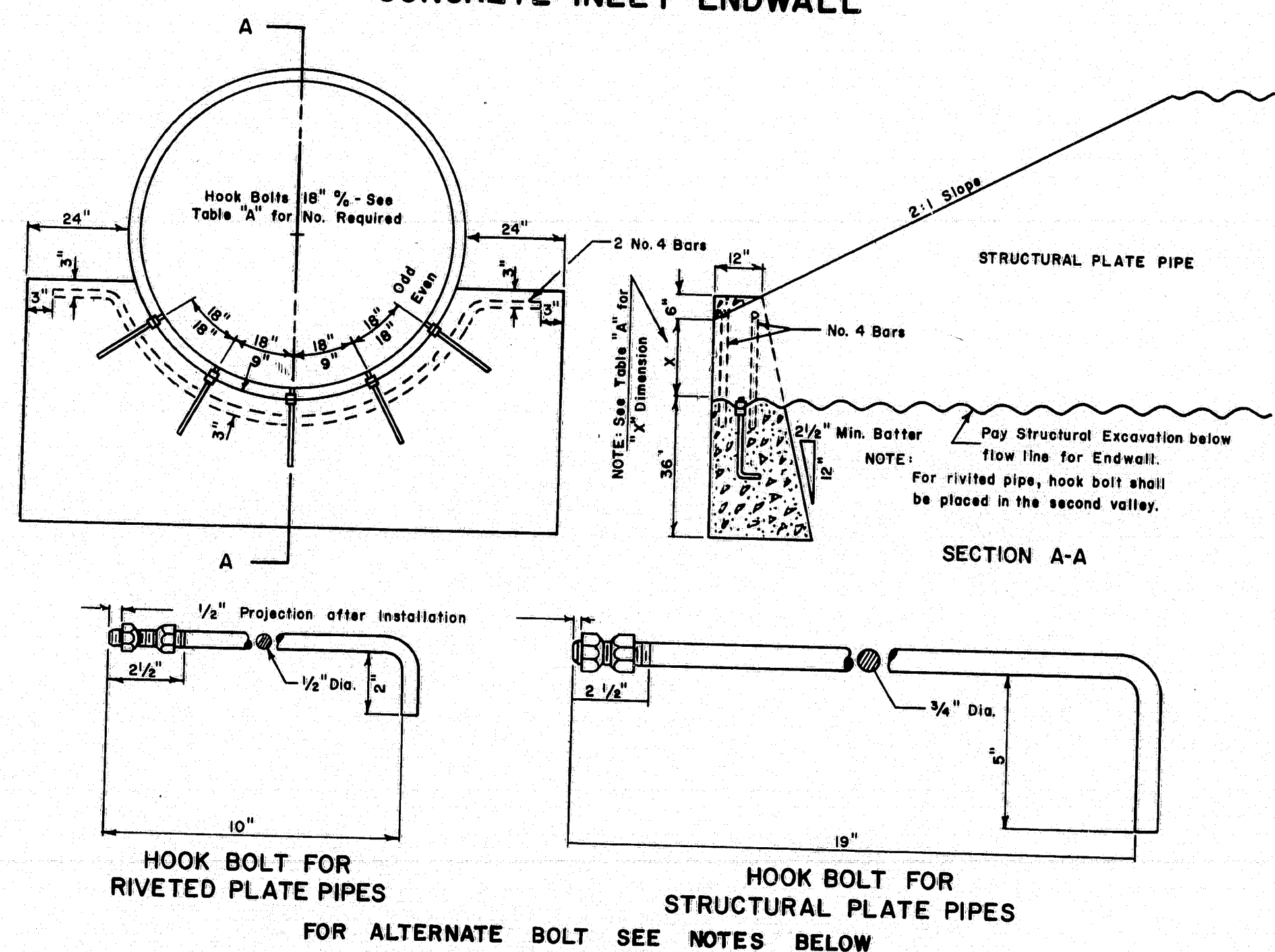
TABLE B ROADWAY CULVERT END SLOPE TREATMENT FOR METAL AND CONCRETE CULVERTS

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

- NOTES:
1. The dimensions shown are approximate and may be modified by the resident engineer.
 2. Culverts installed under 2:1 slopes shall have riprap laid on 2:1 slopes around the inlet and outlet; and no ditch transitions.
 3. Riprap will be required on the portions of the culvert and treatment 1:1 and flaps. The remaining portion shall be sodded or loamed, seeded and hay mulched as directed by the engineer.
 4. 24" diameter culverts and under may be sodded around ends of culvert.



CONCRETE INLET ENDWALL



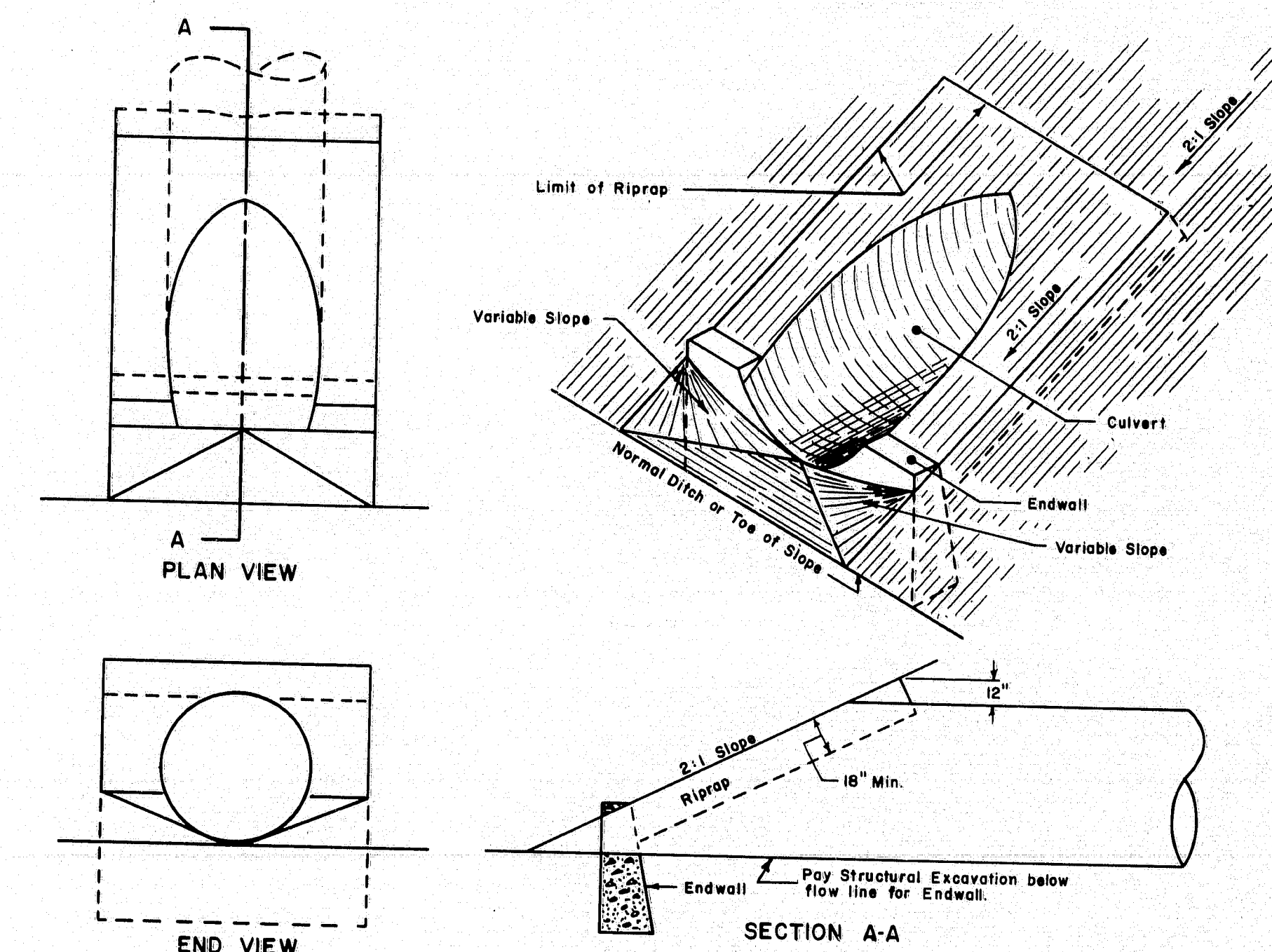
CONCRETE INLET ENDWALL

TABLE A			
RIVETED PIPES			
SIZE	NO. BOLTS REQUIRED	"X" DIMENSION	
66"	4	1.5	
68"	4	1.5	
72"	4	1.5	
78"	5	1.5	
84"	5	1.5	
STRUCTURAL PLATE PIPE			
SIZE	NO. BOLTS REQUIRED	"X" DIMENSION	
72"	4	1.5	
78"	5	1.625	
84"	5	1.75	
90"	5	1.875	
96"	6	2.0	
102"	6	2.125	
108"	6	2.25	
114"	7	2.375	
120"	7	2.5	
126"	7	2.625	
132"	8	2.75	
138"	8	2.875	
144"	9	3.0	
150"	9	3.125	
156"	9	3.25	
162"	10	3.375	
168"	10	3.5	
174"	10	3.625	
180"	11	3.75	

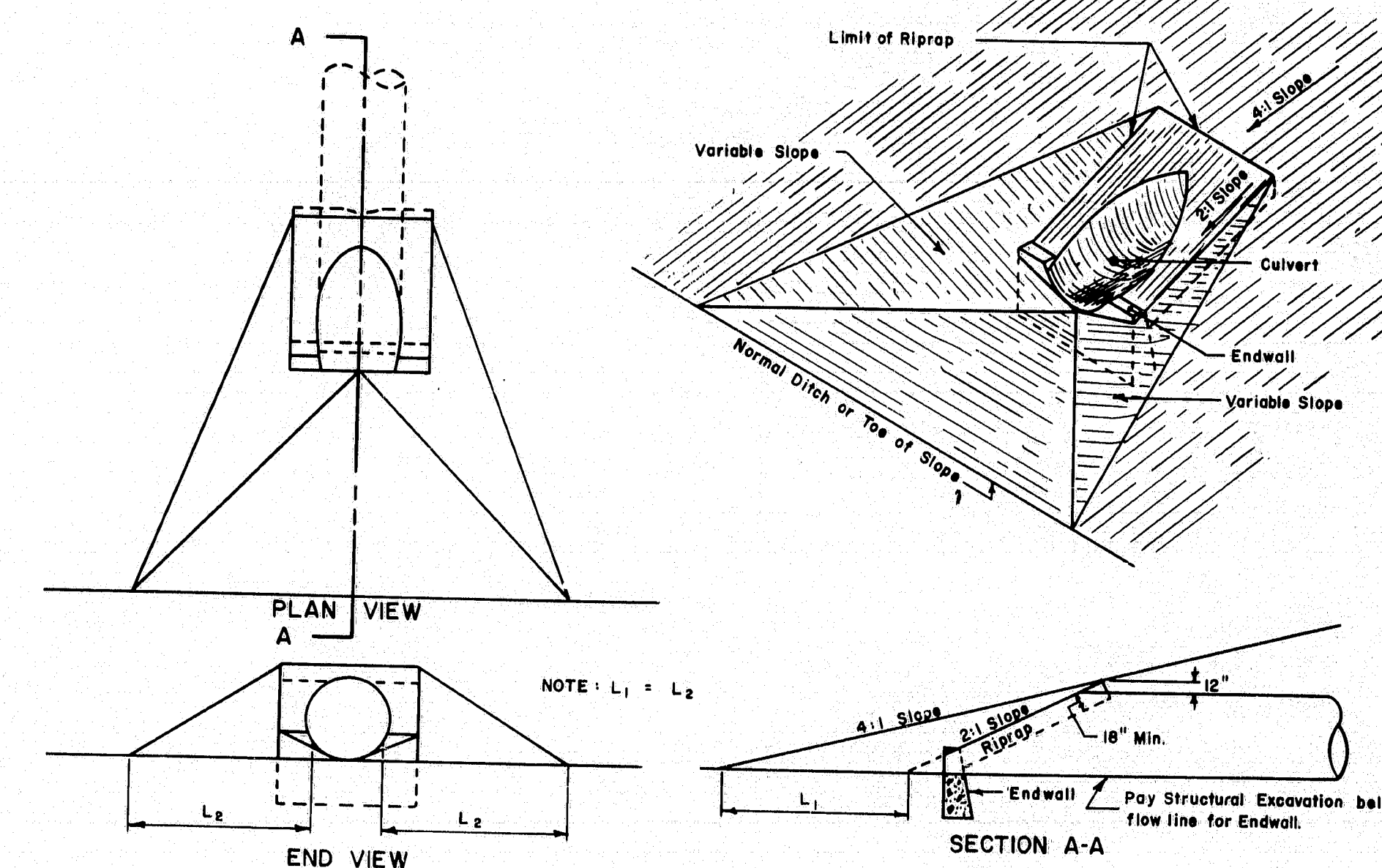
NOTES

1. Culverts installed under 2:1 slopes shall have riprap laid on 2:1 slope and no ditch transitions. All riprap as shown shall be hand laid.
2. Excavation required to grade culvert inlets and outlets as shown will not be paid separately, but will be incidental to the culvert.
3. Bolts are required in metal pipes only and will be incidental to concrete items.
4. Concrete endwalls shall be structural concrete class "A" and shall be paid for as Item 502.32 structural concrete culvert endwalls. Reinforcing steel will not be paid for separately but will be considered incidental to Item 502.32.
5. Standard galvanized carriage or machine bolts 1/2" x 8" long or 3/4" x 6" long with minimum of 2" thread, may be furnished in place of hook bolts. Washers shall be furnished at the head of each bolt.
6. Bolt material shall conform to ASTM A307. Nuts shall conform to ASTM A563. Bolts, nuts, and washers shall be hot dip galvanized after fabrication to meet ASTM A153.

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



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



REVISIONS

Plate 4-D	12-23-69
PLATE A,B,C	2-15-72
PLATE A	6-18-74
PLATE B	8-7-75
PLATE A	12-22-77

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

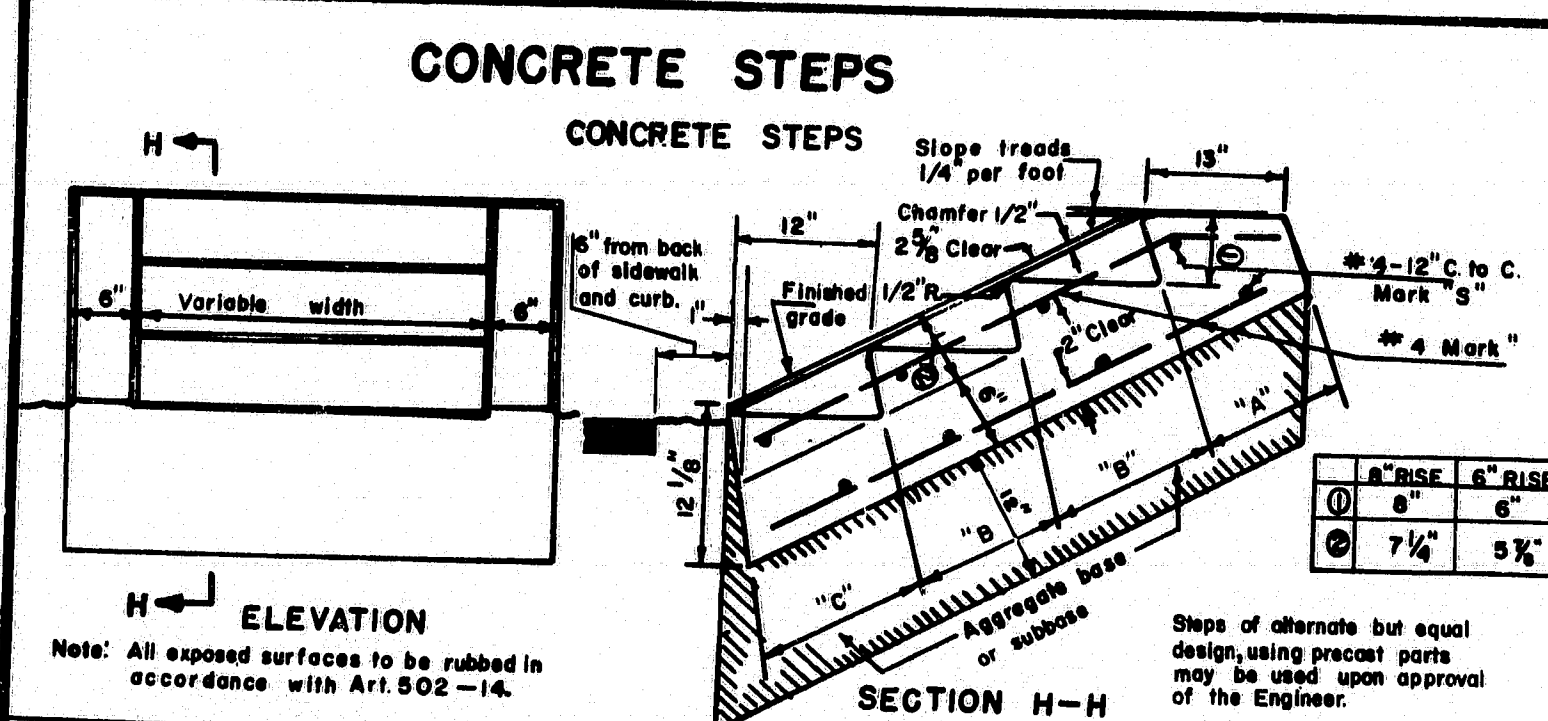
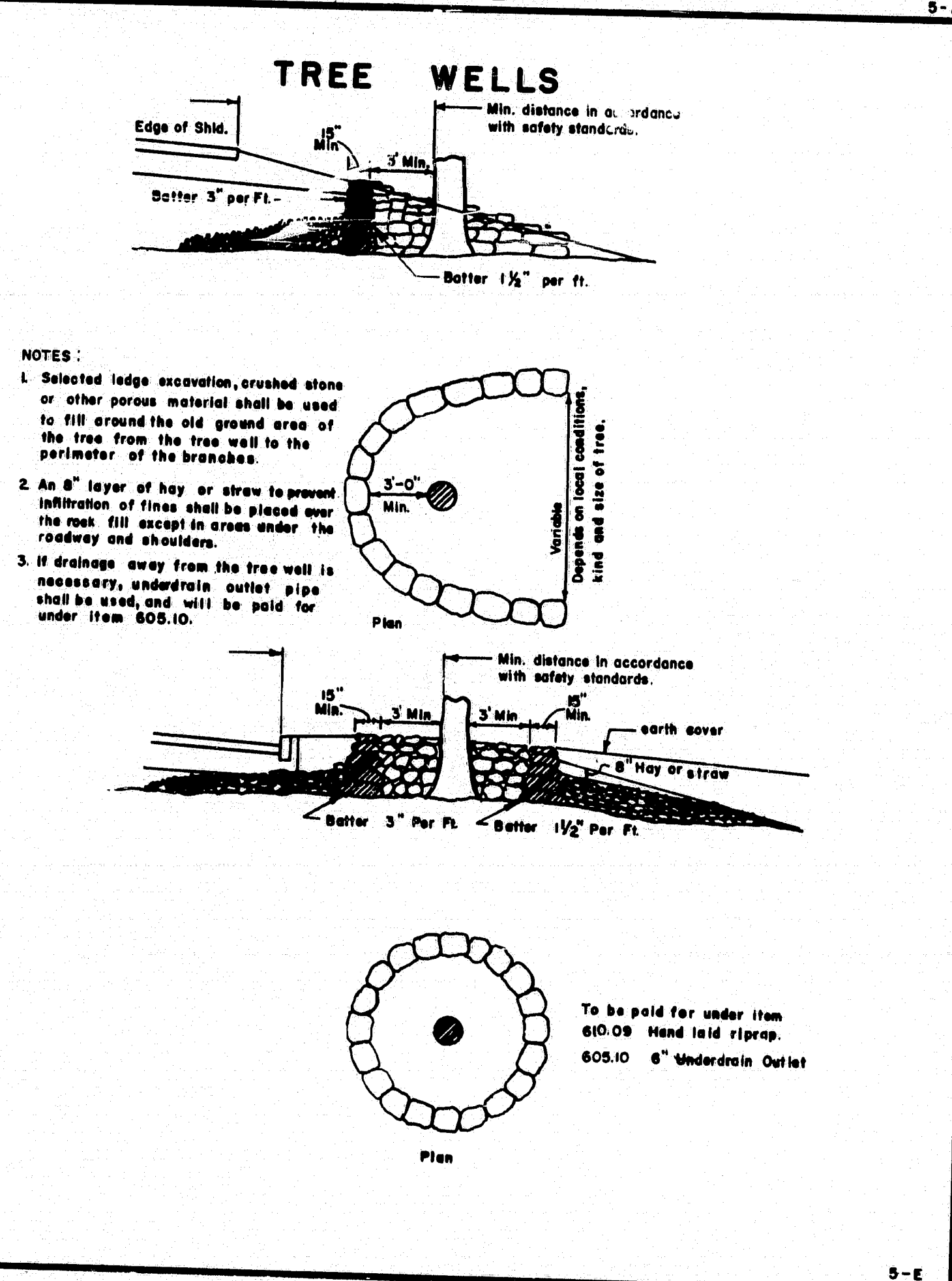
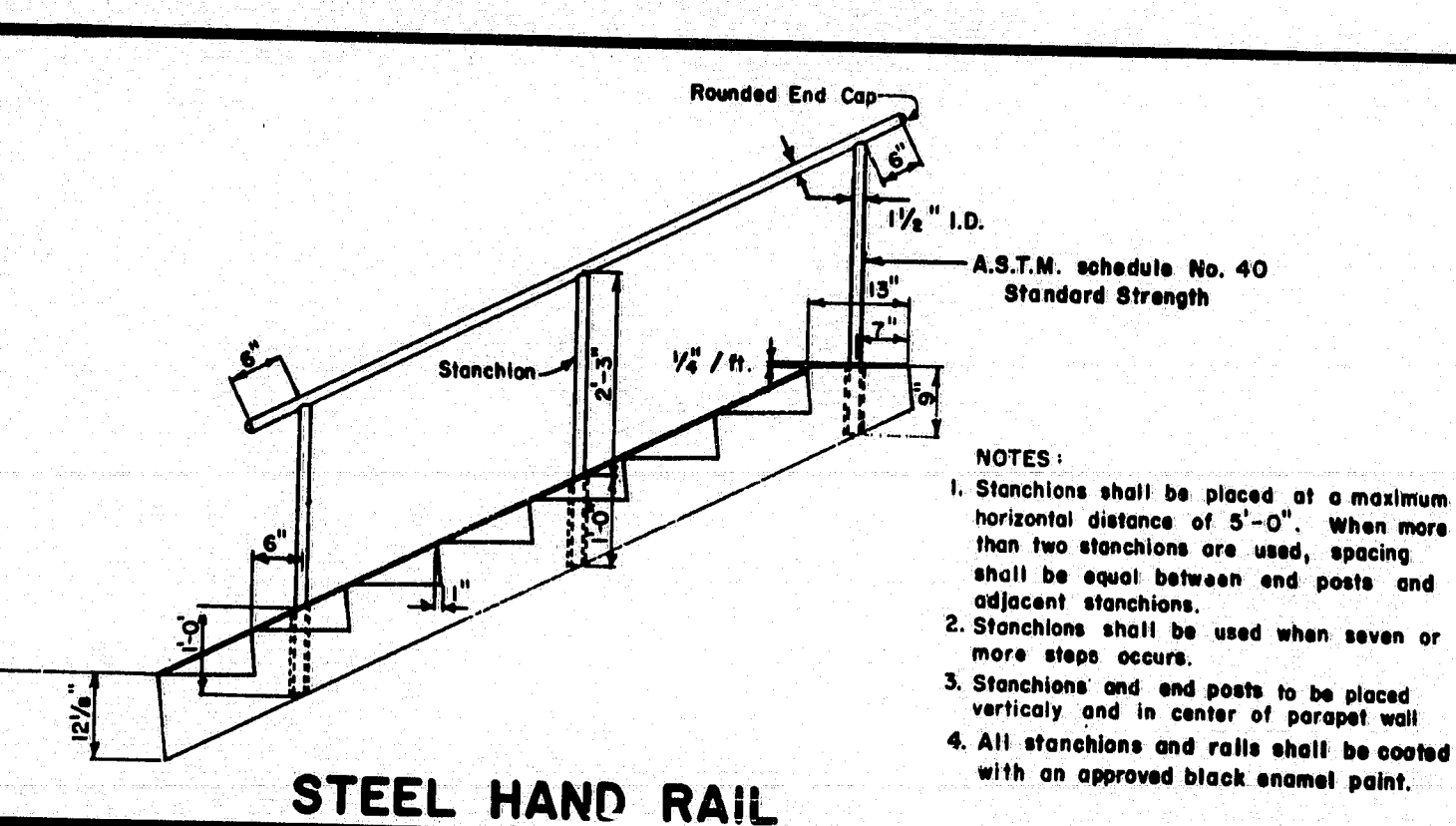
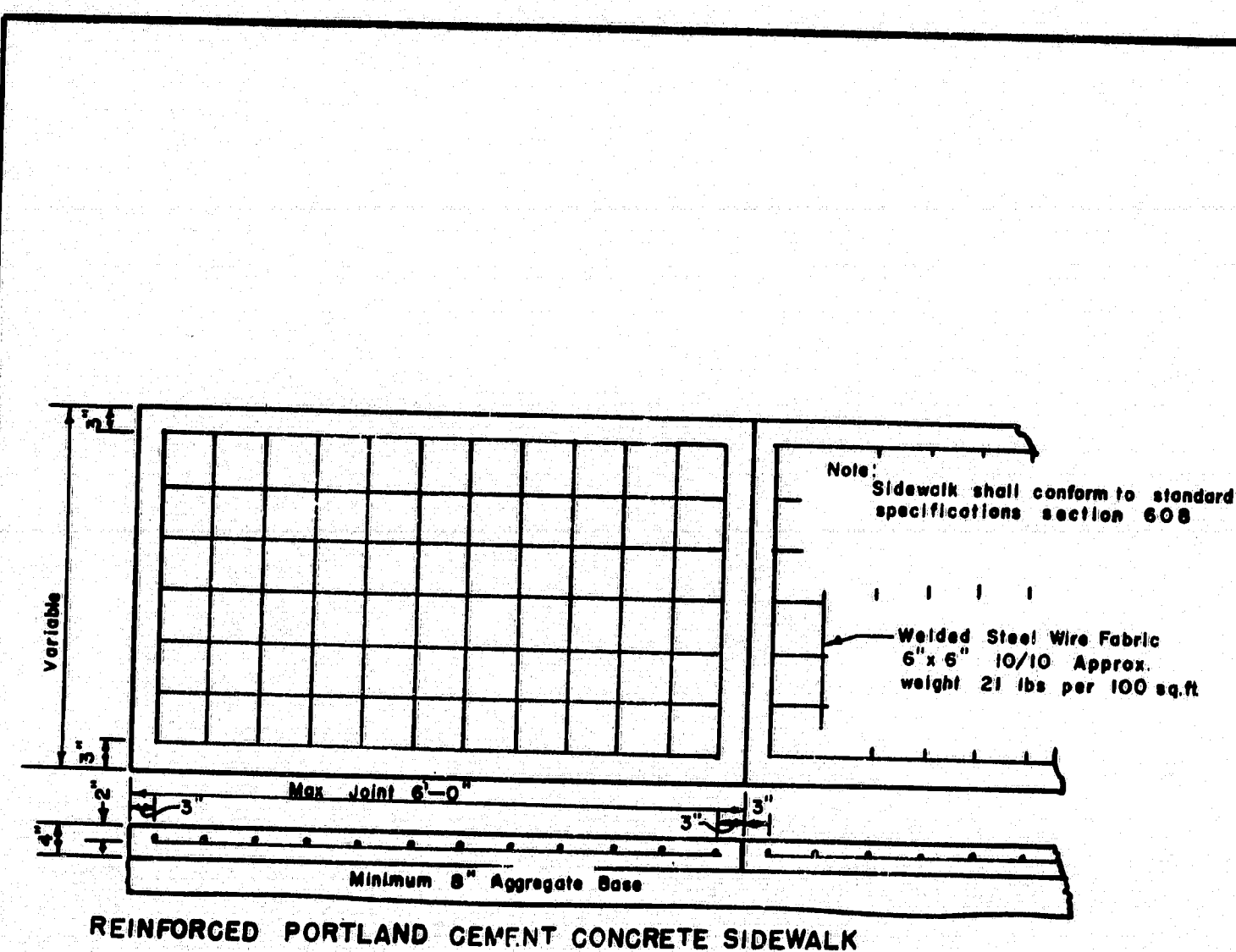
STANDARD DETAILS

CULVERT INLETS & OUTLETS

183-74

AUG. 1969

4



6" RISE - 12" TREAD (2:1) SLOPE				8" RISE - 12" TREAD (1 1/2:1) SLOPE			
Mark	Size	Number	Length (Each)	Mark	Size	Number	Length (Each)
R	#4	2 Each parapet	11' For "A" +13' For "B" +12' For "C"	R	#4	2 Each parapet	11' For "A" +14 1/2' For "B" +12' For "C"
S	#4	2 For "A" 2 For "B" 2 For "C"	4' Each parapet + 12' Per ft. of width	S	#4	2 For "A" 2 For "B" 2 For "C"	4' Each parapet + 12' Per ft. of width

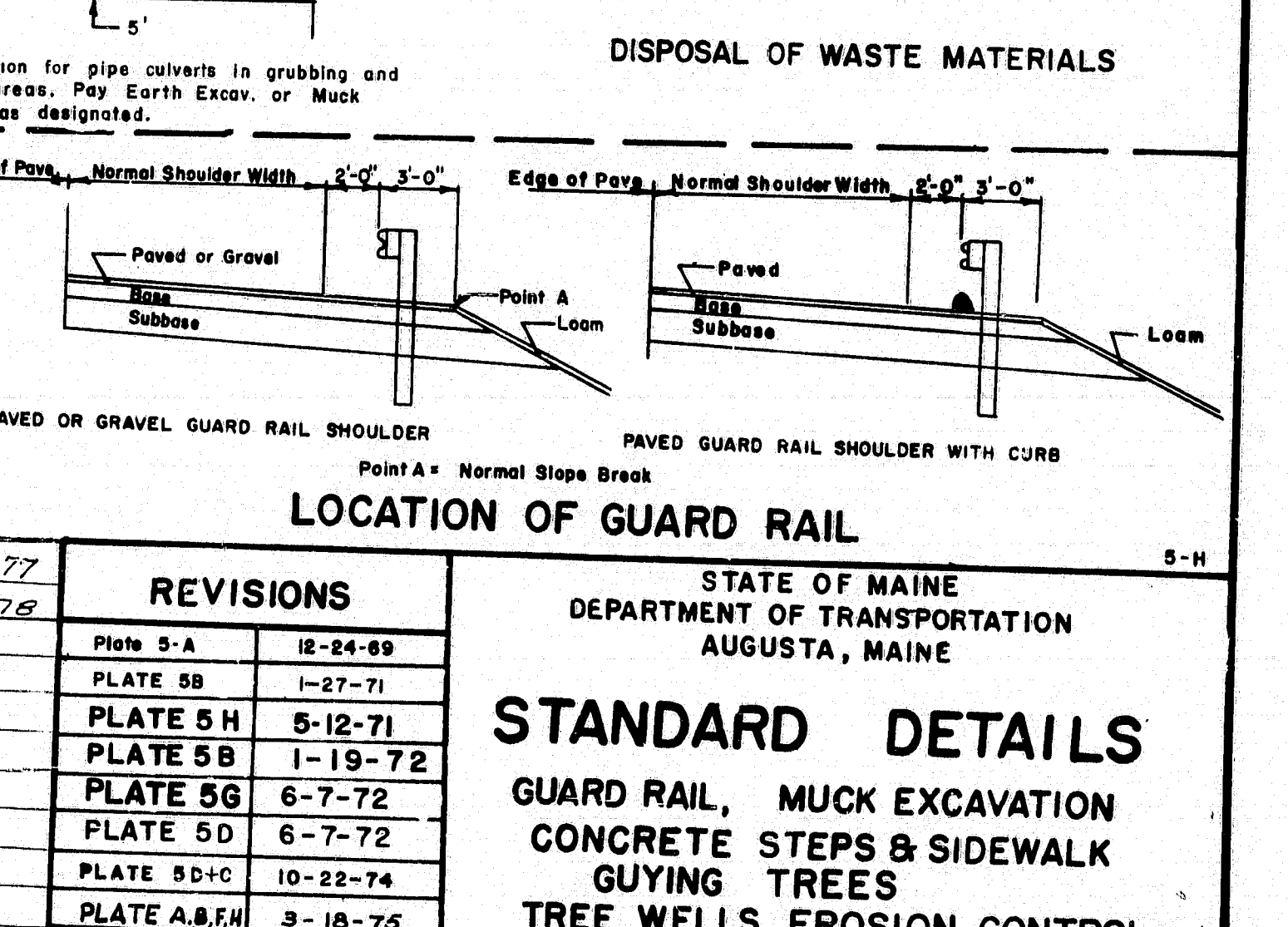
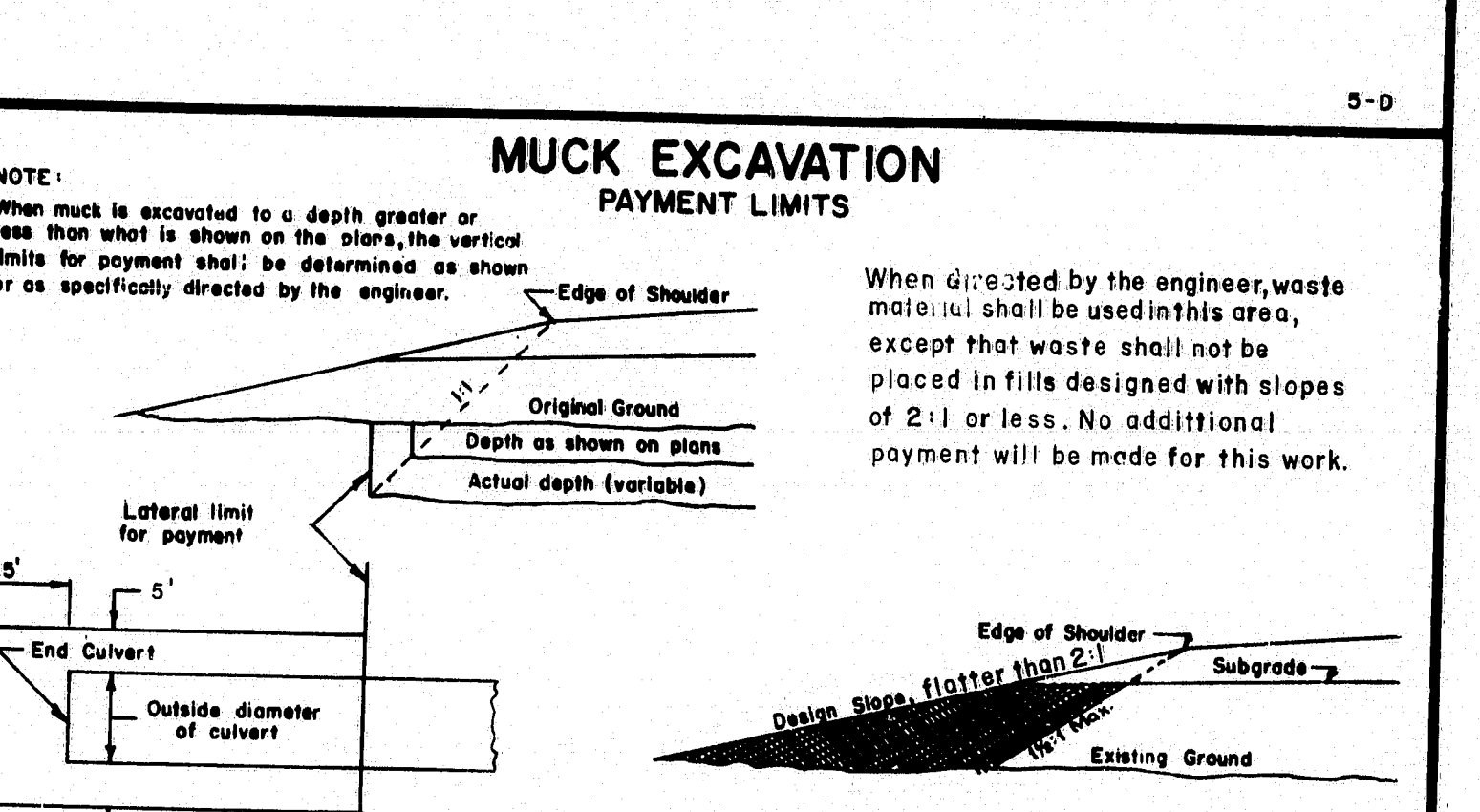
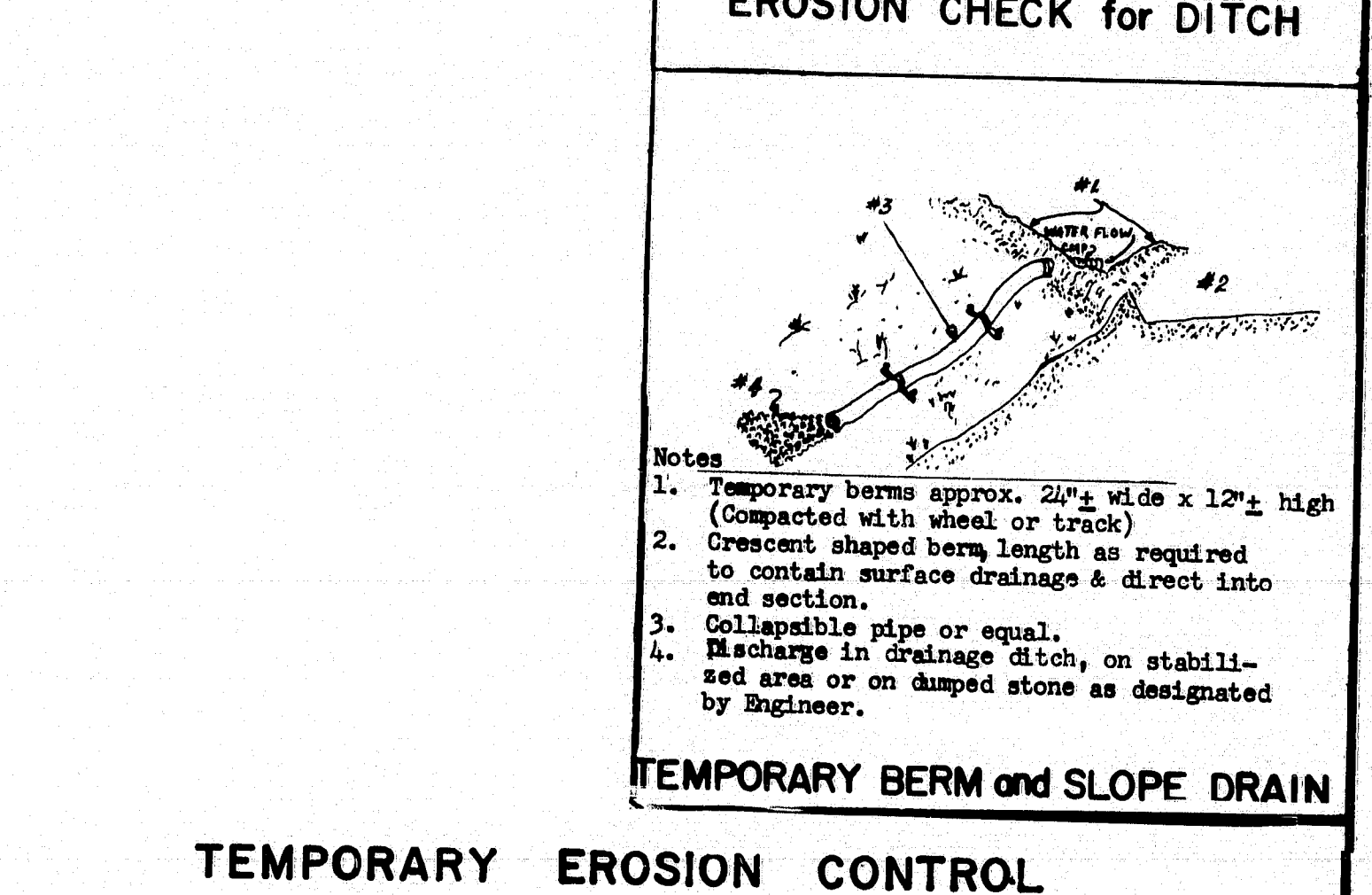
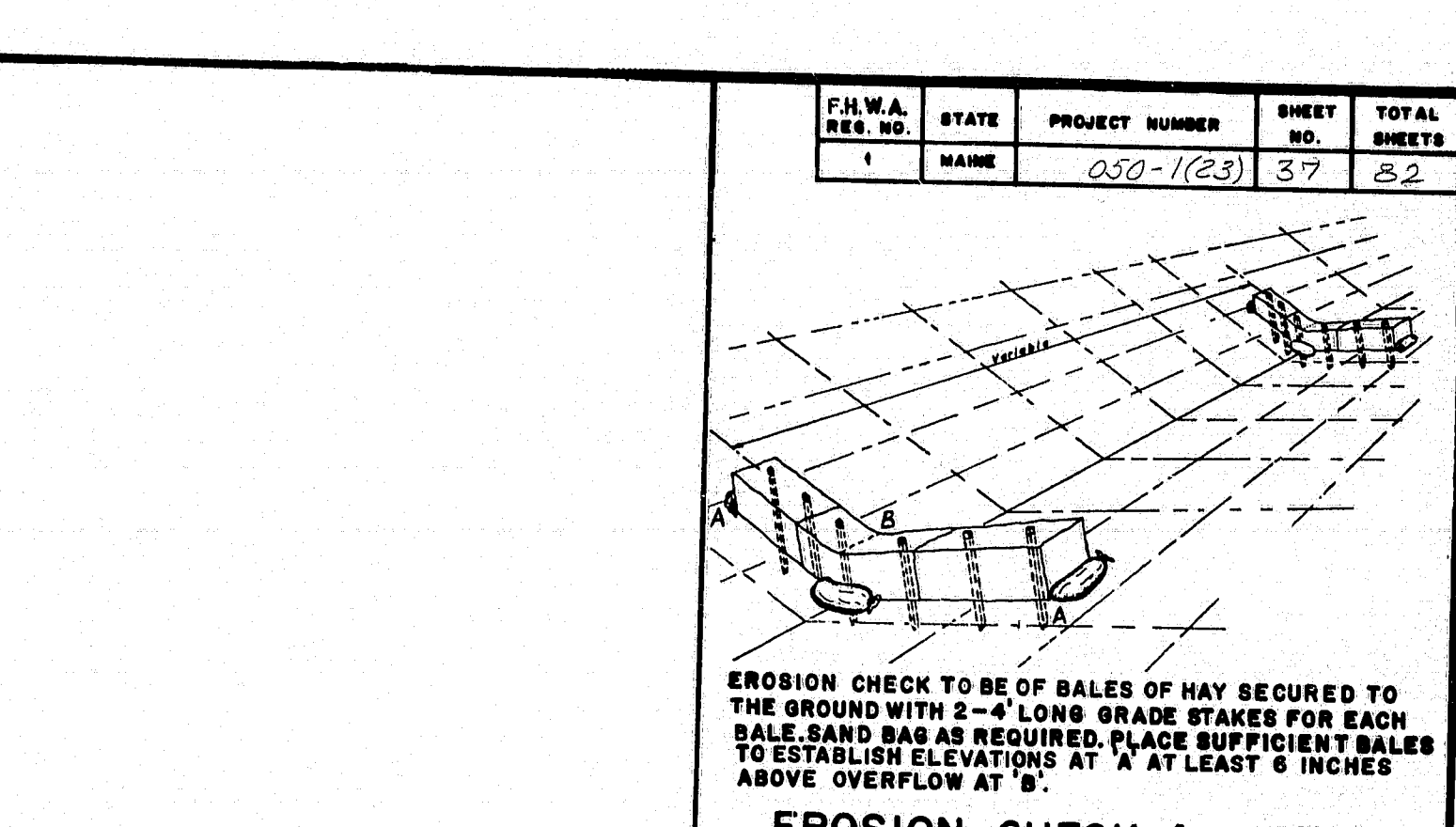
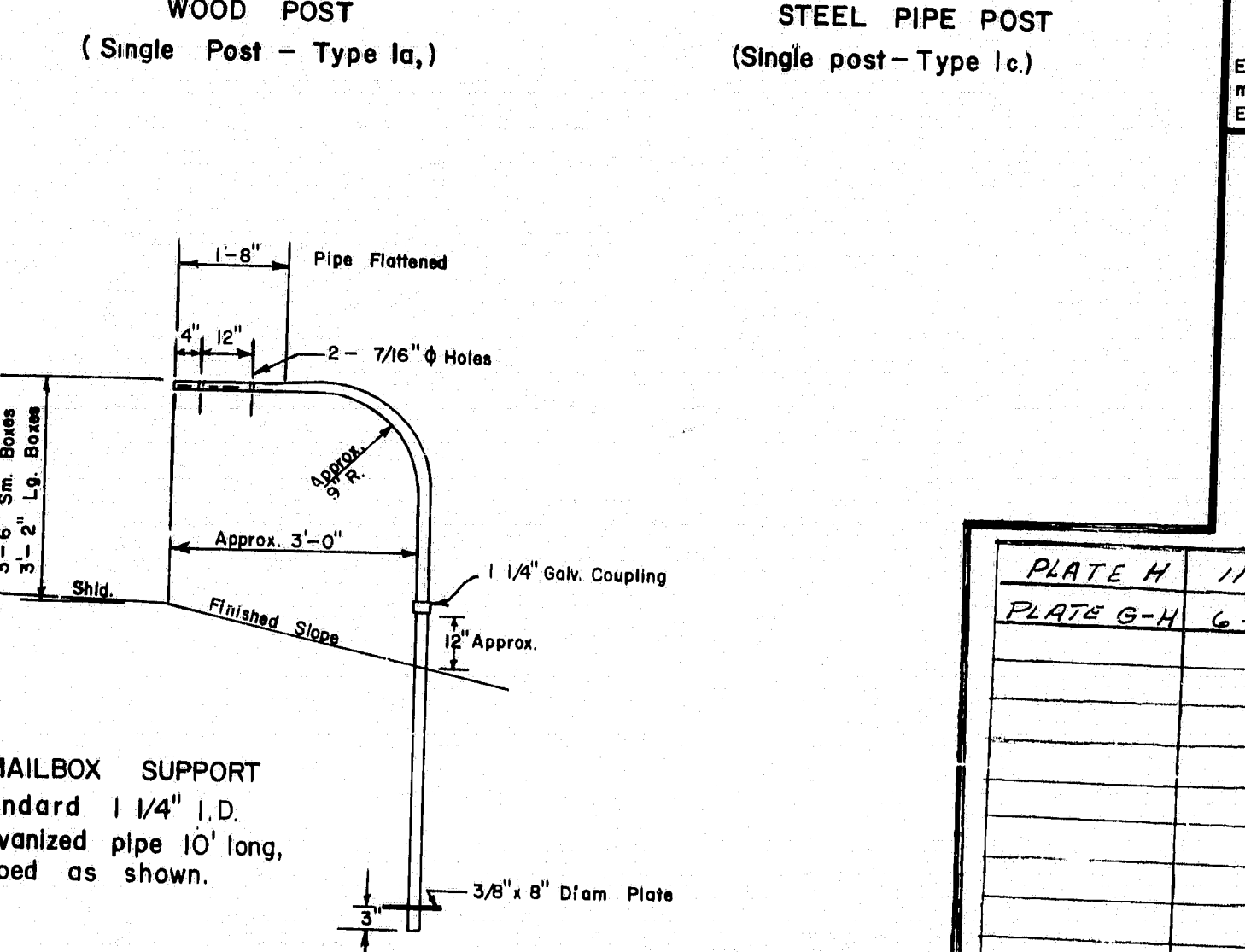
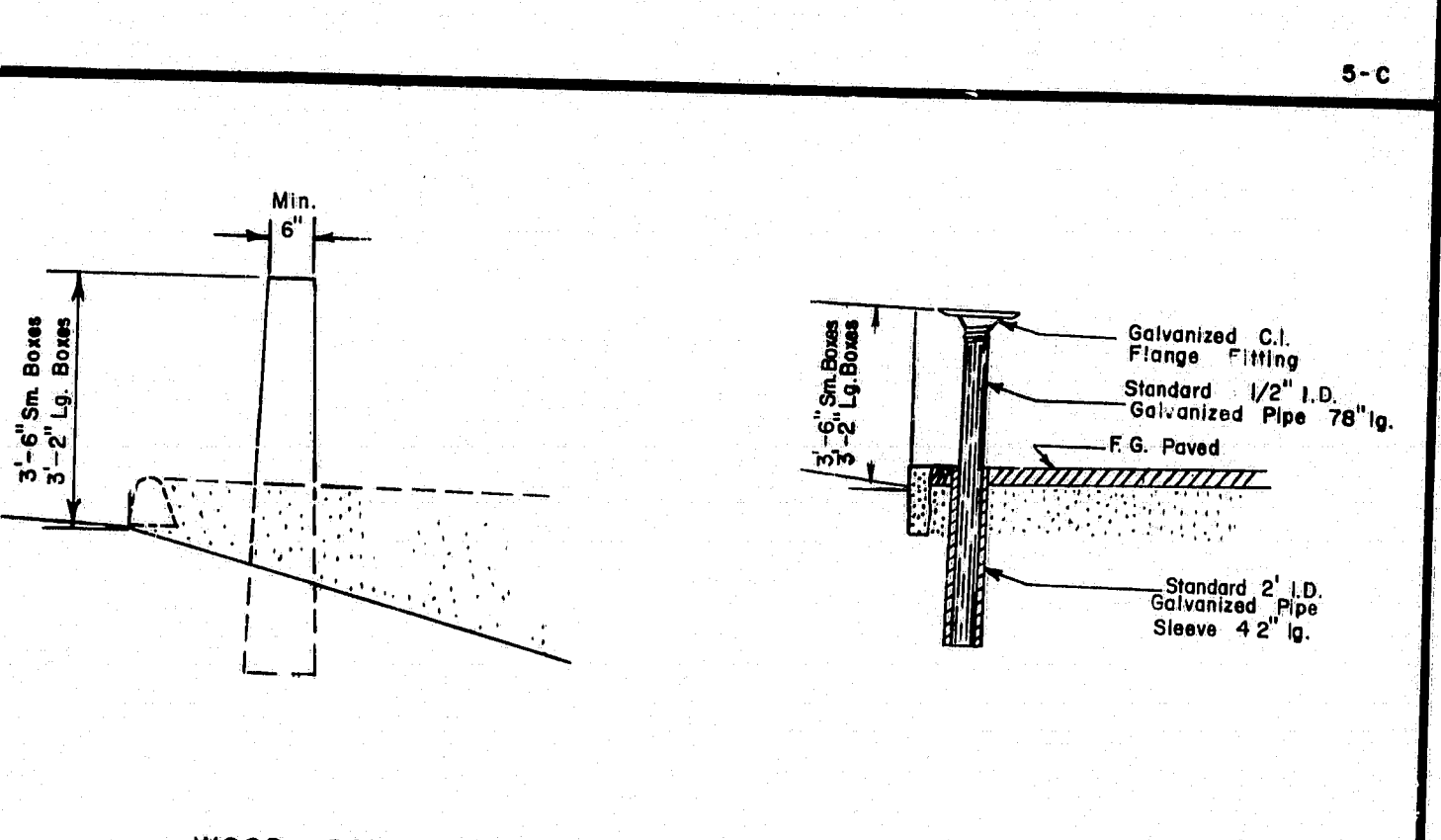
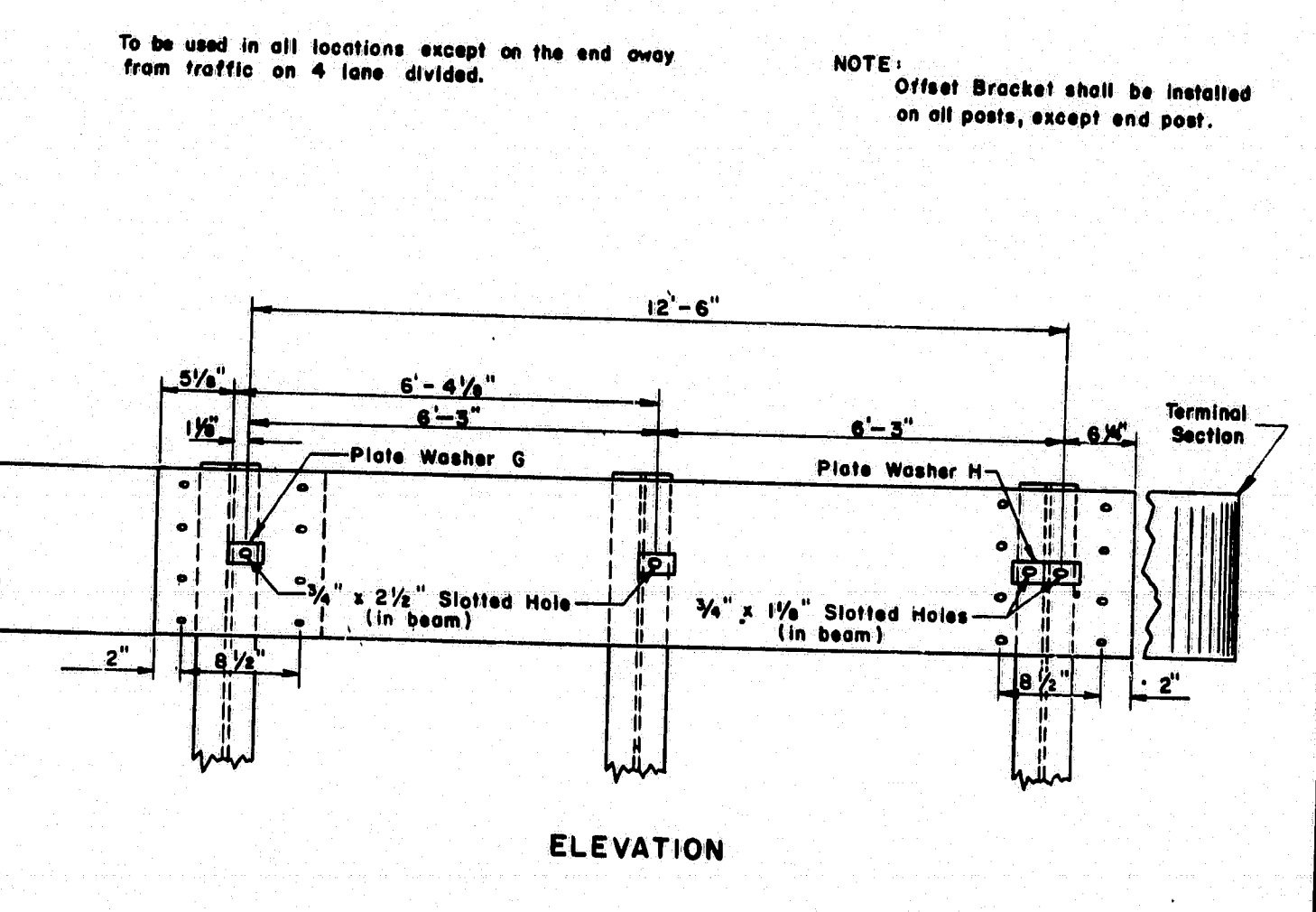
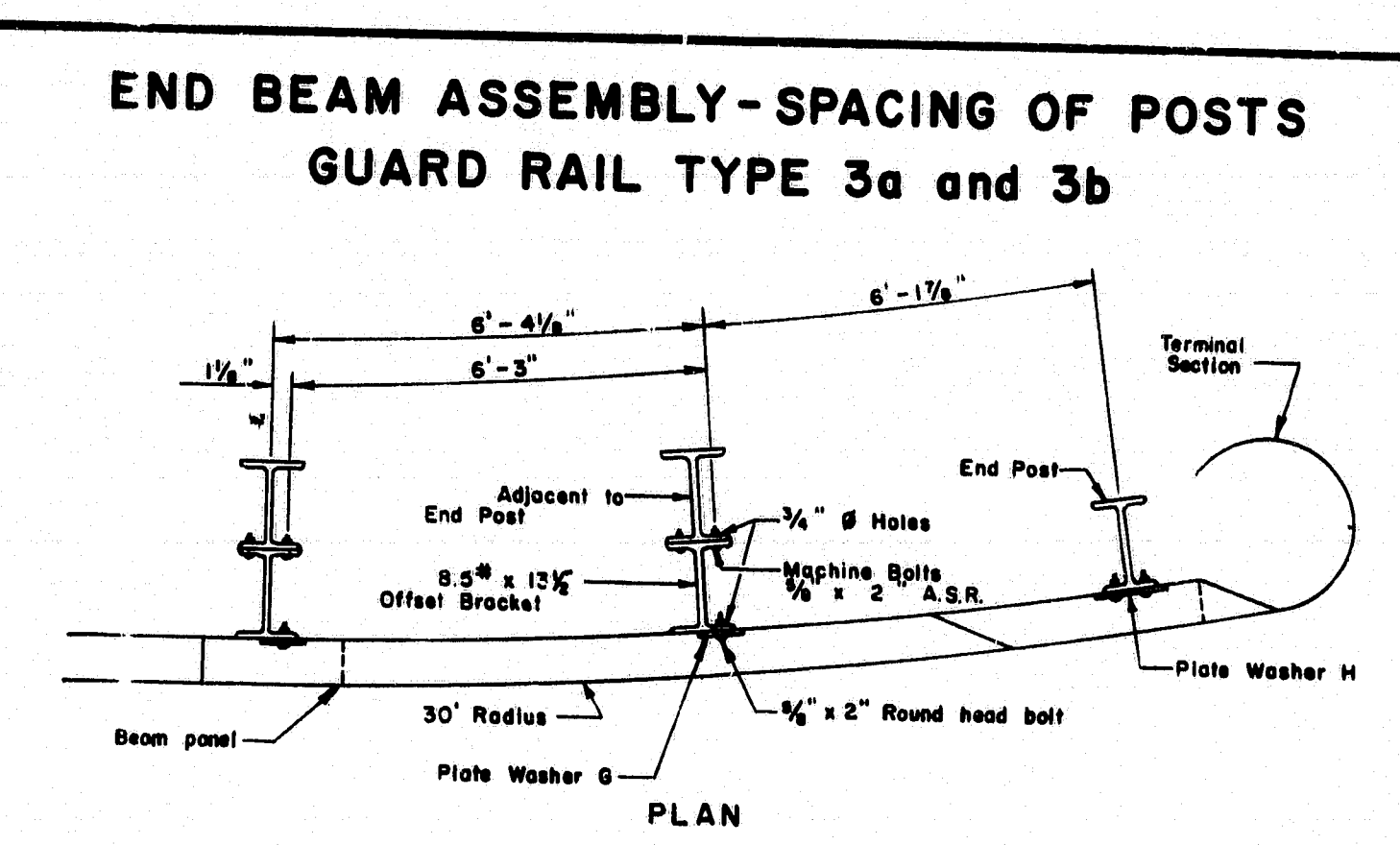
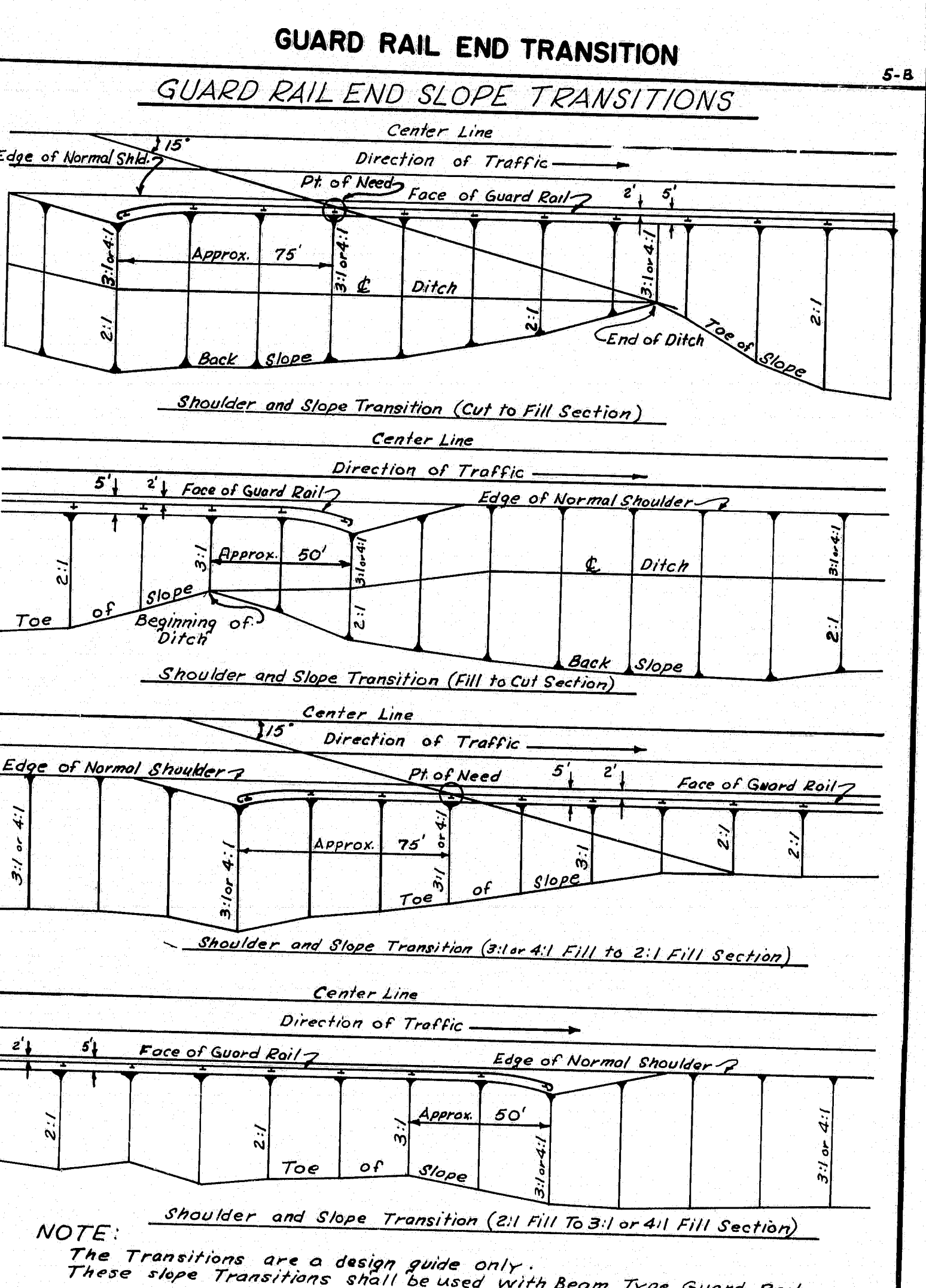
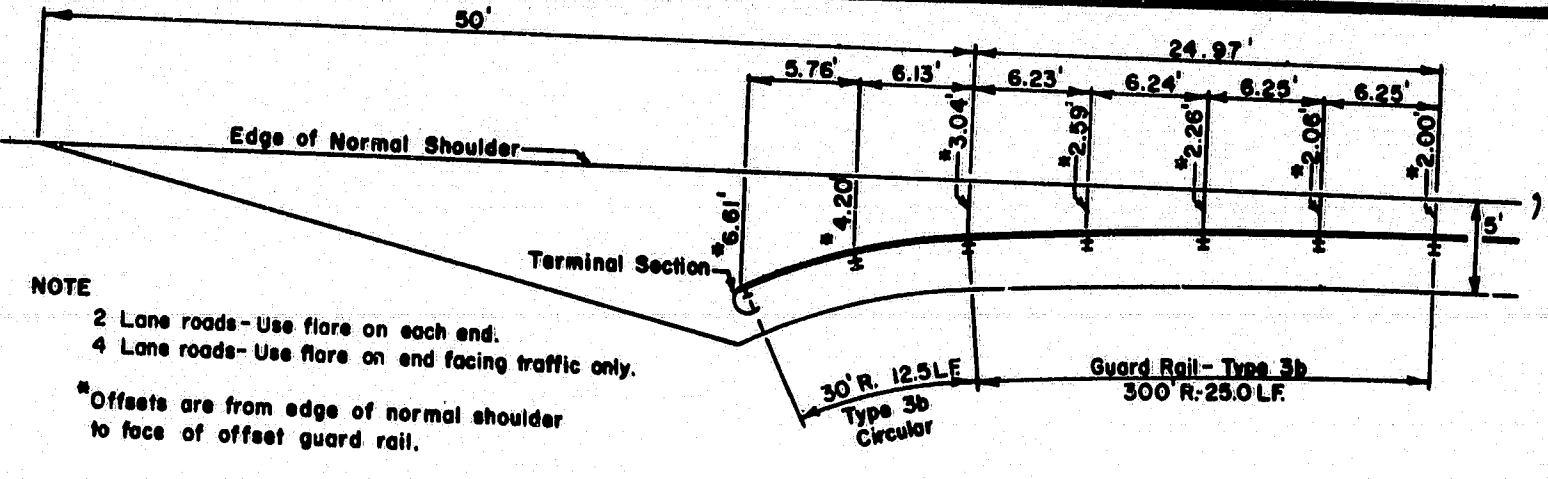
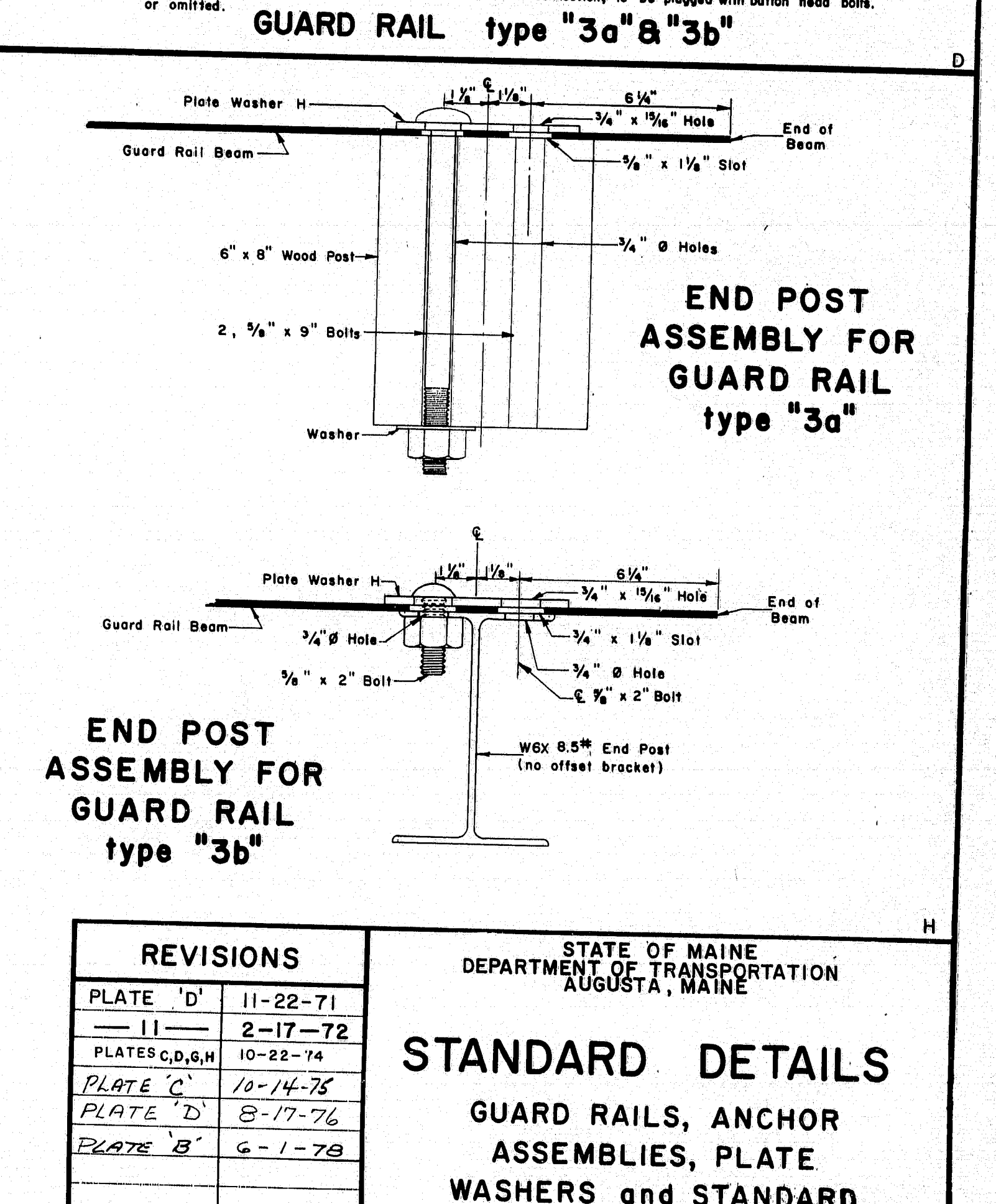
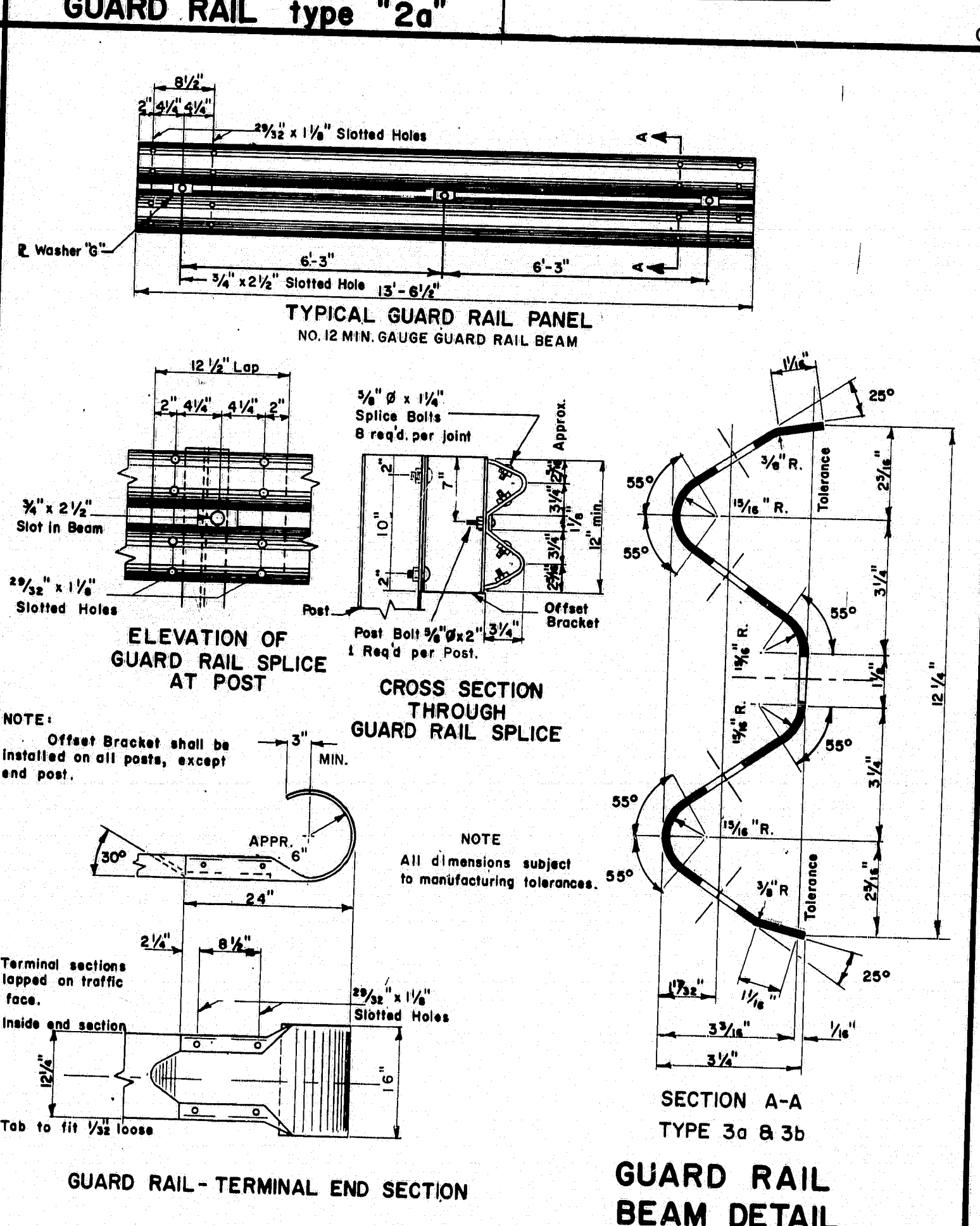
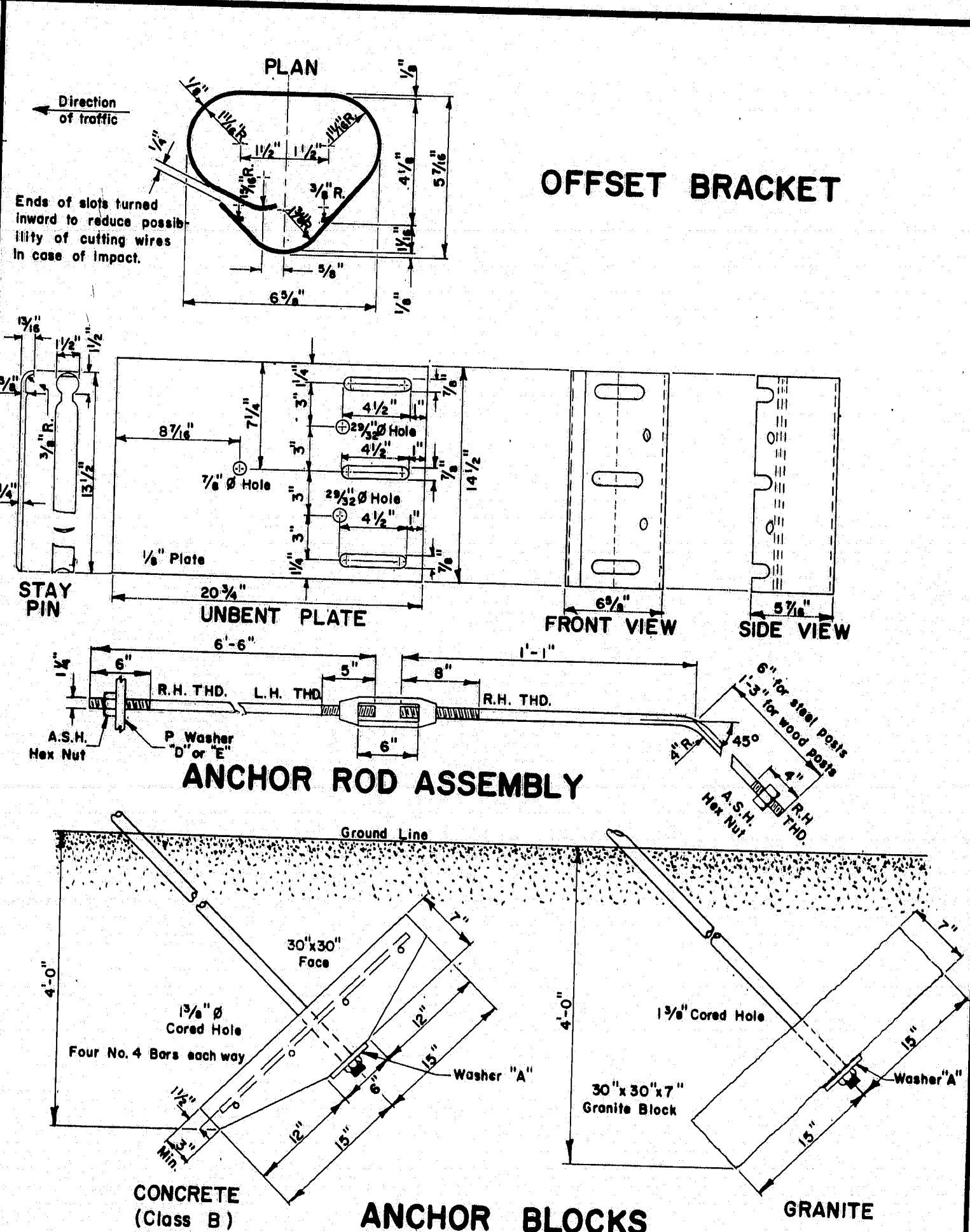
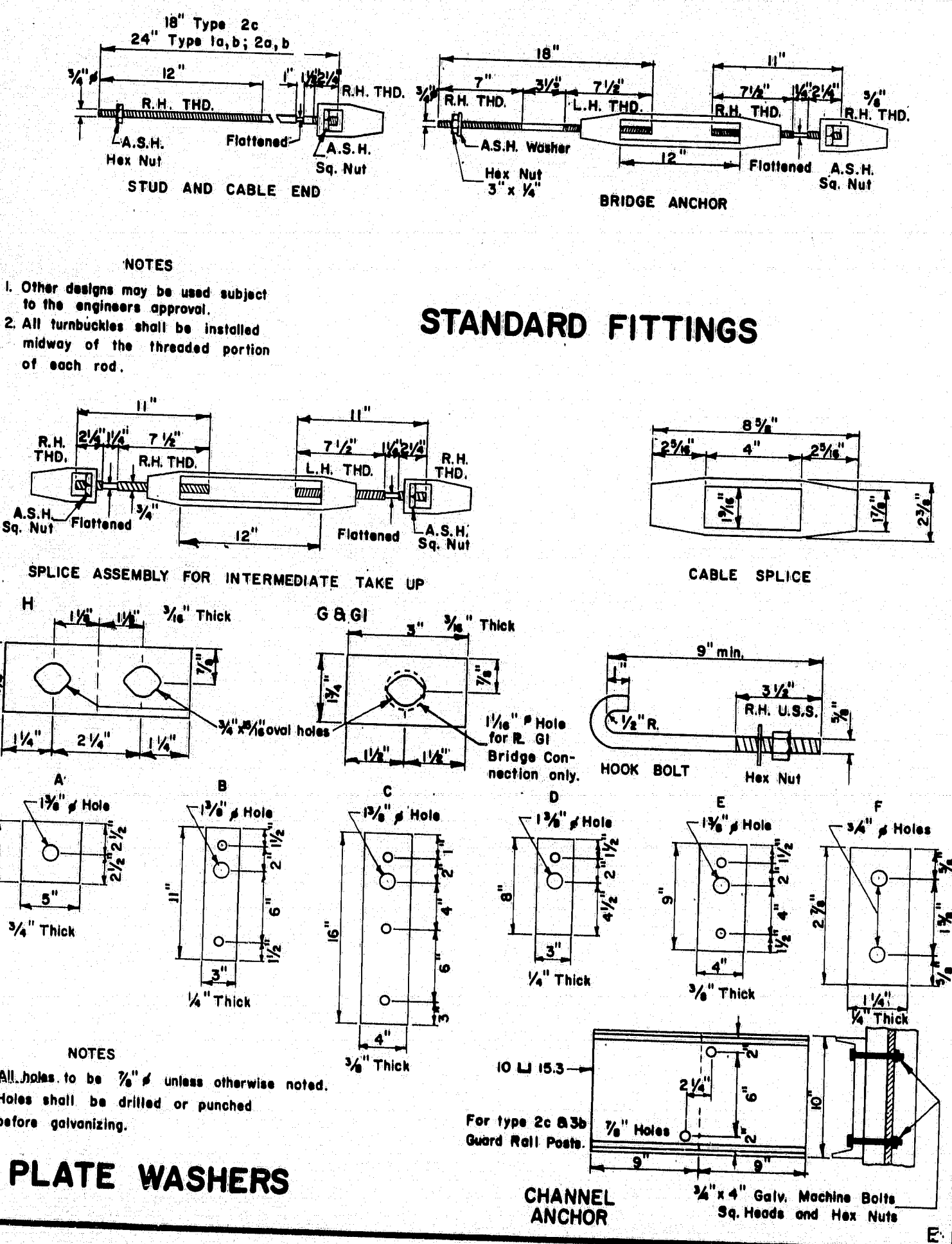
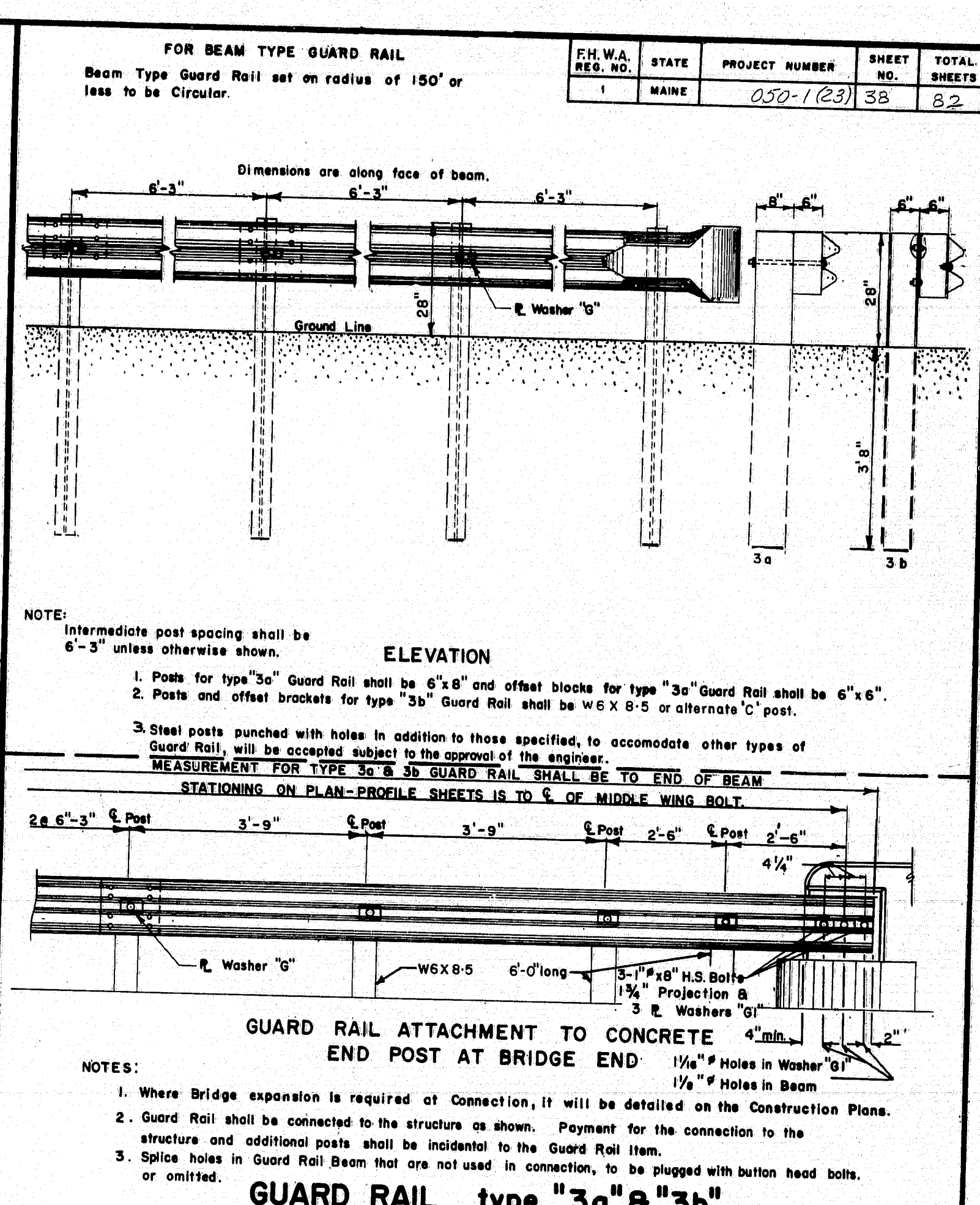
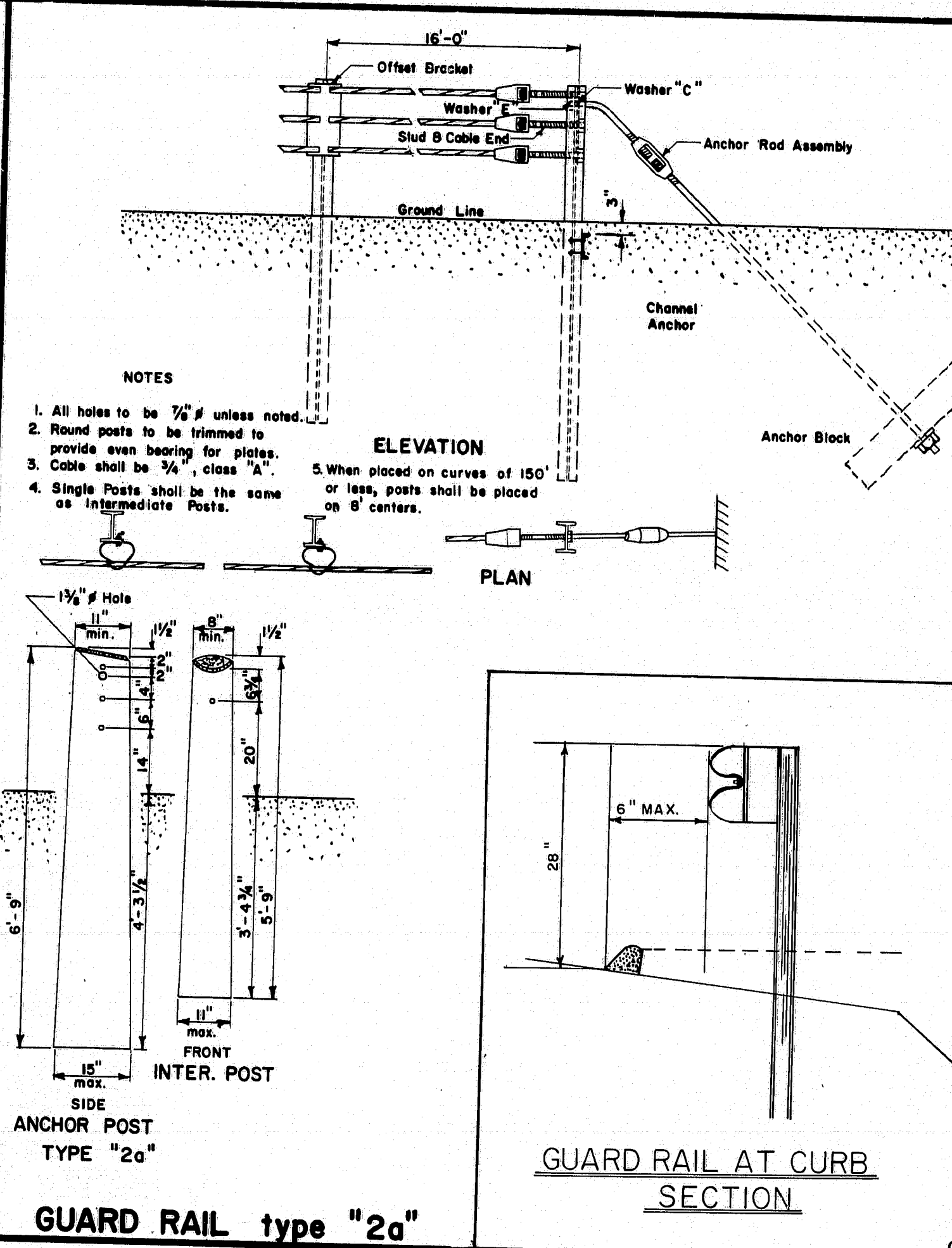
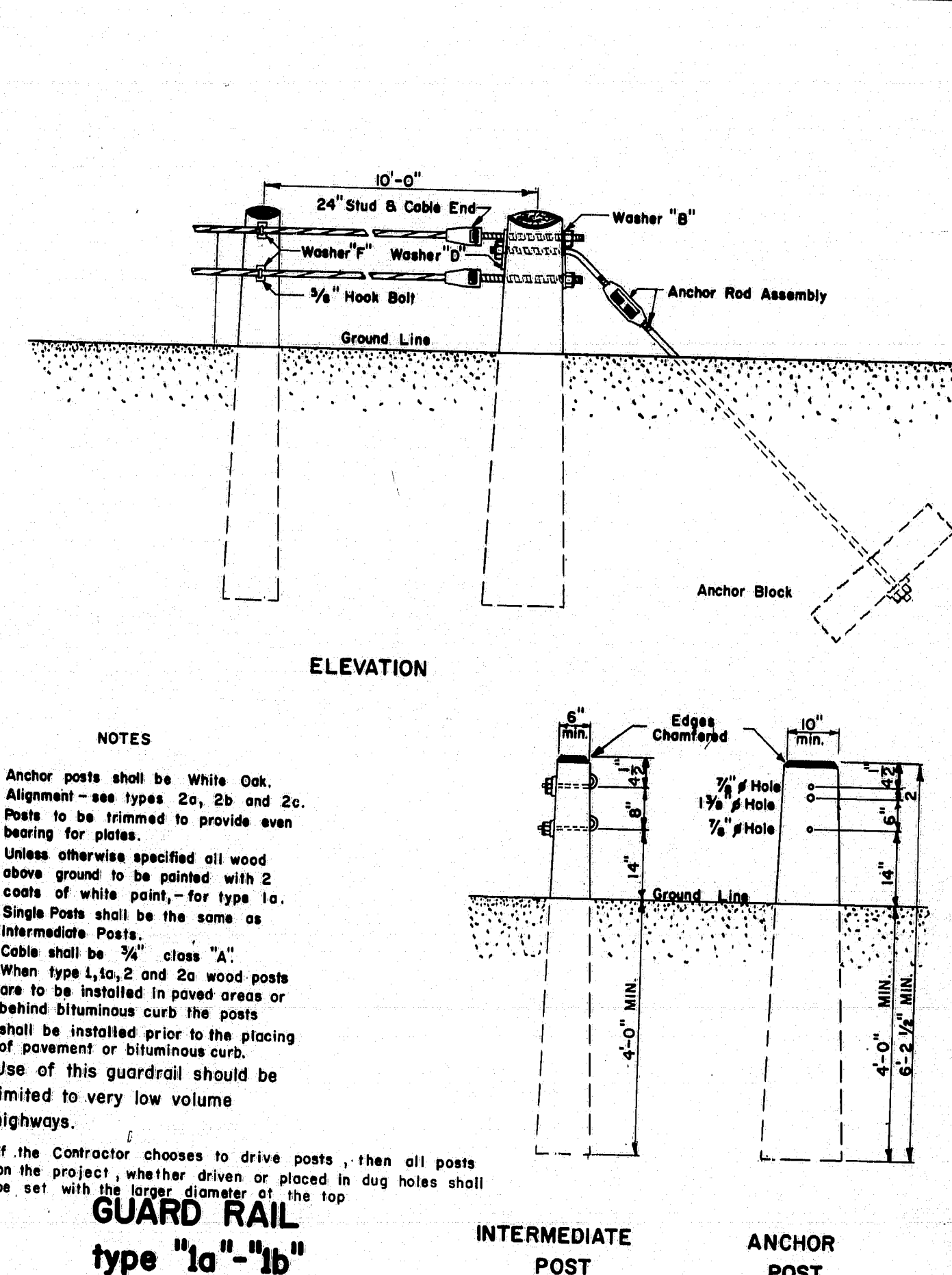
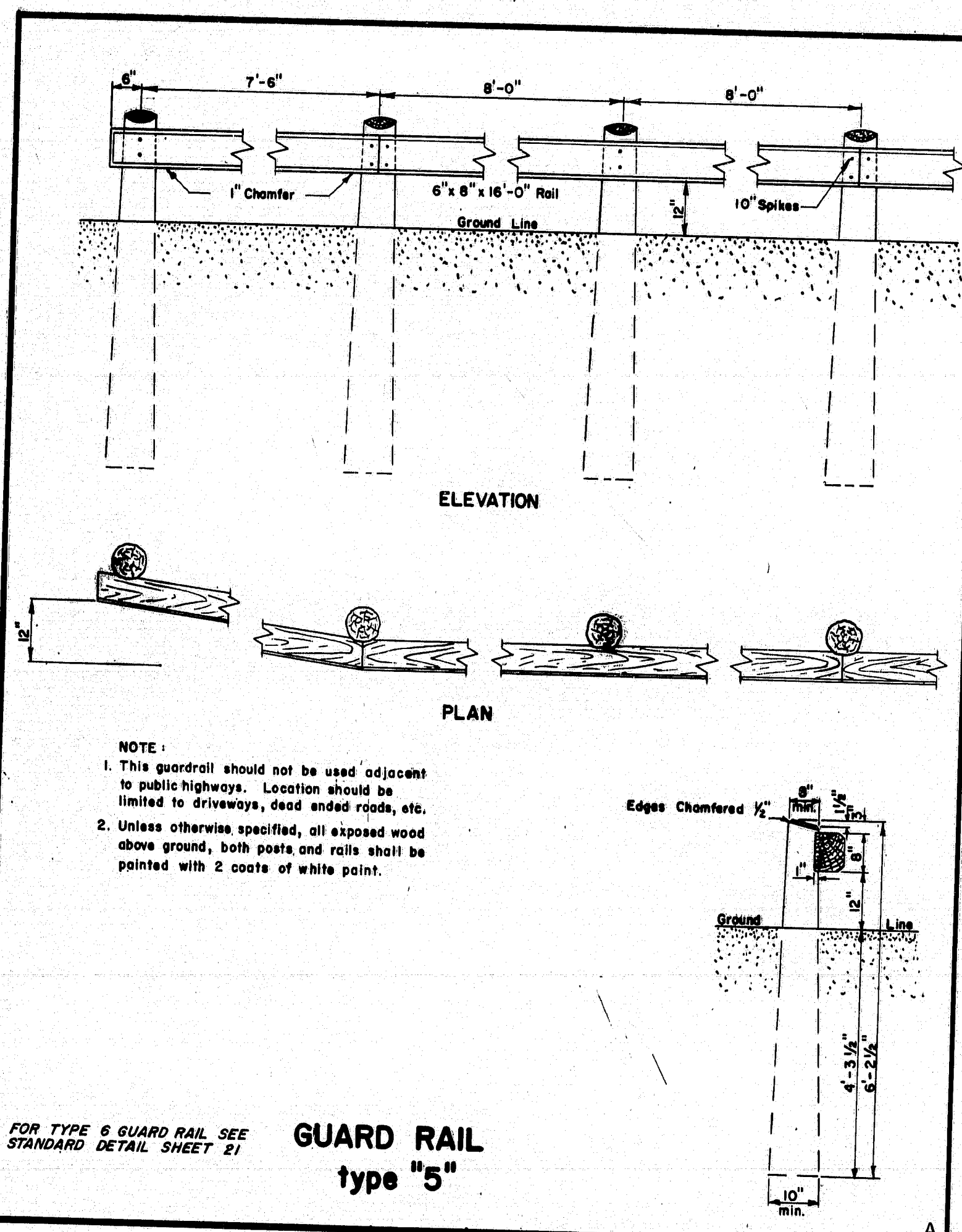
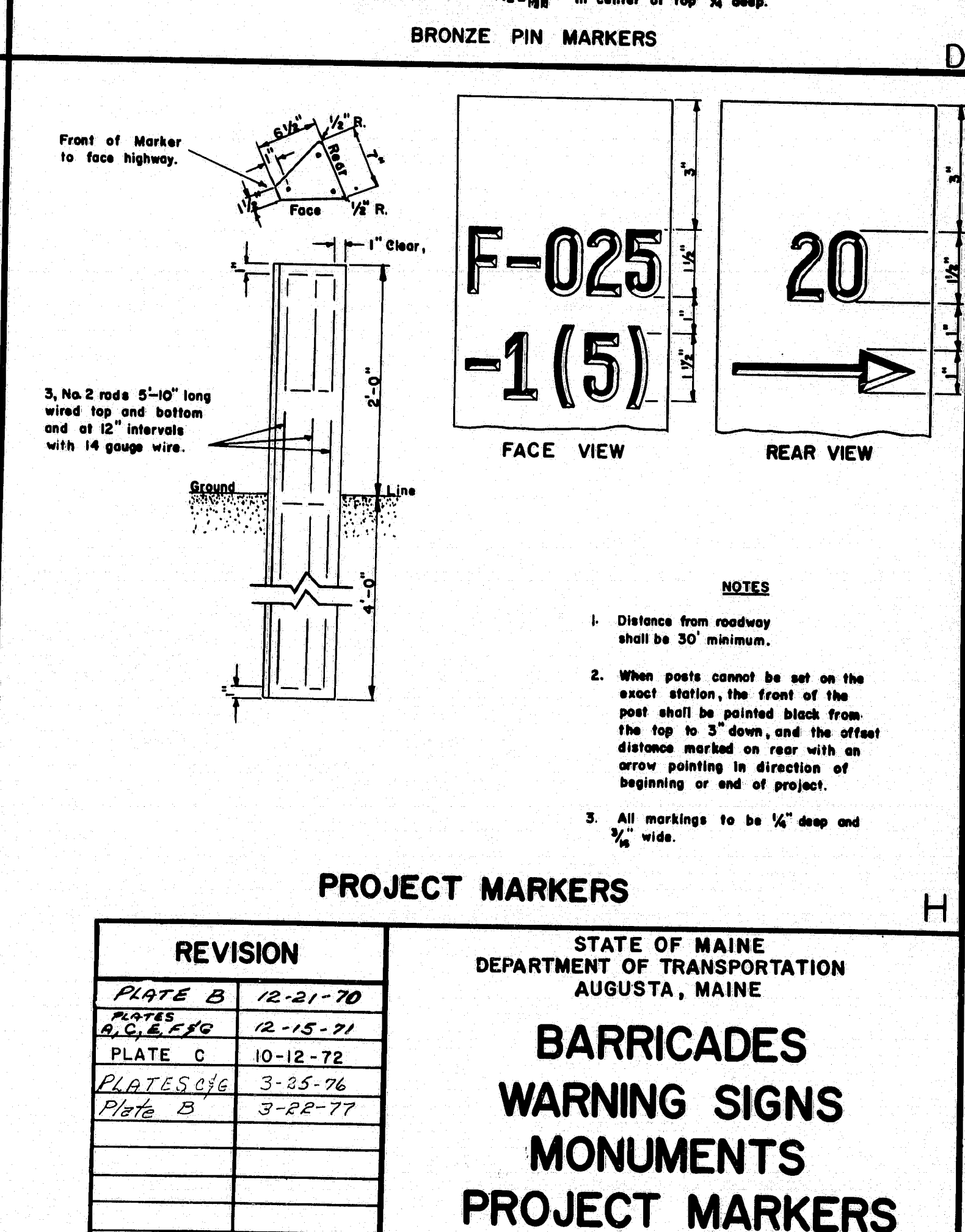
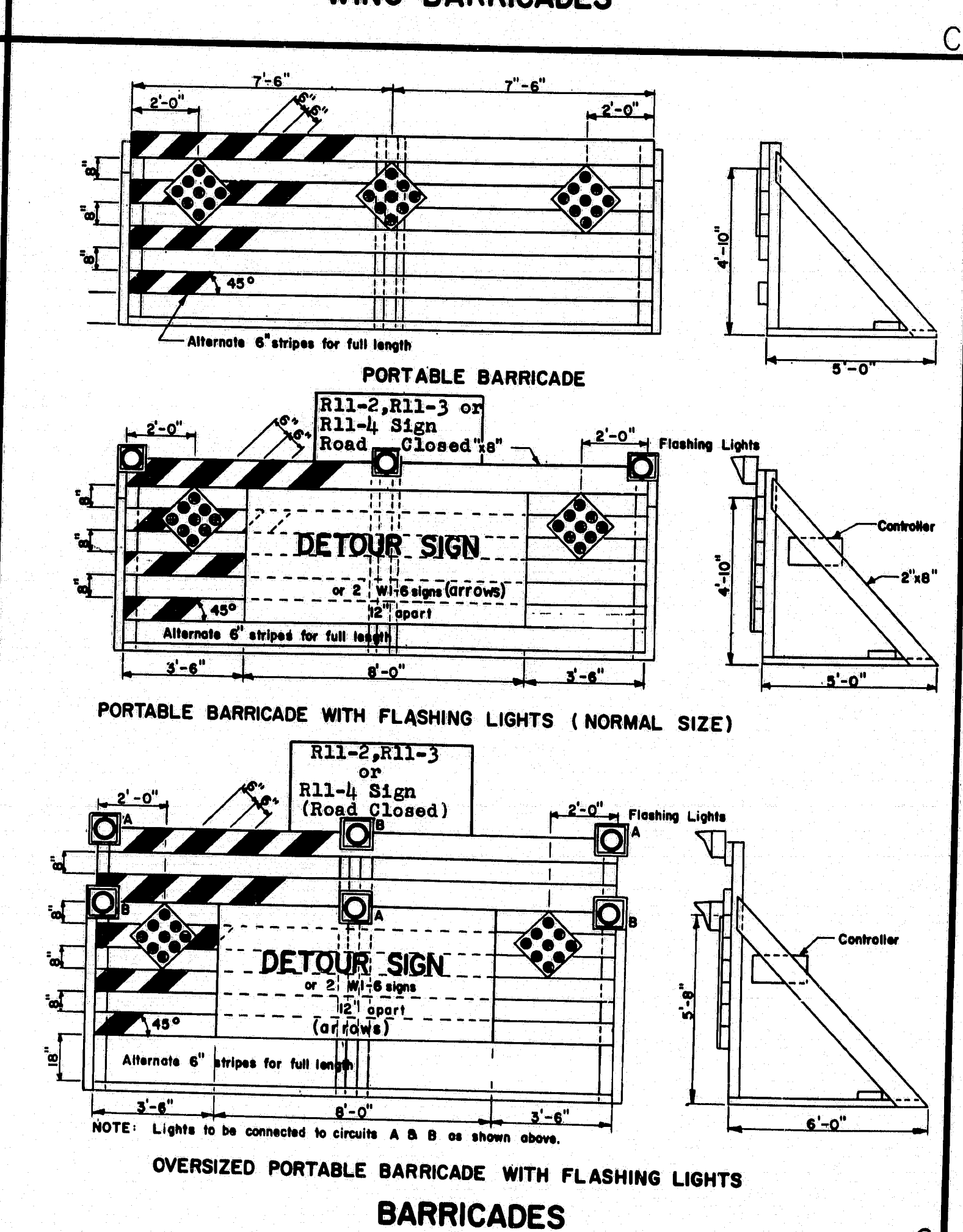
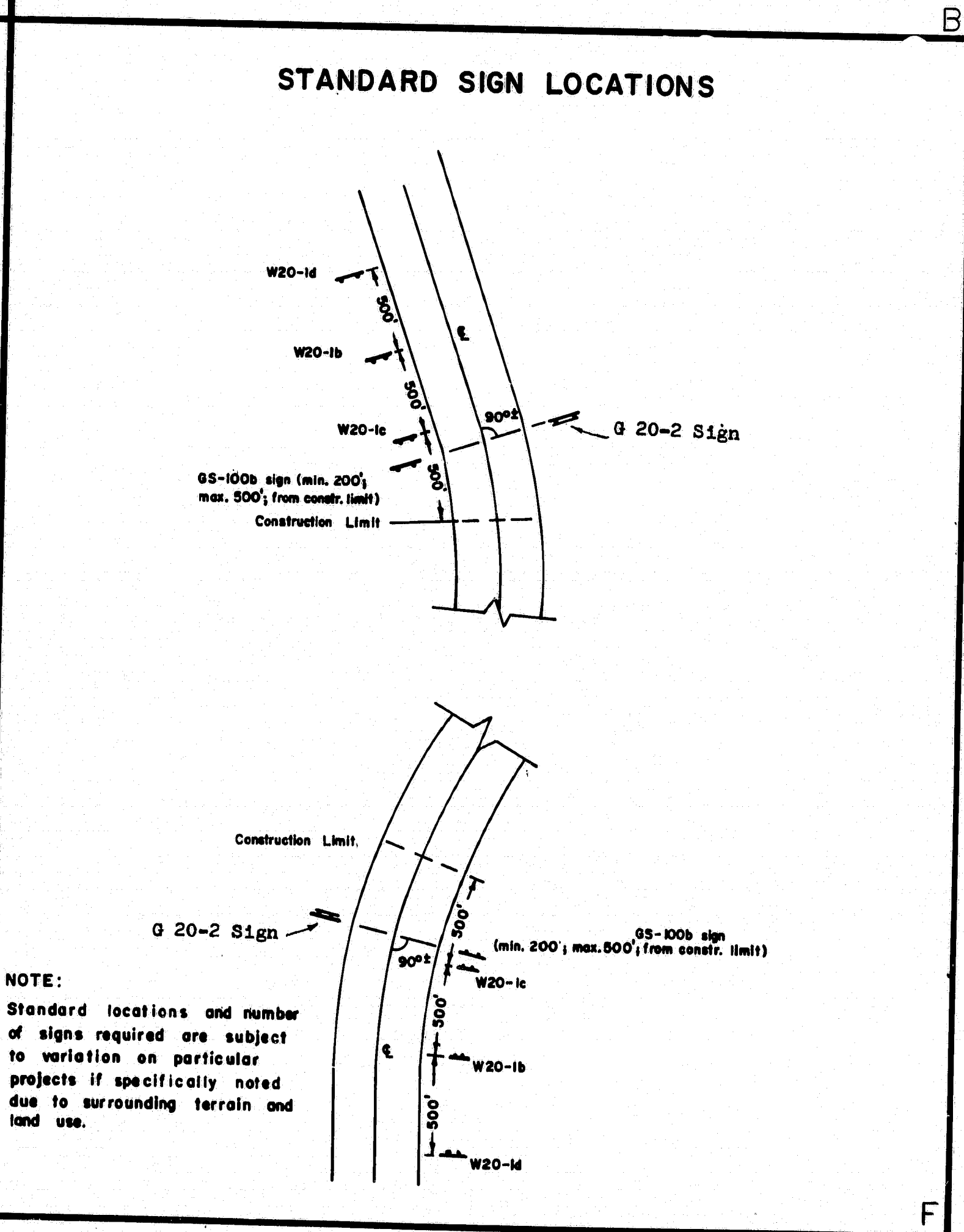
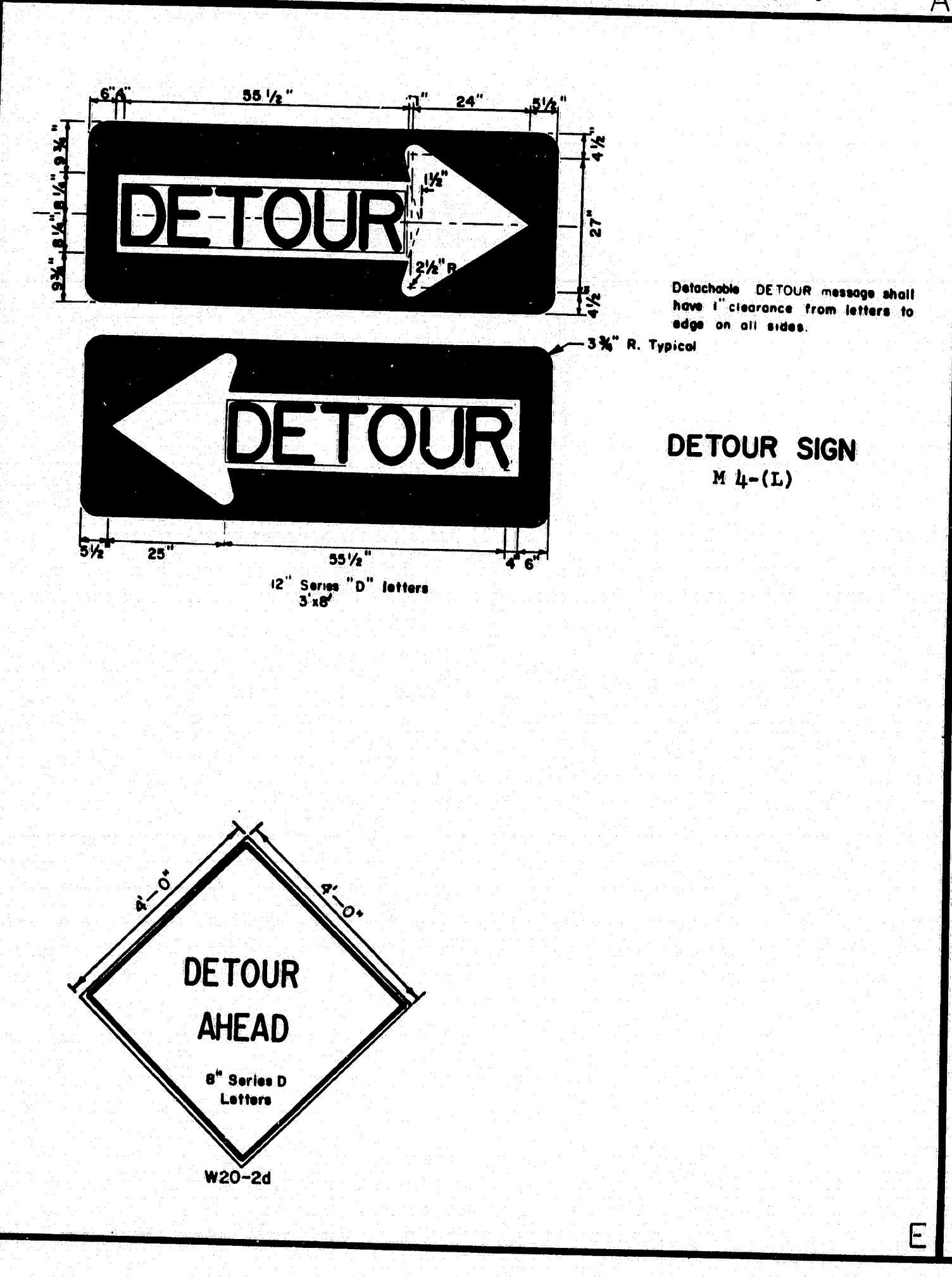
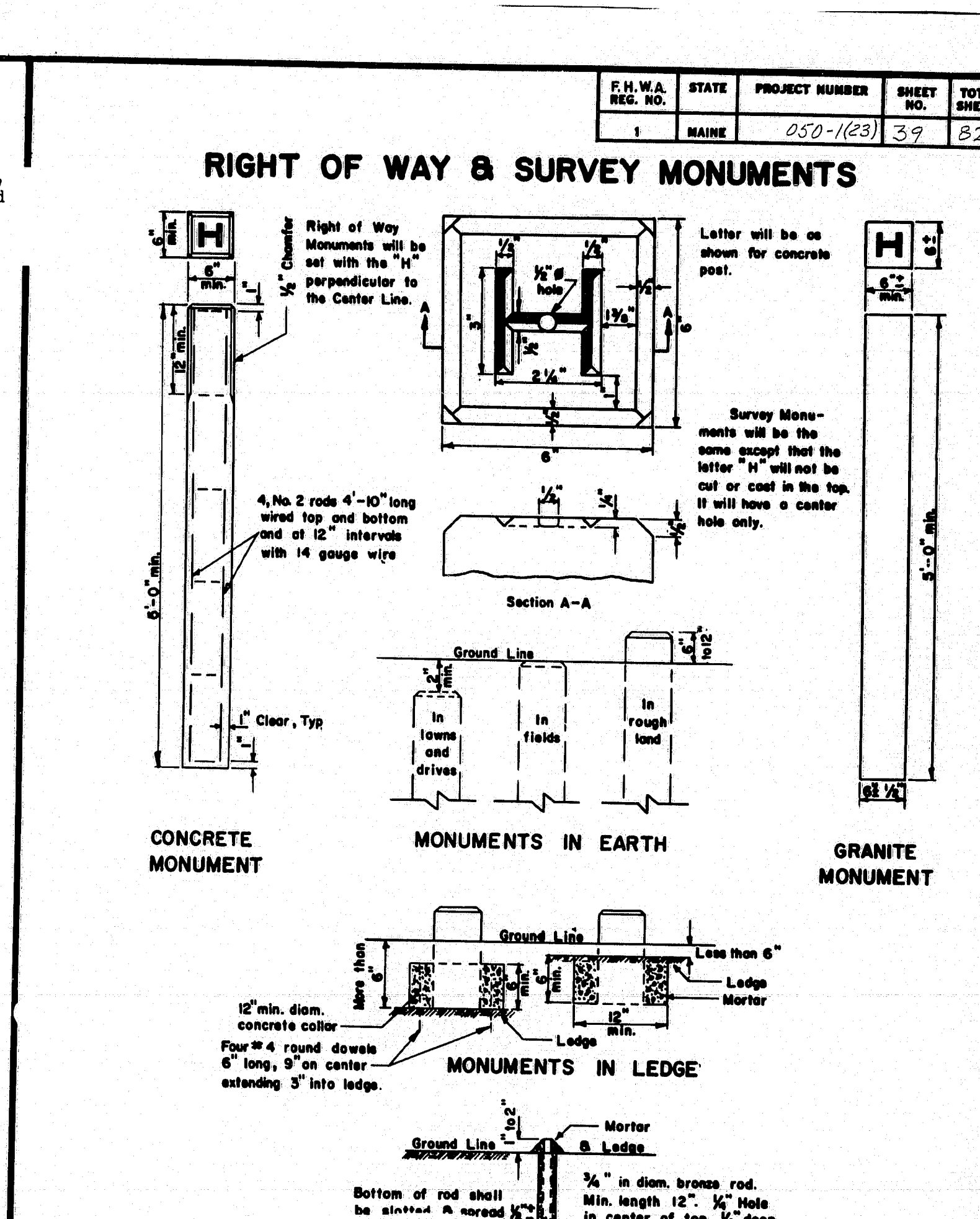
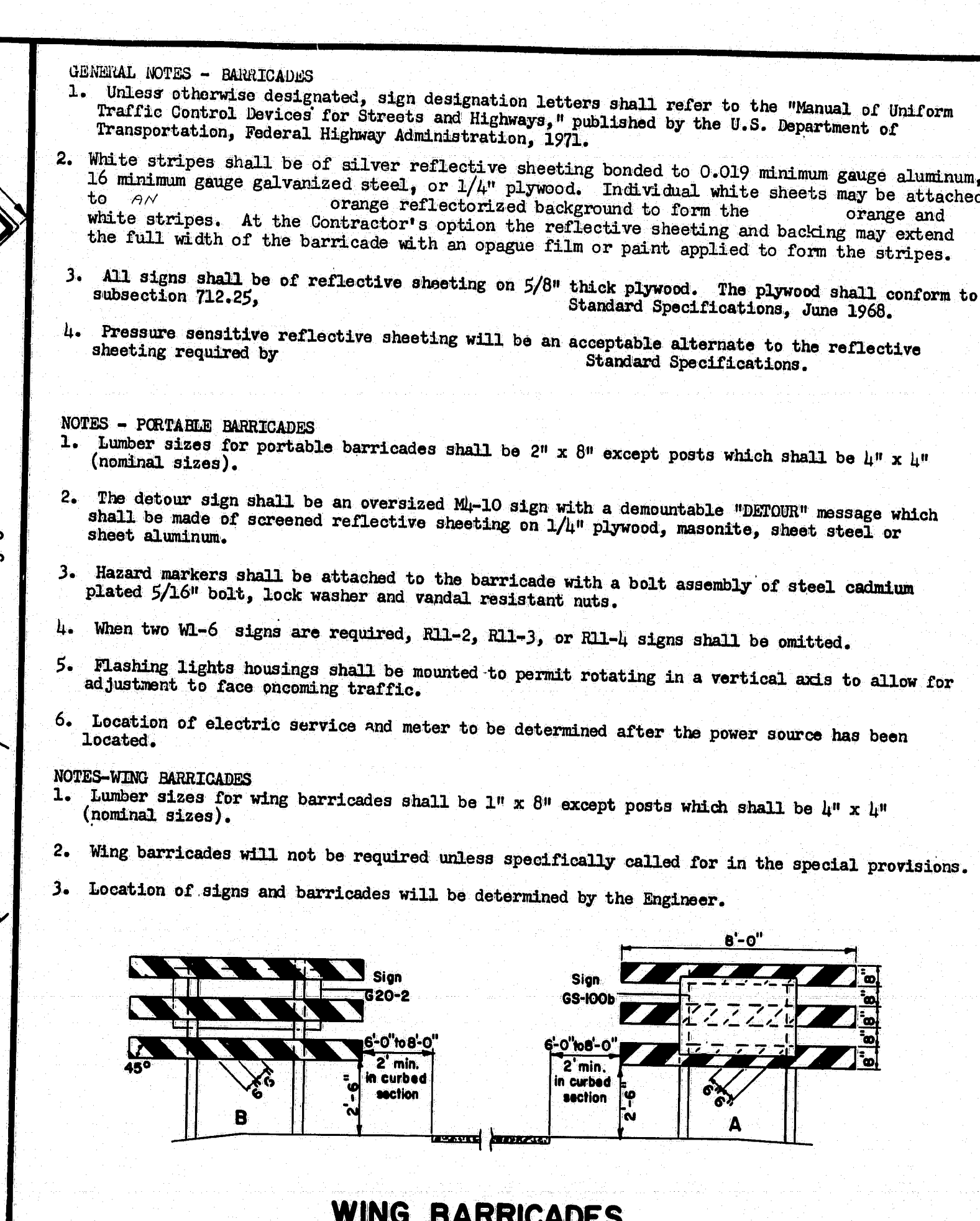
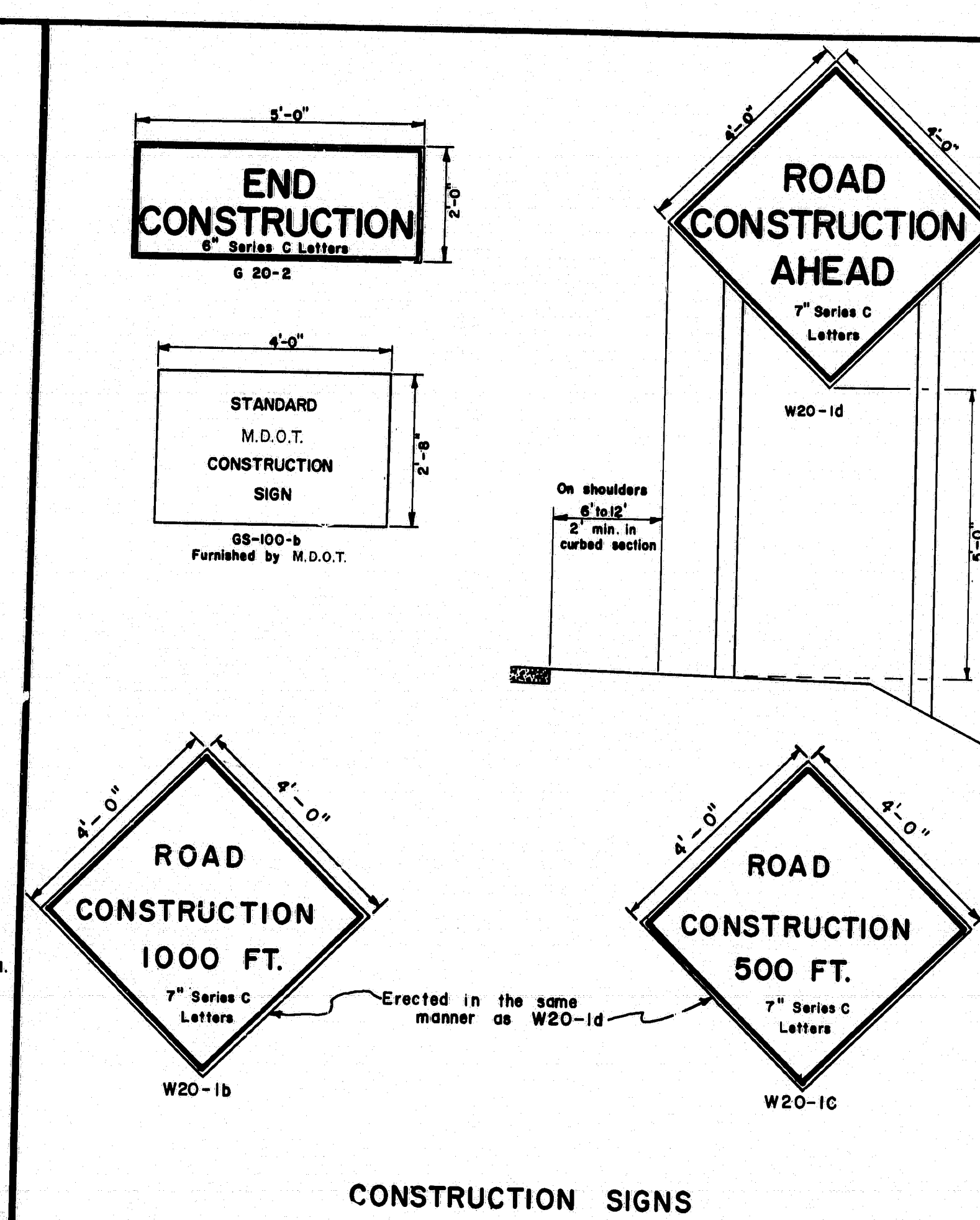
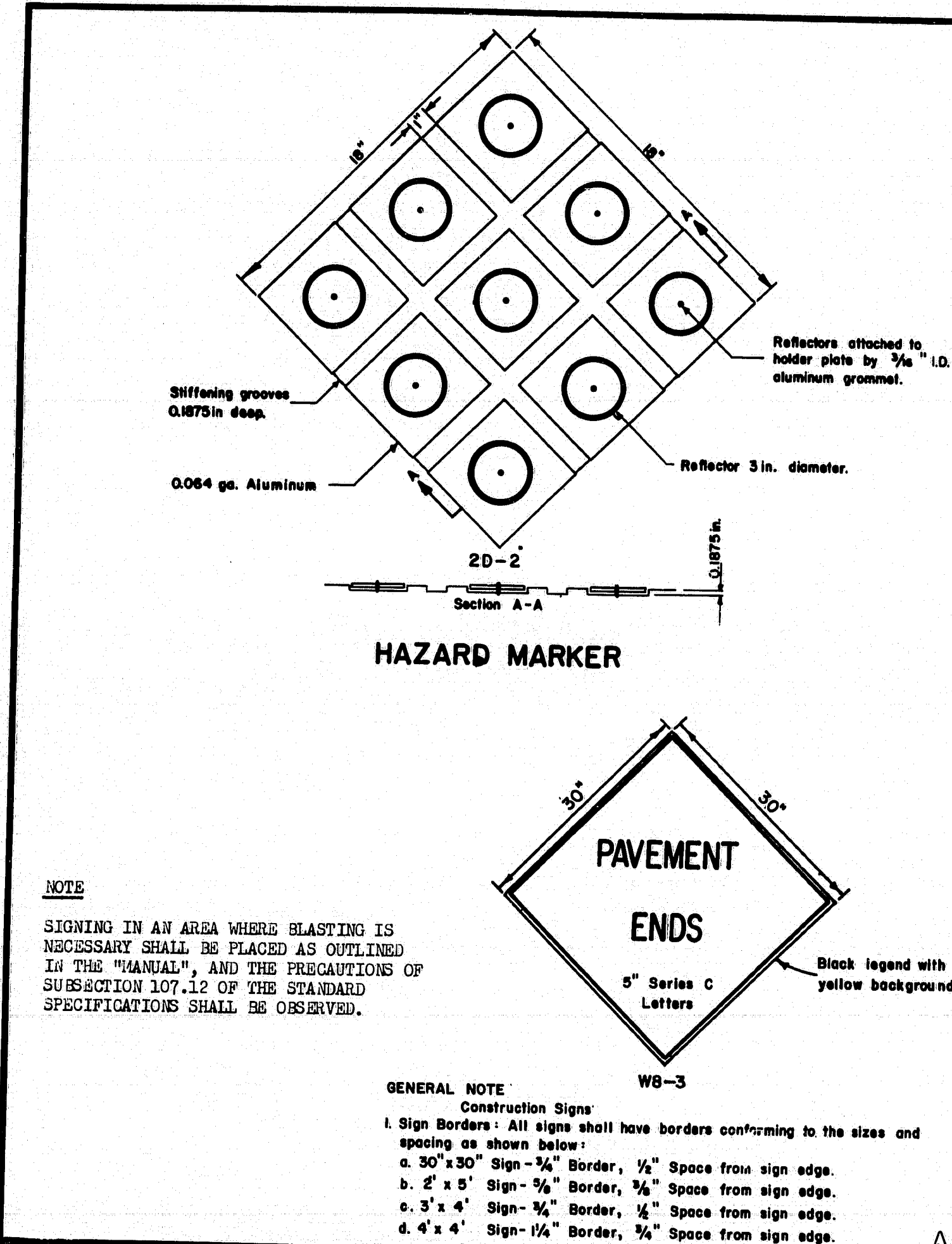
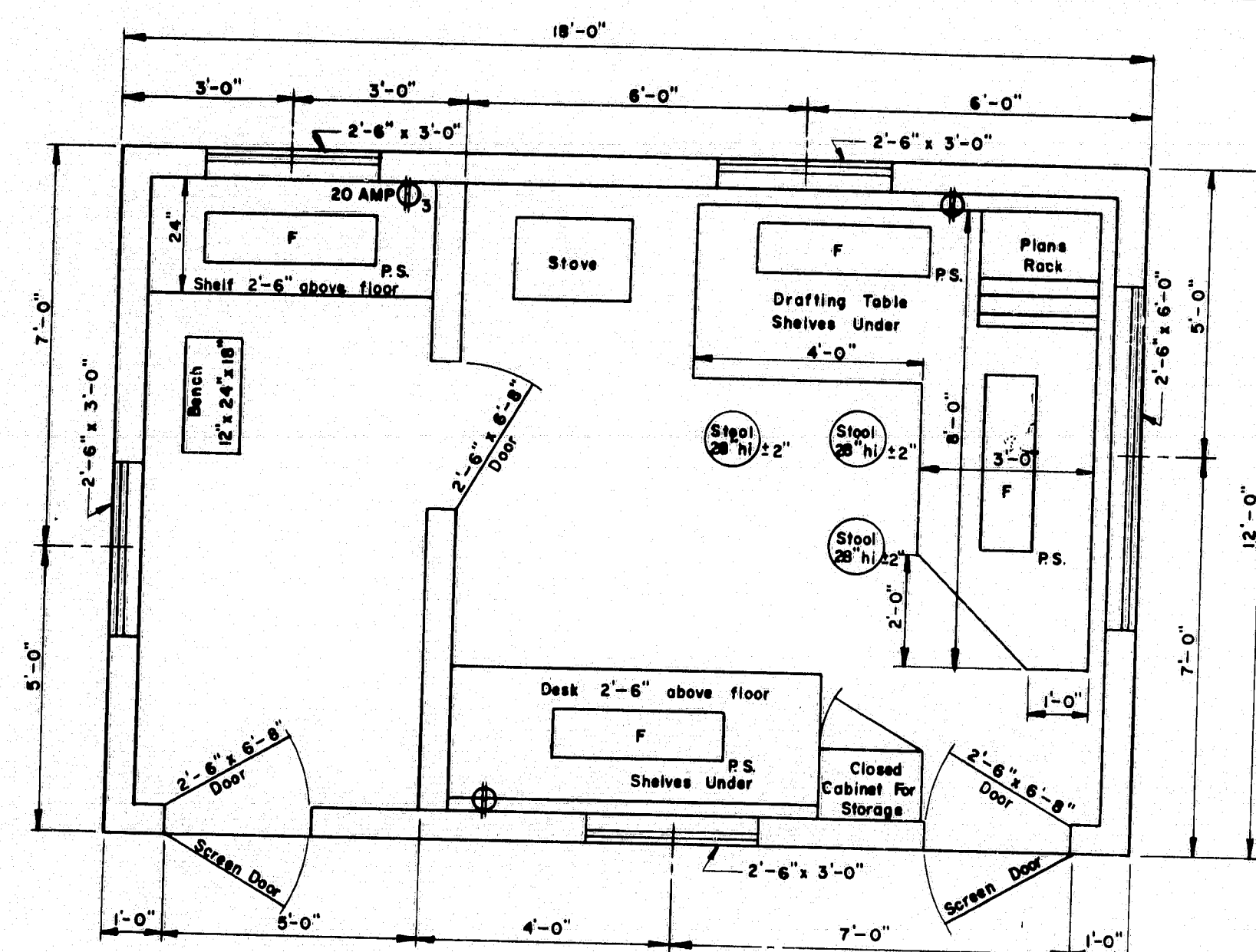


PLATE H		PLATE G-H		REVISIONS	
11-3-77	4-1-78	Plate 5-A	12-24-89	Plate 5B	1-27-71
		Plate 5H	5-12-71	Plate 5B	1-19-72
		Plate 5D	6-7-72	Plate 5D	6-7-72
		Plate 5D+C	10-22-74	Plate A,B,F,H	3-18-75
		Plate 5H	6-26-75	Plate G	10-14-75

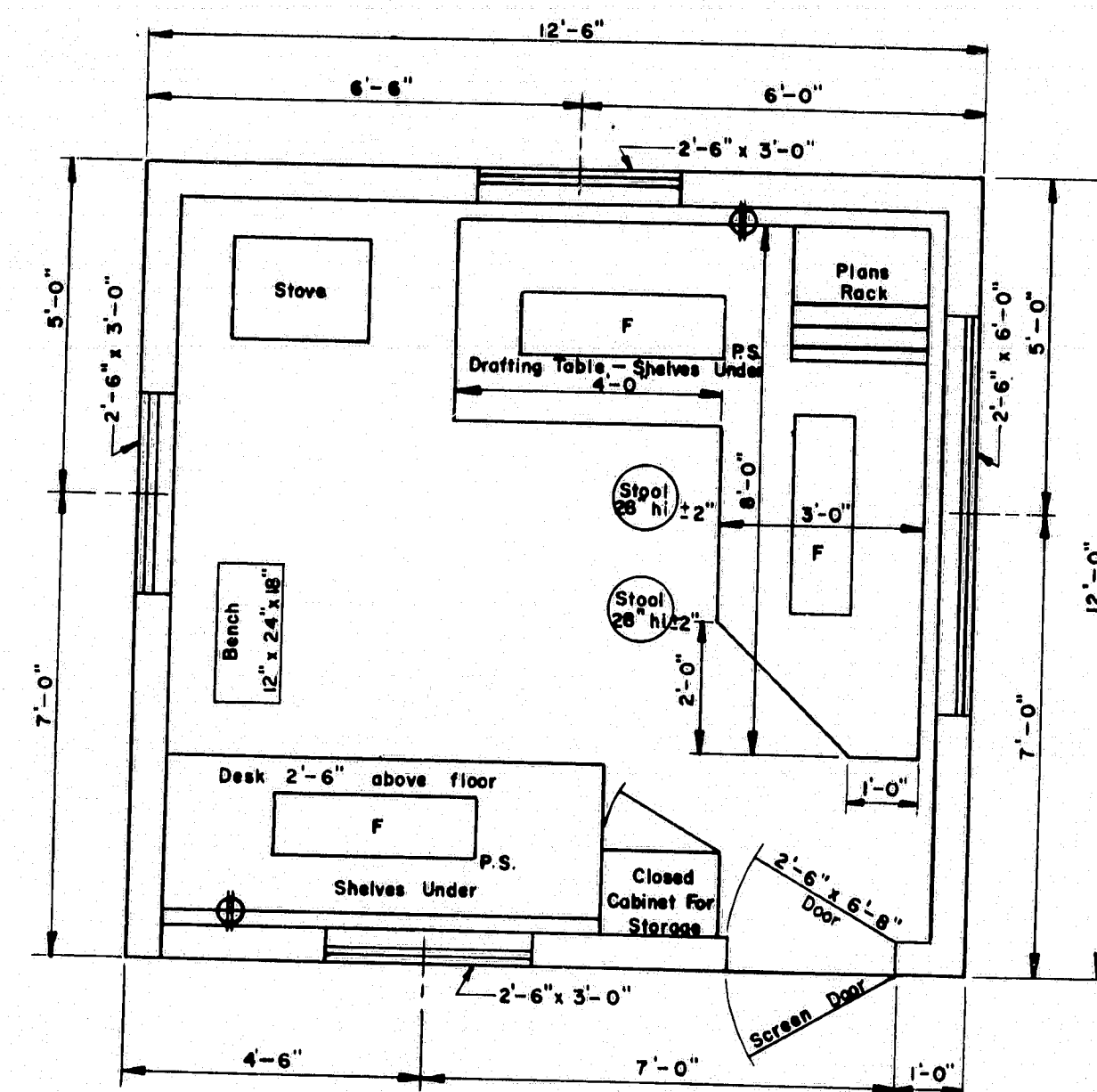


REVISIONS		STATE OF MAINE DEPARTMENT OF TRANSPORTATION AUGUSTA, MAINE	
PLATE 'D'	11-22-71	STANDARD DETAILS GUARD RAILS, ANCHOR ASSEMBLIES, PLATE WASHERS AND STANDARD FITTINGS	
PLATE 'C'	2-17-72		
PLATE 'B'	10-22-74		
PLATE 'A'	10-14-75		
PLATE 'D'	8-17-76		
PLATE 'B'	6-1-78	183-76	
		AUG. 1969	

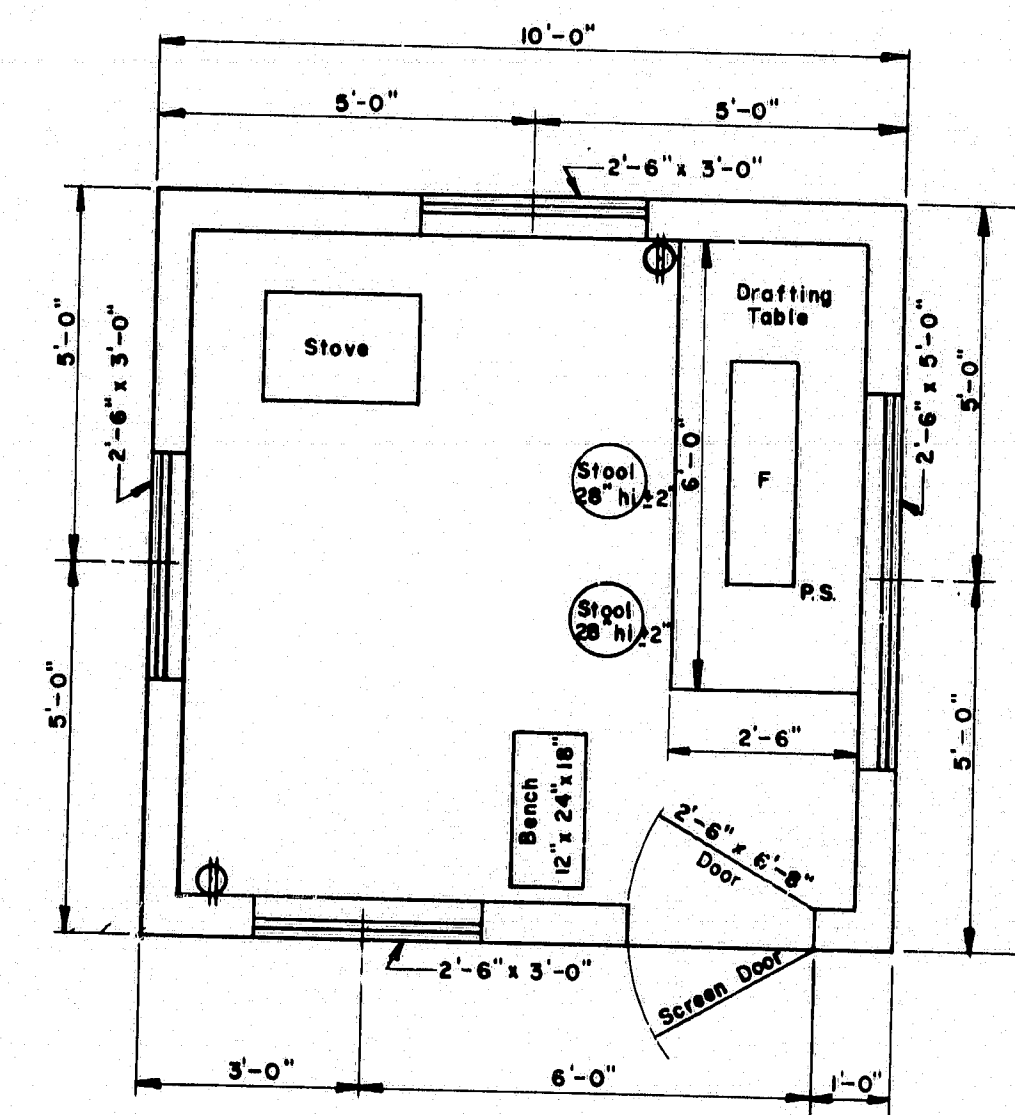




FLOOR PLAN
TYPE "A"

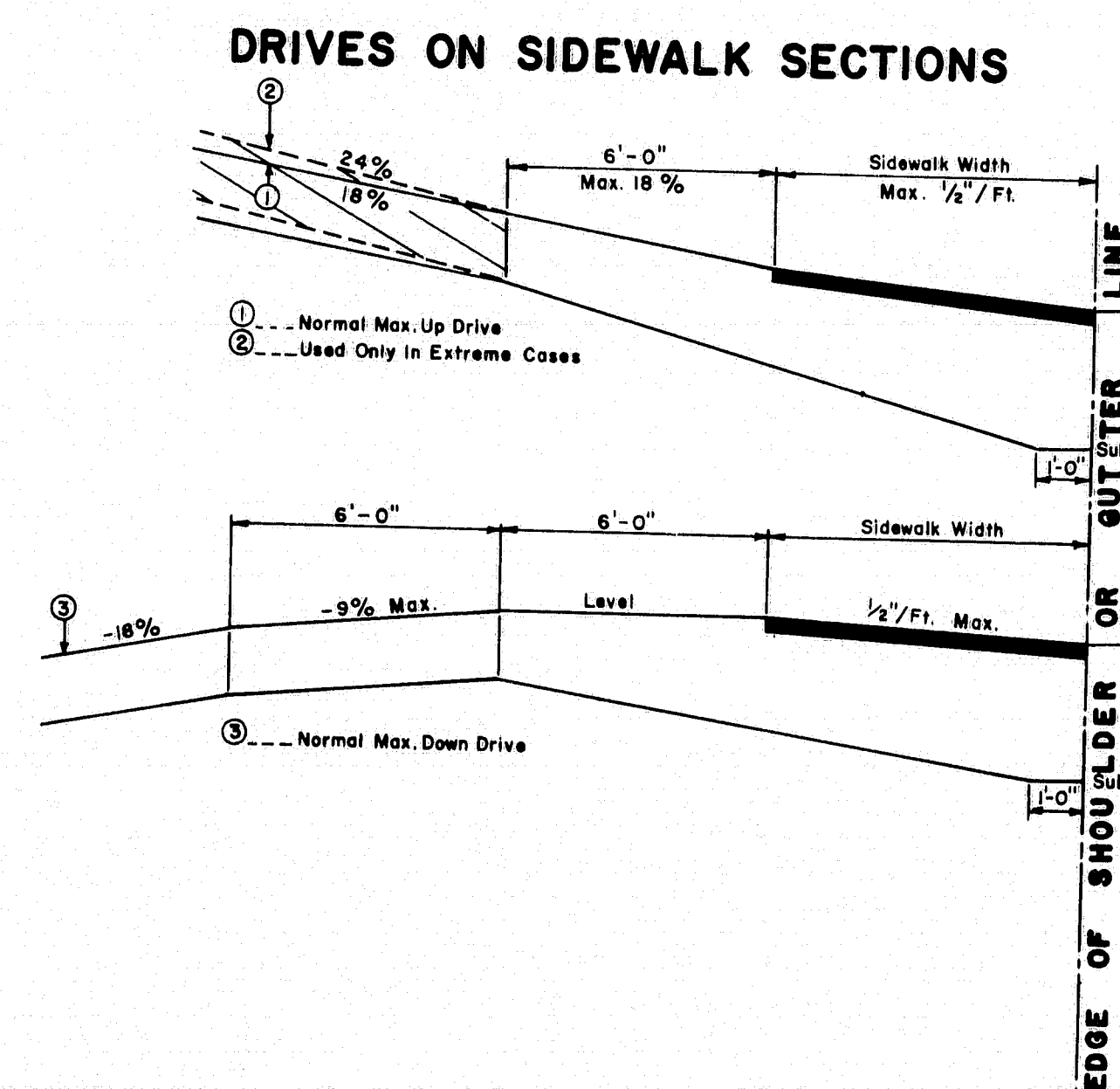


FLOOR PLAN
TYPE "B"



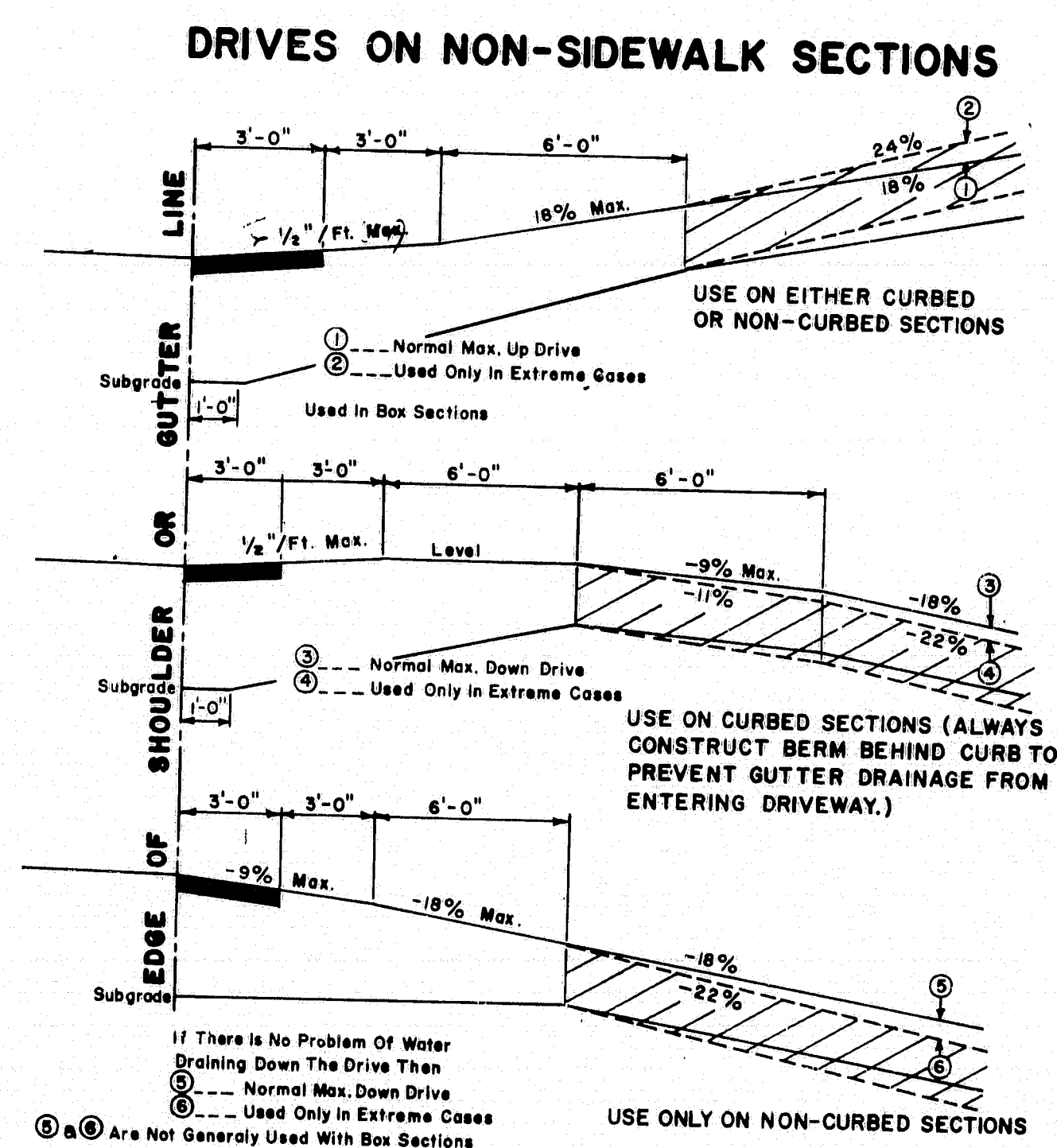
FLOOR PLAN
TYPE "C"

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



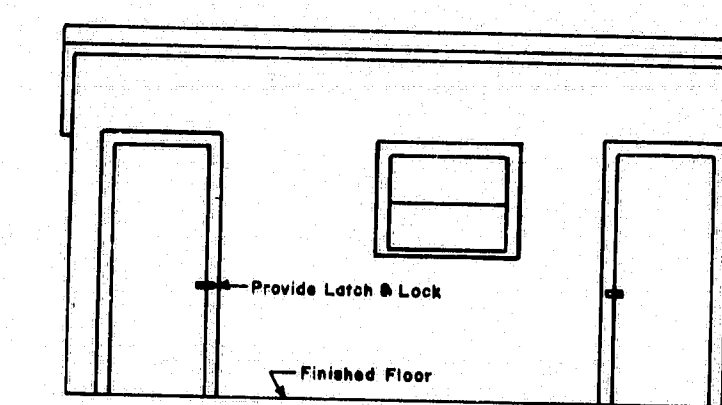
- GENERAL NOTES**
- The sidewalk width shall be paved in all cases.
 - All residential or commercial drives 10% and over shall be paved.

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

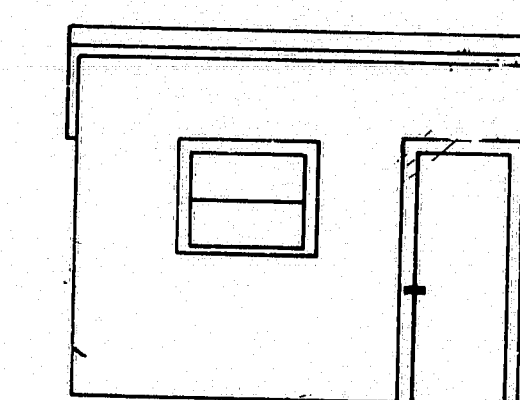


- GENERAL NOTES**
- The first 3' shown as pavement shall be paved only when abutting a paved area.
 - All residential or commercial drives 10% and over shall be paved.

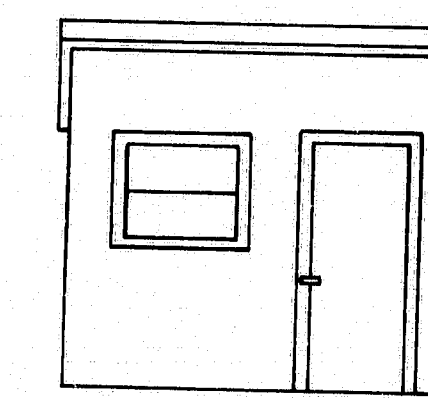
- NOTES ON MAXIMUM DRIVEWAY PROFILES**
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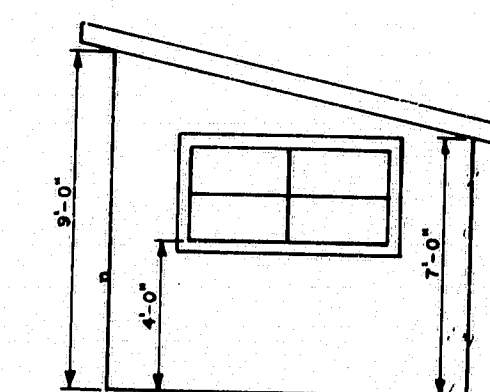
FRONT ELEVATION
TYPE "A"



FRONT ELEVATION
TYPE "B"



FRONT ELEVATION
TYPE "C"



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

REVISIONS

PLATE	DATE	BY	REVISION
3-16-73			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

STANDARD DETAILS

DRIVEWAY DETAILS
FIELD OFFICES
TESTING LABORATORY

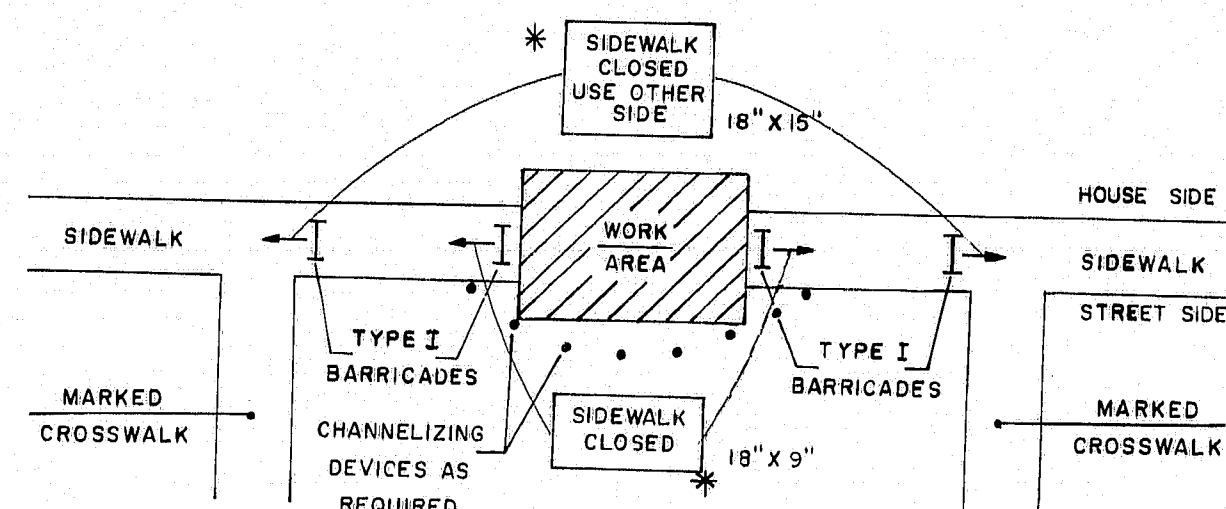
183-78

AUG. 1969

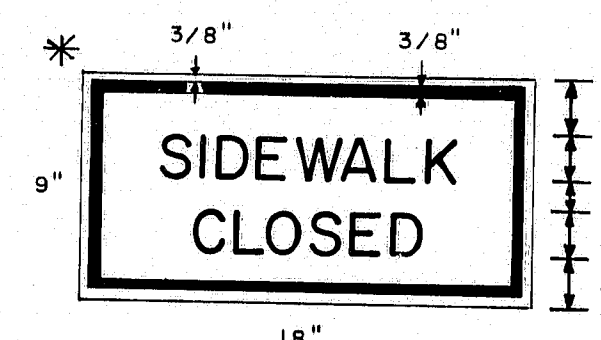
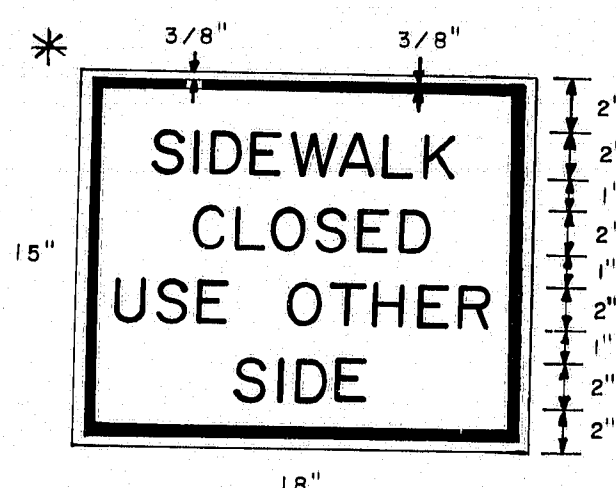
(12)

F.H.W.A. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(2)	41	82

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

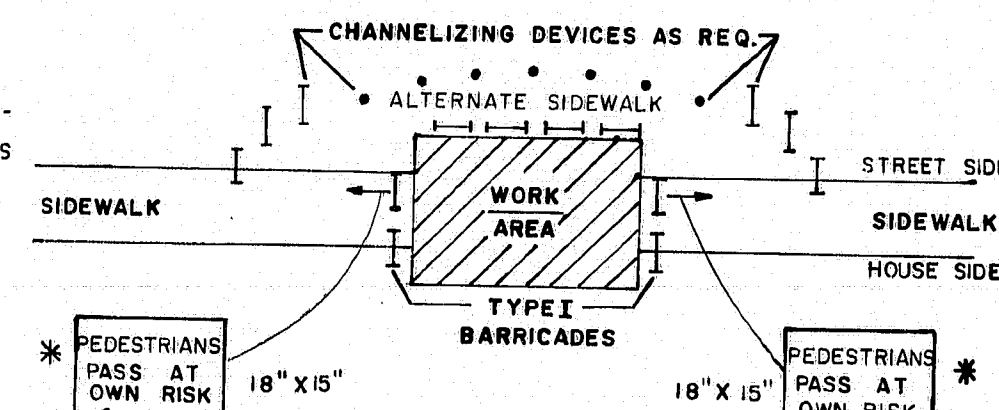


**SIDEWALK CLOSURE
WITHOUT ALTERNATE SIDEWALK**

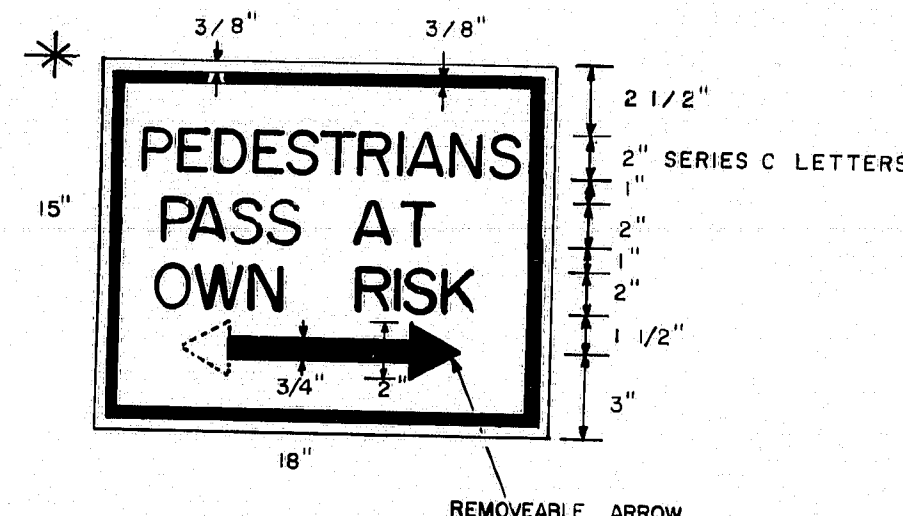


A

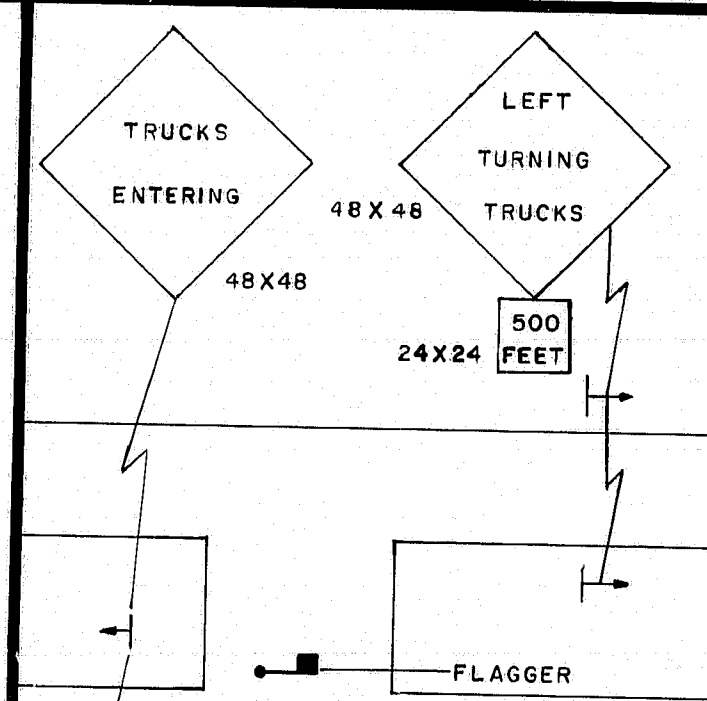
* NON-REFLECTORIZED WHITE BACK
GROUND, BLACK TEXT AND BORDER-
2" SERIES C UPPER CASE LETTERS



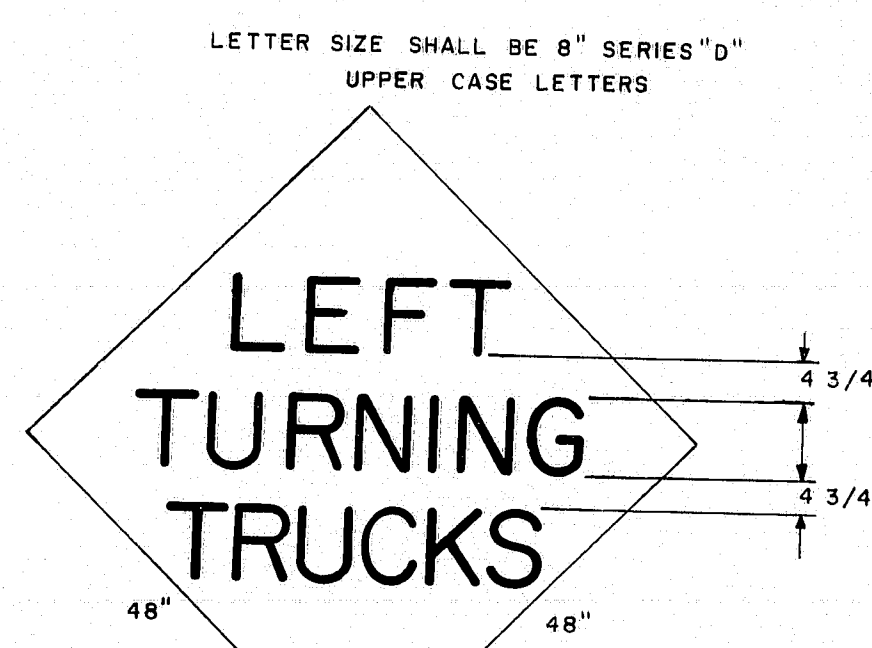
**SIDEWALK CLOSURE
WITH ALTERNATE SIDEWALK**



B



MEDIAN CROSSOVER



E

GENERAL NOTES

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

$$\text{If } S \text{ is equal to or less than 40 MPH}$$

$$L = (W \times S \times S) / 60$$

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

$$L = WS$$

Where:

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

Taper lengths shall be rounded to the nearest five feet.

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

- The maximum longitudinal spacing of channelizing devices shall conform to the following:

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

Radius of curve	Spacing
50' to 300'	25'
300' to 700'	50'
700' to 1000'	75'
over 1000'	5 times the operating speed

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

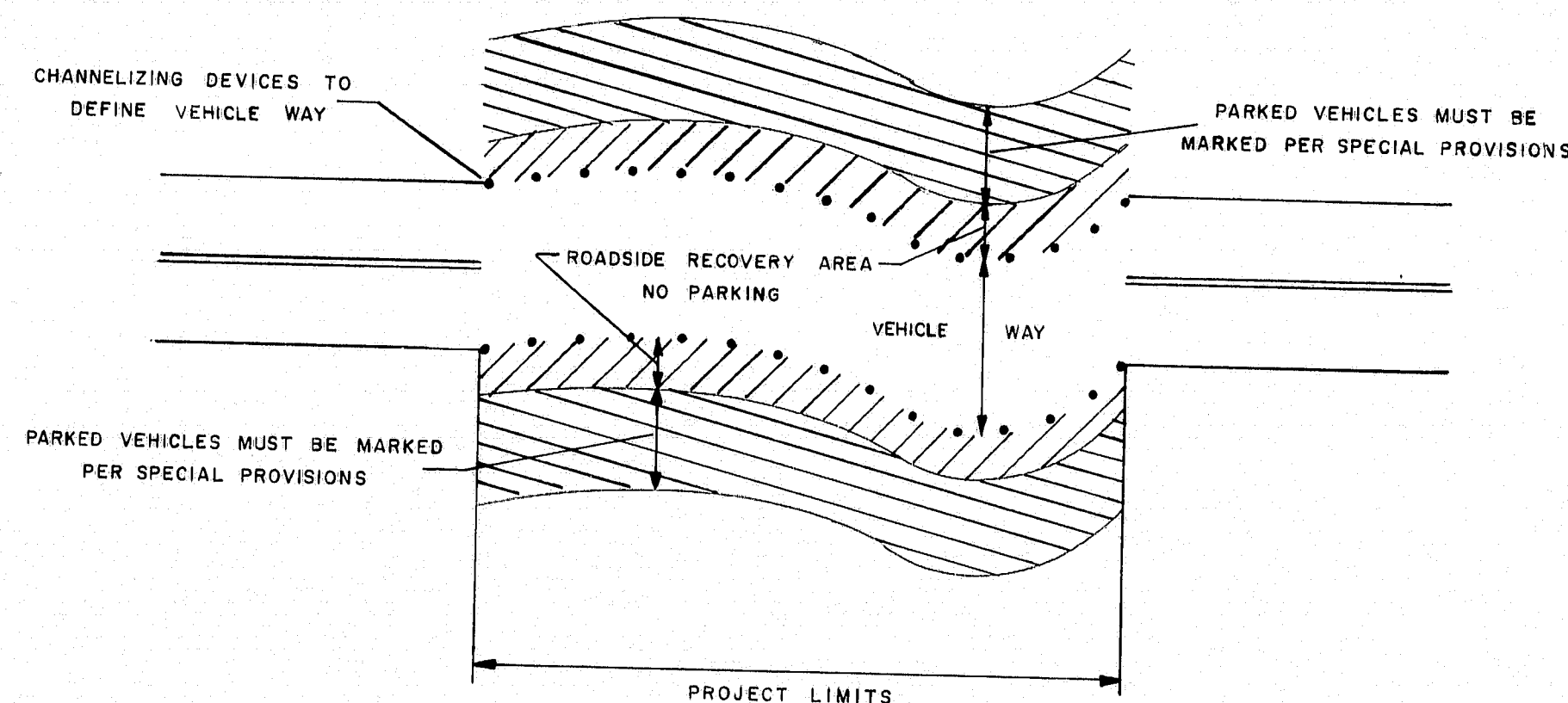
$$D = (W \times S) / L$$

Where:

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

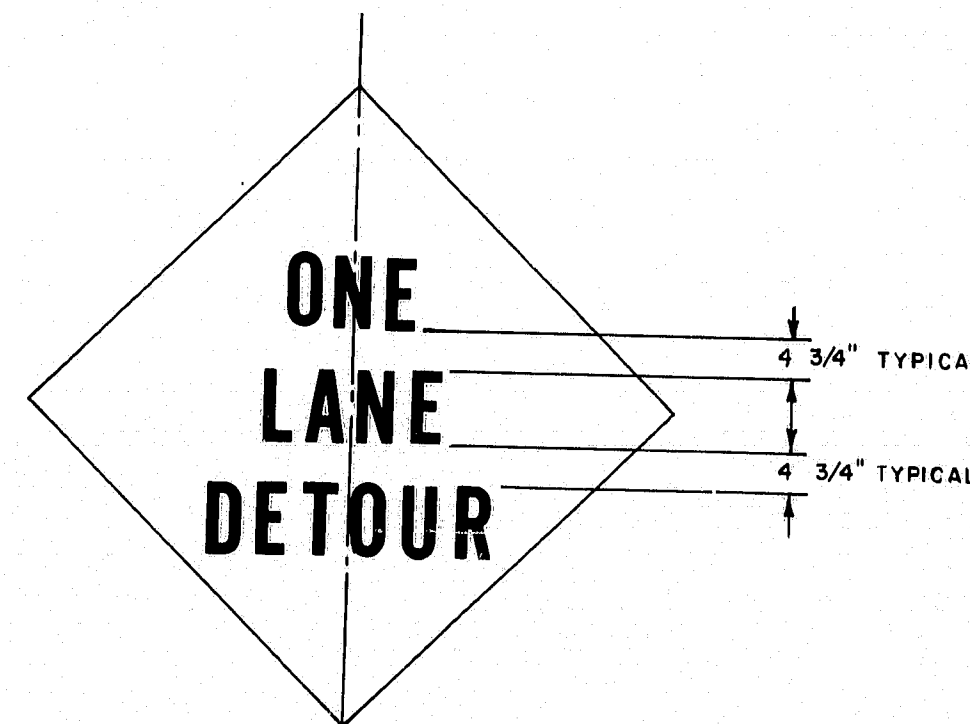
- BORDER DIMENSIONS AND LEGEND DESIGN SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS BOOKLET.

ALL DIMENSIONS AND OTHER REQUIREMENTS AS
SPECIFIED IN THE SPECIAL PROVISIONS



ROADSIDE RECOVERY AREA

CONSTRUCTION WARNING SIGN DETAIL



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

D

PROJECT	REVISION	ENGINEER	DATE
DESIGN - DETAILED	CHECKED		
REVISIONS			
FIELD CHANGES			

PLANS

REVISIONS

3-4-80	GENERAL NOTES
4/3/80 PF	A,B,C,G,N

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

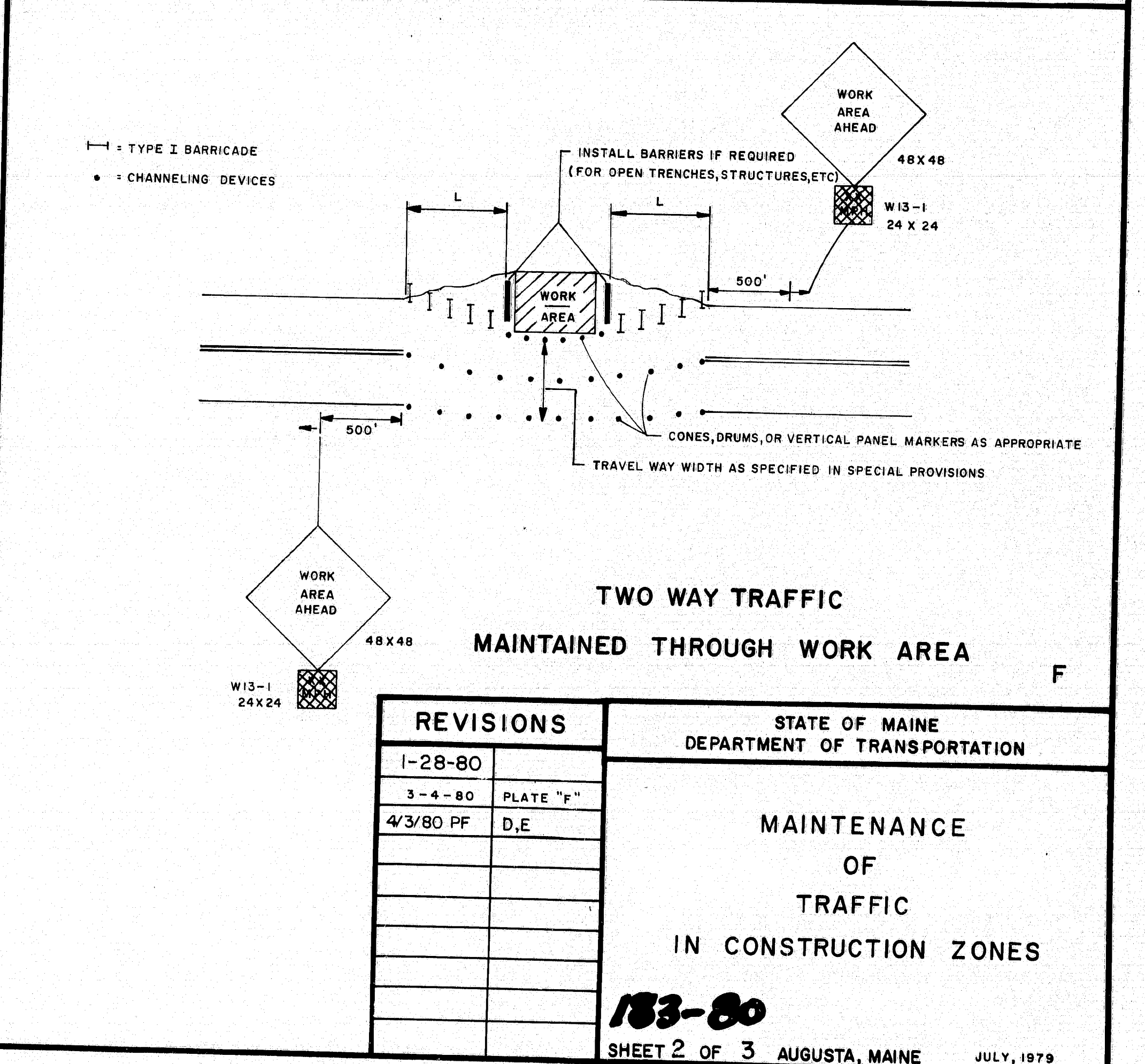
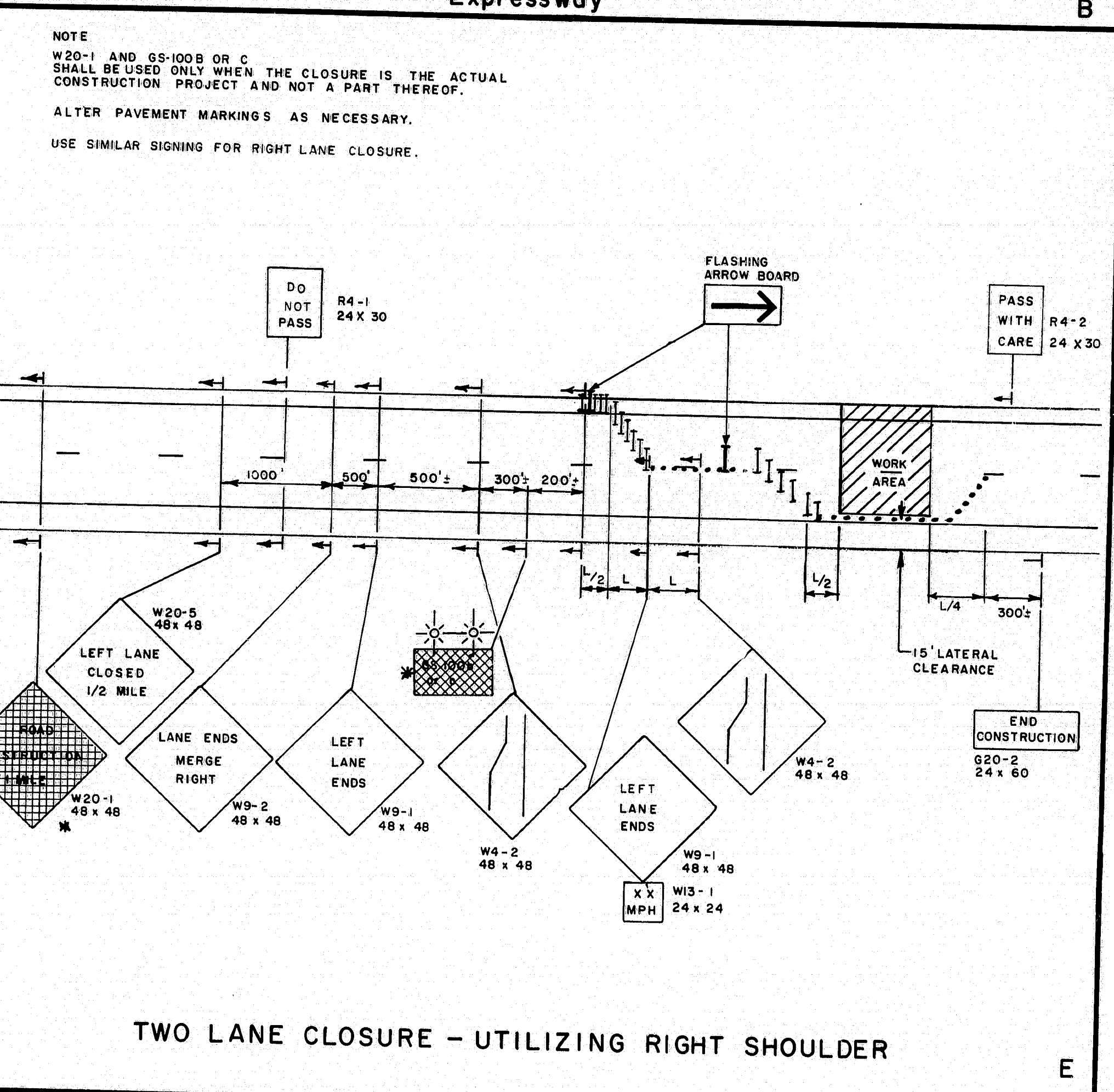
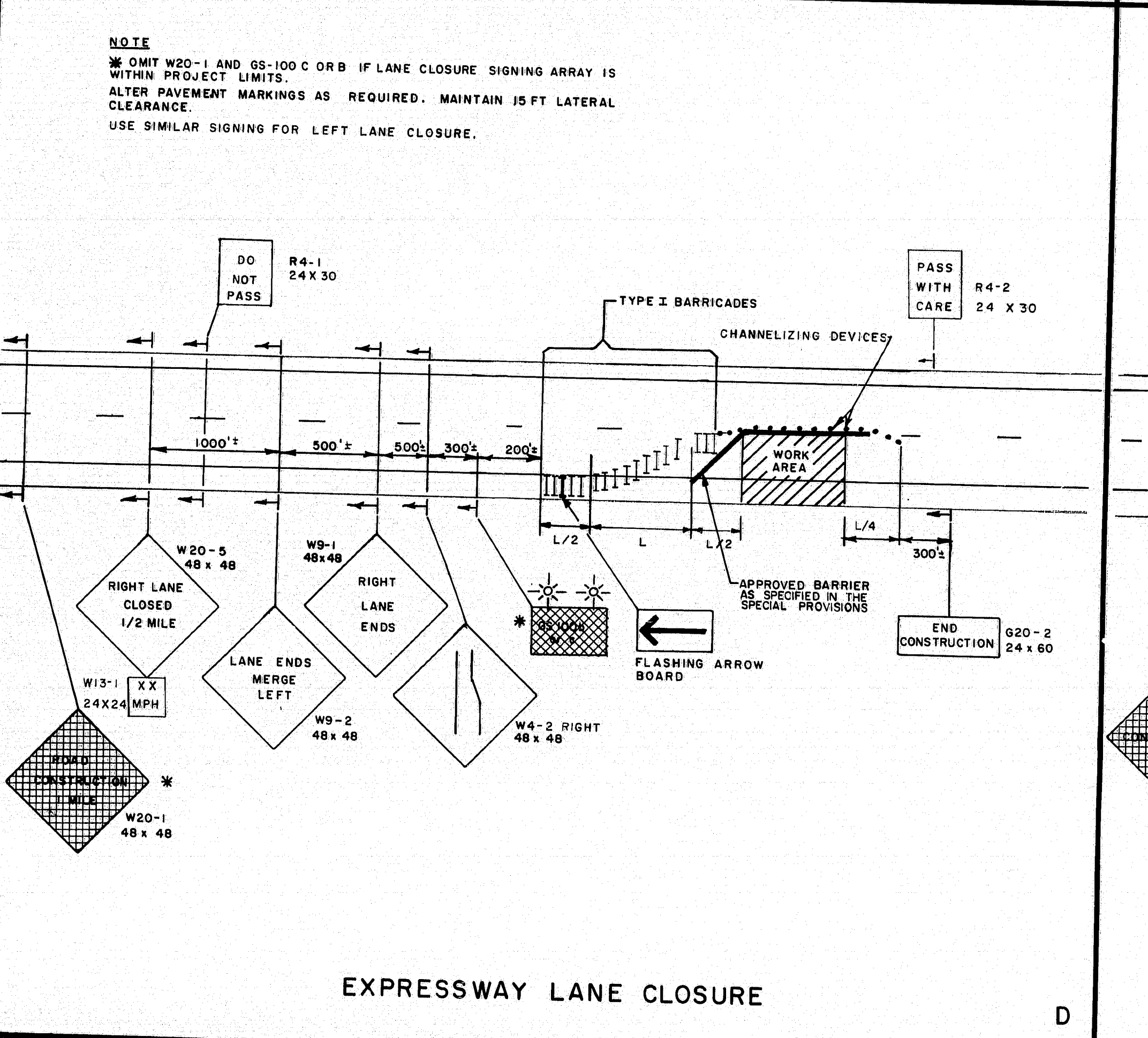
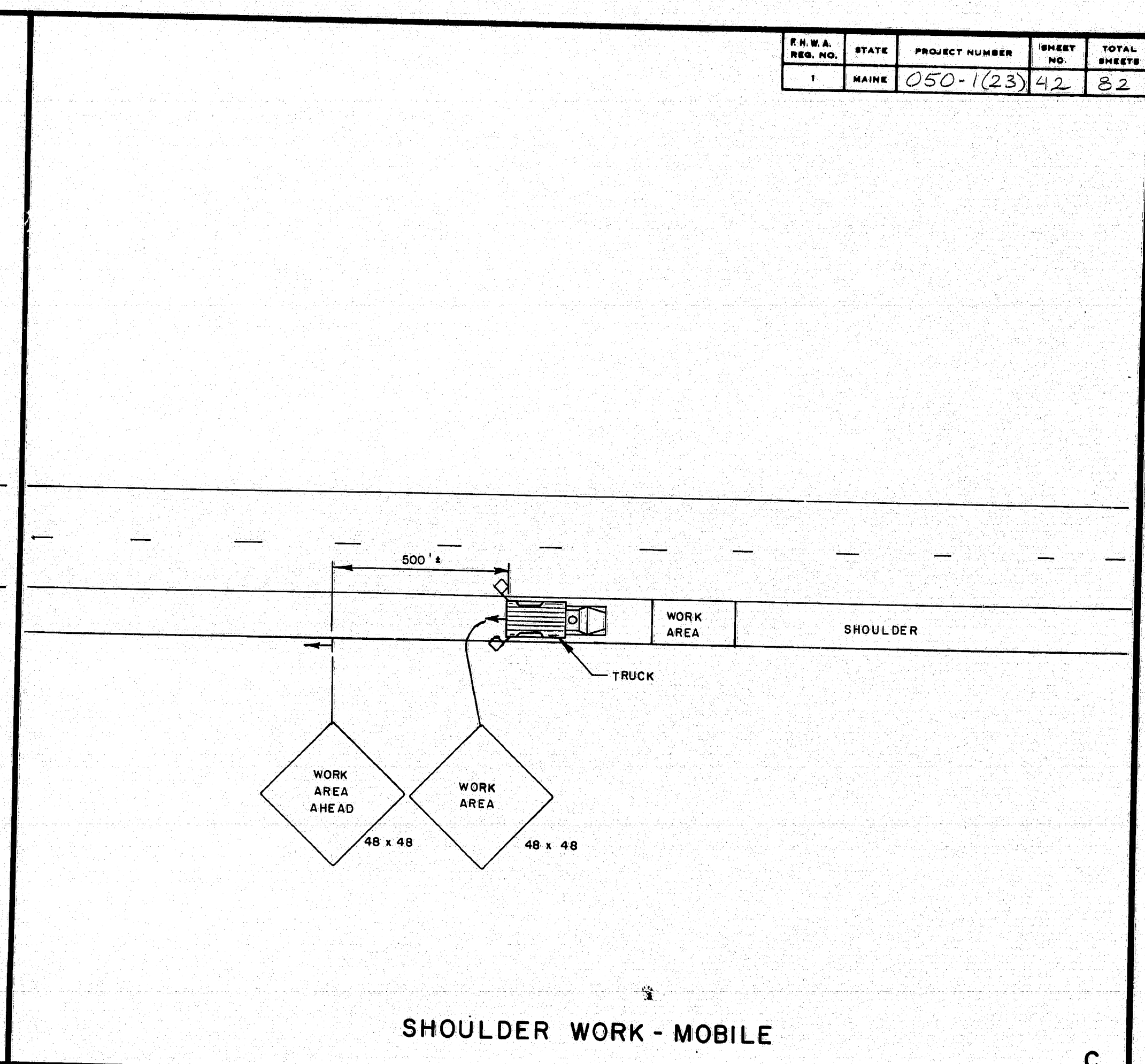
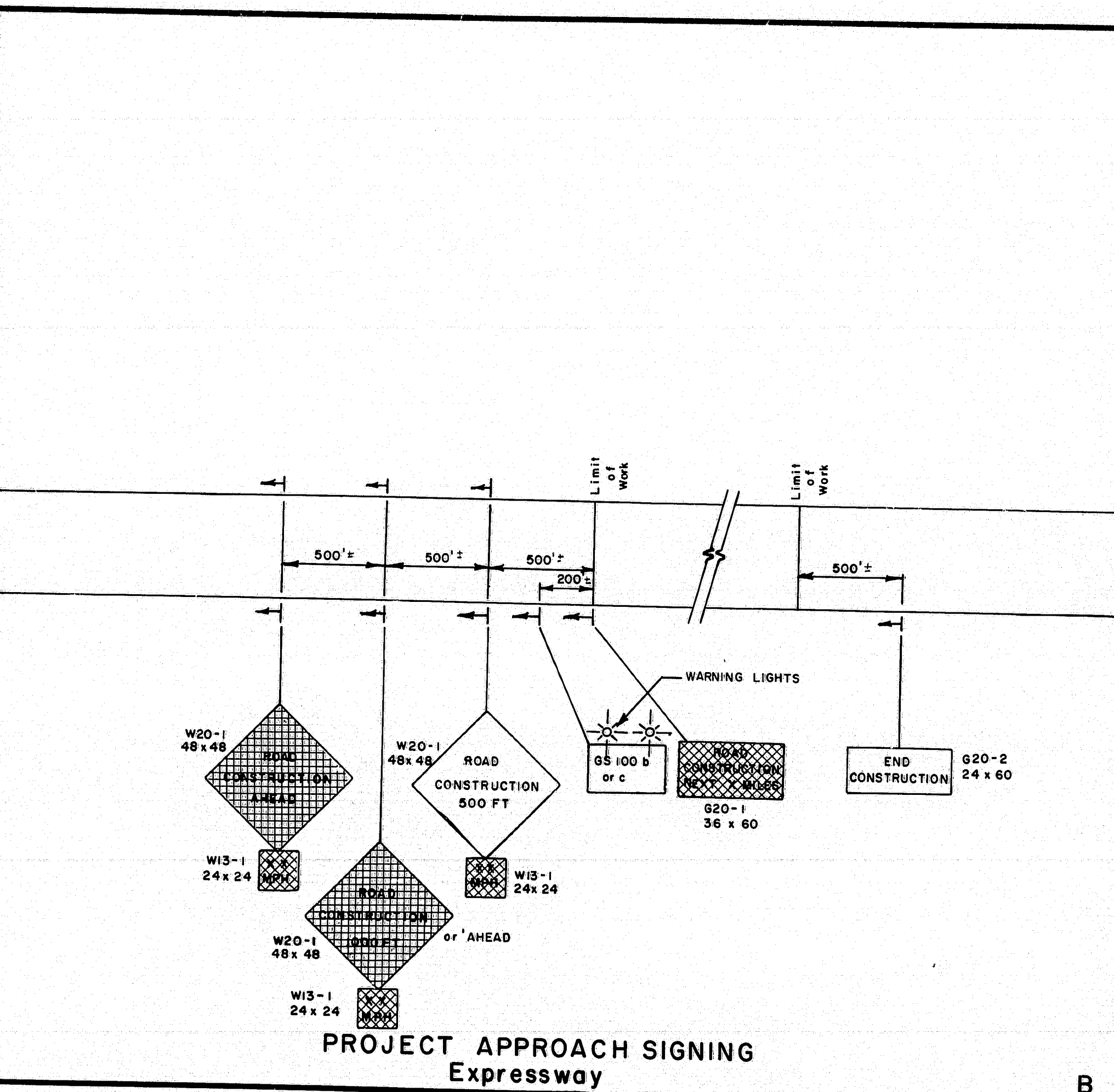
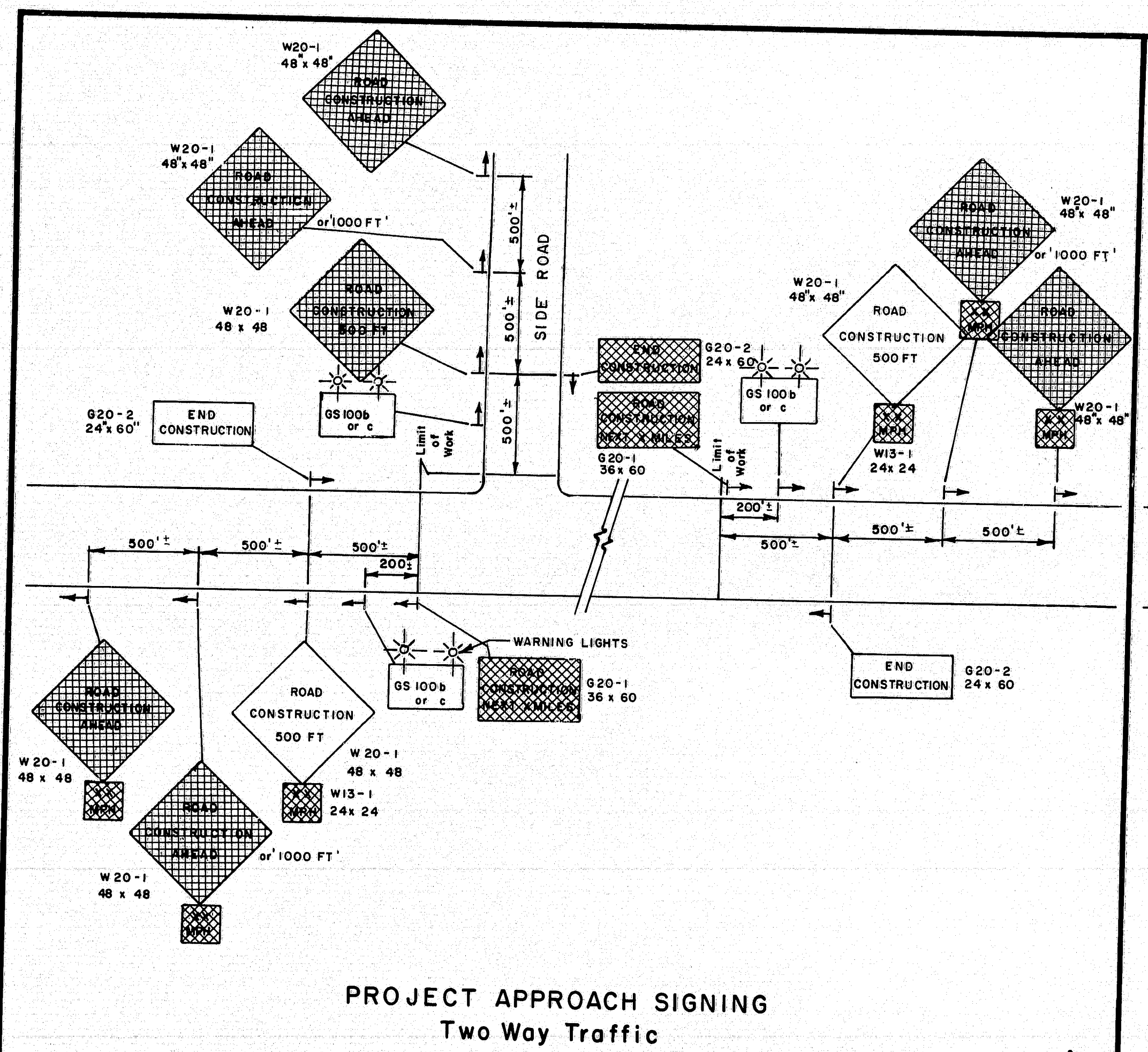
MAINTENANCE
OF
TRAFFIC
IN CONSTRUCTION ZONES

183-79

SHEET 1 OF 3 AUGUSTA, MAINE

2004 0005

R.H.W.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(23)	42	82



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

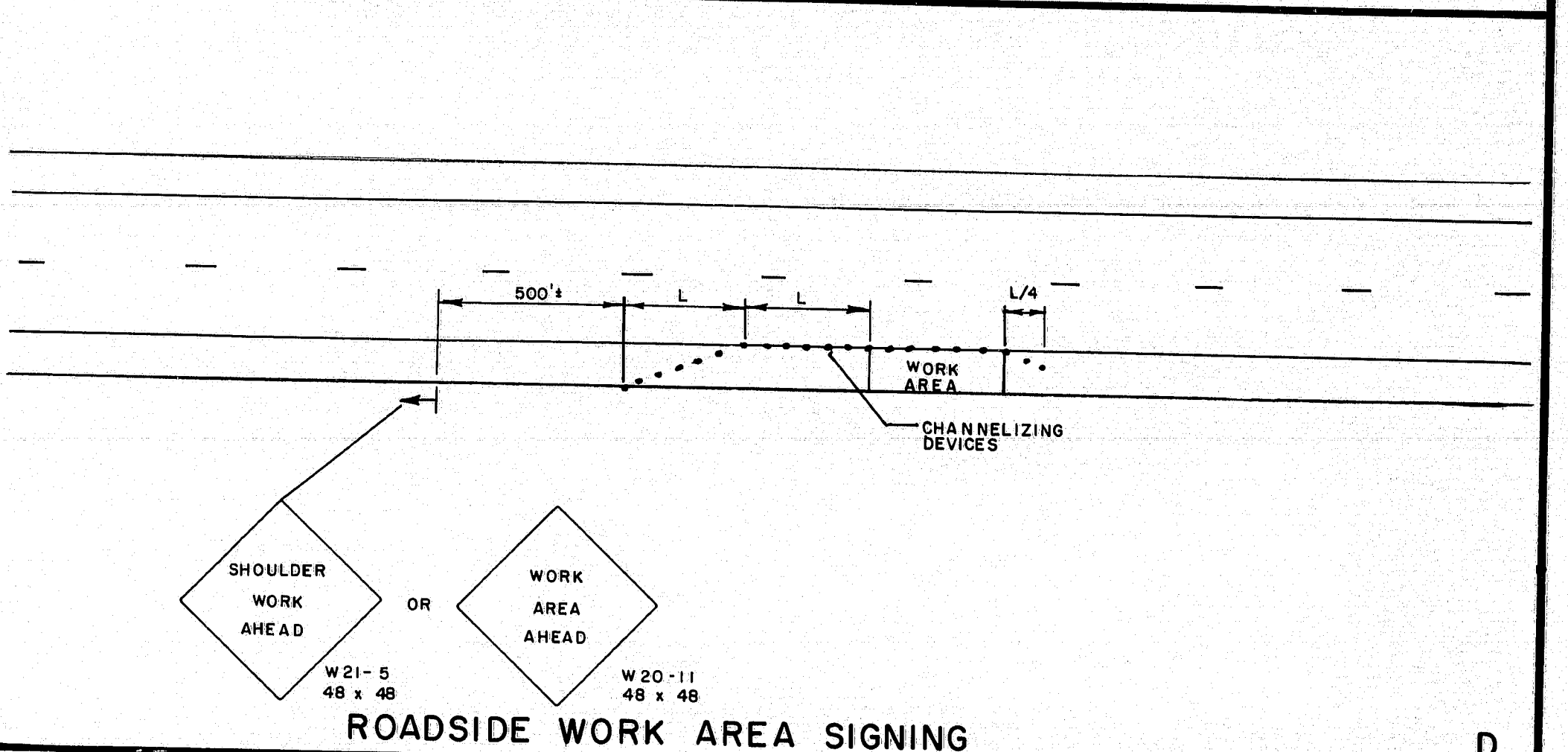
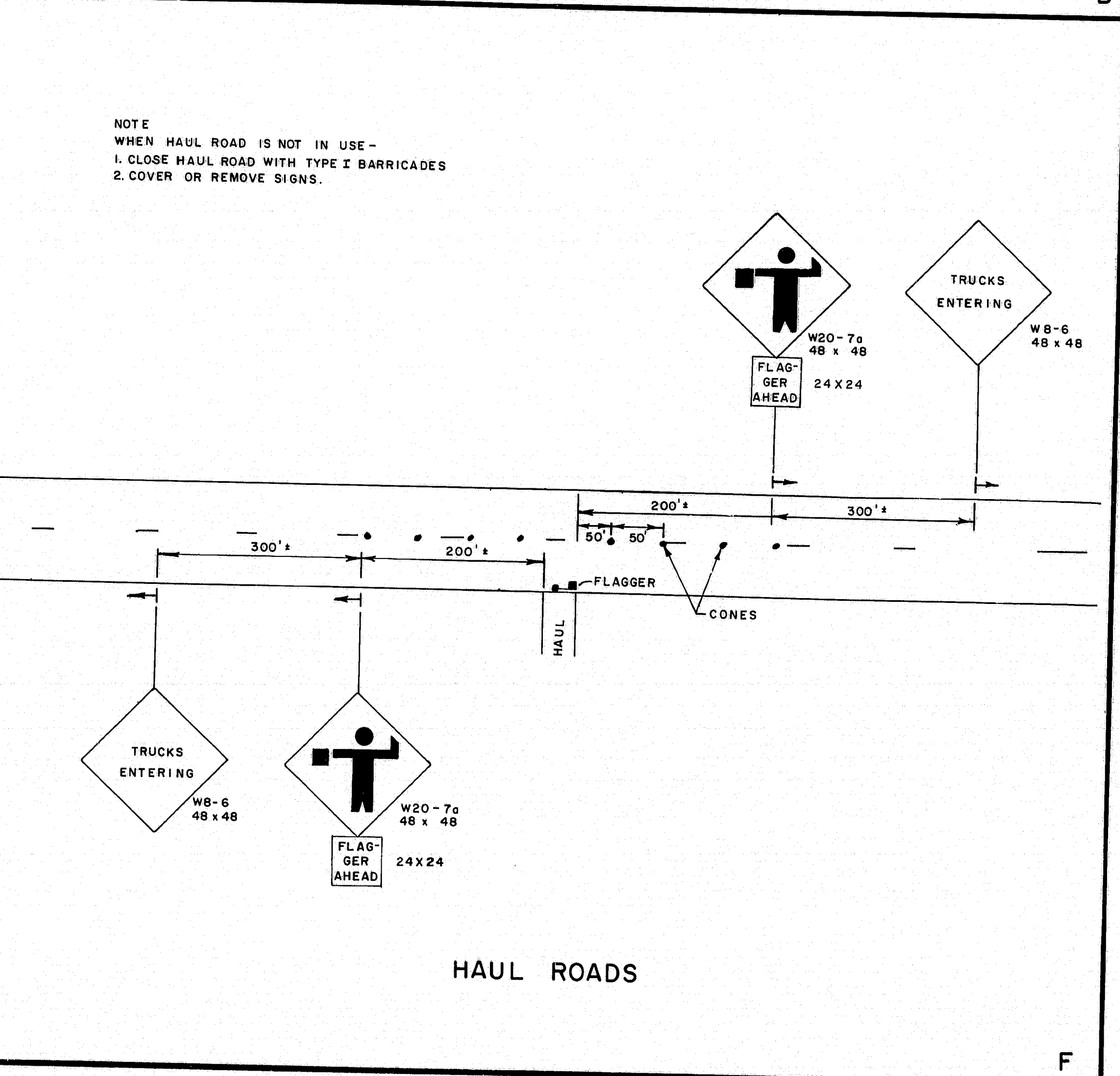
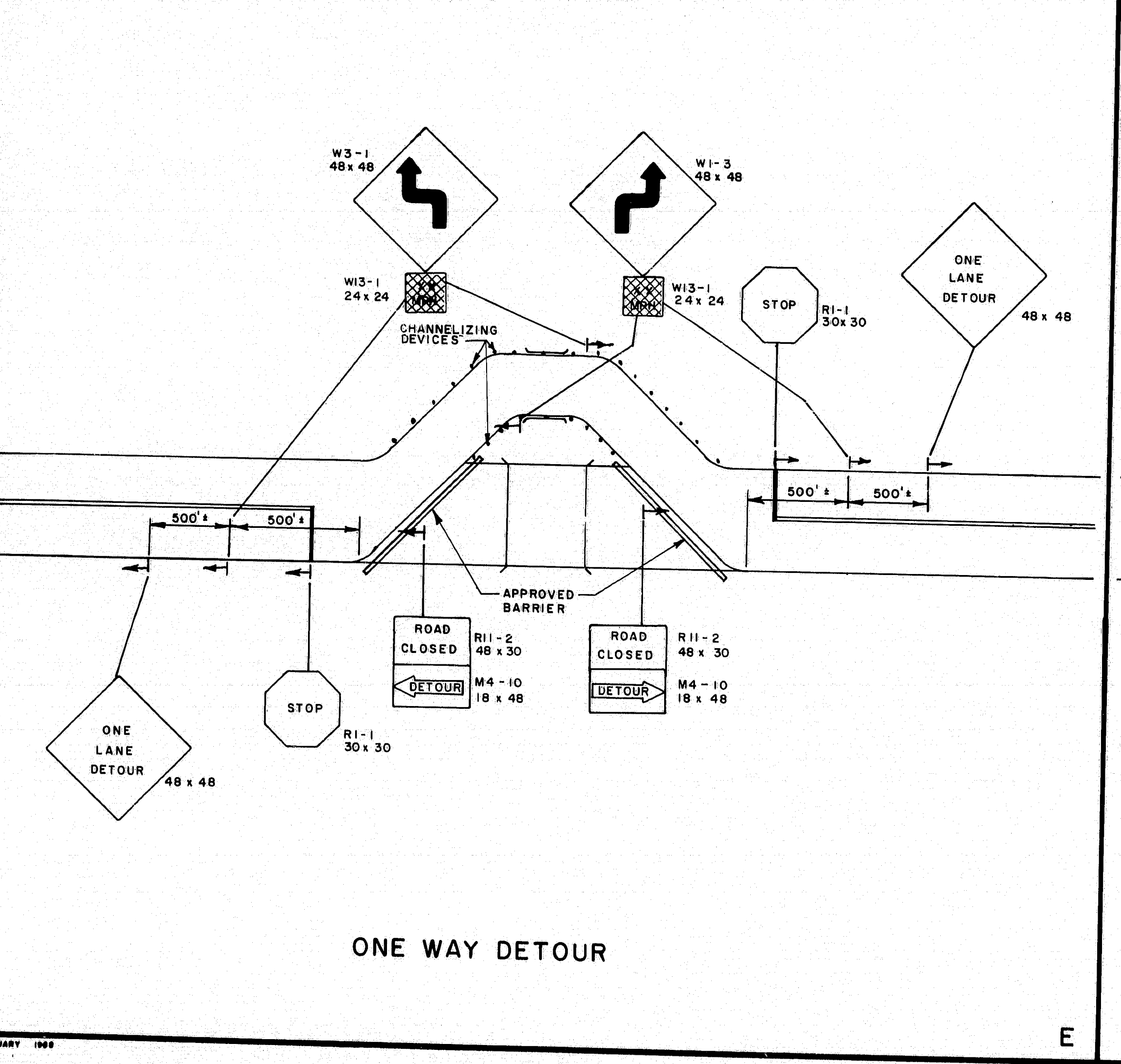
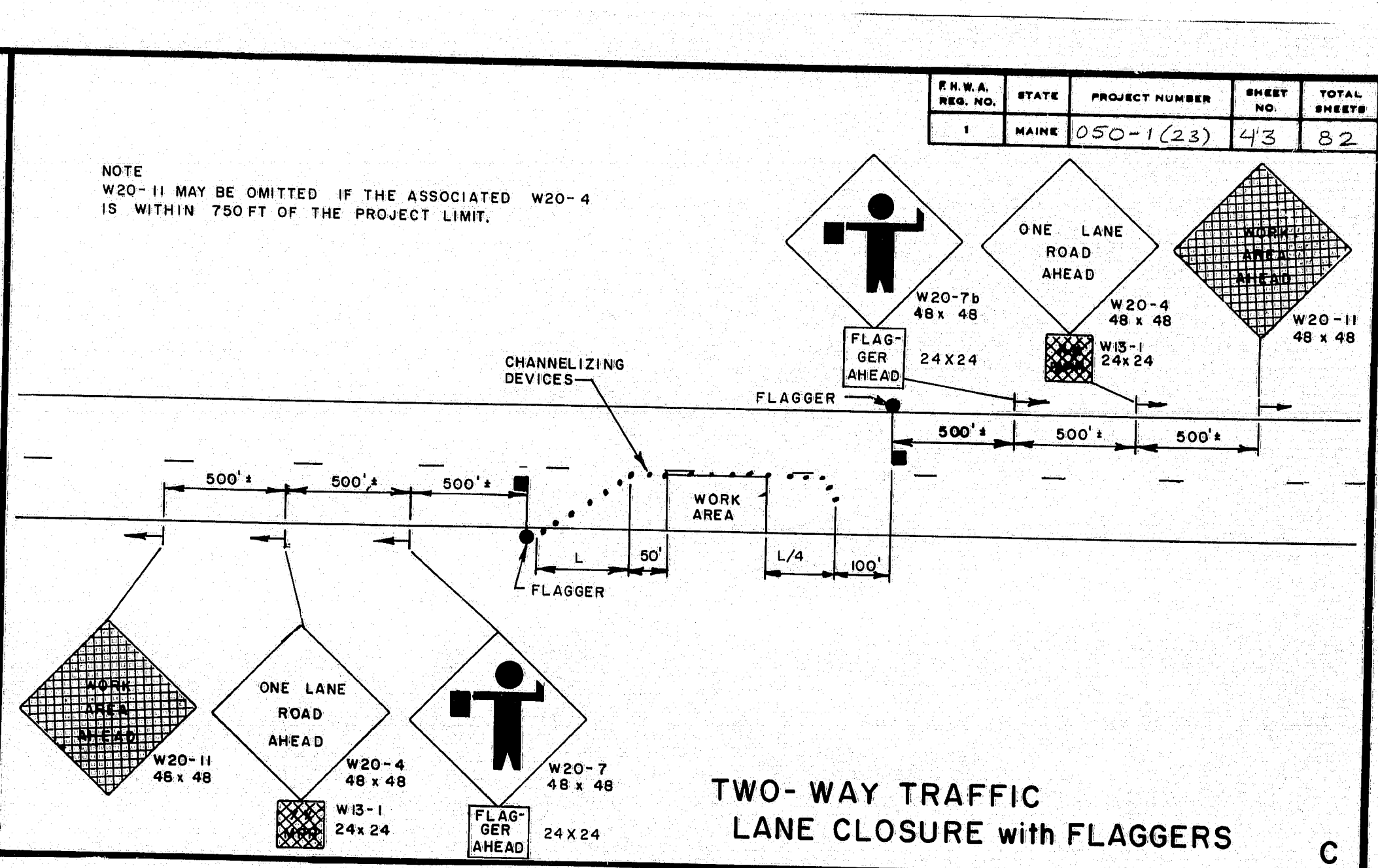
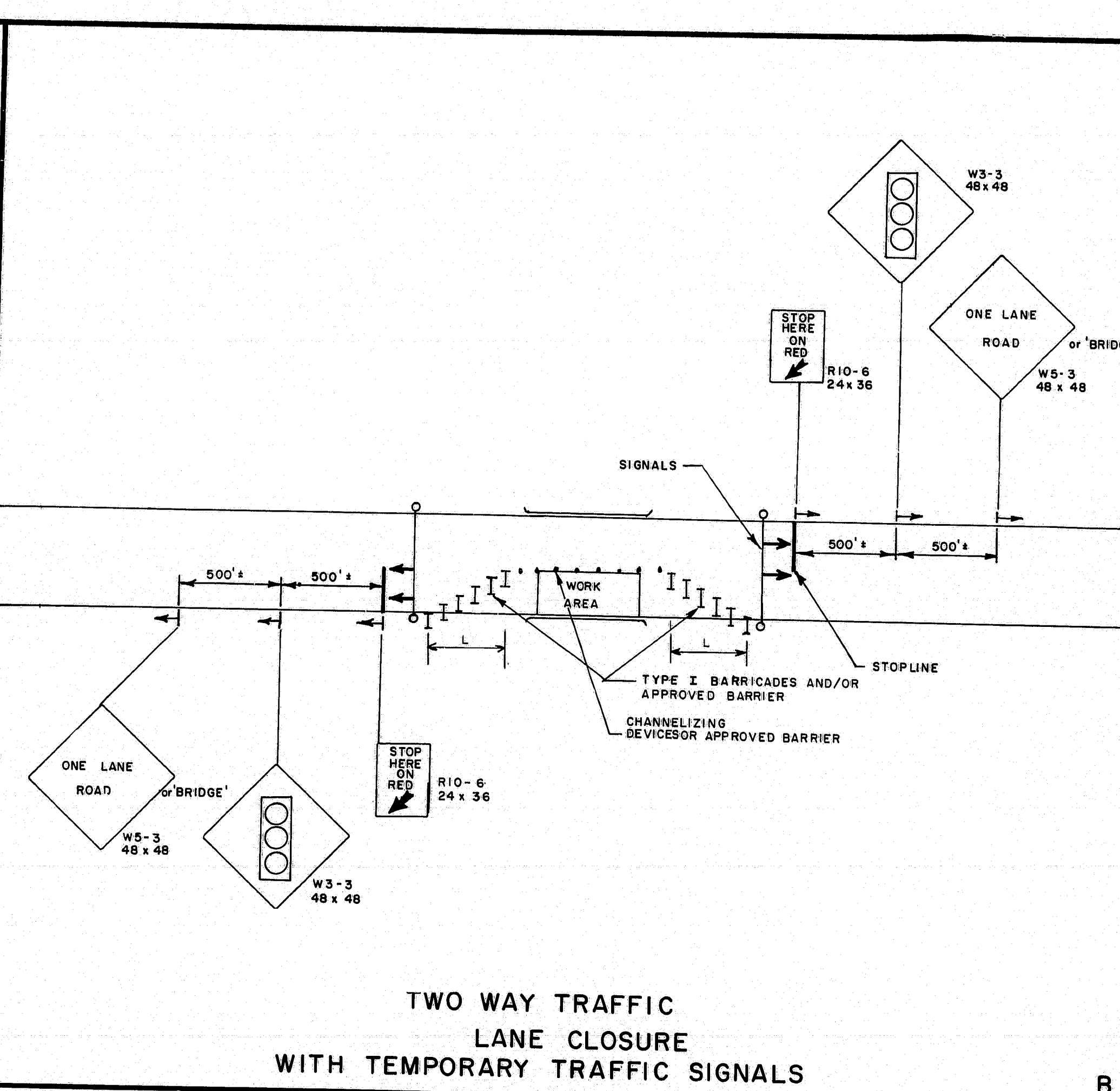
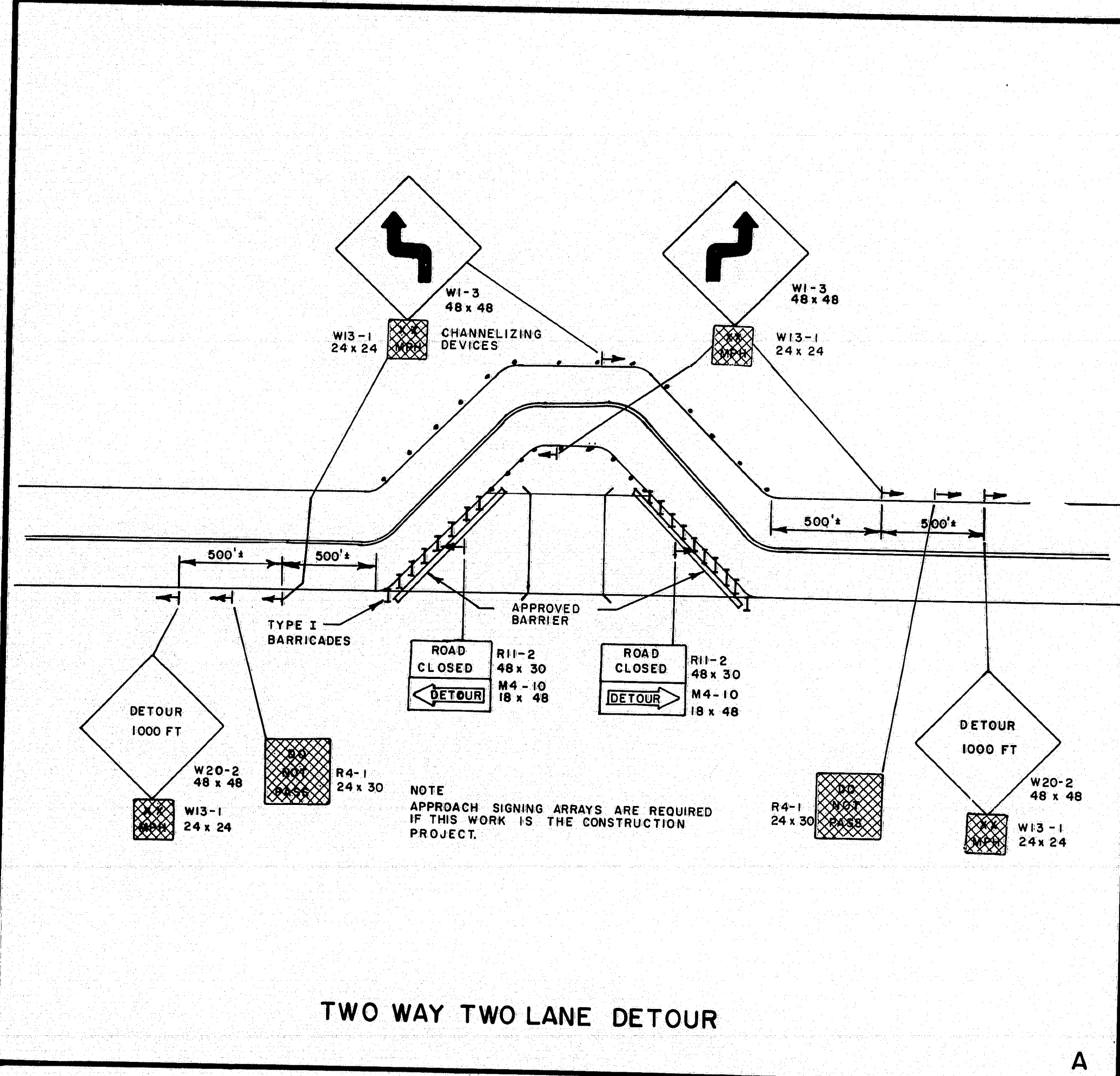
REVISIONS	
1-28-80	
3-4-80	PLATE "F"
4/3/80 PF	D,E

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE
OF
TRAFFIC
IN CONSTRUCTION ZONES

183-80
SHEET 2 OF 3 AUGUSTA, MAINE JULY, 1979

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED		
RECORD		
FIELD CHANGES		
PLANS		



NOTE: W20-11 MAY BE OMITTED IF THE ASSOCIATED W20-4 IS WITHIN 750 FT OF THE PROJECT LIMIT.

REVISIONS

4/3/80	PF	B,C,D
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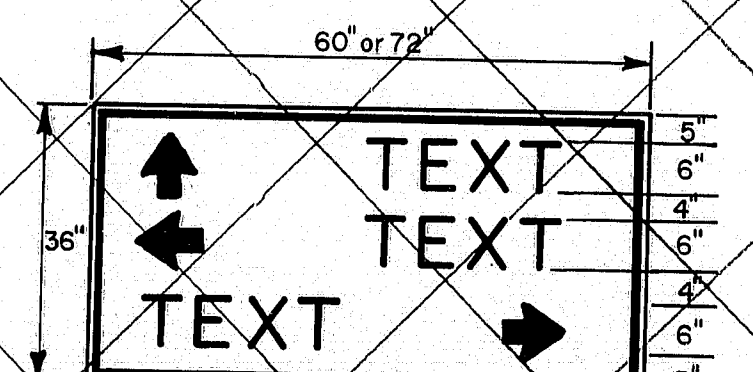
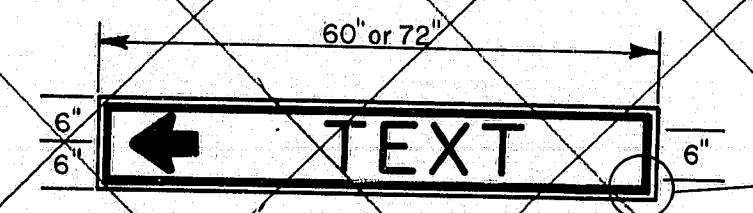
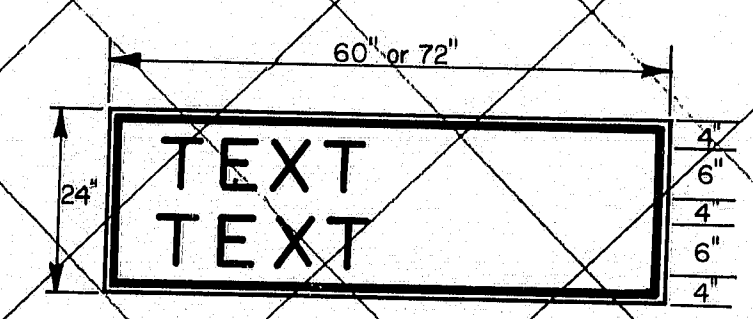
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE
OF
TRAFFIC
IN CONSTRUCTION ZONES

183-81

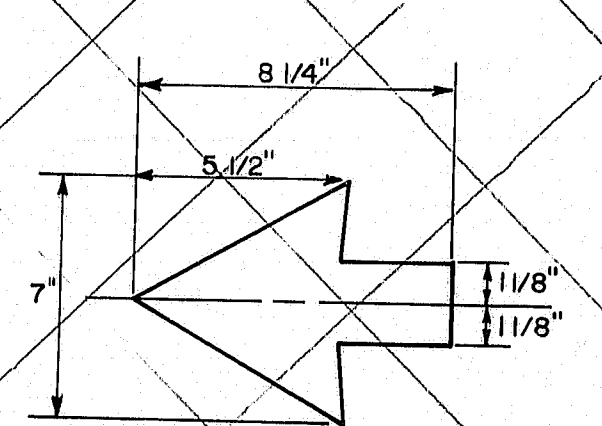
SHEET 3 OF 3 AUGUSTA, MAINE JULY, 1979

F.H.W.A. DIST. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	050-1(23)	44	82

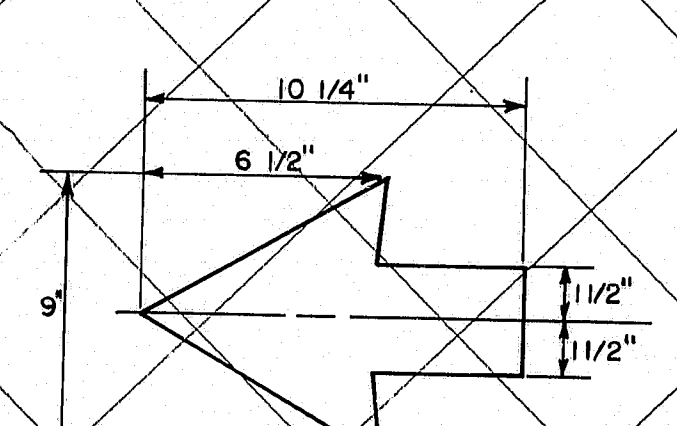


TYPICAL GP PANELS
ALL LETTERING 6" SERIES "C"

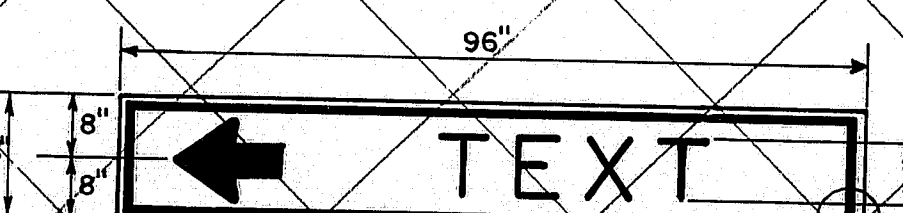
VOID



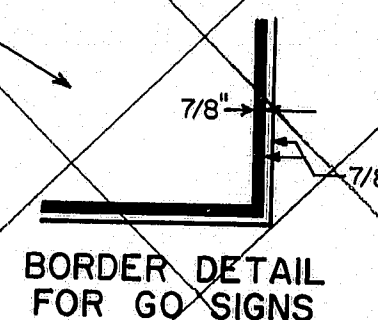
STANDARD ARROW
FOR GP SIGNS



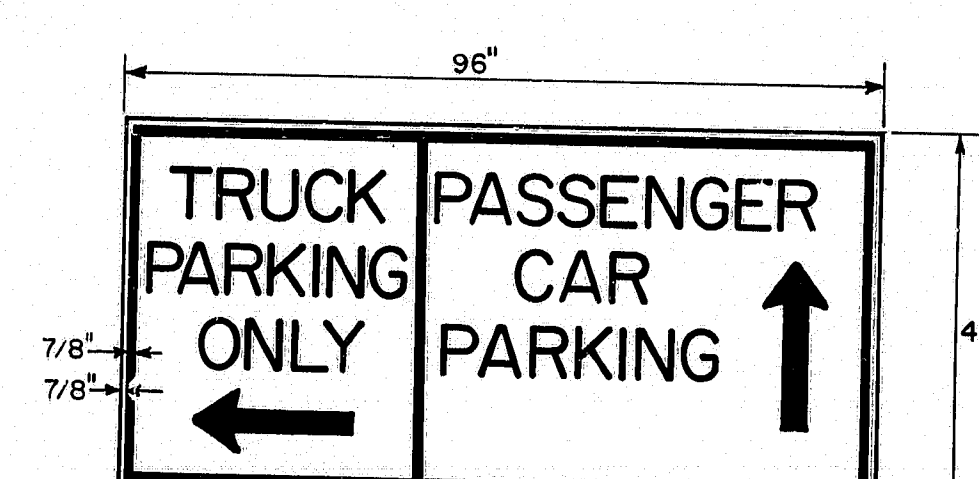
STANDARD ARROW
FOR GO SIGNS



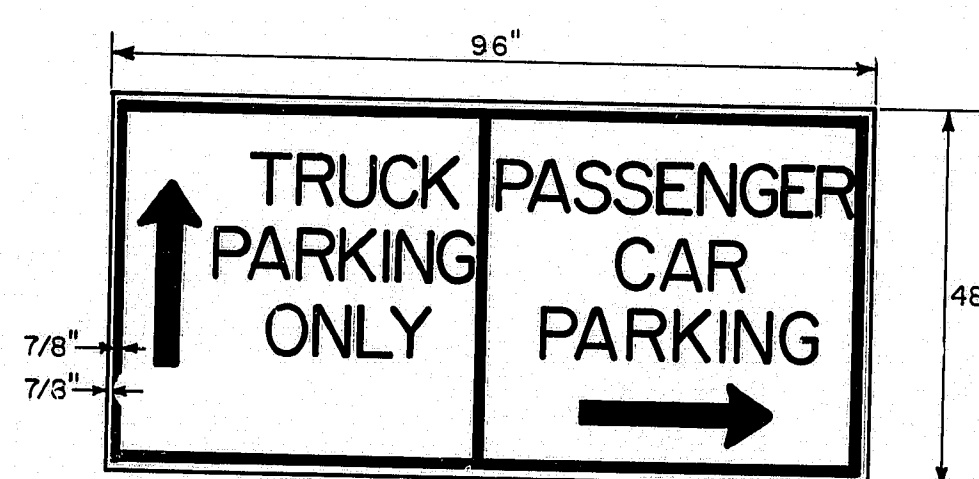
TYPICAL GO SIGN PANEL
ALL LETTERS 6" SERIES "C"



BORDER DETAIL
FOR GO SIGNS

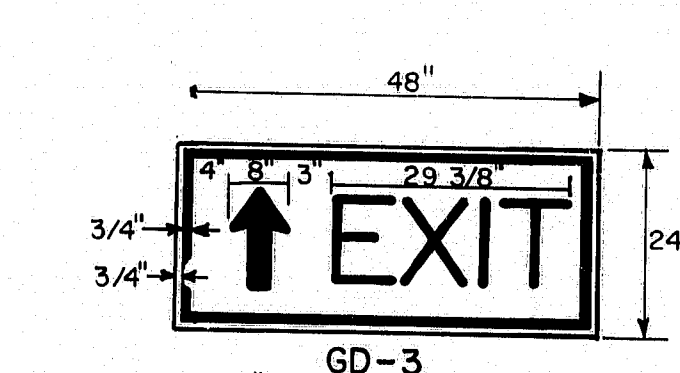


GD-1

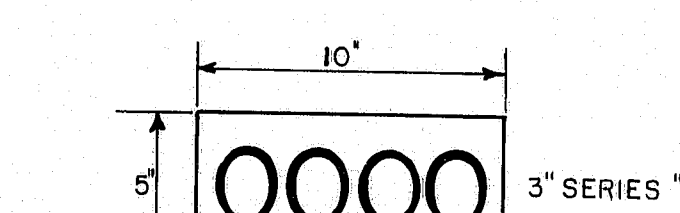


GD-2

ALL LETTERING 6" SERIES "C" WITH 24" ARROWS.



GD-3
12" SERIES "D" LETTERS

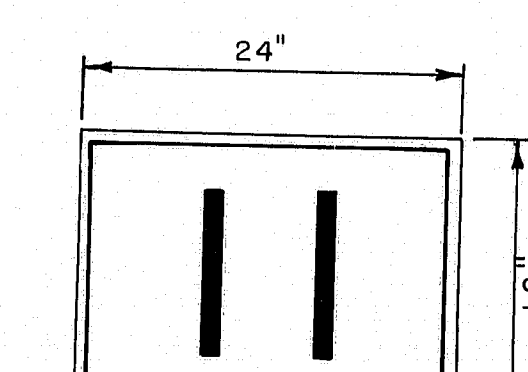


3" SERIES "C" NUMERALS

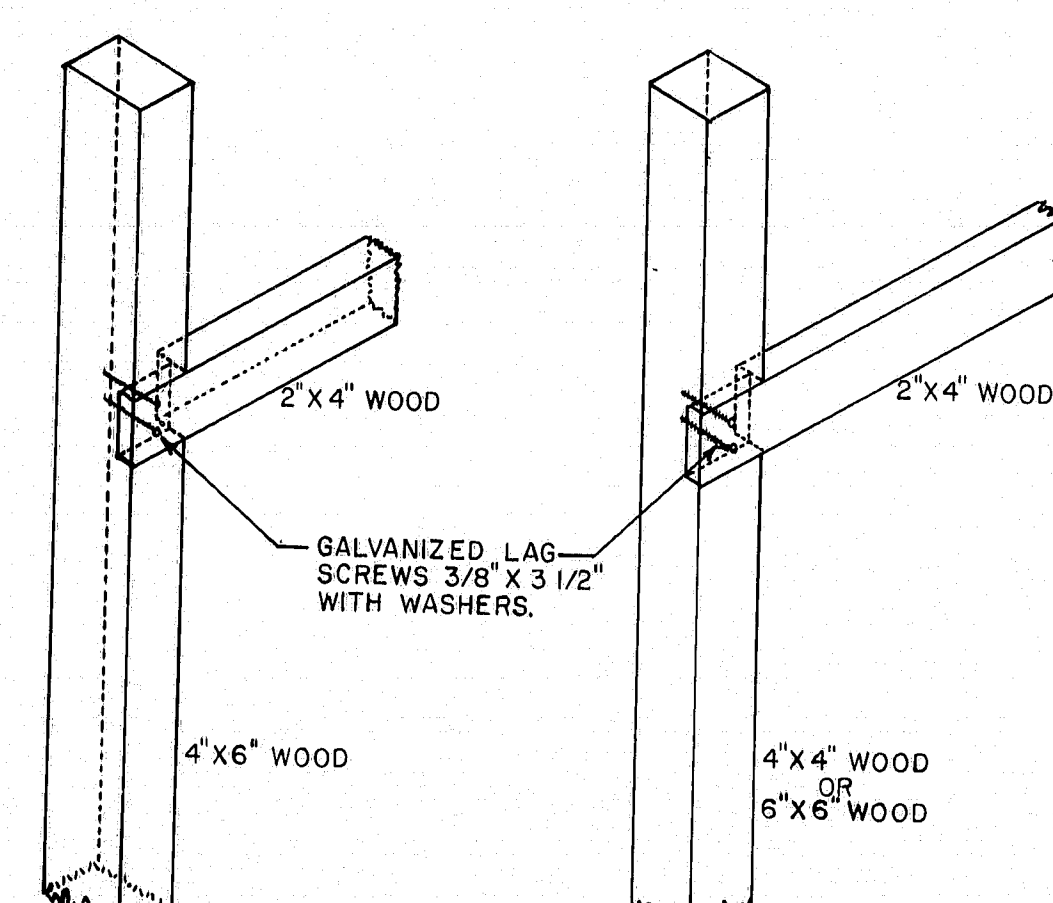
NODE PLATE
BACKGROUND: GREEN REFLECTIVE
NUMERALS: WHITE REFLECTIVE.
NODE PLATES SHALL BE ON ALUMINUM BLANKS
AND PAID FOR UNDER ITEM NO. 645.292.

NOTES

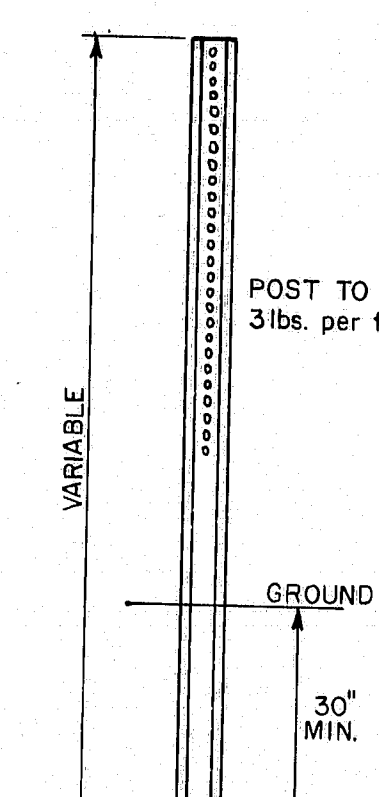
1. ALL SIGNS SHALL BE IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", U.S. DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, 1971.
2. SIGNS NOT DETAILED ARE STANDARD SIGNS FOUND IN THE ABOVE MENTIONED MANUAL.
3. FOR LETTER SIZES AND LAYOUTS REFER TO 1972 EDITION OF STANDARD ALPHABETS, LEGENDS, BARS & SYMBOLS, PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION, "STANDARD HIGHWAY SIGNS".



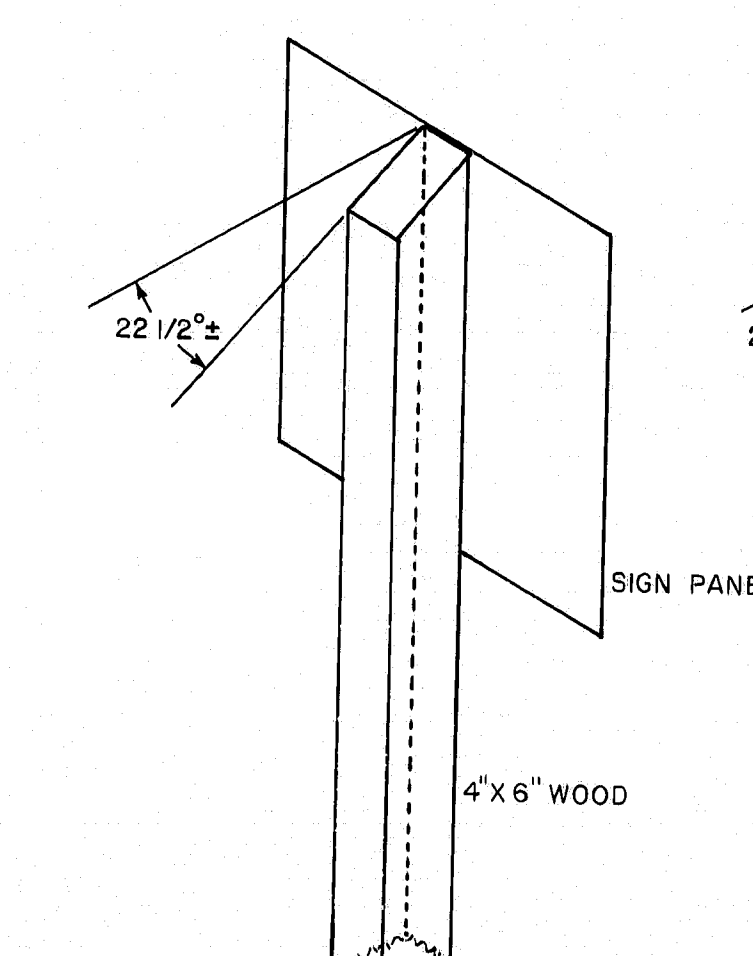
M1-6
STATE ROUTE MARKER



METHOD OF ATTACHING CROSS-MEMBERS
ON SIGN ASSEMBLIES.

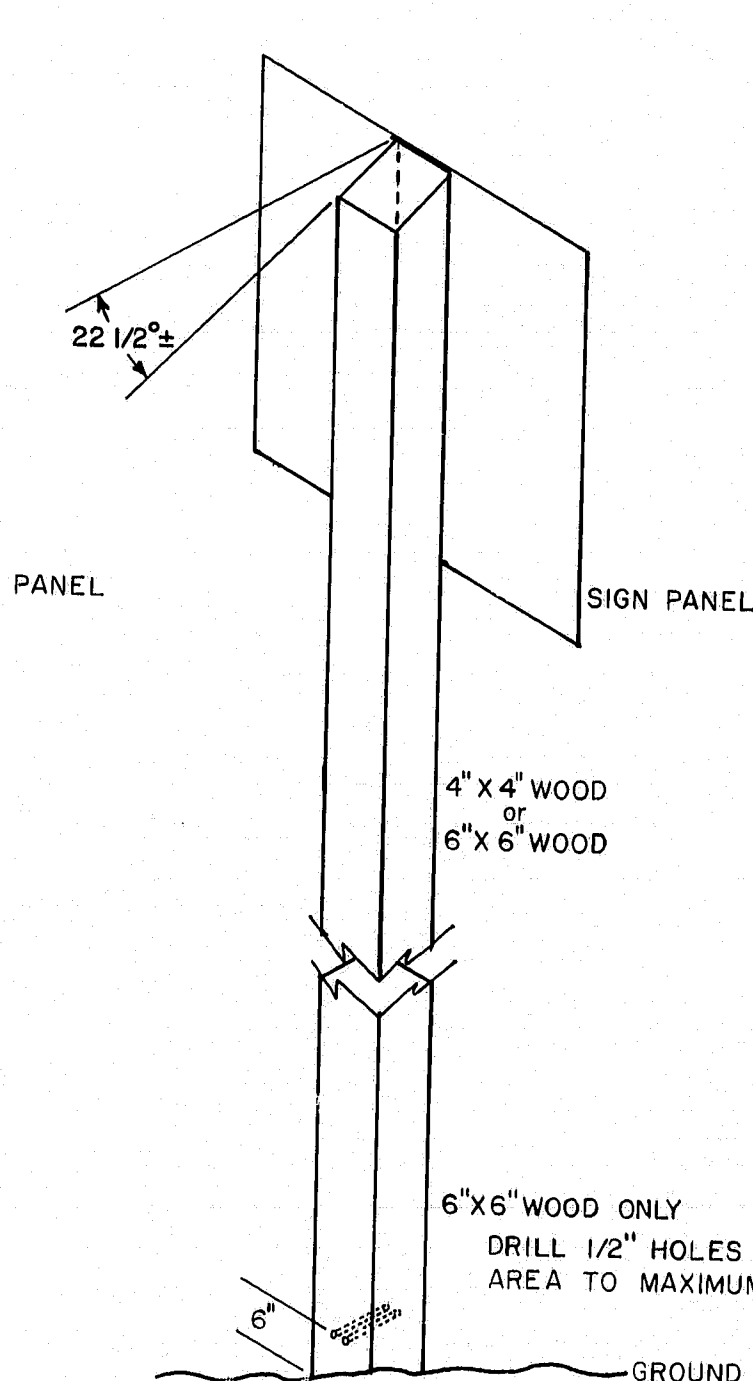


STEEL
U CHANNEL
SIGN POST



SIGN PANEL

4" x 6" WOOD



SIGN PANEL

4" x 4" WOOD
OR
6" x 6" WOOD

6" x 6" WOOD ONLY
DRILL 1/2" HOLES (2) TO REDUCE X-SECTION
AREA TO MAXIMUM OF 25 SQUARE INCHES.

GROUND

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

PLANS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD SIGN DETAILS FOR SECONDARY ROADS

103-82

AUGUSTA, MAINE JAN. 1979