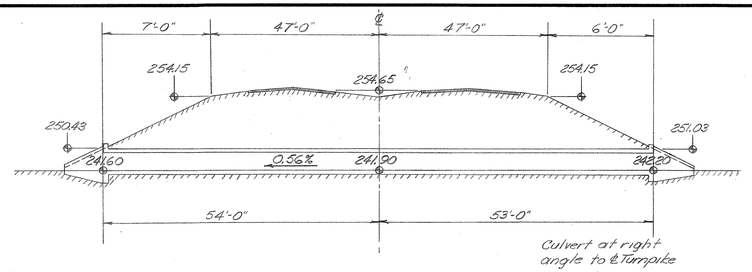
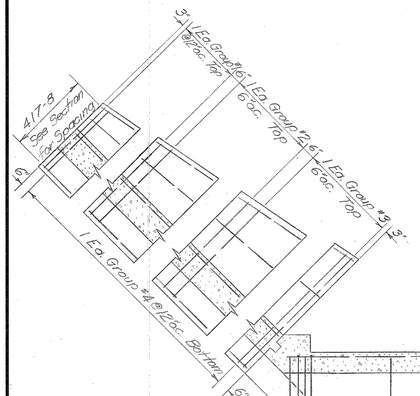
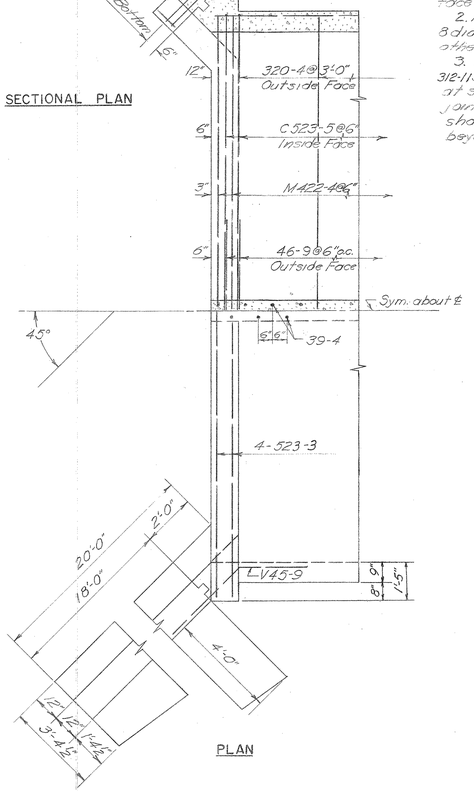


CROSS SECTION AT STA. 3129+40
No Scale

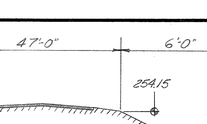


SECTIONAL PLAN

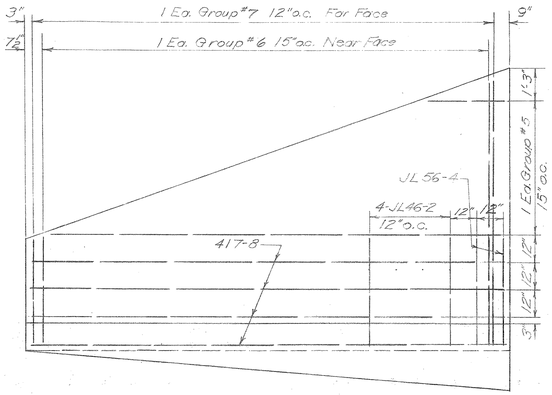


PLAN

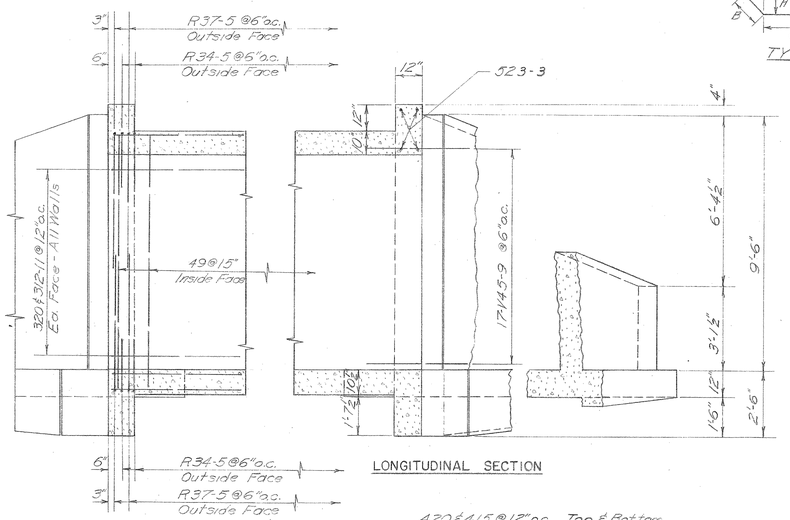
NOTE:
1. The face of reinforcing bars shall be 2" from the face of the concrete.
2. All bends to be with an 8 diameter radius unless otherwise shown.
3. Bars 420, 415, 320 and 312-11 shall lap 40 diameters at splices. At construction joints first placed bars shall project 40 diameters beyond joint.



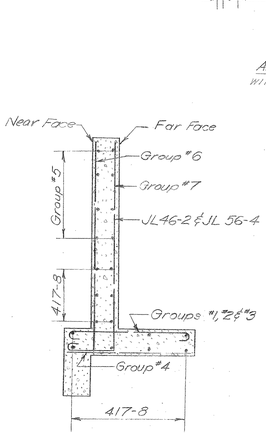
NOTE:
Length of culvert determined by intersection of fill slope with top of top slab.



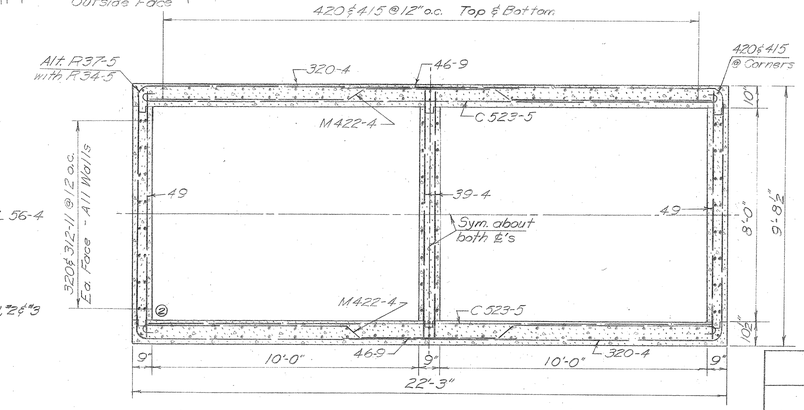
WINGWALL ELEVATION



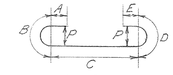
LONGITUDINAL SECTION



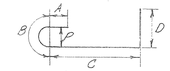
WINGWALL SECTION



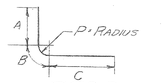
TRANSVERSE SECTION



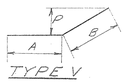
TYPE C



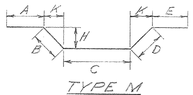
TYPE JL



TYPE R



TYPE V



TYPE M

REINFORCING SCHEDULE

STRAIGHT BARS

Number & Size	Mark & Length
Group #4	
4 ½	43-1 3-1
4	43-3 3-3
4	43-4 3-4
4	43-6 3-6
4	43-8 3-8
4	43-10 3-10
4	44 4-0
4	44-1 4-1
4	44-3 4-3
4	44-5 4-5
4	44-7 4-7
4	44-8 4-8
4	44-10 4-10
4	45 5-0
4	45-2 5-2
4	45-3 5-3
4	45-5 5-5
4 ½	45-7 5-7
Group #5	
8 ½	42-10 2-10
8	46-4 6-4
8	49-10 9-10
8	413-5 13-5
8 ½	417-1 17-1
Group #6	
4 ½	44 4-0
4	44-5 4-5
4	44-10 4-10
4	45-4 5-4
4	45-9 5-9
4	46-2 6-2
4	46-7 6-7
4	47 7-0
4	47-6 7-6
4	47-11 7-11
4	48-5 8-5
4	48-10 8-10
4	49-3 9-3
4 ½	49-9 9-9
426 ½	46-9 6-9
172 ½	49 9-0
214 ⅜	39-4 9-4
240 ⅝	320 20-0
48 ⅜	312-11 12-11
440 ½	420 20-0
88 ½	415 15-0
72 ⅜	320-4 20-4
3 ⅝	523-3 23-3
52 ½	417-8 17-9

BENT BARS

Number & Size	Mark	A	B	C	D	E	H	K
428 ½	M 422-4	7-11	0-8½	5-1	0-8½	7-11	0-6	0-6
426 ⅝	C 523-5	0-3	0-9	21-5	0-9	0-3		P 0-3
856 ⅜	R 37-5	4-11	0-7	1-11				0-4½
852 ⅜	R 34-5	1-11	0-7	1-11				0-4½
16 ½	JL 46-2	0-3½	0-7	1-5½	3-10			0-4
8 ⅝	JL 56-4	0-3½	0-9	1-5½	3-10			0-5
68 ½	V 45-9	3-6	2-3					1-11

Group #1

Number & Size	Mark	A	B	C	D	E	P
4 ½	C 44-3	0-3	0-7	2-7	0-7	0-3	0-4
4	C 44-5			2-9			
4	C 44-7			2-11			
4	C 44-9			3-1			
4	C 44-11			3-3			
4	C 45			3-4			
4 ½	C 45-2	0-3	0-7	3-6	0-7	0-3	0-4

Group #2

Number & Size	Mark	A	B	C	D	E	K
4 ⅝	C 55-4	0-3	0-9	3-4	0-9	0-3	0-5
4	C 55-5			3-5			
4	C 55-6			3-6			
4	C 55-7			3-7			
4	C 55-8			3-8			
4	C 55-9			3-9			
4	C 55-10			3-10			
4	C 55-11			3-11			
4	C 56			4-0			
4	C 56-1			4-1			
4	C 56-2			4-2			
4	C 56-3			4-3			
4	C 56-4			4-4			
4	C 56-5			4-5			
4	C 56-6			4-6			
4	C 56-7			4-7			
4 ⅝	C 56-8	0-3	0-9	4-8	0-9	0-3	0-5

Group #3

Number & Size	Mark	A	B	C	D	E	H	K
4 ¾	C 66-10	0-3	0-10½	4-7	0-10½	0-3	0-6	
4	C 66-11			4-8				
4	C 67			4-9				
4	C 67-1			4-10				
4	C 67-2			4-11				
4 ¾	C 67-3	0-3	0-10½	5-10	0-10½	0-3	0-6	

Group # 7

Number & Size	Mark	A	B	C	D	E	K
4 ½	JL 46-2	0-3½	0-7	1-5½	3-10		0-4
4	JL 46-6	0-3			4-2½		
4	JL 46-10	0-3			4-6½		
4	JL 47-3	0-3½			4-11		
4	JL 47-7	0-3½			5-3		
4	JL 47-11	0-3			5-7½		
4	JL 48-3	0-3			5-11½		
4	JL 48-8	0-3½			6-4		
4	JL 49	0-3½			6-8		
4	JL 49-4	0-3½			7-0		
4	JL 49-8	0-3			7-4½		
4	JL 410-1	0-3½			7-9		
4	JL 410-5	0-3½			8-1		
4	JL 410-9	0-3			8-5½		
4	JL 411-1	0-3			8-9½		
4	JL 411-6	0-3½			9-2		
4	JL 411-10	0-3½			9-6		
4 ½	JL 412-2	0-3	0-7	1-5½	9-10½		0-4

Type of Bend - Omitted if Straight
Size of Bar in (5 = 5/8")
Length in Feet
Length in Inches - 0" if Omitted

J 5 18-6

EXPLANATION OF BAR MARKS

	BY	DATE	No.	REVISION	BY	DATE
MADE	HBH	2-9-54	3	As Built	HBH	4-23-54
TRACED			2	Deleted Haunch	HBH	3-9-54
CHECKED	PDS	2-10-54	1	Revised Design	AHK	1-20-54
IN CHARGE OF						

QUANTITIES	Concrete Cu. Yds.	Steel Lbs.
Culvert Barrel	221.85	33,646
Two Headwalls	6.44	455
Four Wingwalls	31.33	2669

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2 - PORTLAND TO AUGUSTA

DOUBLE BOX CULVERT 10'x8'
STA. 3129+40

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/16"=1'-0" except as noted
CONTRACT NO.
SHEET NO. D-18 OF 37

41.01.06

GENERAL NOTES

Design Specifications: AASHO with minor modifications
Design Live Load: H-20
Maximum Pile Load on Abutment 2: 32 Tons.
Maximum Pile Load on Abutment 1: 28 Tons.
Maximum Pile Load on Pier 1: 40 Tons.
Maximum Pile Load on Pier 2: 36 Tons.
Maximum Pile Load on Pier 3: 39 Tons.

REFERENCES

Drawing Number	Title	Substructure Contracts	Superstructure: Steel Fabricator	Steel Erector	Floor Contractor
SD1A	Standard Abut. Details	✓	✓	✓	✓
SD2	Standard Pier Details	✓			
SD3	Abut. Drainage Details	✓			
SD4	Cast-in-Place Conc. Piles	✓			
SD5	Standard Handrail, Bearing Devices And Miscellaneous Details	✓	✓	✓	✓
SD6	Std. Diaphragm Details		✓	✓	✓
SD10	Std. Type "A" Splices For 36" W Beams		✓	✓	
SD12A	Type 2 Expansion Joint	✓	✓	✓	✓
SD21	Bridge Floor Drain Details		✓	✓	✓
SD23	Standard Utility Details	✓			✓

Note: Provide 1-3" conduit in the East superstructure parapet wall and Abutment wingwalls as shown on Standard Drawing No. 23.

ELEVATION

Turnpike Curve Data:
P.C. Sta. 3204+98.86
P.I. Sta. 3235+72.19
Δ = 30°-47' Rt.
D = 1°00'
T = 1577.29'
L = 3078.33'
R = 5729.58'

Boring No. 32-04 Sta. 3231+22, 75' Rt.
Boring No. 32-02 Sta. 3231+56, 38' Rt.
Boring No. 32-01 Sta. 3233+55, 65' L.
Boring No. 3203 Sta. 3234+38, 122' L.
Boring No. 32-08

PLAN

FOOTING PLAN

Test Piles

Note: All Piles: Cast in Place Concrete Piles
Batter Piles 3" per ft. in direction shown

VICINITY MAP
Scale: 1" = 1 mile

No.	Revision	By	Date
7	As-Built	HBH	12-0-56
6	T&T conduits added	RFS	3-30-54
5	Revised Drain Grate	HJA	3-22-54
4	Revised Footing dimensions, Abutment 1	HCH	3-18-54
3	Test Piles	TTR	3-9-54
2	Added piles	AER	2-26-54
1	References	HCM	1-8-54

DRAWING NO. 41.01.06

	BY	DATE
MADE	AER	11-12-53
TRACED		
CHECKED	DHL	12-17-53
IN CHARGE OF	I.D.S.K.	

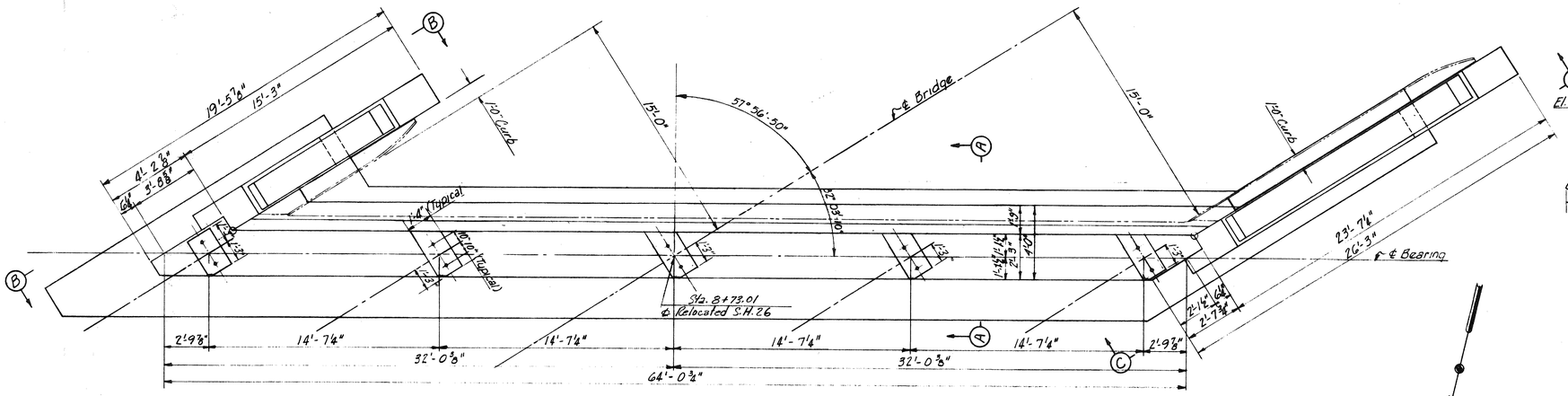
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2— PORTLAND TO AUGUSTA

STRUCTURE NO. 41 — TURNPIKE UNDER
RELOCATED STATE HIGHWAY ROUTE 26
STA. 3232 + 68.30
GENERAL PLAN AND ELEVATION

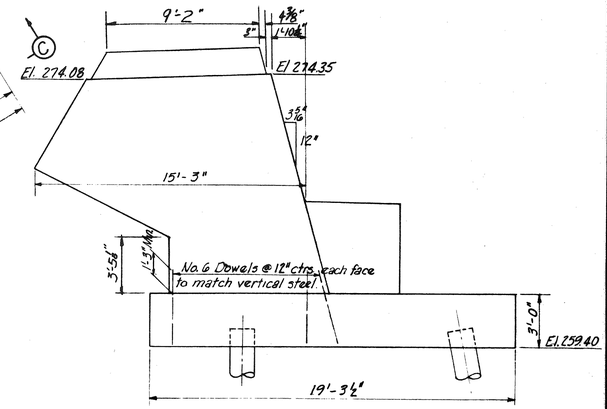
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1"=20'
CONTRACT NO.
SHEET NO. 180 OF 382

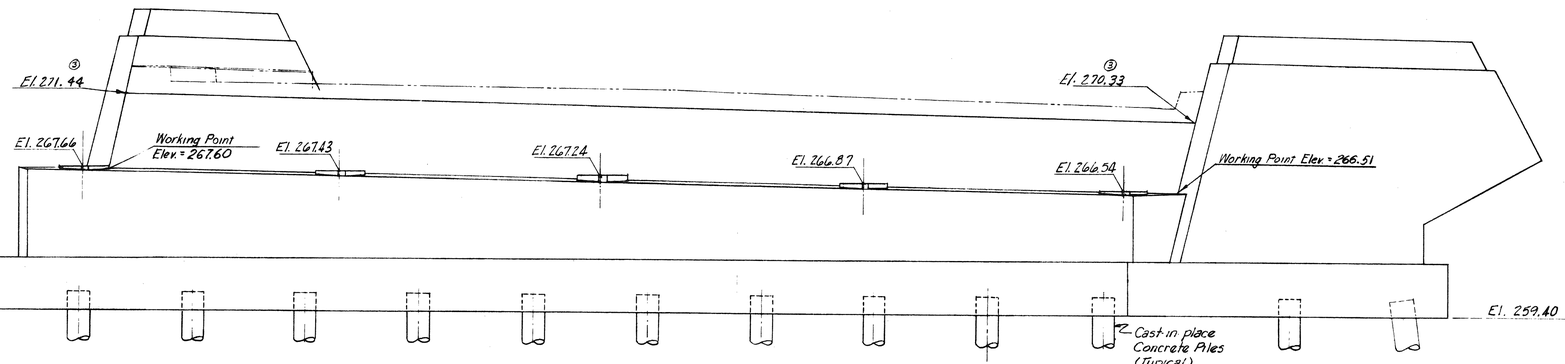
41.02.06



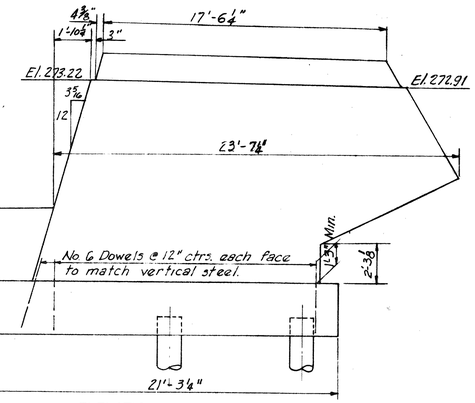
PLAN



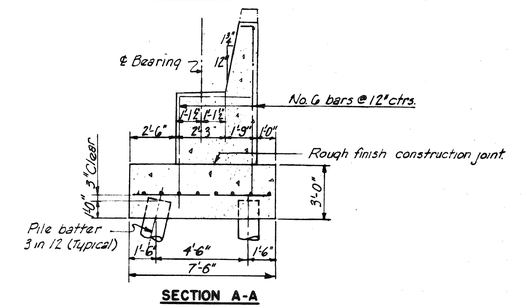
ELEVATION B-B



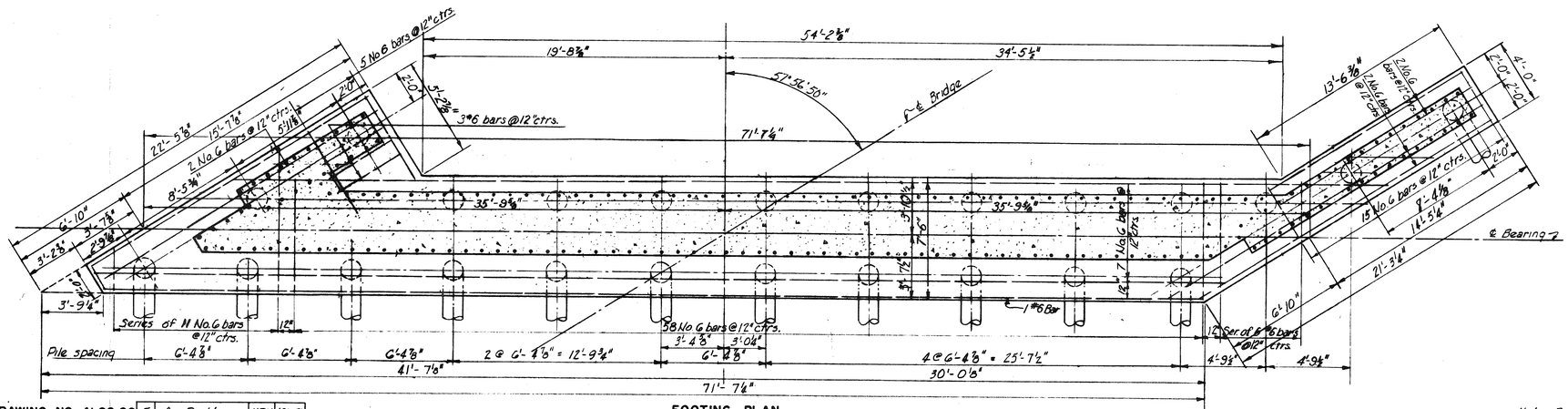
ELEVATION



ELEVATION C-C



SECTION A-A



FOOTING PLAN

Note: Provide 1-3" conduit in the East wingwall as shown on Standard Drawing No. 23.

DRAWING NO. 41.02.06	BY	DATE
MADE	F.S. Jr.	10-30-53
TRACED		
CHECKED	DHL	12-17-53
IN CHARGE OF		

No.	REVISION	BY	DATE
5	As-Built	HBH	12-05-56
4	Corr. Dim.	CVA	4-22-58
3	Wingwall Elevations	WCM	3-30-54
2	Pile conduits added	RFS	3-30-54
1	Redrawn, except Wingwalls	HCH	3-17-54

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2— PORTLAND TO AUGUSTA

STRUCTURE NO. 41 — TURNPIKE UNDER

RELOCATED STATE HIGHWAY ROUTE 26

STA. 3232+66.30

ABUTMENT NO. 1

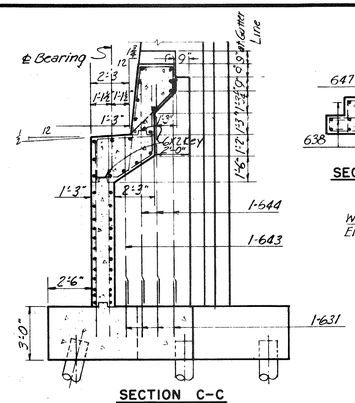
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

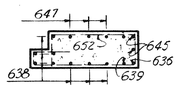
SCALE: 4"=1'-0"

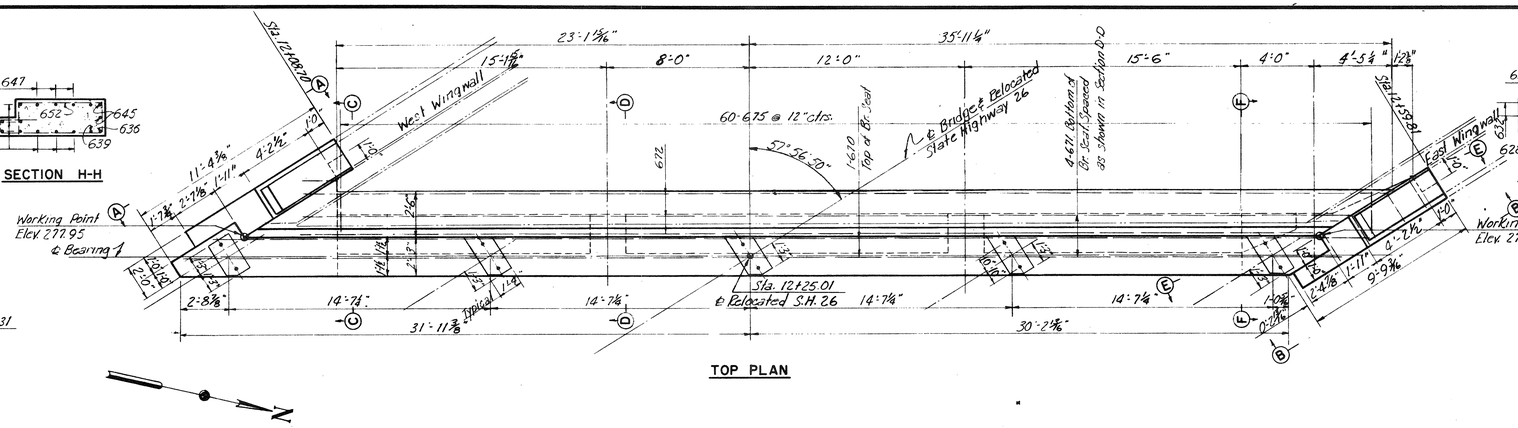
CONTRACT NO. _____

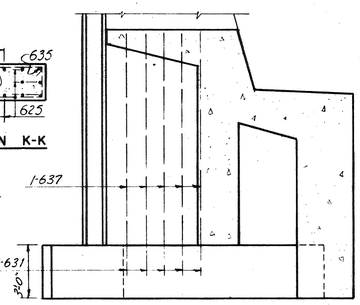
SHEET NO. 191 OF 382

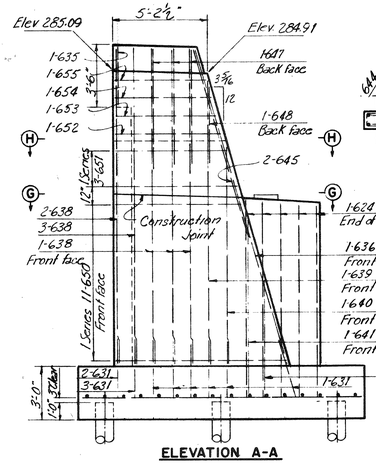
41 .03 .06

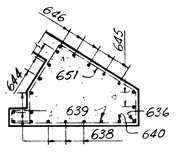


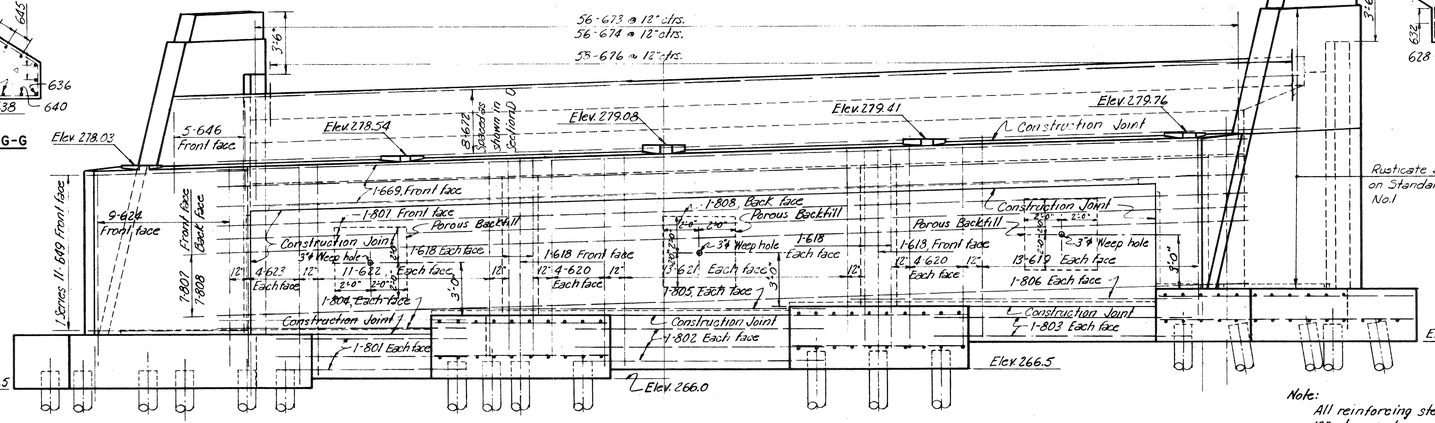


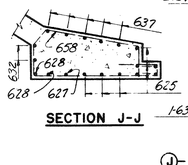


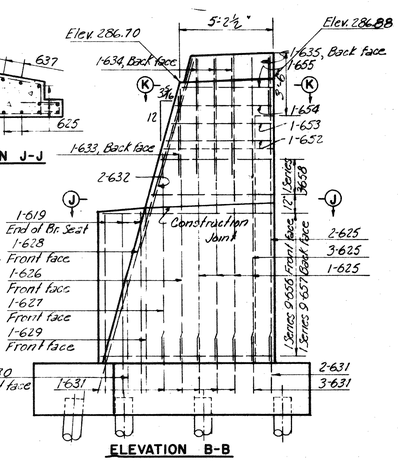


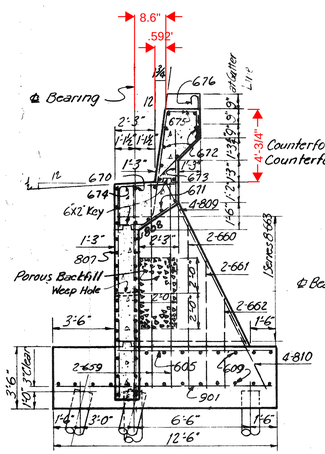


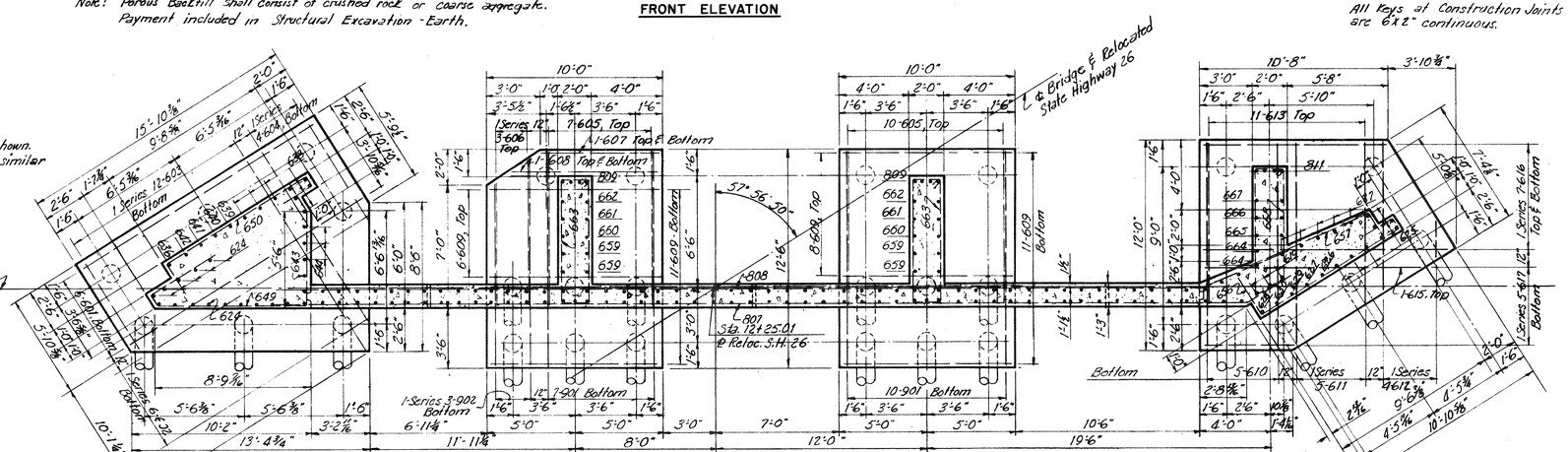












Note: Porous Backfill shall consist of crushed rock or coarse aggregate. Payment included in Structural Excavation - Earth.

7 Cast-in-place concrete piles. Batter 3 piles 3" per ft. in direction shown.

8 Cast-in-place concrete piles. Batter 5 piles 3" per ft. in direction shown.

FOOTING PLAN

8 Cast-in-place concrete piles. Batter 5 piles 3" per ft. in direction shown.

6 Cast-in-place concrete piles. Batter 4 piles 3" per ft. in direction shown.

Note: Provide 1-3" conduit in the East wingwall as shown on Standard Drawing No. 23.

Note: All reinforcing steel is spaced at 12" ctrs. unless otherwise noted. All keys at Construction Joints are 6"x2" continuous.

BAR LEGEND
1st Digit - Barsize
2nd Digit - Bar number
Example: 603 No.6 bar No.3

	BY	DATE									
MADE	AER	11-23-53	4	Added piles	AER	2-26-54	8	As-Built	HBH	12-20-56
TRACED			3	Weep holes	WCM	1-27-54	7	T & T conduits added Retraced N. Arrow.	RFS	3-30-54
CHECKED	DHL	12-17-53	2	Rustication	WCM	1-15-54	6	Reversed approach slab (part) Raised Top of Wingwall	HCH	3-18-54
IN CHARGE OF	I.D.S.K.		1	Bar Legend	WCM	1-8-54	5	Porous Backfill at Weep Holes and Notes	BAT	3-12-54
			No.	REVISION	BY	DATE				

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2— PORTLAND TO AUGUSTA

STRUCTURE NO. 41 — TURNPIKE UNDER

RELOCATED STATE HIGHWAY ROUTE 26

STA. 3232 + 68.30

ABUTMENT NO. 2

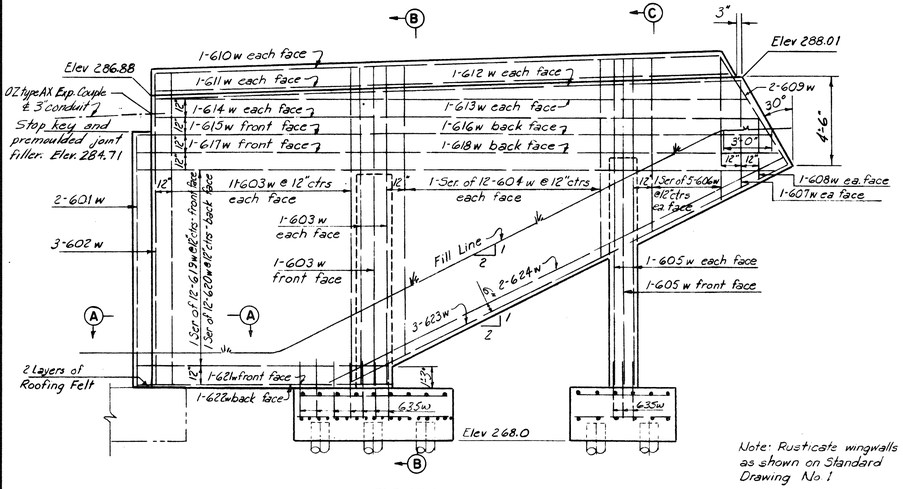
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK — KANSAS CITY

SCALE: 1/4" = 1'-0"

CONTRACT NO. _____

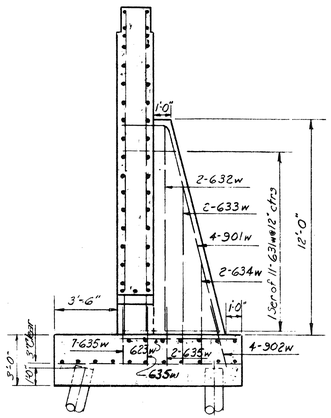
SHEET NO. 182 OF 382

DRAWING NO. 41 .03 .06

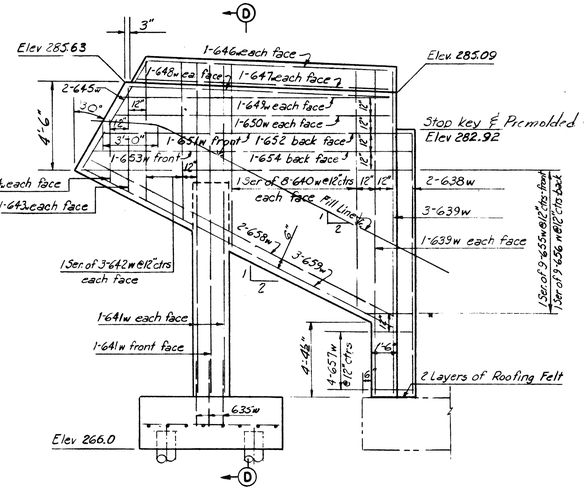


ELEVATION

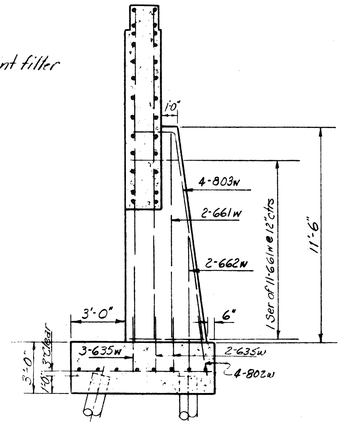
Note: Rusticate wingwalls as shown on Standard Drawing No. 1



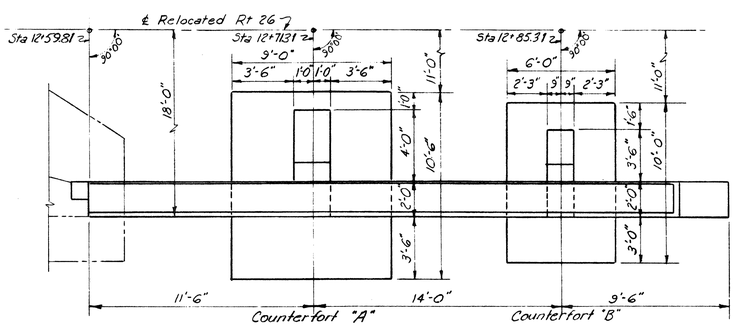
SECTION B-B



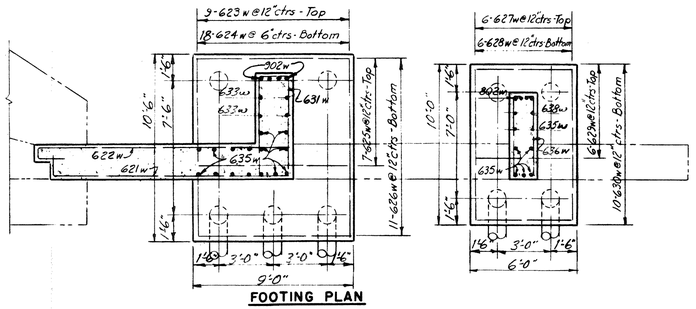
ELEVATION



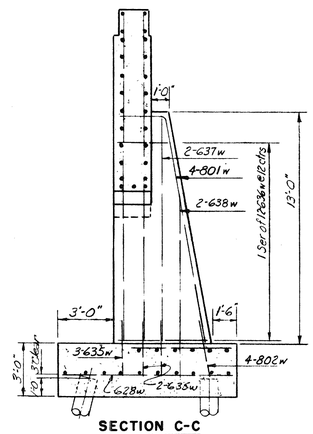
SECTION D-D



PLAN

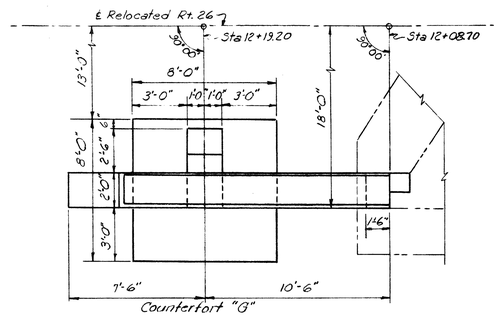


FOOTING PLAN

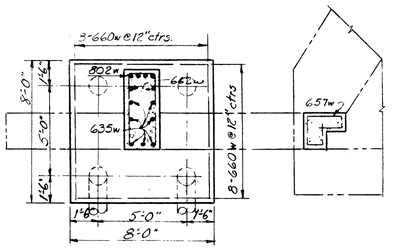


SECTION C-C

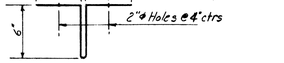
Note: All piles shall be Cast-in-place Concrete piles. Batter shall be 3" per ft. in direction shown. Provide 1-3" conduit in the East wingwall as shown on Standard Drawing No. 23.



PLAN



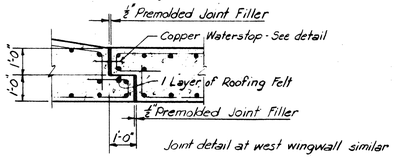
FOOTING PLAN



COPPER WATERSTOP

Scale 1½"=1'-0"

Material: 16 oz copper



SECTION A-A

Scale: ⅜"=1'-0"

BAR LEGEND

1st Digit - Bar size
2nd & 3rd Digit - Bar number
w - Wingwalls
Example: 603w - №6 bar, Number 3 in wingwall

EAST WINGWALL

Scale: ¼"=1'-0"

WEST WINGWALL

Scale: ¼"=1'-0"

DRAWING 41.04.06								
	BY	DATE	5	Corr. Dim.	CVA	4-22-59
			4	T&T conduit added	RFS	3-30-54
MADE	WCM	11-6-53	3	Added piles	AER	2-26-54
TRACED			2	Copper Waterstop	WCM	1-15-54
CHECKED	DHL	12-17-53	1	Bar Legend	WCM	1-8-54
IN CHARGE OF IDSK			NO.	REVISION	BY	DATE
			6	As-Built	WBH	12-0-56

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2— PORTLAND TO AUGUSTA

STRUCTURE NO. 41 — TURNPIKE UNDER

RELOCATED STATE HIGHWAY ROUTE 26

STA 3232+68.30

ABUTMENT NO. 2 WINGWALLS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF

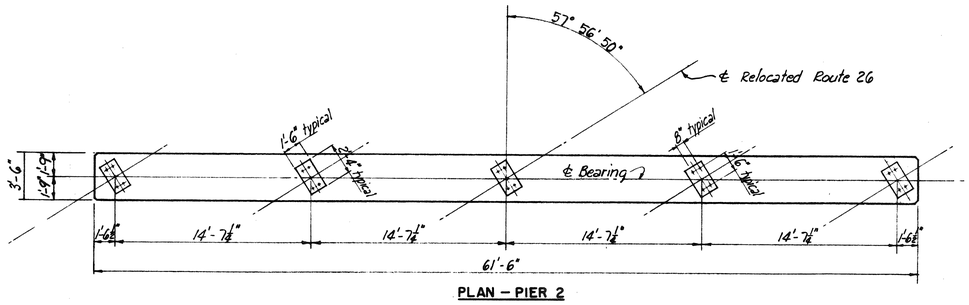
CONSULTING ENGINEERS

NEW YORK — KANSAS CITY

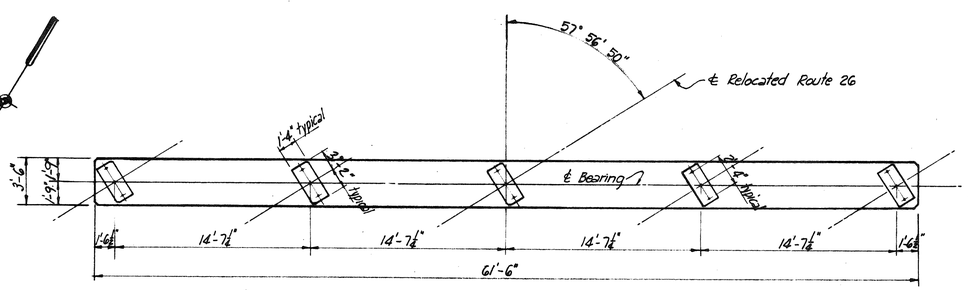
SCALE: As Noted

CONTRACT NO. _____

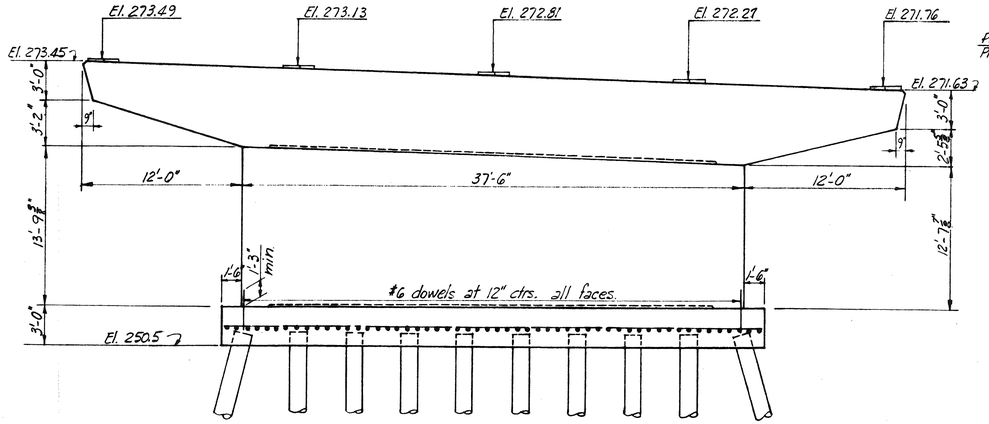
SHEET NO. 183 OF 382



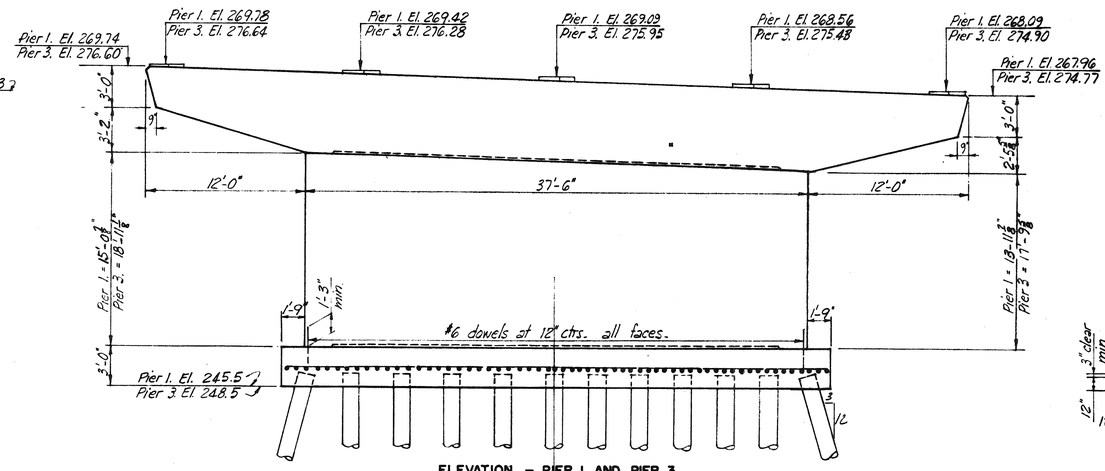
PLAN – PIER 2



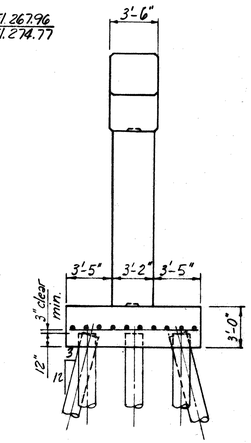
PLAN – PIER 1 AND PIER 3



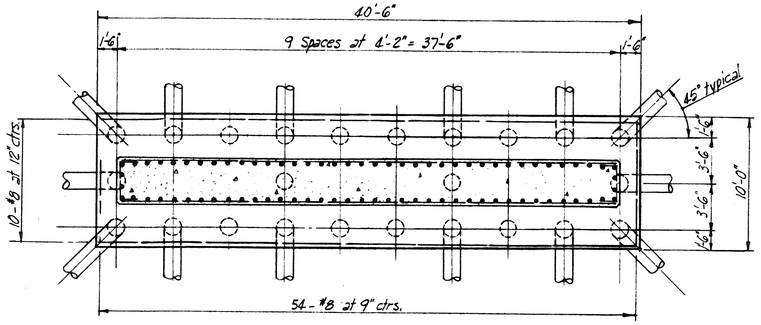
ELEVATION – PIER 2



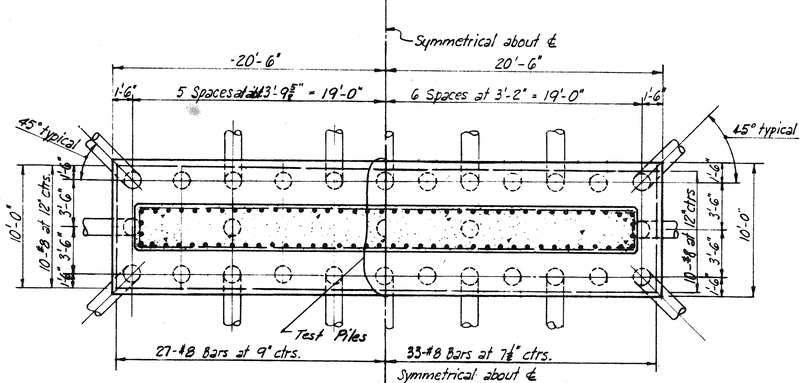
ELEVATION – PIER 1 AND PIER 3



TYPICAL END VIEW



FOOTING PLAN – PIER 2



HALF FOOTING PLAN
PIER 1

HALF FOOTING PLAN
PIER 3

Note:
All piles to be concrete cast-in-place piles.
Batter Piles shown battered 3" per foot.

DRAWING 41.05.06

	BY	DATE
MADE	TKC	11-3-53
TRACED		
CHECKED	DHL	12-17-53
IN CHARGE OF	I.D.S.K.	

No.	REVISION	BY	DATE
3	As-Built	HBH	12-15-54
2	Test Piles	TTR	3-9-54
1	Pile pattern Pier 3	ASB	3-1-54

MAINE TURNPIKE AUTHORITY

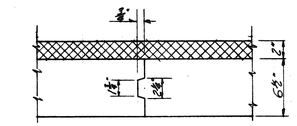
MAINE TURNPIKE

SECTION 2— PORTLAND TO AUGUSTA

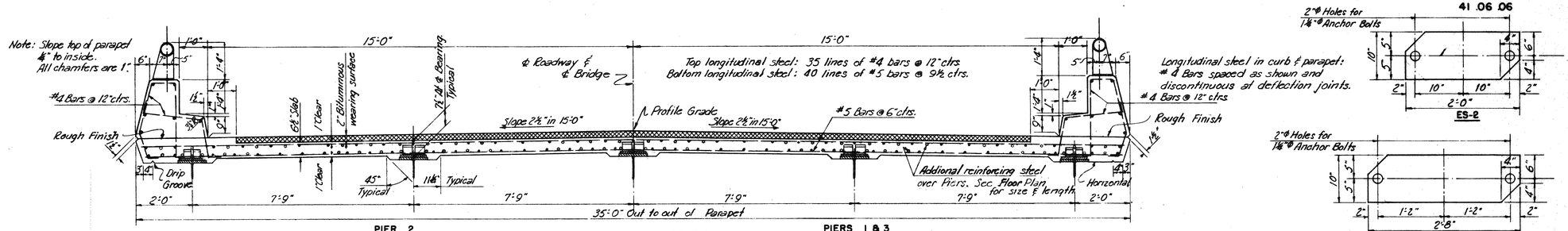
STRUCTURE NO. 41 TURNPIKE UNDER
RELOCATED STATE HIGHWAY ROUTE 26
STA. 3232 + 68.30
PIERS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 3/16" = 1'-0"
CONTRACT NO. _____
SHEET NO. 192 OF 382

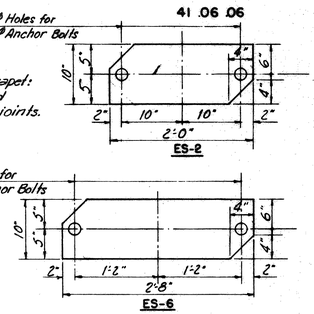


FLOOR CONSTRUCTION JOINT DETAIL
Scale: 1½" = 1'-0"

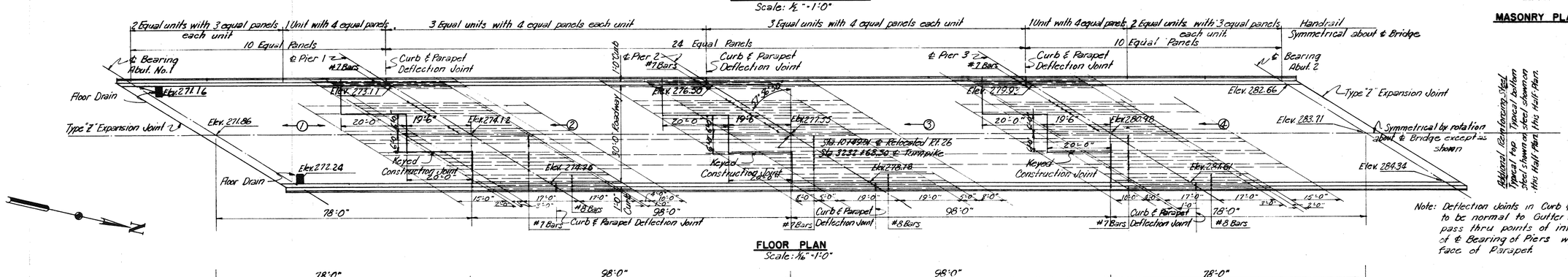


FLOOR CROSS SECTION
Scale: ½" = 1'-0"

41 .06 .06

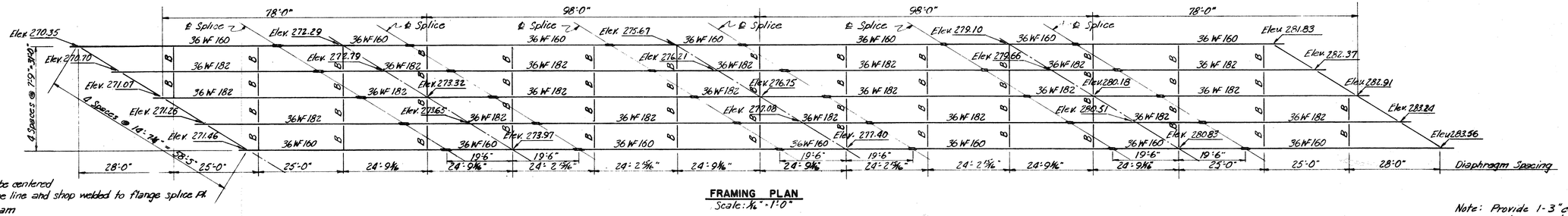


MASONRY PLATES

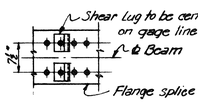


FLOOR PLAN
Scale: 1/16" = 1'-0"

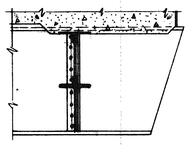
Note: Deflection Joints in Curb & Parapet to be normal to Gutter Line and pass thru points of intersection of ℄ Bearing of Piers with inside face of Parapet.



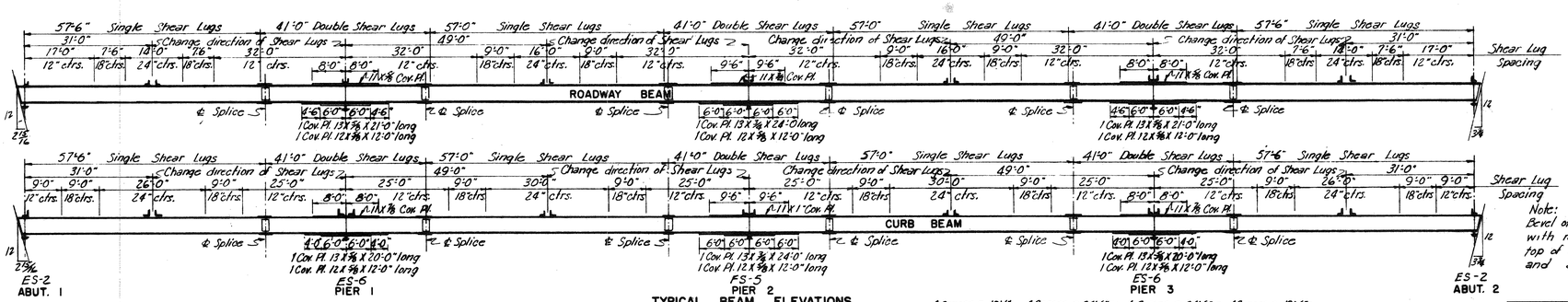
FRAMING PLAN
Scale: 1/16" = 1'-0"



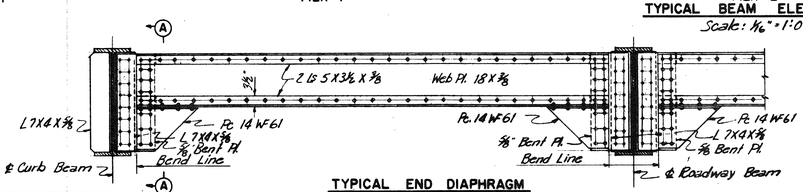
SHEAR LUG DETAIL AT SPLICES
Scale: 3/8" = 1'-0"



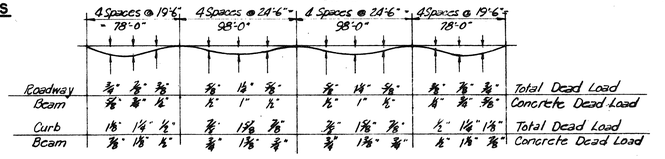
SECTION A-A
Scale: ½" = 1'-0"



TYPICAL BEAM ELEVATIONS
Scale: 1/16" = 1'-0"



TYPICAL END DIAPHRAGM
Scale: ½" = 1'-0"



DEFLECTION DIAGRAM
No Scale

Note: Provide 1-3" conduit in the East superstructure parapet wall as shown on Standard Drawing No. 23.

Note: Bearing stiffeners at Piers to be 2 ℄ 7"X4"X⅜". Bearing stiffeners at Abutments to be 2 ℄ 7"X4"X⅜". Stiffeners angles at points of support to be milled to bear top & bottom. All other angles to be close fit.

Note: Bevel of Beam ends shown is true with respect to a line passing thru top of Beam Elevations at Abutment and adjacent Pier.

DRAWING NO. 41 .06 .06

	BY	DATE	NO.	REVISION	BY	DATE
MADE	ASR	11-25-53	4	Curb & Parapet reinforcing steel	ASR	4-6-54
TRACED			3	T&T conduits added	RFS	3-30-54
CHECKED	DHL	12-17-53	2	Revised Floor Drain Grate	HJG	3-22-54
IN CHARGE OF	I. D. S. K.		1	Added Shear Lug Detail at Splices	ASR	2-27-54
			5	As-Built	HBH	12-056

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2— PORTLAND TO AUGUSTA

STRUCTURE NO. 41 TURNPIKE UNDER
RELOCATED STATE HIGHWAY ROUTE 26
STA. 3232 + 68.30
SUPERSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: As Shown
CONTRACT NO. ____
SHEET NO. 185 OF 382

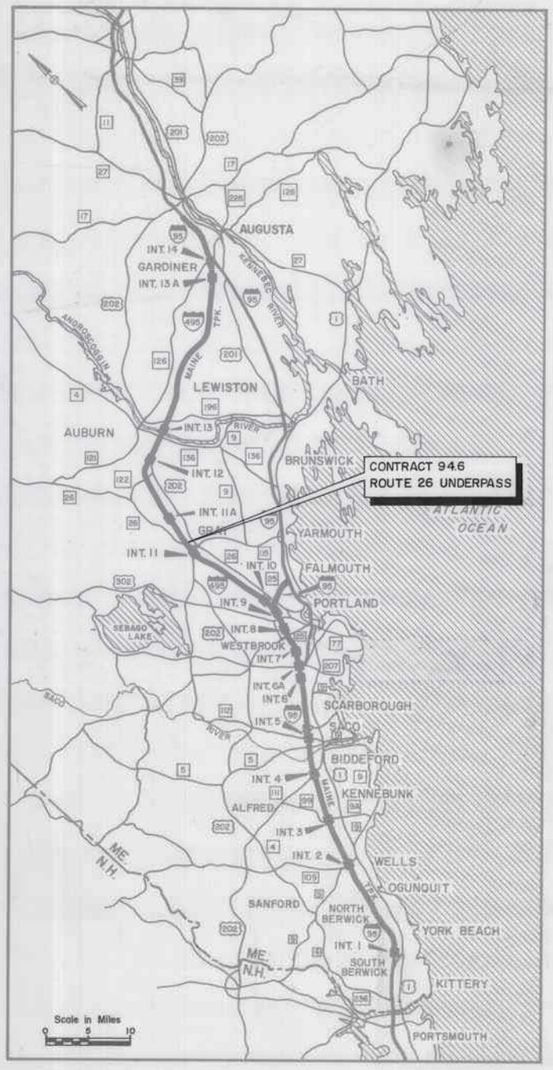
MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

ROBERT K. PACIOS, CHAIRMAN
JULIAN R. COLES, VICE CHAIRMAN
DANIEL J. CALLAHAN, MEMBER
DEBORAH H. S. CIANCHETTE, MEMBER
DANA F. CONNORS, MEMBER EX-OFFICIO

PAUL E. VIOLETTE, EXECUTIVE DIRECTOR

INDEX OF SHEETS



LOCATION MAP

CONTRACT 94.6
BRIDGE DECK REPLACEMENT
ROUTE 26 UNDERPASS
MM 61.96

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

STATE OF MAINE
ROLAND A. LAVALLEE 6453
REGISTERED PROFESSIONAL ENGINEER

Roland A. Lavallee 4/25/97
ROLAND A. LAVALLEE P.E. DATE
PROJECT MANAGER

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COMMISSIONER _____ DATE _____

BUREAU DIRECTOR AND CHIEF ENGINEER _____ DATE _____

APPROVED:
MAINE TURNPIKE AUTHORITY

CHAIRMAN _____

EXECUTIVE DIRECTOR _____

DATE _____

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.12	Removing Existing Structural Concrete	35	CY
202.122	Removing Existing Superstructure Concrete	1369	SY
202.20	Protective Shield	1525	SY
202.202	Removing Pavement Surface	310	SY
203.20	Common Excavation	550	CY
301.09	Plant Mix Bituminous Base Course, Grading B	330	TON
304.10	Aggregate Subbase Course - Gravel	225	CY
401.10	Sawing Bituminous Pavement	75	LF
403.07	Hot Bituminous pavement, Grading B	310	TON
403.08	Hot Bituminous pavement, Grading C	240	TON
403.13	Dense Graded Bituminous Pavement for Bridges	104	TON
409.15	Bituminous Tack coat, applied	75	GAL
421.01	Precast Concrete Downspout	100	L.F.
502.211	Structural Concrete, Abutments & Retaining Walls Route 26	39	CY
502.23	Structural Concrete Piers	3	CY
502.260	Structural Concrete Roadway and Parapet on Steel Bridges - Route 26	1	LS
502.39	Structural Concrete Class AA	3	cy
502.60	Backwall Repair - Surface Patch - Section II	60	SF
502.61	Abutment and Bridge Deck Repairs - Section II	110	SF
502.63	Pier Repairs	15	SF
502.64	Wingwall Repairs - Section II	900	SF
502.71	Patchroc 10-60 - Bridge Deck Repair	50	EA
503.14	Epoxy Coated Reinforcing Steel, Fabricated and Delivered	126000	LB
503.15	Epoxy Coated Reinforcing Steel, Placing	126000	LB
504.70	Structural Steel Fabricated and Delivered-Route 26	1	LS
504.71	Structural Steel Erection - Route 26	1	LS
504.721	Jacking Existing Superstructure - Route 26	1	LS
505.081	Shear Connectors - Route 26	1	LS
507.092	Aluminum Bridge Railing, 2 Bar	709	LF
508.13	Membrane Waterproofing - Route 26	1	LS
514.06	Curing Box for Concrete Cylinders	1	EA
515.20	Protective Coating for Concrete Surfaces	608	SY
515.201	Concrete Protective Coating	553	SY
520.22	Expansion Device - Compression Seal	2	EA
523.103	Pot Bearings	25	EA
526.41	Temporary Concrete Barrier, Type I	360	LF
526.40	Resetting Temporary Concrete Barrier, Type I	360	LF
527.101	Temporary Impact Attenuator System	2	UNIT
606.17	Guardrail Type 3b - Single Rail	50	LF
606.172	Temporary Steel Guardrail	700	LF
606.174	Guardrail Attachment - Type A	4	EA
606.35	Guardrail Delineator Post	3	EA
606.37	Guardrail Remove and Dispose	275	LF
606.381	Guardrail Remove and Reset, Single Rail	550	LF
606.48	Single Galvanized Steel Post	10	EA
606.77	Breakaway Cable Terminal	3	EA
609.15	Sloped Curb Type I	16	LF
615.07	Loam	60	CY
618.141	Seeding Method Number 3	5	UNIT
618.25	Applied Water	1	M.G.
619.12	Mulch	5	UNIT
627.61	4 Inch Solid White Pavement Marking Line	1950	LF
627.63	4 Inch Solid Yellow Pavement Marking Line	2150	LF
627.67	Removing Pavement Markings	100	SF
627.73	6 Inch White Temporary Pavement Marking - Tape	48	LF
629.05	Hand Labor - Straight Time	100	MH
631.171	Truck - Small - (Including Operator)	30	HR
631.36	Foreman, Straight Time	100	MH
637.07	Sprinkling	15	M.G.
637.08	Calcium Chloride	2	TON
639.19	Field Office Type B	1	EA
643.721	Temporary Traffic Signal - Route 26	1	LS
652.30	Flashing Arrow Board	2	EA
652.33	Drum	51	EA
652.34	Cone	30	EA
652.35	Construction Signs	1400	SF
652.361	Maintenance of Traffic Control Devices	1	LS
652.38	Flaggers	200	MH
656.50	Baled Hay, In Place	80	EA
656.51	Sandbag, in place	50	EA
656.632	30" Temporary Sill Fence	200	LF
659.10	Mobilization	1	LS

					By:	Date:
				Designed	LAZ	4/94
				Drawn	WLG	4/94
				Checked	KJC	4/94
No.	Revision	By:	Date:	In charge of:		

Maine Turnpike Authority
Maine Turnpike

ROUTE 26
ESTIMATED QUANTITIES

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 94.6

Sheet No. 2 of 35

GENERAL NOTES

1. EXISTING UTILITIES ON THESE PLANS WERE COMPILED FROM FIELD SURVEY AND VARIOUS OTHER SOURCES. LOCATIONS ARE NOT GUARANTEED TO BE ACCURATE NOR IS IT GUARANTEED THAT ALL UTILITIES ARE SHOWN. NO SEPARATE OR ADDITIONAL COMPENSATION WILL BE ALLOWED THE CONTRACTOR DUE TO ANY VARIANCE BETWEEN THE DATA SHOWN ON THE PLANS AND ACTUAL FIELD CONDITIONS ENCOUNTERED.

   OVERHEAD UTILITY LINES WITH LESS THAN 20' CLEARANCE MAY EXIST. THESE OVERHEAD LINES WILL NOT BE RELOCATED OR RAISED TO FACILITATE THE CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING THE WORK SITE AND PLANNING HIS OPERATIONS BASED ON THE LOCATION OF THE OVERHEAD LINES.

   CENTRAL MAINE POWER (CMP) WILL COVER THE ELECTRICAL LINES IF REQUIRED. CMP REQUIRES 96 HOURS OF ADVANCE NOTIFICATION PRIOR TO THE INSTALLATION OF COVERS.

   UNDERGROUND CONDUIT MAY EXIST UNDER THE ROADWAYS AT THE BRIDGE APPROACH. NYNEX SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY WORK WHICH MAY AFFECT THEIR UTILITY.

   THE INSTALLATION OF THE TEMPORARY TRAFFIC SIGNAL SHALL BE COORDINATED WITH THE RESPECTIVE UTILITIES. THE ENGINEER WILL NOT APPROVE THE INSTALLATION OF THE SYSTEM UNTIL AFTER RECEIPT OF WRITTEN DOCUMENTATION FROM THE UTILITY APPROVING OF THE INSTALLATION.

2. CLEARING LIMITS SHALL BE 5' BEYOND AND PARALLEL TO THE CONSTRUCTION SLOPE LINES OR AS SHOWN ON THE PLANS UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

3. THE NORMAL GRUBBING WIDTH IN FILLS SHALL BE VARIABLE LEFT OR RIGHT, WHEN SUBGRADE IS LESS THAN 5 FT. ABOVE OLD GROUND. THE GRUBBING DEPTH HAS BEEN ESTIMATED AS 6 INCHES IN FIELD AREAS AND 12 INCHES IN WOODED AREAS.

4. GRANULAR BORROW USED TO BACKFILL MUCK EXCAVATION OR IN LOW WET AREAS TO 1' ABOVE WATER LEVEL OR OLD GROUND, IF REQUIRED, SHALL MEET REQUIREMENTS FOR GRANULAR BORROW-UNDERWATER BACKFILL AND WILL BE PAID FOR AS GRANULAR BORROW.

5. ONE GUARDRAIL DELINEATOR POST SHALL BE INSTALLED AT EACH GUARDRAIL END.

6. EXISTING DRAINAGE SYSTEMS SHALL NOT BE ABANDONED, PLUGGED OR REMOVED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

7. BREAKAWAY CABLE TERMINALS SHALL BE INSTALLED CONCURRENTLY WITH THE PLACEMENT OF EACH SECTION OF BEAM GUARDRAIL, UNLESS OTHER APPROVED TEMPORARY PROTECTION HAS BEEN AUTHORIZED.

8. CURB TYPE 3 SHALL BE INSTALLED WITH MOLD 2 AND SEALED WITH BITUMINOUS SEALING-BLACK, AS DIRECTED BY THE ENGINEER. THE SEALING OF CURB TYPE 3 WITH BITUMINOUS SEALING-BLACK SHALL BE CONSIDERED INCIDENTAL TO THE CURB ITEM.

9. 4" LOAM HAS BEEN ESTIMATED FOR 100% OF THE DISTURBED SLOPE AREA. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS DESIGNATED BY THE ENGINEER AND SHALL CONFORM TO SECTION 615 OF THE STANDARD SPECIFICATIONS.

10. ALL SLOPES SHALL BE SEEDED WITH SEEDING METHOD NO. 1, 2, OR 3 AND SHALL CONFORM TO SECTION 618 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED.

    SEEDING METHOD NUMBER 1 SHALL BE UTILIZED ON ALL LAWNS AND OTHER DEVELOPED AREAS.

    SEEDING METHOD NUMBER 2 SHALL BE UTILIZED ON ALL NON-GUARDRAIL FORESLOPES FROM THE EDGE OF SHOULDER TO THE DITCH LINE OR TOE OF FILL.

    SEEDING METHOD NUMBER 3 SHALL BE UTILIZED ON ALL BACKSLOPES AND ON ALL GUARDRAIL FILL SLOPES.

11. THE INLETS AND OUTLETS OF ALL CULVERTS SHALL BE RIPRAPPED AS DESIGNATED ON THE PLANS.

12. SURPLUS MATERIAL AND LEDGE DEBRIS SHALL NOT BE PLACED WITHIN 10 FEET OF THE OUTSIDE OF A CULVERT.

13. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS CONTAINED IN THE STATE OF MAINE'S NATURAL RESOURCES PROTECTION ACT PERMIT BY RULE - SECTION 11 STANDARDS AND WITH SECTION 404 AS PROMULGATED BY THE U.S. ARMY CORPS OF ENGINEERS.

14. THE FILL SHOWN ON THE CROSS SECTIONS INCLUDES THE WASTE STORAGE AREA.

15. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA SUBPART P OF 29 CFR PART 1926.650-.652 (CONSTRUCTION STANDARD FOR EXCAVATION).

16. THE REMOVAL AND DISPOSAL OF HEADWALLS AND PIPE SHALL BE INCIDENTAL TO THE VARIOUS DRAINAGE ITEMS.

17. IF REQUIRED, CONNECTION FOR PROPOSED FENCE TO EXISTING FENCE WILL BE CONSIDERED INCIDENTAL TO ITEM 607.17, CHAIN LINK FENCE - 6 FOOT.

18. WASTE MATERIALS SHALL BE DISPOSED OF OFF THE PROJECT SITE, IN ACCORDANCE WITH CHAPTER 404, DEPARTMENT OF ENVIRONMENTAL PROTECTION SOLID WASTE MANAGEMENT RULES.

19. MULCH SHALL BE APPLIED IN AREAS SEEDED BY SEEDING METHODS NO. 1, 2 AND 3.

20. REQUIRED EROSION AND SEDIMENTATION CONTROL SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY. ACTUAL TYPE AND LOCATION OF DEVICES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

21. THE COST OF FURNISHING AND INSTALLATION OF W BEAM TERMINAL CONNECTORS AT BRIDGE END WALL LOCATIONS SHALL BE INCLUDED WITH THE UNIT BID PRICE OF ITEM 606.174 GUARDRAIL ATTACHMENT-TYPE A.

22. NO WORK SHALL BE STARTED UNTIL THE OWNERS OF THE VARIOUS UTILITIES ARE NOTIFIED BY THE CONTRACTOR OF THE PROPOSED CONSTRUCTION. THE CONTRACTOR IS ALSO REQUIRED TO CALL DIG SAFE AT 1-800-322-4844 PRIOR TO THE START OF THE WORK.

No.	Revision	By:	Date:		By:	Date:
				Designed	KJC	4/94
				Drawn	CTW	4/94
				Checked	RJD	4/94
				In charge of:	RAL	

Maine Turnpike Authority
Maine Turnpike

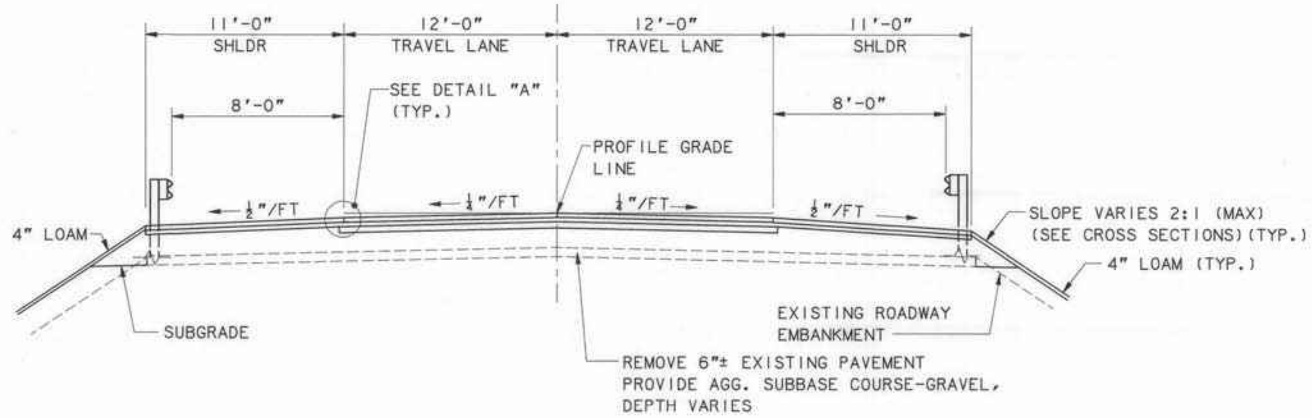
GENERAL NOTES

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

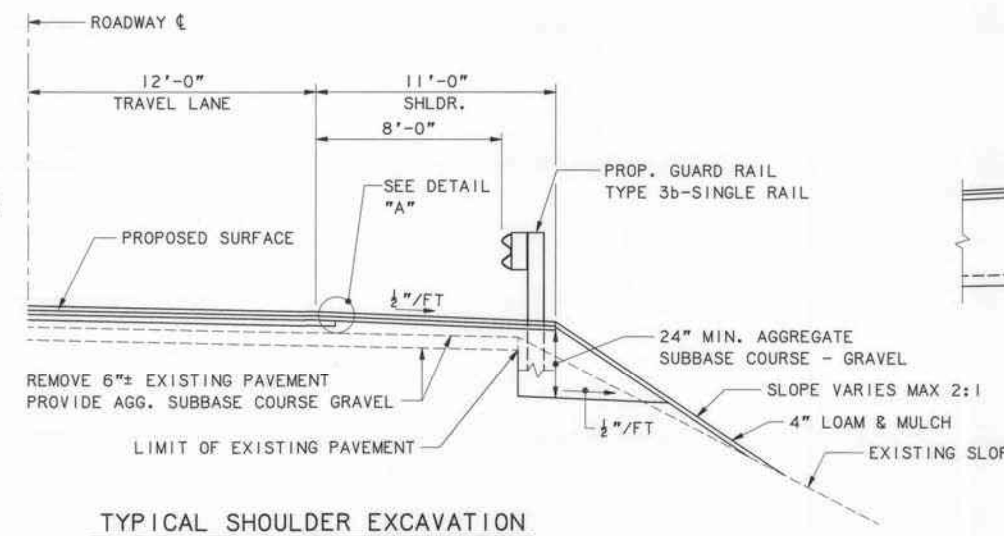
Contract 94.6

Sheet No. 3 of 35

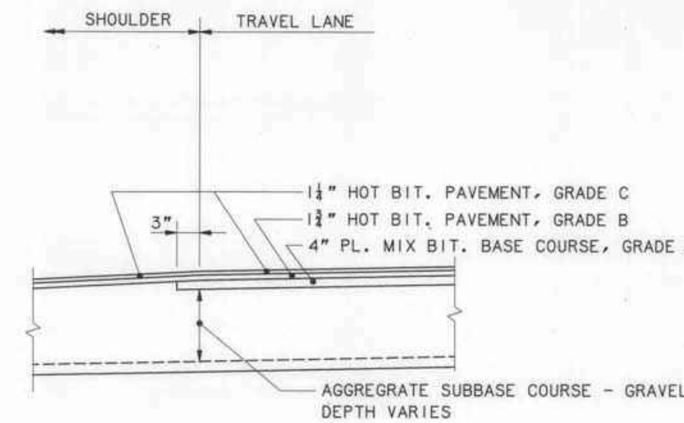
3" HOT BITUMINOUS PAVEMENT
ROUTE 26



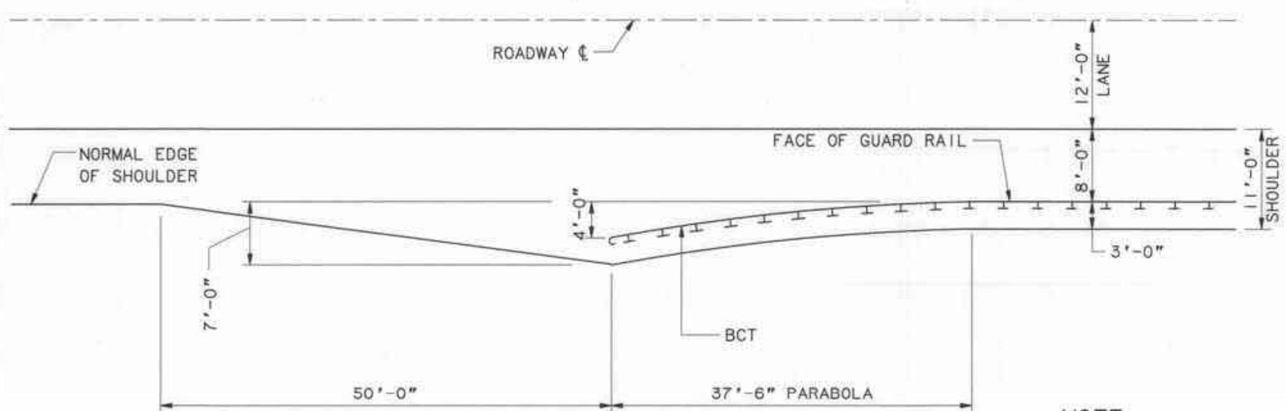
FULL DEPTH PAVEMENT - NORMAL SECTION



TYPICAL SHOULDER EXCAVATION



DETAIL "A"



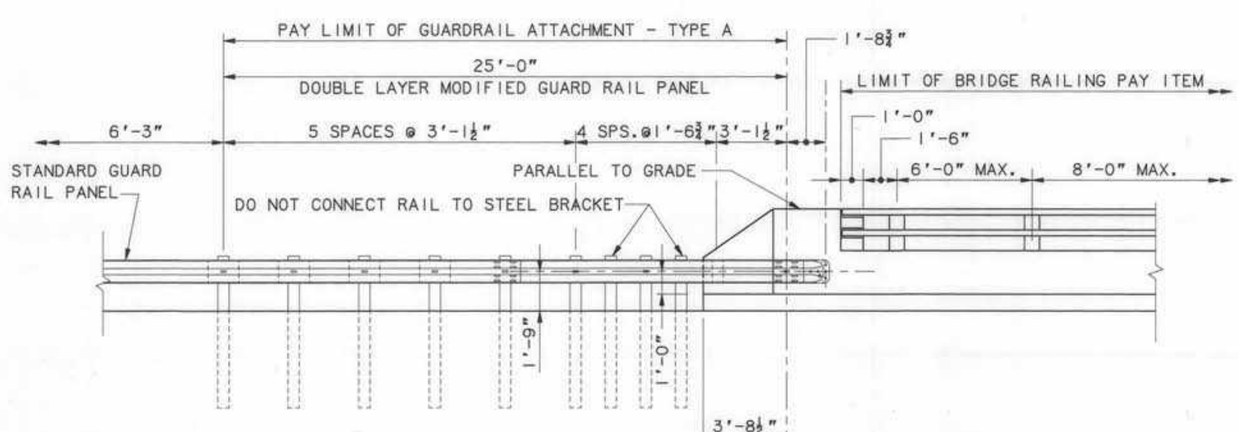
DETAIL OF SLOPE WIDENING
FOR BREAKAWAY CABLE TERMINAL

NOTE:

1. WIDENING THE SHOULDER FOR BCT SHALL BE INCLUDED FOR PAYMENT UNDER THE VARIOUS PAVEMENT AND EMBANKMENT ITEMS.

NOTES:

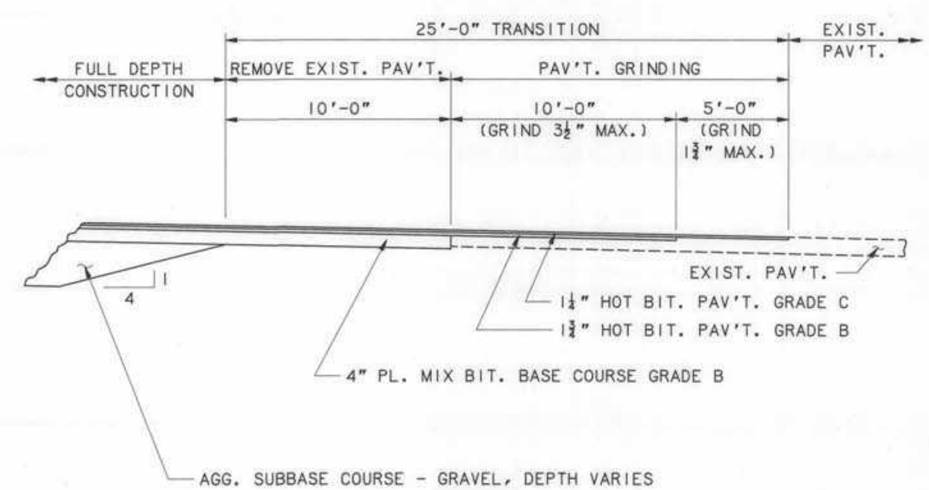
1. THE PAVEMENT, BASE DEPTHS AND CROSS SLOPES AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. CROWNS FOR NORMAL SECTIONS FOR ALL COURSES OF PAVEMENT, BASE AND SUBBASE SHALL BE STRAIGHT.
3. THE EXISTING PAVEMENT STRUCTURE SHALL BE EXCAVATED TO THE LIMITS SHOWN ON THE CROSS SECTIONS AND REPLACED WITH AGGREGATE SUBBASE COURSE - GRAVEL AS DIRECTED BY THE ENGINEER.
4. ALL NECESSARY PAVEMENT CUTTING SHALL BE SAWCUT AND DONE IN SUCH A MANNER AS TO LEAVE A CLEAN VERTICAL FACE. THIS WILL BE PAID FOR UNDER ITEM 401.10, SAWING BITUMINOUS PAVEMENT.
5. WHERE HOT BITUMINOUS PAVEMENT GRADE "C" IS TO MEET EXISTING PAVEMENT, A BUTT JOINT WILL BE REQUIRED. SEE PAVEMENT TRANSITION DETAIL. DISPOSAL OF THE EXISTING PAVEMENT WILL BE INCIDENTAL TO ITEM 202.202.
6. WHERE CUT SECTIONS ARE PROPOSED, REMOVE EXISTING PAVEMENT AND ANY NECESSARY SUBBASE, SUCH THAT WHEN 7" OF PAVEMENT IS ADDED, THE PROPOSED GRADE IS OBTAINED.



HIGHWAY GUARD ATTACHMENT
TO BRIDGE END POST
¼"=1'-0"

NOTE:

1. FOR ADDITIONAL GUARDRAIL ATTACHMENT INFORMATION REFER TO STANDARD DETAIL BD201-89



LOCAL ROAD
PAVEMENT TRANSITION AT
FULL DEPTH CONSTRUCTION
¼" = 1'-0"

No.	Revision	By:	Date:		By:	Date:
				Designed	LAZ	4/94
				Drawn	WG	4/94
				Checked	KJC	4/94
				In charge of:	RAL	

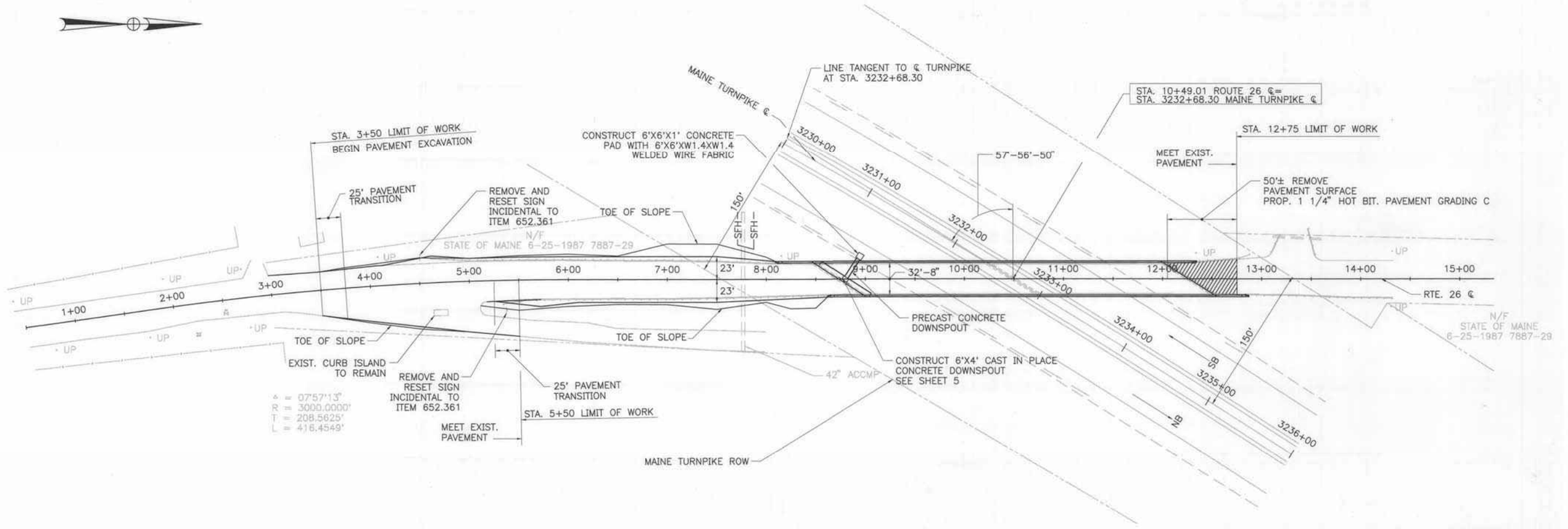
Maine Turnpike Authority
Maine Turnpike

ROUTE 26
TYPICAL SECTIONS
AND MISC. DETAILS

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 94.6

Sheet No. 4 of 35



PLAN

ITEM 606.381 GUARDRAIL REMOVE AND RESET – SINGLE RAIL	LF
STA. 5+00 LT TO STA. 8+00 LT	300
STA. 6+10 RT TO STA. 8+50 RT	237.5

ITEM 606.174 GUARDRAIL ATTACHMENT –TYPE A	EACH
STA. 8+00 LT	1
STA. 8+50 RT	1
STA. 12+25 LT	1
STA. 12+75 RT	1

ITEM 656.632 30" TEMPORARY SILT FENCE	LF
STA. 7+75± LT	90
STA. 7+75± RT	90

ITEM 606.77 BREAKAWAY CABLE TERMINAL	EACH
STA. 5+00 LT	1
STA. 6+10 RT	1
STA. 12+50 LT	1

ITEM 606.37 GUARDRAIL REMOVE AND DISPOSE	LF
STA. 4+65 LT TO STA. 5+00 LT	38
STA. 5+50 RT TO STA. 6+10 RT	75
STA. 8+00 LT TO STA. 8+25 LT	25
STA. 8+50 RT TO STA. 8+75 RT	25
STA. 12+25 LT TO STA. 12+88 LT	63
STA. 12+75 RT TO STA. 13+00 RT	25

ITEM 627.61 4 INCH SOLID WHITE PAVEMENT MARKING LINE	LF
STA. 3+50 LT TO STA. 12+75 LT	925
STA. 3+50 RT TO STA. 12+75 RT	925

ITEM 627.63 4 INCH SOLID YELLOW PAVEMENT MARKING LINE	LF
STA. 2+75 TO STA. 12+75	2000
STA. 14+15 TO STA. 14+90	150

50 25 0 50 100 150 200
SCALE: 1"=50'

Maine Turnpike Authority
Maine Turnpike

RTE 26 OVER MAINE TURNPIKE

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

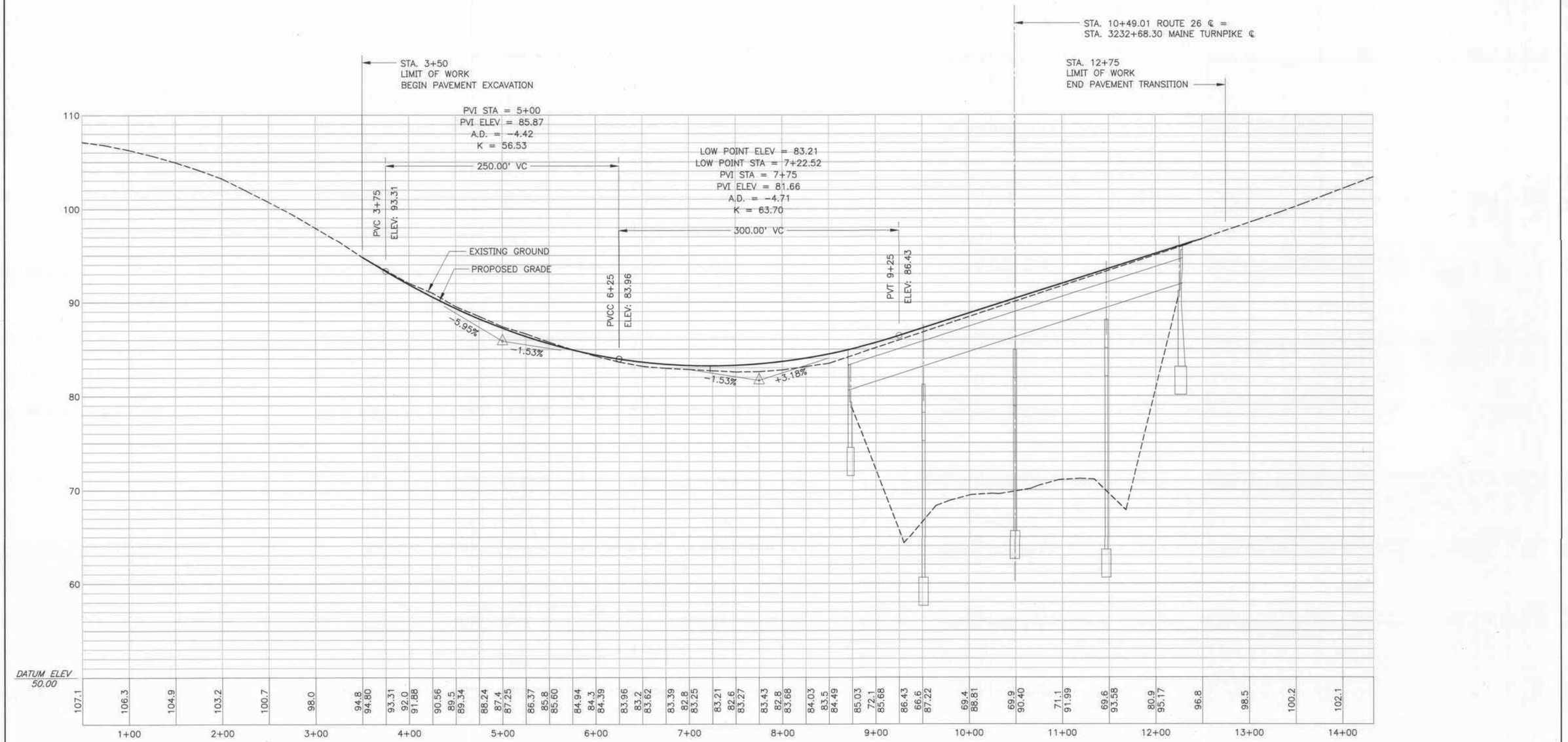
No.	Revision	By	Date

	By	Date
Designed	LAZ	4/94
Drawn	LAZ	4/94
Checked	RJD	4/94
In Charge Of:	RAL	

Contract 94.6

Sheet No. 9 of 35

M:\H09009\FX\DWGS\SHT02 04/21/94 14:07



HORIZ. 0 50 100 150
VERT. 0 5 10 15
SCALE IN FEET

Maine Turnpike Authority
Maine Turnpike

ROUTE 26
PROFILE

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

No.	Revision	By	Date

	By	Date
Designed	LAZ	4/94
Drawn	RDF	4/94
Checked	RJD	4/94
In Charge Of	RAL	

Contract 94.6

Sheet No. 10 of 35

M:\H09009\FX\DWGS\SHT01 04/12/94 08:25

SPECIFICATIONS

DESIGN

"AAHSTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 1989" WITH ALL THE INTERIMS.

CONTRACT

STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAY AND BRIDGES, REVISION OF OCTOBER 1990

LIVE LOAD

H20 LOAD FACTOR

MATERIALS

CONCRETE

ALL CONCRETE SHALL BE CLASS AAA

n = 8 fc = 1,800 P.S.I. f'c = 4,500 P.S.I.

REINFORCING STEEL

ASTM A615 GRADE 60 f'b = 24,000 P.S.I.

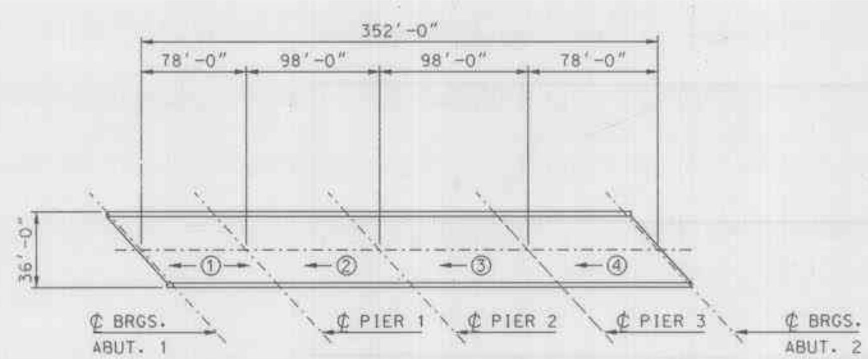
STRUCTURAL STEEL

ASTM A709 GRADE 36 f'b = 20,000 P.S.I.

GENERAL NOTES

1. REINFORCING STEEL TO HAVE A CLEAR COVER AS SHOWN ON THE PLANS.
2. CHAMFER ALL EXPOSED EDGES 1" UNLESS OTHERWISE NOTED.
3. PLANS OF EXISTING BRIDGES ARE AVAILABLE AT THE AUTHORITY'S OFFICE AT 430 RIVERSIDE ST. PORTLAND, MAINE
4. SHIELDING REQUIRED DURING CONCRETE REMOVAL SHALL NOT PROJECT BELOW THE BOTTOM FLANGES OF STRINGERS. THE ESTIMATED QUANTITY OF SHIELDING IS THE MINIMUM REQUIRED AND IS BASED ON THE THE FOLLOWING LIMITS:
   A. NORMAL TO ℄ BRIDGE: AS SHOWN ON THE PLANS
   B. PARALLEL TO ℄ BRIDGE: ABUTMENT TO ABUTMENT
5. THE CONTRACTOR HAS THE OPTION OF SUBSTITUTING CLASS A CONCRETE FOR ITEM 502.21
6. FOR STEEL REINFORCING SCHEDULE, SEE SHEET S9 AND S10.
7. ALL STEEL REINFORCING SHALL BE EPOXY COATED.
8. DO NOT COVER DECK DRAINS WITH MEMBRANE. DEPRESS DRAINS 1/2" BELOW TOP OF SLAB. PROVIDE 23 GAUGE GALVANIZED SCREENS(1/8" MESH) OVER DRAINS. PAYMENT INCIDENTAL TO CONTRACT ITEM 502.260
9. THE AUTHORITY'S PERSONEL WILL PROFILE THE TOPS OF ALL STRINGERS BEFORE THE FORM WORK IS STARTED AND SUPPLY THE CONTRACTOR WITH FINAL BOTTOM OF SLAB ELEVATIONS.
10. THE CONCRETE DECK SURFACE SHALL BE GIVEN A SMOOTH BULL OR WOOD FINISH .
11. THE EXISTING CONCRETE DECK SHALL BE SAW CUT 5" DEEP. SAW TYPE SHALL BE APPROVED BY THE ENGINEER. SAW CUTTING OF THE DECK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO ITEM 202.122

ITEM	DESCRIPTION	UNIT	QUANTITIES ROUTE 26
202.12	Removing Existing Structural Concrete	C.Y.	35
202.122	Removing Existing Superstructure Concrete	S.Y.	1,369
202.20	Protective Shield	S.Y.	1,525
403.13	Dense Graded Bit. Pavemet for Bridges	Ton.	104
502.211	Structural Concrete, Abutments, Retaining Walls	C.Y.	39
502.23	Structural Concrete, Piers	C.Y.	3
502.260	Structural Concrete Roadway and Parapet on Steel Bridge. (400.34 C.Y.)	L.S.	1
503.14	Epoxy Coated Reinf. Steel- Fabricated & Delivered	Lb.	126,000
503.15	Epoxy Coated Reinf. Steel- Placing	Lb.	126,000
504.70	Structural Steel- Fabricated & Delivered (4,473)	L.S.	1
504.721	Jacking Existing Superstructure - Rte 26	L.S.	1
505.081	Stud Welded Shear Connectors (230 Each)	L.S.	1
507.092	Aluminum Bridge Railing, 2 Bar	L.F.	709
508.13	Membrane Waterproofing (1278 S.Y.) -(Rte.26)	L.S.	1
514.06	Curing Box for Concrete Cylinders	EA.	1
515.20	Protective Coating for Concrete Surfaces	S.Y.	608
515.201	Concrete Protective Coating	S.Y.	553
520.22	Expansion Device - Compression Seal	EA.	2
523.103	Pot Bearings	EA.	25
609.15	Sloped Curb Type 1	L.F.	16



ROUTE 26

DECK PLACEMENT DETAILS

N.T.S.

No.	Revision	By	Date		By	Date
				Designed		
				Drawn		
				Checked		
				In Charge Of:		

Maine Turnpike Authority

Maine Turnpike

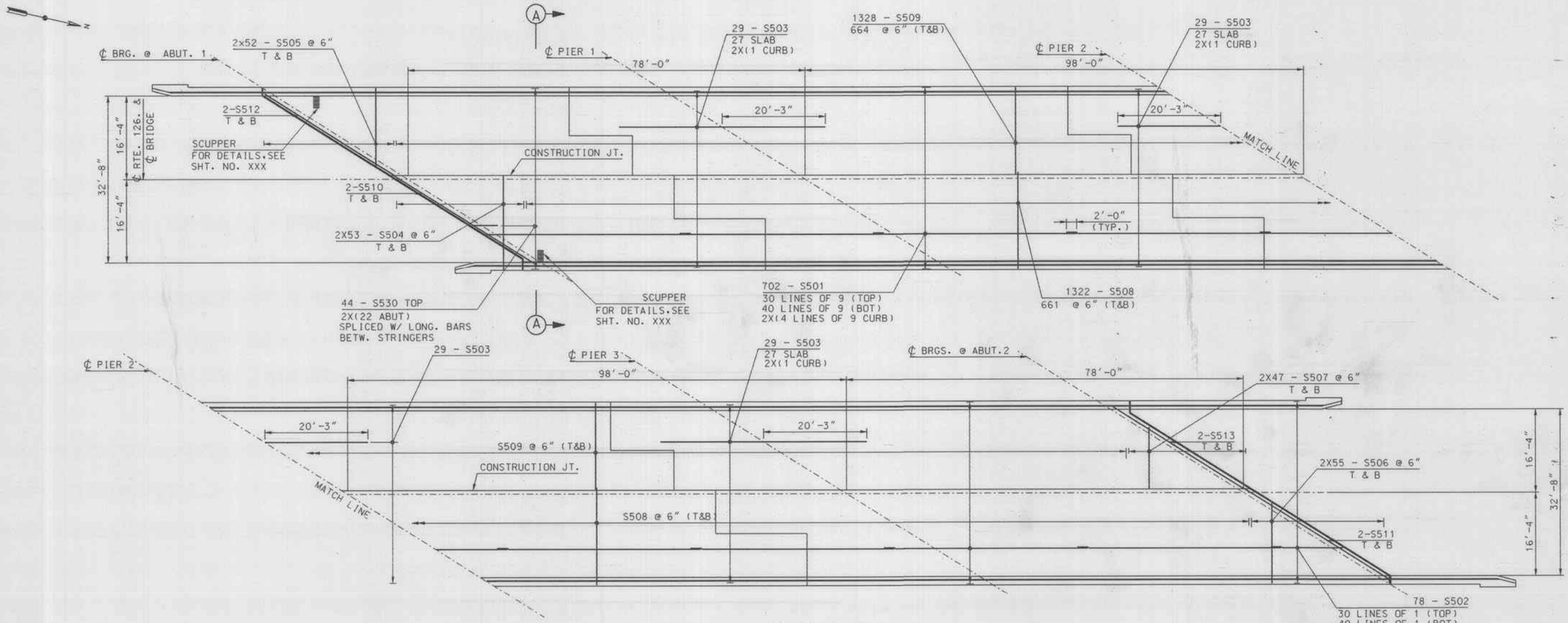
GENERAL NOTES, SPECIFICATIONS, QUANTITIES & DECK PLACEMENT DETAILS

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 94.6

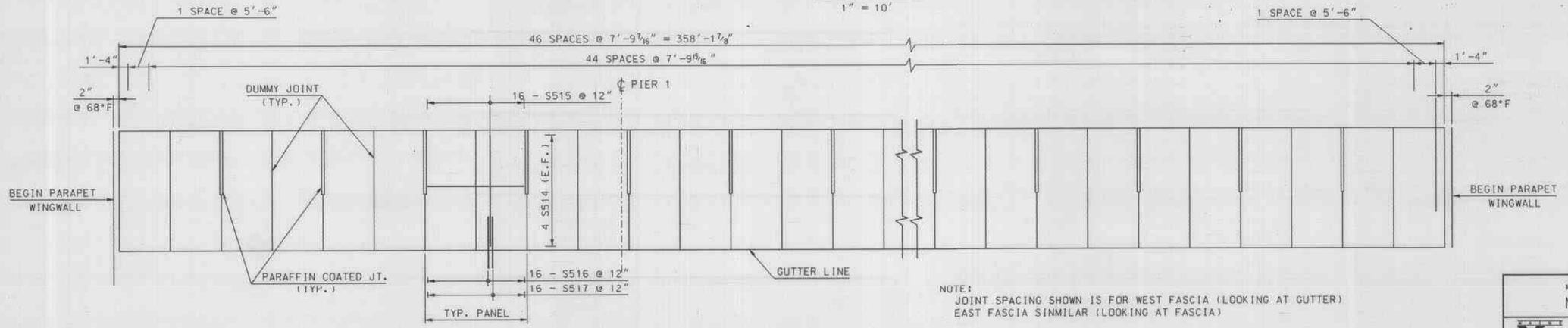
Sheet No. S1

20 of 35



DECK PLAN

1" = 10'



NOTE:
JOINT SPACING SHOWN IS FOR WEST FASCIA (LOOKING AT GUTTER)
EAST FASCIA SINMILAR (LOOKING AT FASCIA)

TYPICAL PARAFFIN JOINT SPACING

N.T.S.

No.	Revision	By	Date	In Charge Of:
				Designed
				Drawn
1	REISSUED	CFM	5/94	Checked

By	Date
H-B-E.D.	4/94

Maine Turnpike Authority
Maine Turnpike

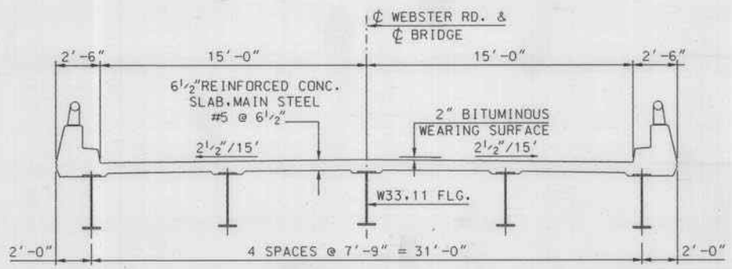
ROUTE 26
OVER
MAINE TURNPIKE
DECK REINFORCING

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 94.6

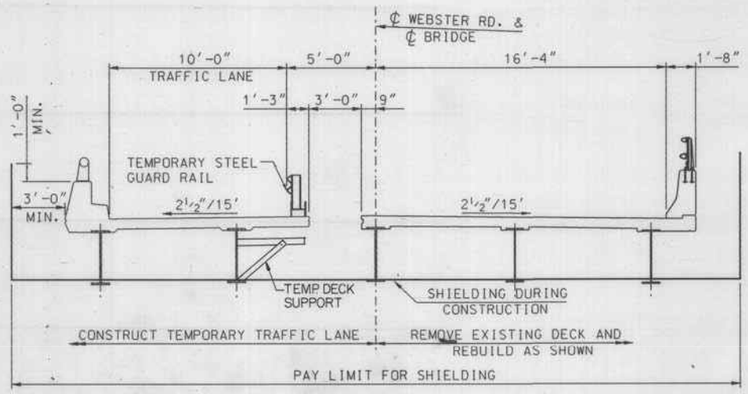
Sheet No. S2
21 of 35

Design Filename: d:\710900\dist41\deck1.dgn
Plotted on: 05-MAY-1994 12:25
Generated by: E.G.



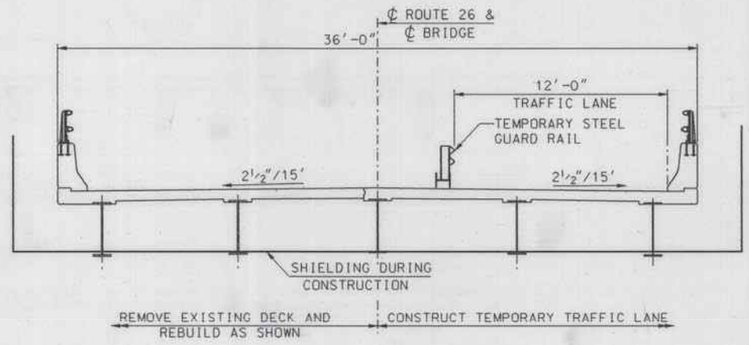
EXISTING DECK

¼" = 1'-0"



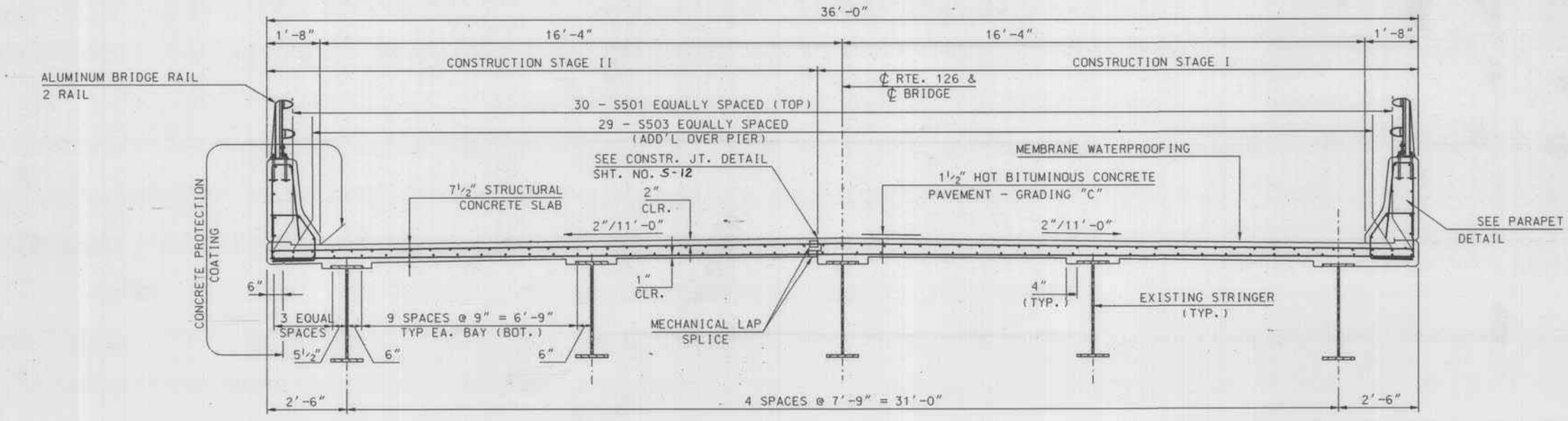
CONSTRUCTION - STAGE I

¼" = 1'-0"



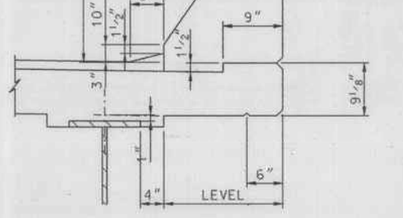
CONSTRUCTION - STAGE II

¼" = 1'-0"



SECTION A-A

½" = 1'-0"

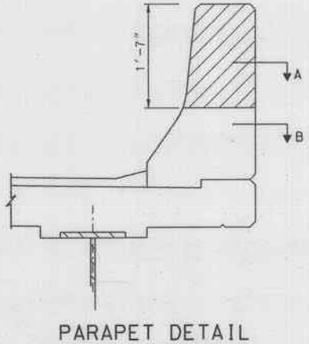


PARAPET DETAIL

¾" = 1'-0"

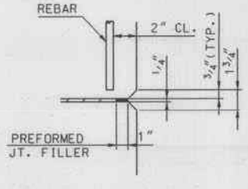
10" RADIUS IS TYP. INCLUDING PARAPET ON WINGWALL

NOTES :
1. FOR GENERAL NOTES, SEE SH. NO. S-1
2. FOR RAILING DETAILS, SEE SH. NO. S-12
3. FOR BRIDGE RAILING DETAILS, SEE SHT NO. S-14
4. FOR CONSTRUCTION JOINT DETAIL, SEE SHT. NO. S-3
5. MECHANICAL COUPLING DEVICE SHALL DEVELOPE A MINIMUN OF 125 PERCENT OF YIELD STRENGTH OF REINFORCEMENT STEEL. THE COUPLING DEVICES SHALL BE PROTECTED FROM CORROSION BY EITHER GALVANIZING OR EPOXY COATTING.



PARAPET DETAIL

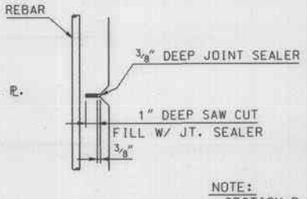
¾" = 1'-0"



SECTION A-A

N.T.S.

NOTES:
1. CONC. PLACED SIMULTANEOUSLY ON BOTH SIDES OF JOINT.
2. PREFORMED JOINT FILLER MAY BE SUPPORTED WITH A THIN STEEL R. REMOVE P CAREFULLY WHILE THE CONCRETE IS PLASTIC.



SECTION B-B

N.T.S.

NOTE:
SECTION B ALSO APPLIES TO DUMMY JOINT LOCATIONS.

No.	Revision	By	Date
⚠	REISSUED	CPM	5/94

	By	Date
Designed		
Drawn	E.G.	4/94
Checked		
In Charge Of:		

Maine Turnpike Authority
Maine Turnpike

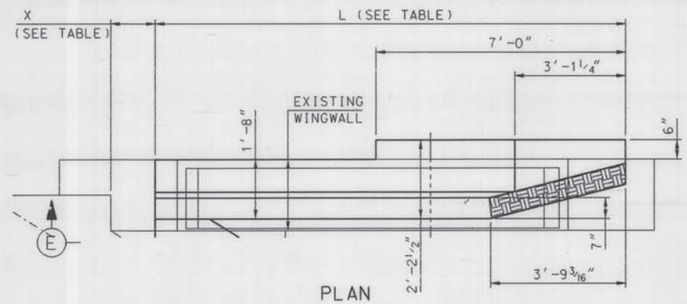
ROUTE 26
OVER
MAINE TURNPIKE
CONSTR. STAGING

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

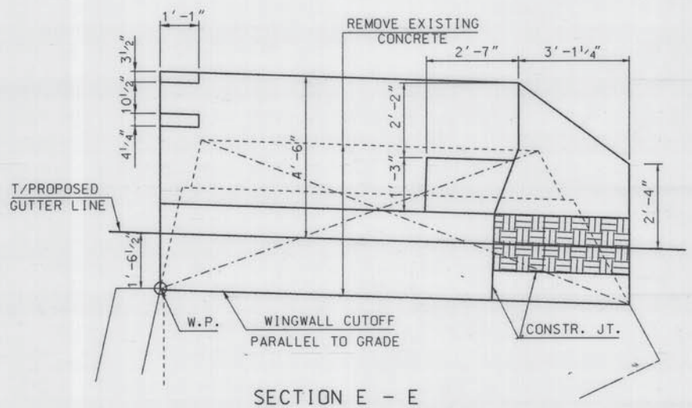
Contract 94.6

Sheet No. S-3
22 of 36

Design Filename: d:\f09009\br41\deck2.dgn
Plotted on: 05-MAY-1994 08:19
Generated by: E.G.



PLAN

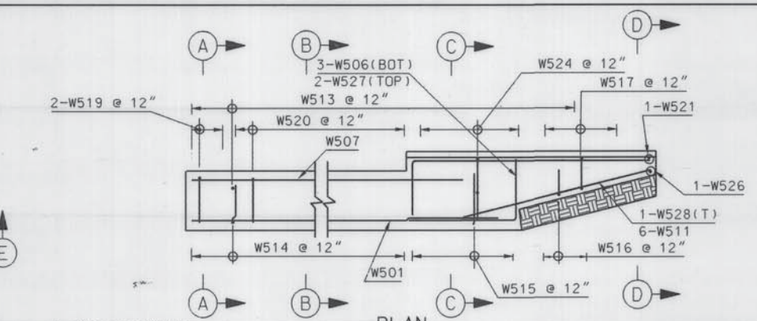


SECTION E - E

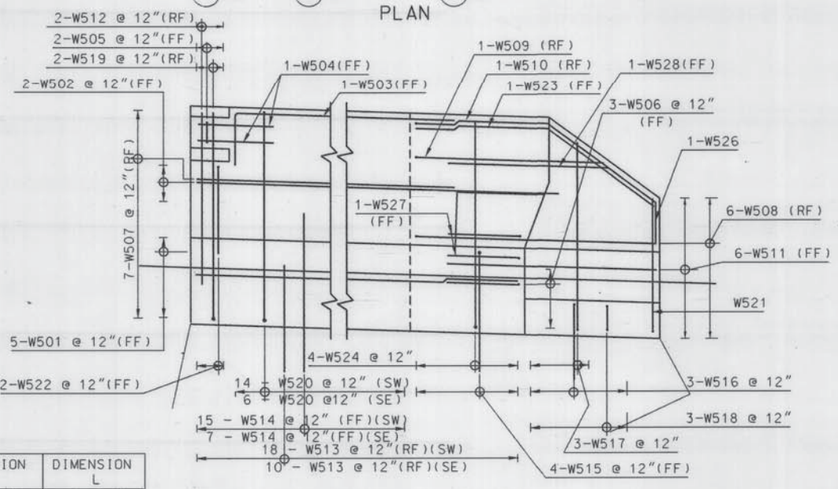
WINGWALL MODIFICATION
(SW.SE WINGWALLS SHOWN)

½" = 1'-0"

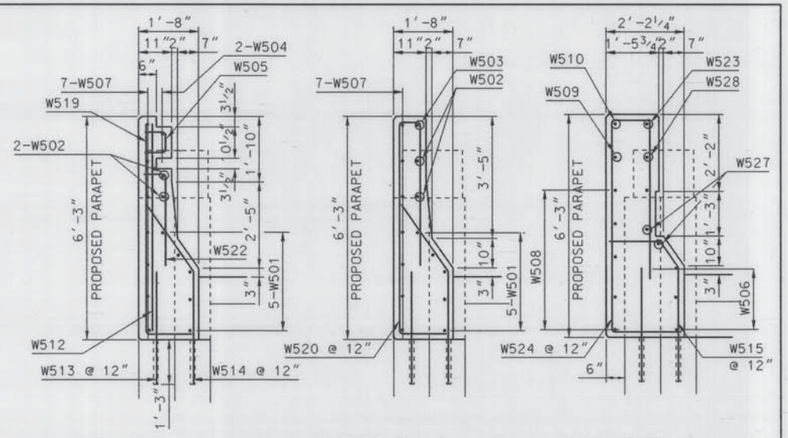
WINGWALL	DIMENSION X	DIMENSION L
S.W.	1'-3"	21'-6"
S.E.	1'-3"	13'-2"



PLAN



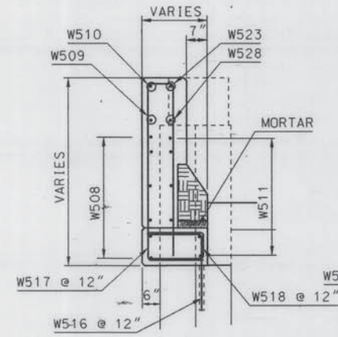
ELEVATION AT GUTTER
WINGWALL REINFORCING



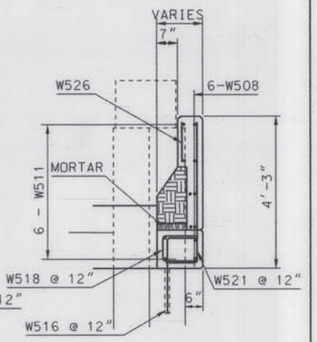
SECTION A - A
½" = 1'-0"

SECTION B - B
½" = 1'-0"

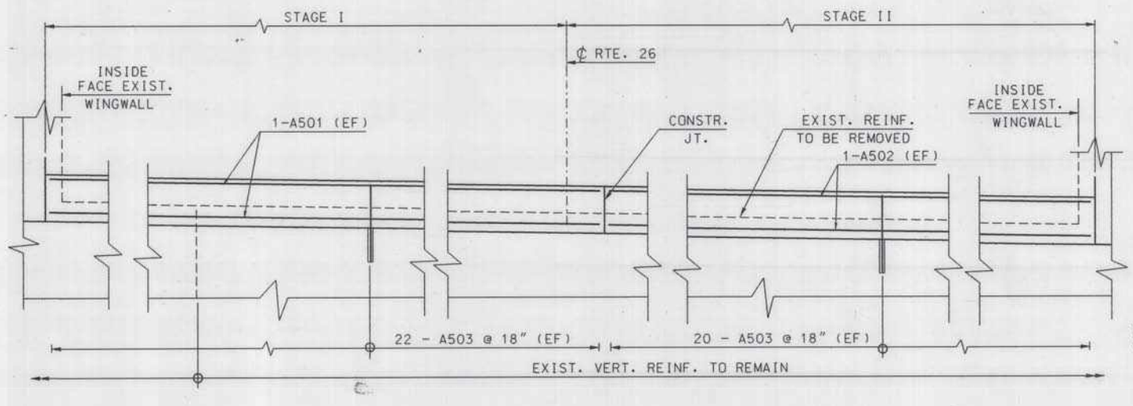
SECTION C - C
½" = 1'-0"



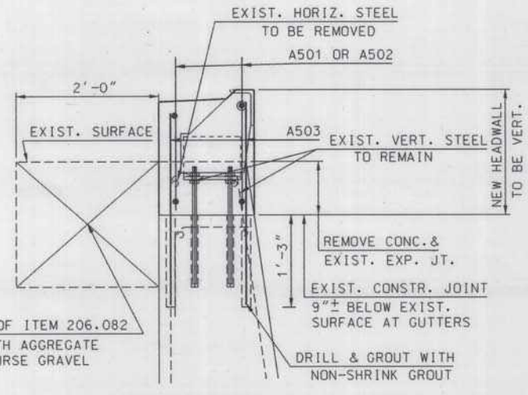
SECTION D - D
½" = 1'-0"



ENDVIEW
½" = 1'-0"



ELEVATION
⅜" = 1'-0"



SECTION
½" = 1'-0"

NOTE:
1. FOR REINFORCING SCHEDULE ,SEE SHEET S-9 & S-10.
2. FOR GRANITE STONE CURB DETAIL, SEE SHEET S-12.
3. DRILLING AND GROUTING OF REBARS TO BE PAID FOR UNDER STRUCTURAL CONCRETE ABUTMENTS. ITEM 502.21.

BACKWALL MODIFICATIONS
AS SHOWN

No.	Revision	By	Date	In Charge Of:
				Designed — By — Date
				Drawn — E.G. — 4/94
				Checked

Maine Turnpike Authority
Maine Turnpike

ROUTE 26
OVER
MAINE TURNPIKE
WINGWALL DETAILS

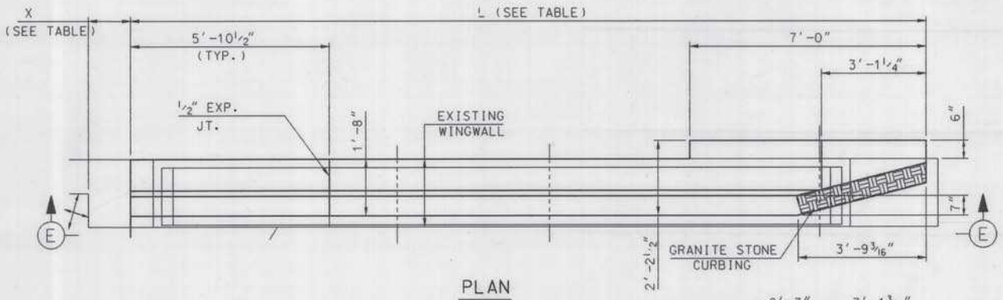
HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 94.6

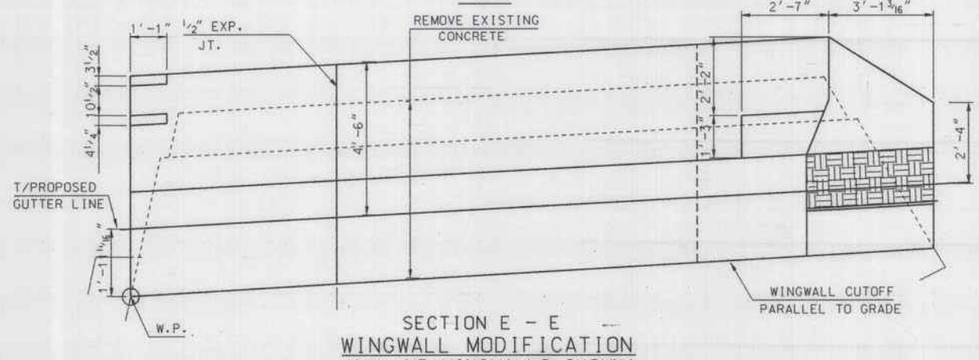
Sheet No. S-4
23 of 35

Design Filename: d:\1109009\br41\deck3_d.dgn
Plotted on 22-APR-1994 16:54 Generated by: E.G.

WINGWALL	DIMENSION X	DIMENSION L
N.W.	1'-3"	23'-6
N.E.	1'-3"	40'-5"



PLAN

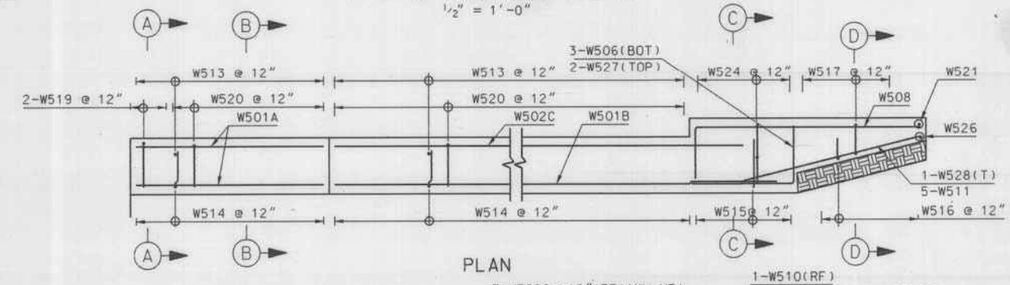


SECTION E - E

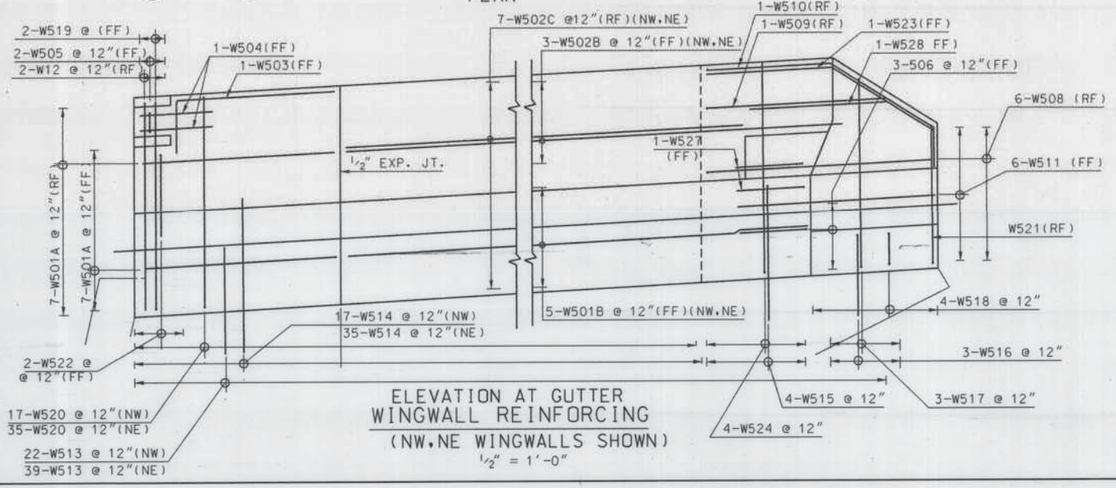
WINGWALL MODIFICATION

(NW. NE WINGWALLS SHOWN)

1/2" = 1'-0"



PLAN

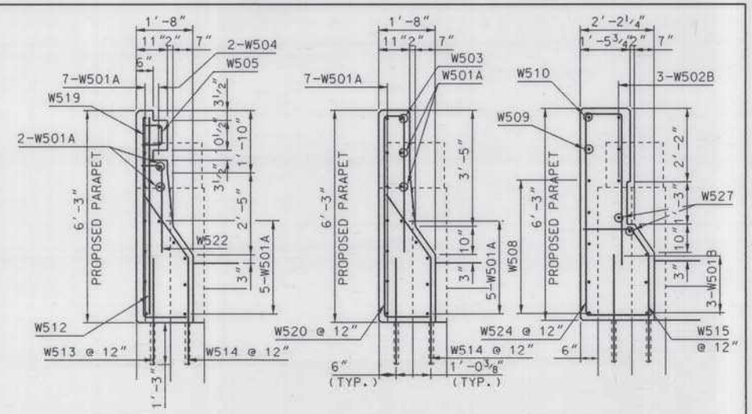


ELEVATION AT GUTTER

WINGWALL REINFORCING

(NW.NE WINGWALLS SHOWN)

1/2" = 1'-0"



SECTION A - A

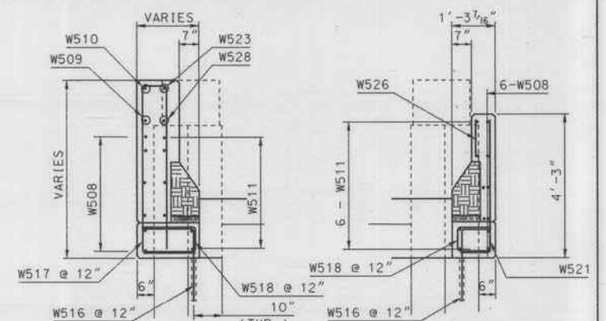
1/2" = 1'-0"

SECTION B - B

1/2" = 1'-0"

SECTION C - C

1/2" = 1'-0"



SECTION D - D

1/2" = 1'-0"

ENDVIEW

1/2" = 1'-0"

NOTE:

1. FOR REINFORCING SCHEDULE , SEE SHEET S-9 & S-10.
2. FOR GRANITE STONE CURB DETAIL, SEE SHEET S-12.
3. DRILLING AND GROUTING OF REBARS TO BE PAID FOR UNDER STRUCTURAL CONCRETE ABUTMENTS, ITEM 502.211.

No.	Revision	By	Date

	By	Date
Designed		
Drawn	E.G.	4/94
Checked		
In Charge Of:		

Maine Turnpike Authority

Maine Turnpike

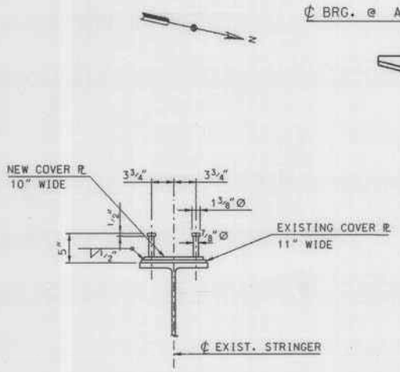
ROUTE 26 OVER MAINE TURNPIKE WINGWALL DETAILS

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 94.6

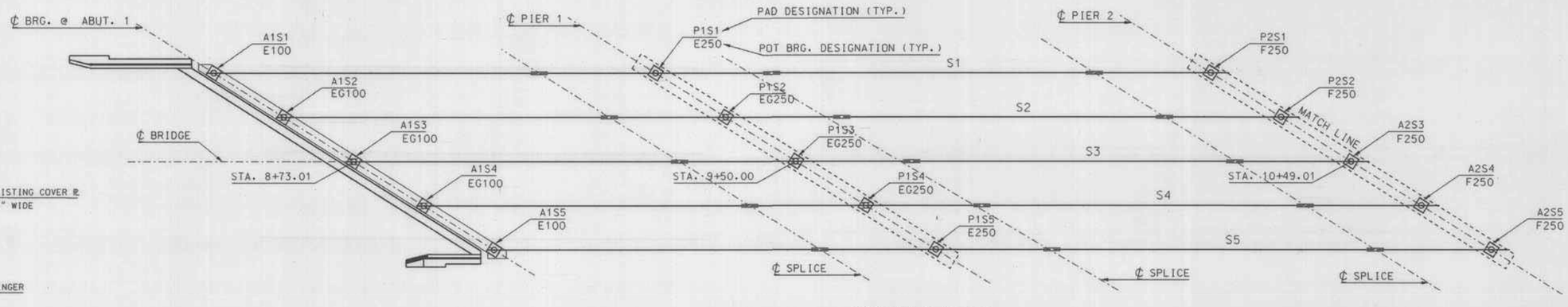
Sheet No. S-5 24 of 35

Design Filename: d:\f09009\br41\deck4_d.dgn
Plotted on: 22-APR-1994 16:41 Generated by: E.G.



SECTION A-A

SCALE: 1" = 1'-0"

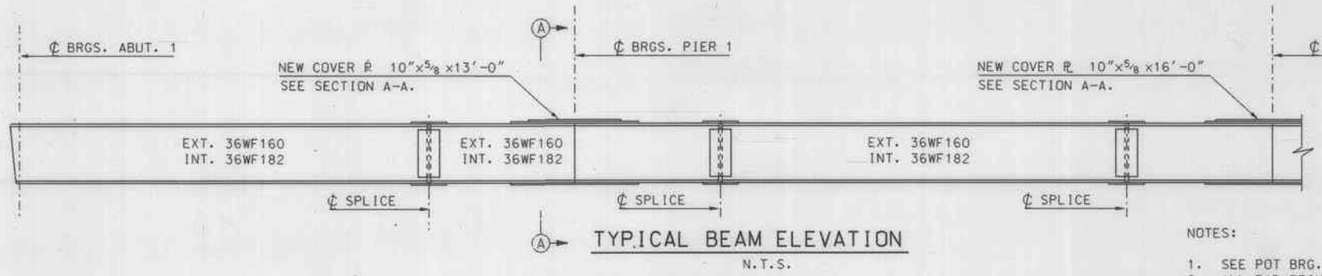


FRAMING PLAN

1" = 10'-0"

NOTES:

1. NEW SHEAR STUDS REQUIRED ONLY ON NEW COVER PL .
2. EXISTING SHEAR LUGS TO BE REMOVED AT EXISTING 11" WIDE TOP COVER PLATES AND NEW 10" WIDE COVER PLATES TO BE WELDED TO EXISTING COVER PLATES AND 2 - 7/8" STUDS END WELDED TO NEW COVER PLATES @ 24" MAX.



TYPICAL BEAM ELEVATION

N.T.S.

NOTES:

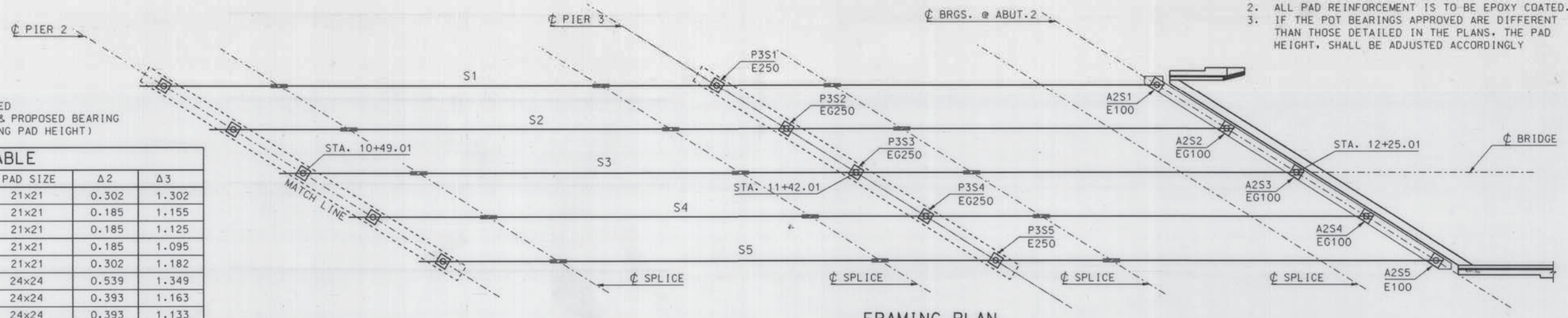
1. SEE POT BRG. DETAILS. SEE SHEET NO. S11
2. ALL PAD REINFORCEMENT IS TO BE EPOXY COATED.
3. IF THE POT BEARINGS APPROVED ARE DIFFERENT THAN THOSE DETAILED IN THE PLANS. THE PAD HEIGHT. SHALL BE ADJUSTED ACCORDINGLY

NOTES:

Δ1 = AMOUNT THE ROADWAY IS TO BE RAISED
Δ2 = THE DIFFERENCE BETWEEN EXISTING & PROPOSED BEARING
Δ3 = TOTAL Δ1+ Δ2 (INCREASE IN BEARING PAD HEIGHT)

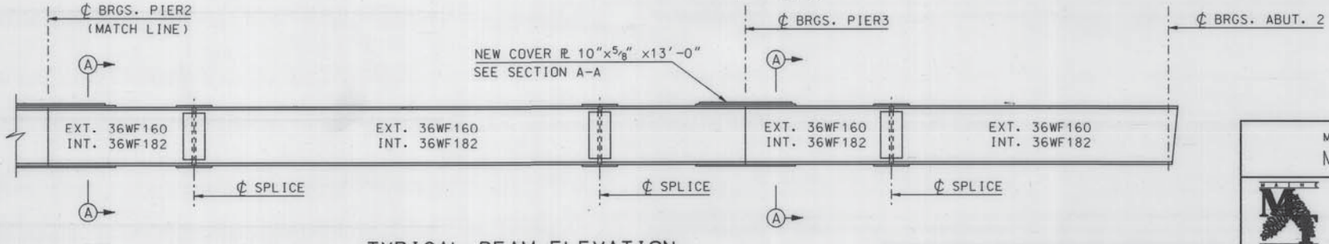
PAD TABLE

LOCATION	Δ1 (FT.)	MASONRY PL	PAD SIZE	Δ2	Δ3
A1S1	1.00	17 3/4 x17 3/4 x1 3/4	21x21	0.302	1.302
A1S2	0.97	17 3/4 x17 3/4 x1 3/4	21x21	0.185	1.155
A1S3	0.94	17 3/4 x17 3/4 x1 3/4	21x21	0.185	1.125
A1S4	0.91	17 3/4 x17 3/4 x1 3/4	21x21	0.185	1.095
A1S5	0.88	17 3/4 x17 3/4 x1 3/4	21x21	0.302	1.182
P1S1	0.81	21 1/4 x21 1/4 x1 3/4	24x24	0.539	1.349
P1S2	0.77	↑	24x24	0.393	1.163
P1S3	0.74		24x24	0.393	1.133
P1S4	0.71		24x24	0.393	1.103
P1S5	0.68		24x24	0.539	1.219
P2S1	0.56		24x24	0.214	0.774
P2S2	0.53		24x24	0.214	0.744
P2S3	0.50		24x24	0.214	0.714
P2S4	0.47		24x24	0.214	0.684
P2S5	0.44		24x24	0.214	0.654
P3S1	0.32		24x24	0.539	0.859
P3S2	0.29		24x24	0.393	0.683
P3S3	0.26		24x24	0.393	0.653
P3S4	0.23		24x24	0.393	0.623
P3S5	0.19	21 1/4 x21 1/4 x1 3/4	24x24	0.539	0.729
A2S1	0.12	17 3/4 x17 3/4 x1 3/4	21x21	0.302	0.422
A2S2	0.09	17 3/4 x17 3/4 x1 3/4	21x21	0.185	0.275
A2S3	0.06	17 3/4 x17 3/4 x1 3/4	21x21	0.185	0.245
A2S4	0.03	17 3/4 x17 3/4 x1 3/4	21x21	0.185	0.215
A2S5	0.00	17 3/4 x17 3/4 x1 3/4	21x21	0.302	0.302



FRAMING PLAN

1" = 10'-0"



TYPICAL BEAM ELEVATION

N.T.S.

No.	Revision	By	Date

In Charge Of:	By	Date
Designed	JAE	4/94
Drawn	EB	4/94
Checked	AEM	4/94

Maine Turnpike Authority
Maine Turnpike

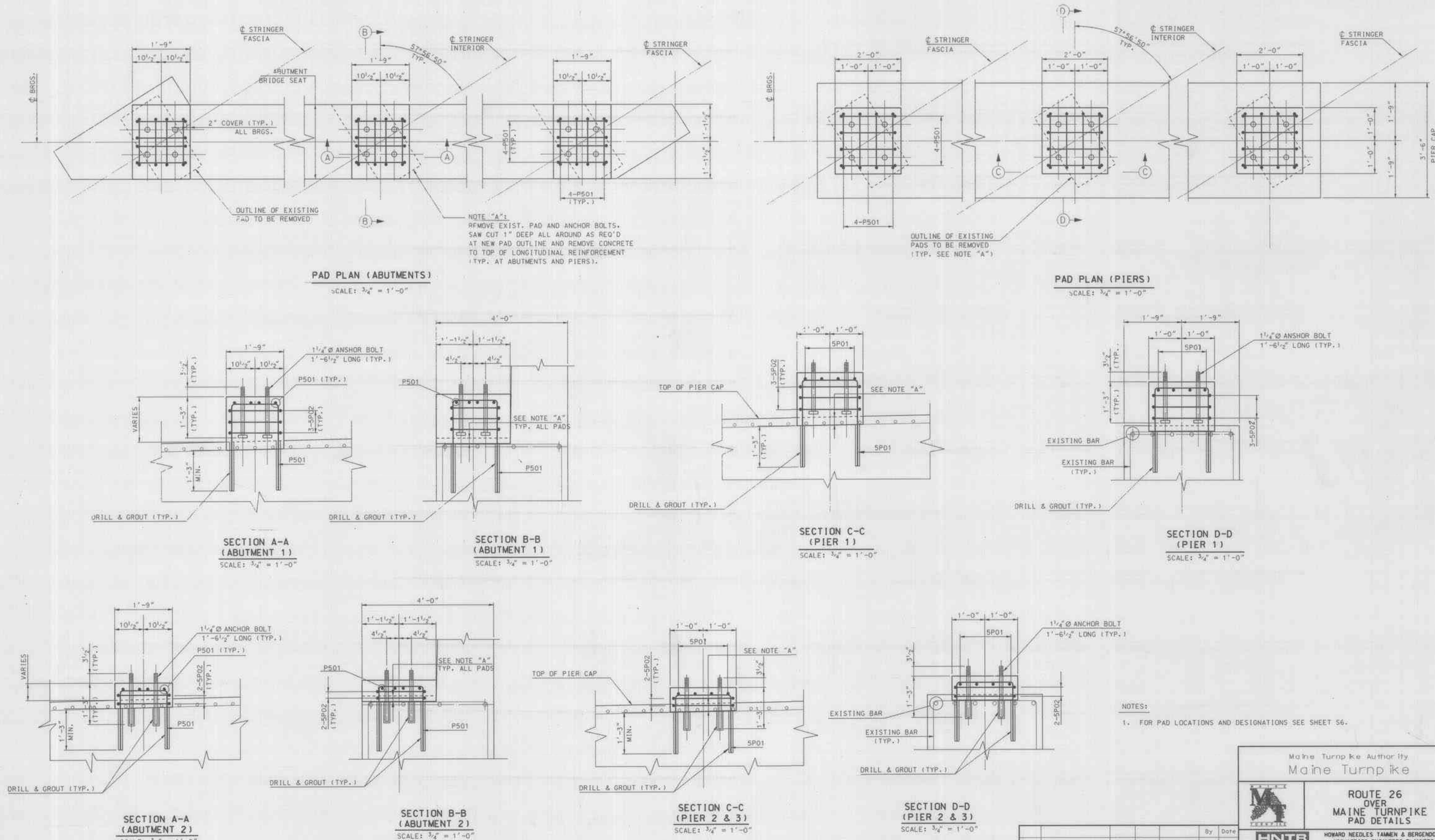
ROUTE 26
OVER
MAINE TURNPIKE
FRAMING PLAN

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 94.6

Sheet No. S6
25 of 35

Design Filename: d:\f09009\brd1\frame1_d.dgn
Plotted on: 22-APR-1994 11:31
Generated by: H.H.



NOTES:

1. FOR PAD LOCATIONS AND DESIGNATIONS SEE SHEET S6.

No.	Revision	By	Date		By	Date
				Designed		
				Drawn		
				Checked		
				In Charge Of:		

Maine Turnpike Authority

Maine Turnpike

ROUTE 26 OVER MAINE TURNPIKE PAD DETAILS

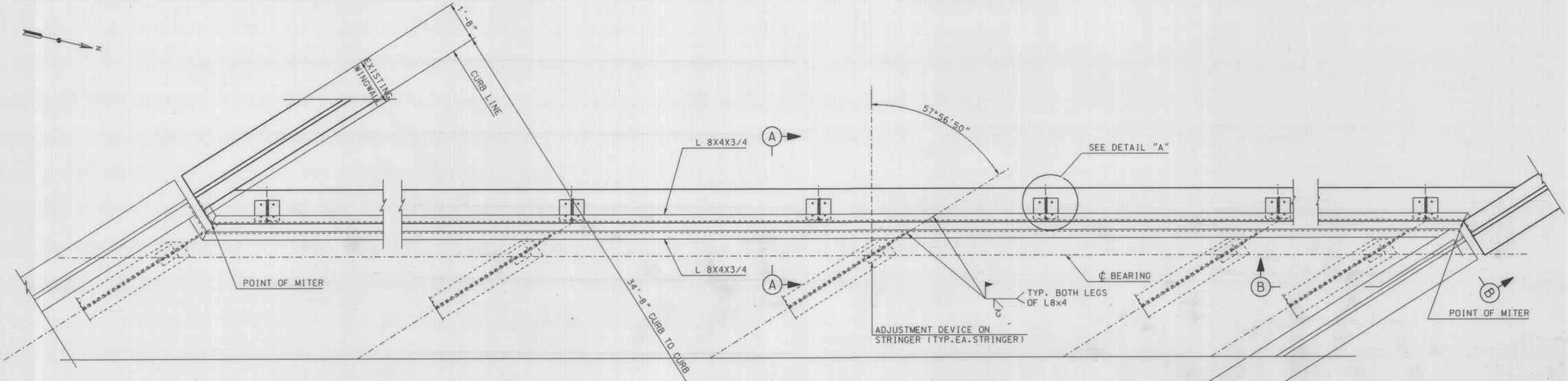
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 94.6

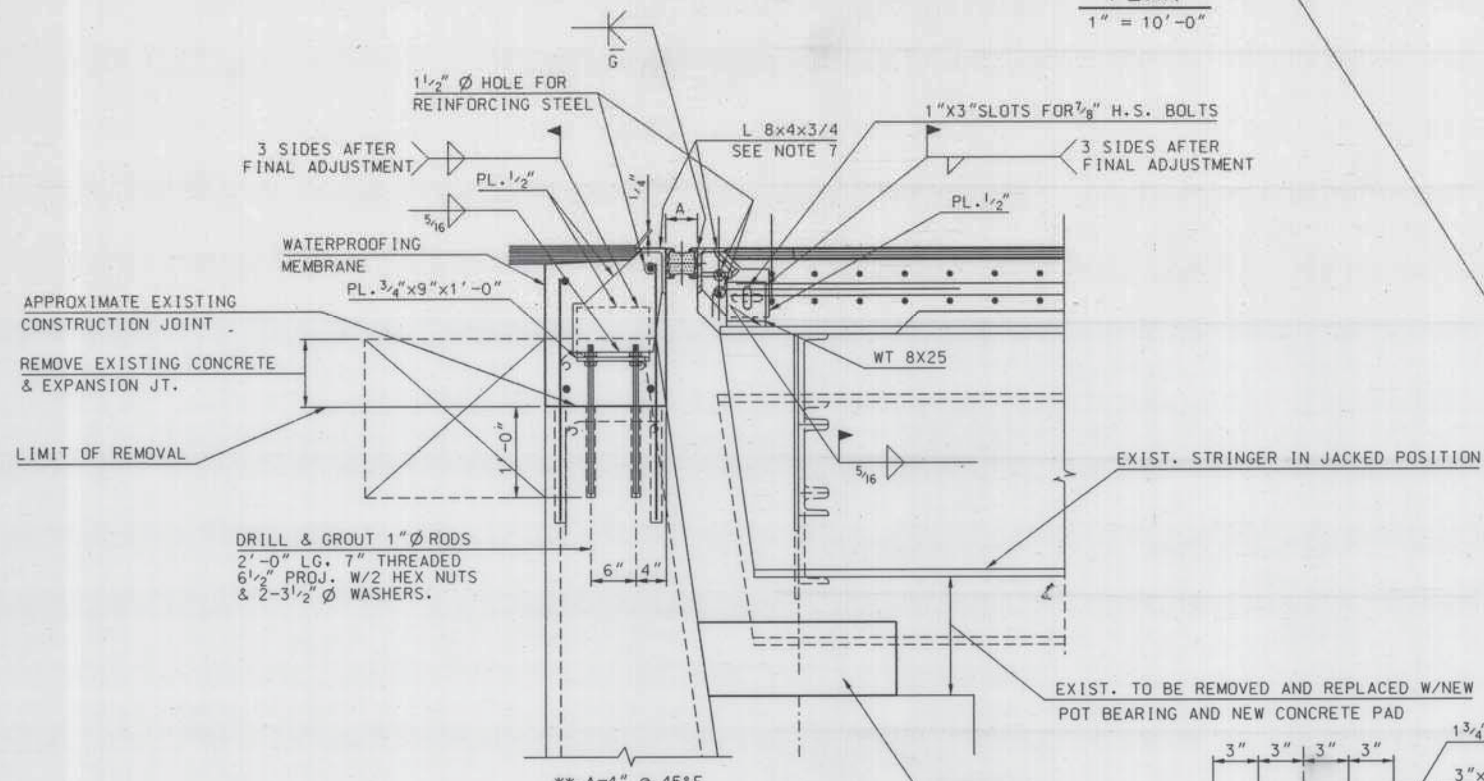
Sheet No. S7

26 of 35

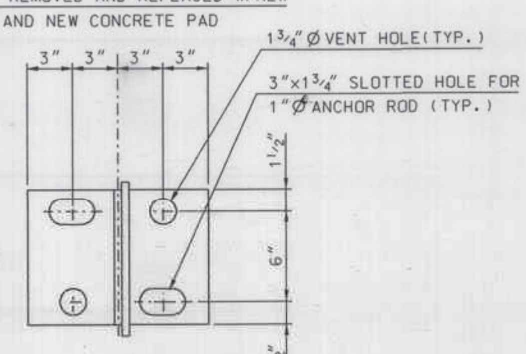
Design Filename: n:\95009\brdt\s4\pad.dgn Generated by: HKW
Plotted on: 13-APR-1994 09:16



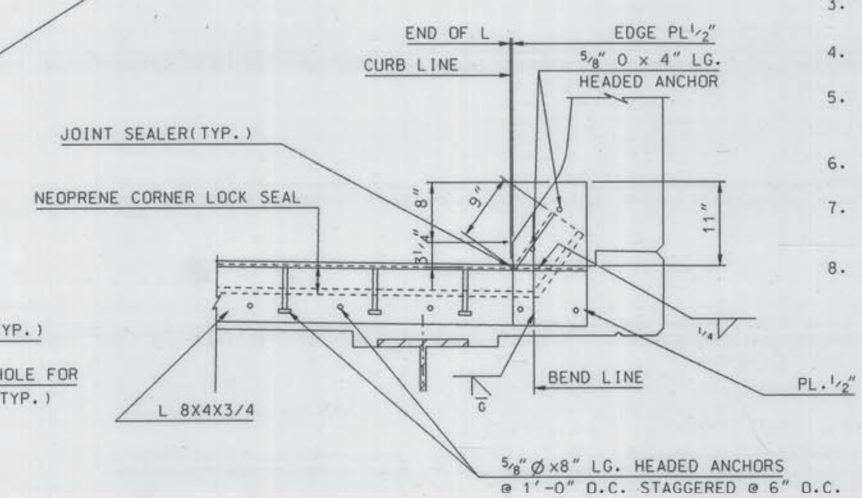
PLAN
1" = 10'-0"



SECTION A-A
1" = 1'-0"



DETAIL A
1 1/2" = 1'-0"



SECTION B-B
1" = 1'-0"

NOTES :

1. SHOP DRAWINGS SHALL BE SUBMITTED FOR EXPANSION DEVICE.
2. EXPANSION DEVICE ASSEMBLY SHALL BE SECURED TO THE STRINGER AND/OR ANCHOR BOLTS WHEN THE AMBIENT TEMPERATURE IS BETWEEN 40°F AND 80°F. SETTING SCHEDULE FOR DIMENSION A SHALL BE SUPPLIED BY THE MANUFACTURER OF THE SEAL.
3. NEOPRENE CORNER LOCK SEAL TO BE INSTALLED IN ONE PIECE.
4. ROADWAY SURFACE OF THE ARMORED DEVICES TO BE PAINTED IN THE FIELD.
5. THE FABRICATORS ATTENTION IS DIRECTED TO THE NECESSITY OF FABRICATING AND INSTALLING THE DEVICE IN TWO SECTIONS.
6. WELDS IN CONTACT WITH LOCK SEAL TO BE GROUND SMOOTH.
7. PROVIDE 3/8" DIA. VENT HOLES IN HORIZONTAL LEG OF 8X4 ANGLE AT 1'-0" O.C. MAX.
8. DIRECTION AND LOCATION OF FIELD SPLICES MAY BE ADJUSTED IF REQUIRED TO FACILITATE CONSTRUCTION.

No.	Revision	By	Date		By	Date
				Designed	JAE	4/94
				Drawn	EG	4/94
⚠	REISSUED	CFM	5/94	Checked	AEM	4/94
				In Charge Of:		

Maine Turnpike Authority
Maine Turnpike

ROUTE 26 OVER MAINE TURNPIKE
EXP. JT. DETAILS

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 94.6

Sheet No. S8
27 of 35

Design Filename: d:\m090b\s41\joh_d.dgn Generated by: H.H.
Plotted on: 05-MAY-1994 09:19

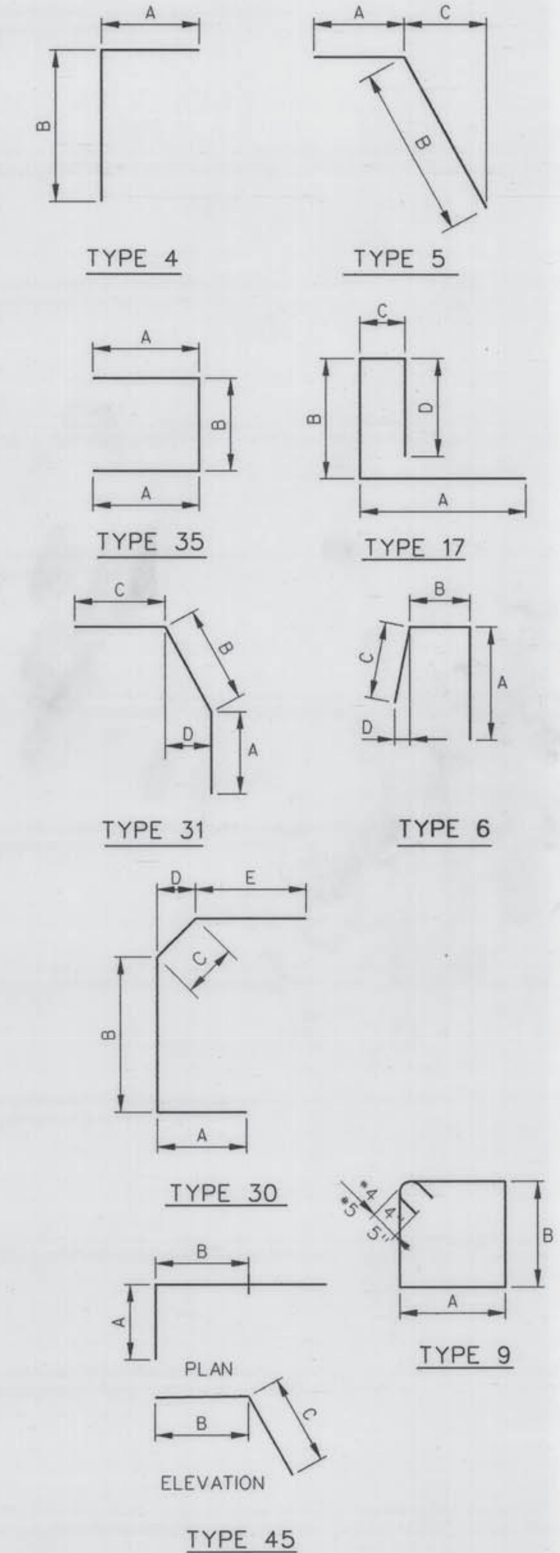
MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	INCR.	LOCATION AND REMARKS
DECK SLAB										
S501	5	702	40'-0"	STR						Long. T & B
S502		78	14'-2"	STR						Long. T & B
S503		87	40'-6"	STR						Long. @ Piers Top
S504		106	VARIES 0'-9"to 19'-1"	STR						Transv. @ Abut. T & B
S505		104	VARIES 1'-4"to 17'-1"	STR						Transv. @ Abut. T & B
S506		110	VARIES 1'-8"to 18'-3"	STR						Transv. @ Abut. T & B
S507		94	VARIES 0'-6"to 17'-1"	STR						Transv. @ Abut. T & B
S508		1322	19'-1"	STR						Transv. T & B
S509		1328	17'-0"	STR						Transv. T & B
S510		2	33'-0"	STR						Transv. @ Abut. T & B
S511		2	34'-0"	STR						Transv. @ Abut. T & B
S512		2	29'-10"	STR						Transv. @ Abut. T & B
S513		2	30'-2"	STR						Transv. @ Abut. T & B
S514		832	15'-3"	STR						Parapet
S515		1664	5'-3"	6	2'-4"	0'-6 3/4"	2'-4"	0'-3 1/4"		Parapet
S516		1664	4'-6"	30	1'-3"	1'-7"	0'-10"	0'-10"		Parapet
S517		1664	2'-8"	4	1'-3"	1'-5"				Parapet
S530	5	44	5'-5"	4	5'-0"	0'-5"				Long. @ Abut. T

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	INCR.	LOCATION AND REMARKS
END POST N.E.. WINGWALL										
W501A	5	14	5'-6"	STR						Horiz.
W501B		5	30'-10"	STR						Horiz.
W502B		3	31'-6"	STR						Horiz.
W502C		7	28'-7"	STR						Horiz.
W503		1	6'-3"	4	1'-10"	4'-5"				Horiz.
W504		2	2'-2"	STR						Horiz.
W505		2	1'-9"	35	0'-7"	0'-7"				Vert.
W506		3	3'-10"	4	1'-10"	2'-0"				Horiz.
W508		6	8'-6"	4	6'-8"	1'-10"				Horiz.
W509		1	6'-1"	4	5'-0"	1'-1"				Horiz.
W510		1	8'-3"	45	1'-1"	3'-9"	3'-5"			Horiz.
W511		6	5'-7"	STR						Horiz.
W512		2	5'-6"	STR						Vert.
W513		39	2'-6'	STR						Vert. Drilled Dowel
W514		35	5'-0"	5	3'-0"	2'-0"				Vert. Drilled Dowel
W515		4	5'-3"	31	3'-0"	1'-0"	1'-3"			Vert. Drilled Dowel
W516		3	VARIES 2'-10"to 3'-8"	4	VARIES 0'-10"to 1'-8"	2'-0"				Vert. Drilled Dowel
W517		3	VARIES 9'-8"to 13'-3"	17	VARIES 0'-11"to 1'-10"	VARIES 4'-6" to 5'-11"	VARIES 0'-7"to 1'-0"	VARIES 3'-8"to 4'-7"		Vert.
W518		4	VARIES 3'-4"to 5'-2"	35	VARIES 0'-11"to 1'-10"	1'-6"				Vert.
W519		2	7'-3"	4	1'-4"	5'-11"				Vert.
W520		35	10'-9"	17	1'-4"	5'-11"	0'-7"	4'-0"		Vert.
W521		1	4'-4"	4	3'-11"	0'-11"				Vert.
W522		2	3'-3"	4	0'-7"	2'-8"				Vert.
W523		1	7'-2"	5	3'-9"	3'-5"	1'-10"			Horiz.
W524		5	12'-10"	17	1'-10"	5'-11"	1'-1"	4'-0"		Vert.
W526		1	1'-1"	STR						Vert.
W527		2	VARIES 3'-0"to 3'-3"	4	2'-0"	VARIES 1'-0"to 1'-3"				Horiz.
W528	5	1	3'-6"	STR						Horiz.

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	INCR.	LOCATION AND REMARKS
END POST N.W. WINGWALL										
W501A	5	14	5'-6"	STR						Horiz.
W501B		5	13'-7"	STR						Horiz.
-										
W502B		3	14'-6"	STR						Horiz.
W502C		7	12'-1"	STR						Horiz.
W503		1	6'-3"	4	1'-10"	4'-5"				Horiz.
W504		2	2'-2"	STR						Horiz.
W505		2	1'-9"	35	0'-7"	0'-7"				Vert.
W506		3	3'-10"	4	1'-10"	2'-0"				Horiz.
W508		6	8'-6"	4	6'-8"	1'-10"				Horiz.
W509		1	6'-1"	4	5'-0"	1'-1"				Horiz.
W510		1	8'-3"	45	1'-1"	3'-9"	3'-5"			Horiz.
W511		6	5'-7"	STR						Horiz.
W512		2	5'-6"	STR						Vert.
W513		22	2'-6'	STR						Vert. Drilled Dowel
W514		17	5'-0""	5	3'-0"	2'-0"				Vert. Drilled Dowel
W515		4	5'-3"	31	3'-0"	1'-0"	1'-3"			Vert. Drilled Dowel
W516		3	VARIES 2'-10"to 3'-8"	4	VARIES 0'-10"to 1'-8"	2'-0"				Vert. Drilled Dowel
W517		3	VARIES 9'-8"to 13'-3"	17	VARIES 0'-11"to 1'-10"	VARIES 4'-6" to 5'-11"	VARIES 0'-7"to 1'-0"	VARIES 3'-8"to 4'-7"		Vert.
W518		4	VARIES 3'-4"to 5'-2"	35	VARIES 0'-11"to 1'-10"	1'-6"				Vert.
W519		2	7'-3"	4	1'-4"	5'-11"				Vert.
W520		17	10'-9"	17	1'-4"	5'-11"	0'-7"	4'-0"		Vert.
W521		1	4'-4"	4	3'-11"	0'-11"				Vert.
W522		2	3'-3"	4	0'-7"	2'-8"				Vert.
W523		1	7'-2"	5	3'-9"	3'-5"	1'-10"			Horiz.
W524		5	12'-10"	17	1'-10"	5'-11"	1'-1"	4'-0"		Vert.
W526		1	1'-1"	STR						Vert.
W527		2	VARIES 3'-0"to 3'-3"	4	2'-0"	VARIES 1'-0"to 1'-3"				Horiz.
W528	5	1	3'-6"	STR						Horiz.

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	INCR.	LOCATION AND REMARKS
ABUTMENT 1 BRG. PADS										
P501	5	40	6'-6"	35	2'-7"	1'-4"			*	Drilled & Grouted
P502	5	15	6'-7"	9	1'-5"	1'-5"				Horiz.
PIER 1 BRG. PADS										
P501	5	40	6'-9"	35	2'-7"	1'-7"			*	Drilled & Grouted
P502	5	15	7'-7"	9	1'-8"	1'-8"				Horiz.
PIER 2 BRG. PADS										
P501	5	40	5'-9"	35	2'-1"	1'-7"			*	Drilled & Grouted
P502	5	10	7'-7"	9	1'-8"	1'-8"				Horiz.
PIER 3 BRG. PADS										
P501	5	40	5'-9"	35	2'-1"	1'-7"			*	Drilled & Grouted
P502	5	10	7'-7"	9	1'-8"	1'-8"				Horiz.
ABUTMENT 2 BRG. PADS										
P501	5	40	4'-8"	35	1'-8"	1'-4"			*	Drilled & Grouted
P502	5	10	6'-7"	9	1'-5"	1'-5"				Horiz.

* P501 IS DETAILED FOR THE LONGEST BAR REQ'D. CONTRACTOR IS TO FIELD CUT AS REQ'D.



Maine Turnpike Authority
Maine Turnpike

ROUTE 26 OVER MAINE TURNPIKE
REINFORCING SCHEDULE

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

No.	Revision	By	Date		By	Date
				Designed		
				Drawn		
△	REISSUED	CFH	5/94	Checked		
				In Charge Of:		

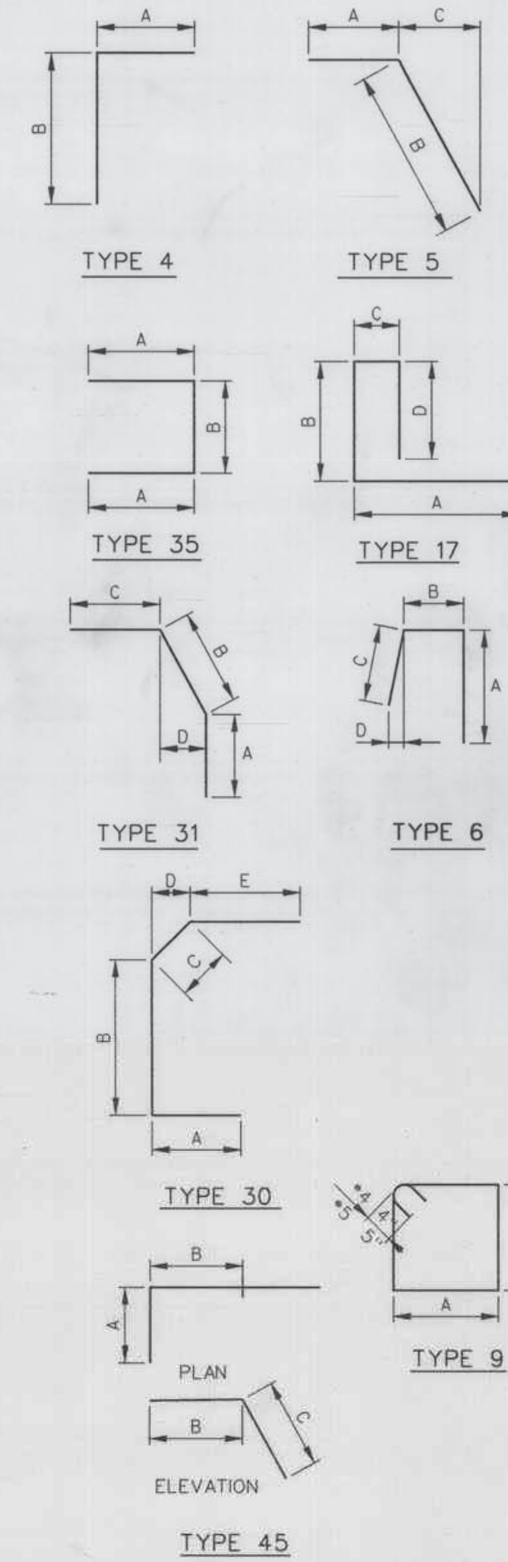
Contract 94.6

Sheet No. S-9 28 of 35

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	INCR.	LOCATION AND REMARKS
END POST S.E. WINGWALL										
W501	5	5	9'-1"	STR						Horiz.
W502		2	10'-3"	STR						Horiz.
W503		1	8'-0"	4	1'-10"	6'-2"				Horiz.
W504		2	2'-2"	STR						Horiz.
W505		2	1'-9"	35	0'-7"	0'-7"				Vert.
W506		3	3'-10"	4	1'-10"	2'-0"				Horiz.
W507		7	7'-3"	STR						Horiz.
W508		6	8'-6"	4	6'-8"	1'-10"				Horiz.
W509		1	6'-1"	4	5'-0"	1'-1"				Horiz.
W510		1	8'-3"	45	1'-1"	3'-9"	3'-5"			Horiz.
W511		6	5'-7"	STR						Horiz.
W512		2	4'-9"	STR						Vert.
W513		10	2'-6'	STR						Vert. Drilled Dowel
W514		7	5'-0"	5	3'-0"	2'-0"				Vert. Drilled Dowel
W515		4	5'-3"	31	2'-0"	1'-0"	1'-3"			Vert. Drilled Dowel
W516		4	VARIES 2'-10"to 3'-8"	5	VARIEs 0'-10"to 1'-8"	2'-0"				Vert. Drilled Dowel
W517		3	VARIES 9'-8"to 13'-3"	17	VARIES 0'-11"to 1'-10"	VARIES 4'-6"to 5'-11"	VARIES 0'-7"to 1'-0"	VARIES 3'-8"to 4'-7"		Vert.
W518		4	VARIES 3'-4"to 5'-2"	35	VARIES 0'-11"to 1'-10"	1'-6"				Vert.
W519		2	7'-3"	4	1'-4"	5'-11"				Vert.
W520		6	10'-9"	17	1'-4"	5'-11"	0'-7"	4'-0"		Vert.
W521		1	4'-10"	4	3'-11"	0'-11"				Vert.
W522		2	3'-3"	4	0'-7"	2'-8"				Vert.
W523		1	7'-2"	5	3'-9"	3'-5"				Horiz.
W524		5	12'-10"	17	1'-10"	5'-11"	1'-1"	4'-0"		Vert.
W526		1	1'-1"	STR						Vert.
W527		2	VARIES 3'-0"to 3'-3"	4	2'-0"	VARIES 1'-0"to 1'-3"				Horiz.
W528	5	1	3'-6"	STR						Horiz.

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	INCR.	LOCATION AND REMARKS
END POST S.W. WINGWALL										
W501	5	5	17'-5"	STR						Horiz.
W502		2	18'-3"	STR						Horiz.
W503		1	16'-4"	4	1'-10"	14'-5"				Horiz.
W504		2	2'-2"	STR						Horiz.
W505		2	1'-9"	35	0'-7"	0'-7"				Vert.
W506		3	3'-10"	4	1'-10"	2'-0"				Horiz.
W507		7	15'-3"	STR						Horiz.
W508		6	8'-6"	4	6'-8"	1'-10"				Horiz.
W509		6	6'-1"	4	5'-0"	1'-1"				Horiz.
W510		1	8'-3"	45	1'-1"	3'-9"	3'-5"			Horiz.
W511		6	5'-7"	STR						Horiz.
W512		2	4'-9"	STR						Vert.
W513		18	2'-6'	STR						Vert. Drilled Dowel
W514		15	5'-0"	5	3'-0"	2'-0"				Vert. Drilled Dowel
W515		4	5'-3"	31	3'-0"	1'-0"	1'-3"			Vert. Drilled Dowel
W516		4	VARIES 2'-10"to 3'-8"	5	VARIEs 0'-10"to 1'-8"	2'-0"				Vert. Drilled Dowel
W517		3	VARIES 9'-8"to 13'-3"	17	VARIES 0'-11"to 1'-10"	VARIES 4'-6"to 5'-11"	VARIES 0'-7"to 1'-0"	VARIES 3'-8"to 4'-7"		Vert.
W518		4	VARIES 3'-4"to 5'-2"	35	VARIES 0'-11"to 1'-10"	1'-6"				Vert.
W519		2	7'-3"	4	1'-4"	5'-11"				Vert.
W520		14	10'-9"	17	1'-4"	5'-11"	0'-7"	4'-0"		Vert.
W521		1	4'-10"	4	3'-11"	0'-11"				Vert.
W522		2	3'-3"	4	0'-7"	2'-8"				Vert.
W523		1	7'-2"	5	3'-9"	3'-5"				Horiz.
W524		5	12'-10"	17	1'-10"	5'-11"	1'-1"	4'-0"		Vert.
W526		1	1'-1"	STR						Vert.
W527		2	VARIES 3'-0"to 3'-3"	4	2'-0"	VARIES 1'-0"to 1'-3"				Horiz.
W528	5	1	3'-6"	STR						Horiz.

MARK	SIZE	NO.	LENGTH	TYPE	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	DIMENSIONS D	INCR.	LOCATION AND REMARKS
ABUTMENT 1 HEAD WALL										
A501	5	4	31'-10"	STR						Horiz.
A502	5	4	29'-0"	STR						Horiz.
A503	5	84	3'-10"	STR						Vert. Drilled Dowel
ABUTMENT 2 HEAD WALL										
A501	5	4	31'-10"	STR						Horiz.
A502	5	4	29'-0"	STR						Horiz.
A503	5	84	3'-10"	STR						Vert. Drilled Dowel



Maine Turnpike Authority
Maine Turnpike

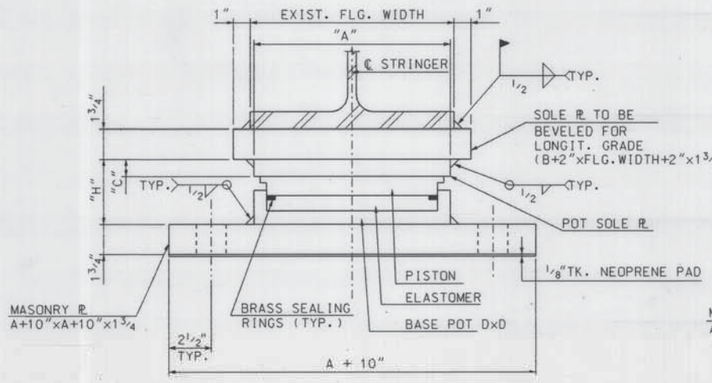
ROUTE 26
OVER
MAINE TURNPIKE
REINFORCING SCHEDULE

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

No.	Revision	By	Date		By	Date
				Designed		
				Drawn		
				Checked		
				In Charge Of:		

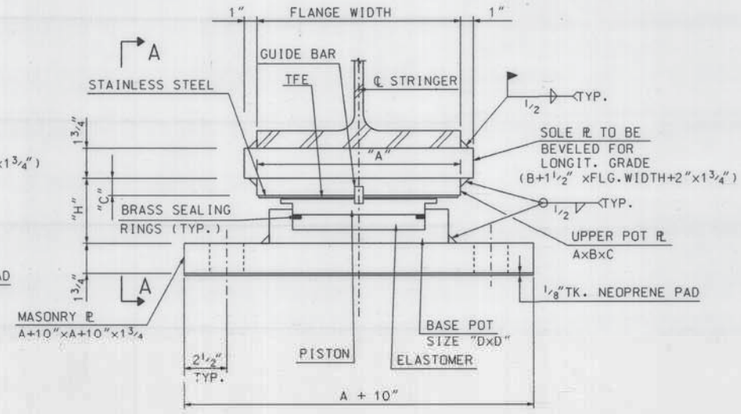
Contract 94.6

Sheet No. S-10
29 of 35



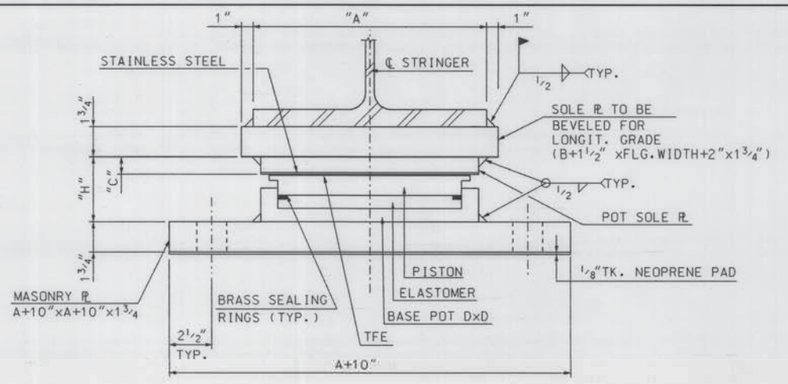
FIXED BEARING

3" = 1'-0"



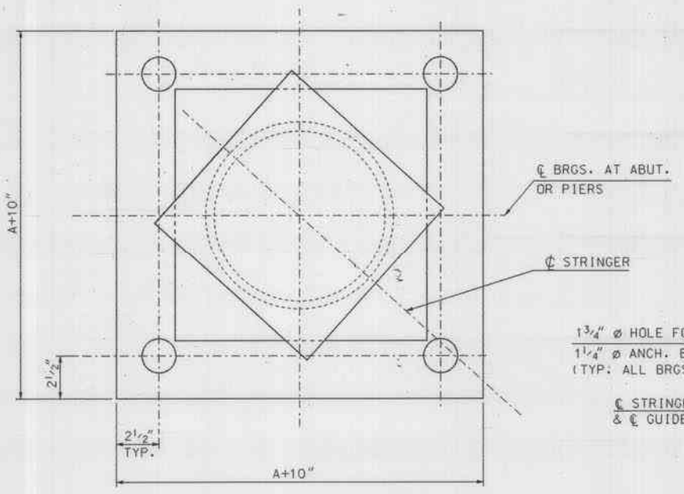
GUIDED EXPANSION BEARING

3" = 1'-0"



EXPANSION BEARING

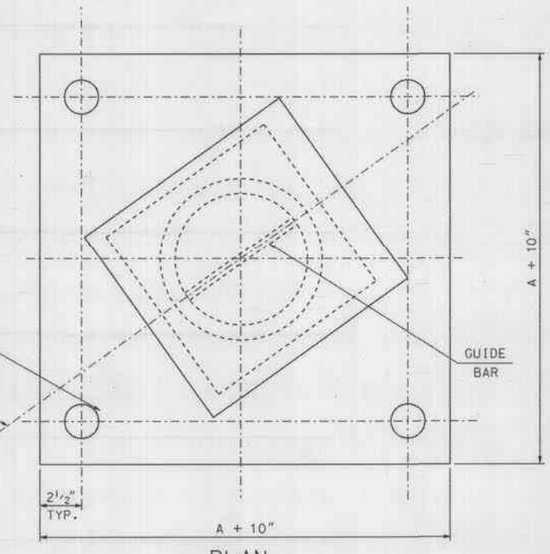
3" = 1'-0"



PLAN

FIXED BEARING

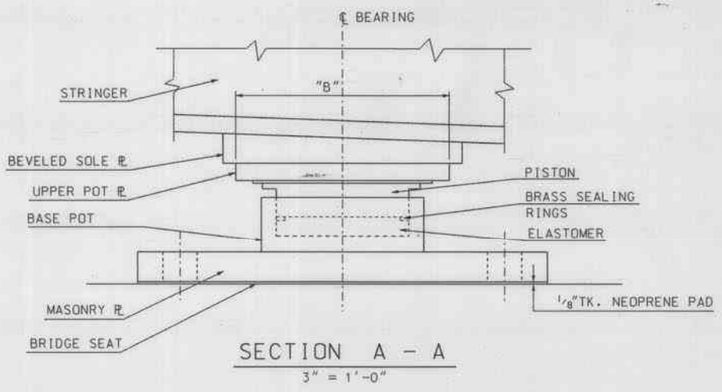
3" = 1'-0"



PLAN

GUIDED EXPANSION BEARING

3" = 1'-0"



SECTION A - A

3" = 1'-0"

DESCRIPTION		A	B	C	D	H
FIXED	F100	7.75	7.75	0.75	7.75	2.929
	F150	9.00	9.00	1.00	9.00	3.152
	F200	10.25	10.25	1.00	10.25	3.492
	F250	11.50	11.50	1.00	11.50	3.709
EXPAN.	E100	7.75	10.50	0.75	7.75	2.65
	E150	9.00	11.75	0.75	9.00	2.63
	E200	10.25	13.00	0.75	10.25	2.98
	E250	11.50	14.00	0.88	11.25	3.46
GUIDED EXPAN.	EG100	7.75	10.50	1.625	7.75	4.054
	EG150	9.00	11.75	1.75	9.00	4.402
	EG200	10.25	13.00	2.00	10.25	4.867
	EG250	11.25	14.00	2.00	11.50	5.209

NOTES:

1. POT BEARING DETAILS SHOWN ARE TAKEN FROM SAI POT BEARING CATALOG. MANUFACTURED BY STRUCTURAL ACCESSORIES. INC. SOUTH MAIN ST./P.O. BOX 10 TERRYVILLE. CT. 06786
2. ALL GUIDED EXPANSION BEARING DIMENSIONS ARE BASED ON 20% HORIZONTAL CAPACITY.
3. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL.
4. FOR LOCATION OF POT BRG'S., SEE FRAMING PLAN SHTS.36
5. ALL STRUCTURAL STEEL SHALL BE AASHTO 270. GRADE 36 (ASTM A709. GRADE 36) UNLESS OTHERWISE NOTED.
6. MASONRY PLATES SHALL BE BEDDED ON THE CONCRETE PADS WITH EITHER ELASTOMERIC BEARING PADS OR PREFORMED FABRIC PAD 1/8" MINIMUM THICKNESS.
7. SOLE PLATES AND PISTONS SHALL HAVE MACHINED SURFACES TO FINISH ANSI 125
8. STAINLESS STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A167. TYPE 304 OR ASTM A240. TYPE 304. STAINLESS STEEL IN CONTACT WITH TFE SHEET SHALL BE LESS THAN 0.5 u INCH ROOT SQUARE FINISH.
9. THE 1 1/4" ø ANCHOR BOLTS. RODS AND NUTS SHALL BE A307. WASHERS SHALL CONFORM TO REQUIREMENTS OF AASHTO M293 (ASTM F4361)

No.	Revision	By	Date

	By	Date
Designed	JAE	4/94
Drawn	EB	4/94
Checked	AEM	4/94
In Charge Of:		

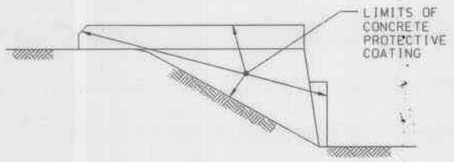
Maine Turnpike Authority
Maine Turnpike

ROUTE 26
OVER
MAINE TURNPIKE
POT BEARING DETAILS

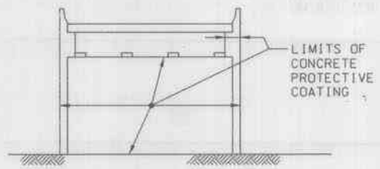
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 94.6

Sheet No. S11
30 of 35



WINGWALLS



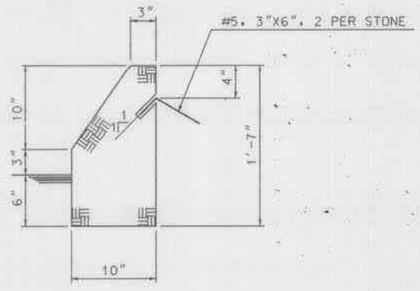
ABUTMENT

CONCRETE PROTECTIVE COATING NOTE

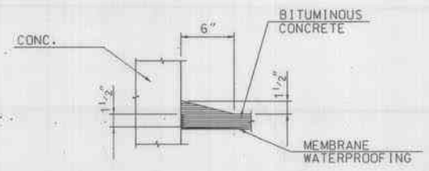
CONCRETE PROTECTIVE COATING AT PIERS: ALL VERTICAL SURFACES OF PIER STEMS SHALL BE COATED.

LIMITS OF CONCRETE PROTECTIVE COATING
(ITEM 515.201)

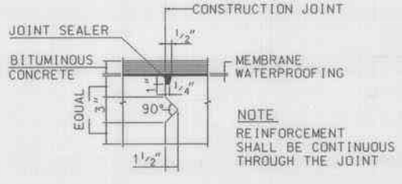
NOT TO SCALE



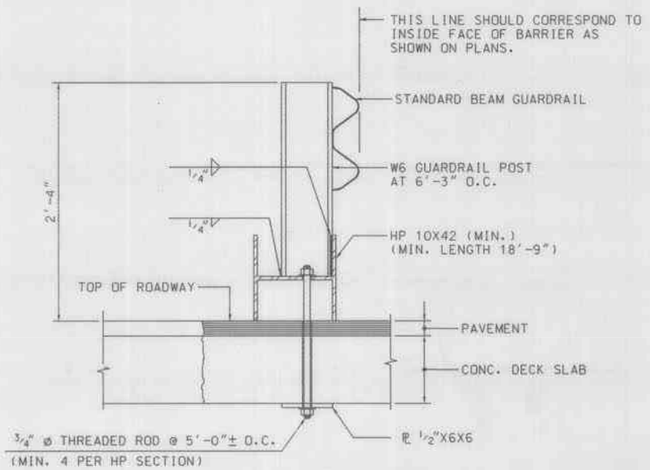
GRANITE CURB DETAIL
1½"=1'-0"



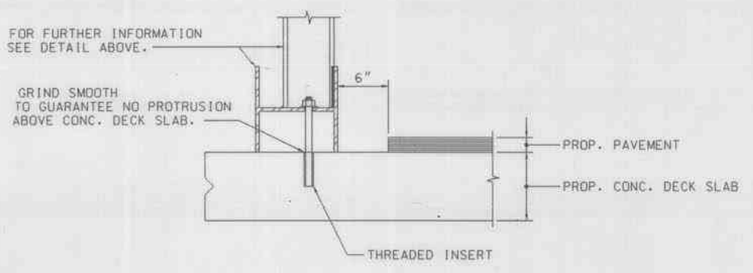
DETAIL
3"=1'-0"



CONSTRUCTION JOINT DETAIL
3"=1'-0"



SUGGESTED TEMPORARY STEEL GUARD RAIL DETAILS
(EXISTING DECK SLAB)
1½"=1'-0"



SUGGESTED TEMPORARY STEEL GUARD RAIL DETAILS
(PROPOSED DECK SLAB)
1½"=1'-0"

STEEL GUARD NOTES

1. ALL WORK NECESSSARY TO ERECT AND MOVE THE TEMPORARY STEEL GUARDRAIL SHALL BE PAID UNDER ITEM 606.172.

No.	Revision	By	Date		By	Date
				Designed	IS	2/93
				Drawn	SHR	2/93
				Checked	SHR	2/93
				In Charge Of:	RAL	

Maine Turnpike Authority
Maine Turnpike

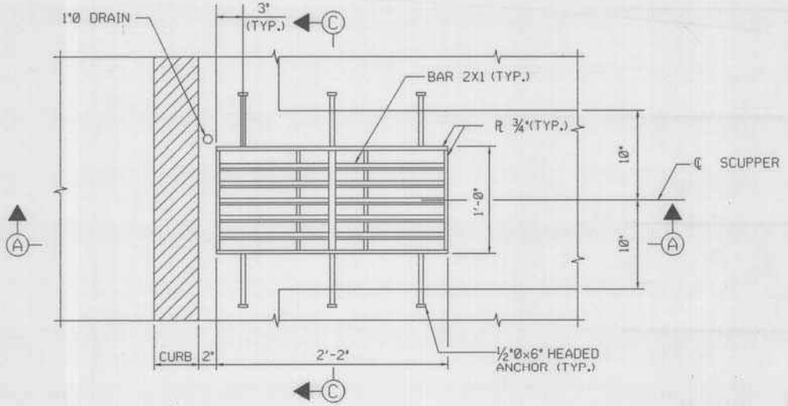
MISCELLANEOUS DETAILS

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 94.6

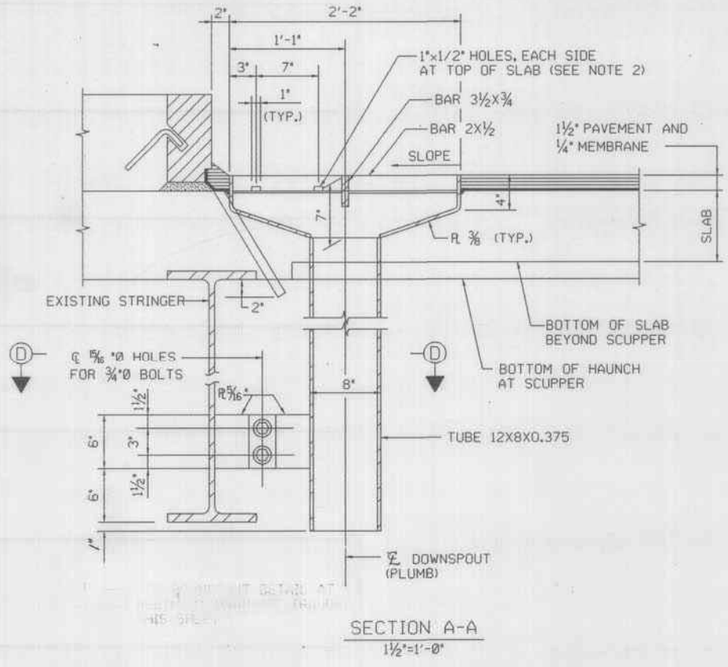
Sheet No. S12
31 of 35

Design Filename: d:\ff09009\misdet.dgn
Plotted on: 13-APR-1994 12:25
Generated by: E.G.



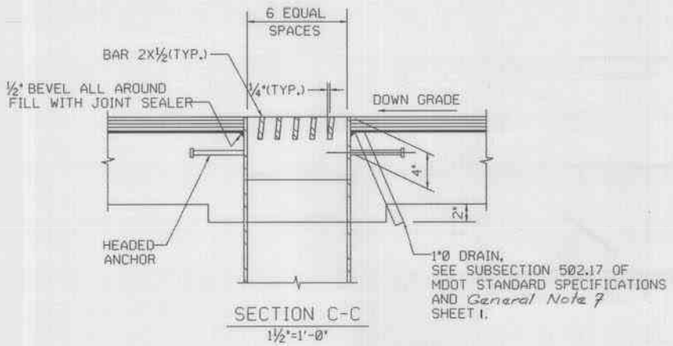
PLAN - SCUPPER

1½"=1'-0"



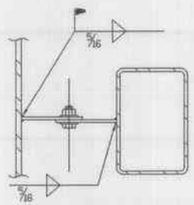
SECTION A-A

1½"=1'-0"



SECTION C-C

1½"=1'-0"



SECTION D-D

1½"=1'-0"

SCUPPER NOTES

1. ALL WELDS TO BE CONTINUOUS **" FILLET WELDS EXCEPT AS NOTED.
2. DO NOT COVER HOLES WITH MEMBRANE WATERPROOFING.
3. SCUPPERS TO BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO ASTM A153.
4. ALL PLATES SHALL CONFORM TO ASTM A709 GRADE 36.
5. STRUCTURAL TUBES SHALL CONFORM TO ASTM A501.
6. PAYMENT FOR SCUPPERS INCIDENTAL TO ITEM 502.260
7. FOR LOCATION OF SCUPPERS AND 1"Ø DRAINS, SEE SUPERSTRUCTURE DETAILS, SHEETS 10 AND 12.

No.	Revision	By	Date		By	Date
				Designed	TS	2/92
				Drawn	RDF	2/92
				Checked	SHR	1/93
				In Charge Of:	RAL	

Maine Turnpike Authority

Maine Turnpike

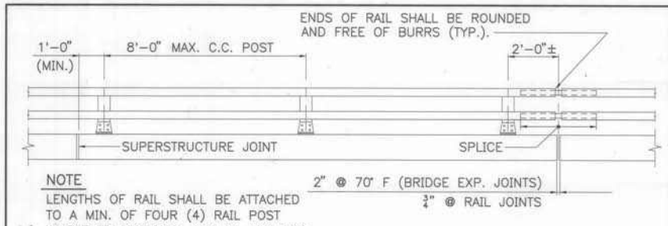
ROUTE 26 OVER MAINE TURNPIKE SCUPPER DETAILS

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 94.6

Sheet No. S13 32 of 35

SCUPR-01 02/17/94 15:10

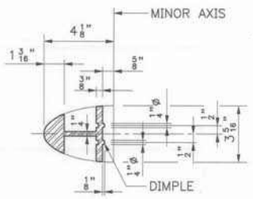


NOTE

LENGTHS OF RAIL SHALL BE ATTACHED TO A MIN. OF FOUR (4) RAIL POST WHENEVER POSSIBLE, AND IN ANY CASE NEVER LESS THAN TWO (2). RAIL POST ARE TO BE SET NORMAL TO GRADE UNLESS OTHERWISE SHOWN ON THE BRIDGE PLANS.

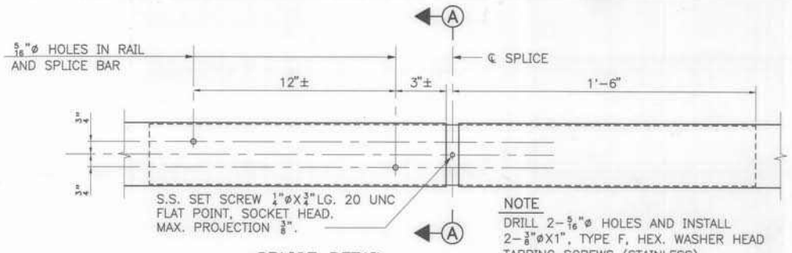
RAILING – ELEVATION

3/8"=1'-0"



SECTION A–A (RAIL)

3"=1'-0"

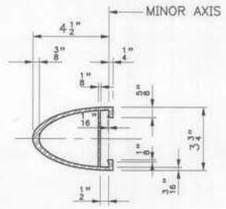


NOTE

DRILL 2–5/16"ø HOLES AND INSTALL 2–3/8"øX1", TYPE F, HEX. WASHER HEAD TAPPING SCREWS (STAINLESS).

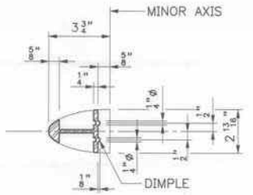
SPLICE DETAIL

3"=1'-0"



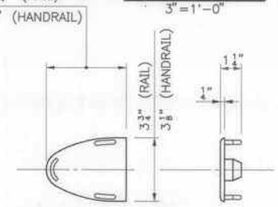
RAIL MEMBER

3"=1'-0"



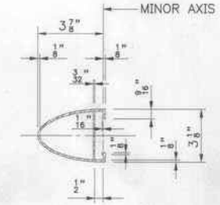
SECTION A–A (HANDRAIL)

3"=1'-0"



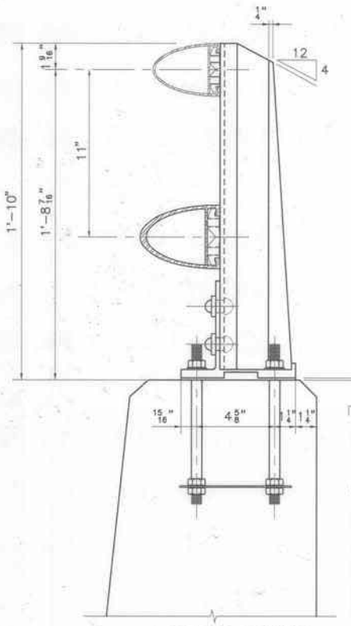
CAST ALUMINUM DRIVE FIT RAIL CAP

3"=1'-0"



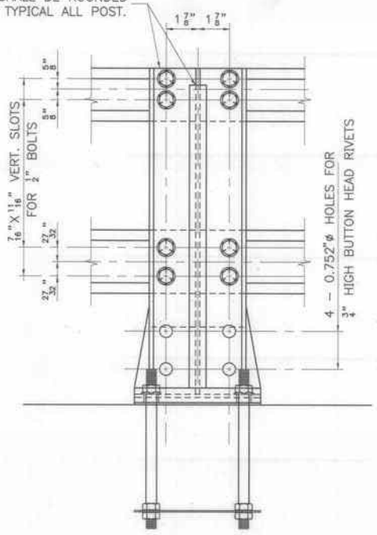
HANDRAIL MEMBER

3"=1'-0"



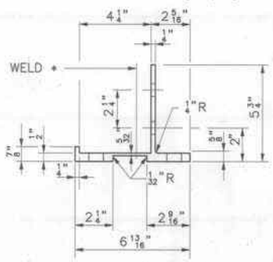
BRIDGE RAILING (ASSEMBLY)

3"=1'-0"



OUTSIDE ELEVATION OF POST

3"=1'-0"

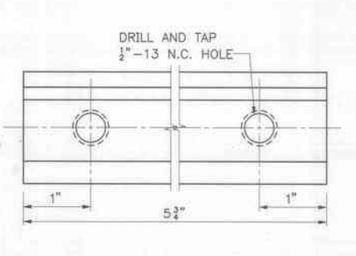


POST BASE SECTION

3"=1'-0"

NOTE

* ONE–PIECE BASE PLATE MAY BE SUBSTITUTED, PROVIDED THAT THE REQUIRED LENGTH IS CUT FROM A ONE–PIECE EXTRUSION AND HAS THE GEOMETRIC SHAPE OF THE TWO–PIECE BASE PLATE

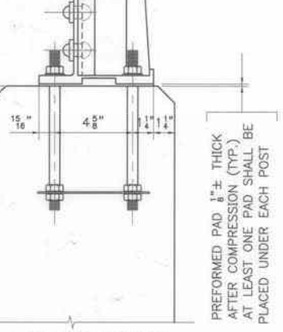


CLAMP BAR DETAILS

FULL SIZE

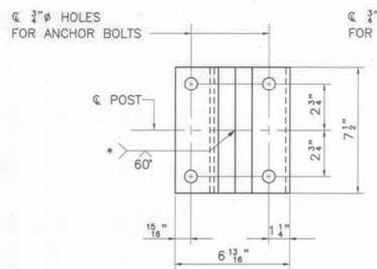
FOR RAIL MEMBER

FOR HANDRAIL



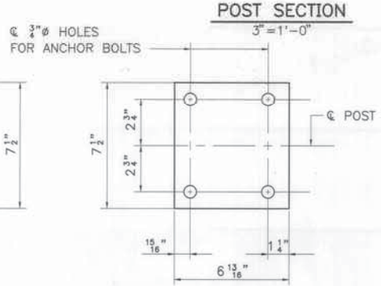
POST SECTION

3"=1'-0"



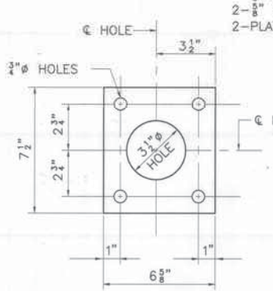
POST BASE (BOTTOM VIEW)

3"=1'-0"



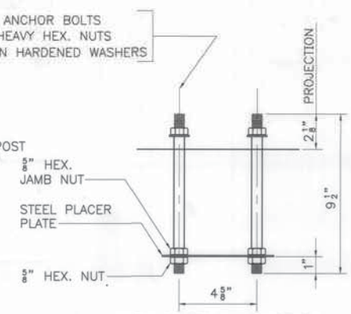
PREFORMED PAD

3"=1'-0"



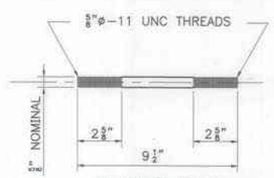
STEEL SPACER PLATE (FOR ANCHORAGE)

3"=1'-0"



RAIL POST ANCHORAGE (ASSEMBLY)

3"=1'-0"



ANCHOR BOLT

3"=1'-0"

NOTE

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 PITCH DIAMETER OF THE THREADS.

No.	Revision	By	Date

	By	Date
Designed	SHR	4/94
Drawn	KSP	4/94
Checked	SHR	4/94
In Charge Of:	RAL	

Maine Turnpike Authority

Maine Turnpike

STANDARD DETAILS

ALUMINUM BRIDGE RAILING DETAILS

HNTB

HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

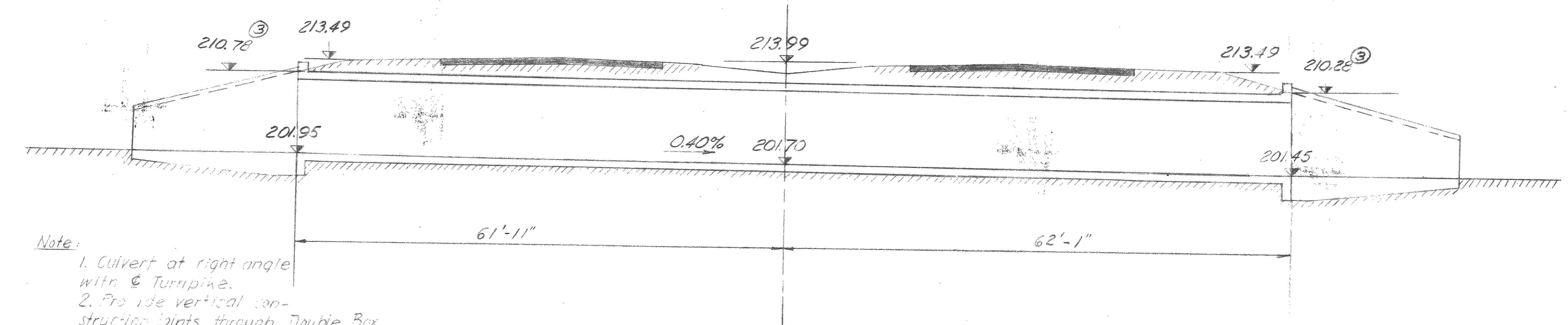
Contract 94.6

Sheet No. S–14 33 of 35

M:\B09009\FX\DWGS\SHT01 04/20/94 16:13

REINFORCING I WING (CONT'D)

Type	Size	Spacing	Length	Length "A"	Number	Type	Size	Spacing	Length	Length "A"	Number	Type	Size	Spacing	Length	Length "A"	Number
H21	5/8"φ	6"	4'-9 1/8"	3'-6 5/8"	1	H44	7/8"φ	6	6'-4 7/8"	4'-7 3/8"	1	H67	1/2"φ	12"	5'-11 1/2"	—	1
H22	"	"	4'-11 1/4"	3'-6 3/8"	1	H45	"	"	6'-5 1/2"	4'-8 1/2"	1	H68	"	"	[illegible]	—	1
H23	"	"	4'-9 3/8"	3'-7 3/8"	1	H46	"	"	6'-6 3/8"	4'-9 3/8"	1	H69	"	"	4'-1"	—	1
H24	"	"	4'-11"	3'-8"	1	H47	"	"	6'-6 3/4"	4'-9 3/4"	1	H70	"	"	4'-2 1/4"	—	1
H25	"	"	[illegible]	3'-9 5/8"	1	H48	"	4 1/2"	6'-7 1/4"	4'-10 1/4"	1	H71	"	"	4'-5 1/2"	—	1
H26	"	"	5'-0 1/2"	3'-9 1/4"	1	H49	"	"	6'-7 3/4"	4'-10 3/4"	1	H72	"	"	4'-4 3/4"	—	1
H27	"	"	5'-0 7/8"	3'-9 7/8"	1	H50	"	"	[illegible]	4'-11 1/4"	1	H73	"	"	4'-6"	—	1
H28	"	"	5'-1 1/2"	3'-10 1/2"	1	H51	"	"	[illegible]	4'-11 3/4"	1	H74	"	"	4'-7 1/4"	—	1
H29	"	"	5'-2 3/8"	3'-11 3/8"	1	H52	"	"	[illegible]	5'-0 1/4"	1	H75	"	"	4'-8 1/2"	—	1
H30	"	"	5'-2 3/4"	3'-11 3/4"	1	H53	"	"	[illegible]	5'-0 3/4"	1	H76	"	"	4'-9 3/4"	—	1
H31	"	"	[illegible]	4'-0 3/8"	1	H54	"	"	6'-10 1/4"	5'-1 1/4"	1	H77	"	"	4'-11"	—	1
H32	"	"	5'-4"	4'-1"	1	H55	"	"	[illegible]	5'-1 3/4"	1	H78	"	"	5'-0 1/4"	—	1
H33	3/4"φ	"	5'-5"	4'-1"	1	H56	"	"	6'-11 1/4"	5'-2 1/4"	1	H79	"	"	5'-1 1/2"	—	1
H34	"	"	5'-7 3/8"	4'-1 5/8"	1	H57	1/2"φ	12"	2'-10"	—	1	H80	"	"	5'-2 3/4"	—	1
H35	"	"	[illegible]	4'-2 1/4"	1	H58	"	"	2'-11 1/4"	—	1	H81	"	"	5'-4"	—	1
H36	"	"	[illegible]	4'-2 7/8"	1	H59	"	"	3'-0 1/2"	—	1	H82	"	"	5'-5 1/4"	—	1
H37	"	"	5'-9 1/2"	4'-3 1/2"	1	H60	"	"	3'-1 3/4"	—	1						
H38	"	"	[illegible]	4'-4 1/8"	1	H61	"	"	3'-3"	—	1						
H39	7/8"φ	"	[illegible]	4'-4 3/4"	1	H62	"	"	3'-4 1/4"	—	1						
H40	"	"	6'-2 3/8"	4'-5 3/8"	1	H63	"	"	3'-5 1/2"	—	1						
H41	"	"	6'-3"	4'-6"	1	H64	"	"	3'-6 3/4"	—	1						
H42	"	"	[illegible]	4'-6 5/8"	1	H65	"	"	3'-8"	—	1						
H43	"	"	[illegible]	4'-7 1/4"	1	H66	"	"	3'-9 1/4"	—	1						

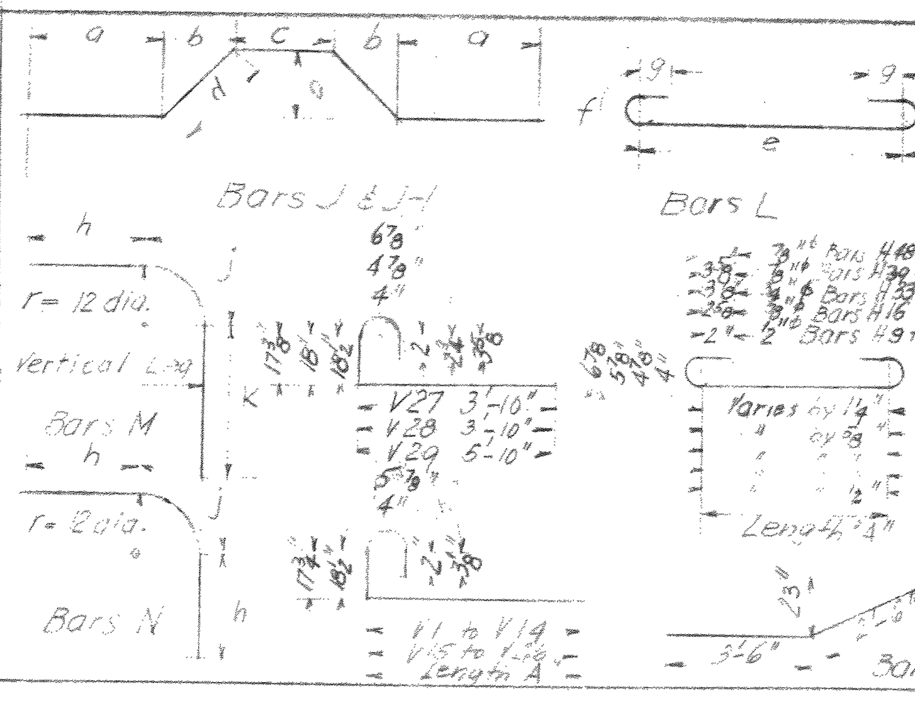


Note:
1. Culvert at right angle with ℄ Turnpike.
2. Provide vertical construction joints through Double Box not farther than 25' apart.

LONGITUDINAL SECTION

Scale: None

Note:
1. The face of reinforcing bars shall be 2" from the face of the concrete.
2. All bends to be with a 2 1/2 dia. radius unless otherwise shown.
3. Bars T & T1 shall lap 40 dia. ... At construction joints ... shall ... expansion joint.

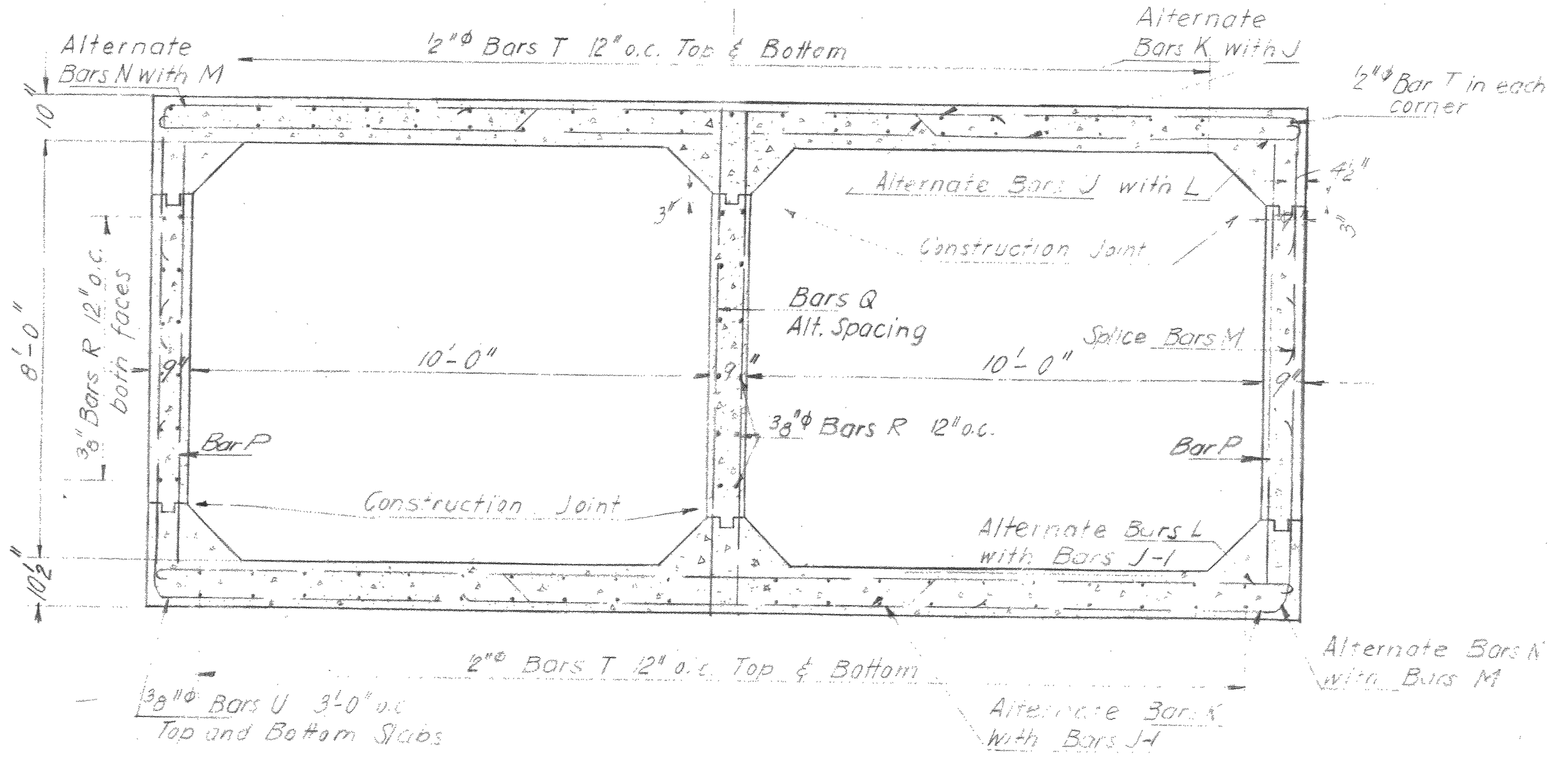


REINFORCING DOUBLE BOX & HEADWALLS

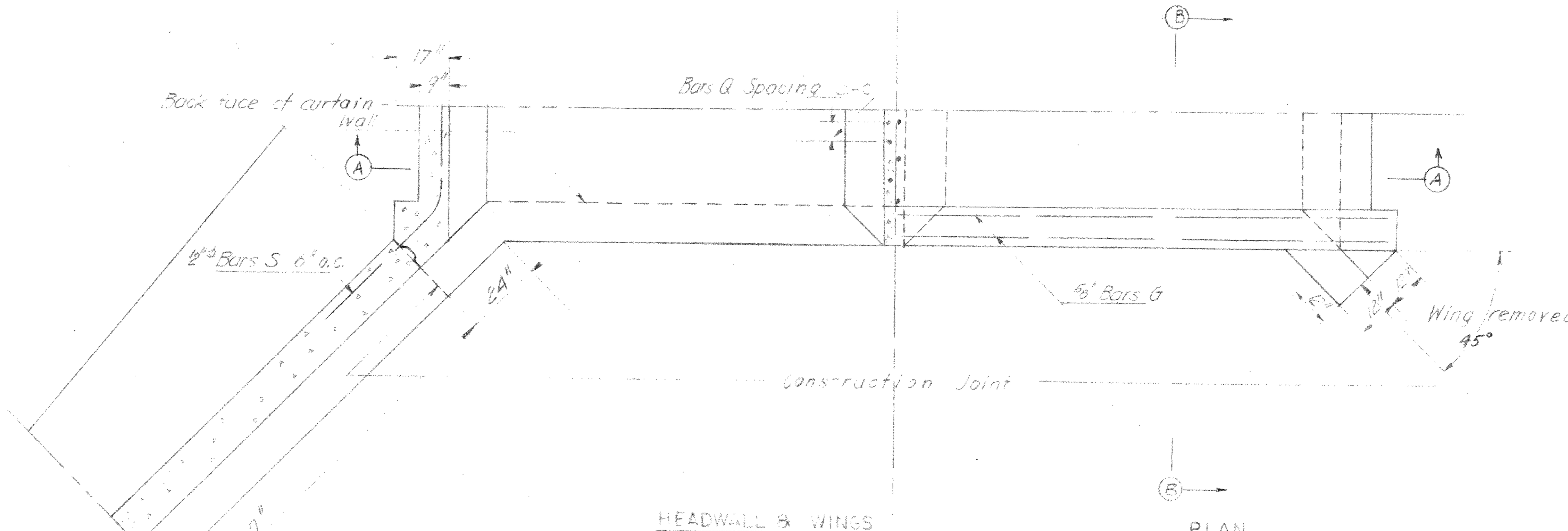
Type	Size	Spacing	Length	a	b	c	d	e	f	g	h	j	K
J	1/2"φ	6"	21'-11"	[illegible]	6"	5'-1 1/4"	8 1/2"						
J-1	1/2"φ	6"	21'-11"	7'-8"	6 1/2"	5'-0 3/4"	9 1/4"						
K	1/2"φ	6"	6'-9"				Straight						
L	5/8"φ	6"	22'-5"					21'-2"	4 3/8"	2 5/8"			
M	3/8"φ	6"	[illegible]										4'-11"
N	3/8"φ	6"	[illegible]								23"	7"	
P	1"φ	15"	8'-0"				Straight						
Q	3/8"φ	6"	9'-0"				Straight						
R	3/8"φ	12"	-				36 Bars straight						
S	1/2"φ	6"	[illegible]				[illegible] Bars						
T	1/2"φ	12"	-				88 Bars straight						
U	3/8"φ	3'-0"	20'-0"				Straight						
G	5/8"φ	-	[illegible]				9 Bars straight						

I WING

Type	Size	Spacing	Length	Length "A"	Number	Type	Size	Spacing	Length	Length "A"	Number
V1	1/2"φ	12"	7'-4 3/4"	5'-4 3/4"	1	V36	1/2"φ	15"	6'-11 5/8"	—	1
V2	"	"	7'-7 1/2"	5'-7"	1	V37	"	"	7'-2 3/8"	—	1
V3	"	"	7'-9 1/2"	5'-9"	1	V38	"	"	7'-5 1/8"	—	1
V4	"	"	7'-11 3/4"	5'-11 1/4"	1	V39	"	"	7'-7 7/8"	—	1
V5	"	"	8'-2"	6'-1 1/2"	1	V40	"	"	7'-8 1/4"	—	1
V6	"	"	8'-4 1/8"	6'-3 5/8"	1	V41	"	"	7'-11 1/2"	—	1
V7	"	"	8'-6 1/4"	6'-5 3/4"	1	V42	"	"	8'-2 5/8"	—	1
V8	"	"	8'-8 1/2"	6'-8"	1	V43	"	"	8'-5 7/8"	—	1
V9	"	"	8'-10 5/8"	6'-10 1/8"	1	V44	"	"	8'-9"	—	1
V10	"	"	9'-0 3/4"	7'-0 1/4"	1	V45	"	"	9'-0 1/4"	—	1
V11	"	"	9'-3"	7'-2 1/2"	1	V46	"	"	9'-2 3/8"	—	1
V12	"	"	9'-5 1/8"	7'-4 5/8"	1	V47	"	"	9'-6 5/8"	—	1
V13	"	"	9'-7 3/8"	7'-6 7/8"	1	V48	"	"	9'-9 3/4"	—	1
V14	"	"	9'-10"	7'-9 1/2"	1	V49	"	"	10'-1"	—	1
V15	3/4"φ	"	10'-2 3/4"	8'-0"	1	V50	"	"	10'-4 1/8"	—	1
V16	"	"	10'-5 3/8"	8'-2 5/8"	1	H1	"	"	6'-3 7/8"	—	2
V17	"	"	10'-7 7/8"	8'-5 1/8"	1	H2	"	"	13'-2 3/4"	—	2
V18	"	"	10'-10 3/8"	8'-7 5/8"	1	H3	"	"	20'-1 5/8"	—	2
V19	"	"	11'-1"	8'-10 1/4"	1	H4	"	"	25'-6"	—	2
V20	"	"	11'-3 1/2"	9'-0 3/4"	1	H5	"	"	25'-6"	—	2
V21	"	"	11'-6 1/8"	9'-3 3/8"	1	H6	"	"	25'-6"	—	2
V22	"	"	11'-8 5/8"	9'-5 7/8"	1	H7	"	"	25'-6"	—	2
V23	"	"	11'-11 1/8"	9'-8 3/8"	1	H8	"	—	25'-6"	—	11
V24	"	"	12'-1 3/4"	9'-11"	1	H9	"	12"	3'-7 1/2"	2'-7 1/2"	1
V25	"	"	12'-4 1/4"	10'-1 1/2"	1	H10	"	"	3'-8 3/4"	2'-8 3/4"	1
V26	"	"	12'-6 3/4"	10'-4"	1	H11	"	"	3'-10"	2'-10"	1
V27	1/2"φ	"	5'-10"	—	4	H12	"	"	3'-11 1/4"	2'-11 1/4"	1
V28	5/8"φ	"	5'-10"	—	8	H13	"	"	4'-0 1/2"	3'-0 1/2"	1
V29	7/8"φ	"	8'-1"	—	7	H14	"	"	4'-1 3/4"	3'-1 3/4"	1
V30	1/2"φ	15"	5'-7 3/8"	—	1	H15	"	"	4'-3"	3'-3"	1
V31	"	"	5'-10 1/8"	—	1	H16	5/8"φ	6"	4'-6"	3'-3"	1
V32	"	"	6'-0 1/8"	—	1	H17	"	6"	4'-6 5/8"	3'-3 5/8"	1
V33	"	"	6'-3 1/2"	—	1	H18	"	6"	4'-7 1/4"	3'-4 1/4"	1
V34	"	"	6'-6 1/4"	—	1	H19	"	6"	4'-7 7/8"	3'-4 7/8"	1
V35	"	"	6'-9"	—	1	H20	"	6"	4'-8 1/2"	3'-5 1/2"	1



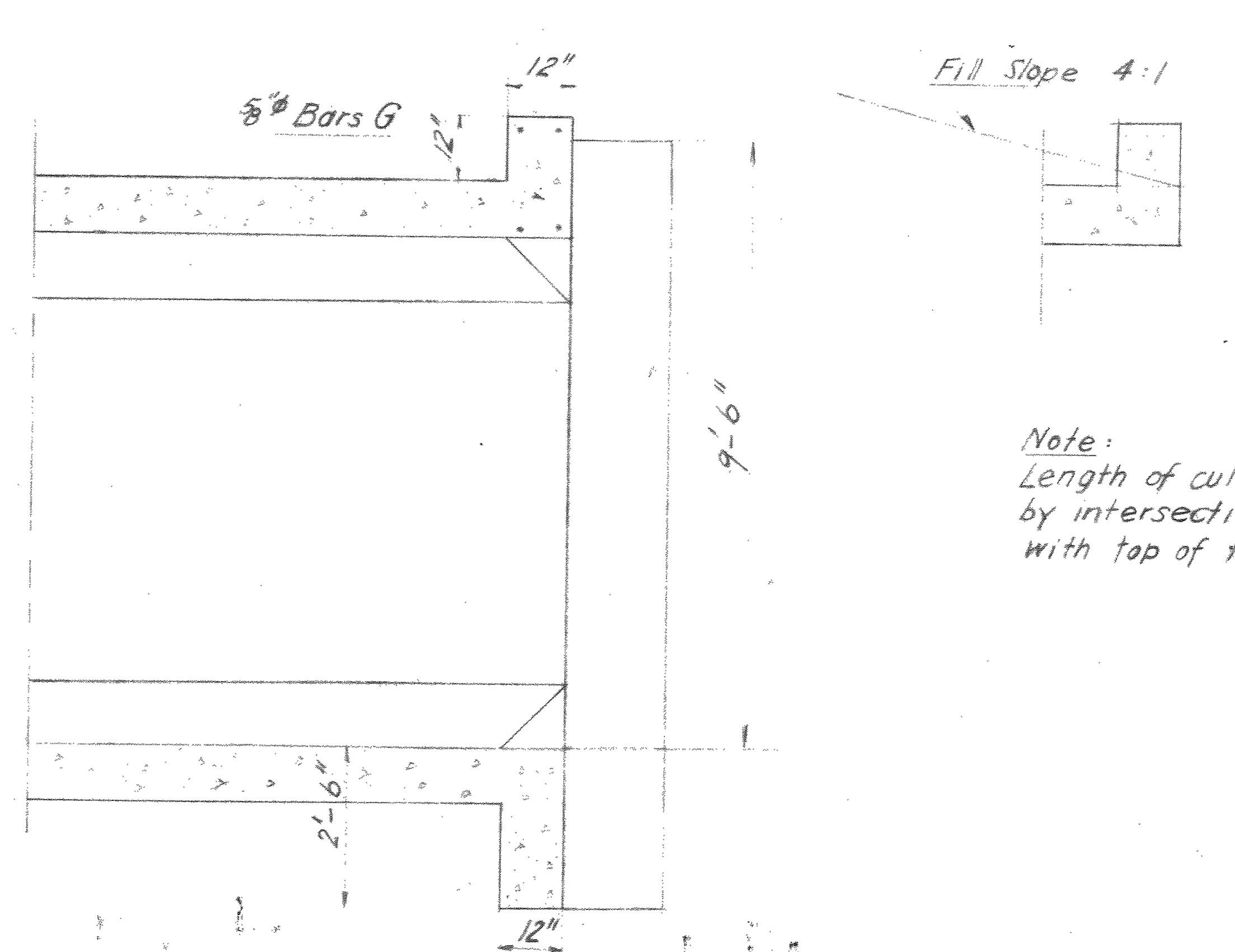
SECTION A-A



SECTION

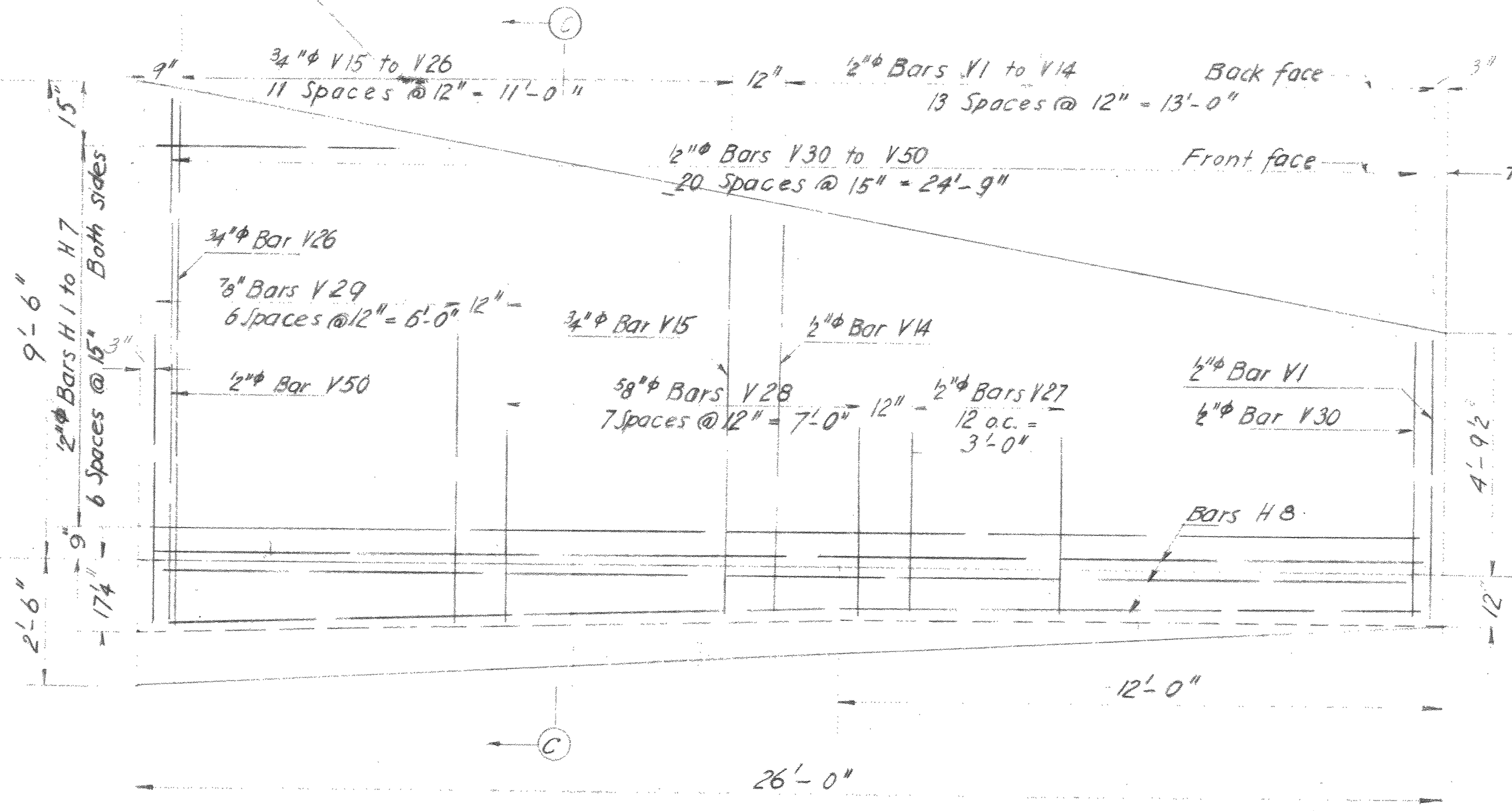
HEADWALL & WINGS

PLAN

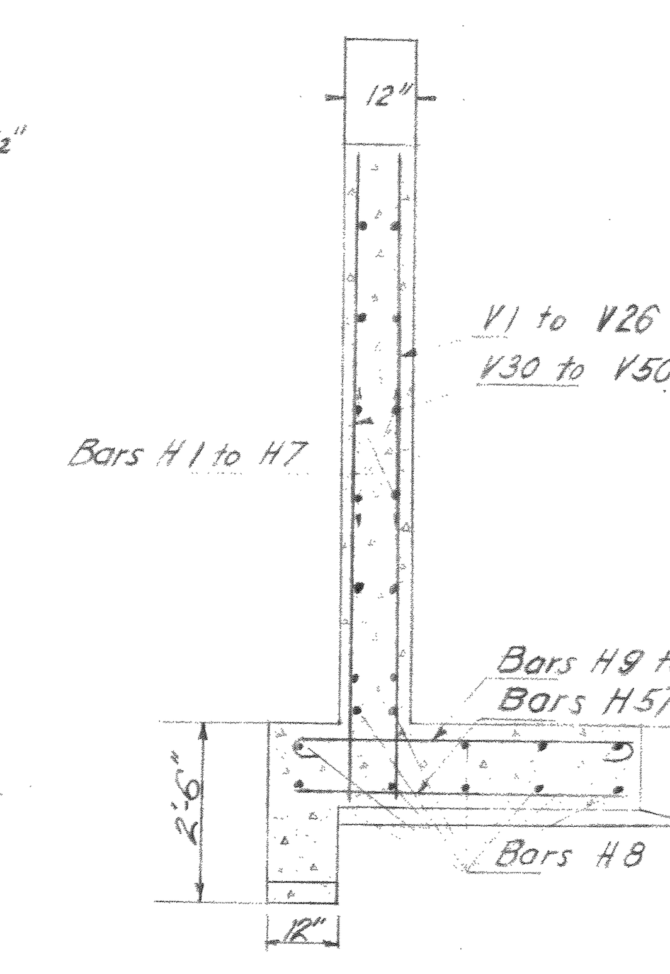


SECTION B-B

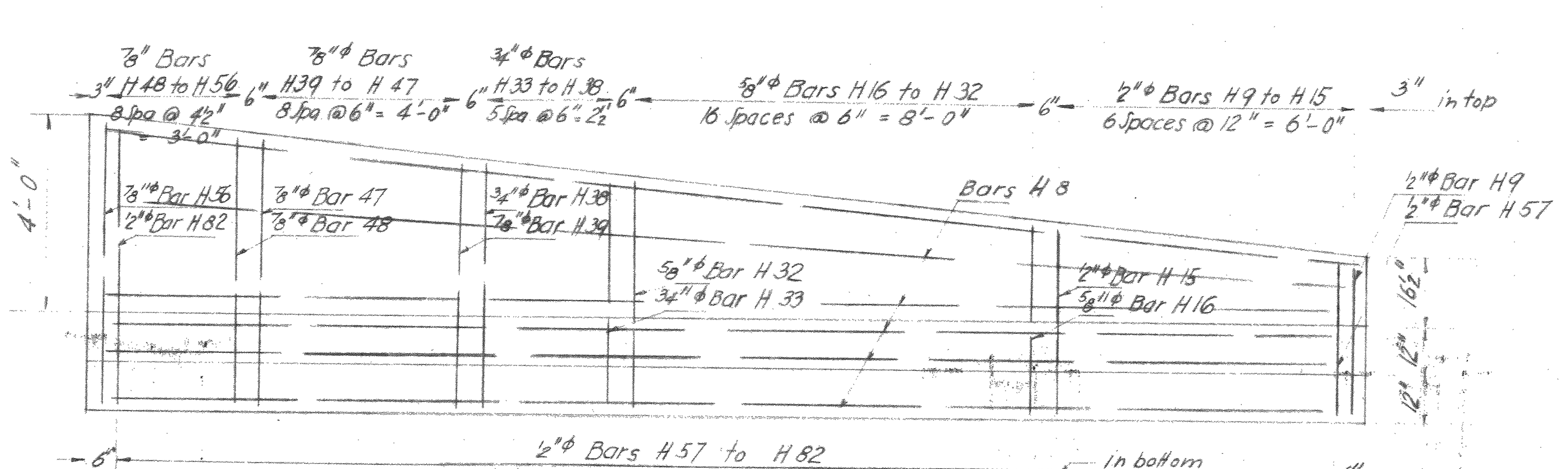
Note:
Length of culvert determined by intersection of fill slope with top of top slab.



WING ELEVATION



SECTION C-C



WING PLAN

QUANTITIES	Concrete cu. yds	Steel lbs
124'-0" Double Box	275.58	40,718
2 Head-Walls	6.42	452
4 Wings	50.87	5694

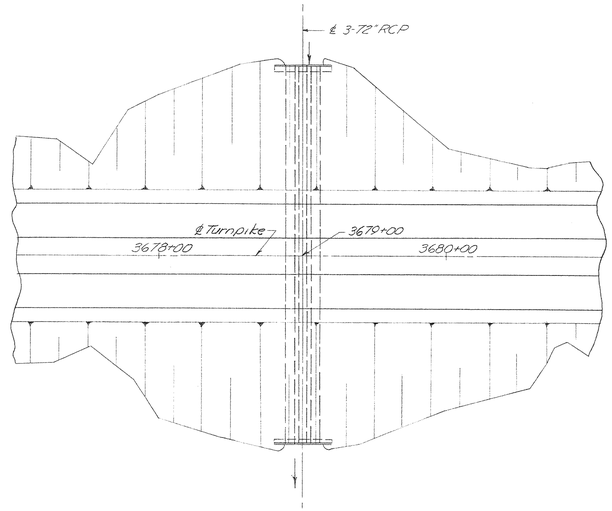
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2 - PORTLAND TO AUGUSTA

DOUBLE BOX CULVERT 10'x8'
STA 3283+05

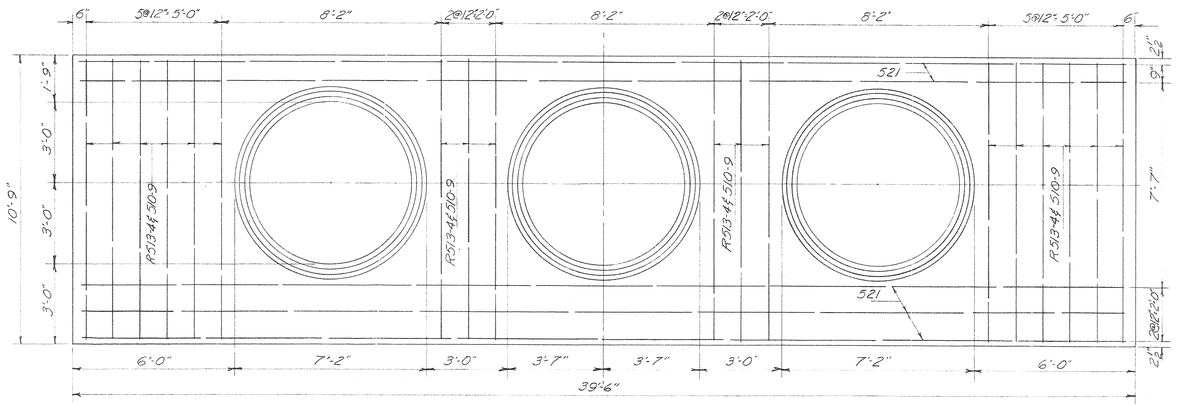
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1" = 10', 3/8" = 1'
CONTRACT NO. ____
SHEET NO. D-19 OF 37

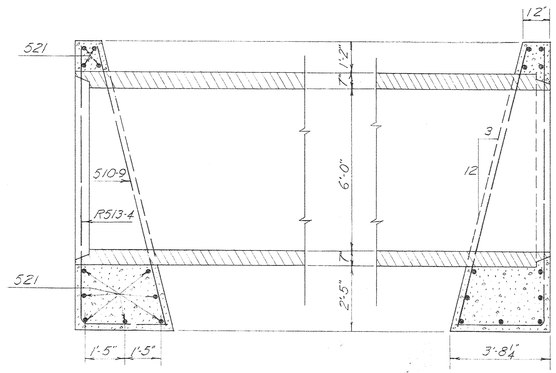
No.	Date	By	Revision	Approved
4	4-23-56	HBH	As Built	
3	10-30-53	RPC	Headwall Elevs.	
2	9-5-53	WH	Middle column to 9" w.	R.P.C.
1	9-3-53	R.B	Changed Grade, Etc.	R.P.C.



PLAN
Scale 1"=50'



END ELEVATION
Scale 3/8"=1'-0"



SECTION B-B
Scale 3/8"=1'-0"

REINFORCING SCHEDULE

Number & Size	Mark	Bending Dimensions A	B	C	P
36 5/8" ø	R513-4	9-8	1-0	2-8	0-7½
36 5/8" ø	510-9	——	——	——	——
44 5/8" ø	521	——	——	——	——

Type of bend - if omitted bar is straight
Size of bar in (5=5/8")
Length in feet
Length in inches - 0" if omitted
R 513-4

EXPLANATION OF BAR MARKS

	BY	DATE				
MADE	HBH	9-30-54				
TRACED						
CHECKED	CVA	10-4-54	1	As Built	HBH	4-26-56
IN CHARGE OF			No	REVISION	BY	DATE

QUANTITIES	
Concrete	Steel
54.12 C.Y.	1868#

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2 — PORTLAND TO AUGUSTA

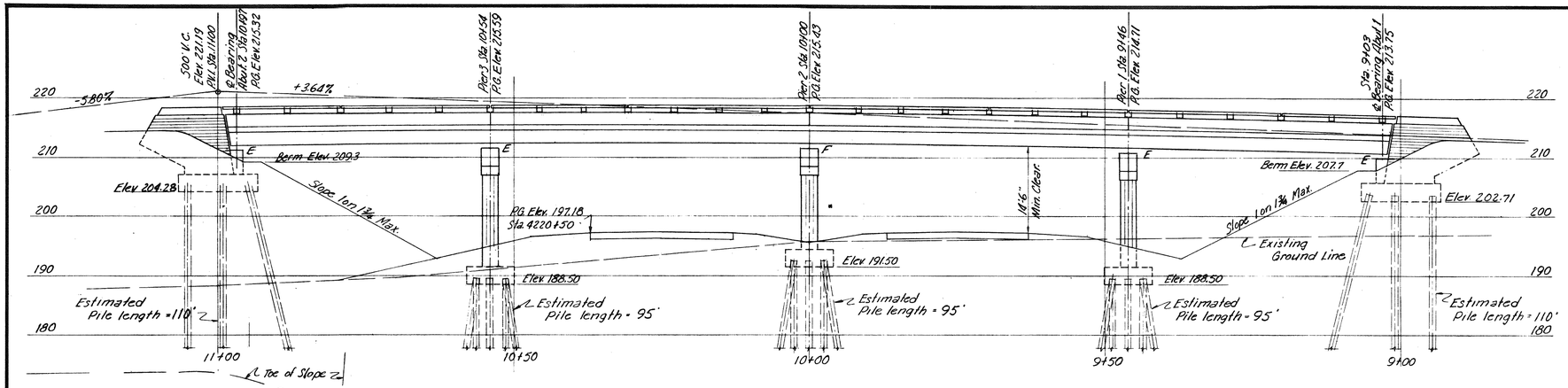
HEADWALL FOR 3-72" R.C.P.
STA 3679+00

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

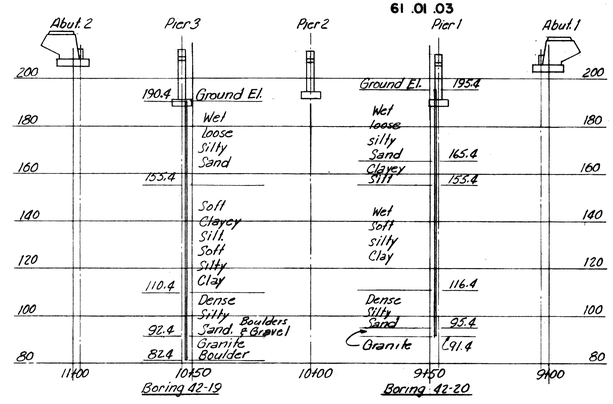
SCALE: As Shown
CONTRACT NO. _____
SHEET NO. D-2 OF 37

Foster Brook

61 .01 .03



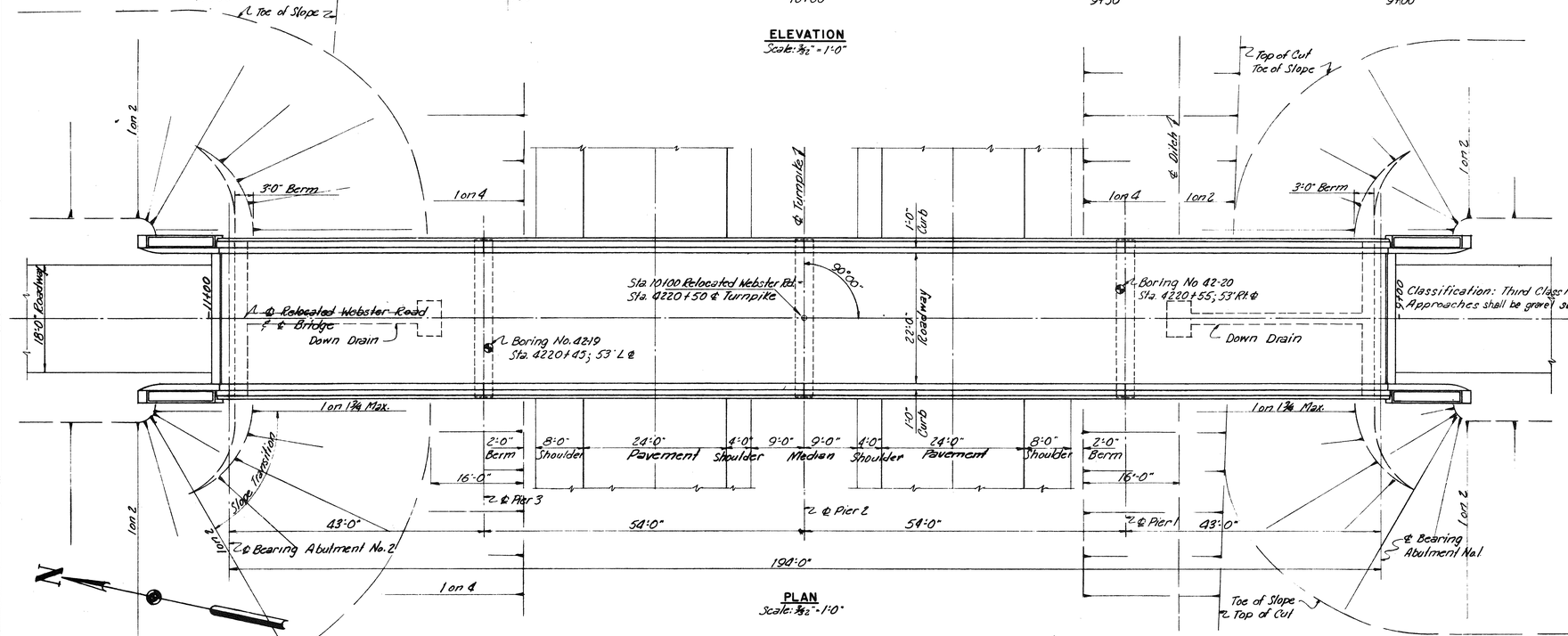
ELEVATION
Scale: 3/32" = 1'-0"



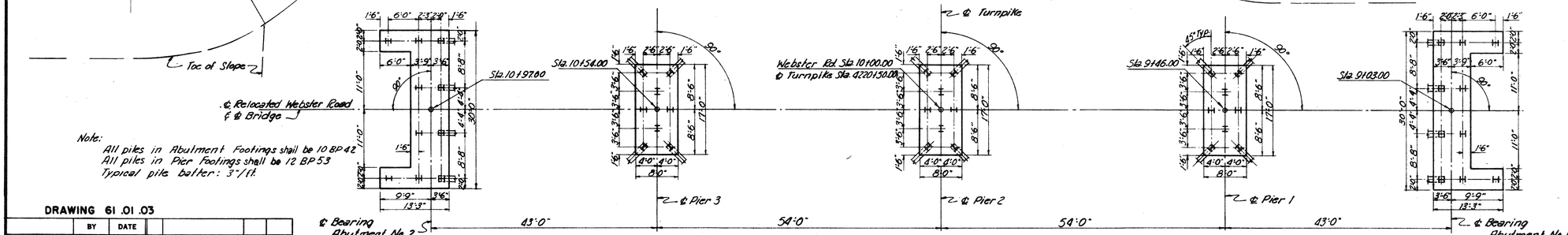
BORINGS
Scale: 1" = 30'

GENERAL NOTES

Design Specifications: AASHO (1953) with minor modifications.
Design Live Load: H15-44
Maximum Pile Load on Abutments = 35.6 Tons
Maximum Pile Load on Piers = 52.0 Tons



PLAN
Scale: 3/32" = 1'-0"

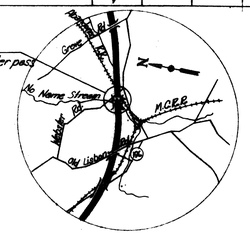


FOOTING PLAN
Scale: 3/32" = 1'-0"

Note:
All piles in Abutment Footings shall be 10 BP 42
All piles in Pier Footings shall be 12 BP 53
Typical pile batter: 3"/ft.

REFERENCES

Drawing Number	Title	Substructure Contractor	Superstructure: Steel Fabricator	Superstructure: Steel Erector	Superstructure: Floor Contractor
SD1-A	Standard Abutment Details	✓	✓	✓	✓
SD2	Standard Pier Details	✓	✓	✓	
SD3	Abutment Drainage Details	✓			
SD5	Standard Handrail, Bearing Devices And Miscellaneous Details	✓	✓	✓	✓
SD6	Standard Diaphragm Details		✓	✓	✓
SD7	Standard Type "A" Splices For 27 WF Beams		✓	✓	
SD11-A	Type "X" And "Y" Expansion Joints Expanding Length To 100 Feet	✓	✓	✓	✓
SD14	Standard Bridge Floor Cross Sections 20'-0" And 22'-0" Roadways	✓	✓	✓	✓
SD4	Standard Pile Details	✓			



DRAWING 61 .01 .03

	BY	DATE	No.	REVISION	BY	DATE
MADE	AER	1-12-54				
TRACED						
CHECKED	H.J.G.	1-18-54	1	As-Built	HBH	8-7-56
IN CHARGE OF	IDSK					

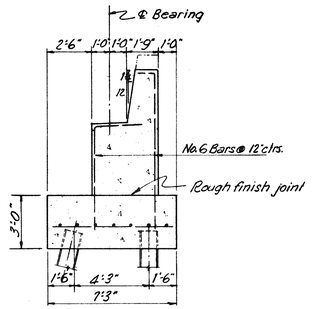
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2— PORTLAND TO AUGUSTA
STRUCTURE NO 61 TURNPIKE UNDER
WEBSTER ROAD
STA. 4220 + 50
GENERAL PLAN AND ELEVATION

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

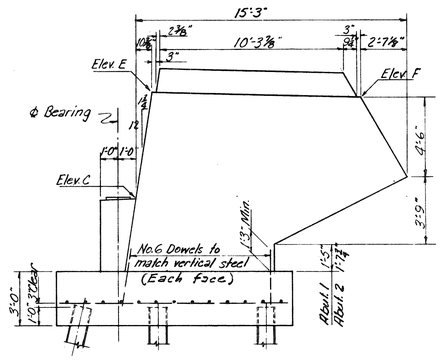
SCALE: As Shown
CONTRACT NO. _____
SHEET NO. 284 OF 382

PLAN

FRONT ELEVATION



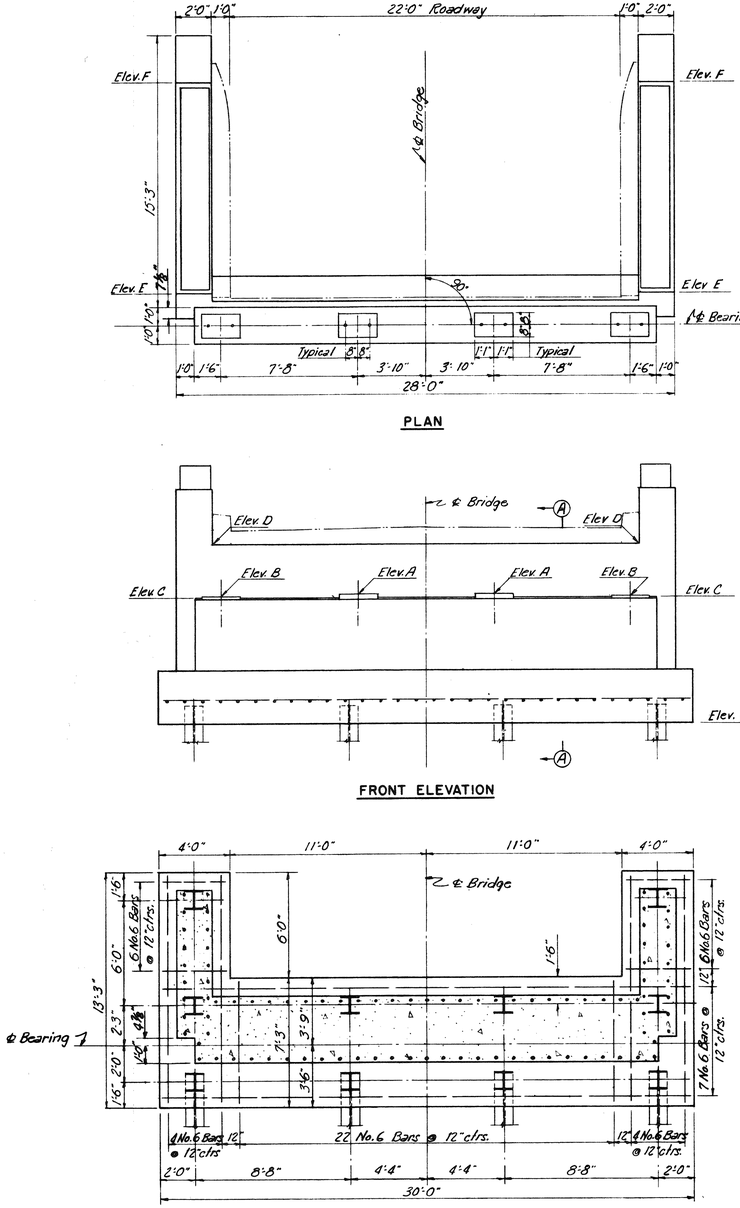
SECTION A-A



END ELEVATION

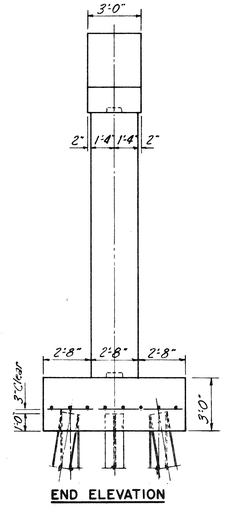
ABUTMENT ELEVATIONS		
Point	Abut. 1	Abut. 2
A	209.98	211.55
B	209.87	211.44
C	209.79	211.36
D	212.78	214.38
E	215.70	217.30
F	215.37	217.18
G	202.71	204.28

Note: All piles in Abutments shall be 10 BP 42 Typical Batter - 3" per ft.



FOOTING PLAN

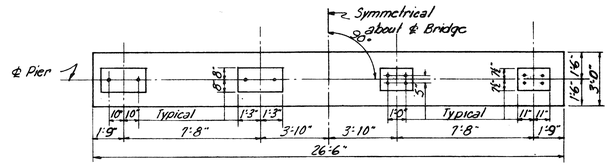
ABUTMENTS



END ELEVATION

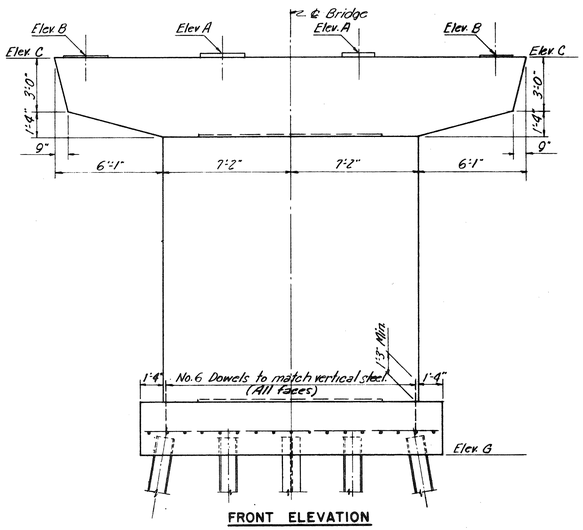
PIER ELEVATIONS			
Point	Pier 1	Pier 2	Pier 3
A	210.91	211.62	211.79
B	210.80	211.52	211.68
C	210.78	211.50	211.66
G	188.50	191.50	188.50

Note: All piles in Pier footings shall be 12 BP 53. Typical Batter - 3" per ft.

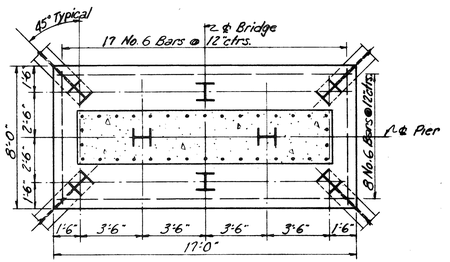


HALF CAP PLAN
PIER 1 & 3

HALF CAP PLAN
PIER 2



FRONT ELEVATION



FOOTING PLAN

PIERS

DRAWING 61.02.03

	BY	DATE				
MADE	AEP	1-14-54				
TRACED						
CHECKED	HJG.	1-18-54	1	As-Built	HBH	2-7-54
IN CHARGE OF	IDSK		NO.	REVISION	BY	DATE

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2— PORTLAND TO AUGUSTA

STRUCTURE NO 61 TURNPIKE UNDER

WEBSTER ROAD

STA. 4220 + 50.00

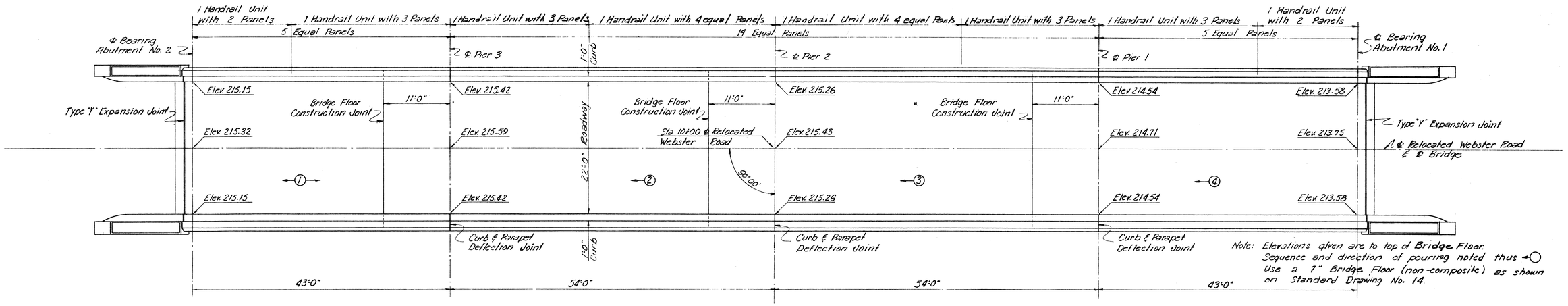
ABUTMENTS AND PIERS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1/4" = 1'-0"

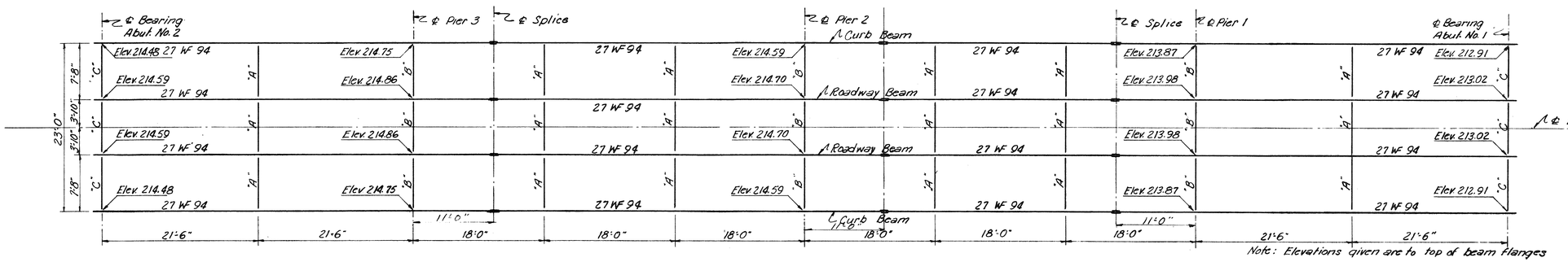
CONTRACT NO. _____

SHEET NO. 285 OF 382



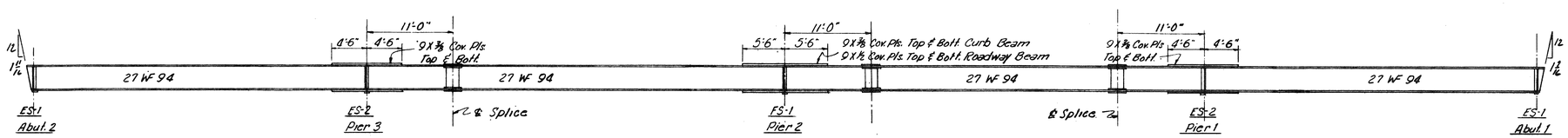
Note: Elevations given are to top of Bridge Floor. Sequence and direction of pouring noted thus →○ Use a 7" Bridge Floor (non-composite) as shown on Standard Drawing No. 14.

FLOOR PLAN



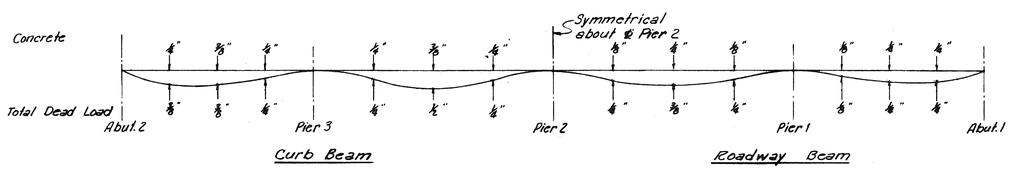
Note: Elevations given are to top of beam flanges

FRAMING PLAN



Note: All Bearing Stiffeners shall be 2 ℔ 7 X 4 X ⅜ End slopes of beams are true with respect to the axis of the beams.

TYPICAL BEAM ELEVATION



DEAD LOAD DEFLECTION DIAGRAM

Deflections shown at ¼ points of Span
No scale

DRAWING 61.03.03

	BY	DATE	No.	REVISION	BY	DATE
MADE	AER	1-13-53				
TRACED						
CHECKED	H.J.G.	1-18-54	1	As-Built	HBH	2756
IN CHARGE OF	I.D.S.K.					

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2— PORTLAND TO AUGUSTA
STRUCTURE NO. 61 TURNPIKE UNDER
WEBSTER ROAD
STA. 4220+50
SUPERSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1/8" = 1'-0"
CONTRACT NO.
SHEET NO. 28 OF 382

SPECIFICATIONS

DESIGN

"AAHSTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 1989" WITH ALL THE INTERIMS.

CONTRACT

STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAY AND BRIDGES, REVISION OF OCTOBER 1990

LIVE LOAD

H20 LOAD FACTOR

MATERIALS

CONCRETE

ALL CONCRETE SHALL BE CLASS AAA

n = 8 fc = 1,800 P.S.I. f'c = 4,500 P.S.I.

REINFORCING STEEL

ASTM A615 GRADE 60 f'b = 24,000 P.S.I.

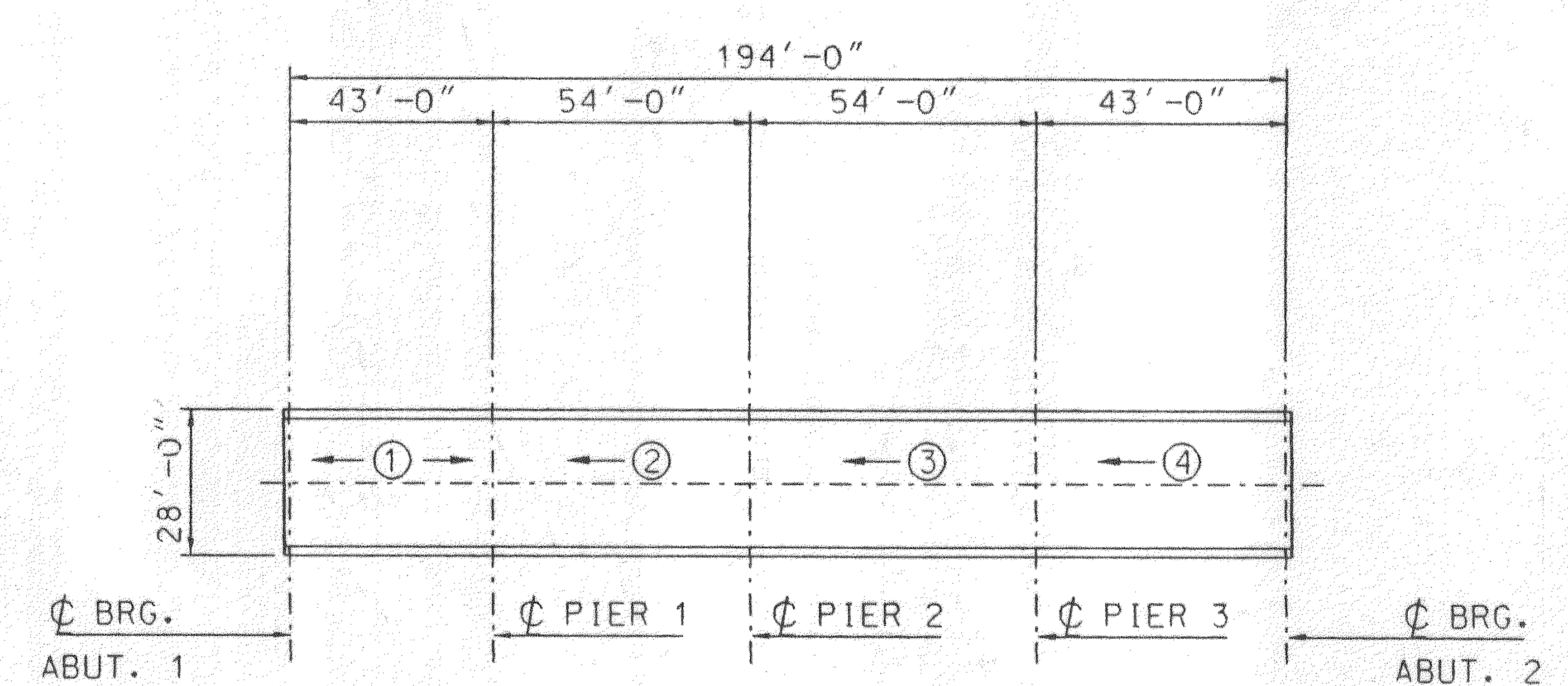
STRUCTURAL STEEL

ASTM A709 GRADE 36 f'b = 20,000 P.S.I.

GENERAL NOTES

1. REINFORCING STEEL TO HAVE A CLEAR COVER AS SHOWN ON THE PLANS.
2. CHAMFER ALL EXPOSED EDGES 1" UNLESS OTHERWISE NOTED.
3. PLANS OF EXISTING BRIDGES ARE AVAILABLE AT THE AUTHORITY'S OFFICE AT 430 RIVERSIDE ST. PORTLAND, MAINE
4. SHIELDING REQUIRED DURING CONCRETE REMOVAL SHALL NOT PROJECT BELOW THE BOTTOM FLANGES OF STRINGERS. THE ESTIMATED QUANTITY OF SHIELDING IS THE MINIMUM REQUIRED AND IS BASED ON THE THE FOLLOWING LIMITS:
   A. NORMAL TO ℄ BRIDGE: AS SHOWN ON THE PLANS
   B. PARALLEL TO ℄ BRIDGE: ABUTMENT TO ABUTMENT
5. THE CONTRACTOR HAS THE OPTION OF SUBSTITUTING CLASS A CONCRETE FOR ITEM 502.21
6. FOR STEEL REINFORCING SCHEDULE, SEE SHEET S8 AND S9.
7. ALL STEEL REINFORCING SHALL BE EPOXY COATED.
8. DO NOT COVER DECK DRAINS WITH MEMBRANE. DEPRESS DRAINS ½" BELOW TOP OF SLAB. PROVIDE 23 GAUGE GALVANIZED SCREENS(1/8" MESH) OVER DRAINS. PAYMENT INCIDENTAL TO CONTRACT ITEM 502.263
9. THE AUTHORITY'S PERSONNEL WILL PROFILE THE TOPS OF ALL STRINGERS BEFORE THE FORM WORK IS STARTED AND SUPPLY THE CONTRACTOR WITH FINAL BOTTOM OF SLAB ELEVATIONS.
10. THE CONCRETE DECK SURFACE SHALL BE GIVEN A SMOOTH BULL OR WOOD FINISH .

ITEM	DESCRIPTION	UNIT	QUANTITIES WEBSTER RD.
202.12	Removing Existing Structural Concrete	C.Y.	20
202.122	Removing Existing Superstructure Concrete	S.Y.	582
202.20	Protective Shield	S.Y.	712
403.13	Dense Graded Bit. Pav't For Bridges	Ton	44'
502.21	Structural Concrete, Abutments, Retaining Walls	C.Y.	18
502:23	Structural Concrete, Piers	C.Y.	3
502.263	Structural Concrete Roadway and Sidewalk on Steel Bridge. (162 C.Y.)	L.S.	1
503.14	Epoxy Coated Reinf. Steel- Fabricated & Delivered	Lb.	50,000
503.15	Epoxy Coated Reinf. Steel- Placing	Lb.	50,000
		L.S.	1
504.72	Jacking Existing Superstructure	L.S.	1
505.083	Stud Welded Shear Connectors (1320 Each)	L.S.	1
507.092	Aluminum Bridge Railing, 2 Bar	L.F.	393
508.13	Membrane Waterproofing (531.70 S.Y.)	L.S.	1
			1
515.20	Protective Coating for Concrete Surfaces	S.Y.	335
515.201	Concrete Protective Coating	S.Y.	219
520.22	Expansion Device - Compression Seal	EA.	2
523.103	Pot Bearings	EA.	20
609.15	Sloped Curb Type 1	L.F.	16



WEBSTER ROAD

DECK PLACEMENT DETAILS

N.T.S.

No.	Revision	By	Date		By	Date
				Designed		
				Drawn		
	REISSUE	CFM	5/94	Checked		
				In Charge Of:		

Maine Turnpike Authority

Maine Turnpike

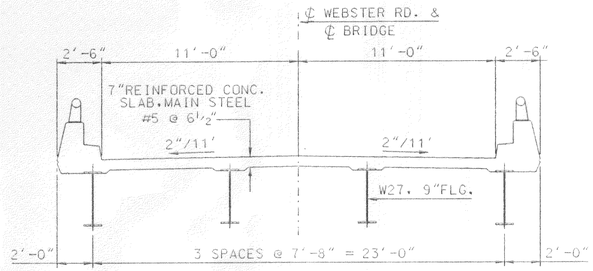
GENERAL NOTES, SPECIFICATIONS, QUANTITIES & DECK PLACEMENT DETAILS

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 94.7

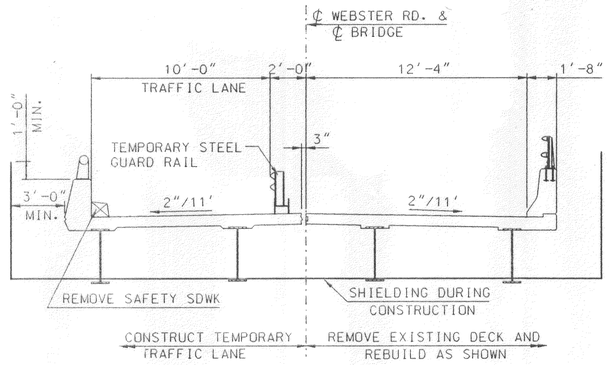
Sheet No. S1

58 of 76



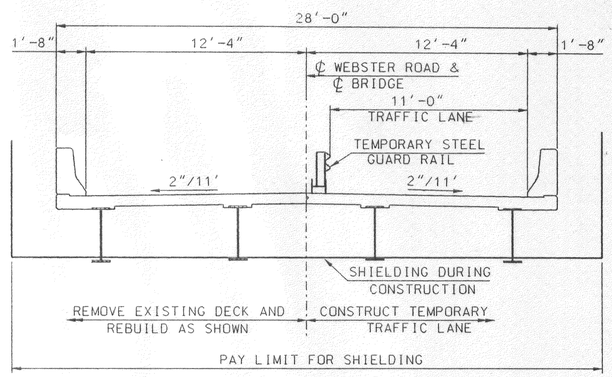
EXISTING DECK

¼" = 1'-0"

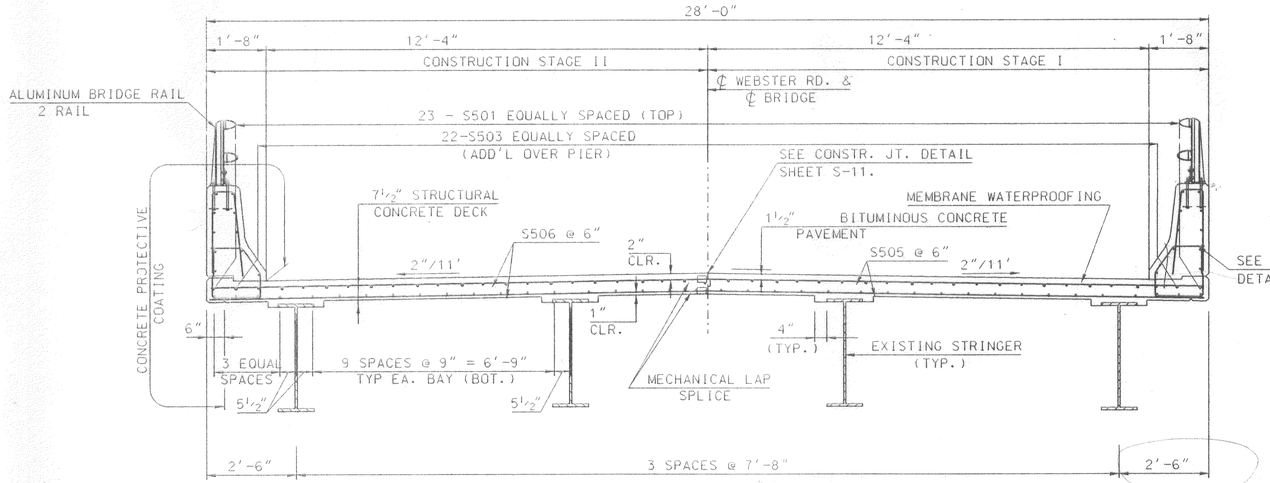


CONSTRUCTION - STAGE I

¼" = 1'-0"

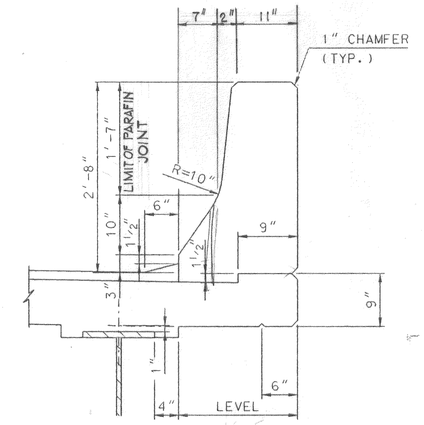


CONSTRUCTION - STAGE II



SECTION A-A

½" = 1'-0"



PARAPET DETAIL

1" = 1'-0"

NOTE:

1. MECHANICAL COUPLING DEVICE SHALL DEVELOP A MINIMUM OF 125 PERCENT OF YIELD STRENGTH OF REINFORCEMENT STEEL. THE COUPLING DEVICES SHALL BE PROTECTED FROM CORROSION BY EITHER GALVANIZING OR EPOXY COATING.

No.	Revision	By	Date
⚠	REISSUE	CFM	5/94

	By	Date
Designed		
Drawn	E.G.	4/94
Checked		
In Charge Of:		

Maine Turnpike Authority

Maine Turnpike

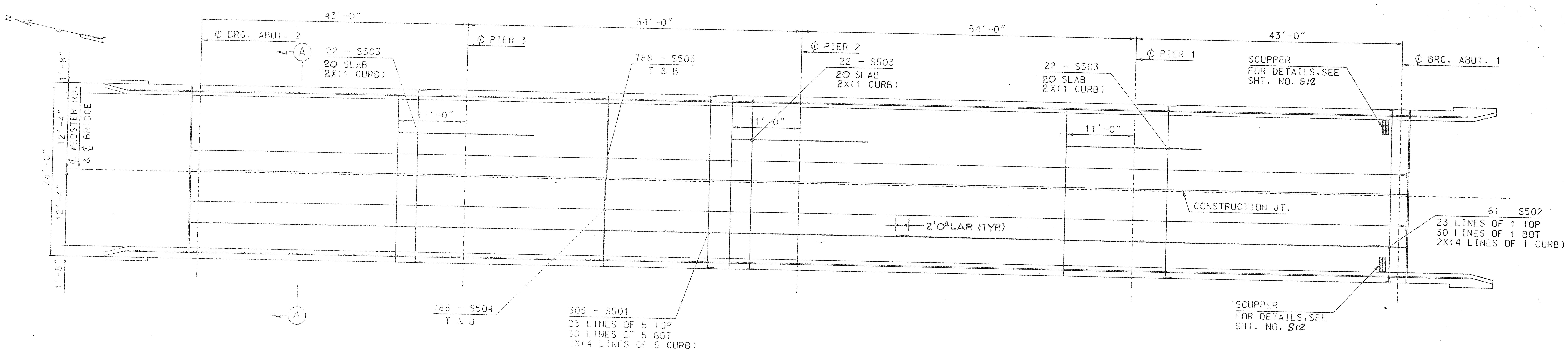
WEBSTER ROAD
OVER
MAINE TURNPIKE
CONSTR. STAGING

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 94.7

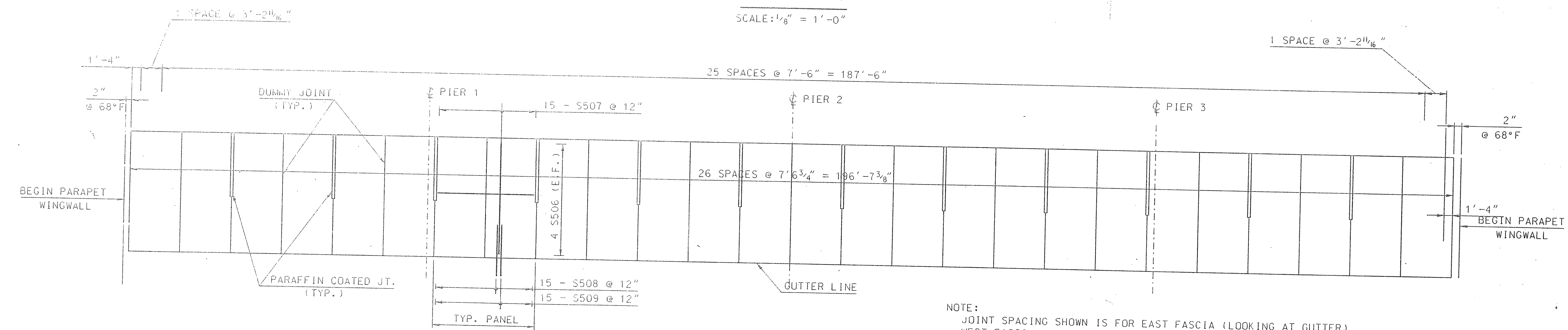
Sheet No. S-3
60 of 76

Design Filename: d:\ff090908\br61\deck2.dgn
Plotted on: 22-APR-1994 13:53 Generated by: E.G.



DECK PLAN

SCALE: 1/8" = 1'-0"



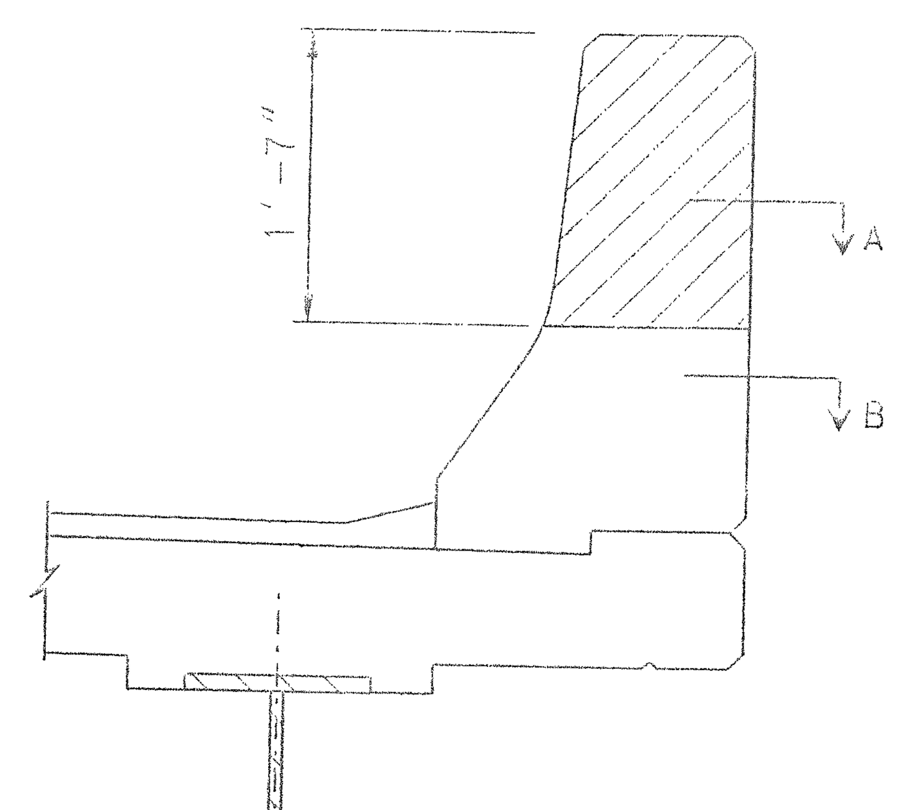
NOTE:
JOINT SPACING SHOWN IS FOR EAST FASCIA (LOOKING AT GUTTER)
WEST FASCIA SIMILAR (LOOKING AT FASCIA)

TYPICAL PARAFFIN JOINT SPACING

1/8" = 1'-0" (HORIZ.)
N.T.S. (VERT.)

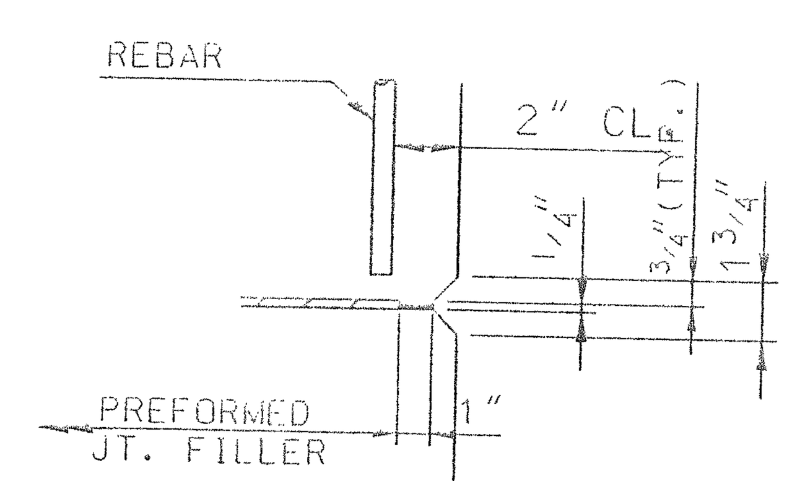
NOTES :

1. FOR GENERAL NOTES, SEE SH. NO. S1
2. FOR Grd Rail DETAILS, SEE SH. NO. S11
3. FOR BRIDGE RAILING DETAILS, SEE SHT NO. S13
4. FOR CONSTRUCTION JOINT DETAIL, SEE SHT. NO. S-11



PARAPET DETAIL

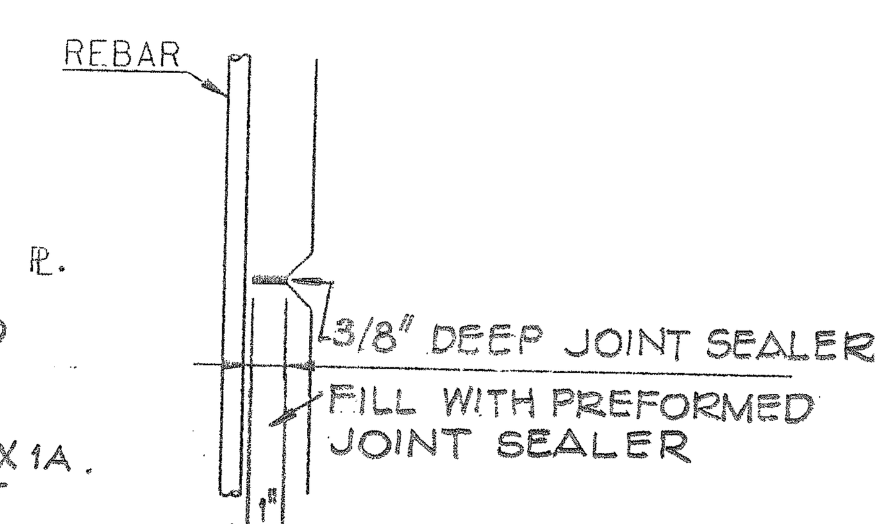
3/4" = 1'-0"



SECTION A-A

N.T.S.

NOTES:
1. CONC. PLACED SIMULTANEOUSLY ON BOTH SIDES OF JOINT.
2. PREFORMED JOINT FILLER MAY BE SUPPORTED WITH A THIN STEEL ℙ. REMOVE ℙ CAREFULLY WHILE THE CONCRETE IS PLASTIC. PREFORMED JOINT FILLER SHALL CONFORM TO ASTM DESIGNATION D1751.
3. JOINT SEALER SHALL BE SIKA FLEX 1A.
4. PREFORMED JOINT FILLER AND JOINT SEALER SHALL BE INCIDENTAL TO ITEM 502.263, STRUCTURAL CONCRETE AND PARAPET ON STEEL BRIDGES.



SECTION B-B

N.T.S.

NOTE:
SECTION B ALSO APPLIES TO DUMMY JOINT LOCATIONS.

Design Filename: d:\ff0905\br61\deck1.dgn Generated by: E.G.
Plotted on: 13-APR-1994 08:05

No.	Revision	By	Date		By	Date
				Designed		
				Drawn	E.G.	4/94
△	REISSUE	CFM	5/94	Checked		
				In Charge Of:		

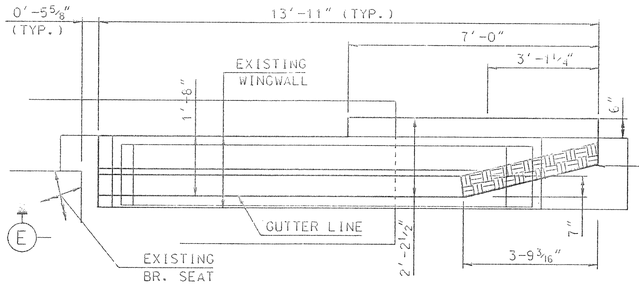
Maine Turnpike Authority
Maine Turnpike

WEBSTER ROAD
OVER
MAINE TURNPIKE
DECK REINFORCING

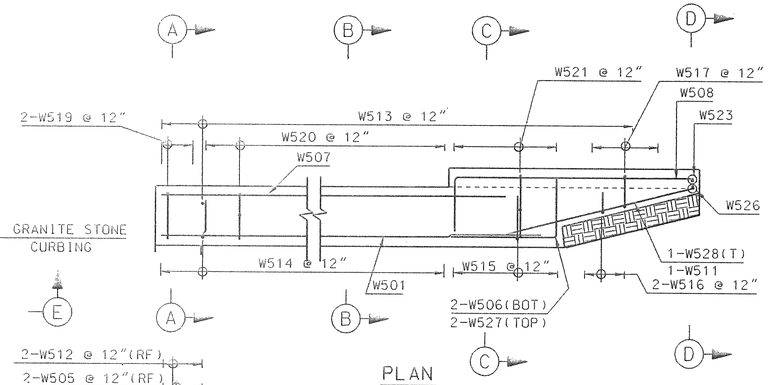
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 94.7

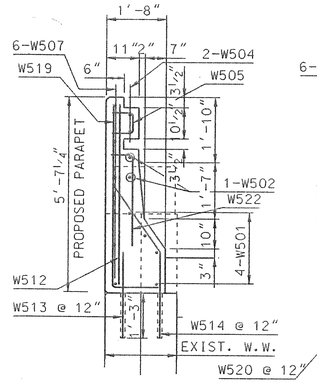
Sheet No. S2
59 of 76



PLAN

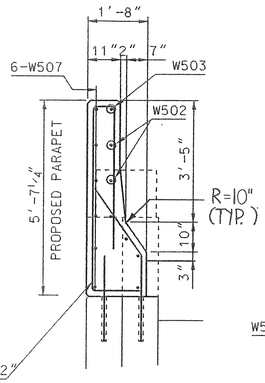


PLAN



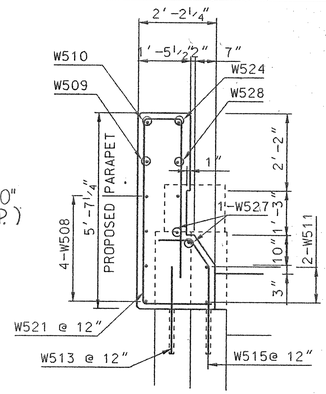
SECTION A - A

1/2" = 1'-0"



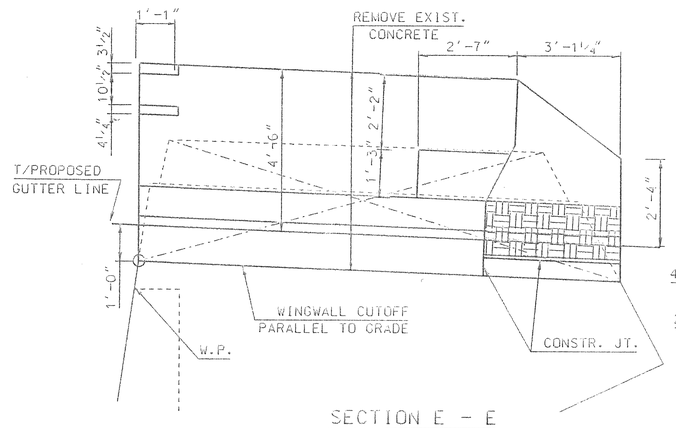
SECTION B - B

1/2" = 1'-0"



SECTION C - C

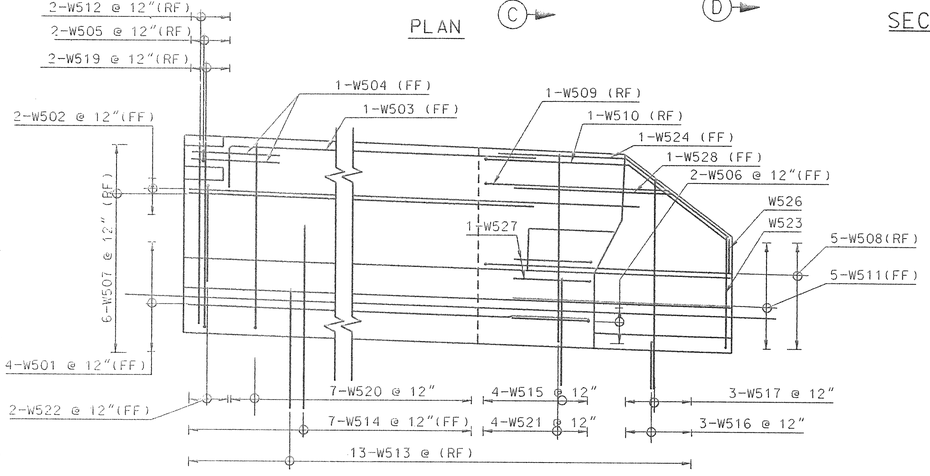
1/2" = 1'-0"



SECTION E - E

WINGWALL MODIFICATION

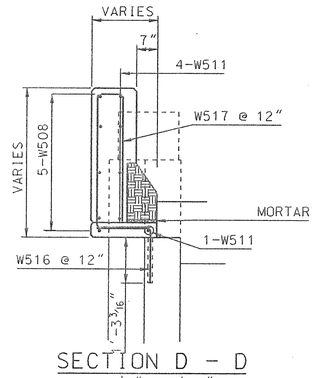
1/2" = 1'-0"



ELEVATION AT GUTTER

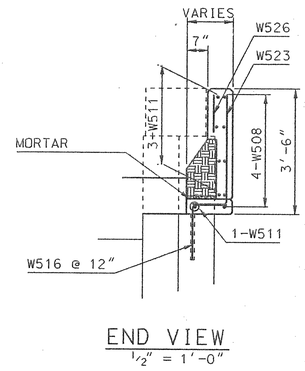
WINGWALL REINFORCING

1/2" = 1'-0"



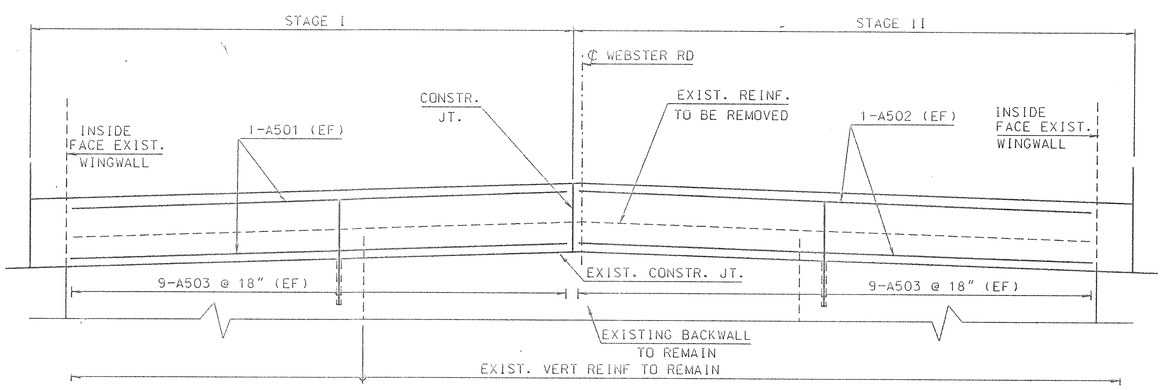
SECTION D - D

1/2" = 1'-0"



END VIEW

1/2" = 1'-0"

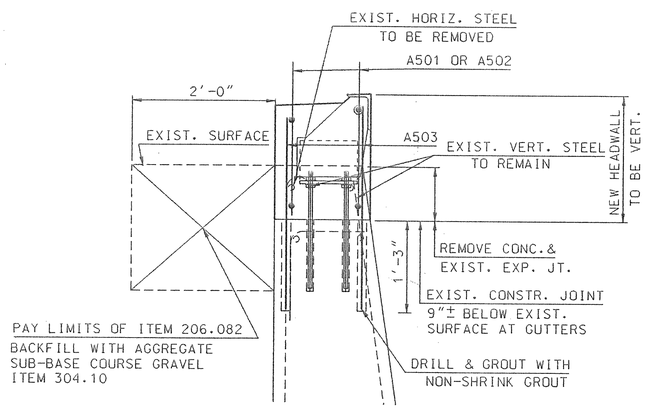


ELEVATION

3/8" = 1'-0"

BACKWALL MODIFICATIONS

AS SHOWN



SECTION

1" = 1'-0"

NOTE:

1. FOR REINFORCING SCHEDULE , SEE SHEET S-8 & S-9.
2. FOR GRANITE STONE CURB DETAIL, SEE SHEET S-11.
3. DRILLING AND GROUTING OF REBARS TO BE PAID FOR UNDER STRUCTURAL CONCRETE ABUTMENTS, ITEM 502.21.

No.	Revision	By	Date	In Charge Of:	By	Date
				Designed		
				Drawn	E.G.	4/94
⚠	REISSUE	CFM	5/94	Checked		

Maine Turnpike Authority

Maine Turnpike

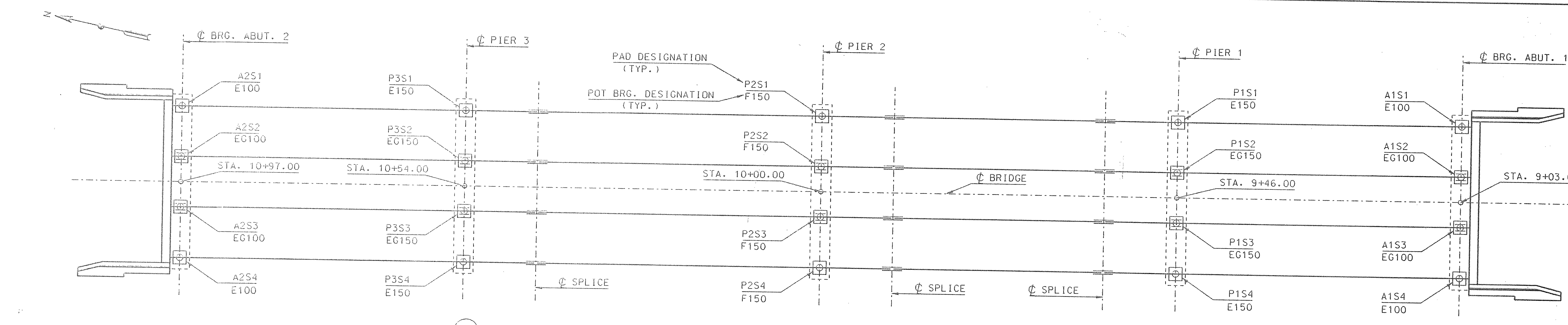
WEBSTER ROAD OVER MAINE TURNPIKE WINGWALL DETAILS

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 94.7

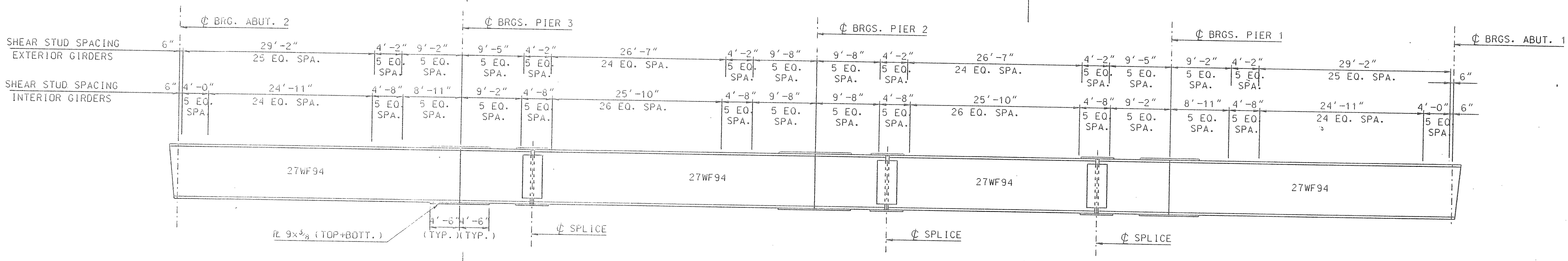
Sheet No. S-4 61 of 76

Design Filename: d:\ff09009\br61\deck3_d.dgn
Plotted on: 22-APR-1994 13:58
Generated by: E.G.



FRAMING PLAN

$^{1}/_{8}$" =1'-0"



TYPICAL BEAM ELEVATION

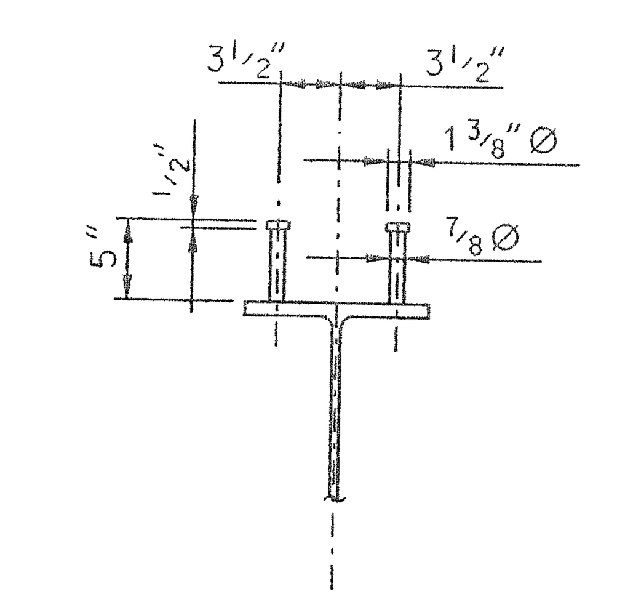
NO SCALE

PAD TABLE

LOCATION	Δ1(FT.)	MASONRY ℞	PAD SIZE	Δ2	Δ3
A1S1	1.0000	$17^{3}/_{4}$ x $17^{3}/_{4}$ x $1^{3}/_{4}$	21x24	0.305	1.305
A1S2	1.0000	$17^{3}/_{4}$ x $17^{3}/_{4}$ x $1^{3}/_{4}$	21x24	0.188	1.188
A1S3	1.0000	$17^{3}/_{4}$ x $17^{3}/_{4}$ x $1^{3}/_{4}$	21x24	0.188	1.188
A1S4	1.0000	$17^{3}/_{4}$ x $17^{3}/_{4}$ x $1^{3}/_{4}$	21x24	0.305	1.305
P1S1	1.0000	19x19x$1^{3}/_{4}$	24x24	0.305	1.305
P1S2	1.0000		24x24	0.157	1.157
P1S3	1.0000		24x24	0.157	1.157
P1S4	1.0000		24x24	0.305	1.305
P2S1	1.0000		24x24	0.262	1.262
P2S2	1.0000		24x24	0.262	1.262
P2S3	1.0000		24x24	0.262	1.262
P2S4	1.0000		24x24	0.230	1.262
P3S1	1.0000		24x24	0.305	1.305
P3S2	1.0000		24x24	0.157	1.157
P3S3	1.0000		24x24	0.157	1.157
P3S4	1.0000	19x19x$1^{3}/_{4}$	24x24	0.305	1.305
A2S1	1.0000	$17^{3}/_{4}$ x $17^{3}/_{4}$ x $1^{3}/_{4}$	21x21	0.305	1.305
A2S2	1.0000	$17^{3}/_{4}$ x $17^{3}/_{4}$ x $1^{3}/_{4}$	21x21	0.188	1.188
A2S3	1.0000	$17^{3}/_{4}$ x $17^{3}/_{4}$ x $1^{3}/_{4}$	21x21	0.188	1.188
A2S4	1.0000	$17^{3}/_{4}$ x $17^{3}/_{4}$ x $1^{3}/_{4}$	21x21	0.305	1.305

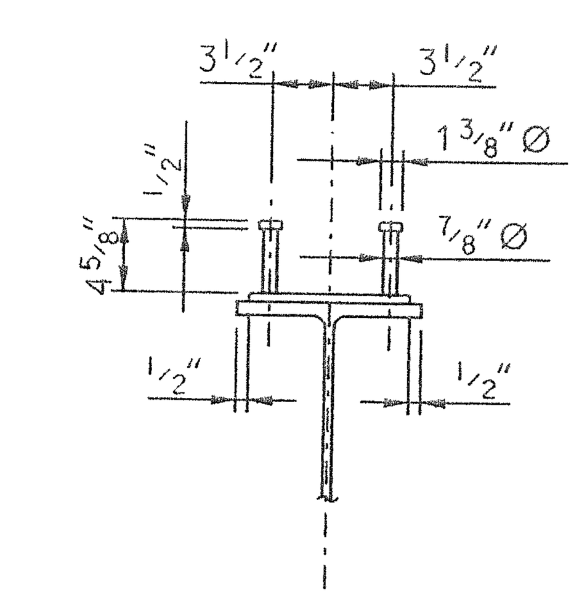
NOTES:

1. SEE POT BRG. DETAILS. SEE SHEET NO. S10
2. ALL PAD REINFORCEMENT IS TO BE EPOXY COATED.
3. IF THE POT BEARINGS APPROVED ARE DIFFERENT THAN THOSE DETAILED IN THE PLANS, THE PAD HEIGHT, SHALL BE ADJUSTED ACCORDINGLY



SECTION A-A

SCALE: 1" = 1'-0"



SECTION B-B

SCALE: 1" = 1'-0"

NOTES:

Δ1 = AMOUNT THE ROADWAY IS TO BE RAISED
Δ2 = THE DIFFERENCE BETWEEN EXISTING & PROPOSED BEARING
Δ3 = TOTAL Δ1+Δ2 (INCREASE IN BEARING PAD HEIGHT)

No.	Revision	By	Date
1	REISSUE	CFM	5/94

	By	Date
Designed	JAE	4/94
Drawn	EG	4/94
Checked	AEM	4/94
In Charge Of:		

Maine Turnpike Authority
Maine Turnpike

WEBSTER ROAD
OVER
MAINE TURNPIKE
FRAMING PLAN

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

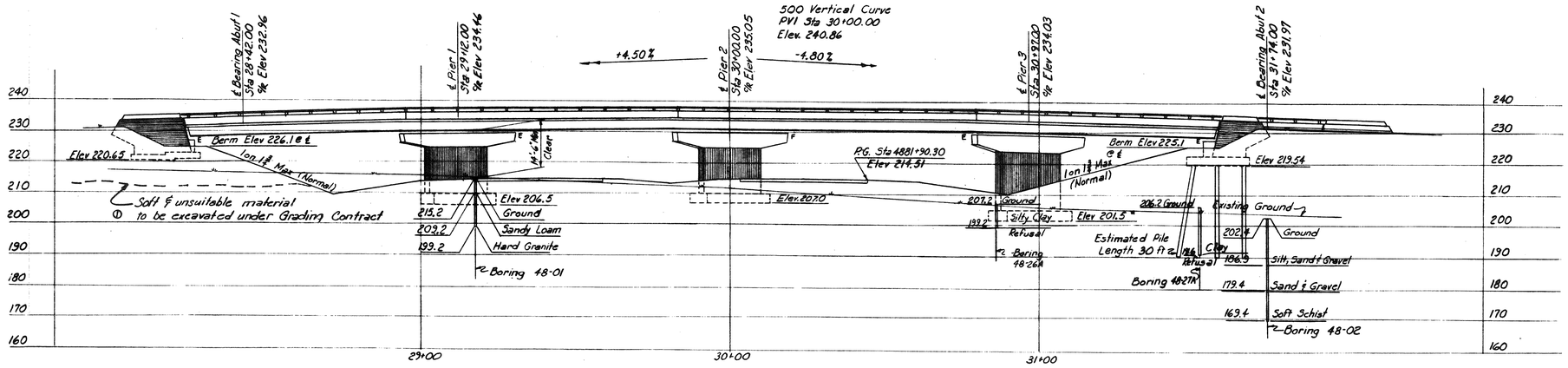
Contract 94.7

Sheet No. S5

62 of 76

Design Filename: d:\105009\br61\framel_6.dgn Generated by: K.H.
Plotted on: 22-APR-1994 11:22

74.01.05



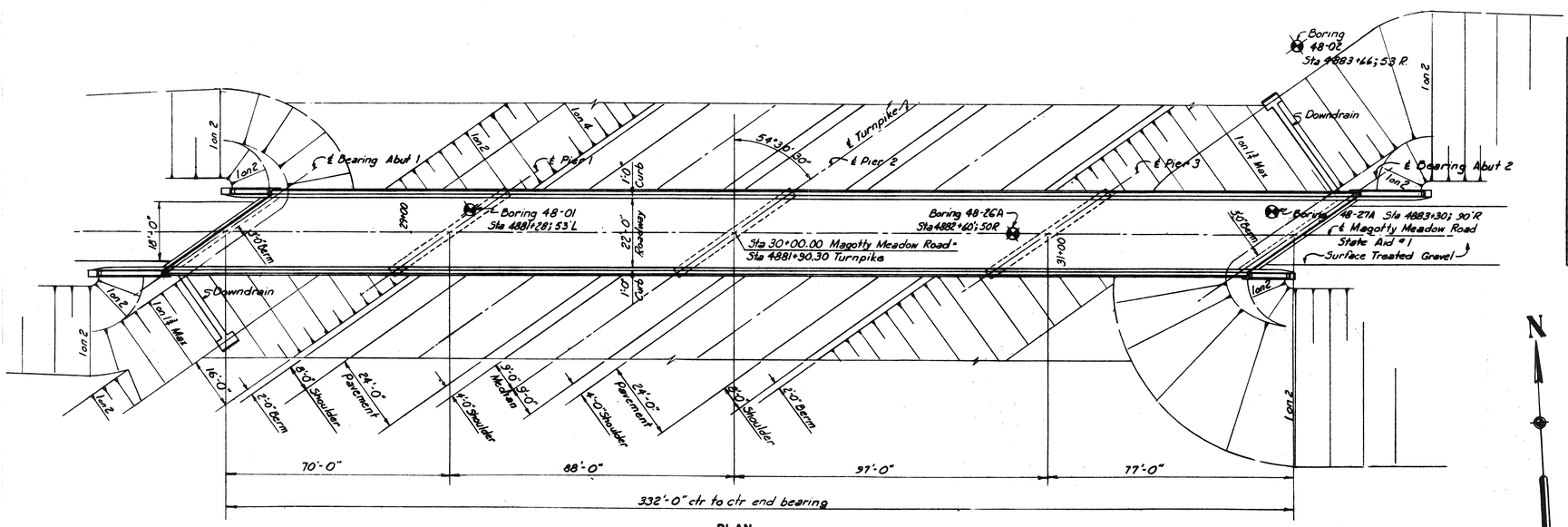
ELEVATION

GENERAL NOTES

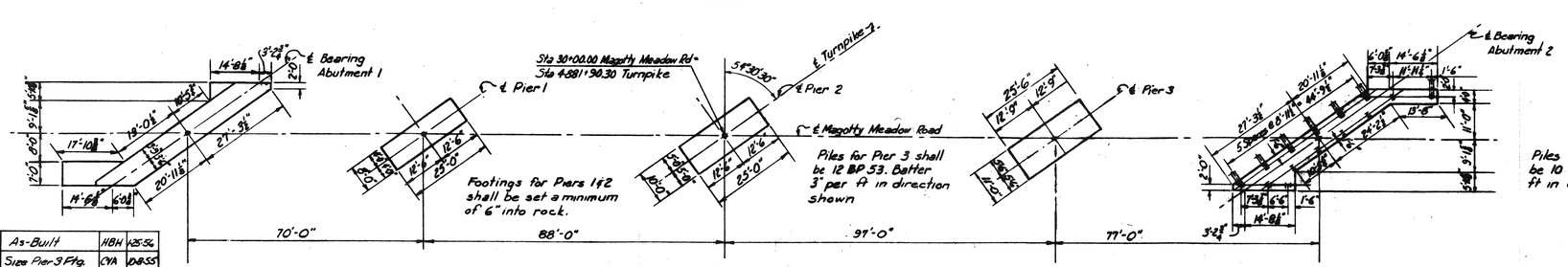
Design Specifications: AASHO (1953) with minor modifications
Design Live Load: H15
Maximum Soil Pressures:
Abutment 1 : 1.14 TONS/Sq Ft
Pier 1 : 5.2 TONS/Sq Ft
Pier 2: 5.5 TONS/Sq Ft
Maximum Pile Loads:
Pier 3: 57.9 TONS/PILE
Abutment 2: 31.7 TONS/PILE

REFERENCES

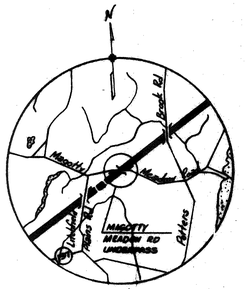
Dwg N°	Title	Sub-structure Contractor	Superstructure: Steel Fabricator	Superstructure: Steel Erector	Superstructure: Floor Contractor
SD-1a	Standard Abutment Details	✓	✓	✓	✓
SD-2	Standard Pier Details	✓	✓	✓	
SD-3	Abutment Drainage Details	✓			
SD-4	Standard Pile Details	✓			
SD-5	Standard Handrail, Bearing Devices and Miscellaneous Details	✓	✓	✓	✓
SD-6	Standard Diaphragm Details		✓	✓	✓
SD-10	Standard Type A Splice for 36 WF Beams		✓	✓	
SD-12a	Type 2 Expansion Joint	✓	✓	✓	✓
SD-14	Standard Bridge Floor Cross-section 20'-0" and 22'-0" Roadway	✓	✓	✓	✓



PLAN



FOOTING PLAN



VICINITY MAP
Scale: 1"=1 Mile

DRAWING 74.01.05	BY	DATE
MADE	WCM	2-22-54
TRACED		
CHECKED	ASP	5-12-54
IN CHARGE OF I.D.S.K.		

No.	REVISION	BY	DATE
5	As-Built	HBH	12-5-54
4	Size Pier 3 Ftg.	CVA	10-8-54
3	Pier 2 Ftg. Elev.	CVA	7-13-54
2	Revised Pier 3	C&P	6-7-54
1	Naked Added	JLS	5-15-54

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
SECTION 2— PORTLAND TO AUGUSTA

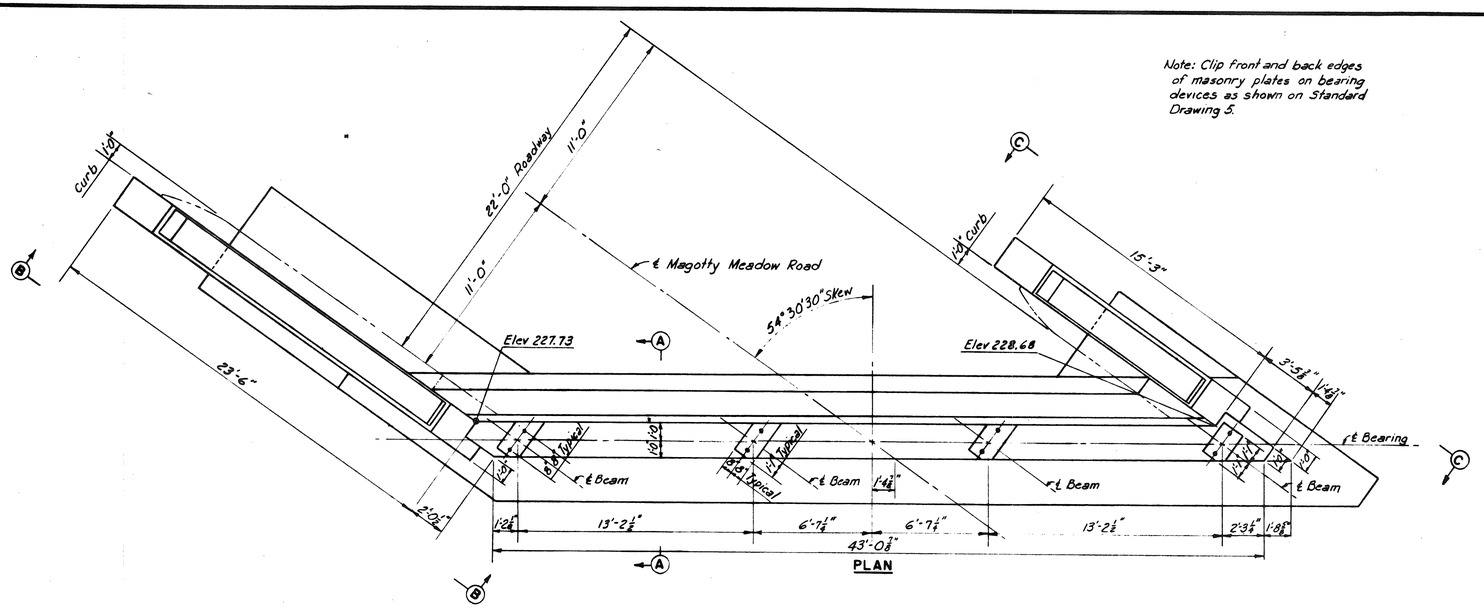
STRUCTURE NO. 74 TURNPIKE UNDER
MAGOTTY MEADOW ROAD
STA 4881+90.30
GENERAL PLAN AND ELEVATION

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

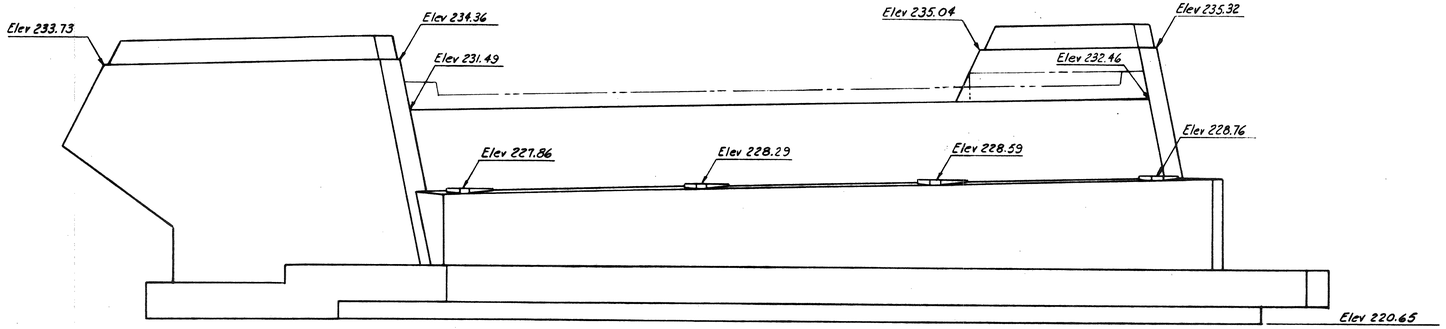
SCALE: 1"=20'-0"
CONTRACT NO. _____
SHEET NO. 327 OF 382

74. 02. 05

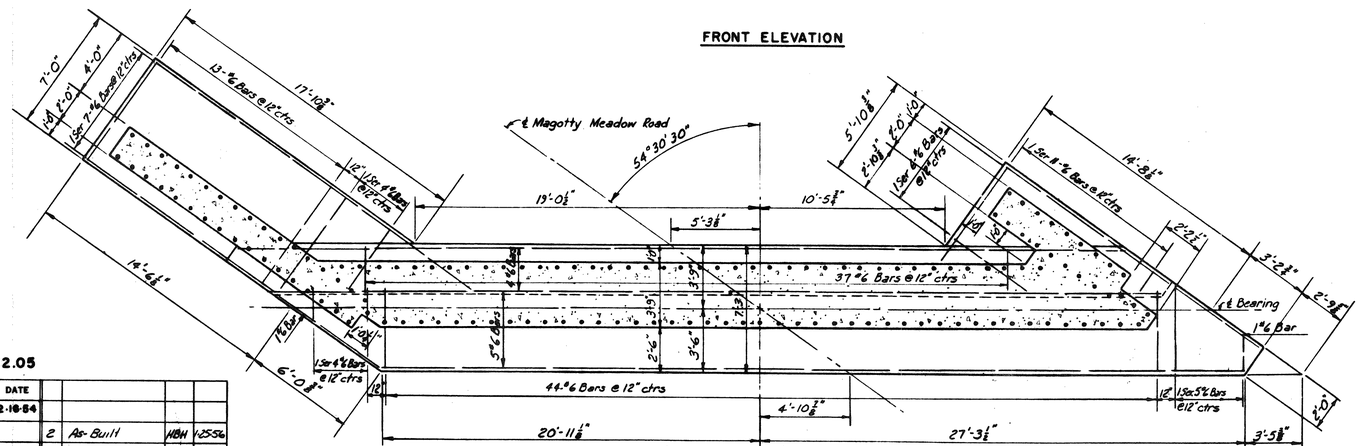
Note: Clip front and back edges of masonry plates on bearing devices as shown on Standard Drawing S.



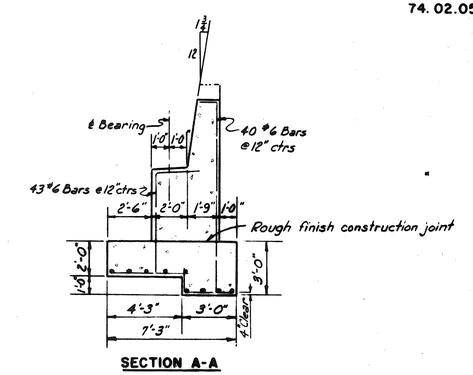
PLAN



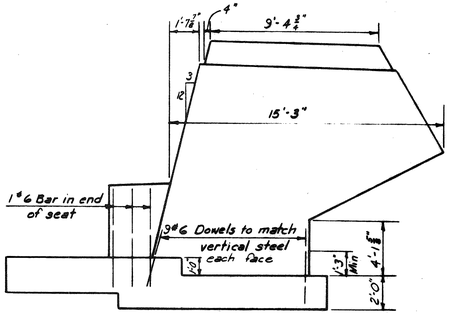
FRONT ELEVATION



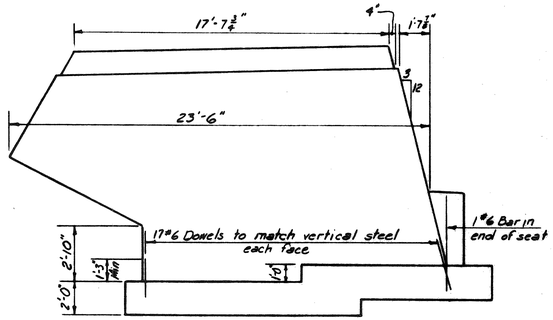
FOOTING PLAN



SECTION A-A



ELEVATION C-C



ELEVATION B-B

DRAWING 74.02.05

	BY	DATE
MADE	WCM	2-18-84
TRACED		
CHECKED	ASR	5-12-58
IN CHARGE OF I.D.S.K.		

No.	REVISION	BY	DATE
2	As-Built	HBH	12-55
1	Length of Bridge Seat	R.S.C.	10-19-54

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2— PORTLAND TO AUGUSTA

STRUCTURE NO. 74 TURNPIKE UNDER

MAGOTTY MEADOW ROAD

STA 4881 + 90.30

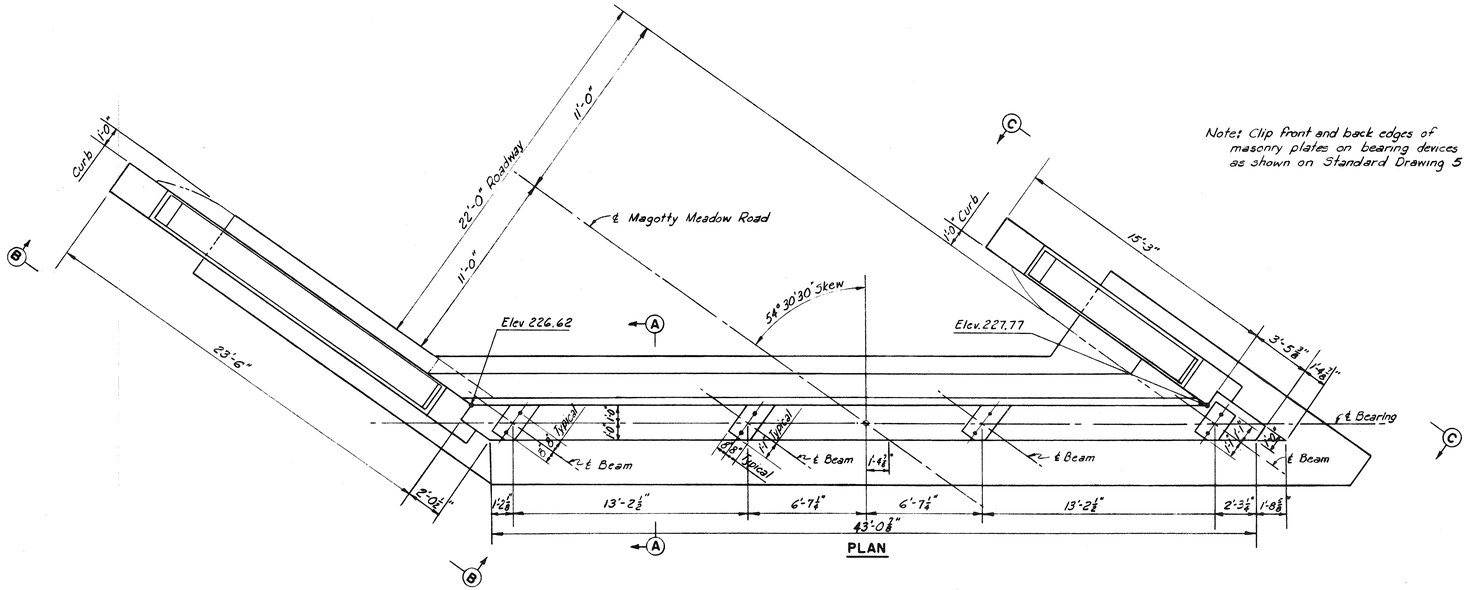
ABUTMENT I

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: 1/4"=1'-0"

CONTRACT NO. _____

SHEET NO. 328 OF 382



Note: Clip front and back edges of masonry plates on bearing devices as shown on Standard Drawing 5

PLAN

FRONT ELEVATION

FOOTING PLAN

SECTION A-A

ELEVATION C-C

ELEVATION B-B

Note: Piles shall be 10 BP 42.
Batter Piles 3" per ft. in direction shown.

DRAWING 74.03.05

	BY	DATE				
MADE	WCM	2·15·54				
TRACED						
CHECKED	AER	5-12-54	1	As-Built	HBH	1·25·56
IN CHARGE OF I.D.S.K.			No.	REVISION	BY	DATE

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

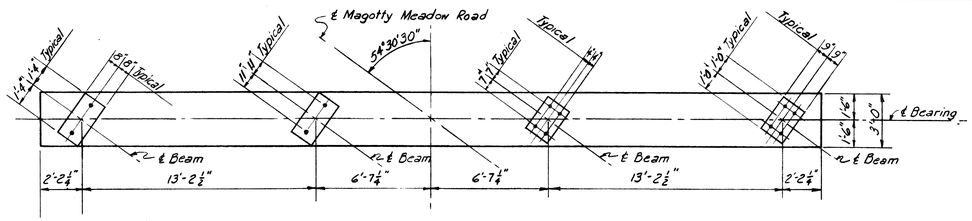
SECTION 2— PORTLAND TO AUGUSTA

STRUCTURE NO. 74 TURNPIKE UNDER
MAGOTTY MEADOW ROAD
STA 4881 + 90.30
ABUTMENT 2

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: ¼" = 1'-0"
CONTRACT NO. ______
SHEET NO. 329 OF 382

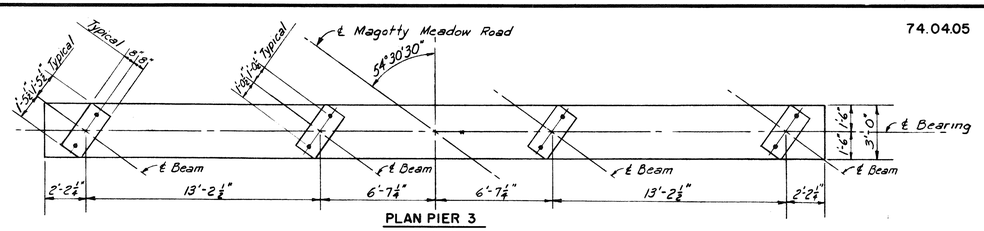
74.04.05



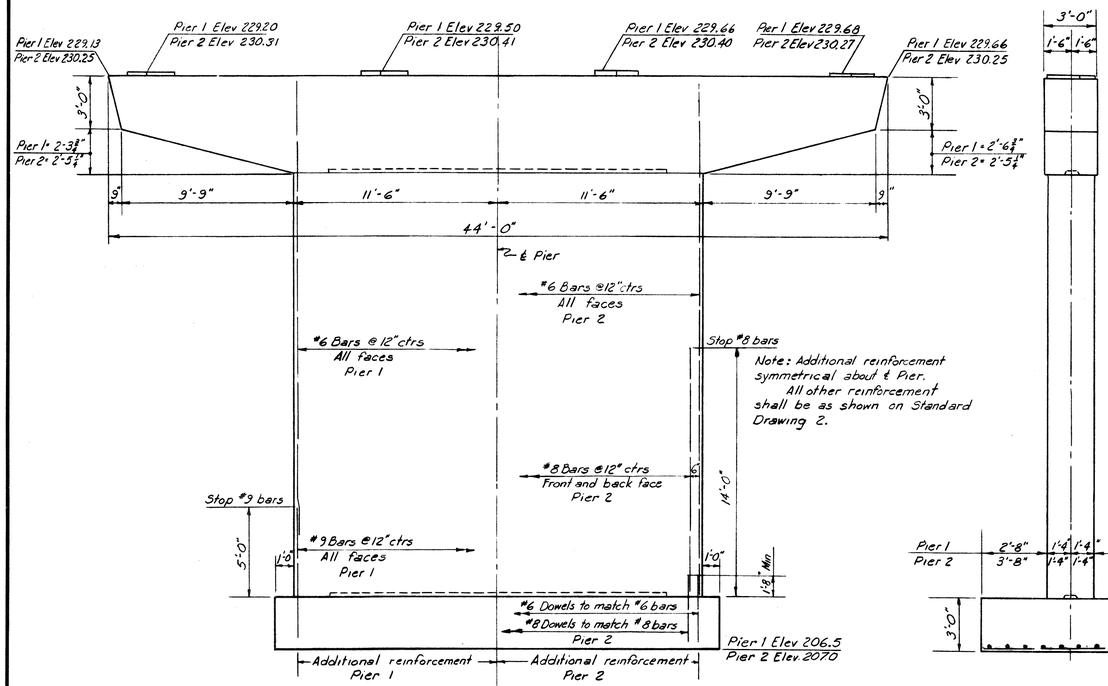
HALF CAP PLAN PIER 1

HALF CAP PLAN PIER 2

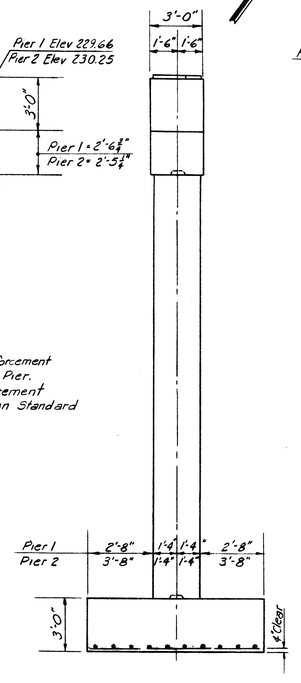
Note: Clip front and back edges of masonry plates on expansion bearing devices as shown on Standard Drawing 5



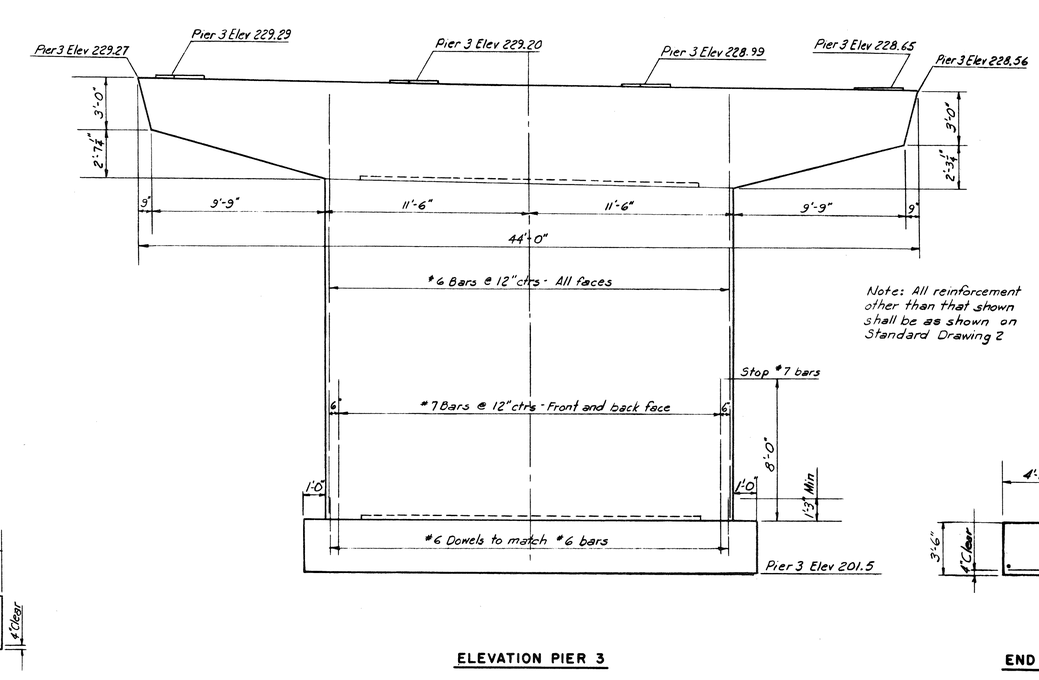
PLAN PIER 3



ELEVATION PIERS 1 AND 2

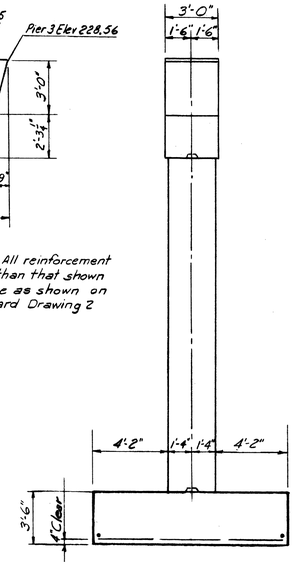


END ELEVATION PIERS 1 AND 2

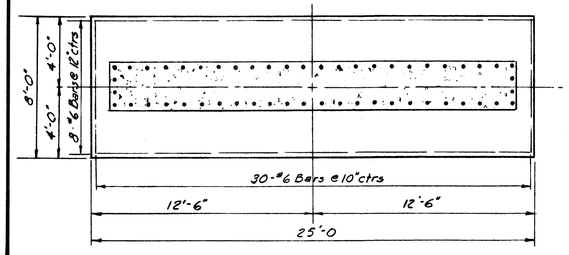


Note: All reinforcement other than that shown shall be as shown on Standard Drawing 2

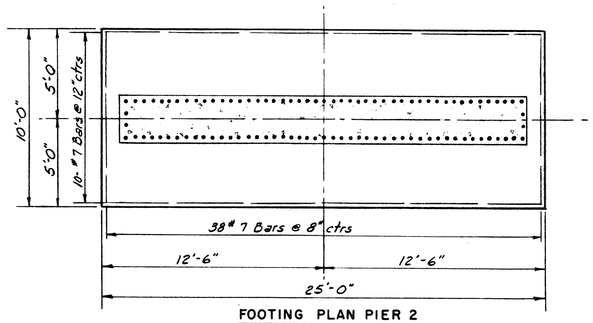
ELEVATION PIER 3



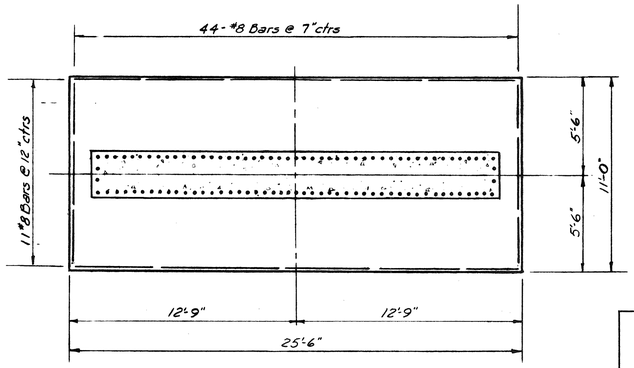
END ELEVATION PIER 3



FOOTING PLAN PIER 1



FOOTING PLAN PIER 2



FOOTING PLAN PIER 3

DRAWING 74.04.05

	BY	DATE
MADE	WCM	2-5-54
TRACED		
CHECKED	RFS	5-12-54
IN CHARGE OF	I.D.S.K.	

No.	REVISION	BY	DATE
4	As-Built	HBH	12-55
3	Size Pier 3 Ftg.	CYA	10-55
2	Pier 2 Ftg. Elev	CYA	7-13-55
1	Revised Pier 3	CGP	5-7-55

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2— PORTLAND TO AUGUSTA

STRUCTURE NO. 74 TURNPIKE UNDER

MAGOTTY MEADOW ROAD

STA 488I + 90.30

PIER DETAILS

HOWARD, NEEDLES, TAMMEN & BERGENDOFF

CONSULTING ENGINEERS

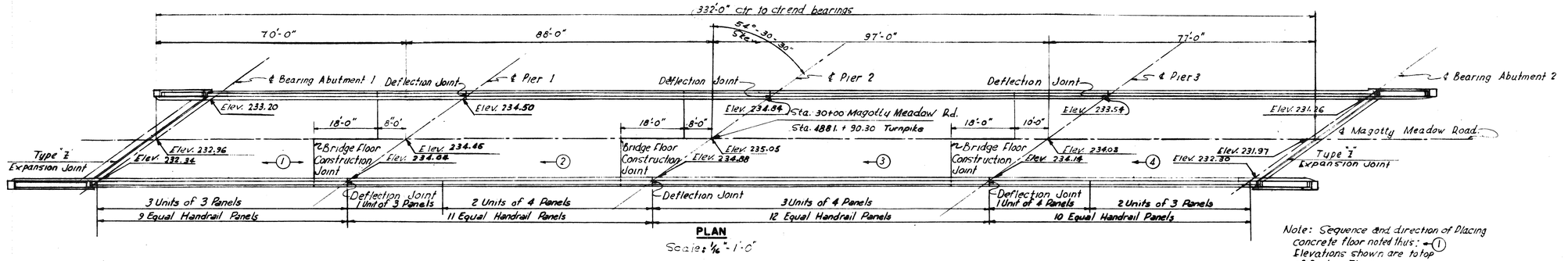
NEW YORK KANSAS CITY

SCALE: 1" = 1'-0"

CONTRACT NO. _____

SHEET NO. 330 OF 382

74.05.05

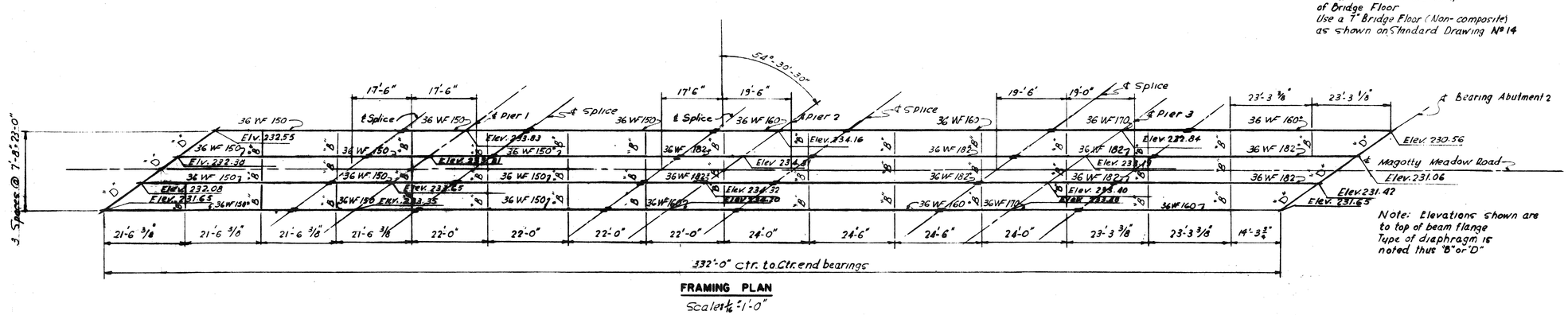


PLAN

Scale: 1/16" = 1'-0"

N

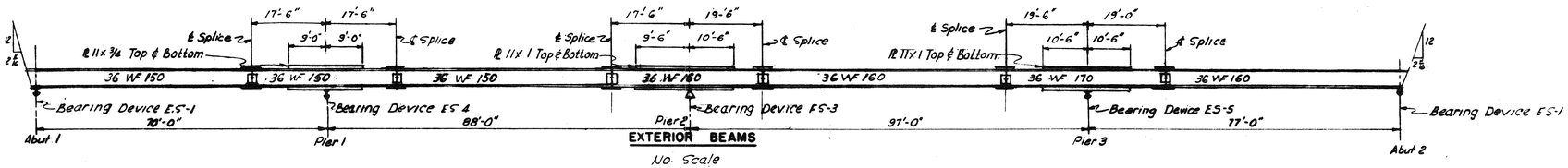
Note: Sequence and direction of placing concrete floor noted thus: ←①
Elevations shown are to top of Bridge Floor
Use a 7" Bridge Floor (Non-composite) as shown on Standard Drawing No 14



FRAMING PLAN

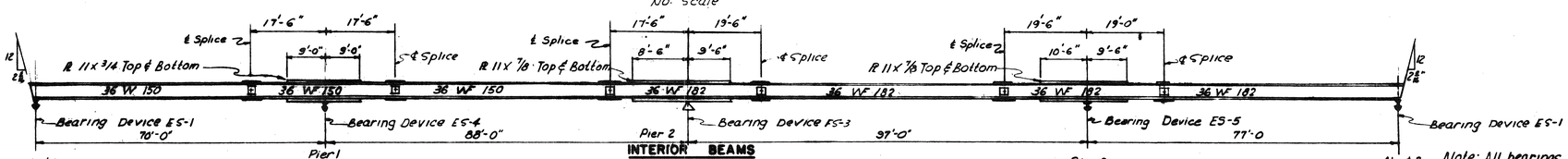
Scale: 1/16" = 1'-0"

Note: Elevations shown are to top of beam flange
Type of diaphragm is noted thus "B" or "D"



EXTERIOR BEAMS

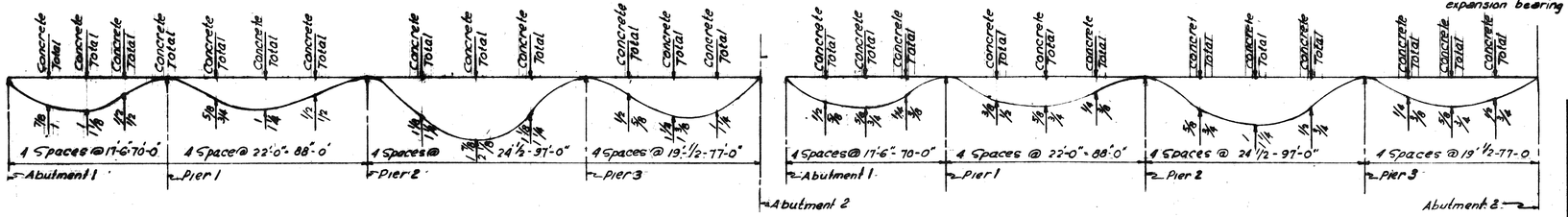
No. Scale



INTERIOR BEAMS

No Scale

Note: All bearings stiffeners at points of support are 7"x4"x 5/8" angles.
Bevel of beam ends is true with respect to the beams axis.
Clip front and back corners of masonry plates on expansion bearing devices as shown on Standard Drawing No 5



EXTERIOR BEAM

DEAD LOAD DEFLECTIONS

No Scale

INTERIOR BEAM

DRAWING 74.05.05

	BY	DATE
MADE	R.LG	2-23-84
TRACED		
CHECKED	ABL	5-18-84
IN CHARGE OF	IDSK	

No.	REVISION	BY	DATE
1	As-Built	MBW	12-86

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

SECTION 2— PORTLAND TO AUGUSTA

STRUCTURE NO. 74 TURNPIKE UNDER

MAGOTTY MEADOW ROAD

STA. 4881 + 90.30

SUPERSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
NEW YORK KANSAS CITY

SCALE: AS Noted

CONTRACT NO.

SHEET NO. 33L OF 382

SPECIFICATIONS

DESIGN

"AAHSTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 1989" WITH ALL THE INTERIMS.

CONTRACT

STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAY AND BRIDGES, REVISION OF OCTOBER 1990

LIVE LOAD

H20 LOAD FACTOR

MATERIALS

CONCRETE

ALL CONCRETE SHALL BE CLASS AAA

n = 8 fc = 1,800 P.S.I. f'c = 4,500 P.S.I.

REINFORCING STEEL

ASTM A615 GRADE 60 f'b = 24,000 P.S.I.

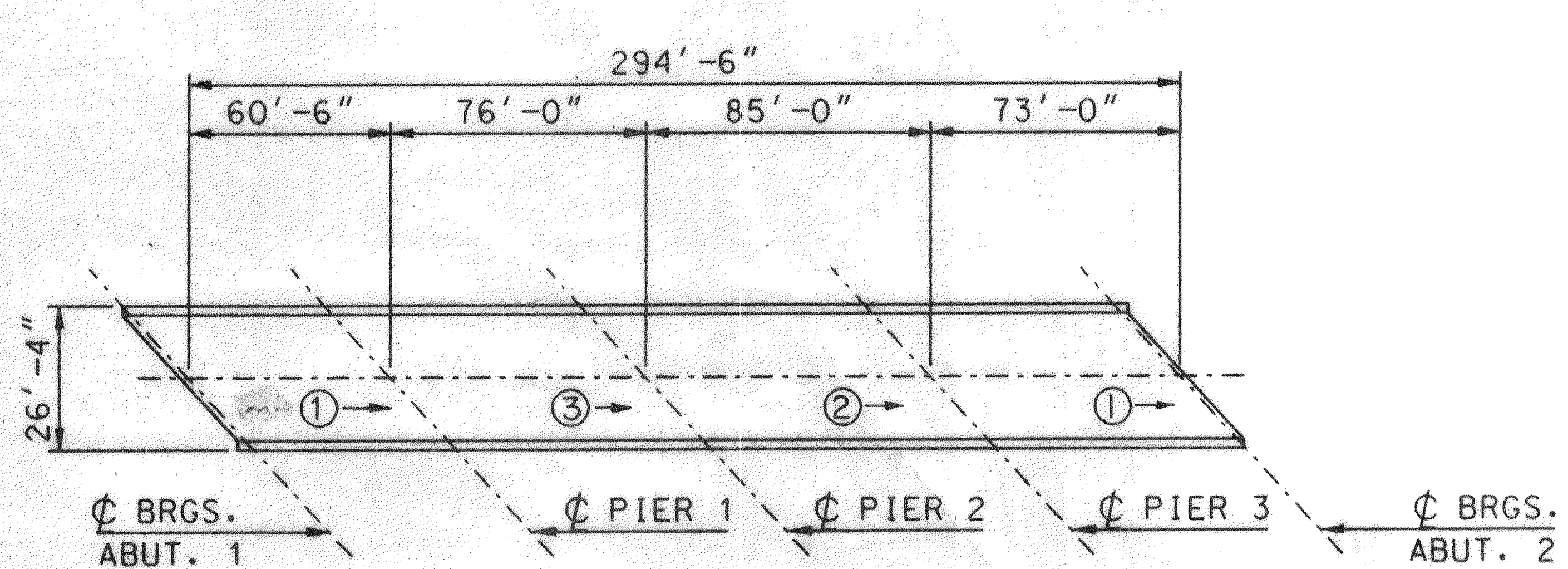
STRUCTURAL STEEL

ASTM A709 GRADE 36 f'b = 20,000 P.S.I.

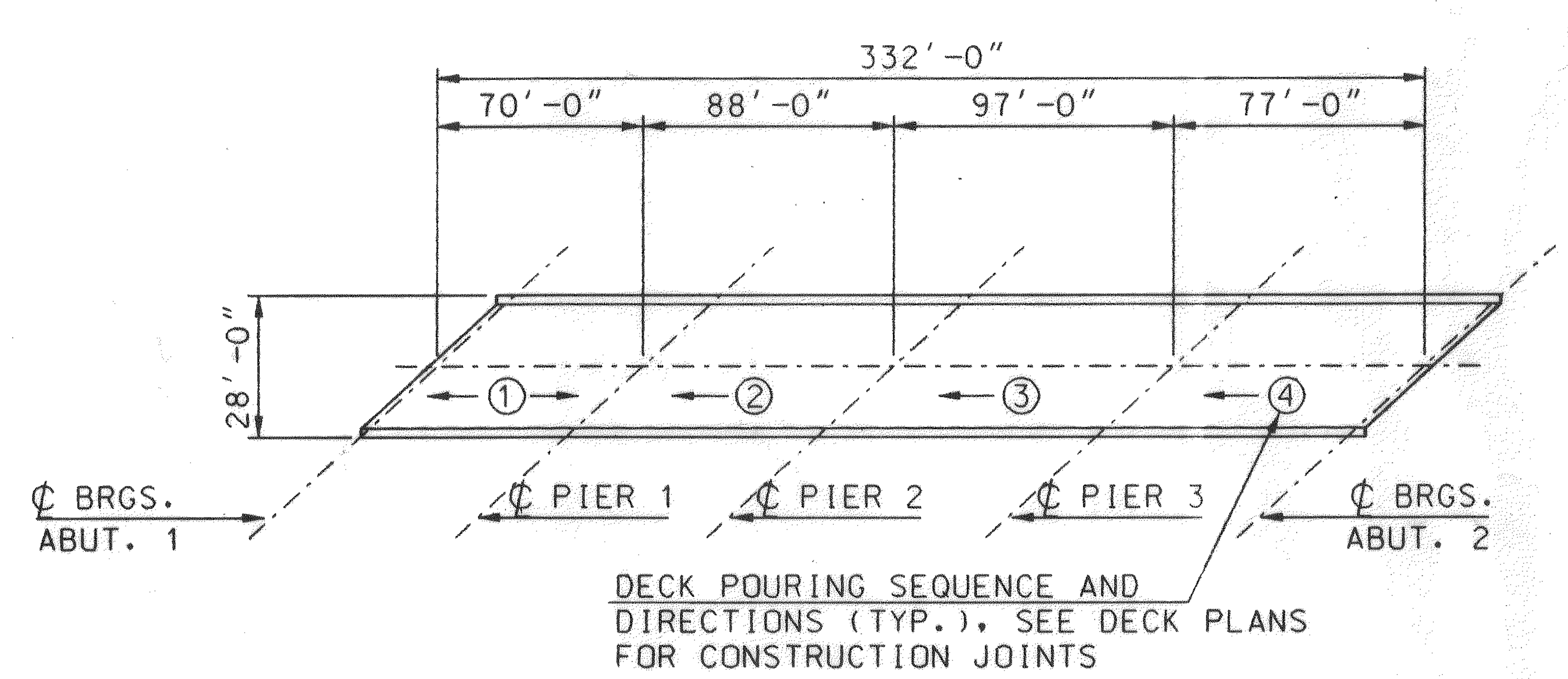
GENERAL NOTES

1. REINFORCING STEEL TO HAVE A CLEAR COVER AS SHOWN ON THE PLANS.
2. CHAMFER ALL EXPOSED EDGES 1" UNLESS OTHERWISE NOTED.
3. PLANS OF EXISTING BRIDGES ARE AVAILABLE AT THE AUTHORITY'S OFFICE AT 430 RIVERSIDE ST. PORTLAND, MAINE
4. SHIELDING REQUIRED DURING CONCRETE REMOVAL SHALL NOT PROJECT BELOW THE BOTTOM FLANGES OF STRINGERS. THE ESTIMATED QUANTITY OF SHIELDING IS THE MINIMUM REQUIRED AND IS BASED ON THE THE FOLLOWING LIMITS:
   - A. NORMAL TO ℄ BRIDGE: AS SHOWN ON THE PLANS
   - B. PARALLEL TO ℄ BRIDGE: ABUTMENT TO ABUTMENT
5. THE CONTRACTOR HAS THE OPTION OF SUBSTITUTING CLASS A CONCRETE FOR ITEM 502.21
6. FOR STEEL REINFORCING SCHEDULE, SEE SHEETS S-11, S-12, S-19, S20, S-27 & S-28.
7. ALL STEEL REINFORCING SHALL BE EPOXY COATED.
8. DO NOT COVER DECK DRAINS WITH MEMBRANE. DEPRESS DRAINS 1/2" BELOW TOP OF SLAB. PROVIDE 23 GAUGE GALVANIZED SCREENS (1/8" MESH) OVER DRAINS. PAYMENT INCIDENTAL TO CONTRACT ITEM 502.262.
9. THE AUTHORITY'S PERSONEL WILL PROFILE THE TOPS OF ALL STRINGERS BEFORE THE FORM WORK IS STARTED AND SUPPLY THE CONTRACTOR WITH FINAL BOTTOM OF SLAB ELEVATIONS.
10. THE CONCRETE DECK SURFACE SHALL BE GIVEN A SMOOTH BULL OR WOOD FINISH .

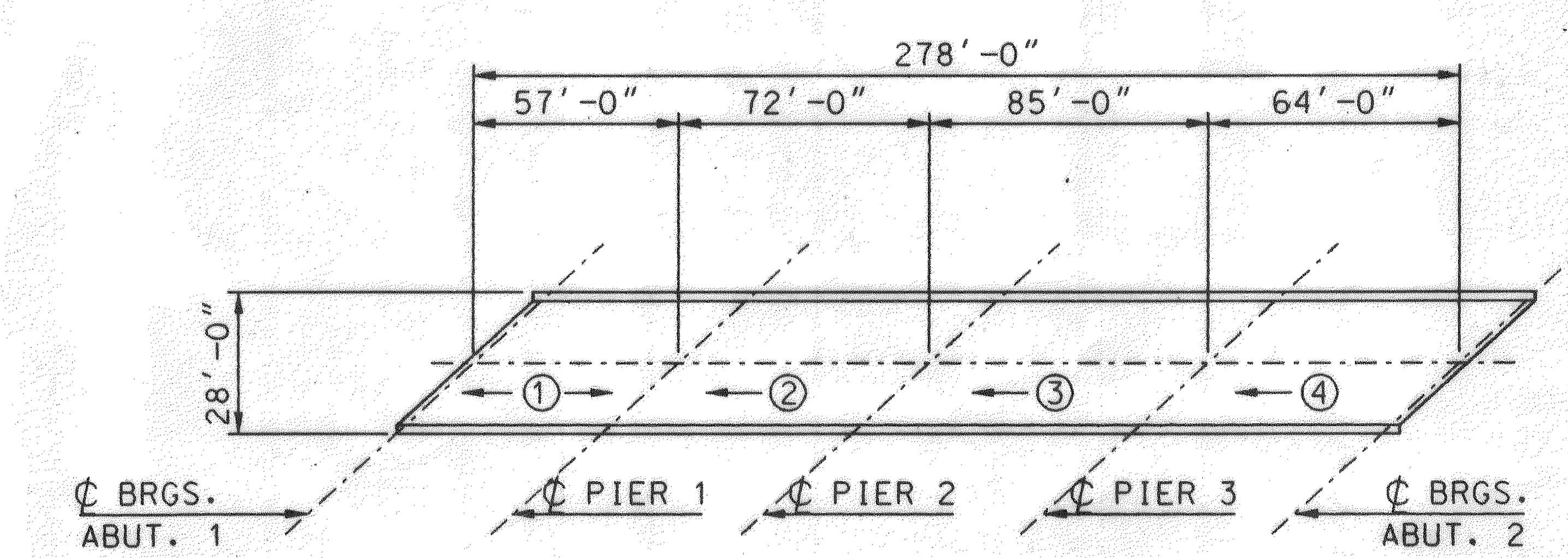
ITEM	DESCRIPTION	UNIT	QUANTITIES		
			FISHER RD.	PLAINS RD.	RTE. 126
202.12	Removing Existing Structural Concrete	C.Y.	17	19	31
202.122	Removing Existing Superstructure Concrete	S.Y.	818	996	1019
202.20	Protective Shield	S.Y.	1014	1217	1209
403.13	Dense Graded Bit. Pav't For Bridges	Ton.	61	74	83
502.21	Structural Concrete, Abutments, Retaining Walls	C.Y.	21	25	29
502.23	Structural Concrete, Piers	C.Y.	3	4	3
502.262	Structural Concrete Roadway and Parapet on Steel Bridge (Fisher Rd.= 257 CY.), (Plains Rd.= 302 CY.) and Rte. 126= 293 CY.)	L.S.	1	1	1
503.14	Epoxy Coated Reinf. Steel- Fabricated & Delivered	Lb.	70,600	83,300	80,100
503.15	Epoxy Coated Reinf. Steel- Placing	Lb.	70,600	83,300	80,100
504.70	Structural Steel- Fabricated & Delivered	L.S.	1	1	1
504.72	Jacking Exist. Superstructure	L.S.	1	1	——
505.08	Stud Welded Shear Connectors (Fisher Rd.= 2028 PC'S) (Plains Rd.= 2028 PC'S)	L.S.	1	1	--
507.092	Aluminum Bridge Railing, 2 Bar	L.F.	594	669	561
508.13	Membrane Waterproofing (Fisher Rd.= 753 SY.), (Plains Rd.= 910 SY.) and (Rte. 126= 947 SY.)	L.S.	1	1	1
514.06	Curing Box for Concrete Cylinders	Ea.	1	1	1
515.20	Protective Coating for Concrete Surfaces	S.Y.	509	574	481
515.201	Concrete Protective Coating	S.Y.	307	333	371
523.103	Pot Bearings	EA.	20	20	——
520.22	Expansion Device-Compression Seal (Fisher Rd.= 70 FT.), (Plains Rd.= 85 FT.) and (Rte. 126= 88 FT.)	EA.	1	1	1
609.15	Sloped Curb Type 1	L.F.	16	16	16



FISHER ROAD



PLAINS ROAD



ROUTE 126

DECK PLACEMENT DETAILS

N.T.S.

No.	Revision	By	Date		By	Date
				Designed		
				Drawn		
△	REISSUED	CFM	5/94	Checked		
				In Charge Of:		

Maine Turnpike Authority

Maine Turnpike

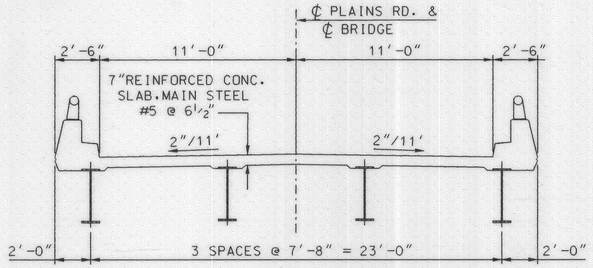
GENERAL NOTES, SPECIFICATIONS, QUANTITIES & DECK PLACEMENT DETAILS

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 94.3

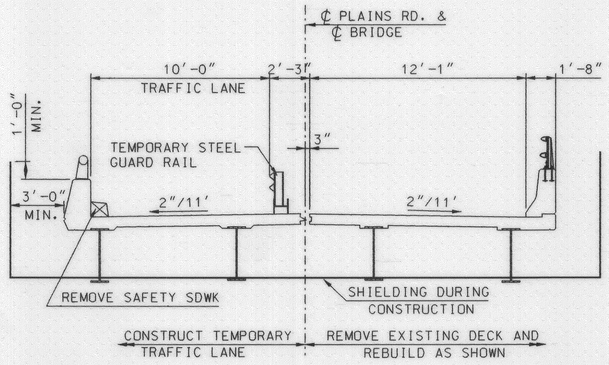
Sheet No. S-1

31 of 60



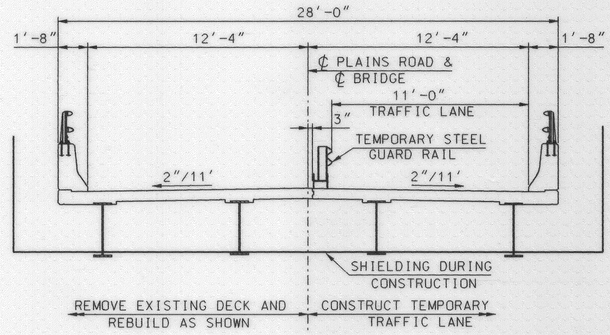
EXISTING DECK

¼" = 1'-0"



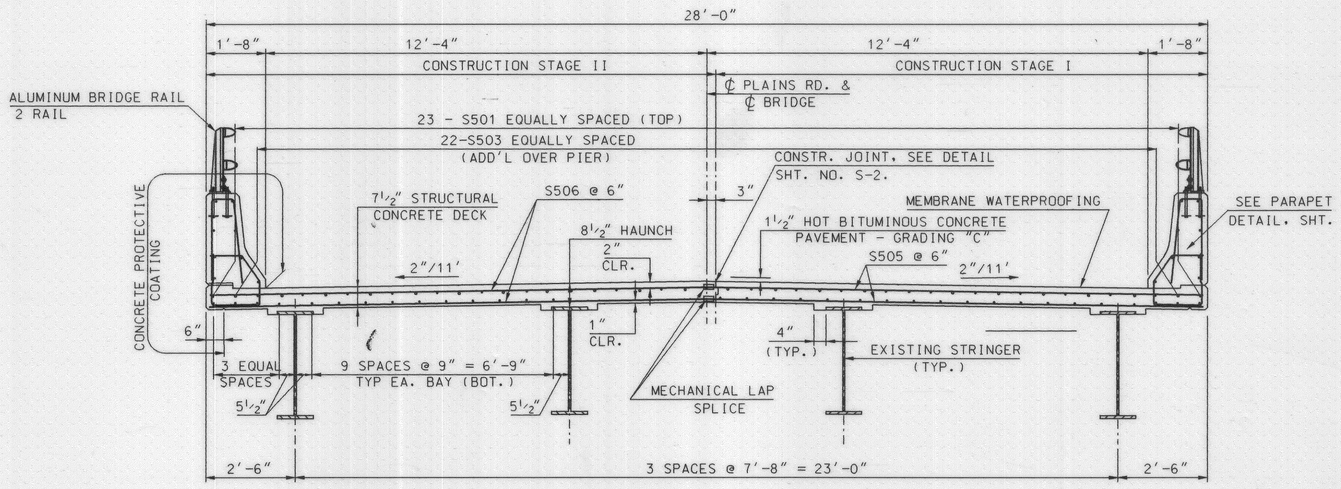
CONSTRUCTION - STAGE I

¼" = 1'-0"



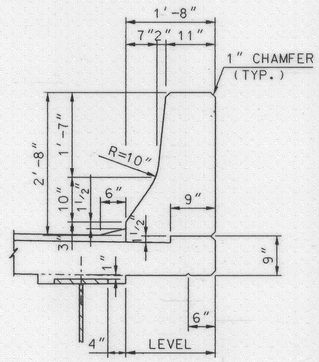
CONSTRUCTION - STAGE II

¼" = 1'-0"



SECTION A-A

½" = 1'-0"



PARAPET DETAIL

¾" = 1'-0"

10" RADIUS TYP. INCLUDING PARAPET ON WINGWALL

NOTE:

1. MECHANICAL COUPLING DEVICE SHALL DEVELOP A MINIMUN OF 125 PERCENT OF YIELD STRENGTH OF REINFORCEMENT STEEL. THE COUPLING DEVICES SHALL BE PROTECTED FROM CORROSION BY EITHER GALVANIZING OR EPOXY COATING.

No.	Revision	By	Date		By	Date
				Designed		
				Drawn	E.G.	4/94
⚠	REISSUED	CFM	5/94	Checked		
				In Charge Of:		

Maine Turnpike Authority

Maine Turnpike

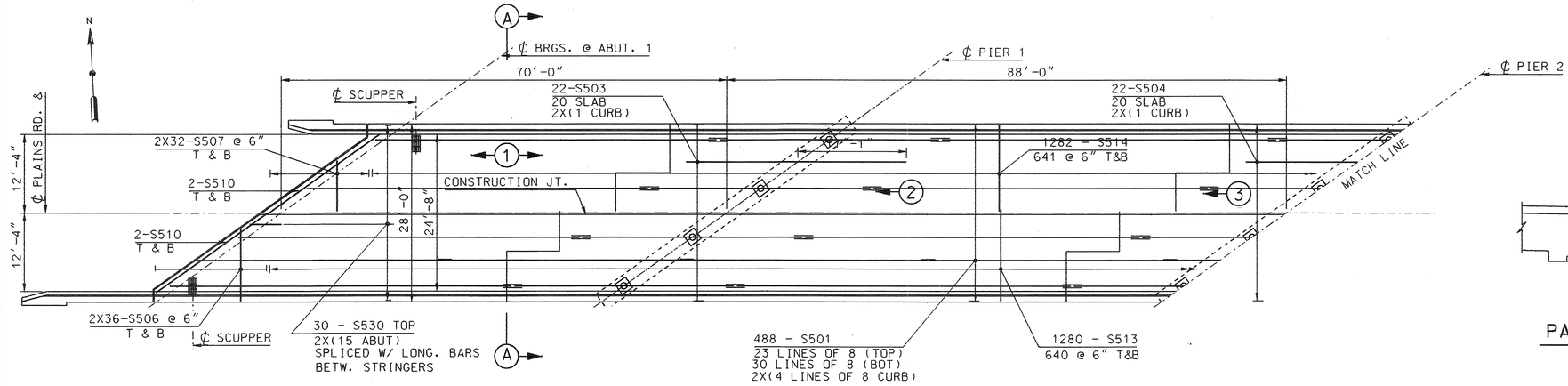
PLAINS ROAD
OVER
MAINE TURNPIKE
CONSTRUCT. STAGING

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract 94.3

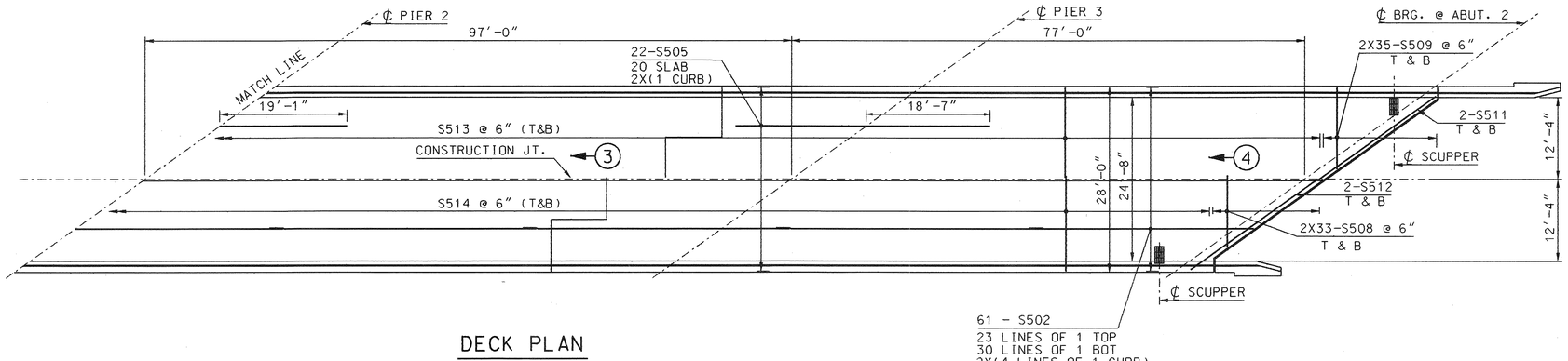
Sheet No. S-14 of 60

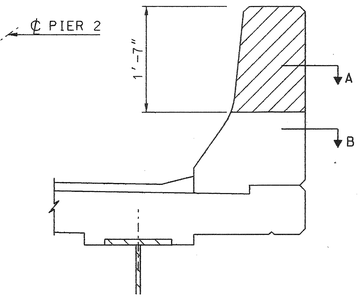
Design Filename: d:\f109009\br74\deck2.dgn
Plotted on: 05-MAY-1994 06:36 Generated by: E.G.



DECK PLAN

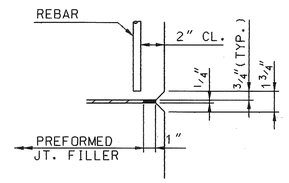
1″ = 10′





PARAPET DETAIL

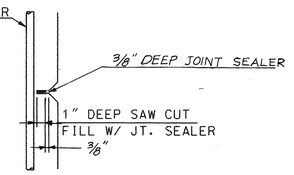
3/4″ = 1′-0″



SECTION A-A

N.T.S.

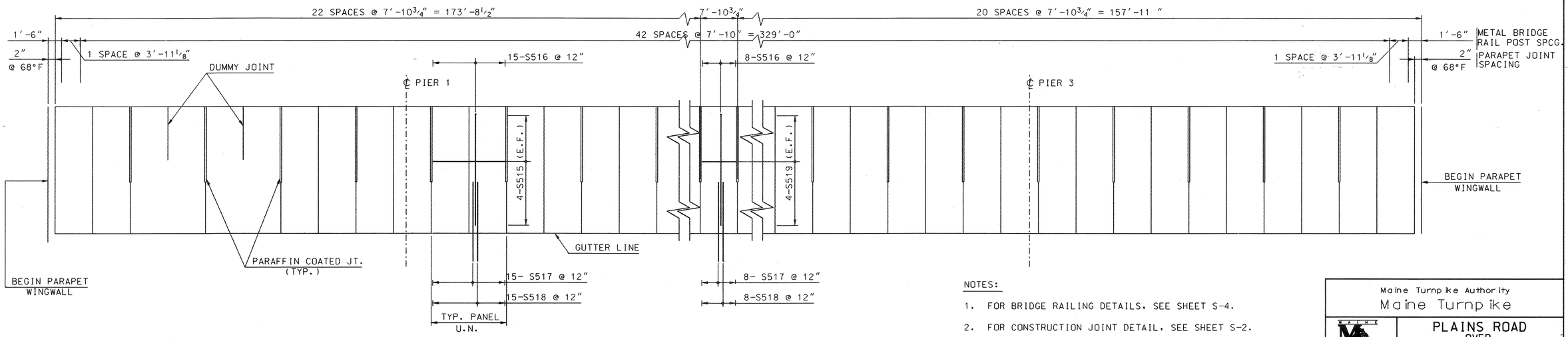
NOTES:
1. CONC. PLACED SIMULTANEOUSLY ON BOTH SIDES OF JOINT.
2. PREFORMED JOINT FILLER MAY BE SUPPORTED WITH A THIN STEEL R. REMOVE P CAREFULLY WHILE THE CONCRETE IS PLASTIC.



SECTION B-B

N.T.S.

NOTE:
SECTION B ALSO APPLIES TO DUMMY JOINT LOCATIONS.



NOTE:
JOINT SPACING IS FOR NORTH FASCIA (LOOKING AT GUTTER LINE). SOUTH FASCIA SIMILAR (LOOKING AT FASCIA).

PARAPET ELEVATION

1″ = 10′ (HORIZ.)
1″ = 1′ (VERT.)

NOTES:
1. FOR BRIDGE RAILING DETAILS, SEE SHEET S-4.
2. FOR CONSTRUCTION JOINT DETAIL, SEE SHEET S-2.
3. FOR SCUPPER DETAILS, SEE SHEET S-3.

No.	Revision	By	Date
⚠	RE-ISSUED	CFM	5/94

	By	Date
Designed		
Drawn	H.W E.G.	4/94
Checked		
In Charge Of:		

Maine Turnpike Authority
Maine Turnpike

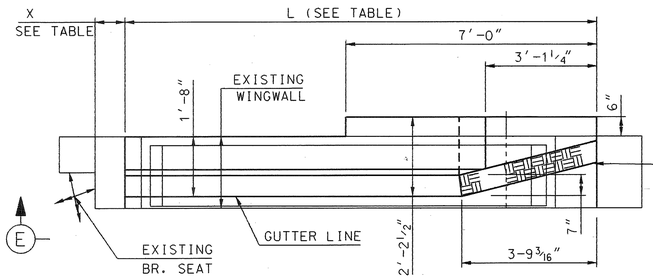
PLAINS ROAD
OVER
MAINE TURNPIKE
DECK REINFORCING

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

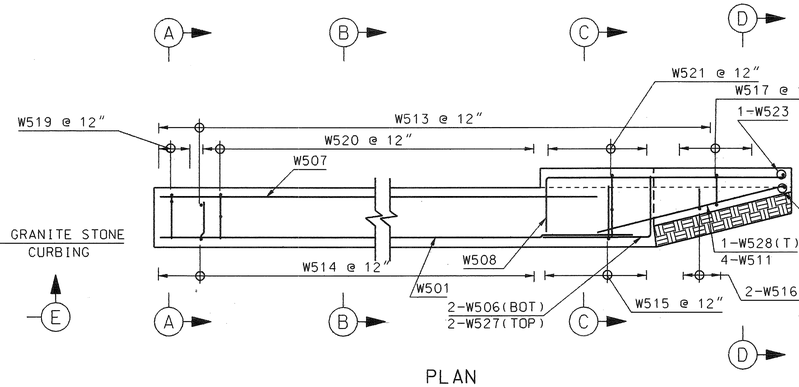
Contract 94.3

Sheet No. S-13
43 of 60

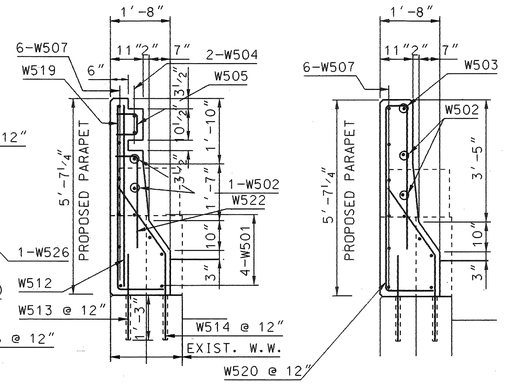
Design Filename: d:\f09009\br74\deck1.dgn
Plotted on: 05-MAY-1994 10:18
Generated by: E.G.



PLAN

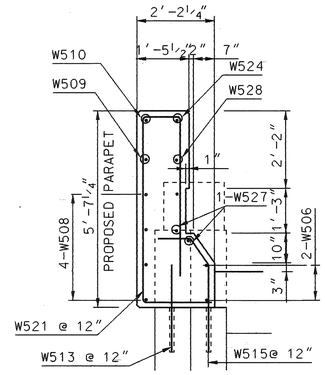


PLAN

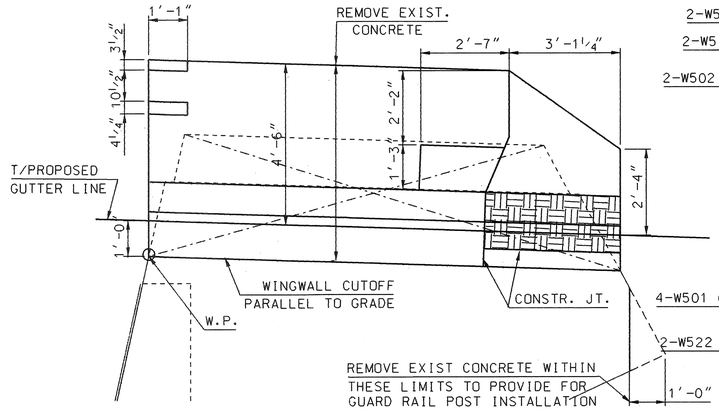


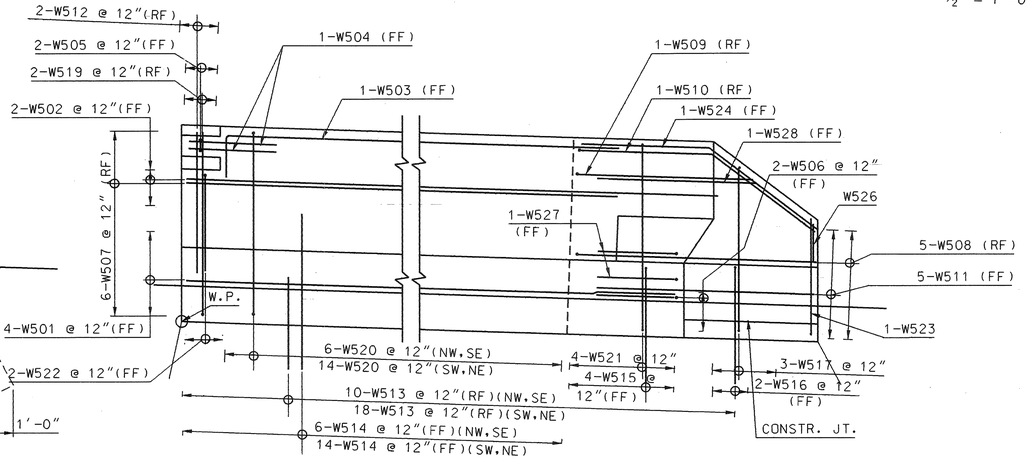
SECTION A – A
½" = 1'-0"

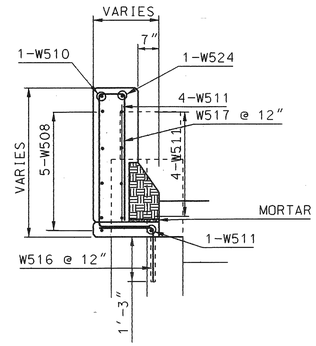
SECTION B – B
½" = 1'-0"



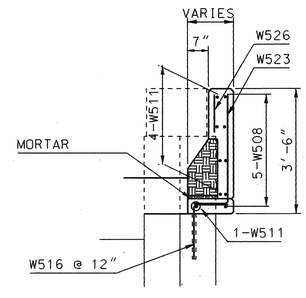
SECTION C – C
½" = 1'-0"







SECTION D – D
½" = 1'-0"



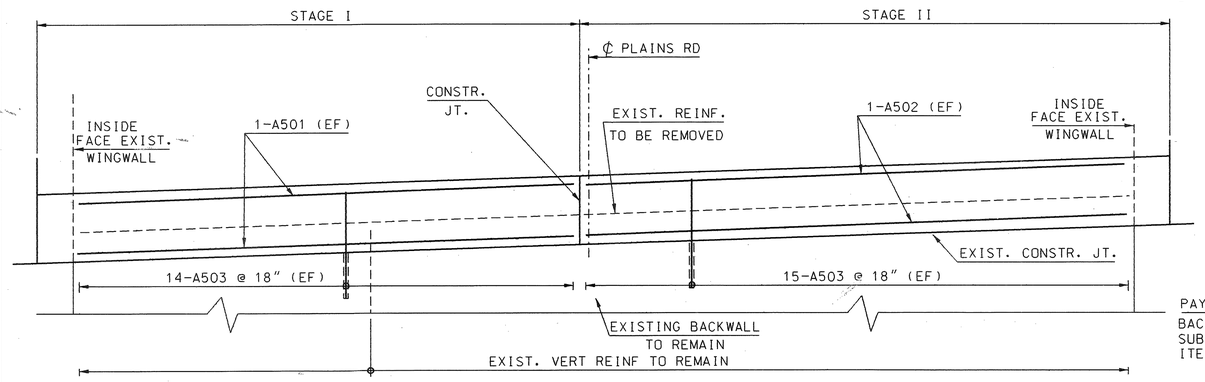
END VIEW
½" = 1'-0"

WINGWALL	DIMENSION X	DIMENSION L
N.W.	1'-7⅞"	12'-4"
N.E.	1'-7⅞"	20'-6"
S.W.	1'-7⅞"	20'-6"
S.E.	1'-7⅞"	12'-4"

NOTE:

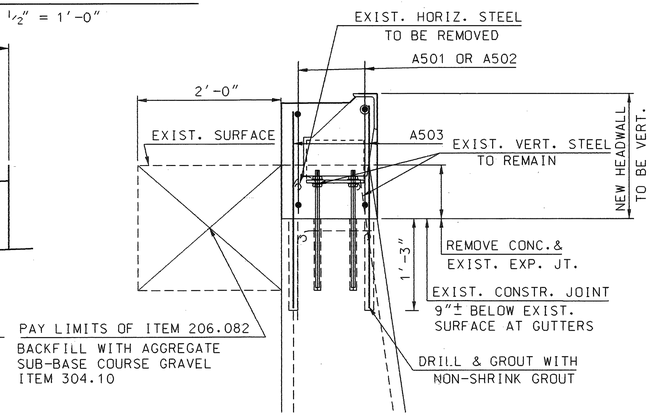
1. FOR REINFORCING SCHEDULE ,SEE SHT S-19 & S-20.
2. FOR GRANITE STONE CURB DETAIL, SEE SHEET S-2.
3. DRILLING AND GROUTING OF REBARS TO BE PAID FOR UNDER STRUCTURAL CONCRETE ABUTMENTS, ITEM 502.21.

SECTION E – E
WINGWALL MODIFICATION
½" = 1'-0"



ELEVATION
⅜" = 1'-0"

ELEVATION AT GUTTER
WINGWALL REINFORCING
½" = 1'-0"



SECTION
1" = 1'-0"

BACKWALL MODIFICATIONS
AS SHOWN

No.	Revision	By	Date	In Charge Of:			By	Date
				Designed				
				Drawn	E.G.	4/94		
				Checked				

Maine Turnpike Authority
Maine Turnpike

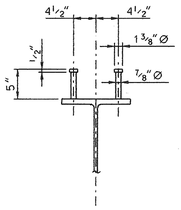
PLAINS ROAD
OVER
MAINE TURNPIKE
WINGWALL DETAILS

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract
94.3

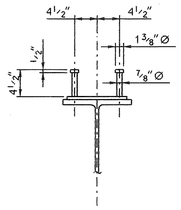
Sheet No. S-15
15 of 30

Design Filename: d:\ff09009\br74\deck4_d.dgn
Plotted on: 21-APR-1994 13:15
Generated by: E.G.



SECTION A-A

SCALE: 1" = 1'-0"



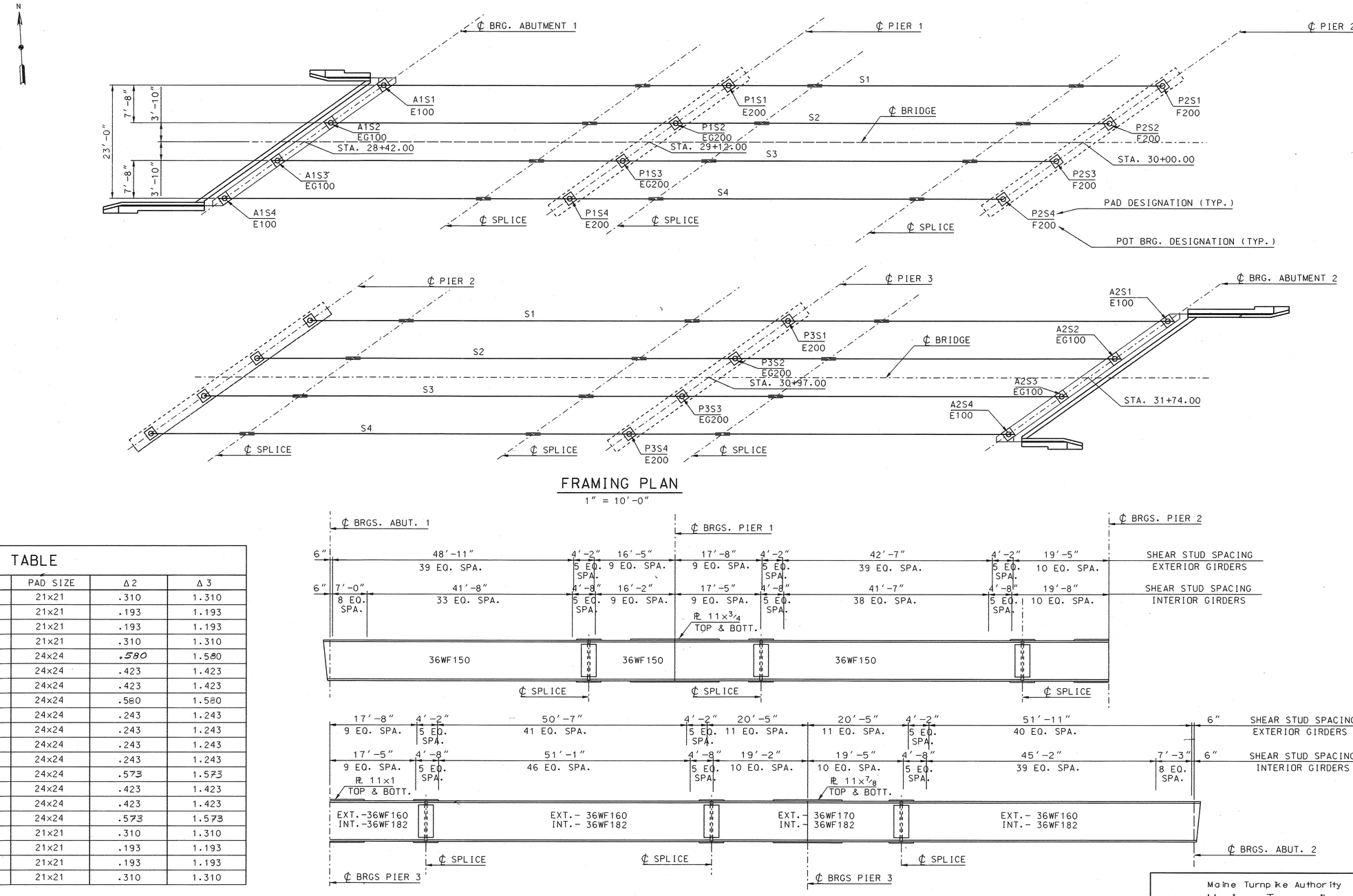
SECTION B-B

SCALE: 1" = 1'-0"

PAD TABLE					
LOCATION	Δ1(FT.)	MASONRY PL	PAD SIZE	Δ2	Δ3
A1S1	1.0000	17¾ x17¾ x1¾	21x21	.310	1.310
A1S2	1.0000	17¾ x17¾ x1¾	21x21	.193	1.193
A1S3	1.0000	17¾ x17¾ x1¾	21x21	.193	1.193
A1S4	1.0000	17¾ x17¾ x1¾	21x21	.310	1.310
P1S1	1.0000	20¼ x20¼ x1¾	24x24	.580	1.580
P1S2	1.0000	↑	24x24	.423	1.423
P1S3	1.0000		24x24	.423	1.423
P1S4	1.0000		24x24	.580	1.580
P2S1	1.0000		24x24	.243	1.243
P2S2	1.0000		24x24	.243	1.243
P2S3	1.0000		24x24	.243	1.243
P2S4	1.0000		24x24	.243	1.243
P3S1	1.0000		24x24	.573	1.573
P3S2	1.0000		24x24	.423	1.423
P3S3	1.0000		24x24	.423	1.423
P3S4	1.0000	↓	24x24	.573	1.573
A2S1	1.0000	17¾ x17¾ x1¾	21x21	.310	1.310
A2S2	1.0000	17¾ x17¾ x1¾	21x21	.193	1.193
A2S3	1.0000	17¾ x17¾ x1¾	21x21	.193	1.193
A2S4	1.0000	17¾ x17¾ x1¾	21x21	.310	1.310

NOTES:

Δ1 = AMOUNT OF THE ROADWAY IS TO BE RAISED
Δ2 = THE DIFFERENCE BETWEEN EXISTING & PROPOSED BEARING
Δ3 = TOTAL Δ1+Δ2 (INCREASE IN BEARING PAD HEIGHT)



FRAMING PLAN

1" = 10'-0"

TYPICAL BEAM ELEVATION

N.T.S.

NOTES:

1. SEE POT BRG. DETAILS, SEE SHEET NO. S21
2. ALL PAD REINFORCEMENT IS TO BE EPOXY COATED.
3. IF THE POT BEARINGS APPROVED ARE DIFFERENT THAN THOSE DETAILED IN THE PLANS, THE PAD HEIGHT, SHALL BE ADJUSTED ACCORDINGLY.

No.	Revision	By	Date

	By	Date
Designed		
Drawn		
Checked		
In Charge Of:		

Maine Turnpike Authority
Maine Turnpike

PLAINS ROAD
OVER
MAINE TURNPIKE
FRAMING PLAN

HNTB — HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 94.3

Sheet No. S16
46 of 60

Design Filename: d:\f09009\sr74\frame1_d.dgn
Plotted on: 21-APR-1994 15:36
Generated by: H.H.