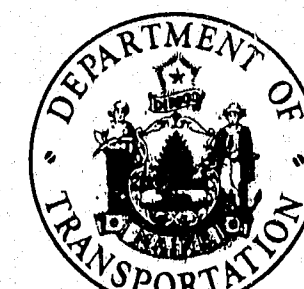


STATE OF MAINE DEPARTMENT OF TRANSPORTATION



PLANS

TURNER

ANDROSCOGGIN COUNTY
FEDERAL AID PRIMARY

PROJECT NO. F-021-1 (41)

PROJECT LENGTH: 2.010 MILES

DRAINAGE, BASE, GRADING, PAVEMENT & BRIDGE

COMPLETE
HIGHWAY
REEL 302

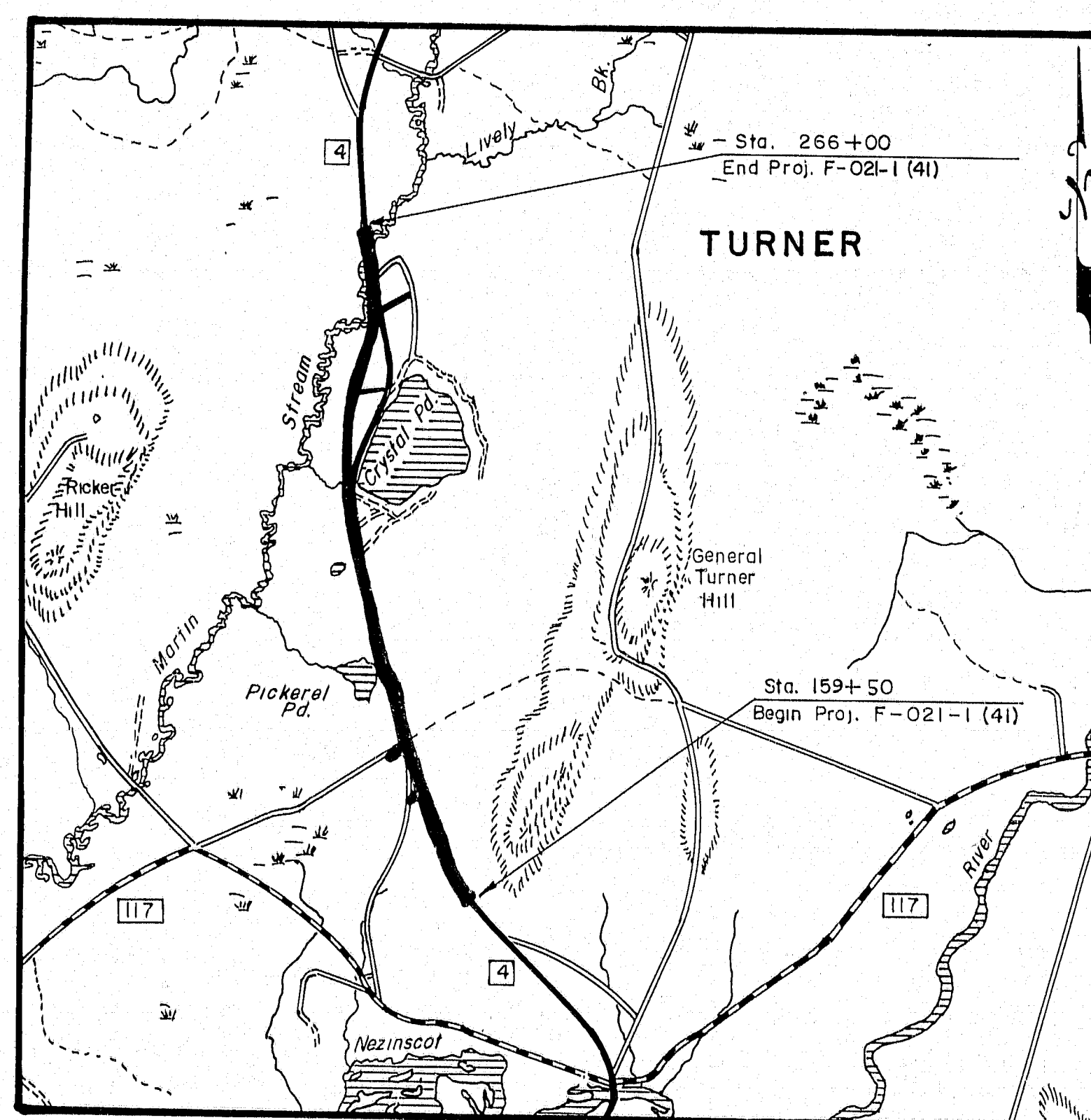
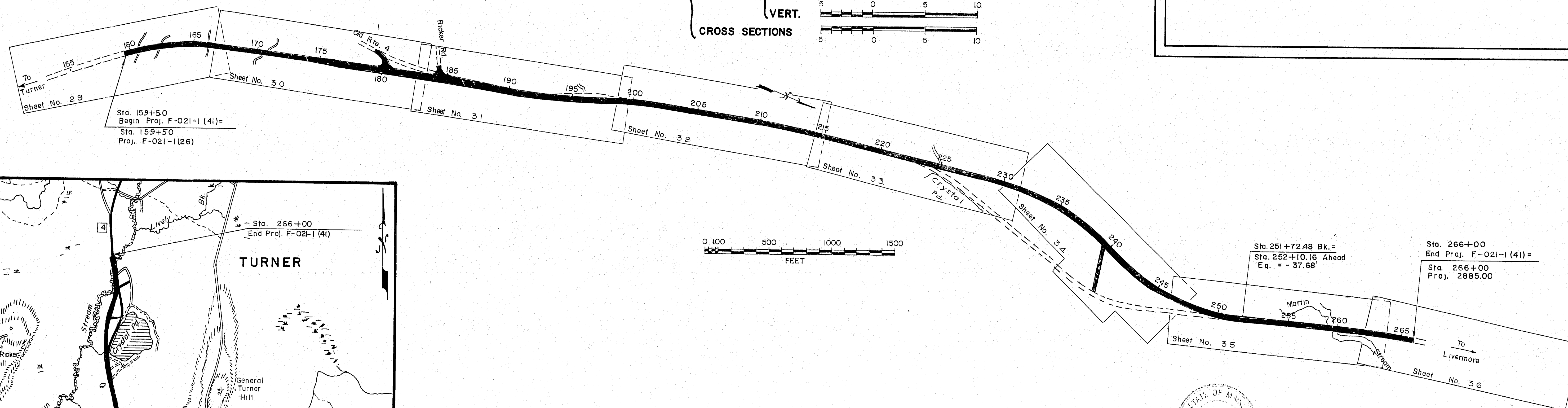
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-021-1 (41)	1	84

TURNER

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

SHEET NO.	INDEX OF SHEETS	DESCRIPTION
1	TITLE SHEET	
2 - 3	TYPICAL SECTIONS	
4	ESTIMATED QUANTITIES	
5	DRAINAGE & GENERAL NOTES	
6 - 15	STANDARD DETAILS (HIGHWAY)	
16	SPECIAL DETAILS	
17 - 25	BRIDGE PLANS	
26 - 28	STANDARD DETAILS (BRIDGE)	
29 - 37	PLANS & PROFILES	
38 - 64	CROSS SECTIONS	

SCALES:	{	PLAN	{	HOR.	
		PROFILE		VERT.	
	{	CROSS SECTIONS			
					



TRAFFIC DATA

A.D.T.	1988	7430
A.D.T.	2008	13370
D.H.V.		147
T. (%)		11
D. (%)		60
V. Sta. 157+00 to 189+00		50 MPH
V. Sta. 189+00 to 266+00		55 MPH
P.S.D. (%)		31
18 KIPS		466

NOTE

All work contemplated under this contract to be governed by and in conformity with the STANDARD SPECIFICATIONS (revision of July 1988) and supplementals thereto, except as modified on the plans and in the special provisions.

APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
COMMISSIONER

DATE

2-14-90

CHIEF ENGINEER

2-14-90

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

APPROVED:

DIVISION ADMINISTRATOR DATE

108-439

295

AS BUILT 1991

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.11	Clearing	5	AC
201.24	Removing stump	1	EA
202.19	Removing Existing Bridge (875 CY)	1	LS
203.20	Common Excavation	52,000	CY
203.21	Rock Excavation	1800	CY
203.25	Granular Borrow	5,000	CY
206.06	STR. EARTH EXCAV.-DRAIN, E MINOR STRUC. Below Gtd.	50	CY
206.07	STR. ROCK EXCAV.-DRAIN, MINOR STRUC.	50	CY
206.08	STR. EARTH EXCAV.-MAJOR STRUC.	200	CY
301.09	Plant Mix Bituminous Base Course Grading	5,815	T
304.10	Aggregate Subbase Course Gravel	37,575	CY
403.07	HOT BITUMINOUS Pavement, Grading A	3,310	T
403.08	HOT BITUMINOUS Pavement, Grading C	3,910	T
403.10	HOT BITUMINOUS Pavement, Grading D	70	T
403.101	HOT BIT. Pave. Grad. D (Drives, Islands)	140	T
403.121	HOT BIT. Pave. Grad. E (Swimming)	700	T
403.15	BITUMINOUS TACK COAT, APPLIED	205	G
501.214	Steel H-Beam Piles 53 lbs./ft.	492	LF
501.24	Steel Pipe Piles	270	LF
501.253	Pipe Protective Coating (15,866 lbs.)	1	LS
502.20	STRUCTURAL CONCRETE, ABUTS. & Retaining Walls	62	CY
502.230	STRUCTURAL CONCRETE PIERS	26	CY
502.25	STRUCTURAL CONCRETE SUPERSTRUCTURE SLABS (ROCK)	1	LS
502.310	STRUCTURAL CONCRETE APPROACH SLABS (35 CY)	1	LS
503.12	Reinforcing Steel Fab. & Delivered	3860	LB
503.13	Reinforcing Steel Pacing	3,860	LB
507.032	Aluminum Bridge Railing, 2 Bar	142	LF
508.13	Membrane Waterproofing	1	LS
514.06	Curing Box for concrete cylinders	1	EA
515.21	Protective Coating for conc. surfaces (133.5V)	1	LS
526.301	Temporary concrete barrier type I (280 FT.)	1	LS
528.40	Resetting Temp. Concrete Barrier Type I	280	LF
535.60	Prestressed Str. Conc. Slab (159 CY)	1	LS
601.21	Gabions, Galvanized	45	CY
603.16	15 inch Culvert Pipe Option I	140	LF
603.17	18 inch Culvert Pipe Option I	35	LF
603.175	18 inch Reinforced Concrete Pipe Class III	84	LF
603.179	18 inch Culvert Pipe Option III	660	LF
603.183	21 inch Culvert Pipe Option III	84	LF
603.20	30 inch Culvert Pipe Option I	84	LF
603.200	27 inch Culvert Pipe Option II	104	LF
603.203	30 inch Culvert Pipe Option III	156	LF
603.215	36 inch Reinforced Concrete Pipe Class III	368	LF
603.219	36 inch Culvert Pipe Option III	208	LF
603.40	83 inch Span 57 inch Rise 76" Pipe Arch	76	LF
603.405	83" Span 57" Rise Pipe Arch Metal Culvert concrete	1	EA
604.092	Catch Basin Type B1-C	14	EA
604.244	Catch Basin Type F-4	1	EA
605.09	6 inch Underdrain Type B	1,950	LF
605.11	12 inch Underdrain Type C	247	LF
605.12	15 inch Underdrain Type C	221	LF
605.15	24 inch Underdrain Type C	136	LF
605.17	30 inch Underdrain Type C	436	LF
606.265	Terminal End-Single Rail-Galvanized Steel	1	EA
606.35	Guard Rail Deflector Post	13	EA
606.47	Single Wood Post	45	EA
606.53	Guard Rail Type 3-Single Rail	1,338	LF
606.60	Guard Rail Type 3-Over 15 Foot Radius	38	LF
606.77	Breakaway Cable Terminal	7	EA
609.31	Curb Type 3	2560	LF
610.08	Plain Riprap	1,040	CY
610.18	Stone Catch Protection	280	CY
612.06	BITUMINOUS Sealing-Black	370	SY
613.319	Temporary Erosion Control Blanket	270	SY
615.07	Loam	3805	CY
616.08	Sodding	1490	SY
618.13	Seeding Method Number 1	38	UN
618.14	Seeding Method Number 2	550	UN
618.15	Temporary Seeding	450	LB
618.16	Crown Vetch Seed	275	LB
619.12	Mulch	853	UN

* Undetermined Location

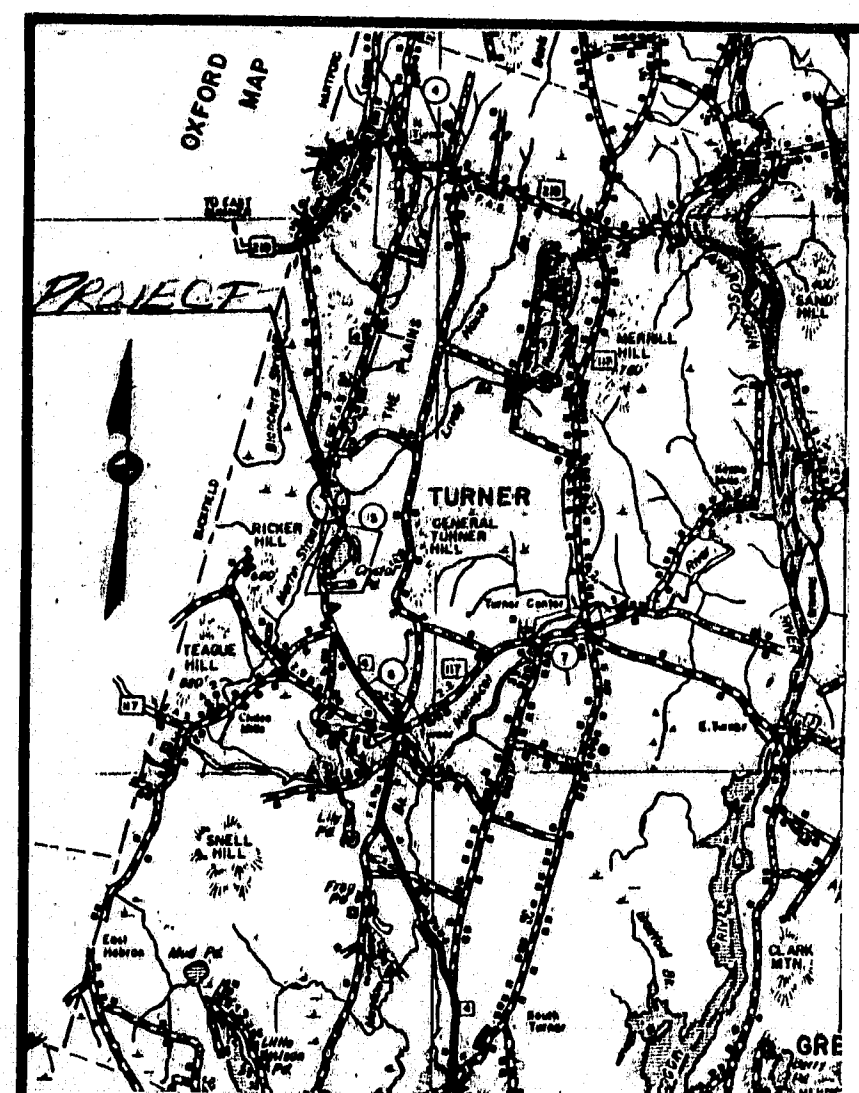
ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
621.273	Large Deciduous Trees (2 inch-2 1/2 inch caliper) Group A (Must be Native Trees Only)	6	EA
627.61	4 inch Solid White Pavement Marking Line	21,800	LF
627.62	4 inch Broken White Pavement Marking Line	2600	LF
627.63	4 inch Solid Yellow Pavement Marking Line	12,800	LF
627.64	4 inch Broken Yellow Pavement Marking Line	6,800	LF
627.65	White or Yellow Pavement and Curb Marking	270	SF
627.67	Removing Pavement Markings	1,000	SF
627.68	Temp. 4" Painted Pave. Marking Line, Yellow or White	76,200	LF
627.69	Temp. 4" Plastic Pave. Marking Line, Yellow or White	4800	LF
631.12	All Purpose Excavator (Including Operator)	10	HR
631.13	Bulldozer (Including Operator)	10	HR
631.172	Truck-Large (Including Operator)	10	HR
631.20	Stump Chipper Rental (Including Operator)	5	HR
637.07	Sprinkling	400	MG
637.08	Calcium Chloride	40	T
639.18	Field Office Type A	1	EA
639.21	Testing Facilities Soils	1	LS
639.22	Testing Facilities Bituminous Mixes	1	LS
639.23	Testing Facilities Concrete	1	LS
643.72	Temporary Traffic Signal	1	LS
652.31	Type I Barricade	60	EA
652.311	Type II Barricade	10	EA
652.33	Drum	20	EA
652.34	Cone	60	EA
652.35	Construction Signs	1100	SF
652.36	Maintenance of Traffic Control Devices	300	CD
652.38	Flagger	5200	MH
656.50	Baled Hay, In Place	100	EA
656.51	Sandbag, In Place	50	EA
656.63	Temporary Silt Fence	7000	LF
656.64	Boom supported Floating Silt Fence	50	LF
657.24	Seeding Pits	115	UN
658.20	Acrylic Latex Color Finish, Green	120	SY
659.10	Mobilization	1	LS
660.21	On-the-Job Training	2000	MH

SUMMARY OF EXCAVATION AND BORROW

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	021-141	4	84

Common Excavation	
Common Excavation (From Cross Sections)	43,165
Earth From Drives, Side Roads, Etc.	1,897
Grubbing In Fill	1,465
Loam Salvage In Fill	3,511
Culvert Removals, Etc.	376
Pavement Removal Old Route 4	1,218
Muck Excavation	150
Total Common Excavation	51,842
Fill	
Common Fill (From Cross Sections)	32,928
Grubbing In Fill	1,465
Fill For Drives, Side Roads, Etc.	2,140
Loam Salvage In Fill	3,571
Muck Excavation	150
Total Fill	40,254
Rock Excavation	
Rock Excavation (From Cross Sections)	1,800
Total Rock Excavation	1,800
Available Common Excavation	
(1) Total Common Excavation	51,842
Deductions:	
Muck Excavation	150
Grubbing In Cut	6,774
Grubbing In Fill	1,465
Pavement Removal Old Route 4	1,218
Loam Salvage In Fill	3,571
Pavement Salvage (Cut)	1,792
(2) Total Deductions	14,970
Total Available Common Excavation (1) Minus (2)	36,872
Total Available Struct. Excavation (Underdrain and Gabions)	942
Total Available Non-Rock Excavation	37,814
Computation of Waste Storage	
Total Available Waste Storage Area (From Cross Sections)	5,212
Grubbing In Cut	6,774
Grubbing In Fill	1,465
Muck Excavation	150
Total Waste Material	8,389
Total Waste Material To Be Hauled Off Project	3,177
Computation of Granular Borrow	
Total Fill	40,254
Total Available Non-Rock Excavation	37,814 x 0.85 = 32,142
Total Available Rock Excavation	1,800 x 1.33 = 2,394
Total Available Structural Rock Excavation	50 x 1.33 = 67
Available Waste Disposal Area	5,212 x 1.00 = 5,212
Total Available Excavation	39,815
Total Fill Minus Total Available Excavation	439 *
* Use Granular Borrow	
Granular Borrow To Satisfy Fill Requirement	439
Granular Borrow For Gabion Backfill	37
Granular Borrow In Low Wet Areas	1,525
Granular Borrow To Maintain Traffic	2,074
Granular Borrow For Bridge Area	236
Granular Borrow	4,331 x 1.15 = 4,981

108-440



HYDROLOGIC DATA
 Drainage Area = 32.5 Sq. Mi.
 Design Discharge (Q50) = 2000 cfs
 Check Discharge (Q100) = 2400 cfs
 Ordinary High Water (Q1.1) = 610 cfs
 Headwater Elev. @ Q50 = 336.00
 Headwater Elev. @ Q100 = 336.65
 Discharge Velocity @ Q50 = 2.1 fps
 Discharge Velocity @ Q100 = 2.5 fps
 Ordinary Highwater Elev. (Q1.1) = 334.3
 Clearance at Q50 = 0.7 feet

Scale in miles
 LOCATION MAP

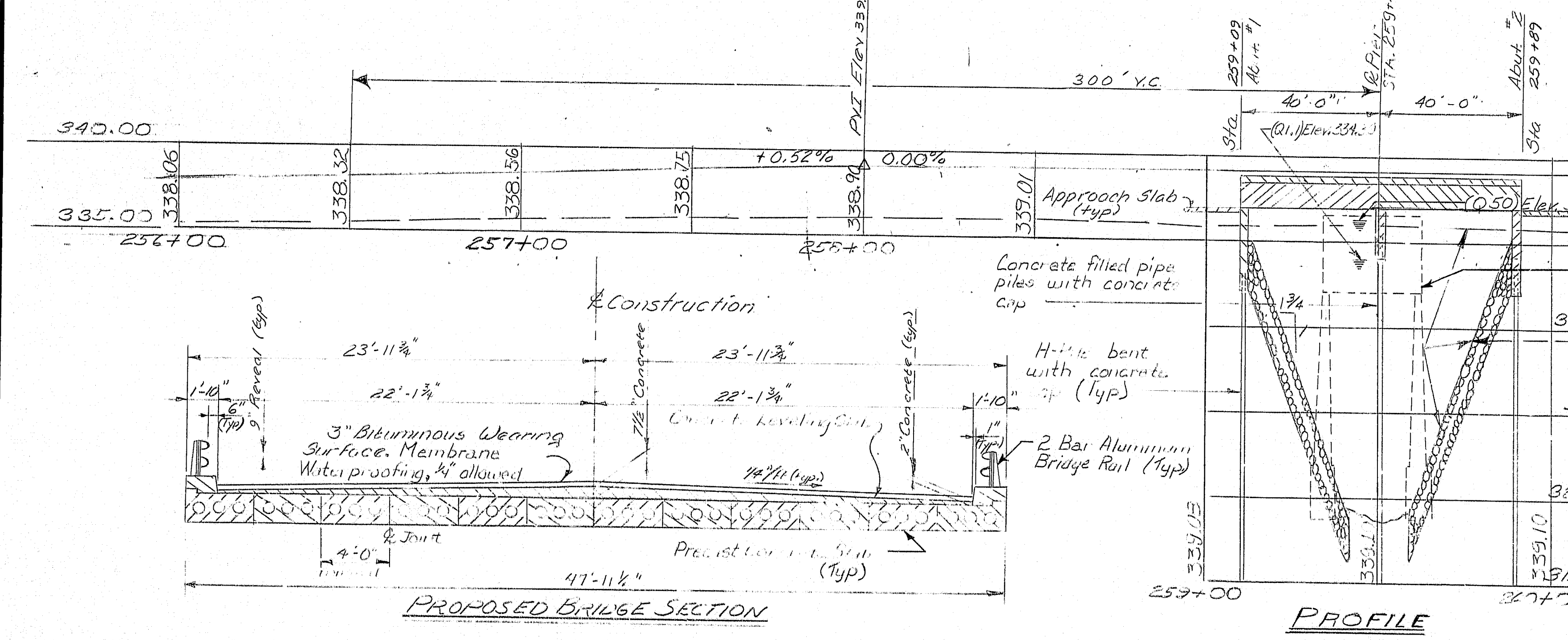
DESIGN SPECIFICATIONS
 Design: Load Factor Design per AASHTO Standard Specifications for Highway Bridges 1983 and Interim Specifications thru 1988.
 CONTRACT: State of Maine, Department of Transportation, Standard Specifications, Highways and Bridges, Revisions of July 1988.

DESIGN LOADING
 LIVE LOAD HS 25

MATERIALS
 PRESTRESSED CONCRETE
 CONCRETE LEVELING SLAB
 CONCRETE FILLED PIPE PILES
 ALL OTHER CONCRETE
 REINFORCING STEEL
 Class "P"
 Class "AAA"
 Class "S"
 Class "A"
 ASTM A615, Grade "D"

BASIC DESIGN STRESSES
 CONCRETE CLASS "P" $f_c = 5000$ psi
 CONCRETE CLASS "AAA" $f_c = 3000$ psi
 CONCRETE CLASS "A" $f_c = 3000$ psi
 CONCRETE CLASS "S" $f_c = 3000$ psi
 REINFORCING STEEL $f_y = 60,000$ psi

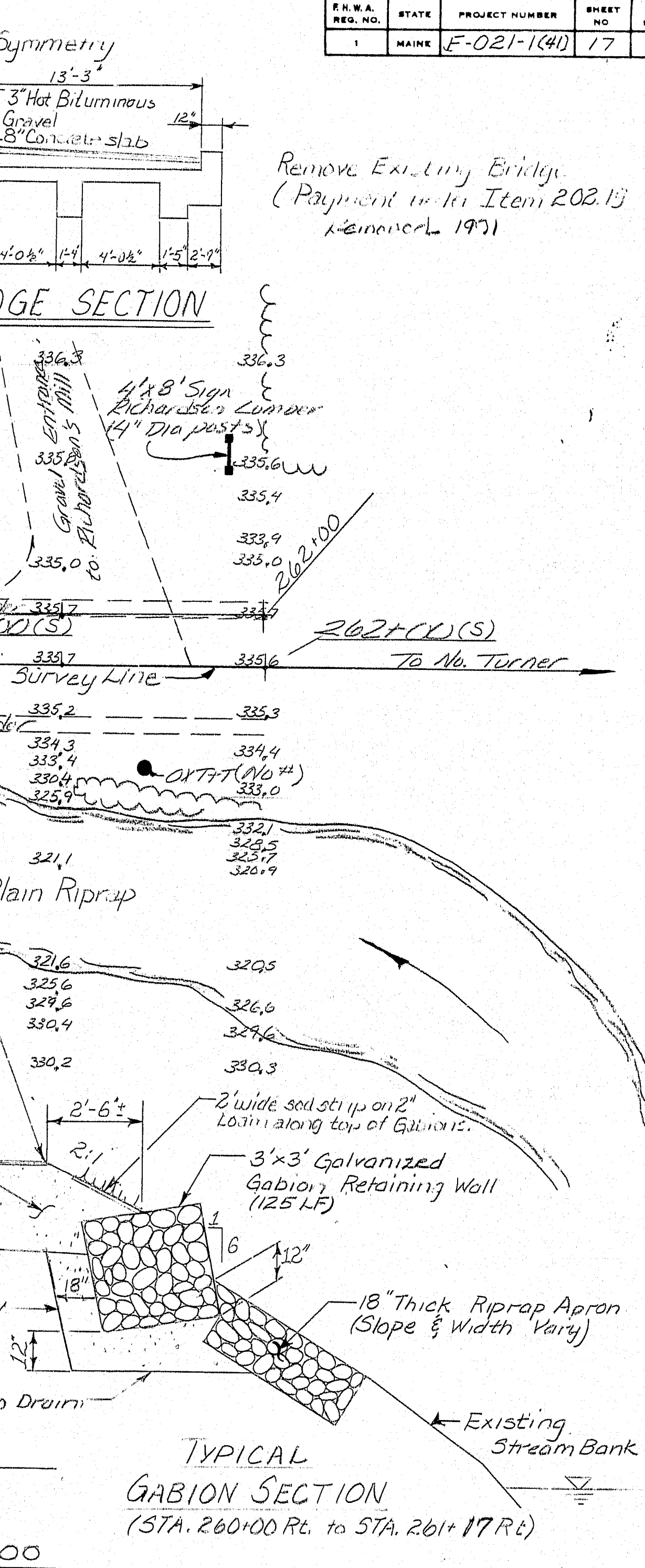
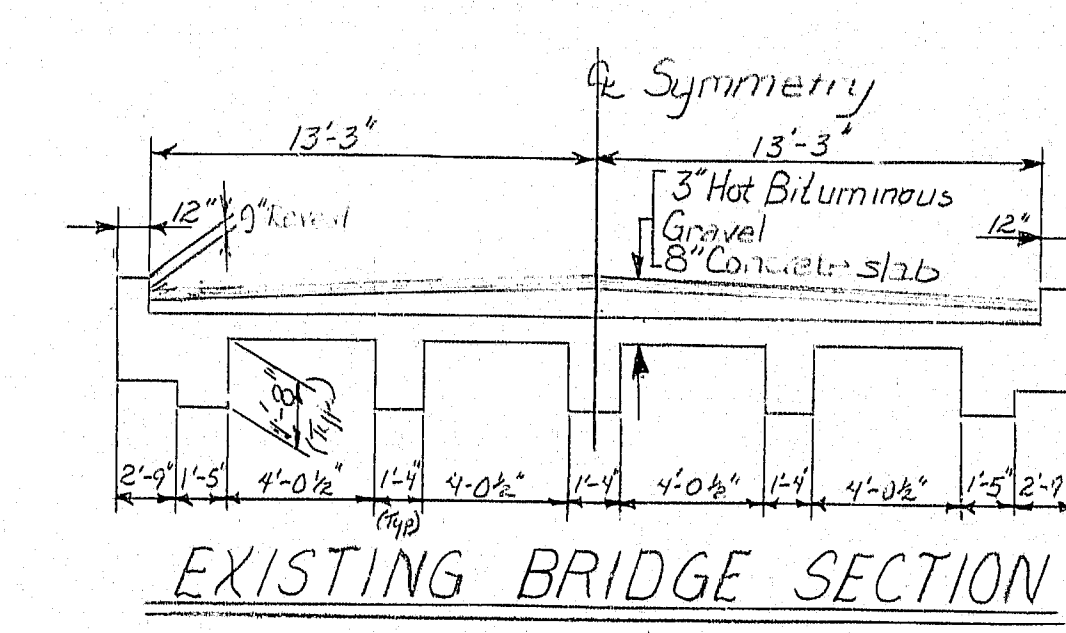
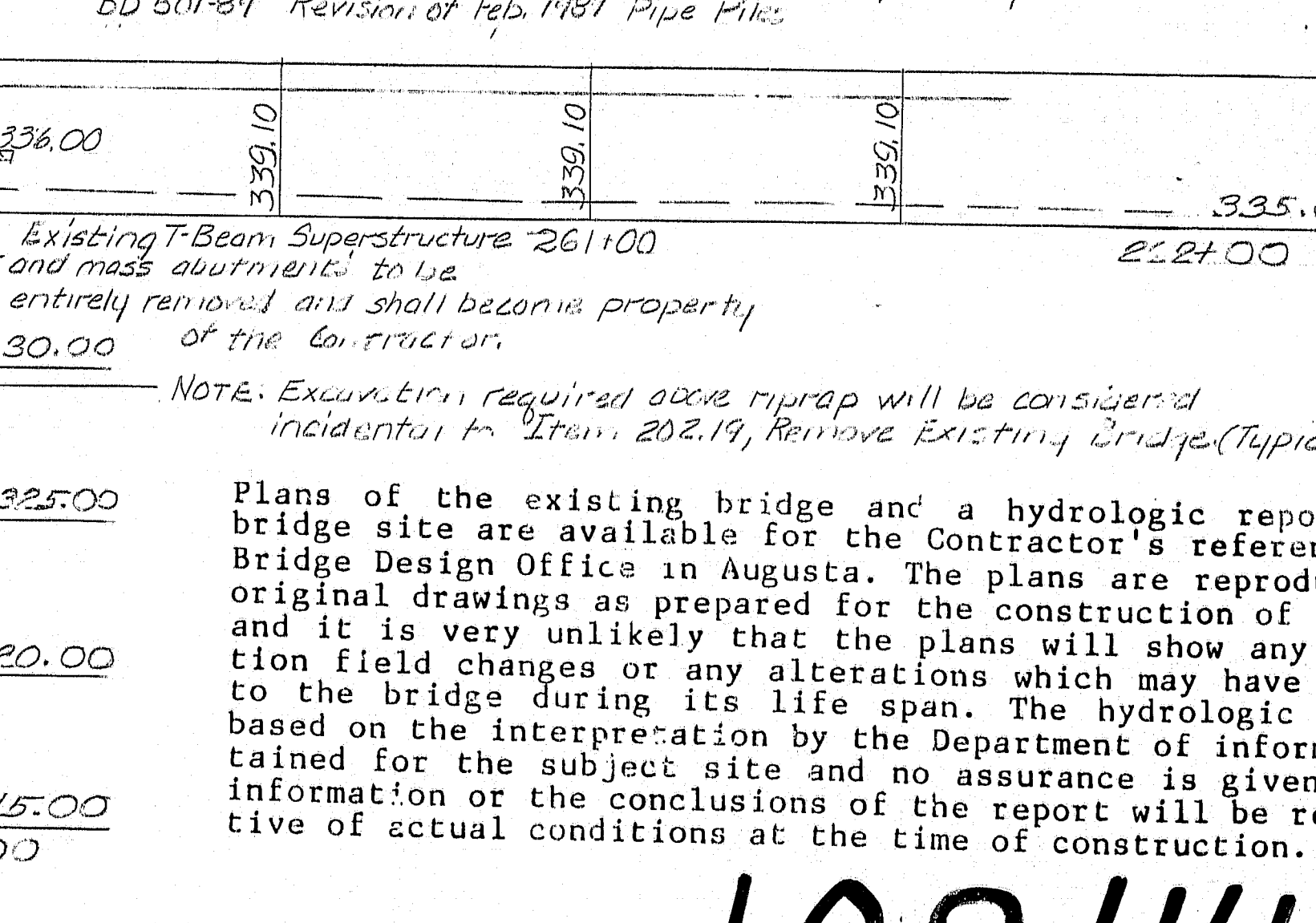
TRAFFIC DATA
 AADT (1987) ----- 7822
 AADT (2007) ----- 14,080
 DHV ----- 154.9
 T % ----- 7
 D % ----- 51
 V ----- 50 mph
 18 Kip P2.0 - 4.98



INDEX OF SHEETS

General Plan	1
Foundation Survey	2
Boring Details	3
Abutments	4
Piers	5
Precast Concrete Slabs	6
Superstructure	7
Stage Construction	8
Reinforcing Schedule	9

Bridge Standard Details
 BD 201-89 Revision of Feb. 1989 Concrete Ext. Part
 BD 401-81 Revision of Feb. 1987 Aluminum Bridge Railings
 BD 501-89 Revision of Feb. 1987 Pipe Piles



NOTE: All Backfill and Bedding materials under subgrade shall meet the requirements of Subsection 103.19, Material for Underwater Backfill.

Survey Book #21-320
 Bridge No. 2518

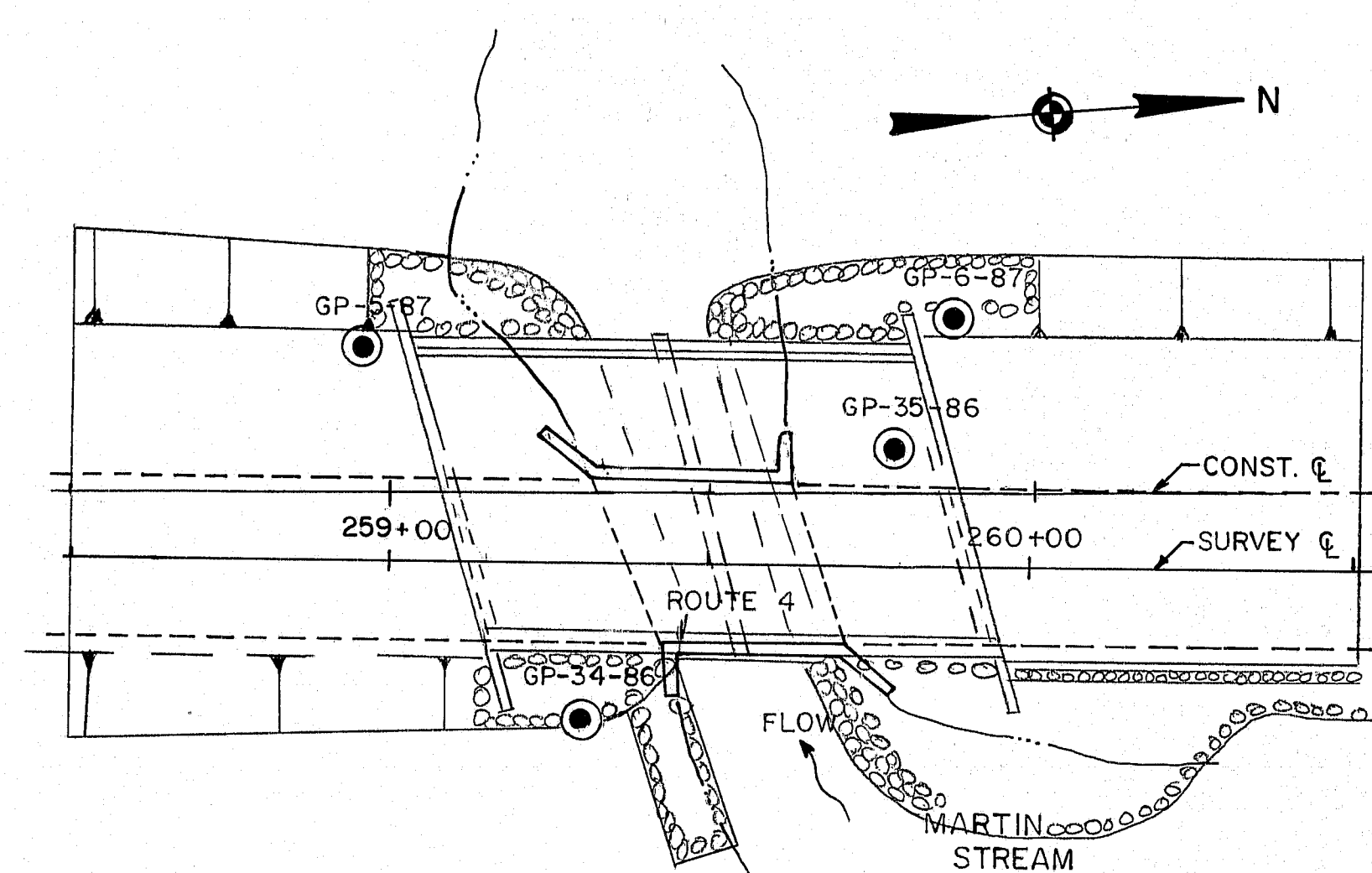
STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 MAINE STREET BRIDGE
 OVER
 MAINE STREET
 IN THE TOWN OF
 TURNER
 ANDROSCOGG COUNTY
 GENERAL PLAN
 SHEET 1 OF 9 AUGUSTA, MAINE NOV. 1989

108-441

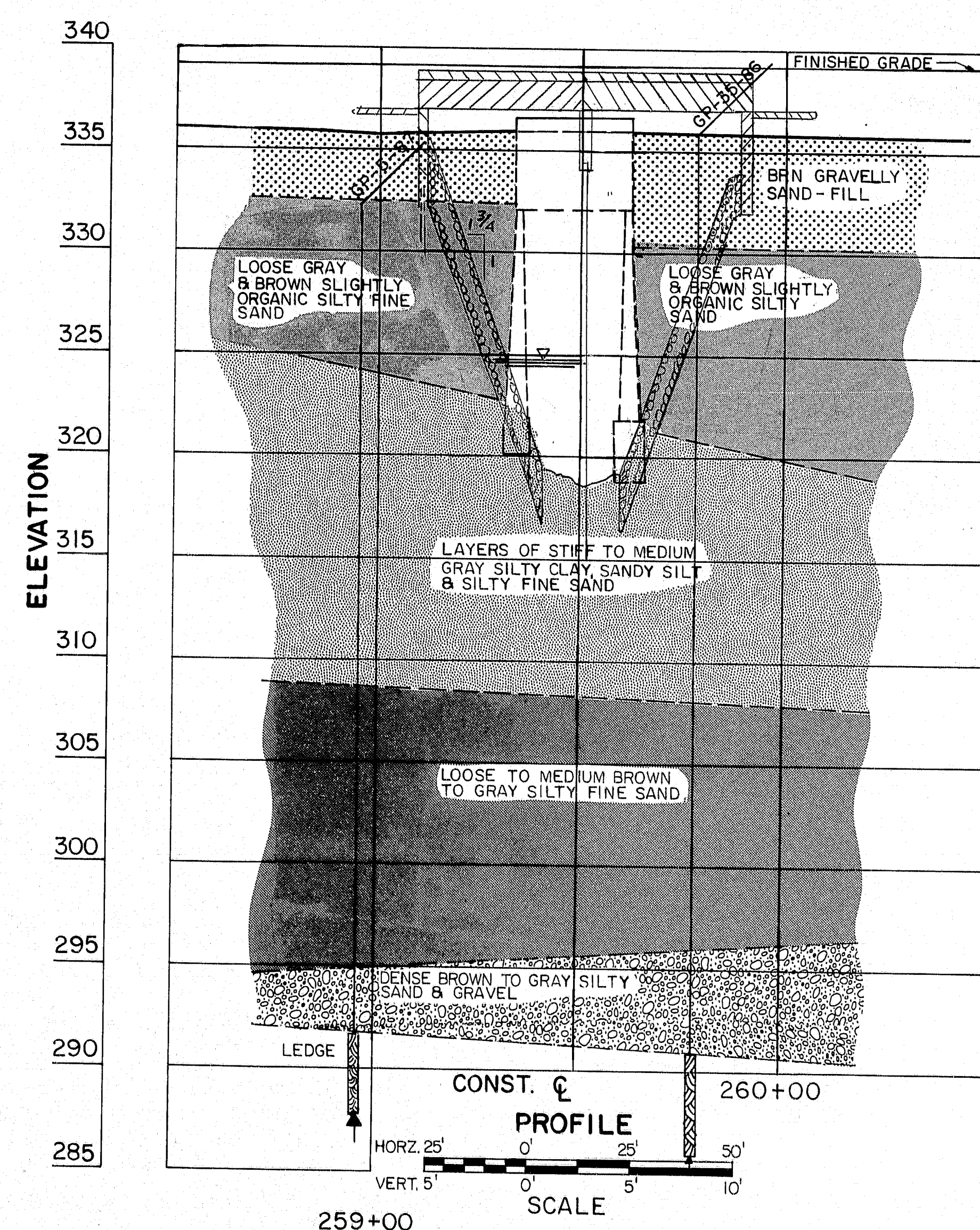
AS BUILT 1991

Preliminary Plan J.T.F. 9-8
 PROJECT DESIGN ENGINEER: [Signature]
 DATE: [Date]
 DESIGNED BY: [Signature]
 CHECKED BY: [Signature]
 REVISIONS: [Table]
 FIELD CHANGES: [Table]

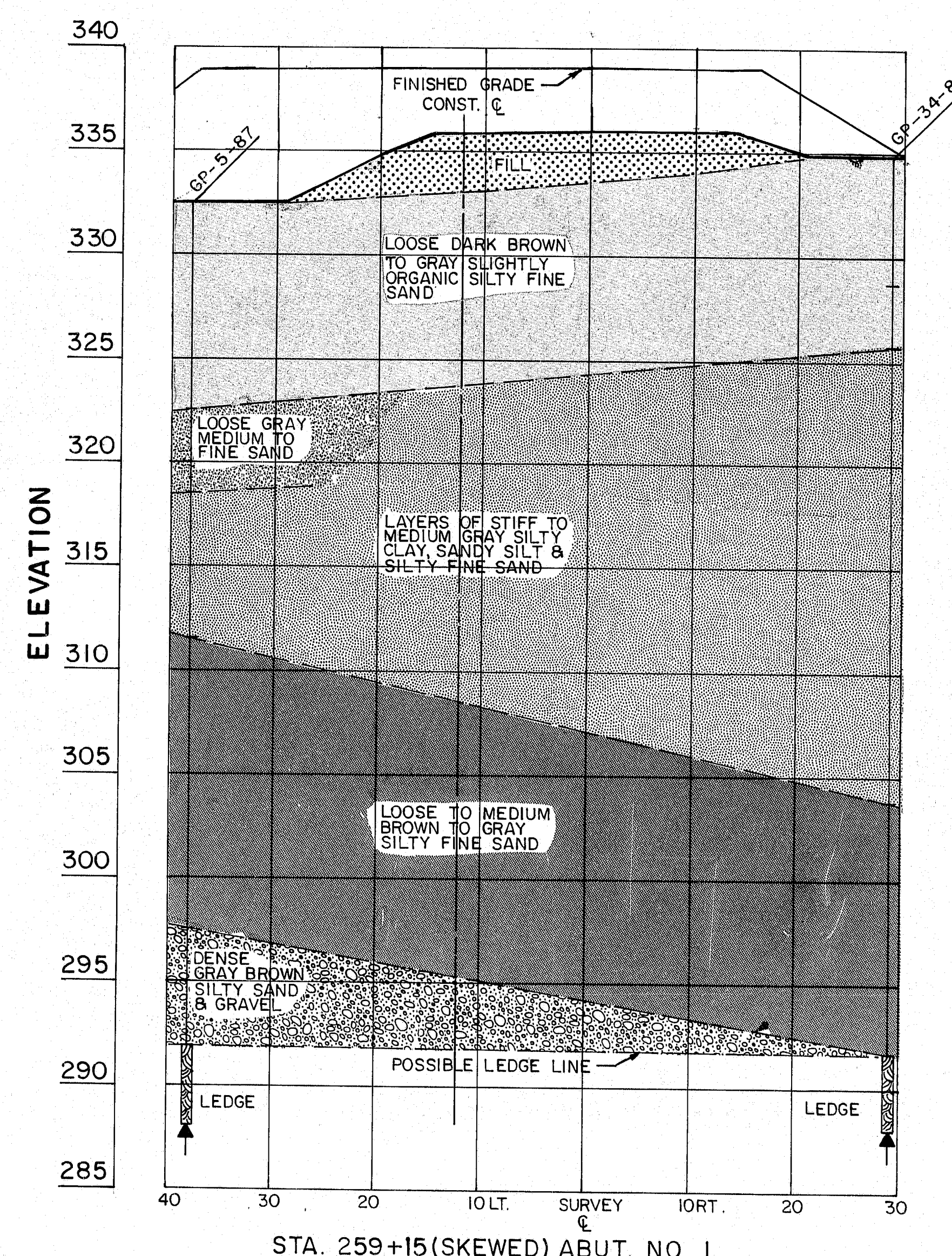
F.D.R.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-021-1(4)	18	84



PLAN
SCALE
25' 0' 25' 50'

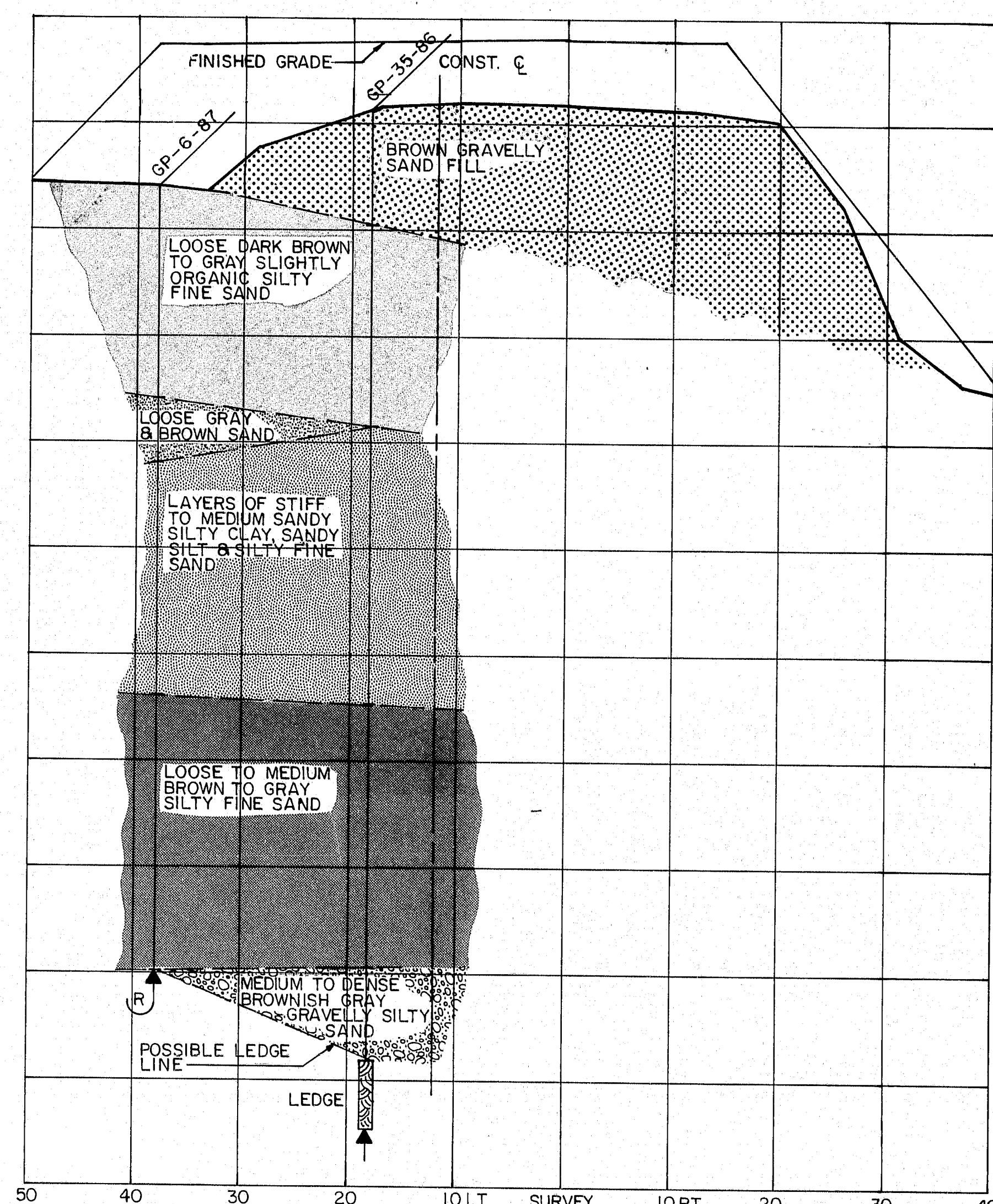


259+00



STA. 259+15 (SKEWED) ABUT. NO. 1

TRANSVERSE SECTIONS
HORZ. 10 0 10 20
VERT. 5 0 5 10
SCALE



STA. 259+89 ABUT. NO. 2

108-442

297

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
MARTIN STREAM BRIDGE
OVER
MARTIN STREAM
IN THE TOWN OF
TURNER
ANDROSCOGGIN COUNTY
FOUNDATION SURVEY

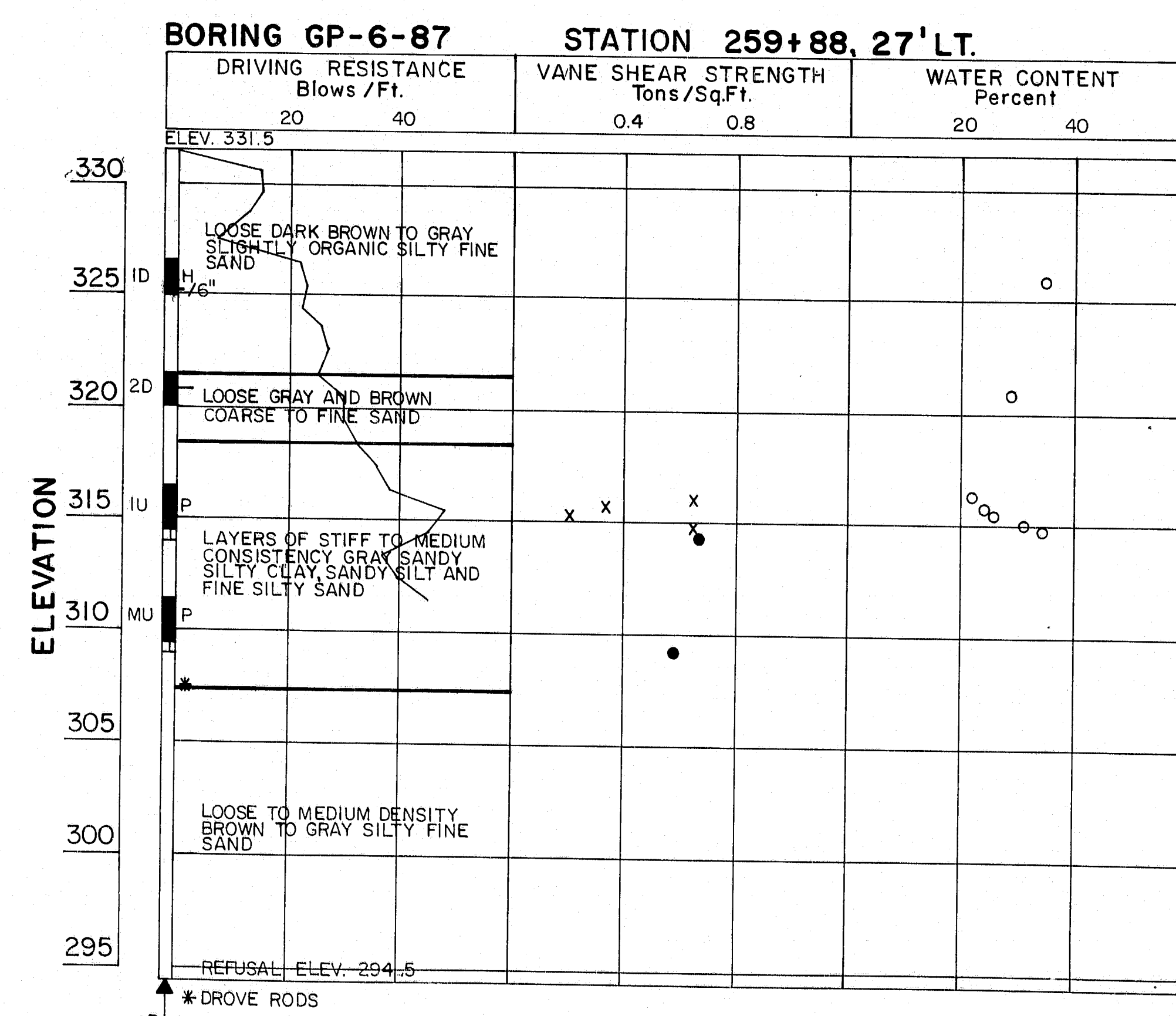
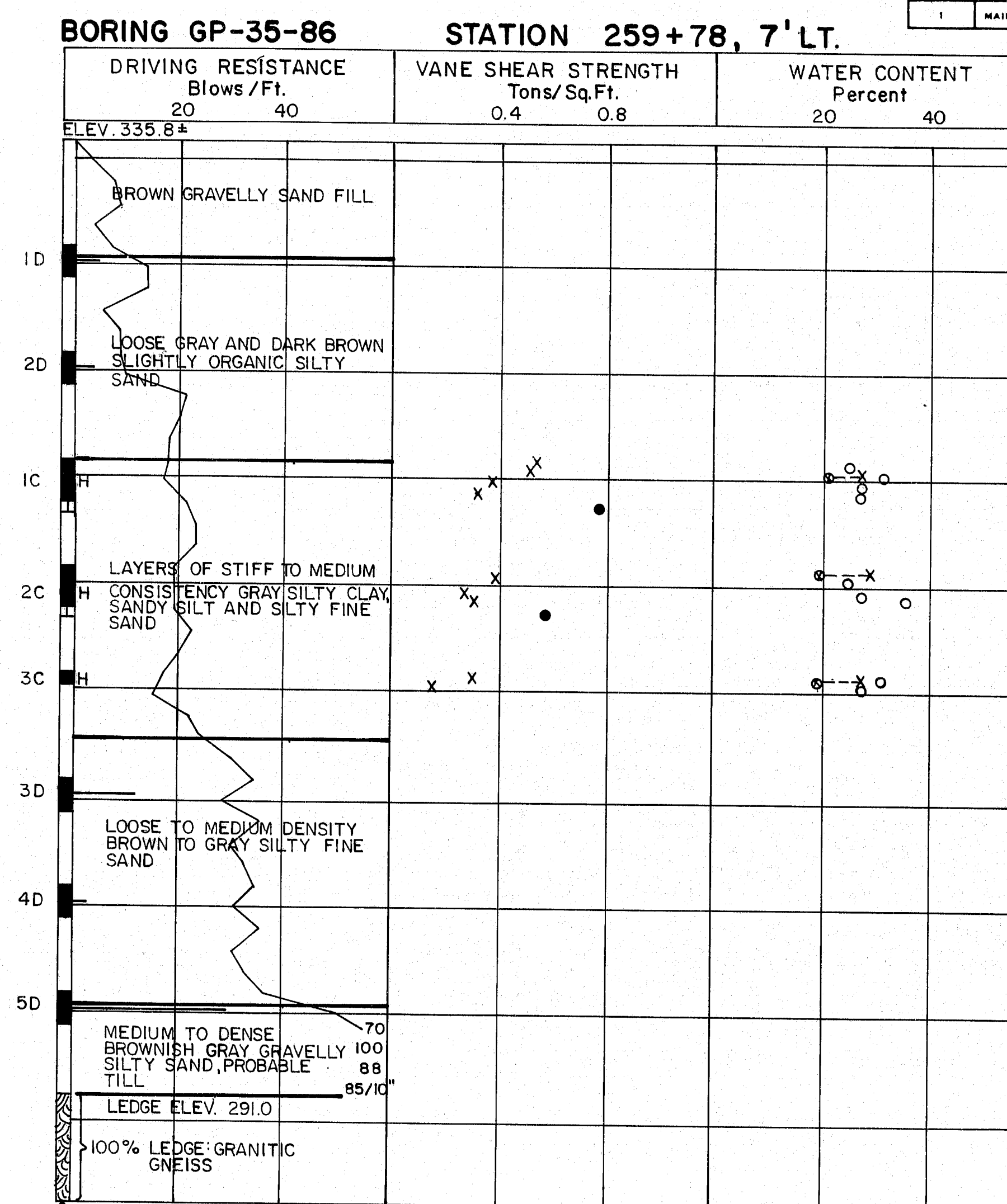
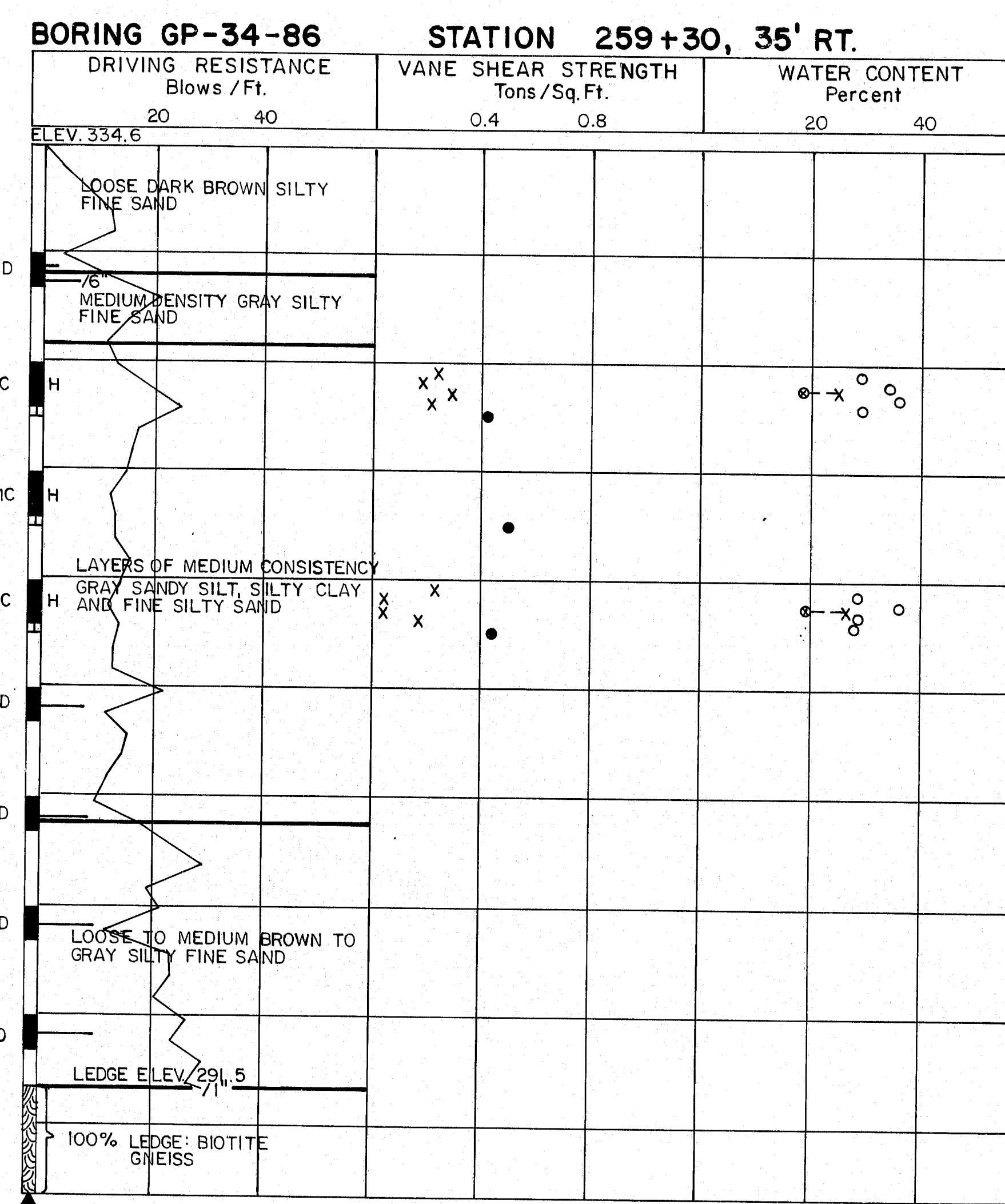
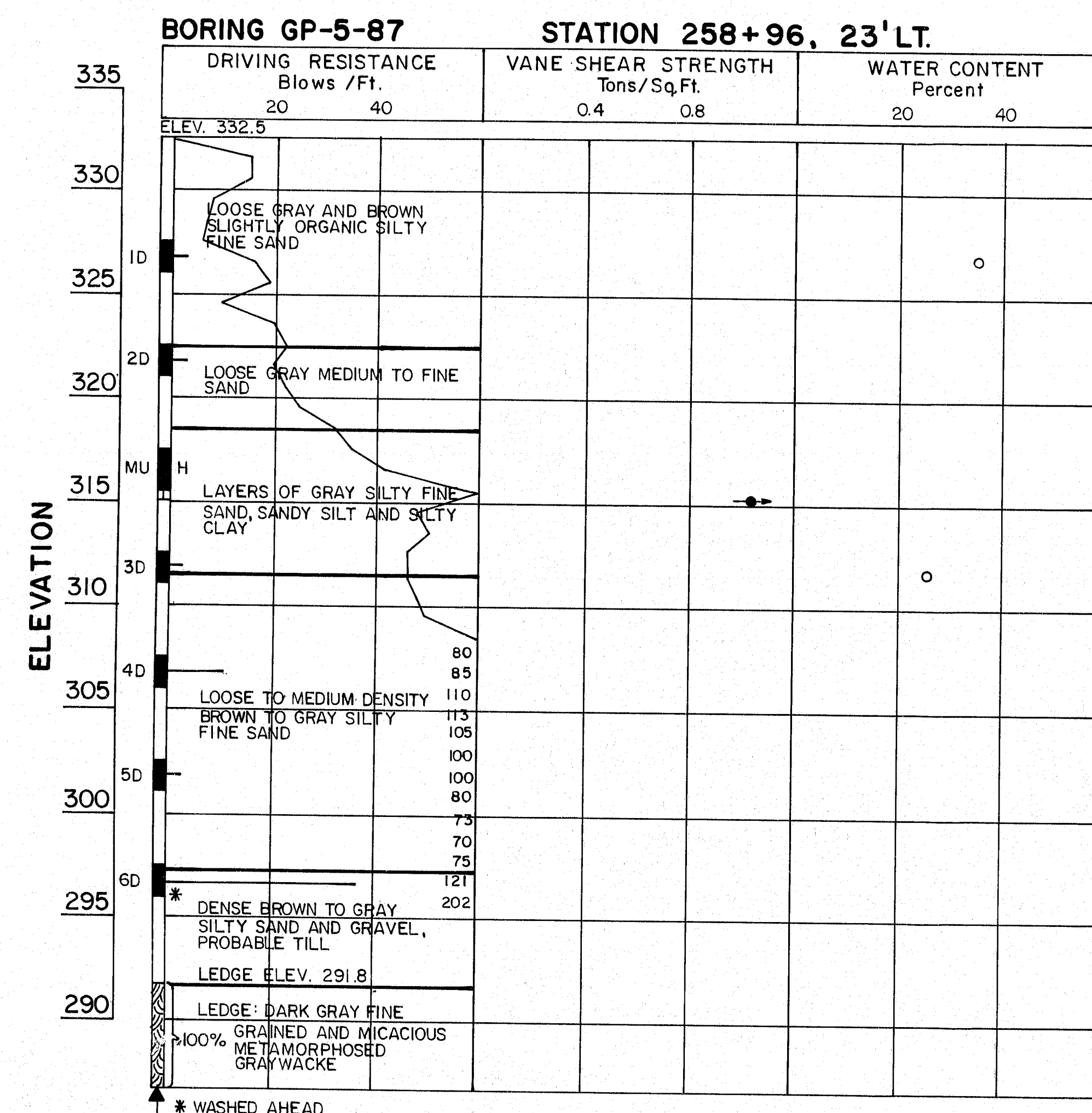
SHEET 2 OF 7 AUGUSTA, MAINE Nov. 1989

Turner 21

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

BURNING 44-132-45710

F.R.M.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-021-1(4)	19	84



BORING NOTES

- 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
- 1D — S & H Sampler #1290's
- 1C — 2" O.D. 16 ga. seamless tubing
- 1U — 3 1/2" O.D. 16 ga. seamless tubing
- Number of blows required to drive spoon or tubing one foot with 350 ft. lbs. of energy per blow
- MC — Unsuccessful sample attempt and type of sampler
- H — Sampling spoon or seamless tubing driven by static weight of drill rods and hammer
- P — Piston sampler
- Field vane test
- Bottom of boring (may not be bottom of soil strata)
- Refusal of drill rods or casing (may not be ledge)
- Locations cored by diamond bit and per cent recovery of rock

SHEAR NOTES

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

WATER CONTENT NOTES

- o — Natural water contents, given as per cent of dry weight
- o-x — Plastic and liquid limits
- Ignition losses are given as per cent of dry weight

108-443

298

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MARTIN STREAM BRIDGE

OVER

MARTIN STREAM

IN THE TOWN OF

TURNER

ANDROSCOGGIN COUNTY

BORING DETAILS

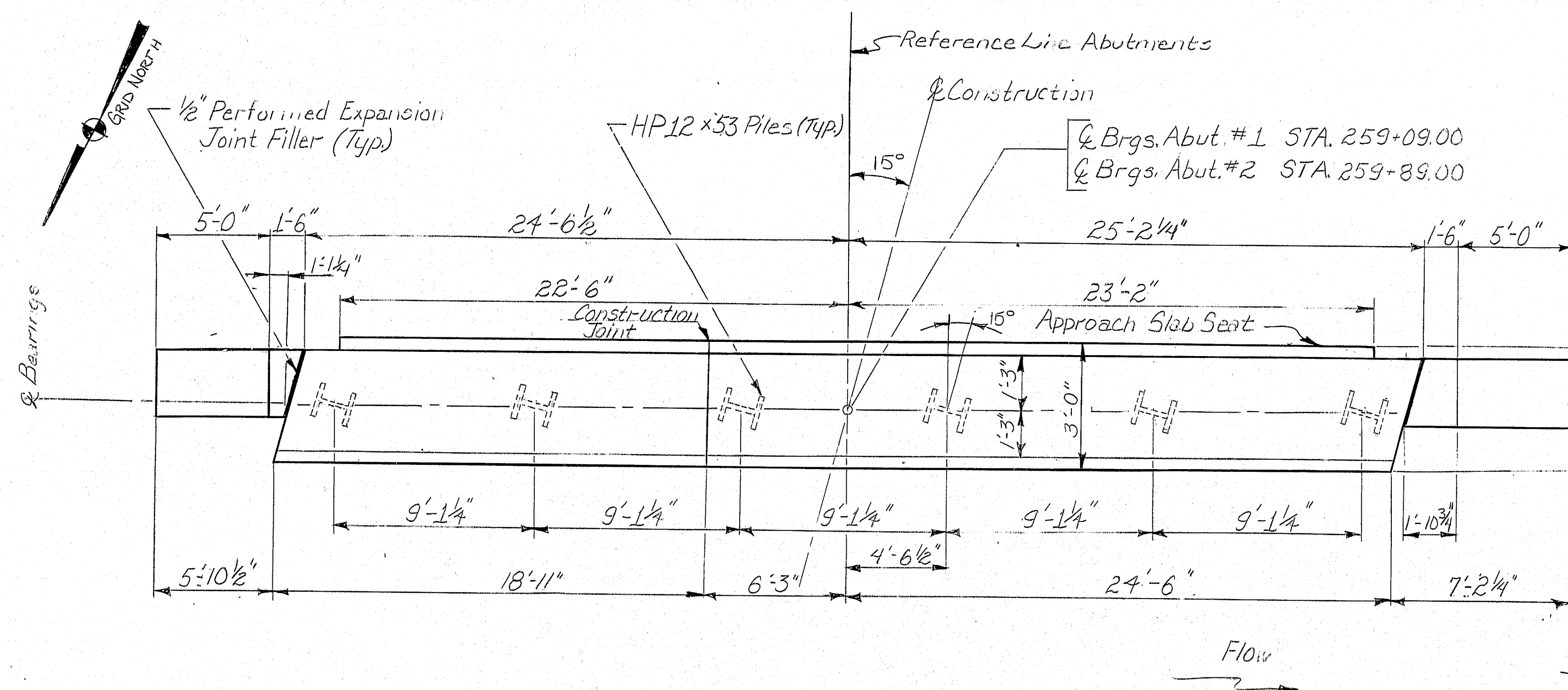
SHEET 3 OF 9 AUGUSTA, MAINE Nov. 1989

Turner 21

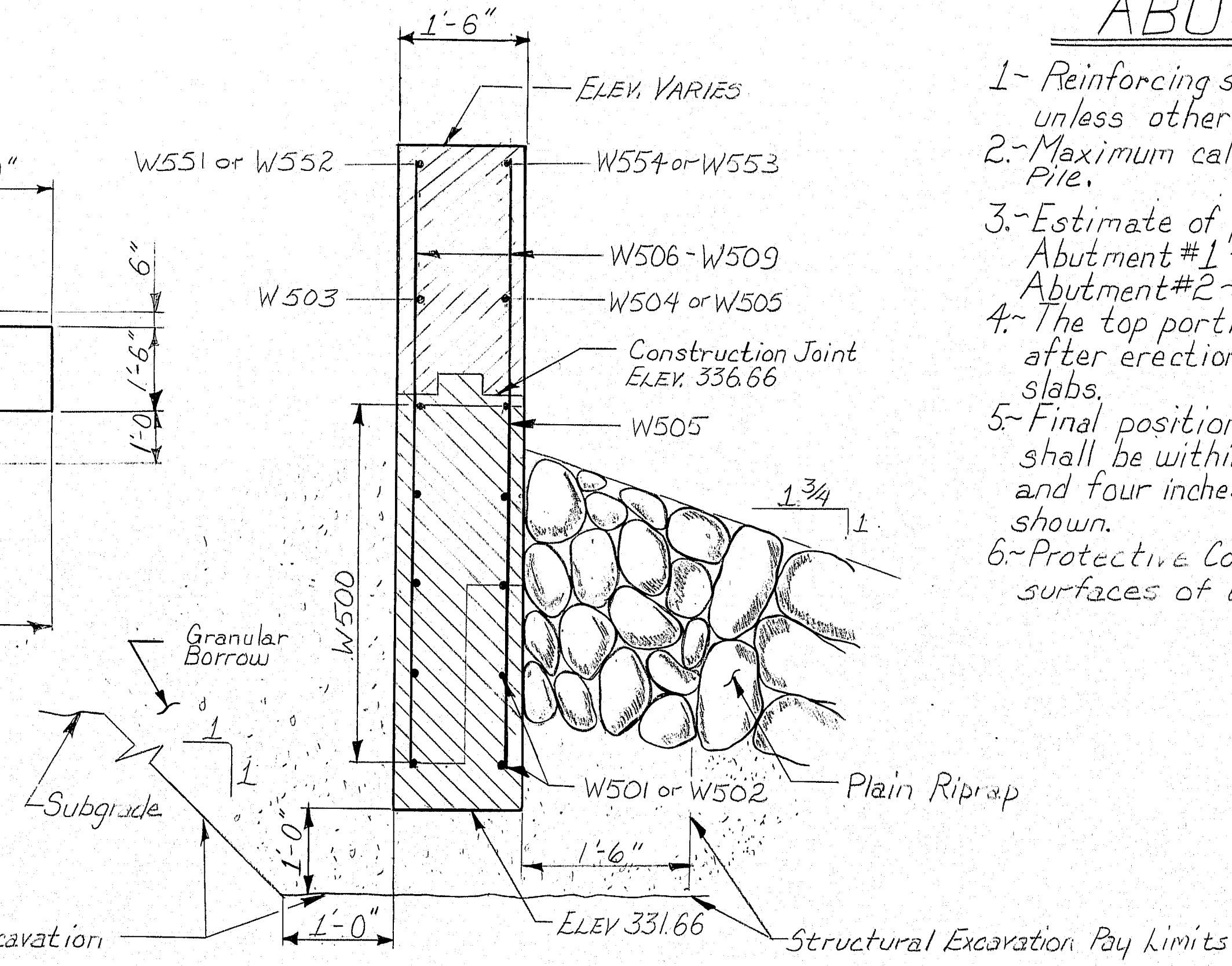
PROJECT DESIGN ENGINEER	DATE
MAINE	
DESIGN - DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

BORING 44-12-25710

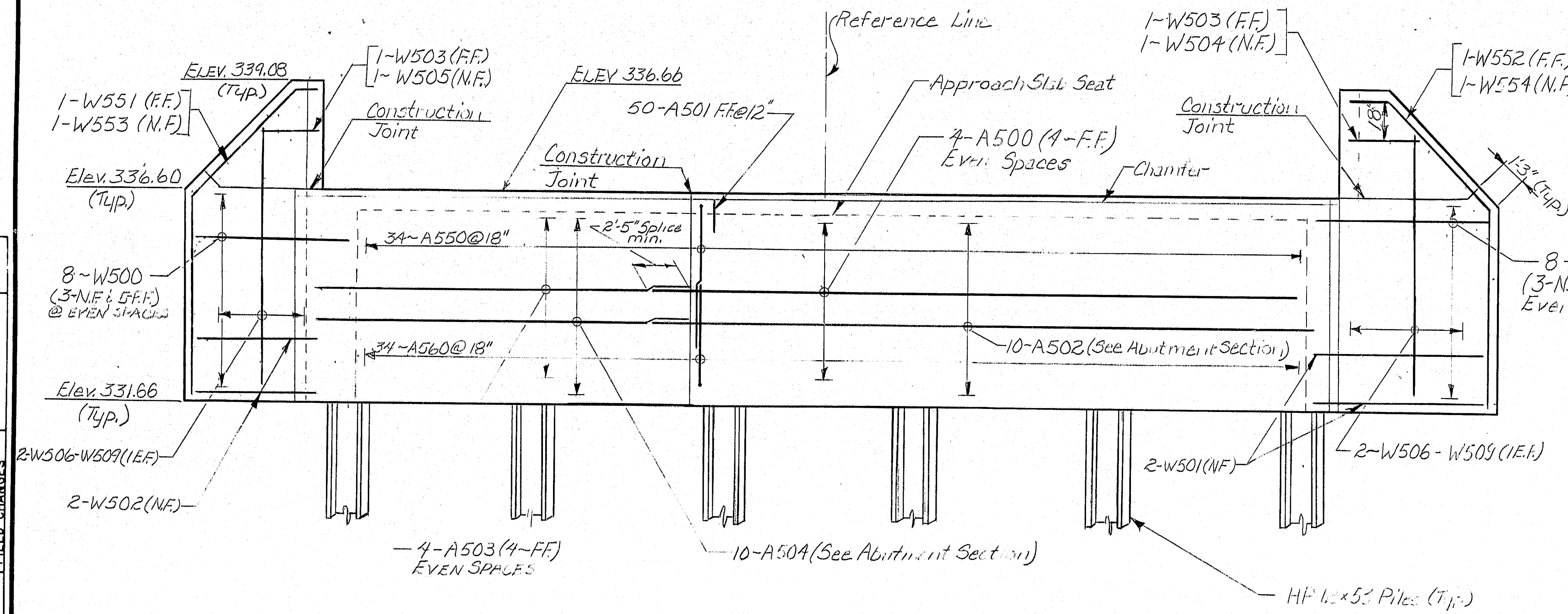
F.C.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-021-1(4)	20	84



PLAN & PILE LAYOUT
Abutment #1 shown
Abutment #2 similar

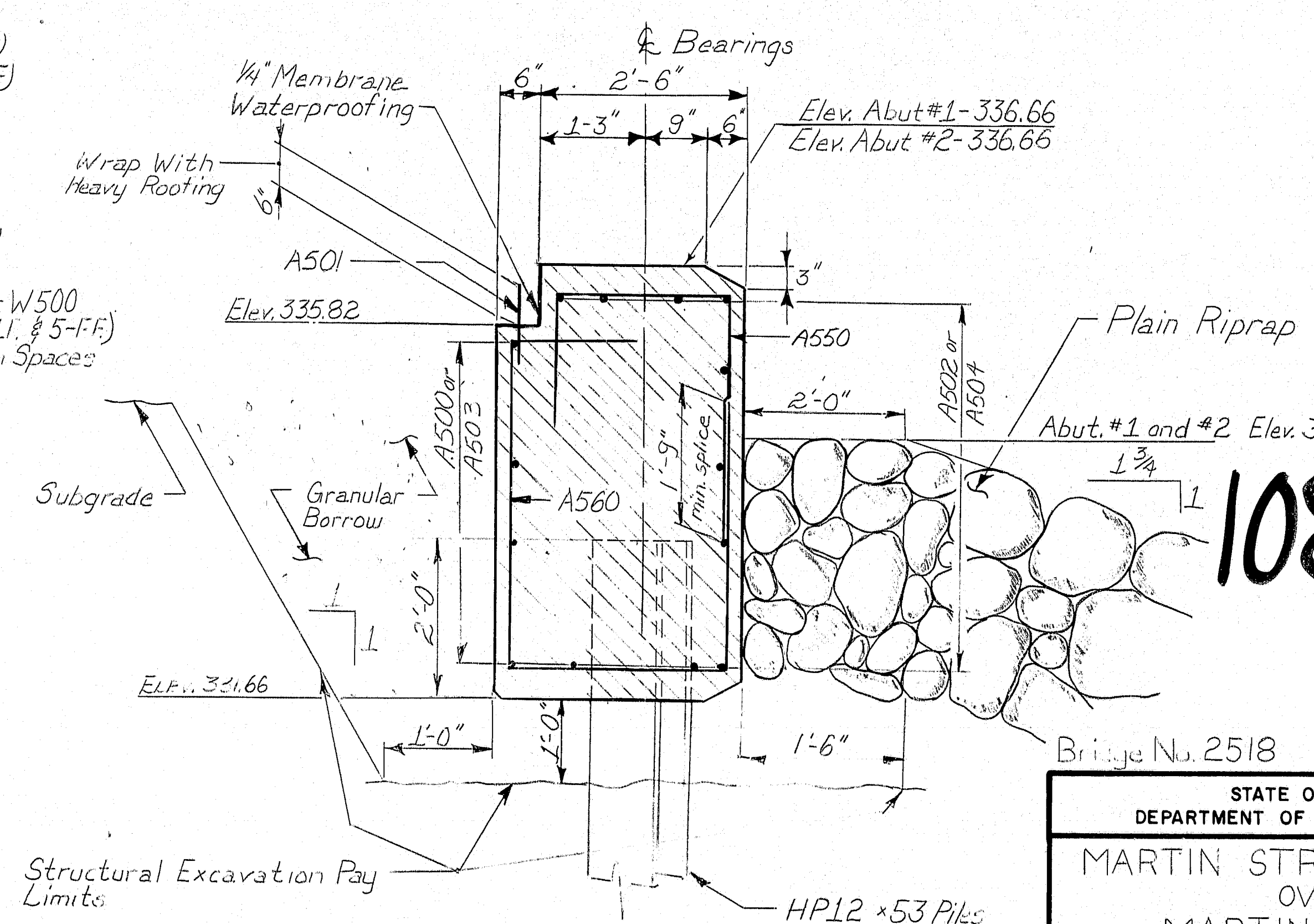


TYPICAL WING SECTION



ELEVATION

LEGEND
F.F. = Full Face
N.F. = New Face
I.E.F. = Full Face



TYPICAL ABUTMENT SECTION

- ABUTMENT NOTES
- 1- Reinforcing steel shall have two inches cover unless otherwise noted.
 - 2- Maximum calculated pile loads: 116 Kips per Pile.
 - 3- Estimate of piles required:
Abutment #1 - 6-HP 12 x 53 @ 41 feet
Abutment #2 - 6-HP 12 x 53 @ 41 feet
 - 4- The top portion of the wings shall be placed after erection of the prestressed superstructure slabs.
 - 5- Final position of the H-Piles in the abutments shall be within two inches perpendicular to & Brgs. and four inches along & of Brgs. of dimensions shown.
 - 6- Protective Coating will be applied to all exposed surfaces of wings.

108-444

299

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
MARTIN STREAM BRIDGE
OVER
MARTIN STREAM
TURNER
ANDROSCOGGIN COUNTY
ABUTMENTS

SHEET 4 OF 9 AUGUSTA, MAINE NOV. 1, 1971

AS BUILT 1971 24th TURNER 21

PROJECT DESIGN ENGINEER	DATE
BY JAF W.P.B. 7/83	
CHECKED G.M.B. 8/83	
REVISIONS	
FIELD CHANGES	

BRIDGE 4570-1

F.R.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-021-1(41)	21	84

PIER NOTES

1. Reinforcing steel shall have three inches minimum cover unless otherwise noted.
2. Pile tips shall be approved manufactured cast steel with 60° conical points and internal flanges, suitable for welding to pipe piles.
3. Final position of the pipe piles in the cap shall be within two inches transverse to ϕ Pier and four inches along ϕ Pier of dimensions shown.
4. No splices will be allowed in the upper forty foot length of piling.
5. For Pile Tip details see Standard Detail sheet BD 501-89.
6. Holes shall be provided in the pipe piles to allow placement of the three bottom P600 bars. Payment shall be incidental to related contract items.
7. The top 1'-6" of pipe piles may be filled with Class 'A' concrete.
8. Estimate of piles required:
Pier = 6 ~ 20" ϕ steel pipe piles @ 45 feet.

9. Maximum calculated pile loads: 100 tons.

10. Pile protective coating shall be applied to the top 25 feet of the piles.

DESIGN CRITERIA

1. Critical AASHTO Loading - Group VIII.
2. Bouyancy - Water level assumed at Elev. 336.0
3. River flow - Velocity of 2.1 feet per second skewed at 0° to longitudinal centerline of pier.
4. Wind - 100 mph.
5. Ice - Thickness eighteen inches, pressure 100 psi at Elev. 336.0, 30% of nose force applied transverse to pier.

108-445

300

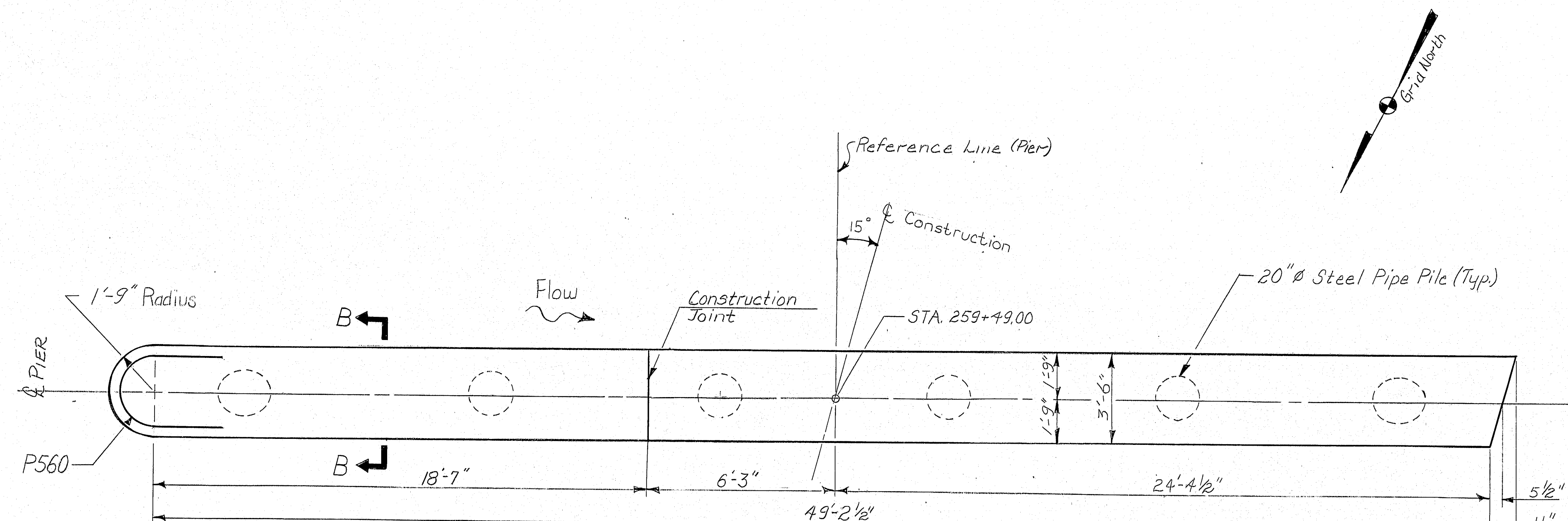
Bridge No. 2518

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

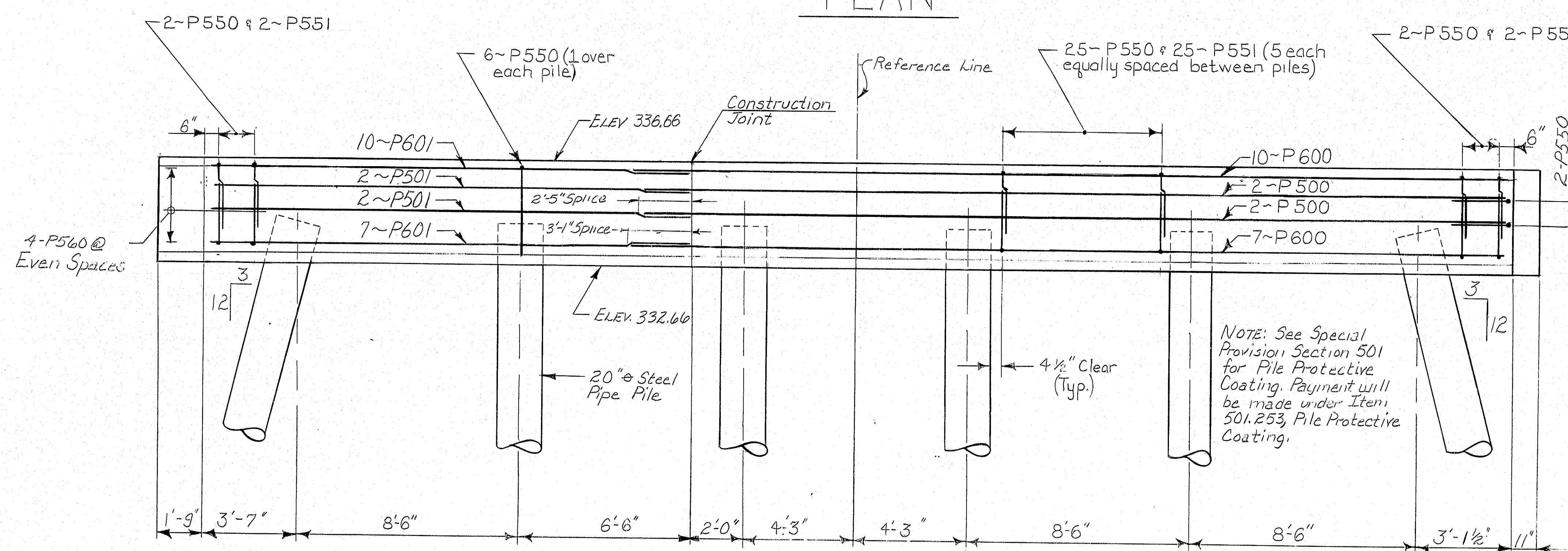
MARTIN STREAM BRIDGE
OVER
MARTIN STREAM
TURNER
ANDROSCOGGIN COUNTY
PIERS

SHEET 5 OF 9 AUGUSTA, MAINE NOV. 1989

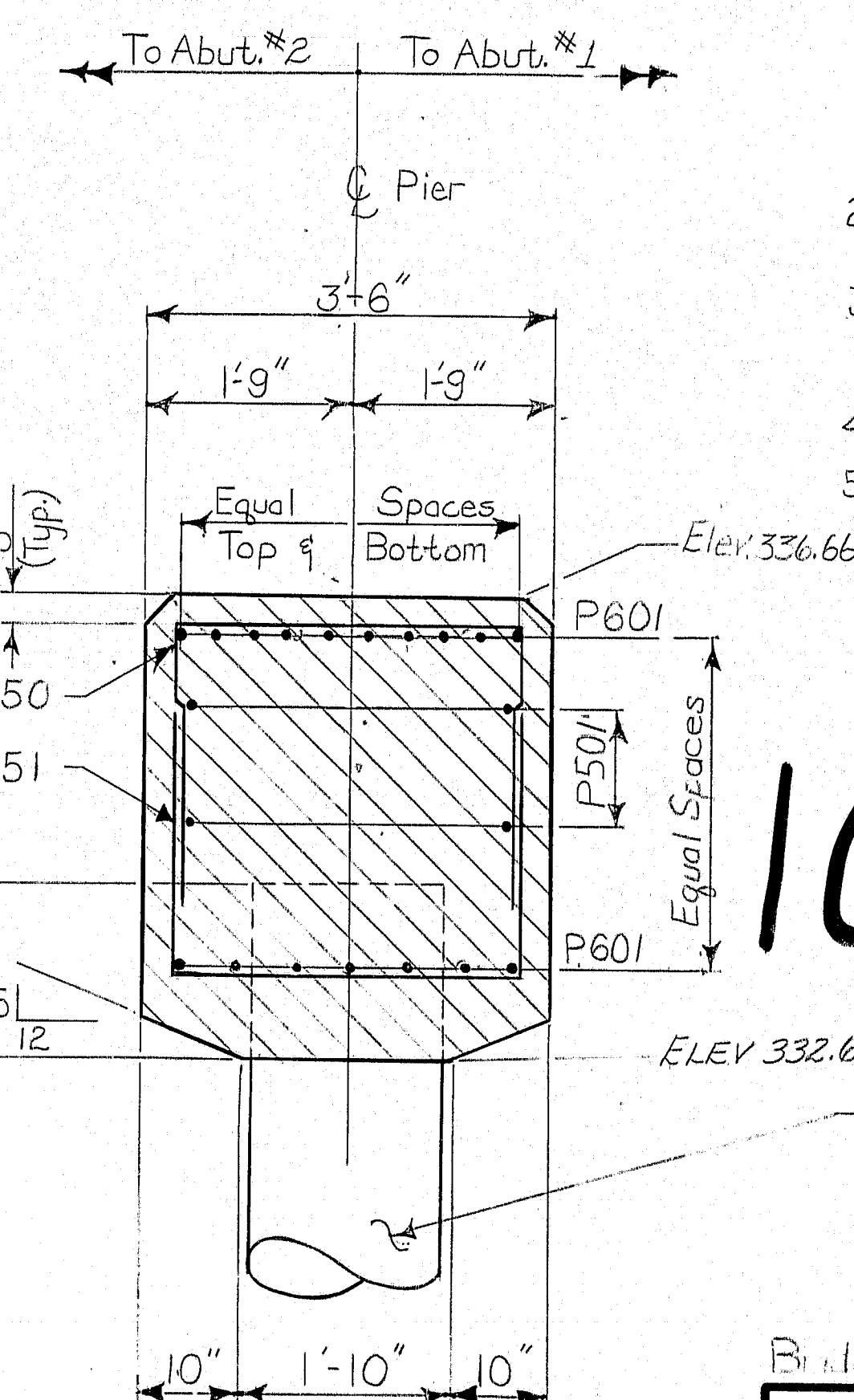
AS BUILT 1991 Turner 21



PLAN



ELEVATION

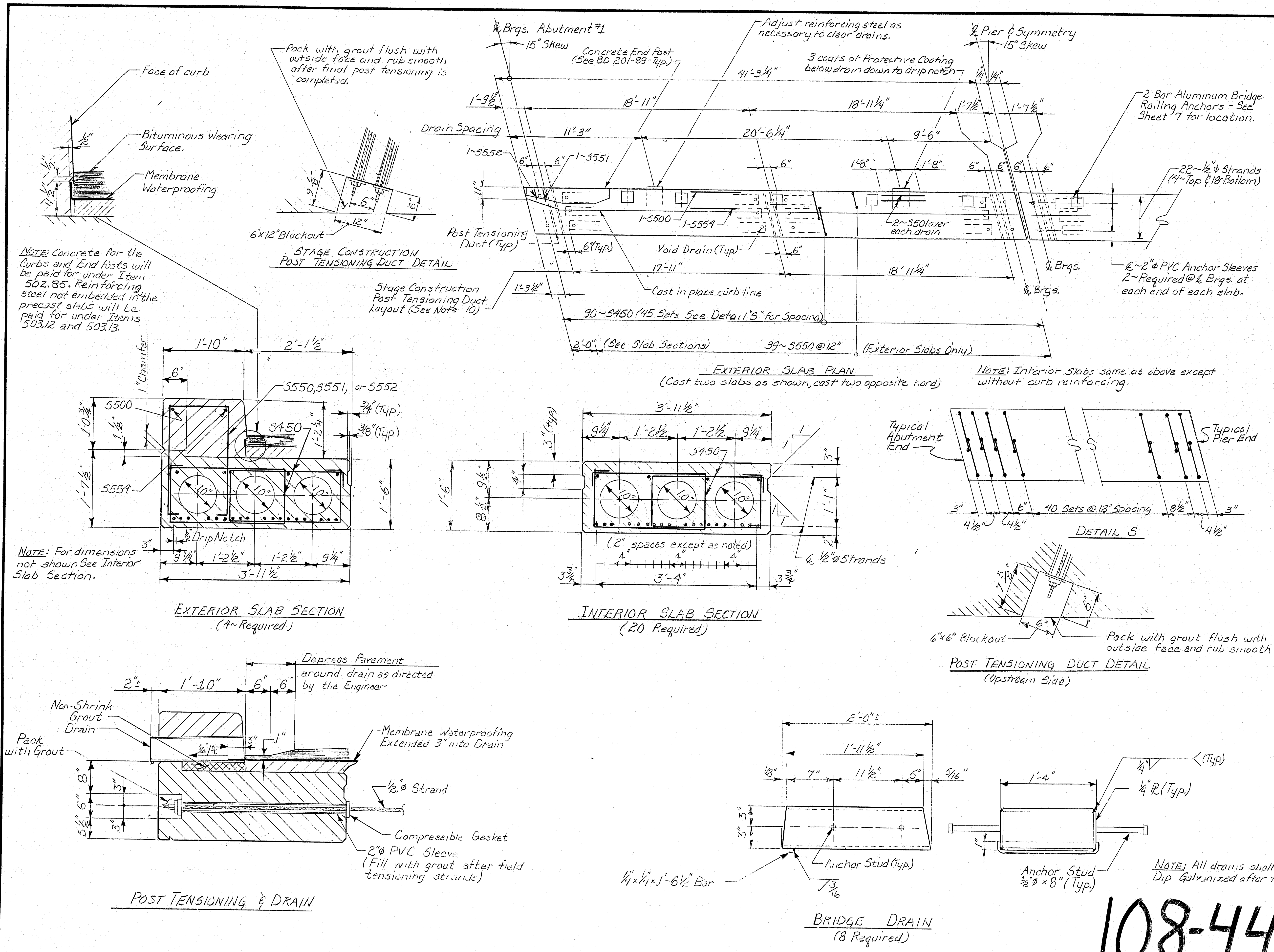


SECTION B-B

PROJECT DESIGN ENGINEER	DATE
JAF	7/10/89
DESIGN - DETAILED	BY
JAF	JAF
CHECKED	DATE
JAF	7/10/89
REVISIONS	BY
	JAF
FIELD CHANGES	DATE

Note: For Pipe Pile Layout see Plan & Elevation above.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	F-021-1(41)	22	84



- NOTES:**
- 1~Install two, one inch diameter PVC void drains in the bottom of each void, one at each end.
 - 2~Bridge drains shall be A36 steel. Payment for bridge drains complete in place will be incidental to contract items.
 - 3~Bridge Railing Anchorage shall be installed as shown on BD 401-89 of the Standard Details
 - 4~Protective Coating for concrete Surfaces shall be applied to top, face and abutment ends of curbs, below drains as noted, and fascia down to the drip notch. Payment will be made under Item 515.21.
 - 5~Form a one inch V-groove on the fascia at the horizontal joint between the curb and the Precast Concrete Slabs.
 - 6~Tensioning of prestressing strands shall be done in accordance with Standard and Supplemental Specifications Section 535. The jacking force applied to the prestressing strands shall be 29,000 pounds.
 - 7~Reinforcing steel shall have two inches minimum cover in curbs.
 - 8~3550, 3551, & 3552 reinforcing bars shall be epoxy coated in accordance with Standard Specification Section 503. Payment will be in accordance with Subsection 535.36.
 - 9~In accordance with Subsection 535.36, the Contractor shall provide 48~A800 anchor dowels 2'-2" long and 48~P800 anchor dowels 2'-2" long.
 - 10~Stage Construction Post-Tensioning Ducts are only required in the 14 slabs required to complete Stage II. See Superstructure sheet 7 of 9 and Stage Construction sheet 8 of 9.
 - 11~Lateral Post-tensioned strands shall have a tension of 29,000 pounds per strand applied.

PRECAST CONCRETE SLAB REINFORCING STEEL

MARK	QTY	LENGTH	LOCATION	BAR SIZE
3450	2160	2'-7"	Slab	#4
3550	150	6'-11"	Curb	#5
3551	4	6'-3"	Curb	#5
3552	4	6'-3"	Curb	#5

Dimensions are out-to-out of bar

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MARTIN STREAM BRIDGE
over
MARTIN STREAM
TURNER
ANDROSCOGGIN COUNTY

PRECAST CONCRETE SLABS

SHEET 6 OF 9 AUGUSTA, MAINE Nov, 1987

108-446

BRIDGE NO. 2518

PRECAST CONCRETE SLAB DETAILS

PROJECT DESIGN ENGINEER/DATE	BY	DATE
DESIGN-DETAILED	JAF	11/11/87
CHECKED	GHH	12/22/87
FIELD CHANGES		

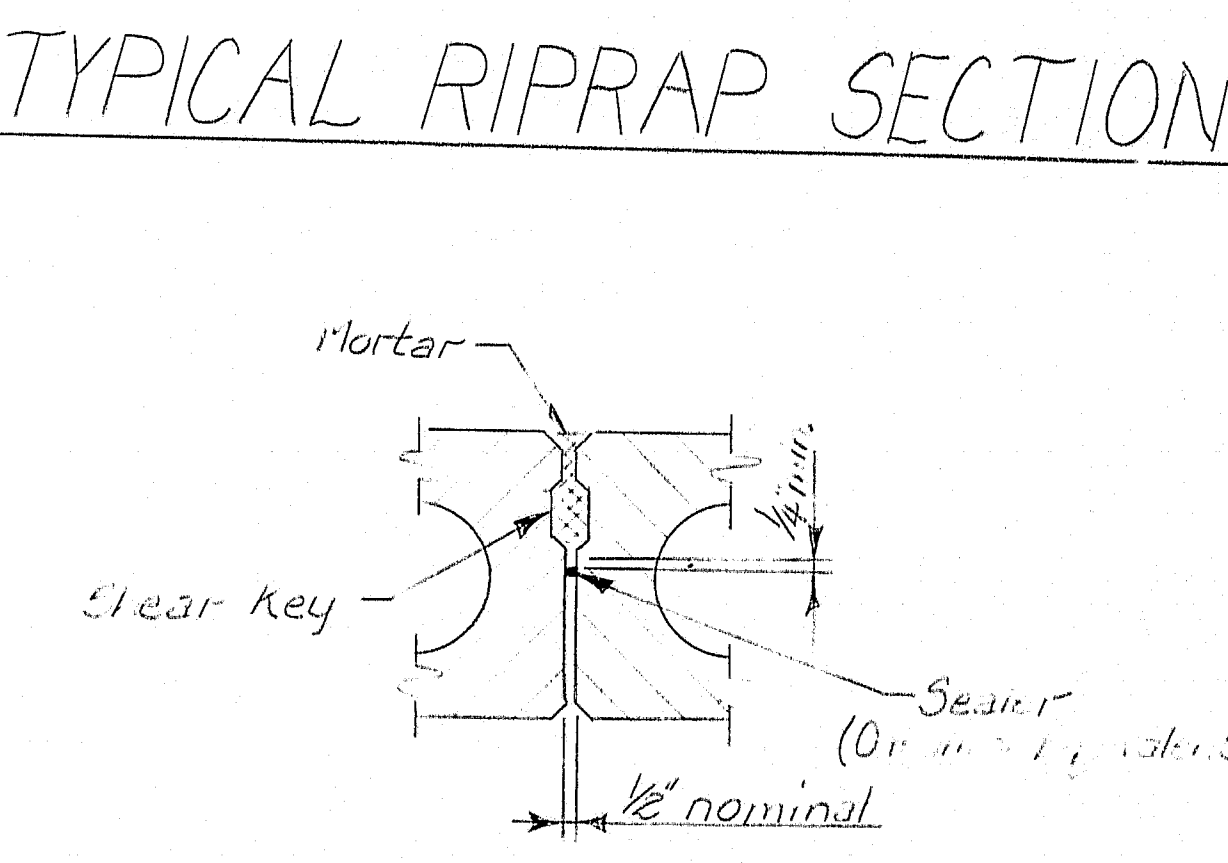
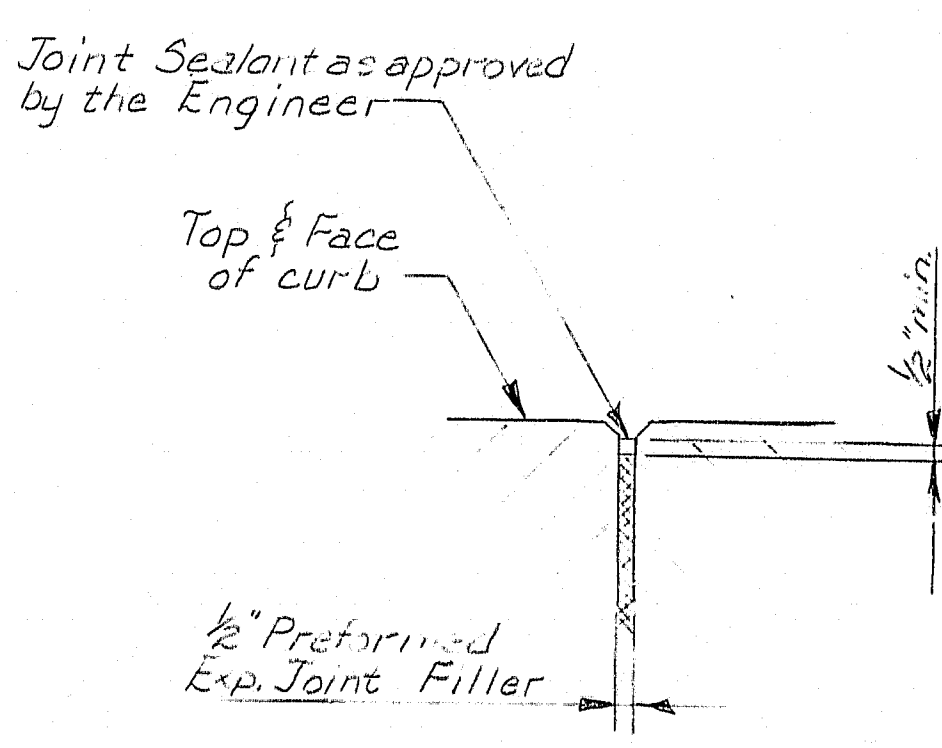
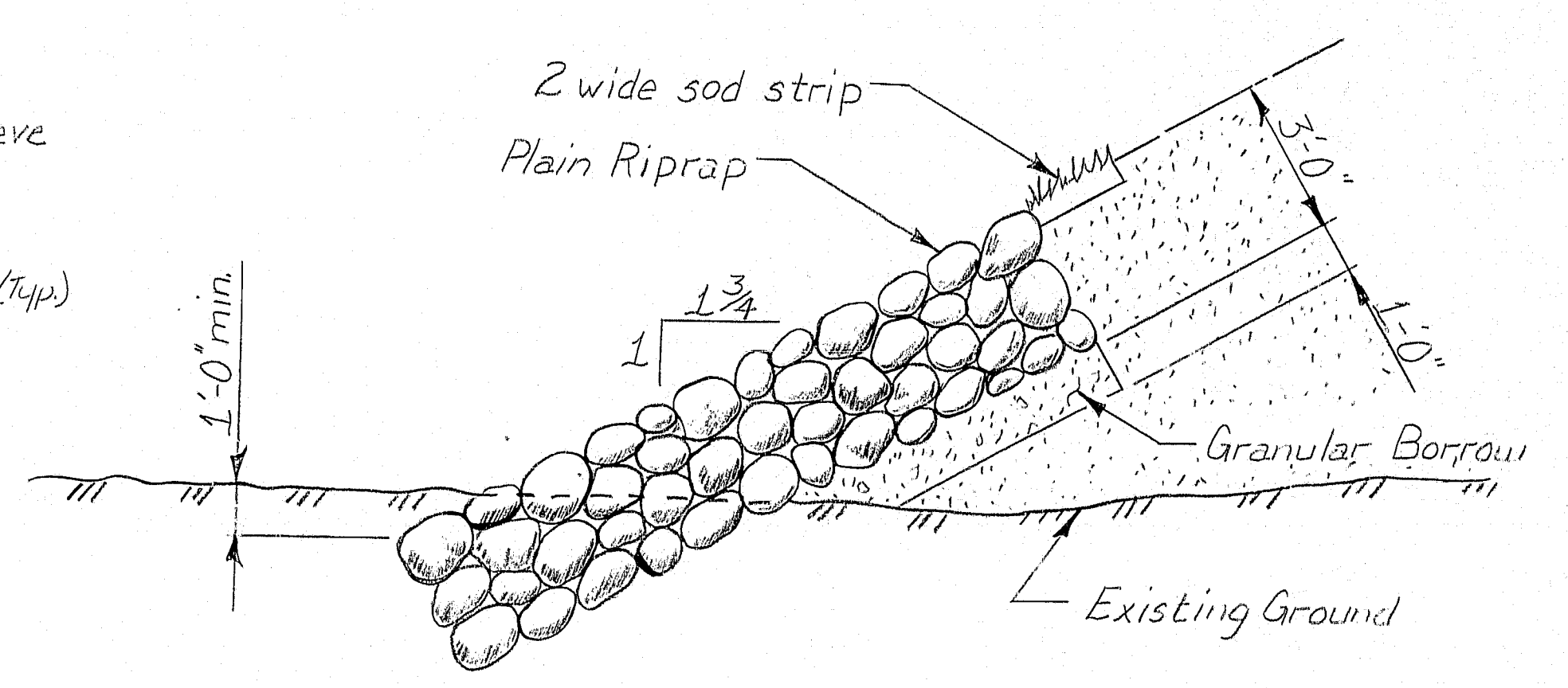
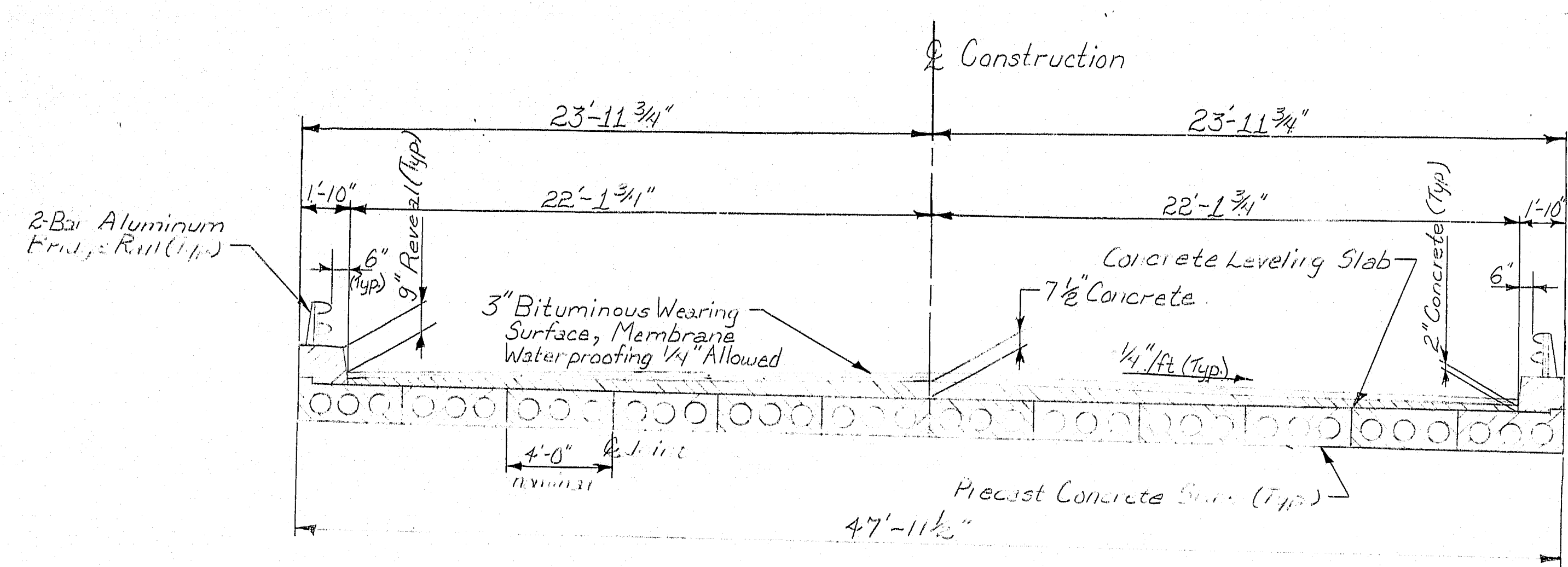
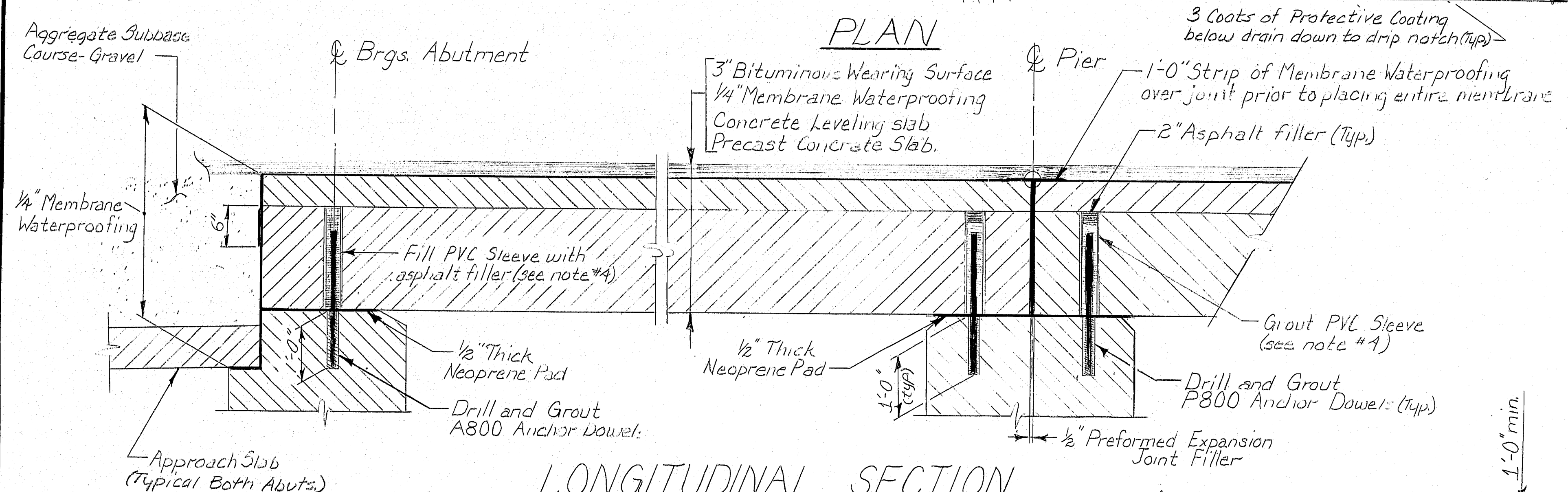
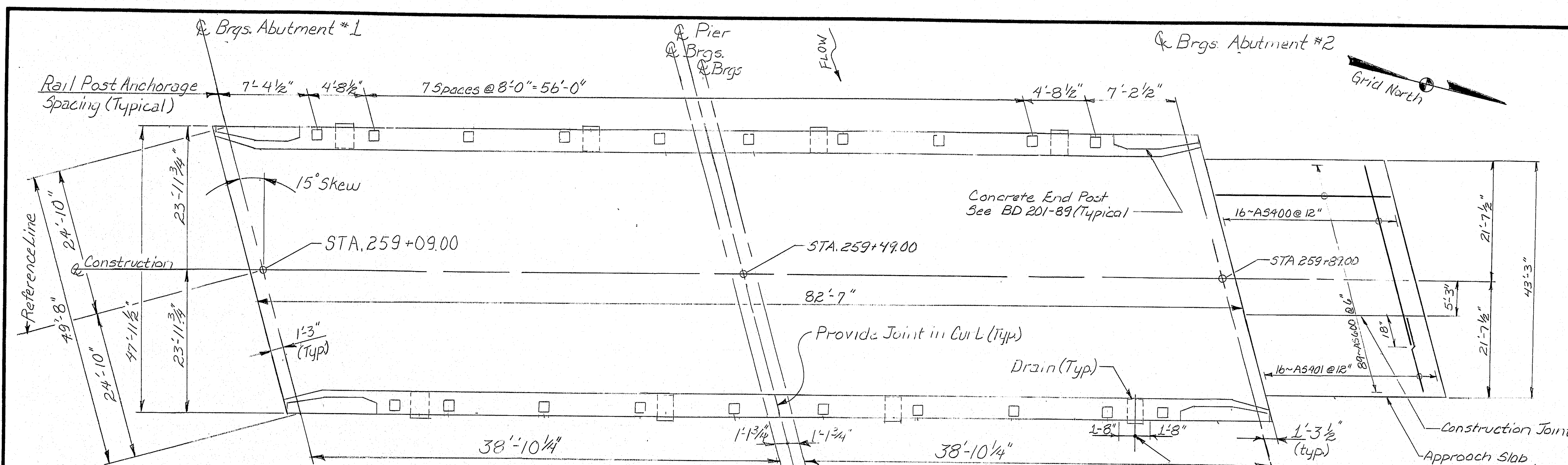
BRIDGE 45710-1

F.W.A. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	F-021-141	23	84

SUPERSTRUCTURE NOTES

- 1- Reinforcing Steel shall have two inches minimum cover in curbs.
- 2- Grout shall contain an approved non-shrink additive.
- 3- Protective Coating for Concrete Surfaces shall be applied to all exposed surfaces of the concrete end posts.
- 4- Drill and grout P800 dowels after precast slabs have been placed and post-tensioned. Fill PVC sleeves with grout and cap with two inch thick asphalt filler. Drill and grout A800 dowels, fill entire sleeve in slab with asphalt filler meeting the requirements of Subsection 702.09.
- 5- The concrete leveling slab in each span shall be placed in one continuous operation and shall be kept plastic until the entire span has been placed for the Phase under construction.
- 6- The one-half inch thick neoprene pads shall cover the entire abutment and pier bearing areas. Neoprene pads shall meet the requirements of AASHTO designation D628-80. Neoprene pads shall not be paid for directly but will be considered incidental to related contract items.
- 7- Form a 1" V-groove on the fascia at the horizontal joint between curb and precast concrete slabs.
- 8- Concrete for curbs and end posts will be paid for under Item 502.25, Structural Concrete Superstructure Slab.
- 9- The surface of the precast concrete slabs and face of curbs shall be cleaned prior to the placement of the concrete leveling slab in accordance with the requirements of subsection 502.11(g). Payment will be considered incidental to related contract items.

NOTE: All Granular Borrow placed in the embankment slope under the riprap and within 12 inches of the back side of the riprap areas shall consist of a material containing not more than 70 percent passing a 1/4 inch mesh sieve and not more than 10 percent passing a 200 mesh sieve.



108-447
Bridge Number 2518 302

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
MARTIN STREAM BRIDGE
over
MARTIN STREAM
TURNER
ANDROSCOGGIN COUNTY
SUPERSTRUCTURE
SHEET 7 OF 11 AUGUSTA, MAINE Nov. 14-89
As Built 1991

PROJECT DESIGN ENGINEER	DATE
JAF	11/14/89
CHECKED	DATE
GHH	12/13/89
REVISIONS	
1	FIELD CHANGES

BRIDGE 2518

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	
ABUTMENTS													ABUTMENTS														
W500	32	11'-0"	HORIZONTAL WING									W551	2	11'-3"	Y	1'-4"	5'-5"	4'-6"					4'-10"				WINGS
W501	4	8'-0"										W552	2	11'-3"	Y	1'-4"	5'-5"	4'-6"					4'-10"				
W502	4	7'-6"										W553	2	10'-10"	Y	0'-11"	5'-5"	4'-6"					4'-10"				
W503	4	4'-3"										W554	2	11'-8"	Y	1'-9"	5'-5"	4'-6"					4'-10"				
W504	2	4'-8"																									
W505	2	3'-10"										A550	68	7'-4"	S	-	2'-0"	2'-2"	3'-2"			-					ABUTMENT
W506	8	7'-1"	VERTICAL WING									A560	68	11'-10"	X	2'-0"	4'-0"	2'-8"	3'-2"								ABUTMENT
W507	8	6'-11"																									
W508	8	6'-2"																									
W509	8	5'-5"																									
PIER													PIER														
A500	8	31'-8"	HORIZONTAL ABUT.									P550	37	8'-4"	S	-	2'-8"	3'-0"	2'-8"			-					STIRRUPS
A501	100	1'-6"	(APPROACH) DOWEL SLAB SEAT									P551	29	8'-4"	S	-	2'-8"	3'-0"	2'-8"			-					STIRRUPS
A502	20	33'-0"	HORIZONTAL ABUT.									P560	4	8'-8"	PR	2'-0"	4'-8"	2'-0"						3'-0"	1'-6"		PIER NOSE
A503	8	16'-1"																									
A504	20	18'-6"																									
A800	48	2'-2"	Dowel for Slabs																								
PIER													STANDARD END POST														
P500	4	32'-10"	HORIZONTAL PIER									EP401	16	4'-11"	S	-	2'-0"	0'-11"	2'-0"			-					END POST
P501	4	18'-4"										EP402	8	4'-6"	S	-	2'-0"	0'-6"	2'-0"								
P600	17	33'-6"										EP500	16	7'-10"	S	-	5'-6"	0'-7"	1'-9"			-					
P601	17	18'-4"										EP501	16	6'-8"	ST	-	3'-1"	2'-7"	1'-0"			-		0'-8"			
P800	48	2'-2"	Dowels for Slabs									EP502	16	4'-7"	S	-	1'-10"	0'-11"	1'-10"			-					
												EP503	8	4'-2"	S	-	1'-10"	0'-6"	1'-10"			-					
STANDARD END POST													CURBS														
EP400	24	2'-0"	END POST									S554	1	42'-5"	V				39'-6"	2'-11"				0'-11"			CURBS
EP405	24	1'-10"	END POST																								
CURBS																											
S500	4	42'-5"	LONGITUDINAL																								
S501	6	4'-0"	OVER DRAINS																								
APPROACH SLAB																											
AS400	16	29'-2"	APPROACH SLAB																								
AS401	16	16'-10"																									
AS600	86	15'-0"																									
108-449																											
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	

FWHA REG. NO. 1	STATE MAINE	PROJECT NUMBER F-021-1(41)	SHEET NO. 25	TOTAL SHEETS 84
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TYPE-BENDING DIAGRAMS

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

GENERAL NOTES

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

Δ New Bent Bar Type 33
 Δ Revised ACI Standard

REVISIONS	DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MARTIN STREAM BRIDGE
OVER
MARTIN STREAM
TURNER
ANDROSCOGGIN COUNTY
REINFORCING SCHEDULE
SHEET 25 OF 41 AUGUSTA, MAINE

108-449