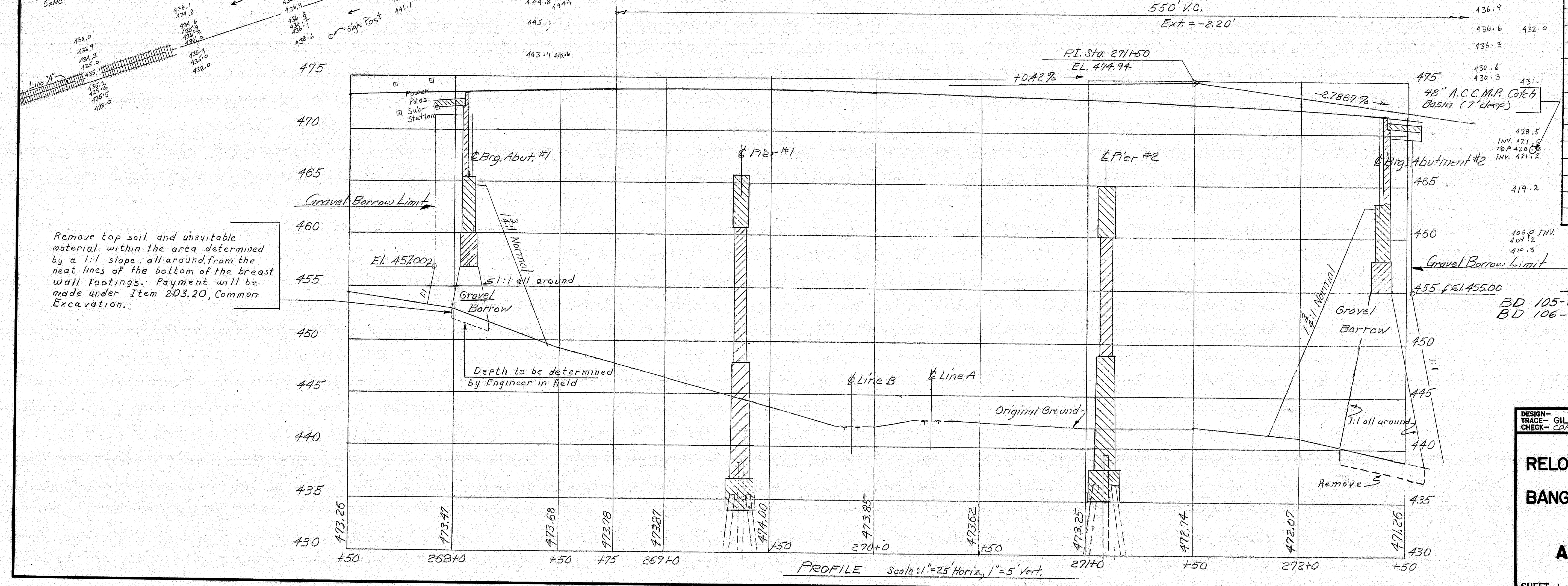


INDEX OF SHEETS	
Sheet	Description
1	Survey
2,3	Foundation Survey
4	General Plan
5	Abutment #1
6	Abutment #2
7	Footings and Abutment Details
8	Approach Slabs & " "
9	Piers
10	Structural Steel
11	" " Details
12	Blocking, Camber & Shear Connectors
13	Bearing Pedestals
14	Superstructure - Span No. 1
15	" " " 2
16	" " " 3
17	Reinforcing Steel Schedule



STANDARDS
BD 105-64 --- Expansion Joints
BD 106-69 --- Aluminum Rolling

99-239

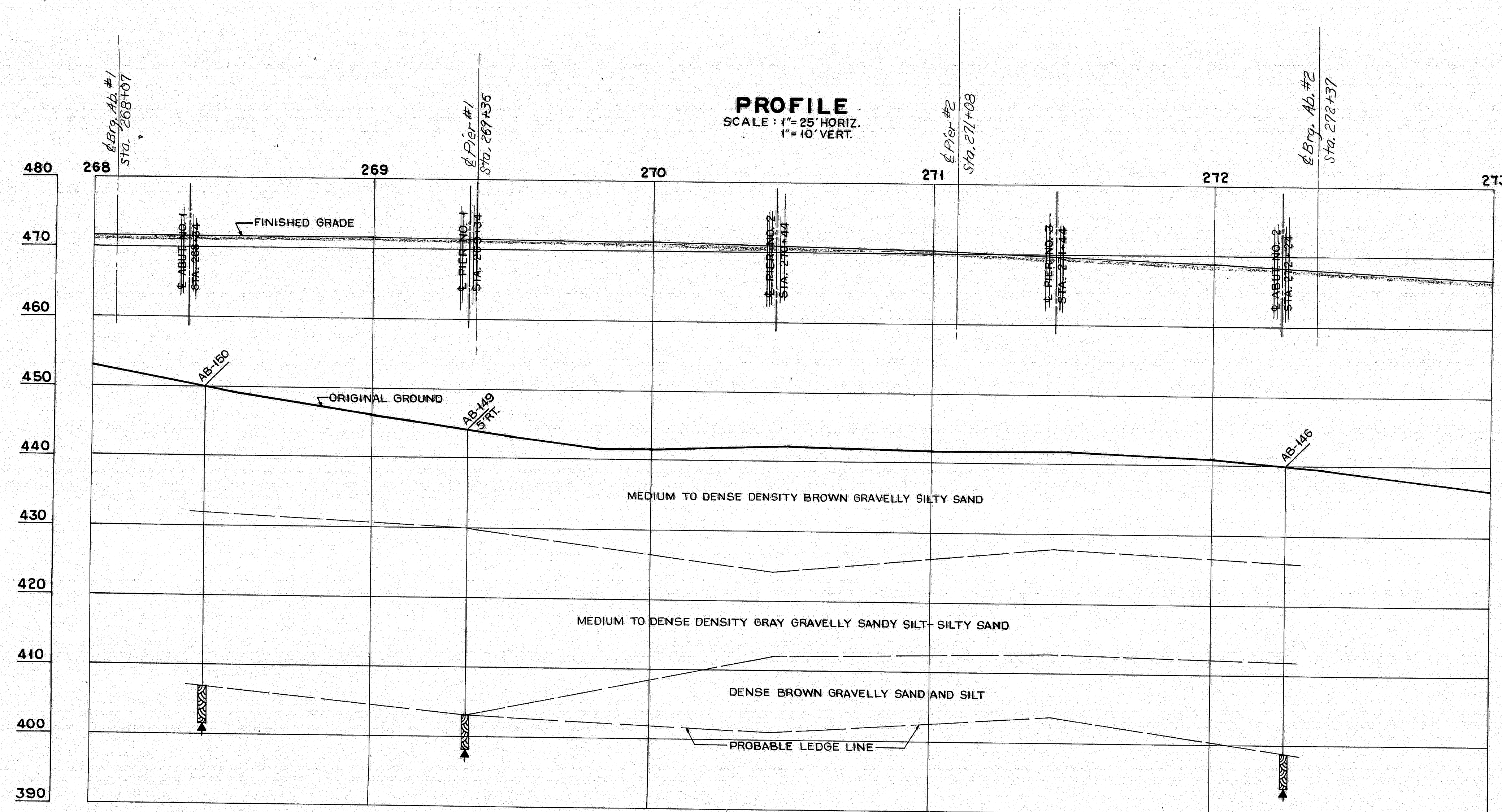
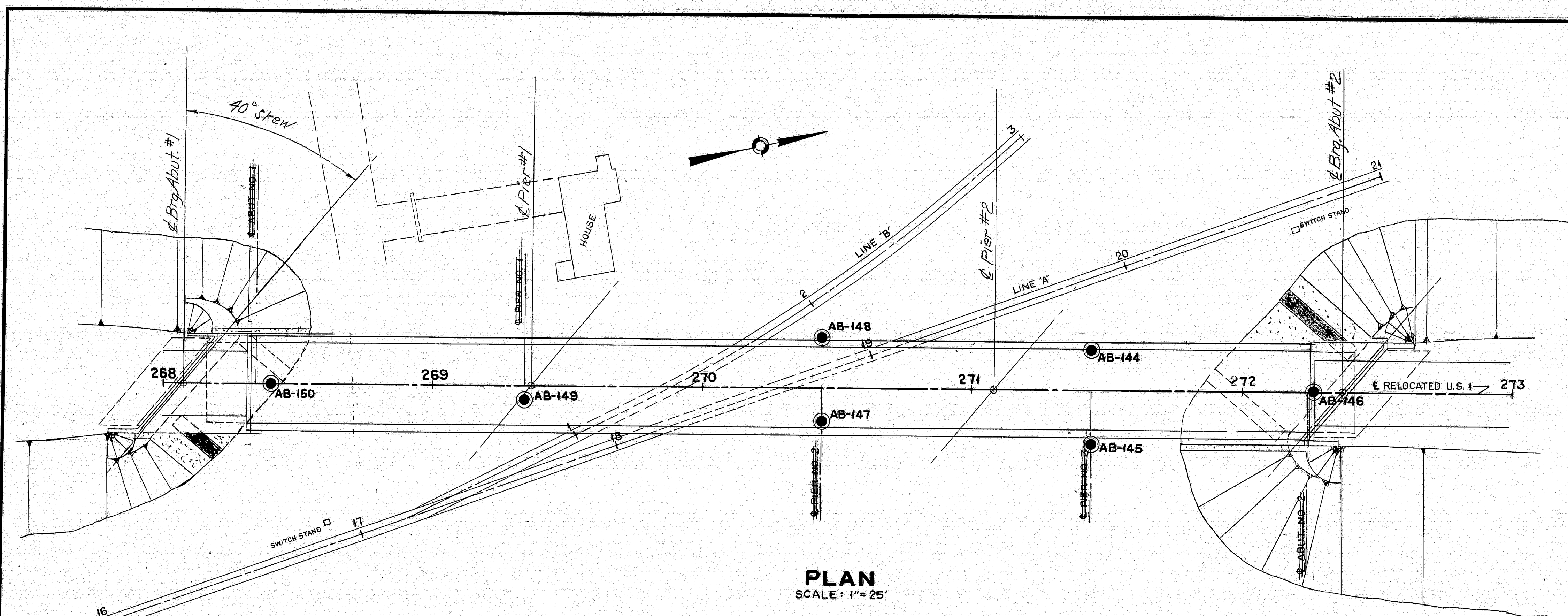
DESIGN - GILBERT
CHECK - CDR G-69

BRIDGE NO. 105
SURVEY - March 1968, 8450-95196
PLOT - Mays & Smith

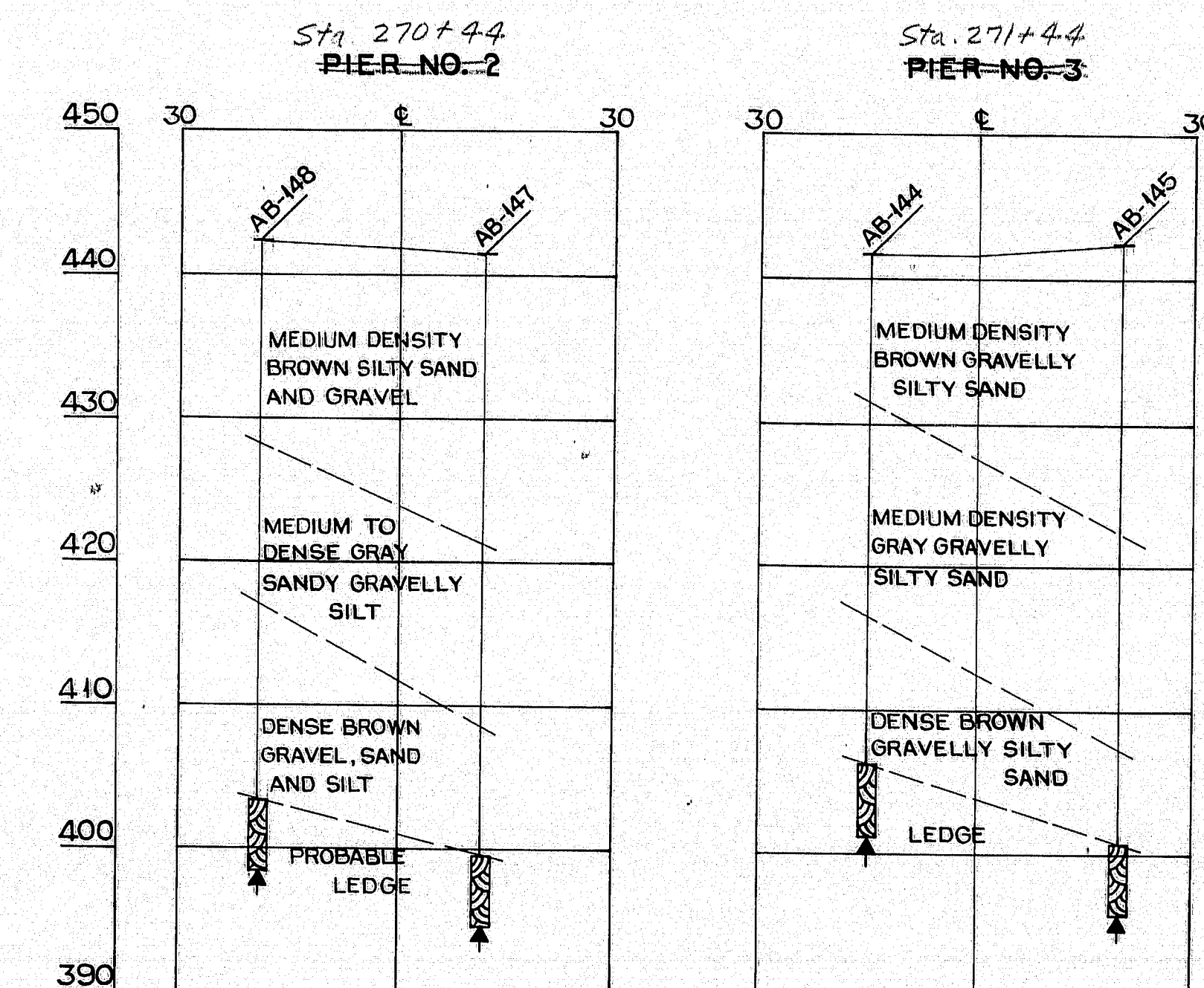
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
RELOCATED U. S. ROUTE 1
OVER
BANGOR & AROOSTOOK R.R.
IN THE TOWN OF
CARIBOU
AROOSTOOK COUNTY
SURVEY

SHEET 1 OF 17 AUGUSTA, MAINE APRIL 1965

S. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	U-050-2(14)	29	112



TRANSVERSE SECTIONS



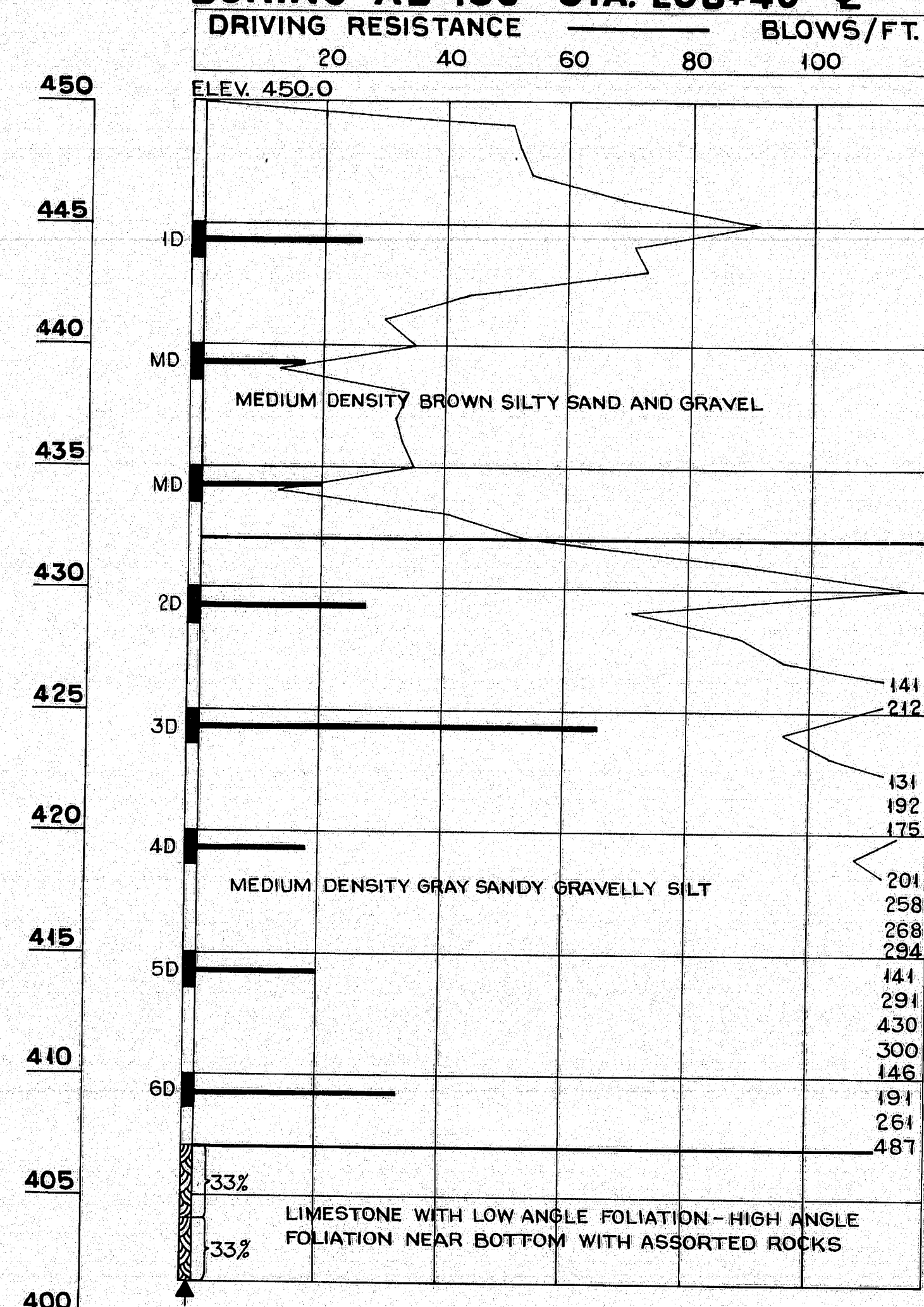
BORING NOTES

- 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.
- S & H SAMPLER #1290's
- UNSUCCESSFUL SAMPLE ATTEMPT AND TYPE OF SAMPLER.
- NUMBER OF BLOWS REQUIRED TO DRIVE SPOON OR TUBING ONE FOOT WITH 350 FT. LBS. OF ENERGY PER BLOW.
- BOTTOM OF BORING (MAY NOT BE BOTTOM OF SOIL STRATA)
- LOCATIONS CORED BY DIAMOND BIT AND PER CENT RECOVERY OF ROCK.

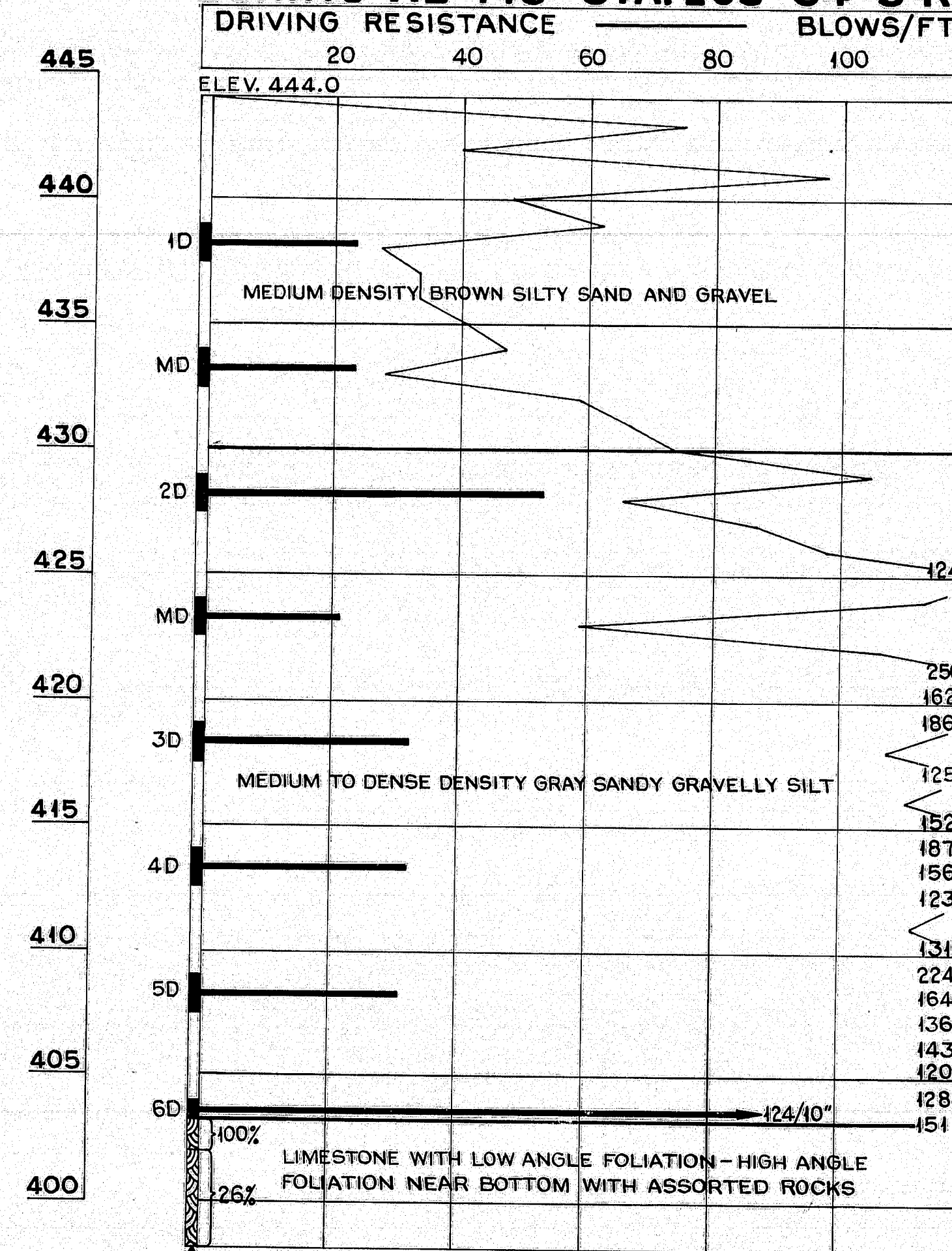
DESIGN- TRACE- CHECK- ✓	BRIDGE NO. SURVEY- PLOT- ✓
STATE HIGHWAY COMMISSION BRIDGE DIVISION	
RELOCATED U.S. ROUTE 1 OVER BANGOR & AROOSTOOK R.R. IN THE TOWN OF CARIBOU AROOSTOOK COUNTY FOUNDATION SURVEY	
SHEET 2 OF 17 AUGUSTA, MAINE FEB. 1966	

99-240

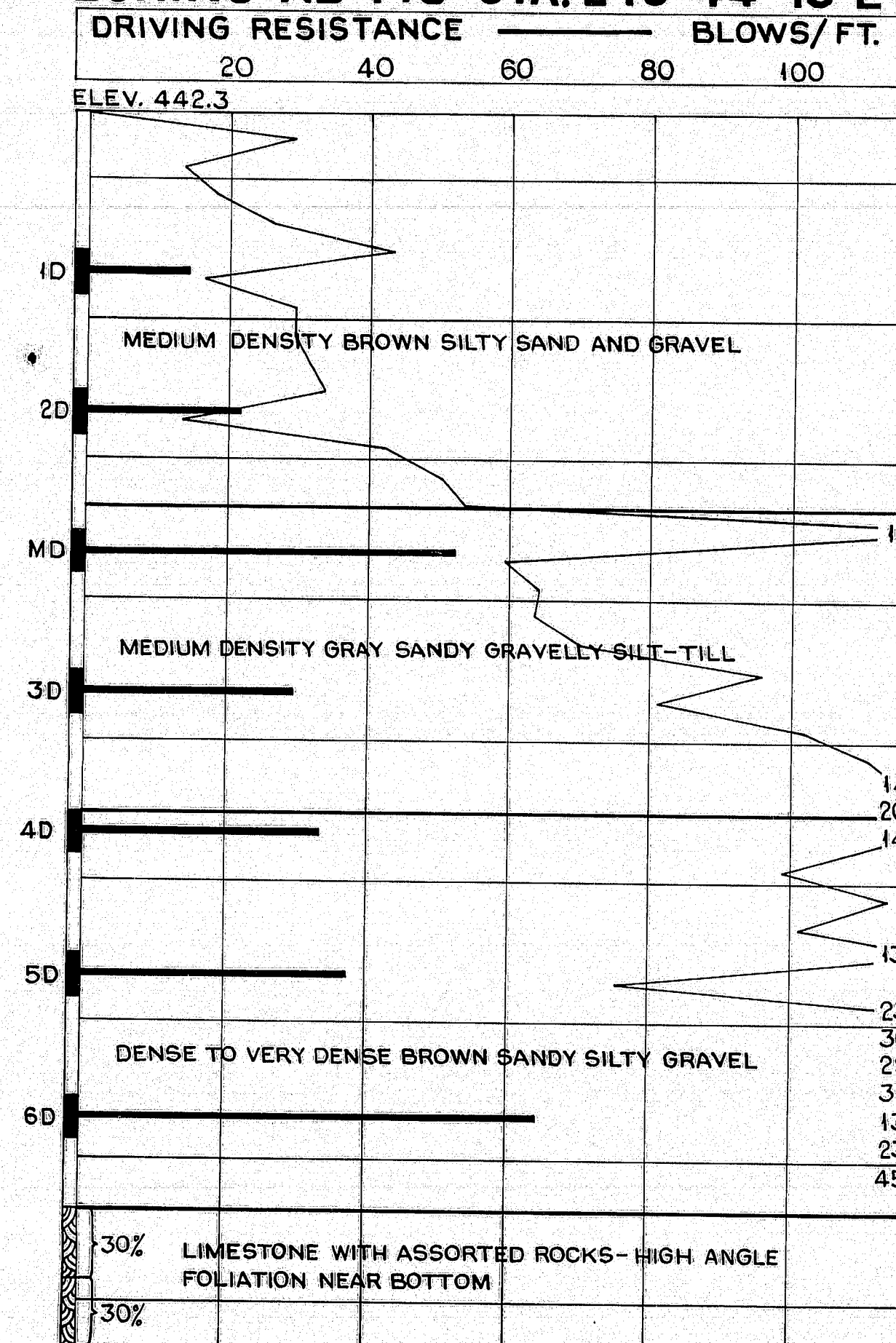
BORING AB-150 STA. 268+40 E



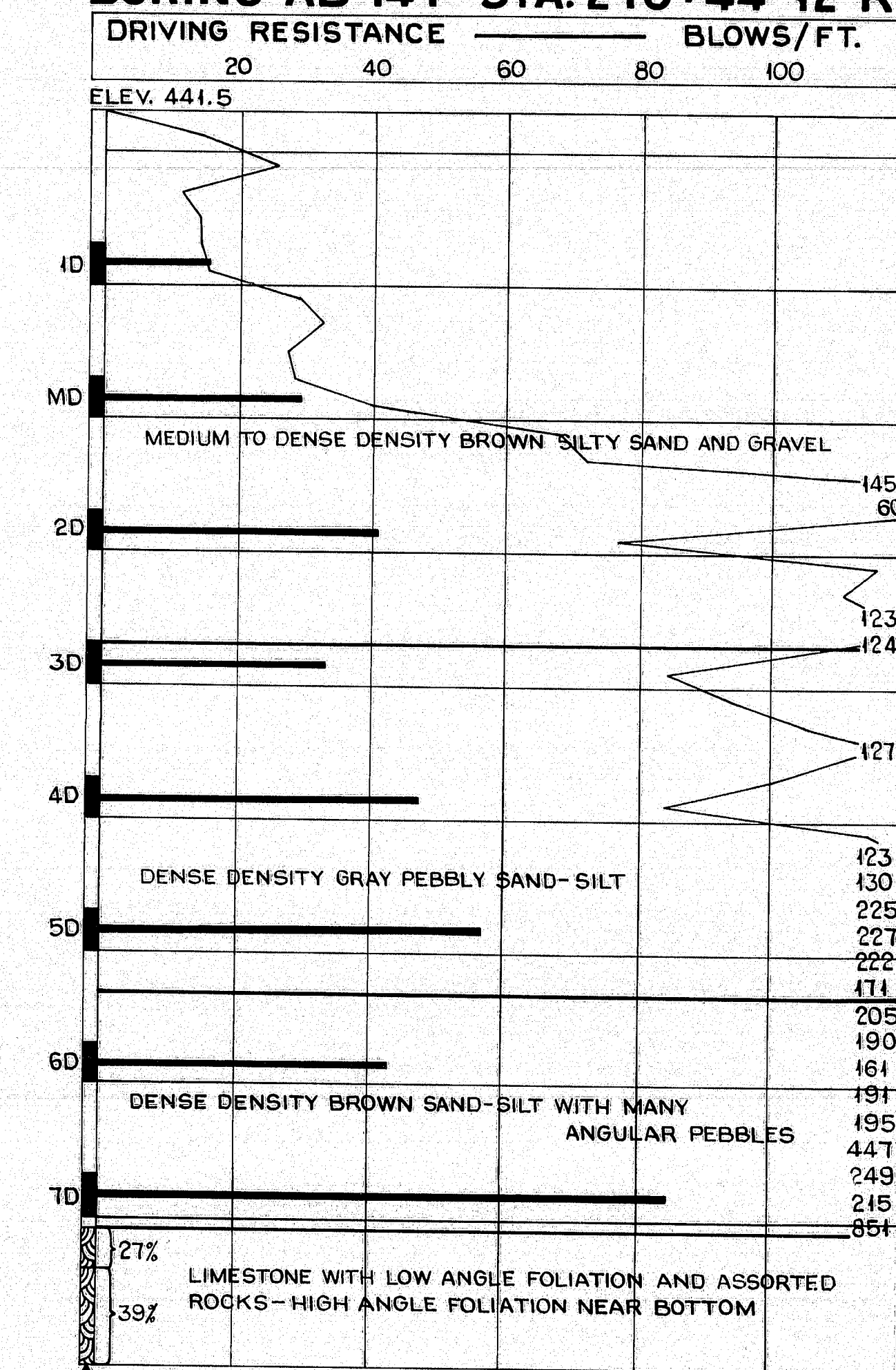
BORING AB-149 STA. 269+34 5'RT.



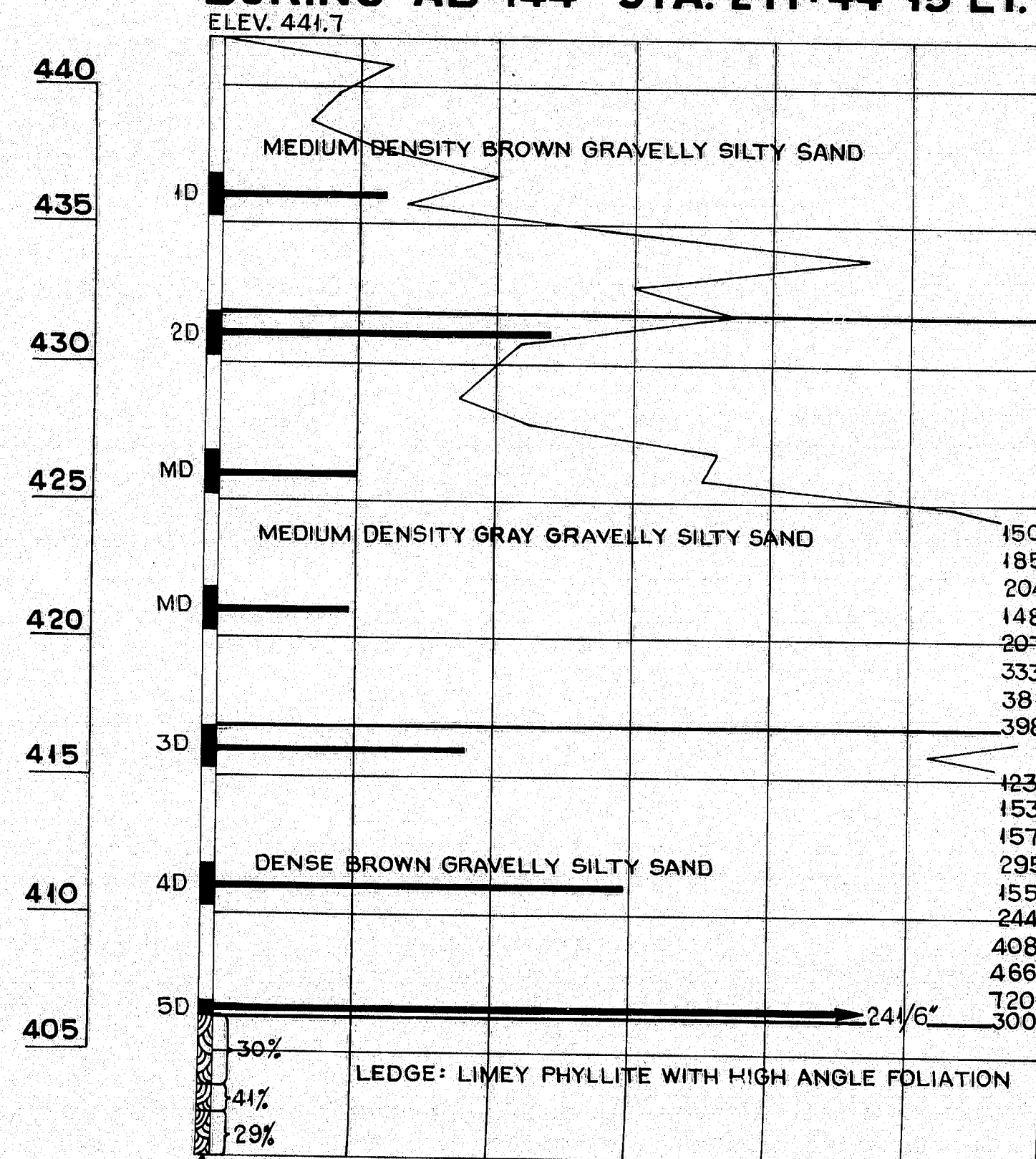
BORING AB-148 STA. 270+44 19'LT.



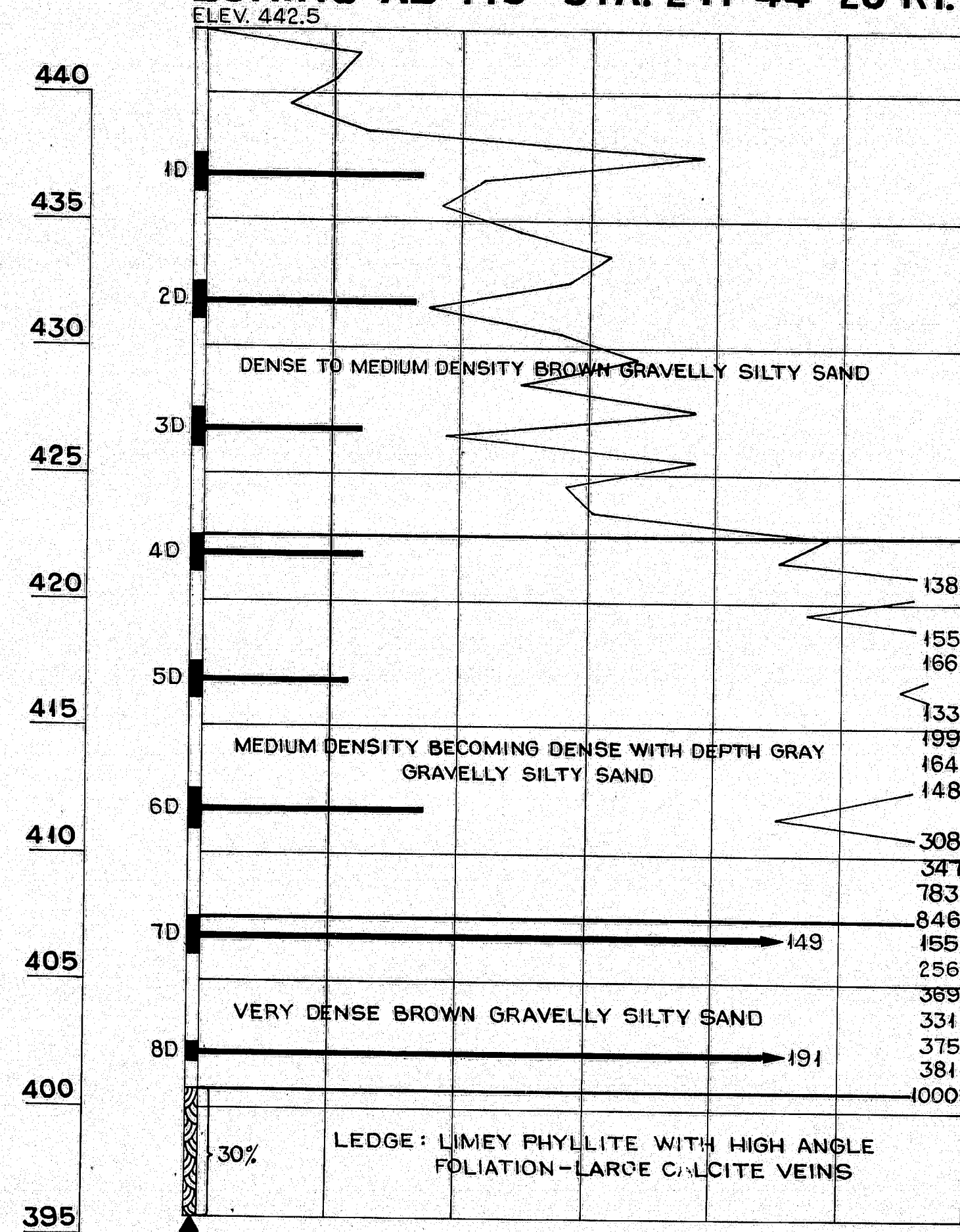
BORING AB-147 STA. 270+44 12'RT.



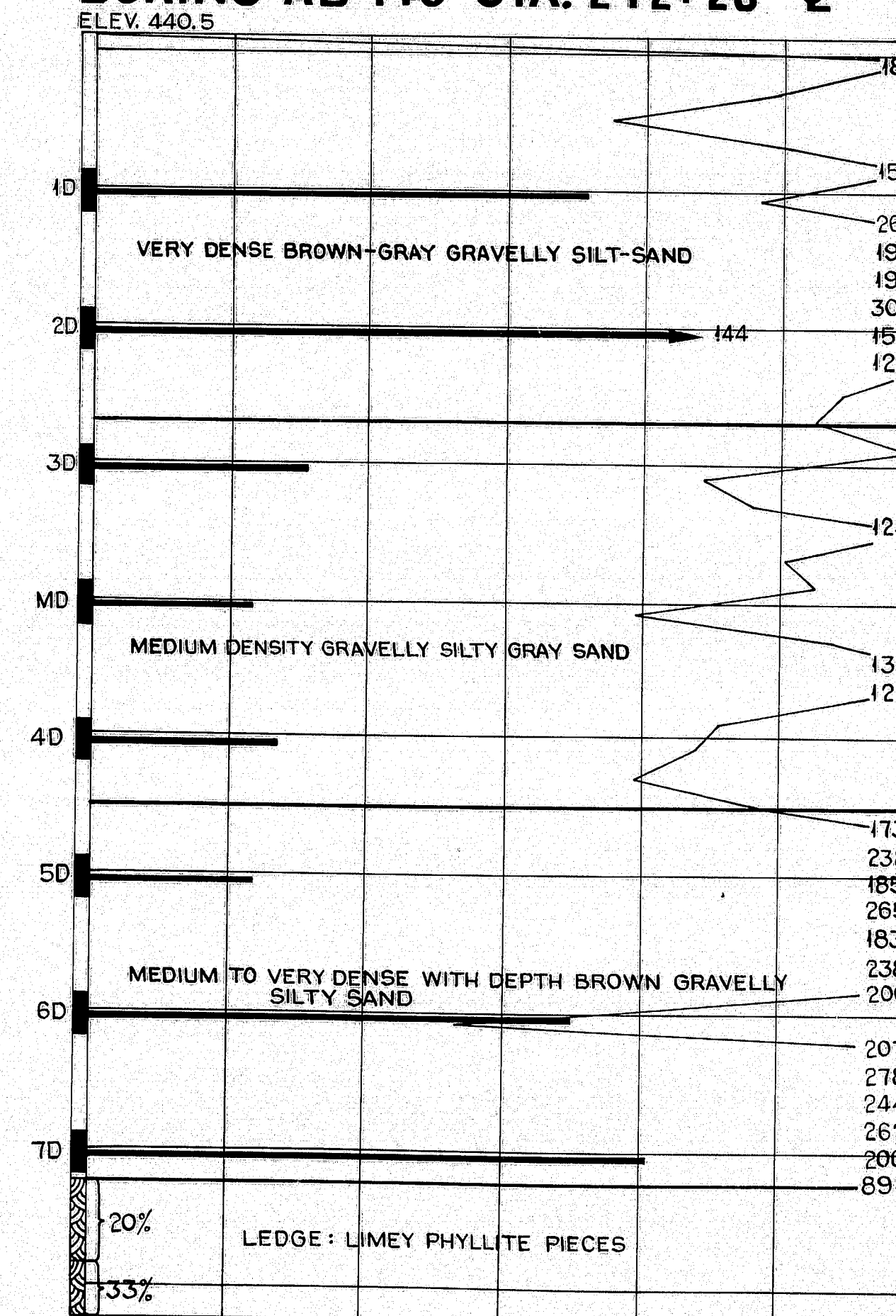
BORING AB-144 STA. 271+44 15'LT.

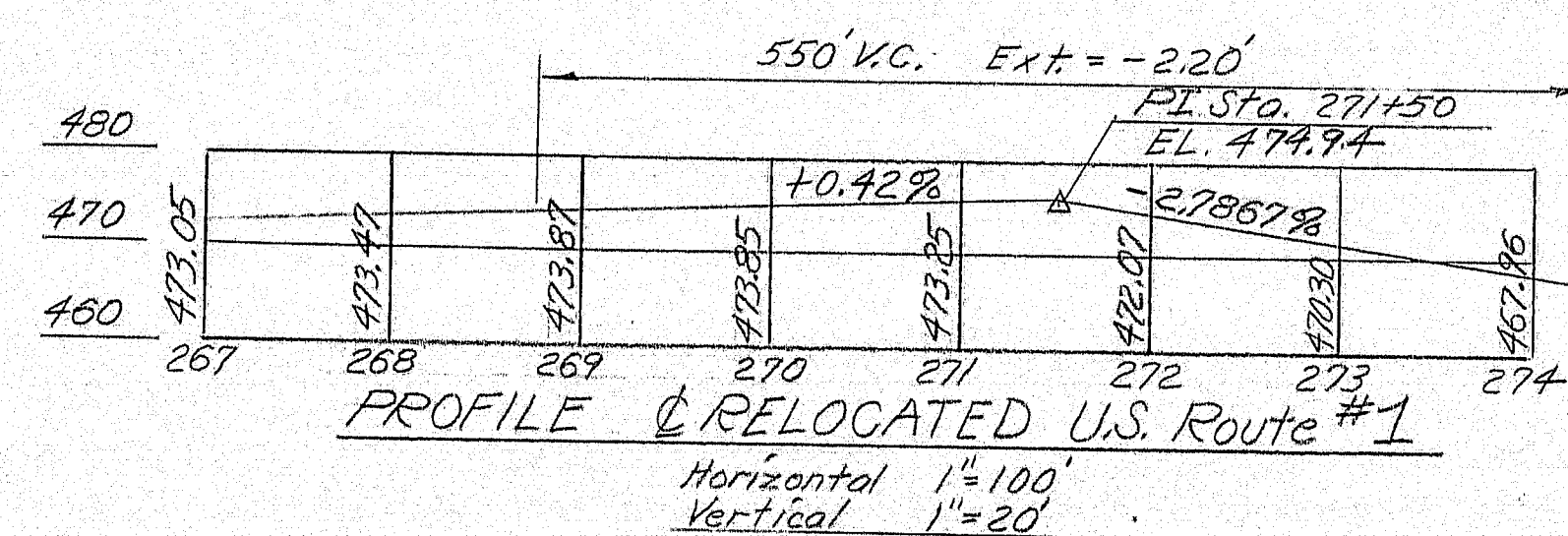
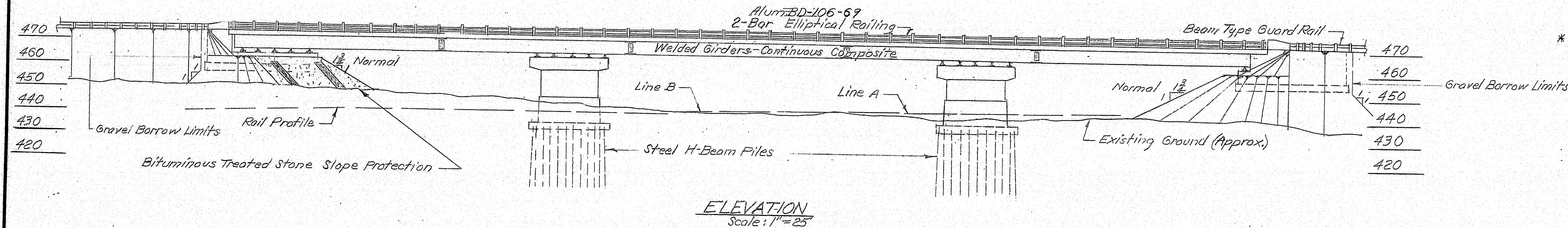
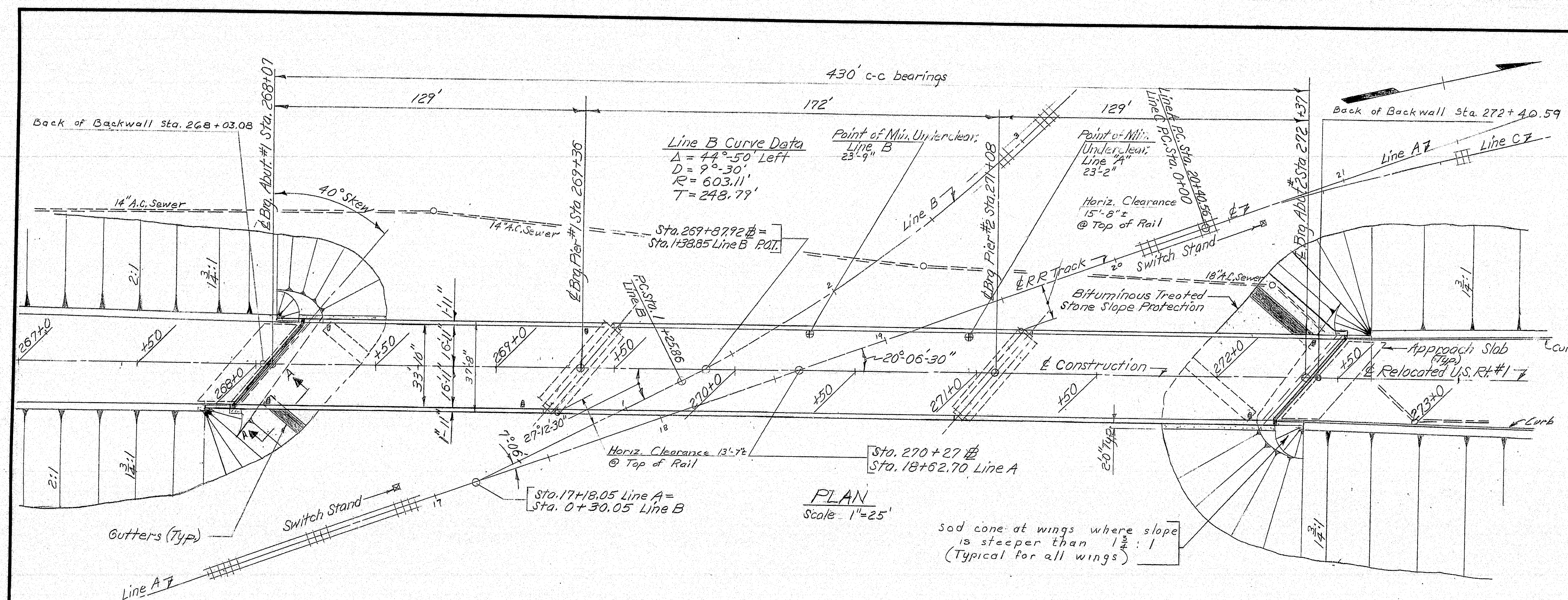


BORING AB-145 STA. 271+44 20'RT.

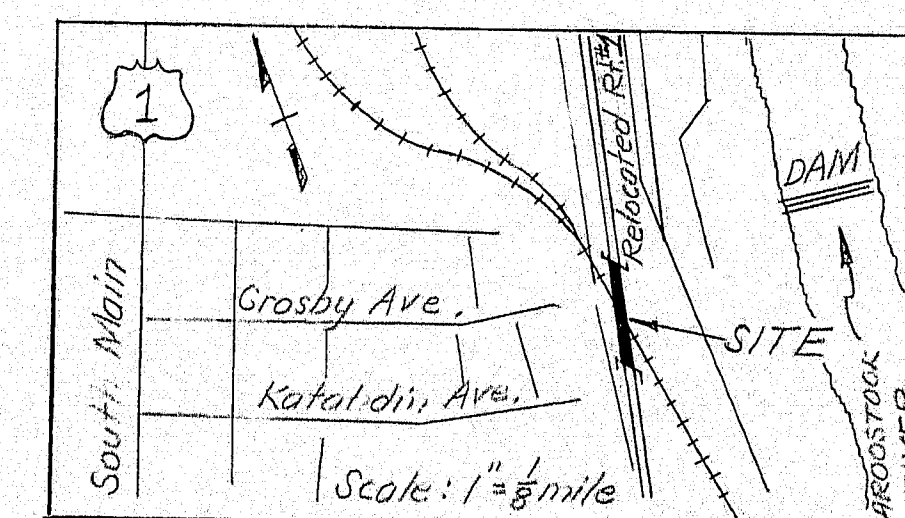
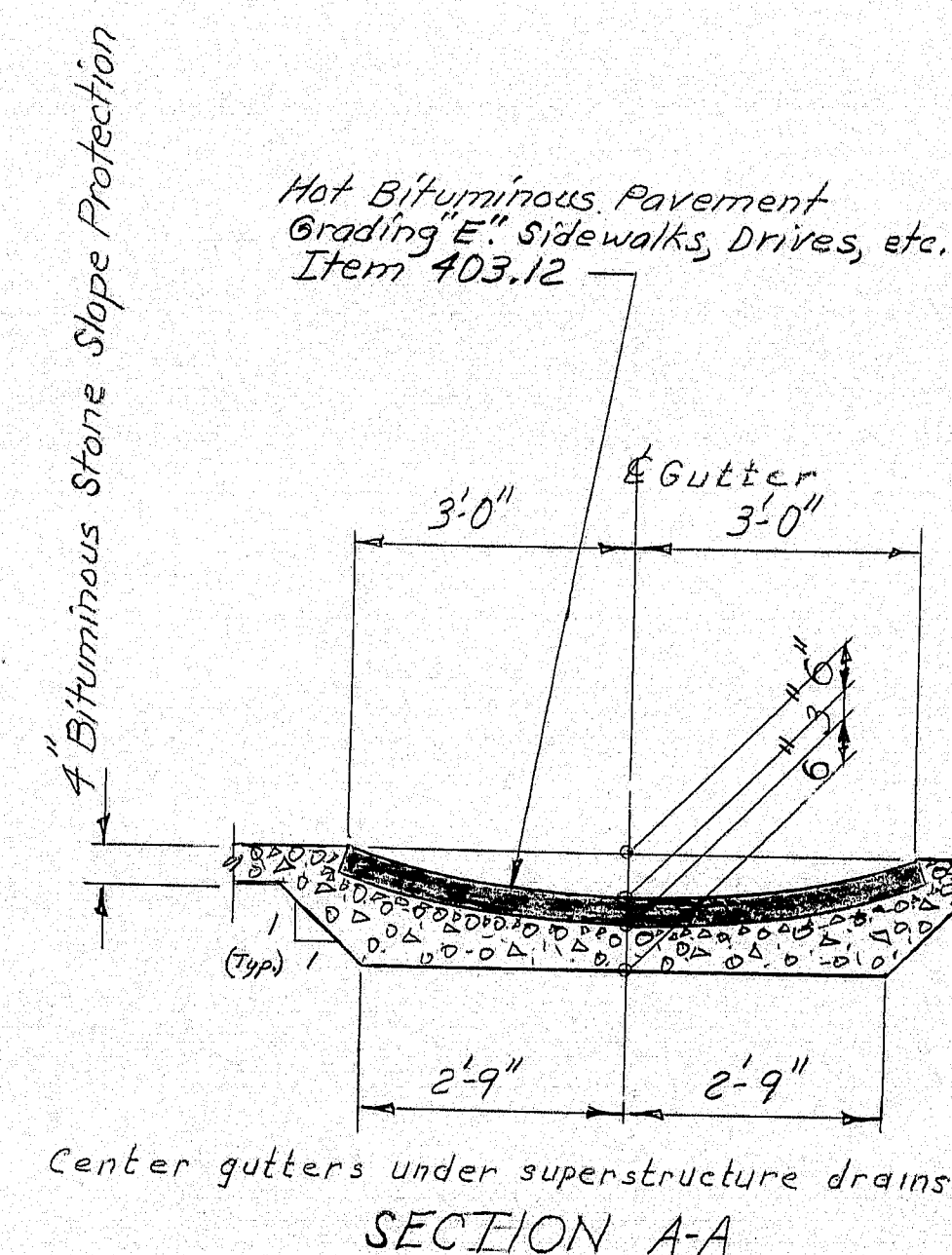
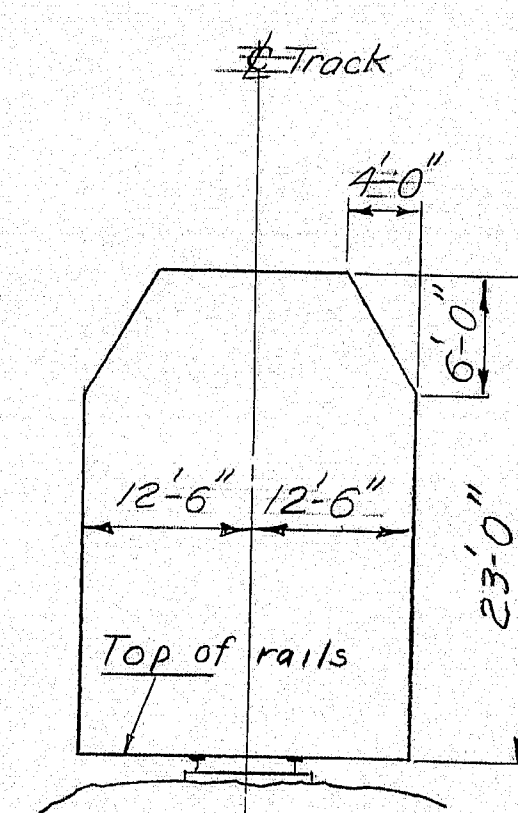


BORING AB-146 STA. 272+26 E



[illegible]

NOTE:
Intersection of Line A
and Line B at :
Sta. 17 + 18.05 Line A =
Sta. 0 + 30.05 Line B



Line C Curve Data
 $\Delta = 25^\circ - 49' - 11''$ Right
 $D = 6^\circ$
 $R = 954.93'$
 $T = 218.86'$

BRIDGE QUANTITIES		
DESCRIPTION	UNIT	QUANTITY
Common Borrow	c.y.	200
Gravel Borrow	c.y.	5,700
Struct. Earth Excav. - Piers	c.y.	350
Aggregate Subbase Crs. - Gravel	c.y.	10
Hot Bit. Pavement Grading "D" (Crushed Ledger)	Ton	180
Hot Bit. Pavement Grading "E" sidewalks etc.	Ton	14
Steel H-beam Piles 57 lbs./ft.	L.F.	1,150
Struct. Conc., Abuts. & Ret. Walls	c.y.	264
Struct. Conc., Piers	c.y.	455
*Struct. Conc., Roadway & Sidewalk Slabs on St. Brg.	L.S.	L.S.
Struct. Conc., Approach Slabs (25.0 C.Y.)	L.S.	L.S.
Reinforcing Steel, Fabricated & Deliv.	lbs.	148,000
Reinforcing Steel, Placing	lbs.	148,000
*Structural Steel, Fab. & Deliv.	L.S.	L.S.
*Struct. Steel, Erection	L.S.	L.S.
Shear Connectors (3150 Studs)	L.S.	L.S.
*Field Painting, Struct. Steel	L.S.	L.S.
Bridge Railing	L.F.	870
Membrane Waterproofing	s.y.	1,620
Slope Protection - Bit. Treated Stone	s.y.	510
Curing Box for Concrete Cylinders	each	1
Protective Coating for Concrete Surfaces	s.y.	150
Vertical Bridge Curb - Type 1	L.F.	900
Field Office, Type B	each	1
Common Excavation	c.y.	150

* The approximate weight of structural steel based on nominal sizes, but not including the wt. of welds, nuts, bolts, washers or rivets, is 665,000 pounds.

**** Superstructure Concrete = 485.0 C.Y.**

SPECIFICATIONS

DESIGN: A.A.S.H.O. Standard Specifications for Highway Bridges 1965 with interim revisions 1966-67.

CONTRACT: State of Maine, State Highway Commission
Standard Specifications for Highways &
Bridges, Revision of June 1968.

LIVE LOADING

11520-74

ALLOWABLE STRESSES

Concrete: $f_c = 1200 \text{ psi}$; $n = 10$

Reinforcing Steel: Intermediate Grade - $f_s = 20,000$ psi

Structural Steel: A572 Grade 50 - $f_y = 29,000 \text{ p.s.i.}$ (basis)

CONCRETE CLASSIFICATION

All Concrete to be Class "A."

STRUCTURAL-STEEL CLASSIFICATION

Girder Web, Flanges, & Stiffener Plates - A572 Grade 50

Anchor Bolts - A36 or A307.

All other - A36

Splice Bolts - $\frac{7}{8}" \phi$ High Strength - A325

DESIGN- A.H.R.
TRACE-DET- E.V.S.
CHECK- C.D.H. 6-69

BRIDGE NO.
SURVEY-
PLOT-

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

RELOCATED U.S. ROUTE 1
OVER

BANGOR AND AROOSTOOK R.R.

IN THE CITY OF

CARIBOU

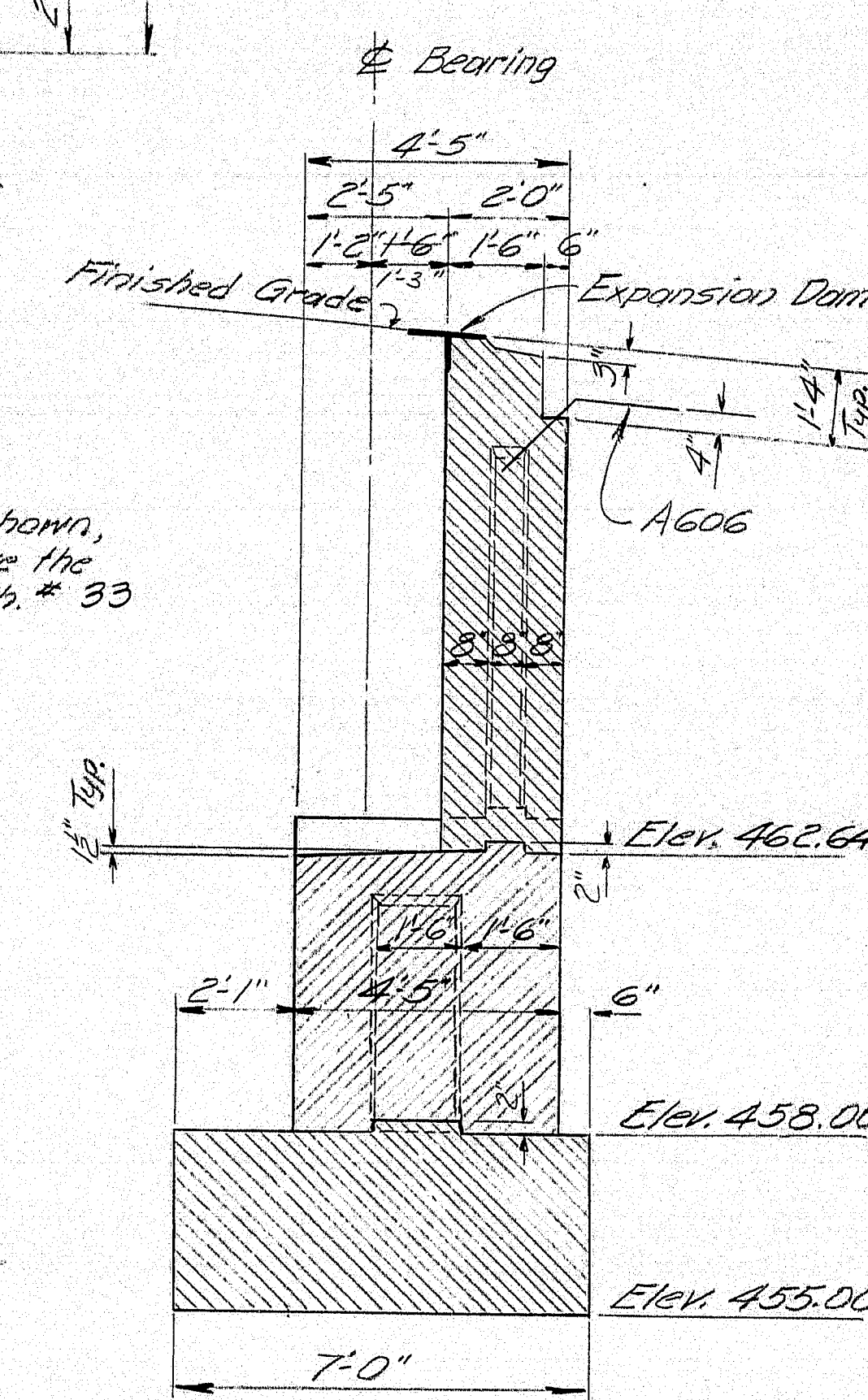
AROOSTOOK COUNTY

GENERAL PLAN

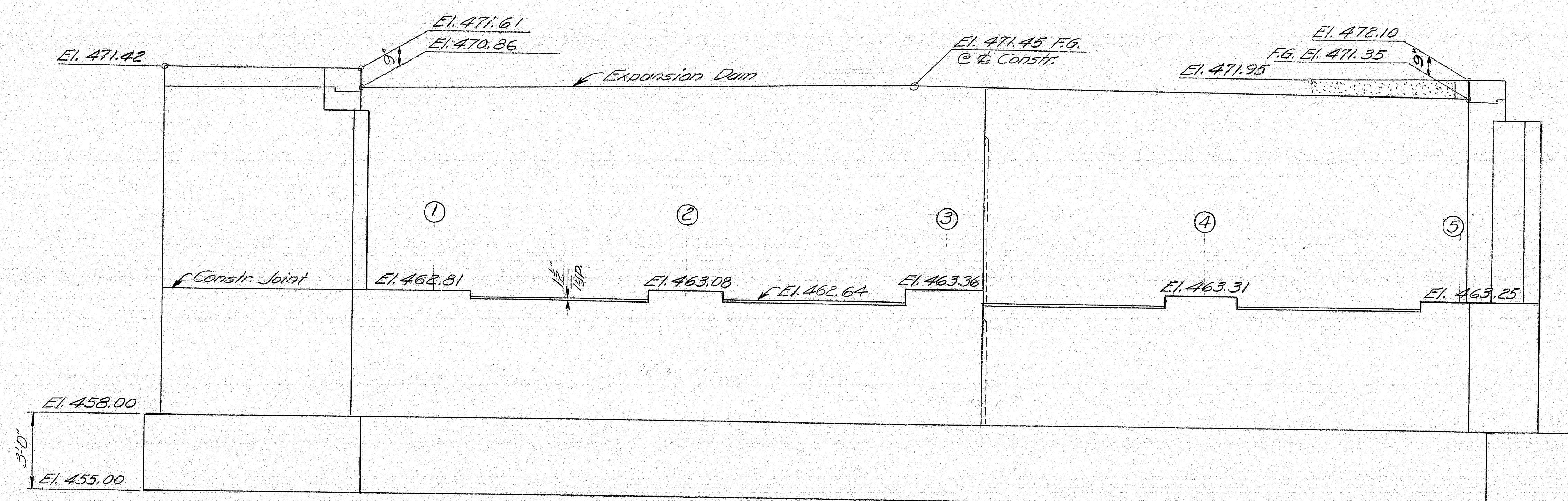
SHEET 4 OF 17 AUGUSTA, MAINE JUNE 1968

SHEET 4 OF 17 AUGUSTA, MAINE JUNE 1969

PLANS	DESIGN - DETAILED	BY A.H.R. G.W.C.	DATE 6-69
	CHECKED		
	REVISIONS		
	FIELD CHANGES		



NOTE: Abutment details not shown,
and reinforcing steel are the
same as for Abut. #1, sh. # 33



FRONT ELEVATION ~ ABUT. No. 2
Note: See sheet # 7 for footing and wing details

99-244

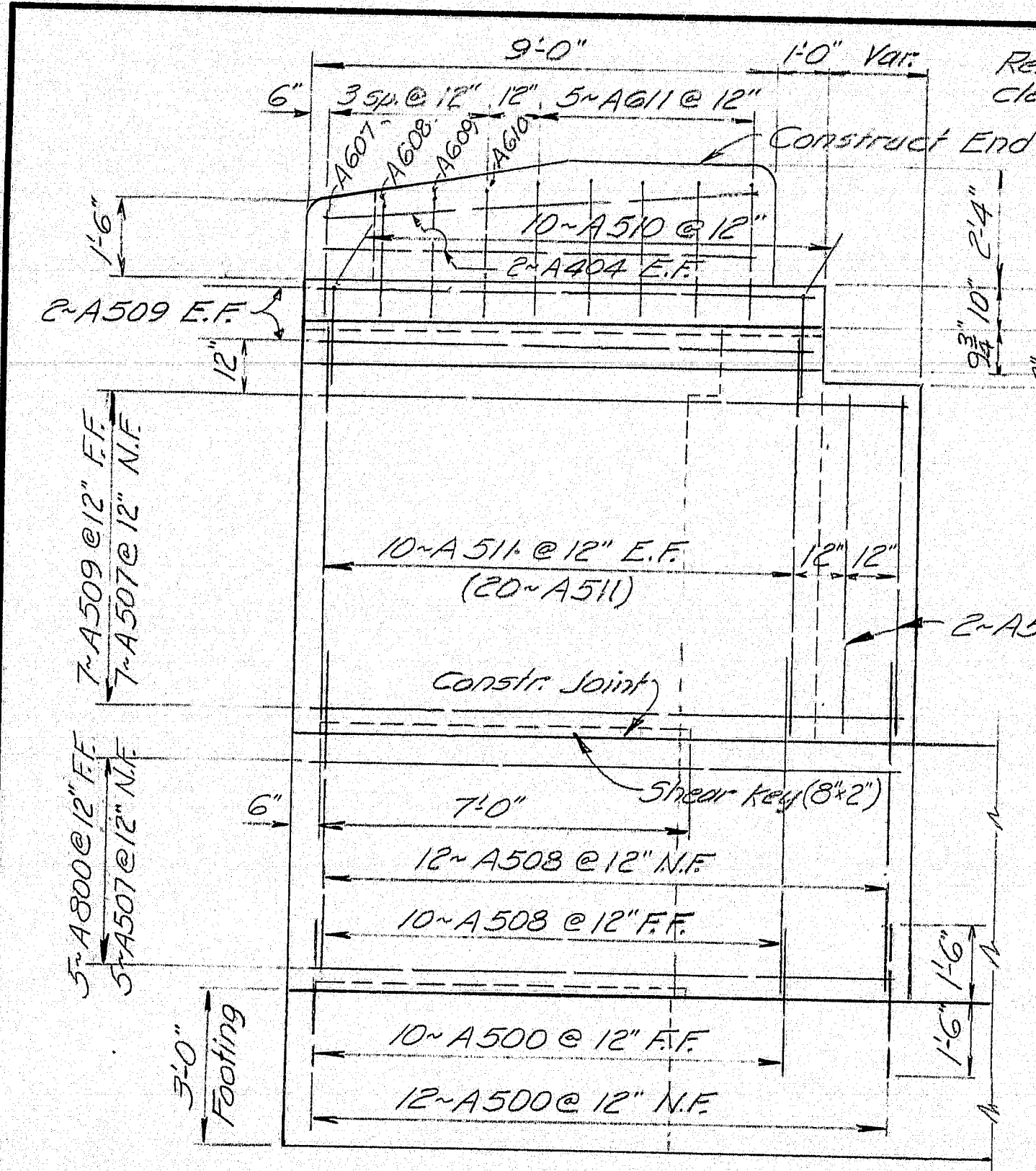
Revised as built 1-20-71 CRB

STATE HIGHWAY COMMISSION

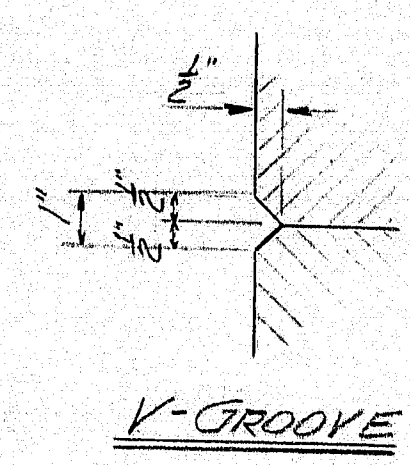
RELOCATED U.S. ROUTE 1
OVER
BANGOR AND AROOSTOOK R.R.
IN THE CITY OF
CARIBOU
AROOSTOOK COUNTY
ABUTMENT # 2

SHEET 6 OF 17 AUGUSTA, MAINE, JUNE 1969

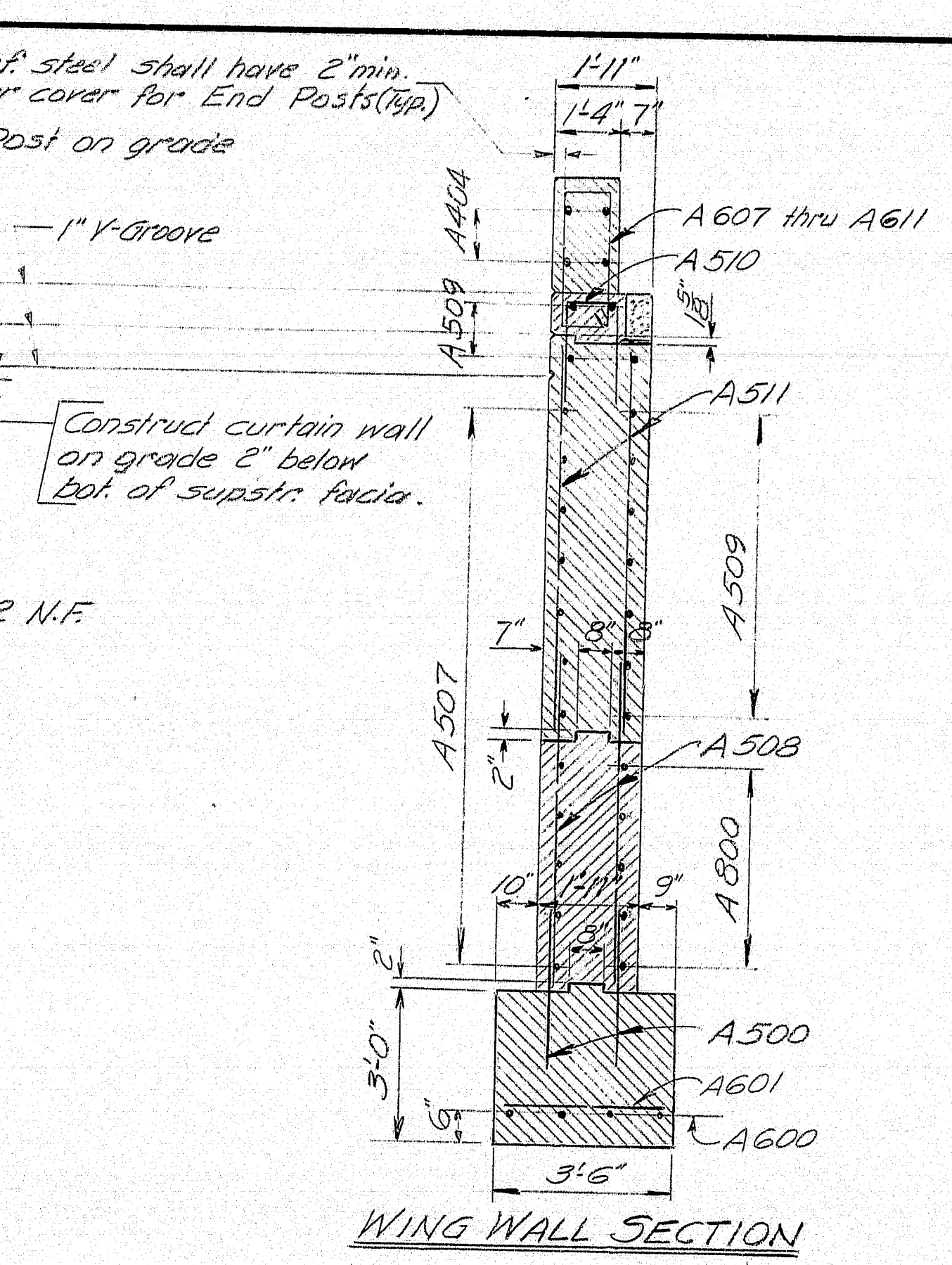
DESIGN - DETAILED	BY	DATE
CHECKED	A.H.R. G.W.C.	6-69
REVISIONS		
FIELD CHANGES		
PLANS		



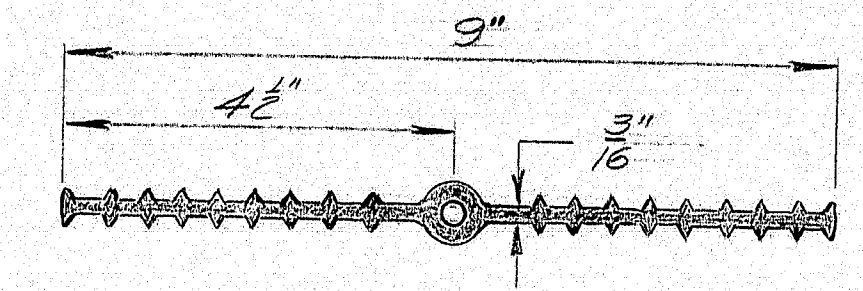
TYPICAL WING WALL ELEVATION
For dimensions and elevations not shown see Sht. #32 (Abut. #1) and Sht. #33 (Abut. #2)



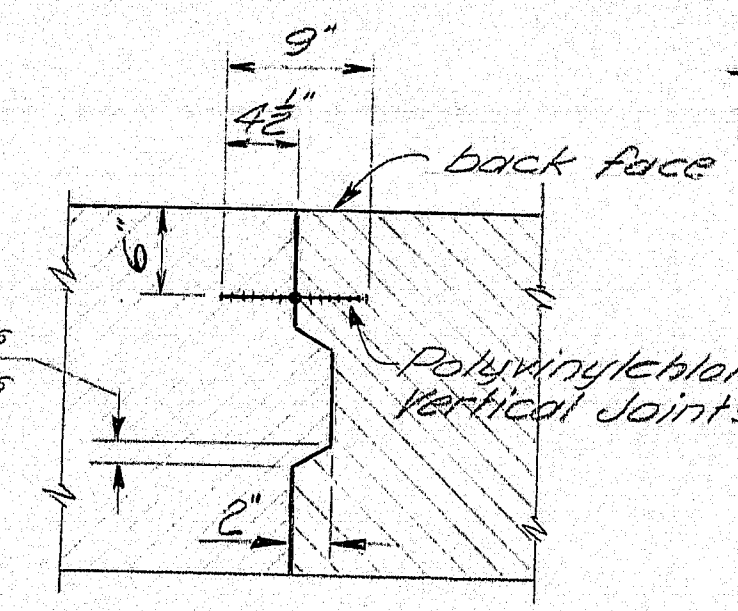
V-GROOVE



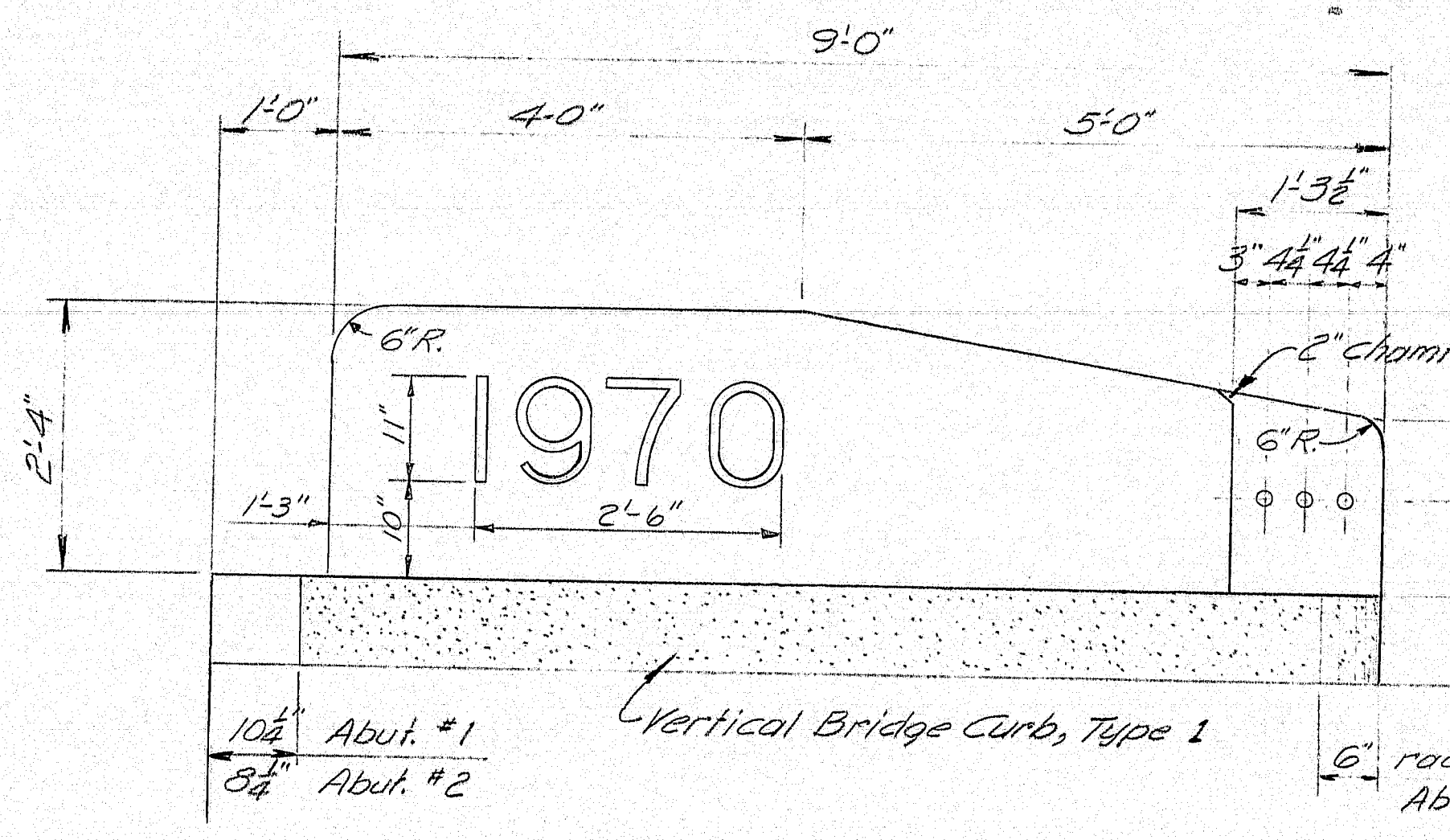
WING WALL SECTION



POLYVINYLCHLORIDE WATERSTOP

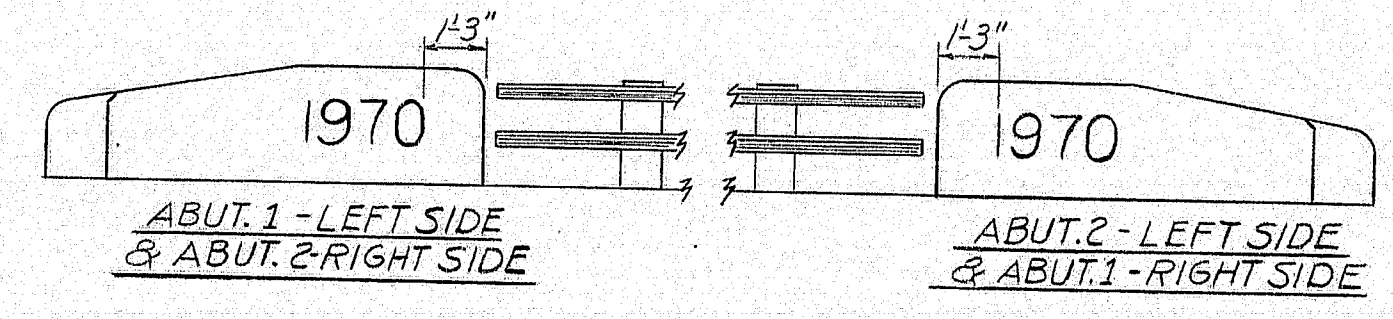


CONSTRUCTION JOINT

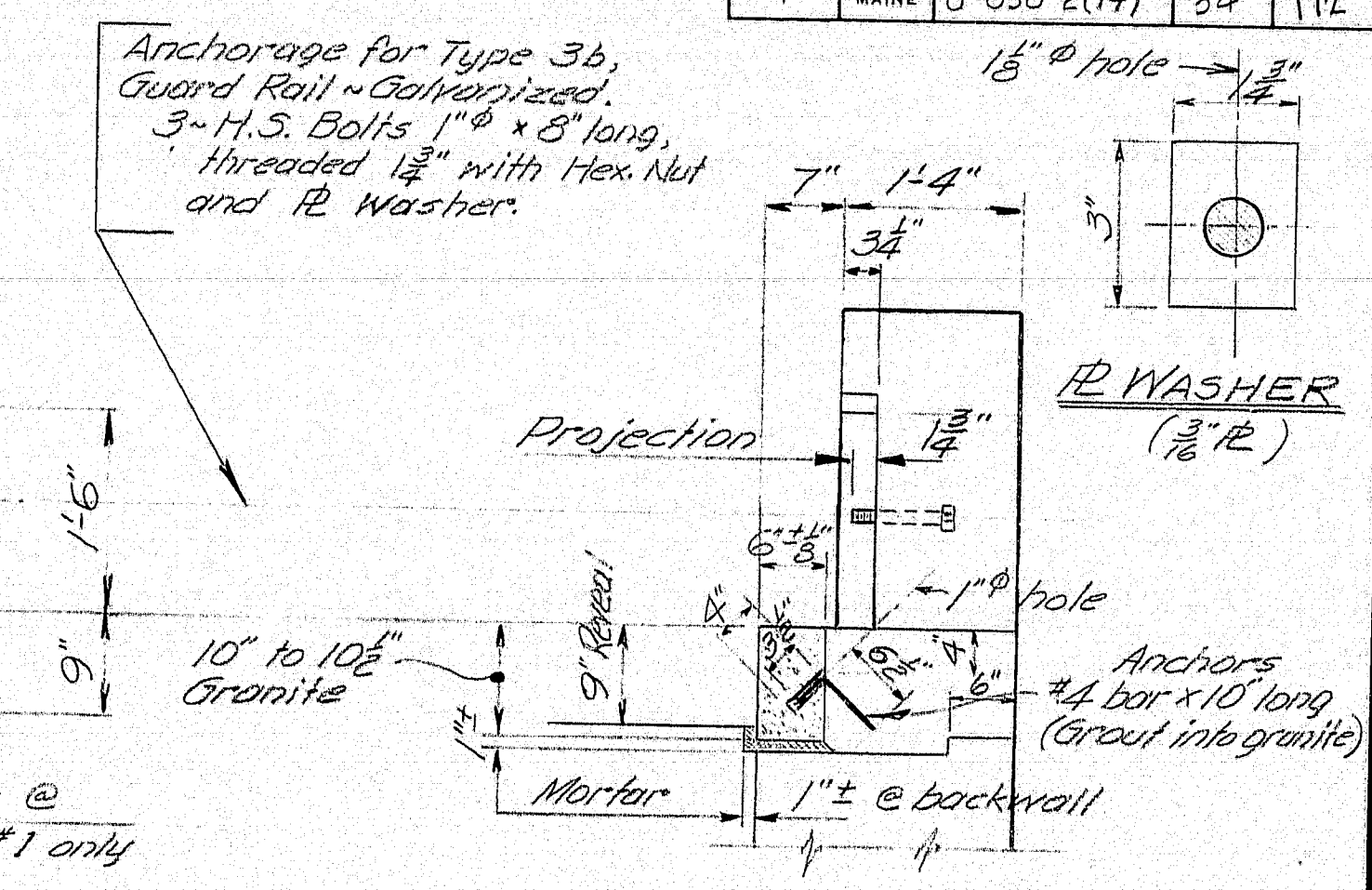


NOTE: Payment for concrete End Posts shall be made under Item 502.21 "Structural Conc. Abut. & Ret. Walls".
Payment for furnishing & installing Anchorage for guard rail shall be considered incidental to contract items.

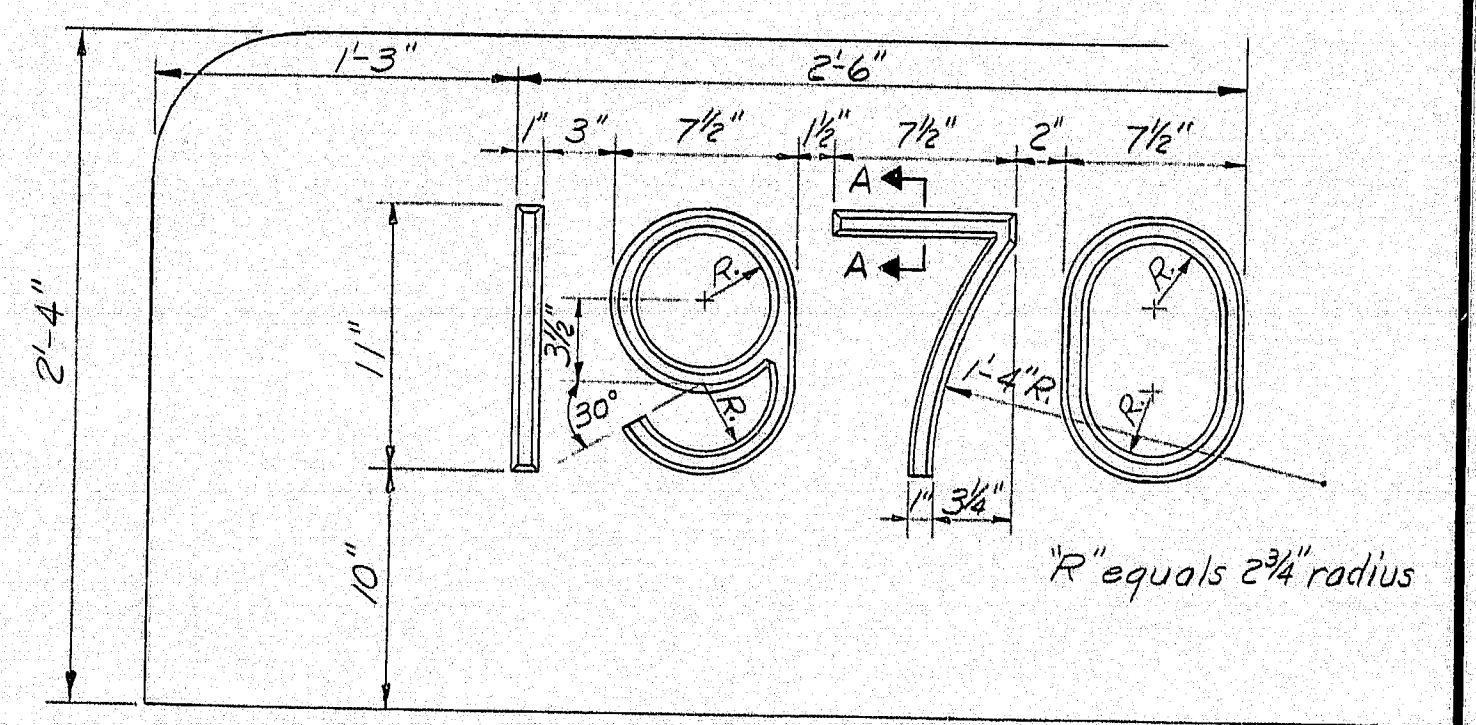
CONCRETE END POST AND VERTICAL BRIDGE CURB, TYPE 1



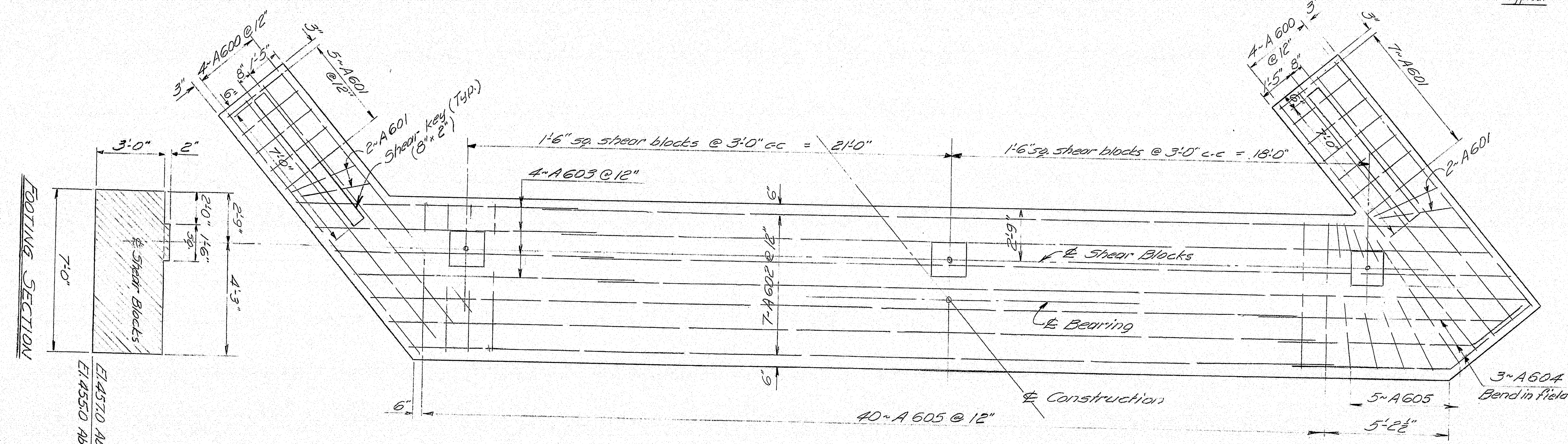
ABUT. 1 - LEFT SIDE & ABUT. 2 - RIGHT SIDE



END DETAILS



DETAIL OF NUMERALS



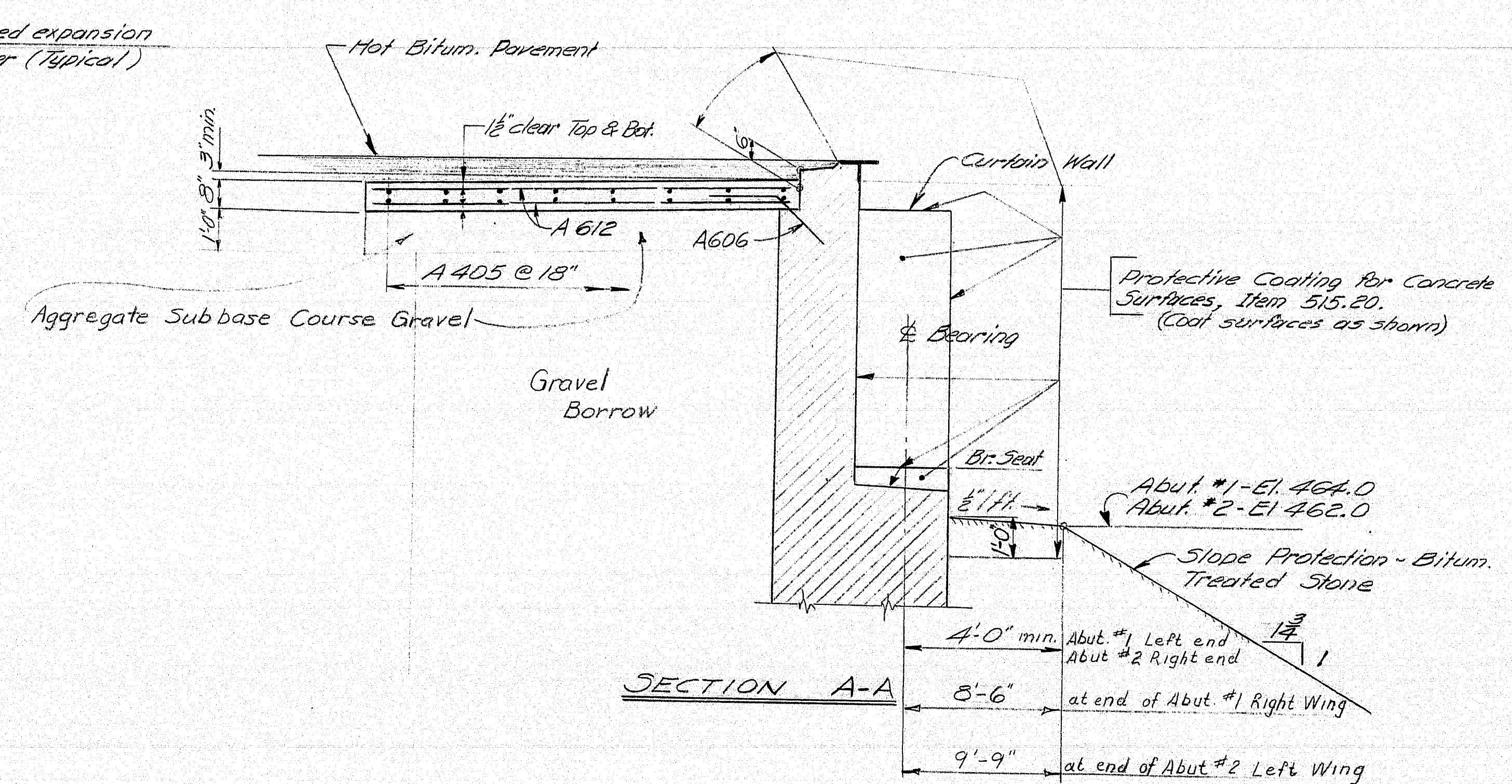
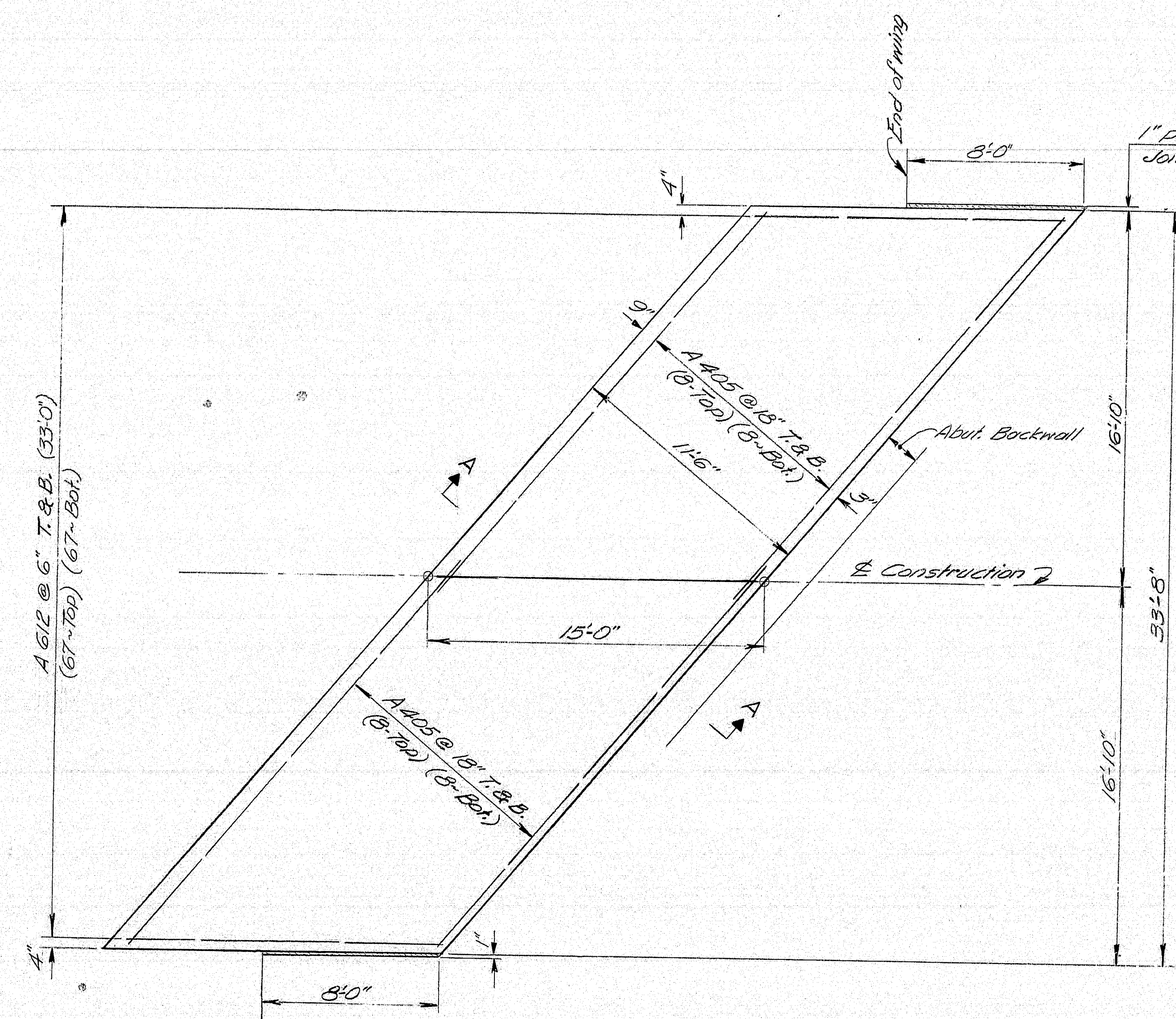
ABUTMENT FOOTING
Abut. #1 ~ As shown
Rotate 130° ~ Abut. #2

- GENERAL NOTES**
1. Chamfer all exposed edges of concrete 1/2 inch.
 2. All reinforcing steel to have 3" clear cover unless noted, and all splices and embedments to be a minimum of 24 bar diameters.
 3. Place reinforcing steel in bridge seats to clear anchor bolts of Bearing Pedestals.
 4. For treatment of shaded areas on bearing pads see sheet #40 "Bearing Pedestals".
 5. For concrete surfaces to be coated with "Protective Coating for Concrete Surfaces", see sheet #35.
 6. Max. Toe Pressure = 3.0 Tons per sq. ft.

STATE HIGHWAY COMMISSION
RELOCATED U.S. ROUTE 1
OVER
BANGOR AND AROOSTOOK R.R.
IN THE CITY OF
CARIBOU
AROOSTOOK COUNTY
FOOTINGS AND ABUTMENT DETAILS
SHEET 7 OF 17 AUGUSTA, MAINE JUNE 1969

99-245

SHEET NO.	TOTAL SHEETS
35	172



APPROACH SLAB

Abut. #1 - As shown
Rotate 180° for Abut. #2

NOTE: Approach Slab Concrete to be paid for under Item 502.31, Structural Concrete, Approach Slabs.

PLANS	DESIGN - DETAILED	BY	DATE
	CHG.	A.H.R. (G.W.C.)	2/67
	REVISIONS		
	FIELD CHANGES		

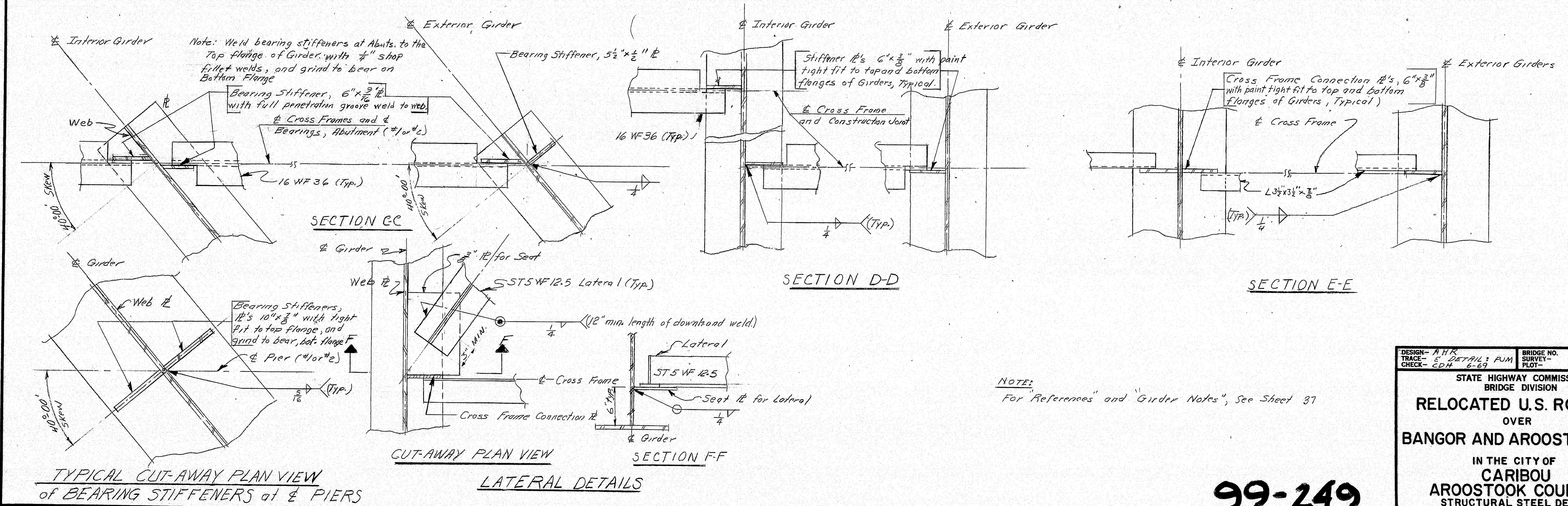
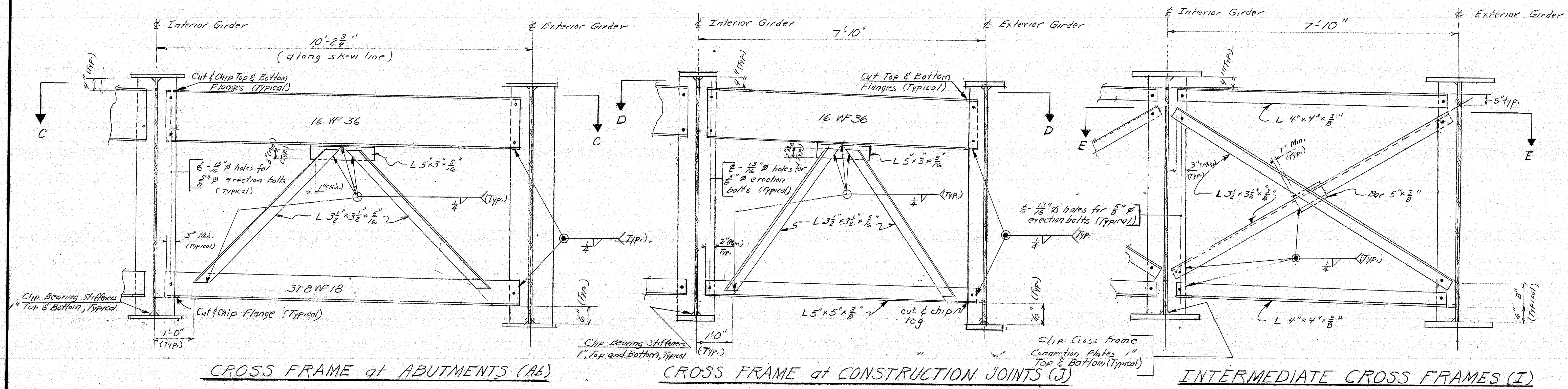
STATE HIGHWAY COMMISSION

RELOCATED U.S. ROUTE 1
OVER
BANGOR AND AROOSTOOK R.R.
IN THE CITY OF
CARIBOU
AROOSTOOK COUNTY

APPROACH SLABS AND ABUTMENT DETAILS
SHEET 8 OF 17 AUGUSTA, MAINE JUNE 1969

99-246

B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	U-050-2(14)	38	171



NOTE:
 For "References" and "Girder Notes", See Sheet 37

DESIGN - M.H.R.
 TRACE - S. DETAIL: FUM
 CHECK - EDH 6-59

BRIDGE NO. 1
 SURVEY - 1959

STATE HIGHWAY COMMISSION
 BRIDGE DIVISION

RELOCATED U.S. ROUTE 1
 OVER
 BANGOR AND AROOSTOOK R.R.

IN THE CITY OF
 CARIBOU
 AROOSTOOK COUNTY
 STRUCTURAL STEEL DETAILS

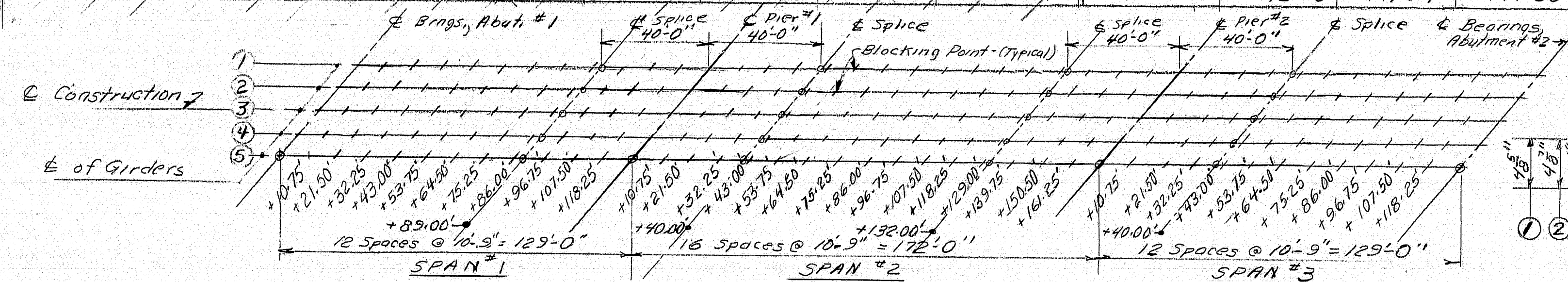
SHEET 11 OF 17 AUGUSTA, MAINE JUNE 1969

99-249

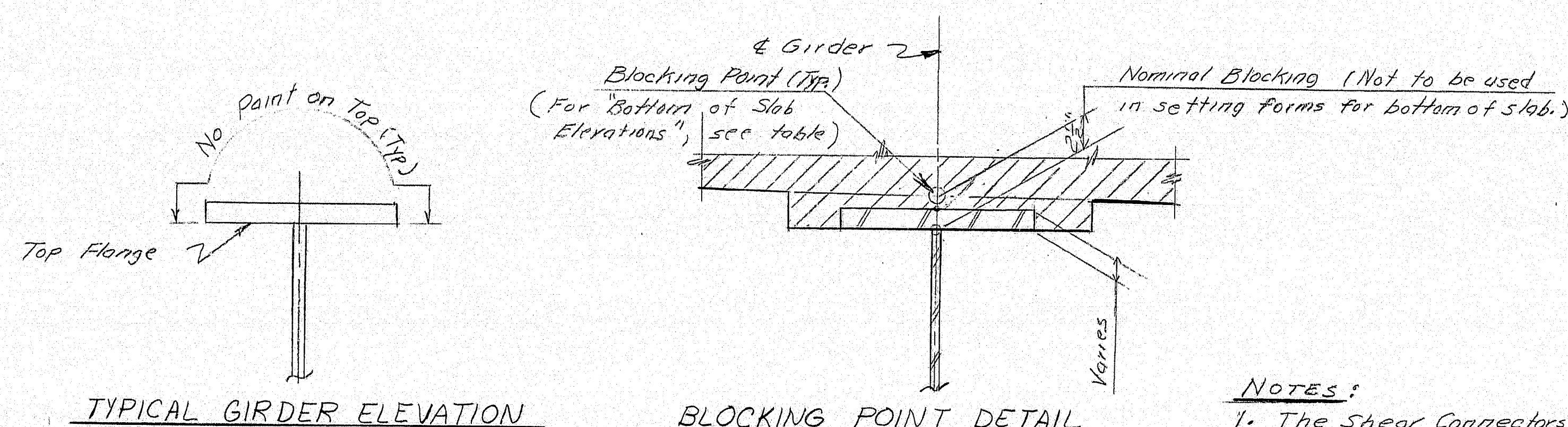
* BOTTOM of SLAB ELEVATIONS (For Span #2 see (Span #2-Revised) Table below)																				
SPAN #1											SPAN #2									
SPACING	BEAMS AB. #1	+10.75'	+21.50'	+32.25'	+43.00'	+53.75'	+64.50'	+75.25'	+86.00'	+96.75'	+107.50'	+118.25'	PIER #1	PIER #1	+10.75'	+21.50'	+32.25'	+43.00'	+53.75'	+64.50'
1	472.37	472.47	472.56	472.64	472.70	472.75	472.78	472.79	472.79	472.78	472.77	472.76	472.76	472.76	472.76	472.76	472.78	472.80	472.81	472.81
2	472.51	472.61	472.69	472.77	472.84	472.88	472.91	472.93	472.93	472.93	472.92	472.92	472.92	472.92	472.92	472.93	472.95	472.97	472.99	472.99
3	472.64	472.74	472.83	472.91	472.97	473.02	473.05	473.07	473.08	473.08	473.07	473.07	473.08	473.08	473.10	473.12	473.15	473.16	473.17	473.19
4	472.75	472.85	472.94	473.02	473.08	473.13	473.16	473.18	473.18	473.18	473.17	473.17	473.18	473.18	473.20	473.22	473.25	473.26	473.27	473.29
5	472.86	472.96	473.05	473.13	473.19	473.24	473.27	473.29	473.29	473.29	473.28	473.28	473.29	473.29	473.31	473.33	473.36	473.37	473.38	473.40

* NOTE: Bottom of Slab Elevations (in tables) include "Dead Load Deflections". Before these Elevations are used in setting slab forms, the shear connectors shall be welded to top flange of beams, and all Cross Frame field welding shall be completed.

* BOTTOM of SLAB ELEVATIONS CONTINUED (For Span #2 see (Span #2-Revised) Table below)																				
SPAN #2, CONTINUED											SPAN #3									
SPACING	BEAMS AB. #2	+96.75'	+107.50'	+118.25'	+129.00'	+139.75'	+150.50'	+161.25'	PIER #2	PIER #2	+10.75'	+21.50'	+32.25'	+43.00'	+53.75'	+64.50'	+75.25'	+86.00'	+96.75'	+107.50'
1	472.68	472.60	472.49	472.37	472.34	472.25	472.12	471.98	471.87	471.87	471.76	471.66	471.56	471.50	471.46	471.35	471.23	471.09	470.93	470.74
2	472.88	472.80	472.70	472.58	472.55	472.46	472.34	472.22	472.10	472.10	472.00	471.90	471.80	471.73	471.70	471.60	471.48	471.35	471.19	471.01
3	473.08	473.00	472.90	472.79	472.76	472.68	472.56	472.44	472.33	472.33	472.23	472.13	472.04	471.98	471.96	471.85	471.73	471.60	471.45	471.27
4	473.28	473.20	473.10	473.00	472.97	472.89	472.77	472.65	472.54	472.54	472.44	472.34	472.25	472.19	472.17	472.06	471.94	471.81	471.66	471.48
5	473.48	473.40	473.30	473.20	473.17	473.09	472.97	472.85	472.74	472.74	472.64	472.54	472.46	472.40	472.38	472.27	472.15	472.02	471.87	471.69



BLOCKING PLAN



TYPICAL GIRDER ELEVATION

BLOCKING POINT DETAIL

BOTTOM of SLAB ELEVATIONS										
SPAN #2 (Revised)										
SPACING	BEAMS AB. #2	+10.75'	+21.50'	+32.25'	+43.00'	+53.75'	+64.50'	+75.25'	+86.25'	
1	472.82	472.84	472.86	472.88	472.89	472.89	472.90	472.90	472.88	472.83
2	472.97	473.00	473.03	473.05	473.07	473.07	473.08	473.08	473.07	473.03
3	473.12	473.16	473.20	473.23	473.24	473.25	473.27	473.27	473.26	473.22
4	473.27	473.31	473.35	473.38	473.39	473.40	473.41	473.41	473.40	473.36
5	473.42	473.46	473.50	473.53	473.54	473.55	473.56	473.56	473.55	473.51

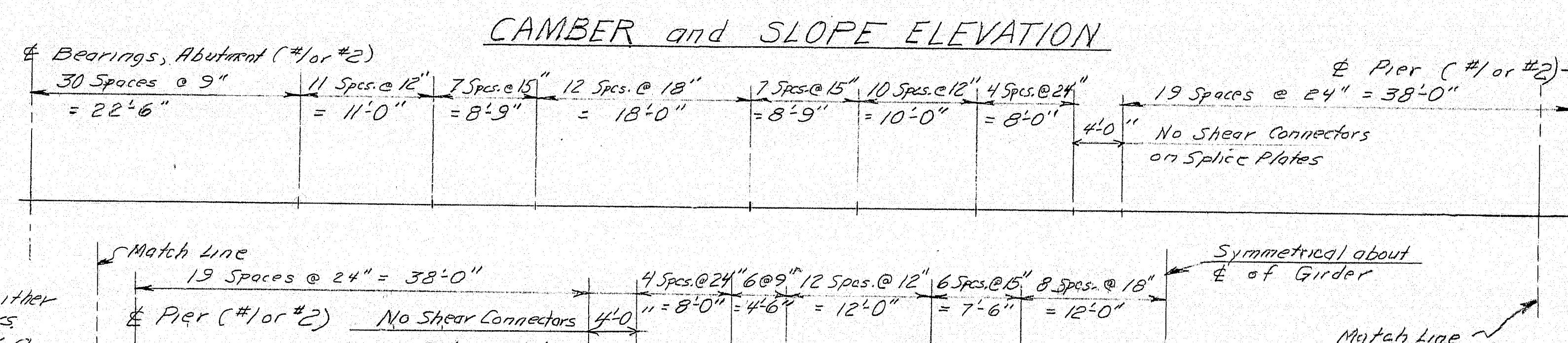
SPAN #2 Cont'd.										
SPACING	BEAMS AB. #2	+10.75'	+21.50'	+32.25'	+43.00'	+53.75'	+64.50'	+75.25'	+86.25'	
1	472.76	472.68	472.57	472.43	472.40	472.29	472.14	471.98	471.87	471.87
2	472.96	472.88	472.78	472.65	472.62	472.51	472.37	472.23	472.10	472.10
3	473.16	473.08	472.98	472.87	472.84	472.74	472.60	472.46	472.33	472.33
4	473.36	473.28	473.18	473.07	473.04	472.94	472.80	472.66	472.53	472.53
5	473.56	473.48	473.38	473.27	473.24	473.14	473.00	472.86	472.73	472.73

Note: Revised Aug. 3, 1970 JMR

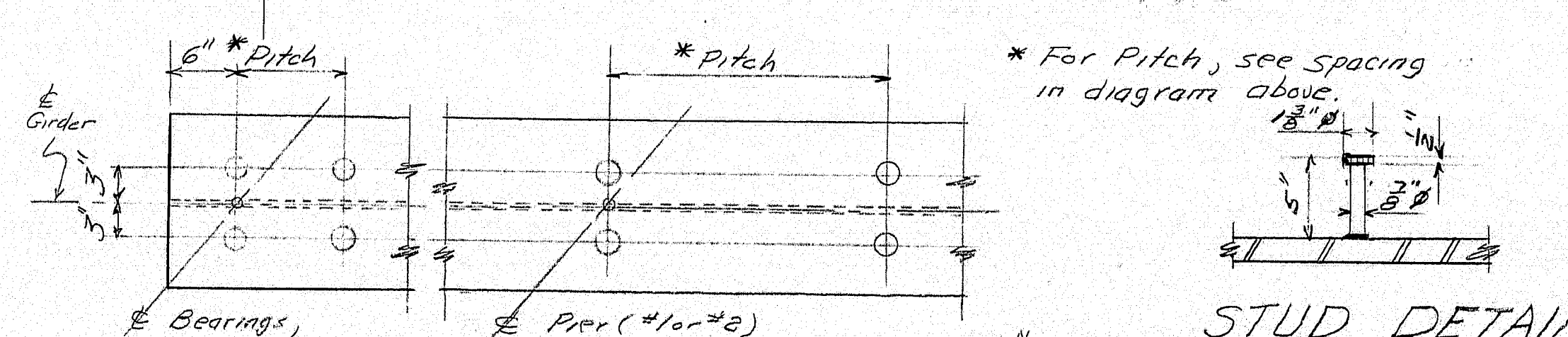
SPAN #1										
SPACING	BEAMS AB. #1	+10.75'	+21.50'	+32.25'	+43.00'	+53.75'	+64.50'	+75.25'	+86.25'	
1	472.78	472.79	472.80	472.82	472.83	472.83	472.83	472.83	472.83	472.83
2	472.93	472.93	472.95	472.97	472.97	472.97	472.97	472.97	472.97	472.97
3	473.07	473.07	473.09	473.11	473.11	473.11	473.11	473.11	473.11	473.11
4	473.21	473.21	473.23	473.25	473.25	473.25	473.25	473.25	473.25	473.25
5	473.35	473.35	473.37	473.39	473.39	473.39	473.39	473.39	473.39	473.39

SPAN #3										
SPACING	BEAMS AB. #3	+10.75'	+21.50'	+32.25'	+43.00'	+53.75'	+64.50'	+75.25'	+86.25'	
1	471.87	471.76	471.66	471.56	471.50	471.46	471.35	471.23	471.09	470.93
2	472.10	472.00	471.90	471.80	471.73	471.70	471.60	471.48	471.35	471.19
3	472.33	472.23	472.13	472.04	471.98	471.96	471.85	471.73	471.60	471.45
4	472.54	472.44	472.34	472.25	472.19	472.17	472.06	471.94	471.81	471.66
5	472.74	472.64	472.54	472.46	472.40	472.38	472.27	472.15	472.02	471.87

- NOTES:
- The Shear Connectors may be either steel studs or spirally formed bars. At the request of the Contractor a plan for using spirally formed bars will be provided.
 - Studs shall be granular or solid flux filled and automatically end welded to the top flange in the shop or field.
 - See sheet 41 for Slab Placement sequence.



DOUBLE SHEAR CONNECTOR DIAGRAM



DOUBLE STUDS

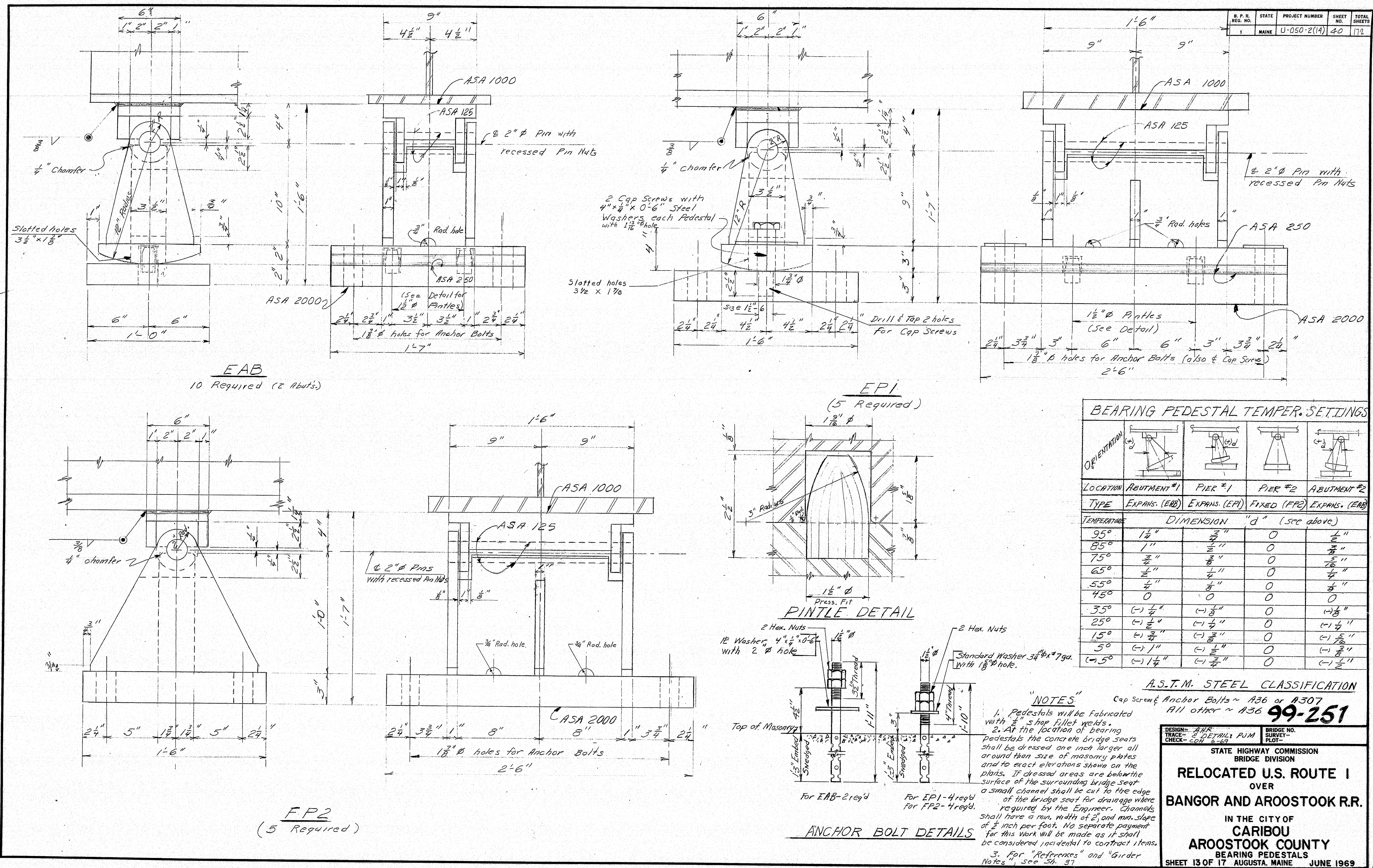
(Studs are to be normal to & Girder)

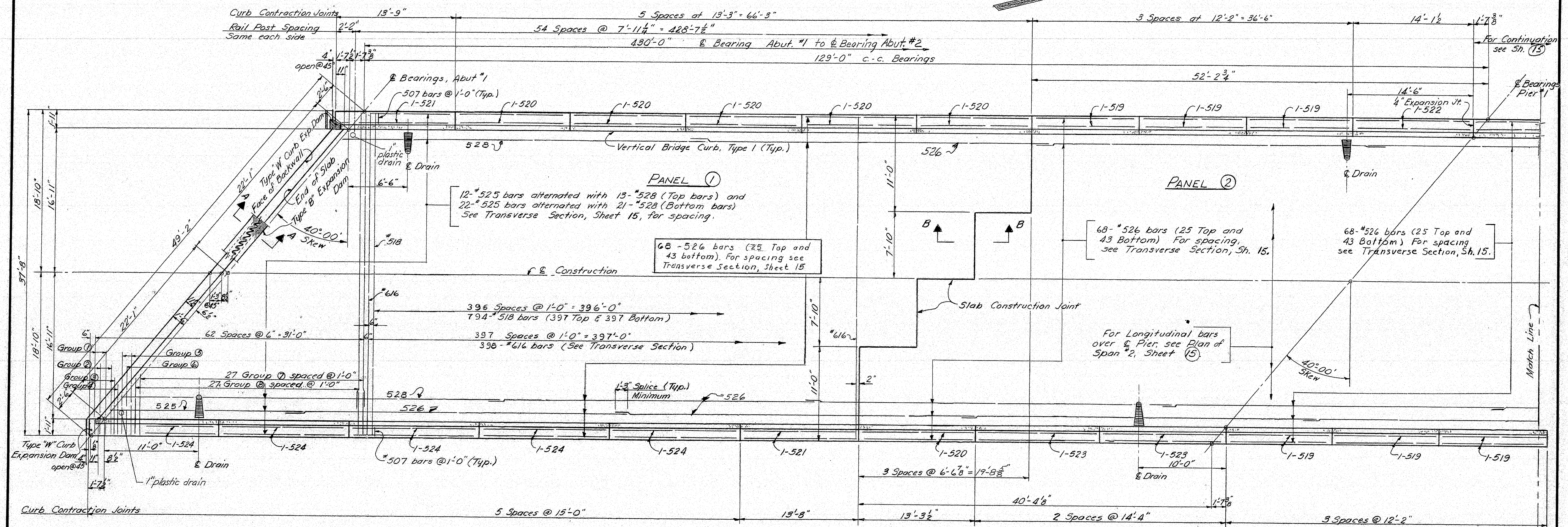
STUD DETAIL

NOTE: 5750 Studs required (with 630 Studs per Girder)

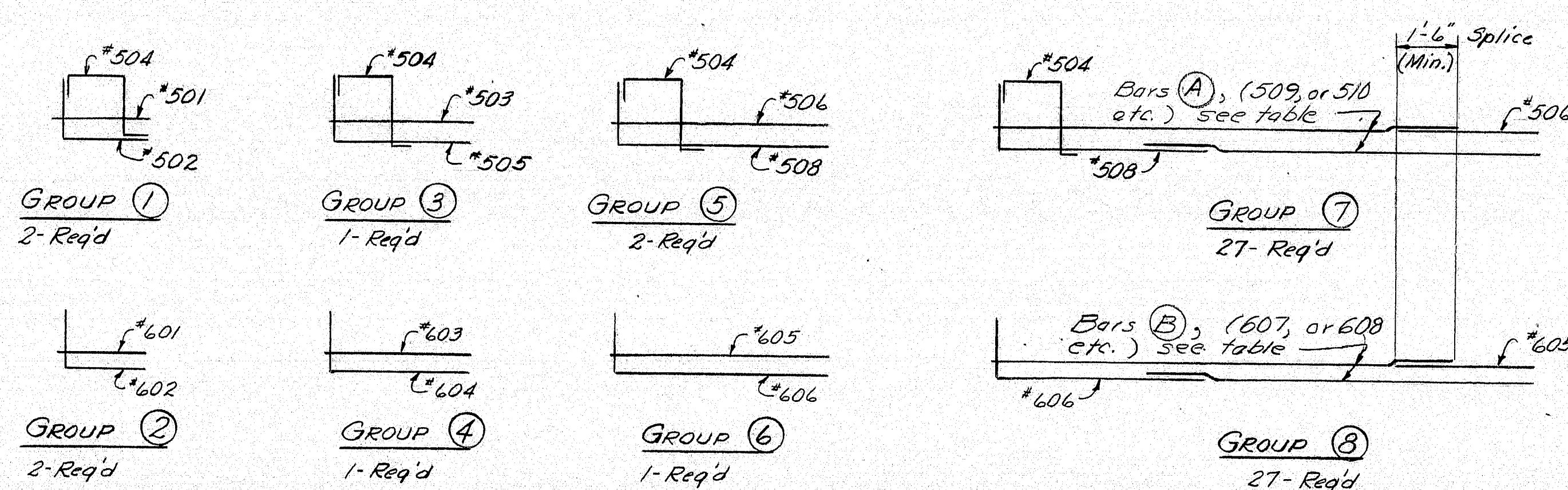
99-250

DESIGN: MHR DEF: PJM
TRACE: CDH SURVEY: 6-69
CHECK: CDH PLOT: 1-70
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
RELOCATED U.S. ROUTE 1
OVER
BANGOR AND AROOSTOOK R.R.
IN THE CITY OF
CARIBOU
AROOSTOOK COUNTY
BLOCKING, CAMBER AND SHEAR CONNECTORS
SHEET 12 OF 17 AUGUSTA, MAINE JUNE 1969





PLAN ~ SPAN #1



REINFORCING BAR GROUPS

Number required shown for Abutment #1 end only.
Same number required at Abutment #2 end.

BARS (A)		BARS (B)	
No.	Mark	No.	Mark
3	509	3	607
3	510	3	608
3	511	3	609
3	512	3	610
3	513	3	611
3	514	3	612
3	515	3	613
3	516	3	614
3	517	3	615

NOTE: Bars (A) will be alternated @ 6" spacing with Bars (B) in succession down the table.

GENERAL NOTES

1. Slab Placement: Place Structural Concrete in Slab Panels marked ① before placing in Panels marked ②.
2. The reinforcing steel in the superstructure slab, both longitudinal and transverse bars, shall extend through the slab construction joints.
3. At curb contraction joints, the ends of the concrete sections shall be painted with a suitable grade of asphalt paint.
4. For Expansion Dams, both Curb and Slab, See Standard Details, BD 105-64.
5. For Drain Details, Section A-A and Section B-B, see Sheet 43.
6. For Transverse Section, See Sheet 42.
7. For Construction joints over Piers and Curb Contraction joint details, V-Groove Details, and Vertical Bridge Curb Details, see Sh. 42.

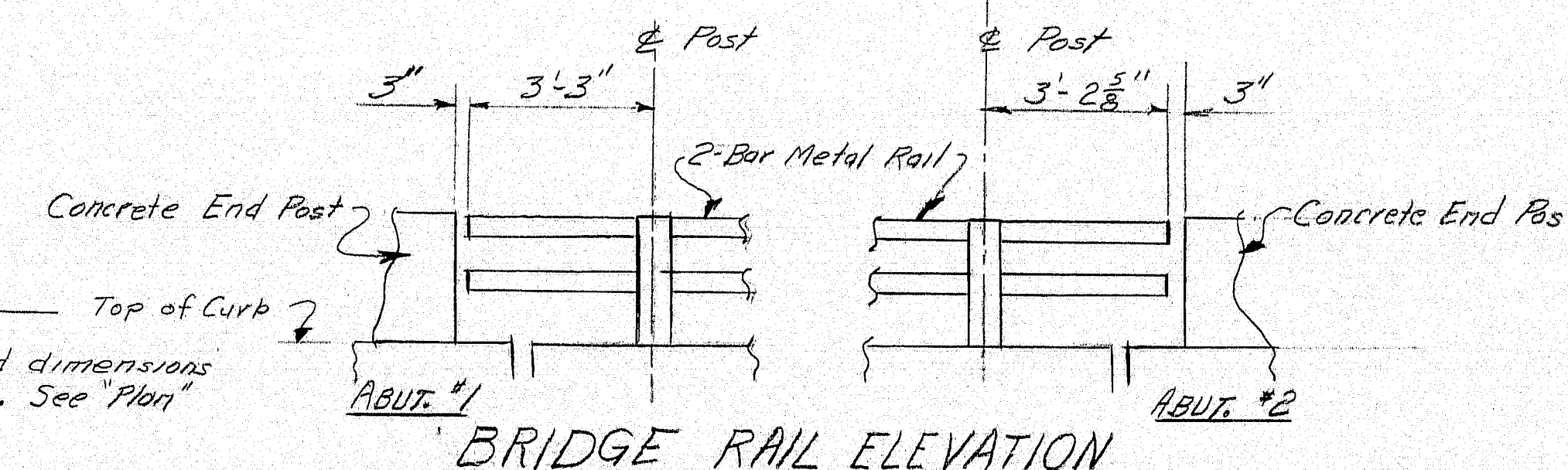
99-252

DESIGN - A.H.R. DETAIL - R.M. SURVEY - C.H. 6-69
CHECK - C.H. 6-69

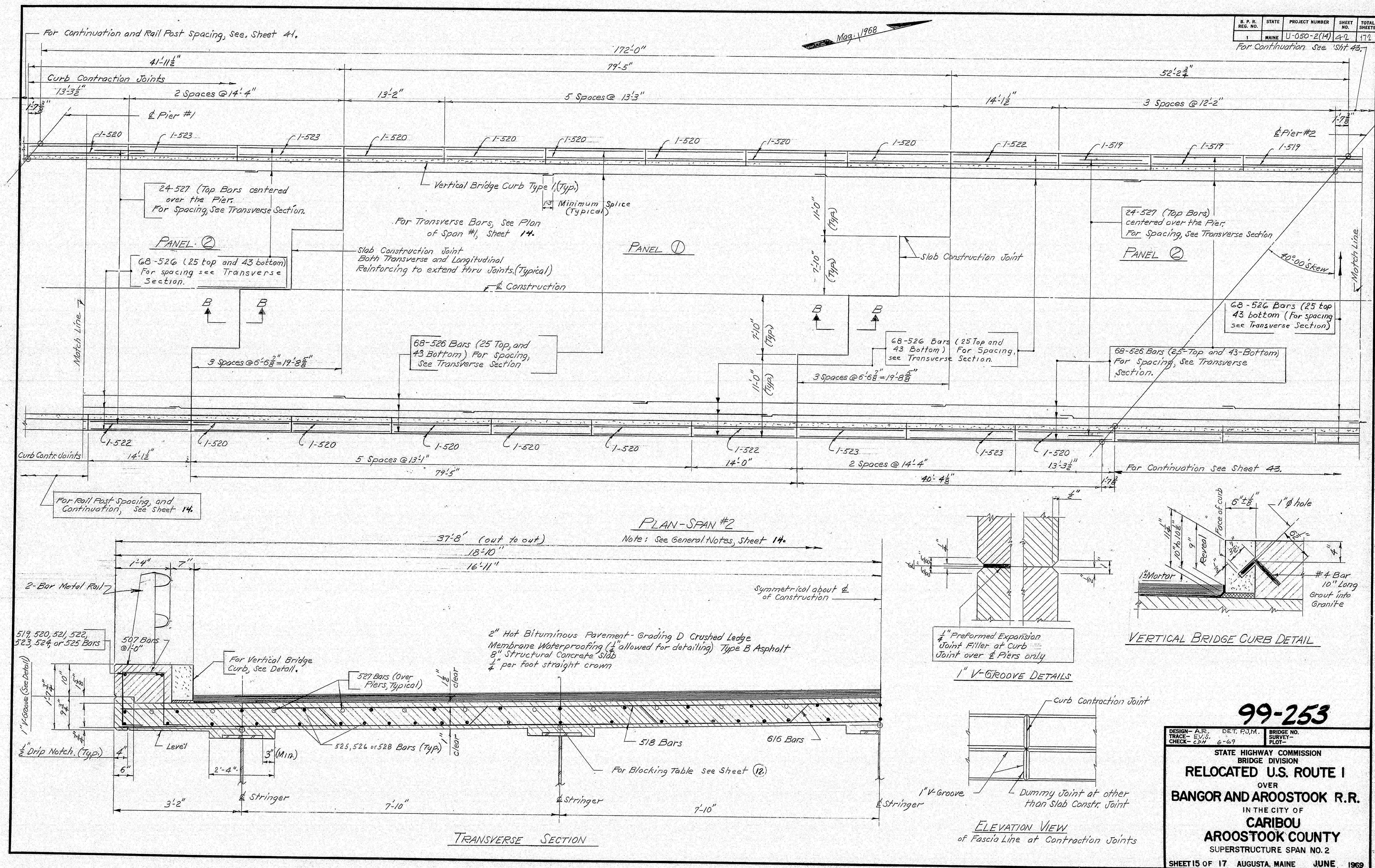
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

RELOCATED U.S. ROUTE 1
OVER
BANGOR AND AROOSTOOK R.R.
IN THE CITY OF
CARIBOU
AROOSTOOK COUNTY
SUPERSTRUCTURE SPAN NO. 1

SHEET 14 OF 17 AUGUSTA, MAINE JUNE 1969



BRIDGE RAIL ELEVATION



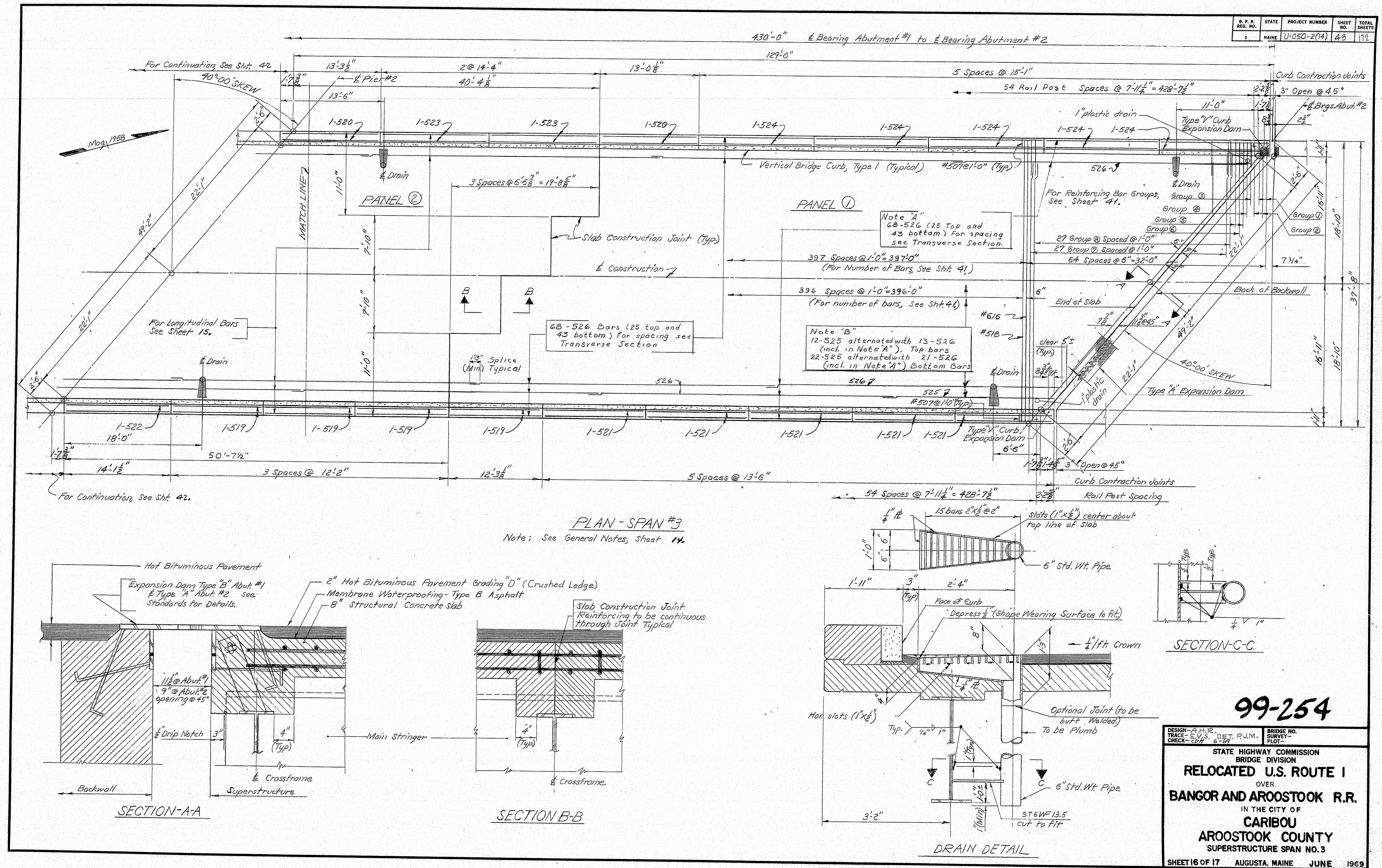
B. P. R.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	U-050-2(14)	41	172

For Continuation See Sheet 43.

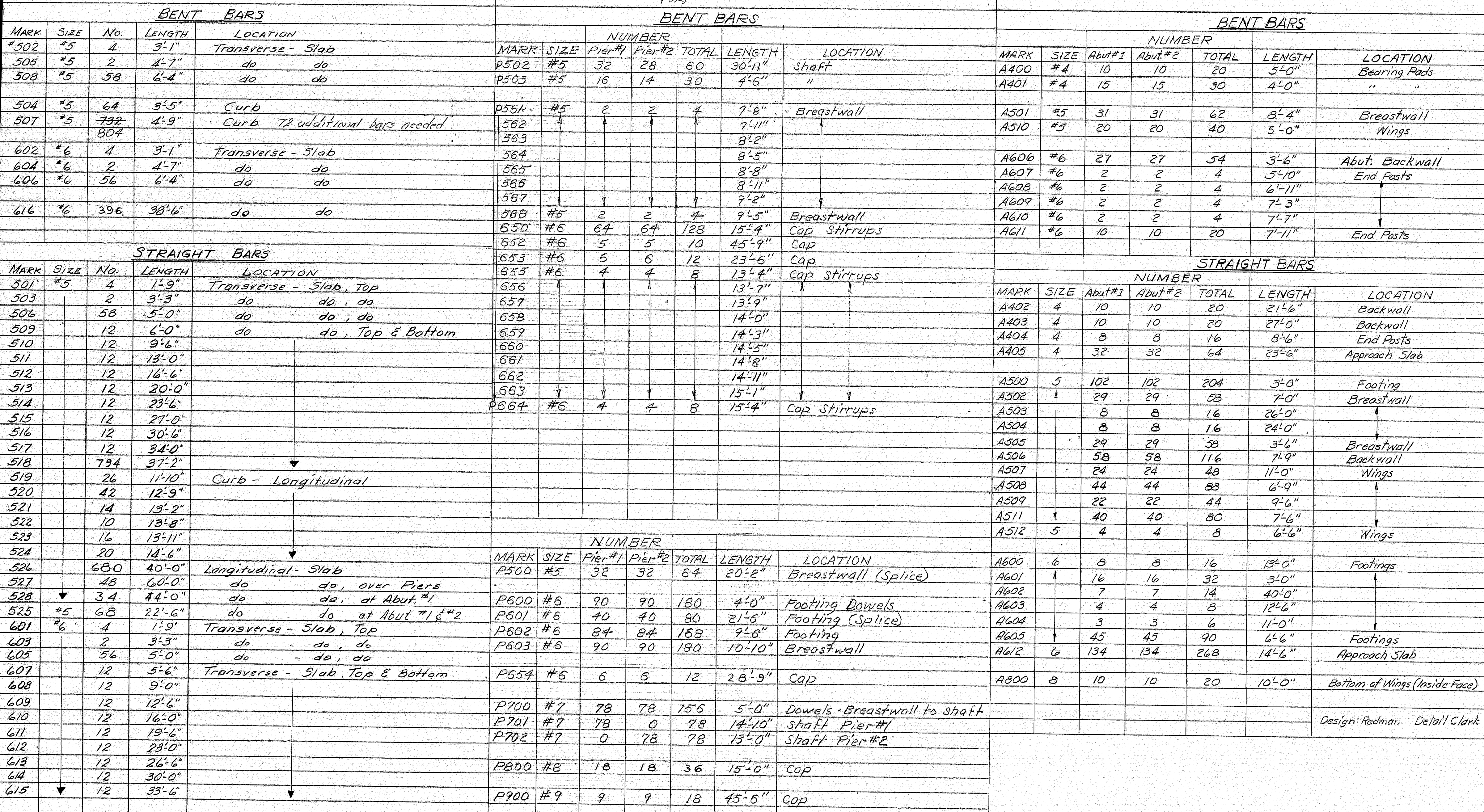
99-253

DESIGN - A.R.	DET. P.O.M.	BRIDGE NO.
TRACE - E.V.S.	6-69	6-69
CHECK - C.H.		6-69

STATE HIGHWAY COMMISSION
BRIDGE DIVISION
RELOCATED U.S. ROUTE 1
OVER
BANGOR AND AROOSTOOK R.R.
IN THE CITY OF
CARIBOU
AROOSTOOK COUNTY
SUPERSTRUCTURE SPAN NO. 2
SHEET 15 OF 17 AUGUSTA, MAINE JUNE 1969



B. P. R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	U-050-2(14)	44	172



Design: Redman Det: Smith

99-255

Revised as built 1-20-71 CKB

DESIGN- AHR
TRACE- NOTED
CHECK- CDH

BRIDGE NO.	
SURVEY—	
PLOT—	

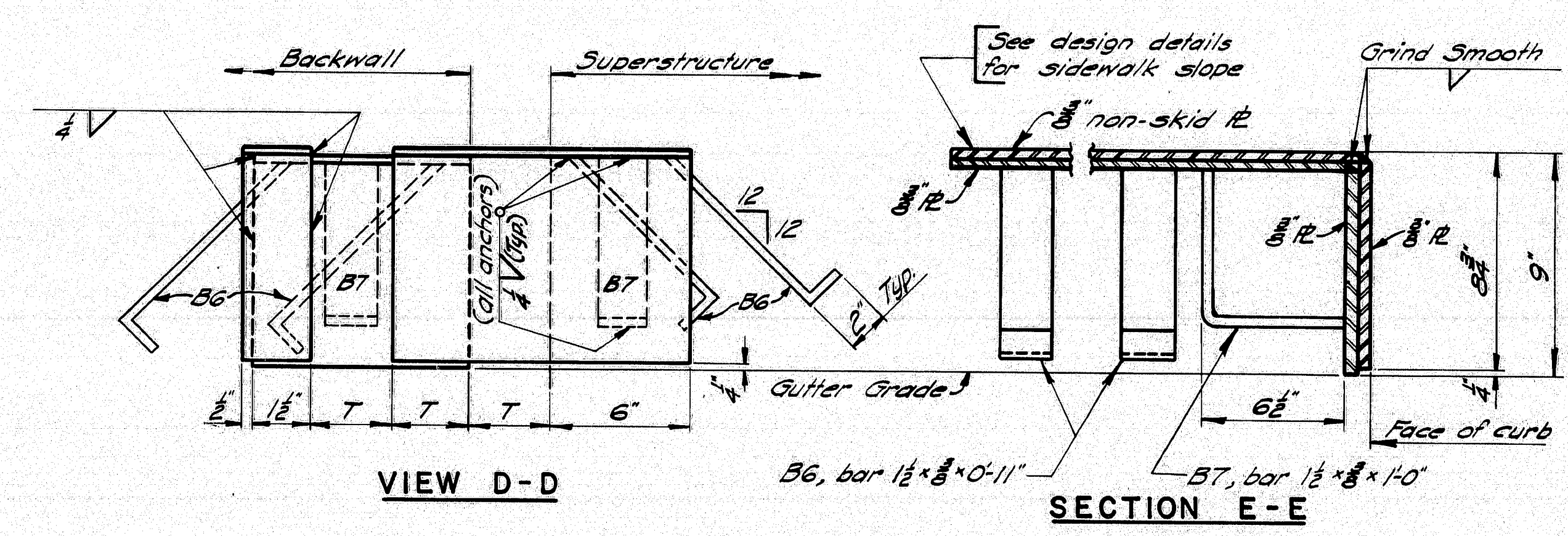
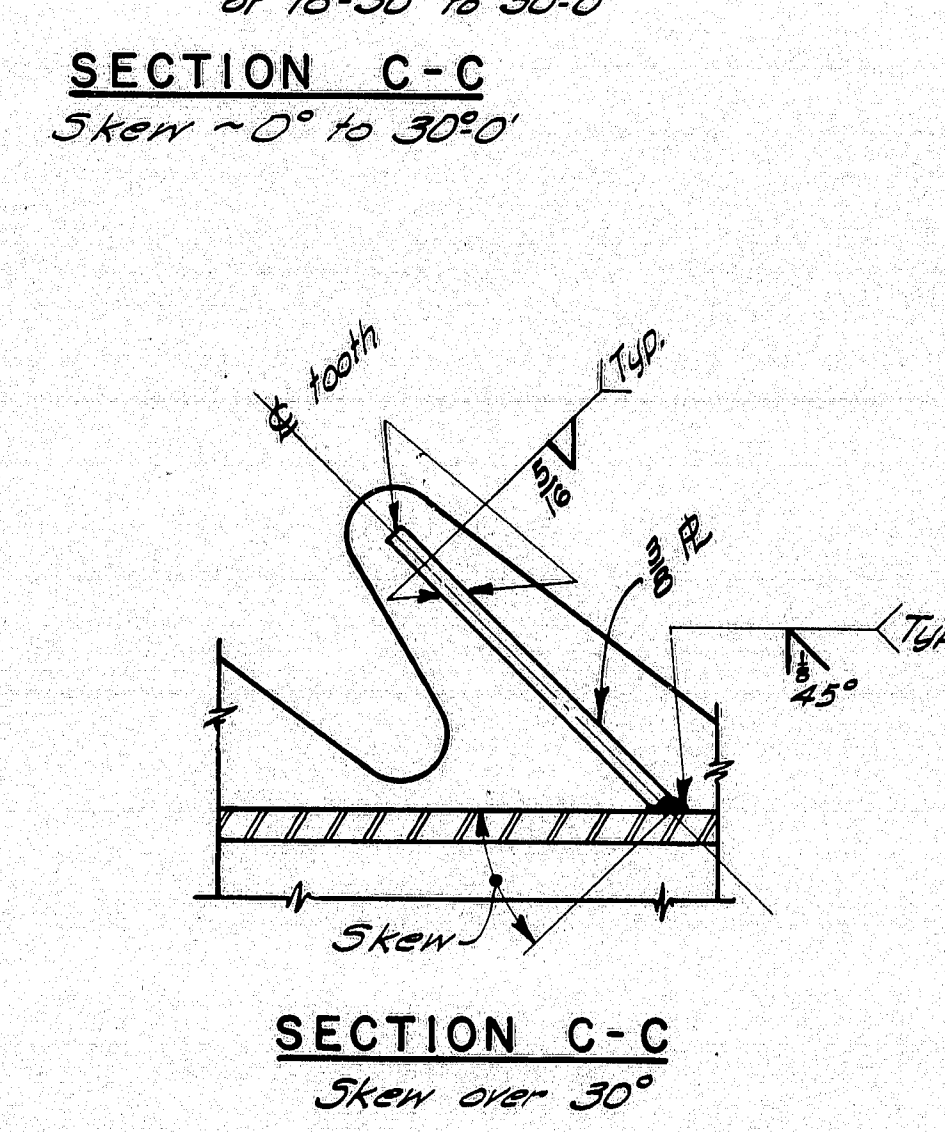
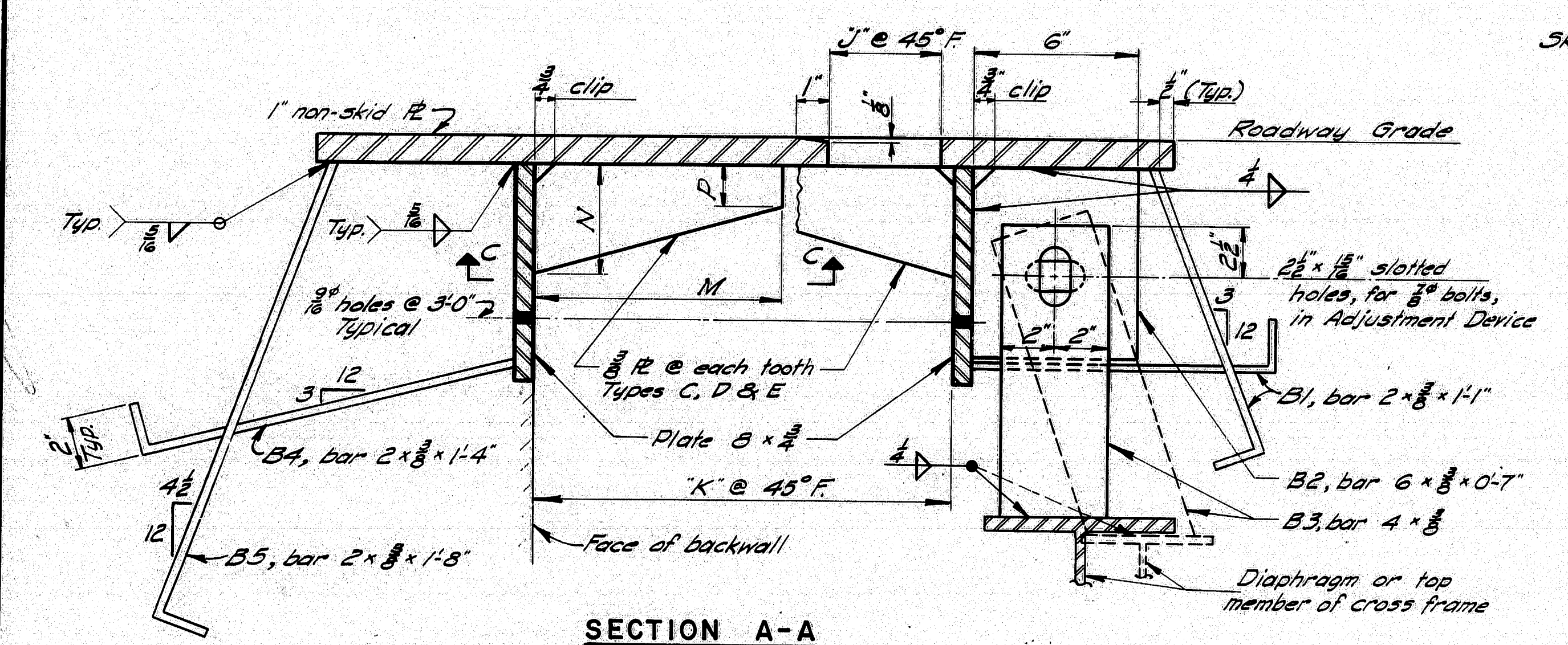
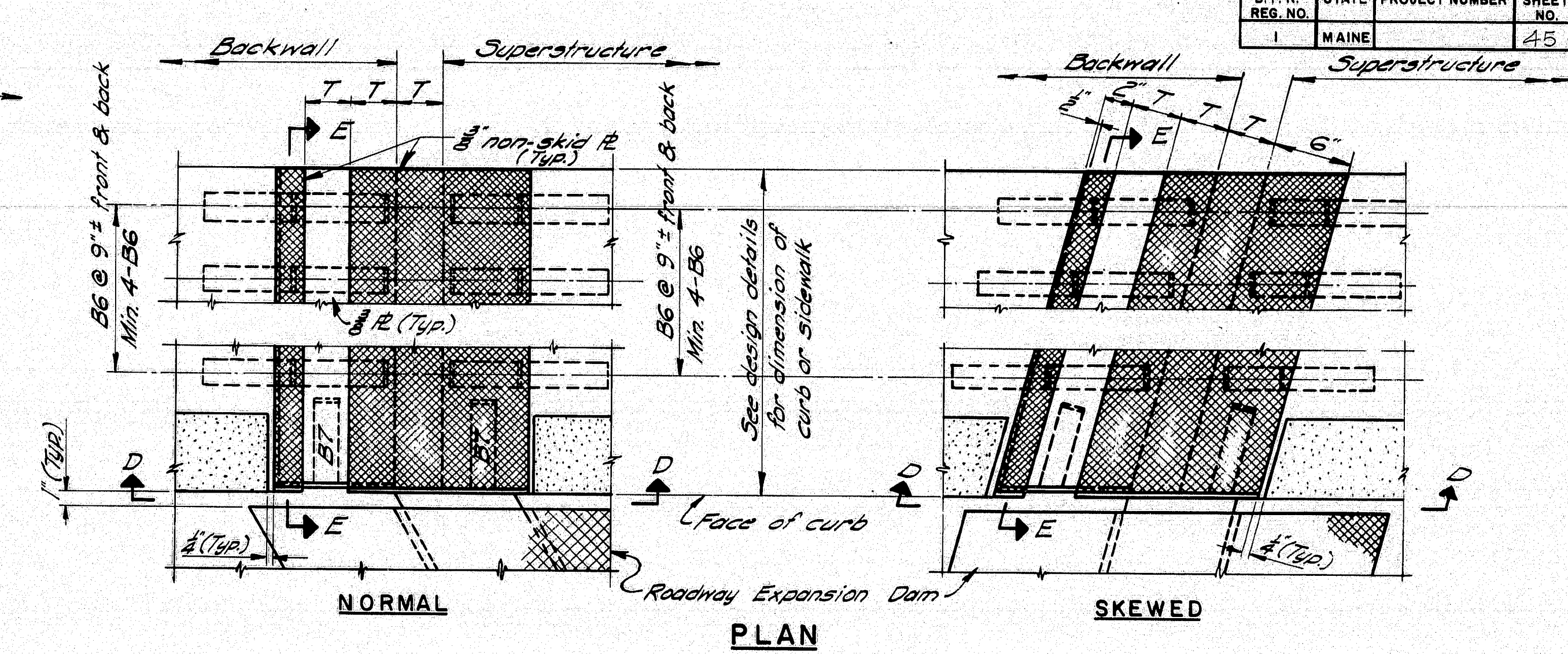
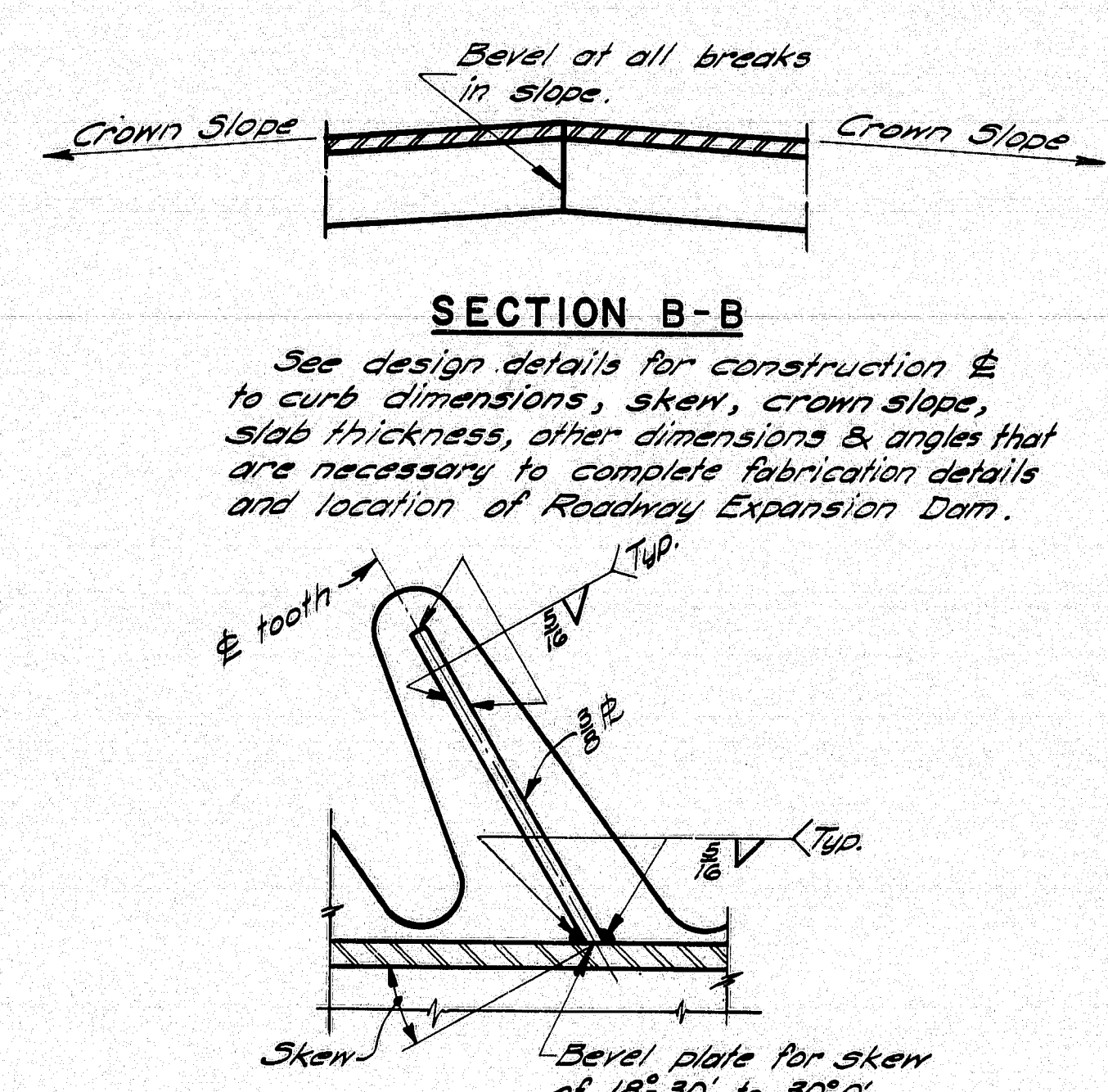
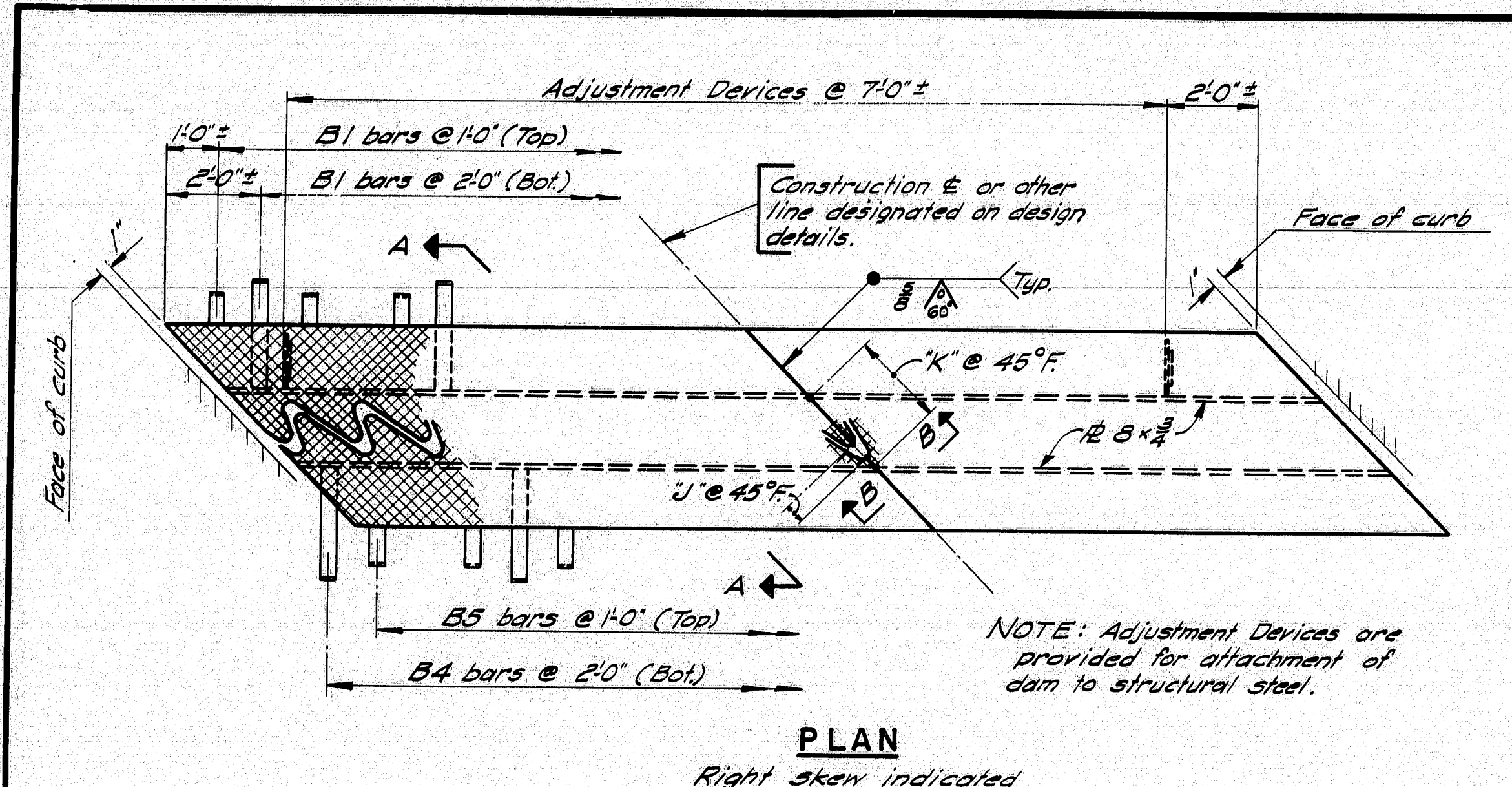
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

**RELOCATED U.S. ROUTE 1
OVER
BANGOR AND AROOSTOOK R.R.**

IN THE CITY OF
CARIBOU

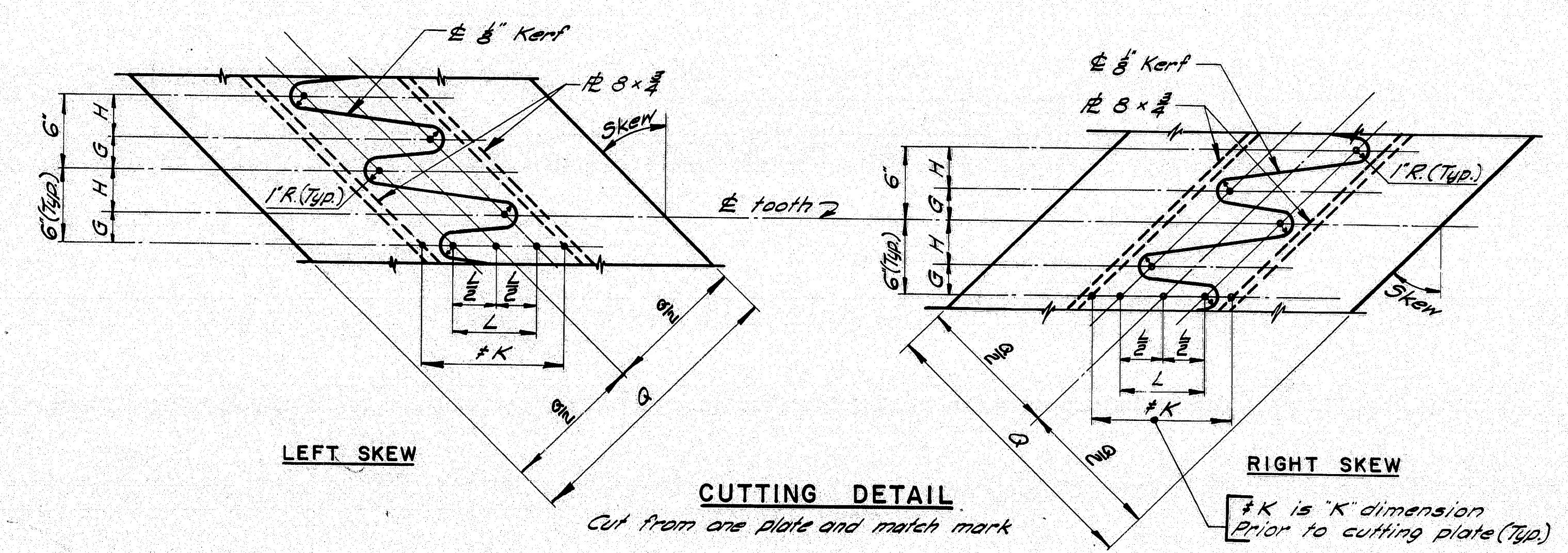
AROOSTOOK COUNTY
REINFORCING STEEL SCHEDULE
SHEET 17 OF 17 AUGUSTA, MAINE JUNE 1969

15



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



ROADWAY EXPANSION DAM - DETAILS

Type	Exp. Length	Skew	# K	L	G	H	K @ 45°	M	N	P	Q	
A	100'-280'	0°-5° incl.	7	4	3	3	9	28	—	—	—	21'
		5°-10°	7	4	2 1/2	3 1/2	9	28	—	—	—	22'
		10°-20°	8	4	2 1/2	3 1/2	10	28	—	—	—	22'
		20°-30°	8 1/2	5 1/2	2 1/2	3 1/2	10 1/2	28	—	—	—	23'
		30°-40°	9 1/2	5 1/2	2 1/2	3 1/2	11 1/2	28	—	—	—	23'
		40°-50° incl.	11 1/2	6 1/2	2 1/2	3 1/2	13 1/2	28	—	—	—	23'
B	280'-440'	0°-5° incl.	9	6	3	3	12	38	—	—	—	23'
		5°-10°	9 1/2	6 1/2	2 1/2	3 1/2	12 1/2	38	—	—	—	24'
		10°-20°	10	6 1/2	2 1/2	3 1/2	13	38	—	—	—	24'
		20°-30°	10 1/2	7 1/2	2 1/2	3 1/2	13 1/2	38	—	—	—	25'
		30°-40°	12	8	2 1/2	3 1/2	15	38	—	—	—	25'
		40°-50° incl.	12 1/2	8 1/2	2 1/2	3 1/2	16 1/2	38	—	—	—	25'
C	440'-600'	0°-10° incl.	11 1/2	8 1/2	3	3	15 1/2	48	9	4	1 1/2	26'
		10°-20°	12	8 1/2	2 1/2	3 1/2	16	48	10	4	1 1/2	26'
		20°-30°	12 1/2	9 1/2	2 1/2	3 1/2	16 1/2	48	11	4	1 1/2	26'
		30°-40°	14	10	2 1/2	3 1/2	18	48	11	4	1 1/2	26'
		40°-50° incl.	15 1/2	10 1/2	2 1/2	3 1/2	19 1/2	48	12	4	1 1/2	26'
		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	11 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	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	15	5	2	30'
		0°-10° incl.	15 1/2	12 1/2	3	3	21	68	13	6	2 1/2	36'
		10°-20°	16	12 1/2	2 1/2	3 1/2	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	17	6	2 1/2	36'

GENERAL NOTES
Expansion Dams to be paid for as Structural Steel.
If there is conflict between this Standard Detail and the design details, the requirements of the design details shall be followed.
Steel Classification: A.S.T.M. A36

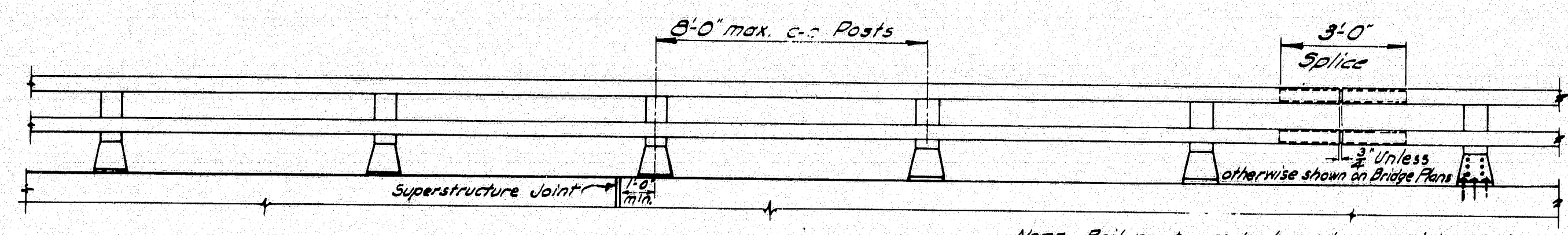
99-256

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

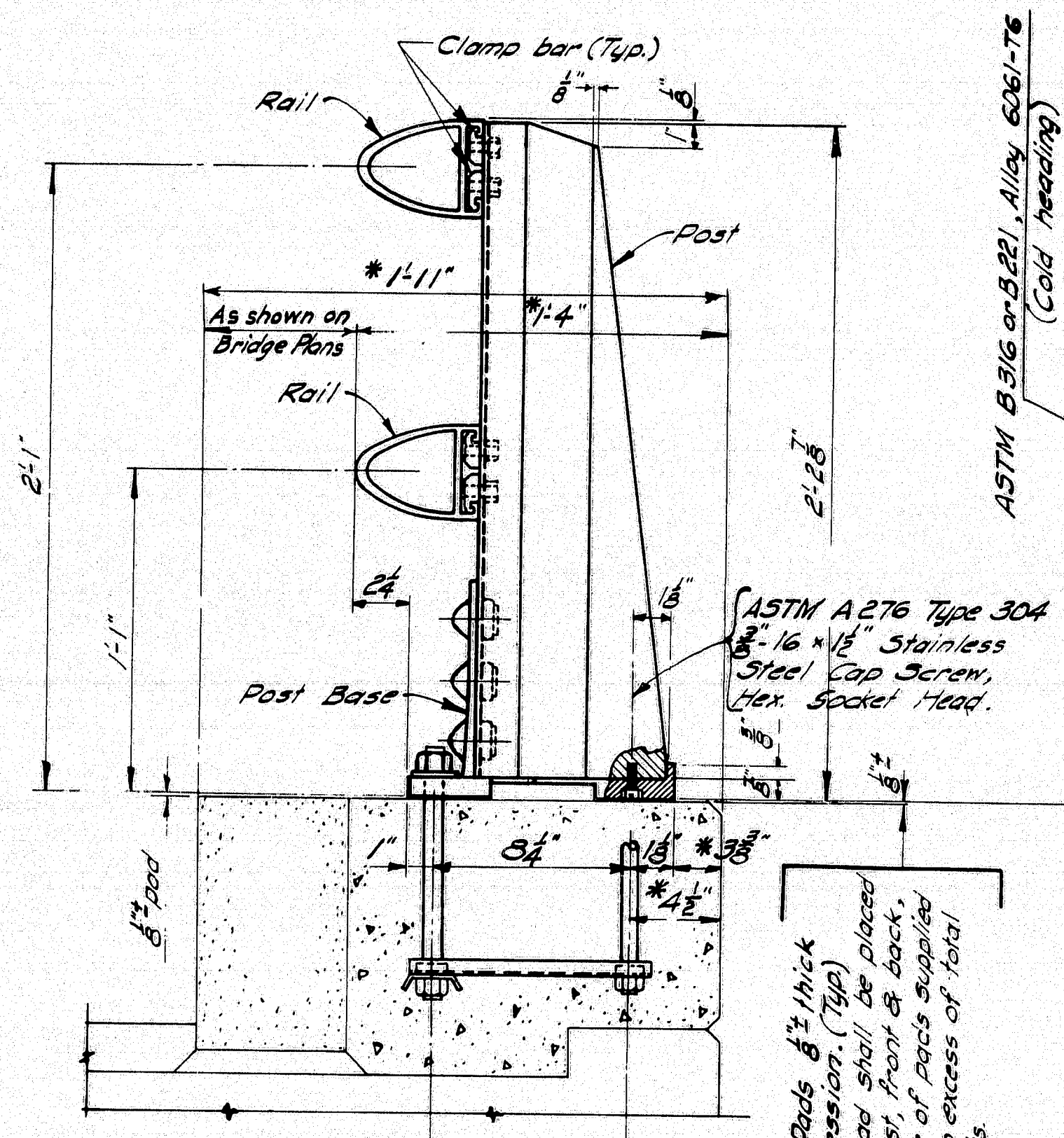
STANDARD DETAILS
(BD 105 - 64)

EXPANSION DAMS

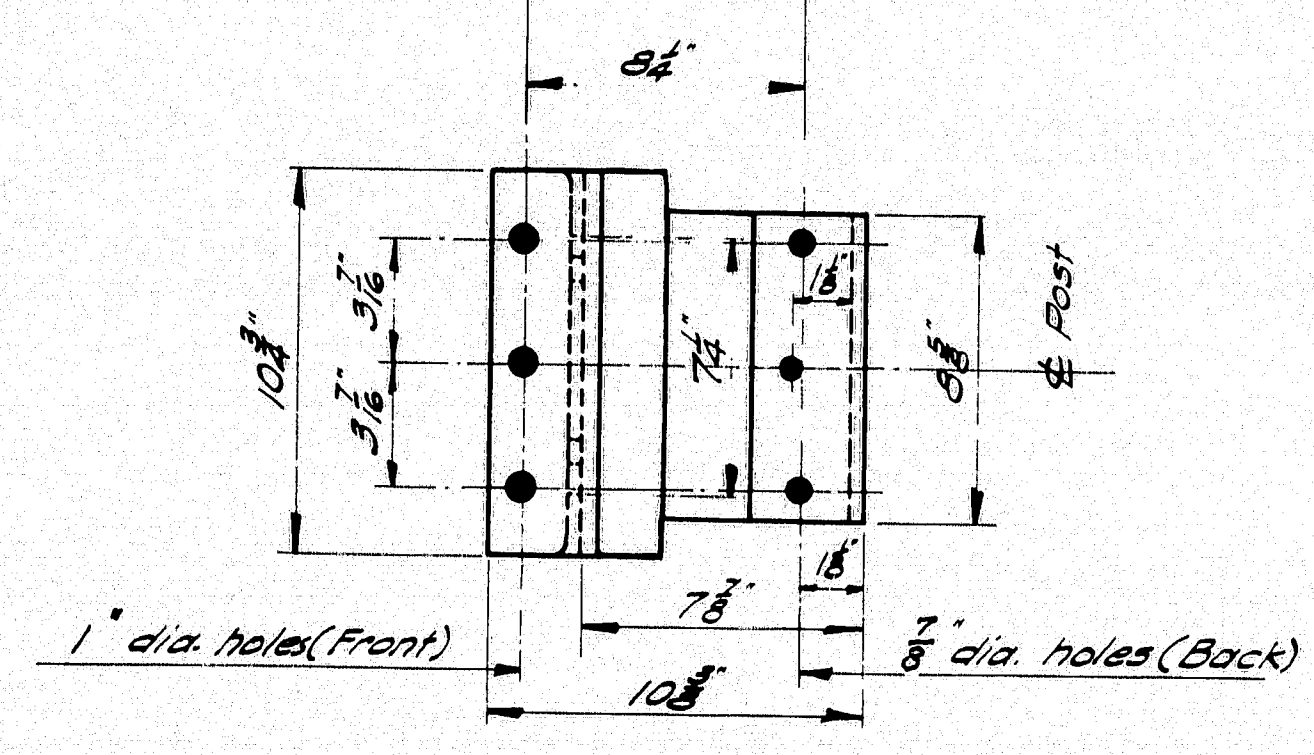
Relocated U.S. Route 1 over B&A.R.R.



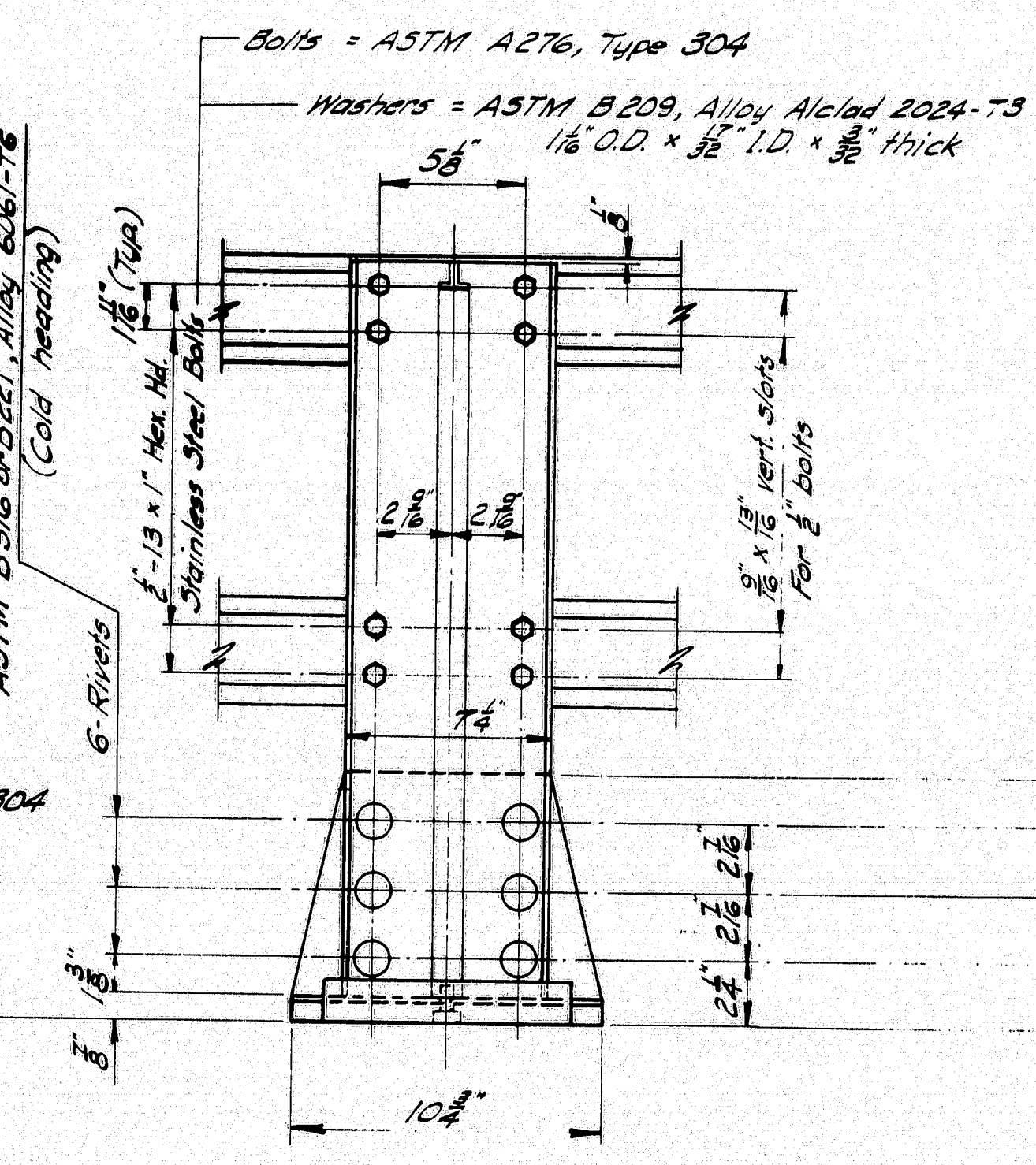
RAIL - ELEVATION
Lengths of rail shall be attached to a minimum of (4) four rail posts, wherever possible, and in any case never less than (2) two.



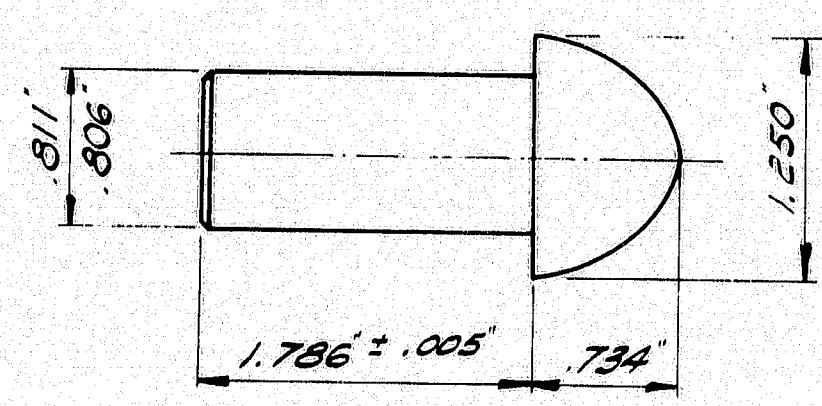
BRIDGE RAIL Assembly
* Preferable minimum dimensions.



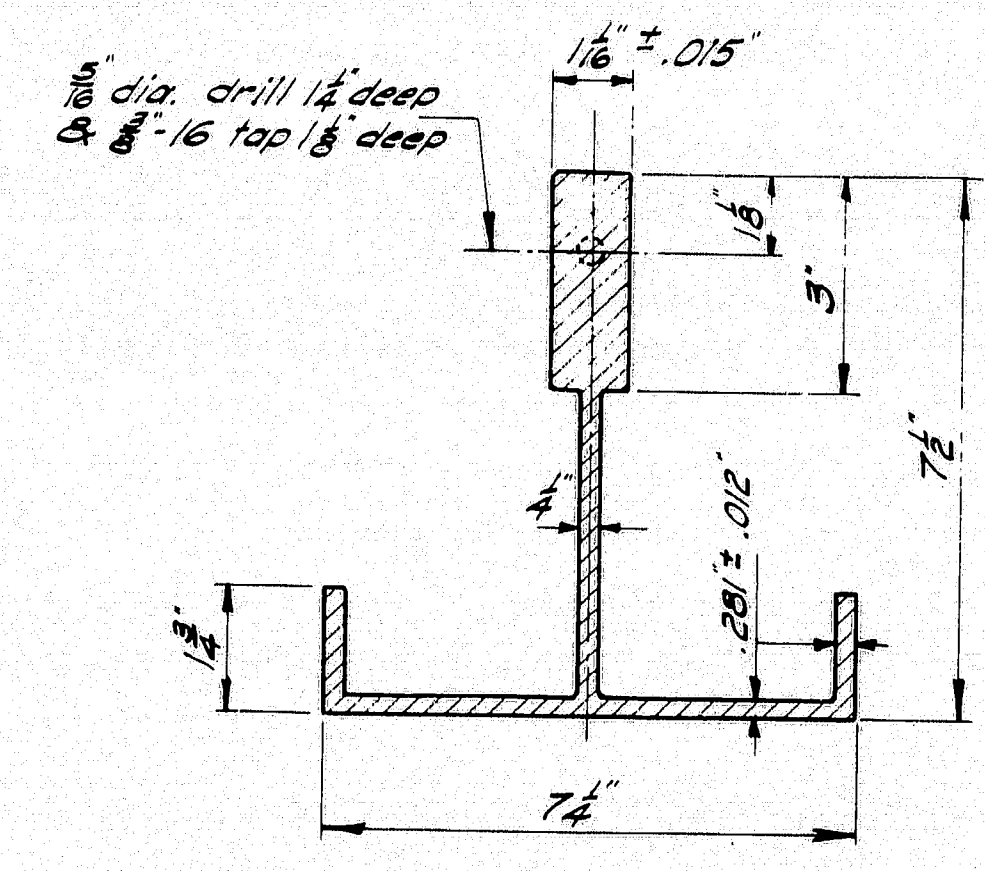
POST BASE (Bottom View)



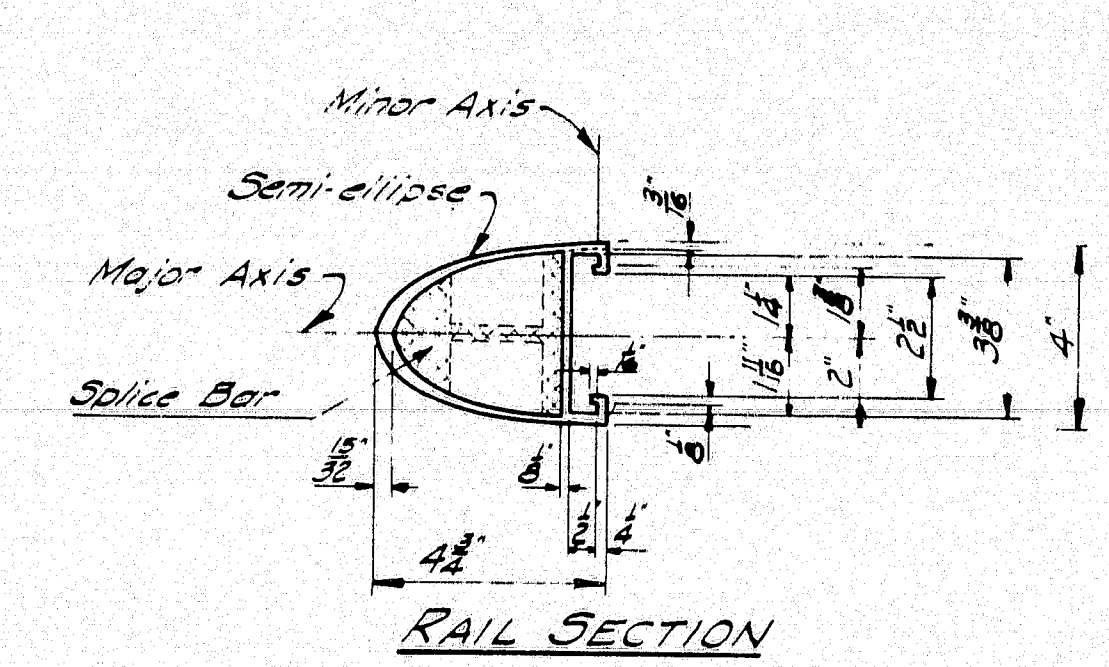
REAR ELEV



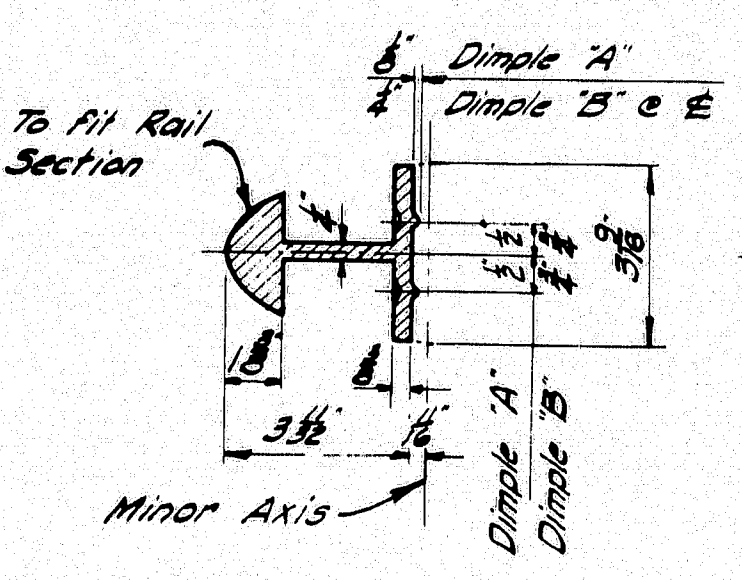
RIVET
Snap rivet rail post to base



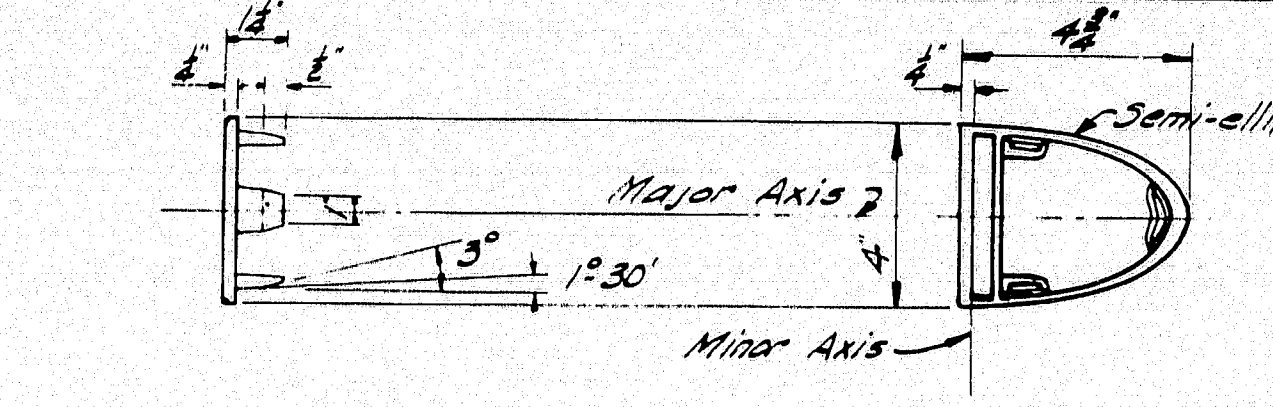
POST SECTION



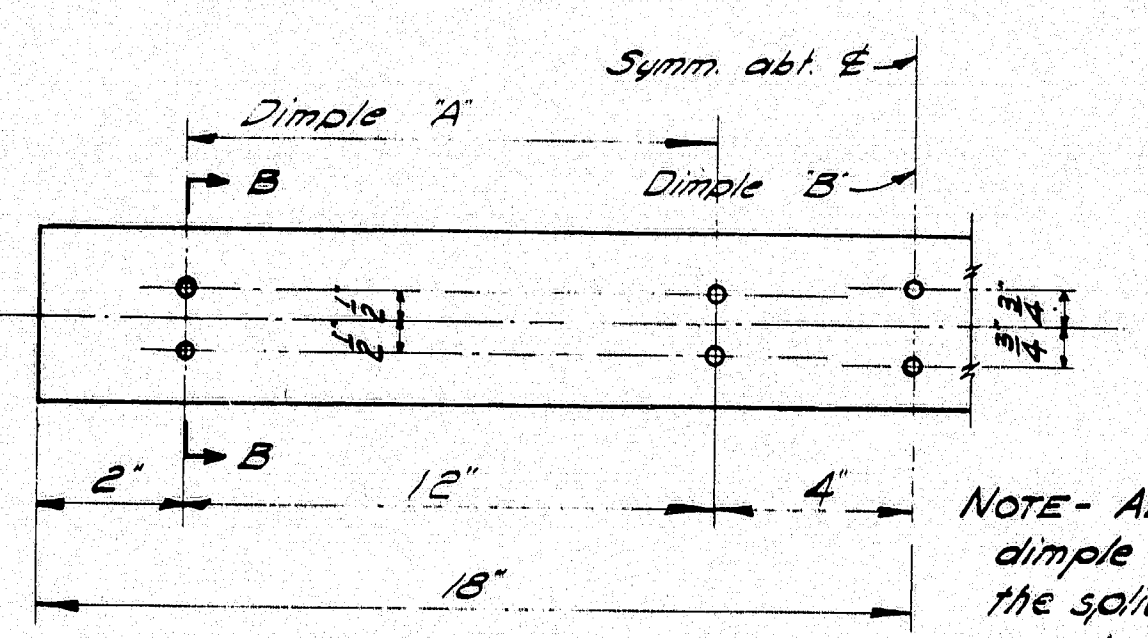
RAIL SECTION



SECTION B-B
Post, Post Base, Rail, Splice Bar, & Clamp Bar = ASTM B221, Alloy 6061-T6

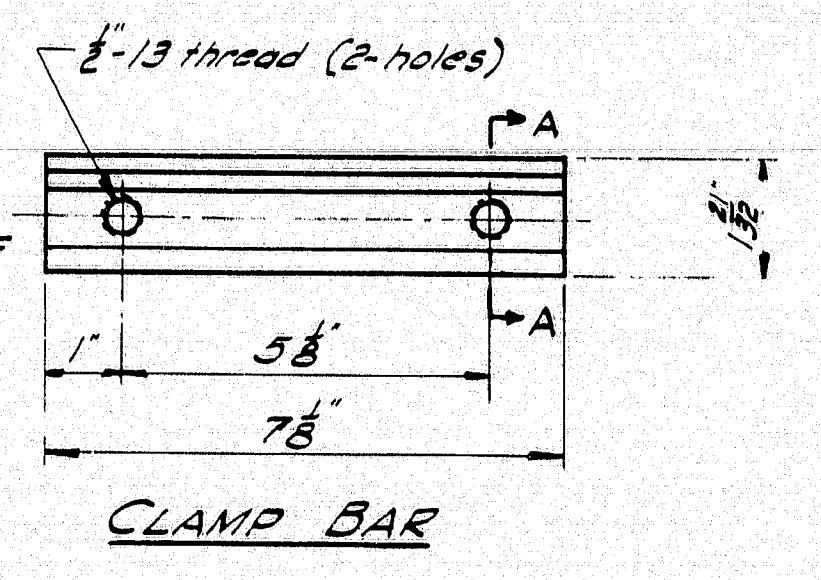


RAIL CAP
ASTM B26 or B108, Aluminum Assoc. Alloy 43-F or 356-F

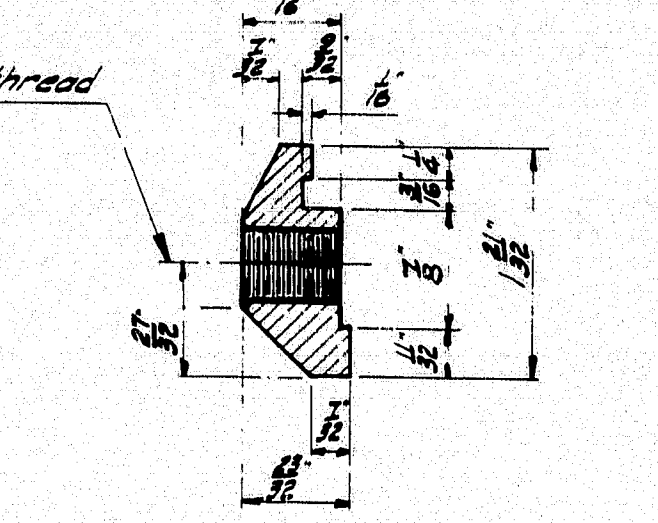


SPICE BAR

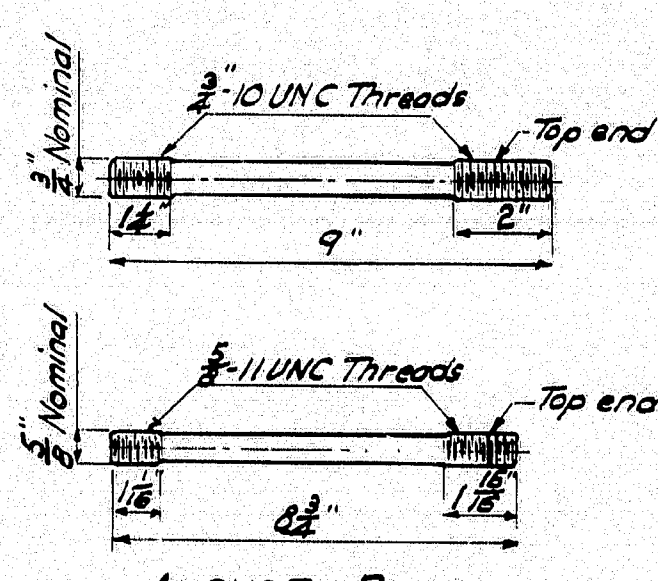
Note - An alternate to the dimple system for holding the splice bar in position may be used if approved by the Engineer.



CLAMP BAR



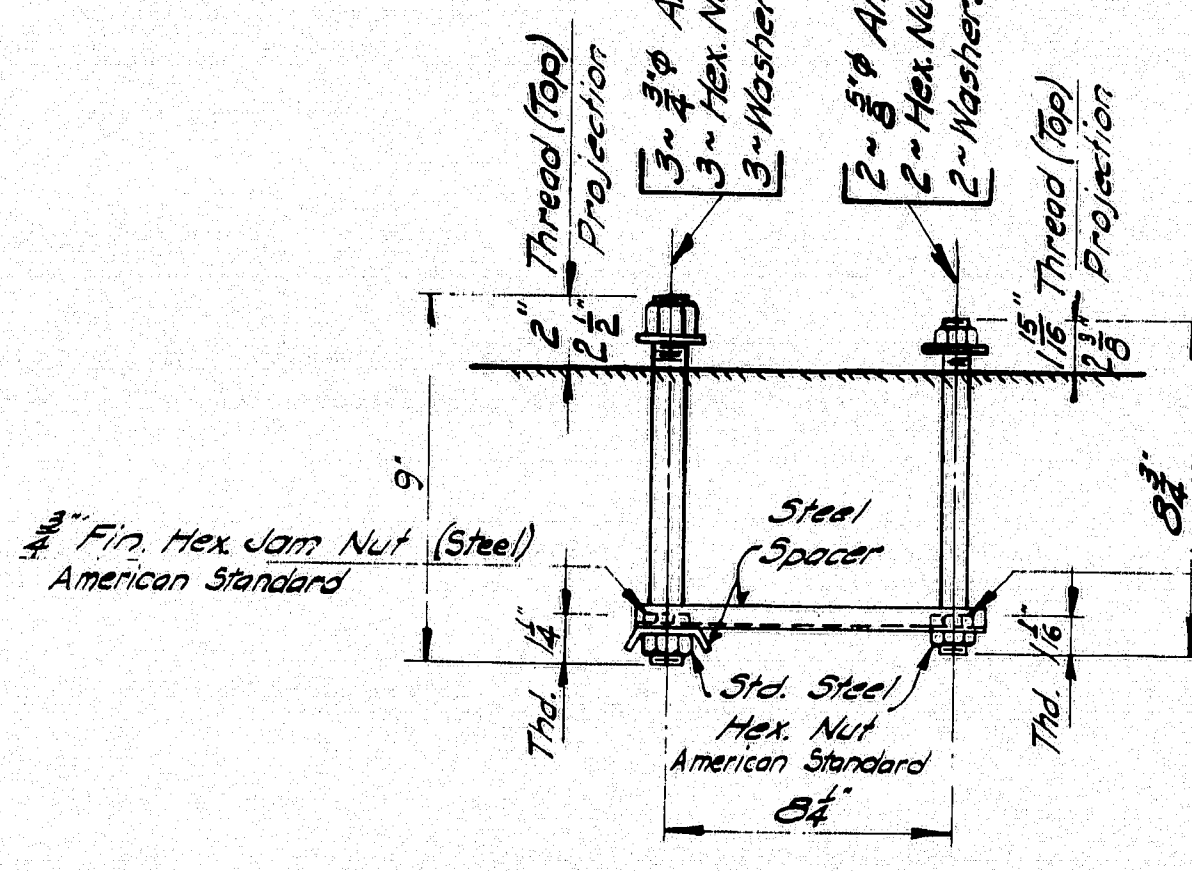
SECTION A-A



ANCHOR BOLTS

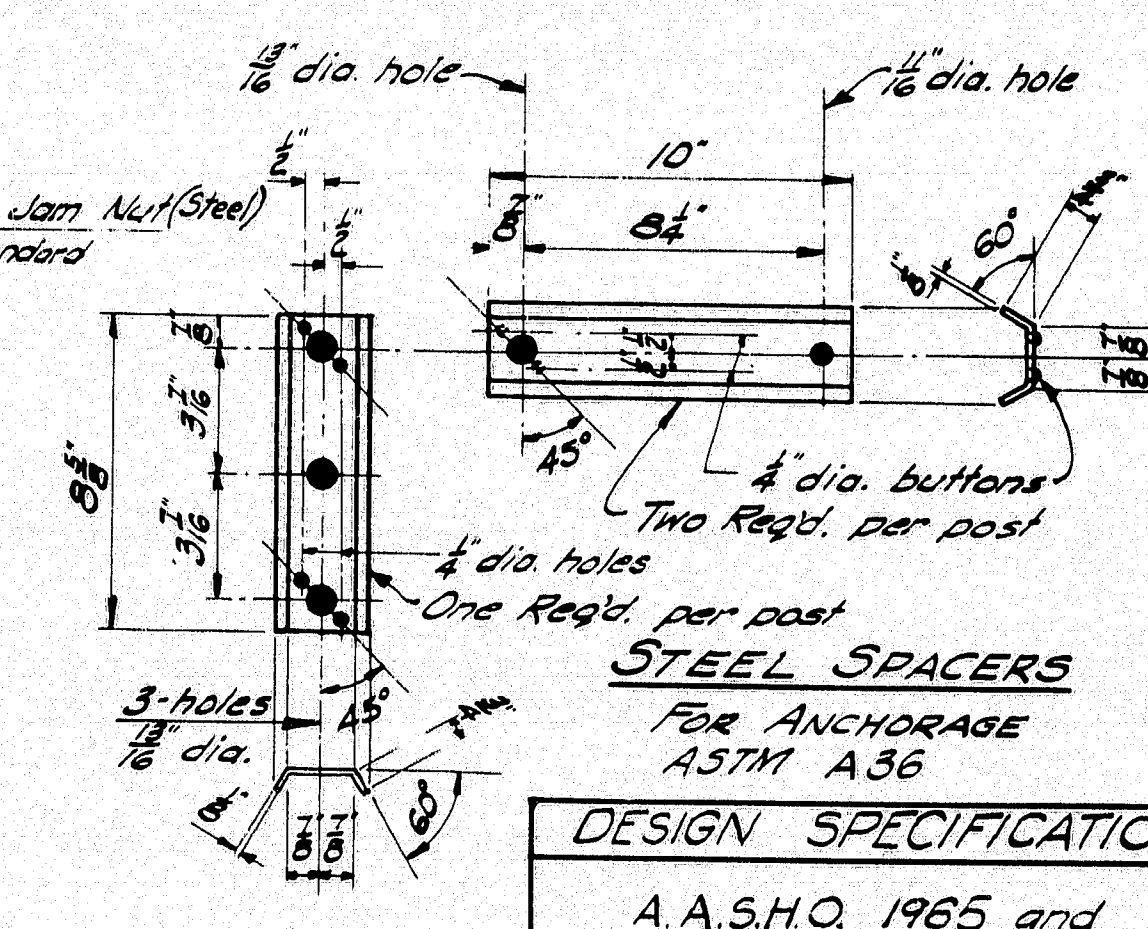
Note - If cut threads are used bolt dia. shall not be less than nominal dia. If rolled threads are used bolt dia. shall not be less than root dia. of nominal dia.

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



RAIL POST ANCHORAGE Assembly

NOTE: Anchor Bolts, exposed Hex. Nuts (Amer. Std. Heavy) and washers shall conform to Designation: Stainless ASTM A276 Type 430 100,000 psi 18% elongation.
Hex. Nuts embedded in concrete shall conform to Steel Designation ASTM A307.



STEEL SPACERS FOR ANCHORAGE
ASTM A36

DESIGN SPECIFICATIONS
A.A.S.H.O. 1965 and Interim Specifications.

REVISIONS AND CORRECTIONS

99-257

MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS
(BD 106 - 69)

ALUMINUM RAILING
2 - BAR (SEMI-ELLIPSE)
EXTRUDED POST

JANUARY 1969

Relocated US Route 1 over B.A.R.R.