

Date: 3/24/2014

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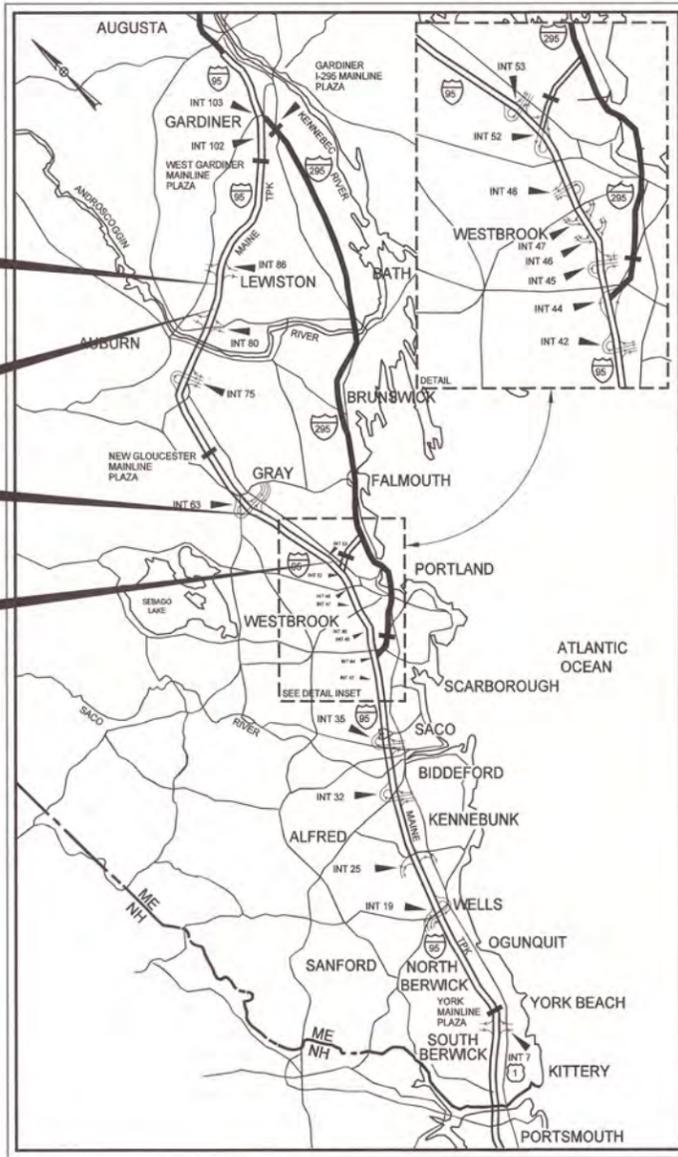
THE GOLD STAR
MEMORIAL HIGHWAY

MAINE TURNPIKE AUTHORITY

DANIEL E. WATHEN, CHAIR
DIANE M. DOYLE, VICE CHAIR
GERARD P. CONLEY, SR., MEMBER
JAMES F. CLOUTIER, MEMBER
JOHN E. DORITY, MEMBER
ROBERT D. STONE, MEMBER
BRUCE A. VAN NOTE, MEMBER EX-OFFICIO

S. PETER MILLS, EXECUTIVE DIRECTOR

CONTRACT 2014.15 BRIDGE AND CULVERT REPAIRS 4 LOCATIONS (MM F1.7 TO MM 84.3)



LOCATION MAP

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52	ALUMINUM BRIDGE RAILING STANDARD

APPROVED:
MAINE TURNPIKE AUTHORITY

PETER S. MERFELD, P.E. - CHIEF OPERATIONS OFFICER
DATE: 3/24/14

STEPHEN R. TARTRE, P.E. - DIRECTOR OF ENGINEERING &
BUILDING MAINTENANCE
DATE: 3/24/14



TYLIN INTERNATIONAL

NORMAN L. BAKER, PE
CONSULTANT PROJECT MANAGER

MARCH 24, 2014
DATE

Date: 3/24/2014

Filename: ...BRIDGE.MSTAD002_Quantities.dgn

ITEM NO.	ITEM DESCRIPTION	UNIT	FALMOUTH RD. UNDERPASS (MILE F1.7)	CENTER RD. UNDERPASS (MILE 62.9)	NO-NAME RIVER CULVERT (MILE 82.5)	LISBON RD. UNDERPASS (MILE 84.3)	TOTAL QUANTITY
202.202	REMOVING PAVEMENT SURFACE	SY	200	160		140	500
202.2021	REMOVING PAVEMENT SURFACE - BRIDGE DECK	SY	805	810		600	2215
403.210	HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE	TON	119	82		63	264
409.15	BITUMINOUS TACK COAT, APPLIED	GAL	51	49		37	137
507.0928	ALUMINUM BRIDGE RAILING, RAIL SECTION REPLACEMENT	LF	28			38	66
507.095	ALUMINUM BRIDGE RAILING - SPLICE MODIFICATION	EA	20	32		20	72
508.141	HIGH PERFORMANCE WATERPROOFING MEMBRANE (FALMOUTH ROAD) (805 SY)	LS	1				1
508.142	HIGH PERFORMANCE WATERPROOFING MEMBRANE (CENTER ROAD) (810 SY)	LS		1			1
508.143	HIGH PERFORMANCE WATERPROOFING MEMBRANE (LISBON ROAD) (600 SY)	LS				1	1
511.07	COFFERDAM	LS			1		1
515.201	PIGMENTED PROTECTIVE COATING FOR CONCRETE SURFACES	SY	480	450		320	1250
515.202	CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES	SY	440	500		430	1370
518.10	ABUTMENT REPAIRS	SF	115	125	170	15	425
518.15	CULVERT SURFACE PATCH REPAIR - ABOVE WATERLINE	SF			200		200
518.20	PIER REPAIRS	SF	85	95		40	220
518.61	REPAIR OF VERTICAL SURFACES > 7.9 INCHES	CY			3		3
518.6317	EPOXY INJECTED CRACK REPAIRS	LF	20	55	30		105
518.75	FASCIA AND OVERHANG REPAIRS	SF	30	70	45	30	175
518.80	PARTIAL DEPTH CONCRETE DECK REPAIRS	SF	425	440		205	1070
518.81	FULL DEPTH CONCRETE DECK REPAIRS	SF	40	40		30	110
520.2211	EXPANSION DEVICE REPAIR (FALMOUTH ROAD)	EA	2				2
520.2212	EXPANSION DEVICE REPAIR (CENTER ROAD)	EA		2			2
520.2213	EXPANSION DEVICE REPAIR (LISBON ROAD)	EA				2	2
526.301	TEMPORARY CONCRETE BARRIER, TYPE 1	LS	0.58	0.42			1
527.341	WORK ZONE CRASH CUSHIONS - TL-3	UNIT	1	2			3
527.342	WORK ZONE CRASH CUSHIONS - TL-2	UNIT	2				2
603.91	PRESSURE TREATED WOOD DRAIN TROUGH	LF	100	119		60	279
619.1202	TEMPORARY MULCH	LS	0.25	0.25	0.25	0.25	1
627.712	4 INCH WHITE OR YELLOW PAVEMENT MARKING LINE	LF	1280	915		800	2995
627.76	TEMPORARY PAVEMENT MARKING LINE, WHITE OR YELLOW	LS	1				1
627.77	REMOVING EXISTING PAVEMENT MARKING	SF	650				650
643.72	TEMPORARY TRAFFIC SIGNAL	LS	1				1
652.30	FLASHING ARROW BOARD	EA	1	1	1	1	4
652.312	TYPE III BARRICADE	EA		2		2	4
652.33	DRUM	EA	50	55	50	41	196
652.34	CONE	EA	20	20		20	60
652.35	CONSTRUCTION SIGNS	SF	650	970	370	1040	3030
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	LS	0.45	0.35	0.06	0.14	1
652.38	FLAGGER	HR	90				90
652.412	PORTABLE-CHANGEABLE MESSAGE SIGN	MO	2	2		2	6
652.45	TRUCK MOUNTED ATTENUATOR	CD	20	20		20	60
656.632	30 INCH TEMPORARY SILT FENCE	LF	50	50	50	50	200
656.64	BOOM SUPPORTED FLOATING SILT FENCE	LF			300		300
659.10	MOBILIZATION	LS			1		1

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TY-LIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date		By	Date
Designed	DSM	3/14	Checked	CPT	3/14
Drawn	DSM	3/14	In Charge of	NLB	3/14

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
4 LOCATIONS (MILE F1.7 TO MILE 84.3)

QUANTITIES

SHEET NUMBER: QT-01
 2 OF 52

CONTRACT: 2014.15

Date: 3/24/2014

Filename: ... \BRIDGE\MSTA\003_GEN_NOTES.dgn

SPECIFICATIONS:

DESIGN

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
6TH EDITION

CONSTRUCTION

STATE OF MAINE, DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES,
DECEMBER 2002

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
STANDARD DETAILS FOR HIGHWAYS AND BRIDGES,
DECEMBER 2002 WITH LATEST REVISIONS

AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS,
THIRD EDITION WITH 2013 INTERIMS

DESIGN LOADING:

LIVE LOAD

HL-93

MATERIALS:

CONCRETE

CONCRETE JOINT REPAIR SHALL BE CLASS AAA.

ALL OTHER PATCHING AND REPAIR AREAS SHALL
BE CLASS AAA-MODIFIED.

REINFORCING STEEL

AASHTO M31, GRADE 60 EPOXY-COATED.

BASIC DESIGN STRESSES:

CONCRETE

CLASS AAA, $f'_c = 4,500$ P.S.I.

REINFORCING STEEL

$f_y = 60,000$ P.S.I.

GENERAL NOTES:

1. FOR ADDITIONAL DETAILS REFERENCED OR NOT SHOWN IN THESE DRAWINGS, SEE THE STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD DETAILS, HIGHWAYS AND BRIDGES, DECEMBER 2002 WITH UPDATES.
2. COPIES OF THE AS-BUILT PLANS ARE ON FILE AT THE MAINE TURNPIKE AUTHORITY. A PORTION OF THESE PLANS ARE INCLUDED IN THIS CONTRACT FOR THE CONTRACTOR'S CONVENIENCE. THE COMPLETENESS AND ACCURACY OF THESE PLANS IS NOT GUARANTEED.
3. THE CONTRACTOR IS REQUIRED TO MAINTAIN ACCESS TO ALL DRIVEWAYS AND SIDE ROADS DURING CONSTRUCTION UNLESS NOTED OTHERWISE ON THE PLANS.
4. REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2" MIN., UNLESS OTHERWISE NOTED.
5. CHAMFER ALL EXPOSED CONCRETE EDGES $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.
6. ALL CONCRETE BRIDGE PARAPET FACES AND WINGWALL CONCRETE INSIDE FACE AND TOP FACE SHALL HAVE A RUBBED FINISH PRIOR TO THE APPLICATION OF THE CLEAR PROTECTIVE COATING FOR CONCRETE SURFACE.
7. SHIELDING REQUIRED DURING CONSTRUCTION SHALL NOT PROJECT BELOW THE BOTTOM FLANGES OF GIRDERS.
8. ALL PAINT ON EXISTING STEEL, DAMAGED BY CONTRACTOR'S OPERATIONS, SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT AT THE CONTRACTOR'S EXPENSE.

PAVING NOTES:

1. ANY NECESSARY CLEANING OF EXISTING PAVEMENT PRIOR TO PAVING SHALL BE INCIDENTAL TO THE RELATED PAVING ITEMS.
2. RECYCLED BITUMINOUS PAVEMENT (RAP) SHALL NOT BE PLACED ON ANY PORTION OF THE EXISTING BRIDGE DECK.
3. ALL COLD JOINTS WITH TEMPERATURES LESS THAN 120°F SHALL BE SEALED WITH JOINT SEALANT CONFORMING TO FEDERAL SPECIFICATION SS-S-1401C.

SUBSTRUCTURE REPAIR PROCEDURAL NOTES:

1. CONCRETE REPAIRS, INCLUDING THE ASSOCIATED REMOVALS, WILL BE PAID UNDER 518 ITEMS.

REMOVAL PROCEDURE:

1. PRIOR TO THE START OF THE CONCRETE REMOVALS, THE RESIDENT AND THE CONTRACTOR SHALL SOUND THE CONCRETE AND AGREE ON THE REMOVAL LIMITS. SHOULD THE REMOVAL AREA LIMITS APPEAR TO CHANGE DURING THE DEMOLITION PROCESS, THE CONTRACTOR SHALL NOTIFY THE RESIDENT. THE RESIDENT AND CONTRACTOR SHALL AGREE ON THE REVISED PAY LIMITS PRIOR TO THE CONTRACTOR CONTINUING THE REMOVALS.
2. PERFORM 1 INCH DEEP SAWCUTS ALONG LIMITS OF REMOVAL.
3. CHIP CONCRETE TO DEPTH REQUIRED PER MAINEDOT STANDARD SPECIFICATION 518.

CONCRETE SURFACE PATCH/REPAIR PROCEDURE:

1. PREPARE AND PATCH REPAIR AREAS WITH CLASS AAA MODIFIED CONCRETE. SEE SPECIFICATIONS FOR MATERIAL, PREPARATION, PLACEMENT, AND CURING REQUIREMENTS.
2. PERFORM GENERAL FINISHING (SEE BELOW).

EPOXY INJECTION CRACK REPAIR:

1. PREPARE CONCRETE SURFACE AND CRACK AREA BY CLEANING SUBSTRATE WITH WIRE BRUSH TO REMOVE LAITANCE AND CONTAMINANTS. BLAST CLEAN THE CRACK AND CONCRETE SURFACE; DO NOT USE WATER.
2. SET INJECTION PORTS ALONG THE LENGTH OF THE CRACK USING A HIGH-MODULUS EPOXY ADHESIVE. ONCE SET, SEAL PORTS AND CRACK WITH SAME EPOXY ADHESIVE.
3. WHEN THE EPOXY ADHESIVE SEAL HAS CURED, INJECT A HIGH-MODULUS, LOW-VISCOSITY EPOXY SUCH AS SIKADUR 35, SIKADUR 55, OR APPROVED EQUAL.

GENERAL FINISHING:

1. CONTRACTOR SHALL REMOVE TECTYL COATING WHERE PRESENT PRIOR TO APPLYING PROTECTIVE CONCRETE COATING. WORK SHALL BE INCIDENTAL TO THE SPECIFIED ITEM IN S.P. 518.
2. ALL EXPOSED SURFACES SHALL BE COATED WITH A PROTECTIVE COATING SUITABLE FOR CONCRETE SURFACES AFTER PATCHING IS COMPLETE AND PATCH MATERIALS HAVE CURED. SEE S.P. 515 FOR LIMITS OF CLEAR AND PIGMENTED COATING.

LIST OF ABBREVIATIONS

ABUT.	ABUTMENT
ADDL.	ADDITIONAL
ASCG.	AGGREGATE SUBBASE COURSE GRAVEL
ALT.	ALTERNATE
APPROX.	APPROXIMATE
BOT.	BOTTOM
BRG.	BEARING
CL.	CLEAR
☉	CENTERLINE
CONC.	CONCRETE
CONSTR.	CONSTRUCTION
DEMO.	DEMOLITION
DIA.	DIAMETER
DIAPH.	DIAPHRAGM
EA.	EACH
EB	EASTBOUND
E.F.	EACH FACE
EL.	ELEVATION
EQ.	EQUAL
EXIST.	EXISTING
EXP.	EXPANSION
F.F.	FAR FACE
JT.	JOINT
MAX.	MAXIMUM
MIN.	MINIMUM
MTA	MAINE TURNPIKE AUTHORITY
NB	NORTHBOUND
N.F.	NEAR FACE
N.T.S.	NOT TO SCALE
O.H.W.	ORDINARY HIGH WATER
PED.	PEDESTAL
PGL	PROFILE GRADE LINE
☒	PLATE
PROP.	PROPOSED
RDWY.	ROADWAY
SHLD.	SHOULDER
SB	SOUTHBOUND
SP.	SPACES
STA.	STATION
T.&B.	TOP & BOTTOM
TPKE.	TURNPIKE
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
VERT.	VERTICAL
WB	WESTBOUND
W.P.	WORKING POINT

Scale:			
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Designed by:

TY-LIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date		By	Date
Designed	DSM	3/14	Checked	SBK	3/14
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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
4 LOCATIONS (MILE F1.7 TO MILE 84.3)

GENERAL NOTES

SHEET NUMBER: SN-01
3 OF 52

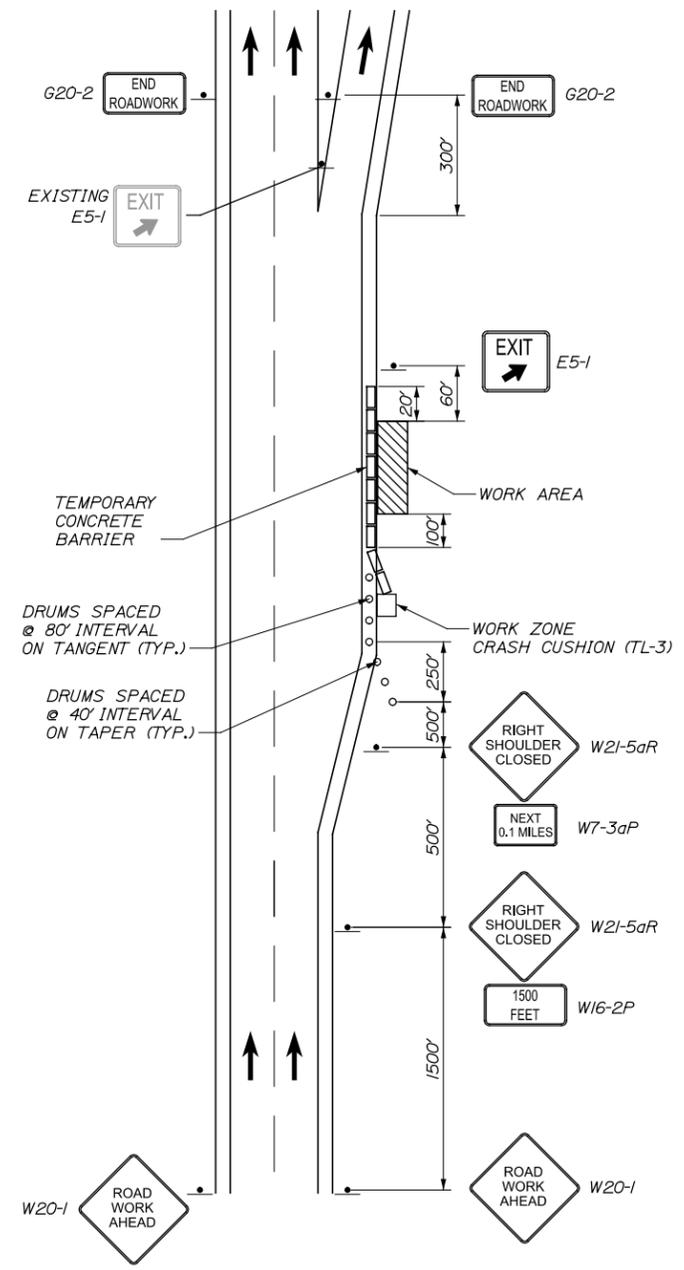
CONTRACT: 2014.15

GENERAL MAINTENANCE OF TRAFFIC NOTES:

1. CONTRACTOR SHALL REFER TO THE CURRENT EDITION OF THE MUTCD, FOR TEMPORARY TRAFFIC CONTROL MEASURES AND TYPICAL APPLICATIONS FOR OTHER WORK ZONE ARRANGEMENTS ON TURNPIKE MAINLINE AND OVERPASS ROADWAYS.
2. FOR SIGN DETAILS, SEE MAINTENANCE OF TRAFFIC SIGN SUMMARY SHEET.
3. ALL WORK SHALL CONFORM TO THE 2002 MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES, REVISION OF 2002, EXCEPT AS MODIFIED BY THE MAINE TURNPIKE AUTHORITY'S GENERAL AND SPECIAL PROVISIONS.
4. THESE PLANS SHOW THE GENERAL CONDITION FOR TURNPIKE MAINLINE AND INTERCHANGE TRAFFIC CONTROL DURING CONSTRUCTION, SLIGHT MODIFICATIONS IN CONSTRUCTION PROCEDURE MAY OCCUR AND MAY REQUIRE SOME MINOR ADJUSTMENTS TO BE MADE IN THE FIELD. ALL PROCEDURES MUST BE APPROVED BY THE RESIDENT.
5. THE CONTRACTOR SHALL REMOVE ALL PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS IN ACCORDANCE WITH THE SPECIFICATIONS AND MUTCD. PAYMENT SHALL BE MADE UNDER ITEM 627.77 - REMOVING EXISTING PAVEMENT MARKING.
6. TEMPORARY PAVEMENT MARKING SHALL BE PAINTED, UNLESS OTHERWISE NOTED. PAYMENT FOR MARKINGS SHALL BE UNDER ITEM 627.76 - TEMPORARY PAVEMENT MARKING LINE, WHITE OR YELLOW. TEMPORARY PAVEMENT MARKINGS ON FINAL PAVEMENT SURFACE OR EXISTING PAVEMENT TO REMAIN SHALL BE TEMPORARY PAVEMENT MARKING TAPE TO BE REMOVED PRIOR TO FINAL PAVEMENT MARKING.
7. EXPOSED BARRIER ENDS SHALL BE PROTECTED BY A WORK ZONE CRASH CUSHION. PAYMENT WILL BE UNDER ITEM 527.341 - WORK ZONE CRASH CUSHION - TL-3 OR ITEM 527.342 - WORK ZONE CRASH CUSHION - TL-2.
8. AT NO TIME SHALL SHOULDER CLOSURES ON BOTH SIDES OF THE TRAVEL LANES OCCUR ON THE SAME SIDE OF THE MAINLINE.
9. WORK WITHIN SHOULDER CLOSURES SHALL BE CONTINUOUS TO MINIMIZE IMPACTS TO MAINLINE TRAFFIC.
10. CONTRACTOR SHALL COORDINATE ALL MAINTENANCE OF TRAFFIC WITH ADJACENT PROJECTS.
11. WHEN TRUCK MOUNTED ATTENUATORS ARE INCLUDED IN THE CONTRACT (INCIDENTAL OR PAY ITEM), THEY SHALL BE LOCATED WITHIN THE WORK ZONE, NOT THE BUFFER ZONE.
12. LOCATIONS OF TEMPORARY TRAFFIC CONTROL DEVICES, SIGNS, AND PAVEMENT MARKINGS ARE APPROXIMATE. FINAL LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
13. PORTABLE-CHANGABLE MESSAGE SIGNS SHALL BE USED DURING PERIOD OF FULL BRIDGE CLOSURE ONLY. THESE SHALL BE LOCATED FOR EACH APPROACH TO EACH BRIDGE WHEN CLOSED.
14. ALL PAVEMENT STRIPING AND SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", U.S.D.O.T., FHWA, LATEST EDITION.

TEMPORARY SIGNAL NOTES:

1. LOCATIONS OF TEMPORARY TRAFFIC SIGNAL SYSTEMS ARE APPROXIMATE. FINAL LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
2. TRAFFIC SIGNAL WORK SHALL BE COMPLETED IN A MANNER AND ORDER THAT WILL CAUSE THE MINIMUM DISRUPTION TO TRAFFIC.
3. ALL SIGNAL SECTIONS SHALL HAVE LED LENSES 12 INCHES IN DIAMETER WITH 5 IN BACK PLATES.
4. TEMPORARY TRAFFIC SIGNAL SYSTEMS MAY BE SPAN-WIRE, MAST-ARM, OR MOBILE TRAILOR MOUNTED SIGNAL HEADS WITH ALL NECESSARY POWER SUPPLY AND SIGNAL TIMING CONTROL TYPE AND POSITION OF TEMPORARY SIGNAL SYSTEM SHALL BE SUCH THAT THE SIGNALS ARE ALSO VISIBLE TO VEHICLES IN DRIVEWAYS IN VICINITY OF WORK AREA.
5. THE BOTTOM OF THE HOUSING OF NEW SIGNAL FACES SHALL BE AT LEAST 16 FT BUT NO MORE THAN 19 FT ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
6. THE CONTRACTORS SHALL MEET ALL REQUIREMENTS OF THE UTILITY COMPANIES WHEN MODIFYING/INSTALLING SERVICE CONNECTIONS AND WHEN INSTALLING EQUIPMENT ON THEIR POLES OR NEAR THEIR WIRES. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING POWER METERS, IF REQUIRED, AND ASSURING THE POWER METER LOCATION AND INSTALLATION CONFORMS TO THE LOCAL UTILITY REQUIREMENTS. THIS WORK SHALL BE INCIDENTAL TO ITEM 643.72, TEMPORARY TRAFFIC SIGNAL THE SERVICE POLE, WIRING, METER SOCKET, AND DISCONNECT/POWER PANEL SHALL BE INCIDENTAL TO ITEM 643.72, TEMPORARY TRAFFIC SIGNAL.
7. ALL POWER AND CONTROL SPLICES WILL BE MADE IN THE CABINETS MEETING MAINEDOT SPECIFICATIONS.
8. THE CONTRACTOR SHALL NOT BE ALLOWED TO ATTACH ANY SIGNING OR SPAN WIRE TO EXISTING UTILITY POLES.
9. THE CONTRACTOR SHALL INSTALL ALL SPAN WIRE, POLES, SIGNS AND ALL OTHER TEMPORARY TRAFFIC CONTROL ELEMENTS WHILE MAINTAINING A MINIMUM 10 FT. CLEARANCE FROM ALL OVERHEAD LINES.
10. THE CONTRACTOR SHALL VERIFY THAT THERE ARE NO UNDERGROUND UTILITY CONFLICTS PRIOR TO INSTALLING TEMPORARY POLES. A MINIMUM 2 FOOT CLEARANCE FROM ALL UNDERGROUND UTILITIES WILL BE REQUIRED.



TURNPIKE NORTHBOUND SHOULDER CLOSURE AT CENTER ROAD UNDERPASS

ABBREVIATIONS FOR ALL M.O.T. PLANS

- BWLL= BROKEN WHITE LANE LINE
- SWEL= SOLID WHITE EDGE LINE
- SYEL= SOLID YELLOW EDGE LINE
- TBWLL= TEMPORARY BROKEN WHITE LANE LINE
- TDYCL= TEMPORARY DOUBLE YELLOW CENTER LINE
- TSWEL= TEMPORARY SOLID WHITE EDGE LINE
- TSYEL= TEMPORARY SOLID YELLOW EDGE LINE

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TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date		By	Date
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Drawn	JD	3/14	In Charge of	NLB	3/14

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THE GOLD STAR MEMORIAL HIGHWAY

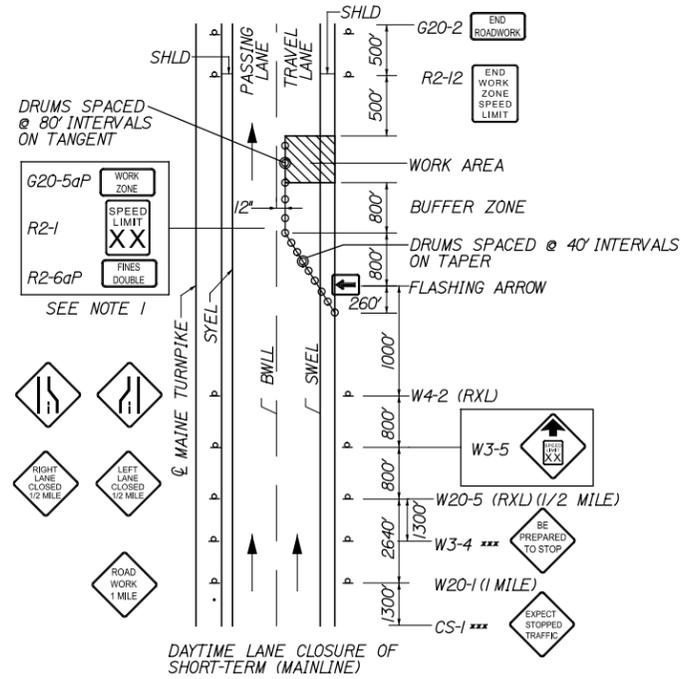
MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 TRAFFIC CONTROL DETAILS - 1 OF 3

SHEET NUMBER: MT-01
 4 OF 52

CONTRACT: 2014.15

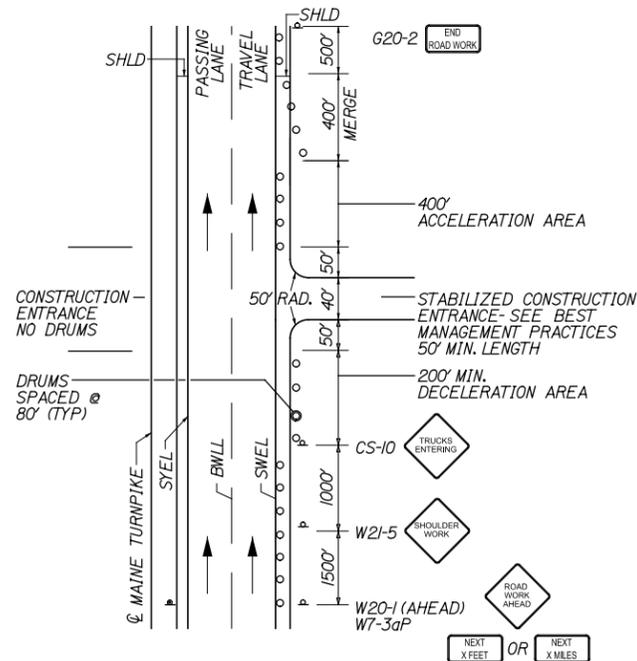
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NOTES:

1. FOR EASEL SET UP ONLY, THIS SIGN IS NOT BRACKETED. ONE SIGN ASSEMBLY IS PLACED AT THE END OF THE TAPER.
2. SIGNS DESIGNATED WITH *** SHALL BE USED DURING STOPPAGES OF TRAFFIC.

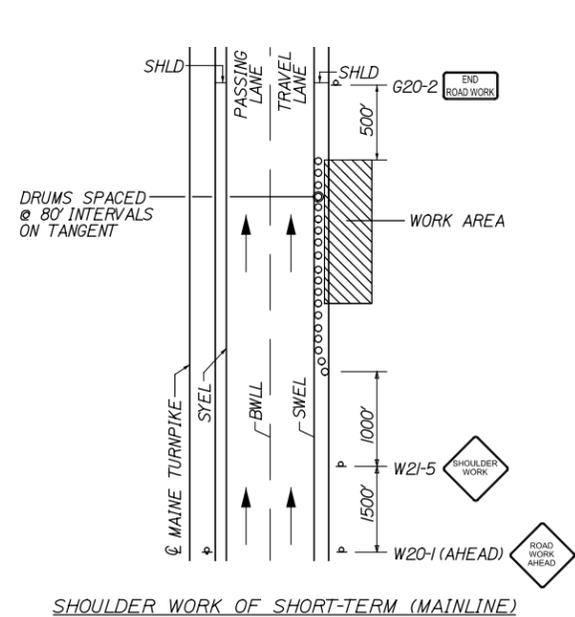
SINGLE LANE CLOSURE- SIGNS ON EASELS



NOTES:

1. SIGN G20-2 IS NOT REQUIRED IF ENTRANCE IS WITHIN THE WORK ZONE.
2. "TRUCKS ENTERING" SIGN SHALL ALSO BE USED AT LOCATIONS WHERE TRUCKS ENTER THE WORK ZONE FROM THE TRAVEL LANE.

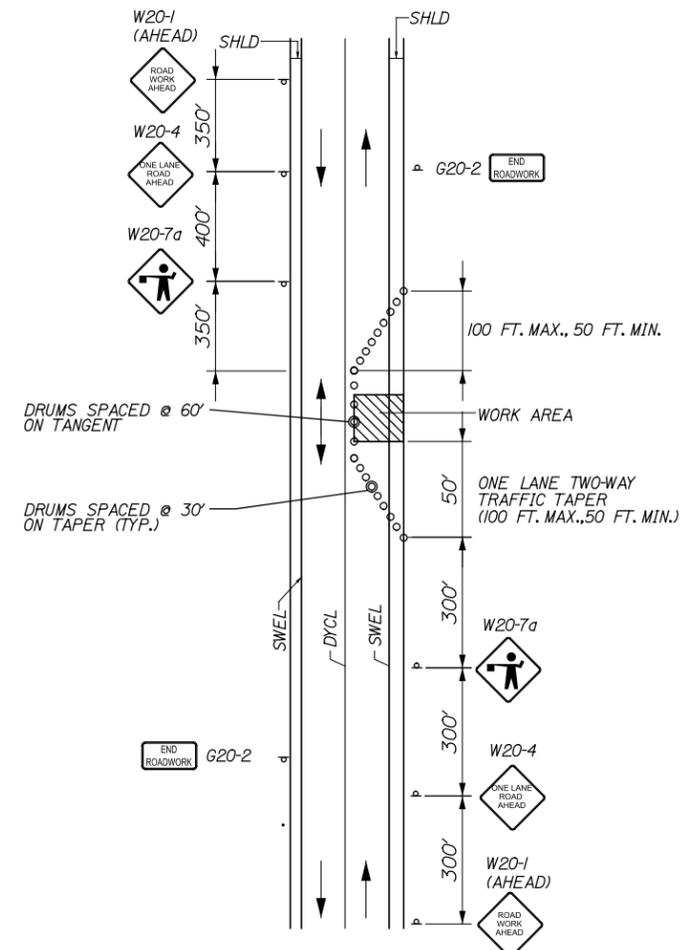
STABILIZED CONSTRUCTION ENTRANCE



NOTE:

THE W20-1 AND G20-2 SIGNS ARE NOT REQUIRED IF THE SHOULDER CLOSURE IS WITHIN A PREVIOUSLY ESTABLISHED WORK ZONE.

SHOULDER WORK



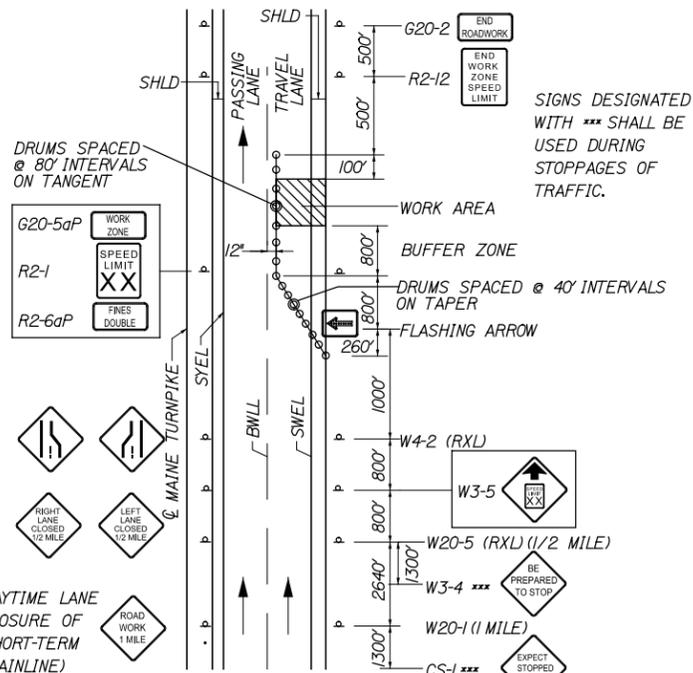
NOTES:

1. FLAGGERS SHALL BE LOCATED SO THEY ARE CLEARLY VISIBLE TO APPROACHING DRIVERS.

LOCAL ROAD SINGLE LANE CLOSURE

NOTE:

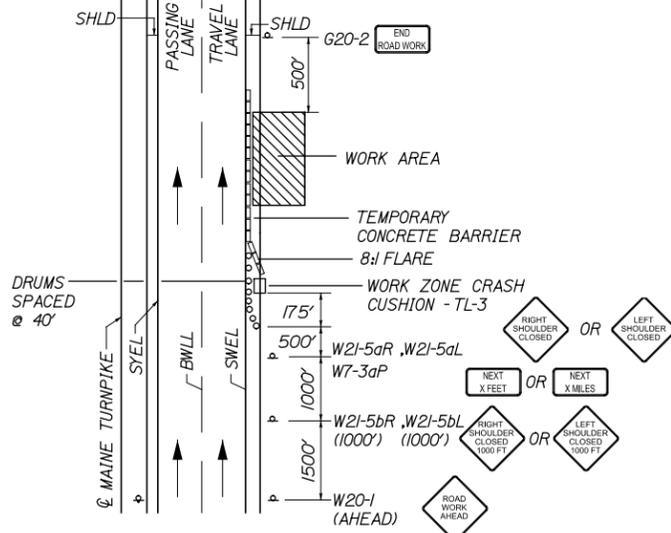
SEE TRAFFIC CONTROL DETAILS - 1 OF 3 FOR GENERAL MAINTENANCE OF TRAFFIC NOTES AND ABBREVIATIONS FOR ALL M.O.T. PLANS.



SIGNS DESIGNATED WITH *** SHALL BE USED DURING STOPPAGES OF TRAFFIC.

NOTE: UNCOVER SIGNS ADJACENT TO OPEN LANE FOR SHORT-TERM LANE CLOSURE (LESS THAN 24 HOURS); UNCOVER BOTH SIGNS FOR PERMANENT LANE CLOSURE (GREATER THAN 24 HOURS).

SINGLE LANE CLOSURE- POST MOUNTED SIGN SETUP



SHOULDER CLOSURE (MAINLINE)

NOTE:

THE W20-1 AND G20-2 SIGNS ARE NOT REQUIRED IF THE SHOULDER CLOSURE IS WITHIN A PREVIOUSLY ESTABLISHED WORK ZONE.

SHOULDER CLOSURE

Scale: NOT TO SCALE

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Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date		By	Date
Designed	DRR	3/14	Checked	TSK	3/14
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THE GOLD STAR MEMORIAL HIGHWAY

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 TRAFFIC CONTROL DETAILS - 2 OF 3

Filename: ...MSTA\005_MOT_DET_02.dgn

MTA PROJECT MANAGER: Ralph C. Norwood IV

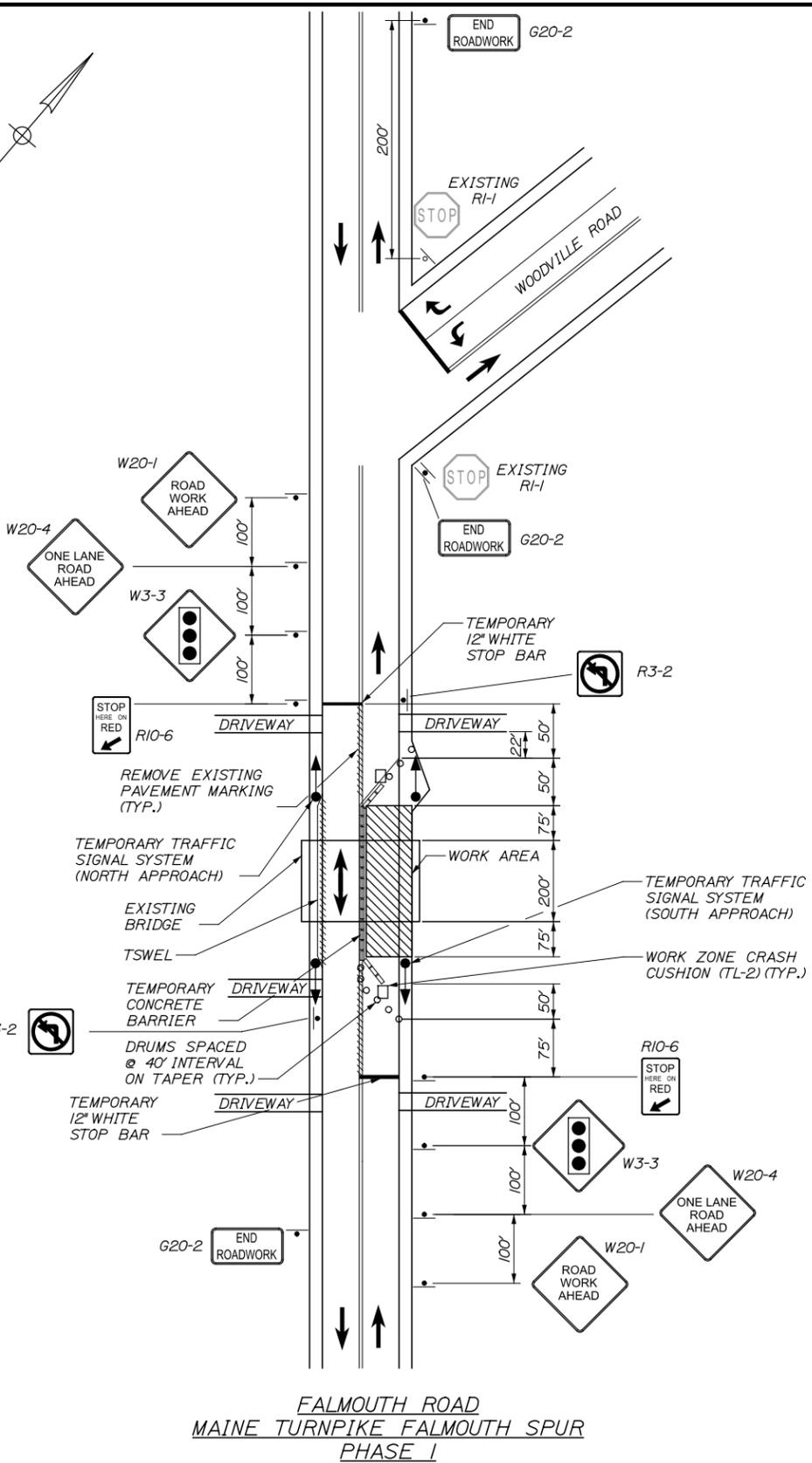
CONTRACT: 2014.15

SHEET NUMBER: MT-02

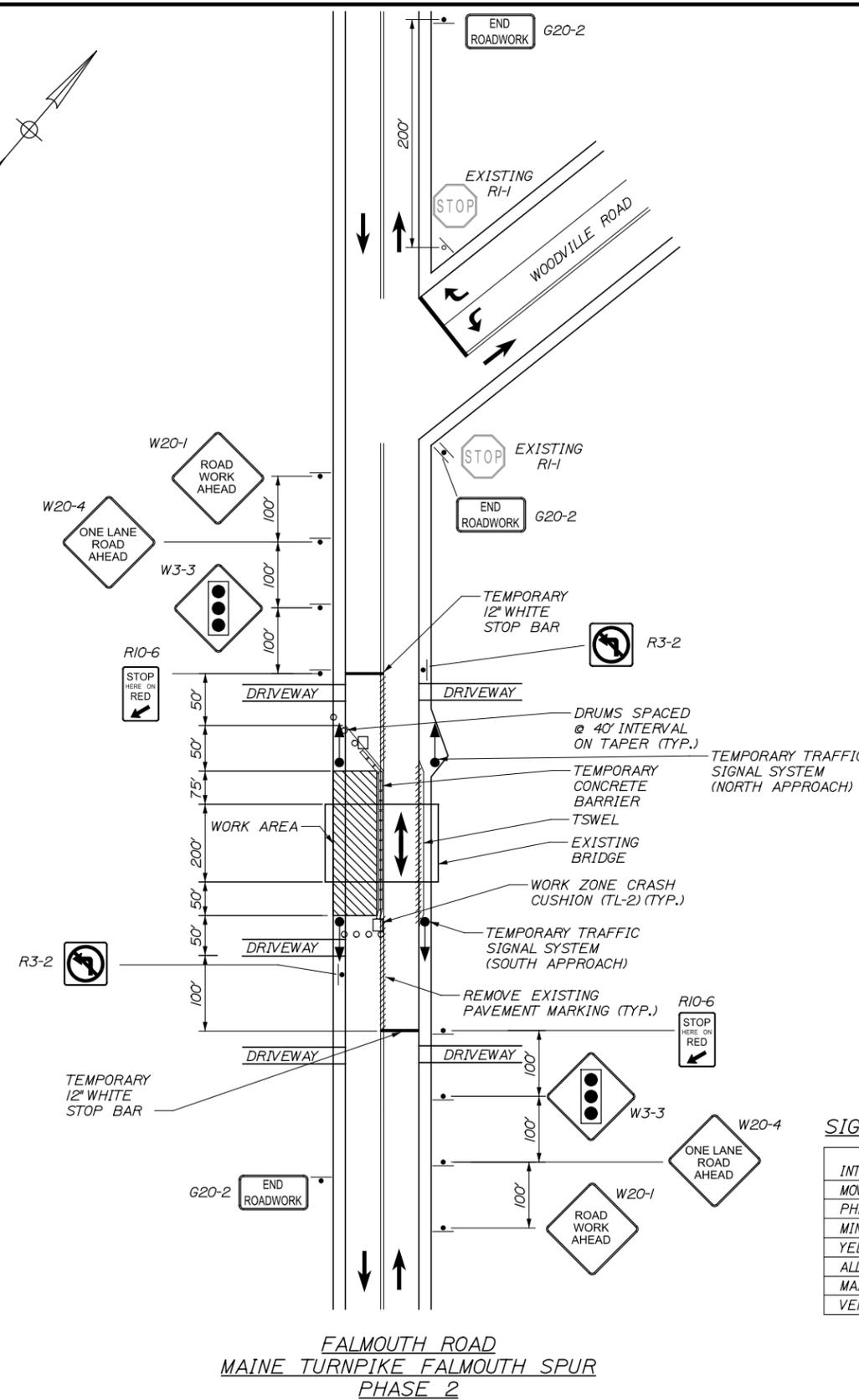
5 OF 25

Date: 3/24/2014

Filename: ...MSTA\006_MOT_DET_03.dgn



FALMOUTH ROAD
MAINE TURNPIKE FALMOUTH SPUR
PHASE 1



FALMOUTH ROAD
MAINE TURNPIKE FALMOUTH SPUR
PHASE 2

- GENERAL NOTES:**
- FOR SIGN DETAILS SEE MAINTENANCE OF TRAFFIC SIGN SUMMARY SHEETS.
 - CONTRACTOR SHALL SET TIMING OF TWO TEMPORARY TRAFFIC SIGNALS PER TIMING DATA PROVIDED ON THIS SHEET. CONTRACTOR SHALL MONITOR AND ADJUST SIGNAL TIMING AS NECESSARY TO MINIMIZE TRAFFIC DELAYS.
 - SEE ADDITIONAL NOTES FOR TEMPORARY SIGNAL WORK ON TRAFFIC CONTROL DETAILS, SHEET 1 OF 3.

SIGNAL TIMING

INTERSECTION	SOUTH APPROACH						NORTH APPROACH		
MOVEMENT	-	-	-	-	-	-	-	-	-
PHASE	1	2	3	4	5	6	7	8	9
MIN GREEN	-	4.0	-	-	-	-	-	4.0	-
YELLOW	-	3.5	-	-	-	-	-	3.5	-
ALL RED	-	19.0	-	-	-	-	-	19.0	-
MAX SPLIT	-	60.0	-	-	-	-	-	60.0	-
VEH EXTENSION	-	3.0	-	-	-	-	-	3.0	-

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date	By	Date	
Designed	DRR	3/14	Checked	TSK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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 FAX: (207) 781-4753

MAINE TURNPIKE

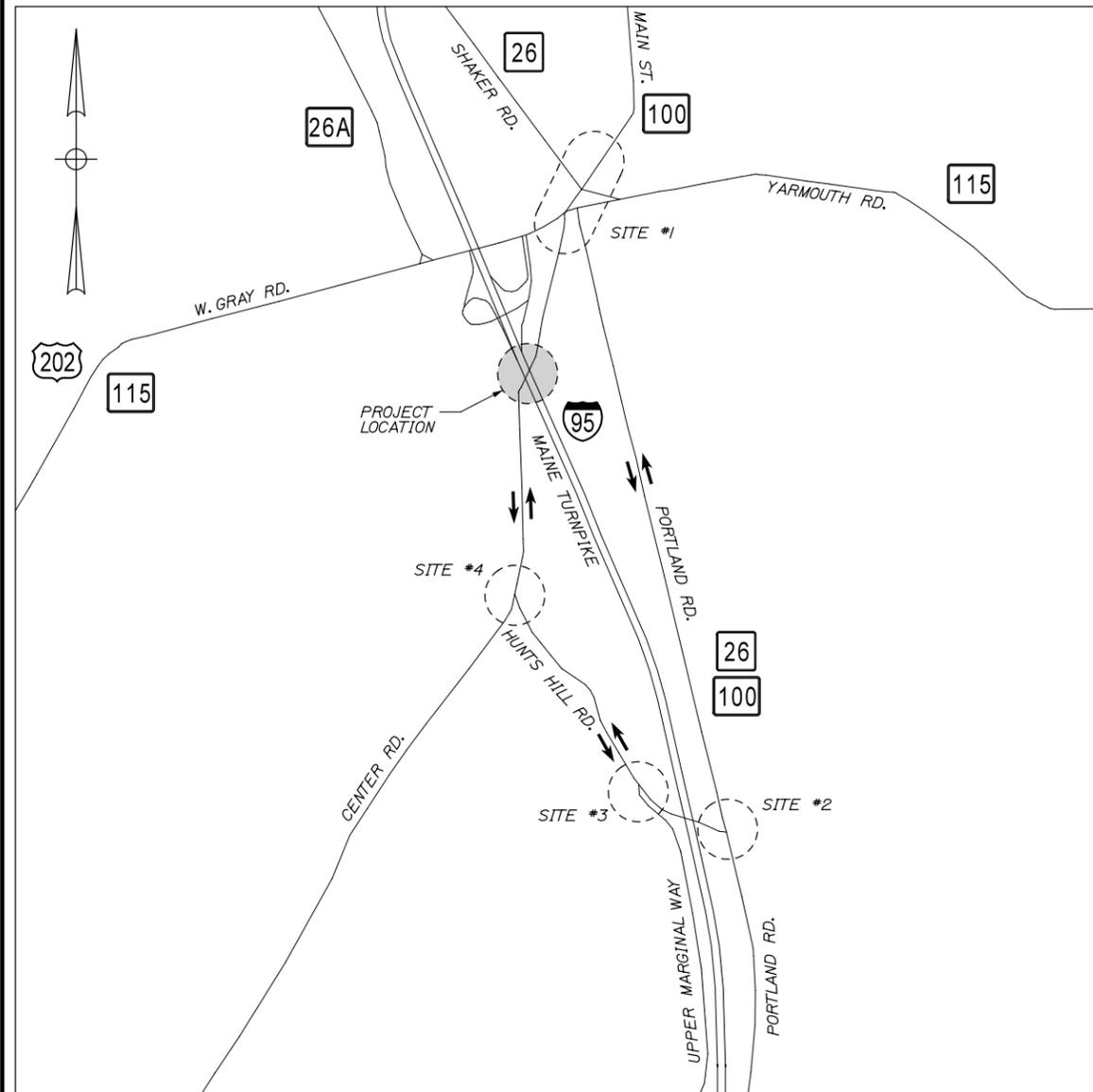
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 TRAFFIC CONTROL DETAILS - 3 OF 3

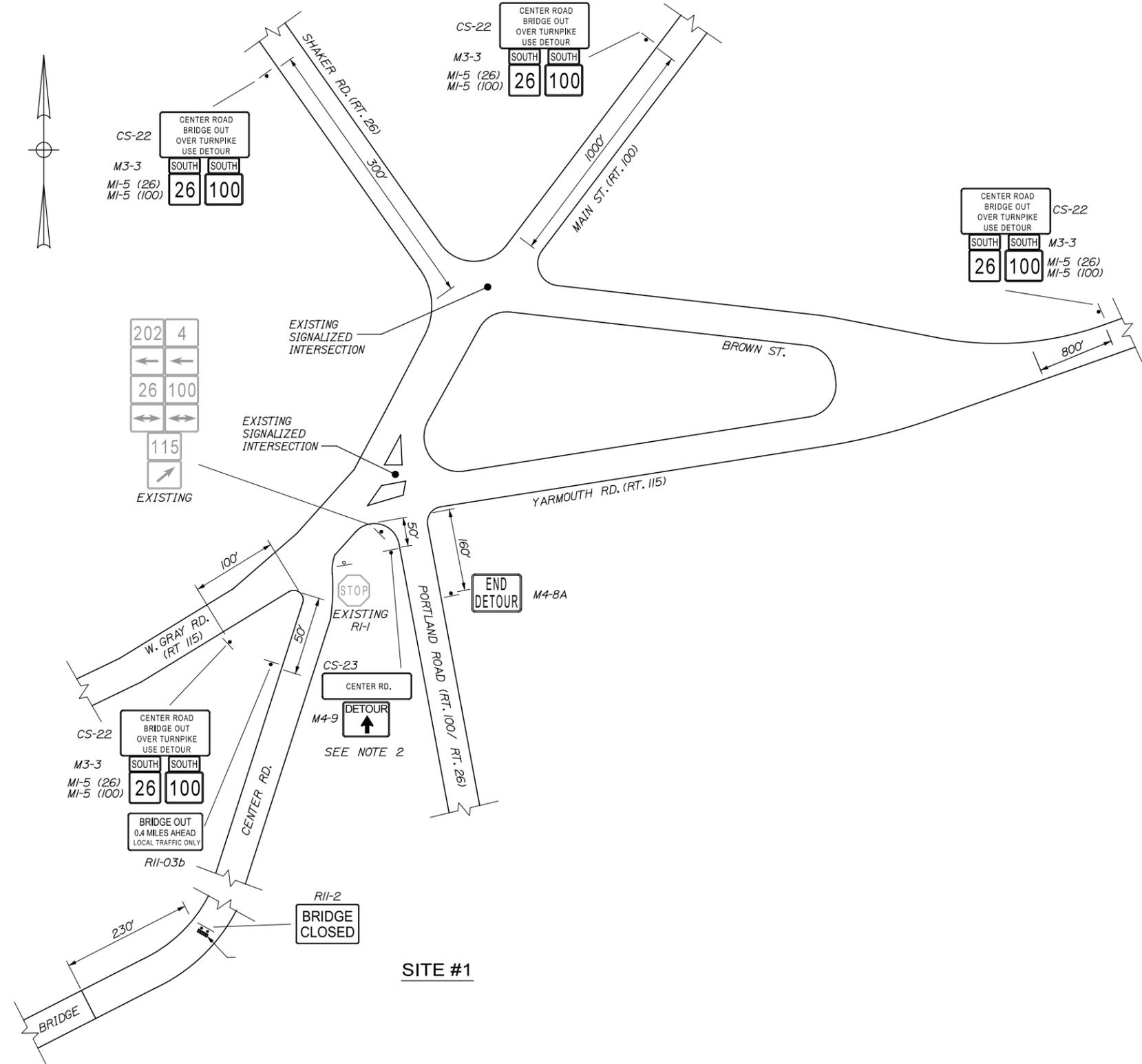
SHEET NUMBER: MT-03
 CONTRACT: 2014.15
 6 OF 52

Date: 3/24/2014



NOTES:

1. REFER TO THE MAINTENANCE OF TRAFFIC SHEETS FOR ALL TURNPIKE MAINLINE WORK.
2. SIGNS CS-23 AND M4-9 WILL BE LARGER SIGNS SHOWN ON SIGN SUMMARY SHEET IN LOCATION NOTED.



Filename: ...MSTA\007_62.9_MOT_01.dgn

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:

TY-LIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date		By	Date
Designed	DRR	3/14	Checked	TSK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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**THE GOLD STAR
MEMORIAL HIGHWAY**

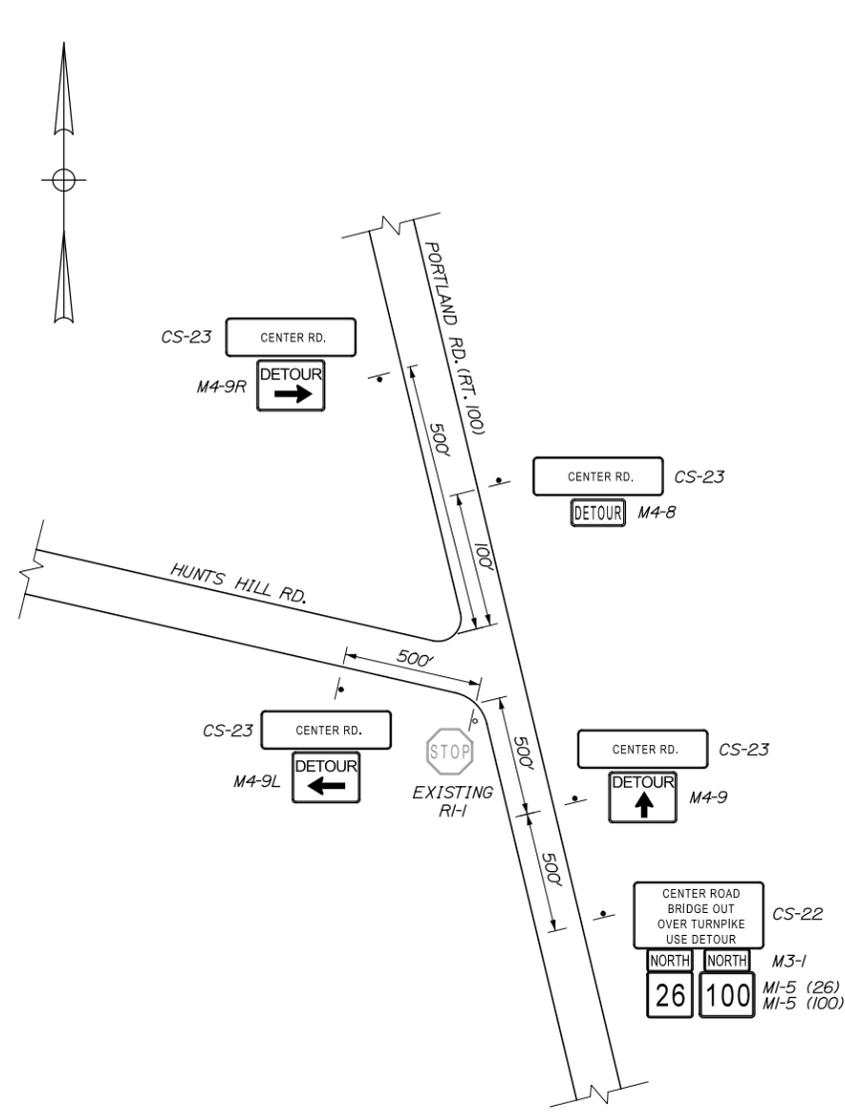
MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 CENTER RD. UNDERPASS - MILE 62.9
 DETOUR PLAN - 1 OF 2

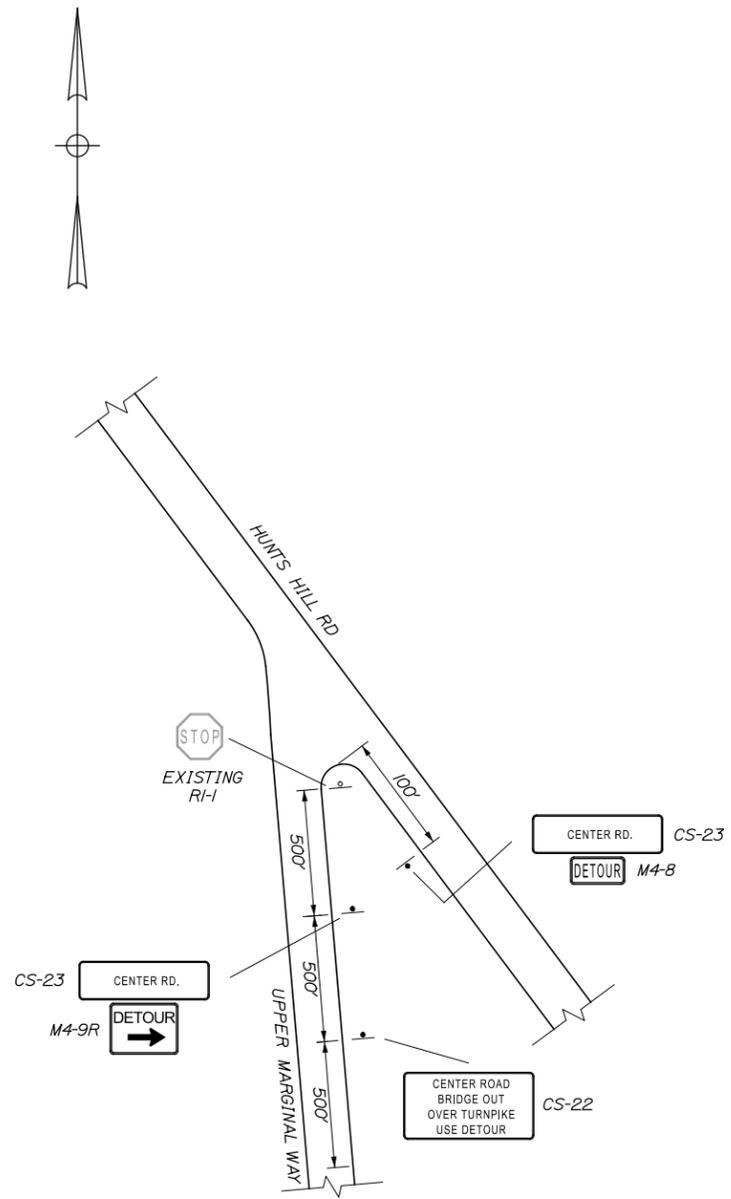
SHEET NUMBER: MT-04
 CONTRACT: 2014.15
 7 OF 52

Date: 3/24/2014

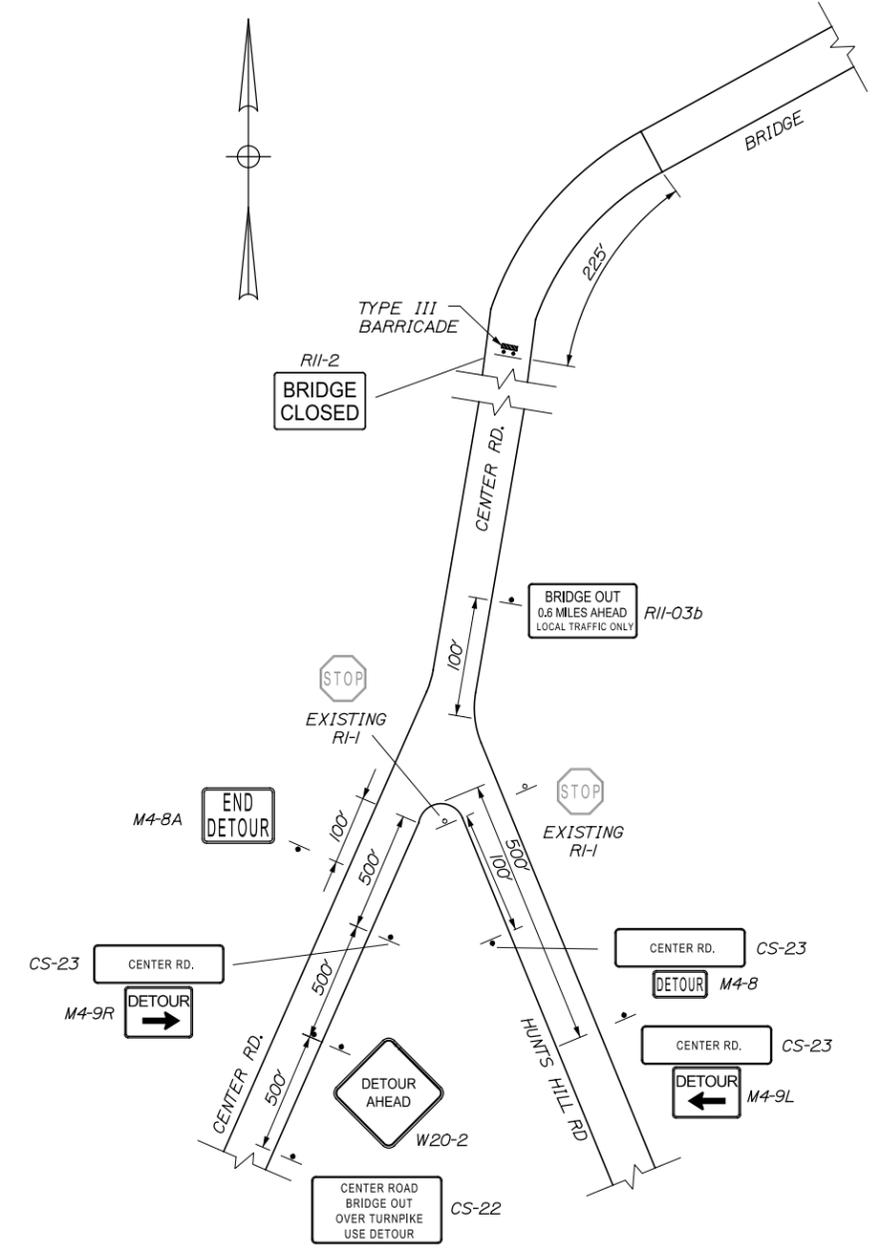
Filename: ...MSTA\008_62.9_MOT_02.dgn



SITE #2



SITE #3



SITE #4

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date		By	Date
Designed	DRR	3/14	Checked	TSK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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THE GOLD STAR MEMORIAL HIGHWAY

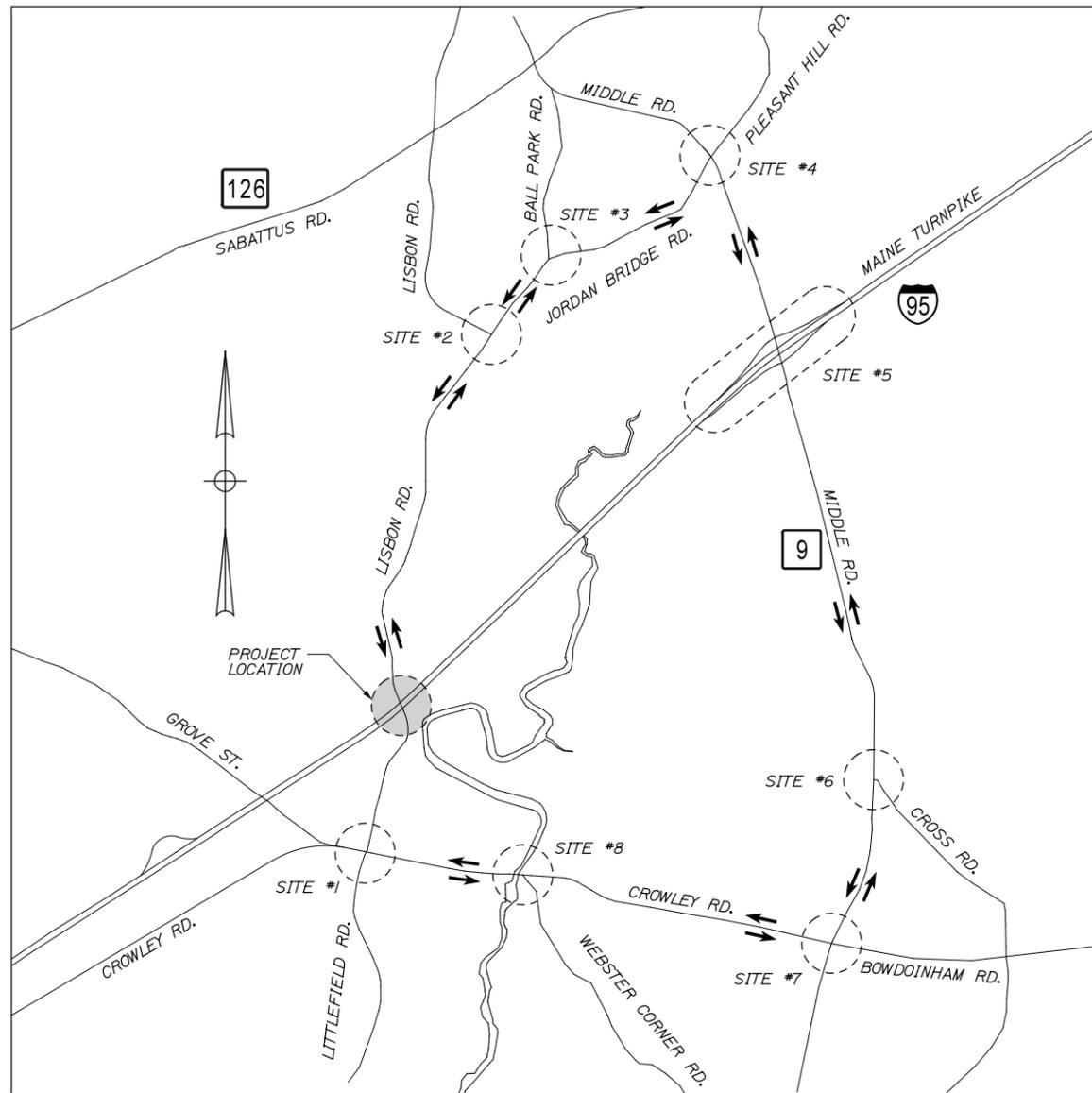
MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 CENTER RD. UNDERPASS - MILE 62.9
 DETOUR PLAN - 2 OF 2

SHEET NUMBER: MT-05
 8 OF 52

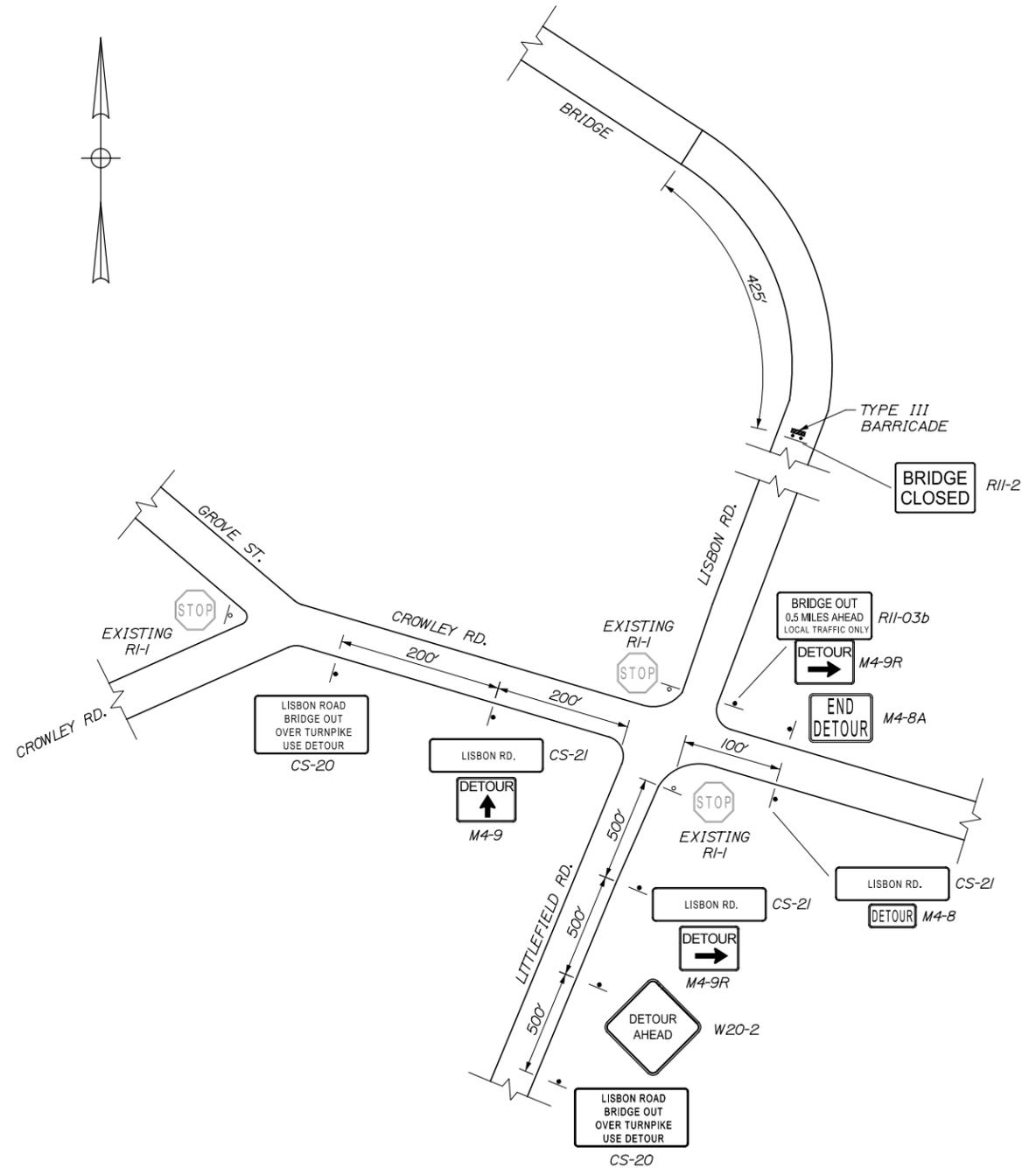
CONTRACT: 2014.15

Date: 3/24/2014



NOTES:

1. REFER TO THE MAINTENANCE OF TRAFFIC SHEETS FOR ALL TURNPIKE MAINLINE WORK.
2. CONTRACTOR IS ADVISED OF POTENTIAL CONSTRUCTION AND TEMPORARY TRAFFIC CONTROL AT SITE #4 NOTED ABOVE. CONTRACTOR SHALL COORDINATE WITH MAINE TURNPIKE AND MODIFY DETOUR MEASURES AT SITE #4 AS REQUIRED BY THE RESIDENT.



SITE #1

Filename: ...MSTA\009_84.3_MOT_01.dgn

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DRR	3/14	Checked	TSK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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THE GOLD STAR
MEMORIAL HIGHWAY

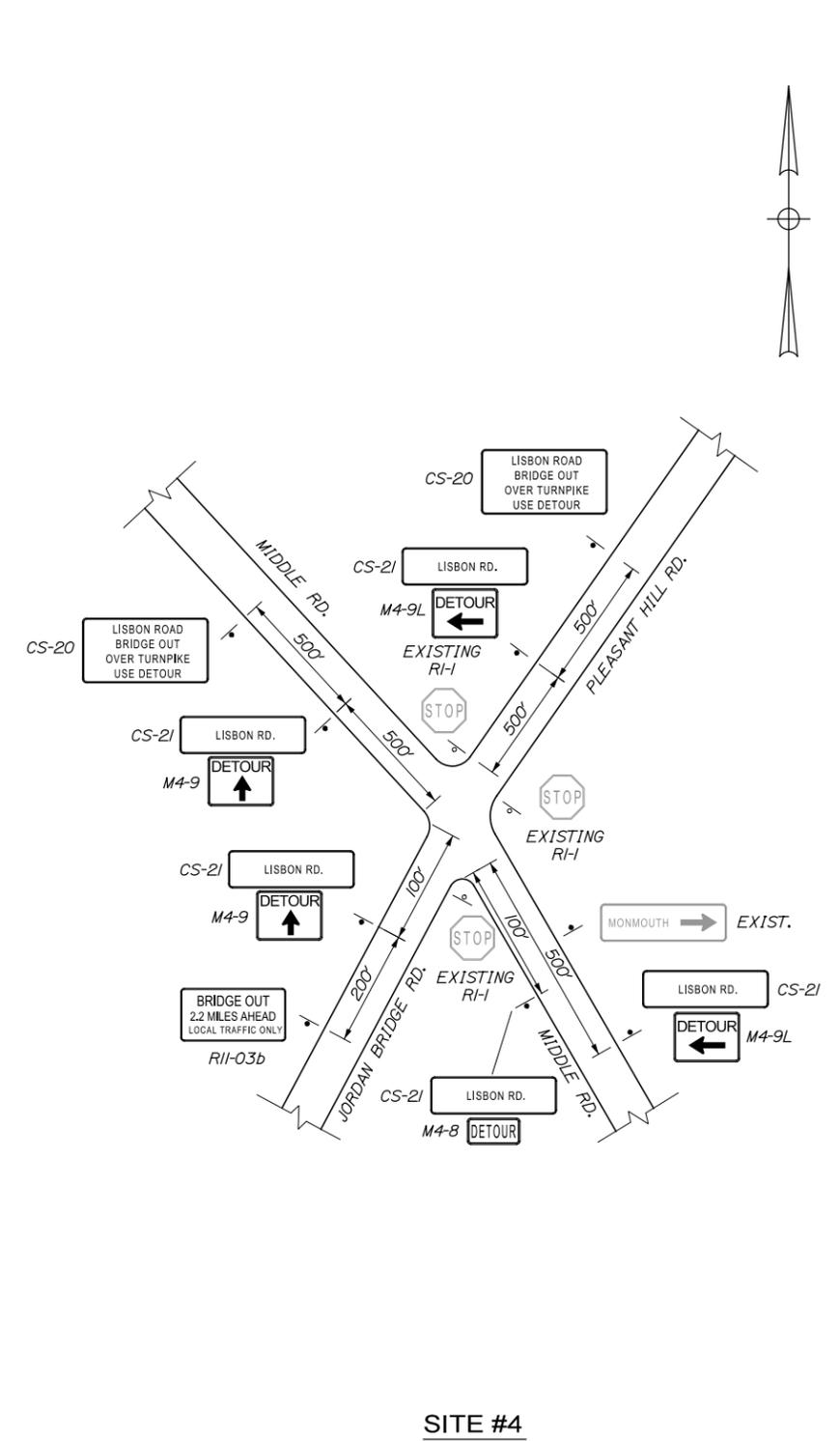
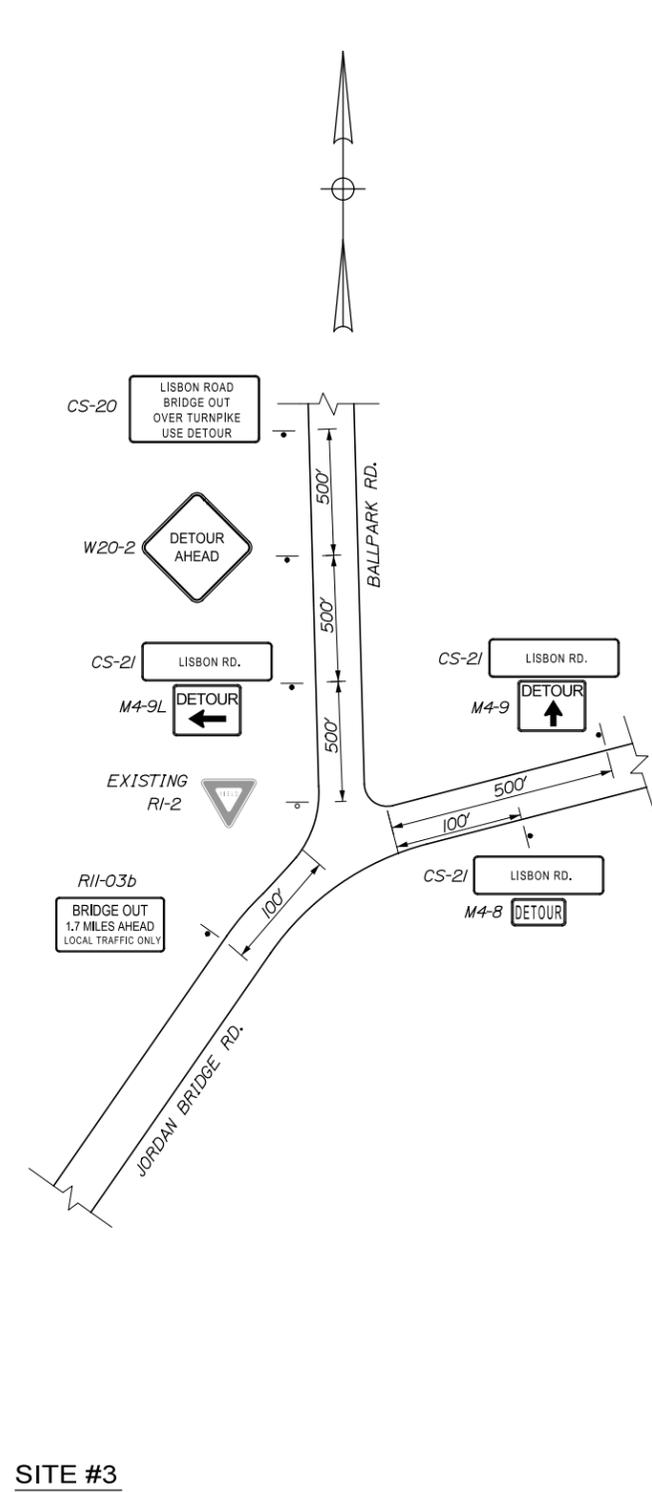
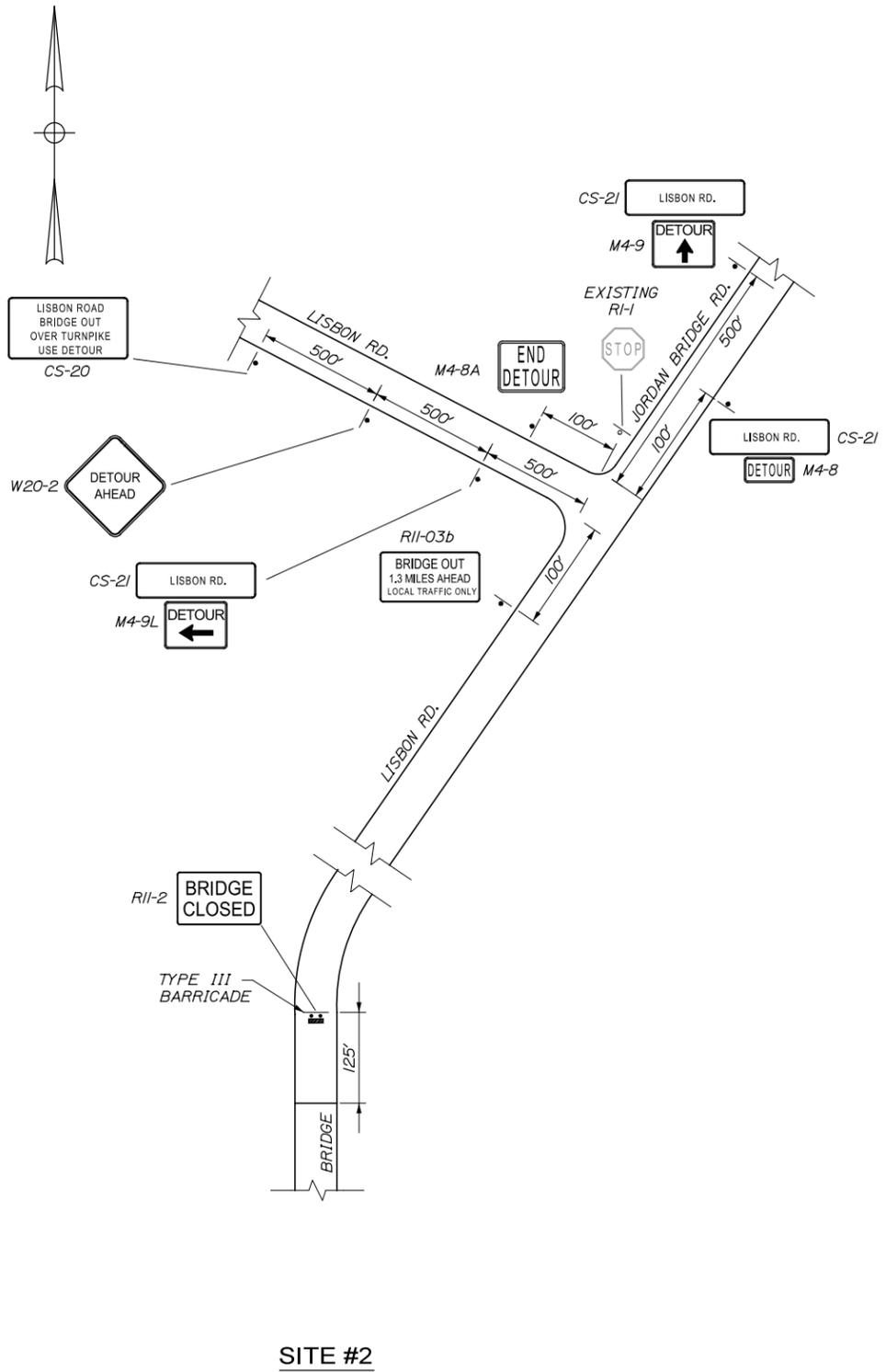
MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 LISBON RD. UNDERPASS - MILE 84.3
 DETOUR PLAN - 1 OF 4

SHEET NUMBER: MT-06
 CONTRACT: 2014.15
 9 OF 52

Date: 3/24/2014

Filename: ...MSTA\010_84.3_MOT_02.dgn



Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date		By	Date
Designed	DRR	3/14	Checked	TSK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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THE GOLD STAR MEMORIAL HIGHWAY

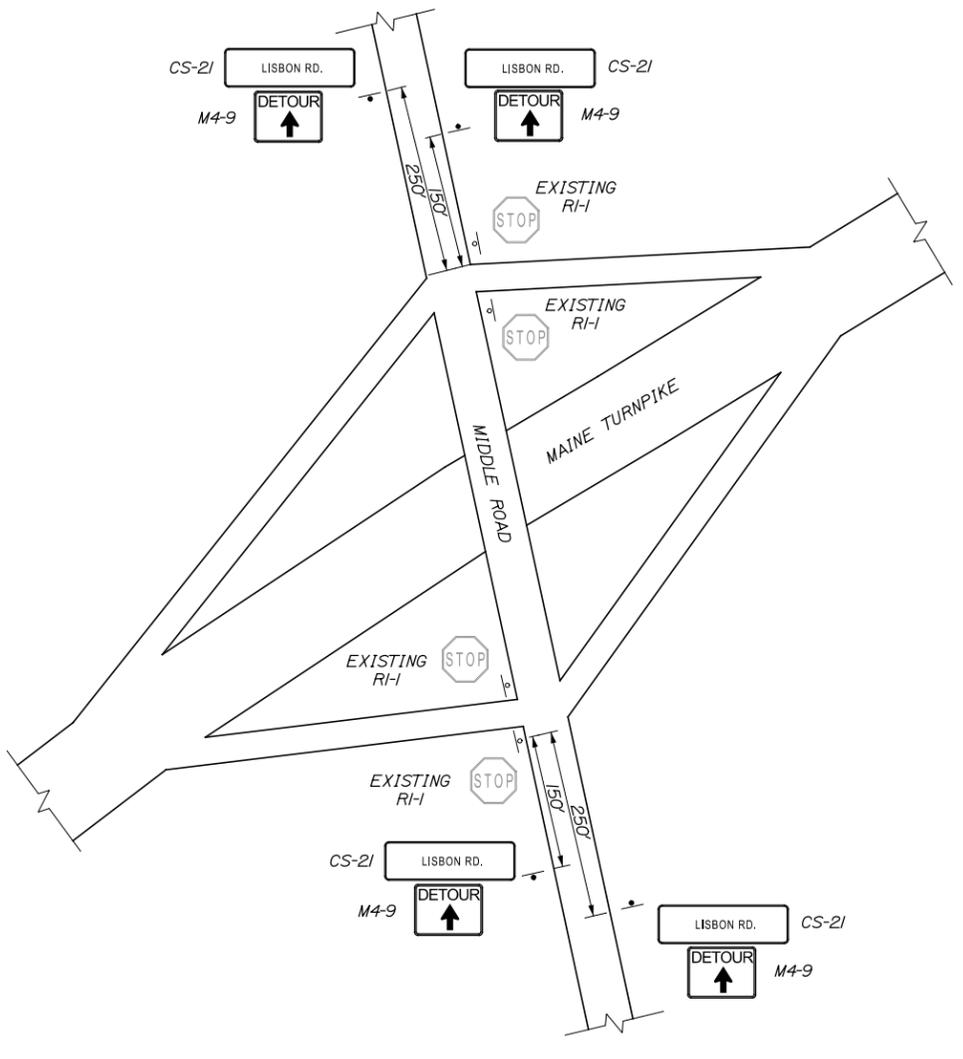
MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 LISBON RD. UNDERPASS - MILE 84.3
 DETOUR PLAN - 2 OF 4

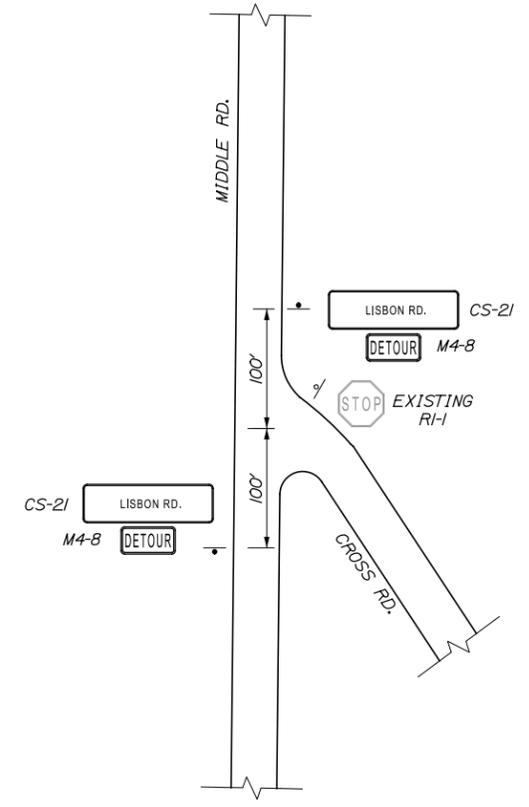
SHEET NUMBER: MT-07
 CONTRACT: 2014.15
 10 OF 52

Date: 3/24/2014

Filename: ...MSTA\011_84_3_MOT_03.dgn



SITE #5



SITE #6

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date		By	Date
Designed	DRR	3/14	Checked	TSK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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THE GOLD STAR MEMORIAL HIGHWAY

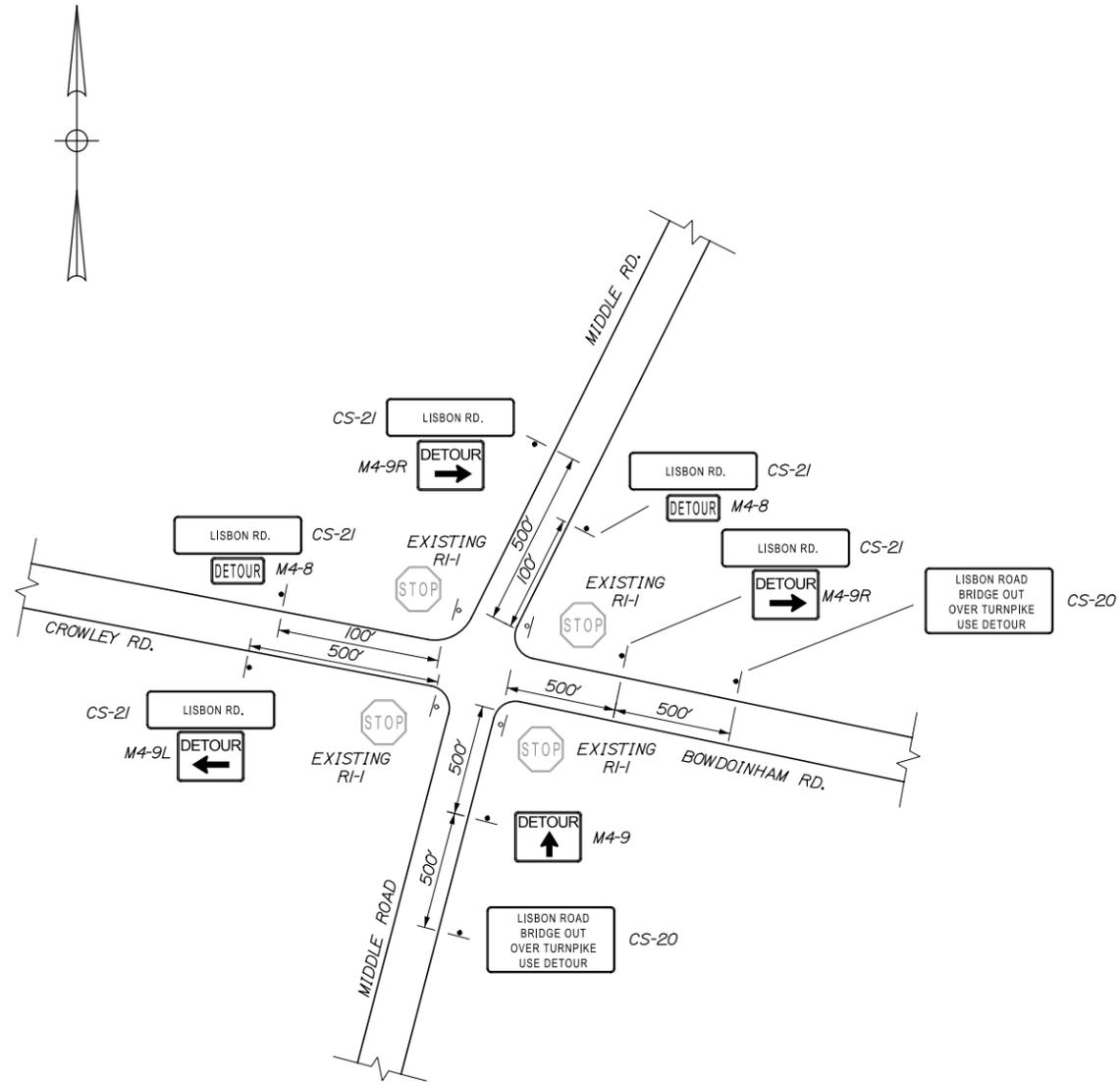
MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 LISBON RD. UNDERPASS - MILE 84.3
 DETOUR PLAN - 3 OF 4

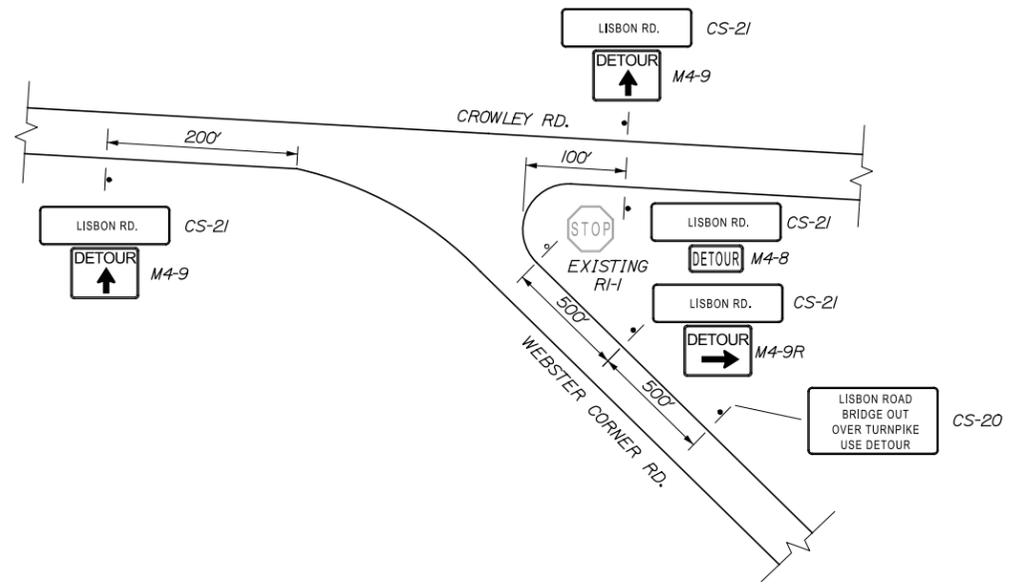
SHEET NUMBER: MT-08
 CONTRACT: 2014.15
 11 OF 52

Date: 3/24/2014

Filename: ...MSTA\012_84.3_MOT_04.dgn



SITE #7



SITE #8

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date		By	Date
Designed	DRR	3/14	Checked	TSK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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THE GOLD STAR MEMORIAL HIGHWAY

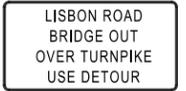
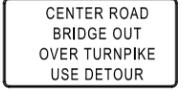
MTA PROJECT MANAGER: Ralph C. Norwood IV

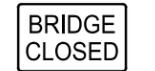
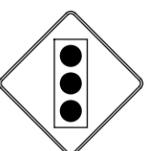
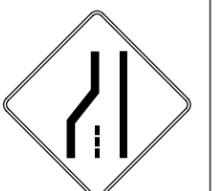
BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 LISBON RD. UNDERPASS - MILE 84.3
 DETOUR PLAN - 4 OF 4

SHEET NUMBER: MT-09
 CONTRACT: 2014.15
 12 OF 52

Date: 3/24/2014

Filename: ...013_MOT_Sign_Summary_01.dgn

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		BORDER RADIUS	AREA IN SQUARE FEET	NOTES
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND BORDER			
CS-1	48"	48"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2009			8	ORANGE	BLACK		16.00 (128)	
CS-20	60"	36"		5C			9	WHITE	BLACK		15.00 (135)	
CS-21	60"	12"		5"			29	WHITE	BLACK		5.00 (145)	
CS-22	60"	36"		5C	4"		7	WHITE	BLACK		15.00 (105)	
CS-23	60"	12"		5"			9	WHITE	BLACK		5.00 (45)	
	84"	18"		8"	5"		1				10.50 (10.5)	
E5-1	48"	36"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2009			1	ORANGE	BLACK		12.00 (12)	
G20-2	36"	18"					3	ORANGE	BLACK		4.5 (13.5)	
	48"	24"					16				8.00 (128)	
G20-5aP	36"	24"					8	ORANGE	BLACK		6.00 (48)	
M1-5 (26) (100)	24"	24"					5	ORANGE	BLACK		4.00 (20)	
	30"	24"					5				5.00 (25)	
M3-1	24"	12"					2	ORANGE	BLACK		2.00 (4)	
M3-3	24"	12"					8	ORANGE	BLACK		2.00 (16)	
M4-8	24"	12"					12	ORANGE	BLACK		2.00 (24)	
M4-8A	24"	18"					4	ORANGE	BLACK		3.00 (12)	
M4-9	30"	24"					14	ORANGE	BLACK		5.00 (70)	
	48"	36"					1				12.00 (12)	
M4-9L	30"	24"					7	ORANGE	BLACK		5.00 (35)	
M4-9R	30"	24"					8	ORANGE	BLACK		5.00 (40)	

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		BORDER RADIUS	AREA IN SQUARE FEET	NOTES
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND BORDER			
R2-1	24"	30"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2009			3	WHITE	BLACK		5.00 (15)	
	36"	48"					8				12.00 (96)	
R2-6aP	36"	24"					8	WHITE	BLACK		6.00 (48)	
R2-12	36"	54"					8	WHITE	BLACK		13.5 (108)	
R3-2	24"	24"					2	WHITE	BLACK		4.00 (8)	
R10-6	24"	36"					2	WHITE	BLACK		6.00 (12)	
R11-03b (0.4) (0.6) (0.5) (1.3) (1.7) (2.2)	60"	30"					6	WHITE	BLACK		12.50 (75)	
R11-2	48"	30"					4	WHITE	BLACK		10.00 (40)	
W3-3	36"	36"					2	ORANGE	BLACK		9.00 (18)	
W3-4	48"	48"					8	ORANGE	BLACK		16.00 (128)	
W3-5	48"	48"					8	ORANGE	BLACK		16.00 (128)	
W4-2 (LEFT) (RIGHT)	48"	48"					8	ORANGE	BLACK		16.00 (128)	
							8				16.00 (128)	

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

By	Date	By	Date
Designed	DRR 3/14	Checked	TSK 3/14
Drawn	JD 3/14	In Charge of	NLB 3/14

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 FAX: (207) 781-4753

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 MAINTENANCE OF TRAFFIC
 SIGN SUMMARY - 1 OF 2

SHEET NUMBER: MT-10
 CONTRACT: 2014.15
 13 OF 52

Date: 3/24/2014

Filename: ...014_MOT_Sign_Summary_02.dgn

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		BORDER RADIUS	AREA IN SQUARE FEET	NOTES
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND BORDER			
W7-3aP (0.1)	36"	30"	NEXT XX MILES	TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2009			4	ORANGE	BLACK		7.50 (30)	
W16-2P (1500)	30"	24"	XX FEET				1	ORANGE	BLACK		5.00 (5)	
W20-5 (LEFT) (RIGHT)	48"	48"	LEFT LANE CLOSED 1/2 MILE				8 8	ORANGE	BLACK		16.00 (128) 16.00 (128)	
W20-7a	36"	36"					2	ORANGE	BLACK		9.00 (18)	
W21-5	48"	48"	SHOULDER WORK				4	ORANGE	BLACK		16.00 (64)	
W21-5aR (RIGHT) W21-5aL (LEFT)	48" 48"	48" 48"	RIGHT SHOULDER CLOSED				5 3	ORANGE	BLACK		16.0 (80) 16.0 (48)	
W21-5bR (RIGHT) (1000) W21-5bL (LEFT) (1000)	48" 48"	48" 48"	RIGHT SHOULDER CLOSED 500 FT				3 3	ORANGE	BLACK		16.0 (48) 16.0 (48)	
W20-1 (AHEAD) (AHEAD) (1 MILE)	36" 48" 48"	36" 48" 48"	ROAD WORK AHEAD				2 16 6	ORANGE	BLACK		9.00 (18) 16 (256) 16 (96)	
W20-2	36"	36"	DETOUR AHEAD				4	ORANGE	BLACK		9.00 (36)	

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		BORDER RADIUS	AREA IN SQUARE FEET	NOTES
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND BORDER			
W20-4	36"	36"	ONE LANE ROAD AHEAD	TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2009			4	ORANGE	BLACK		9.00 (36)	

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date		By	Date
Designed	DRR	3/14	Checked	TSK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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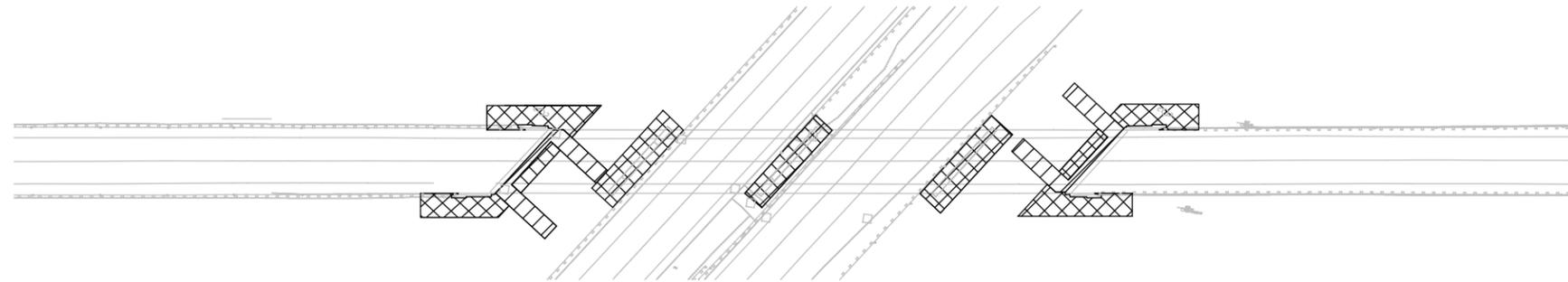
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 MAINTENANCE OF TRAFFIC
 SIGN SUMMARY - 2 OF 2

SHEET NUMBER: MT-11
 CONTRACT: 2014.15
 14 OF 52

Date: 3/24/2014



TYPICAL LIMIT OF DISTURBANCE PLAN

LEGEND:

-  CONTRACT LIMIT OF DISTURBANCE
-  CONTRACTOR'S LIMIT OF DISTURBANCE AREA FOR ACCESS AND STORAGE

AREAS:

CONTRACT LIMIT OF DISTURBANCE:

FALMOUTH ROAD = 0.03 ACRES
 CENTER ROAD = 0.03 ACRES
 NO-NAME RIVER = 0.02 ACRES
 LISBON ROAD = 0.03 ACRES

CONTRACT TOTAL = 0.11 ACRES

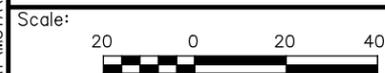
CONTRACTOR'S LIMIT OF DISTURBANCE AREA FOR ACCESS AND STORAGE:

FALMOUTH ROAD = 0.15 ACRES
 CENTER ROAD = 0.15 ACRES
 NO-NAME RIVER = 0.10 ACRES
 LISBON ROAD = 0.15 ACRES

CONTRACT TOTAL = 0.55 ACRES

NOTES:

1. EROSION AND SEDIMENT CONTROL DEVICES REQUIRED FOR THE CONTRACTOR'S ACCESS LOCATIONS AND STORAGE AREAS WILL NOT BE MEASURED FOR PAYMENT.
2. THE CONTRACTOR WILL BE ALLOWED TO STORE MATERIAL AND EQUIPMENT ON GRAVEL AND PAVEMENT WITHIN THE CLOSED PORTIONS OF FALMOUTH ROAD, CENTER ROAD, AND LISBON ROAD. THESE AREAS ARE EITHER INCLUDED IN THE LIMITS OF DISTURBANCE OR HAVE BEEN PREVIOUSLY SURFACED AND DO NOT ADD TO THE LIMITS OF DISTURBANCE.
3. SEE SPECIFICATIONS FOR CONTRACTOR'S SUBMITTAL REQUIREMENTS IF INCREASING THE LIMITS OF DISTURBANCE ABOVE THE PROJECT ESTIMATED QUANTITIES.
4. TYPICAL LIMITS OF DISTURBANCE SHOWN FOR UNDERPASS LOCATIONS. SEE SHEET "NO-NAME RIVER CULVERT - MILE 82.5 GENERAL SITE PLAN" FOR NO-NAME RIVER CULVERT DISTURBANCE LIMITS. AMOUNTS OF DISTURBANCE ARE LISTED ON THIS SHEET.



Designed by:

TY-LIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date	By	Date
Designed	DSM	3/14	Checked	SBK 3/14
Drawn	JD	3/14	In Charge of	NLB 3/14

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**THE GOLD STAR
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)

LIMIT OF DISTURBANCE PLAN

SHEET NUMBER: LD-01

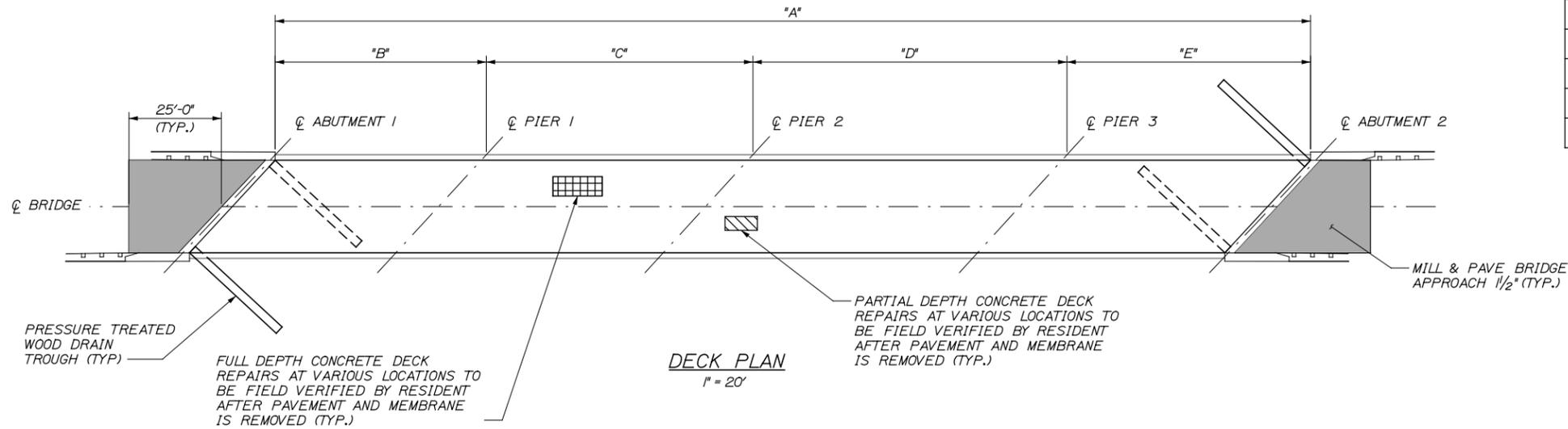
CONTRACT: 2014.15

15 OF 52

Filename: ...HIGHWAY.MSTA\015_DIST_PLAN.dgn

Date: 3/24/2014

Filename: ...MSTA\016...3Bridges_Plan_Typ.dgn



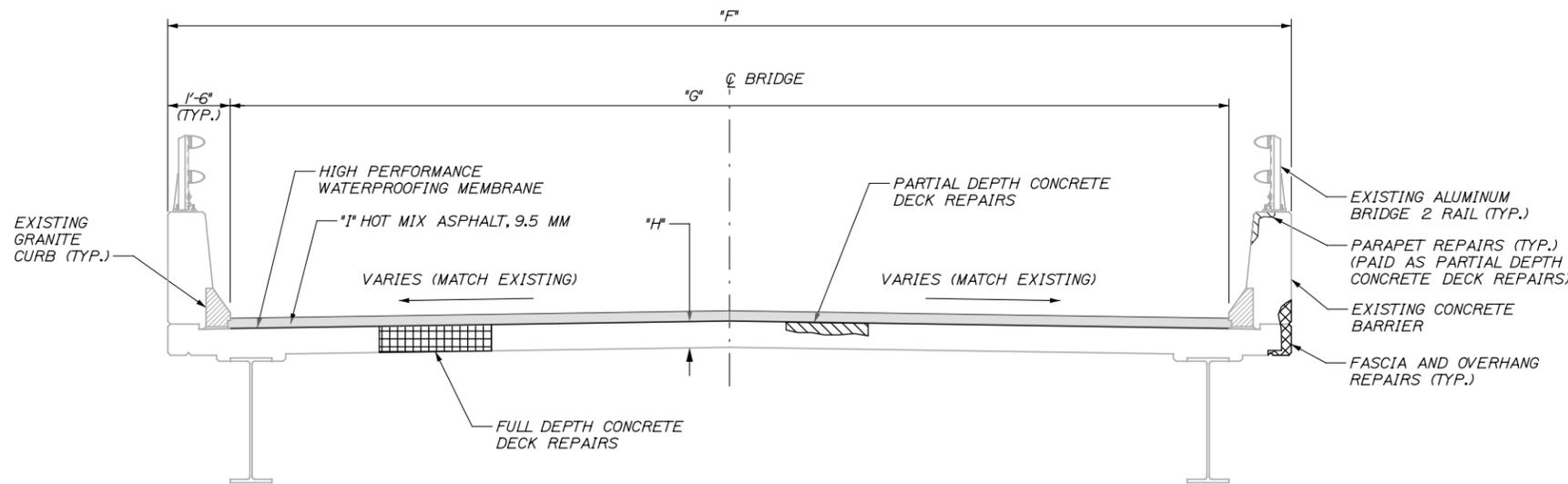
DECK PLAN DIMENSIONS					
	"A"	"B"	"C"	"D"	"E"
FALMOUTH ROAD MM F1.7	198'-0"	44'-0"	55'-0"	55'-0"	44'-0"
CENTER ROAD MM 62.9	252'-0"	52'-0"	69'-0"	77'-0"	54'-0"
LISBON ROAD MM 84.3	213'-0"	44'-0"	56'-0"	61'-0"	52'-0"

NOTES

- CONTRACTOR SHALL REPAIR AREAS OF CONCRETE DECK DETERIORATION AS IDENTIFIED BY THE RESIDENT. RESIDENT SHALL IDENTIFY AND MARK AREAS FOR DECK REPAIR AFTER THE WEARING SURFACE AND MEMBRANE ARE REMOVED. CONTRACTOR SHALL ALSO REPAIR DETERIORATED AREAS OF FASCIA AND FASCIA OVERHANGS. COORDINATE WORK WITH THE RESIDENT. PAYMENT FOR REPAIR WORK SHALL BE UNDER THE 518 PAY ITEMS.
- CONTRACTOR SHALL REPAIR AREAS OF DETERIORATED GRANITE CURB BEDDING MORTAR ON THE DECK AS REQUIRED. LOCATIONS OF GRANITE CURB BEDDING MORTAR SHALL BE FIELD DETERMINED BY THE RESIDENT. COSTS SHALL BE INCIDENTAL TO 518 PAY ITEMS.
- SEAL SHOULDER AREAS WITH TWO APPLICATIONS OF EMULSIFIED BITUMINOUS SEALER PER MAINE DOT STANDARD SPECIFICATION 403.03 AFTER COMPLETING ALL DECK PAVING WORK.
- RETROFIT ALL EXISTING ALUMINUM BRIDGE RAIL SPLICES NOT IN CONFORMANCE WITH THE ALUMINUM BRIDGE RAILING - SPLICE MODIFICATION DETAIL. PAYMENT TO BE MADE UNDER ITEM 507.095.
- FIELD VERIFY BROKEN ALUMINUM BRIDGE RAIL AND REPLACE. RAIL TO BE PAID FOR UNDER ITEM 507.0928.
- ALL PVC DECK WEEPS WHICH DRAIN ONTO PIERS, ABUTMENTS OR STRUCTURAL STEEL SHALL BE EXTENDED AND DIVERTED AWAY FROM BRIDGE COMPONENTS BELOW DECK, AS DIRECTED BY THE RESIDENT. PAYMENT SHALL BE BY THE VARIOUS LABOR AND EQUIPMENT ITEMS.
- ALL EXISTING PARAPET JOINTS SHALL BE CLEANED AND RECAULKED AS DIRECTED BY THE RESIDENT WITH AN APPROVED JOINT SEALER. COSTS SHALL BE INCIDENTAL TO 518 PAY ITEMS.
- REMOVE SAND BUILDUP BENEATH GUARDRAILS AT LISBON ROAD OVERPASS NORTHWEST ABUTMENT. REMOVE BUILDUP APPROXIMATELY 25 FEET BACK FROM ABUTMENT OR AS DIRECTED BY THE RESIDENT. COSTS SHALL BE INCIDENTAL TO RELATED CONTRACT ITEMS.

LEGEND

- LIMITS OF FULL DEPTH CONCRETE DECK REPAIR (REPAIR AREAS TO BE FIELD VERIFIED)
- LIMITS OF PARTIAL DEPTH CONCRETE DECK REPAIR (REPAIR AREAS TO BE FIELD VERIFIED)
- LIMITS OF FASCIA AND FASCIA OVERHANG REPAIR (REPAIR AREAS TO BE FIELD VERIFIED)



TRANSVERSE SECTION DIMENSIONS				
	"F"	"G"	"H"	"I"
FALMOUTH ROAD MM F1.7	39'-0"	36'-0"	0'-7 1/2"	0'-2 1/4"
CENTER ROAD MM 62.9	31'-6"	28'-6"	0'-7"	0'-1 1/2"
LISBON ROAD MM 84.3	28'-0"	25'-0"	0'-8"	0'-1 1/2"

ESTIMATED REPAIR QUANTITIES			
	PARTIAL DEPTH CONCRETE DECK REPAIRS (S.F.)	FULL DEPTH CONCRETE DECK REPAIRS (S.F.)	FASCIA AND FASCIA OVERHANG REPAIRS (S.F.)
FALMOUTH ROAD MM F1.7	425	40	30
CENTER ROAD MM 62.9	440	40	70
LISBON ROAD MM 84.3	205	30	30

Scale: AS NOTED

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date	By	Date
Designed	DSM	3/14	Checked	SBK 3/14
Drawn	TJP	3/14	In Charge of	NLB 3/14

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 TEL: (207) 781-4721
 FAX: (207) 781-4753

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV

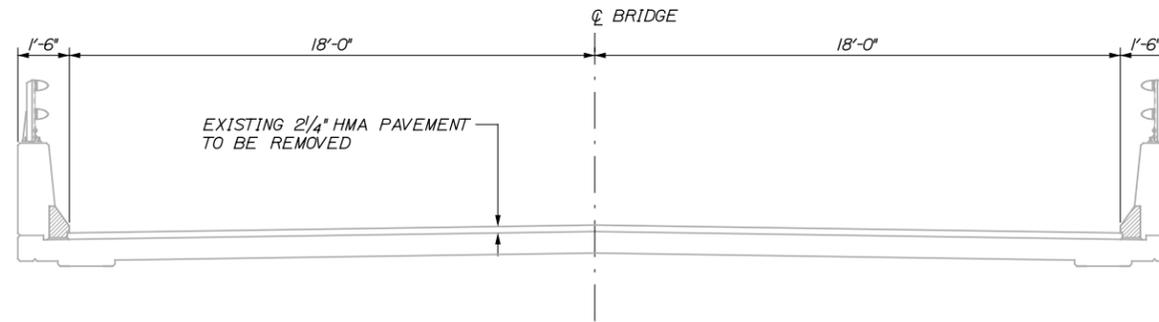
BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 MILE F1.7, MILE 62.9 & MILE 84.3
 DECK PLAN & TRANSVERSE SECTION

SHEET NUMBER: S-01

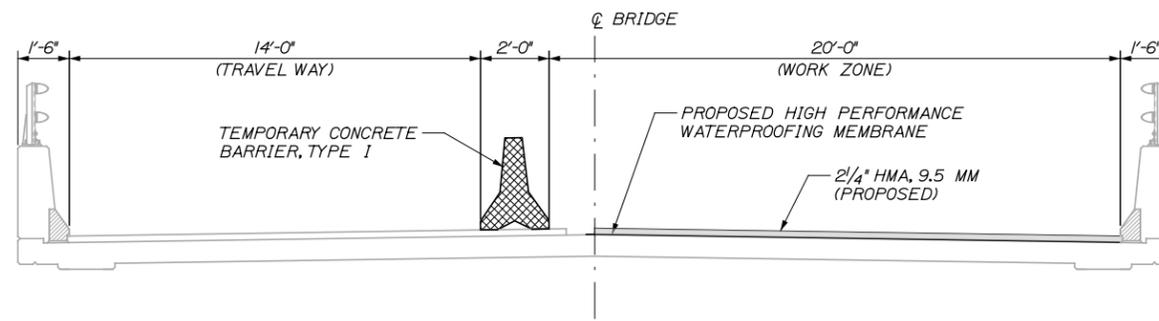
CONTRACT: 2014.15

16 OF 52

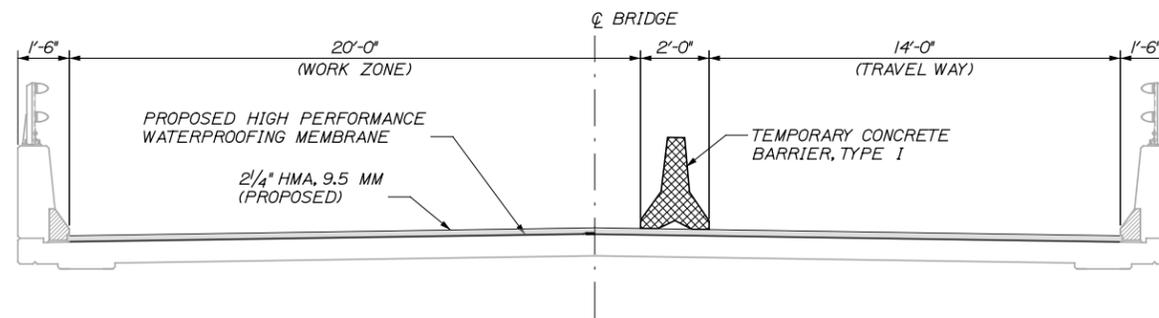
Date: 3/24/2014



EXISTING BRIDGE



PHASE 1



PHASE 2

Filename: ...MSTA\017_F1.7_Bridge_Phase.dgn

Scale:			
3/8" = 1'-0"			
No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DSM	3/14	Checked	SBK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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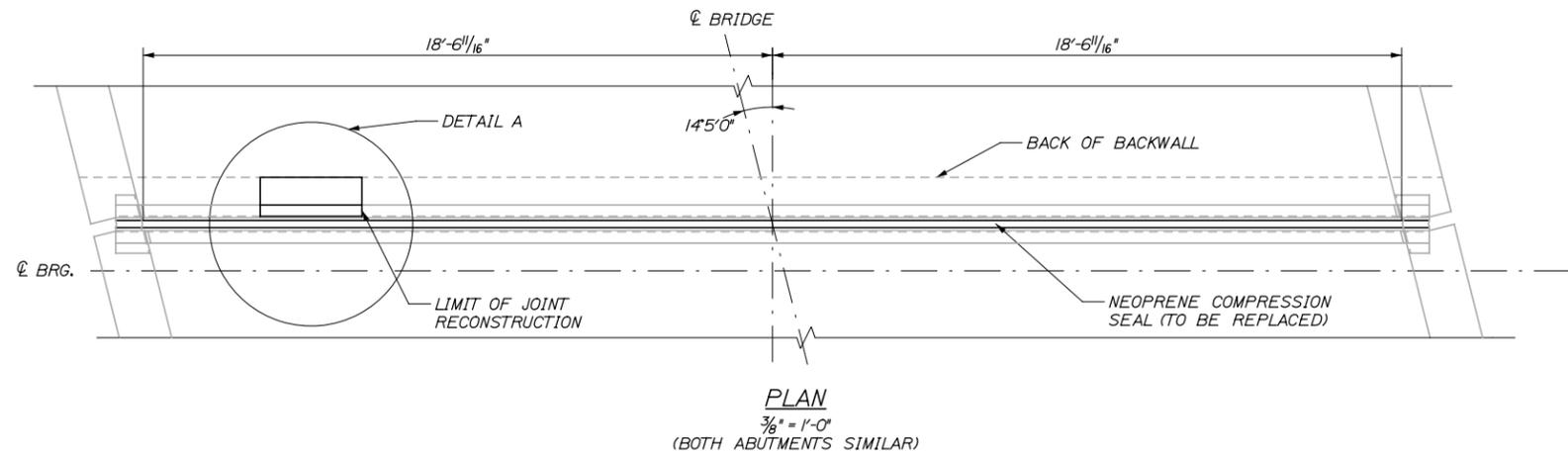
**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 FALMOUTH RD. UNDERPASS - MILE F1.7
 BRIDGE PHASING

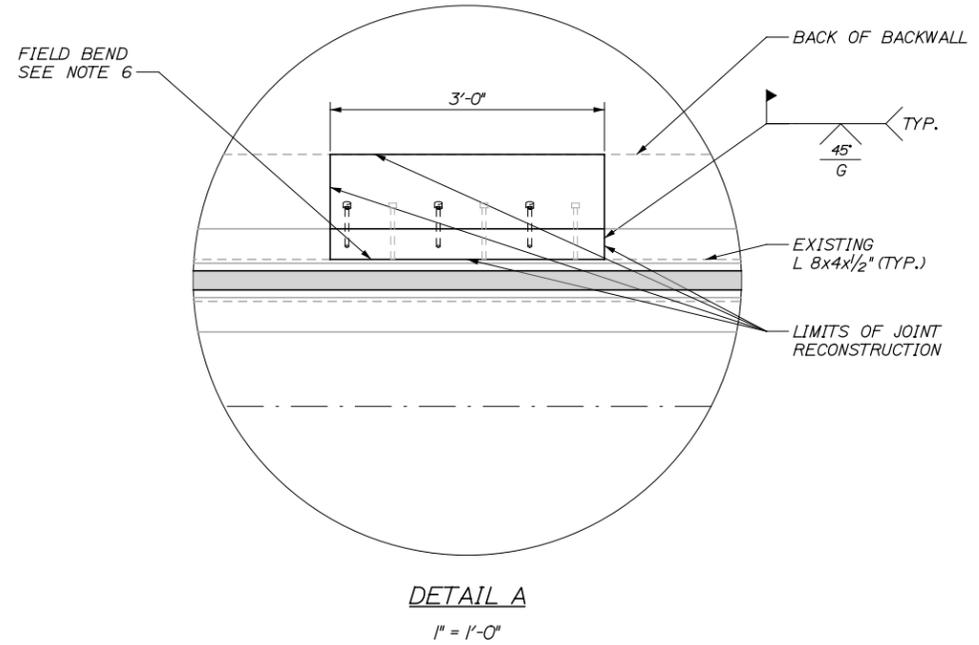
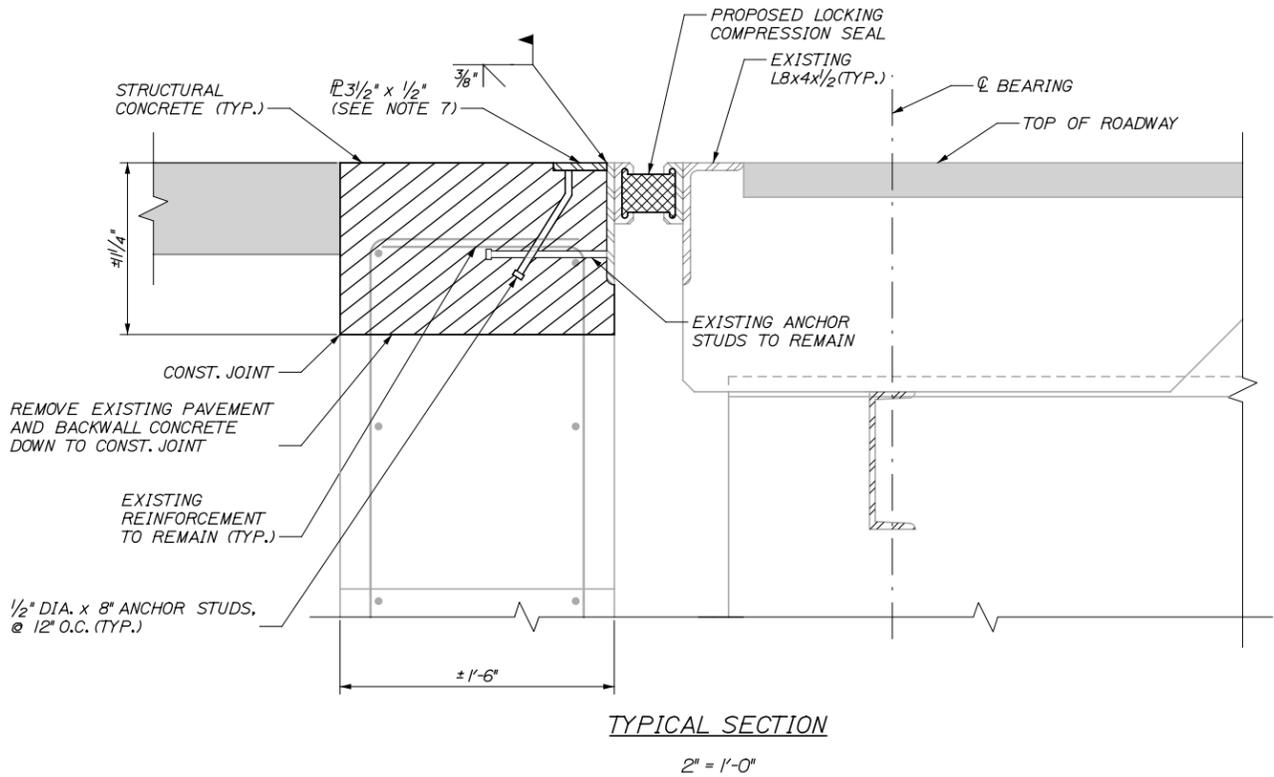
SHEET NUMBER: S-02
 CONTRACT: 2014.15
 17 OF 52

Date: 3/24/2014



EXPANSION JOINT NOTES:

1. THE CONTRACTOR SHALL APPLY AN EPOXY BONDING AGENT SELECTED FROM MAINEDOT'S QUALIFIED PRODUCTS LIST TO ALL STEEL SURFACES OF THE EXPANSION JOINT THAT WILL BE EMBEDDED IN CONCRETE BEFORE PLACING THE BACKWALL CONCRETE.
2. ALL STEEL COMPONENTS SHALL BE AASHTO M270 GRADE 36, UNLESS OTHERWISE NOTED.
3. FOR CLARITY, NOT ALL REINFORCING STEEL HAS BEEN SHOWN IN ALL DETAILS.
4. THE NEOPRENE LOCKING COMPRESSION SEALS TO BE FURNISHED SHALL HAVE A MINIMUM MOVEMENT RANGE OF 2 INCHES. SEALS SHALL BE "WABO D SERIES" AS MANUFACTURED BY WATSON BOWMAN ACME.
5. CONTRACTOR SHALL FIELD VERIFY LOCKING COMPRESSION SEAL OPENING AND INSTALL REPLACEMENT SEAL AT A TEMPERATURE SUCH THAT INSTALLATION IS FEASIBLE.
6. CONTRACTOR SHALL FIELD BEND VERTICAL LEG OF EXISTING ANGLE THAT WILL REMAIN TO BE PLUMB AND IN LINE WITH UNDAMAGED JOINT.
7. CONTRACTOR SHALL REMOVE HORIZONTAL LEG OF ANGLE IN DAMAGED REGION UP TO THE FACE OF THE VERTICAL LEG OF THE ANGLE, AND SHALL REPLACE IT WITH A NEW STEEL PLATE AS SHOWN, AFTER REPAIRING VERTICAL LEG PER NOTE 6.
8. EXACT LOCATION OF REPAIRS ON EACH DAMAGED JOINT ANGLE TO BE ESTABLISHED BY THE RESIDENT.



Filename: ...018_F1.7_Joint_Repairs.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date		By	Date
Designed	DSM	3/14	Checked	SBK	3/14
Drawn	TJP	3/14	In Charge of	NLB	3/14

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

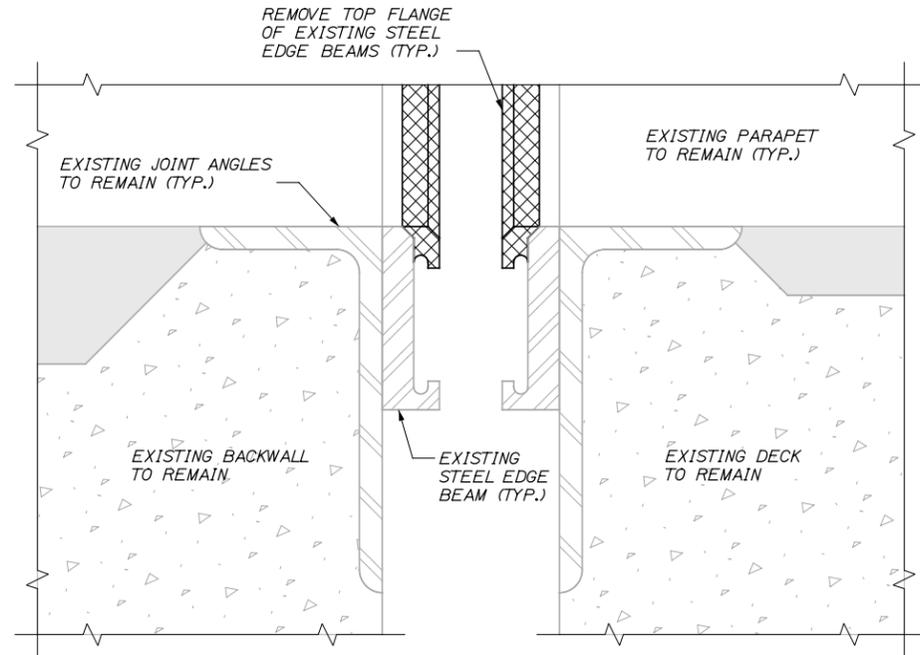
MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 FALMOUTH RD. UNDERPASS - MILE F1.7
 JOINT REPAIRS

SHEET NUMBER: S-03
 18 OF 52

CONTRACT: 2014.15

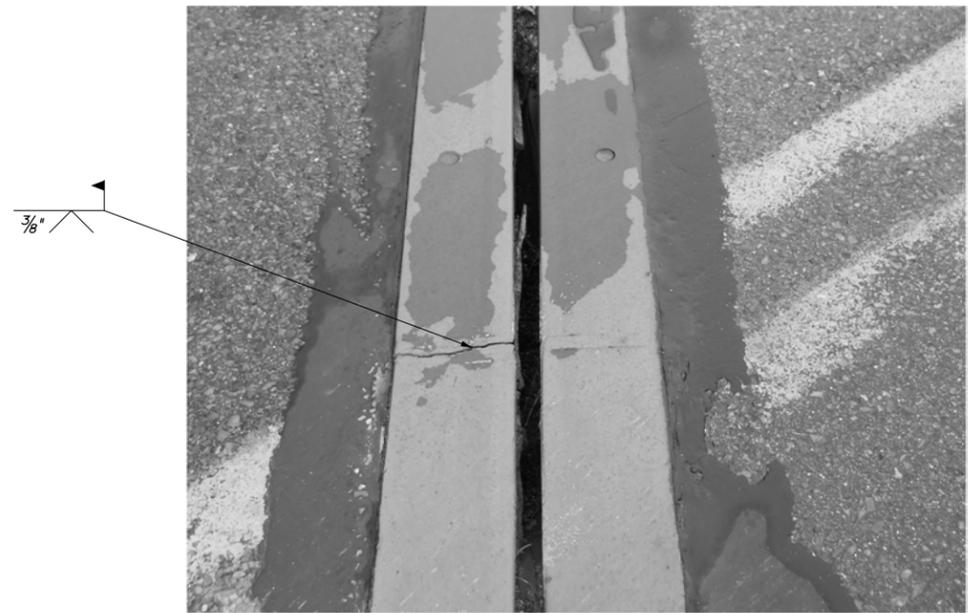
Date: 3/24/2014



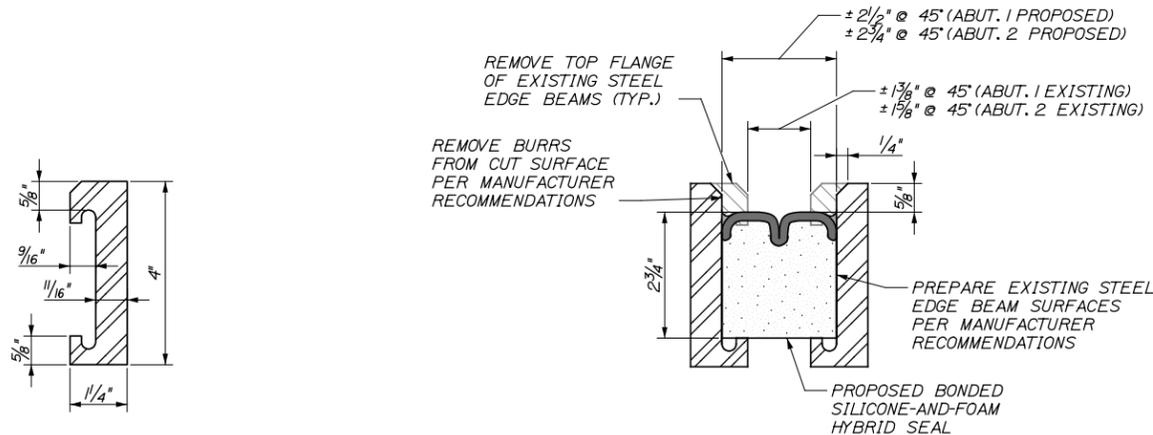
**CENTER ROAD JOINT SECTION
AT PARAPET FACE**

6" = 1'-0"

EXISTING SEAL AND PROPOSED SEALS NOT SHOWN FOR CLARITY



JOINT ARMOR CRACK REPAIR



**CENTER ROAD EDGE BEAM MODIFICATION
AND PROPOSED SEAL TYPICAL SECTION**

6" = 1'-0"

**CENTER ROAD EXISTING
EDGE BEAM DIMENSIONS**

6" = 1'-0"

CENTER RD. JOINT REPAIR NOTES

1. CONTRACTOR SHALL REPAIR JOINT ARMOR CRACKS WITH WELDS. LOCATIONS AS IDENTIFIED BY THE RESIDENT.
2. CONTRACTOR SHALL REPLACE EXISTING NEOPRENE COMPRESSION SEALS WITH NEW BONDED SILICONE-AND-FOAM HYBRID SEALS.
3. THE BONDED SILICONE-AND-FOAM HYBRID SEALS TO BE FURNISHED SHALL HAVE A MINIMUM MOVEMENT RANGE OF 1/2 INCHES.

Filename: ...019_62.9_Joint_Repairs.dgn

Scale:			
AS NOTED			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DSM	3/14	Checked	NLB	3/14
Drawn	DSM	3/14	In Charge of	NLB	3/14

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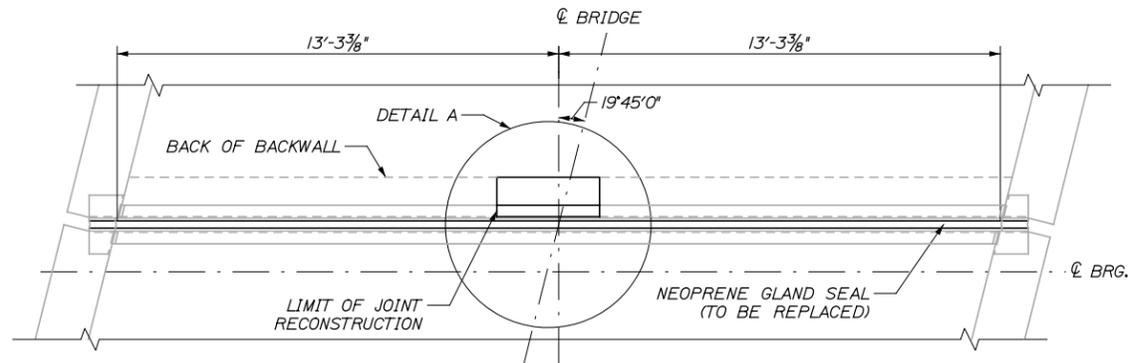
THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 CENTER RD. UNDERPASS - MILE 62.9
 JOINT REPAIRS

SHEET NUMBER: S-04
 CONTRACT: 2014.15
 19 OF 52

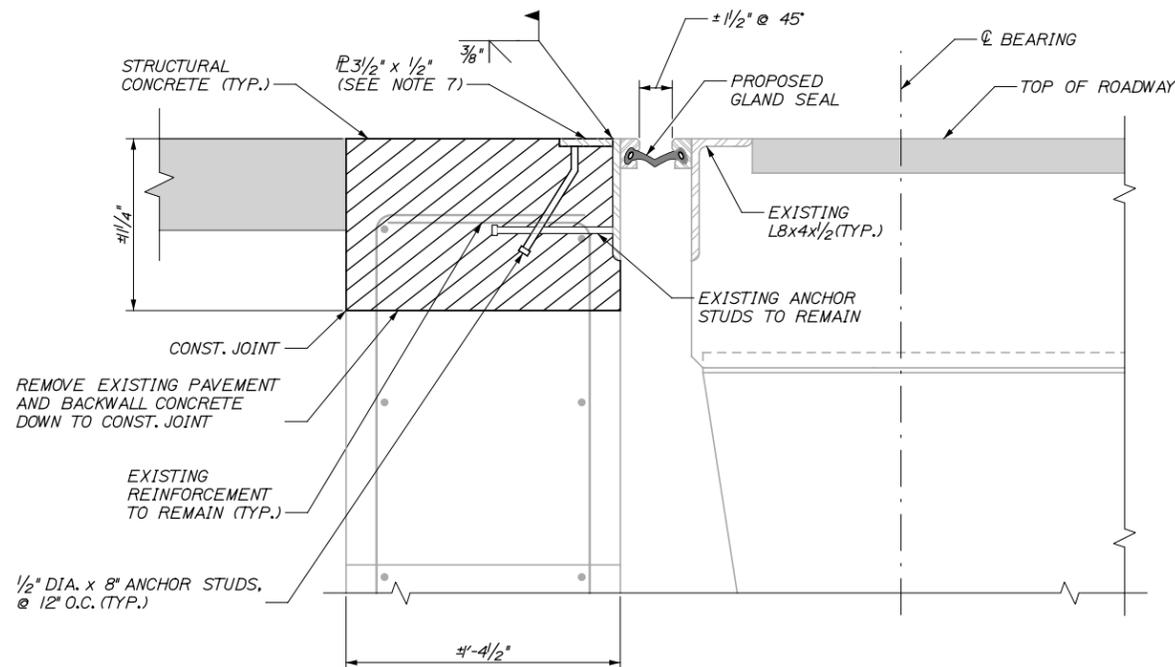
Date: 3/24/2014



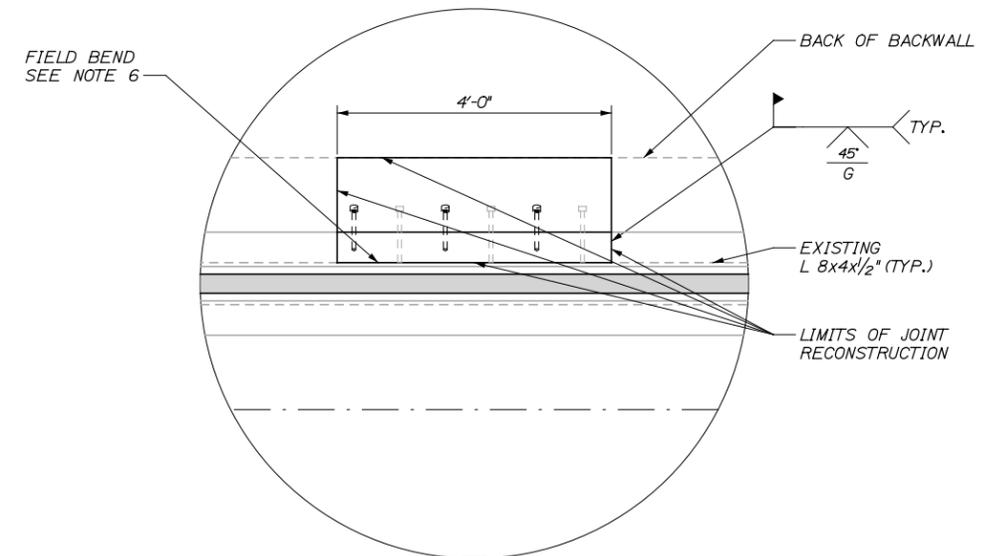
PLAN - ABUTMENT 2 (SOUTHEAST ABUTMENT)
NTS

EXPANSION JOINT NOTES:

1. THE CONTRACTOR SHALL APPLY AN EPOXY BONDING AGENT SELECTED FROM MAINEDOT'S QUALIFIED PRODUCTS LIST TO ALL STEEL SURFACES OF THE EXPANSION JOINT THAT WILL BE EMBEDDED IN CONCRETE BEFORE PLACING THE BACKWALL CONCRETE.
2. ALL STEEL COMPONENTS SHALL BE AASHTO M270 GRADE 36, UNLESS OTHERWISE NOTED.
3. FOR CLARITY, NOT ALL REINFORCING STEEL HAS BEEN SHOWN IN ALL DETAILS.
4. THE GLAND SEALS TO BE FURNISHED SHALL HAVE A MINIMUM MOVEMENT RANGE OF 2 INCHES.
5. CONTRACTOR SHALL FIELD VERIFY EXISTING GLAND SEAL TYPE AND GEOMETRY AND PROVIDE A REPLACEMENT SEAL THAT WILL FIT EXISTING STEEL EXTRUSIONS.
6. CONTRACTOR SHALL FIELD BEND VERTICAL LEG OF EXISTING ANGLE THAT WILL REMAIN TO BE PLUMB AND IN LINE WITH UNDAMAGED JOINT.
7. CONTRACTOR SHALL REMOVE HORIZONTAL LEG OF ANGLE IN DAMAGED REGION UP TO THE FACE OF THE VERTICAL LEG OF THE ANGLE, AND SHALL REPLACE IT WITH A NEW STEEL PLATE AS SHOWN, AFTER REPAIRING VERTICAL LEG PER NOTE 6.
8. EXACT LOCATION OF REPAIRS ON THE DAMAGED JOINT ANGLE TO BE ESTABLISHED BY THE RESIDENT.
9. FILL HOLES IN THE TOP OF THE EXISTING JOINT ANGLES WITH PLUG WELDS. LOCATIONS TO BE ESTABLISHED BY THE RESIDENT.



TYPICAL SECTION
2" = 1'-0"



DETAIL A
NTS

Filename: ...020_84.3_Joint_Repairs.dgn

Scale:			
AS NOTED			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DSM	3/14	Checked	NLB	3/14
Drawn	DSM	3/14	In Charge of	NLB	3/14

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**MAINE
TURNPIKE**

THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
4 LOCATIONS (MILE F1.7 TO MILE 84.3)
LISBON RD. UNDERPASS - MILE 84.3
JOINT REPAIRS

SHEET NUMBER: S-05
CONTRACT: 2014.15
20 OF 52

FALMOUTH RD. UNDERPASS - MM F1.7 ABUTMENTS ESTIMATED QUANTITY OF REPAIRS			
	ABUTMENT 1	ABUTMENT 2	TOTAL
ABUTMENT REPAIRS	75 S.F.	40 S.F.	115 S.F.
EPOXY INJECTED CRACK REPAIRS	0 L.F.	5 L.F.	5 L.F.

NOTES:

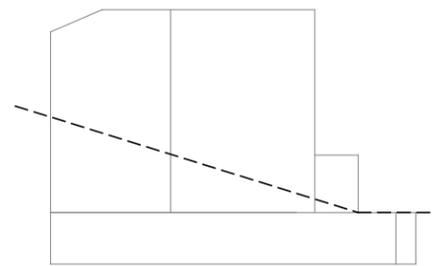
1. FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES"

LEGEND:

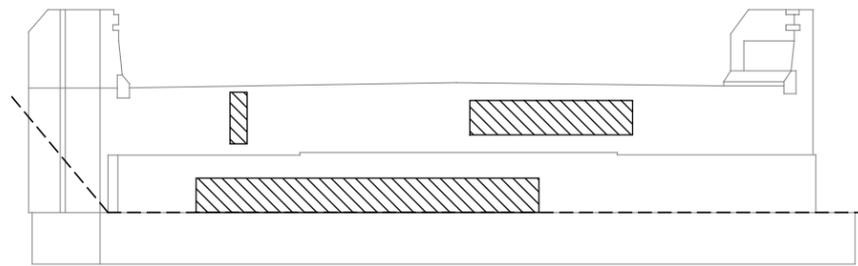
-  LIMIT OF CONCRETE SURFACE REPAIRS
-  LIMIT OF EPOXY INJECTED CRACK REPAIR
-  EXISTING CONCRETE
-  EXISTING AND PROPOSED GROUND



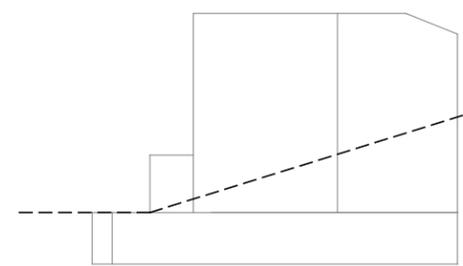
ABUTMENT 1 SEAT PLAN (SOUTH END)



WINGWALL



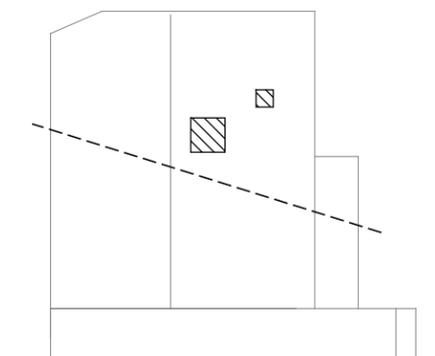
ABUTMENT 1 ELEVATION (SOUTH END)



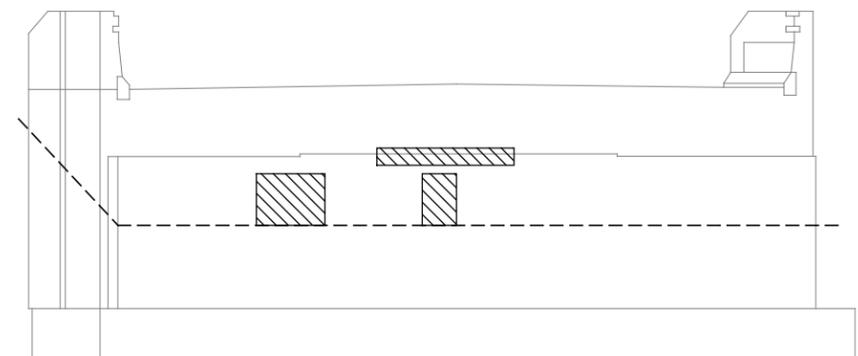
WINGWALL



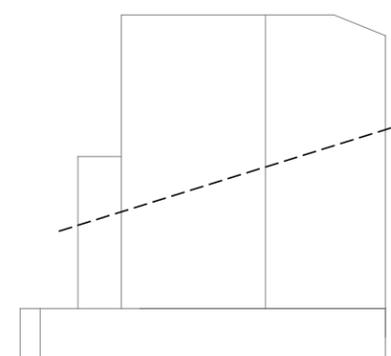
ABUTMENT 2 SEAT PLAN (NORTH END)



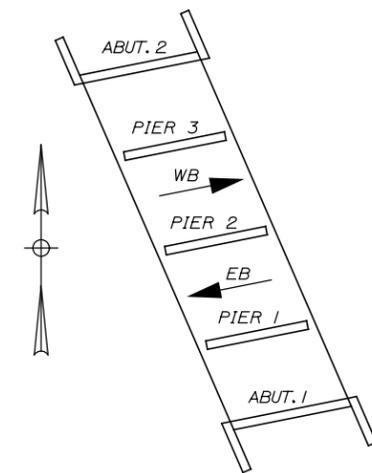
WINGWALL



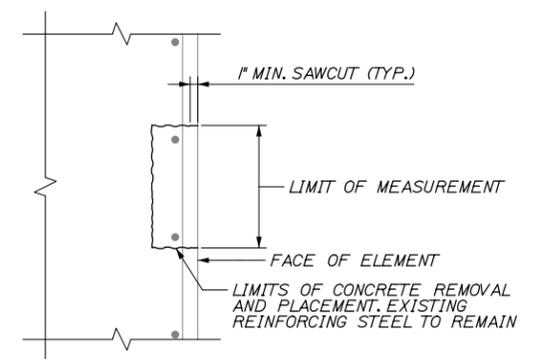
ABUTMENT 2 ELEVATION (NORTH END)



WINGWALL



LOCATION PLAN



CONCRETE REPAIR DETAIL
1" = 1'-0"

Date: 3/24/2014

Filename: ...MSTA021.F1.7.SUB.REPAIR_1.dgn

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DSM	3/14	Checked	SBK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood IV

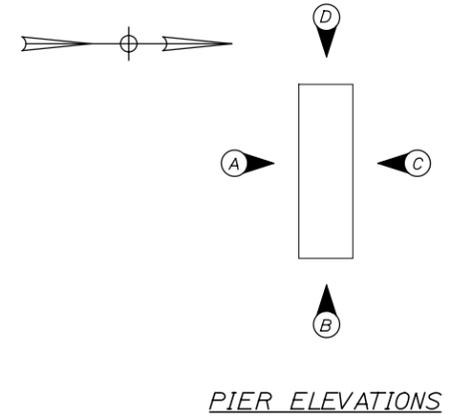
BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 FALMOUTH RD. UNDERPASS - MILE F1.7
 SUBSTRUCTURE REPAIR - 1 OF 3

SHEET NUMBER: S-06
21 OF 52

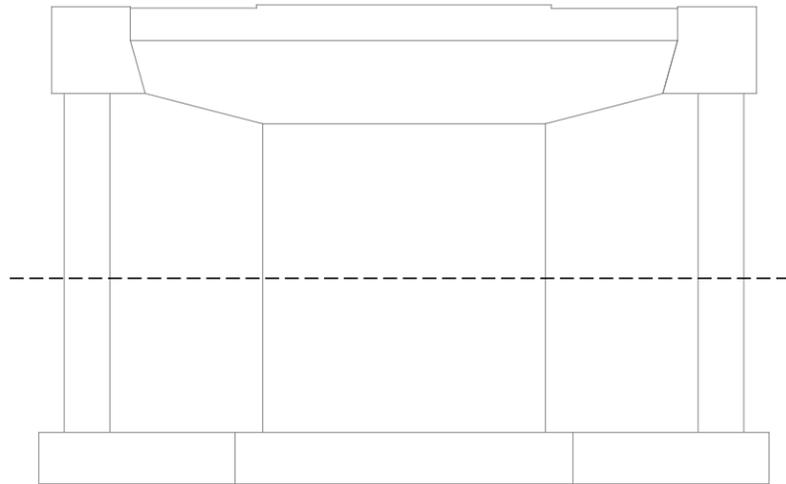
CONTRACT: 2014.15

Date: 3/24/2014

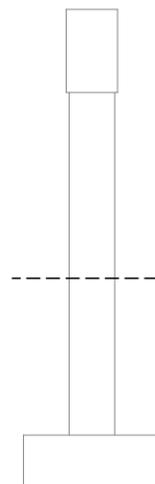
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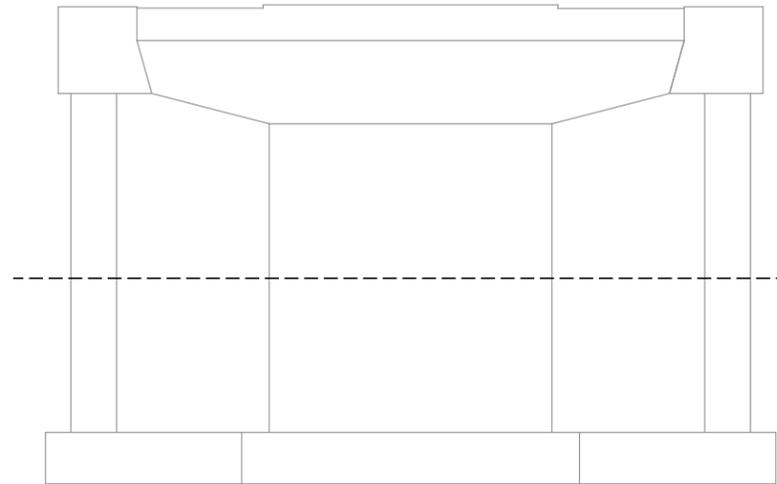
PLAN



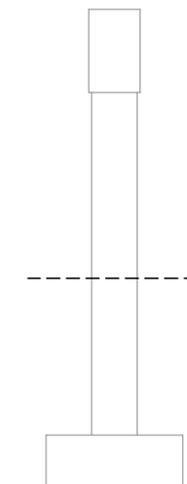
ELEVATION A



ELEVATION B



ELEVATION C



ELEVATION D

PIER ELEVATIONS

PIER 1 (SOUTH PIER)

FALMOUTH RD. UNDERPASS - MM F1.7 PIERS ESTIMATED QUANTITY OF REPAIRS				
	PIER 1	PIER 2	PIER 3	TOTAL
PIER REPAIRS	0 S.F.	60 S.F.	25 S.F.	85 S.F.
EPOXY INJECTED CRACK REPAIRS	0 L.F.	0 L.F.	15 L.F.	15 L.F.

NOTES:

- FOR CONCRETE REPAIR DETAIL SEE SHEET "FALMOUTH RD. UNDERPASS - MM F1.7 SUBSTRUCTURE REPAIR - 1 OF 3"
- FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES"

LEGEND:

- LIMIT OF CONCRETE SURFACE REPAIRS
- LIMIT OF EPOXY INJECTED CRACK REPAIR
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TY-LIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date	By	Date
Designed	DSM	3/14	Checked	SBK 3/14
Drawn	JD	3/14	In Charge of	NLB 3/14

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 FALMOUTH RD. UNDERPASS - MILE F1.7
 SUBSTRUCTURE REPAIR - 2 OF 3

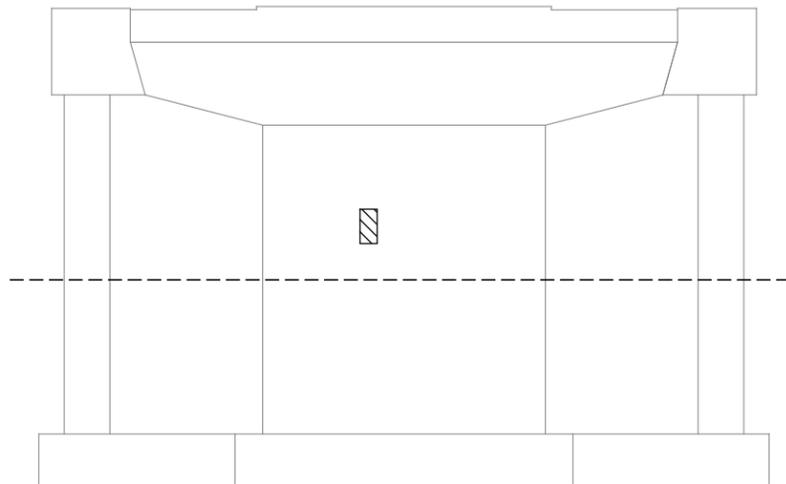
SHEET NUMBER: S-07
 CONTRACT: 2014.15
 22 OF 52

Date: 3/24/2014

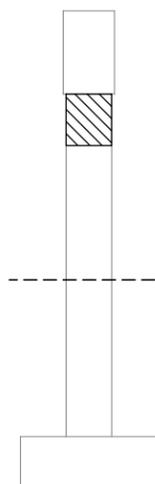
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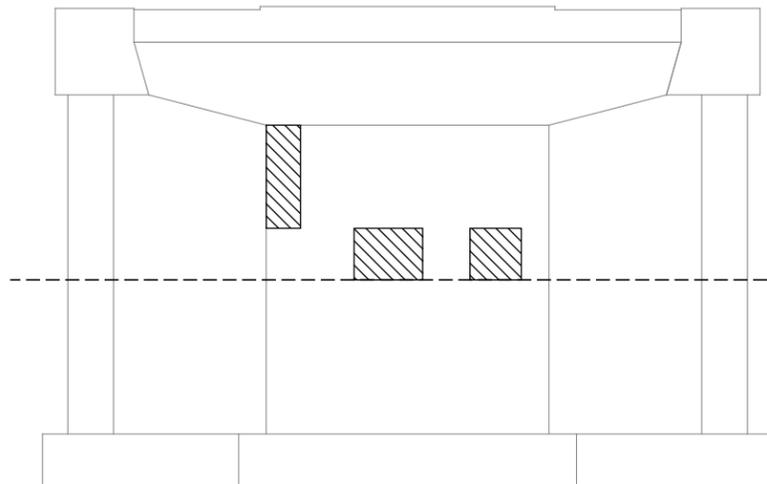
PLAN



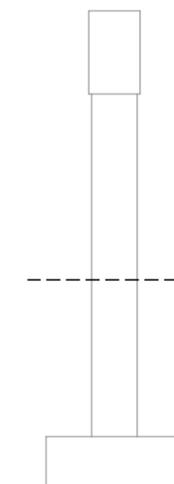
ELEVATION A



ELEVATION B

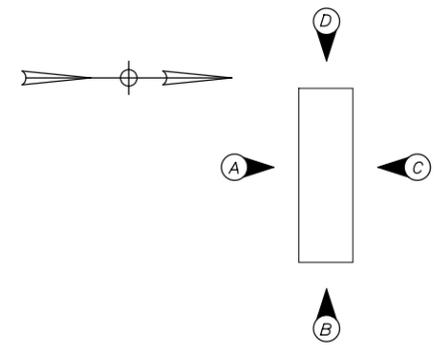


ELEVATION C



ELEVATION D

PIER 2 (CENTER PIER)



PIER ELEVATIONS

NOTES:

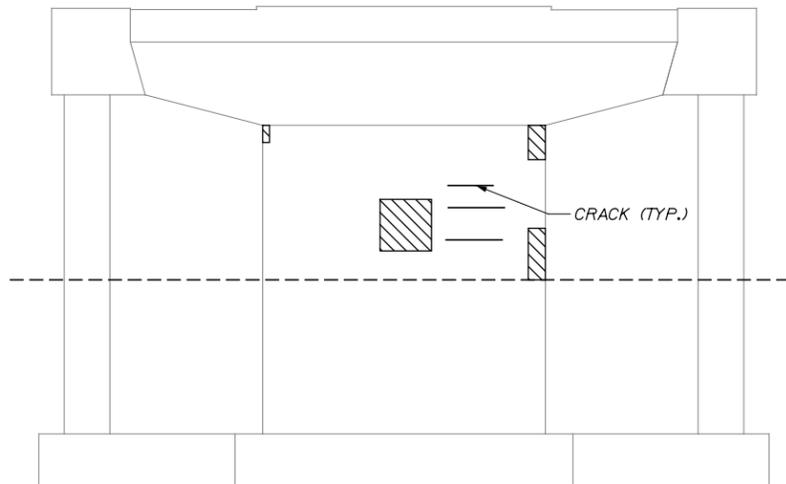
1. FOR CONCRETE REPAIR DETAIL SEE SHEET "FALMOUTH RD. UNDERPASS - MM F1.7 SUBSTRUCTURE REPAIR - 1 OF 3"
2. FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES"

LEGEND:

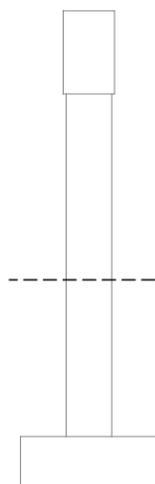
- LIMIT OF CONCRETE SURFACE REPAIRS
- LIMIT OF EPOXY INJECTED CRACK REPAIR
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND



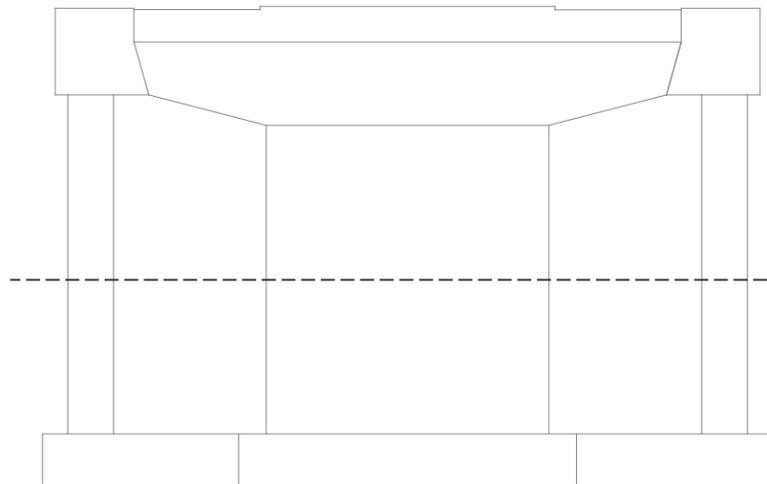
PLAN



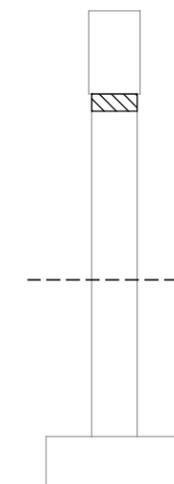
ELEVATION A



ELEVATION B



ELEVATION C



ELEVATION D

PIER 3 (NORTH PIER)

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DSM	3/14	Checked	SBK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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 Falmouth, Maine 04105
 TEL: (207) 781-4721
 FAX: (207) 781-4753

THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 FALMOUTH RD. UNDERPASS - MILE F1.7
 SUBSTRUCTURE REPAIR - 3 OF 3

SHEET NUMBER: S-08
 CONTRACT: 2014.15
 23 OF 52

CENTER RD. UNDERPASS - MM 62.9 ABUTMENTS ESTIMATED QUANTITY OF REPAIRS			
	ABUTMENT 1	ABUTMENT 2	TOTAL
ABUTMENT REPAIRS	85 S.F.	40 S.F.	125 S.F.
EPOXY INJECTED CRACK REPAIRS	0 L.F.	5 L.F.	5 L.F.

NOTES:

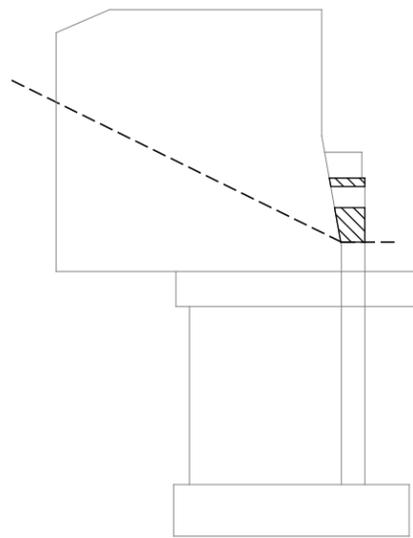
- FOR CONCRETE REPAIR DETAIL SEE SHEET "FALMOUTH RD. UNDERPASS - MM FL.7 SUBSTRUCTURE REPAIR - 1 OF 3"
- FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES"

LEGEND:

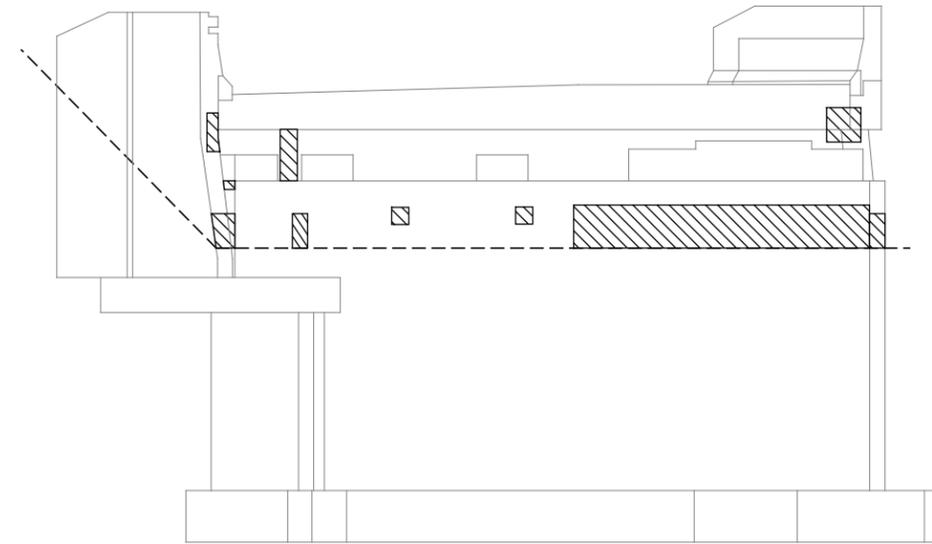
-  LIMIT OF CONCRETE SURFACE REPAIRS
-  LIMIT OF EPOXY INJECTED CRACK REPAIR
-  EXISTING CONCRETE
-  EXISTING AND PROPOSED GROUND



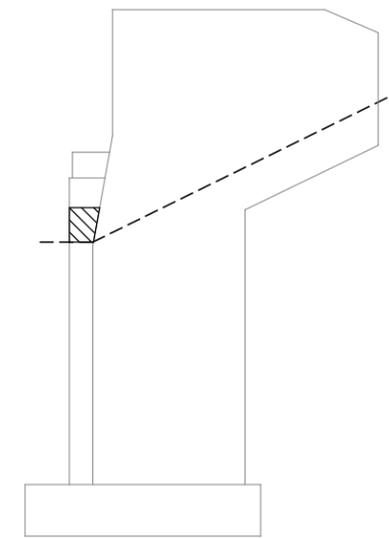
ABUTMENT 1 SEAT PLAN (SOUTHWEST END)



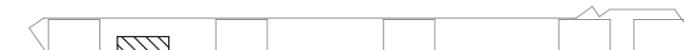
WINGWALL



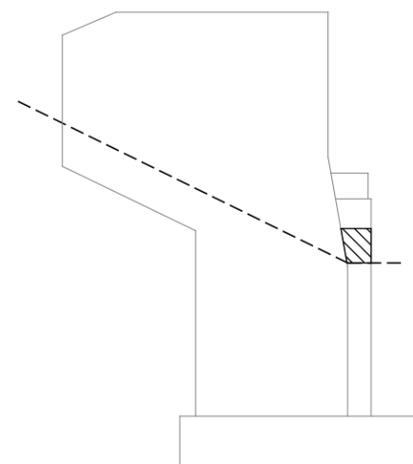
ABUTMENT 1 ELEVATION (SOUTHWEST END)



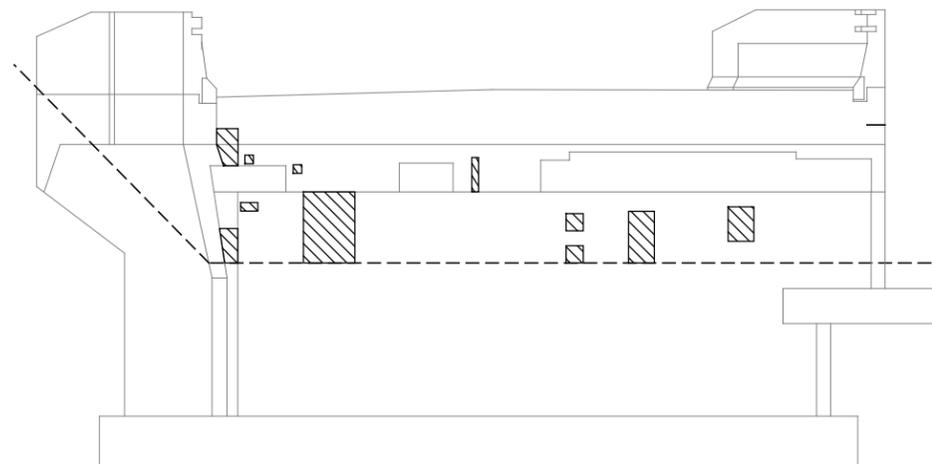
WINGWALL



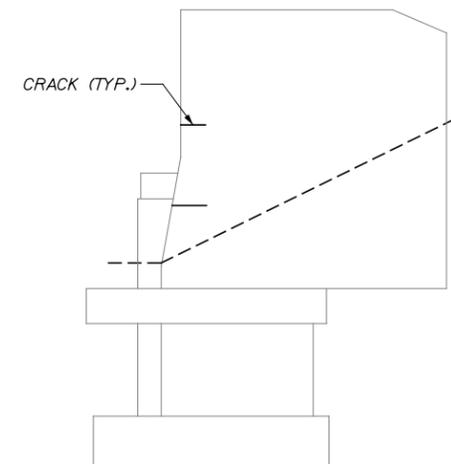
ABUTMENT 2 SEAT PLAN (NORTHEAST END)



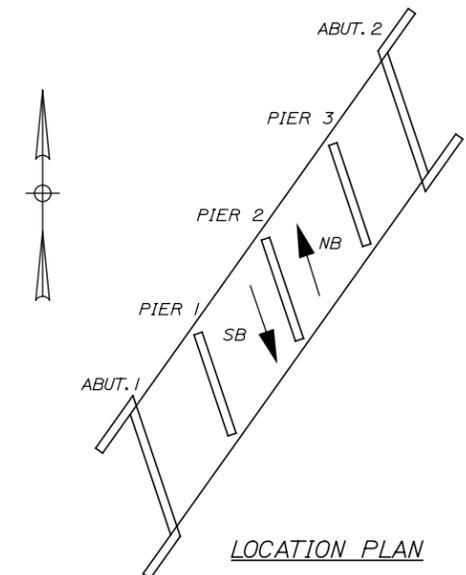
WINGWALL



ABUTMENT 2 ELEVATION (NORTHEAST END)



WINGWALL



LOCATION PLAN

Date: 3/24/2014

Filename: ...MSTA\024_62.9_SUB_REPAIR_1.dgn

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DSM	3/14	Checked	SBK	3/14
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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 CENTER RD. UNDERPASS - MILE 62.9
 SUBSTRUCTURE REPAIR - 1 OF 3

SHEET NUMBER: S-09
24 OF 52

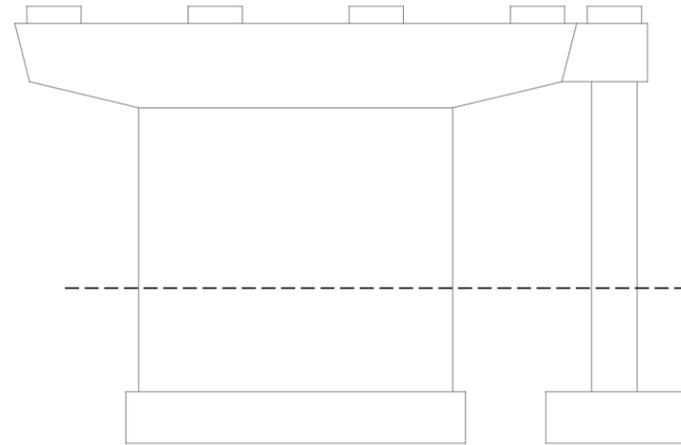
CONTRACT: 2014.15

Date: 3/24/2014

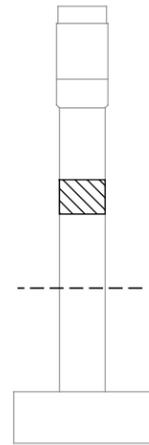
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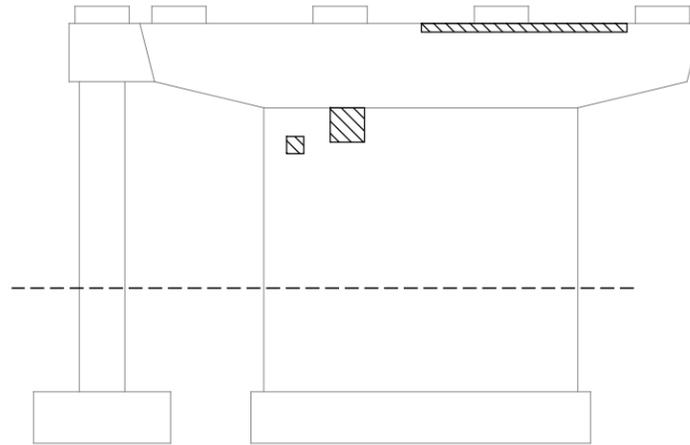
PLAN



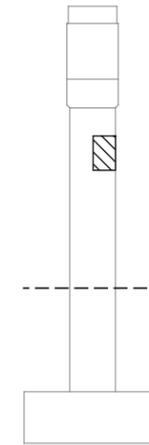
ELEVATION A



ELEVATION B

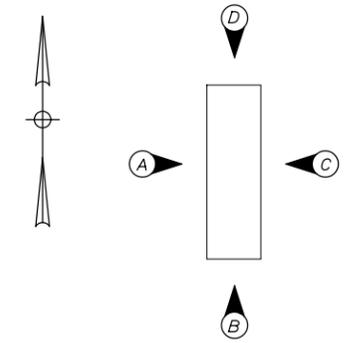


ELEVATION C



ELEVATION D

PIER 1 (SOUTHWEST PIER)



PIER ELEVATIONS

CENTER RD. UNDERPASS - MM 62.9 PIERS ESTIMATED QUANTITY OF REPAIRS				
	PIER 1	PIER 2	PIER 3	TOTAL
PIER REPAIRS	35 S.F.	25 S.F.	35 S.F.	95 S.F.
EPOXY INJECTED CRACK REPAIRS	0 L.F.	25 L.F.	25 L.F.	50 L.F.

NOTES:

- FOR CONCRETE REPAIR DETAIL SEE SHEET "FALMOUTH RD. UNDERPASS - MM F1.7 SUBSTRUCTURE REPAIR - 1 OF 3"
- FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES"

LEGEND:

- LIMIT OF CONCRETE SURFACE REPAIRS
- LIMIT OF EPOXY INJECTED CRACK REPAIR
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND

Scale:				
NOT TO SCALE				
No.	Revision	By	Date	

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DSM	3/14	Checked	SBK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 CENTER RD. UNDERPASS - MILE 62.9
 SUBSTRUCTURE REPAIR - 2 OF 3

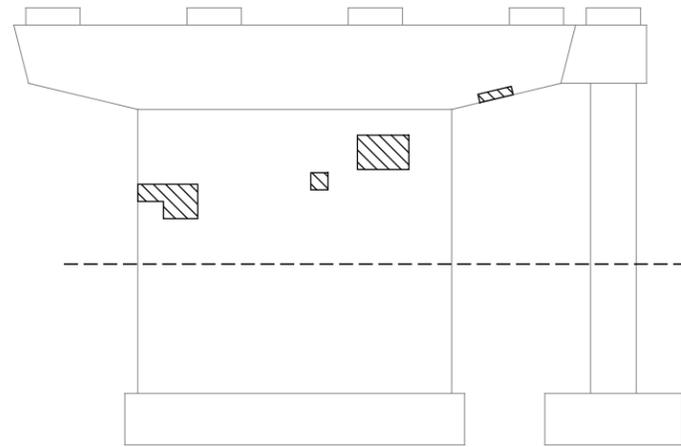
SHEET NUMBER: S-10
 25 OF 52

CONTRACT: 2014.15

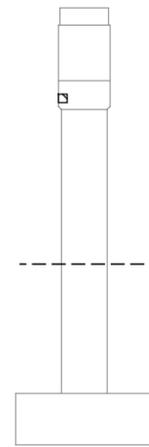
Date: 3/24/2014



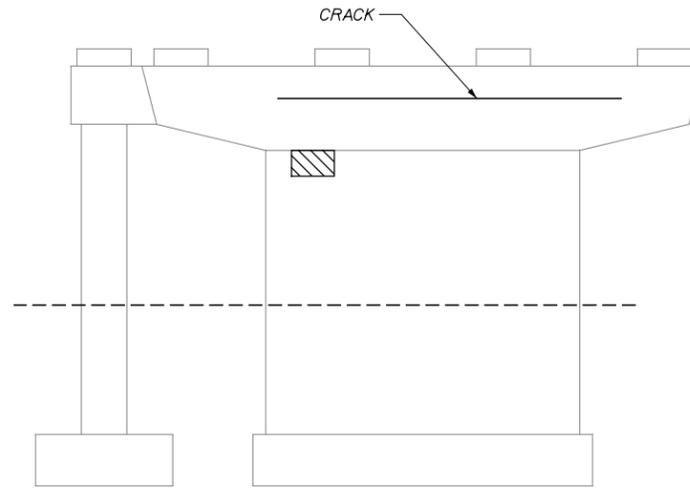
PLAN



ELEVATION A



ELEVATION B

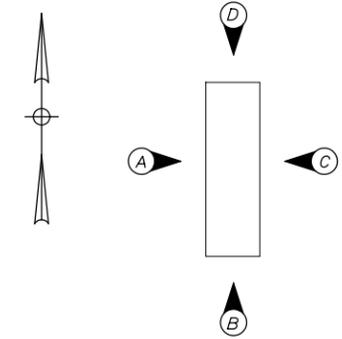


ELEVATION C



ELEVATION D

PIER 2 (CENTER PIER)



PIER ELEVATIONS

NOTES:

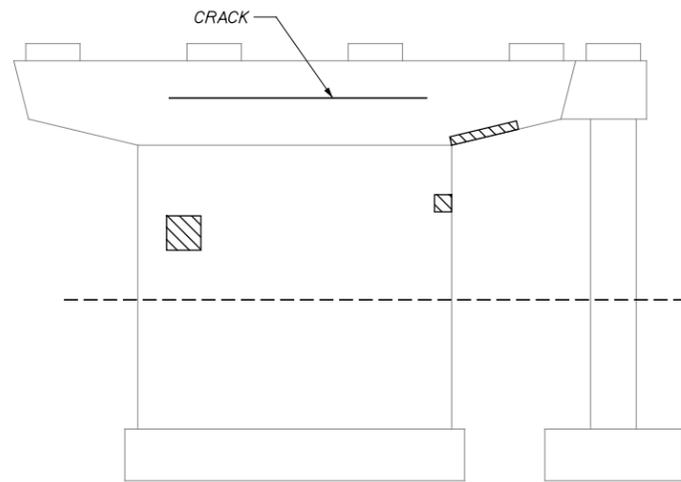
- FOR CONCRETE REPAIR DETAIL SEE SHEET "FALMOUTH RD. UNDERPASS - MM FL7 SUBSTRUCTURE REPAIR - 1 OF 3"
- FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES"

LEGEND:

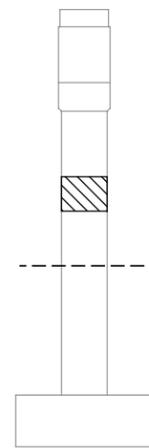
- LIMIT OF CONCRETE SURFACE REPAIRS
- LIMIT OF EPOXY INJECTED CRACK REPAIR
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND



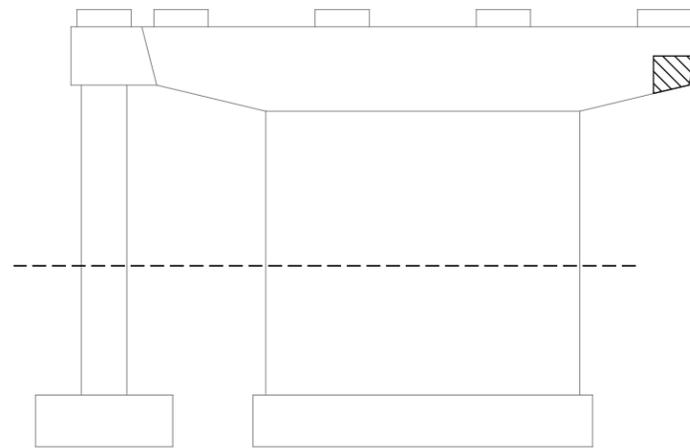
PLAN



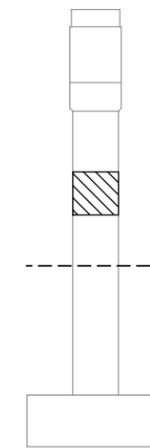
ELEVATION A



ELEVATION B



ELEVATION C



ELEVATION D

PIER 3 (NORTHEAST PIER)

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DSM	3/14	Checked	SBK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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**THE GOLD STAR
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 CENTER RD. UNDERPASS - MILE 62.9
 SUBSTRUCTURE REPAIR - 3 OF 3

CONTRACT: 2014.15

SHEET NUMBER: S-11

26 OF 52

Filename: ...MSTA\026_62.9_SUB_REPAIR_3.dgn

LISBON RD. UNDERPASS - MM 84.3 ABUTMENTS ESTIMATED QUANTITY OF REPAIRS			
	ABUTMENT 1	ABUTMENT 2	TOTAL
ABUTMENT REPAIRS	10 S.F.	5 S.F.	15 S.F.
EPOXY INJECTED CRACK REPAIRS	0 L.F.	0 L.F.	0 L.F.

NOTES:

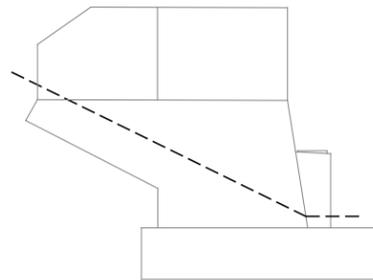
- FOR CONCRETE REPAIR DETAIL SEE SHEET "FALMOUTH RD. UNDERPASS - MM F1.7 SUBSTRUCTURE REPAIR - 1 OF 3"
- FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES"

LEGEND:

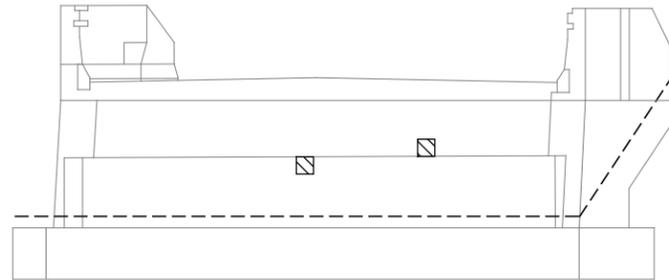
-  LIMIT OF CONCRETE SURFACE REPAIRS
-  LIMIT OF EPOXY INJECTED CRACK REPAIR
-  EXISTING CONCRETE
-  EXISTING AND PROPOSED GROUND



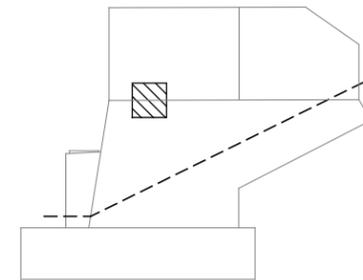
ABUTMENT 1 SEAT PLAN (NORTHWEST END)



WINGWALL



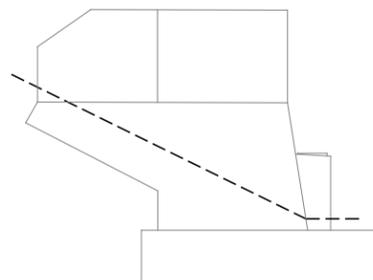
ABUTMENT 1 ELEVATION (NORTHWEST END)



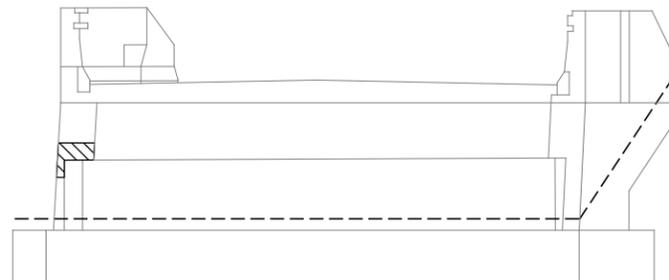
WINGWALL



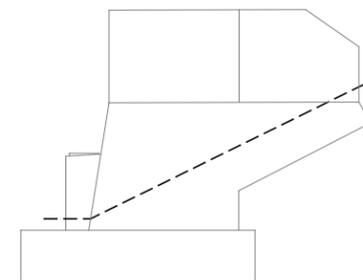
ABUTMENT 2 SEAT PLAN (SOUTHEAST END)



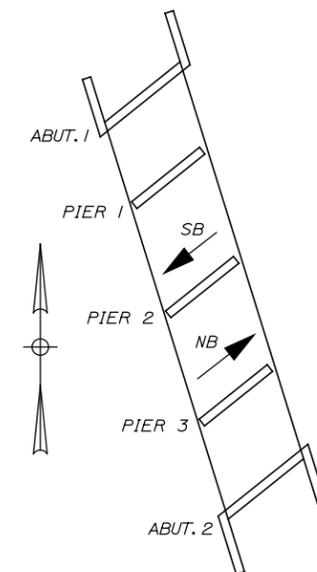
WINGWALL



ABUTMENT 2 ELEVATION (SOUTHEAST END)



WINGWALL



LOCATION PLAN

Date: 3/24/2014

Filename: ...MSTA027_84.3_SUB_REPAIR_1.dgn

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DSM	3/14	Checked	SBK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 LISBON RD. UNDERPASS - MILE 84.3
 SUBSTRUCTURE REPAIR - 1 OF 3

SHEET NUMBER: S-12
 27 OF 52

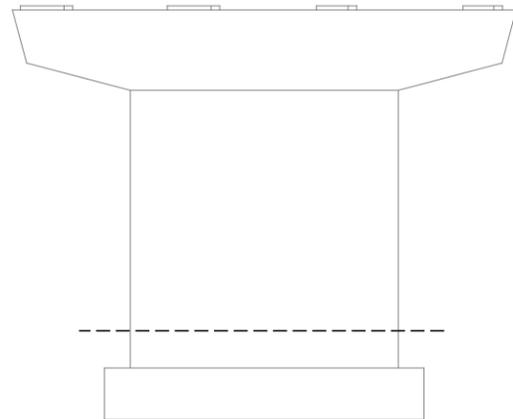
CONTRACT: 2014.15

Date: 3/24/2014

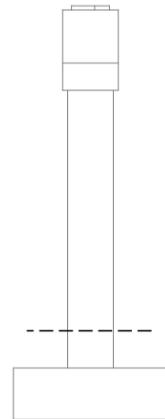
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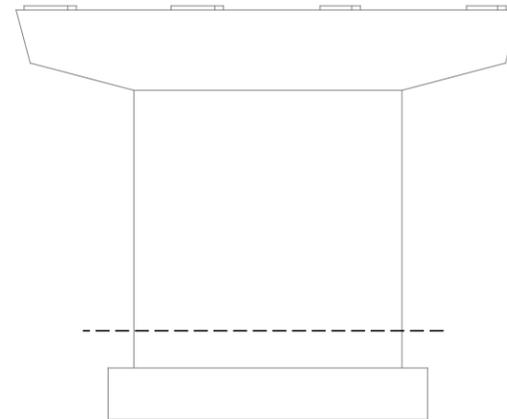
PLAN



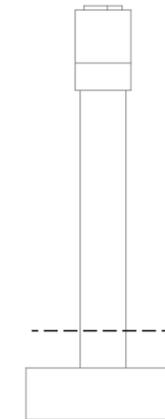
ELEVATION A



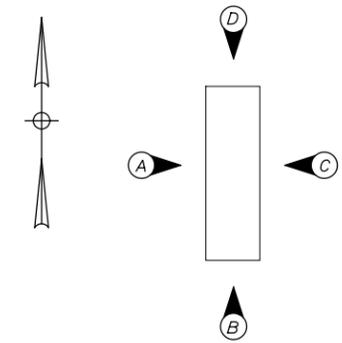
ELEVATION B



ELEVATION C



ELEVATION D



PIER ELEVATIONS

PIER 1 (NORTHWEST PIER)

LISBON RD. UNDERPASS - MM 84.3 PIERS ESTIMATED QUANTITY OF REPAIRS				
	PIER 1	PIER 2	PIER 3	TOTAL
PIER REPAIRS	0 S.F.	0 S.F.	40 S.F.	40 S.F.
EPOXY INJECTED CRACK REPAIRS	0 L.F.	0 L.F.	0 L.F.	0 L.F.

NOTES:

- FOR CONCRETE REPAIR DETAIL SEE SHEET "FALMOUTH RD. UNDERPASS - MM F1.7 SUBSTRUCTURE REPAIR - 1 OF 3"
- FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES"

LEGEND:

- LIMIT OF CONCRETE SURFACE REPAIRS
- LIMIT OF EPOXY INJECTED CRACK REPAIR
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND

Scale:				
NOT TO SCALE				
No.	Revision	By	Date	

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date	By	Date	
Designed	DSM	3/14	Checked	SBK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 LISBON RD. UNDERPASS - MILE 84.3
 SUBSTRUCTURE REPAIR - 2 OF 3

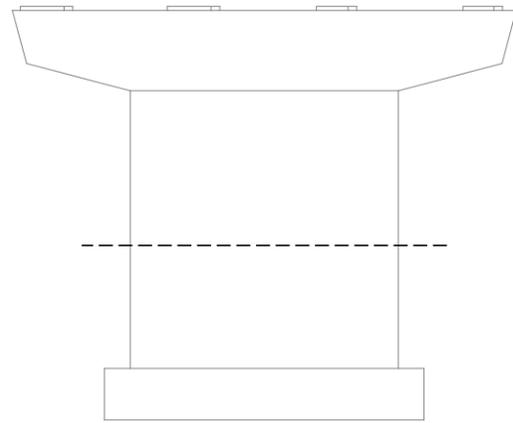
SHEET NUMBER: S-13
 28 OF 52

CONTRACT: 2014.15

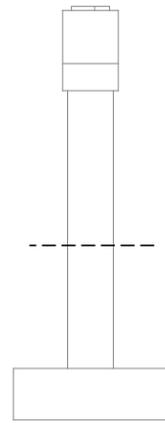
Date: 3/24/2014



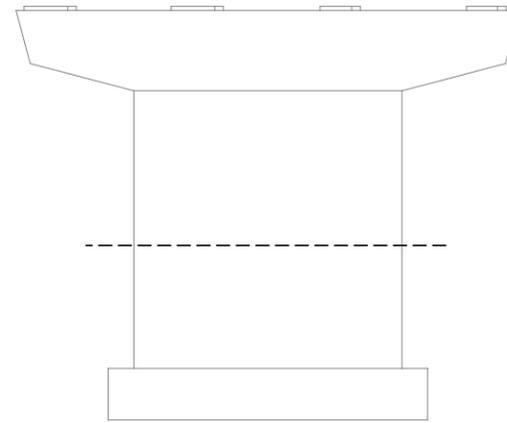
PLAN



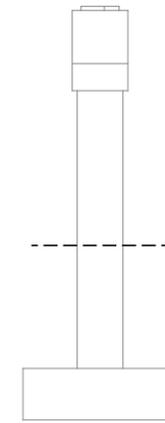
ELEVATION A



ELEVATION B

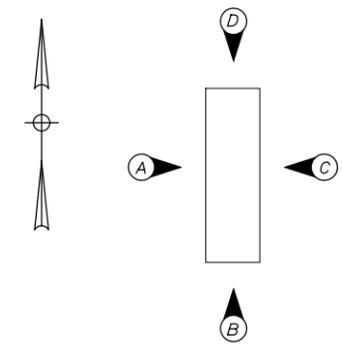


ELEVATION C



ELEVATION D

PIER 2 (CENTER PIER)



PIER ELEVATIONS

NOTES:

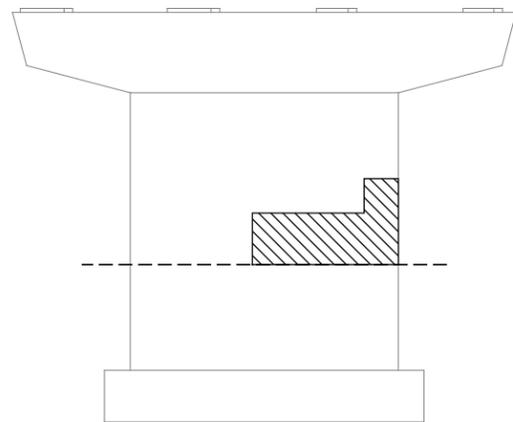
1. FOR CONCRETE REPAIR DETAIL SEE SHEET "FALMOUTH RD. UNDERPASS - MM F1.7 SUBSTRUCTURE REPAIR - 1 OF 3"
2. FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES"

LEGEND:

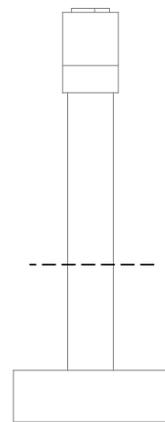
- LIMIT OF CONCRETE SURFACE REPAIRS
- LIMIT OF EPOXY INJECTED CRACK REPAIR
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND



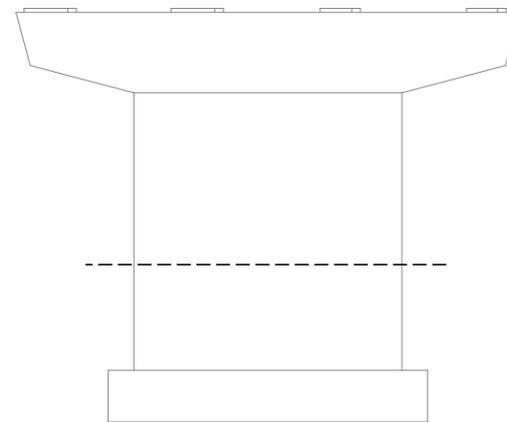
PLAN



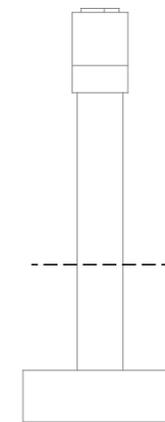
ELEVATION A



ELEVATION B



ELEVATION C



ELEVATION D

PIER 3 (SOUTHEAST PIER)

Scale: NOT TO SCALE

Designed by:

TY-LIN INTERNATIONAL

T.Y. Lin International
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**THE GOLD STAR
 MEMORIAL HIGHWAY**

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 LISBON RD. UNDERPASS - MILE 84.3
 SUBSTRUCTURE REPAIR - 3 OF 3

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DSM	3/14	Checked	SBK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

MTA PROJECT MANAGER: Ralph C. Norwood IV

CONTRACT: 2014.15

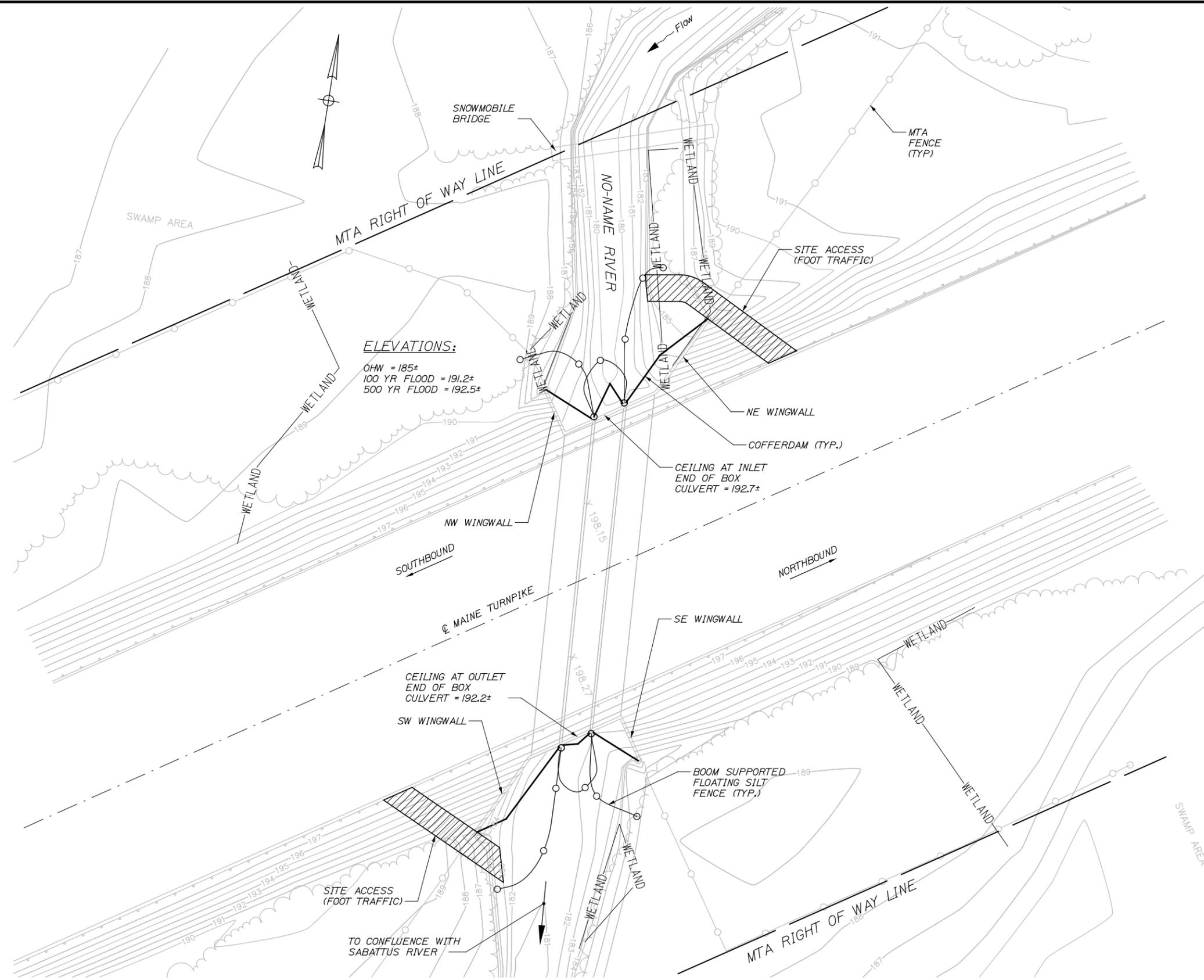
SHEET NUMBER: S-14

29 OF 52

Filename: ...MSTA\029_84.3_SUB_REPAIR_3.dgn

Date: 3/24/2014

Filename: ...BRIDGE.MSTAV030_82.5_Plan.dgn



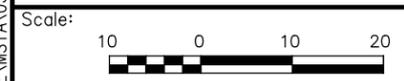
ELEVATIONS:
 OHW = 185±
 100 YR FLOOD = 191.2±
 500 YR FLOOD = 192.5±

CEILING AT INLET
 END OF BOX
 CULVERT = 192.7±

CEILING AT OUTLET
 END OF BOX
 CULVERT = 192.2±

NOTES:

1. EROSION AND SEDIMENT CONTROL DEVICES REQUIRED FOR THE CONTRACTOR'S ACCESS LOCATIONS AND STORAGE AREAS WILL NOT BE MEASURED FOR PAYMENT.
2. SITE ACCESS IS SOLELY FOR FOOT TRAFFIC AND WILL BE STABILIZED AT THE COMPLETION OF THE PROJECT. COST INCIDENTAL TO THE CONTRACT.
3. CONTRACT LIMIT OF DISTURBANCE FOR NO-NAME RIVER CULVERT IS 0.02 ACRES. CONTRACT LIMIT OF DISTURBANCE AREA FOR ACCESS AND STORAGE FOR NO-NAME RIVER CULVERT IS 0.02 ACRES.
4. SEE SPECIFICATIONS FOR CONTRACTOR'S SUBMITTAL REQUIREMENTS IF INCREASING THE LIMITS OF DISTURBANCE ABOVE THE PROJECT ESTIMATED QUANTITIES.
5. WETLANDS SHOWN ARE CONSIDERED TO BE "WETLANDS OF SPECIAL SIGNIFICANCE".
6. CLOSING OF THE BARRELS SHALL BE DONE IN STAGES TO ALLOW FOR FISH PASSAGE. AT NO TIME WILL TWO BARRELS BE CLOSED AT THE SAME TIME.



No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Norman L. Baker

	By	Date		By	Date
Designed	DSM	3/14	Checked	SBK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 NO-NAME RIVER CULVERT - MILE 82.5
 GENERAL SITE PLAN

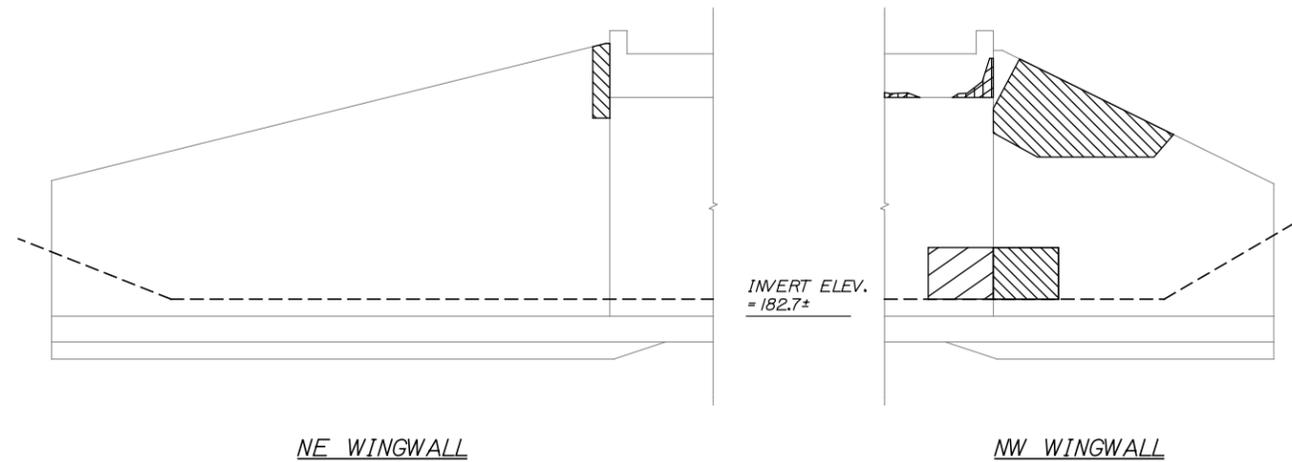
SHEET NUMBER: S-15
 CONTRACT: 2014.15
 30 OF 52

Date: 3/24/2014

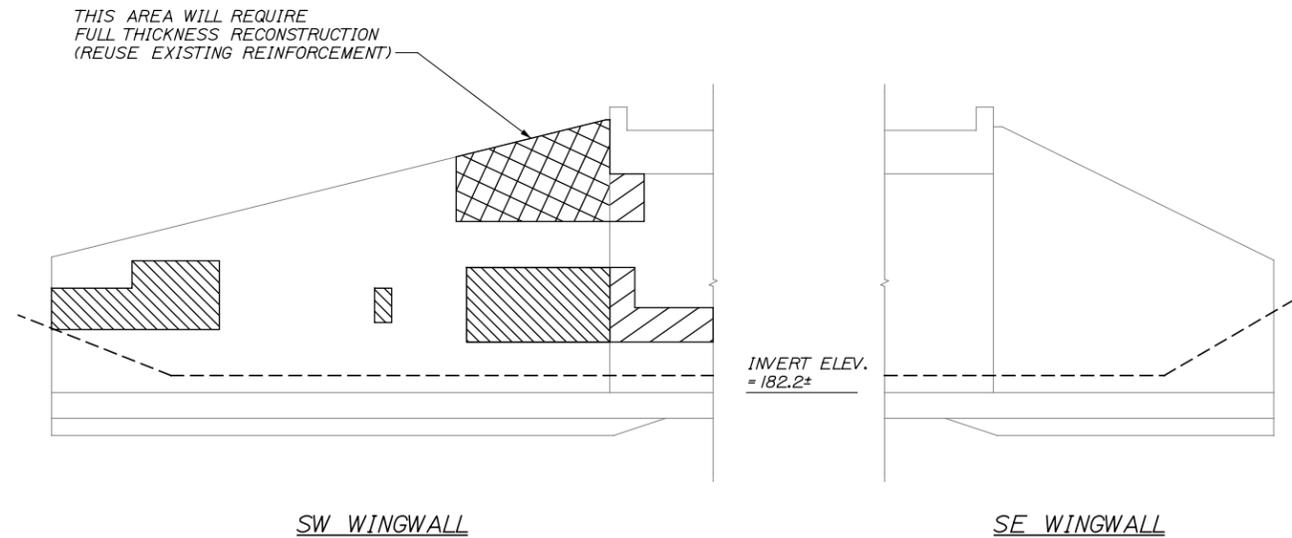
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NO-NAME RIVER - MM 82.5 WINGWALLS ESTIMATED QUANTITY OF REPAIRS					
	NE WING	NW WING	SW WING	SE WING	TOTAL
ABUTMENT REPAIRS	10 S.F.	60 S.F.	100 S.F.	0 S.F.	170 S.F.
REPAIR OF VERTICAL SURFACES > 7.9 INCHES	0 C.Y.	0 C.Y.	3 C.Y.	0 C.Y.	3 C.Y.

NO-NAME RIVER - MM 82.5 CULVERT BARRELS ESTIMATED QUANTITY OF REPAIRS				
	W. BARREL	MID. BARREL	E. BARREL	TOTAL
CULVERT SURFACE PATCH/REPAIR	65 S.F.	70 S.F.	65 S.F.	200 S.F.
FASCIA AND OVERHANG REPAIRS	15 S.F.	15 S.F.	15 S.F.	45 S.F.
CULVERT WALL CRACK REPAIRS	10 L.F.	10 L.F.	10 L.F.	30 L.F.



WINGWALL ELEVATION (NORTH END)



WINGWALL ELEVATION (SOUTH END)

NOTES:

- FOR CONCRETE REPAIR DETAIL SEE SHEET "MM F1.7 - SUBSTRUCTURE REPAIR - 1 OF 3"
- FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES"
- CULVERT BARRELS ARE NOT DEPICTED. ESTIMATED REPAIR QUANTITIES ARE LISTED IN THE TABLE ABOVE.
- ALL OVERHEAD CONCRETE REPAIRS INSIDE THE BARRELS SHALL BE PAID FOR UNDER ITEM "FASCIA AND OVERHANG REPAIRS".
- ALL CULVERT WALL REPAIRS INSIDE THE BARRELS SHALL BE PAID FOR UNDER ITEM "CULVERT SURFACE PATCH/REPAIR"
- WINGWALL REPAIRS LESS THAN 7.9 INCHES IN DEPTH SHALL BE PAID FOR UNDER ITEM "ABUTMENT REPAIRS"

LEGEND:

- LIMIT OF WINGWALL FULL THICKNESS RECONSTRUCTION (ITEM "REPAIR OF VERTICAL SURFACES > 7.9 INCHES")
- LIMIT OF WINGWALL CONCRETE SURFACE PATCH/REPAIR (ITEM "ABUTMENT REPAIRS")
- LIMIT OF CULVERT BARREL CONCRETE SURFACE PATCH/REPAIR (ITEM "CULVERT SURFACE PATCH REPAIR")
- LIMIT OF CULVERT BARREL FASCIA PATCH/REPAIR (ITEM "FASCIA AND OVERHANG REPAIRS")
- LIMIT OF CULVERT WALL CRACK REPAIRS
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND

Scale: NOT TO SCALE				
No.	Revision	By	Date	

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DSM	3/14	Checked	SBK	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

T.Y. Lin International
 12 Northbrook Drive
 Building A, Suite One
 Falmouth, Maine 04105
 TEL: (207) 781-4721
 FAX: (207) 781-4753

**THE GOLD STAR
MEMORIAL HIGHWAY**

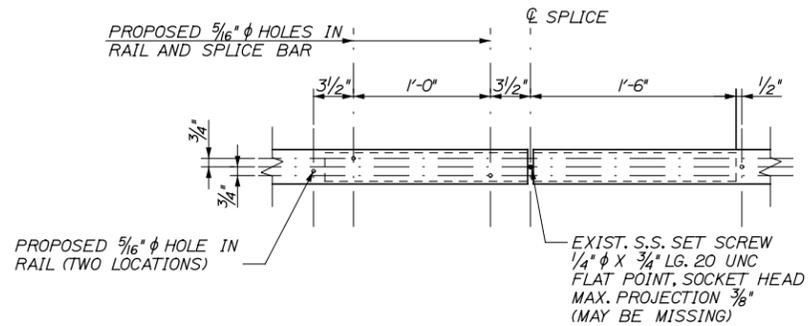
MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 NO-NAME RIVER CULVERT - MILE 82.5
 WINGWALL REPAIRS

SHEET NUMBER: S-16
 CONTRACT: 2014.15
 31 OF 52

Date: 3/24/2014

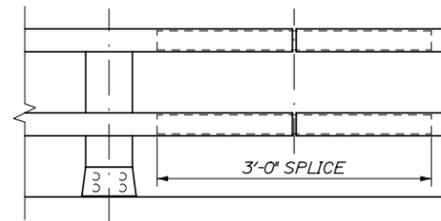
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SPLICE MODIFICATION DETAIL
(ELEVATION VIEW FROM BACK SIDE OR RAIL)
1/2" = 1'-0"

SPLICE NOTES:

1. RE-CENTER EXISTING SPLICE BAR AND DRILL TWO $\frac{5}{16}$ " ϕ HOLES AND INSTALL TWO $\frac{3}{8}$ " ϕ X 1", TYPE F, HEX, WASHER HEAD TAPPING SCREWS (STAINLESS). DRILL TWO ADDITIONAL $\frac{5}{16}$ " ϕ HOLES IN RAIL FOR SPLICE LOCATION VERIFICATION.
2. ANY REQUIRED REPLACEMENT SPLICE BARS SHALL BE SUPPLIED BY THE AUTHORITY.



RAILING - ELEVATION
N.T.S.

Scale:			
AS NOTED			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DSM	3/14	Checked	DSM	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

T.Y. Lin International
12 Northbrook Drive
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Falmouth, Maine 04105
TEL: (207) 781-4721
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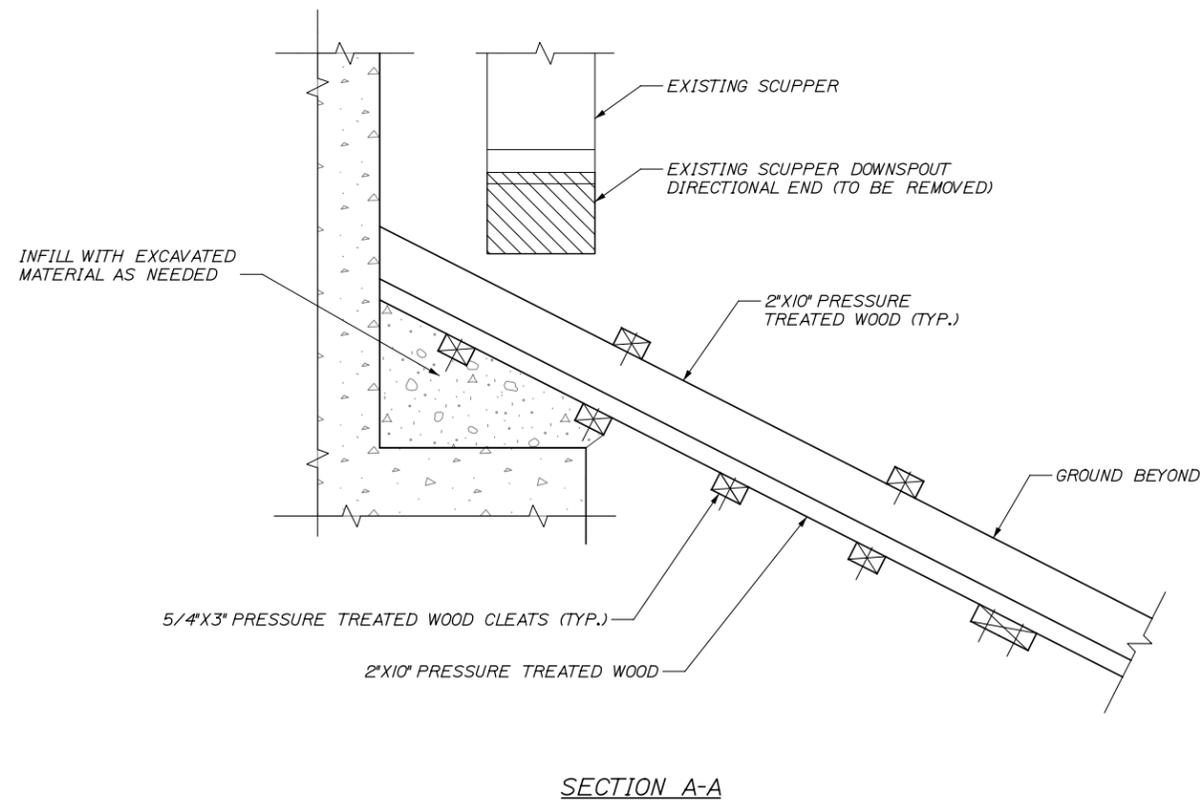
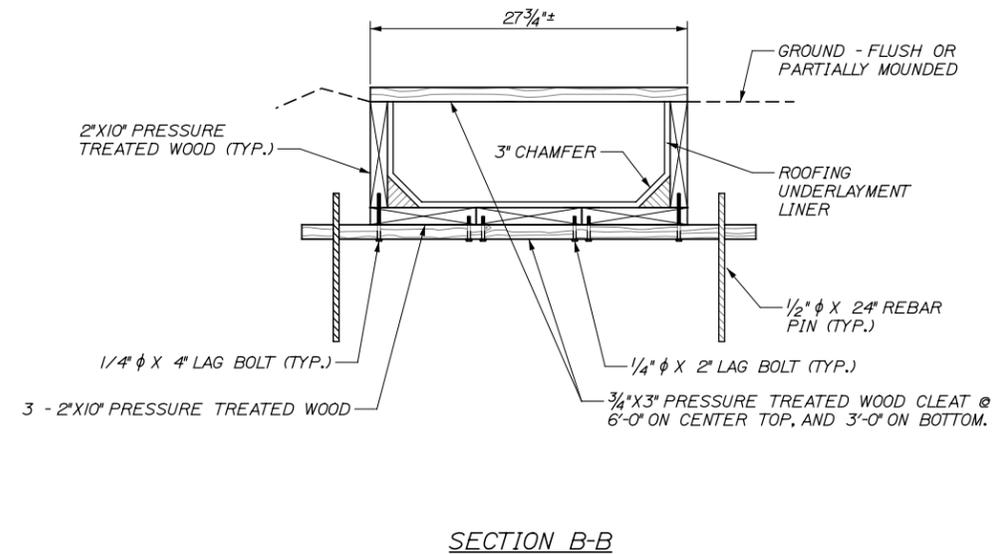
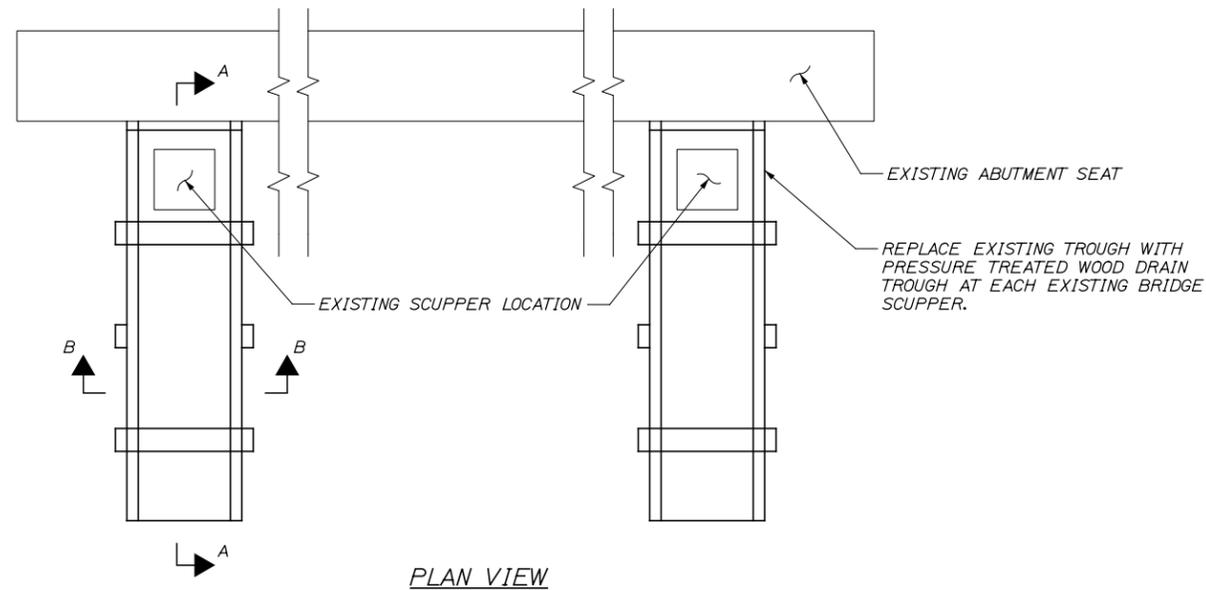
**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
4 LOCATIONS (MILE F1.7 TO MILE 84.3)
MISCELLANEOUS DETAILS

SHEET NUMBER: S-17
CONTRACT: 2014.15
32 OF 52

Date: 3/24/2014



NOTES:

1. WOOD DRAIN TROUGH AND ROOFING UNDERLAYMENT LINER SHALL BE PAID UNDER ITEM 603.91, PRESSURE TREATED WOOD DRAIN TROUGH.
2. REMOVAL OF EXISTING TROUGHS AND SCUPPER DOWNSPOUT ENDS, EXCAVATION, AND BACKFILL TO INSTALL PRESSURE TREATED WOOD DRAIN TROUGH SHALL BE INCIDENTAL TO ITEM 603.91.
3. EXISTING TROUGHS ARE CONCRETE AT W. FALMOUTH RD., BITUMINOUS AT CENTER RD., AND CONCRETE AT LISBON RD.
4. REMOVE EXISTING DIRECTIONAL SCUPPER DOWNSPOUT ENDS AS DIRECTED BY THE RESIDENT.
5. MECHANICALLY ATTACH WOOD DOWNSPOUT TO ABUTMENT WITH TWO 3/8" φ X 6" BOLTS INTO DROP IN ANCHORS.
6. BUTT SPLICE 2"X10" PRESSURE TREATED WOOD MEMBERS AT CLEATS (PROVIDE 5/4"X6" CLEATS AT BUTT SPLICES); OR USE 2"X10"X16" PRESSURE TREATED WOOD SPLICE BOARDS. SPIKE WITH 10-P GALVANIZED NAILS OR SCREWS.
7. INSTALL ROOFING UNDERLAYMENT (ICE AND WATER SHIELD) LINER AND SECURE WITH GALVANIZED ROOFING NAILS PRIOR TO INSTALLING TOP CLEATS.

Filename: ...MSTA\033_Trough_Details.dgn

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Norman L. Baker					
	By	Date		By	Date
Designed	DSM	3/14	Checked	DSM	3/14
Drawn	JD	3/14	In Charge of	NLB	3/14

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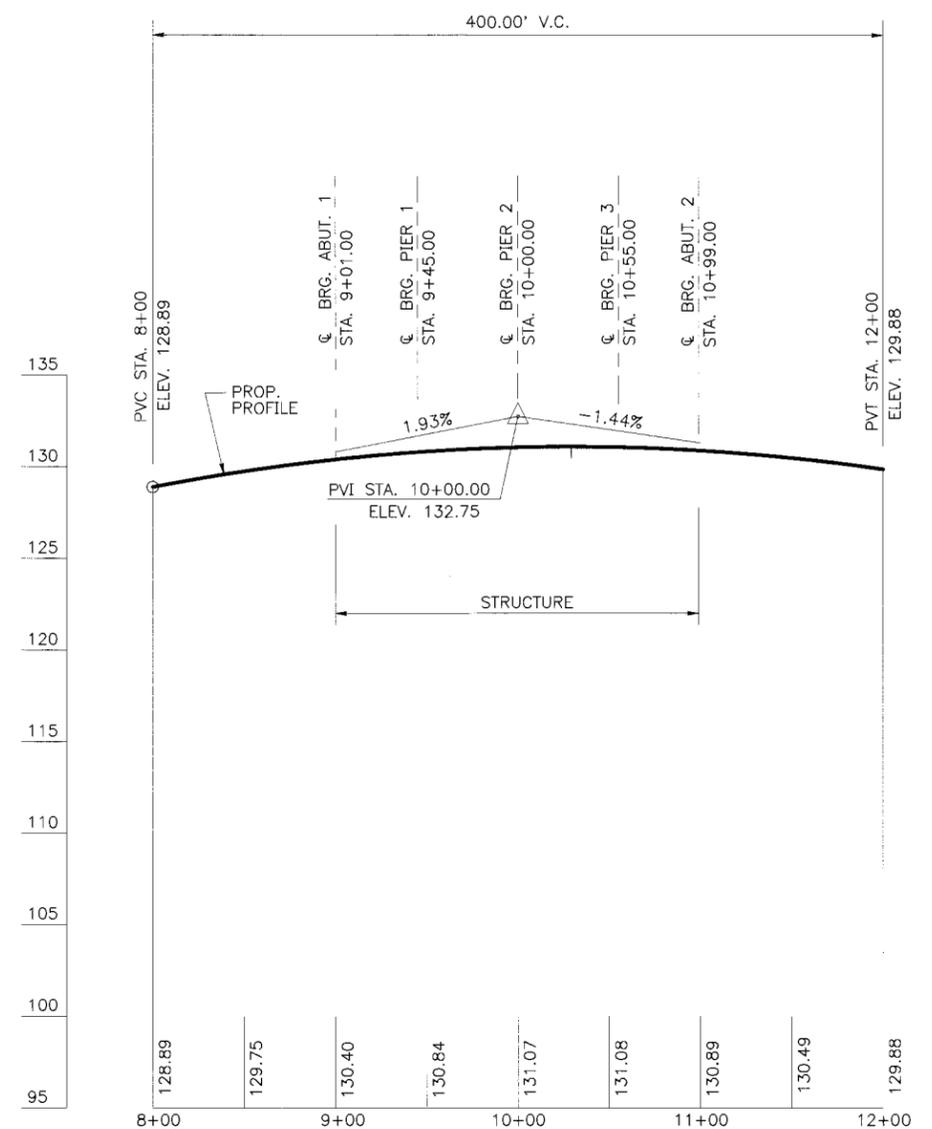
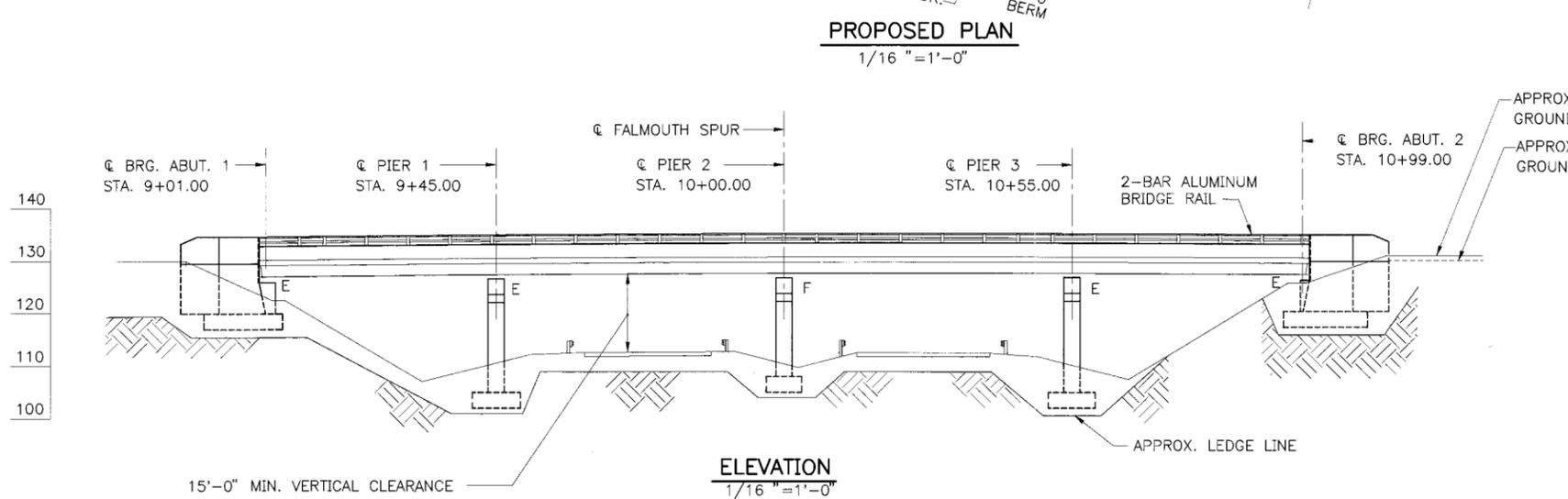
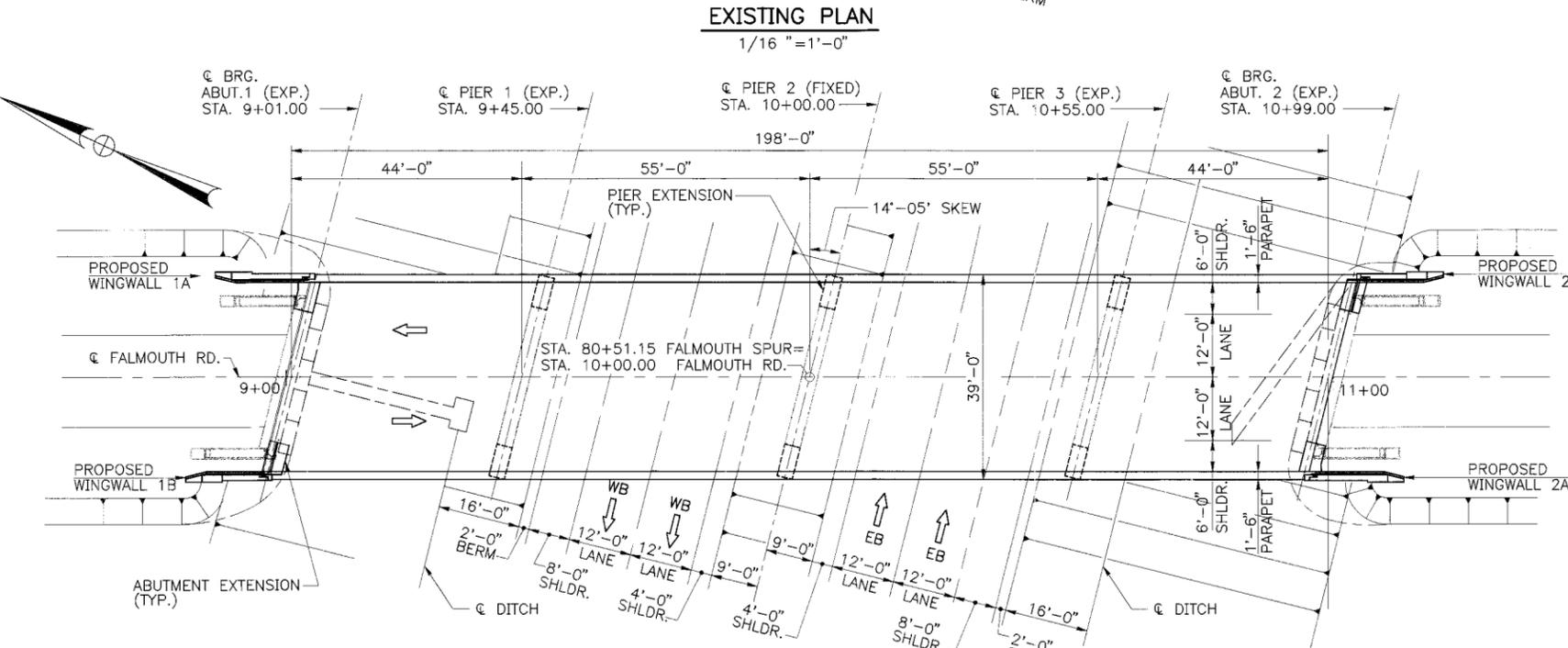
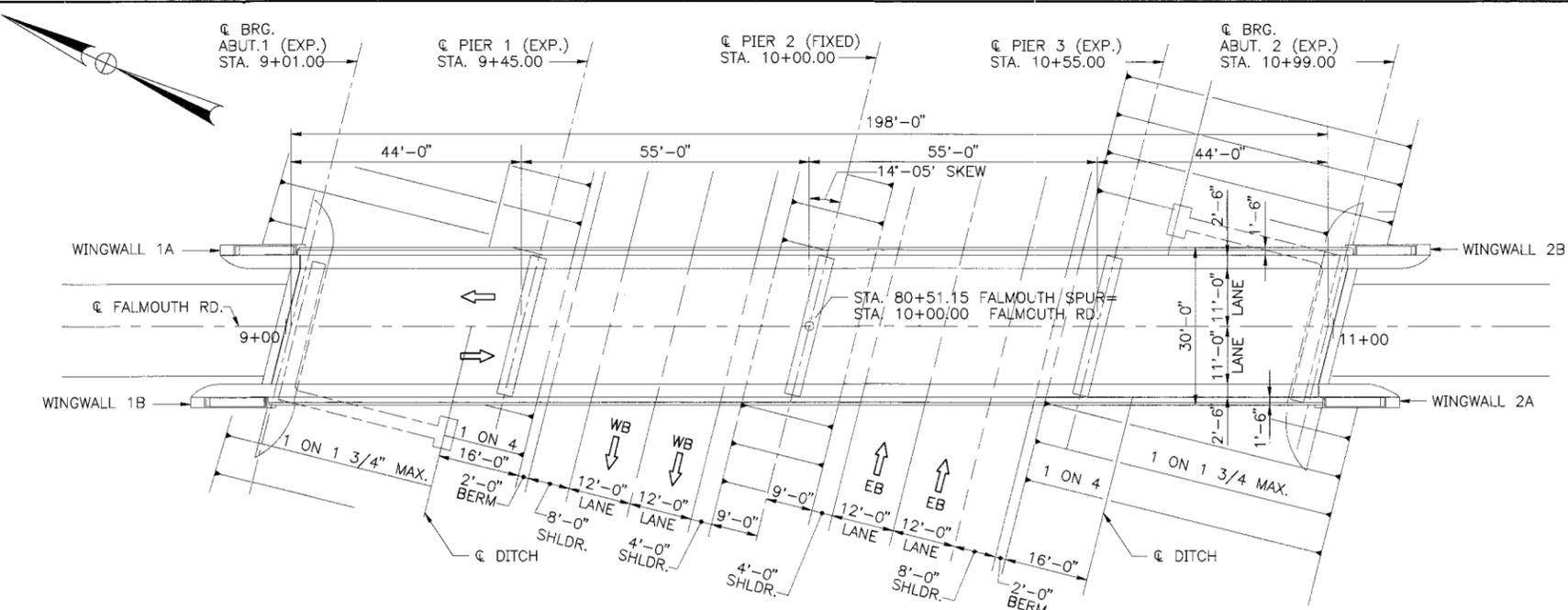
THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV

BRIDGE AND CULVERT REPAIRS
 4 LOCATIONS (MILE F1.7 TO MILE 84.3)
 PRESSURE TREATED WOOD DRAIN
 TROUGH DETAILS

SHEET NUMBER: S-18
 CONTRACT: 2014.15
 33 OF 52

(MELPK) BDR-01



PROPOSED PROFILE

HORIZ. 1" = 50'
VERT. 1" = 5'

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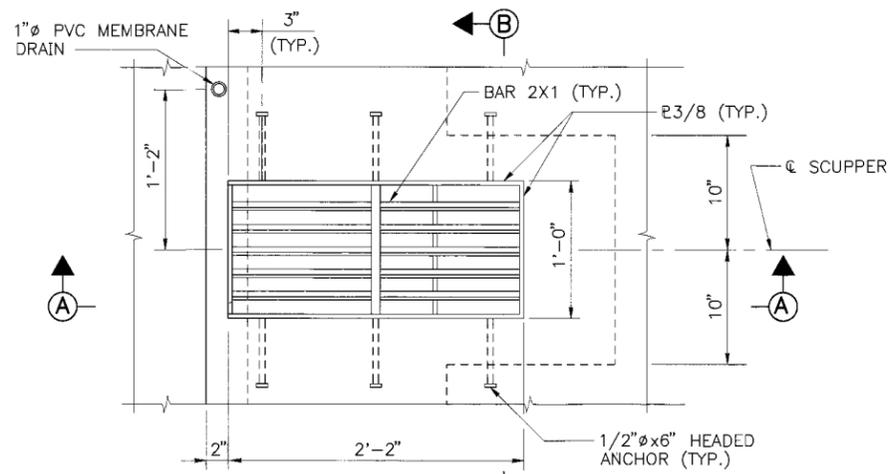
Maine Turnpike Authority
Maine Turnpike
FALMOUTH ROAD UNDERPASS
GENERAL PLAN AND ELEVATION

Trans pass

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF, INC.
ARCHITECTS ENGINEERS PLANNERS

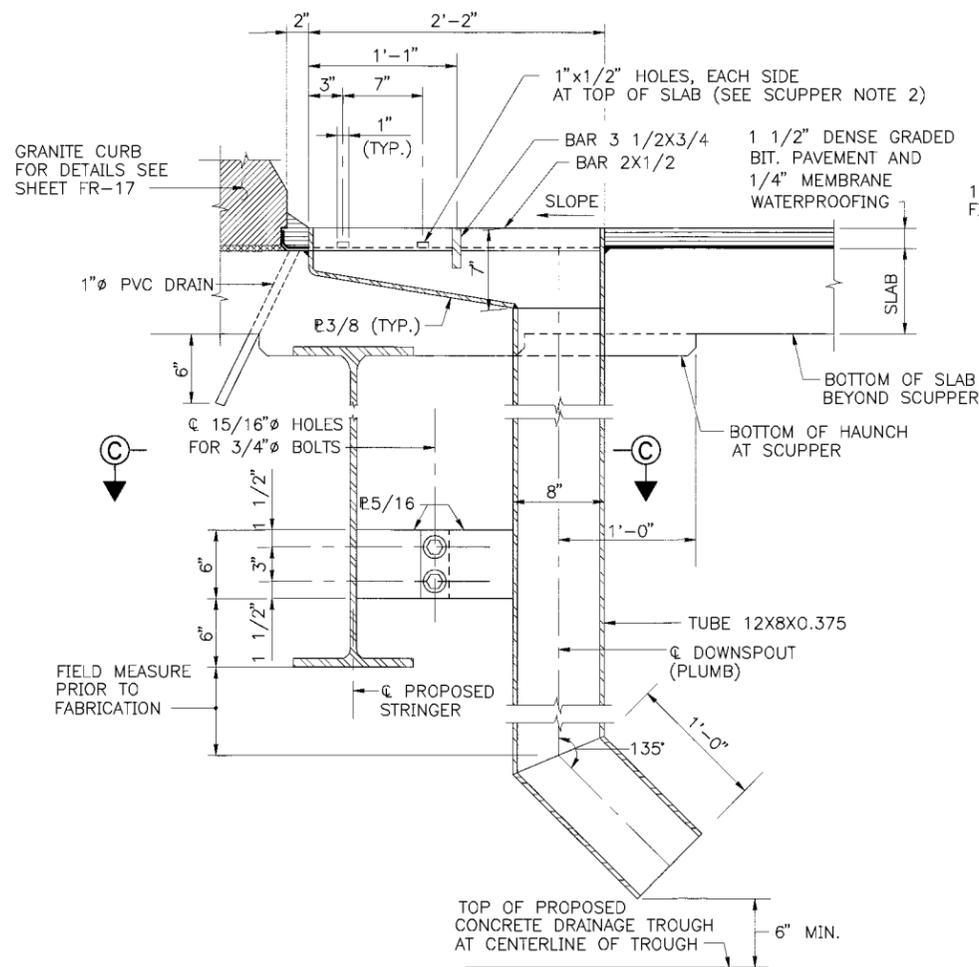
Contract 97.9 Sheet No. FR-2
SHEET NUMBER: 34 OF 52

No.	Revision	By	Date	In Charge Of
		Designed	AD 1/97	
		Drawn	CSL 1/97	
		Checked	JMH 1/97	
				RAL



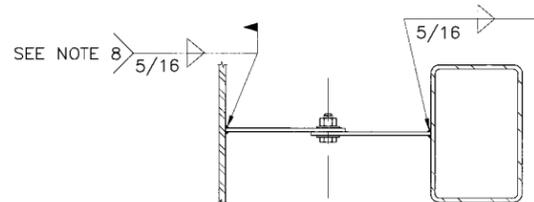
PLAN - SCUPPER

1 1/2" = 1'-0"



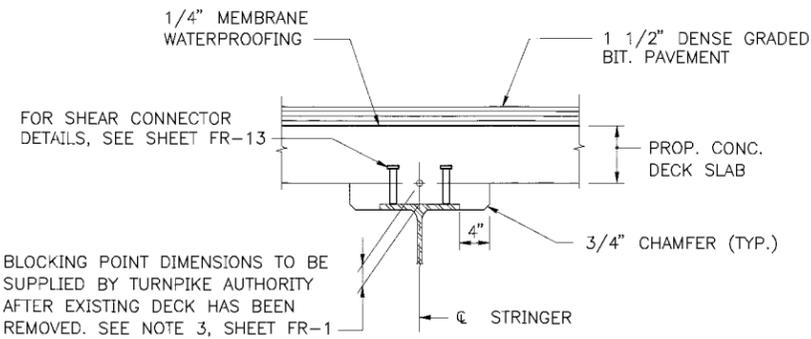
SECTION A-A

1 1/2" = 1'-0"



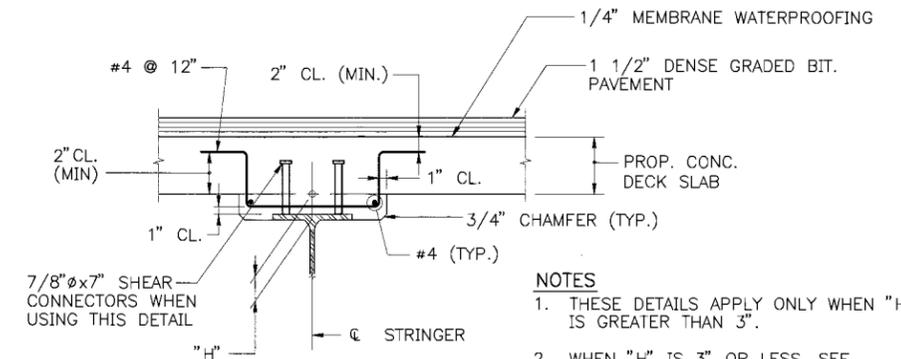
SECTION C-C

1 1/2" = 1'-0"



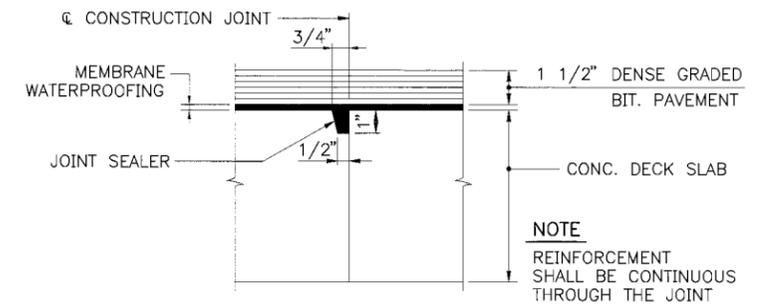
BLOCKING POINT DETAIL

1" = 1'-0"



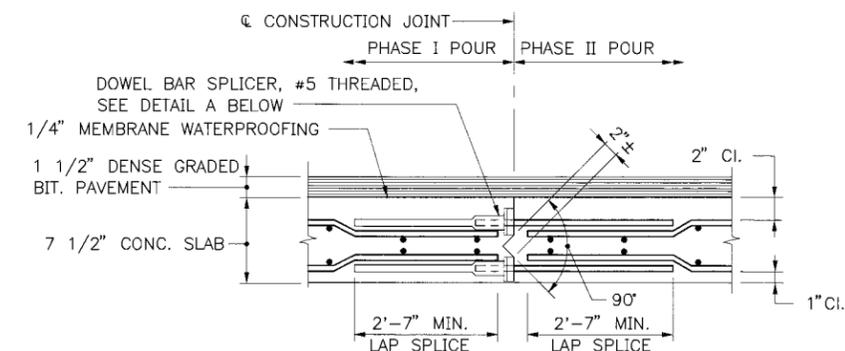
EXTRA DEPTH HAUNCH DETAILS

1" = 1'-0"



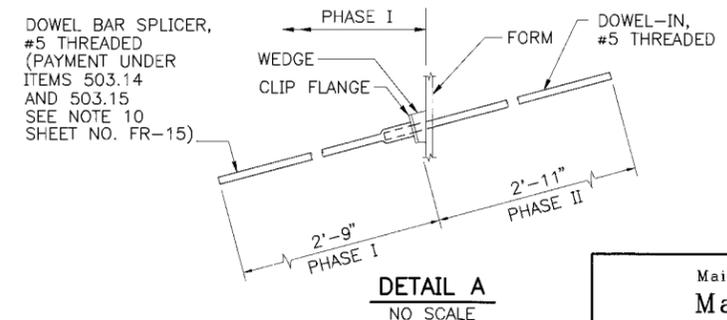
TRANSVERSE CONSTRUCTION JOINT DETAIL

3" = 1'-0"



LONGITUDINAL CONSTRUCTION JOINT DETAIL

NOT TO SCALE



DETAIL A

NO SCALE

SCUPPER NOTES

1. ALL WELDS SHALL BE CONTINUOUS 1/4" FILLET WELDS EXCEPT AS NOTED.
2. DO NOT COVER DECK DRAINS WITH MEMBRANE WATERPROOFING. DEPRESS DRAINS 1/2" BELOW TOP OF SLAB, PROVIDE 23 GAUGE GALVANIZED SCREENS (1/4" MESH) OVER DRAINS.
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, PVC DRAINS AND SCREENS SHALL BE INCIDENTAL TO ITEM NO. 502.261.
7. FOR LOCATION OF SCUPPERS AND 1" DRAINS, SEE SHEET NO. FR-15.
8. FIELD REPAIR GALVANIZING WITH ZINC RICH PAINT ACCORDING TO SECTION 506 OF THE STANDARD SPECIFICATIONS. (PAYMENT INCIDENTAL TO ITEM NO. 502.261).

Maine Turnpike Authority
Maine Turnpike
 FALMOUTH ROAD UNDERPASS
 SLAB DETAILS I

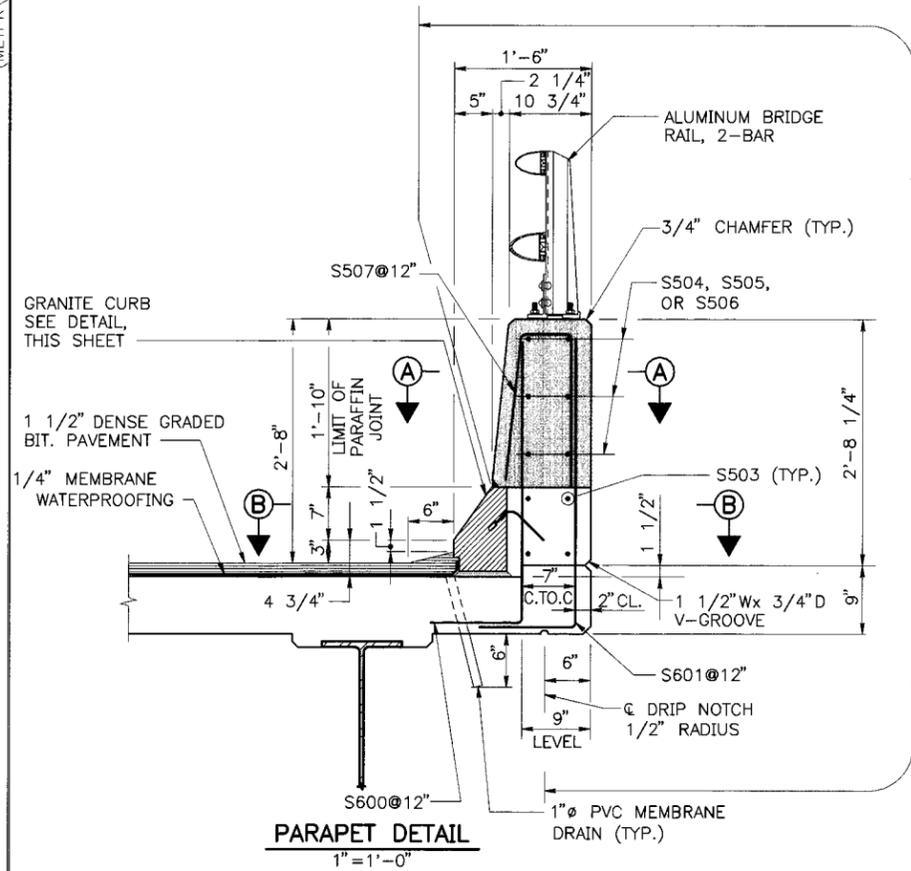
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HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF, INC.
 ARCHITECTS ENGINEERS PLANNERS

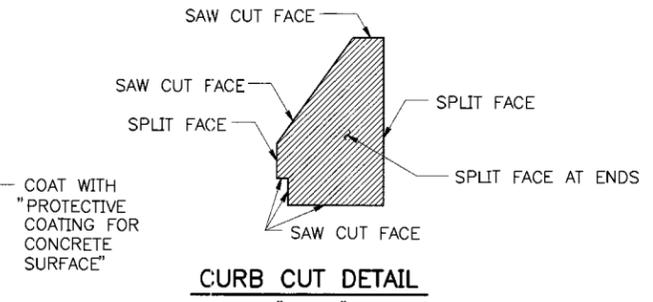
Contract 97.9 Sheet No. FR-16
SHEET NUMBER: 36 OF 52

No.	Revision	By	Date	In Charge Of
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		Drawn	CSL 1/97	
		Checked	JMH 1/97	
				RAL

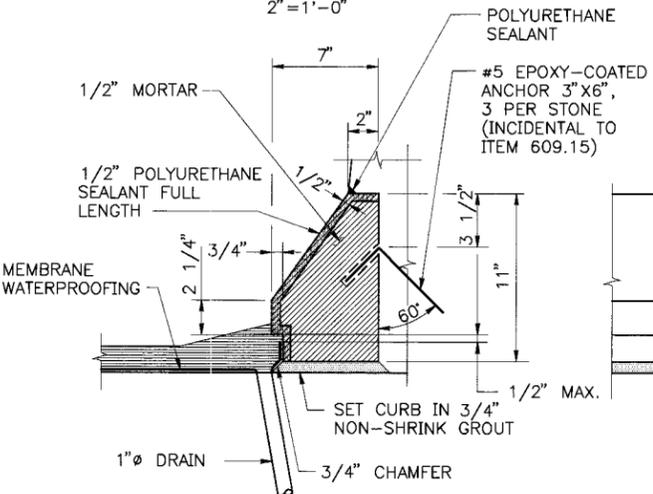
(METPK) BDR-01



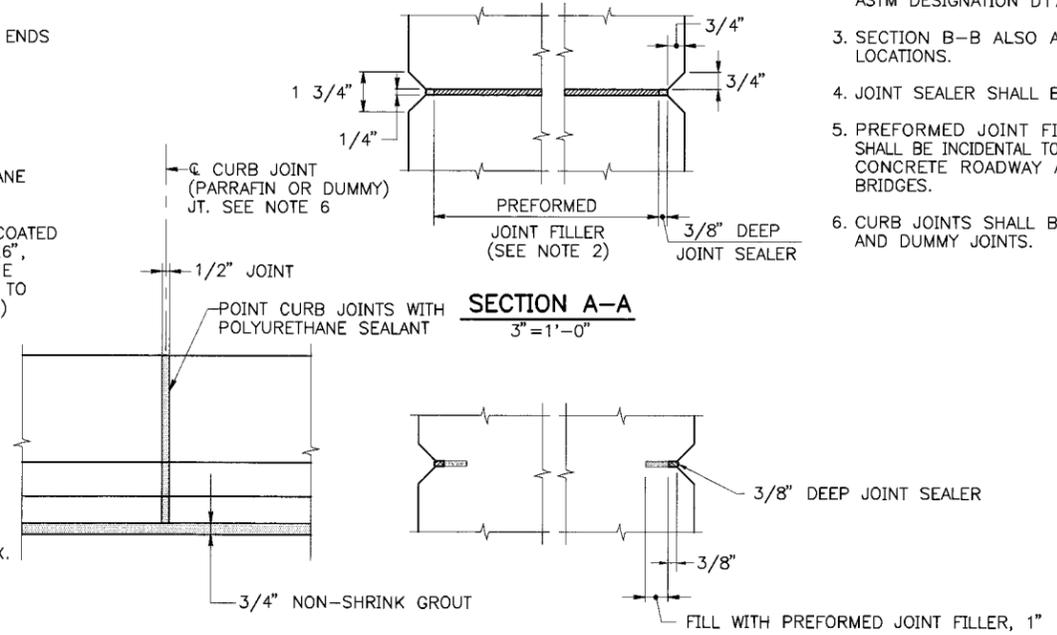
PARAPET DETAIL
1" = 1'-0"



CURB CUT DETAIL
2" = 1'-0"



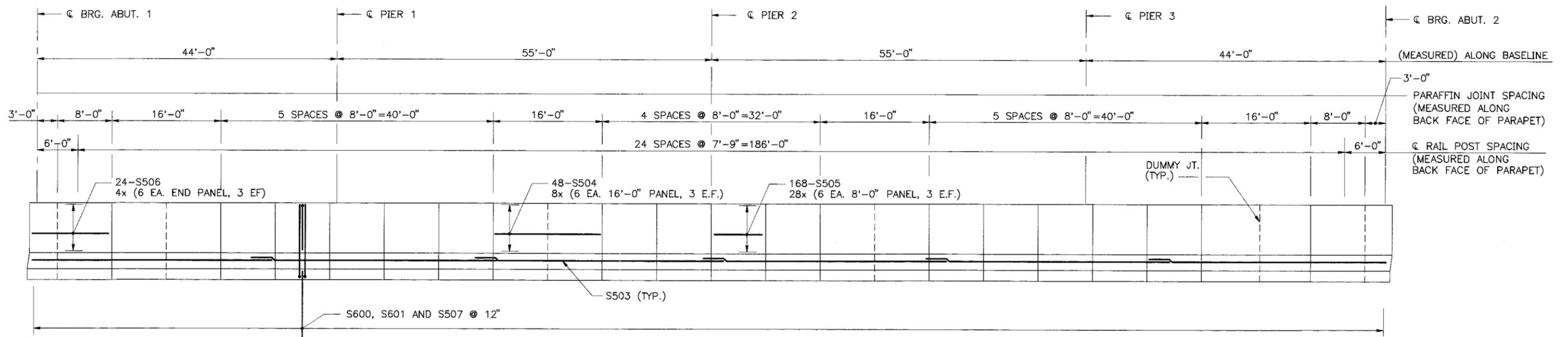
GRANITE CURB DETAIL
2" = 1'-0"



BRIDGE CURB ELEVATION
2" = 1'-0"

SECTION B-B
3" = 1'-0"

- PARAFFIN AND DUMMY JOINT NOTES**
1. CONCRETE SHALL BE PLACED SIMULTANEOUSLY ON BOTH SIDES OF JOINT.
 2. PREFORMED JOINT FILLER SHALL CONFORM TO ASTM DESIGNATION D1751.
 3. SECTION B-B ALSO APPLIES TO DUMMY JOINT LOCATIONS.
 4. JOINT SEALER SHALL BE SIKA FLEX 1A.
 5. PREFORMED JOINT FILLER AND JOINT SEALER SHALL BE INCIDENTAL TO ITEM 502.261, STRUCTURAL CONCRETE ROADWAY AND PARAPETS ON STEEL BRIDGES.
 6. CURB JOINTS SHALL BE ALIGNED WITH PARAFFIN AND DUMMY JOINTS.



PARAPET ELEVATION
(WEST ELEVATION SHOWN, EAST ELEVATION SIMILAR)
HOR. 1/8" = 1'-0"
VERT. 1/2" = 1'-0"

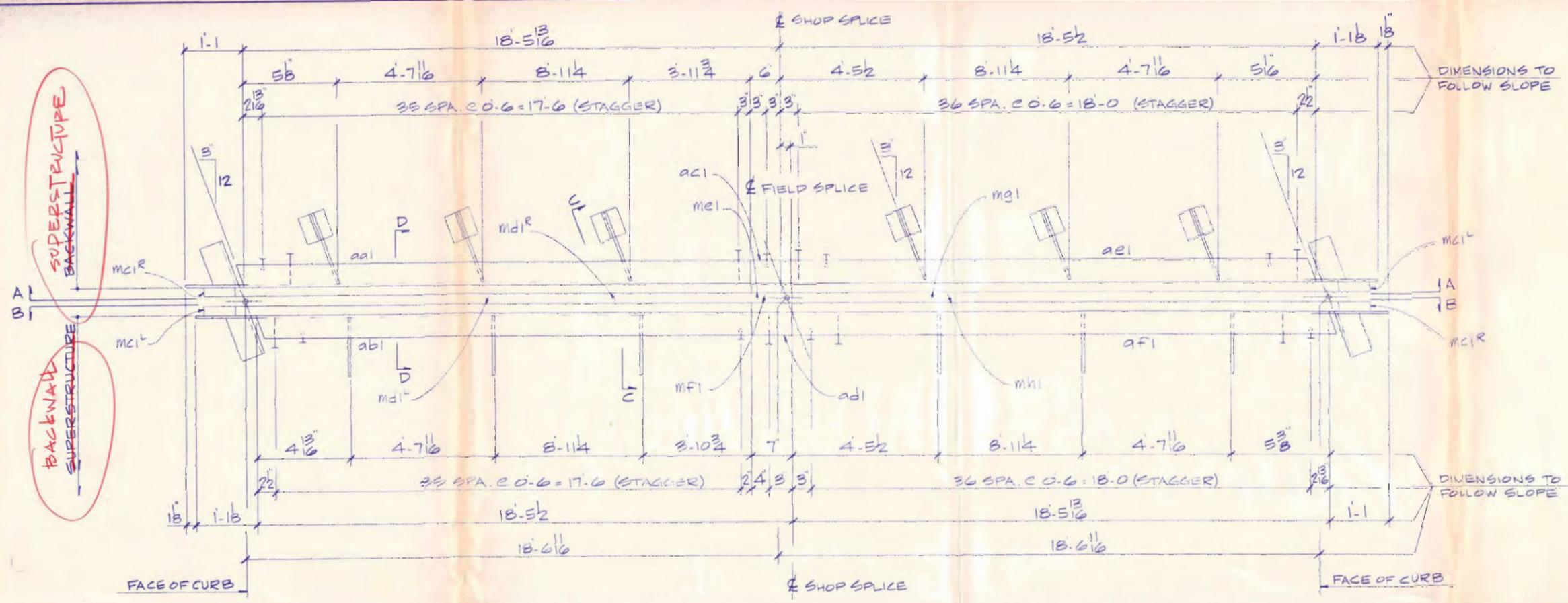
Maine Turnpike Authority
Maine Turnpike
FALMOUTH ROAD UNDERPASS
SLAB DETAILS II

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF, INC.
ARCHITECTS ENGINEERS PLANNERS

Contract 97.9 Sheet No. FR-17
SHEET NUMBER: 37 OF 52

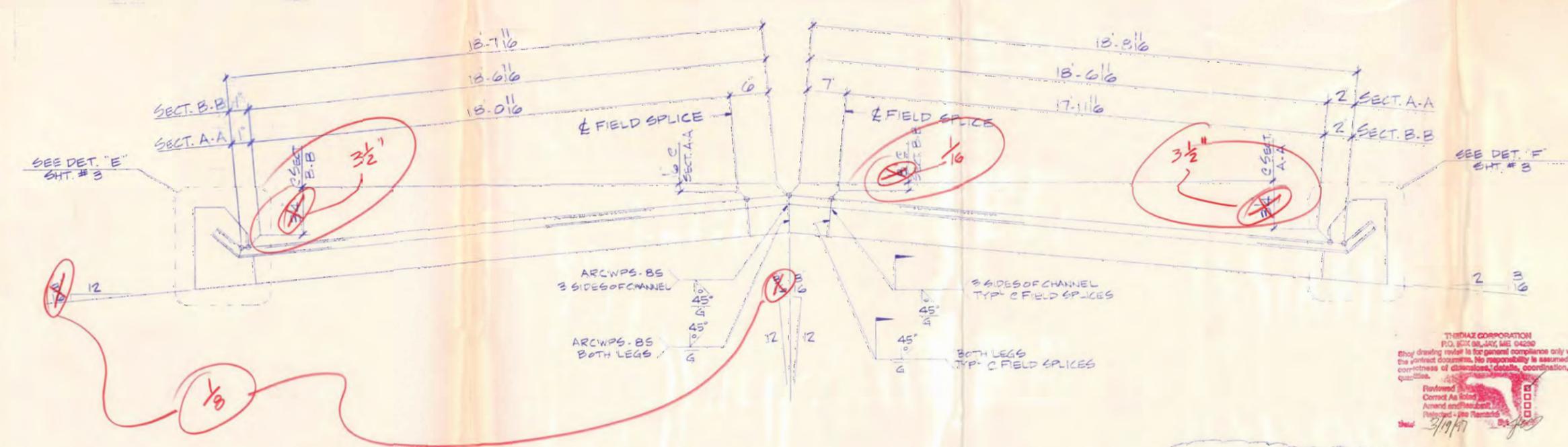
No.	Revision	By	Date	In Charge Of:
		Designed	AD	1/97
		Drawn	CSL	1/97
		Checked	JMH	1/97
				RAL

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ONE EXPANSION DEVICE - MK. A1

ONE EXPANSION DEVICE - MK. B1



SECT. A-A
SECT. B-B

SHOP NOTE!
WORK THIS DWG. WITH DWG. # 1 55

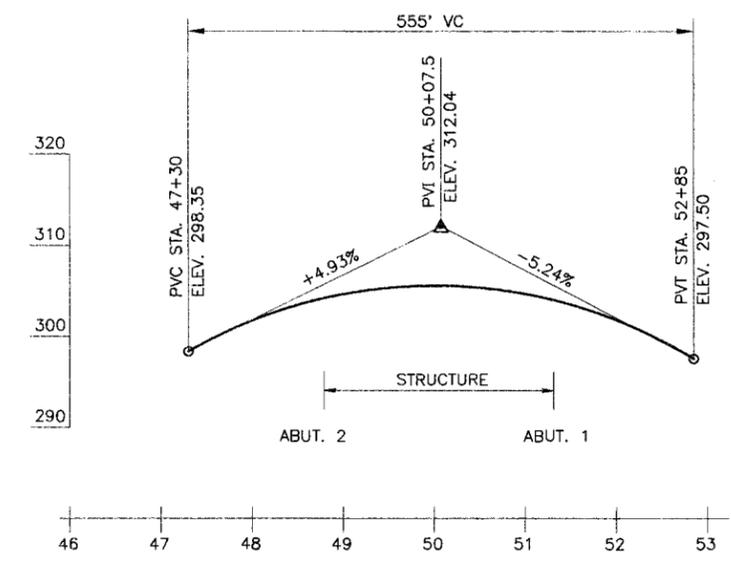
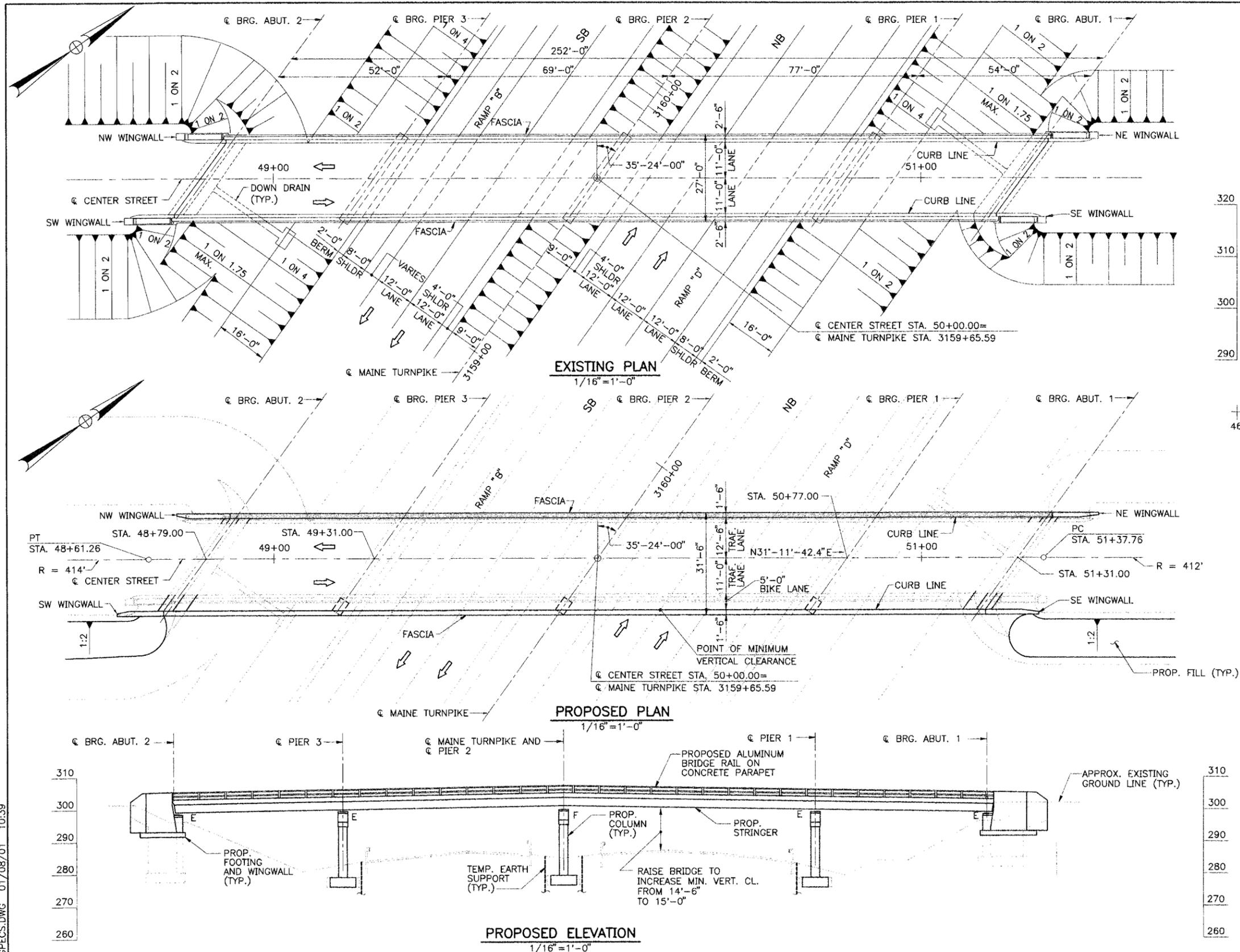
BILL OF MATERIALS			
SHIPPING MARK	SHOP MARK	QTY	DESCRIPTION
A1		1	EXPANSION DEVICE
	aa1	1	LBX4X2X18'-0 11/16 PREP BIE
	ab1	1	LBX4X2X17'-10 2/3 PREP BIE
	ag1	6	L3/2X3/2X3/8X1'-0
	ma1	72	3/8" X 0.8 H.S.A.
	mb1	10	3/8" X 0.4 H.S.A.
	mc1	1	WATSON BOWMAN ACME EDGE CHANNEL X0.9 BIE PREP
	md1	1	d.o. X18'-3 3/8 BIE
	mj1	3	WTB X 25 X 0.6
	mk1	3	3/8" X 22 A325 W/N&2W
	mn1	6	3/4" X 2 A307 W/N&W
	ml1	3	2" X 1.0 THD ROD W/4N&4BW
	pa1	3	#2 X 10' X 0.82 SHP.
	pb1	3	#2 X 12' X 0.9 SHP.
	pc1	1	#2 X 13 3/8 X 1.6 SHP.
	pd1	1	#2 X 13 3/4 X 1.6 SHP.
	pe1	1	BENT #2 X 8' X 0.11 7/8 SHP.
	pf1	1	BENT #2 X 9 3/4 X 0.11 7/8 SHP.
B1		1	EXPANSION DEVICE
	ac1	1	LBX4X2X0'-6 PREP 2E BIE
	ad1	1	X0'-7 PREP 2E BIE
	ae1	1	X18'-5 1/2 BIE
	af1	1	LBX4X2X18'-6 1/16 BIE
	ag1	6	L
	ma1	76	H.S.A.
	mb1	10	H.S.A.
	mc1	1	EDGE CHANNEL WATSON BOWMAN ACME EDGE CHANNEL X0.6 PREP 2E BIE
	me1	1	X0'-7 PREP 2E BIE
	mf1	1	X18'-10 3/8 BIE
	mg1	1	d.o. X18'-9 3/8 BIE
	mh1	1	d.o. X18'-9 3/8 BIE
	mj1	3	WT
	mk1	3	BOLT
	mn1	6	BOLT
	ml1	3	THD ROD
	pa1	3	#2
	pb1	3	#2
	pc1	1	#2
	pd1	1	#2
	pe1	1	BENT #2
	pf1	1	BENT #2

MATL: A36 HOLES AS NOTED
WELD: PER WELD PROCEDURE
SURFACE PREP: SP6 FOR APPROVAL ONLY
FINISH: NONE

ARC ENTERPRISES, INC.
ADVANCED RESOURCES & CONSTRUCTION
P.O. BOX 120 KINGFIELD, ME 04947
PHONE: (207) 265-2646 • FAX: (207) 265-4054

DESCRIPTION: EXPANSION DEVICE ABUT. ONE
PROJECT: FALMOUTH ROAD UNDERPASS
LOCATION: FALMOUTH, ME.
DESIGNER: ME. TURNPIKE AUTHORITY
CUSTOMER: THE DIAZ CORP.

DRAWN BY: SNOWMAN	DATE: 3/10/97	JOB NUMBER: 97.9	DWG. NO.: 1
CHK'D BY:	DATE:		



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Scale: AS NOTED

No.	Revision	By	Date

Designed by:

HNTB
 ARCHITECTS ENGINEERS PLANNERS

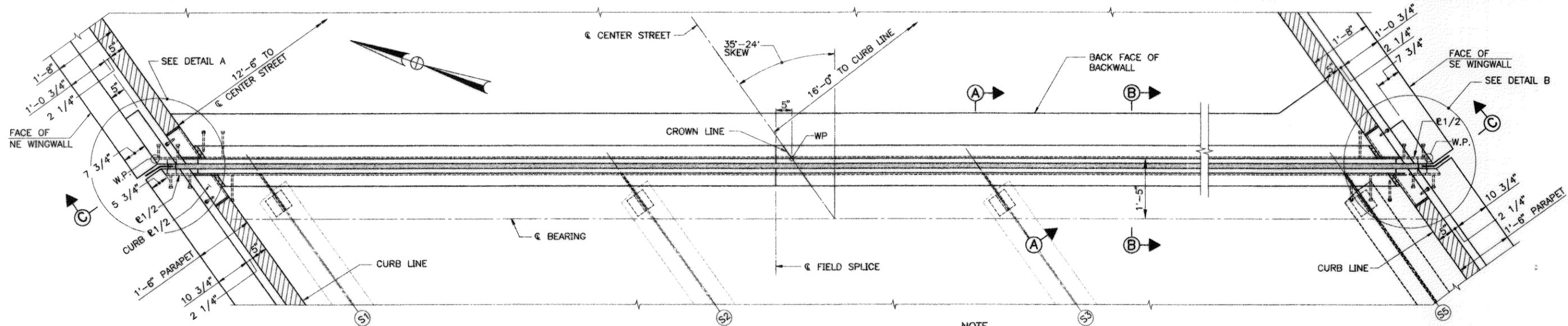
By	Date	By	Date
Designed AD	3/00	Checked CC	3/00
Drawn LS	3/00	In Charge of RAL	3/00

HNTB CORPORATION
 2 Thomas Drive
 Westbrook, ME 04092
 TEL (207) 774-5155
 FAX (207) 772-7410

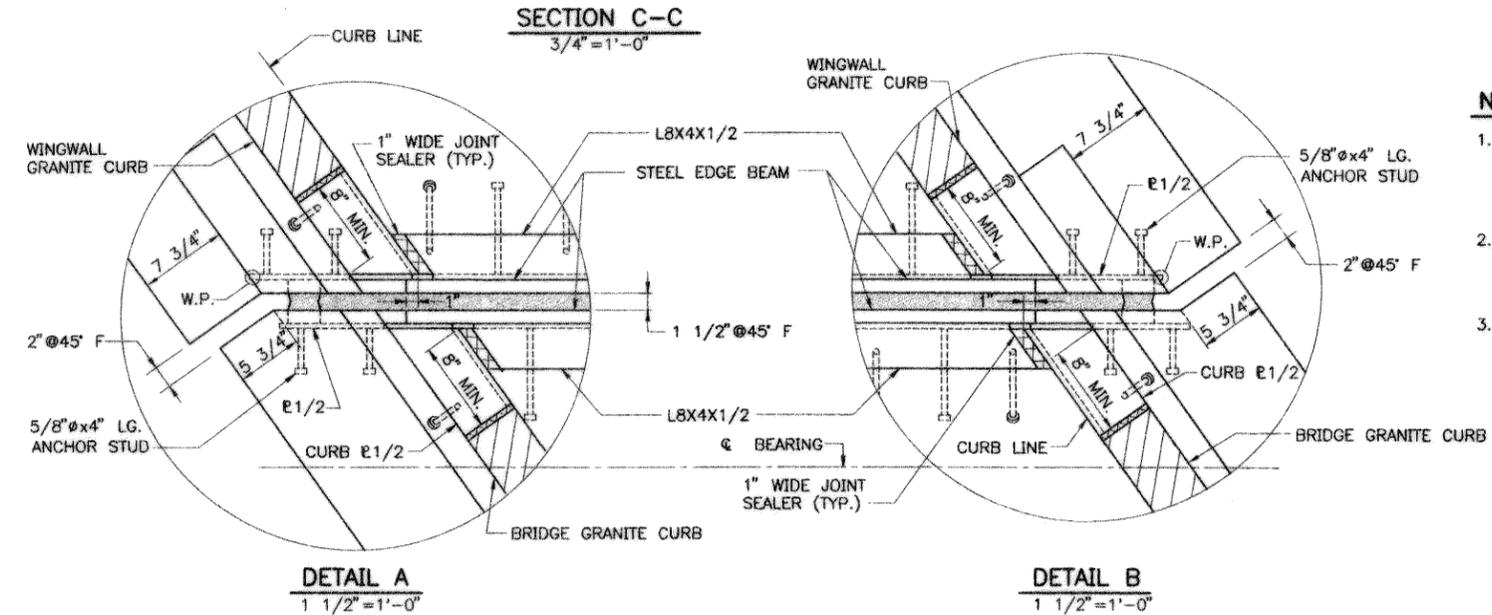
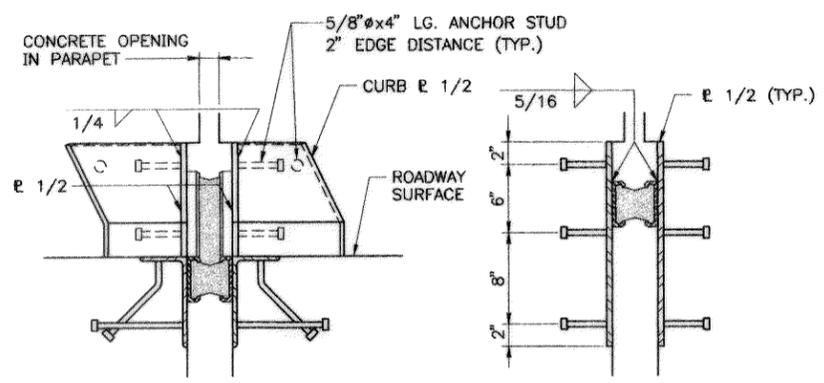
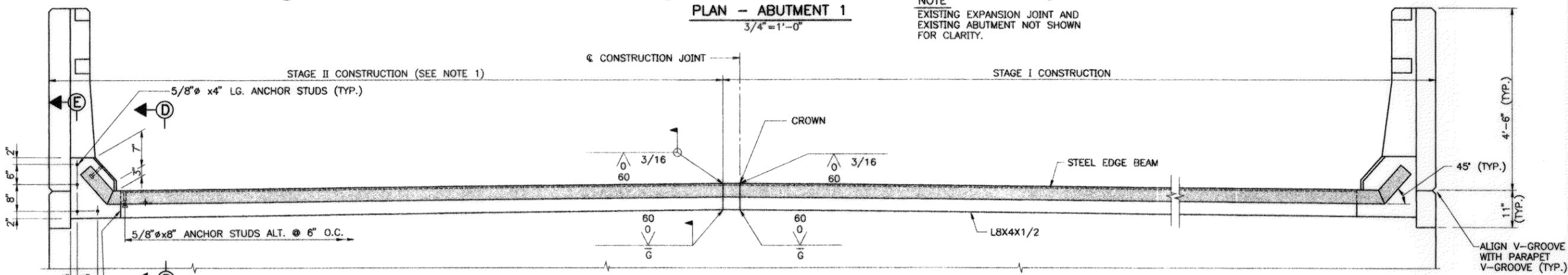
MAINE TURNPIKE AUTHORITY

CENTER STREET UNDERPASS
 GENERAL PLAN AND ELEVATION

SHEET NUMBER: CS-2
 CONTRACT: 2001.12 SHEET NUMBER: 41 OF 52 23 OF 49



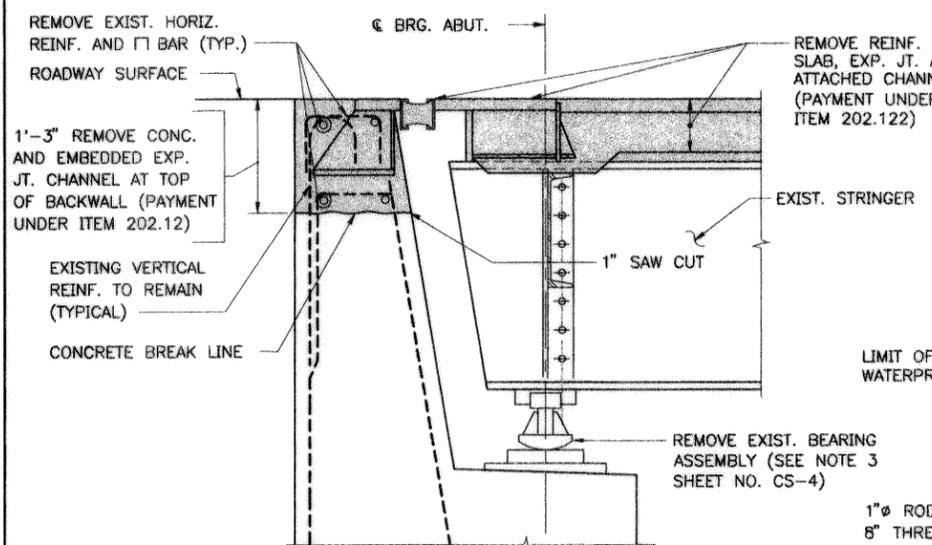
NOTE
EXISTING EXPANSION JOINT AND
EXISTING ABUTMENT NOT SHOWN
FOR CLARITY.



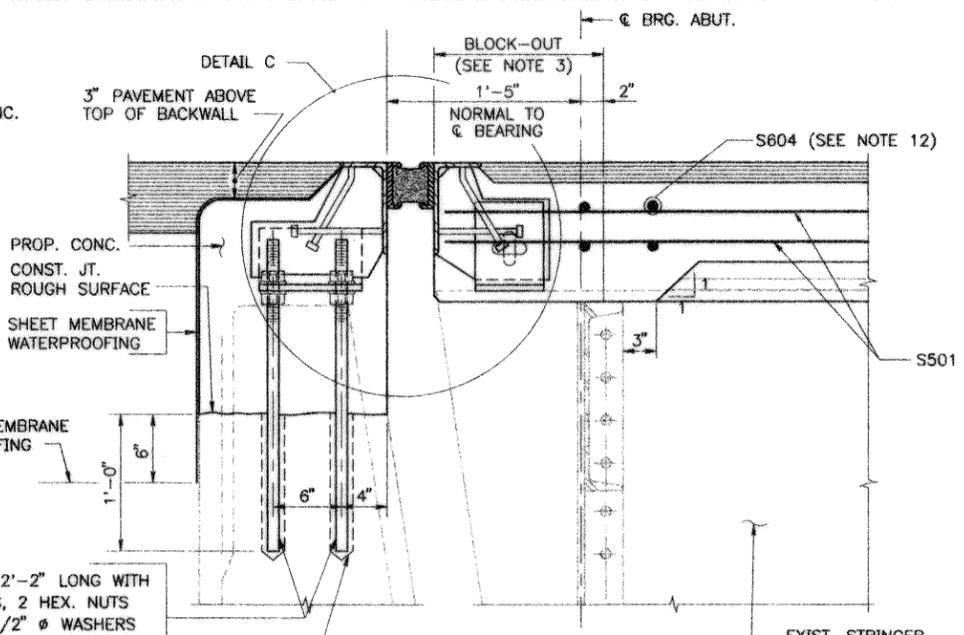
- NOTES**
1. CONSTRUCTION STAGES SHOWN RELATE TO THE EXPANSION JOINT ONLY. THE CONCRETE DECK AND THE ABUTMENT BACKWALL SHALL BE CONSTRUCTED ACCORDING TO THE STAGE CONSTRUCTION AS SHOWN ON SHEET NO. CS-3 AND CS-6.
 2. THE ANGLES, L8x4x1/2, AND STEEL EDGE BEAMS SHALL BE FABRICATED BY CONFORMING TO THE TOP OF BACKWALL ELEVATIONS FOR ABUTMENT 1, WHICH ARE SHOWN ON SHEET NO. CS-6.
 3. FOR SECTIONS A-A AND B-B SEE SHEET NO. CS-20.

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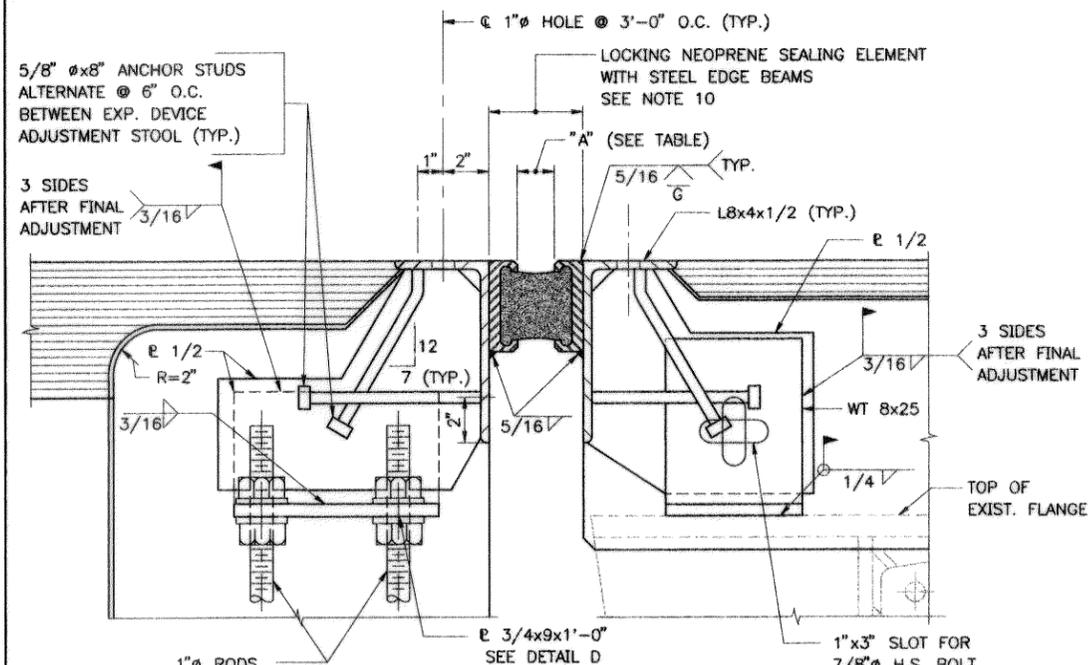
Scale: AS NOTED		Designed by:				MAINE TURNPIKE AUTHORITY 		CENTER STREET UNDERPASS EXPANSION JOINT DETAILS II																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No.</th> <th>Revision</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		No.	Revision					By	Date													<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>By</th> <th>Date</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Designed PCC</td> <td>3/00</td> <td>Checked CC</td> <td>3/00</td> </tr> <tr> <td>Drawn LS</td> <td>3/00</td> <td>In Charge of RAL</td> <td>3/00</td> </tr> </tbody> </table>		By	Date	By	Date	Designed PCC	3/00	Checked CC	3/00	Drawn LS	3/00
No.	Revision	By	Date																														
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Drawn LS	3/00	In Charge of RAL	3/00																														



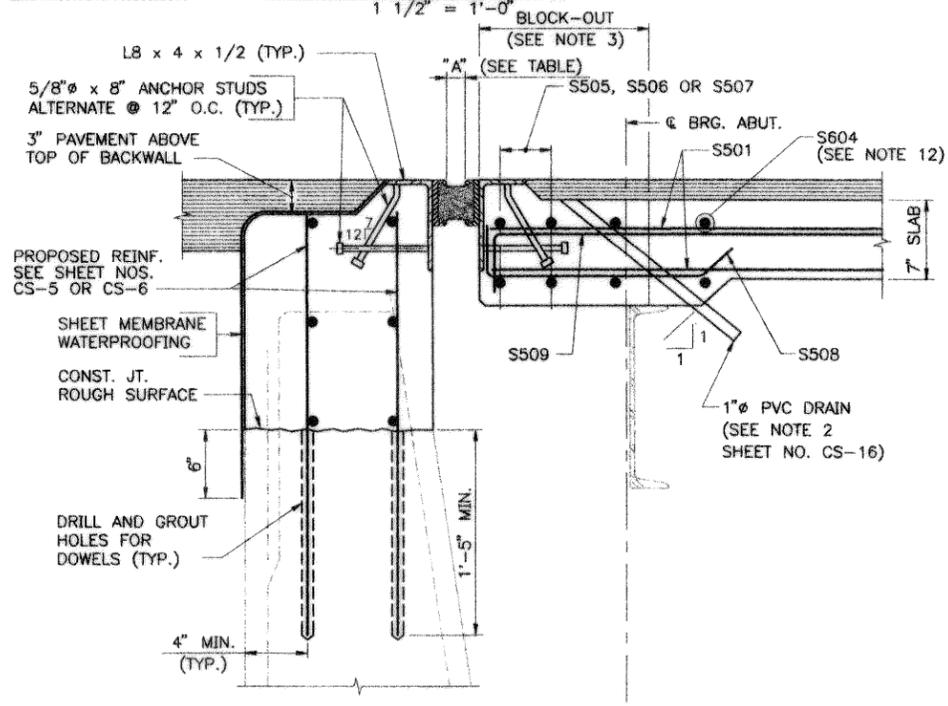
EXISTING SECTION A-A
1" = 1'-0"



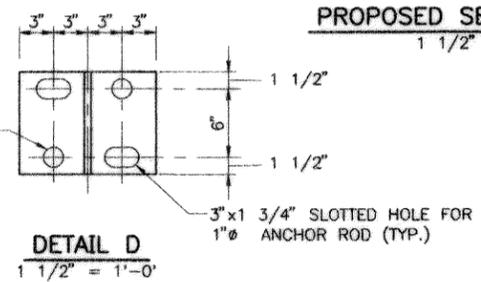
PROPOSED SECTION A-A
1 1/2" = 1'-0"



DETAIL C
3" = 1'-0"



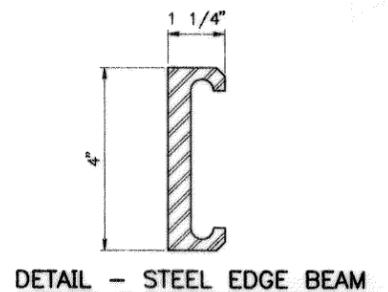
PROPOSED SECTION B-B
1 1/2" = 1'-0"



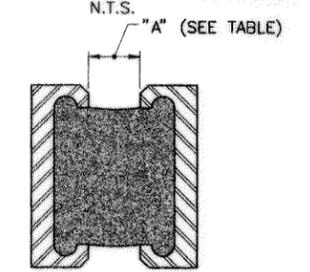
DETAIL D
1 1/2" = 1'-0"

EXPANSION DEVICE NOTES

- SHOP DRAWINGS OF THE EXPANSION DEVICE SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER.
- THE EXPANSION DEVICE SHALL BE SET TO AN OPENING OF 1 1/2 INCHES. IN THE FABRICATION SHOP AND SHALL BE SECURED TO THE STRINGER AND/OR ANCHOR BOLTS WHEN THE AMBIENT TEMPERATURE IS BETWEEN 40°F AND 80°F. THE OPENING SHALL BE ADJUSTED TO REFLECT THE TEMPERATURE OF THE STRUCTURE AT THE TIME OF INSTALLATION. SEE TABLE FOR OPENING DIMENSIONS. OPENING IS TO BE MEASURED PARALLEL TO THE CENTER LINE OF CONSTRUCTION.
- THE SLAB CONCRETE SHALL BE IN PLACE BEFORE THE EXPANSION DEVICE IS FIXED IN POSITION. NO ALLOWANCE FOR MOVEMENT DUE TO DEAD LOAD DEFLECTION IS NECESSARY. CONTRACTOR SHALL APPLY AN EPOXY BONDING AGENT, APPROVED BY THE ENGINEER, TO ALL VERTICAL SURFACES OF THE BLOCKOUT BEFORE THE CONCRETE IS PLACED. SEE SECTION 520.06 OF THE STANDARD SPECIFICATIONS.
- THE FABRICATORS ATTENTION IS DIRECTED TO THE NECESSITY OF FABRICATING AND INSTALLING THE DEVICE IN TWO SECTIONS.
- DIRECTION AND LOCATION OF FIELD SPLICES MAY BE ADJUSTED IF REQUIRED TO FACILITATE CONSTRUCTION.
- ALL EXPOSED SURFACES OF ANGLES AND STEEL EDGE BEAMS SHALL BE FIELD PAINTED.
- ALL STEEL COMPONENTS SHALL BE AASHTO M270 GRADE 36, UNLESS OTHERWISE NOTED.
- ALL WELDS ARE 5/16" CONTINUOUS FILLETS, EXCEPT AS NOTED.
- ALL STEEL SURFACES THAT WILL BE EMBEDDED IN CONCRETE SHALL BE COATED WITH AN EPOXY BONDING COMPOUND.
- THE NEOPRENE COMPRESSION SEALS TO BE FURNISHED SHALL HAVE A MINIMUM MOVEMENT RATING OF:
 ABUTMENT 1 = 3 INCHES
 ABUTMENT 2 = 3 INCHES
- FOR LOCATION OF SECTIONS A-A AND B-B, SEE SHEET NOS. CS-18 AND CS-19.
- ONLY BARS PARALLEL TO THE ABUTMENT ARE SHOWN. BARS PERPENDICULAR TO STRINGERS ARE NOT SHOWN FOR CLARITY.
- CONCRETE USED FOR FILLING BLOCK-OUT SHALL BE OF THE SAME CLASS AND STRENGTH AS THAT USED FOR THE DECK.
- NO REINFORCING STEEL, UNLESS NOTED OTHERWISE, SHALL BE CUT TO CLEAR THE BRIDGE EXPANSION DEVICE WITHOUT PRIOR APPROVAL OF THE ENGINEER.



DETAIL - STEEL EDGE BEAM



DETAIL - NEOPRENE COMPRESSION SEAL WITH STEEL EDGE BEAMS
N.T.S.

SEAL OPENING TABLE (DIM. "A")									
TEMPERATURE	0°F	15°F	30°F	45°F	60°F	75°F	90°F	105°F	
ABUTMENT 2	1 15/16"	1 3/4"	1 5/8"	1 1/2"	1 3/8"	1 1/4"	1 1/16"	15/16"	
ABUTMENT 1	1 15/16"	1 3/4"	1 5/8"	1 1/2"	1 3/8"	1 1/4"	1 1/16"	15/16"	

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Scale: AS NOTED

No.	Revision	By	Date

Designed by:

HNTB
ARCHITECTS ENGINEERS PLANNERS

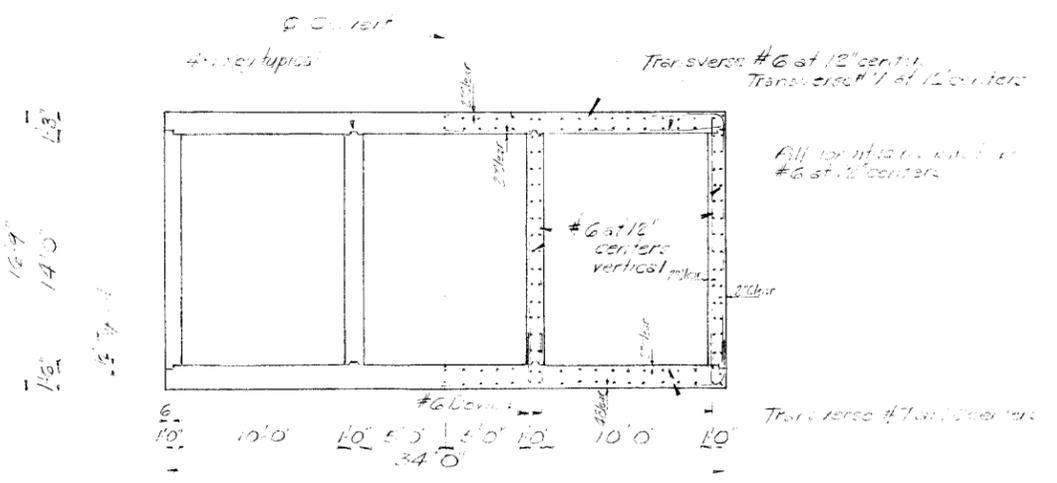
By	Date	By	Date
Designed PCC	3/00	Checked CC	3/00
Drawn LS	3/00	In Charge of RAL	3/00

HNTB CORPORATION
2 Thomas Drive
Westbrook, ME 04092
TEL (207) 774-5155
FAX (207) 772-7410

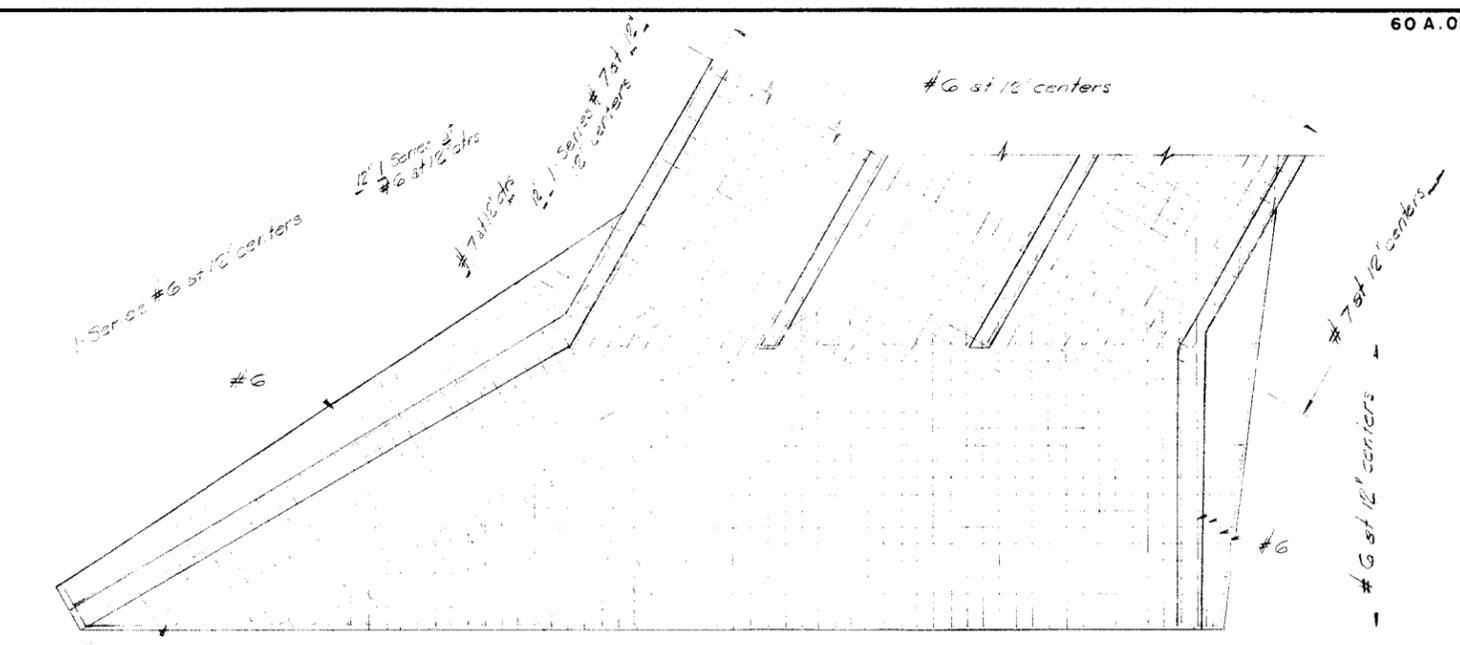
MAINE TURNPIKE AUTHORITY

CENTER STREET UNDERPASS
EXPANSION JOINT DETAILS III

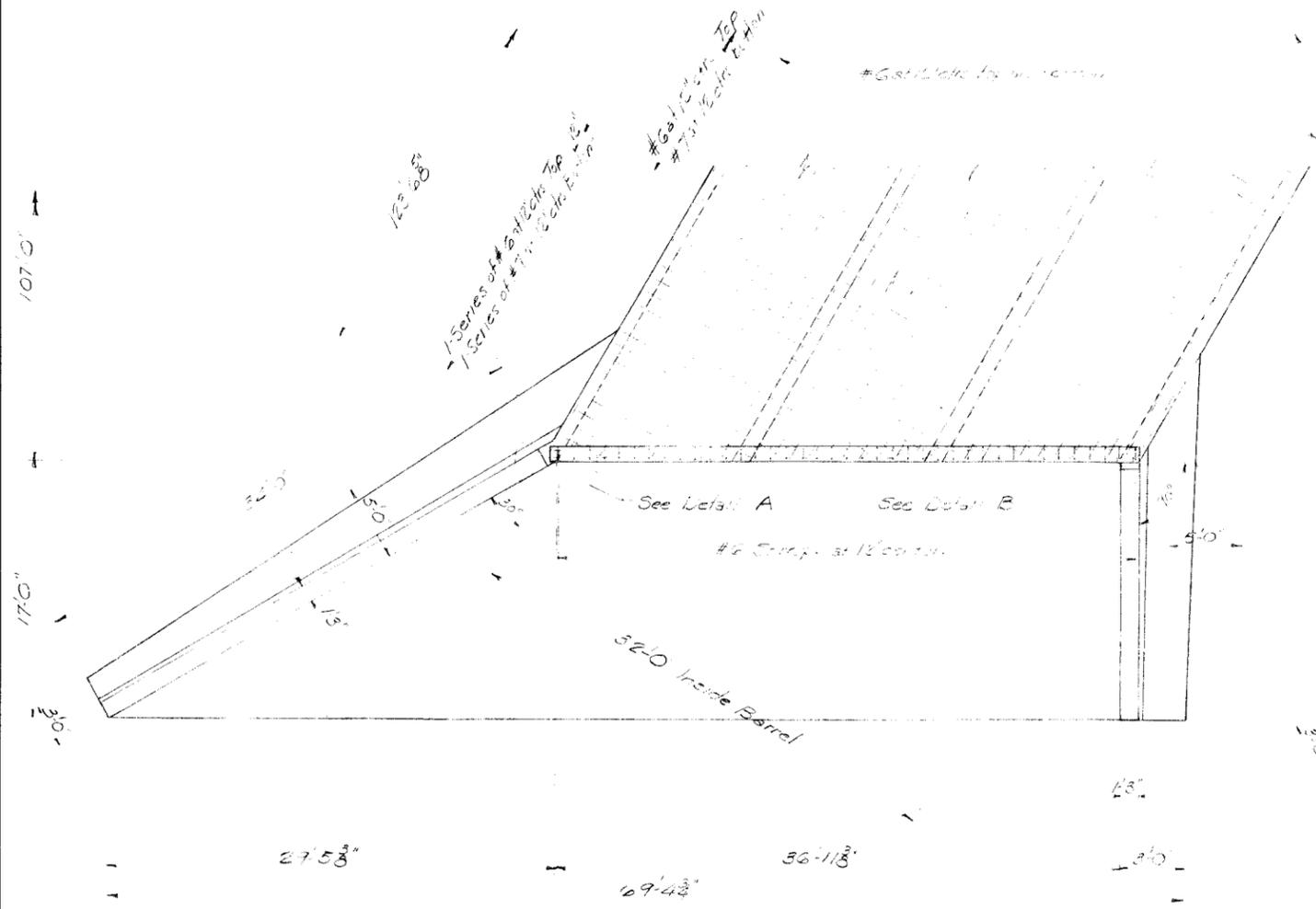
SHEET NUMBER: CS-20
CONTRACT: 2001.12 SHEET NUMBER: 44 OF 52 41 OF 49



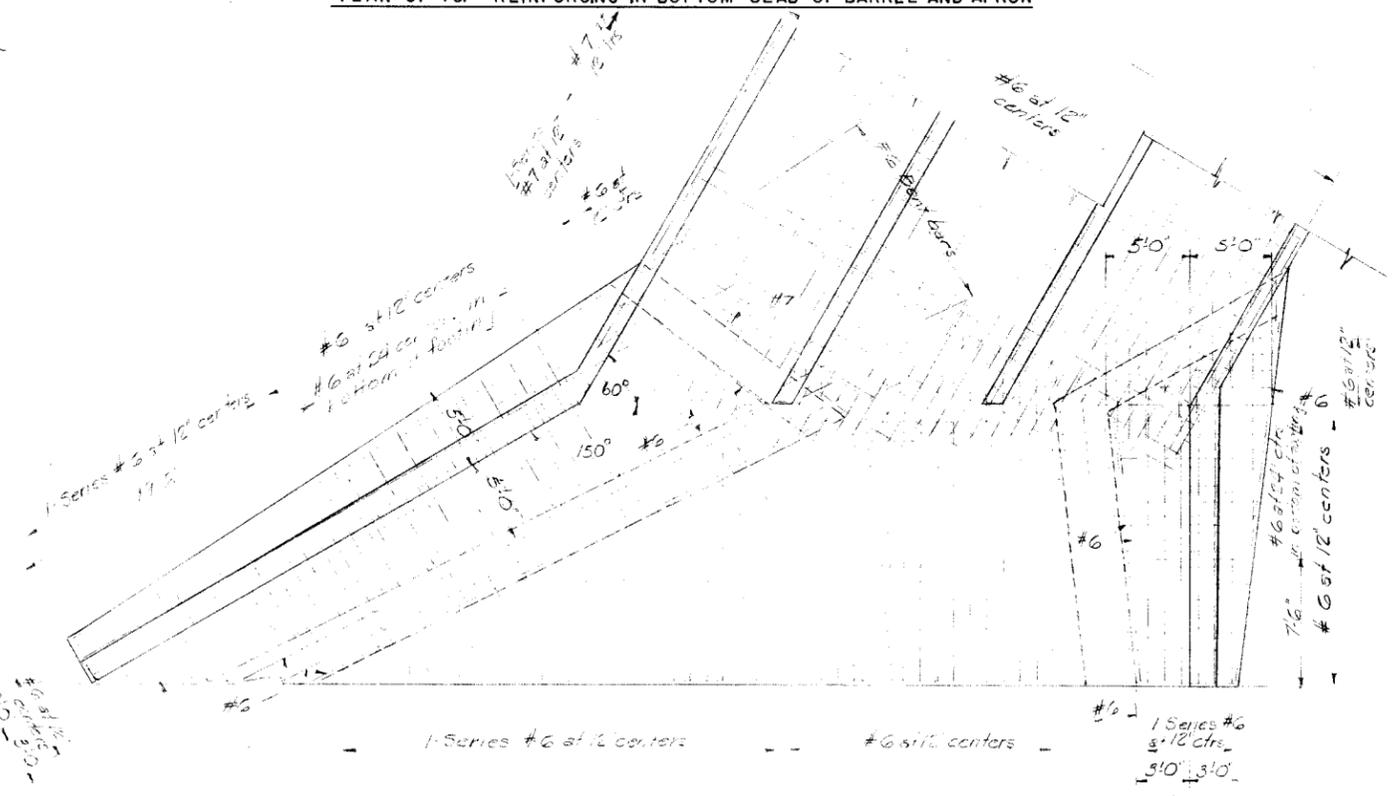
CROSS SECTION THRU BARREL



PLAN OF TOP REINFORCING IN BOTTOM SLAB OF BARREL AND APRON



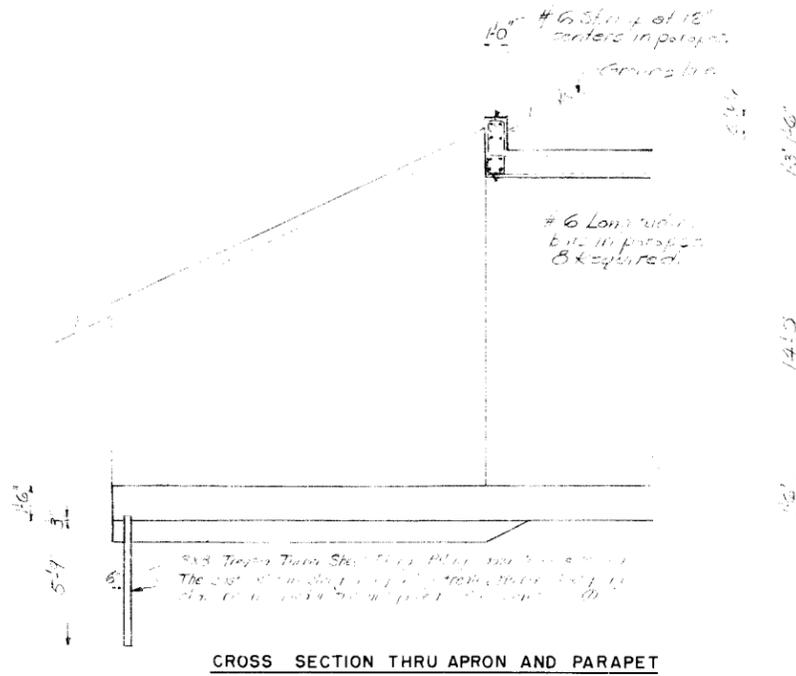
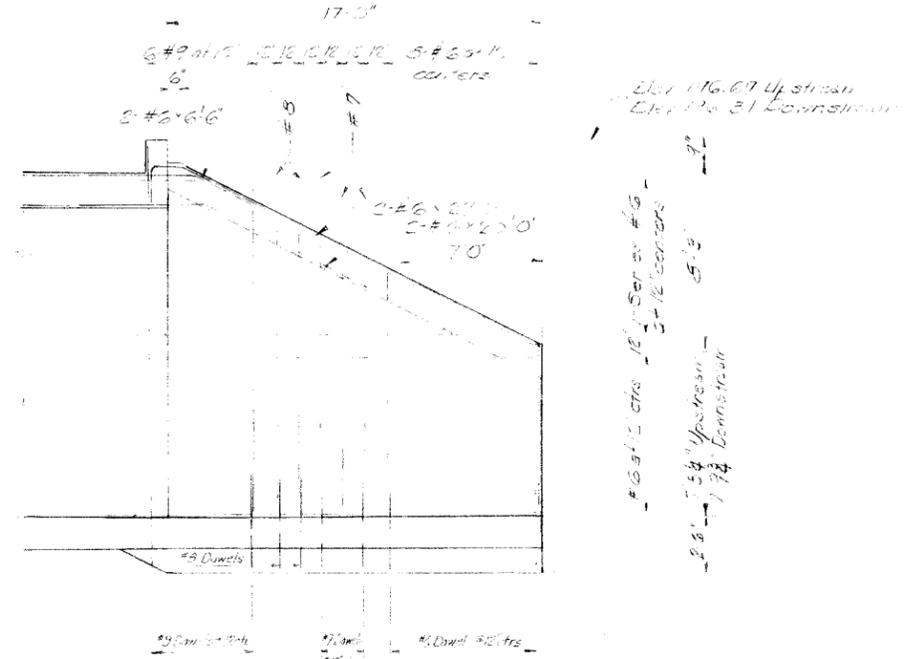
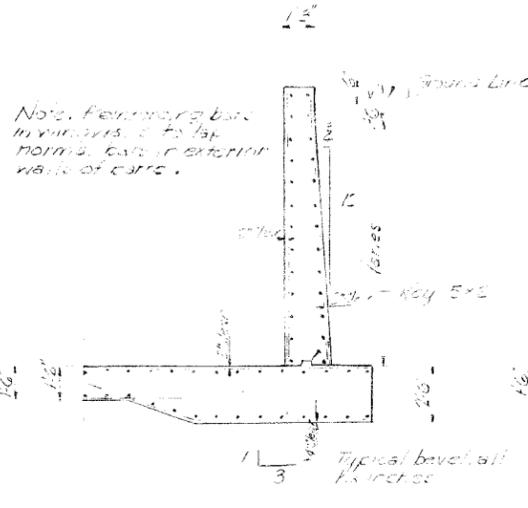
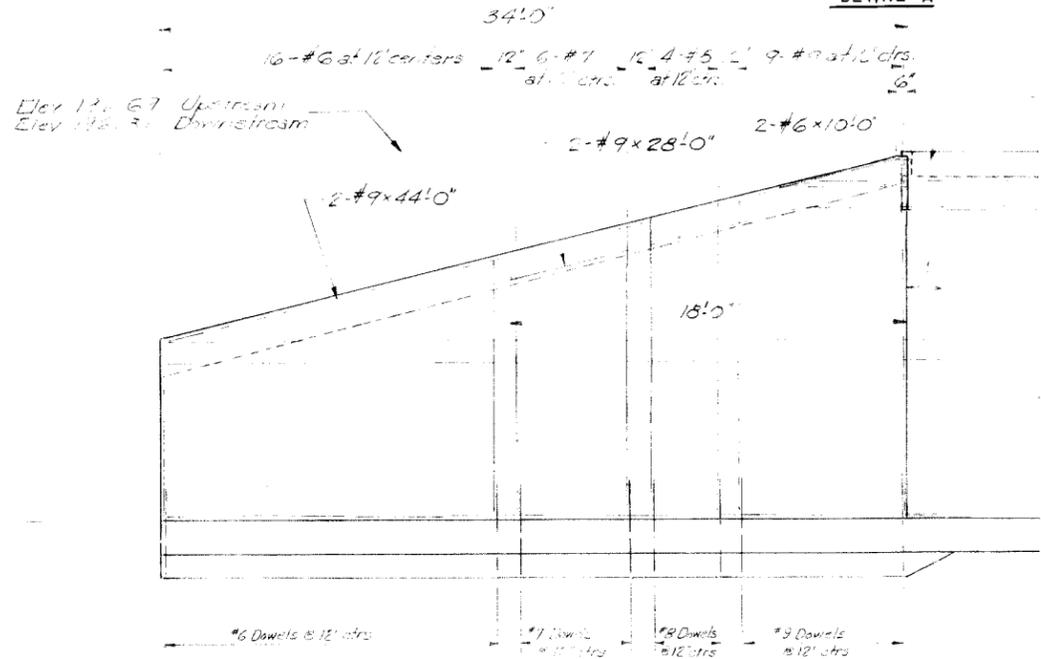
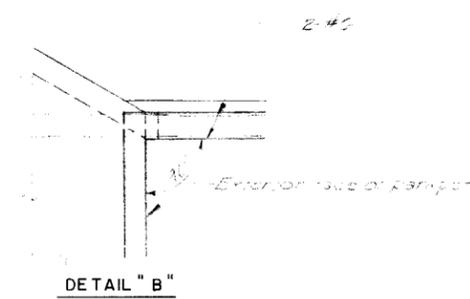
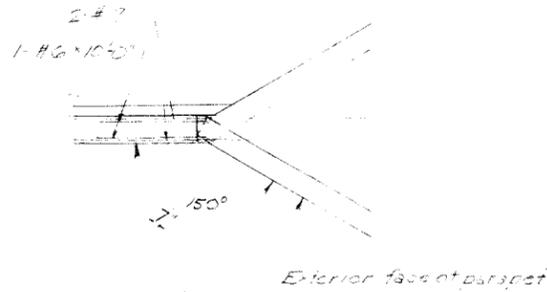
PLAN OF TOP SLAB OF BARREL, WINGS, AND APRON



PLAN OF BOTTOM REINFORCING IN BOTTOM SLAB OF BARREL AND APRON

DRAWING 60A.02				
BY	DATE			
MADE	GGP	2/20/54		
TRACED				
CHECKED				
IN CHARGE OF	I.D.S.L.	No.	REVISION	BY DATE

MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
 SECTION 2— PORTLAND TO AUGUSTA
 STRUCTURE NO. 80A TURNPIKE OVER
 NO NAME STREAM
 STA. 4178+10.00
 BARREL AND APRON DETAILS
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS
 SCALE: 1/8" = 1'-0"
 CONTRACT NO. _____
 SHEET NO. 23 OF 37



DRAWING 60A.03

MADE	BY	DATE	NO.	REVISION	BY	DATE
	CGP	3-4-84	1		ACM	3-5-84
			2		ULS	3-4-84
			3			
			4			

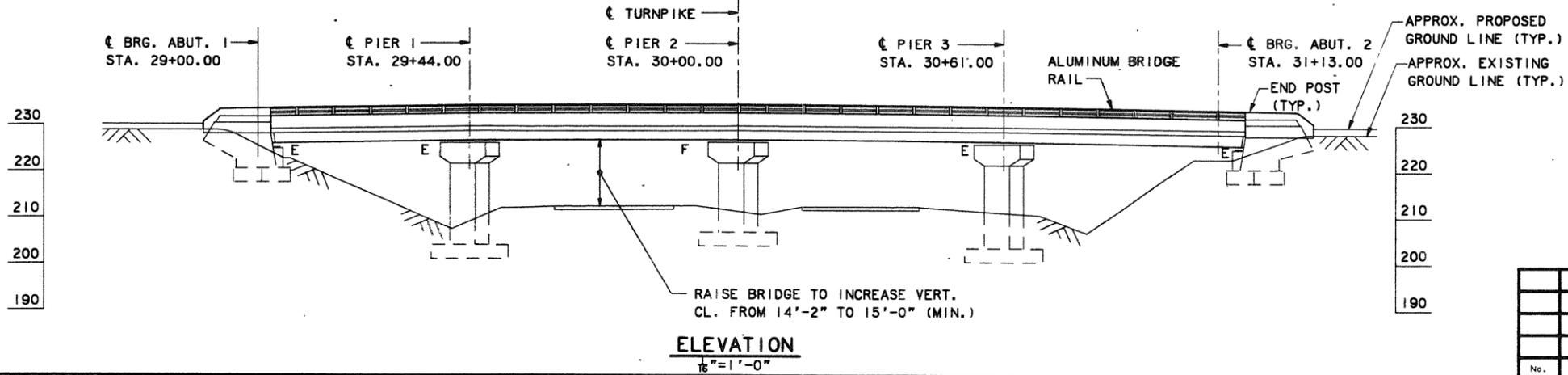
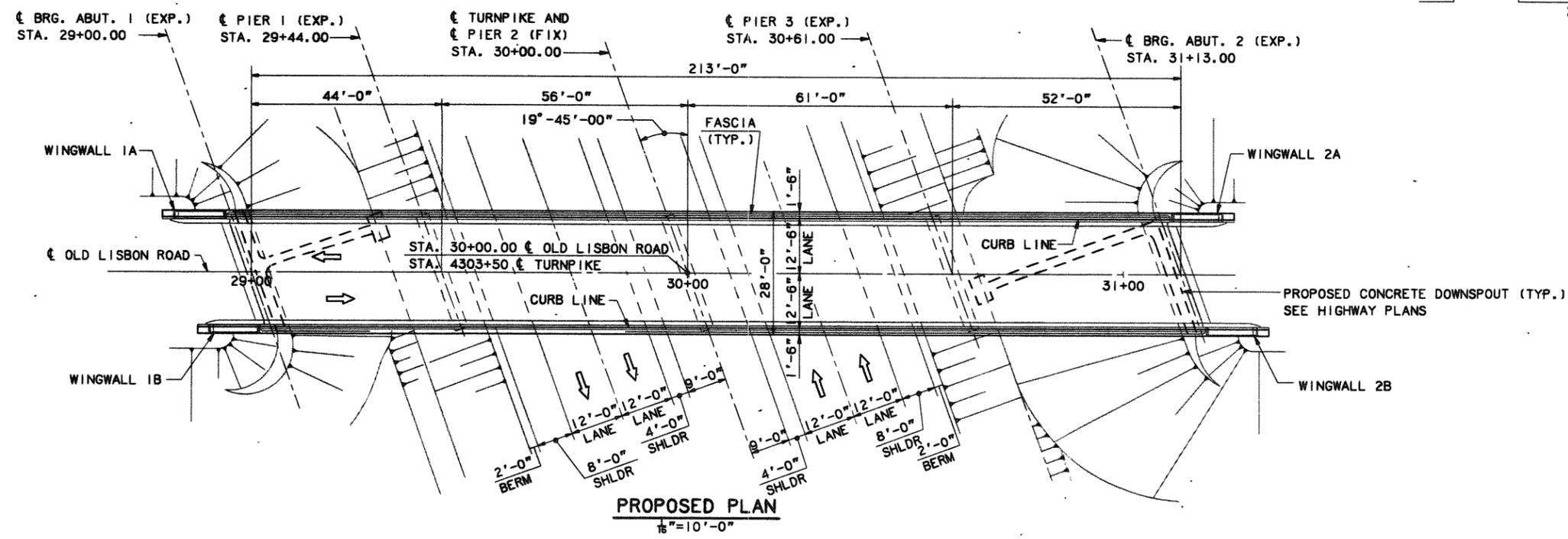
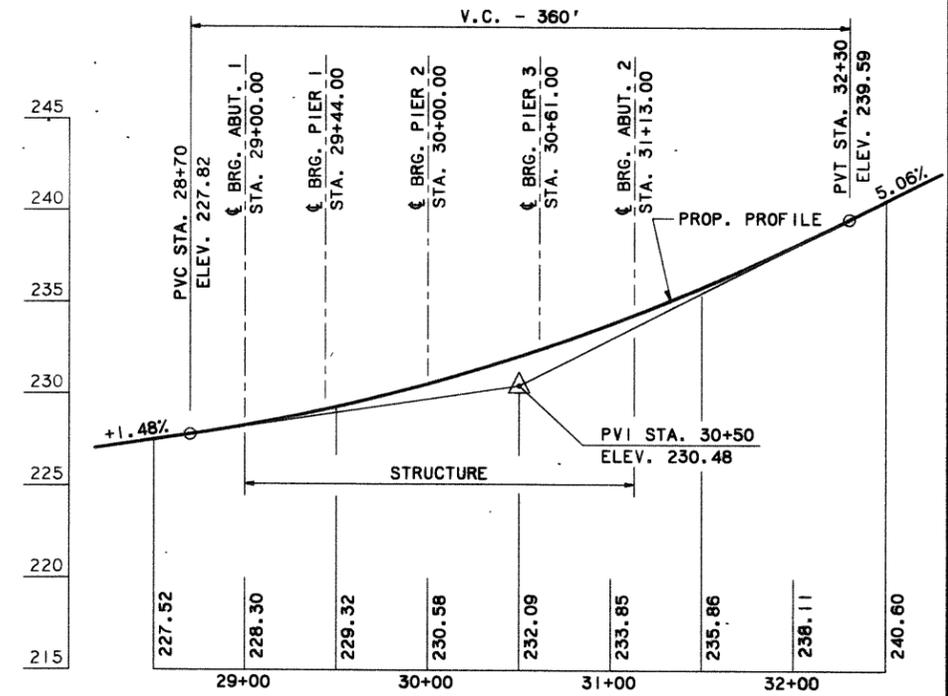
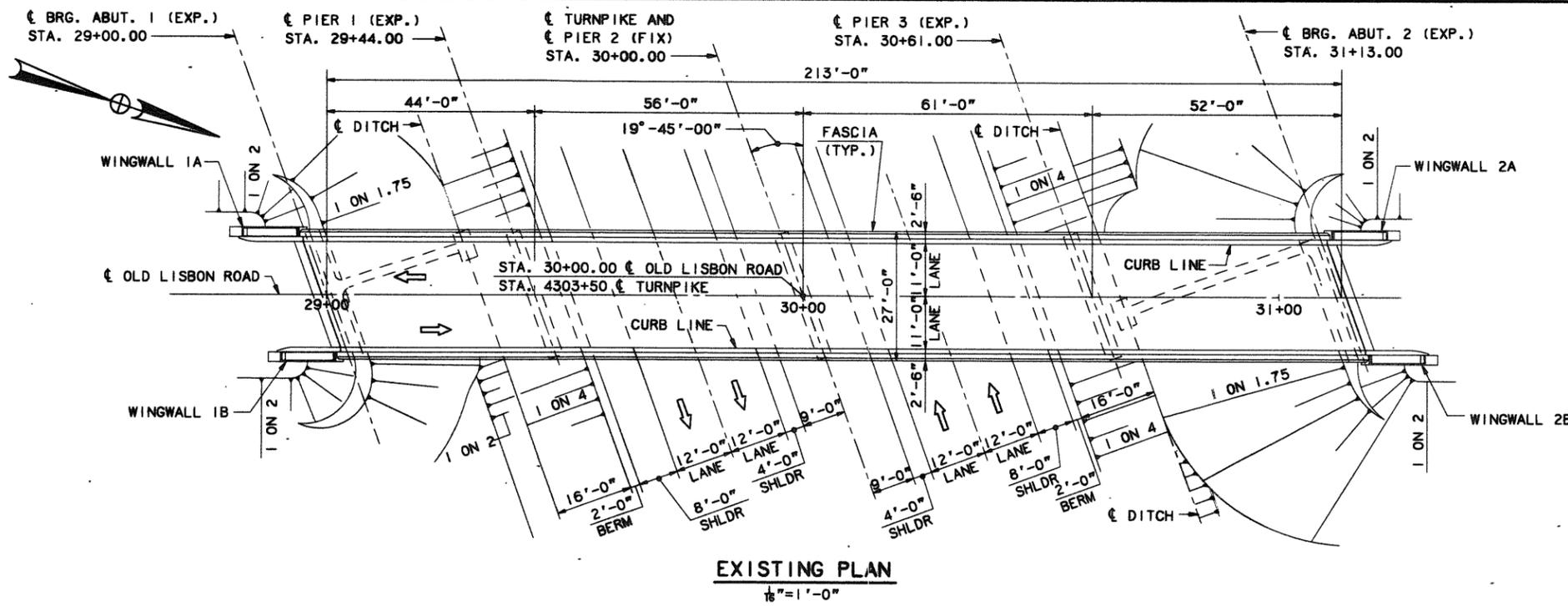
MAINE TURNPIKE AUTHORITY
MAINE TURNPIKE
 SECTION 2— PORTLAND TO AUGUSTA

STRUCTURE NO. 60A TURNPIKE OVER
 NO NAME STREAM
 STA. 4178 + 10.00

WINGWALLS AND MISCELLANEOUS DETAILS

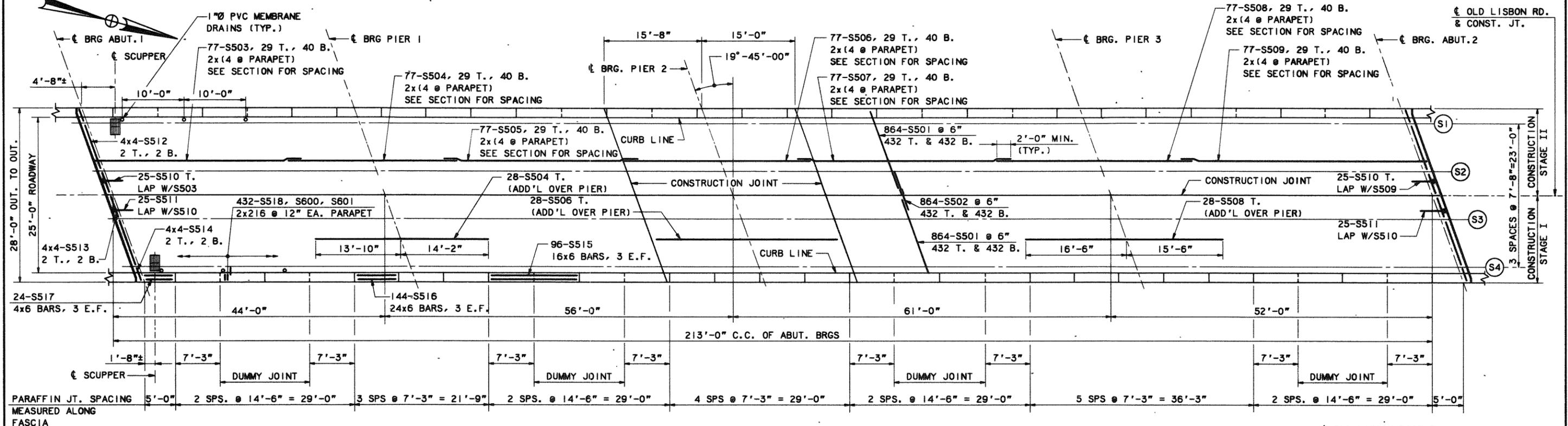
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS

SCALE: 4"=1'0"
 CONTRACT NO. _____
 SHEET NO. 47 OF 37

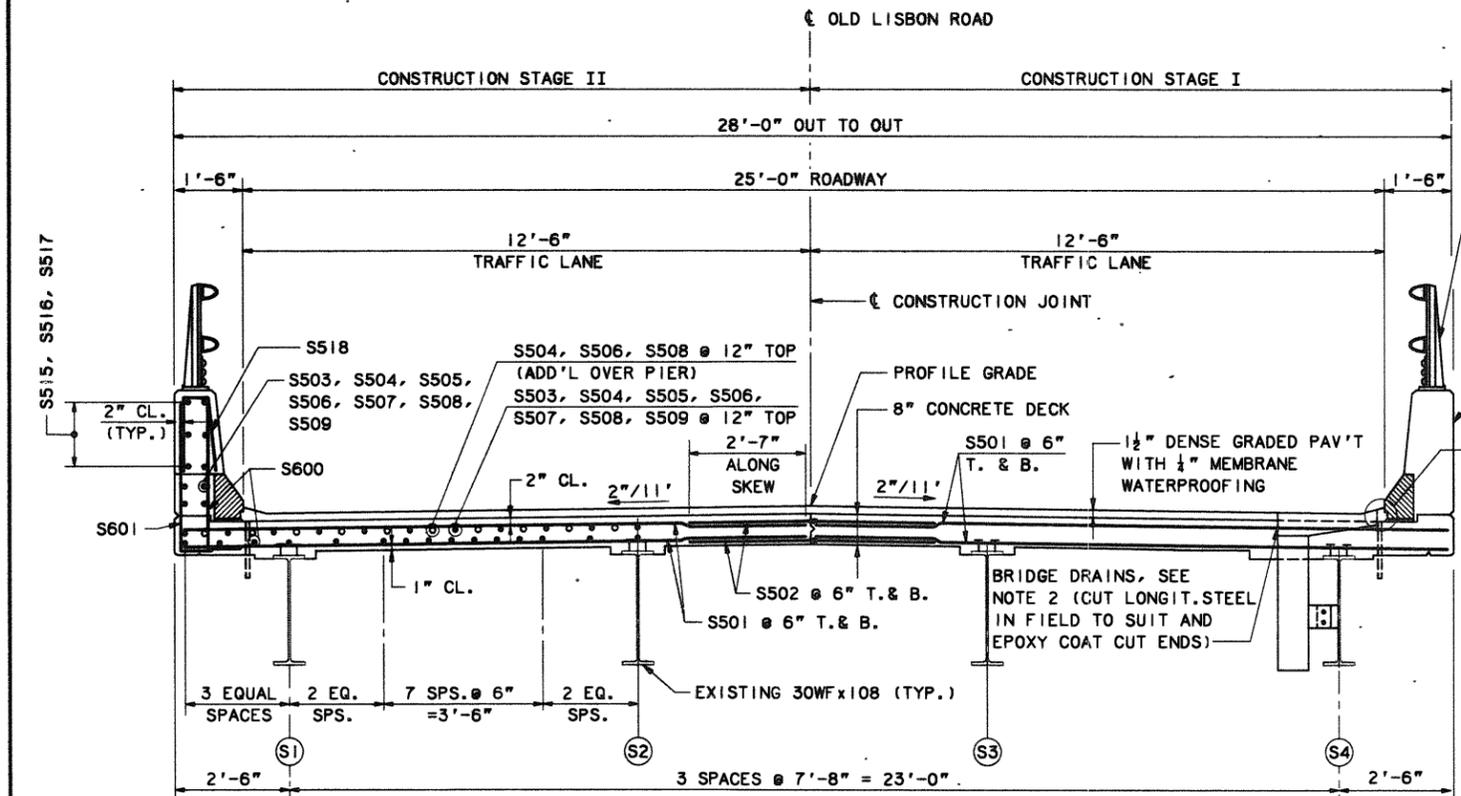


Maine Turnpike Authority Maine Turnpike	
OLD LISBON ROAD UNDERPASS GENERAL PLAN AND ELEVATION	
<small>HOWARD NEEDLES TAMMEN & BERGENDOFF, INC. ARCHITECTS ENGINEERS PLANNERS</small>	
Contract 96.8 Sheet No. LB-2 SHEET NUMBER: 48 OF 52	

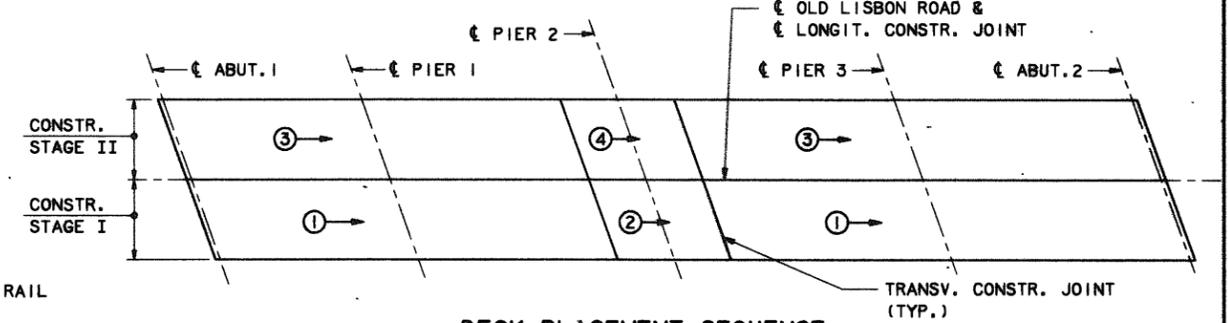
No.	Revision	By:	Date:	In charge of:
		Designed	DMD 2/96	
		Drawn	RJT 2/96	
		Checked	JFW 2/96	
		By:		in charge of: RAL



DECK PLAN
1/4" = 1'-0"



TYPICAL SECTION
1/2" = 1'-0"



DECK PLACEMENT SEQUENCE
1" = 20'

PLACEMENT NOTES

1. THE NUMBERS IN CIRCLES INDICATE PLACING SEQUENCE, THE ARROWS INDICATE DIRECTION OF PLACEMENT.
2. BEGIN PLACEMENT AT THE LOW END OF THE BLOCK.
3. THE FORMWORK FOR THE CONSTRUCTION JOINTS SHALL REMAIN IN PLACE UNTIL MINIMUM OF 48 HOURS HAS ELAPSED AFTER PLACEMENT OF THE SLAB. AFTER WHICH, REMOVAL OF FORMWORK MEETING THE REQUIREMENTS FOR FORM REMOVAL OF SECTION 502 (STRUCTURAL CONCRETE) OF THE STANDARD SPECIFICATIONS, MAY PROCEED.
4. POURS DESIGNATED BY THE SAME NUMBER DO NOT NECESSARILY HAVE TO BE POURED THE SAME DAY. A WAITING PERIOD OF 72 HOURS IS NECESSARY BETWEEN ADJACENT POURS.
5. STAY IN PLACE FORMS ARE NOT ALLOWED TO BE USED.

SUPERSTRUCTURE NOTES

1. ADJUST REINFORCING STEEL TO FIT AROUND THE DRAINS IN A MANNER APPROVED BY THE ENGINEER. DO NOT CUT TRANSVERSE REINFORCING BARS.
2. FOR SCUPPER AND DRAIN DETAILS, SEE SHEET NO. LB-13.
3. FOR SLAB DETAILS, SEE SHEET NOS. LB-13 AND LB-14.
4. FOR ROADWAY EXPANSION JOINT DETAILS, SEE SHEET NOS. LB-15, LB-16.
5. FOR 2-BAR ALUMINUM BRIDGE RAILING DETAILS, SEE SHEET NO. LB-17.
6. FOR STEEL REINFORCING SCHEDULE, SEE SHEET LB-18.
7. THE CONCRETE DECK SHALL BE GIVEN A SMOOTH BULL FLOAT OR WOOD FLOAT FINISH.

Maine Turnpike Authority
Maine Turnpike

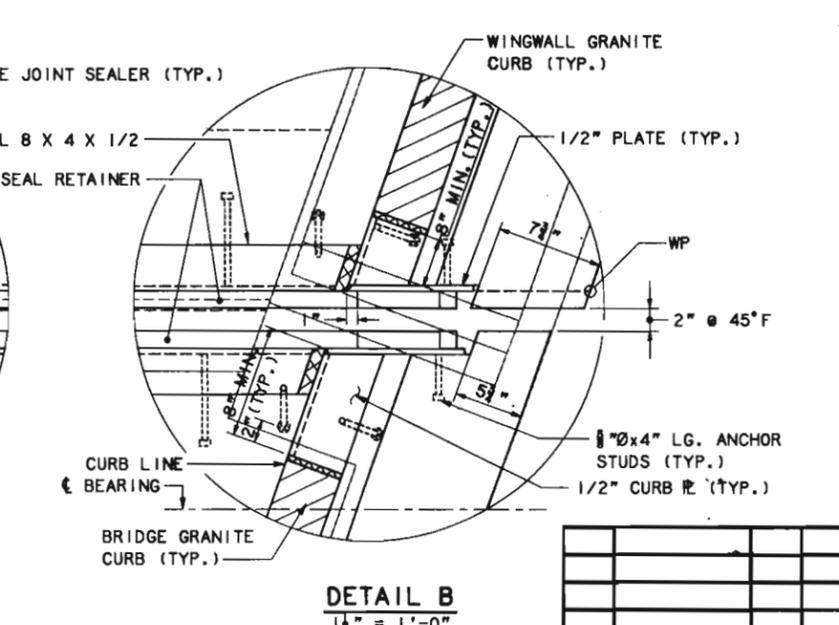
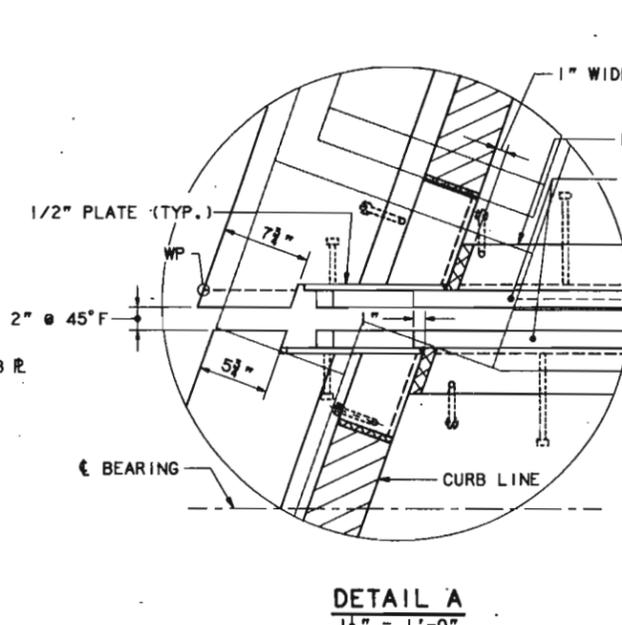
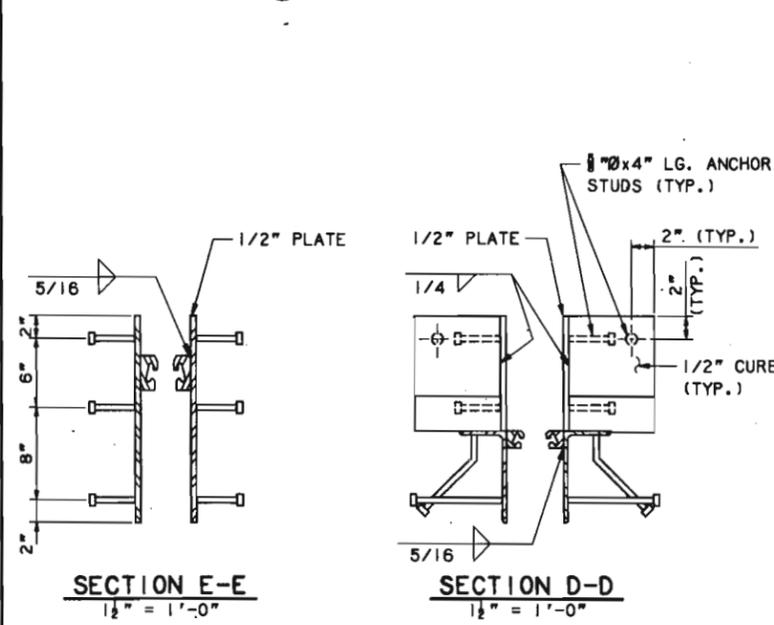
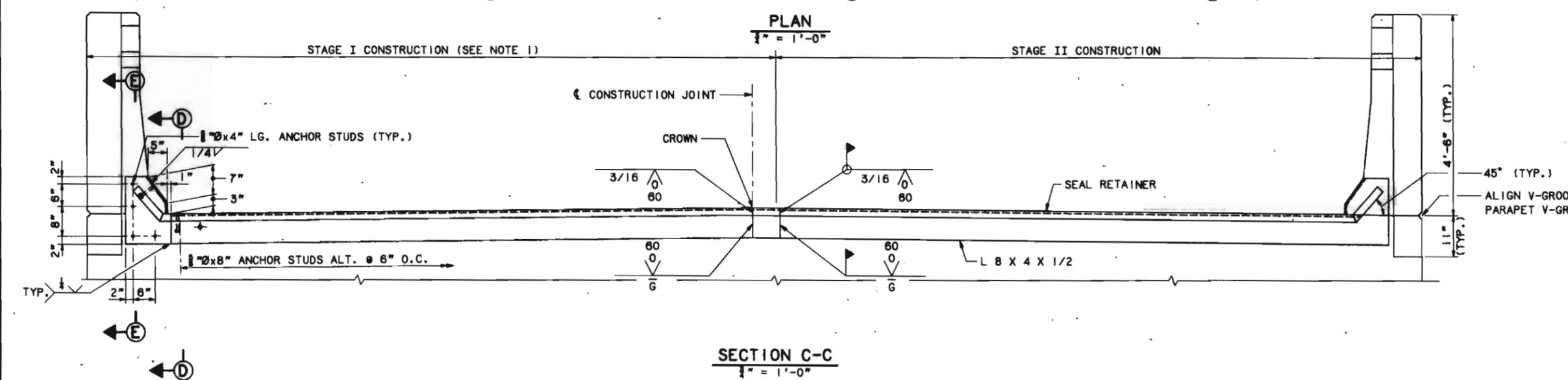
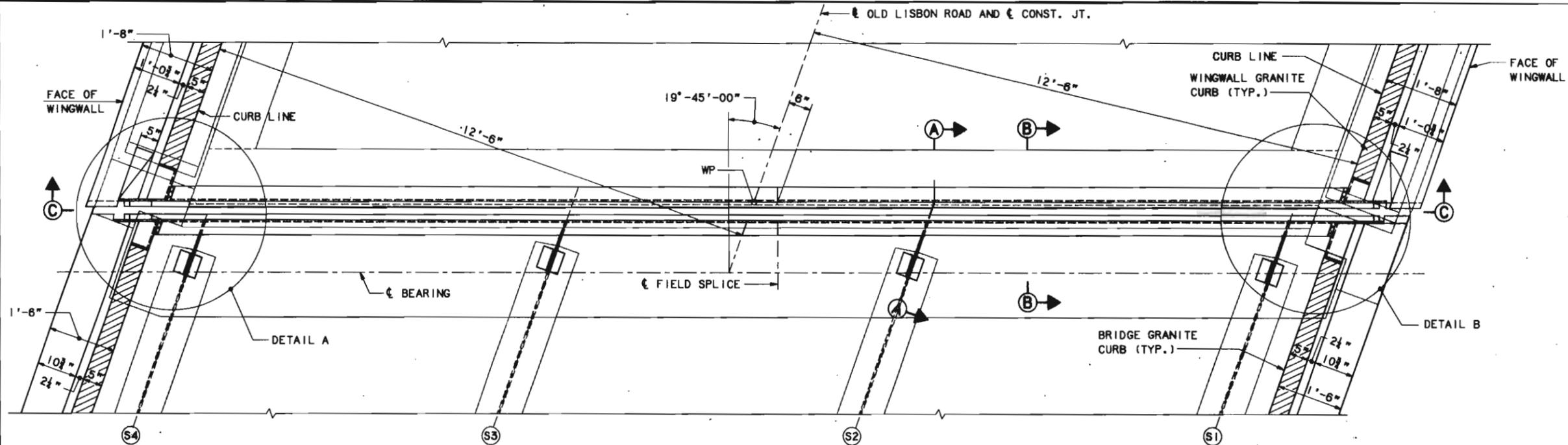
Transpass

OLD LISBON ROAD UNDERPASS
DECK PLAN AND TYPICAL SECTION

HNTB HOWARD NEEDLES TAMMEN & BERGENOFF, INC.
ARCHITECTS ENGINEERS PLANNERS

Contract 96.8 Sheet No. LB-12
SHEET NUMBER: 49 OF 52

By: DMD	Date: 2/96
Designed: DMD	2/96
Drawn: LS	2/96
Checked: JFW	2/96
No.:	Revision:
By: _____	Date: _____
In charge of: RA	



- NOTES**
- CONSTRUCTION STAGES SHOWN RELATE TO THE EXPANSION JOINT ONLY. THE CONCRETE DECK SHALL BE CONSTRUCTED ACCORDING TO THE STAGE CONSTRUCTION AS SHOWN ON SHEET LB-3. ABUTMENTS 1 AND 2 AND THE PIERS SHALL BE CONSTRUCTED AS SHOWN ON LB-4, LB-5, AND LB-8 RESPECTIVELY.
 - FOR SECTIONS A-A AND B-B SEE SHEET NO. LB-16.
 - EXPANSION JOINT AT ABUTMENT NO. 1 SHOWN, EXPANSION JOINT AT ABUTMENT NO. 2 SIMILAR.

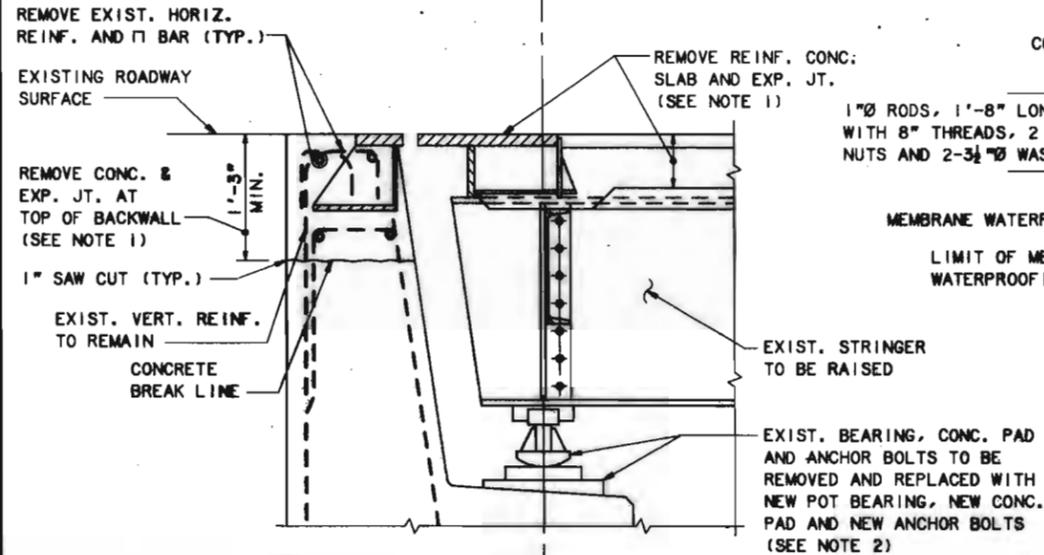
Maine Turnpike Authority
Maine Turnpike
 OLD LISBON ROAD UNDERPASS
EXPANSION JOINT DETAILS I

HNTB HOWARD NEEDLES TAMMEN & BERGENOFF, INC
 ARCHITECTS ENGINEERS PLANNERS

By: DMD	Date: 2/96
Designed: DMD	2/96
Drawn: LS	2/96
Checked: JFW	2/96

Contract 96.8 Sheet No. LB-15
SHEET NUMBER: 50 OF 52

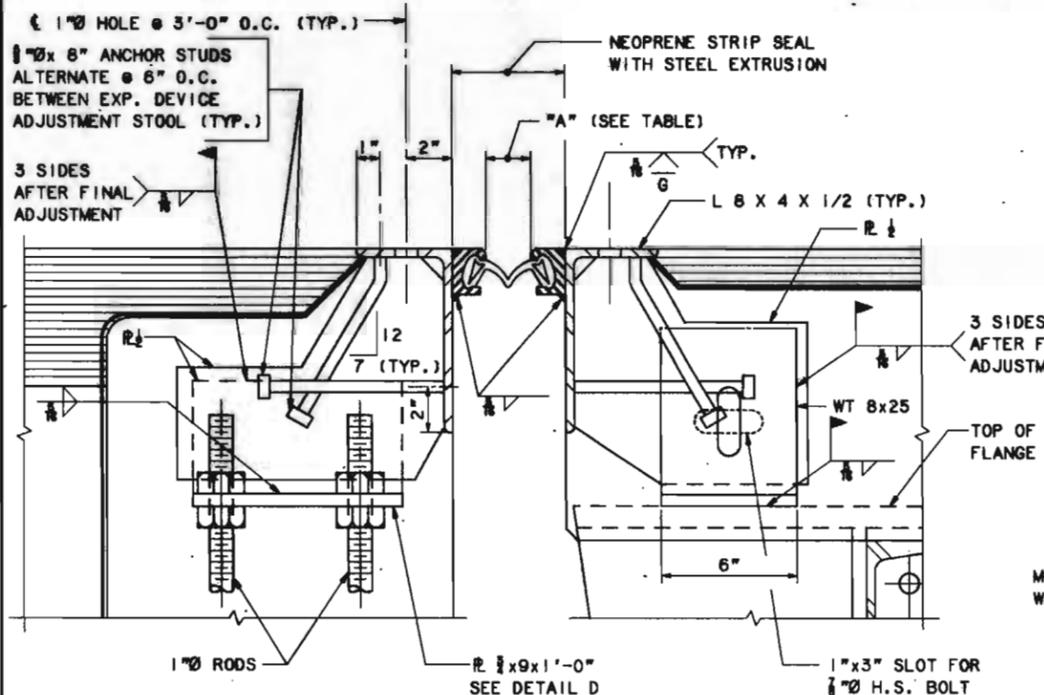
No.	Revision	By:	Date:	In charge of:



EXISTING SECTION A-A
1/2" = 1'-0"

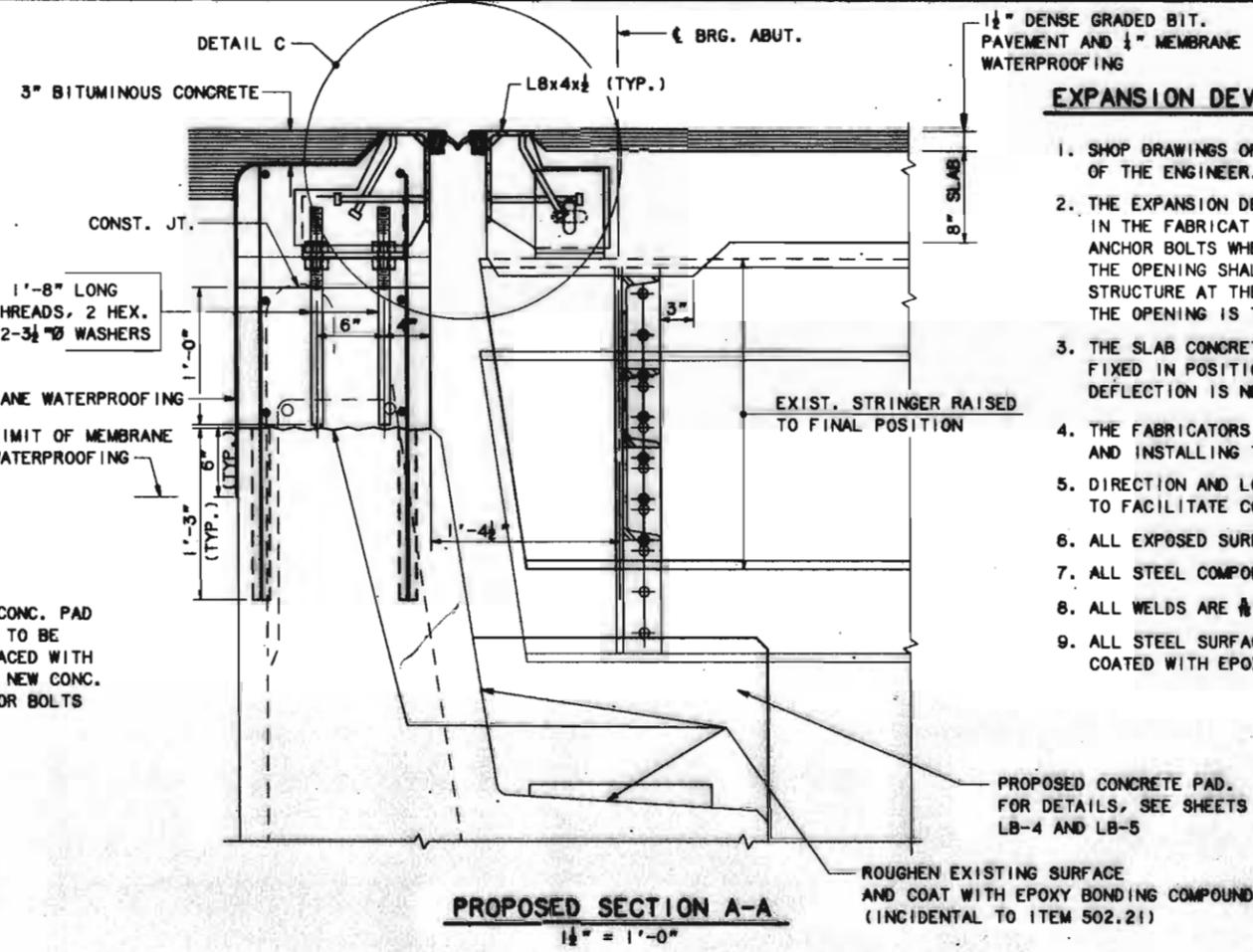
NOTES:

1. REMOVING THE EXISTING ARMOR JOINT SHALL BE INCIDENTAL TO ITEM 202.122.
2. REMOVING THE EXISTING MASONRY PLATES, ANCHOR BOLTS AND BEARING DEVICE ASSEMBLIES SHALL BE INCIDENTAL TO ITEM 202.12.



DETAIL C
3/8" = 1'-0"

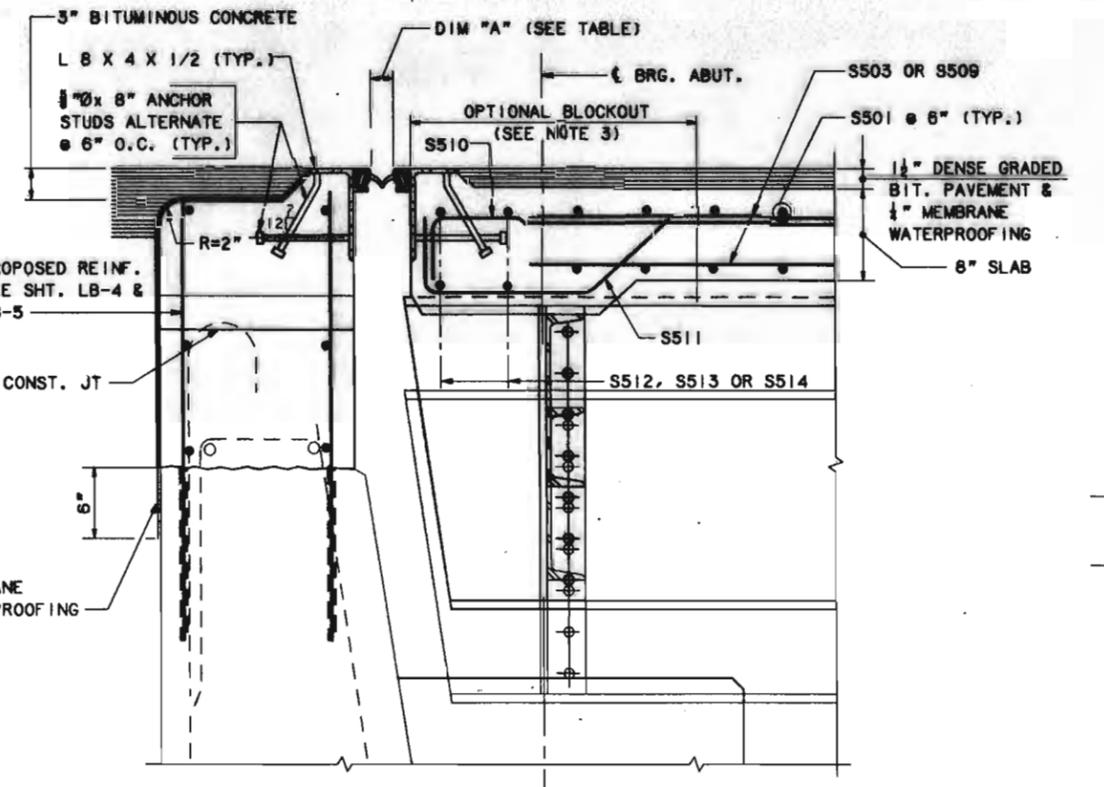
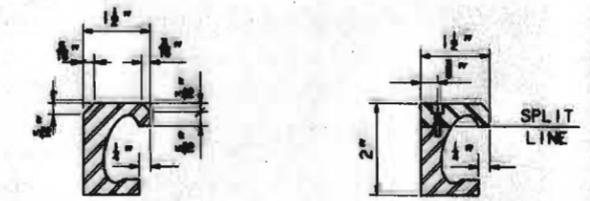
EXPANSION JOINT SCHEDULE												
	0°F	10°F	20°F	30°F	40°F	45°F	50°F	60°F	70°F	80°F	90°F	100°F
DIM "A" • ABUT. 1	1 1/8"	1 1/4"	1 1/2"	1 3/4"	1 7/8"	1 7/8"	1 7/8"	1 7/8"	1 7/8"	1 7/8"	1 7/8"	1 7/8"
DIM "A" • ABUT. 2	1 1/8"	1 1/4"	1 1/2"	1 3/4"	1 7/8"	1 7/8"	1 7/8"	1 7/8"	1 7/8"	1 7/8"	1 7/8"	1 7/8"



PROPOSED SECTION A-A
1/2" = 1'-0"

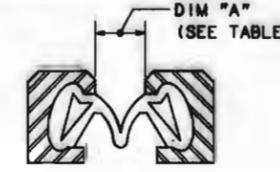
EXPANSION DEVICE NOTES

1. SHOP DRAWINGS OF THE EXPANSION DEVICE SHALL BE SUBMITTED FOR APPROVAL OF THE ENGINEER.
2. THE EXPANSION DEVICE SHALL BE SET TO AN OPENING OF 1 1/2 INCHES IN THE FABRICATION SHOP AND SHALL BE SECURE TO THE STRINGER AND/OR ANCHOR BOLTS WHEN THE AMBIENT TEMPERATURE IS BETWEEN 40°F AND 80°F. THE OPENING SHALL BE ADJUSTED TO REFLECT THE TEMPERATURE OF THE STRUCTURE AT THE TIME OF INSTALLATION. SEE TABLE FOR OPENING DIMENSIONS. THE OPENING IS TO BE MEASURED PARALLEL TO THE CENTER LINE OF CONSTRUCTION.
3. THE SLAB CONCRETE SHALL BE IN PLACE BEFORE THE EXPANSION DEVICE IS FIXED IN POSITION. NO ALLOWANCE FOR MOVEMENT DUE TO DEAD LOAD DEFLECTION IS NECESSARY. SEE SECTION 520.06 OF THE STANDARD SPECIFICATIONS.
4. THE FABRICATORS ATTENTION IS DIRECTED TO THE NECESSITY OF FABRICATING AND INSTALLING THE DEVICE IN TWO SECTIONS.
5. DIRECTION AND LOCATION OF FIELD SPLICES MAY BE ADJUSTED IF REQUIRED TO FACILITATE CONSTRUCTION.
6. ALL EXPOSED SURFACES OF ANGLES AND STEEL EXTRUSIONS TO BE FIELD PAINTED.
7. ALL STEEL COMPONENTS SHALL BE ASTM A709 GRADE 36 UNLESS OTHERWISE NOTED.
8. ALL WELDS ARE 1/8" CONTINUOUS FILLETS, EXCEPT AS NOTED.
9. ALL STEEL SURFACES THAT WILL BE EMBEDDED IN CONCRETE SHALL BE COATED WITH EPOXY BONDING COMPOUND.

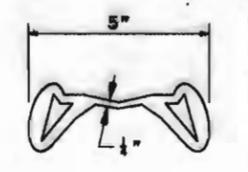


PROPOSED SECTION B-B
1/2" = 1'-0"

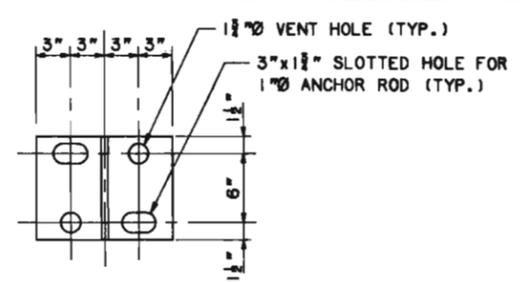
STEEL EXTRUSION FOR ROADWAY AREAS



STEEL EXTRUSION FOR OTHER AREAS



STRIP SEAL DETAILS
HALF SIZE



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

Maine Turnpike Authority
Maine Turnpike
 OLD LISBON ROAD UNDERPASS
EXPANSION JOINT DETAILS II
 HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF, INC.
 ARCHITECTS ENGINEERS PLANNERS

By: DMD	Date: 2/96
Designed: DMD	2/96
Drawn: LS	2/96
Checked: JFW	2/96
In charge of: RAL	

Contract 96.8 Sheet No. LB-16
SHEET NUMBER: 51 OF 52

