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 Filename: \\00\BRIDGE\MSTA\001_Title.dgn



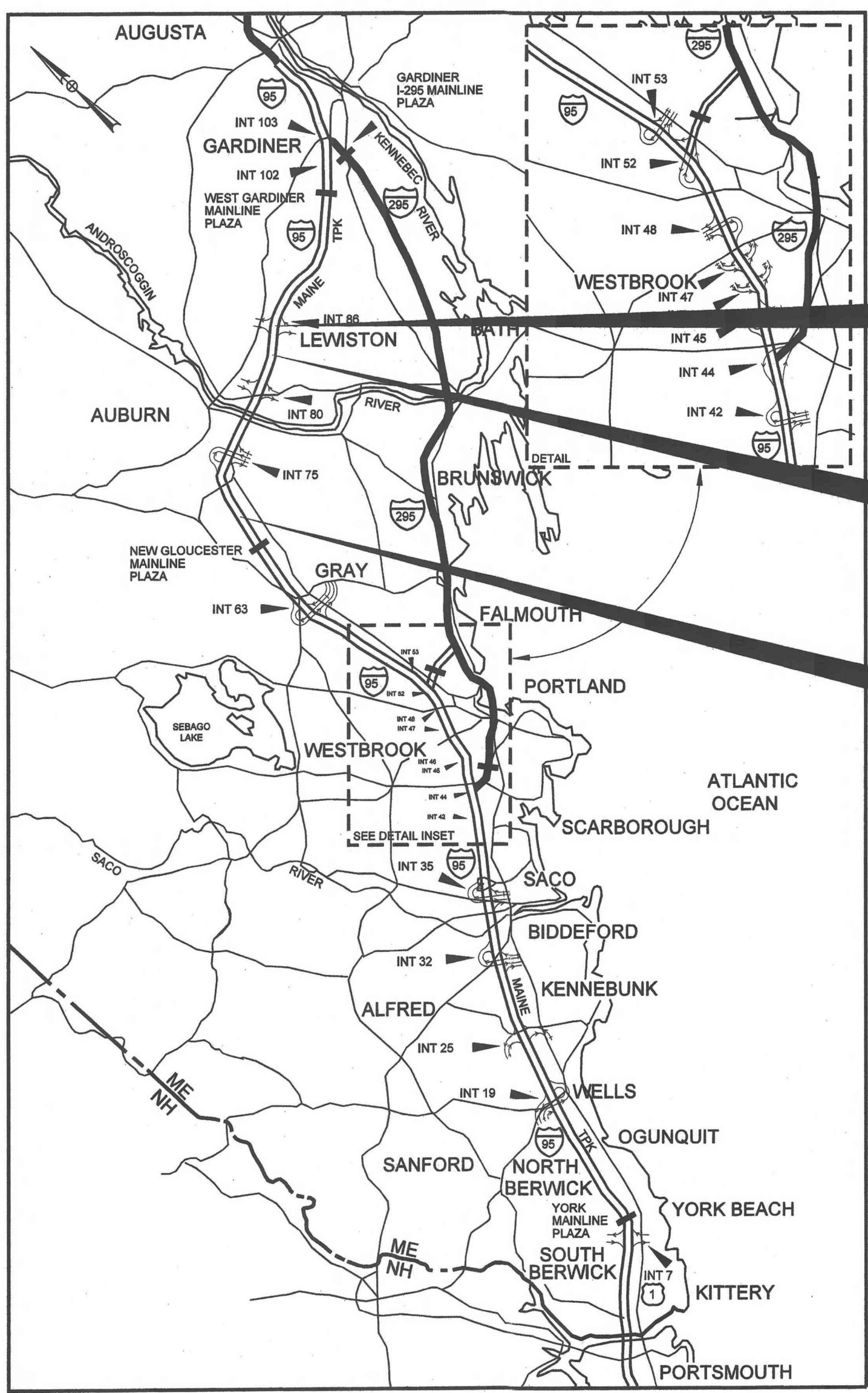
THE GOLD STAR
MEMORIAL HIGHWAY

MAINE TURNPIKE AUTHORITY

DANIEL E. WATHEN, CHAIR
 ROBERT D. STONE, VICE CHAIR
 MICHAEL J. CIANCHETTE, MEMBER
 JANE L. LINCOLN, MEMBER
 ANN R. ROBINSON, MEMBER
 THOMAS J. ZUKE, MEMBER
 BRUCE A. VAN NOTE, MEMBER EX-OFFICIO

S. PETER MILLS, EXECUTIVE DIRECTOR

CONTRACT 2021.03 BRIDGE REPAIRS 3 LOCATIONS: BENNETT ROAD UNDERPASS (MILE 68.6) GROVE STREET UNDERPASS (MILE 83.7) ROUTE 9 UNDERPASS (MILE 86.1)



LOCATION MAP

CONTRACT 2021.03
BRIDGE REPAIRS,
ROUTE 9
UNDERPASS MILE 86.1

CONTRACT 2021.03
BRIDGE REPAIRS,
GROVE STREET
UNDERPASS MILE 83.7

CONTRACT 2021.03
BRIDGE REPAIRS,
BENNETT ROAD
UNDERPASS MILE 68.6

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CONTRACT 2021.03

APPROVED: MAINE TURNPIKE AUTHORITY

PETER S. MERFELD, P.E.
 CHIEF OPERATIONS OFFICER

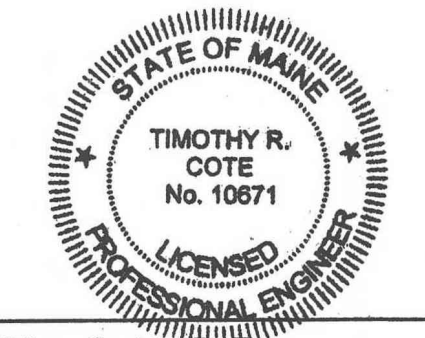
4/22/21
 DATE

STEPHEN R. TARTRE, P.E.
 DIRECTOR OF ENGINEERING

4/22/21
 DATE



SHEETS 23-35

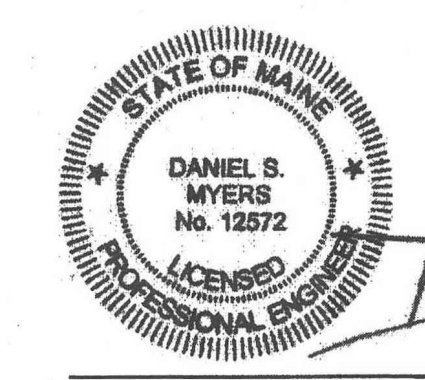


Tim Cote, P.E.
 HNTB Corporation

4/21/2021
 DATE



SHEETS 1-22 & 36-51



DANIEL S. MYERS, P.E.
 T.Y. LIN INTERNATIONAL PROJECT MANAGER

4/21/21
 DATE

Item No.	Item Description	Unit	Mile 68.6	Mile 83.7	Mile 86.1	Other	Combined
			Bennett Road Underpass	Grove Street Underpass	Route 9 Underpass	Locations	
			Quantities	Quantities	Quantities	Quantities	
202.12	REMOVING EXISTING STRUCTURAL CONCRETE	CY	33	0	0	0	33
202.127	REMOVING OF EXISTING BITUMINOUS PAVEMENT (1515 SY)	LS	0.38	0	0.62	0	1
202.191	REMOVING EXISTING DRAIN TROUGHS	LS	1	0	0.00	0	1
202.202	REMOVING PAVEMENT SURFACE	SY	350	110	670	0	1,130
202.206	REMOVING OF RUMBLE STRIPS	LF	0	500	670	0	1,170
203.20	COMMON EXCAVATION	CY	88	0	0	0	88
203.25	GRANULAR BORROW	CY	78	0	0	0	78
403.208	HOT MIX ASPHALT, 12.5MM NOMINAL MAXIMUM SIZE	TON	76	11	134	0	221
403.213	HOT MIX ASPHALT, 12.5MM NOMINAL MAXIMUM SIZE (BASE AND INTERMEDIATE COURSE)	TON	69	0	78	0	147
409.15	BITUMINOUS TACK COAT RS-1 OR RS-1h - APPLIED	GAL	68	6	103	0	177
502.21	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	CY	23	0	0	0	23
502.42	STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLAB ON STEEL BRIDGES	CY	11	0	0	0	11
502.701	BRIDGE DRAIN GRATE MODIFICATIONS	EA	4	0	2	0	6
502.7011	WEEP DRAIN EXTENSIONS	LS	0.50	0	0.50	0	1
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	LB	3,600	0	0	0	3,600
503.13	REINFORCING STEEL, PLACING	LB	3,600	0	0	0	3,600
503.14	EPOXY-COATED REINFORCING STEEL, FABRICATED AND DELIVERED	LB	3,400	0	0	0	3,400
503.15	EPOXY-COATED REINFORCING STEEL, PLACING	LB	3,400	0	0	0	3,400
504.80	STRUCTURAL STEEL REPAIR (REPAIR AREA "A")	LS	0	1	0	0	1
504.81	STRUCTURAL STEEL REPAIR (REPAIR AREA "B")	LS	0	1	0	0	1
504.82	STRUCTURAL STEEL REPAIR (REPAIR AREA "C")	LS	0	1	0	0	1
506.9103	ZINC RICH COATING SYSTEM (FIELD APPLIED)	LS	0	1	0	0	1
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (1535 SY)	LS	0.38	0	0.62	0	1
515.201	PIGMENTED PROTECTIVE COATING FOR CONCRETE SURFACES	SY	275	0	430	0	705
515.202	CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES	SY	250	0	480	0	730
518.10	ABUTMENT REPAIRS	SF	10	0	50	0	60
518.20	PIER REPAIRS	SF	195	0	290	0	485
518.39	GRANITE CURB JOINT MORTAR AND BEDDING REPAIR	LF	395	0	425	0	820
518.43	PARAPET JOINT REPAIR	LF	0	0	350	0	350
518.75	FASCIA AND OVERHANG REPAIRS	SF	25	0	50	0	75
518.80	PARTIAL DEPTH CONCRETE DECK REPAIRS	SF	55	0	85	0	140
518.81	FULL DEPTH CONCRETE DECK REPAIRS	SF	0	0	5	0	5
520.211	EXPANSION DEVICE MODIFICATIONS (ROUTE 9)	EA	0	0	2	0	2
520.23	EXPANSION DEVICE - ASPHALTIC PLUG JOINT (BENNETT ROAD)	LF	52	0	0	0	52
520.2111	BRIDGE EXPANSION JOINT CLEANING (WILSON ROAD)	LS	0	0	0	1	1
520.2112	BRIDGE EXPANSION JOINT CLEANING (LITTLEFIELD ROAD)	LS	0	0	0	1	1
524.31	TEMPORARY DECK SUPPORT SYSTEM	LS	0	1	0	0	1
531.82	HEAT STRAIGHTENING	LS	0	1	0	0	1
607.17	CHAIN LINK FENCE - 6 FOOT	LF	250	0	0	0	250
607.34	BRACING ASSEMBLY CHAIN LINK FENCE	EA	16	0	0	0	16
609.11	VERTICAL CURB TYPE 1	LF	35	0	0	0	35
610.08	PLAIN RIPRAP	CY	55	0	30	0	85
619.1202	TEMPORARY MULCH	LS	0.50	0	0.50	0	1
620.58	EROSION CONTROL GEOTEXTILE	SY	230	0	140	0	370
627.712	WHITE OR YELLOW PAVEMENT MARKING LINE	LF	950	0	2,270	0	3,220
627.73	TEMPORARY 6 INCH PAVEMENT MARKING TAPE	LF	0	0	80	0	80
627.731	TEMPORARY 6 INCH BLACK PAVEMENT MARKING TAPE	LF	0	0	180	0	180
627.77	REMOVING PAVEMENT MARKINGS	SF	0	0	310	0	310
627.94	PAVEMENT MARKING TAPE	LF	0	0	2,050	0	2,050
629.05	HAND LABOR - STRAIGHT TIME	HR	20	0	20	0	40
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	HR	10	0	10	0	20
631.172	TRUCK-LARGE (INCLUDING OPERATOR)	HR	20	0	20	0	40
631.36	FOREMAN	HR	10	0	10	0	20
643.72	TEMPORARY TRAFFIC SIGNAL	LS	0	0	1	0	1
652.39	WORK ZONE TRAFFIC CONTROL	LS	0.41	0.30	0.28	0.01	1
652.45	TRUCK MOUNTED ATTENUATOR	CD	28	0	28	0	56
652.451	AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN	CD	14	0	14	0	28
656.50	BALED HAY, IN PLACE	EA	8	0	8	0	16
656.632	30 INCH TEMPORARY SILT FENCE	LF	400	0	400	0	800
659.10	MOBILIZATION	LS	0.36	0.25	0.38	0.01	1

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date		By	Date
Designed	JJL	11/2020	Checked	BLT	11/2020
Drawn	JJL	11/2020	In Charge of	DSM	03/2021

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

ESTIMATED QUANTITIES

SHEET NUMBER: QT-01
2 OF 51

CONTRACT: 2021.03

Date: 4/22/2021

Filename: ... \MSTA\XXX_Gen Hwy NOTES.dgn

GENERAL CONSTRUCTION NOTES

1. ALL DETAILS SHALL BE IN CONFORMANCE WITH MAINE DEPARTMENT OF TRANSPORTATION (MAINEDOT) STANDARD DETAILS FOR HIGHWAYS AND BRIDGES, 2014 EDITION, AND MAINEDOT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL LATEST REVISION UNLESS OTHERWISE INCLUDED IN THESE PLANS.
2. ALL EXISTING DELINEATOR AND MILE MARKER POSTS, WITHIN LIMITS OF DISTURBANCE, SHALL BE REMOVED AND RESET UPON COMPLETION OF THE CONTRACT. PAYMENT WILL BE INCIDENTAL TO CONTRACT.
3. IN AREAS OF PROPOSED NEW FENCE, EXISTING CHAIN LINK OR WIRE FENCE SHALL BE REMOVED. REMOVING AND DISPOSING OF EXISTING FENCE SHALL BE INCIDENTAL TO PROPOSED FENCE BID ITEMS. PROPOSED FENCE SHALL BE INSTALLED CONTINUOUSLY WITH NO GAPS. ALL WORK SHALL BE DONE IN CONFORMANCE WITH MAINEDOT STANDARD SPECIFICATIONS SECTION 607 AND MAINEDOT STANDARD DETAILS SECTION 607.
4. CONNECTION FOR PROPOSED FENCE TO EXISTING FENCE SHALL BE INCIDENTAL TO THE CONTRACT INCLUDING ANY REQUIRED ADDITIONAL BRACING FOR THE EXISTING FENCE.
5. NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.
6. THE CONTRACTOR SHALL NOTE THAT THE ACTUAL EXISTING PAVEMENT THICKNESS MAY VARY FROM THE DEPTHS SHOWN ON THE PLANS. REMOVAL OF EXISTING PAVEMENT SHALL BE PAID AS COMMON EXCAVATION.

EARTHWORK

1. WASTE MATERIALS SHALL BE DISPOSED OF OFF THE PROJECT SITE, IN ACCORDANCE WITH CHAPTER 404, DEPARTMENT OF ENVIRONMENTAL PROTECTION SOLID WASTE MANAGEMENT RULES.
2. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA SUBPART P OF 29 CFR PAR 1926.650-652 (CONSTRUCTION STANDARDS FOR EXCAVATION).
3. EXISTING INSLOPES STEEPER THAN 2:1 IN PROPOSED FILL AREAS SHALL BE BENCHED AS DIRECTED BY THE RESIDENT.
4. FILL/BORROW SHALL BE COMPACTED TO 90% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR, EXCEPT AS AMENDED BY SPECIAL PROVISION 203. GRANULAR BORROW, AGGREGATE BASE, AND AGGREGATE SUBBASE SHALL BE COMPACTED TO 95% OF THEIR MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR FOR AREAS OF BACKFILL MATERIAL BEHIND ABUTMENTS AND RETAINING WALLS, EXCEPT AS AMENDED BY SPECIAL PROVISION 203. GRANULAR BORROW, AGGREGATE BASE, AND AGGREGATE SUBBASE SHALL BE COMPACTED TO 95% IN ALL OTHER AREAS.

EROSION CONTROL

1. THE ANTICIPATED EROSION CONTROL DEVICES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROPOSE ACTUAL TYPE AND LOCATION OF DEVICES FOR APPROVAL BY THE RESIDENT. ADDITIONAL MEASURES MAY BE PROPOSED BY THE CONTRACTOR DUE TO SITE OR WEATHER CONDITIONS. THE RESIDENT MAY DIRECT THE CONTRACTOR TO IMPLEMENT ADDITIONAL MEASURES. ANY ADDITIONAL MEASURES APPROVED BY THE RESIDENT WILL BE MEASURED FOR PAYMENT.
2. ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION BEST MANAGEMENT PRACTICES.

DRAINAGE

1. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED, OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.

LOCAL ROAD

1. ALL JOINTS BETWEEN EXISTING AND PROPOSED BITUMINOUS PAVEMENT SHALL BE BUTTED. PAYMENT SHALL BE PAID FOR AS ITEM 202.202.

UTILITY

1. EXISTING UTILITIES ON THESE PLANS WERE COMPILED FROM FIELD SURVEY AND VARIOUS OTHER SOURCES. LOCATIONS ARE NOT GUARANTEED TO BE ACCURATE NOR IS IT GUARANTEED THAT ALL UTILITIES ARE SHOWN. NO SEPARATE OR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR DUE TO ANY VARIANCE BETWEEN THE DATA SHOWN ON THE PLANS AND THE ACTUAL FIELD CONDITIONS ENCOUNTERED. NO WORK SHALL BE STARTED UNTIL THE OWNERS OF THE VARIOUS UTILITIES ARE NOTIFIED BY THE CONTRACTOR OF THE PROPOSED CONSTRUCTION. THE CONTRACTOR IS ALSO REQUIRED TO CALL DIG SAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO THE START OF THE WORK.
2. THE CONTRACTOR SHALL NOTIFY THE RESIDENT 10 DAYS PRIOR TO CONSTRUCTION SO THE RESIDENT CAN ARRANGE FOR MAINE TURNPIKE UNDERGROUND UTILITY LOCATION. ALL PROPOSED SIGN LOCATIONS AND EXCAVATION LOCATIONS SHALL BE MARKED AT THE NOTIFICATION TIME. EXCAVATING WILL NOT BE PERMITTED UNTIL THE AUTHORITY HAS LOCATED AND MARKED ITS UNDERGROUND UTILITIES, OR NOTIFIED THE RESIDENT THAT THERE ARE NO UNDERGROUND UTILITIES IN THE MARKED AREAS.
3. THE AUTHORITY HAS PROGRAMMED TWO FIELD VISITS FOR MAINE TURNPIKE UTILITY COORDINATION ON THIS PROJECT. SHOULD THE CONTRACTOR NEED ADDITIONAL SIGN LOCATIONS AND/OR ADDITIONAL EXCAVATION LOCATIONS MARKED, OR SHOULD THE CONTRACTOR FAIL TO MAINTAIN THE AUTHORITY'S PREVIOUSLY ESTABLISHED DIG SAFE MARKS, THE AUTHORITY SHALL DEDUCT THE ADDED MARKING COSTS FROM THE CONTRACTOR'S PAYMENTS.

GENERAL MAINTENANCE OF TRAFFIC NOTES:

1. ALL SIGNING AND PAVEMENT STRIPING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", U.S.D.O.T., F.H.W.A, LATEST EDITION.
2. FOR SIGN DETAILS, SEE MAINTENANCE OF TRAFFIC SIGN SUMMARY SHEETS.
3. ALL CONSTRUCTION SIGNS SHALL BE IN NEW OR LIKE NEW CONDITION.
4. ALL WORK TO CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES, NOVEMBER 2014, EXCEPT AS MODIFIED BY THE MAINE TURNPIKE AUTHORITY'S SUPPLEMENTAL SPECIFICATIONS AND THIS PROJECT'S SPECIAL PROVISIONS.
5. THE CONTRACTOR SHALL REMOVE ALL PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS IN ACCORDANCE WITH THE SPECIFICATIONS AND THE MUTCD. TEMPORARY PAVEMENT MARKINGS SHALL BE PAINTED, UNLESS OTHERWISE NOTED. 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. PAYMENT FOR ALL WORK AND MATERIALS SHALL BE UNDER ITEM 652.39, "WORK ZONE TRAFFIC CONTROL".
6. AT NO TIME SHALL SHOULDER CLOSURES ON BOTH SIDES OF THE TRAVEL LANES OCCUR ON THE SAME SIDE OF THE MAINLINE.
7. WORK WITHIN SHOULDER CLOSURES SHALL BE CONTINUOUS TO MINIMIZE IMPACTS TO MAINLINE TRAFFIC.
8. CONTRACTOR SHALL COORDINATE ALL MAINTENANCE OF TRAFFIC WITH ADJACENT PROJECTS.
9. 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.
10. LOCATIONS OF TEMPORARY TRAFFIC CONTROL DEVICES, SIGNS, AND PAVEMENT MARKINGS ARE APPROXIMATE. FINAL LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
11. PORTABLE-CHANGEABLE MESSAGE SIGNS SHALL BE LOCATED ON EACH SIDE OF EACH BRIDGE, OR AS DIRECTED BY THE RESIDENT.
12. SPEED LIMIT, STOP, YIELD, AND EXIT SIGNS SHALL BE A MINIMUM OF 5' ABOVE THE PAVEMENT.

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date		By	Date
Designed	BLT	8/2020	Checked	SRD	8/2020
Drawn	TWA	8/2020	In Charge of	DSM	03/2021

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

GENERAL NOTES

SHEET NUMBER: GN-01
CONTRACT: 2021.03

3 OF 51

Date: 4/22/2021

Filename: ... \BRIDGE\WSTA\XXX_Gen_Notes.dgn

SPECIFICATIONS:

DESIGN

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
8TH EDITION WITH INTERIMS THROUGH 2020.

CONSTRUCTION

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS, NOVEMBER 2014.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
STANDARD DETAILS, NOVEMBER 2014, WITH UPDATES
THROUGH 2019.

MAINE TURNPIKE AUTHORITY'S 2016 SUPPLEMENTAL
SPECIFICATIONS

AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS,
THIRD EDITION WITH 2016 INTERIMS

MATERIALS:

CONCRETE

CONCRETE END POSTS, WINGWALLS AND ABUTMENT
BACKWALLS 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.
CLASS AAA - MODIFIED, $f'_c = 4,500$ P.S.I.

REINFORCING STEEL

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

TRAFFIC DATA

BENNETT ROAD:

AADT..... 488
Design Speed (mph)..... 40 MPH
Functional Class..... Local

GROVE STREET:

AADT..... 3024
Design Speed (mph)..... 35 MPH
Functional Class..... Major Collector

ROUTE 9:

AADT..... 5180
Design Speed (mph)..... 45 MPH
Functional Class..... Minor Arterial

GENERAL NOTES:

- THE PROPOSED ELEVATIONS ARE BASED ON THE NAVD 88 DATUM. THE AS-BUILT PLANS ARE BASED ON NGVD 29 DATUM UNLESS NOTED OTHERWISE.
- FOR ADDITIONAL DETAILS REFERENCED OR NOT SHOWN IN THESE DRAWINGS, SEE THE STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD DETAILS, HIGHWAYS AND BRIDGES, NOVEMBER 2014, WITH UPDATES THROUGH 2019.
- COPIES OF THE AS-BUILT PLANS ARE ON FILE AND ARE AVAILABLE ON THE MAINE TURNPIKE AUTHORITY WEBSITE. THE COMPLETENESS AND ACCURACY OF THESE PLANS IS NOT GUARANTEED.
- REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2" MIN., UNLESS OTHERWISE NOTED.
- CHAMFER ALL EXPOSED CONCRETE EDGES $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.
- ALL PROPOSED CONCRETE CURB FACES AND INSIDE AND TOP FACES OF THE ENDPPOSTS SHALL RECEIVE A RUBBED FINISH PRIOR TO THE APPLICATION OF THE CLEAR PROTECTIVE COATING FOR CONCRETE SURFACE, UNLESS NOTED OTHERWISE ON THE PLANS.
- SHIELDING REQUIRED DURING CONSTRUCTION SHALL NOT PROJECT BELOW THE BOTTOM FLANGES OF GIRDERS. PAYMENT FOR SHIELDING SHALL NOT BE MADE DIRECTLY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT, IN ACCORDANCE WITH SPECIAL PROVISION SECTION 524.
- ALL PAINT ON EXISTING STEEL, DAMAGED BY CONTRACTOR'S OPERATIONS, SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. THE CONTRACTOR SHALL NOTE THAT THE EXISTING BRIDGE STRUCTURES CONTAIN LEAD BASED PAINT. THE CONTRACTOR SHALL INSTITUTE EVERY PRECAUTION WHEN WORKING WITH MATERIALS COATED WITH LEAD PAINT. ALL WORK, MATERIALS, AND COSTS ASSOCIATED WITH REPAIRS TO THE STEEL PROTECTIVE COATING, DUE TO DAMAGE CAUSED BY CONTRACTOR'S OPERATIONS, SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENCE.
- WHERE DRILLING AND ANCHORING OF REINFORCING STEEL IS SPECIFIED THE CONTRACTOR SHALL USE A MATERIAL LISTED ON THE MAINE DOT PREQUALIFIED LIST OF CHEMICAL ANCHORING MATERIALS. THE DEPTH OF EMBEDMENT SHALL BE SUFFICIENT TO DEVELOP 125% OF THE YIELD STRENGTH OF THE BAR, BUT SHALL BE NO LESS THAN THE MINIMUM DEPTH OF EMBEDMENT WHEN SPECIFIED. WHERE MINIMUM EMBEDMENT DEPTH HAVE NOT BEEN SPECIFIED, BAR LENGTHS HAVE BEEN DEVELOPED BASED ON AN ASSUMED EMBEDMENT DEPTH OF 9" FOR #5 BARS AND 11" FOR #6 BARS. THE CONTRACTOR SHALL VERIFY THE REQUIRED DEPTH OF EMBEDMENT AND ADJUST THE REQUIRED BAR LENGTHS AS REQUIRED.
- PAYMENT FOR DRILLING AND ANCHORING OF REINFORCING STEEL IS INCIDENTAL TO ITEM 503.15, EPOXY-COATED REINFORCING STEEL, PLACING.

CONCRETE REPAIR PROCEDURAL NOTES:

- CONCRETE REPAIRS, INCLUDING THE ASSOCIATED REMOVALS, WILL BE PAID UNDER 518 ITEMS.
- ANY REINFORCING STEEL REQUIRED TO REPLACE DETERIORATED EXISTING REINFORCEMENT IN CONCRETE REPAIR AREAS SHALL BE EPOXY COATED AND WILL BE INCIDENTAL TO 518 ITEMS.

REMOVAL PROCEDURE:

- CONTRACTOR SHALL REMOVE ALL TECTYL COATING PRIOR TO WORK. PAYMENT SHALL BE INCIDENTAL TO THE SPECIFIED 518 ITEMS.
- PRIOR TO THE START OF THE CONCRETE REMOVAL, THE RESIDENT AND THE CONTRACTOR SHALL SOUND ALL EXPOSED SURFACES OF 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 REMOVAL.
- PERFORM 1 INCH DEEP SAWCUTS ALONG LIMITS OF REMOVAL.
- CHIP CONCRETE TO DEPTH REQUIRED PER SPECIFICATIONS.

CONCRETE SURFACE PATCH/REPAIR PROCEDURE:

- PREPARE AND PATCH REPAIR AREAS WITH CLASS AAA - MODIFIED CONCRETE. SEE SPECIFICATIONS FOR MATERIAL, PREPARATION, PLACEMENT, AND CURING REQUIREMENTS.

GIRDER REPAIR GENERAL NOTES:

- DUE TO THE NATURE OF REPAIR PROJECTS, THE EXACT EXTENT OF REPAIR WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME OF CONTRACT DEVELOPMENT. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATION TO THE CONSTRUCTION DETAILS, DIMENSIONS, AND WORK QUANTITIES. THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH FIELD CONDITIONS AND AS DIRECTED BY THE RESIDENT.
- ALL DIMENSIONS, ELEVATIONS, AND OTHER INFORMATION SHOWN ON THESE DRAWINGS THAT DEFINE THE STRUCTURE ARE BASED UPON THE ORIGINAL CONSTRUCTION DRAWINGS AND FIELD MEASUREMENTS AND ARE NOT GUARANTEED TO REPRESENT AS-BUILT DIMENSIONS. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD AS NECESSARY AND AS REQUIRED FOR THE COMPLETION OF THE WORK UNDER THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY AND FOR THE CORRECT FIT OF ALL CONSTRUCTION.
- THE CONTRACTOR SHALL REPORT TO THE RESIDENT ANY DEVIATIONS OF THE ACTUAL CONDITIONS FROM THOSE DEPICTED ON THE DRAWINGS. SHOULD ANY DEVIATIONS BE FOUND, THE RESIDENT SHALL REVIEW AND PRESCRIBE CORRECTIVE ACTIONS TO BE TAKEN.
- ALL WORK IS TO BE PERFORMED WITH CARE SO THAT MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE AUTHORITY, WILL NOT BE DAMAGED. IF ANY SUCH MATERIALS ARE DAMAGED, THE DAMAGED MATERIALS SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE RESIDENT AT NO EXPENSE TO THE AUTHORITY.
- ALL STRUCTURAL STEEL SUPPLIED BY THE CONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 (ASTM A709) GRADE 36 OR HIGHER.
- THE CONTRACTOR MAY USE THE TEMPORARY STRONGBACK SYSTEM (2 - W30x108 BEAMS) OWNED BY THE AUTHORITY, OR A SIMILAR STRONGBACK SYSTEM FABRICATED FROM STRUCTURAL STEEL IN GOOD CONDITION MEETING THE REQUIREMENTS SHOWN ON SHEETS S-5 AND S-6. THE CONTRACTOR SHALL DOCUMENT THE SOURCE OF ANY SALVAGED MATERIAL AND SUBMIT THEM FOR APPROVAL. ALL OTHER COMPONENTS OF THE TEMPORARY STRONGBACK SYSTEM SHALL HAVE A YIELD STRENGTH OF AT LEAST 36 KSI UNLESS OTHERWISE NOTED. CONNECTION AND DIAPHRAGM PLATES SHALL HAVE A FIELD STRENGTH EQUAL TO OR GREATER THAN THE TEMPORARY SUPPORT BEAMS.
- IF THE CONTRACTOR CHOOSES TO USE THE AUTHORITY PROVIDED STRONGBACK, THE CONTRACTOR SHALL INSPECT IT TO ENSURE IT IS IN ACCEPTABLE CONDITION AND MEETS THE REQUIREMENTS OF THE PLANS AND SPECIAL PROVISIONS. ANY COMPONENTS THAT MAY BE MISSING FROM THE STRONGBACK SYSTEM (ANCHOR RODS, ANGLE BRACES, PEDESTALS, HANGER RODS, ETC.) SHALL BE PROVIDED BY THE CONTRACTOR.
- ALL NEW STRUCTURAL STEEL INCORPORATED INTO THE FINAL PROJECT, AND ALL AREAS OF PAINT REMOVAL, SHALL BE CLEANED AND PAINTED IN ACCORDANCE WITH SPECIAL PROVISION 506. ALL THE GIRDERS SHALL BE PAINTED 6' BEYOND THE ACTUAL PAINT REMOVAL LIMITS. THE TERMINATION POINT SHALL BE TAPED OFF TO PREVENT OVERRUN AND OVERSPRAY. THE FINISH COAT COLOR SHALL MATCH THE EXISTING PAINT SYSTEM.
- BOLTS SHALL BE $\frac{7}{8}$ " DIA. IN STANDARD HOLES AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M164 (ASTM A325). BOLTS SHALL BE HOT DIP GALVANIZED PER AASHTO M232 (ASTM A153).
- HANGER RODS SHALL BE ASTM F1554, GRADE 105 OR A193, B7 THREADED RODS WITH HEAVY HEX NUTS CONFORMING TO ASTM A563, GRADE DH, AND WASHERS CONFORMING TO ASTM F436. TWO-PIECE SPHERICAL WASHERS SHALL BE HARDENED TO MEET THE REQUIREMENTS OF ASTM F436.

GENERAL FINISHING:

- THE CONTRACTOR SHALL REMOVE ALL EXISTING PROTECTIVE COATINGS FROM CONCRETE SURFACES, IN ACCORDANCE WITH SPECIAL PROVISION SECTION 515, BEFORE APPLICATION OF NEW PROTECTIVE COATING. THE BRIDGES WERE PREVIOUSLY COATED WITH AN ACRYLIC COATING SYSTEM. DISPOSE OF ALL WASTE FROM THE REMOVAL IN COMPLIANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS, AS DIRECTED BY THE RESIDENT. PAYMENT SHALL BE INCIDENTAL TO THE SPECIFIED 515 ITEMS.
- ALL EXPOSED CONCRETE SURFACES AND REPAIR AREAS THAT EXTEND BELOW GRADE, AS SHOWN IN THE SUBSTRUCTURE REPAIR SHEETS, SHALL BE COATED WITH A PROTECTIVE COATING SUITABLE FOR CONCRETE SURFACES AFTER PATCHING IS COMPLETE AND PATCH MATERIALS HAVE CURED. PIGMENTED PROTECTIVE COATING SHALL BE APPLIED TO ALL ABUTMENT FACES, ALL WINGWALL FACES, ALL PIER FACES AND ALL BARRIER OUTSIDE FACES. CLEAR PROTECTIVE COATING SHALL BE APPLIED TO ALL CONCRETE CURB FACES, ALL FASCIAS AND FASCIA OVERHANGS, AND ALL BARRIER INSIDE AND TOP FACES, UNLESS NOTED OTHERWISE ON THE PLANS.

LIST OF ABBREVIATIONS

ABUT.	ABUTMENT
ADDL.	ADDITIONAL
ASCG.	AGGREGATE SUBBASE COURSE GRAVEL
ALT.	ALTERNATE
APPROX.	APPROXIMATE
BOT.	BOTTOM
BRG.	BEARING
CL.	CLEAR
CL.	CENTERLINE
CONC.	CONCRETE
CONN.	CONNECTION
CONSTR.	CONSTRUCTION
CTR.	CENTER
DEMO.	DEMOLITION
DIA.	DIAMETER
DIAPH.	DIAPHRAGM
DIM.	DIMENSION
E.A.	EACH
EB	EASTBOUND
E.F.	EACH FACE
EL.	ELEVATION
EQ.	EQUAL
EXIST.	EXISTING
EXP.	EXPANSION
F.F.	FAR FACE
HORIZ.	HORIZONTAL
JT.	JOINT
LLV	LONG LEG VERTICAL
LS	LUMP SUM
MAX.	MAXIMUM
MIN.	MINIMUM
MTA	MAINE TURNPIKE AUTHORITY
NB	NORTHBOUND
N.F.	NEAR FACE
NO	NUMBER
NTS	NOT TO SCALE
N.T.S.	NOT TO SCALE
O.H.W.	ORDINARY HIGH WATER
PED.	PEDESTAL
PGL	PROFILE GRADE LINE
PL.	PLATE
PL.	PLATE
PROP.	PROPOSED
RDWY.	ROADWAY
SB	SOUTHBOUND
SF	SQUARE FEET
SHLD.	SHOULDER
SHLDR.	SHOULDER
SP.	SPACE(S)
SPA.	SPACE(S)
STA.	STATION
STIFF.	STIFFENER
TEMP.	TEMPORARY
T.&B.	TOP & BOTTOM
TPKE.	TURNPIKE
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
VERT.	VERTICAL
WB	WESTBOUND
W.P.	WORKING POINT

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date		By	Date
Designed	DSM	8/2020	Checked	BLT	8/2020
Drawn	TWA	8/2020	In Charge of	DSM	03/2021

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

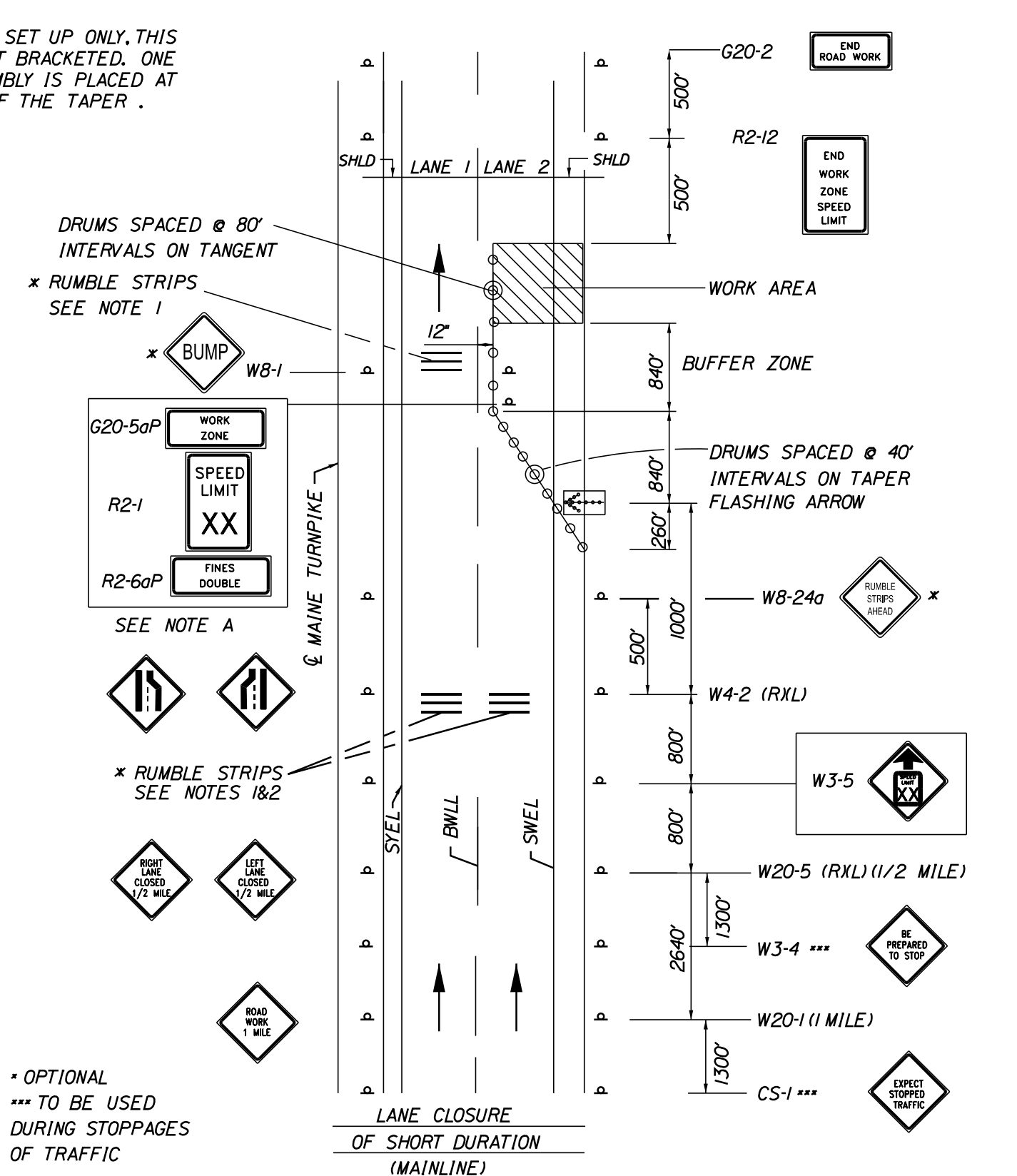
BRIDGE GENERAL NOTES

SHEET NUMBER: GN-02

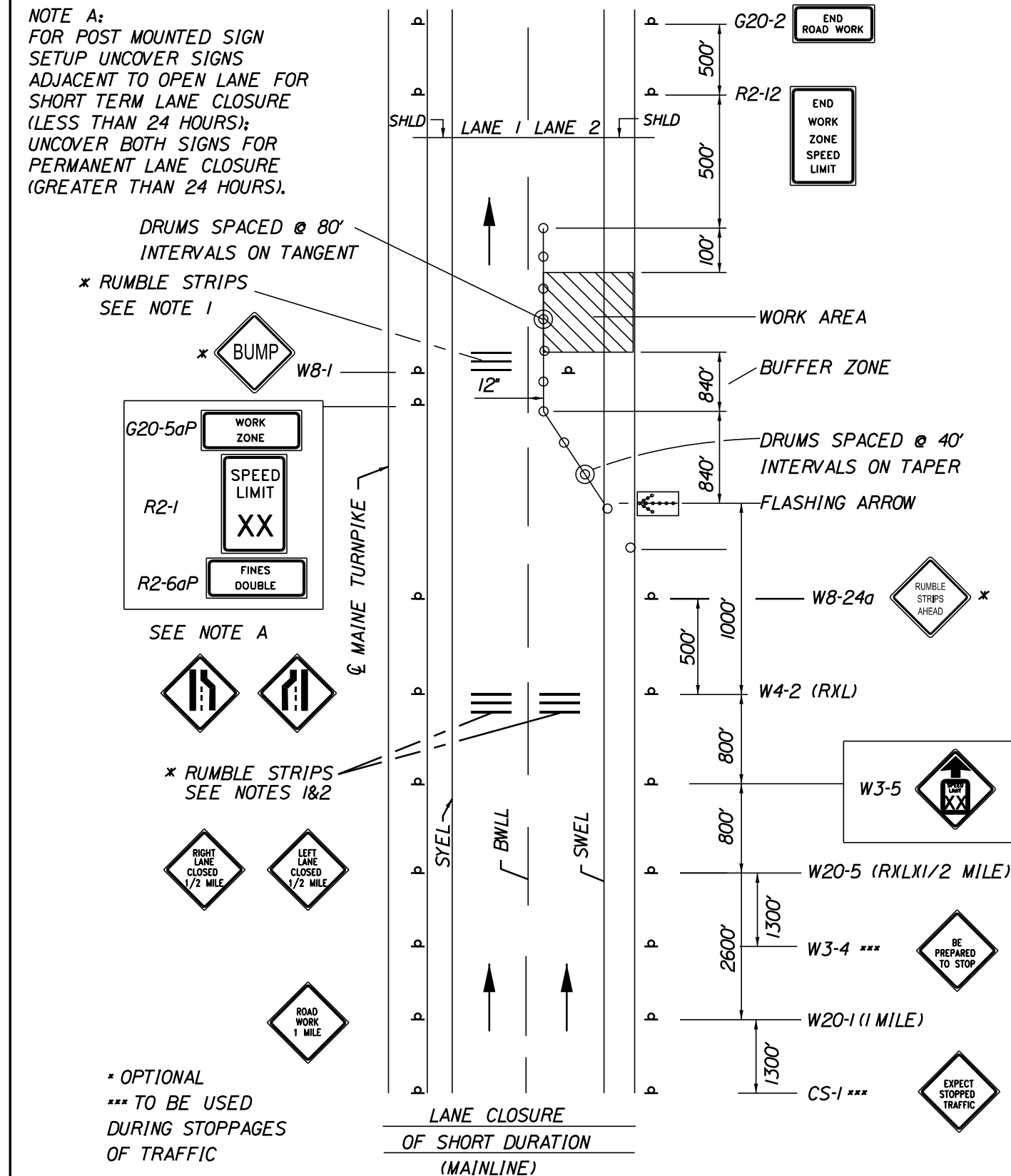
4 OF 51

CONTRACT: 2021.03

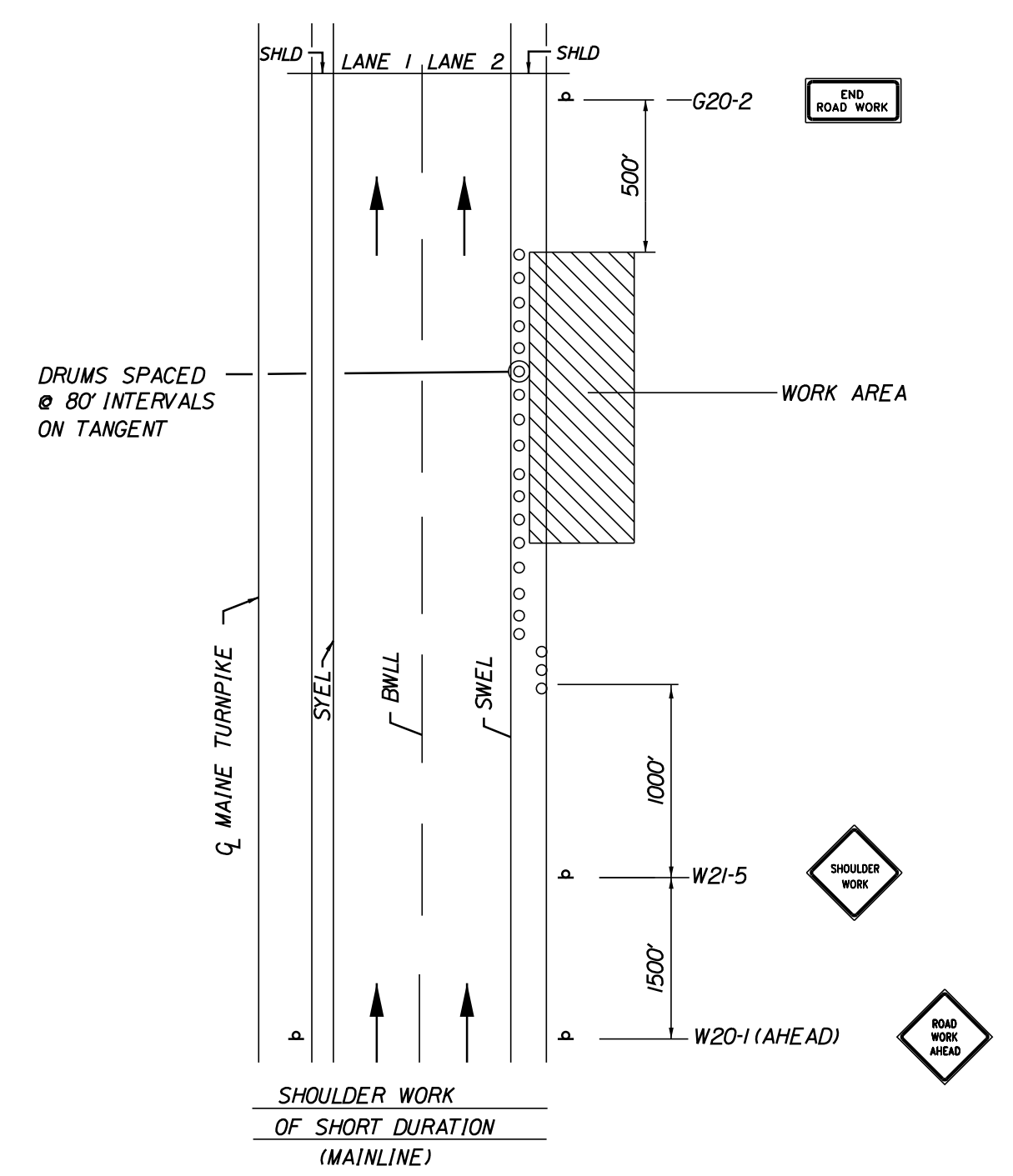
NOTE A:
FOR EASEL SET UP ONLY, THIS SIGN IS NOT BRACKETED. ONE SIGN ASSEMBLY IS PLACED AT THE END OF THE TAPER.



SINGLE LANE CLOSURE - SIGNS ON EASELS

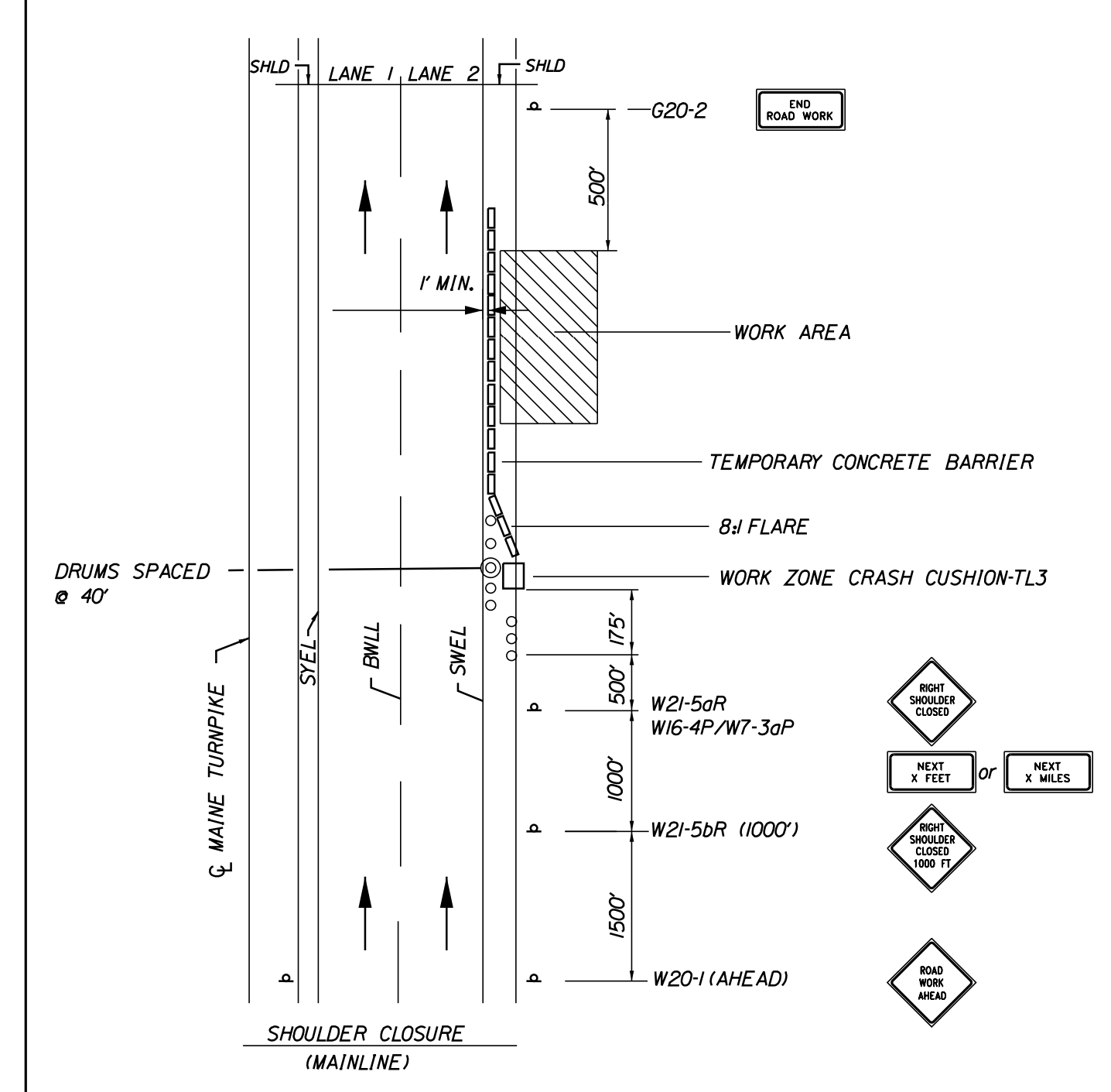


SINGLE LANE CLOSURE - POST MOUNTED SIGN SETUP



SHOULDER WORK

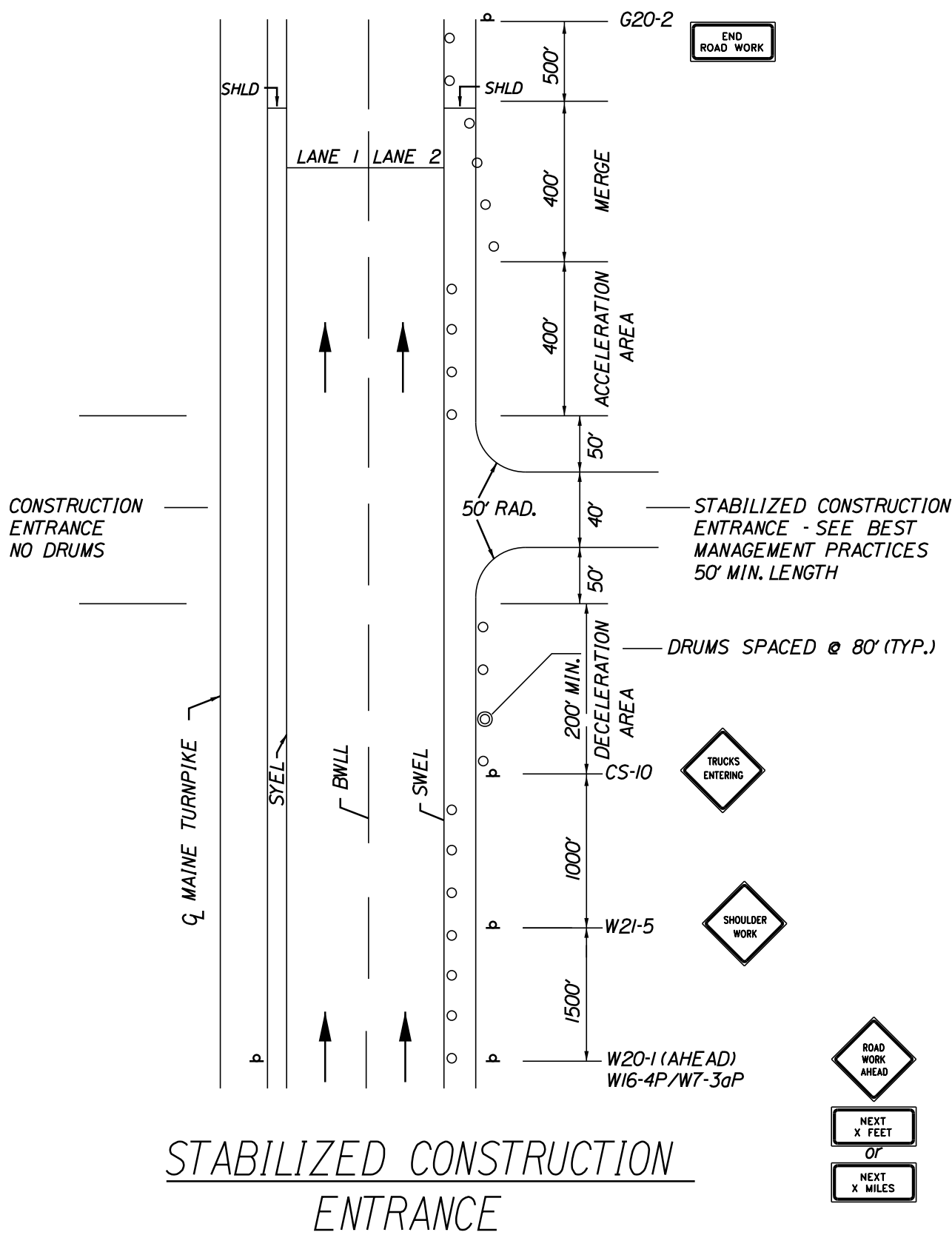
1. THE W20-1 AND G20-2 SIGNS ARE NOT REQUIRED IF THE SHOULDER CLOSURE IS WITHIN A PREVIOUSLY ESTABLISHED WORK ZONE.



SHOULDER CLOSURE

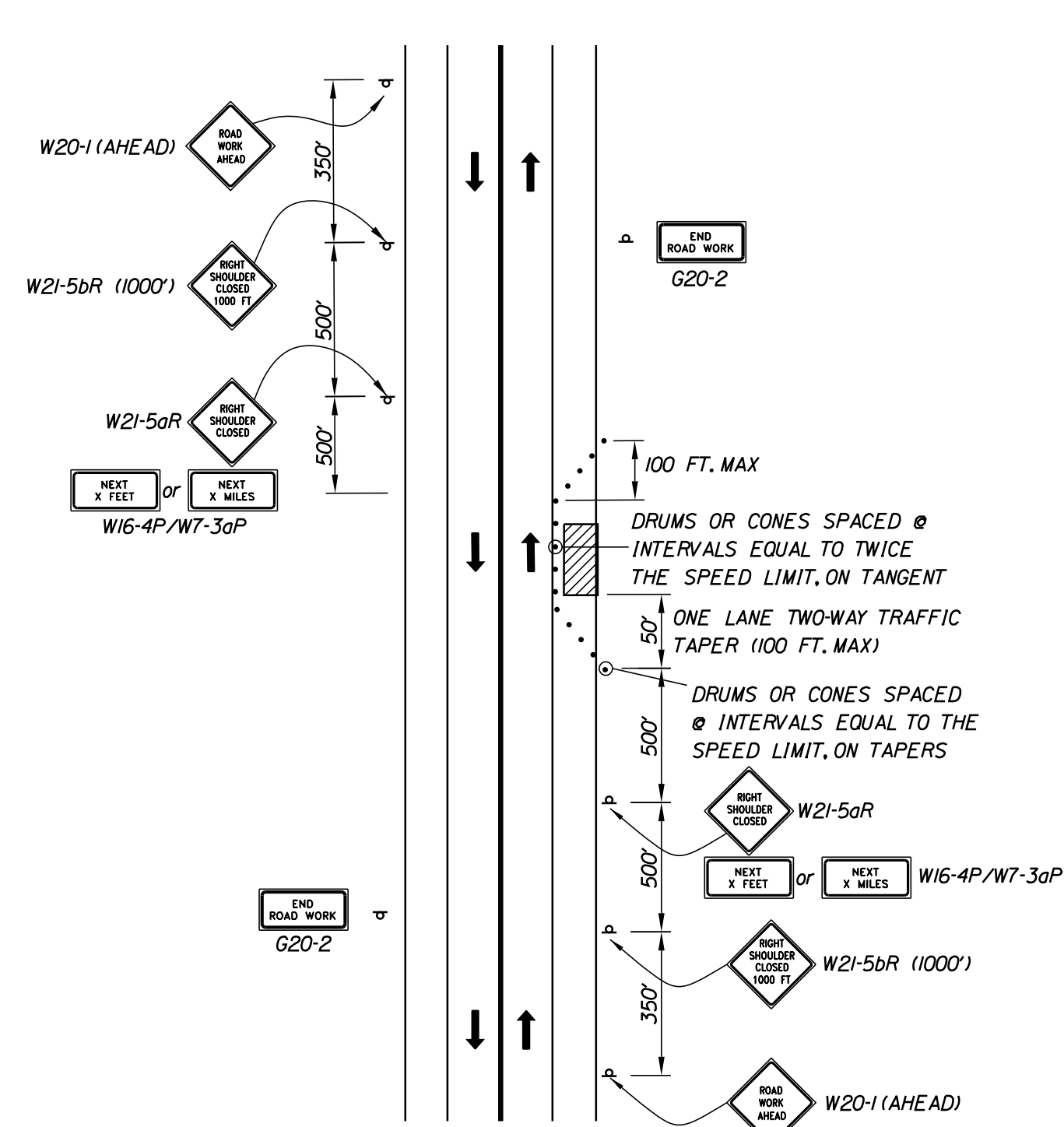
1. THE W20-1 AND G20-2 SIGNS ARE NOT REQUIRED IF THE SHOULDER CLOSURE IS WITHIN A PREVIOUSLY ESTABLISHED WORK ZONE.

2. ONLY ONE SHOULDER CLOSURE PERMITTED PER BOUND AT ONE TIME.



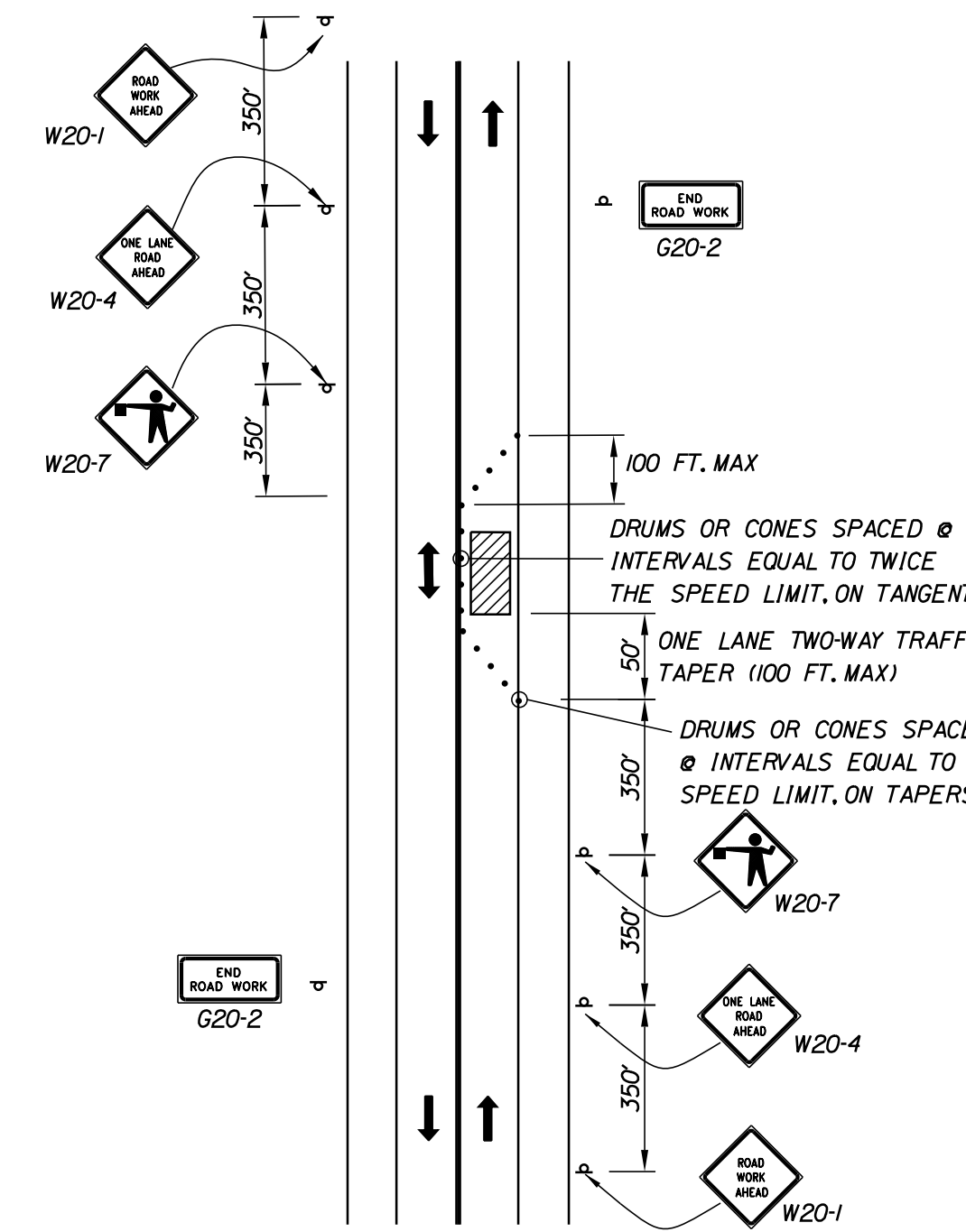
STABILIZED CONSTRUCTION ENTRANCE

1. SIGN G20-2 IS NOT REQUIRED IF ENTRANCE IS WITHIN THE WORK ZONE.



LOCAL ROAD SINGLE SHOULDER CLOSURE

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



LOCAL ROAD SINGLE LANE CLOSURE

NOTES:
1. ROAD WORK AHEAD & END ROAD WORK SIGNS MAY BE OMITTED FOR SHORT DURATION OPERATIONS (LESS THAN 1 HOUR).
2. FLAGGERS SHALL BE LOCATED SO THEY ARE CLEARLY VISIBLE TO APPROACHING DRIVERS.
3. SIGN SPACING ASSUMES LOCAL ROAD SPEED IS 40 MPH OR LESS.

- ABBREVIATIONS FOR ALL M.O.T. PLANS
- BWLL = BROKEN WHITE LANE LINE
 - SWEL = SOLID WHITE LANE LINE
 - SYEL = SOLID YELLOW LANE LINE
 - TBWLL = TEMPORARY BROKEN WHITE LANE LINE
 - TDWEL = TEMPORARY DOTTED WHITE EDGE LINE
 - TSWEL = TEMPORARY SOLID WHITE EDGE LINE
 - TSWLL = TEMPORARY SOLID WHITE LANE LINE
 - TSYCL = TEMPORARY SOLID YELLOW CENTER LINE

- TEMPORARY RUMBLE STRIP NOTES
- IF RUMBLE STRIPS ARE USED THEY SHALL BE PLACED IN ONE OF THE FOLLOWING CONFIGURATIONS:
 - ADJACENT TO THE WORK ZONE (1 UNIT)
 - UPSTREAM FROM THE TAPER FOR THE WORKZONE (2 UNITS)
 - BOTH ADJACENT TO THE WORKZONE AND PRIOR TO THE TAPER (3 UNITS)
 - RUMBLE STRIPS MAY BE PLACED UPSTREAM OF THE TAPER BETWEEN THE W3-5 SIGNS AND THE W4-2 SIGNS. IF RUMBLE STRIPS ARE INSTALLED PRIOR TO TAPER, W8-1 SIGNS SHALL BE PLACED ADJACENT TO THE FIRST STRIP AND THE W8-24a SIGNS SHALL BE MOVED TO 400' AFTER THE W20-5 SIGNS.

NOTE:
FOR GENERAL MAINTENANCE OF TRAFFIC NOTES, SEE SHEET, "GENERAL NOTES."

Scale: NOT TO SCALE			
No.	Revision	By	Date

Designed by: **TYLIN INTERNATIONAL**

CONSULTANT PROJECT MANAGER: Daniel S. Myers

By	Date	By	Date
Designed	TWA 8/2020	Checked	SRD 8/2020
Drawn	TWA 8/2020	In Charge of	DSM 03/2021

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

TRAFFIC CONTROL DETAILS

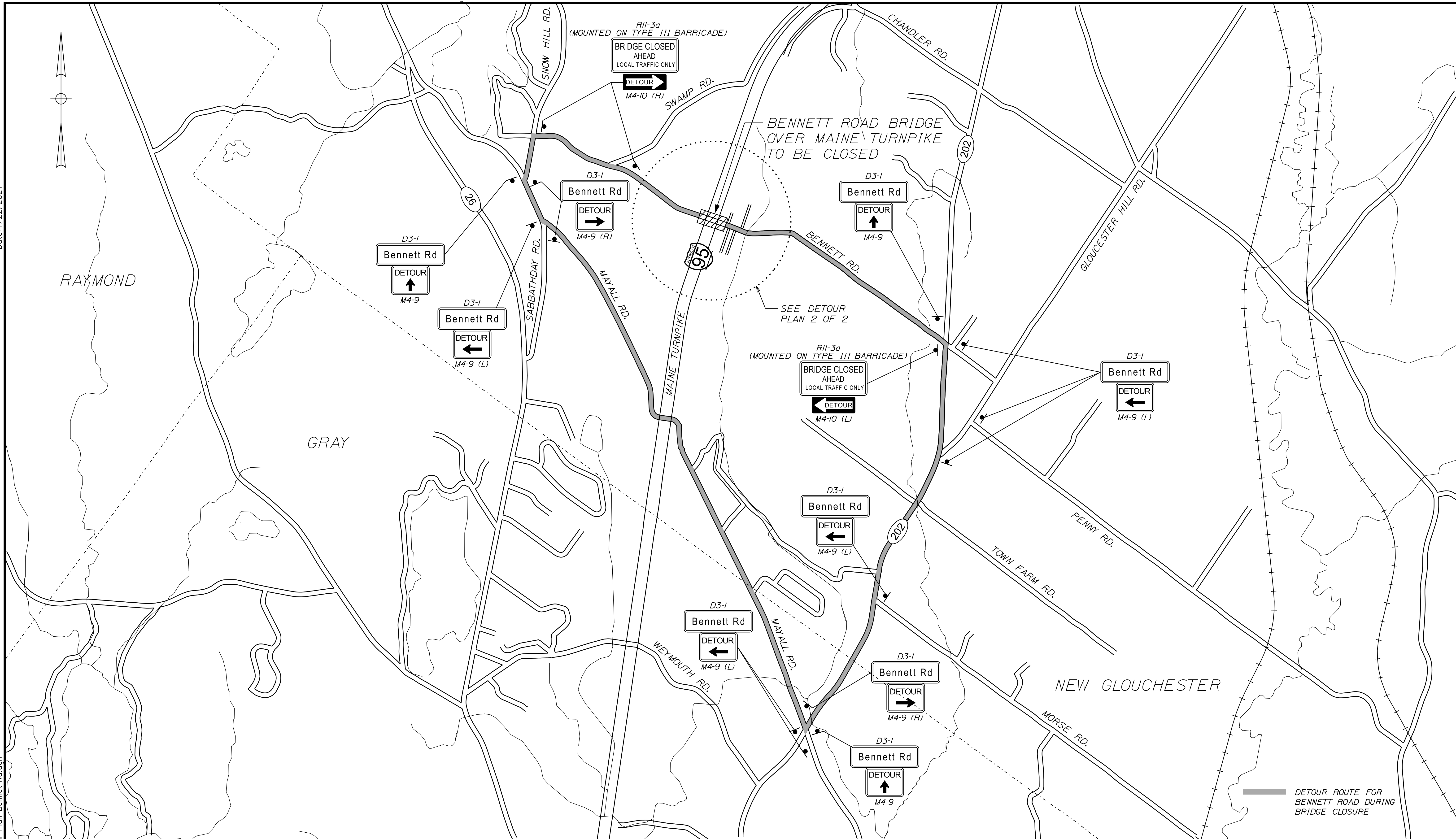
SHEET NUMBER: MT-01

CONTRACT: 2021.03

5 OF 51

Date: 4/22/2021

Filename: ...\\001-MOT_Detour_Plan_Bennet.Rd.dgn



Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date	By	Date
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

BENNETT ROAD UNDERPASS (MILE 68.6)

DETOUR PLAN 1 OF 2

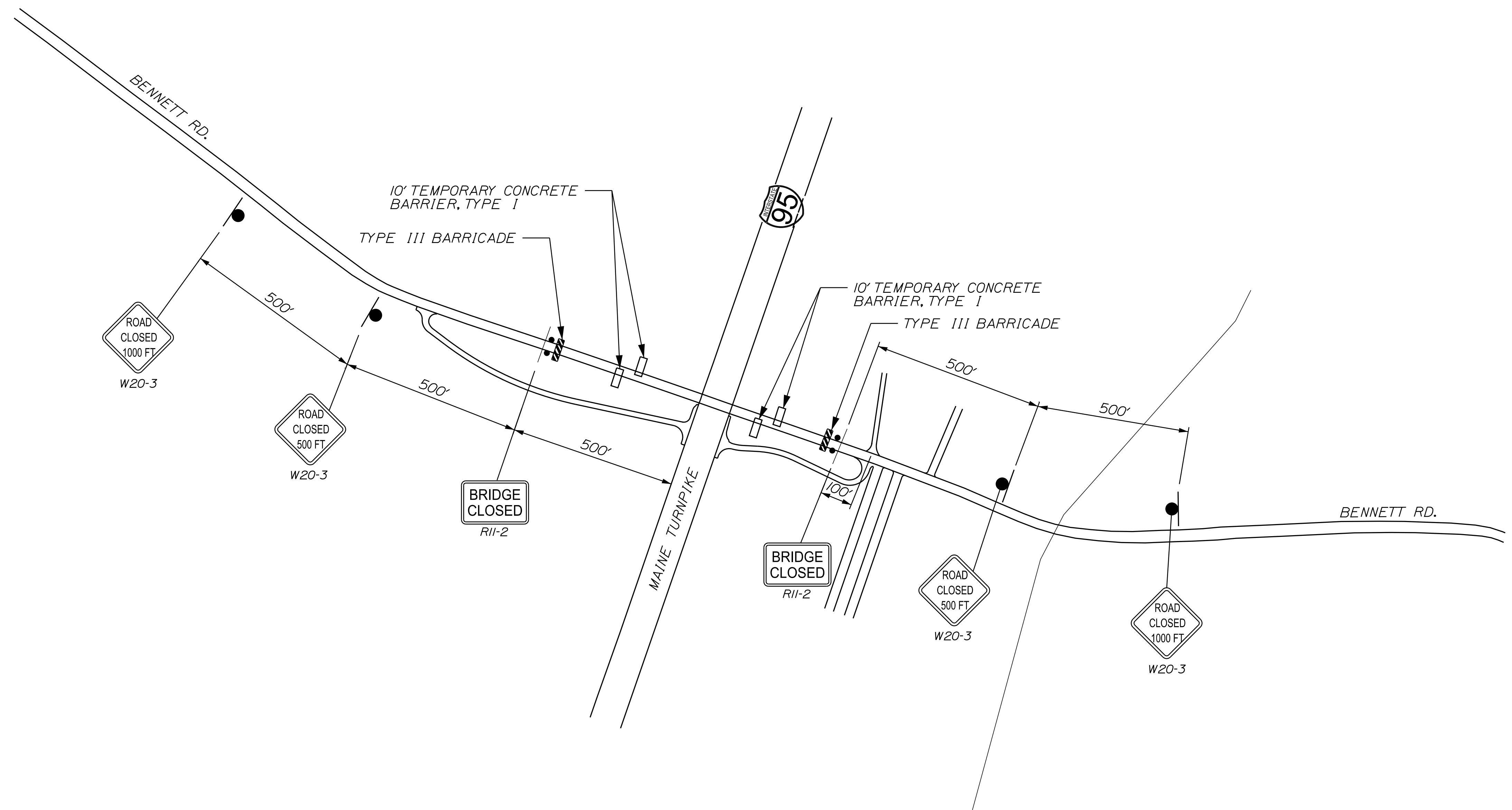
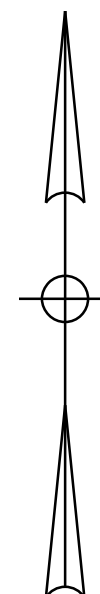
SHEET NUMBER: BR-01

CONTRACT: 2021.03

6 OF 51

Date: 4/22/2021

Filename: ... \002-MOT_Detour Plan Bennet Rd.dgn



Scale:

No.	Revision	By	Date

Designed by:

TY-LIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date	Checked	By	Date
Designed	TWA	8/2020	SRD	SRD	8/2020
Drawn	TWA	8/2020	In Charge of	DSM	03/2021

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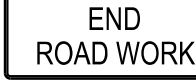








THE GOLD STAR MEMORIAL HIGHWAY



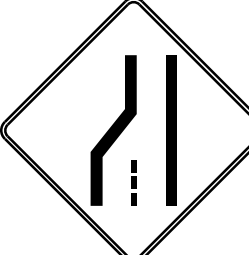





MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS
 BENNETT ROAD UNDERPASS (MILE 68.6)
 DETOUR PLAN 2 OF 2

SHEET NUMBER: BR-02
 CONTRACT: 2021.03
 7 OF 51

Date: 4/22/2021

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"		6" 6" 6"	4" 4"		4	ORANGE	BLACK		16.00 (64)	
D3-1	48"	12"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2009 & 2012 SUPPLEMENT			13	ORANGE	BLACK		4.00 (52)	
G20-2	36"	24"					4	ORANGE	BLACK		6.00 (24)	
G20-5aP	48"	24"					4	ORANGE	BLACK		8.00 (32)	
M4-9 (THRU) (LEFT) (RIGHT)	30"	24"					3 6 3	ORANGE	BLACK		5.00 (15) (30) (15)	
M4-10 (LEFT) (RIGHT)	48"	18"					1 2	ORANGE	BLACK		6.00 (6) (12)	
R2-1	48"	60"					4	WHITE	BLACK		20.00 (80)	
R2-6aP	36"	24"					4	WHITE	BLACK		6.00 (24)	
R2-12	36"	54"					4	WHITE	BLACK		13.50 (54)	
R11-2	48"	30"					2	WHITE	BLACK		10.00 (20)	MOUNTED TO TYPE 111 BARRICADE
R11-3a	60"	30"					3	WHITE	BLACK		12.50 (37.5)	MOUNTED TO TYPE 111 BARRICADE

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			
W3-4	48"	48"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2009			4	ORANGE	BLACK		16.00 (64)	
W3-5	48"	48"					4	ORANGE	BLACK		16.00 (64)	
W4-2 (LEFT) (RIGHT)	48"	48"					4 4	ORANGE	BLACK		16.00 (64) (64)	
W8-1	48"	48"					4	ORANGE	BLACK		16.00 (64)	
W8-24A	48"	48"					4	ORANGE	BLACK		16.00 (64)	
W20-1 (1 MILE)	48"	48"					4	ORANGE	BLACK		16.00 (64)	
W20-3 (1000') (500')	36"	36"					2 2	ORANGE	BLACK		9.00 (18) (18)	
W20-5 (LEFT) (RIGHT)	48"	48"					4 4	ORANGE	BLACK		16.00 (64) (64)	

Filename: ...XXX_MOT_Sign_Sum_Bennett.dgn

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date		By	Date
Designed	TWA	8/2020	Checked	BLT	11/2020
Drawn	TWA	8/2020	In Charge of	DSM	03/2021

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

BENNETT ROAD UNDERPASS (MILE 68.6)
 MAINTENANCE OF TRAFFIC SIGN SUMMARY

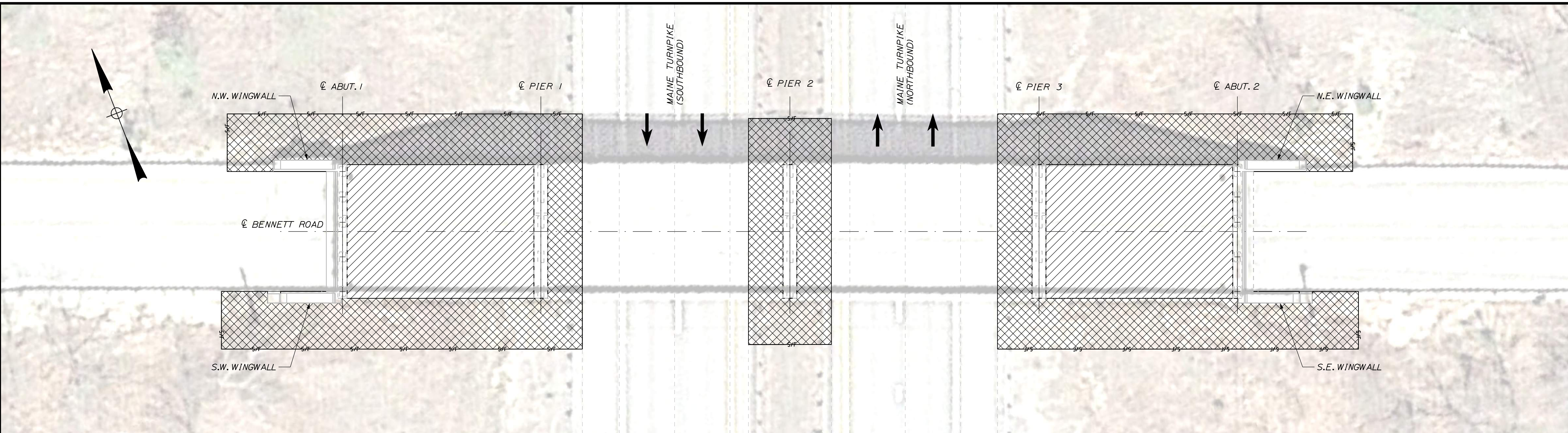
SHEET NUMBER: BR-03

CONTRACT: 2021.03

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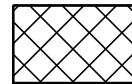
Date: 4/22/2021

Filename: ...XXX_MM_68.6_Limit_of_Disturbance.DGN



LIMIT OF DISTURBANCE PLAN - BENNETT ROAD

LEGEND:

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

AREAS:

- CONTRACT LIMIT OF DISTURBANCE:
BENNETT ROAD = 0.06 ACRES
- CONTRACTOR'S LIMIT OF DISTURBANCE AREA FOR ACCESS AND STORAGE:
BENNETT ROAD = 0.15 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. SEE SPECIFICATIONS FOR CONTRACTOR'S SUBMITTAL REQUIREMENTS IF INCREASING THE LIMITS OF DISTURBANCE ABOVE THE PROJECT ESTIMATED QUANTITIES.
3. THE CONTRACTOR WILL BE ALLOWED TO UTILIZE THE EMERGENCY VEHICLE RAMPS ADJACENT TO THE STRUCTURE, WHICH CONNECT THE MAINE TURNPIKE WITH BENNETT ROAD, FOR ACCESS DURING CONSTRUCTION ACTIVITIES. CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING GATE ACCESS WITH THE RESIDENT.
4. EMERGENCY VEHICLE RAMPS SHALL REMAIN CLEAR AT ALL TIMES. CONTRACTOR SHALL ALLOW EMERGENCY OR MAINE TURNPIKE AUTHORITY VEHICLES UNRESTRICTED USE OF THE EMERGENCY VEHICLE RAMPS FOR THE DURATION OF THE CONSTRUCTION ACTIVITIES.

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date	Checked	By	Date
Designed	DSM	8/2020	BLT	BLT	11/2020
Drawn	DSM	8/2020	In Charge of	DSM	03/2021

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THE GOLD STAR MEMORIAL HIGHWAY

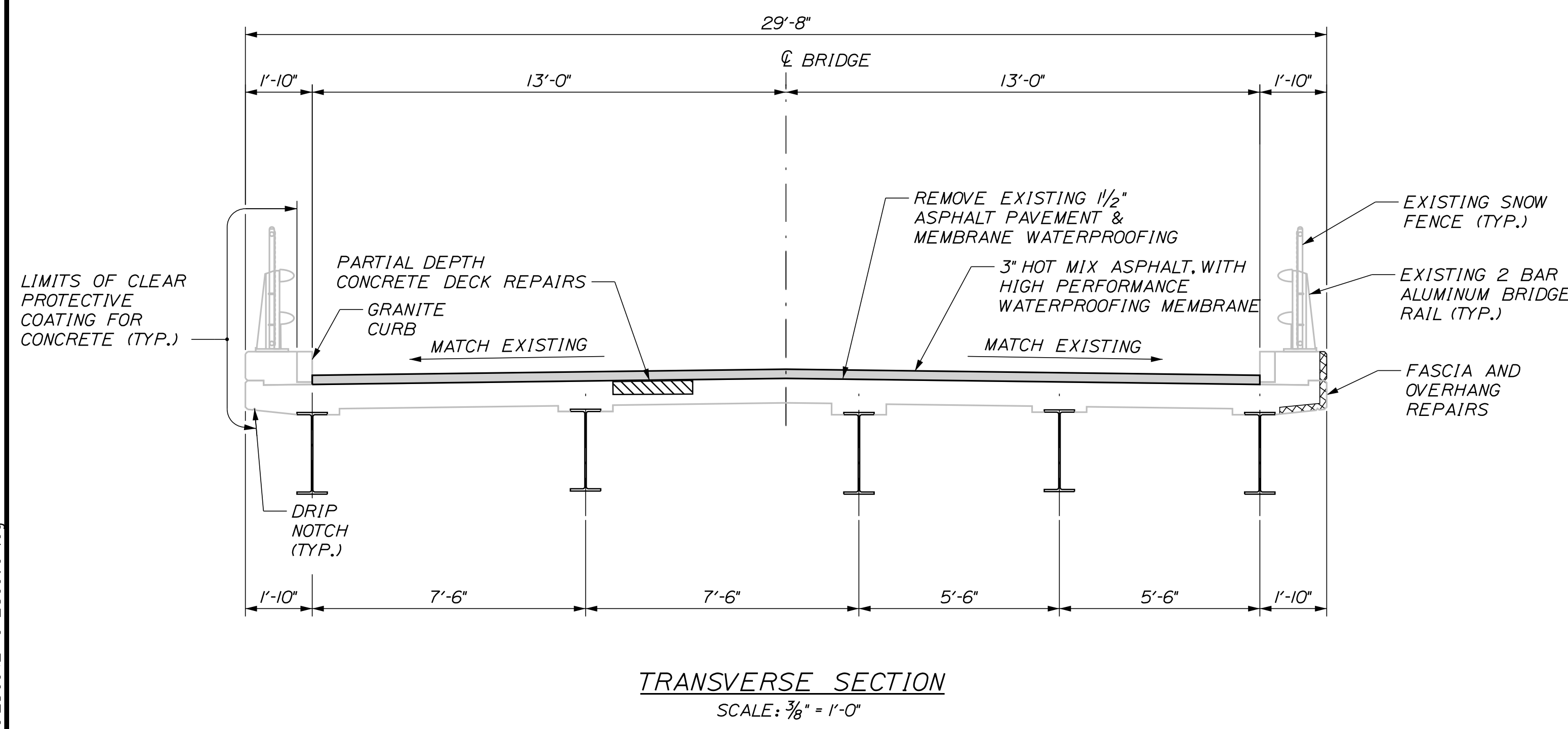
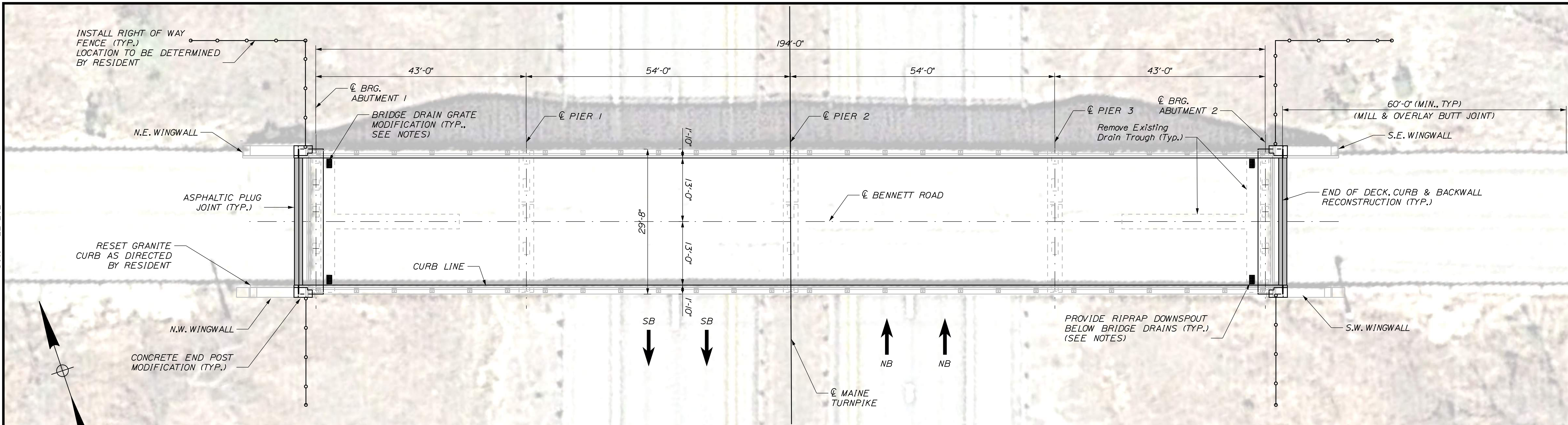
MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS
 BENNETT ROAD UNDERPASS (MILE 68.6)
 LIMIT OF DISTURBANCE

SHEET NUMBER: BR-04
 CONTRACT: 2021.03
 9 OF 51

Date: 4/22/2021

Filename: ...XXX_MM_68.6_Typical_Deck_Plan_Section.dgn



DECK PLAN
SCALE: 1" = 10'

LEGEND:

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

BENNETT ROAD ESTIMATED SUPERSTRUCTURE REPAIR QUANTITIES		
FULL DEPTH CONCRETE DECK REPAIRS (S.F.)	PARTIAL DEPTH CONCRETE DECK REPAIRS (S.F.)	FASCIA AND OVERHANG REPAIRS (S.F.)
0 S.F.	55 S.F.	25 S.F.

NOTES:

1. CONTRACTOR SHALL REPAIR AREAS OF CONCRETE DECK DETERIORATION AS IDENTIFIED BY THE RESIDENT. RESIDENT WILL IDENTIFY AND MARK AREAS FOR DECK REPAIR AFTER THE WEARING SURFACE AND MEMBRANE ARE REMOVED. CONTRACTOR SHALL ALSO REPAIR DETERIORATED AREAS OF FASCIA, FASCIA OVERHANGS, AND PARAPET JOINTS. COORDINATE WORK WITH THE RESIDENT. PAYMENT FOR REPAIR WORK SHALL BE UNDER THE 518 PAY ITEMS.
2. ALL PVC DECK WEEPS WHICH DRAIN TO PIERS, ABUTMENTS OR STRUCTURAL STEEL SHALL BE EXTENDED AND DIVERTED AWAY FROM BRIDGE COMPONENTS BELOW DECK, AND SHALL EXTEND 1 FT BELOW BOTTOM FLANGE, AS DIRECTED BY THE RESIDENT. PAYMENT SHALL BE MADE UNDER ITEM 502.7011, "WEEP DRAIN EXTENSIONS." SEE DETAIL SHEET "MISCELLANEOUS DETAILS SHEET 1 OF 2."
3. FOR WORK REQUIRED AT RIPRAP DOWNSPOUTS, SEE SHEET "MISCELLANEOUS DETAILS SHEET 2 OF 2."
4. A BEAD OF HOT-APPLIED RUBBERIZED ASPHALT SEALER SHALL BE APPLIED ALONG CURB LINES AFTER INSTALLATION OF BASE COURSE. PAYMENT SHALL NOT BE MADE DIRECTLY BUT SHALL BE CONSIDERED INCIDENTAL TO RELATED CONTRACT ITEMS.
5. REPAIR EROSION AROUND DRAINAGE TROUGHS AND SLOPES BETWEEN ABUTMENTS AND MAINE TURNPIKE.
6. ALL DISTURBED SLOPES BENEATH THE BRIDGE THAT ARE UNLIKELY TO GROW SIGNIFICANT VEGETATION DUE TO SHADE SHALL BE COVERED WITH EROSION CONTROL MIX AS DIRECTED BY THE RESIDENT. PAYMENT WILL BE PAID FOR UNDER ITEM 202.191, "REMOVING EXISTING DRAIN TROUGHS".
7. MODIFY BRIDGE DRAIN GRATE AND EXTEND DOWNSPOUTS. FOR BRIDGE DRAIN GRATE MODIFICATION NOTES AND DETAILS, SEE SHEET "MISCELLANEOUS DETAILS SHEET 1 OF 2."

Scale: AS NOTED			
No.	Revision	By	Date

Designed by:
TYLIN INTERNATIONAL
 CONSULTANT PROJECT MANAGER: Daniel S. Myers

Designed	JUL	3/2020	Checked	BLT	8/2020
Drawn	JUL	3/2020	In Charge of	DSM	03/2021

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS
 BENNETT ROAD UNDERPASS (MILE 68.6)
 DECK PLAN & SECTION

CONTRACT: 2021.03
 SHEET NUMBER: BR-05
 10 OF 51

Date: 4/22/2021






Filename: ...XXX_MM_68.6_Existing_Substructures.DGN

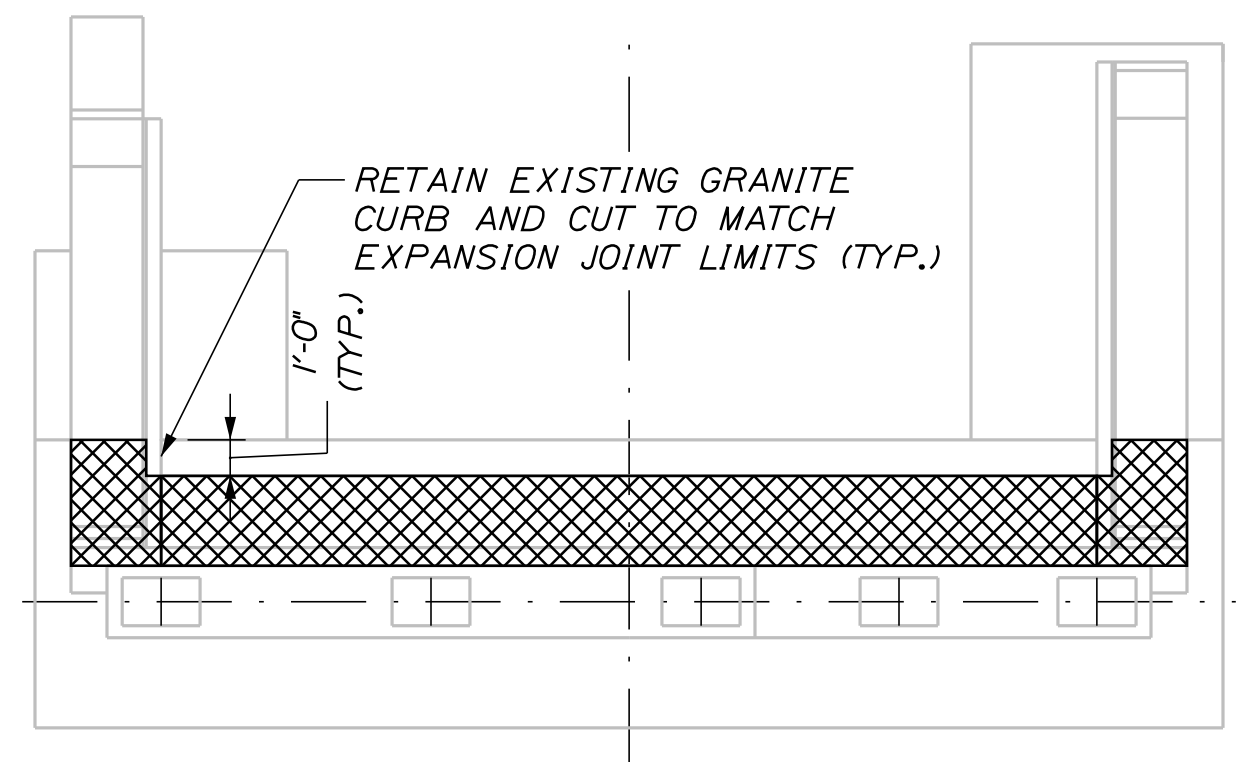
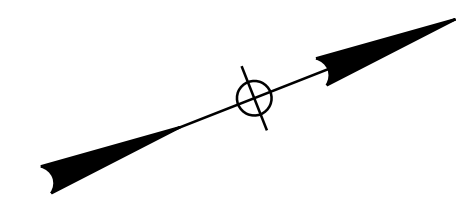
ESTIMATED QUANTITY OF REPAIRS			
	ABUT. NO. 1	ABUT. NO. 2	TOTAL
ABUTMENT REPAIRS	0 SF	4 SF	4 SF

NOTES:

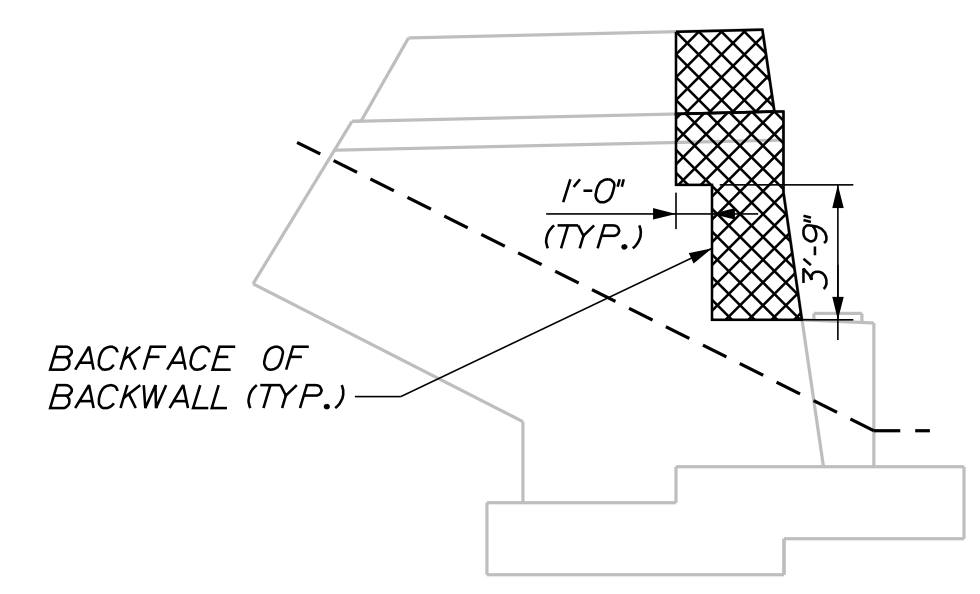
- FOR PROCEDURAL NOTES SEE SHEET "BRIDGE GENERAL NOTES".
- SHOULD CONCRETE REPAIR EXTEND BELOW GRADE, ANY EXCAVATION REQUIRED WILL BE CONSIDERED INCIDENTAL TO ITEM 518.10, "ABUTMENT REPAIRS".
- FOR ADDITIONAL BACKWALL REMOVAL DETAILS AND NOTES, SEE SHEET "BENNETT ROAD UNDERPASS (MILE 68.6) BACKWALL RECONSTRUCTION DETAILS"

LEGEND:

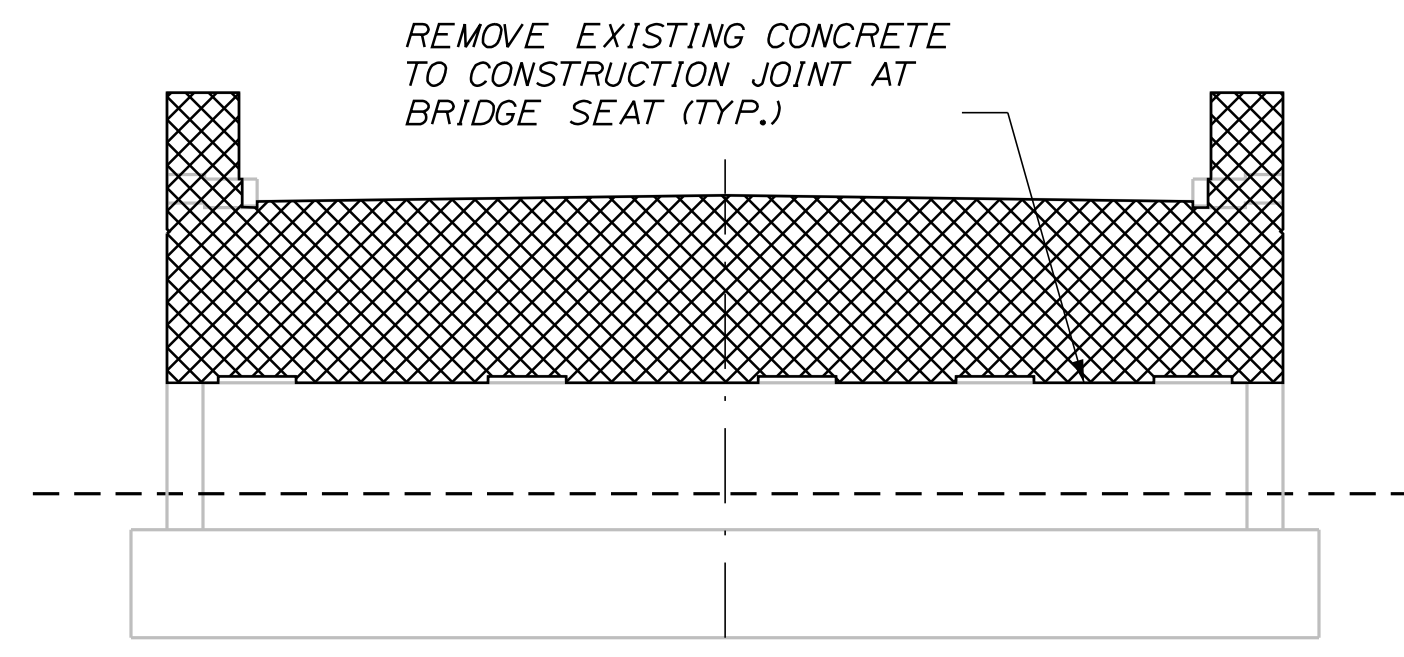
-  LIMIT OF CONCRETE REMOVAL
-  LIMIT OF CONCRETE SURFACE REPAIRS
-  LIMIT OF EPOXY INJECTED CRACK REPAIR
-  EXISTING CONCRETE
-  EXISTING AND PROPOSED GROUND



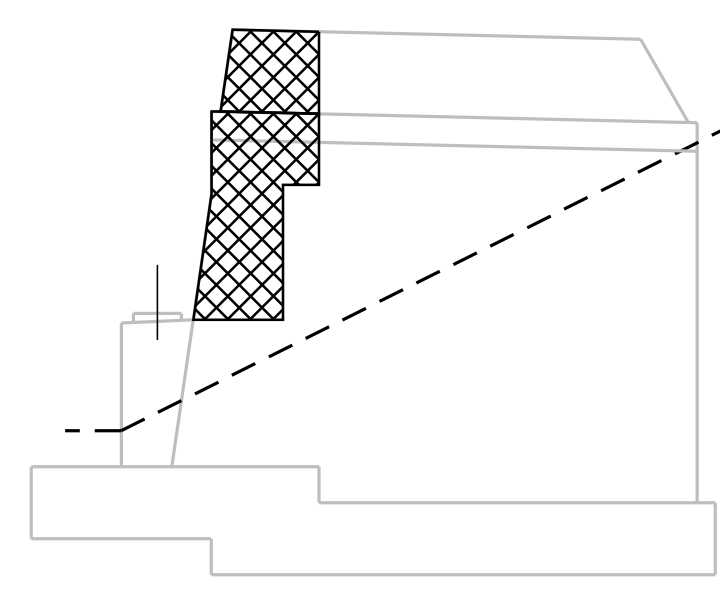
ABUTMENT NO. 1 PLAN



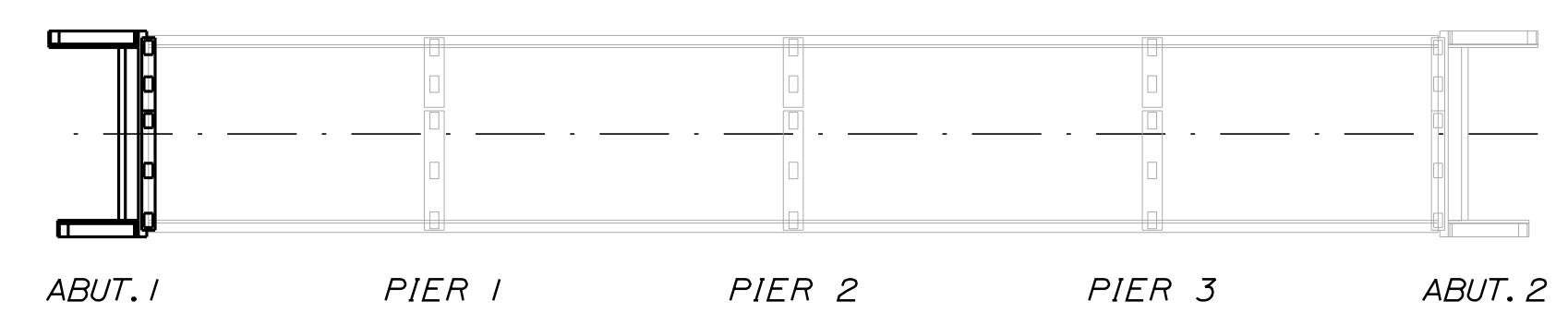
S.W. WINGWALL



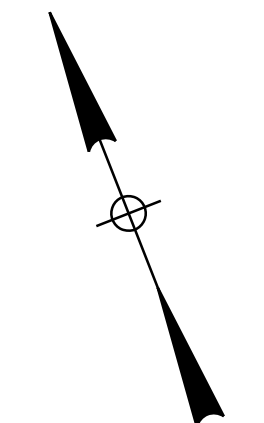
ABUTMENT NO. 1 ELEVATION



N.W. WINGWALL



LOCATION PLAN



Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TY-LIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date	By	Date	
Designed	JJL	3/2020	Checked	BLT	3/2020
Drawn	JJL	3/2020	In Charge of	DSM	03/2021

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 FAX: (207) 781-4753



THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

BENNETT ROAD UNDERPASS (MILE 68.6)
 SUBSTRUCTURE REPAIRS - 1 OF 5

SHEET NUMBER: BR-06
 CONTRACT: 2021.03
 11 OF 51


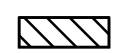


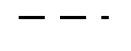
Date: 4/22/2021

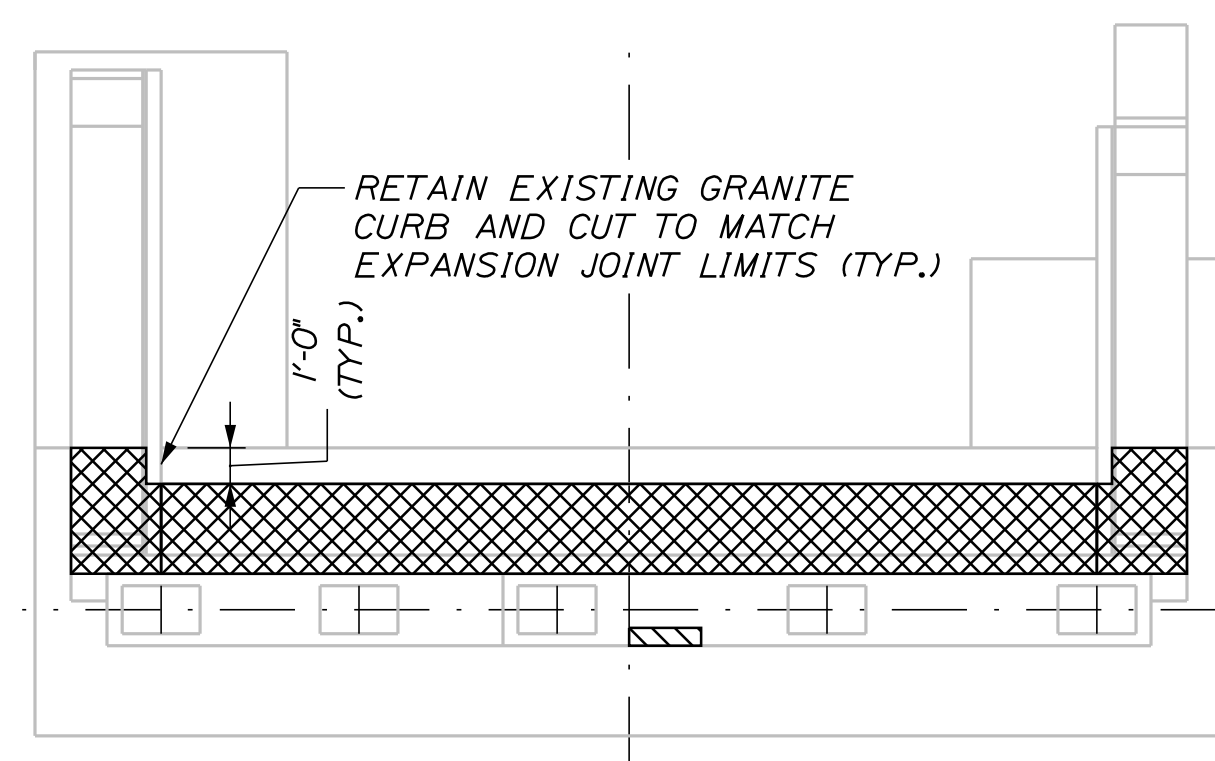
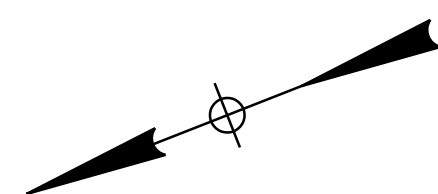
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NOTES:

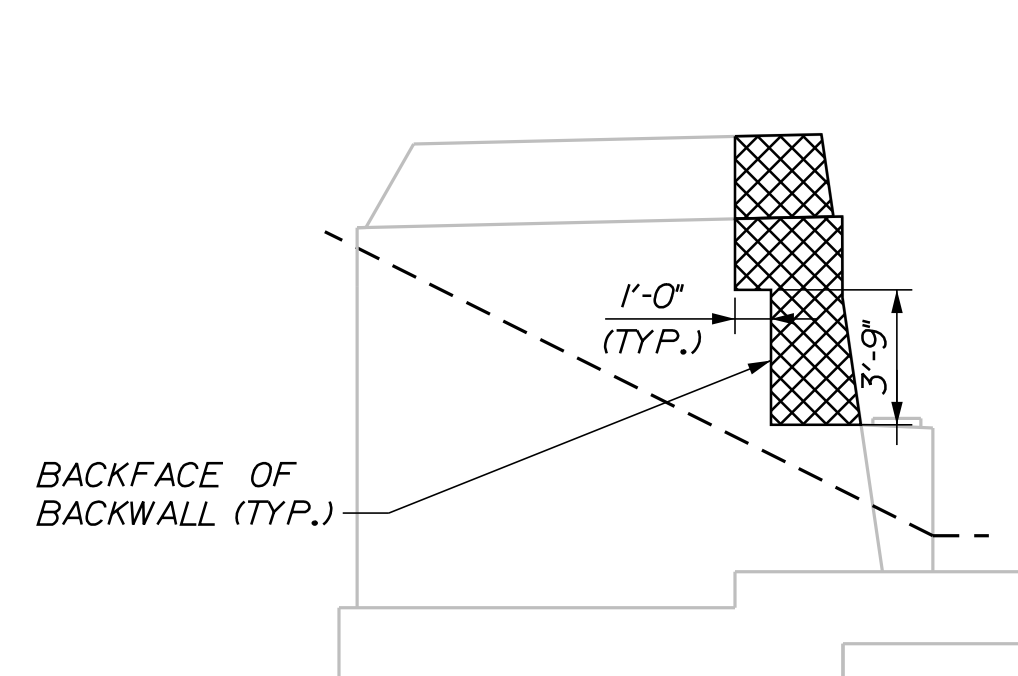
1. FOR PROCEDURAL NOTES SEE SHEET "BRIDGE GENERAL NOTES".
2. SHOULD CONCRETE REPAIR EXTEND BELOW GRADE, ANY EXCAVATION REQUIRED WILL BE CONSIDERED INCIDENTAL TO ITEM 518.10, "ABUTMENT REPAIRS".
3. FOR QUANTITY, SEE SHEET "BENNETT ROAD (MILE 68.6) SUBSTRUCTURE REPAIRS 1 OF 5"

LEGEND:

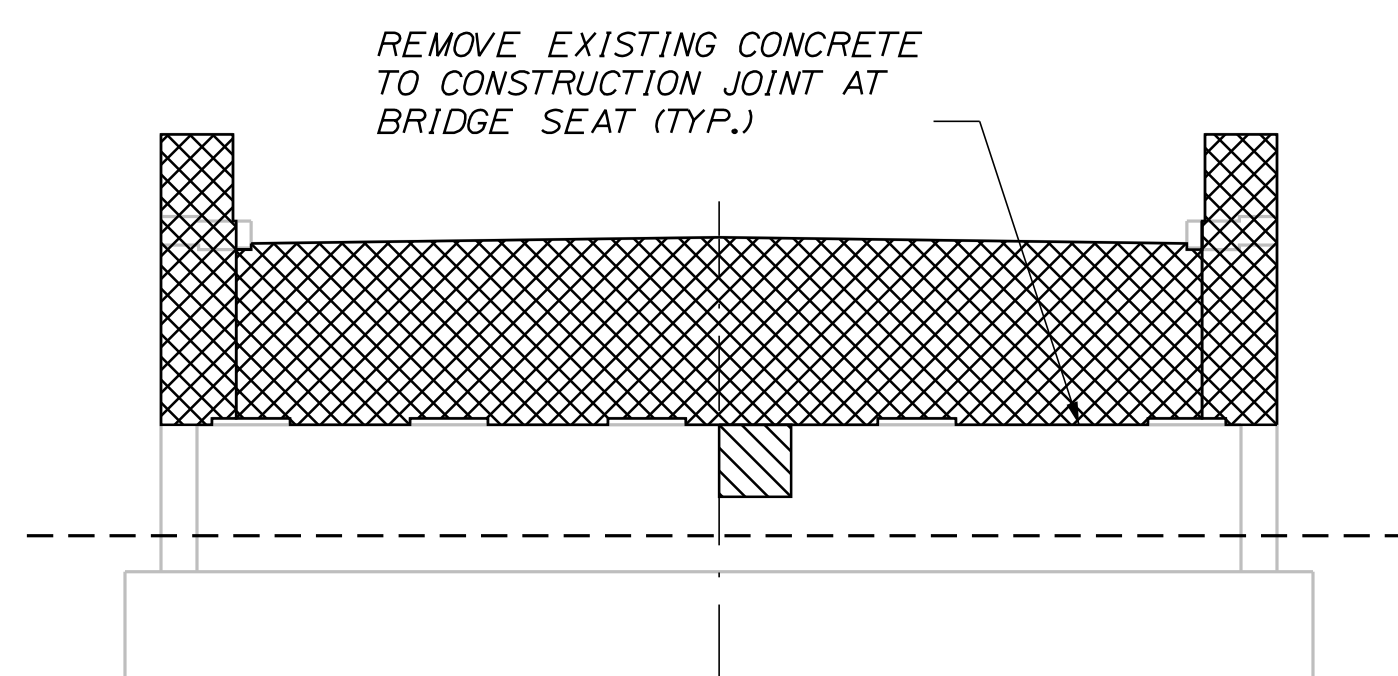
-  LIMIT OF CONCRETE REMOVAL
-  LIMIT OF CONCRETE SURFACE REPAIRS
-  LIMIT OF EPOXY INJECTED CRACK REPAIR
-  EXISTING CONCRETE
-  EXISTING AND PROPOSED GROUND



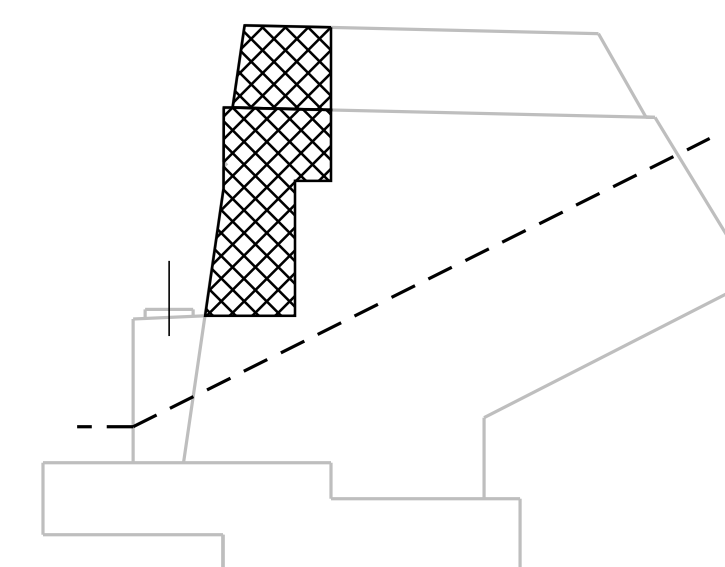
ABUTMENT NO. 2 PLAN



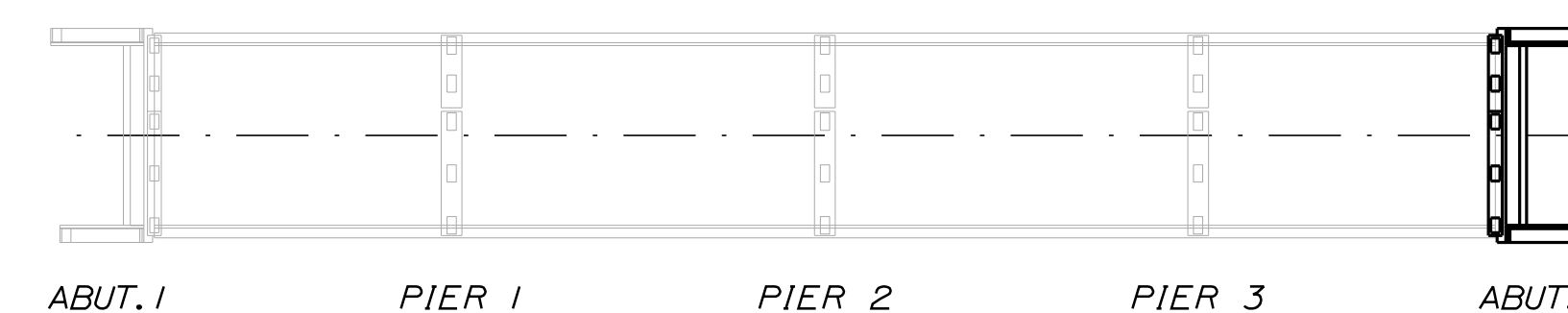
N.E. WINGWALL



ABUTMENT NO. 2 ELEVATION



S.E. WINGWALL



LOCATION PLAN

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Daniel S. Myers					
	By	Date		By	Date
Designed	JJL	3/2020	Checked	BLT	3/2020
Drawn	JJL	3/2020	In Charge of	DSM	03/2021

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THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

BENNETT ROAD UNDERPASS (MILE 68.6)
SUBSTRUCTURE REPAIRS - 2 OF 5

CONTRACT: 2021.03
SHEET NUMBER: BR-07
12 OF 51

Date: 4/22/2021

Filename: ...XXX_MM_68.6_Existing_Substructures.DGN

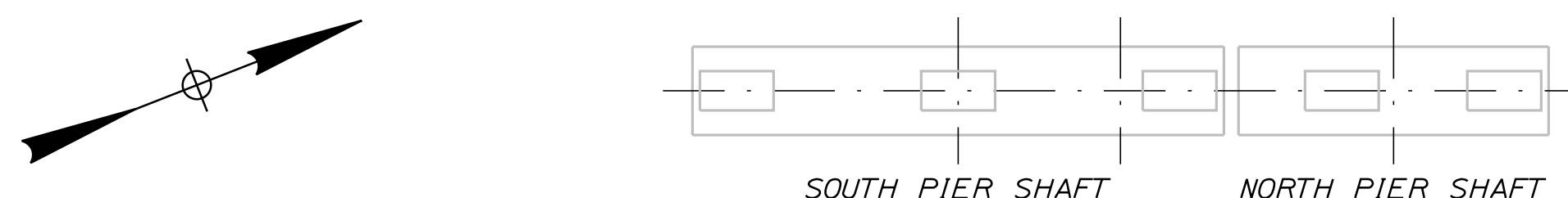
ESTIMATED QUANTITY OF REPAIRS				
	PIER NO. 1	PIER NO. 2	PIER NO. 3	TOTAL
PIER REPAIRS	65 SF	85 SF	45 SF	195 SF

NOTES:

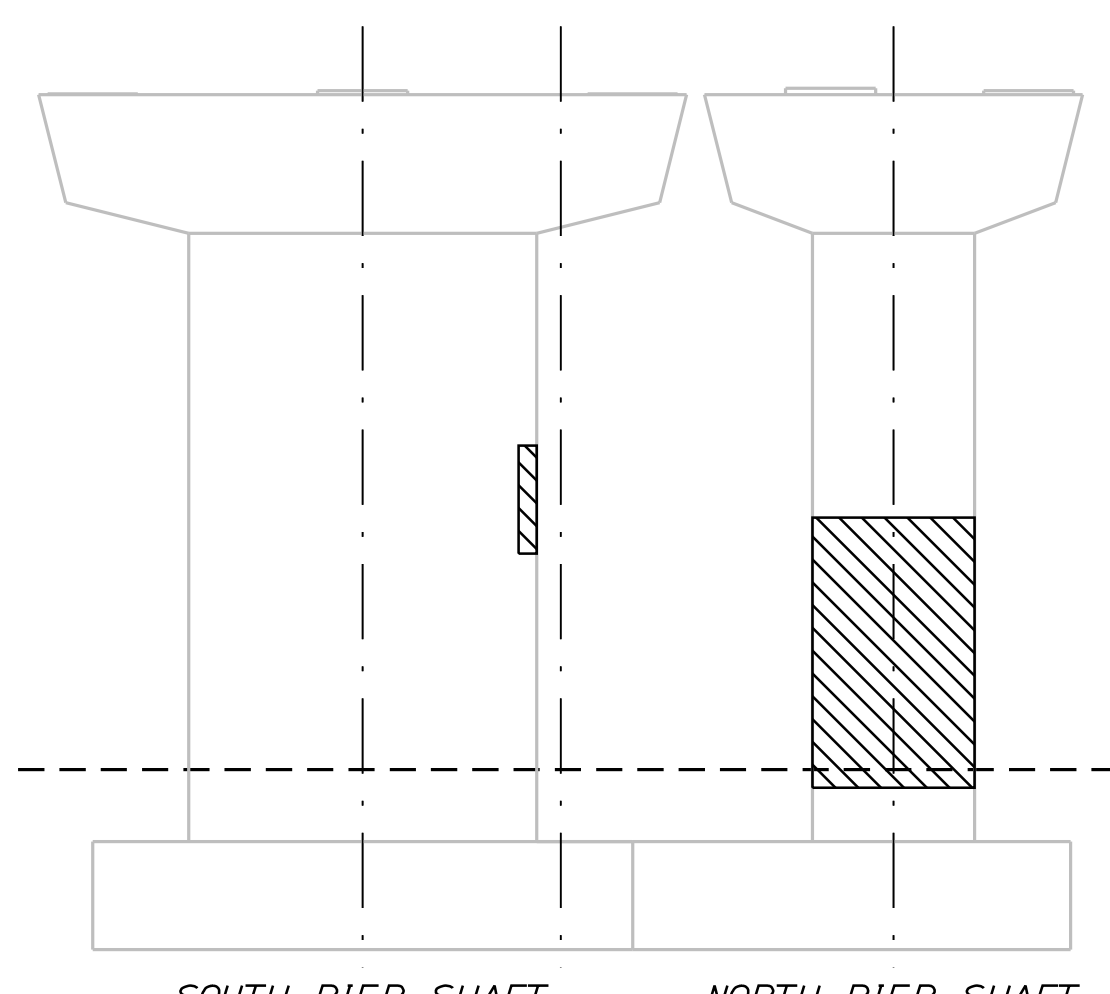
- FOR PROCEDURAL NOTES SEE SHEET "BRIDGE GENERAL NOTES".
- SHOULD CONCRETE REPAIR EXTEND BELOW GRADE, ANY EXCAVATION REQUIRED WILL BE CONSIDERED INCIDENTAL TO ITEM 518.20, "PIER REPAIRS".

LEGEND:

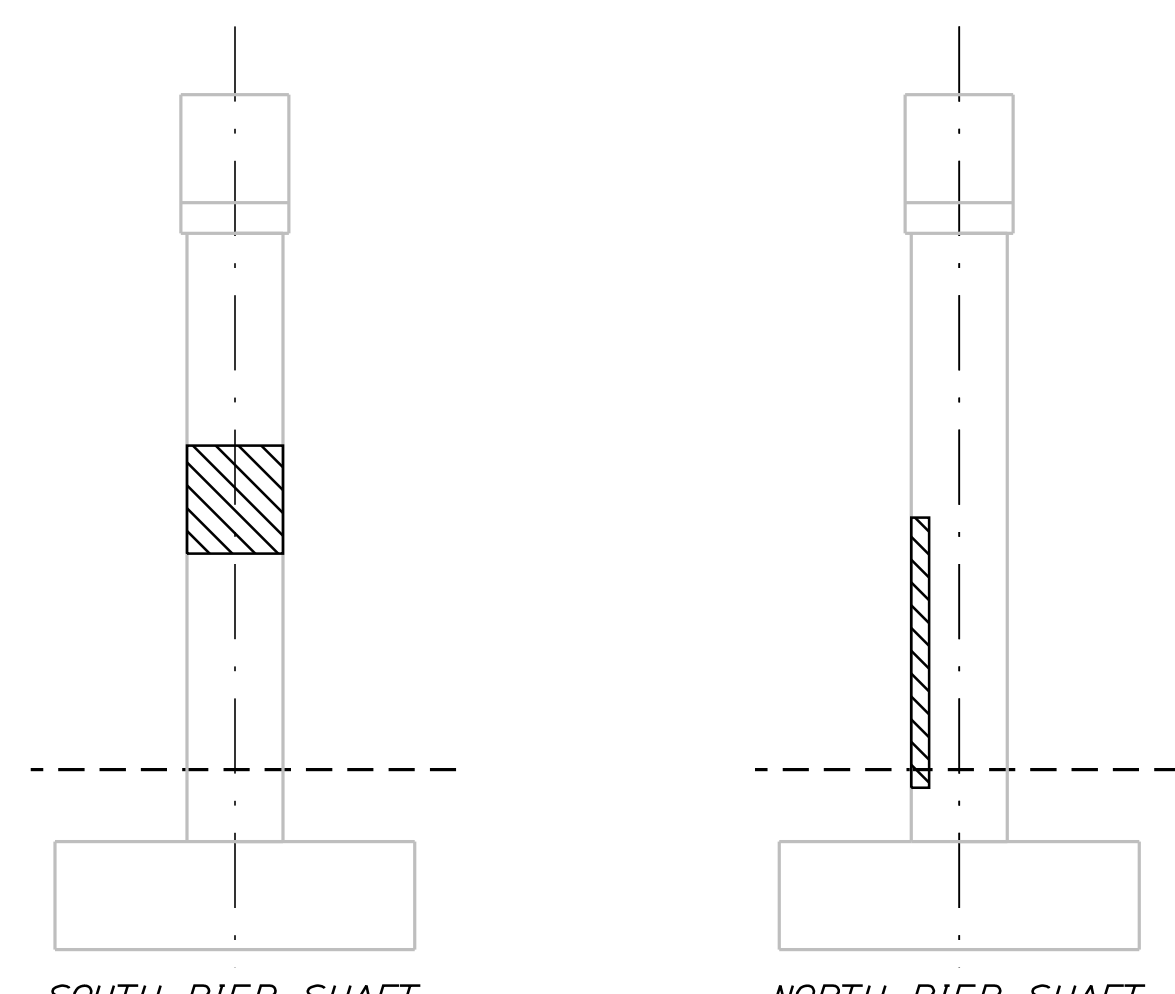
- LIMIT OF CONCRETE SURFACE REPAIRS
- LIMIT OF EPOXY INJECTED CRACK REPAIR
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND



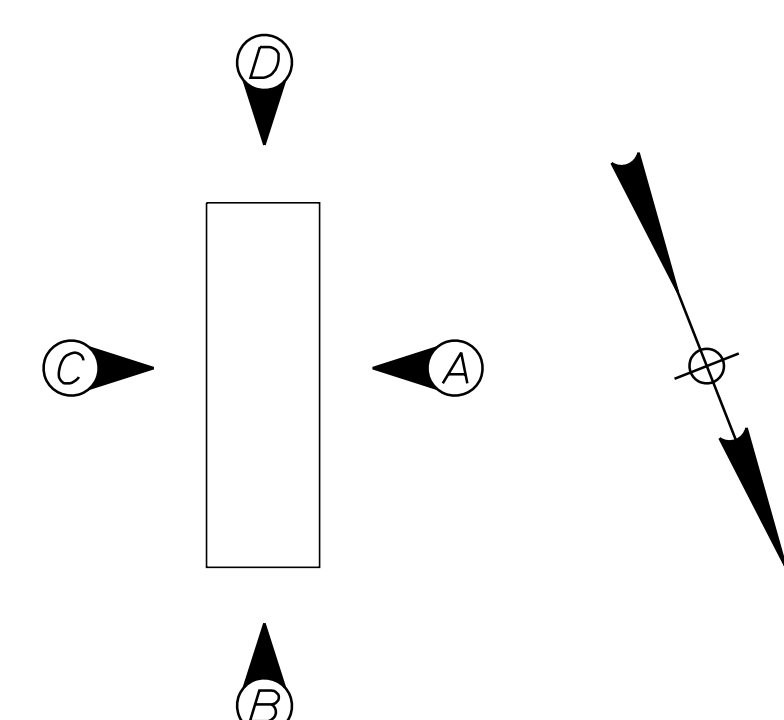
PLAN



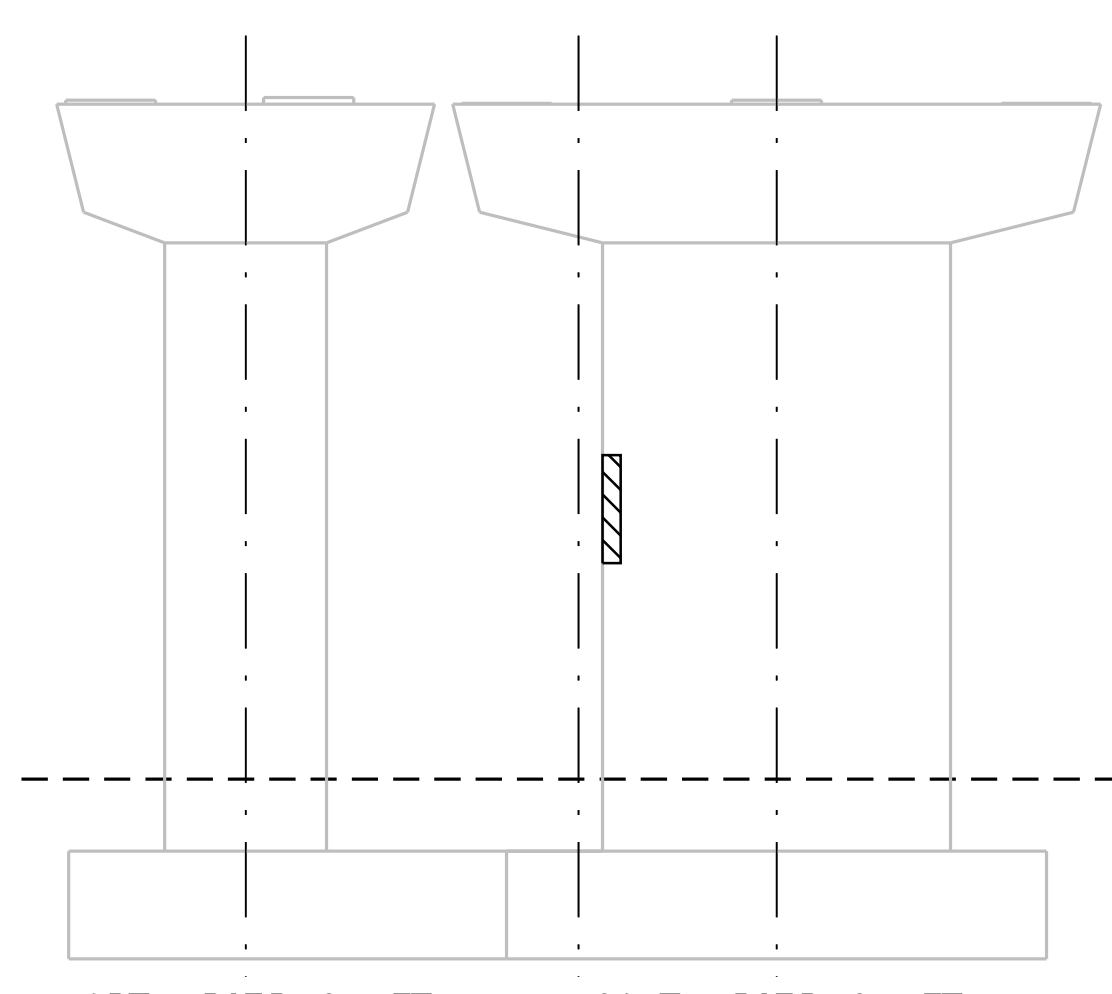
ELEVATION C



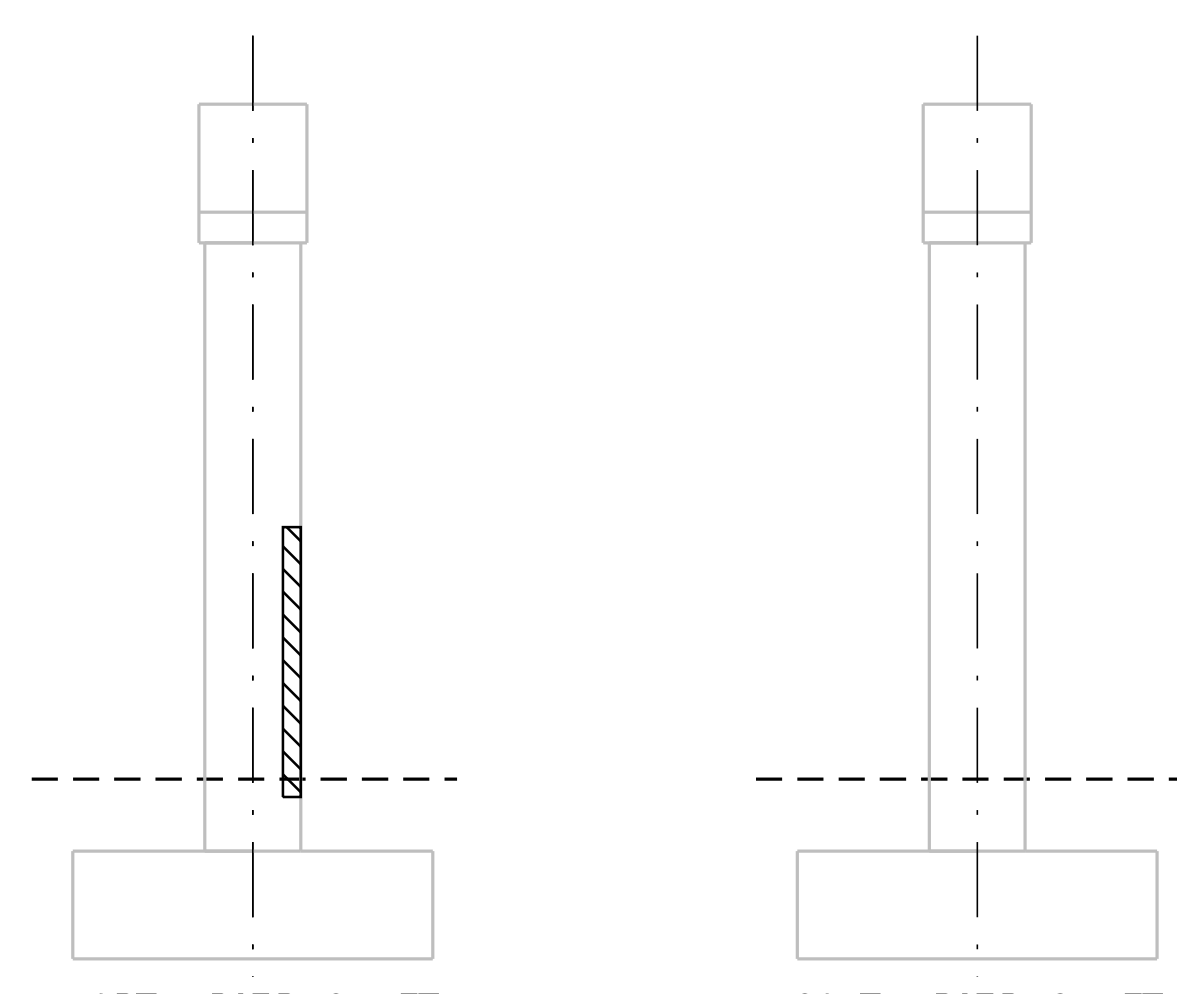
ELEVATION B



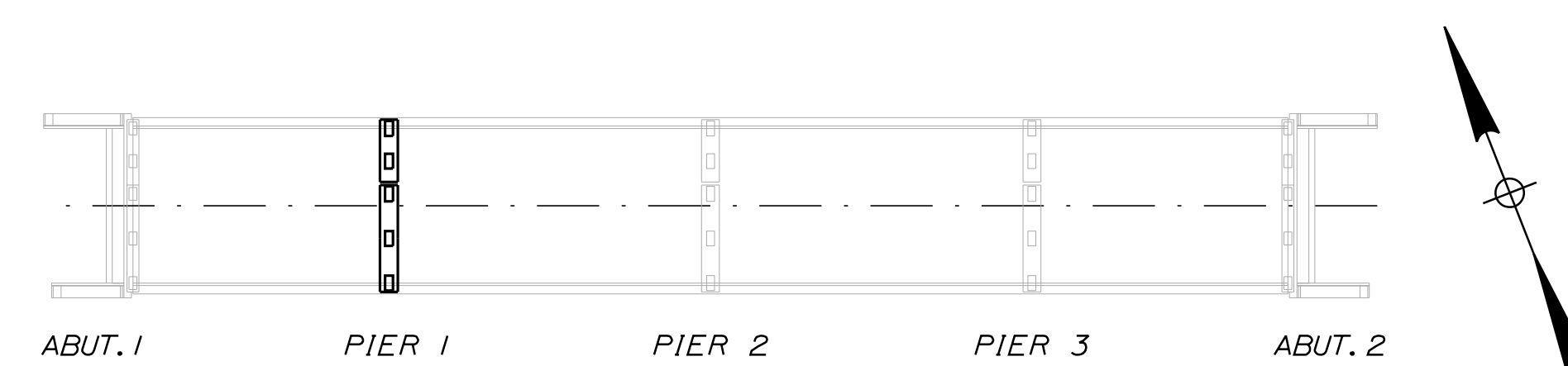
PIER ELEVATIONS



ELEVATION A



ELEVATION D



LOCATION PLAN

PIER 1

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TY-LIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date	By	Date	
Designed	JJL	3/2020	Checked	BLT	3/2020
Drawn	JJL	3/2020	In Charge of	DSM	03/2021

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

BENNETT ROAD UNDERPASS (MILE 68.6)
 SUBSTRUCTURE REPAIRS - 3 OF 5

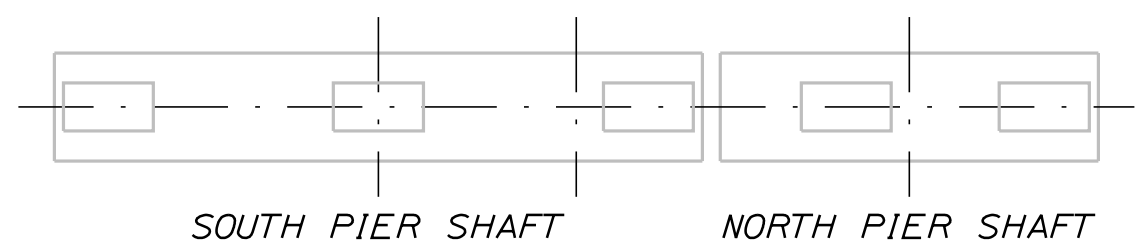
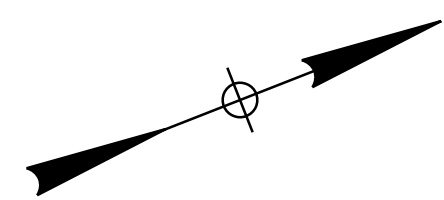
SHEET NUMBER: BR-08

CONTRACT: 2021.03

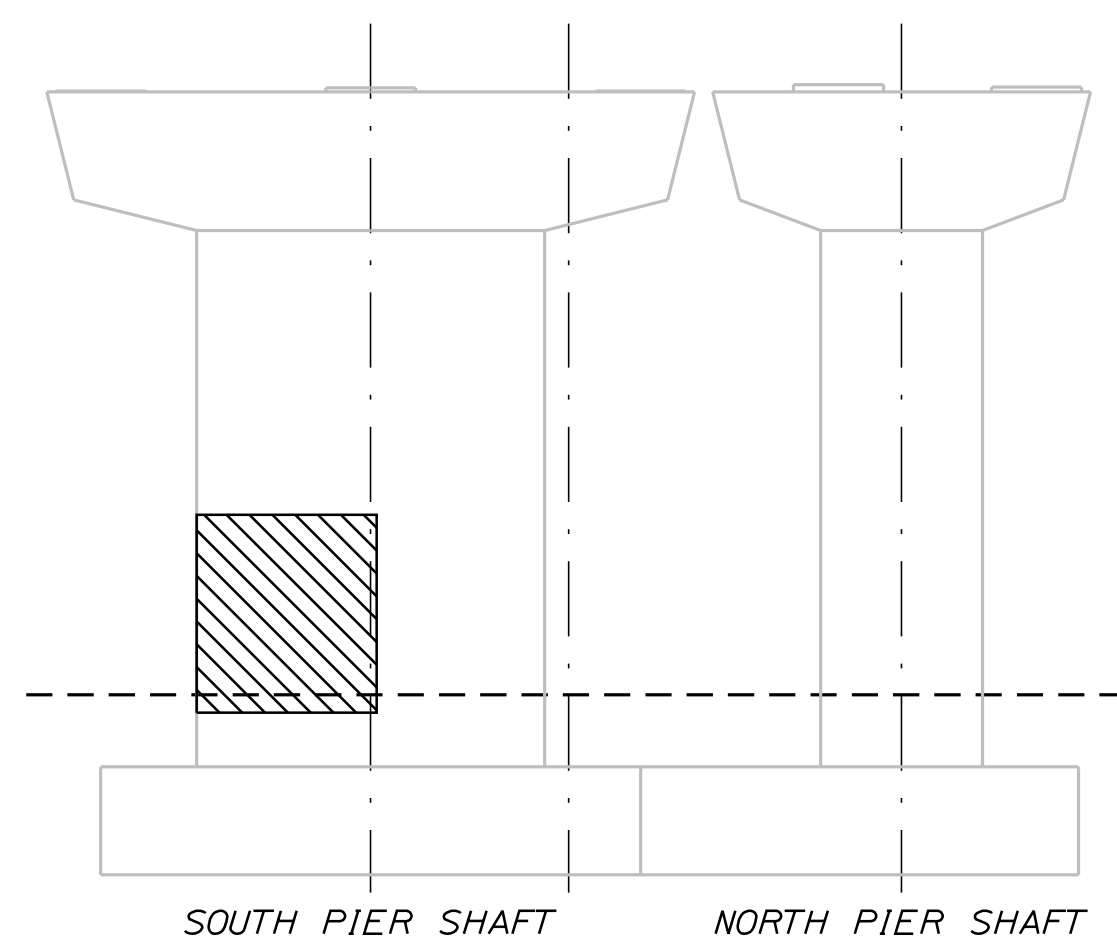
13 OF 51

Date: 4/22/2021

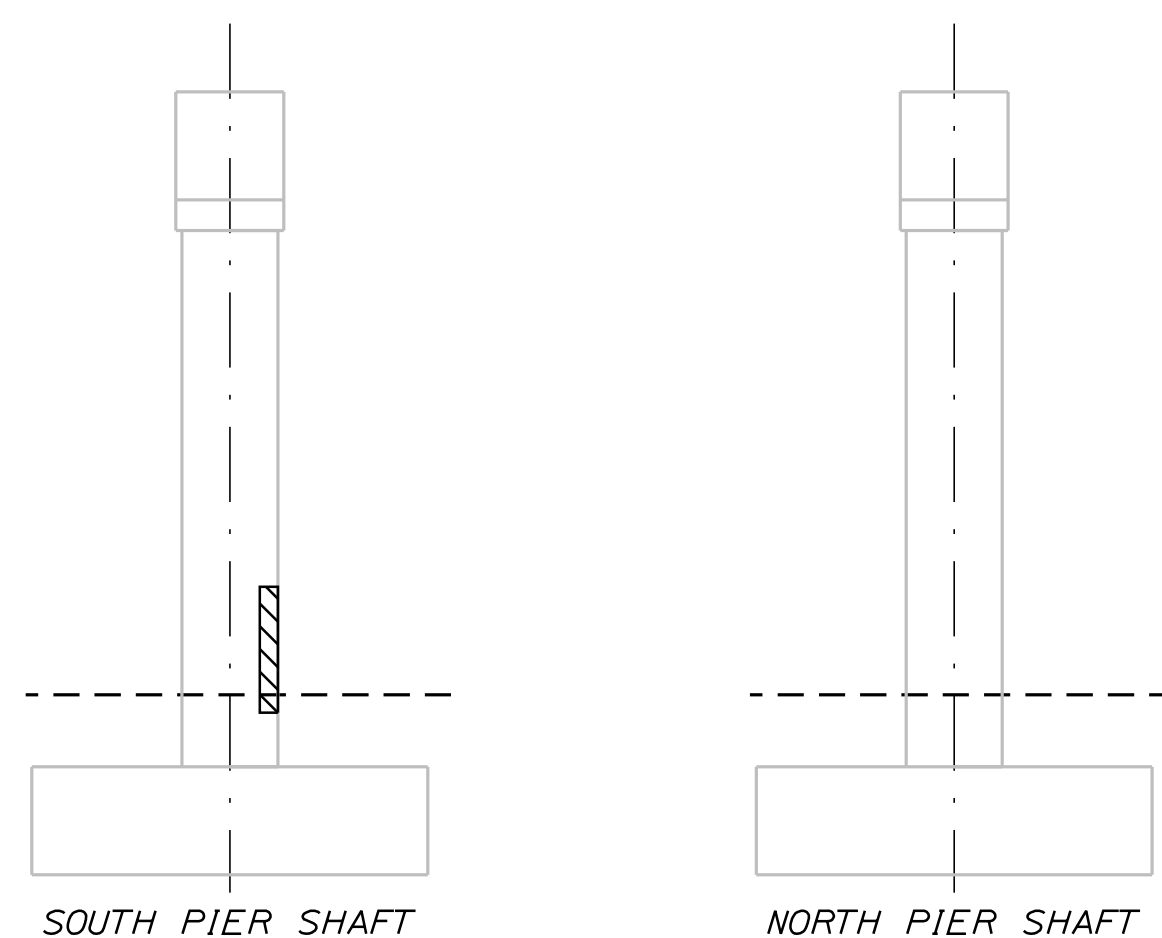
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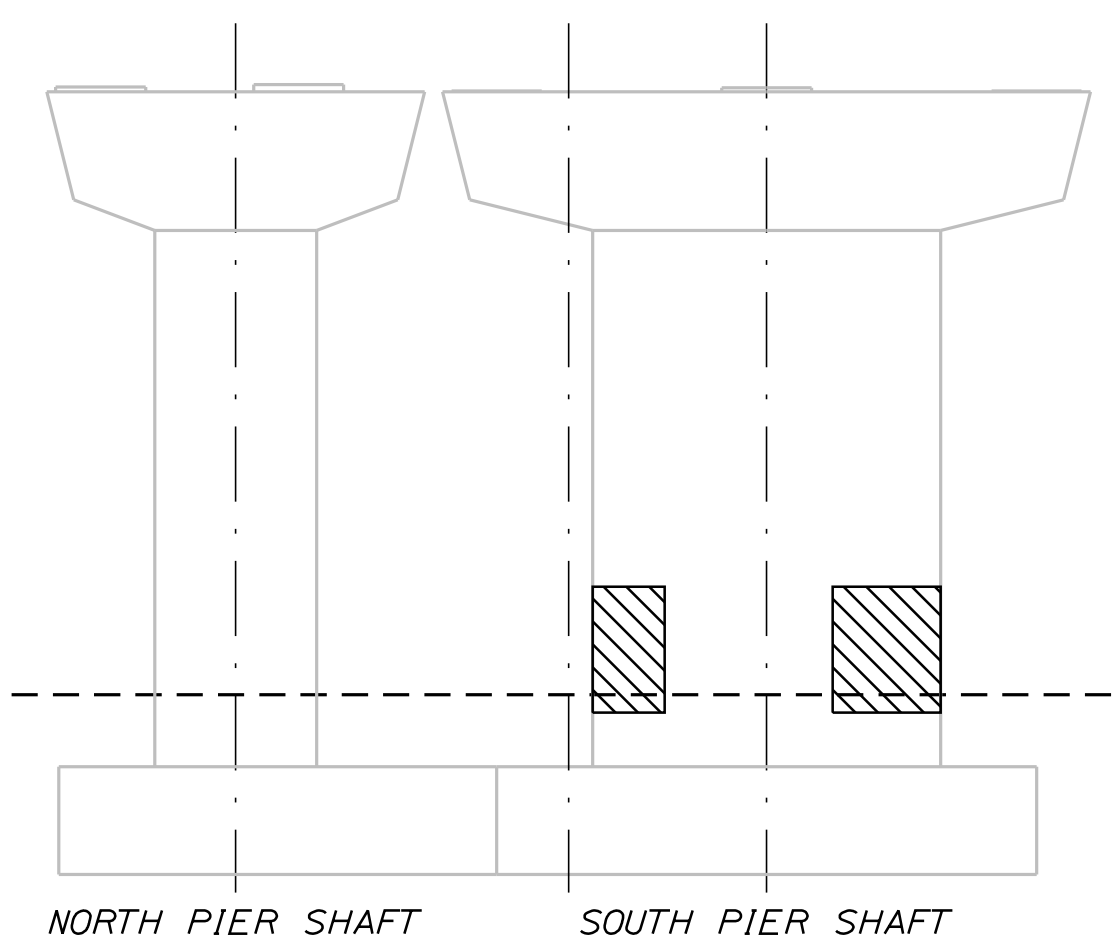
PLAN



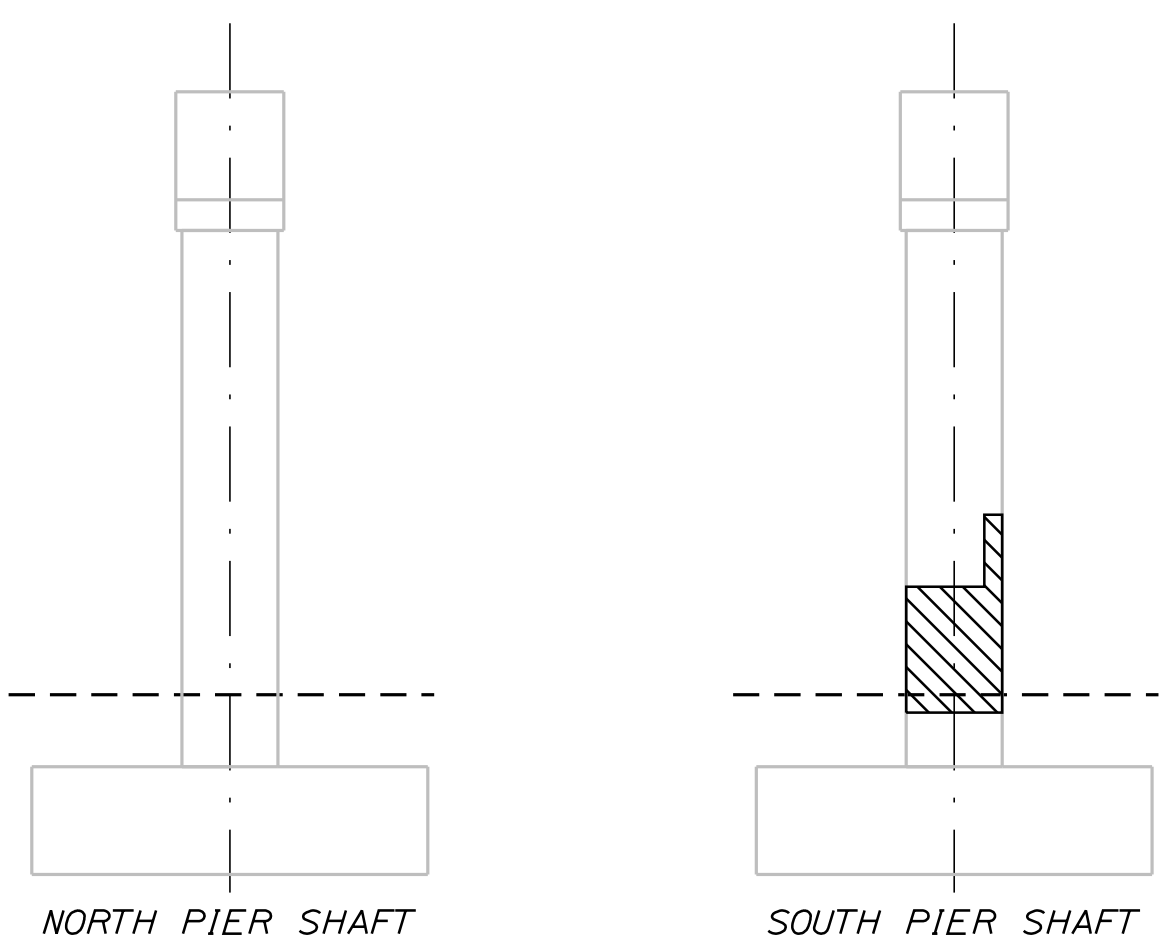
ELEVATION C



ELEVATION B



ELEVATION A



ELEVATION D

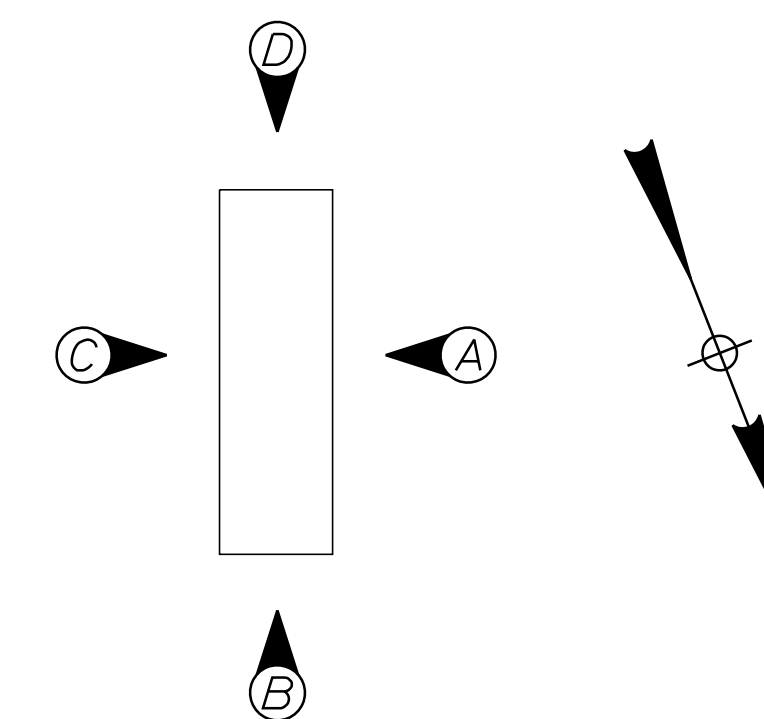
PIER 2

NOTES:

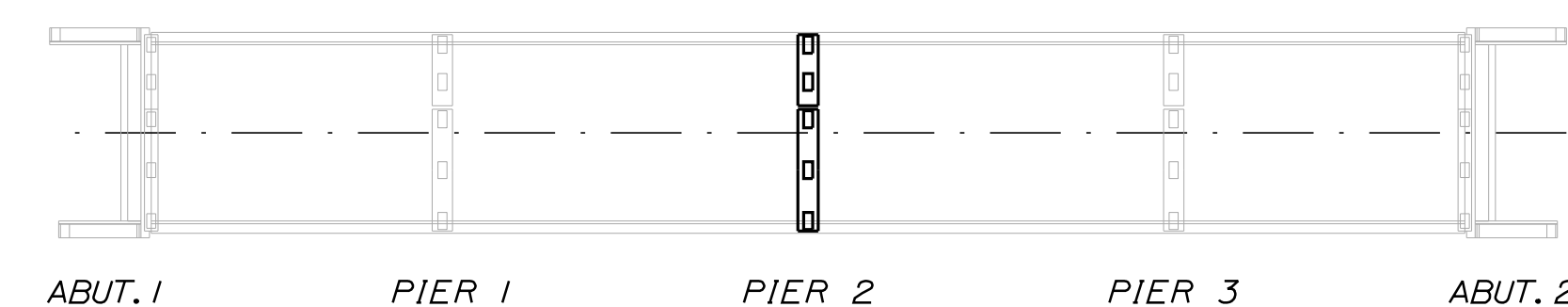
1. FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES".
2. SHOULD CONCRETE REPAIR EXTEND BELOW GRADE, ANY EXCAVATION REQUIRED WILL BE CONSIDERED INCIDENTAL TO ITEM 518.20, "PIER REPAIRS".
3. FOR QUANTITY, SEE SHEET "BENNETT ROAD (MILE 68.6) SUBSTRUCTURE REPAIRS 3 OF 5"

LEGEND:

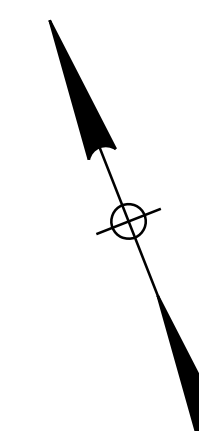
- LIMIT OF CONCRETE SURFACE REPAIRS
- LIMIT OF EPOXY INJECTED CRACK REPAIR
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND



PIER ELEVATIONS



LOCATION PLAN



Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Daniel S. Myers					
Designed	By	Date	Checked	By	Date
Drawn	JJL	3/2020	In Charge of	BLT	3/2020
	JJL	3/2020		DSM	03/2021

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THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

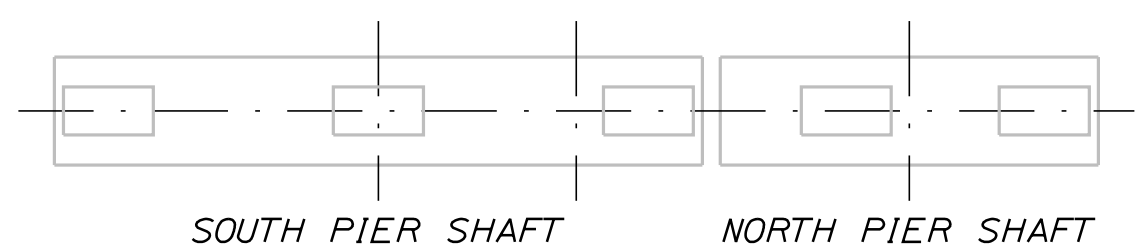
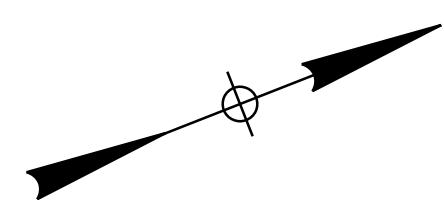
BENNETT ROAD UNDERPASS (MILE 68.6)
SUBSTRUCTURE REPAIRS - 4 OF 5

CONTRACT: 2021.03 SHEET NUMBER: BR-09

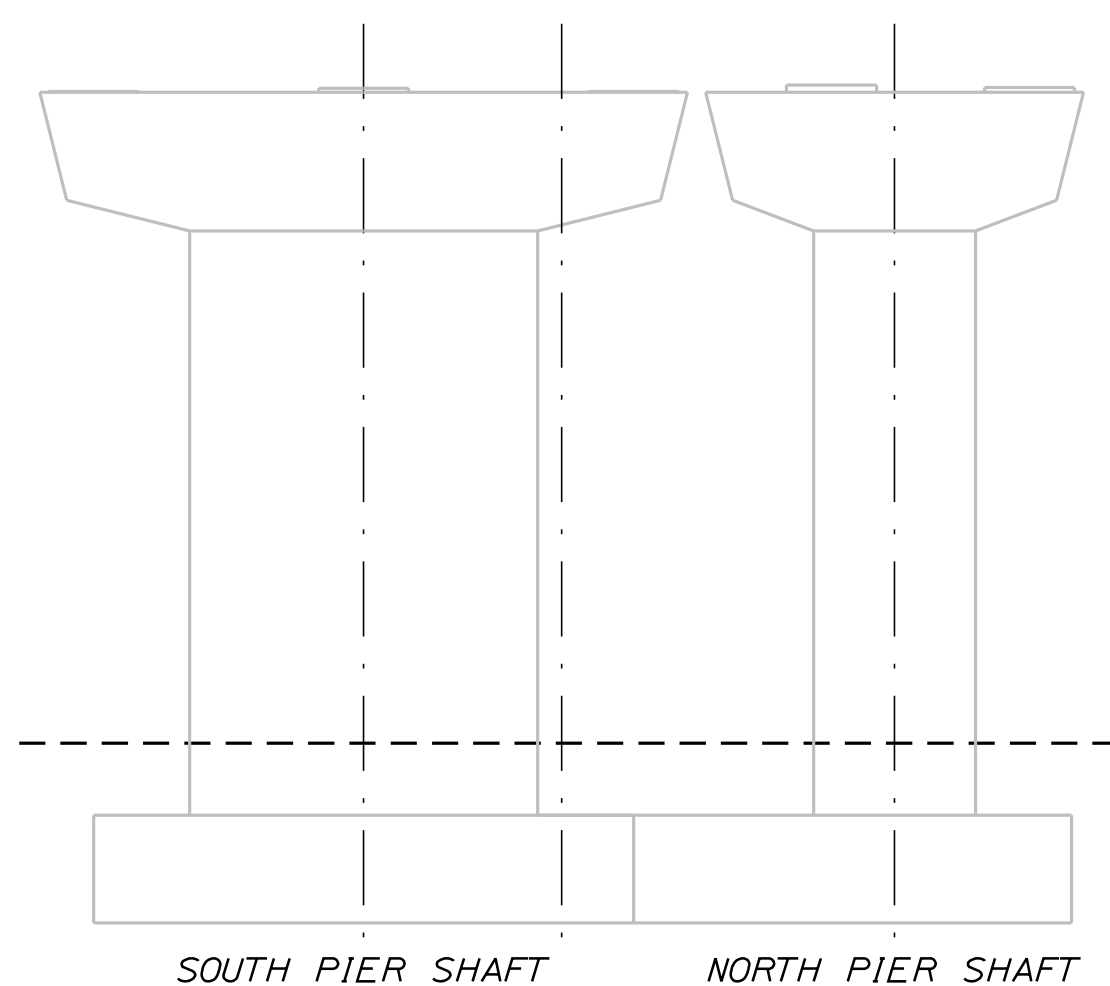
14 OF 51

Date: 4/22/2021

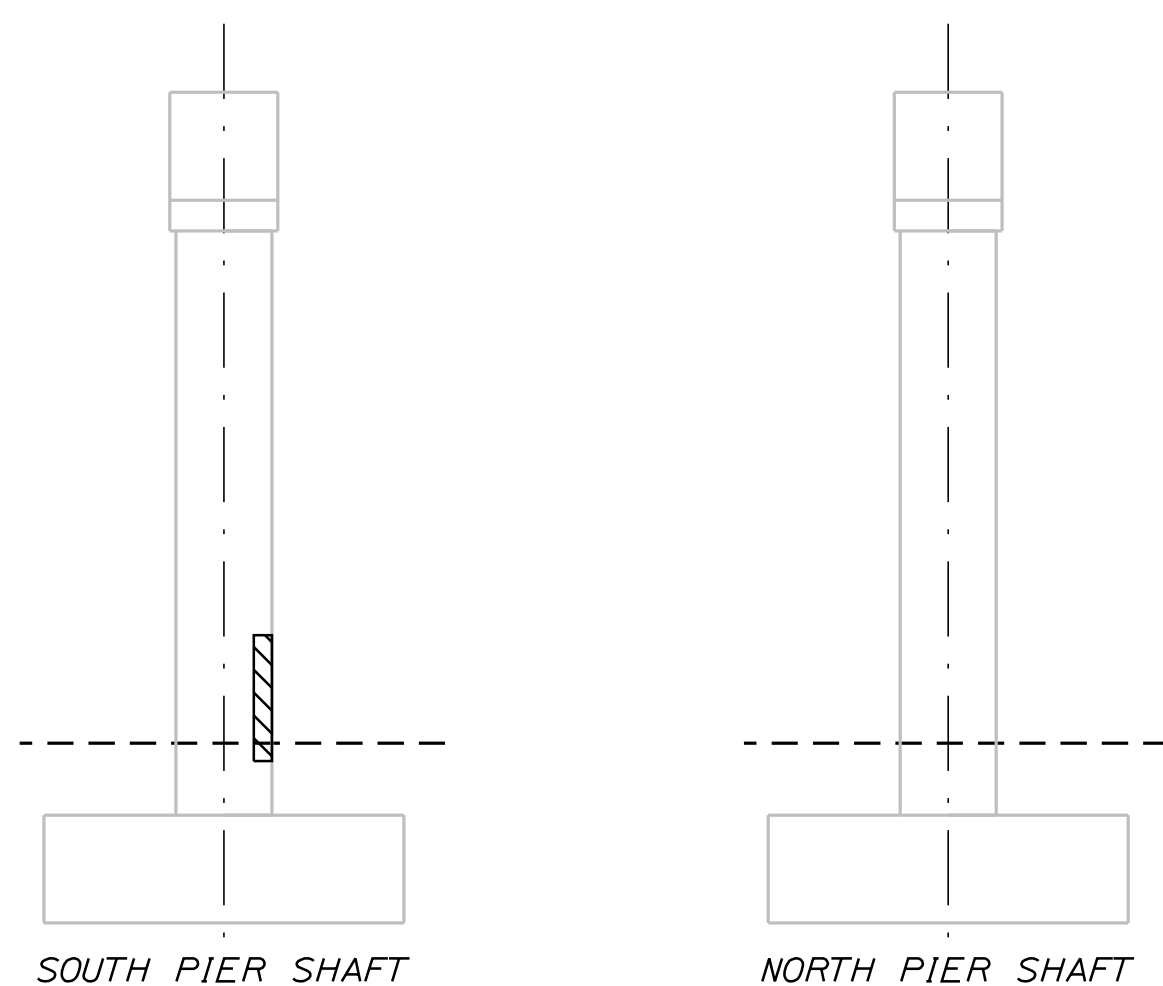
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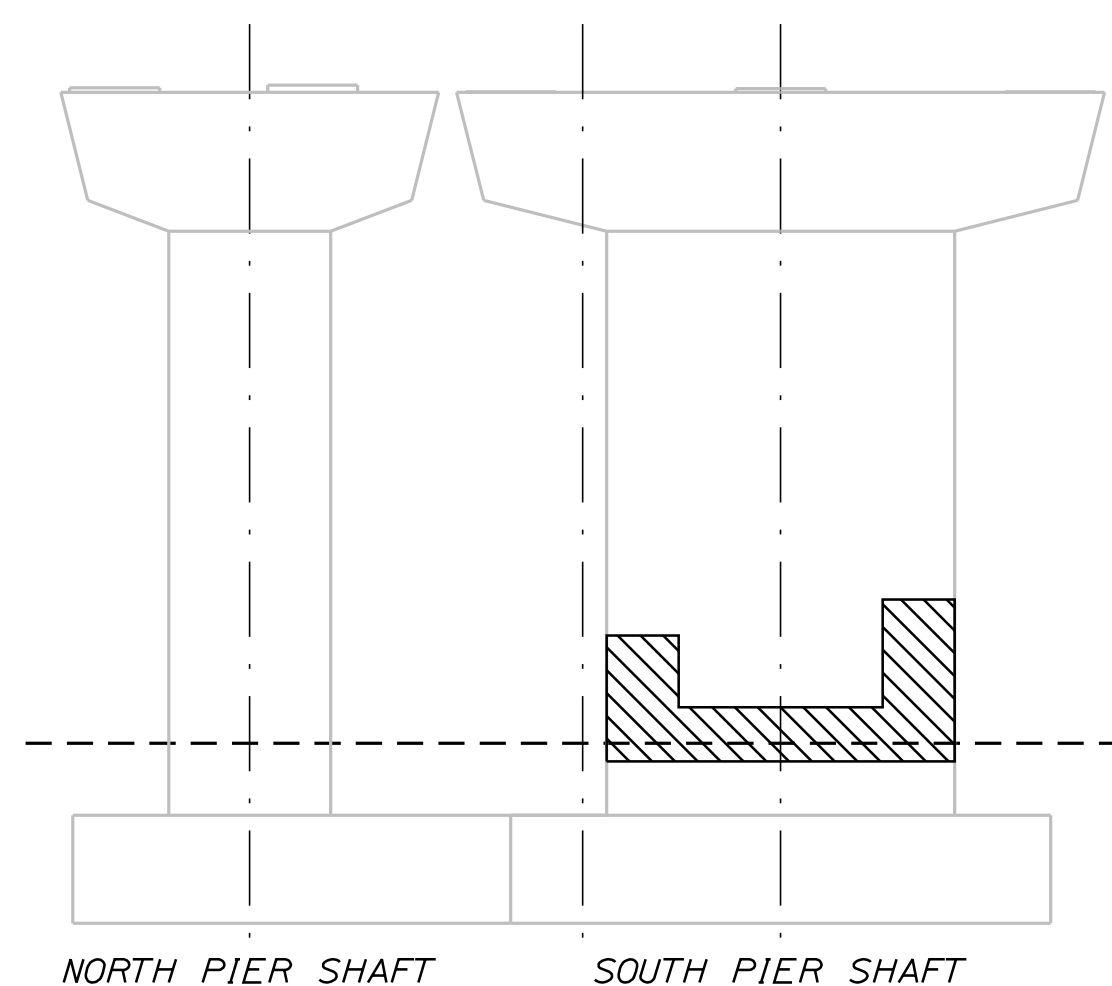
PLAN



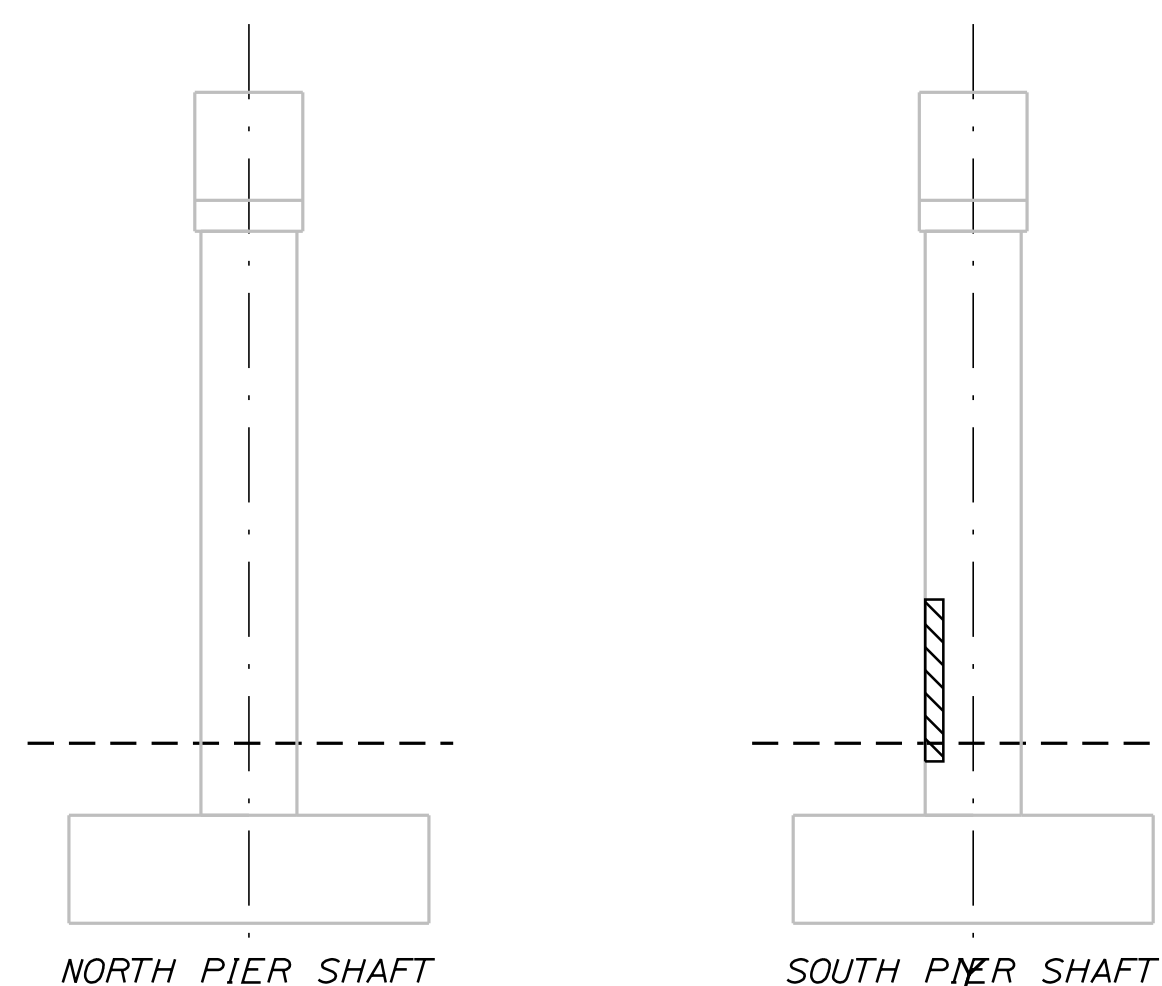
ELEVATION C



ELEVATION B



ELEVATION A



ELEVATION D

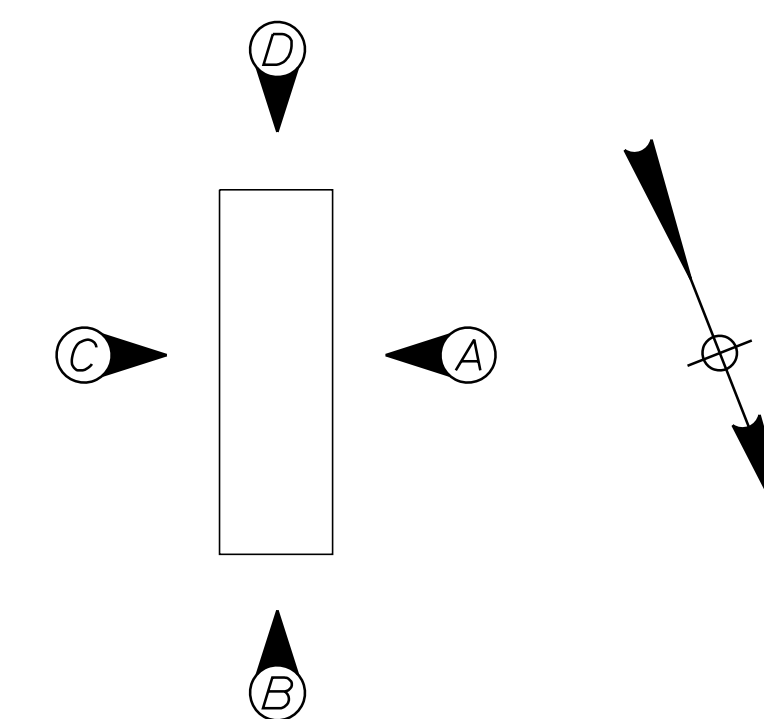
PIER 3

NOTES:

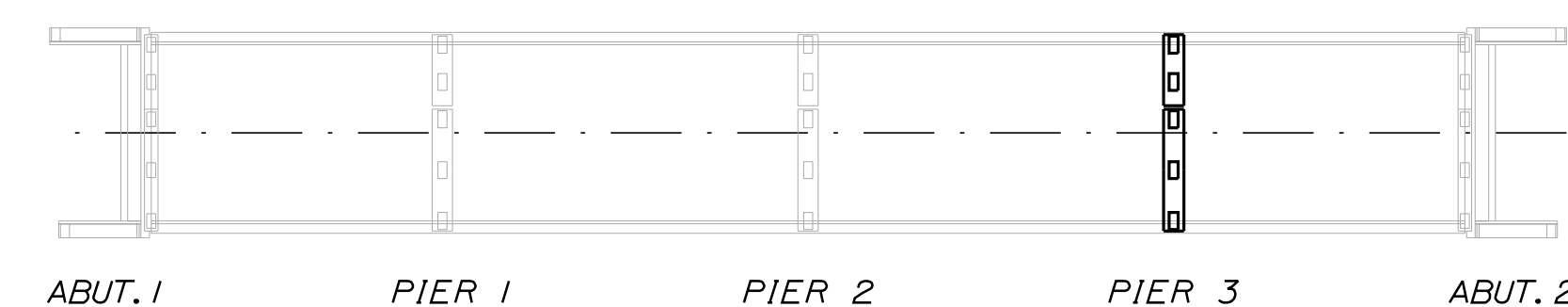
1. FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES".
2. SHOULD CONCRETE REPAIR EXTEND BELOW GRADE, ANY EXCAVATION REQUIRED WILL BE CONSIDERED INCIDENTAL TO ITEM 518.20, "PIER REPAIRS".
3. FOR QUANTITY, SEE SHEET "BENNETT ROAD (MILE 68.6) SUBSTRUCTURE REPAIRS 3 OF 5"

LEGEND:

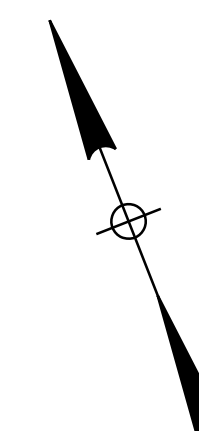
- LIMIT OF CONCRETE SURFACE REPAIRS
- LIMIT OF EPOXY INJECTED CRACK REPAIR
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND



PIER ELEVATIONS



LOCATION PLAN



Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Daniel S. Myers					
Designed	By	Date	Checked	By	Date
Drawn	JJL	3/2020	In Charge of	BLT	3/2020
	JJL	3/2020		DSM	03/2021

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THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

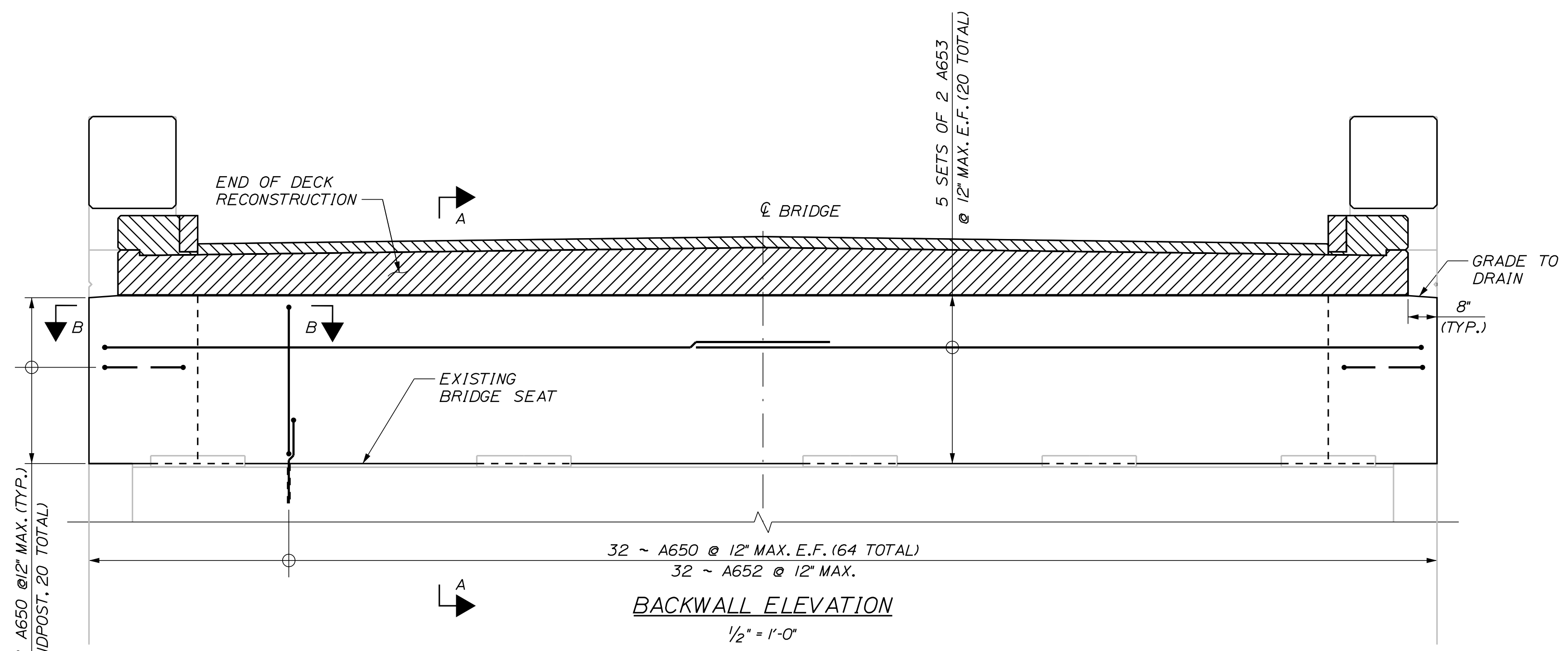
2021 BRIDGE REPAIRS

BENNETT ROAD UNDERPASS (MILE 68.6)
 SUBSTRUCTURE REPAIRS - 5 OF 5

SHEET NUMBER: BR-10
 CONTRACT: 2021.03

15 OF 51

Date: 4/22/2021

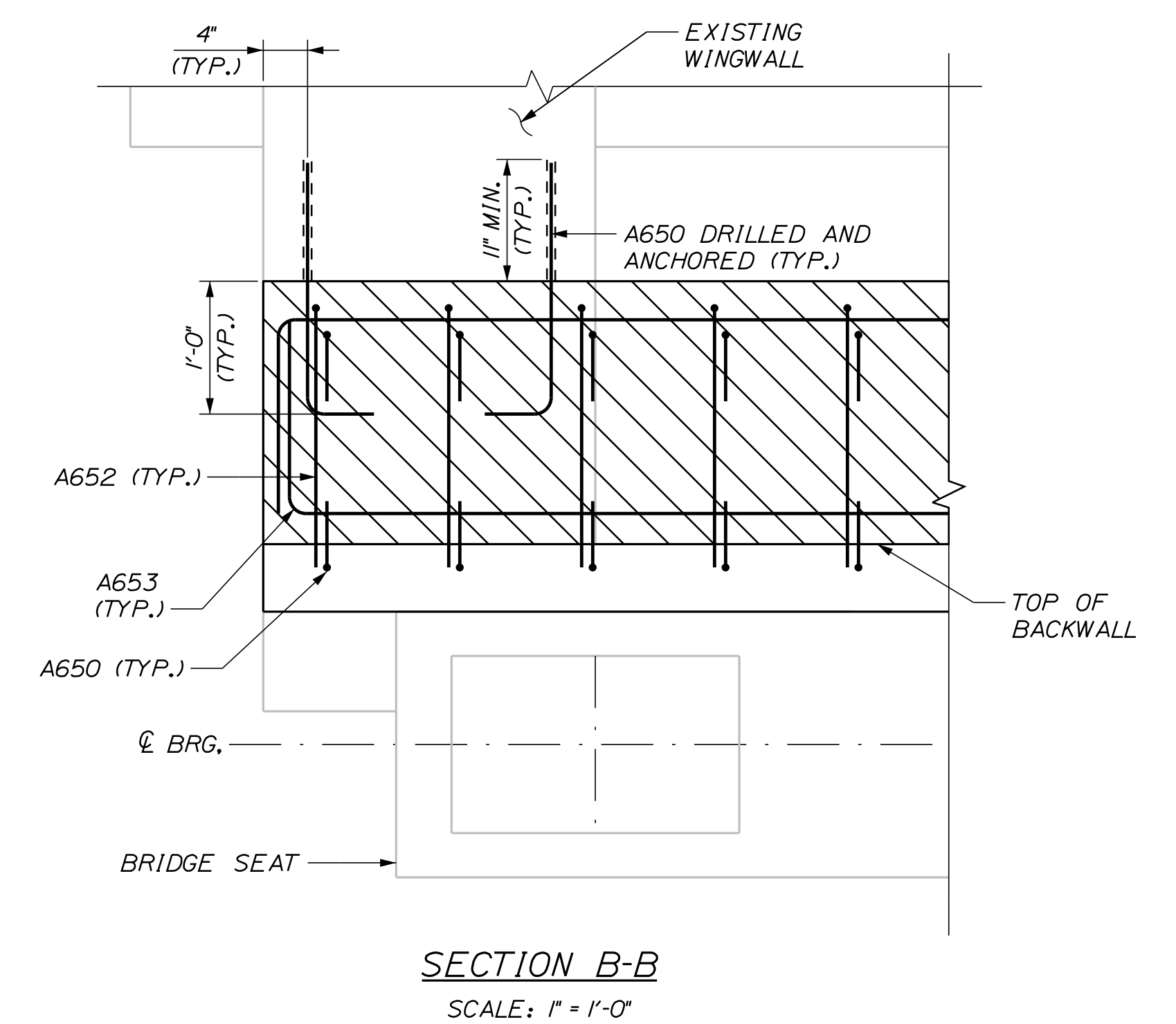
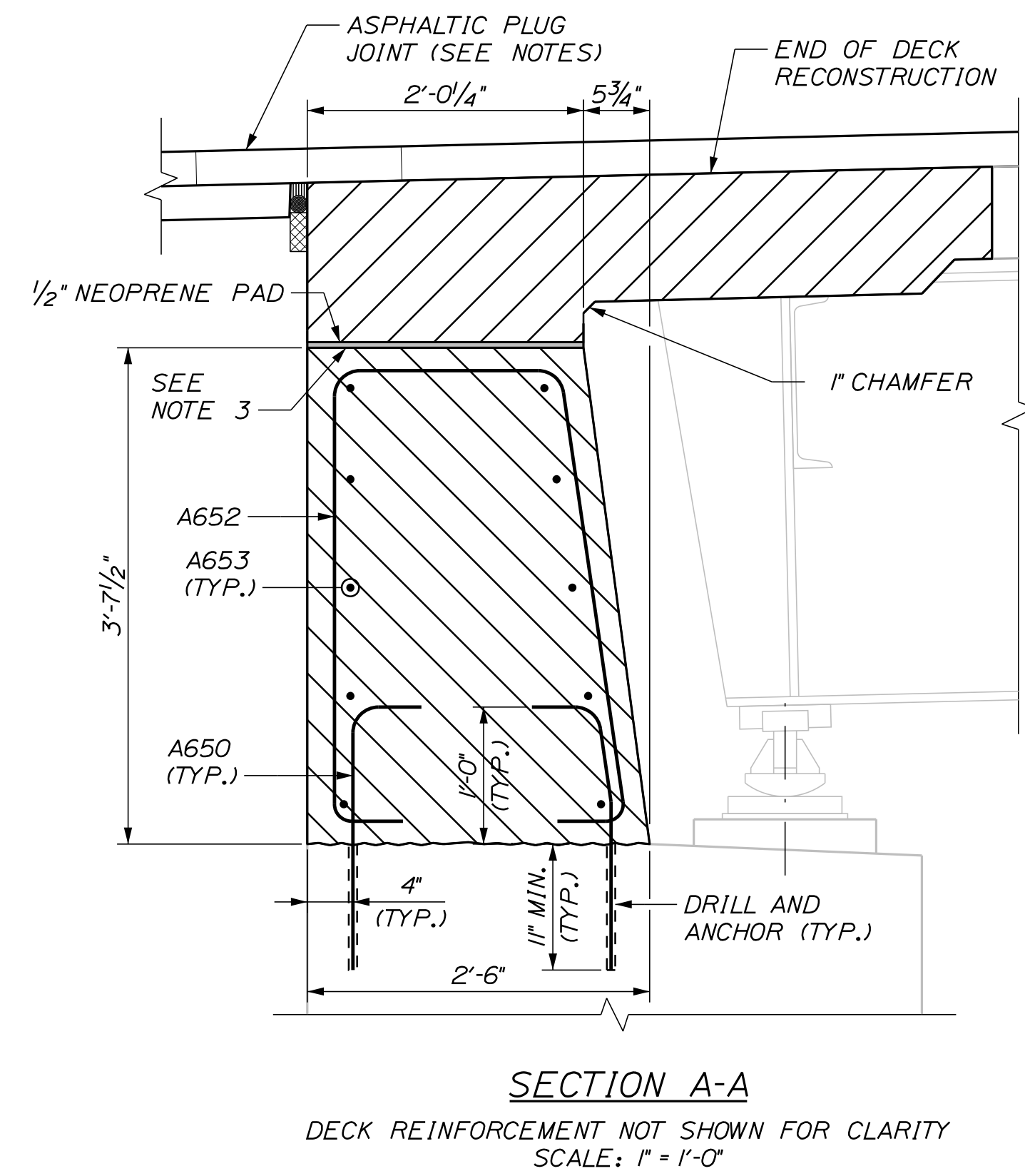
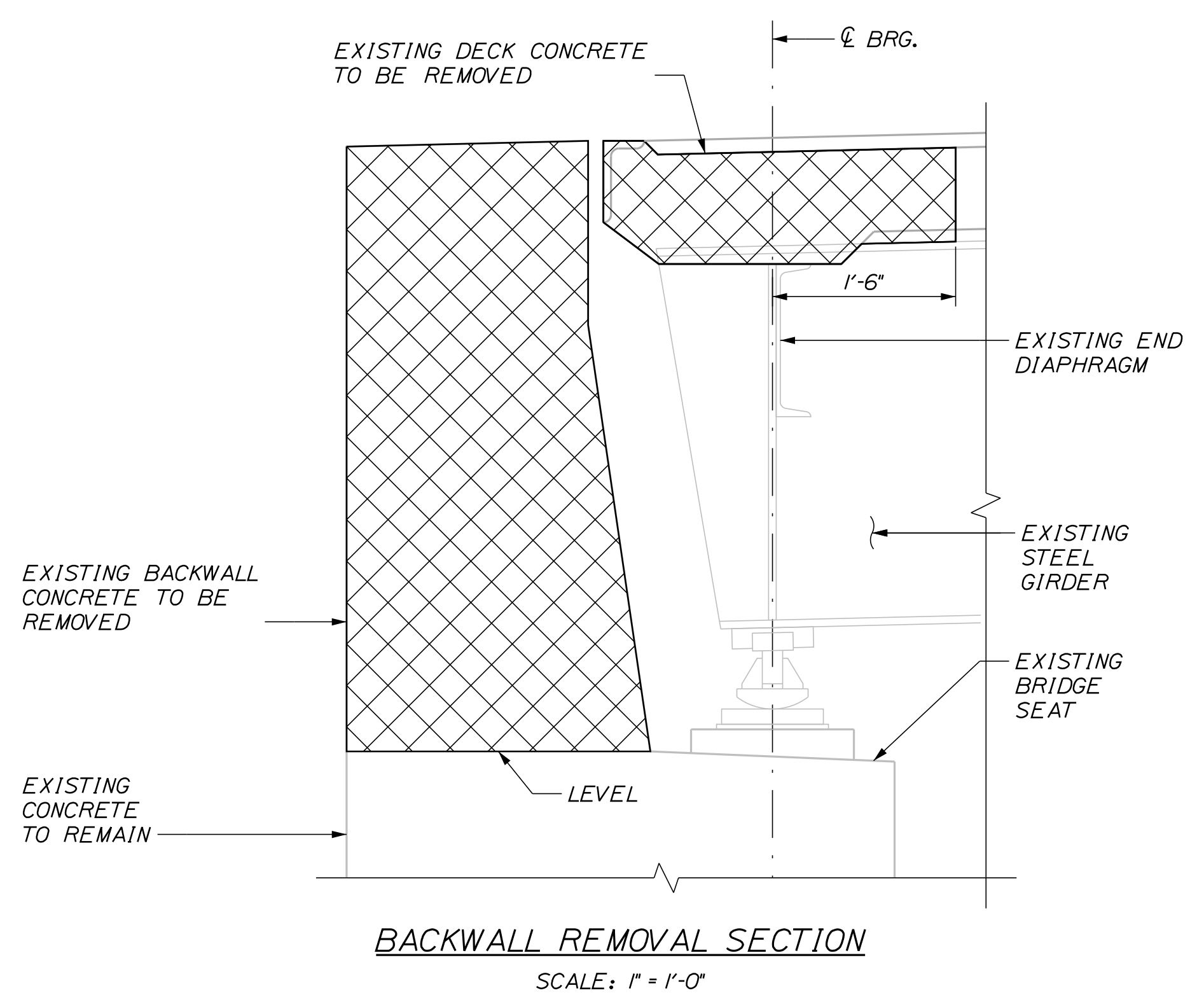


NOTES:

1. FOR ASPHALTIC PLUG JOINT NOTES AND DETAILS, SEE "BENNETT ROAD UNDERPASS (MILE 68.6) JOINT REPAIR DETAILS" SHEET.
2. EXISTING CONCRETE TO BE REMOVED SHALL BE SAWCUT TO A MINIMUM DEPTH OF 1" AT THE REMOVAL LIMITS. PRIOR TO PLACING NEW CONCRETE, ALL INTERFACE SURFACES BETWEEN EXISTING AND PROPOSED CONCRETE SHALL BE CLEANED AND ROUGHENED TO THE SATISFACTION OF THE RESIDENT.
3. TOP OF BACKWALL SHALL HAVE A SMOOTH TROWEL FINISH AS DIRECTED BY THE RESIDENT.

LEGEND:

- N.F. - NEAR FACE
- F.F. - FAR FACE
- E.F. - EACH FACE



Filename: ...\\XXX_MM_68.6_Backwall_Details.dgn

Scale: AS NOTED			
No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

Designed	By	Date	Checked	By	Date
	BLT	8/2020		BLT	8/2020
Drawn	SAM	8/2020	In Charge of	DSM	03/2021

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

BENNETT ROAD UNDERPASS (MILE 68.6)
 BACKWALL RECONSTRUCTION DETAILS

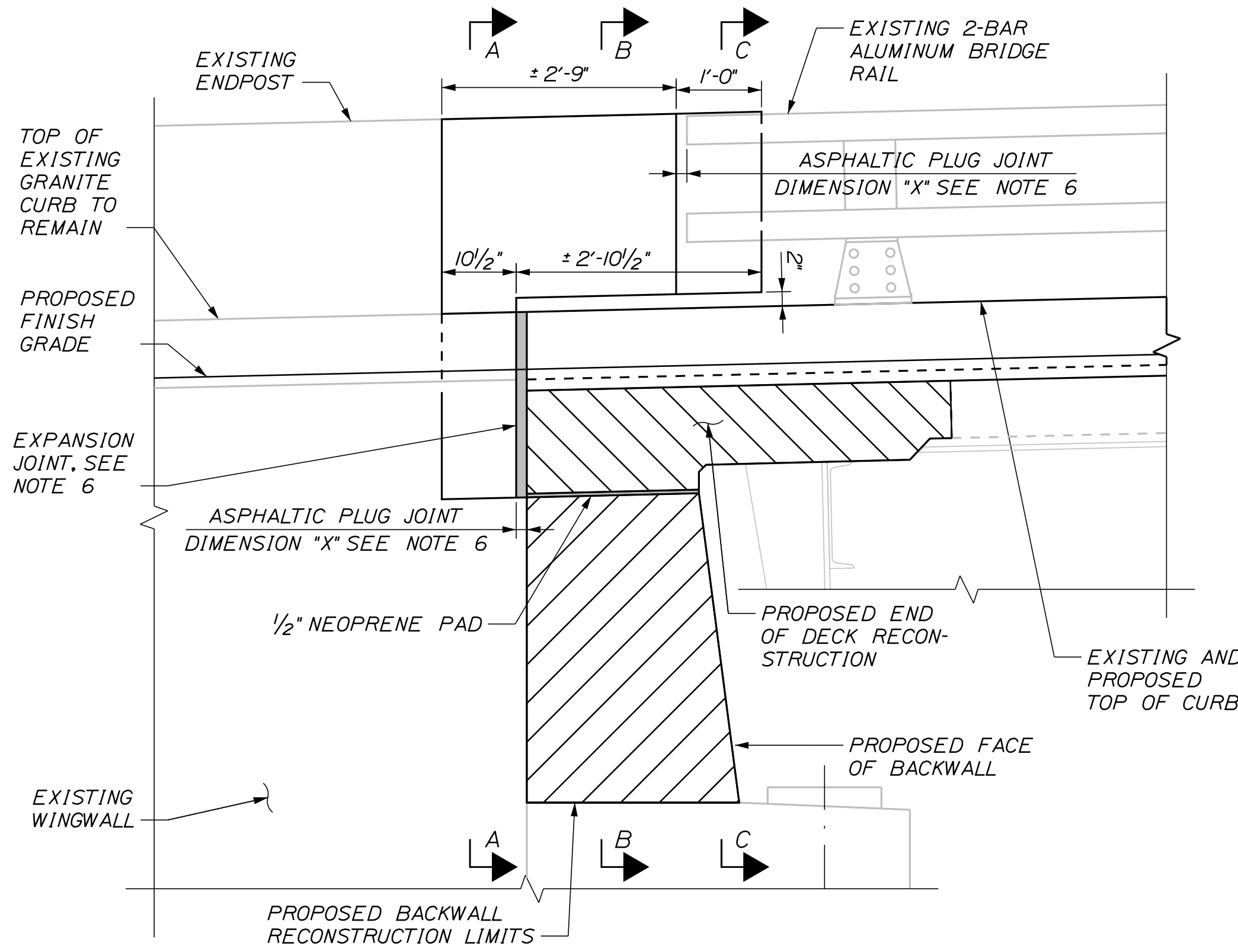
SHEET NUMBER: BR-11

CONTRACT: 2021.03

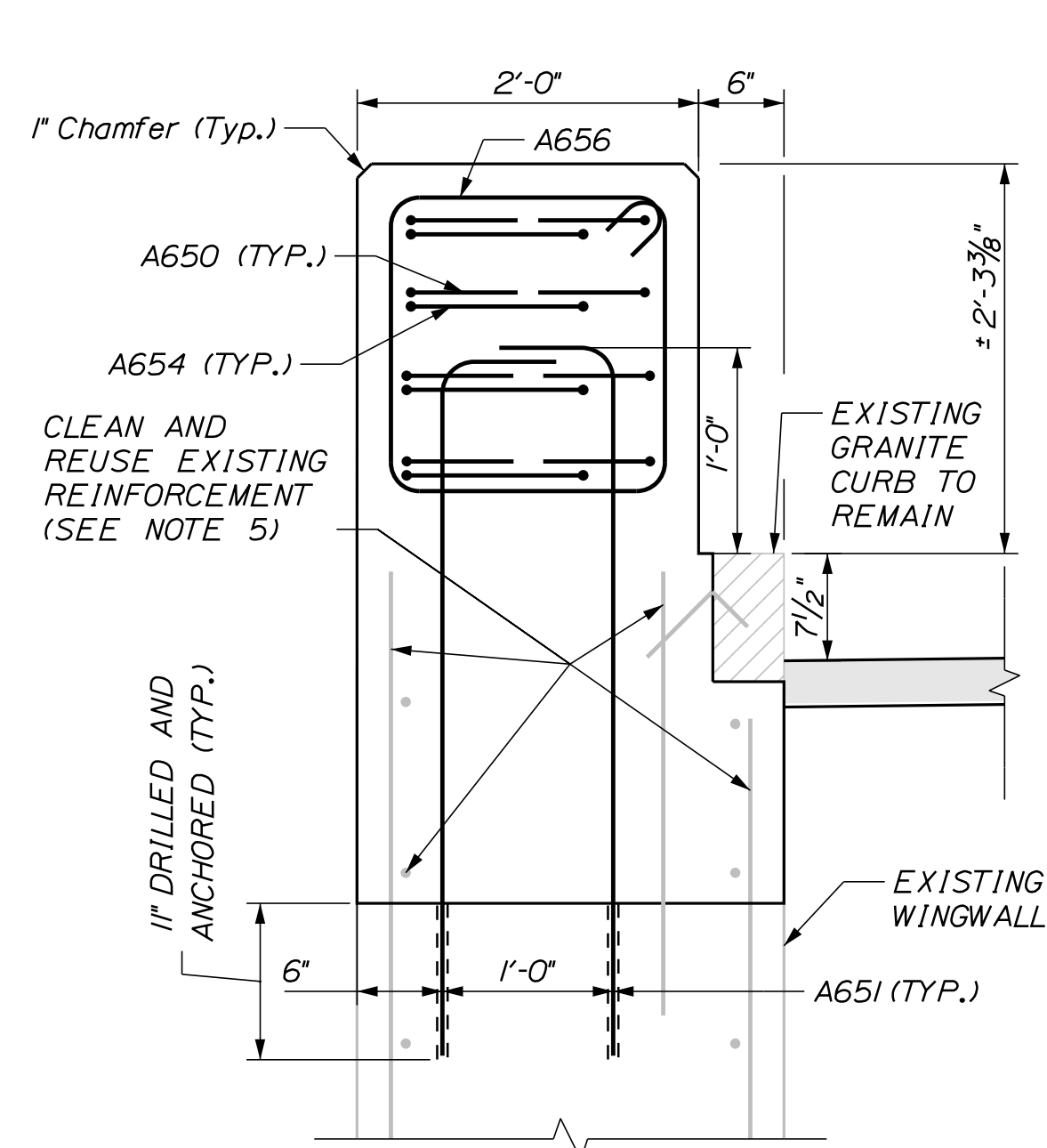
16 OF 51

Date: 4/22/2021

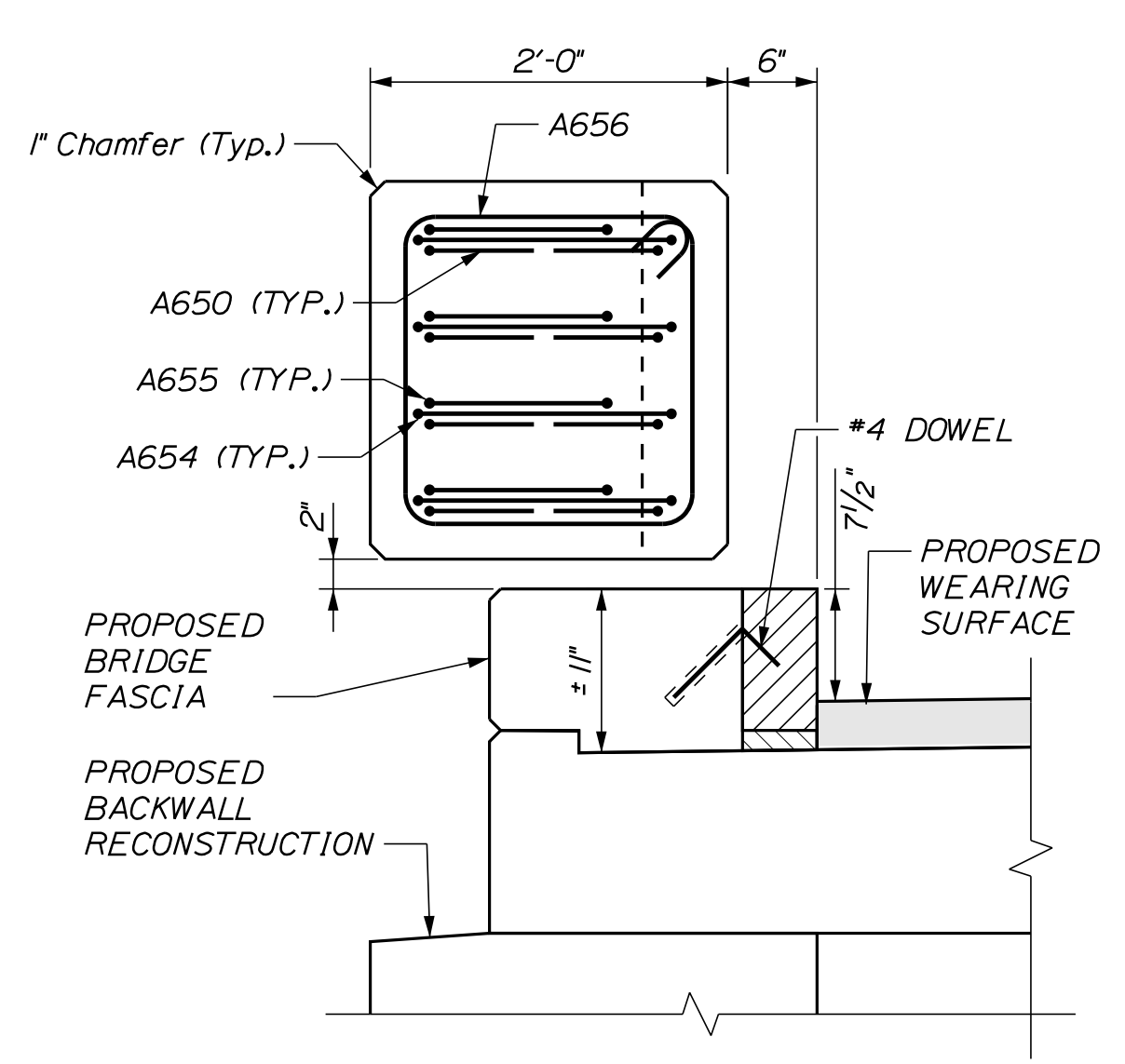
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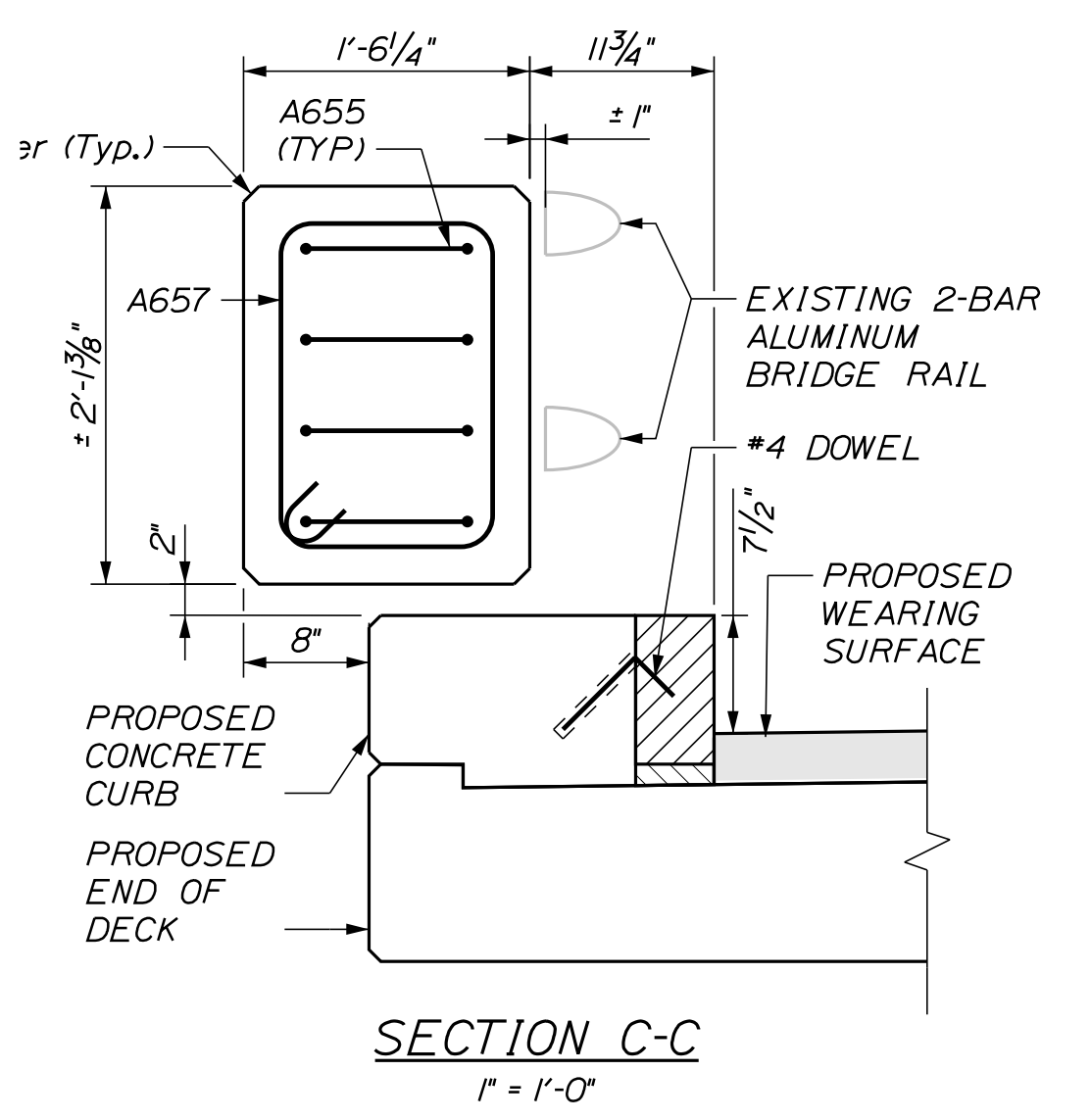
INSIDE END POST ELEVATION
3/4" = 1'-0"



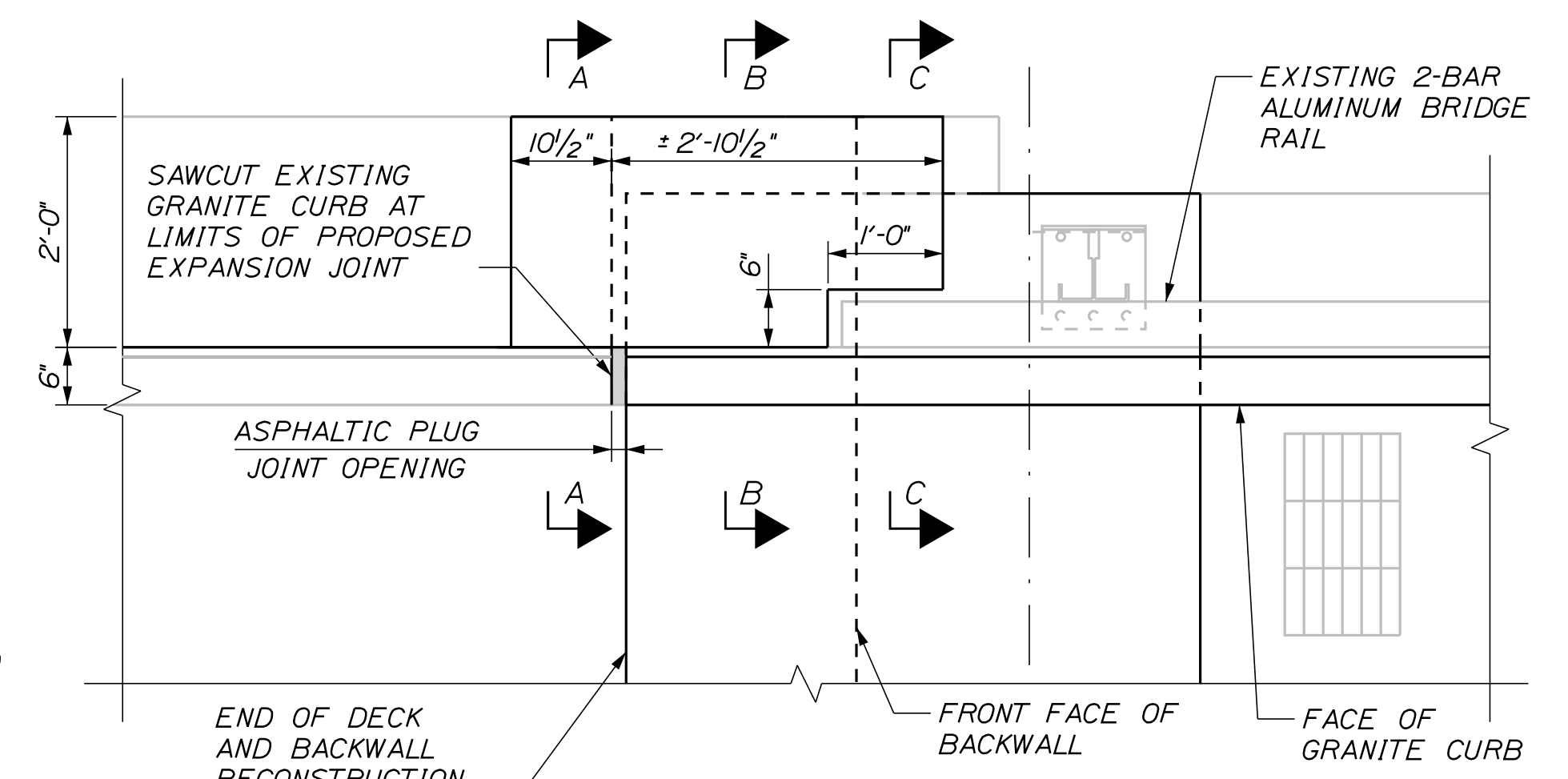
SECTION A-A
1" = 1'-0"



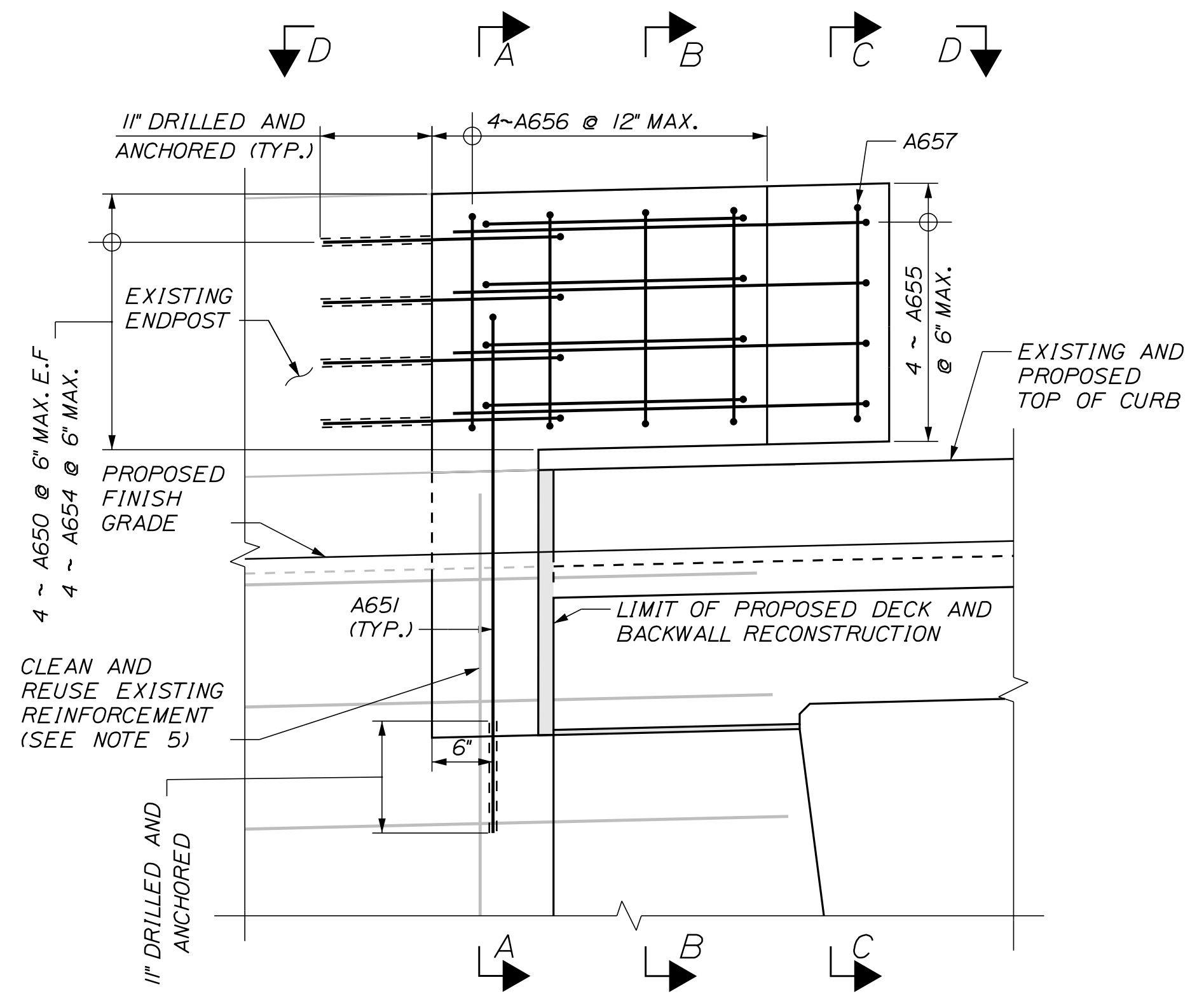
SECTION B-B
1" = 1'-0"



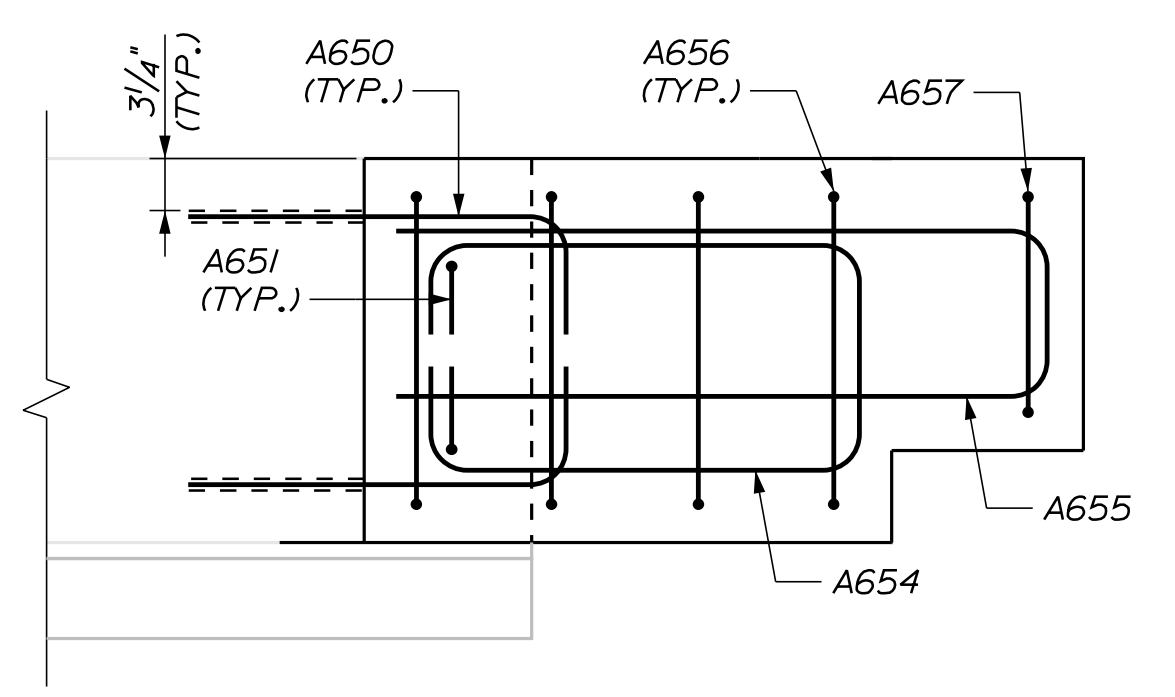
SECTION C-C
1" = 1'-0"



END POST PLAN
3/4" = 1'-0"



REINFORCEMENT ELEVATION VIEW
1" = 1'-0"



VIEW D-D
1" = 1'-0"

NOTES:

- FOR GRANITE CURB DETAIL, SEE SHEET "DECK RECONSTRUCTION DETAILS"
- REINFORCING SHOWN IS TYPICAL FOR ALL END POSTS.
- SEE SUBSTRUCTURE REPAIR SHEETS FOR CONCRETE REMOVAL LIMITS.
- CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ENDPOST HEIGHT AND ALUMINUM BRIDGE RAIL LIMITS PRIOR TO ORDERING REINFORCEMENT.
- EXISTING REINFORCEMENT TO BE CLEANED AND REUSED SHALL BE CUT IN FIELD, AS DIRECTED BY THE RESIDENT.
- FOR EXPANSION JOINT NOTES AND DIMENSION "X" (THE JOINT OPENING), SEE SHEET "BENNETT ROAD UNDERPASS (MILE 68.6) JOINT REPAIR DETAILS"

Scale: AS NOTED			
No.	Revision	By	Date

Designed by: TYLIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Daniel S. Myers					
	By	Date		By	Date

T.Y. Lin International
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 Falmouth, Maine 04105
 TEL: (207) 781-4721
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

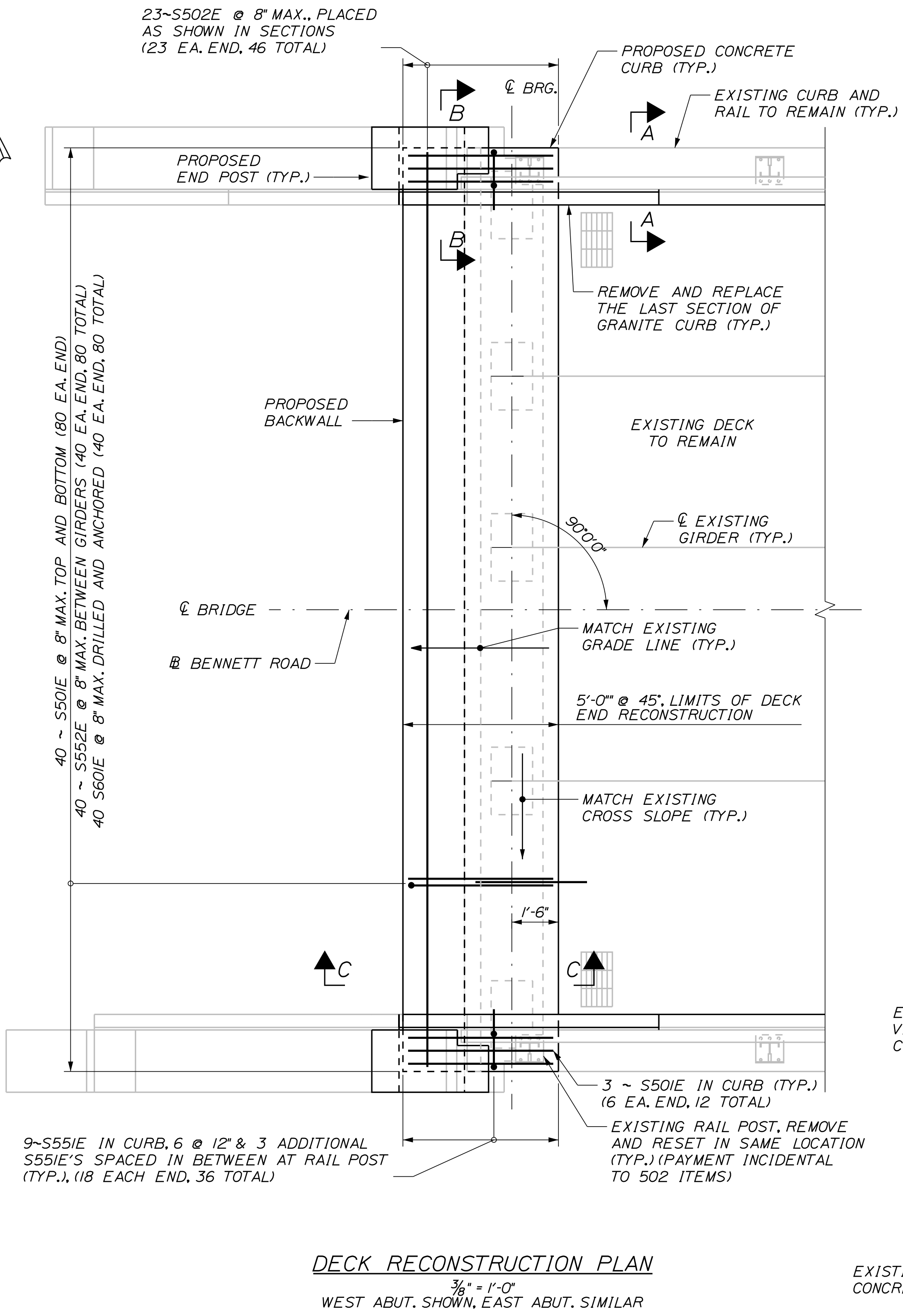
MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS
 BENNETT ROAD UNDERPASS (MILE 68.6)
 END POST DETAILS

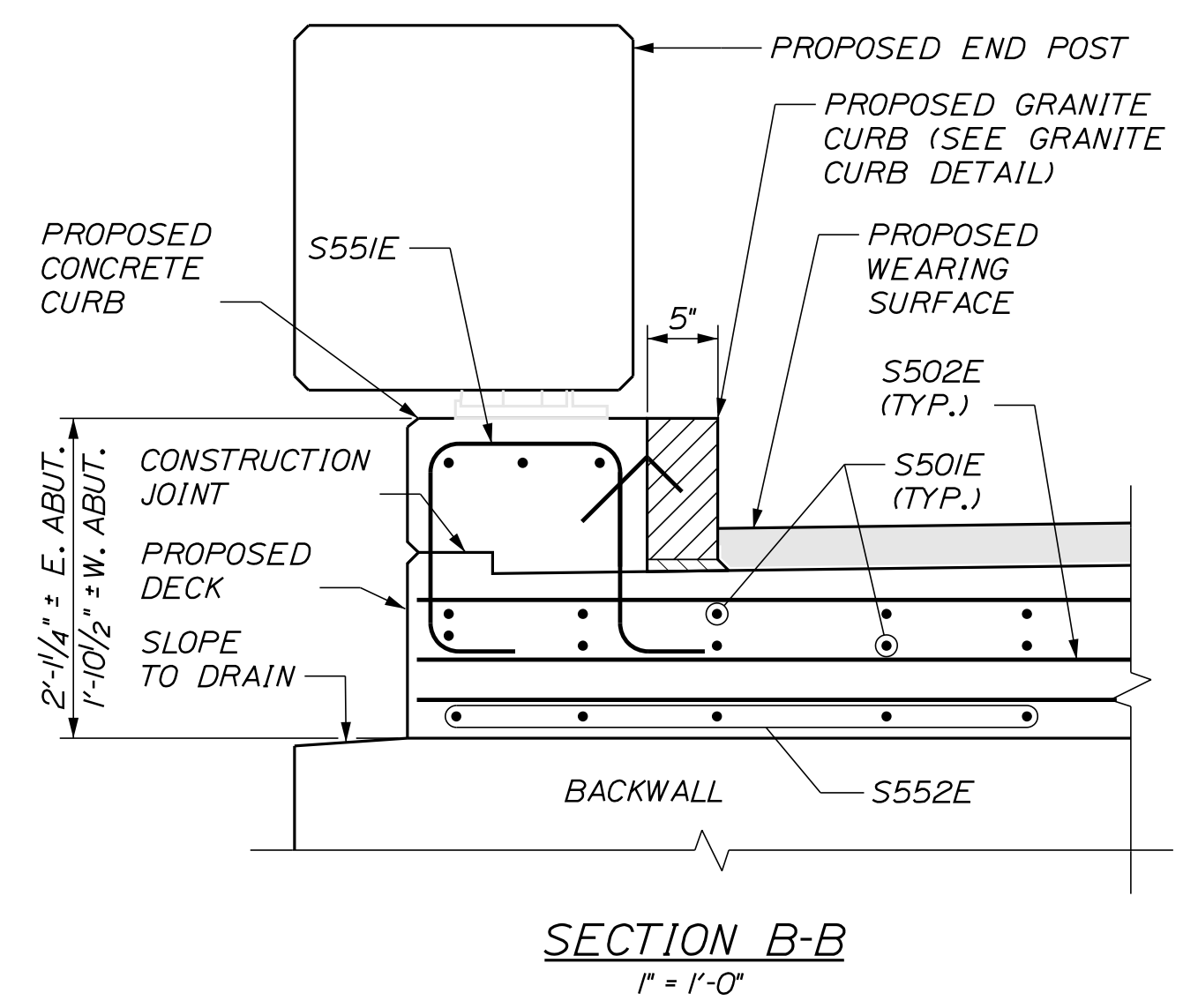
SHEET NUMBER: BR-12
 CONTRACT: 2021.03
 17 OF 51

Date: 4/22/2021

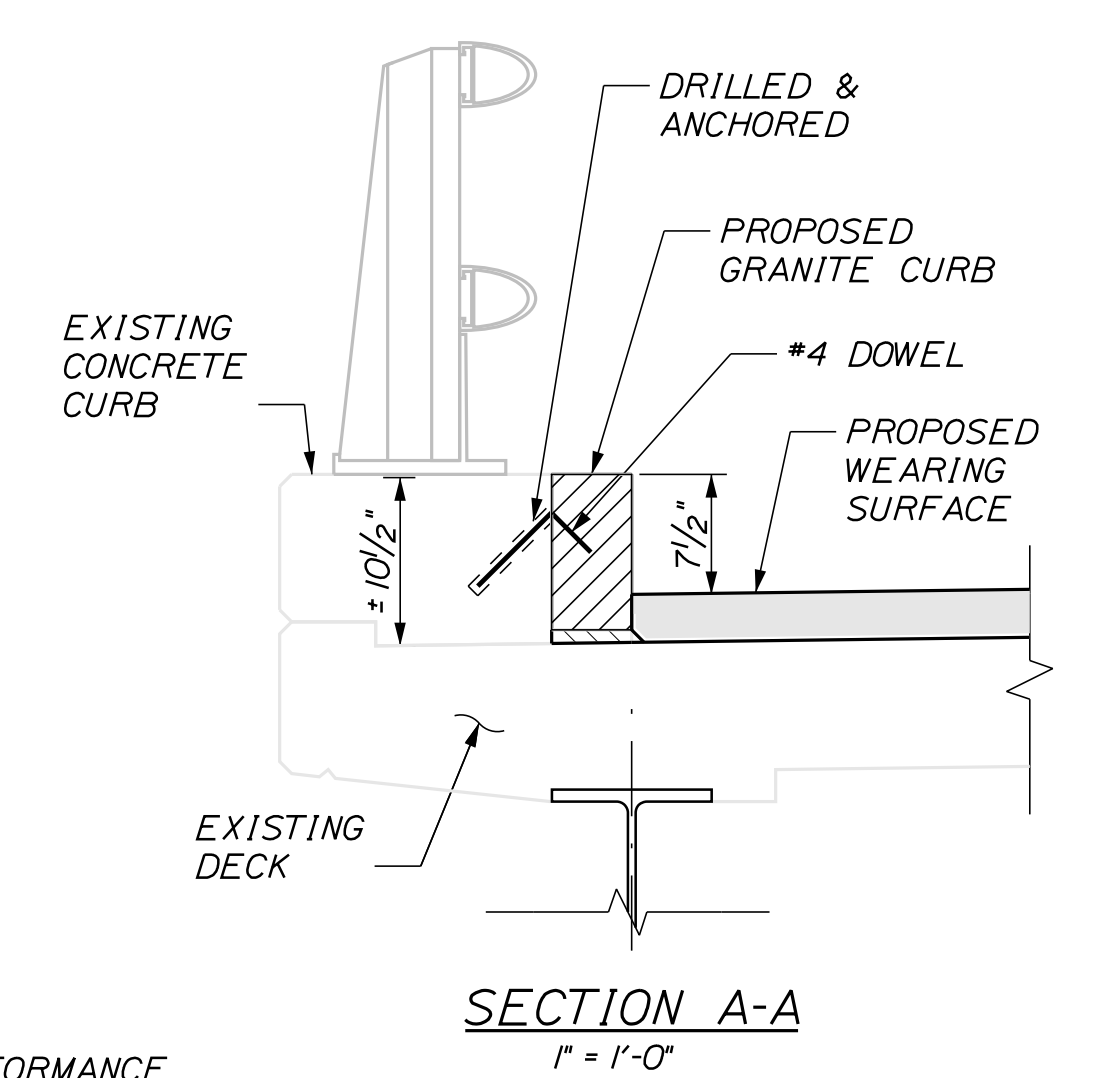
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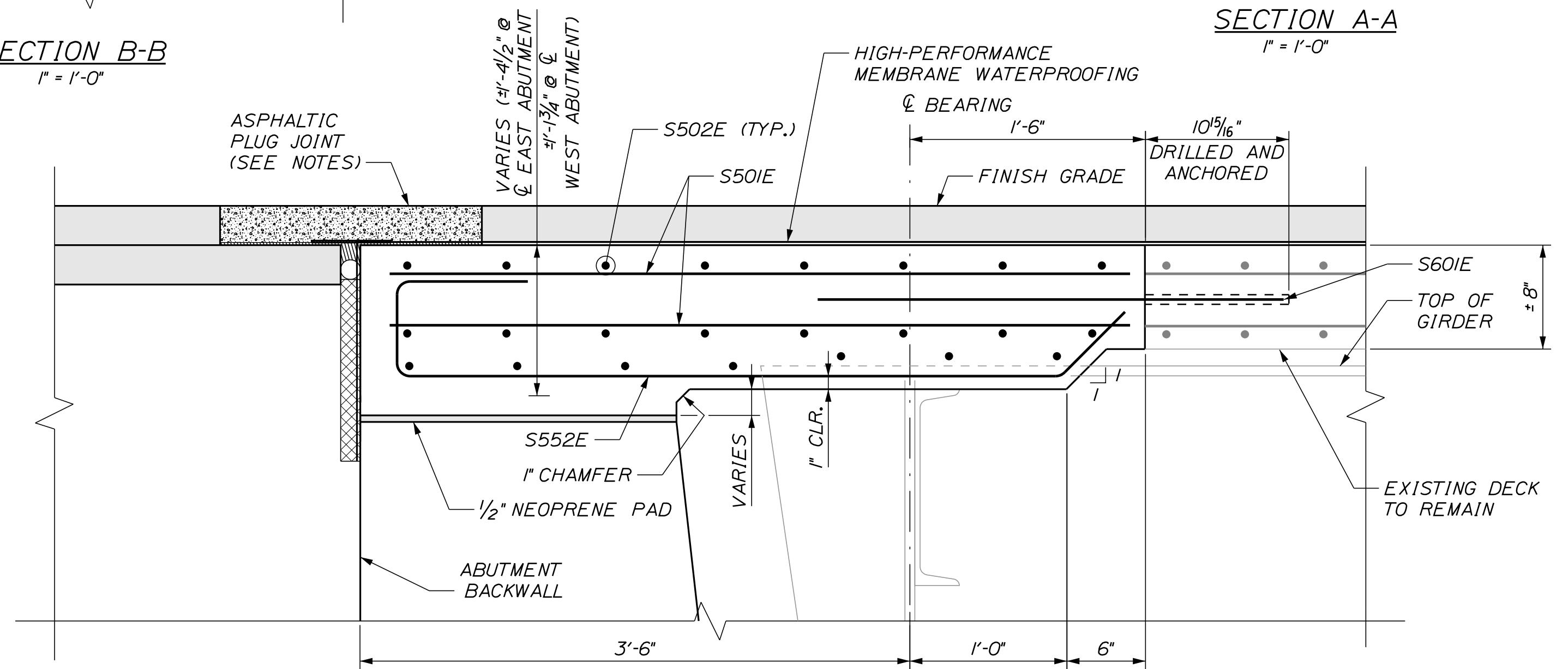
DECK RECONSTRUCTION PLAN
3/8" = 1'-0"
WEST ABUT. SHOWN, EAST ABUT. SIMILAR



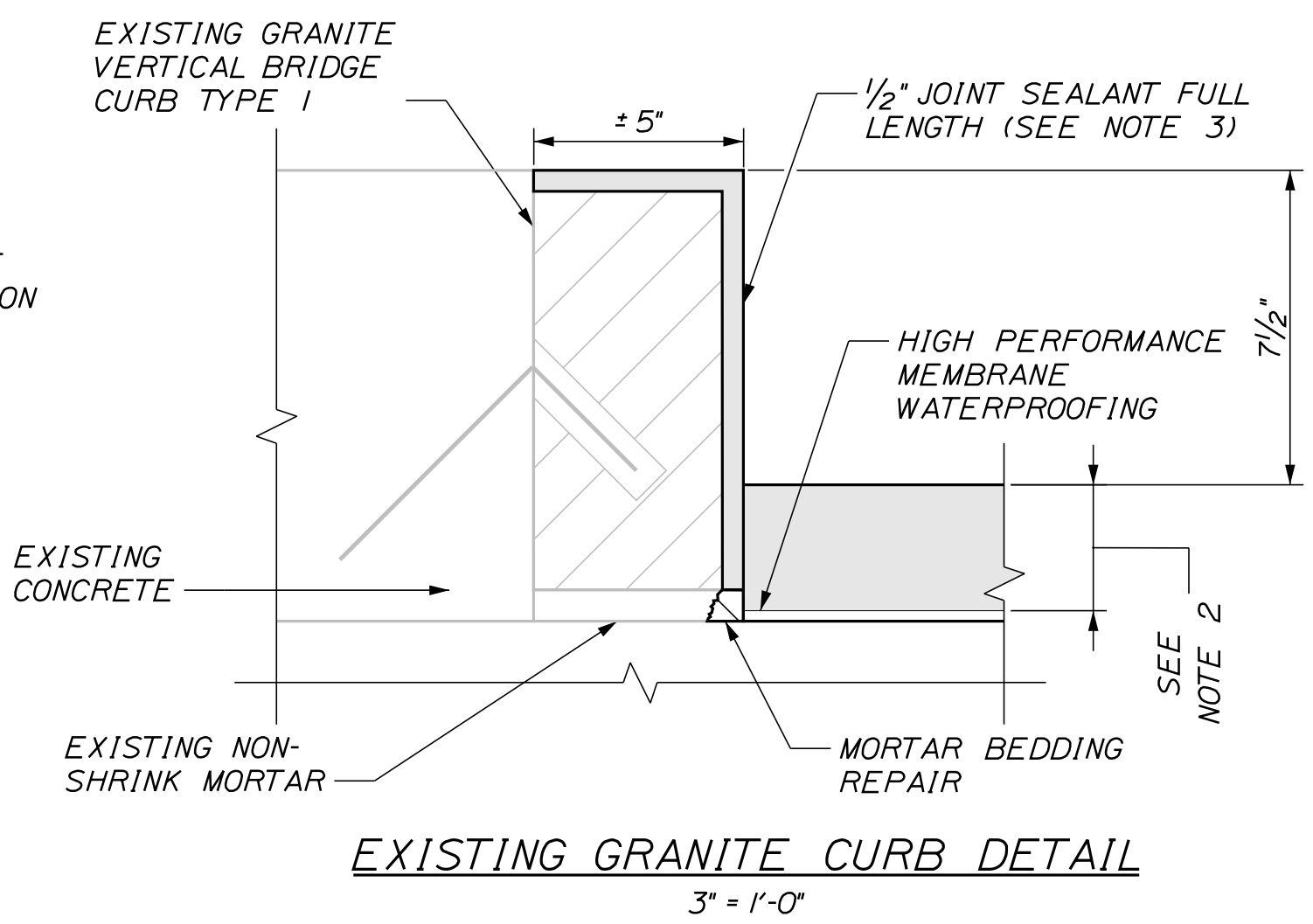
SECTION B-B
1" = 1'-0"



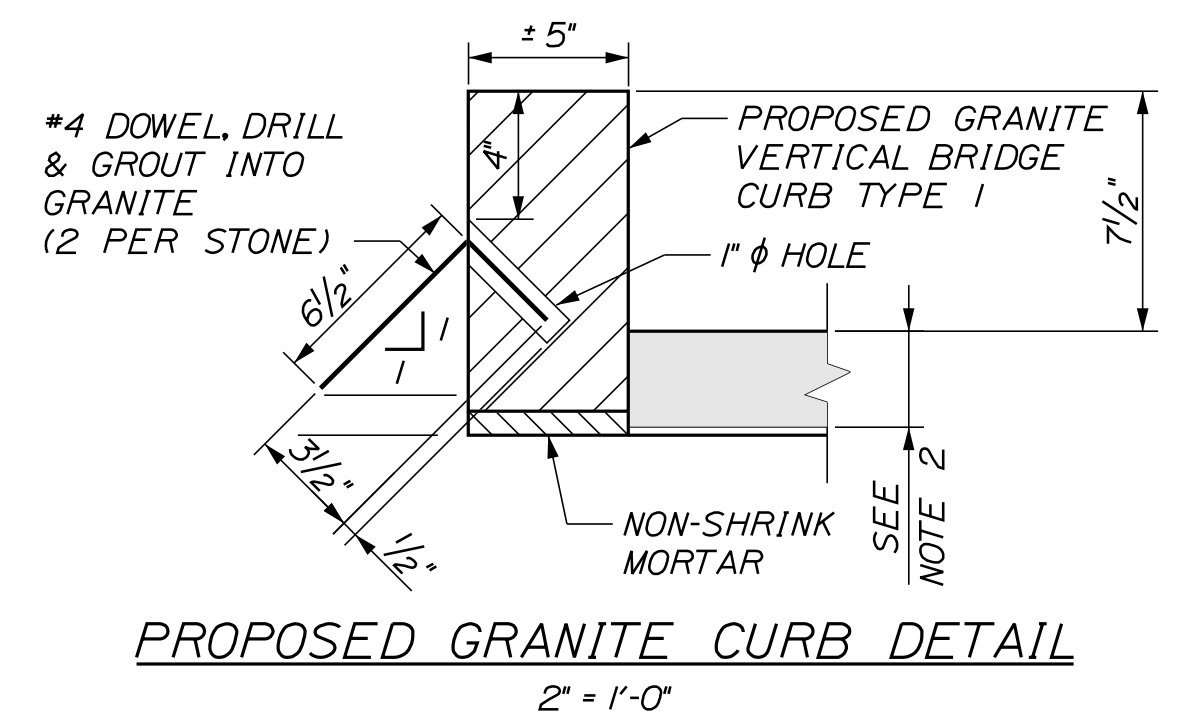
SECTION A-A
1" = 1'-0"



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



EXISTING GRANITE CURB DETAIL
3" = 1'-0"



PROPOSED GRANITE CURB DETAIL
2" = 1'-0"

- NOTES:**
- FOR ASPHALTIC PLUG JOINT DETAILS AND NOTES, SEE SHEET "BENNETT ROAD UNDERPASS (MILE 68.6) JOINT REPAIR DETAILS"
 - THE CONTRACTOR SHALL TREAT CORNERS AND THE VERTICAL FACE OF CURBING IN ACCORDANCE WITH SPECIAL PROVISION SECTION 508.
 - JOINT SEALANT SHALL BE A MATERIAL FROM THE MAINE DOT APPROVED PRODUCTS LIST AS APPROVED BY THE RESIDENT. JOINT SEALANT SHALL BE INCIDENTAL TO ITEM 518.39, "GRANITE CURB JOINT MORTAR AND BEDDING REPAIR".

Scale: AS NOTED

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

By	Date	By	Date
Designed	JJL 8/2020	Checked	BLT 8/2020
Drawn	JJL 8/2020	In Charge of	DSM 03/2021

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

BENNETT ROAD UNDERPASS (MILE 68.6)

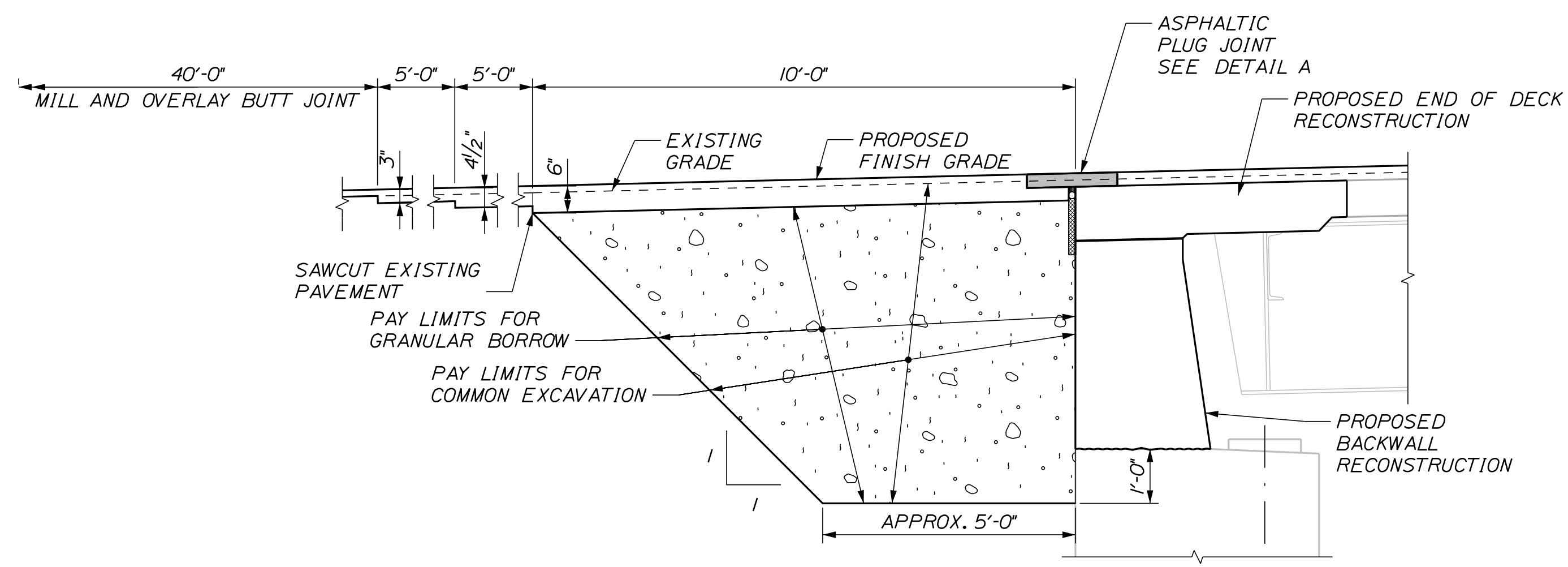
DECK RECONSTRUCTION DETAILS

SHEET NUMBER: BR-13

CONTRACT: 2021.03

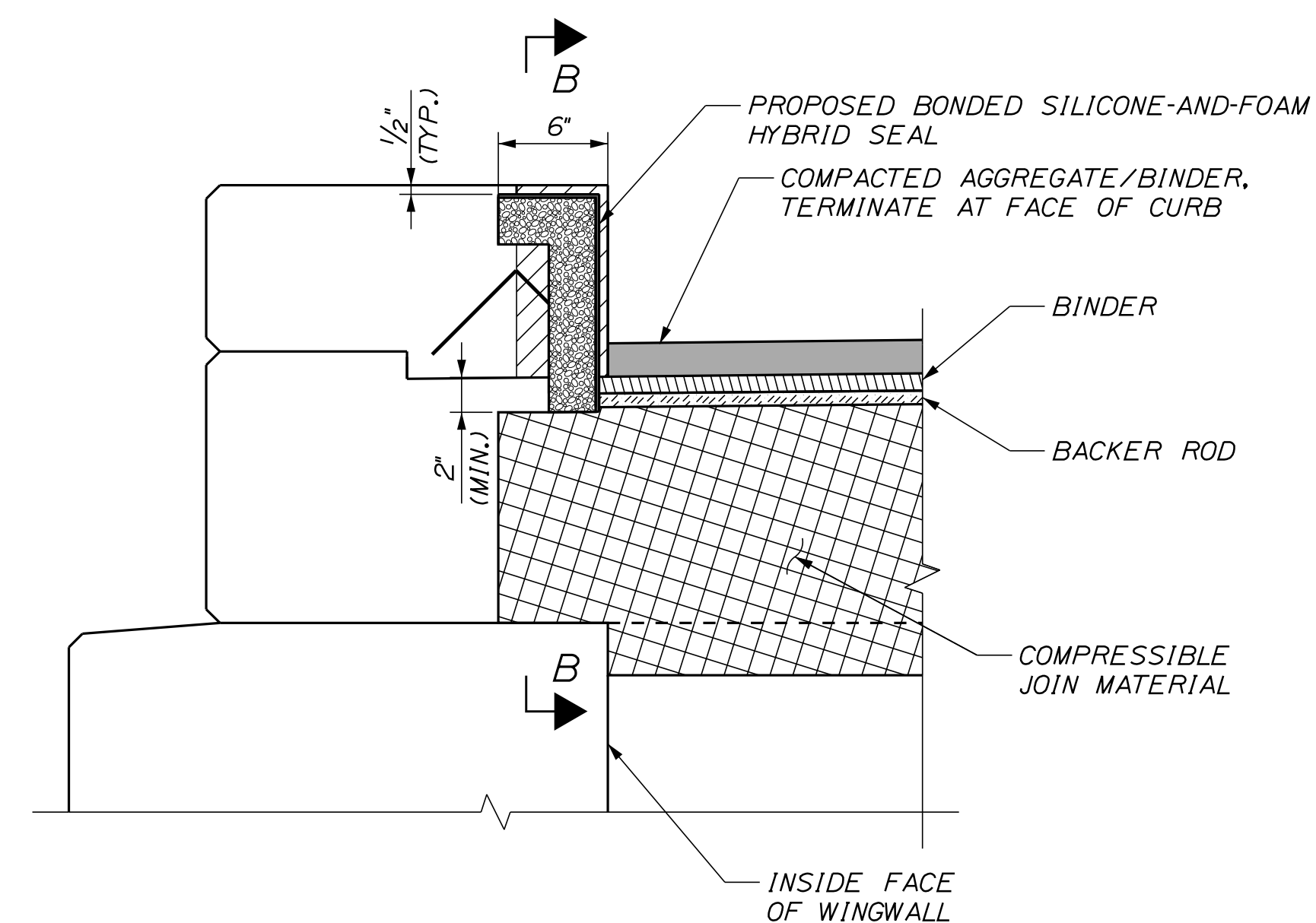
18 OF 51

Date: 4/22/2021



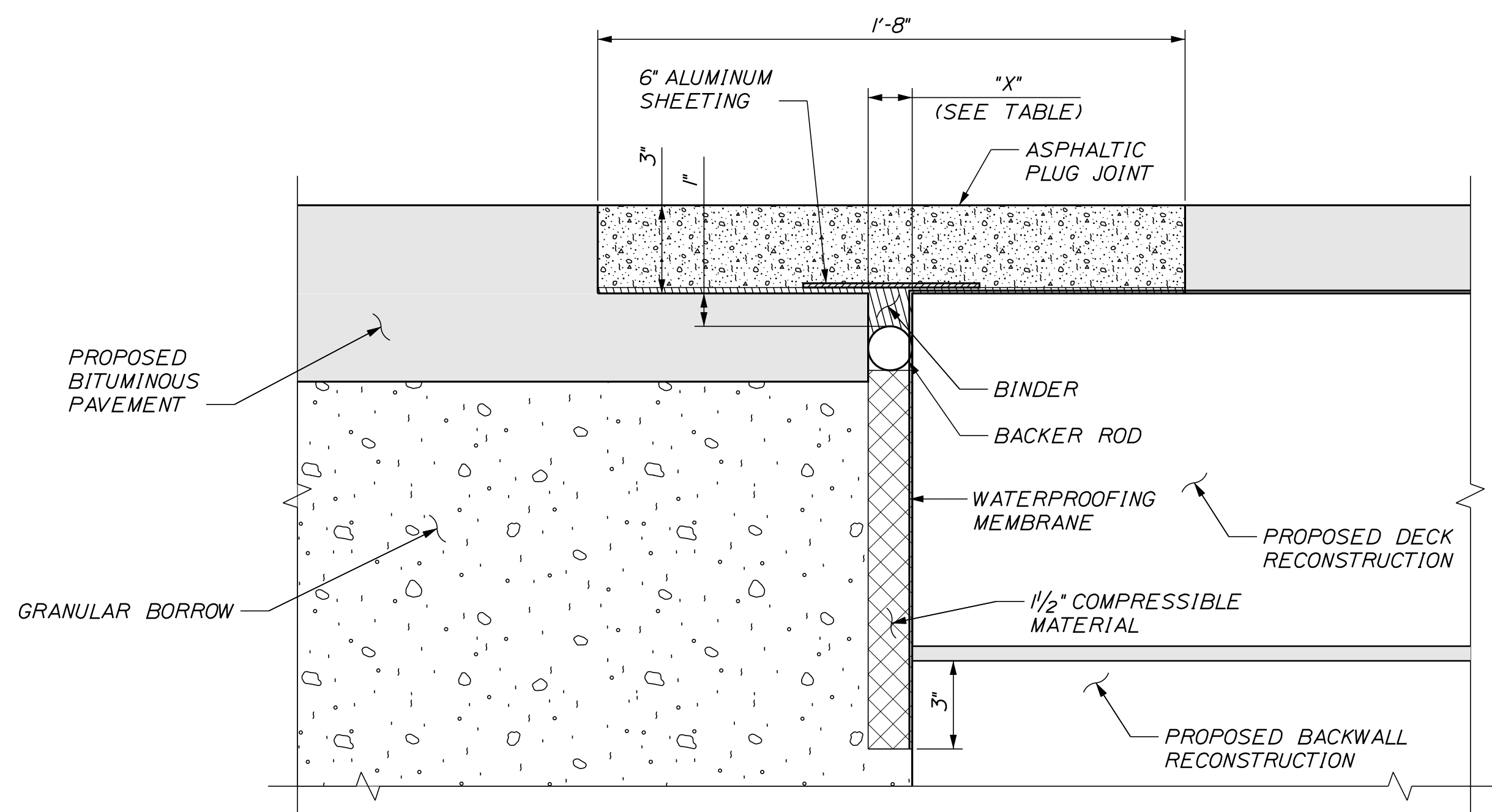
TYPICAL EARTHWORKS SECTION

SCALE: 1/2" = 1'-0"



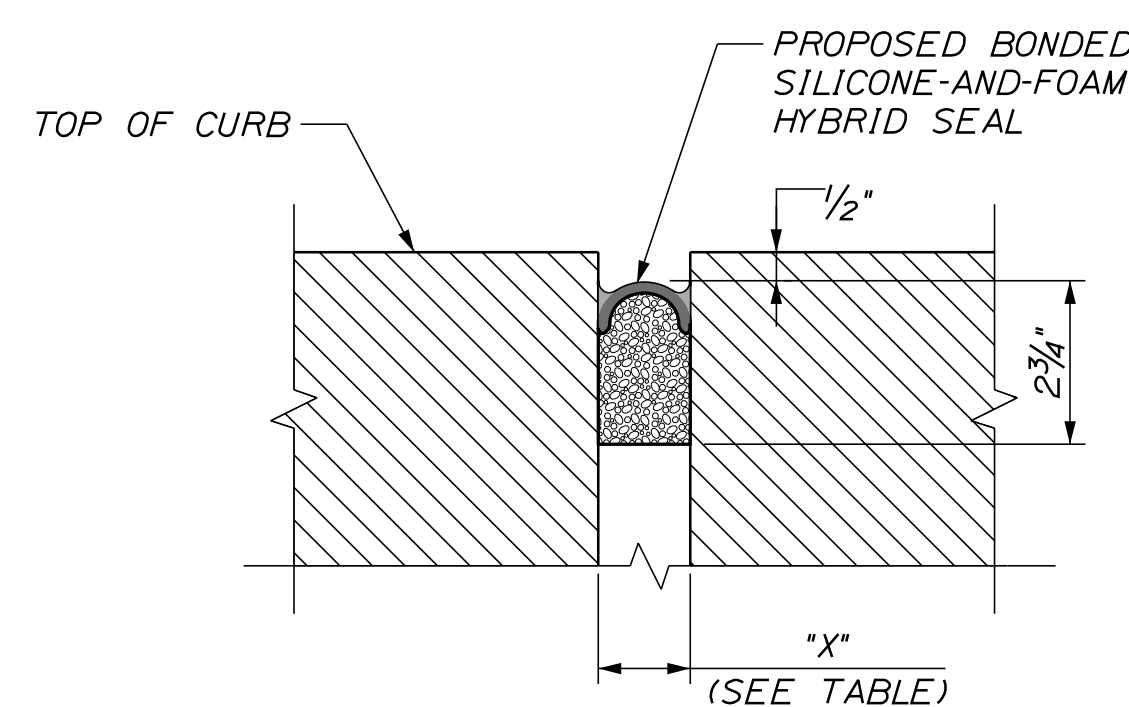
JOINT DETAIL AT CURB

NOT TO SCALE



DETAIL A

NOT TO SCALE



SECTION B-B

NOT TO SCALE

JOINT INSTALLATION TABLE FOR ABUTMENTS					
TEMP (°F)	25°	35°	45°	55°	65°
"X" INCHES	1 5/8"	1 9/16"	1 1/2"	1 7/16"	1 3/8"

NOTES:

- SAW CUTTING EXISTING PAVEMENT SHALL BE INCIDENTAL TO COMMON EXCAVATION.
- THE BONDED SILICONE-AND-FOAM HYBRID SEAL SHALL BE AN EMSEAL BRIDGE EXPANSION JOINT SYSTEM (BEJS) SEAL. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER SPECIFICATION. PAYMENT SHALL BE INCIDENTAL TO ITEM 520.23, EXPANSION DEVICE - ASPHALTIC PLUG JOINT.
- AFTER THE INSTALLATION OF THE ASPHALTIC PLUG JOINT SYSTEM, THE BONDED SILICONE-AND-FOAM HYBRID SEALS SHALL BE INSTALLED IN THE CURBS AS SHOWN ON THE PLANS AND AS RECOMMENDED BY THE MANUFACTURER.
- INDIVIDUAL PAVEMENT LIFTS FOR THE APPROACH PAVEMENT SHALL NOT EXCEED 1 1/2".
- THE TOTAL ANTICIPATED JOINT MOVEMENT IS 1 1/8". THE ASPHALTIC PLUG JOINT SYSTEM SHALL BE CRAFCO MATRIX 501, D.S. BROWN MATRIX 502, OR WATSON BOWMAN ACME WABO EXPANDEX, AND SHALL ONLY BE INSTALLED WITHIN THE AMBIENT TEMPERATURE RANGE INDICATED IN THE JOINT INSTALLATION TABLE ON THIS SHEET.

Filename: ...XXX_MM_68.6_Joint_Repairs.dgn

Scale:			
AS NOTED			
No.	Revision	By	Date

Designed by:			
TYLIN INTERNATIONAL			
CONSULTANT PROJECT MANAGER: Daniel S. Myers			
	By	Date	
	BLT	8/2020	
	Checked		By
			DSM
			8/2020
	Drawn		By
	SAM	8/2020	DSM
		In Charge of	03/2021

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

BENNETT ROAD UNDERPASS (MILE 68.6)

JOINT REPAIR DETAILS

SHEET NUMBER: BR-14

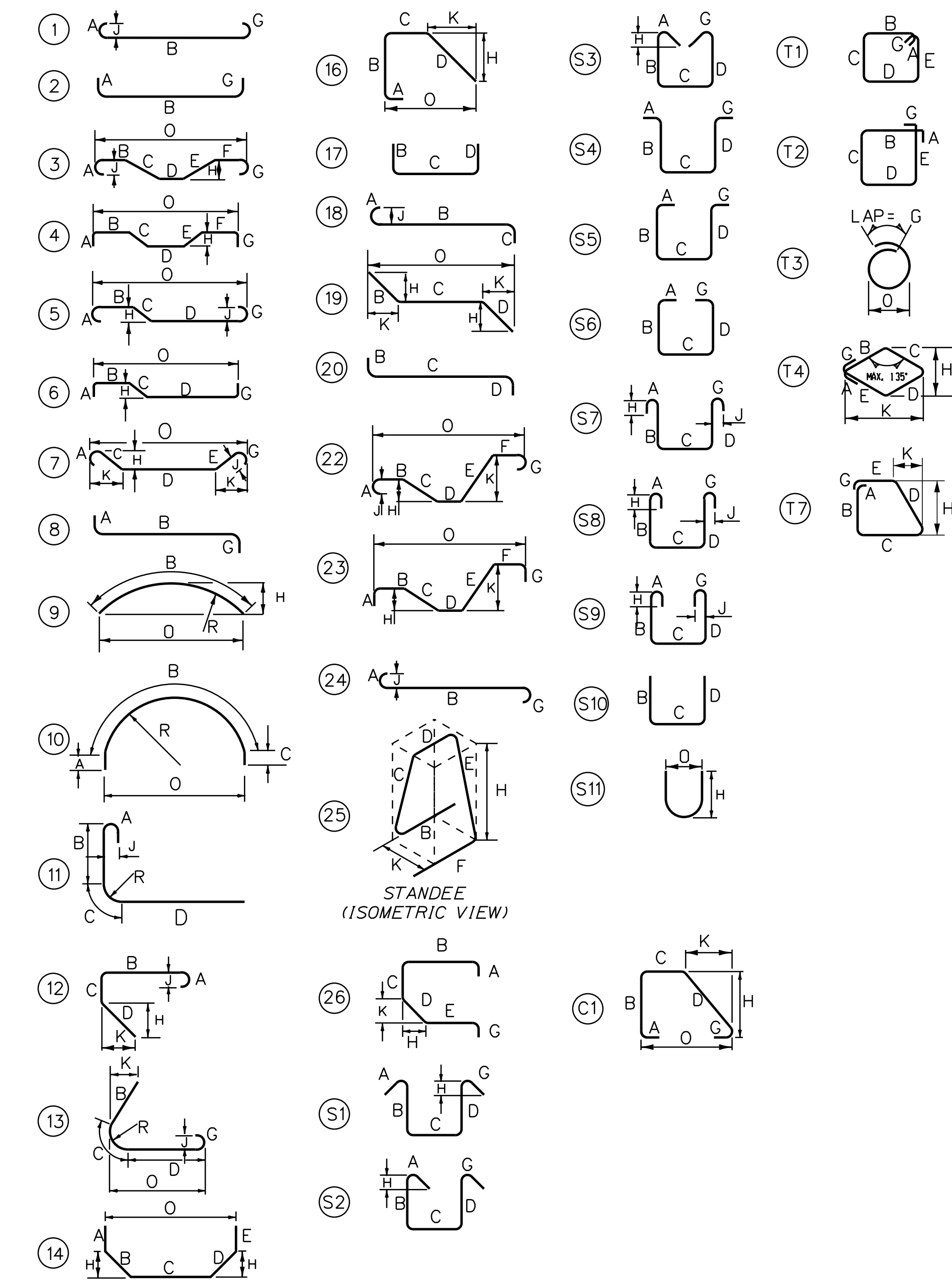
CONTRACT: 2021.03

19 OF 51

REINFORCING STEEL SCHEDULE

STANDARD BAR BEND TYPES

STRAIGHT BARS				BENT BARS																		
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	J	K	R	O	LOCATION		
SUPERSTRUCTURE				ABUTMENT NO. 1																		
S501E	172	4'-9"	HORIZ. LONGITUDINAL	A650	104	3'-0"	2	1'-0"	2'-0"	-	-	-	-	0"	-	-	-	-	-	-	DOWELS	
S502E	46	29'-4"	HORIZ. TRANSVERSE	A651	4	5'-3"	2	1'-0"	4'-3"	-	-	-	-	0"	-	-	-	-	-	-	END POST VERT. DOWEL	
S601E	80	3'-0"	HORIZ. DECK DOWEL	A652	32	10'-6"	C1	1'-0"	3'-3"	1'-8"	3'-3"	-	-	1'-0"	-	-	-	-	-	5"	2'-1"	STEMWALL - STIRRUPS
				A653	20	18'-6"	17	-	1'-8"	16'-10"	0"	-	-	-	-	-	-	-	-	-	-	BACKWALL - HORIZ. BARS
				A654	8	8'-4"	S6	1'-0"	2'-5"	1'-6"	2'-5"	-	-	1'-0"	-	-	-	-	-	-	-	END POST HORIZONTAL
				A655	8	7'-10"	S6	0"	3'-5"	1'-0"	3'-5"	-	-	0"	-	-	-	-	-	-	-	END POST HORIZONTAL
				A656	8	8'-2"	T1	8"	1'-8"	1'-9"	1'-8"	1'-9"	-	8"	-	-	-	-	-	-	-	END POST VERT. STIRRUP
				A657	2	7'-2"	T1	8"	1'-2"	1'-9"	1'-2"	1'-9"	-	8"	-	-	-	-	-	-	-	END POST VERT. STIRRUP
				ABUTMENT NO. 2																		
				B650	104	3'-0"	2	1'-0"	2'-0"	-	-	-	-	0"	-	-	-	-	-	-	-	DOWELS
				B651	4	5'-3"	2	1'-0"	4'-3"	-	-	-	-	0"	-	-	-	-	-	-	-	END POST VERT. DOWEL
				B652	32	10'-6"	C1	1'-0"	3'-3"	1'-8"	3'-3"	-	-	1'-0"	-	-	-	-	-	5"	2'-1"	STEMWALL - STIRRUPS
				B653	20	18'-6"	17	-	1'-8"	16'-10"	0"	-	-	-	-	-	-	-	-	-	-	BACKWALL - HORIZ. BARS
				B654	8	8'-4"	S6	1'-0"	2'-5"	1'-6"	2'-5"	-	-	1'-0"	-	-	-	-	-	-	-	END POST HORIZONTAL
				B655	8	7'-10"	S6	0"	3'-5"	1'-0"	3'-5"	-	-	0"	-	-	-	-	-	-	-	END POST HORIZONTAL
				B656	8	8'-2"	T1	8"	1'-8"	1'-9"	1'-8"	1'-9"	-	8"	-	-	-	-	-	-	-	END POST VERT. STIRRUP
				B657	2	7'-2"	T1	8"	1'-2"	1'-9"	1'-2"	1'-9"	-	8"	-	-	-	-	-	-	-	END POST VERT. STIRRUP
				SUPERSTRUCTURE																		
				S551E	36	5'-3"	S5	10"	1'-3"	1'-1"	1'-3"	-	-	10"	-	-	-	-	-	-	-	CURB STIRRUP
				S552E	80	6'-2"	26	10"	6"	4'-3"	7"	0"	-	0"	6"	-	6"	-	-	-	-	DECK END STIRRUP



REINFORCING GENERAL NOTES:

- UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M31 (ASTM A 615-S1). ALL BARS SHALL BE GRADE 60, UNLESS OTHERWISE DESIGNATED.
- FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS, AND OTHER STANDARD PRACTICE, SEE CURRENT REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE".
- THE FIRST DIGIT FOLLOWING THE LETTER(S) OF THE MARK INDICATES THE SIZE OF THE BAR. ALL BARS WITH MARKS ENDING IN "E" SHALL BE EPOXY COATED.
- ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180 DEGREE AND 135 DEGREE HOOKS.

Date: 4/22/2021

Filename: ...XXX_MM_68.6_Reinf_Sched.dgn

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

By	Date	By	Date
Designed JJL	10/2020	Checked BLT	10/2020
Drawn JJL	10/2020	In Charge of DSM	03/2021

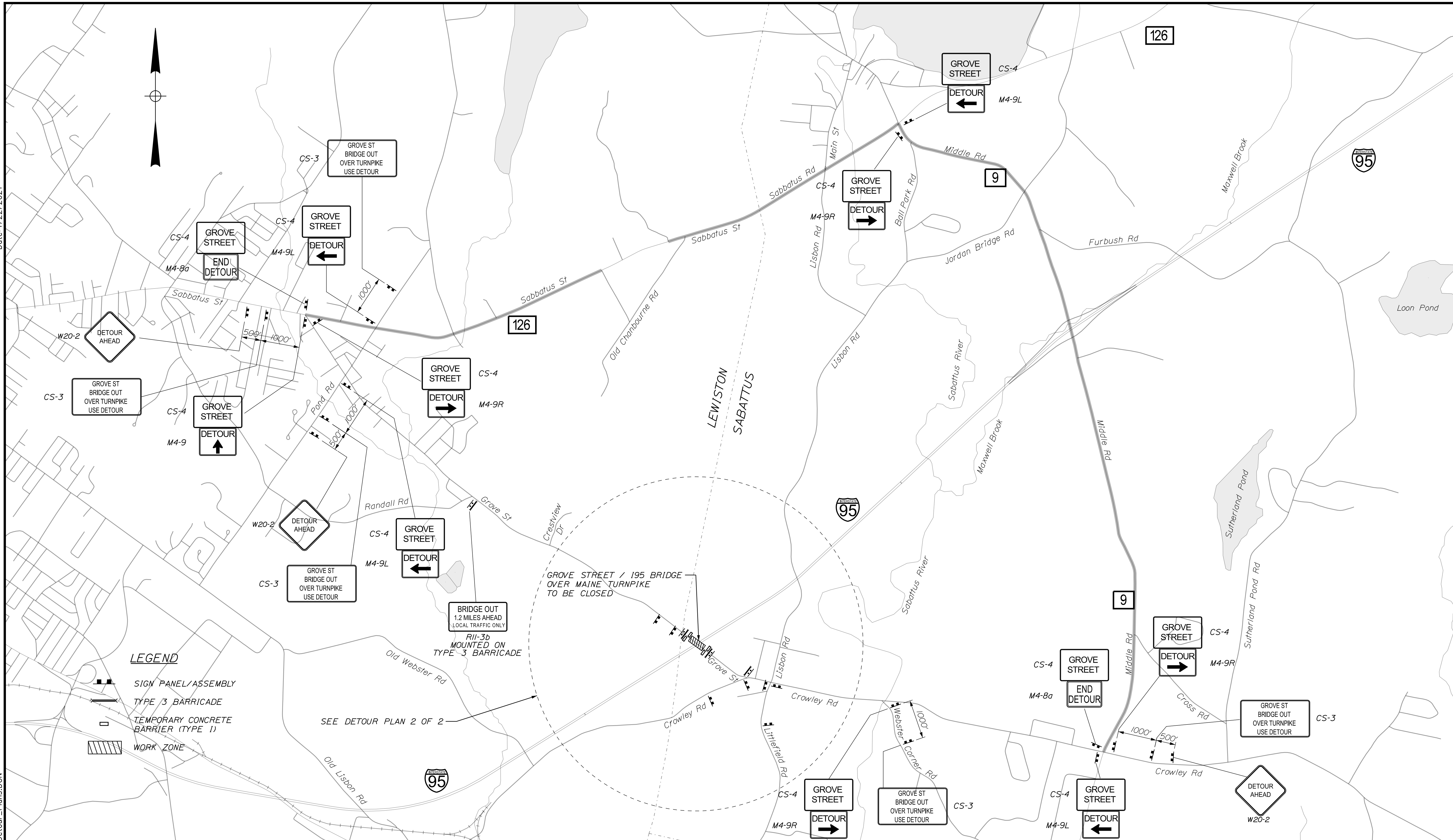
T.Y. Lin International
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THE GOLD STAR MEMORIAL HIGHWAY
 MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS
 BENNETT ROAD UNDERPASS (MILE 68.6)
 REINFORCING STEEL SCHEDULE
 SHEET NUMBER: BR-15
 CONTRACT: 2021.03

Date: 4/22/2021

Filename: ...\\xxx-MM-83.7-Detour_Plans.DGN



LEGEND

- SIGN PANEL/ASSEMBLY
- TYPE 3 BARRICADE
- TEMPORARY CONCRETE BARRIER (TYPE 1)
- WORK ZONE

SEE DETOUR PLAN 2 OF 2

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date	By	Date
Designed	TSK	10/2019	Checked	DWB1 10/2019
Drawn	TSK	10/2019	In Charge of	DSM 03/2021

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

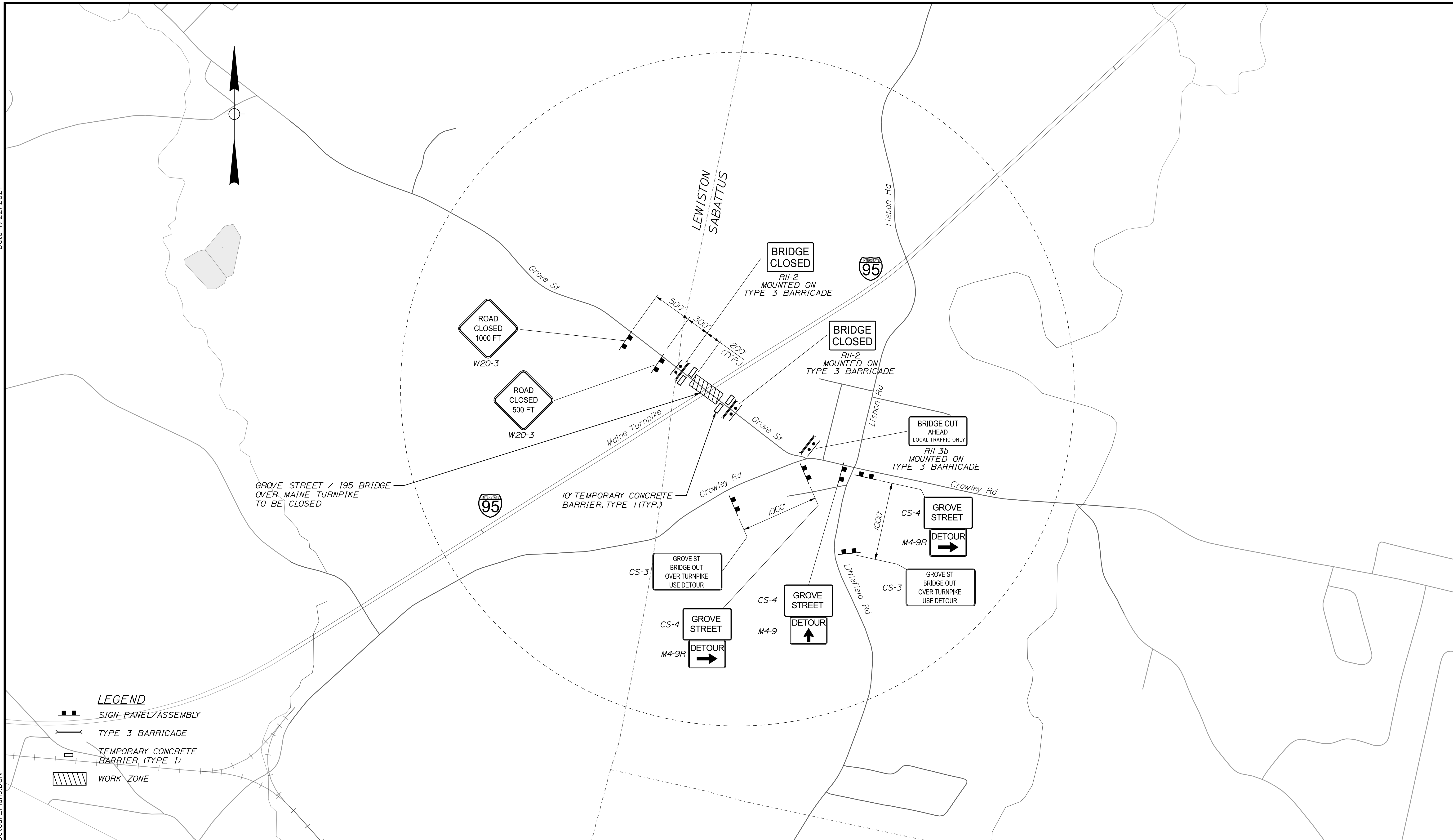
GROVE STREET (MILE 83.7)
 DETOUR PLAN 1 of 2

SHEET NUMBER: GS-01
 21 OF 51

CONTRACT: 2021.03

Date: 4/22/2021

Filename: ...\\xxx_MM_83.7_Detour_Plans.DGN



Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date		By	Date
Designed	TSK	10/2019	Checked	DWB1	10/2019
Drawn	TSK	10/2019	In Charge of	DSM	03/2021

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

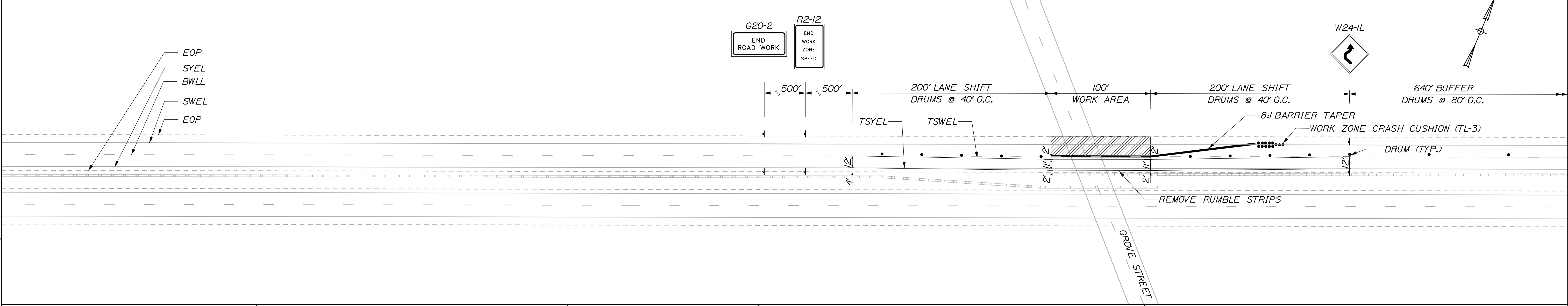
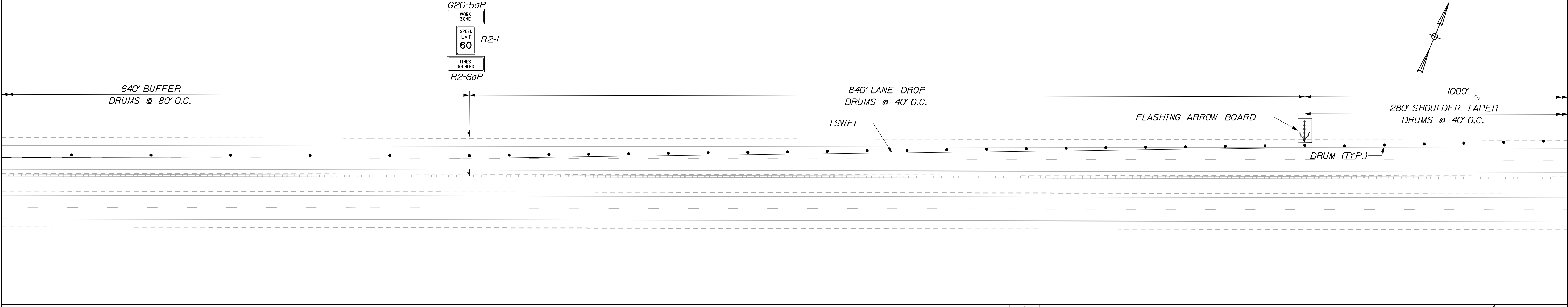
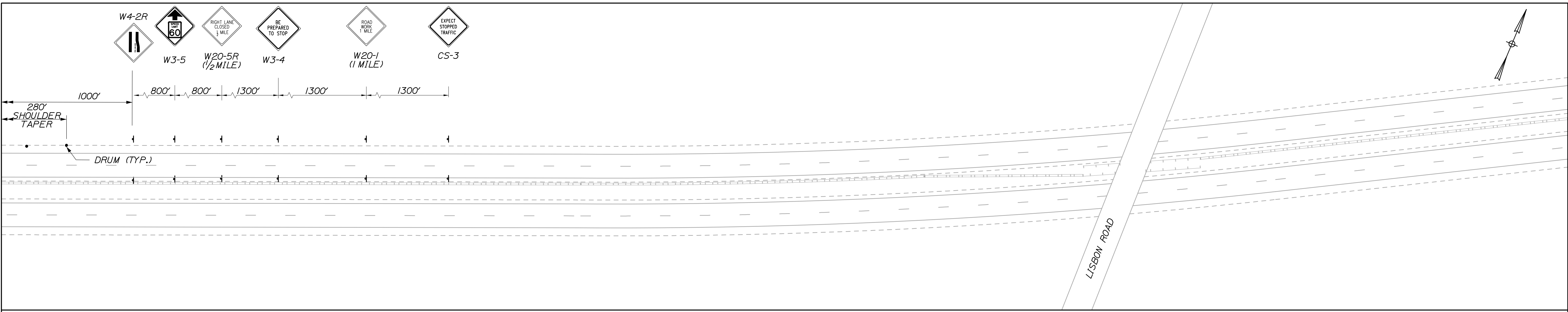
MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

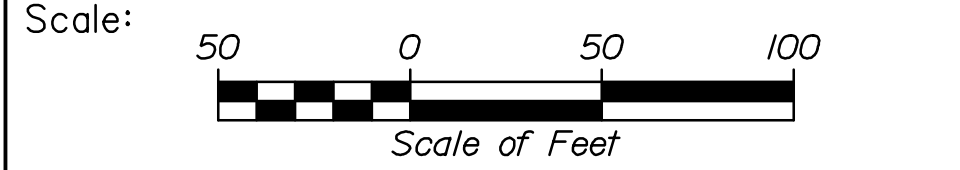
GROVE STREET (MILE 83.7)
 DETOUR PLAN 2 of 2

SHEET NUMBER: GS-02
 CONTRACT: 2021.03
 22 OF 51

Date: 4/16/2021



Filename: 005_M01-Mainline Lane Closure.dgn



Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Tim Cote, P.E.

No.	Revision	By	Date

	By	Date		By	Date
Designed	EDD	03/21	Checked	RWH	03/21
Drawn	EPR	03/21	In Charge of	TRC	03/21

HNTB CORPORATION
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**THE GOLD STAR
 MEMORIAL HIGHWAY**

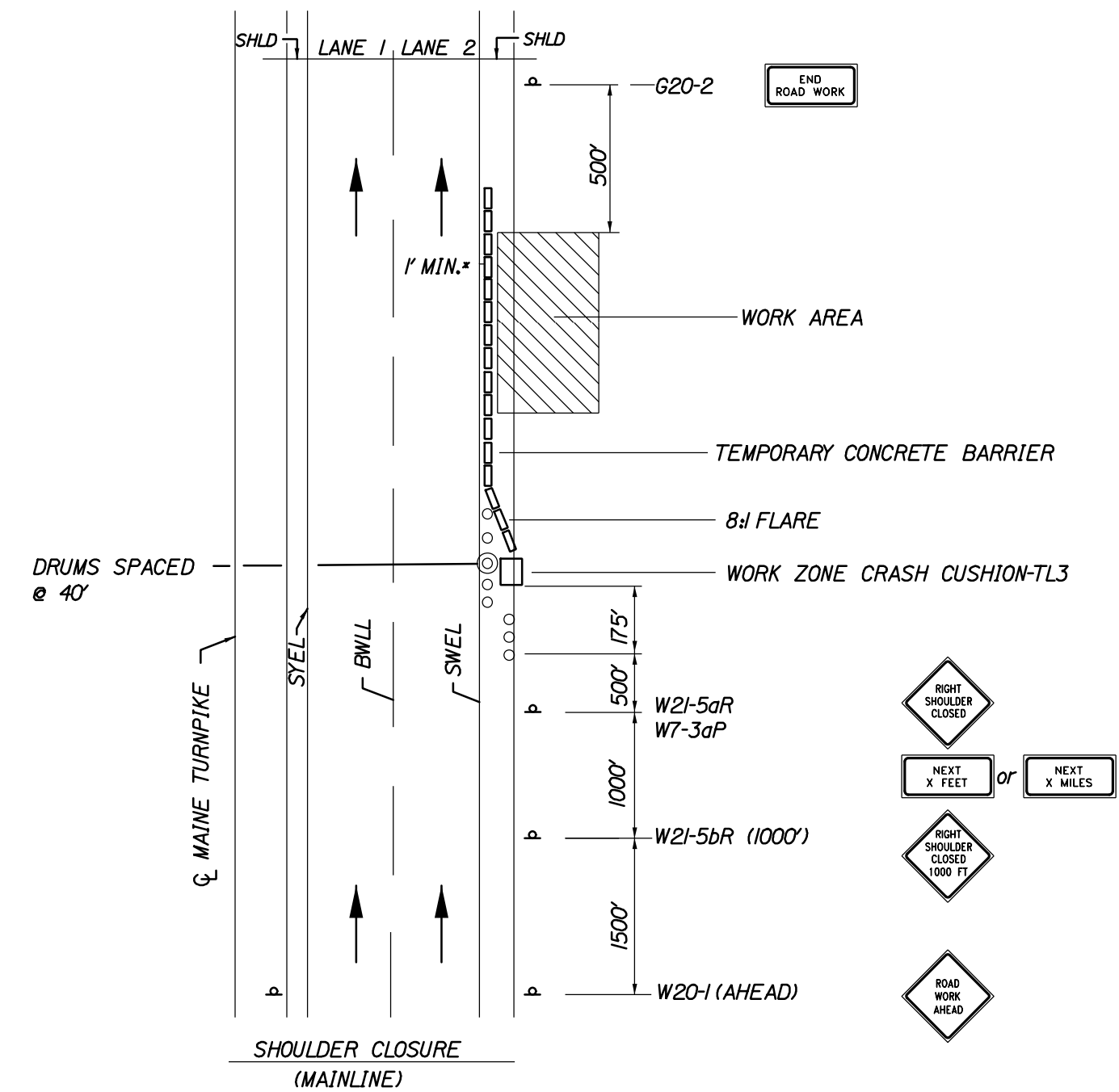
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

**GIRDER REPAIRS
 GROVE STREET UNDERPASS
 MAINTENANCE OF TRAFFIC
 MAINLINE LANE CLOSURE**

CONTRACT: 2021.03

SHEET NUMBER: MT-03
 23 OF 51

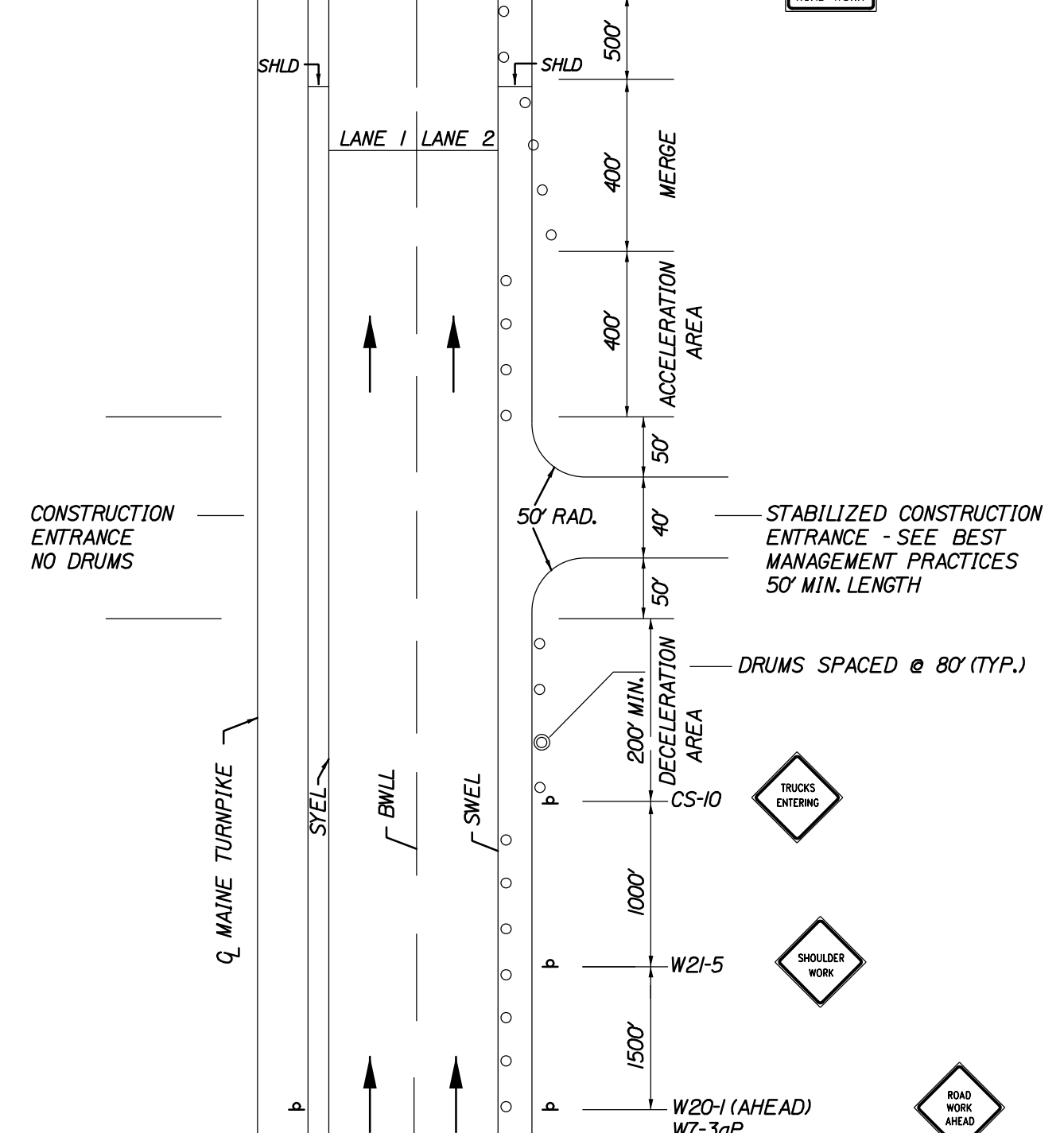
Date: 4/16/2021



SHOULDER CLOSURE

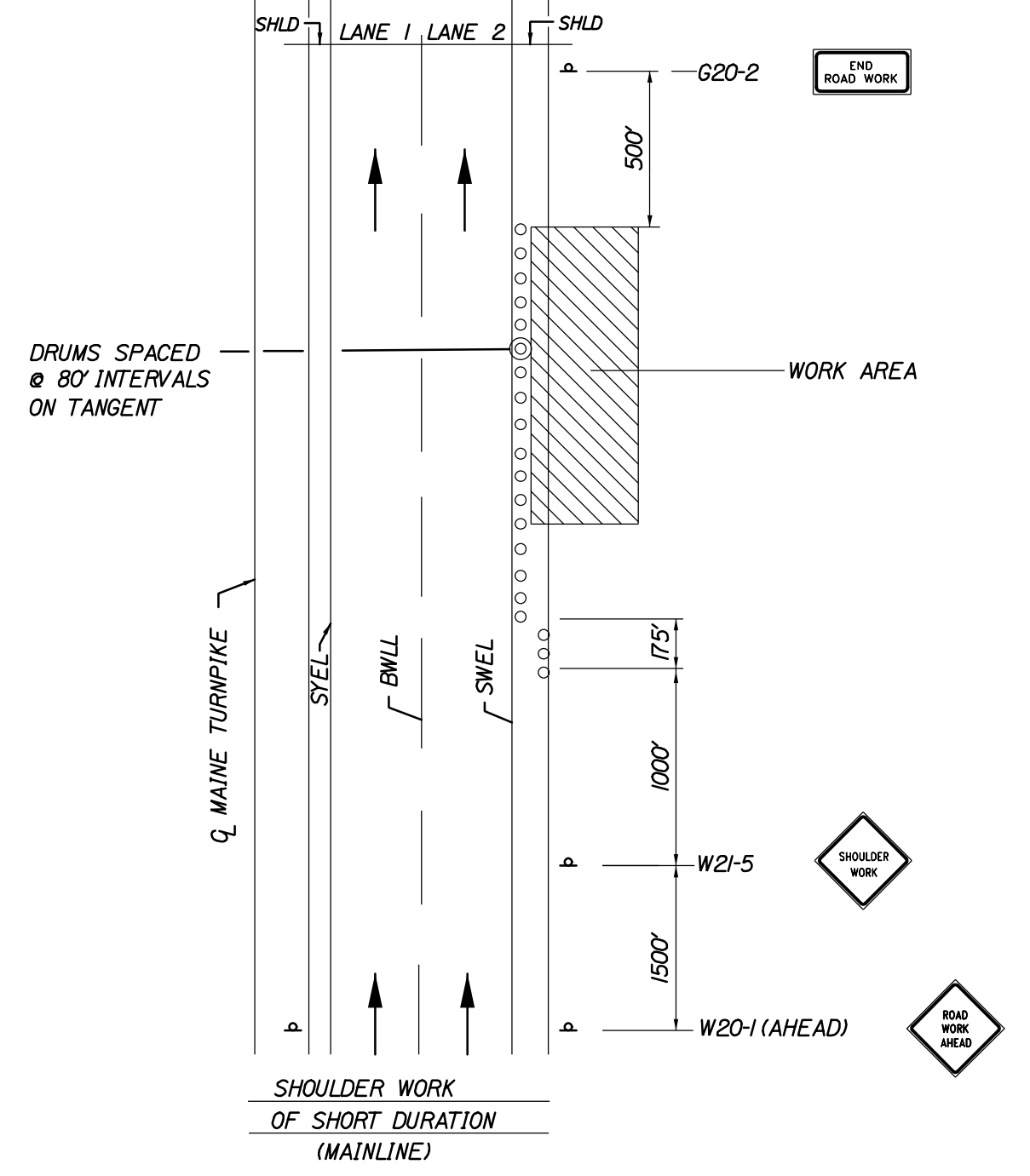
* FOR MAINLINE SHOULDER CLOSURES ONLY

1. THE W20-1 AND G20-2 SIGNS ARE NOT REQUIRED IF THE SHOULDER CLOSURE IS WITHIN A PREVIOUSLY ESTABLISHED WORK ZONE.
2. ONLY ONE SHOULDER CLOSURE PERMITTED PER BOUND AT ONE TIME.



STABILIZED CONSTRUCTION ENTRANCE

1. SIGN G20-2 IS NOT REQUIRED IF ENTRANCE IS WITHIN THE WORK ZONE.



SHOULDER WORK

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

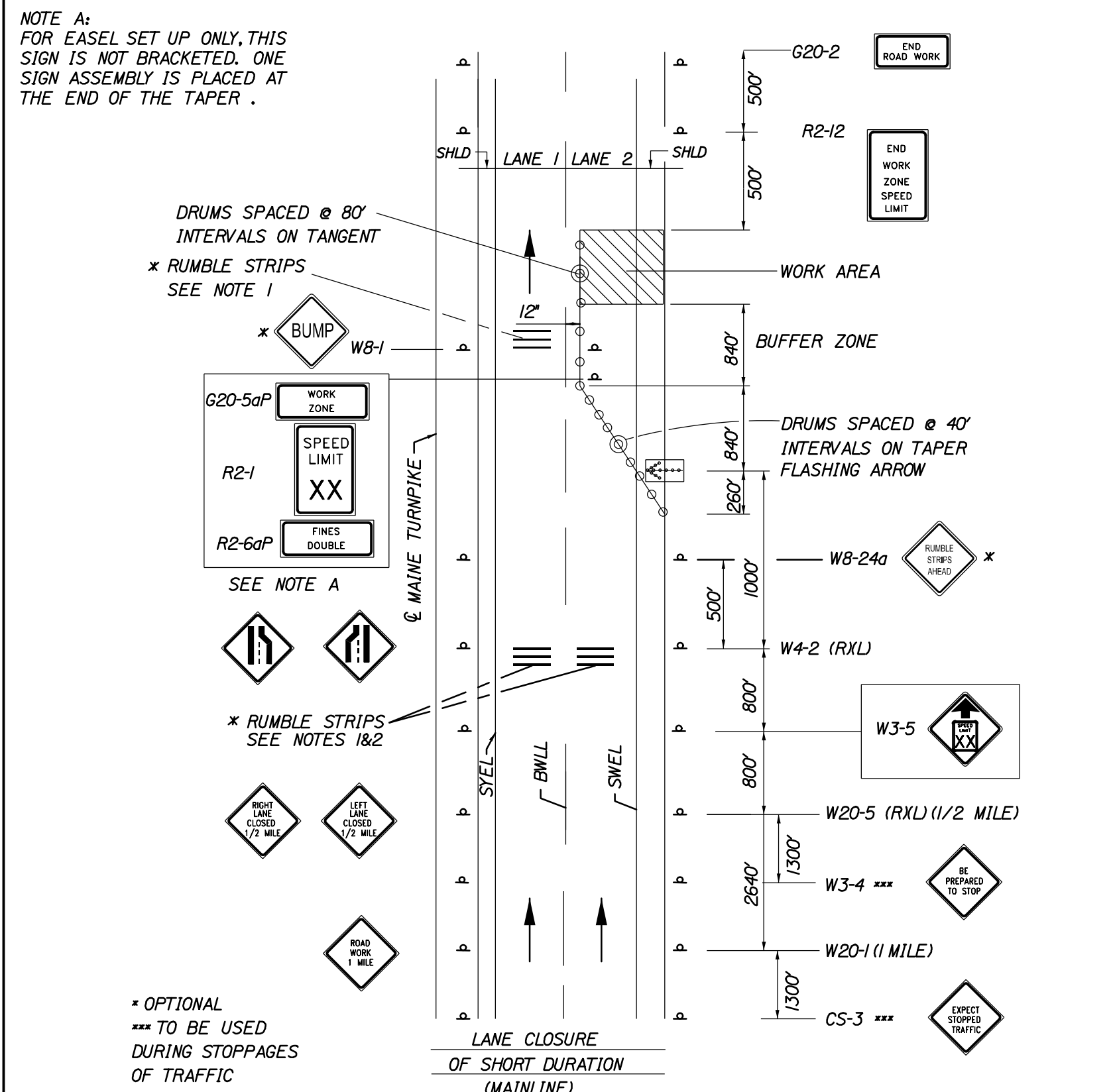
- GENERAL MAINTENANCE OF TRAFFIC NOTES:**
1. ALL PAVEMENT STRIPING & SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", U.S.D.O.T., F.H.W.A., LATEST EDITION.
 2. THESE PLANS SHOW THE GENERAL CONDITION FOR TURNPIKE MAINLINE TRAFFIC CONTROL DURING CONSTRUCTION. SLIGHT 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.
 3. 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 PAVEMENT MARKINGS.
 4. 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.
 5. SPEED LIMIT, STOP AND YIELD SIGNS SHALL BE A MINIMUM OF 5' ABOVE THE PAVEMENT.
 6. PRIOR TO SHIFTING TRAFFIC THE CONTRACTOR SHALL REMOVE THE EXISTING RUMBLE STRIPS AND PAVE FLUSH WITH THE SHOULDER PAVEMENT. PAYMENT WILL BE UNDER ITEM 202.206 REMOVING RUMBLE STRIPS.
 7. REMOVAL OF TEMPORARY PAVEMENT MARKINGS ON FINAL PAVEMENT SURFACE SHALL BE DONE IN SUCH A MANNER TO REMOVE AS LITTLE PAVEMENT AS POSSIBLE.

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
- TDWEL = TEMPORARY DOTTED WHITE EDGE LINE
- TSWEL = TEMPORARY SOLID WHITE EDGE LINE
- TSWLL = TEMPORARY SOLID WHITE LANE LINE
- TSYCL = TEMPORARY SOLID YELLOW CENTER LINE

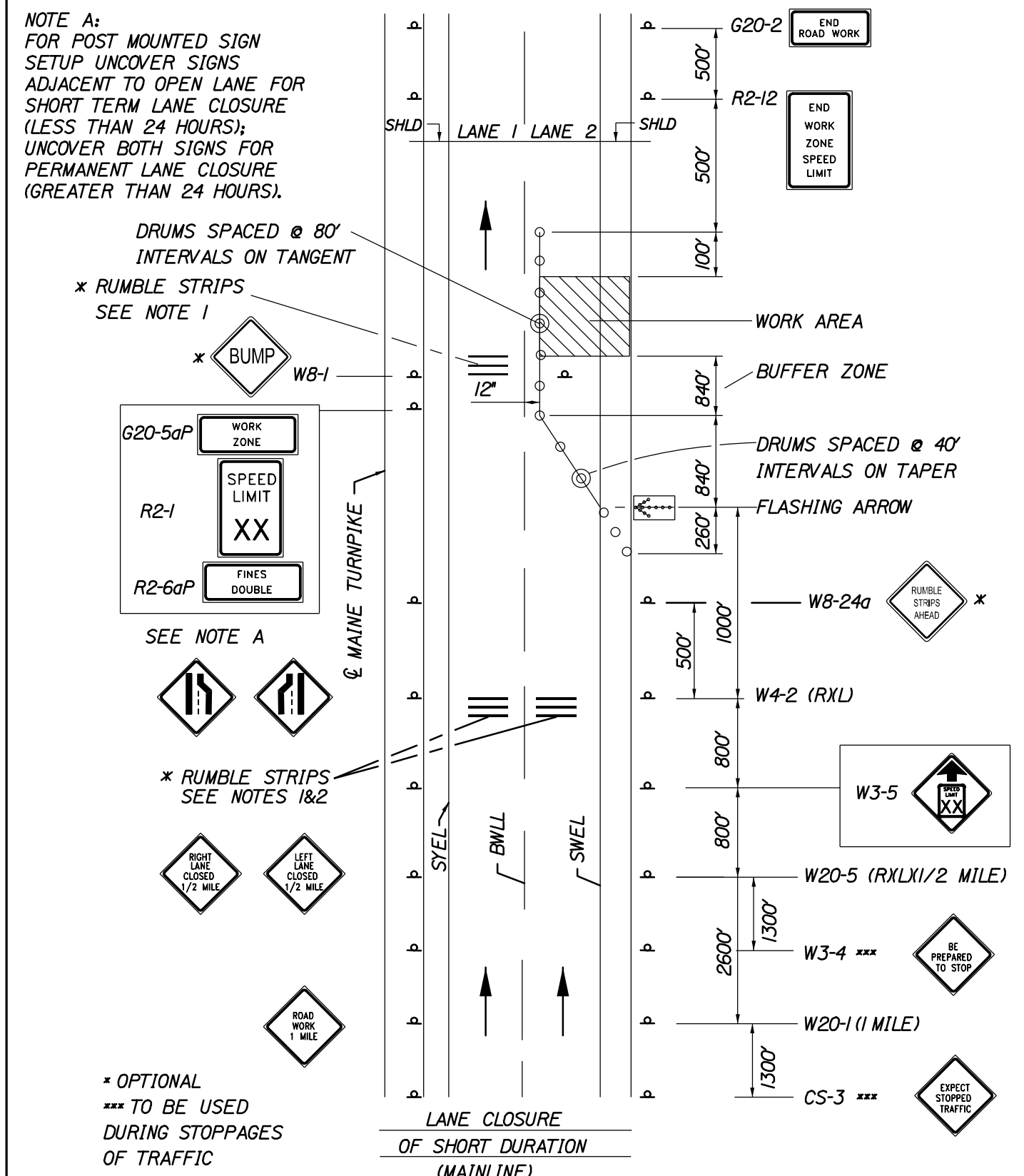
TEMPORARY RUMBLE STRIP NOTES

1. IF RUMBLE STRIPS ARE USED THEY SHALL BE PLACED IN ONE OF THE FOLLOWING CONFIGURATIONS:
 - * ADJACENT TO THE WORK ZONE (1 UNIT)
 - * UPSTREAM FROM THE TAPER FOR THE WORKZONE (2 UNITS)
 - * BOTH ADJACENT TO THE WORKZONE AND PRIOR TO THE TAPER (3 UNITS)
 W8-1 SIGNS SHALL BE PLACED ADJACENT TO THE FIRST RUMBLE STRIP AT ANY LOCATION. ONLY ONE SET OF W8-24a SIGNS ARE REQUIRED FOR ANY OF THE ABOVE CONFIGURATIONS.
2. RUMBLE STRIPS MAY BE PLACED UPSTREAM OF THE TAPER BETWEEN THE W3-5 SIGNS AND THE W4-2 SIGNS. IF RUMBLE STRIPS ARE INSTALLED PRIOR TO TAPER, W8-1 SIGNS SHALL BE PLACED ADJACENT TO THE FIRST STRIP AND THE W8-24a SIGNS SHALL BE MOVED TO 400' AFTER THE W20-5 SIGNS.



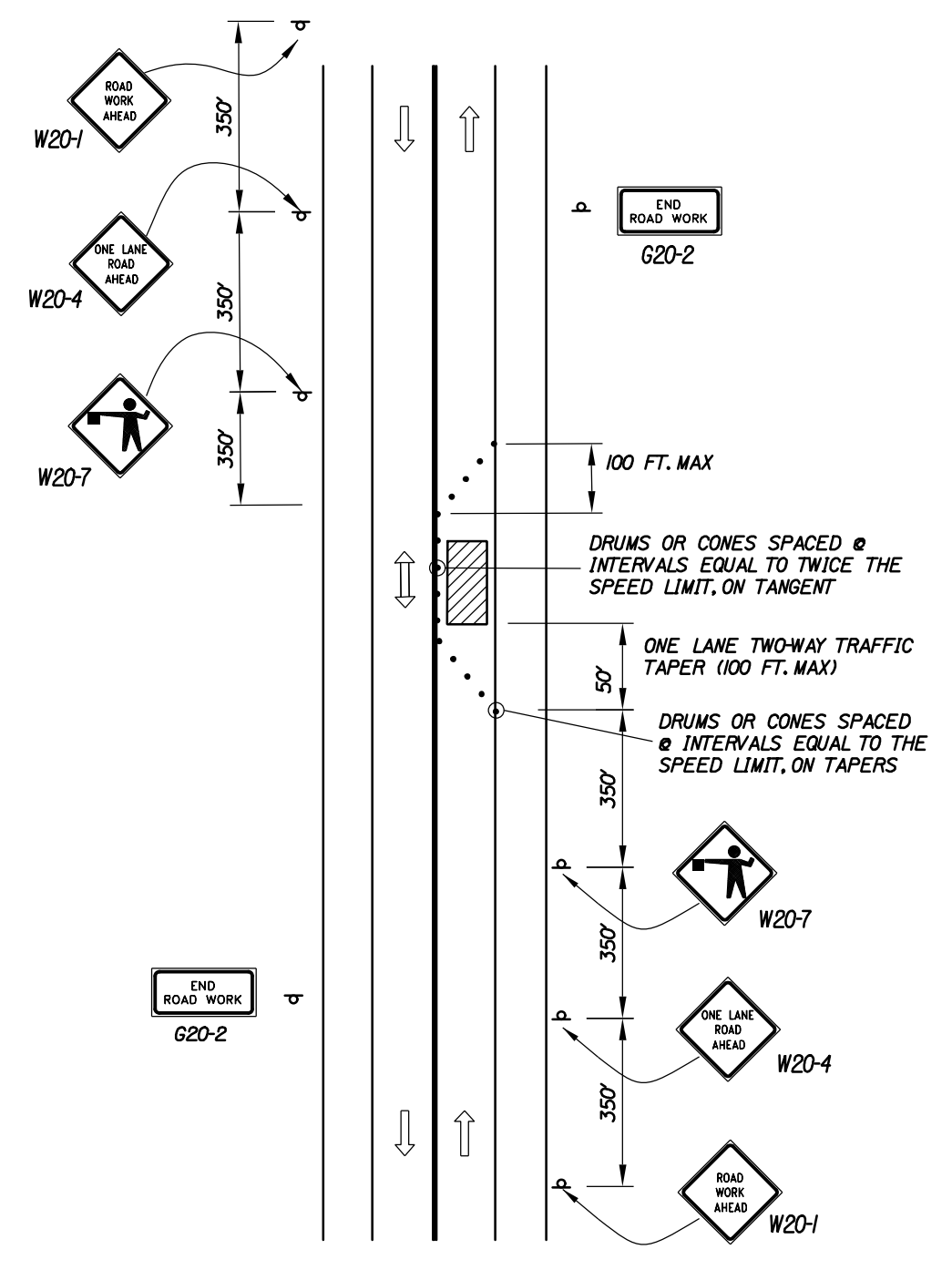
SINGLE LANE CLOSURE - SIGNS ON EASELS

* OPTIONAL
*** TO BE USED DURING STOPPAGES OF TRAFFIC



SINGLE LANE CLOSURE - POST MOUNTED SIGN SETUP

* OPTIONAL
*** TO BE USED DURING STOPPAGES OF TRAFFIC



LOCAL ROAD SINGLE LANE CLOSURE

- NOTES:
1. ROAD WORK AHEAD & END ROAD WORK SIGNS MAY BE OMITTED FOR SHORT DURATION OPERATIONS (LESS THAN 1 HOUR).
 2. FLAGGERS SHALL BE LOCATED SO THEY ARE CLEARLY VISIBLE TO APPROACHING DRIVERS.
 3. SIGN SPACING ASSUMES LOCAL ROAD SPEED IS 40 MPH OR LESS.

Filename: 006_MOT_DETAILS.dgn

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Tim Cote, P.E.

	By	Date		By	Date
Designed	EDD	03/21	Checked	RWH	03/21
Drawn	EPR	03/21	In Charge of	TRC	03/21

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

**GIRDER REPAIRS
GROVE STREET UNDERPASS
MAINTENANCE OF TRAFFIC
DETAILS**

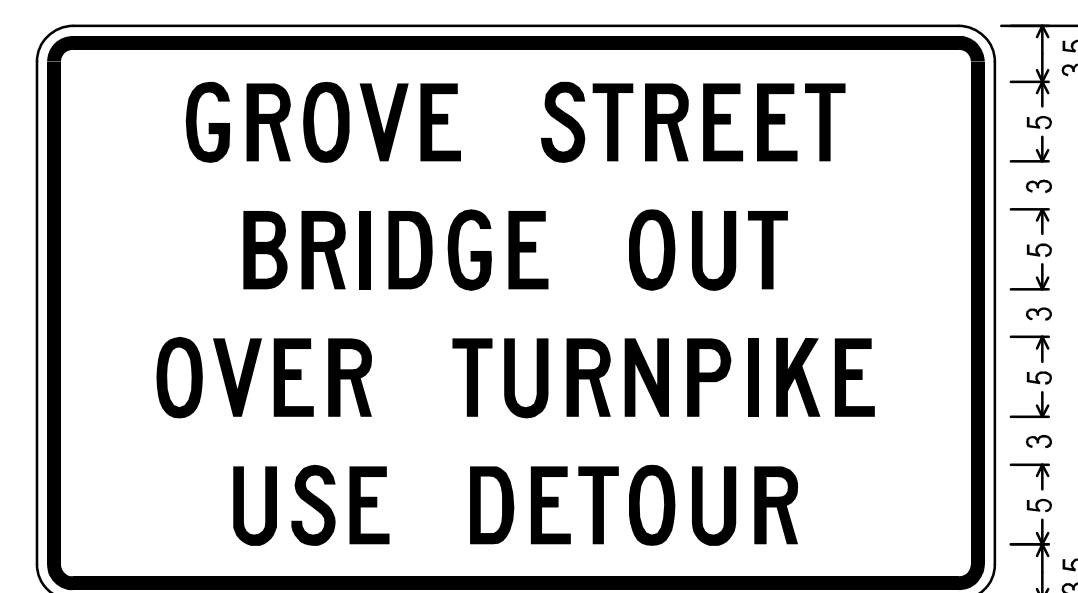
SHEET NUMBER: MT-04
CONTRACT: 2021.03
24 OF 51

MAINLINE CONSTRUCTION SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND BORDER	
CS-3	48"	48"		6" 6" 6"	4" 4"		2	ORANGE	BLACK	16.00 (32.0)
G20-2	48"	24"					2	ORANGE	BLACK	8.00 (32.0)
G20-5aP	48"	24"		6" 6"	4.5"		2	ORANGE	BLACK	8.00 (16.0)
R2-1 (60)	48"	60"		TEXT DIMENSIONS SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS 2004 EDITION AND 2012 SUPPLEMENT			2	WHITE	BLACK	20.00 (40.0)
R2-6aP	48"	24"		6" 6"	4.5"		2	WHITE	BLACK	8.00 (16.0)
R2-12	48"	60"		TEXT DIMENSIONS SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS 2004 EDITION AND 2012 SUPPLEMENT			2	WHITE	BLACK	20.00 (40.0)
W3-4	48"	48"					2	ORANGE	BLACK	16.00 (32.0)
W3-5 (60)	48"	48"					2	ORANGE	BLACK	16.00 (32.0)
W4-2 (LEFT) (RIGHT)	48"	48"					2 2	ORANGE	BLACK	16.00 (32.0) (32.0)
W20-1 (1 MILE)	48"	48"					2	ORANGE	BLACK	16.00 (32.0)
W20-5L (1/2 MILE) (LEFT) (RIGHT)	48"	48"					2 2	ORANGE	BLACK	16.00 (32.0) (32.0)
W24-1 (LEFT)	48"	48"					2	ORANGE	BLACK	16.00 (32.0)

DETOUR CONSTRUCTION SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND BORDER	
CS-3	60"	36"		5C 5C 5C 5C	3" 3" 3"		7	ORANGE	BLACK	15.00 (105)
CS-4	36"	24"		5D 5D	4"		14	ORANGE	BLACK	6.00 (84)
M4-8a	24"	18"		TEXT DIMENSIONS SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS 2004 EDITION AND 2012 SUPPLEMENT			2	ORANGE	BLACK	3.00 (6)
M4-9	30"	24"					2	ORANGE	BLACK	5.00 (10)
M4-9(L)	30"	24"					4	ORANGE	BLACK	5.00 (20)
M4-9(R)	30"	24"					6	ORANGE	BLACK	5.00 (30)
R11-2	48"	30"					2	WHITE	BLACK	10.00 (20)
R11-3b	60"	30"					2	WHITE	BLACK	12.50 (25)
W20-2	36"	36"					3	ORANGE	BLACK	9.00 (27)
W20-3 (500) (1000)	36"	36"					1 1	ORANGE	BLACK	9.00 (9) 9.00 (9)



2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
 [GROVE STREET] Black C 2K;
 [BRIDGE OUT] Black C 2K;
 [OVER TURNPIKE] Black C 2K;
 [USE DETOUR] Black C 2K;

2.250" Radius, 0.875" Border, 0.625" Indent, Black on Orange;
 [GROVE] Black D 2K;
 [STREET] Black D 2K;

Date: 4/16/2021

Filename: 007_MOT_SignSummary_01.dgn

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Tim Cote, P.E.

	By	Date		By	Date
Designed	EDD	03/21	Checked	RWH	03/21
Drawn	EPR	03/21	In Charge of	TRC	03/21

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MAINE TURNPIKE

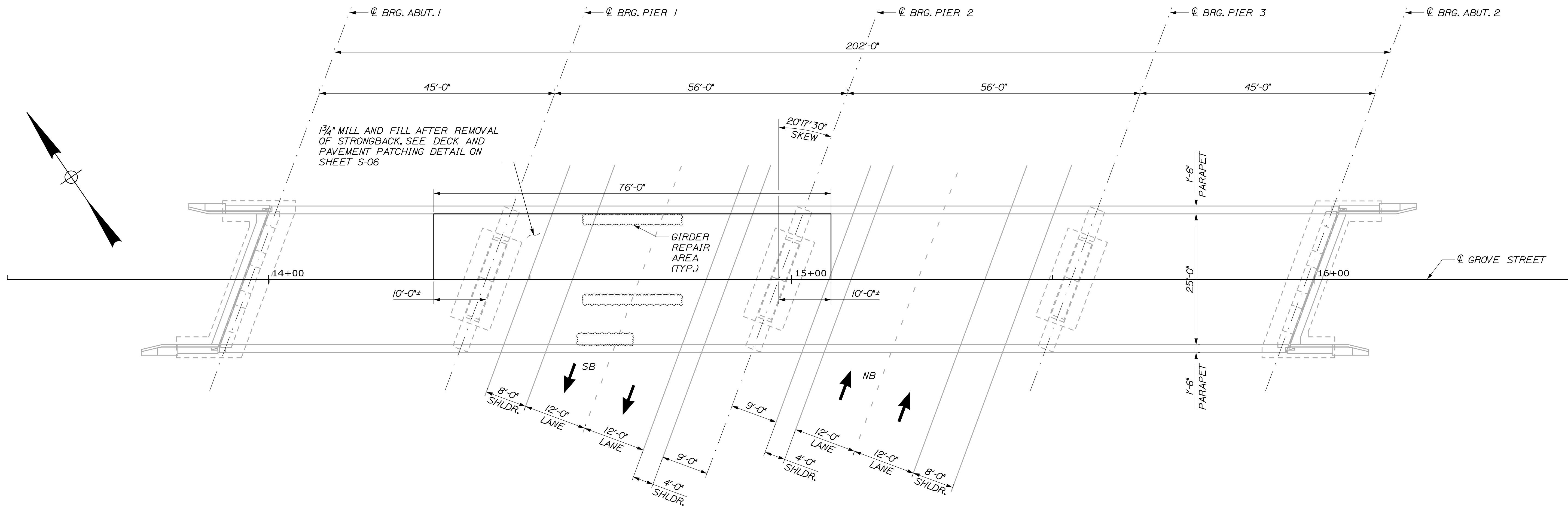
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

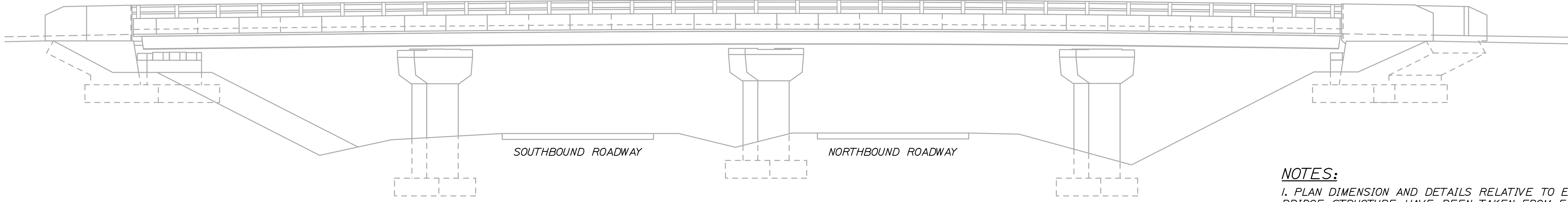
GIRDER REPAIRS
 GROVE STREET UNDERPASS
 MAINTENANCE OF TRAFFIC
 SIGN SUMMARY - MAINE TURNPIKE

SHEET NUMBER: MT-05
 CONTRACT: 2021.03
 25 OF 51

Date: 4/16/2021



PLAN
1" = 10'-0"



ELEVATION
1" = 10'-0"

- NOTES:**
1. PLAN DIMENSION AND DETAILS RELATIVE TO EXISTING BRIDGE STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND DETAILS AND SUBMIT NECESSARY ADJUSTMENTS FOR APPROVAL PRIOR TO CONSTRUCTION.
 2. FOR GIRDER REPAIR GENERAL NOTES, SEE SHEET GN-01.
 3. FOR FRAMING PLAN, SEE SHEET S-02.

Filename: 008_GeneralPlan.dgn

Scale:			
No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: Tim Cote, P.E.

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Designed	GLS	03/21	Checked	HJW	03/21
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THE GOLD STAR
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MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

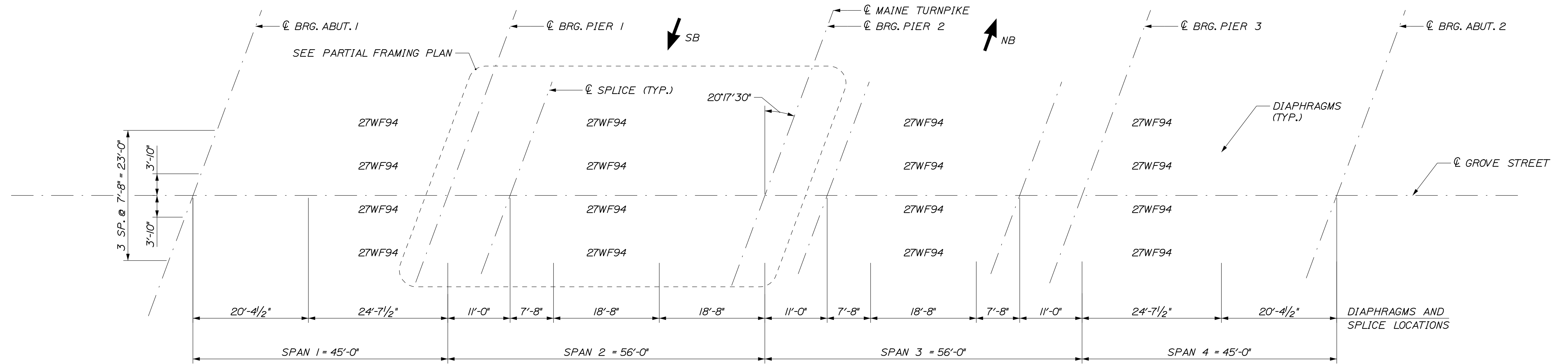
GIRDER REPAIRS
GROVE STREET UNDERPASS
GENERAL PLAN AND ELEVATION

CONTRACT: 2021.03

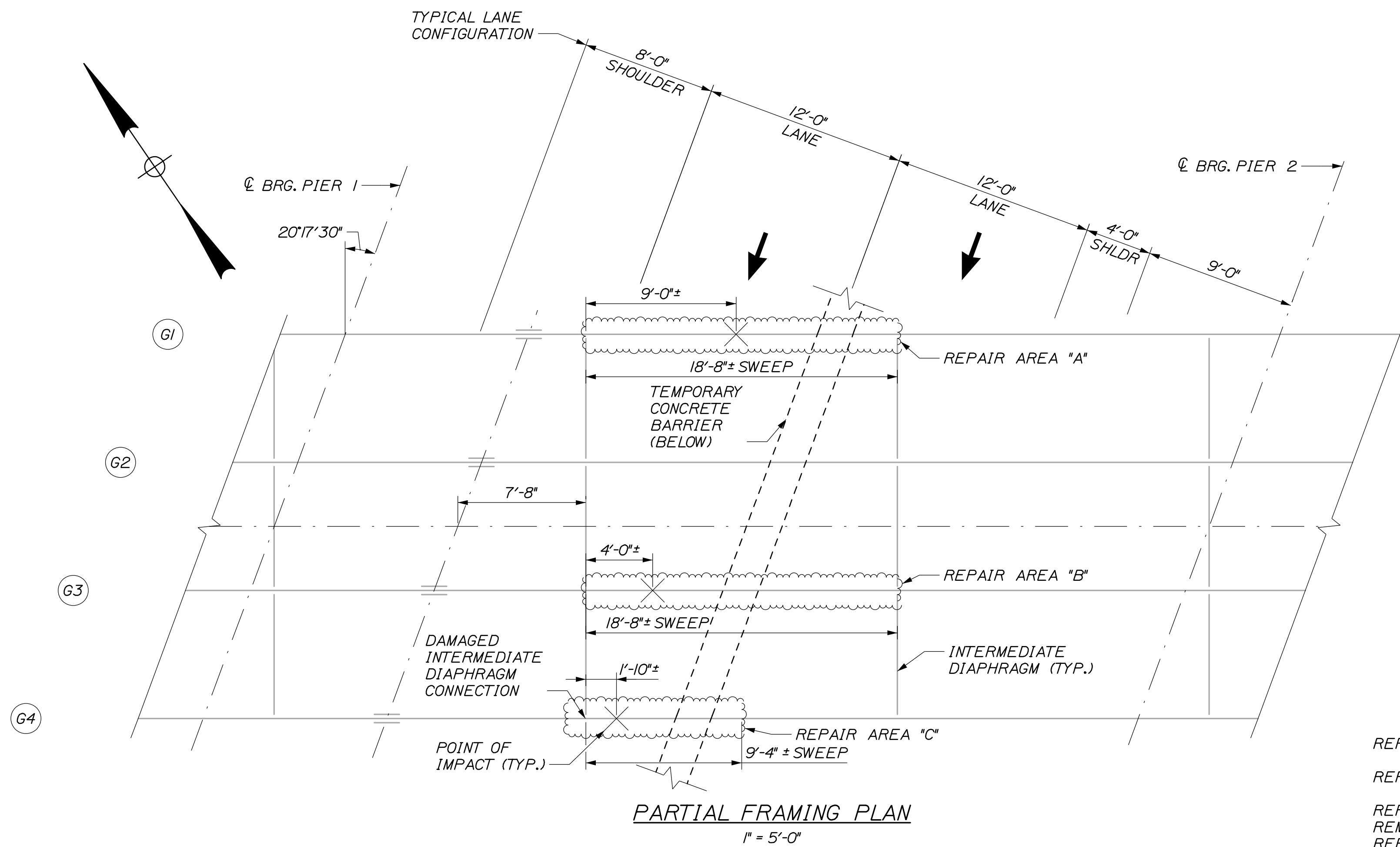
SHEET NUMBER: S-01

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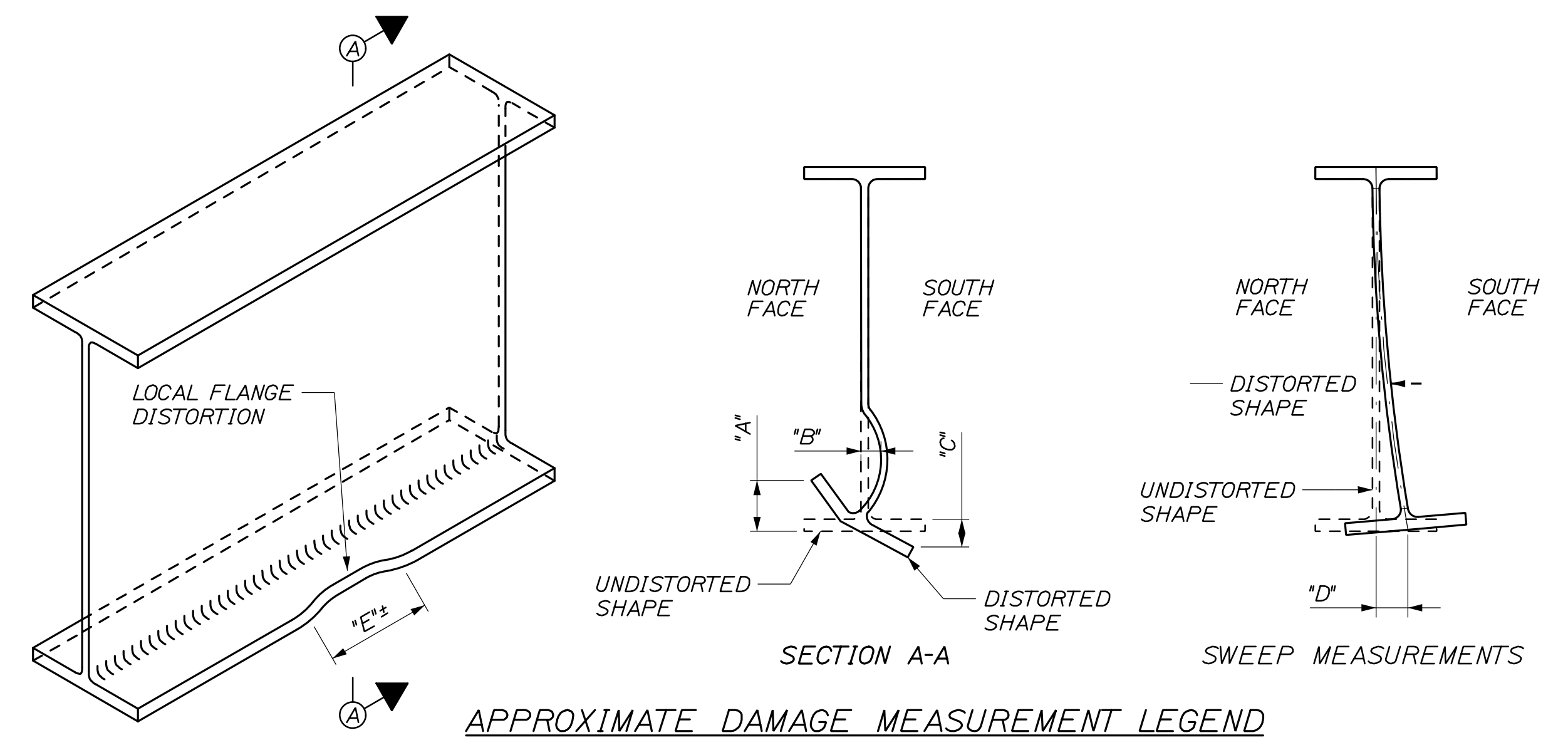
Date: 4/16/2021



FRAMING PLAN
1" = 10'-0"



PARTIAL FRAMING PLAN
1" = 5'-0"



DAMAGE MEASUREMENTS (MAX.)			
DIMENSION	REPAIR "A"	REPAIR "B"	REPAIR "C"
A	2"	2"	1 3/4"
B	N/A	N/A	N/A
C	2"	1"	1/2"
D	6"	3"	1 3/4"
E	5'-0"	2'-0"	1'-6"

REPAIR AREA "A" = HEAT STRAIGHTENING, GIRDER INSERT, AND PAINTING
 REPAIR AREA "B" = HEAT STRAIGHTENING, GRINDING AND PAINTING
 REPAIR AREA "C" = HEAT STRAIGHTENING, GRINDING AND PAINTING. REMOVE LOOSE RIVET ON DIAPHRAGM CONNECTION ANGLE AND REPLACE WITH A HIGH STRENGTH BOLT.

NOTES:

- DAMAGE MEASUREMENTS AND LENGTH OF SWEEP ARE APPROXIMATE AND ARE BASED ON A LIMITED FIELD ASSESSMENT. THE EXACT LOCATIONS, LENGTHS, AND MAGNITUDE OF DISTORTIONS SHALL BE DETERMINED BY CONTRACTOR. SEE SPECIAL PROVISIONS FOR PHOTOS OF DAMAGE AREAS.
- HEAT STRAIGHTENING TO BE COMPLETED BY ONE OF THE PREQUALIFIED HEAT STRAIGHTENING SUBCONTRACTORS IN SPECIAL PROVISION 531. THE SPECIALTY HEAT STRAIGHTENING SUBCONTRACTOR SHALL DETERMINE LIMITS OF YIELDED FLANGE AND SUBMIT THE PROPOSED HEAT STRAIGHTENING PROCEDURE AND PATTERNS TO THE RESIDENT FOR APPROVAL PRIOR TO HEAT STRAIGHTENING.
- FOR GIRDER REPAIR GENERAL NOTES, SEE SHEET GN-01.
- FOR GENERAL PLAN AND ELEVATION, SEE SHEET S-01.
- FOR GIRDER INSERT DETAILS, SEE SHEET S-03.
- FOR HEAT STRAIGHTENING DETAILS, SEE SHEET S-04.

Filename: 009_Framing Plan.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
HNTB					
CONSULTANT PROJECT MANAGER: Tim Cote, P.E.					
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**THE GOLD STAR
MEMORIAL HIGHWAY**

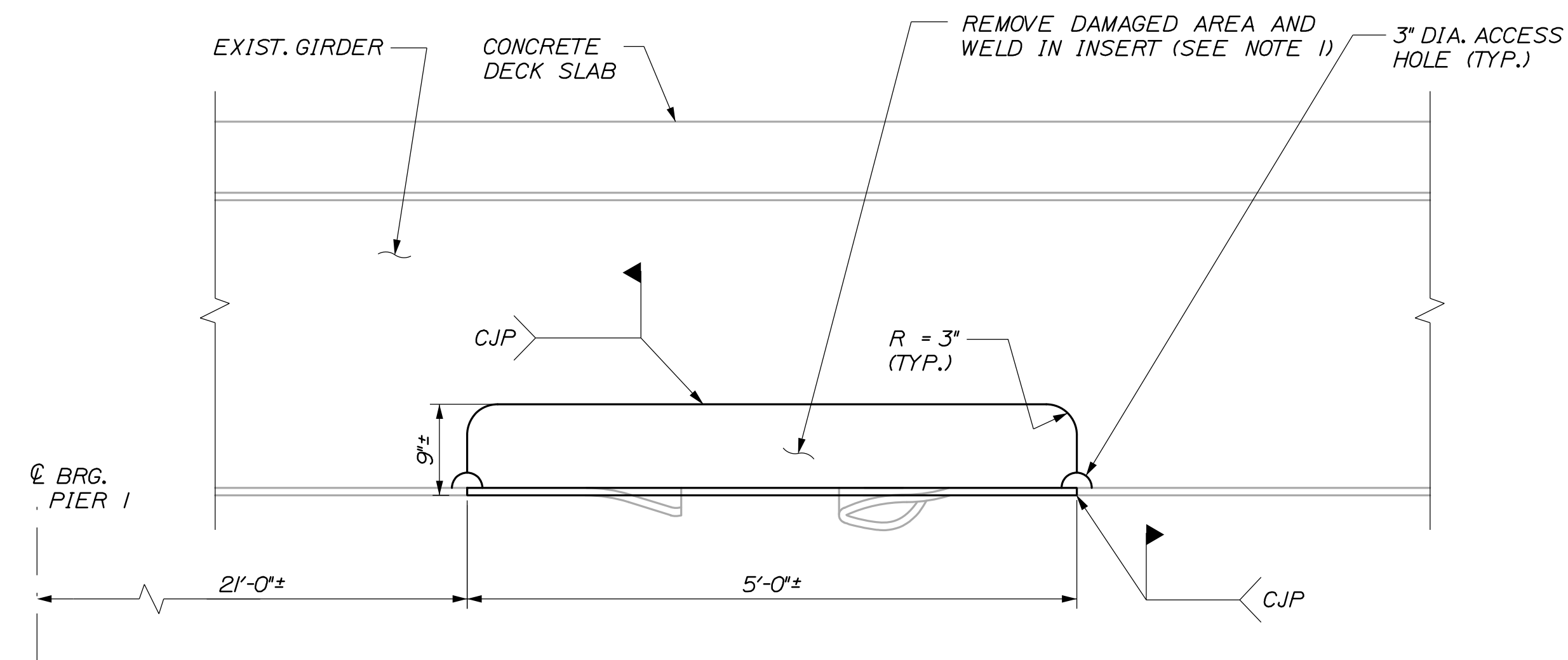
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

**GIRDER REPAIRS
GROVE STREET UNDERPASS**

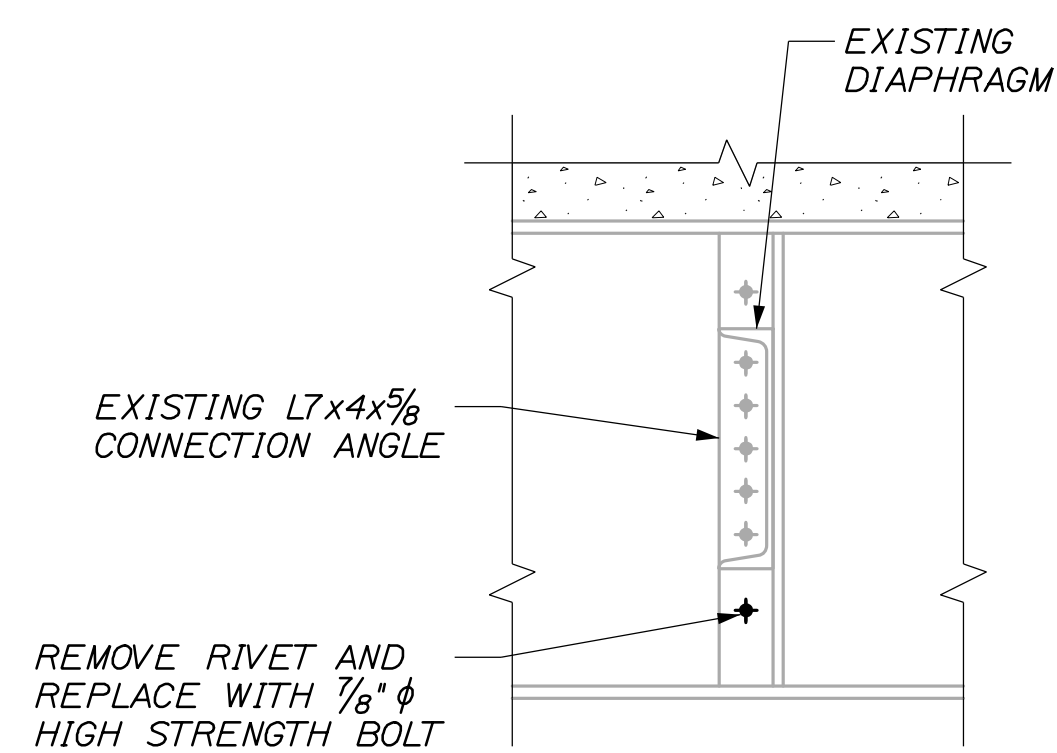
FRAMING PLAN AND REPAIR AREAS

SHEET NUMBER: S-02
CONTRACT: 2021.03
27 OF 51

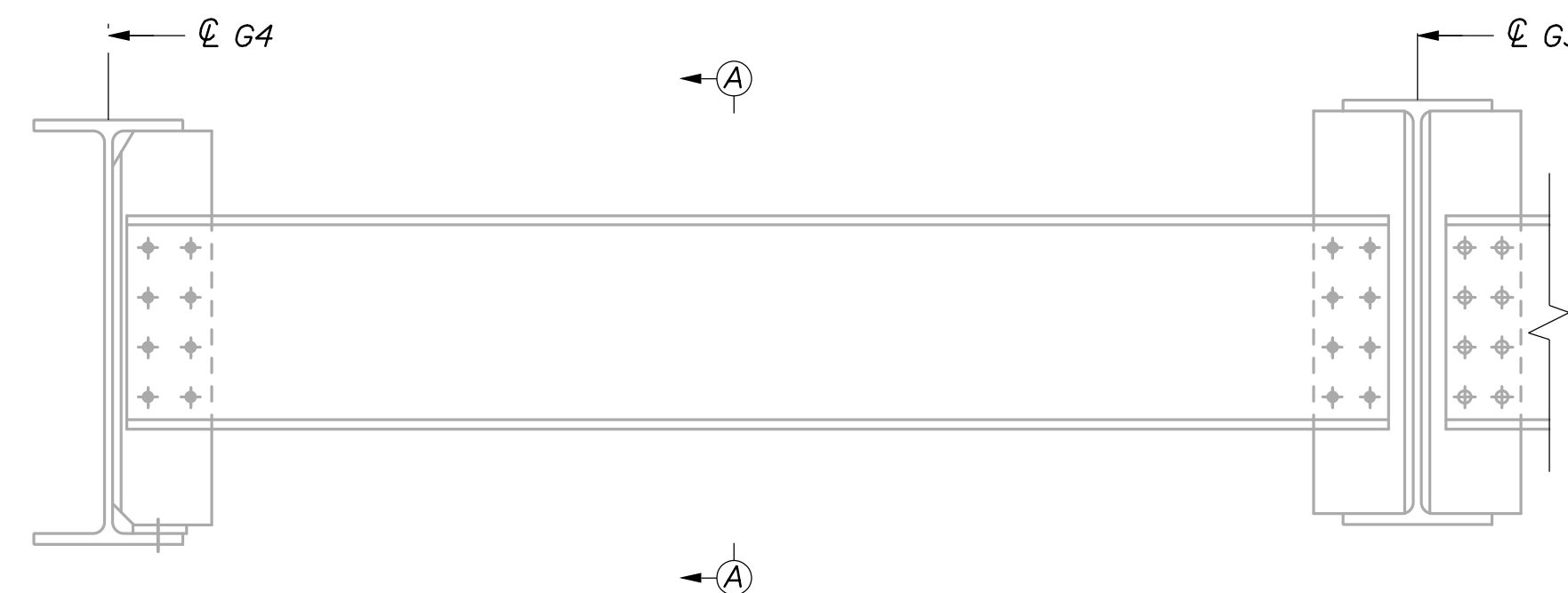
Date: 4/16/2021



BEAM INSERT DETAIL
(REPAIR AREA "A")



SECTION A-A



TYPICAL INTERMEDIATE DIAPHRAGM DETAIL

NOTES:

1. AFTER HEAT STRAIGHTENING IS COMPLETE, THE RESIDENT SHALL DETERMINE LIMITS OF GIRDER FLANGE AND WEB REMOVAL. FOLLOWING REMOVAL OF FLANGE AND WEB, THE CONTRACTOR SHALL FIELD MEASURE AND PROVIDE THE EXACT INSERT DIMENSION FOR APPROVAL PRIOR TO FABRICATION. THE CONTRACTOR SHALL FURNISH T-SECTIONS WITH SIMILAR WEB THICKNESS AND FLANGE DIMENSIONS AS EXISTING BEAMS. THE INSERT MAY BE ROLLED SHAPES OR WELDED PLATE STEEL OF APPROPRIATE SIZES.
2. GRIND WELDS FLUSH AFTER WELDING. ALL GRINDING SHALL BE PERFORMED IN THE LONGITUDINAL DIRECTION OF THE BEAM.

Filename: 010_Structural Repair Details.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
HNTB					
CONSULTANT PROJECT MANAGER: Tim Cote, P.E.					
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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

GIRDER REPAIRS
GROVE STREET UNDERPASS
REPAIR DETAILS I

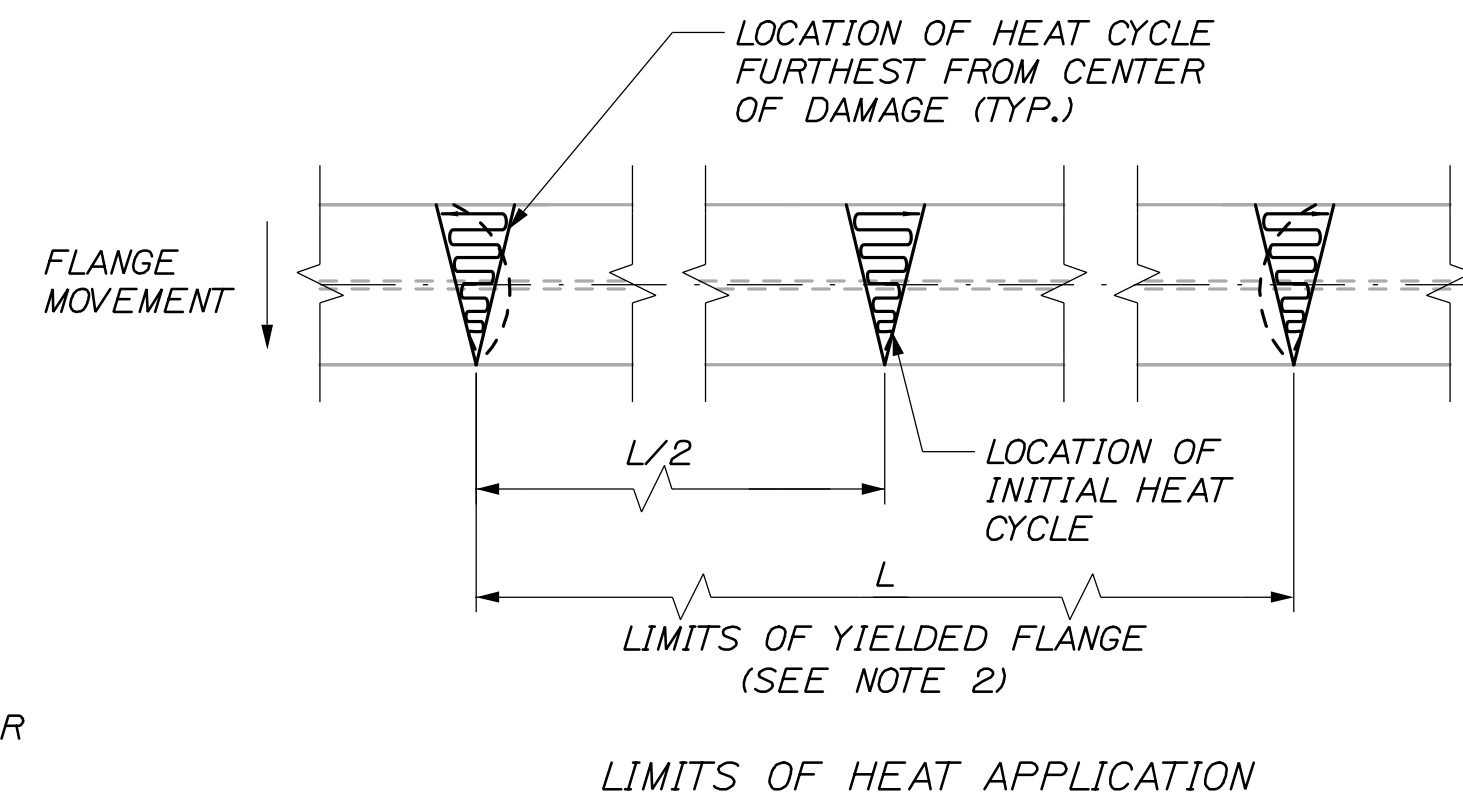
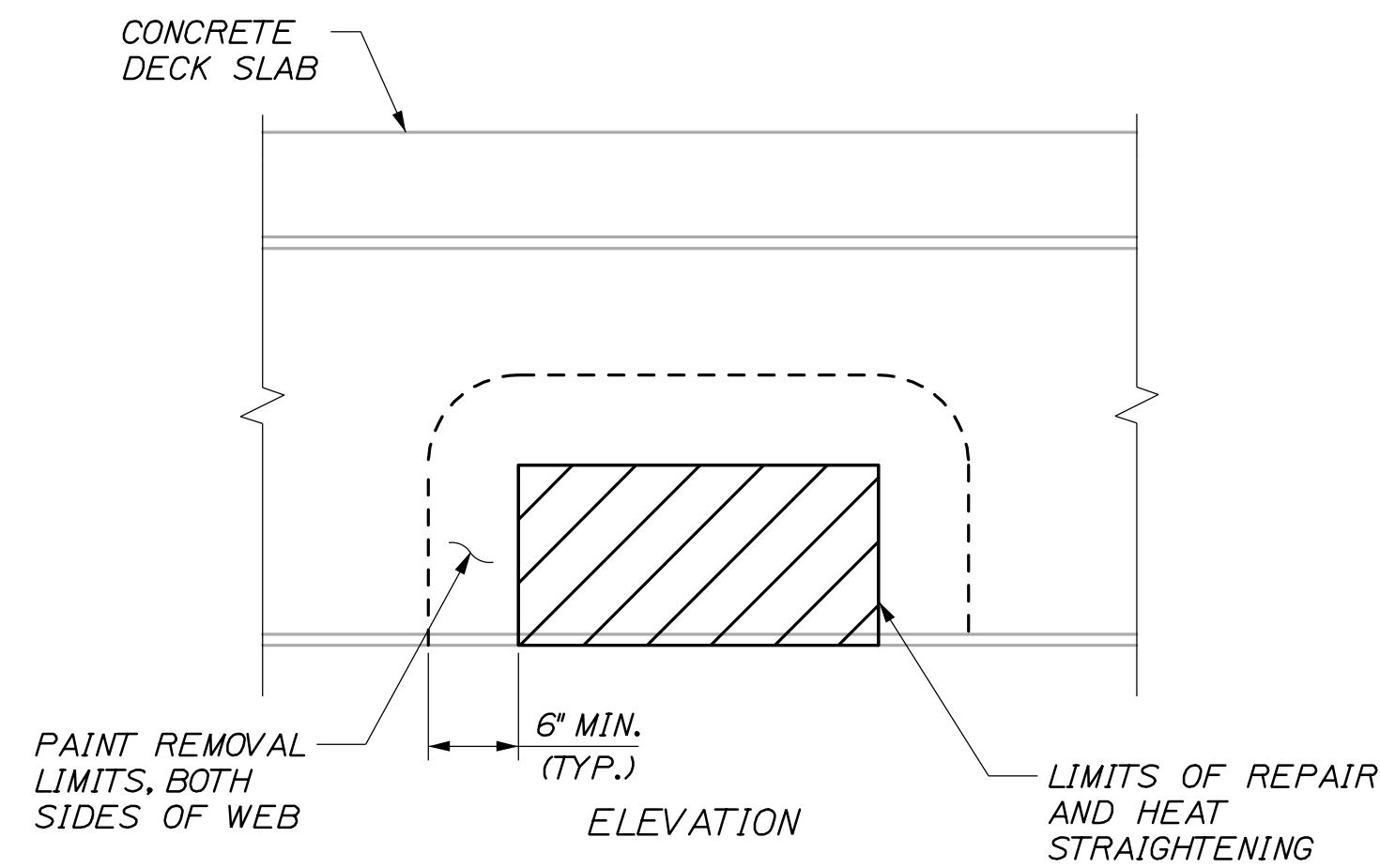
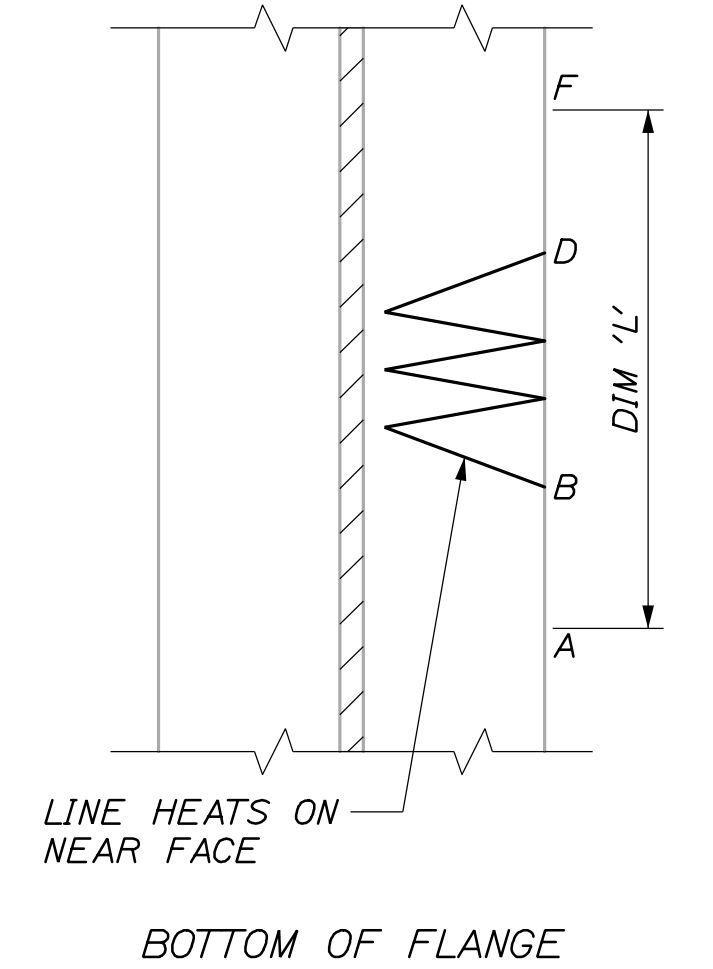
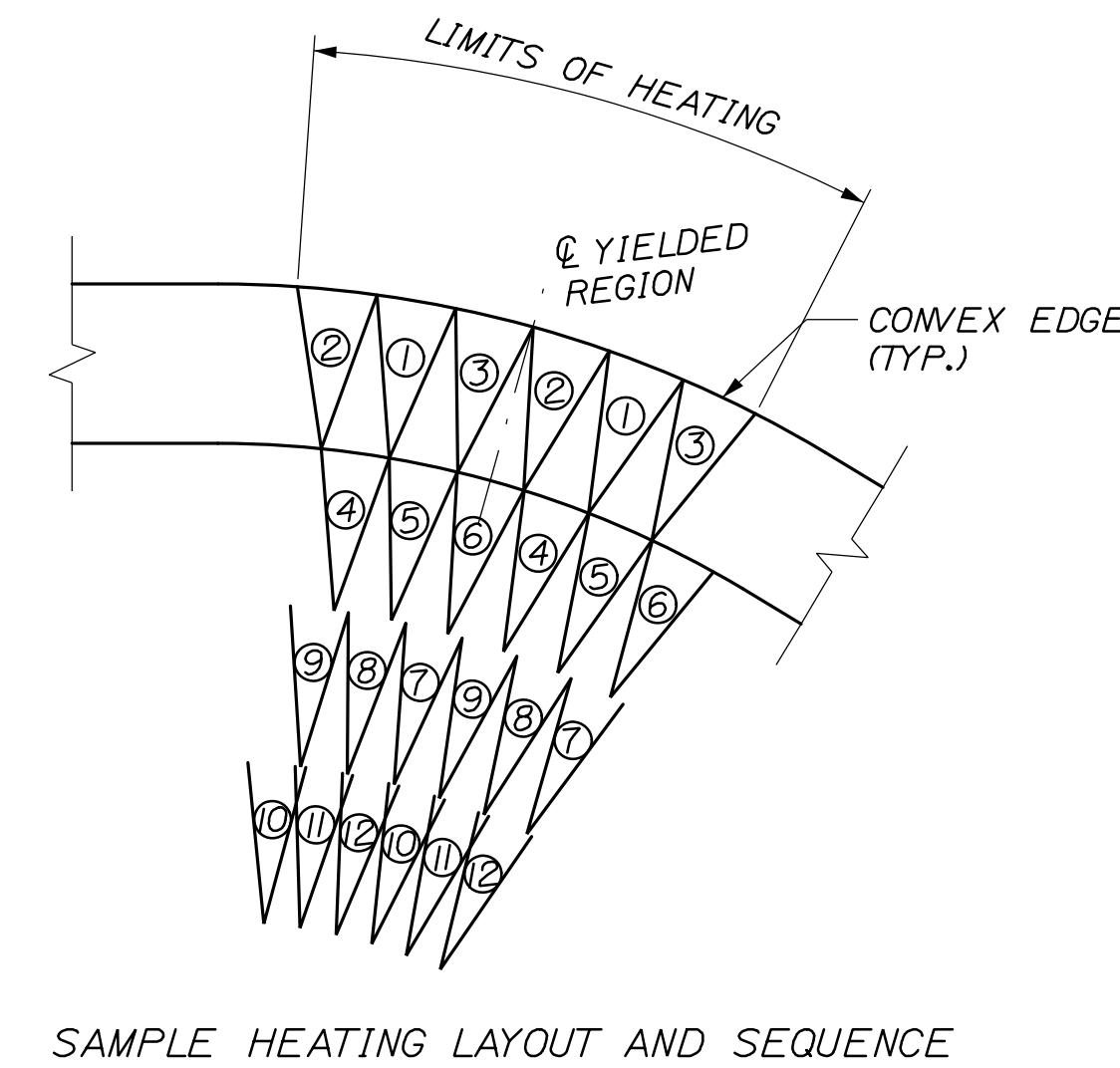
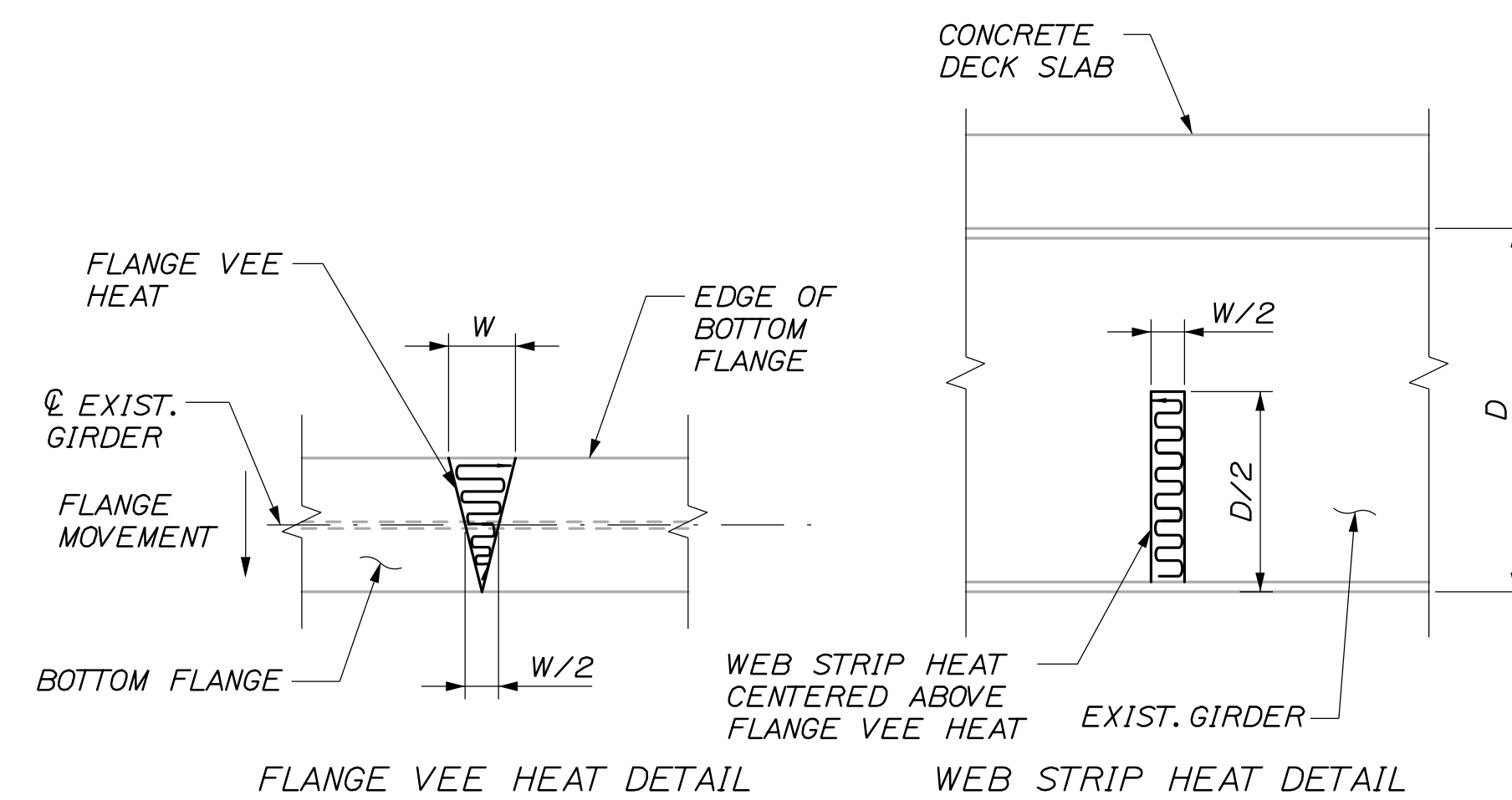
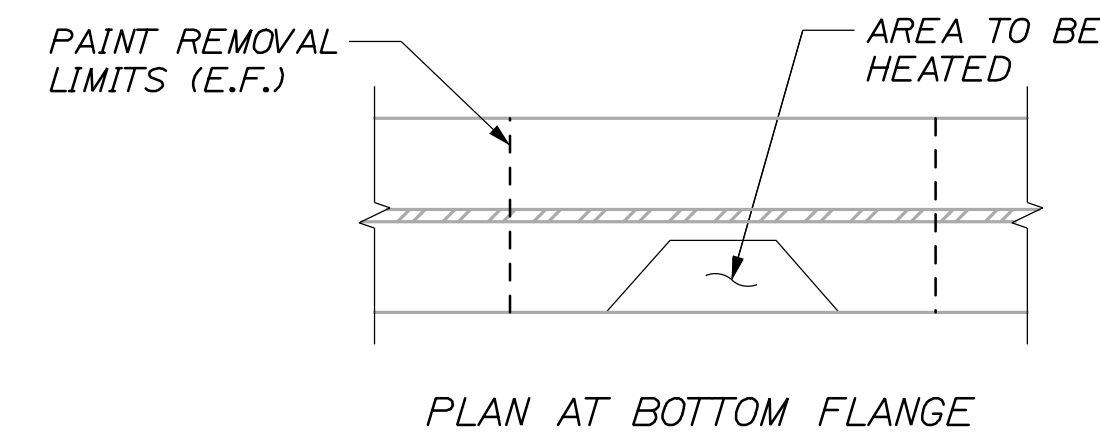
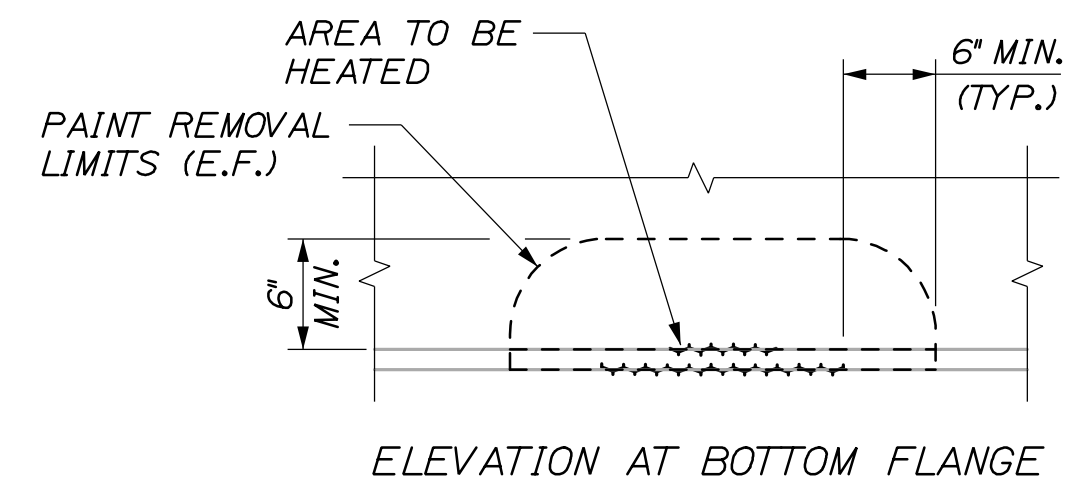
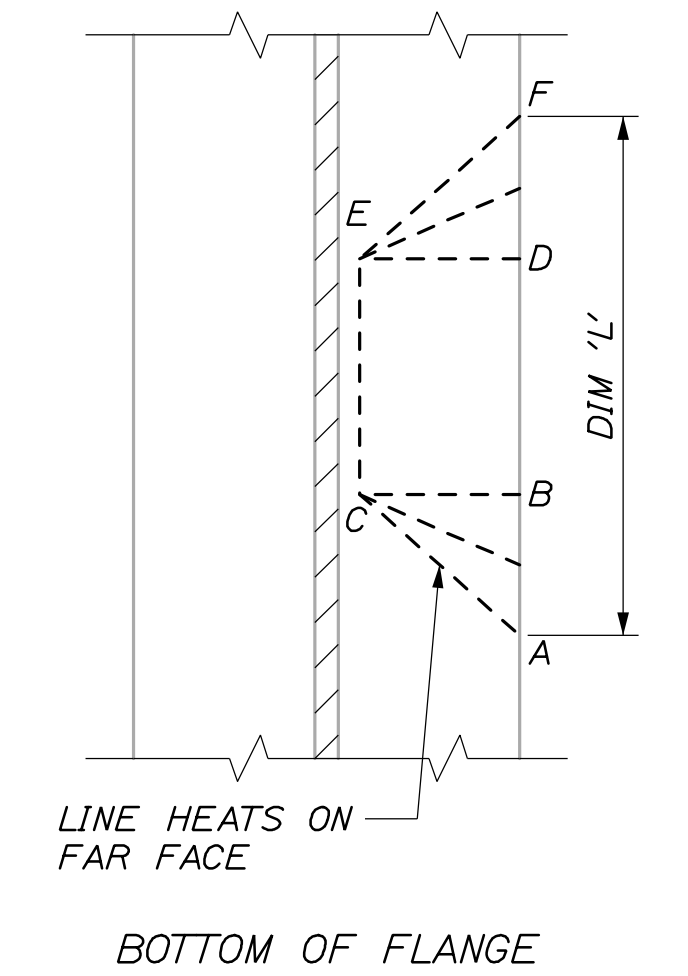
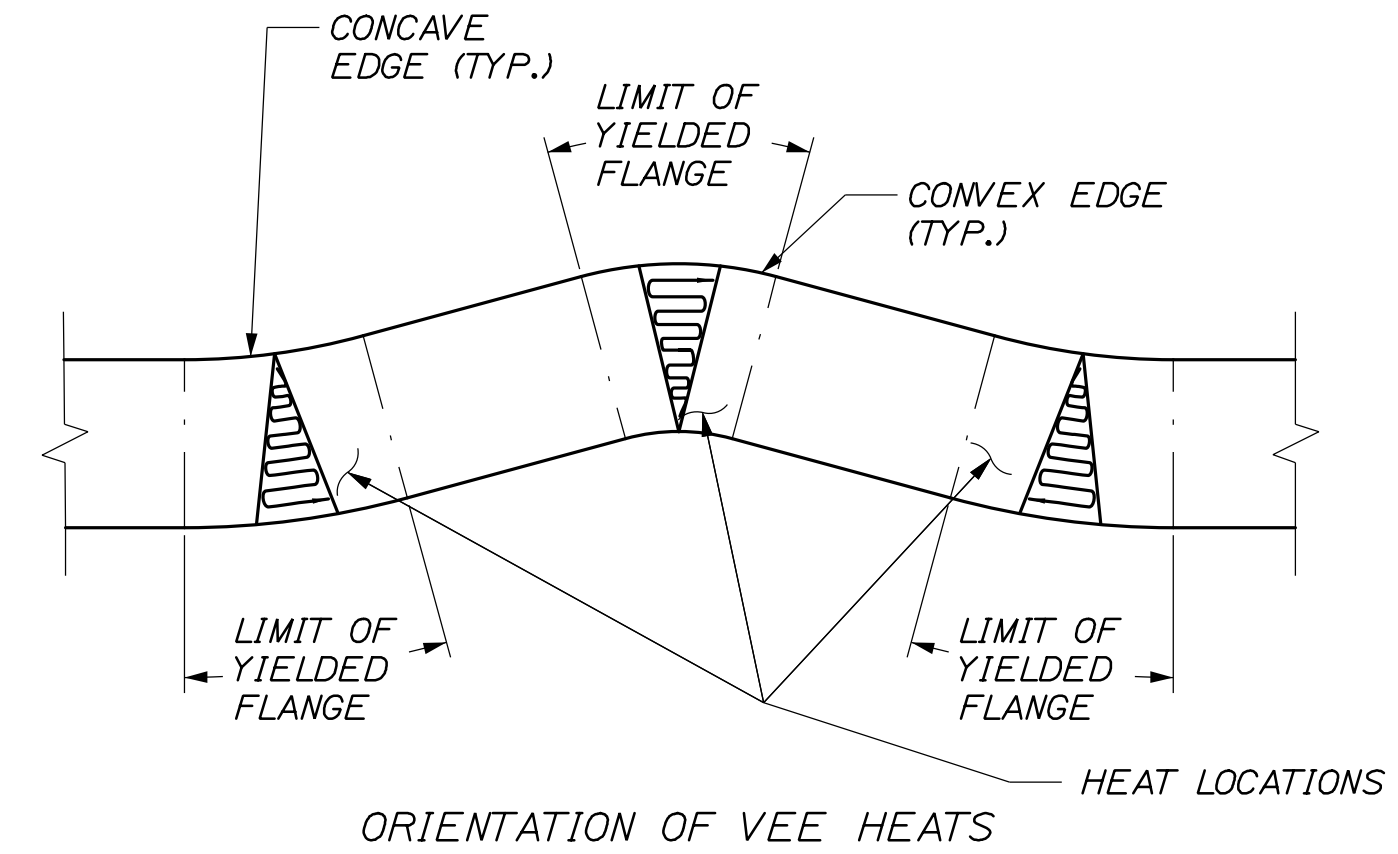
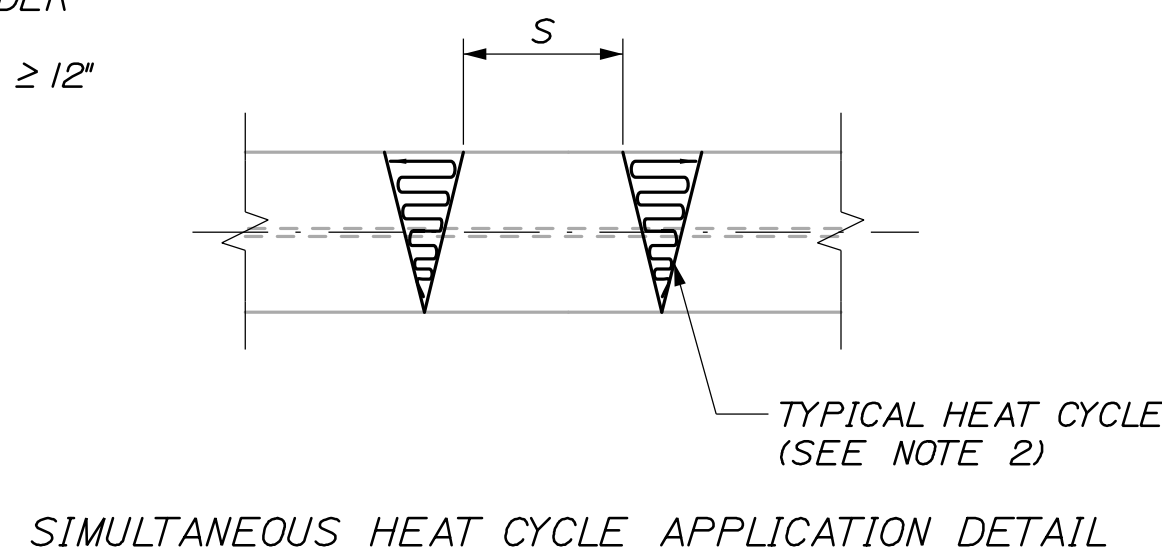
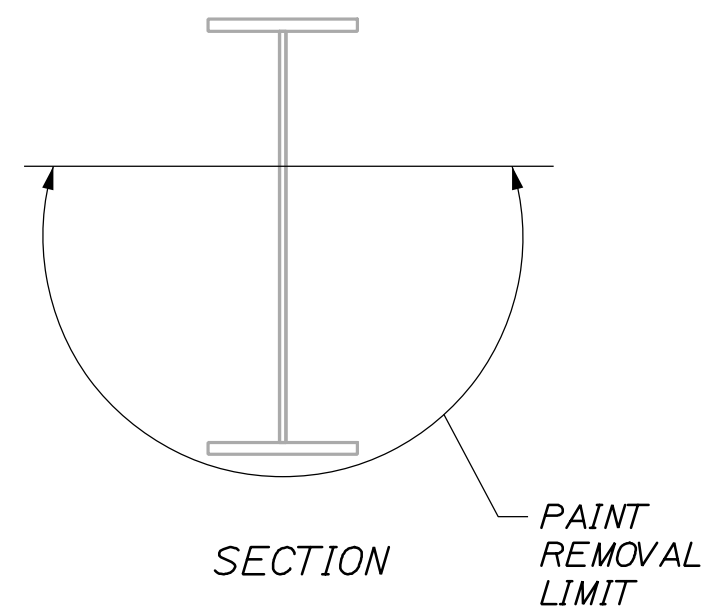
SHEET NUMBER: S-03
CONTRACT: 2021.03
28 OF 51

GENERAL NOTES:

1. THE HEAT STRAIGHTENING DETAILS AND PATTERNS SHOWN ON THIS SHEET ARE PROVIDED FOR CONTRACTOR REFERENCE AND CONVENIENCE.
2. ALL PROPOSED HEAT STRAIGHTENING PATTERNS, DETAILS AND PROCEDURES SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS AND SHALL BE SUBMITTED TO THE RESIDENT FOR APPROVAL.

LEGEND:

W = FLANGE WIDTH/2 ≤ 10"
 D = DEPTH OF GIRDER
 S = FLANGE WIDTH ≥ 12"



HEATING PATTERN TO REPAIR BEAM SWEEP

HEATING PATTERN TO REPAIR FLANGE BULGE

NOTES:

1. IF TRAFFIC STOPPAGES ARE UTILIZED, ALL AREAS TO RECEIVE HEAT SHALL BE HEATED SIMULTANEOUSLY OR IN RAPID SUCCESSION. RAPID SUCCESSION SHALL BE DEFINED AS MOVING FROM ONE LOCATION TO THE NEXT WITHOUT DELAY.
2. VEE HEATS SHALL BE PLACED STARTING AT THE CENTER OF EACH HEAT LOCATION. SUCCESSIVE VEE HEATS SHALL BE PLACED WITH THE APEX CENTERED BETWEEN THE APEXES OF PREVIOUS HEATS. RETRACING PREVIOUS HEAT LOCATIONS SHALL ONLY BE ALLOWED ONCE THE SPACE BETWEEN PREVIOUS APEXES IS LESS THAN 1/2".
3. THE LIMIT OF YIELDED FLANGE SHALL BE CONSIDERED THE LENGTHS OF FLANGE THAT ARE CURVED IN PLAN.

NOTES:

1. HEATS SHOULD BE APPLIED ON THE FACES OF THE FLANGE THAT ARE CONVEXLY CURVED.
2. LENGTHS OF CONTINUOUS CURVATURE OFTEN OCCUR IN REGIONS SUCH AS A-B-C AND D-E-F. IN THESE AREAS LINE HEATS SHOULD BE SPACED APPROXIMATELY ONE-FOURTH THE FLANGE WIDTH.
3. APPLY LINE HEATS TO AREAS A-B-C AND D-E-F FIRST FOLLOWED BY AREA B-C-D-E.
4. LINE HEATS ALONG LINE ACEF SHOULD BE APPLIED ALONG EDGE OF DEFORMATION.

Date: 4/16/2021

Filename: 011_StructuralRepair_Details_2.dgn

Scale:		Designed by:	
No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: Tim Cote, P.E.			
Designed	By	Date	Checked
Drawn	By	Date	In Charge of
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	PEB	03/21	TRC 03/21

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THE GOLD STAR
MEMORIAL HIGHWAY

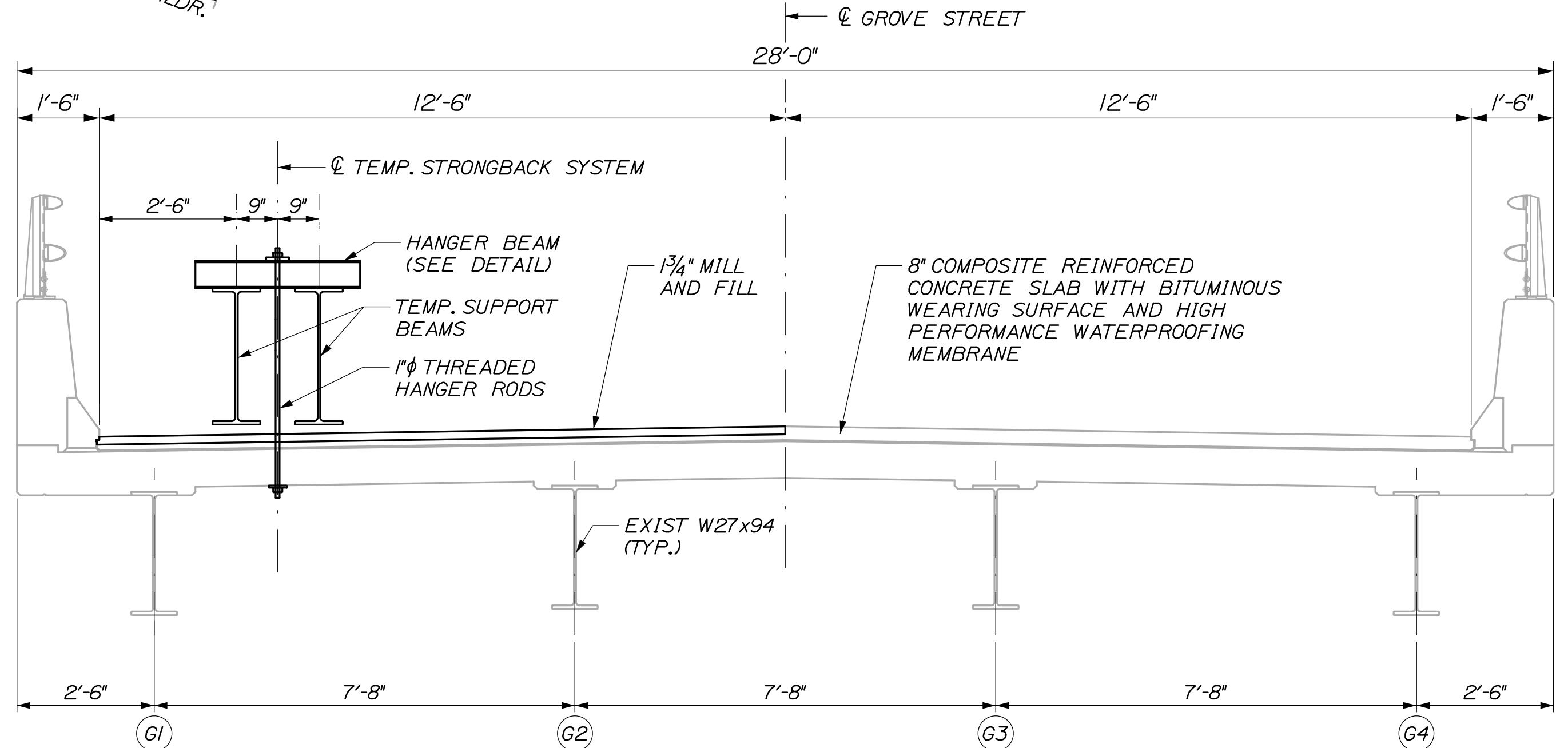
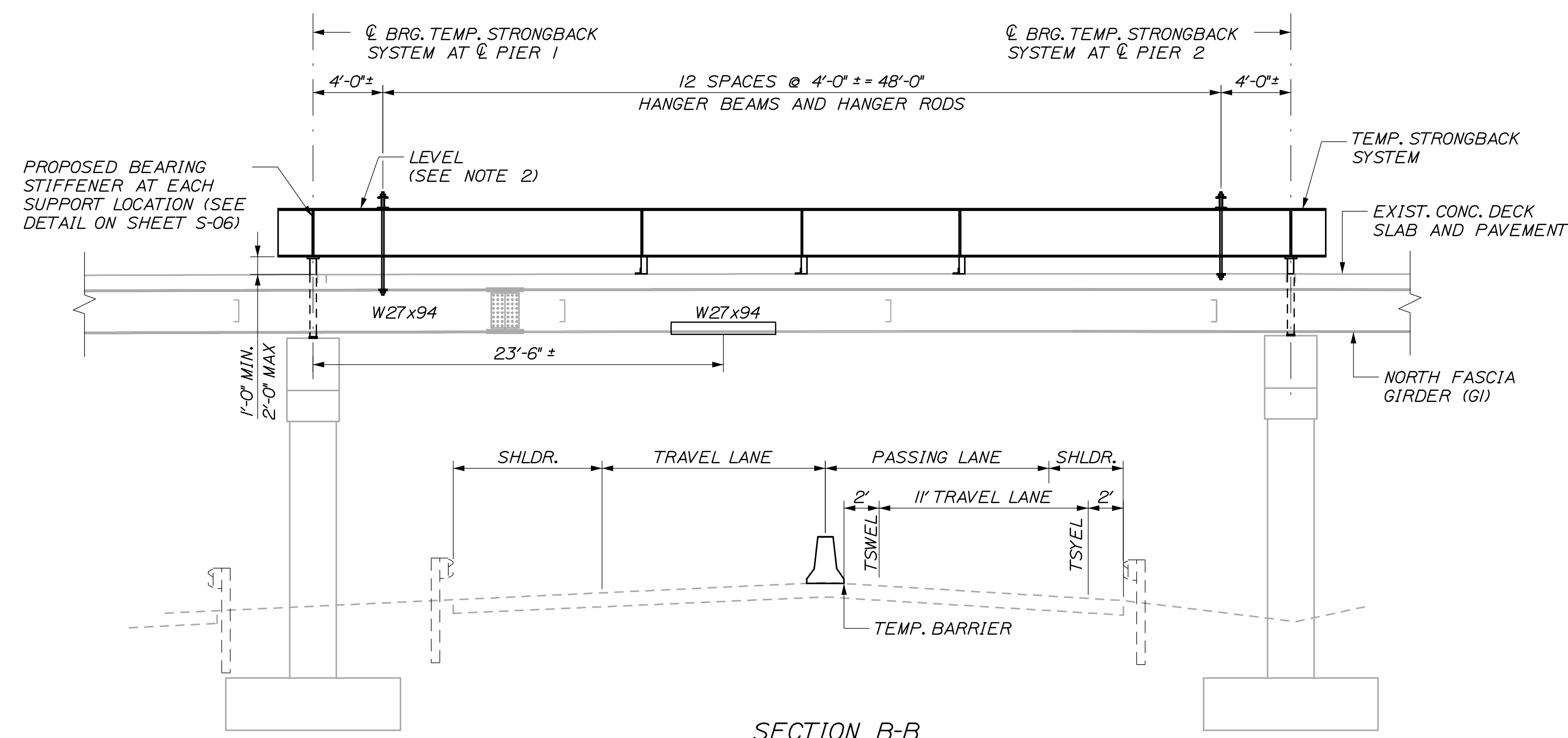
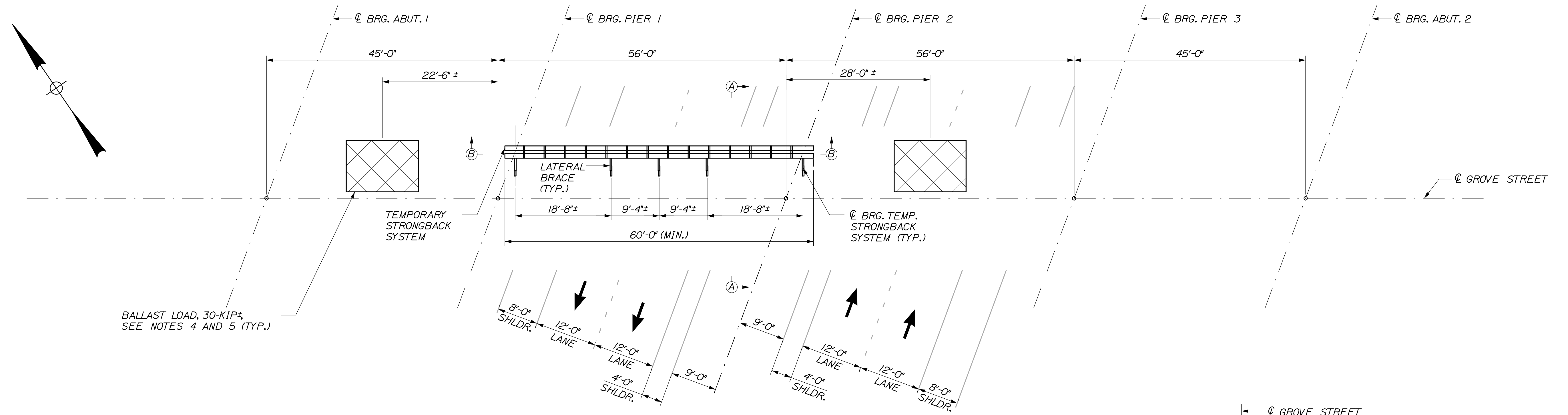
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

GIRDER REPAIRS
GROVE STREET UNDERPASS
REPAIR DETAILS II

SHEET NUMBER: S-04
CONTRACT: 2021.03
29 OF 51

Date: 4/16/2021

Filename: 012_Temporary Deck Support Details 1.dgn



- NOTES:
- FOR ADDITIONAL GIRDER REPAIR DETAILS AND NOTES, SEE SHEETS GN-01 AND S-03.
 - TEMPORARY DECK SUPPORT SYSTEM SHALL BE INSTALLED WITH TOPS OF BEAMS LEVEL END-TO-END.
 - SET THE STRONGBACK SYSTEM A MINIMUM OF 12" ABOVE THE HIGH POINT OF THE DECK AND A MAXIMUM OF 24" ABOVE THE LOW POINT OF THE DECK TO ALLOW FOR DECK CAMBER AND STRONGBACK DEFLECTION.
 - THE BALLAST LOAD MAY BE PRECAST CONCRETE BARRIER STACKED NO MORE THAN ONE HIGH WITH A WEIGHT OF APPROXIMATELY 4,700 POUNDS PER 10-FT BARRIER SEGMENT, OR OTHER REMOVABLE WEIGHT APPROVED BY THE RESIDENT. THE WEIGHT SHOULD BE APPLIED BETWEEN THE NORTH BARRIER AND CROWN LINE ONLY (OVER GIRDERS G1 AND G2). THE BALLAST LOAD MAY NOT BE MOVED WHILE THE TEMPORARY STRONGBACK IS SUPPORTING THE DECK.
 - SEE SPECIAL PROVISION 524 REGARDING SURVEY AND COORDINATION REQUIREMENTS REGARDING PLACEMENT OF BALLAST LOAD.

Scale:

No.	Revision	By	Date

Designed by:

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CONSULTANT PROJECT MANAGER: Tim Cote, P.E.

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Designed	GLS	03/21	Checked	HJW	03/21
Drawn	PEB	03/21	In Charge of	TRC	03/21

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

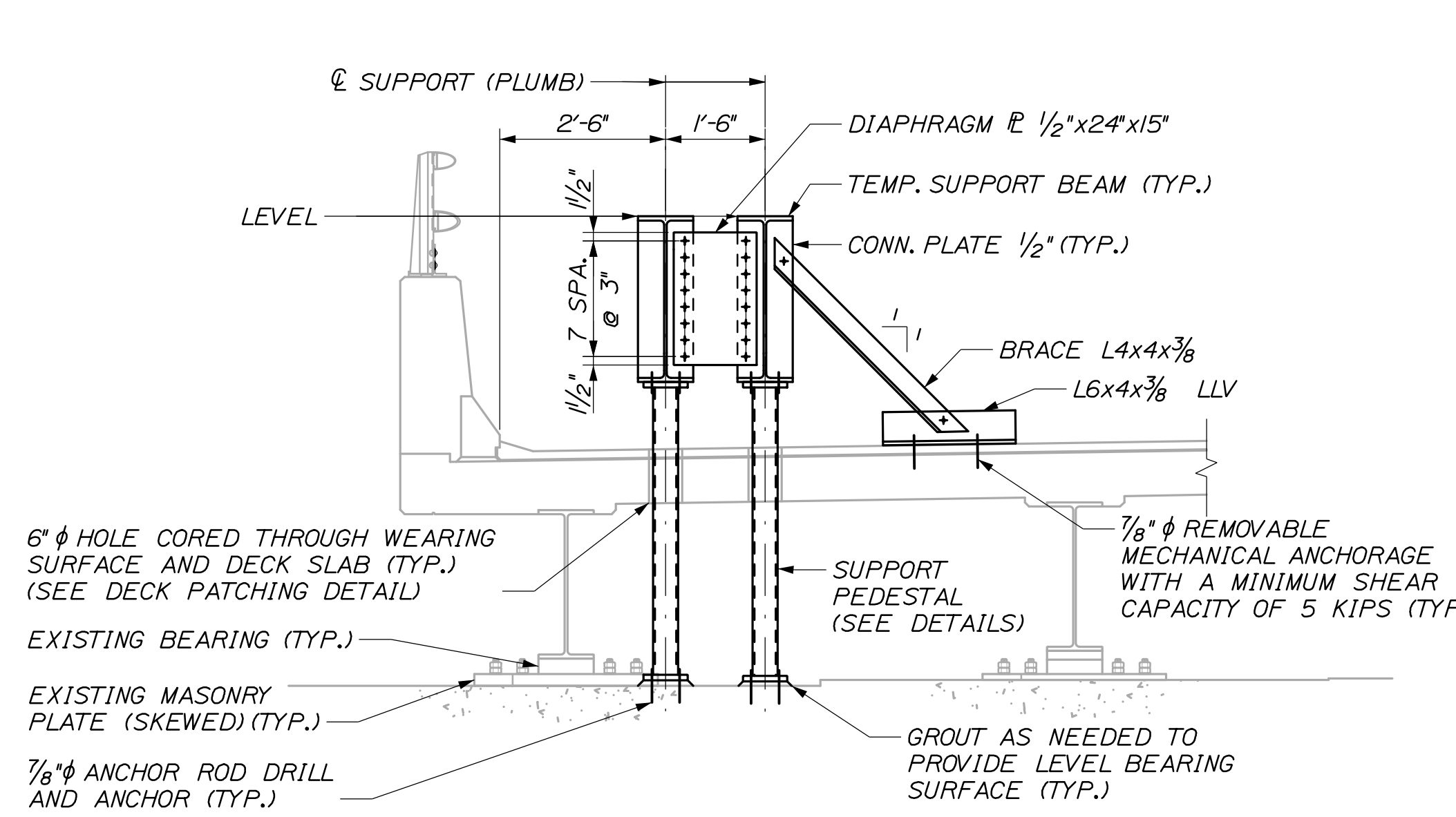
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

GIRDER REPAIRS
GROVE STREET UNDERPASS
TEMPORARY DECK SUPPORT DETAILS 1

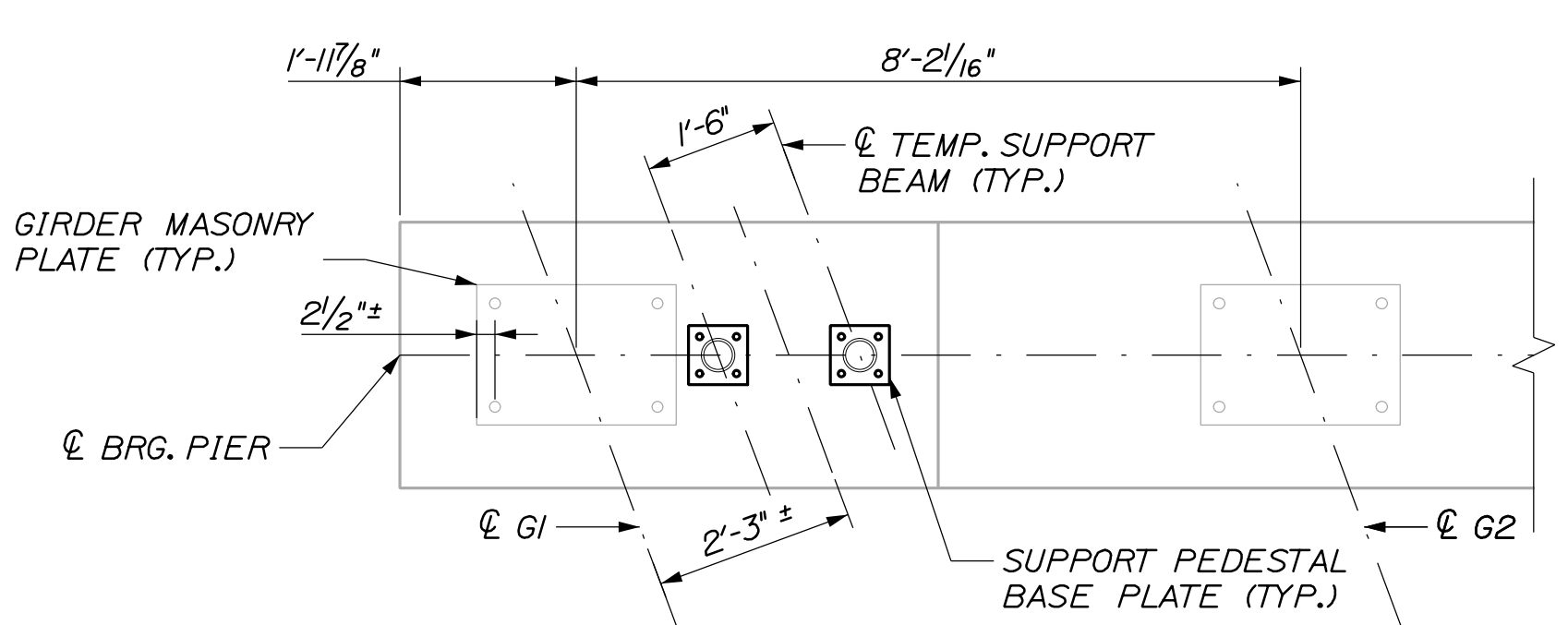
SHEET NUMBER: S-05
CONTRACT: 2021.03
30 OF 51

Date: 4/16/2021

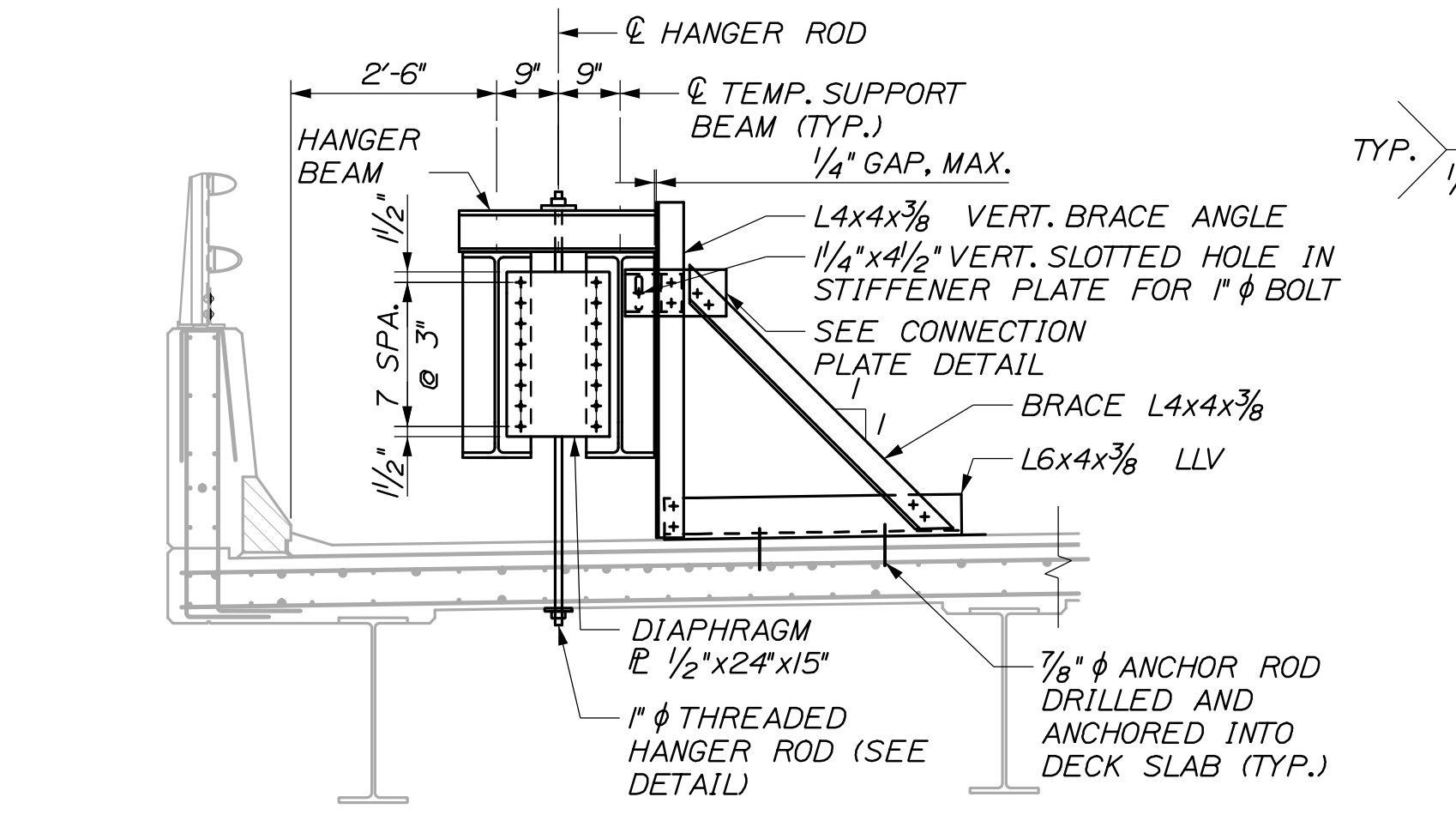
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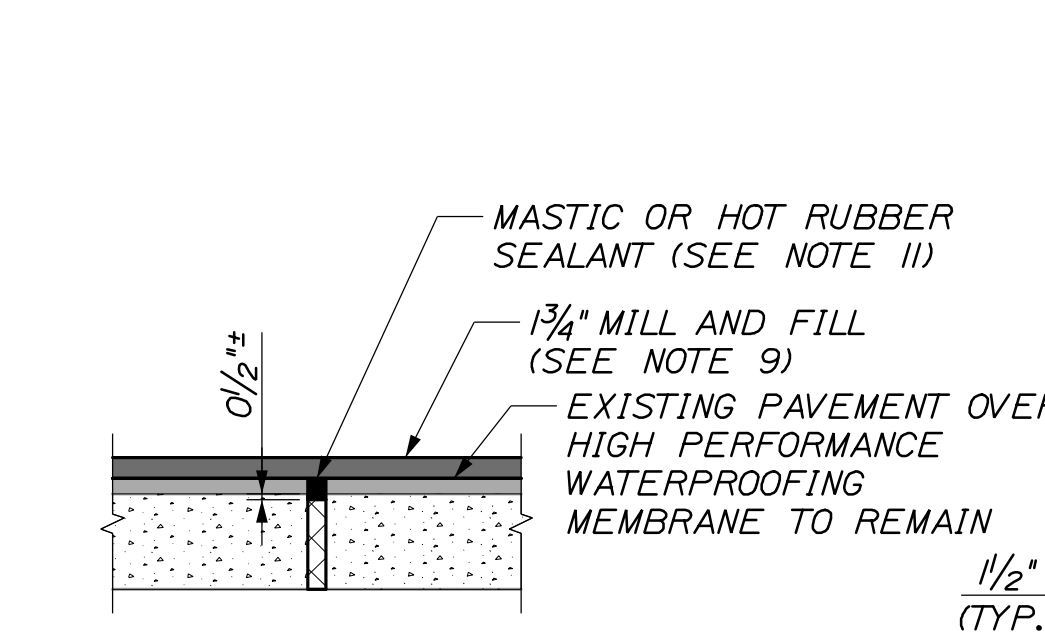
TEMPORARY DECK SUPPORT SYSTEM SECTION AT PIER



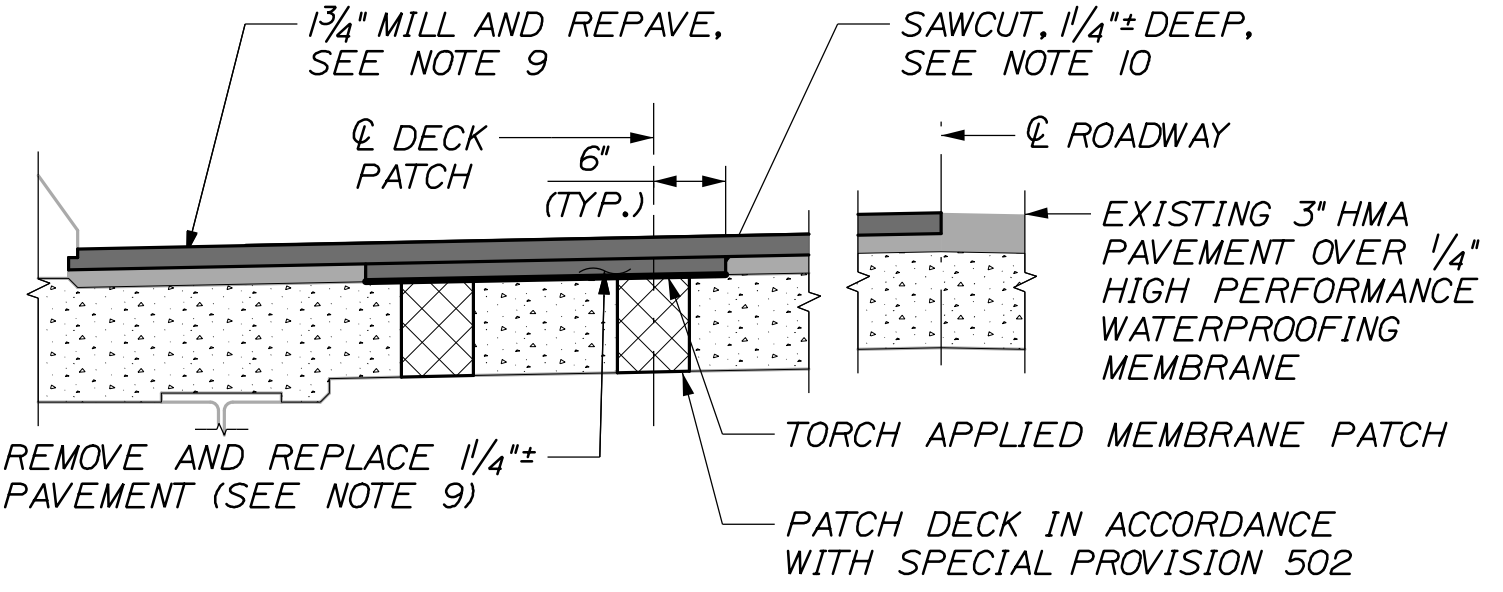
TEMPORARY DECK SUPPORT SYSTEM PIER SUPPORT, PLAN



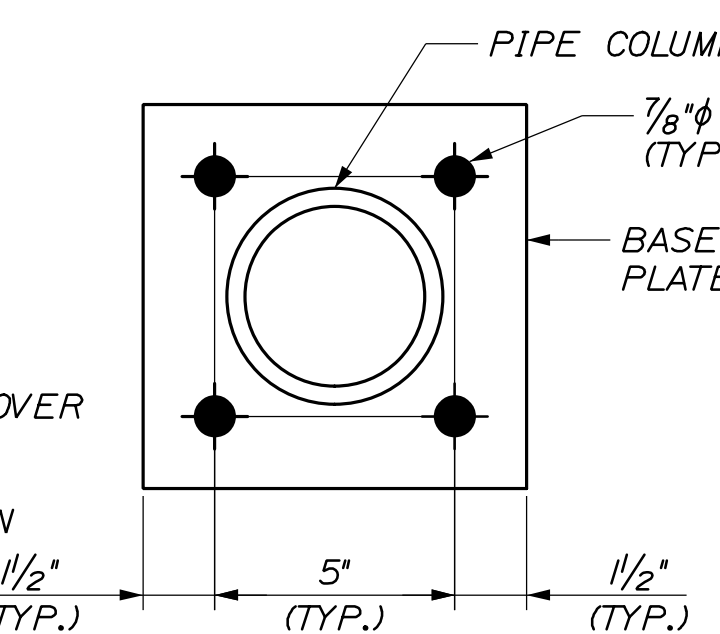
TEMPORARY DECK SUPPORT SYSTEM SECTION AT INTERMEDIATE LATERAL BRACE



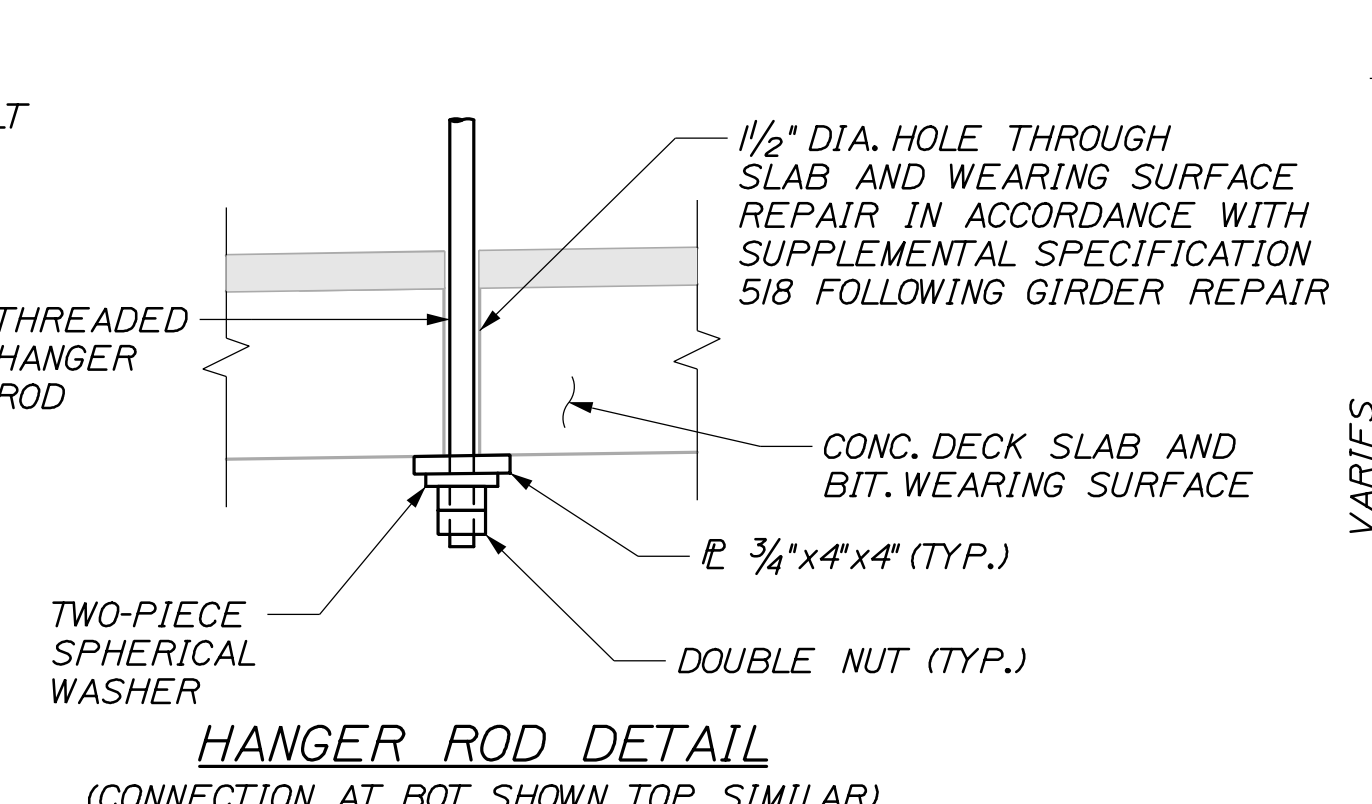
DECK AND PAVEMENT PATCHING DETAIL
(HANGER ROD LOCATION SHOWN, REMOVABLE MECHANICAL BRACE ANCHORAGE LOCATION SIMILAR)



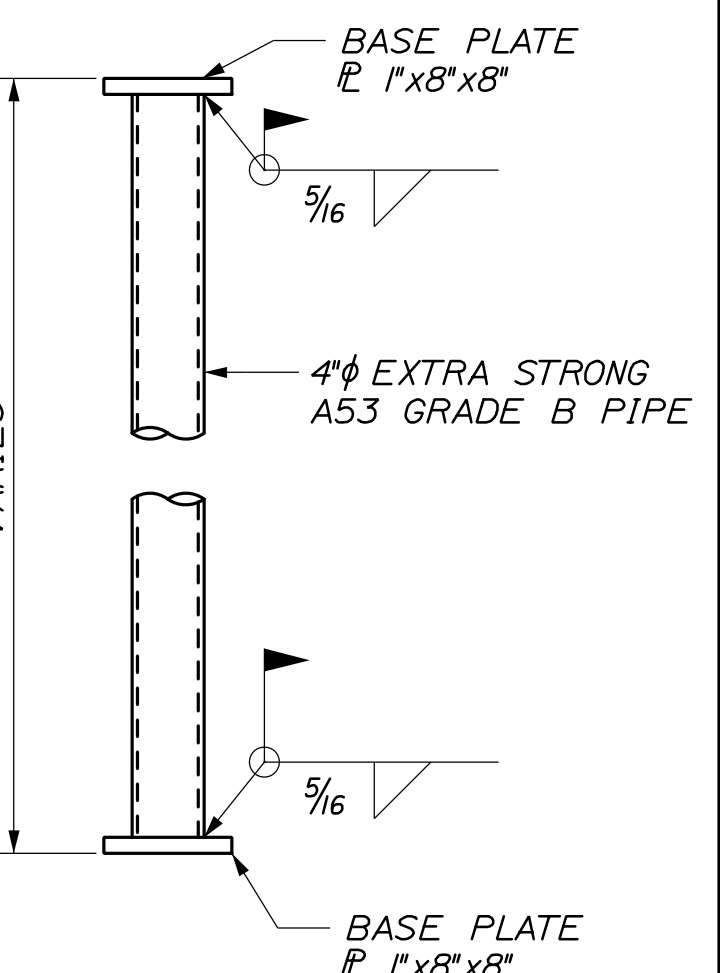
DECK AND PAVEMENT PATCHING DETAIL REPAIR AT PEDESTAL LOCATIONS



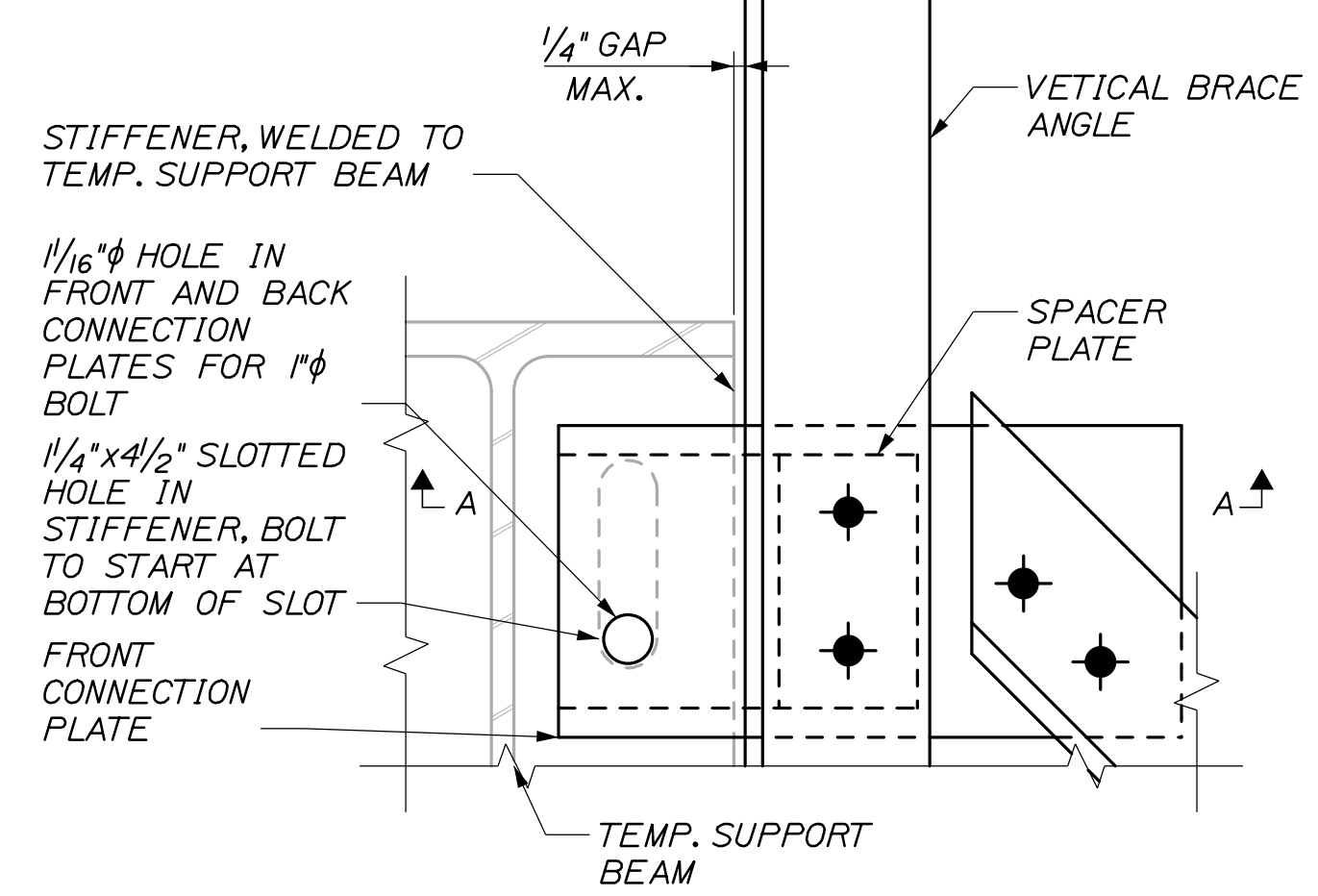
SUPPORT PEDESTAL BASE PLATE DETAIL



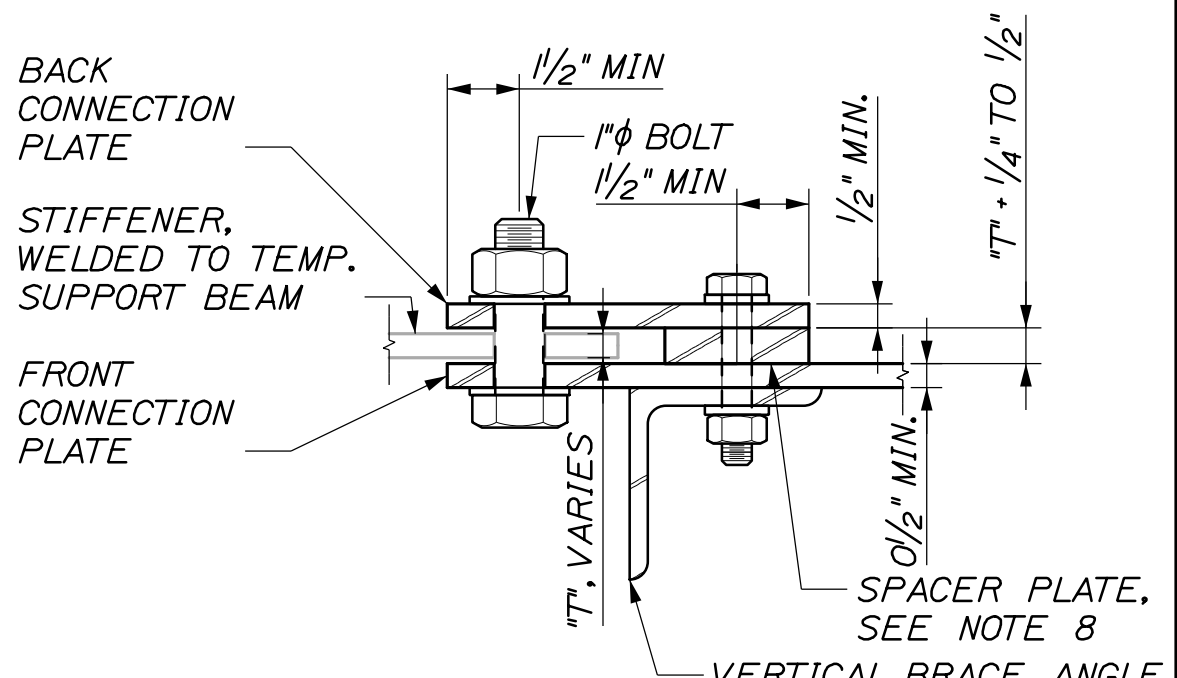
HANGER ROD DETAIL
(CONNECTION AT BOT. SHOWN, TOP SIMILAR)



SUPPORT PEDESTAL DETAIL



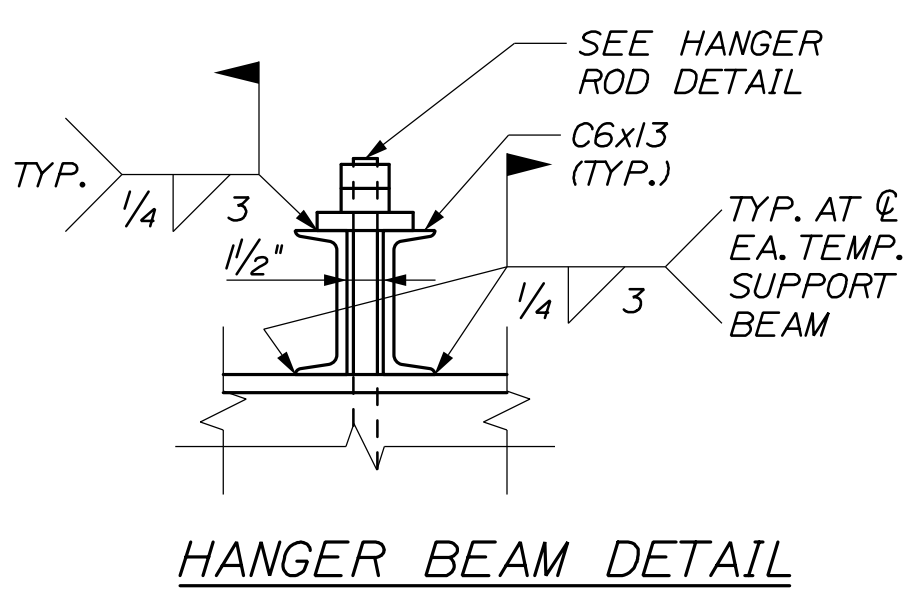
CONNECTION PLATE DETAIL



SECTION A-A

NOTES:

1. THE PROPOSED SECTION PROPERTIES FOR THE TEMPORARY STRONGBACK SYSTEM ARE MINIMUMS. LARGER MEMBERS MAY BE SUBSTITUTED WITH APPROVAL OF THE AUTHORITY.
2. ALL ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 55 OR 105 OR APPROVED EQUAL AND SHALL BE ANCHORED USING A MATERIAL LISTED ON MAINE DOT'S LIST OF PREQUALIFIED EPOXY AND RESIN BASED ADHESIVE BONDING SYSTEMS. THE DEPTH OF EMBEDMENT SHALL BE SUFFICIENT TO DEVELOP A MINIMUM ULTIMATE TENSILE CAPACITY OF 21 KIPS AND A MINIMUM ULTIMATE SHEAR CAPACITY OF 20 KIPS ASSUMING 3,000 PSI CONCRETE. CARE SHALL BE TAKEN TO AVOID DAMAGING EXISTING REINFORCING STEEL.
3. THE TEMPORARY DECK SUPPORT SYSTEM SHALL, AT A MINIMUM, BE Laterally Braced at both ends, at midspan, and at intervals shown on these plans.
4. ALL BOLT HOLES FOR THE BRACES SHALL BE FIELD DRILLED. AT INTERMEDIATE LATERAL BRACE LOCATIONS THE CONTRACTOR SHALL PROVIDE 1/4\"/>
- 5. AT INTERMEDIATE LATERAL BRACE LOCATIONS THE SLIDING SURFACES BETWEEN THE STIFFENER PLATE AND THE FRONT AND BACK CONNECTION PLATES SHALL BE GREASED. THE BOLTS FOR THE SUPPORT ANGLES SHALL BE INSTALLED FINGER-TIGHT UNTIL THE DECK HAS BEEN RAISED INTO PLACE. ONCE THE DECK HAS BEEN RAISED THE BOLTS SHALL BE FULLY TIGHTENED. FOLLOWING THE REPAIRS, AND PRIOR TO LOWERING THE DECK SLAB, THE BOLTS SHALL BE LOOSENED TO A FINGER-TIGHT CONDITION. ALL OTHER BOLTS SHALL BE FULLY TIGHTENED AT THE TIME OF TEMPORARY DECK SUPPORT INSTALLATION.
- 6. FOLLOWING REMOVAL OF THE TEMPORARY DECK SUPPORT SYSTEM ALL REMOVABLE MECHANICAL ANCHORAGES SHALL BE REMOVED AND ALL HOLES IN THE CONCRETE DECK SHALL BE PATCHED IN ACCORDANCE WITH THE DECK AND PAVEMENT PATCHING DETAIL.
- 7. ALL BOLT HOLES SHALL BE FIELD DRILLED UNLESS NOTED OTHERWISE OR APPROVED BY THE RESIDENT.
- 8. THE SPACER PLATE THICKNESS SHALL BE 1/4\"/>
- 9. SURFACE MILLING, SAWCUTTING, AND REMOVING BASE PAVEMENT WILL BE MEASURED FOR PAYMENT UNDER ITEM 202.202, REMOVING PAVEMENT SURFACE, BASE AND SURFACE LIFTS OF PAVEMENT WILL BE MEASURED FOR PAYMENT UNDER ITEM 403.208, HOT MIX ASPHALT, 12.5MM NOMINAL MAXIMUM SIZE. TORCH APPLIED MEMBRANE WILL BE INCIDENTAL TO ITEM 524.31, TEMPORARY DECK STRUCTURAL SUPPORT SYSTEM. THE CONTRACTOR WILL FIELD DETERMINE SAW DEPTH TO AVOID DAMAGING THE HIGH PERFORMANCE WATERPROOFING MEMBRANE ON THE BRIDGE DECK. IF THE WATERPROOFING MEMBRANE IS DAMAGED BY SAWCUTTING OR PAVEMENT REMOVAL, THE CONTRACTOR WILL SAWCUT AN ADDITIONAL 2\"/>
- 10. TORCH APPLIED MEMBRANE WILL BE SELECTED FROM THE MAINE DOT'S LIST OF PREQUALIFIED WATERPROOFING MEMBRANES, HIGH PERFORMANCE TORCH APPLIED.
- 11. AFTER REMOVING THE TEMPORARY STRONGBACK SYSTEM AND MILLING THE PAVEMENT SURFACE, CLEAN ALL CORED HOLES FOR HANGER RODS AND ANCHORS. PATCH THE HOLES IN THE CONCRETE DECK TO A LEVEL 1/2\"/>
- 12. SHOULDER SEALANT SHALL BE REAPPLIED TO THE NEW PAVEMENT IN THE BRIDGE SHOULDER AFTER THE COMPLETION OF PAVEMENT PER THE PROJECT SPECIAL PROVISIONS.



HANGER BEAM DETAIL

MIN. TEMP. SUPPORT BEAM PROPERTIES (PER BEAM) W30x108	
F _y (ksi)	36
S _x (in. ³)	299
I _x (in. ⁴)	4470
d (in.)	29.8
b _f (in.)	10.5
t _f (in.)	0.76
t _w (in.)	0.545
I _y (in. ⁴)	146

Scale:		Designed by:	
No.	Revision	By	Date

HNTB

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CONSULTANT PROJECT MANAGER: Tim Cote, P.E.

	By	Date		By	Date
Designed	GLS	03/21	Checked	HJW	03/21
Drawn	PEB	03/21	In Charge of	TRC	03/21

THE GOLD STAR MEMORIAL HIGHWAY

MAINE TURNPIKE

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

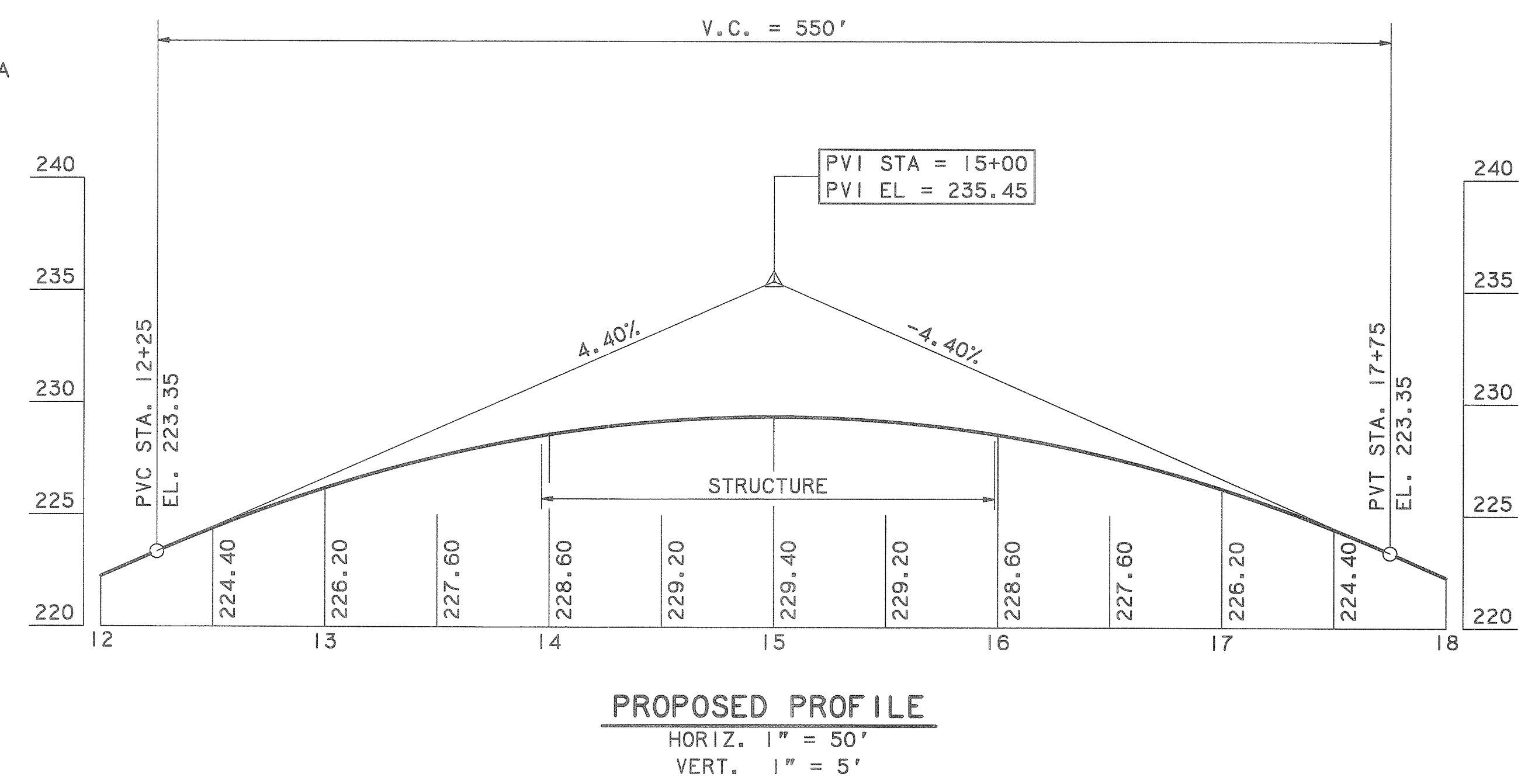
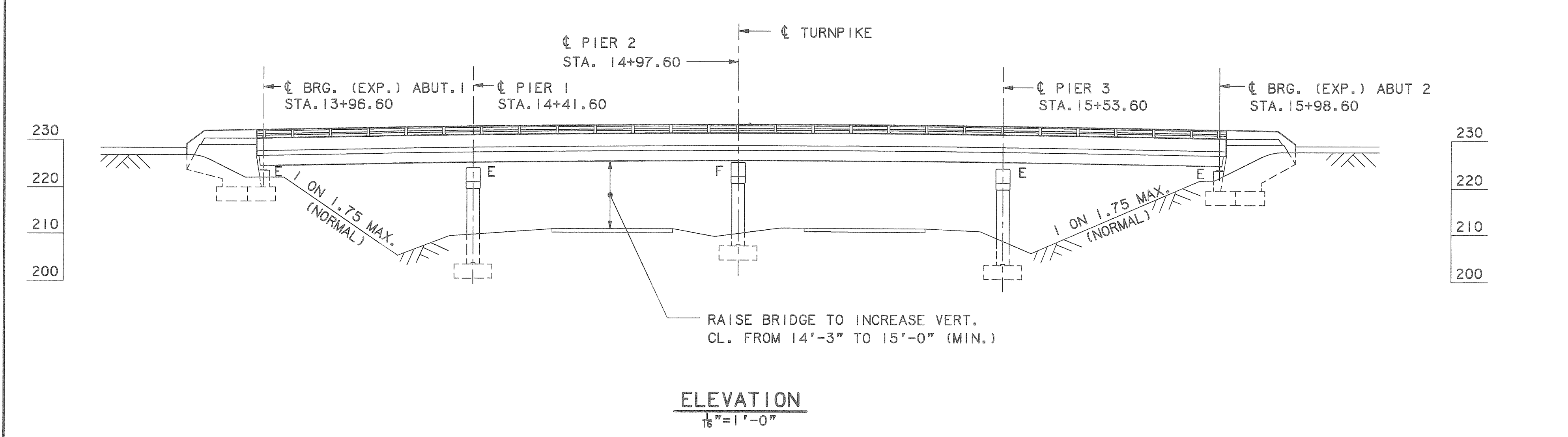
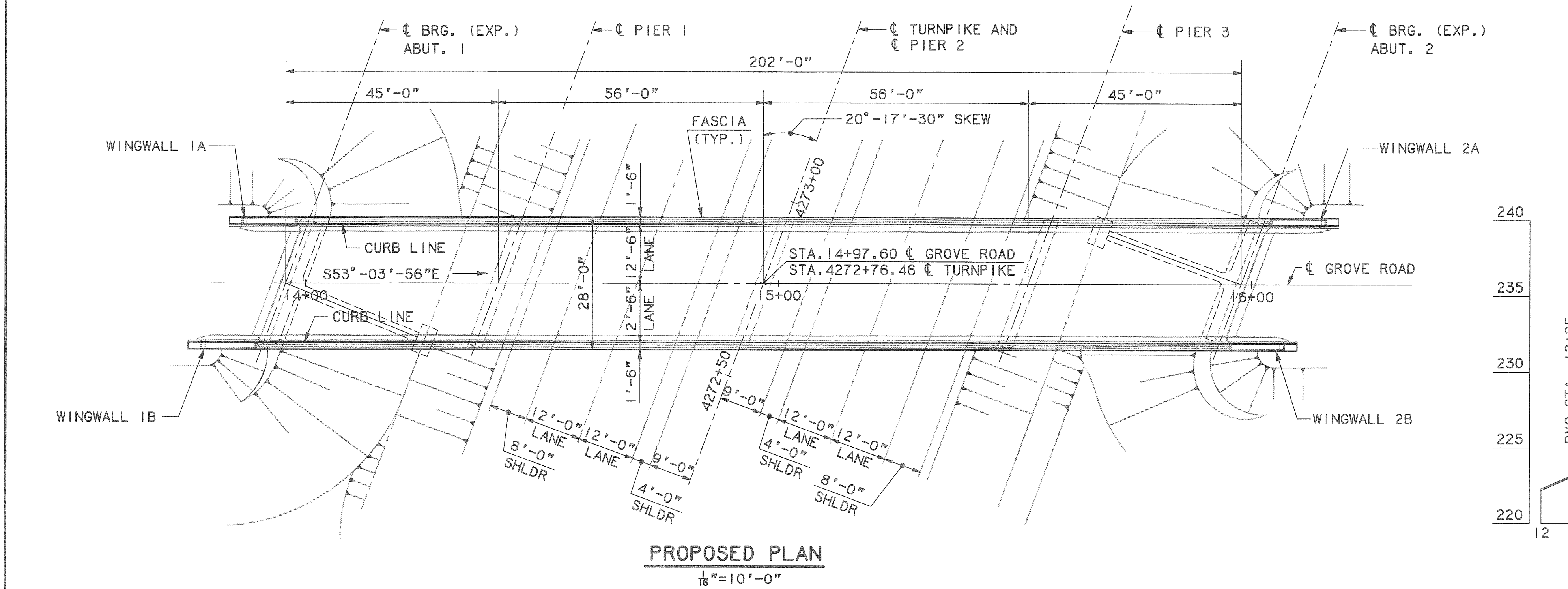
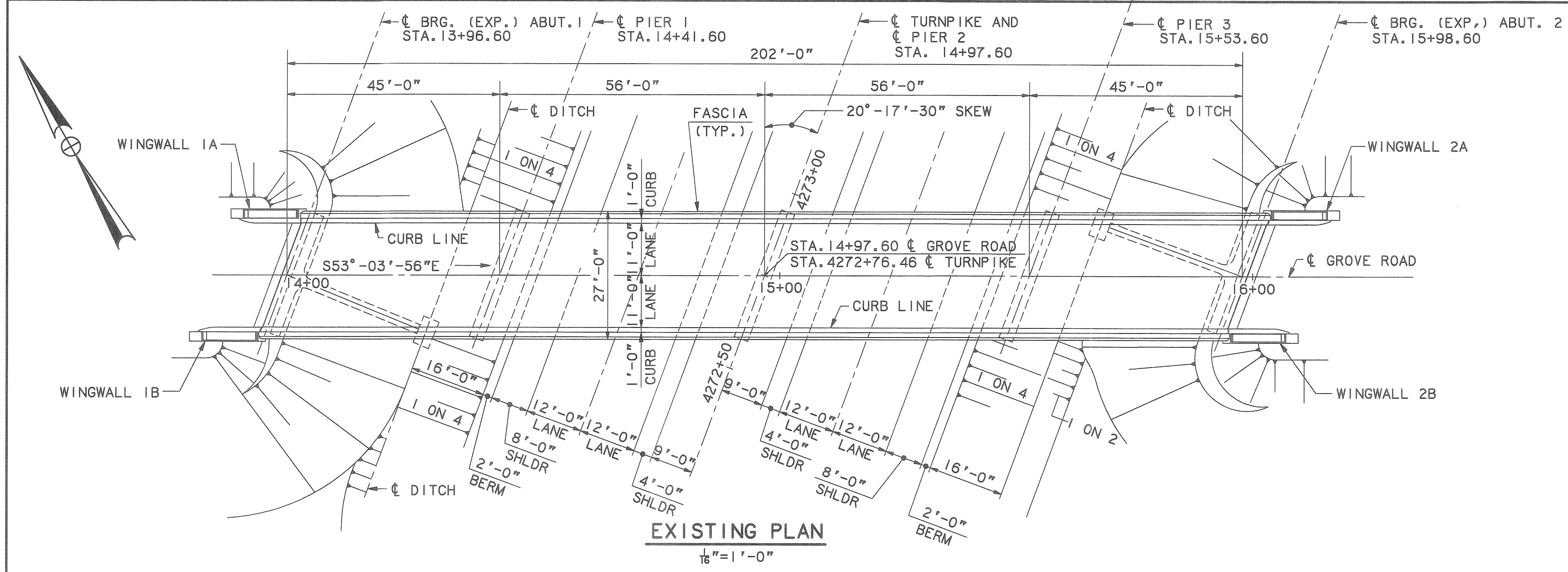
GIRDER REPAIRS GROVE STREET UNDERPASS

TEMPORARY DECK SUPPORT DETAILS 2

SHEET NUMBER: S-06

CONTRACT: 2021.03

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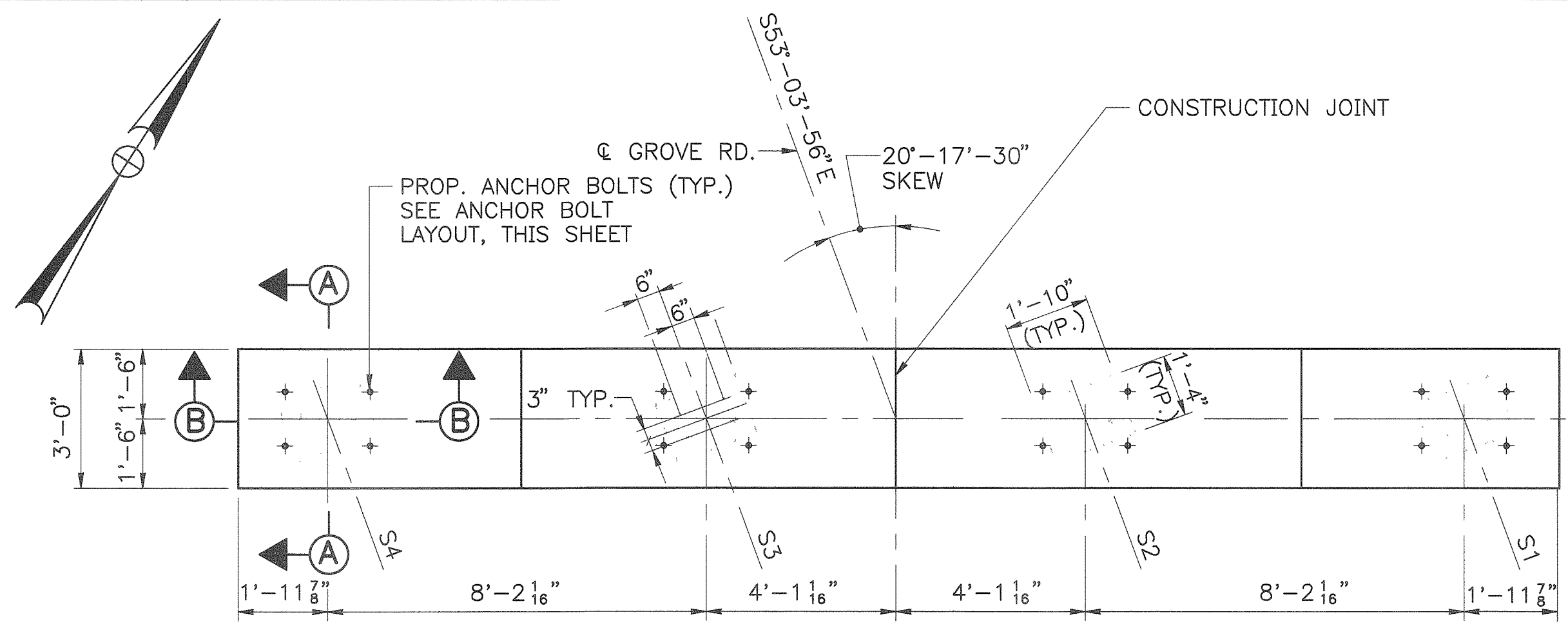
Maine Turnpike Authority
Maine Turnpike

GROVE ROAD UNDERPASS
GENERAL PLAN AND ELEVATION

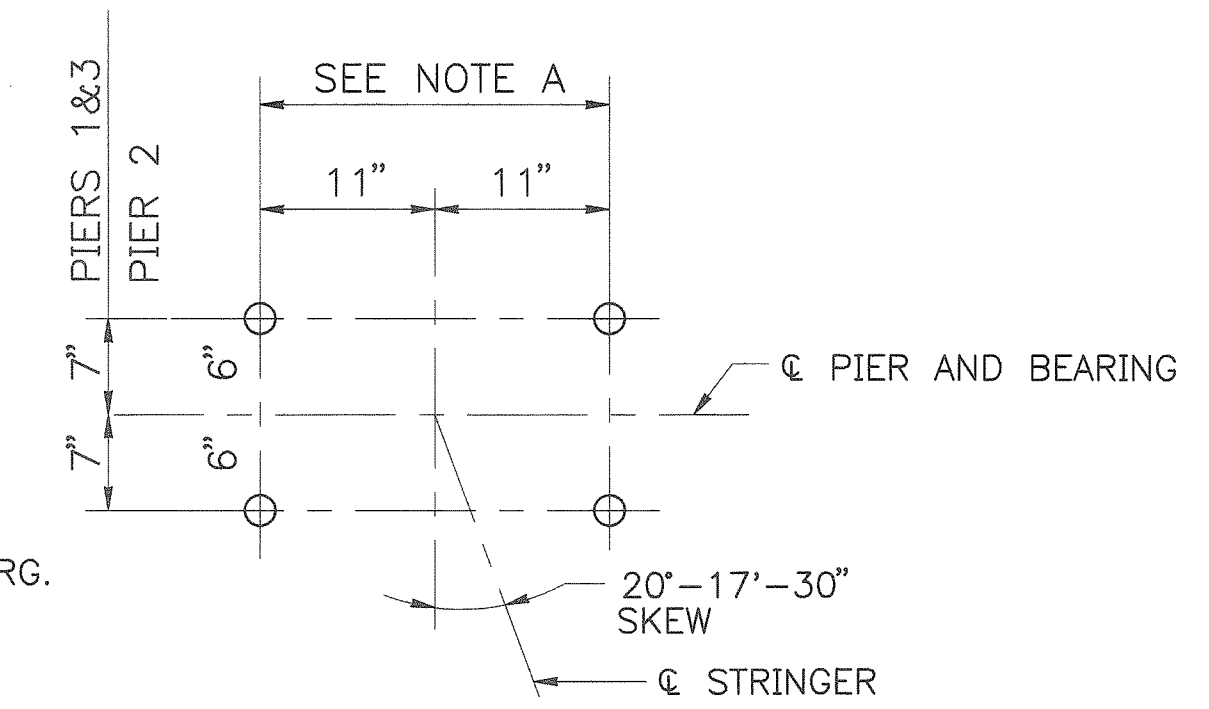
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

No.	Revision	By:	Date:	In charge of:
		Designed	GPM 1/95	RAL
		Drawn	LS 1/95	
		Checked	HNL 1/95	

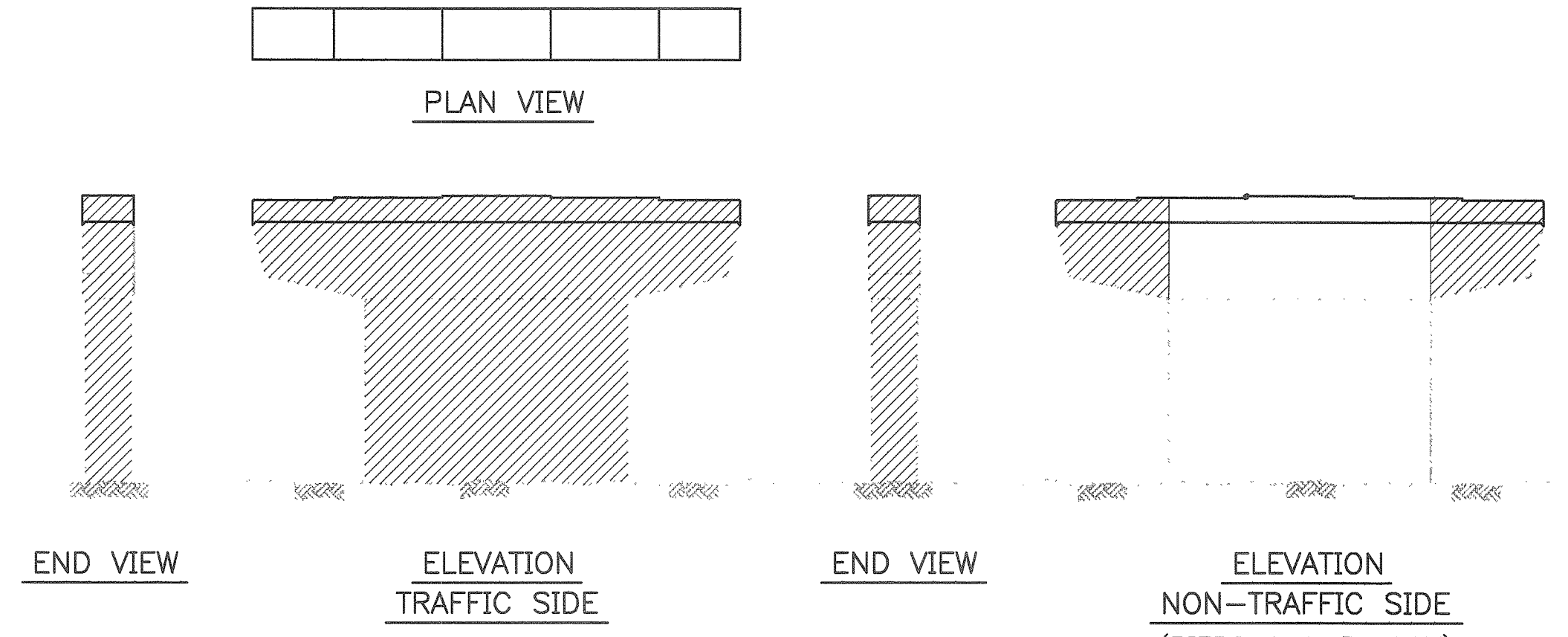
Contract 95.11 Sheet No. GR-2
32 OF 51



PLAN OF PIER 2
3/8" = 1'-0"



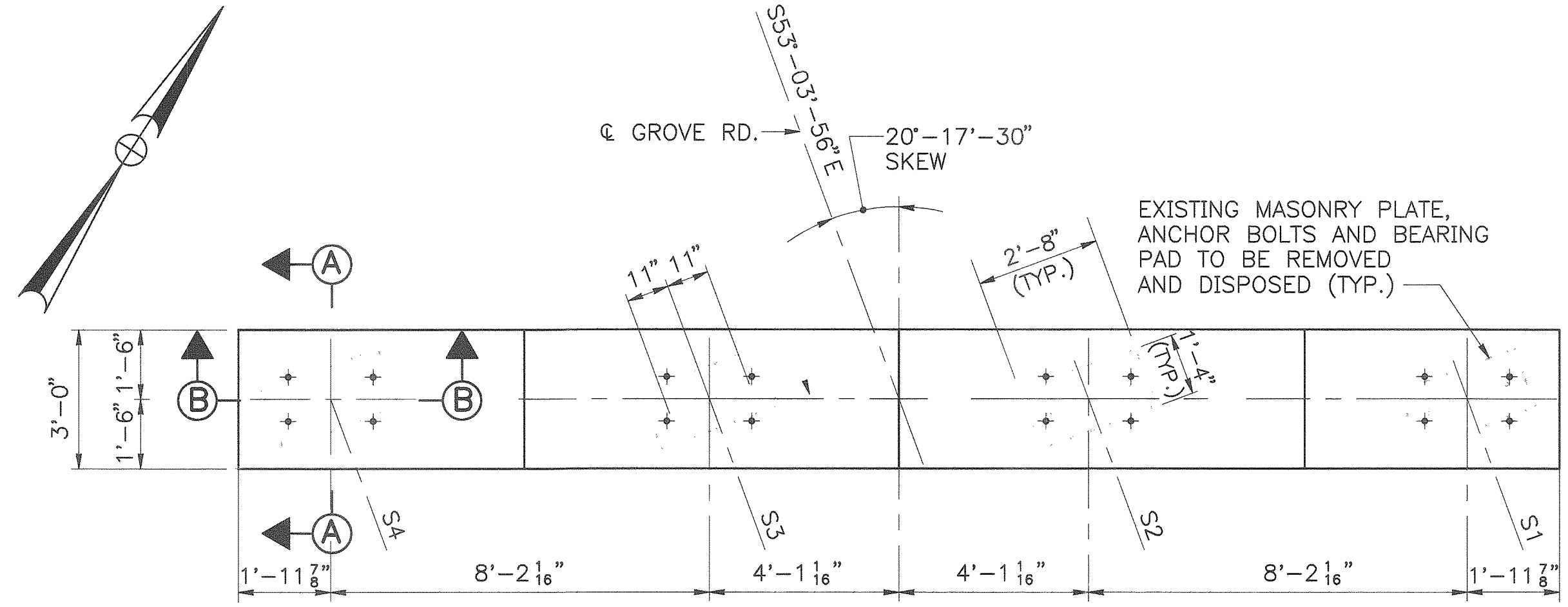
ANCHOR BOLT LAYOUT
PIERS 1, 2 & 3
1" = 1'-0"



NOTE
ALL EXPOSED SURFACES ON PIER 2, EXCEPT TOP OF PIER CAP, WILL BE COATED WITH PROTECTIVE COATING.

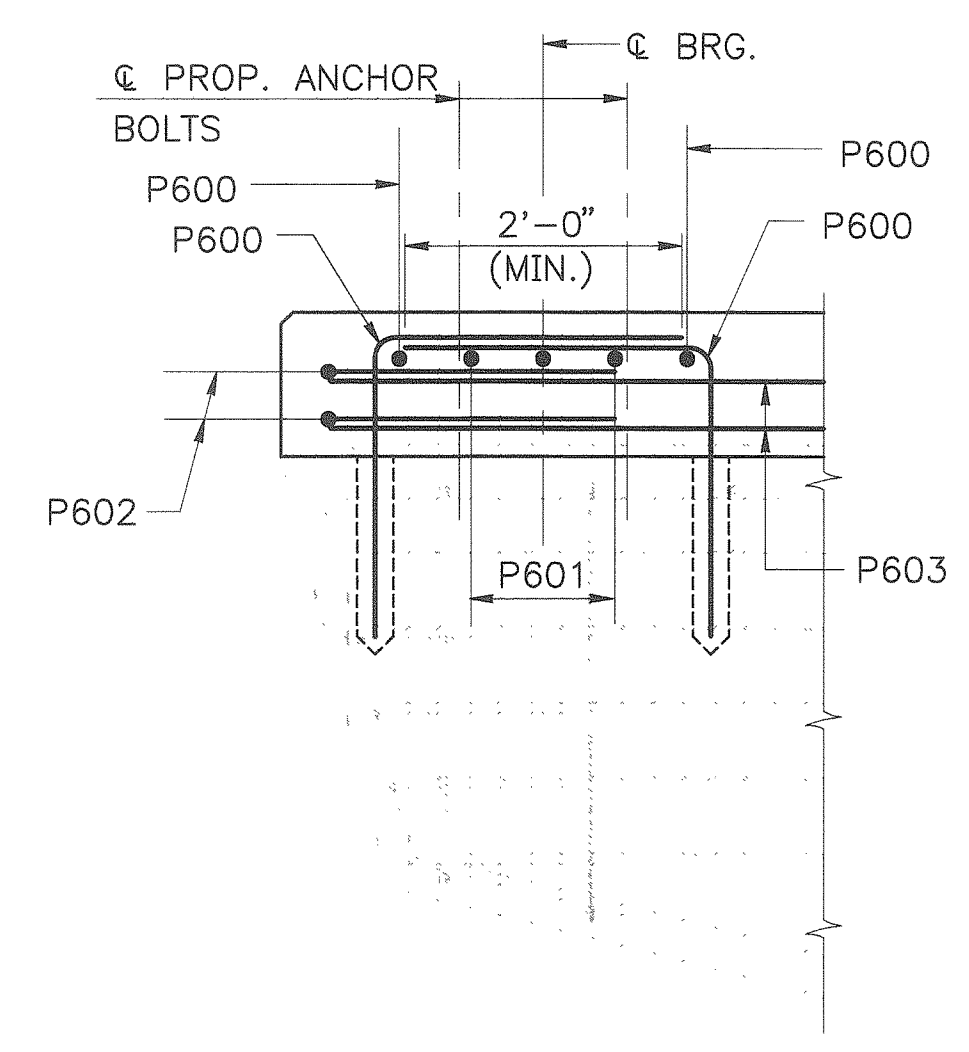
LIMITS OF PROTECTIVE COATING FOR CONCRETE SURFACES

PIERS 1, 2, AND 3
NOT TO SCALE

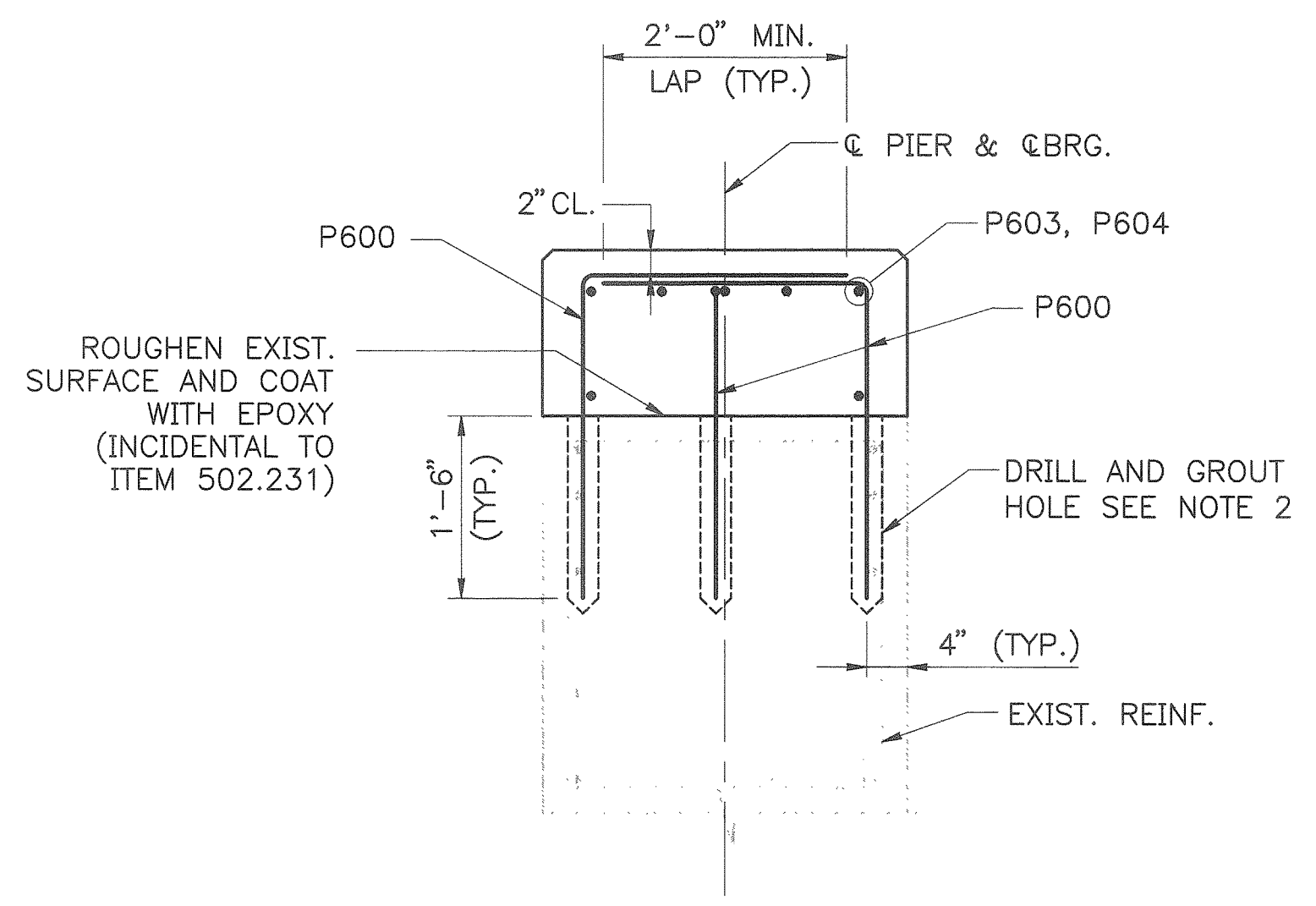


PLAN OF PIERS 1 AND 3
3/8" = 1'-0"

NOTE A
ANCHOR BOLT SPACING SHALL BE COORDINATED WITH THE BEARING MANUFACTURER.



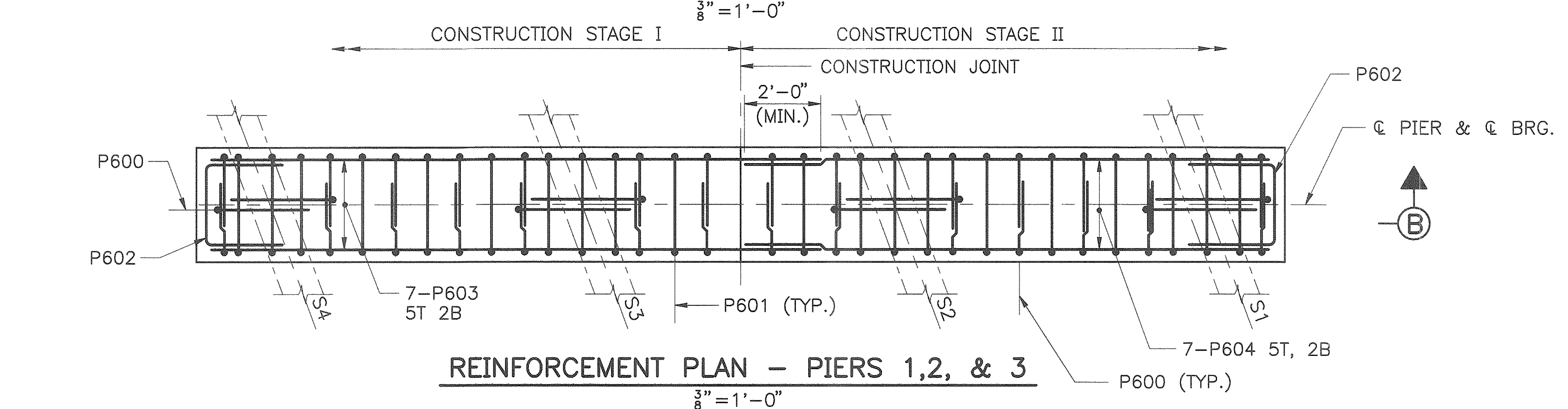
SECTION B-B
3/4" = 1'-0"



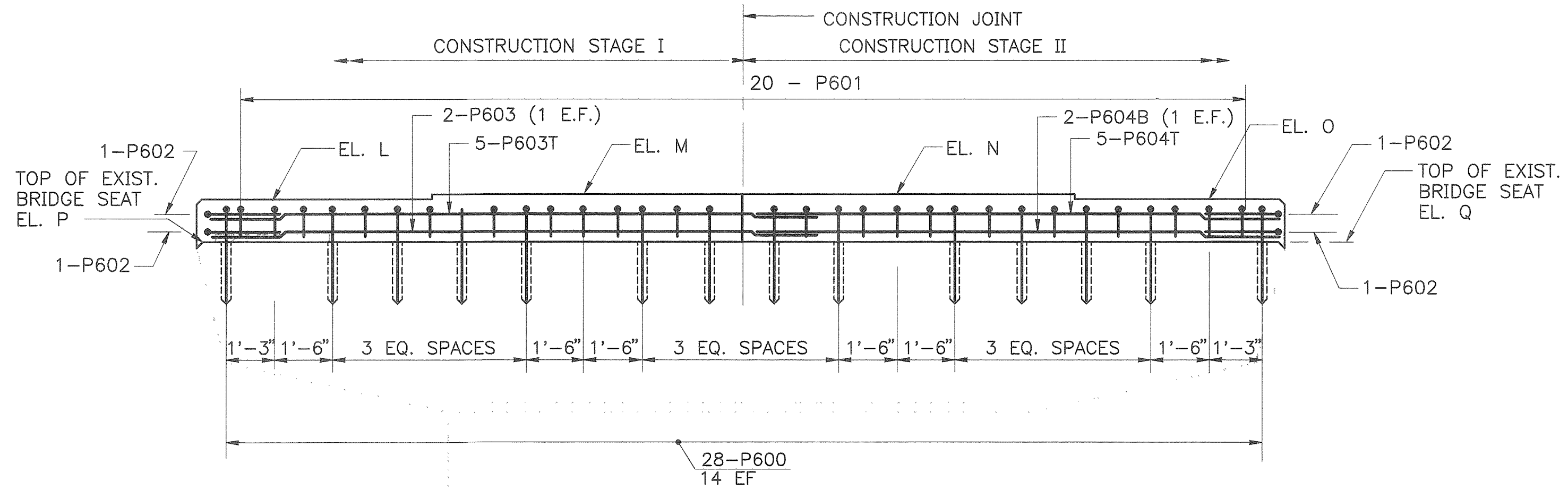
SECTION A-A
3/4" = 1'-0"

- NOTES**
1. REINFORCING SHOWN IS TYPICAL FOR ALL PIERS, UNLESS OTHERWISE NOTED.
 2. THE CONTRACTOR SHALL EXPOSE THE TOP LAYER OF THE REINFORCING STEEL PRIOR TO ANY DRILLING. (INCIDENTAL TO ITEM 502.231)
 3. REMOVAL OF THE EXISTING MASONRY PLATE, ANCHOR BOLTS AND BEARING ASSEMBLY, SHALL BE INCIDENTAL TO ITEM 202.12.

PIER ELEVATIONS			
POINT	PIER 1	PIER 2	PIER 3
L	225.13	225.44	225.24
M	225.32	225.56	225.34
N	225.30	225.56	225.32
O	225.21	225.44	225.18
P	224.05	224.46	224.01
Q	224.03	224.45	223.99



REINFORCEMENT PLAN - PIERS 1, 2, & 3
3/8" = 1'-0"



ELEVATION - PIER CAP
3/8" = 1'-0"

Maine Turnpike Authority
Maine Turnpike

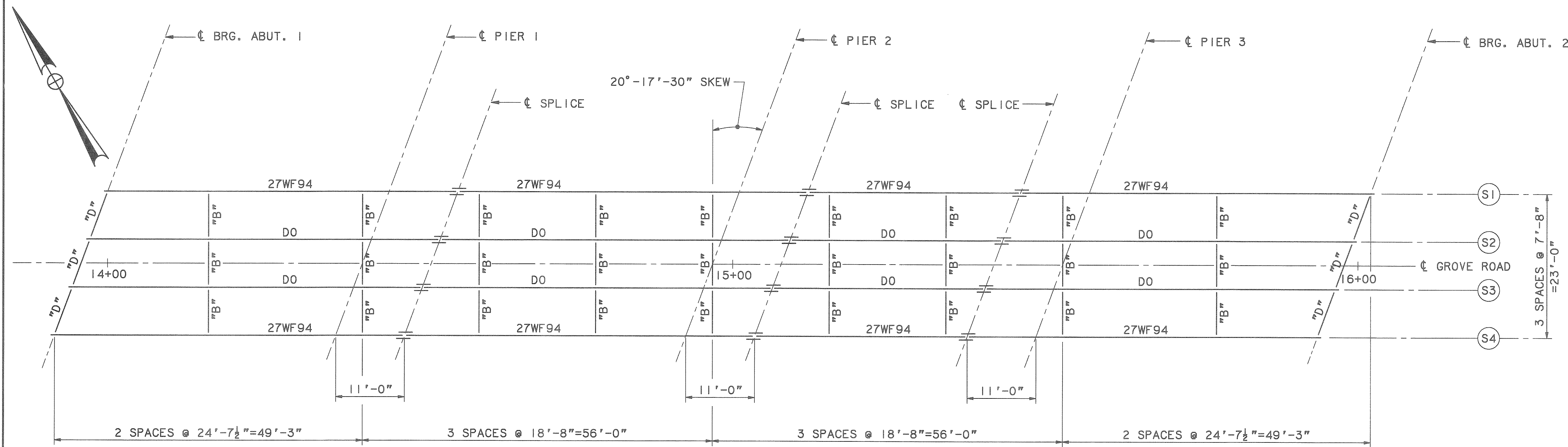
GROVE ROAD UNDERPASS
**PIER MODIFICATIONS
PAD DETAILS**

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Contract **95.11** Sheet No. **GR-8**
33 OF 51

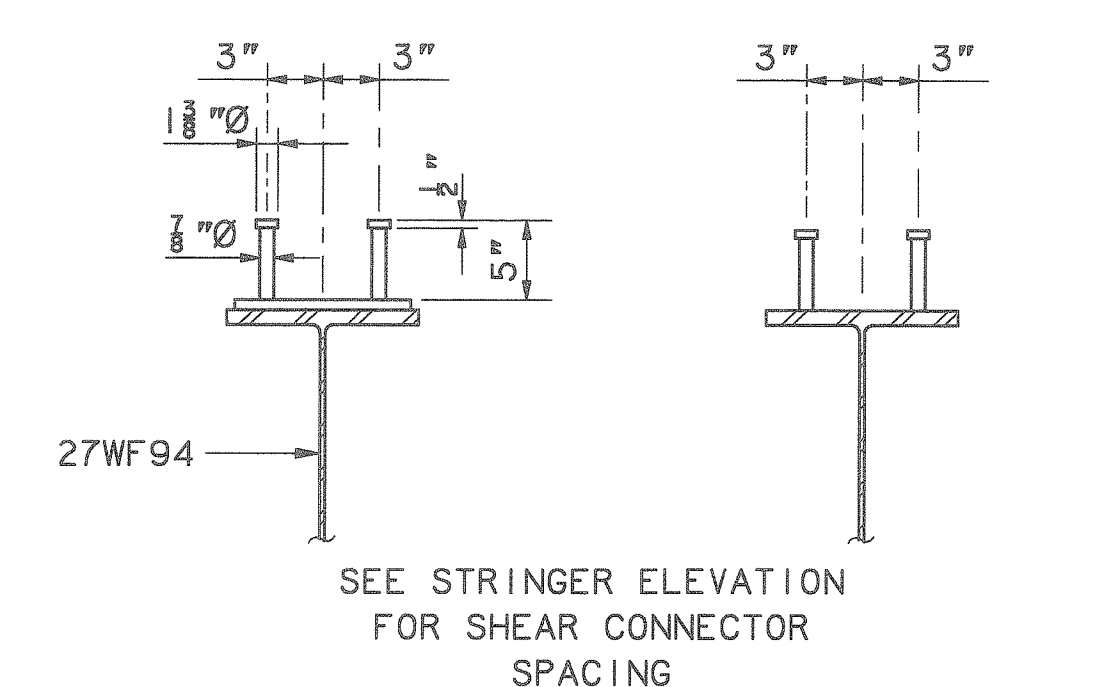
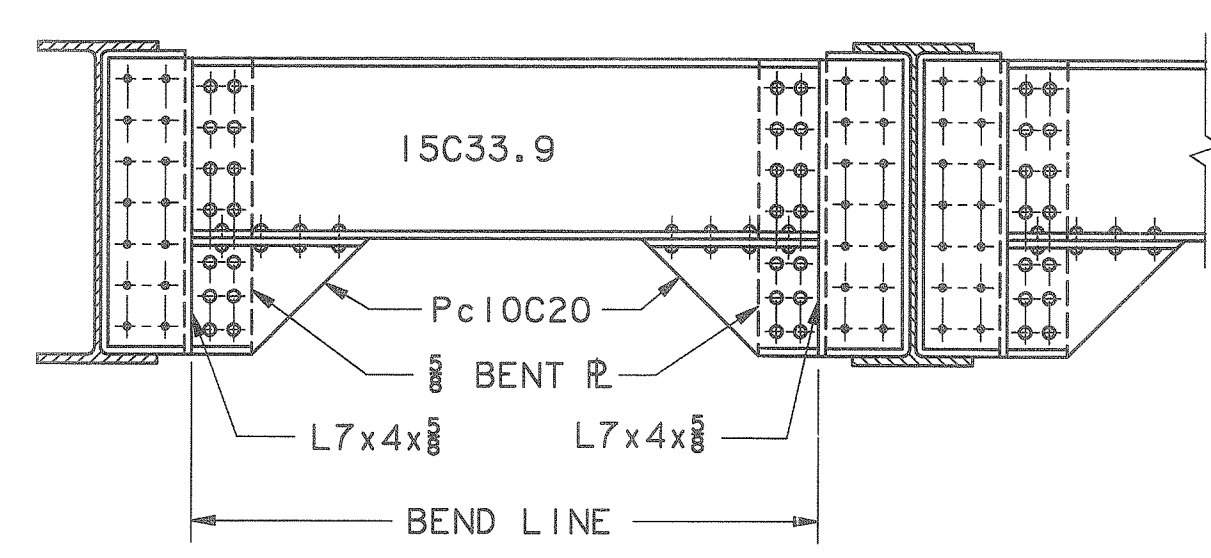
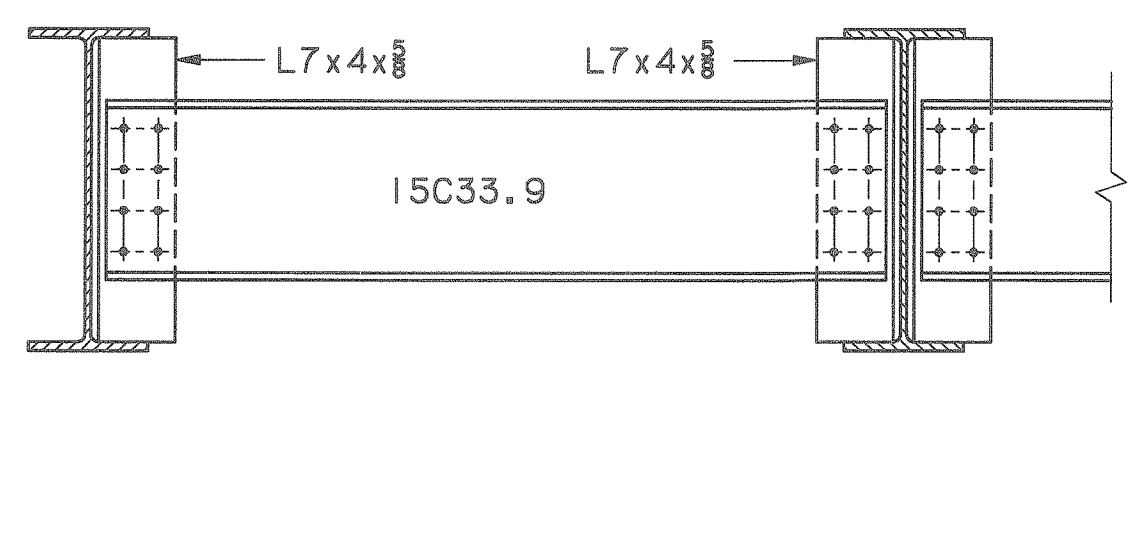
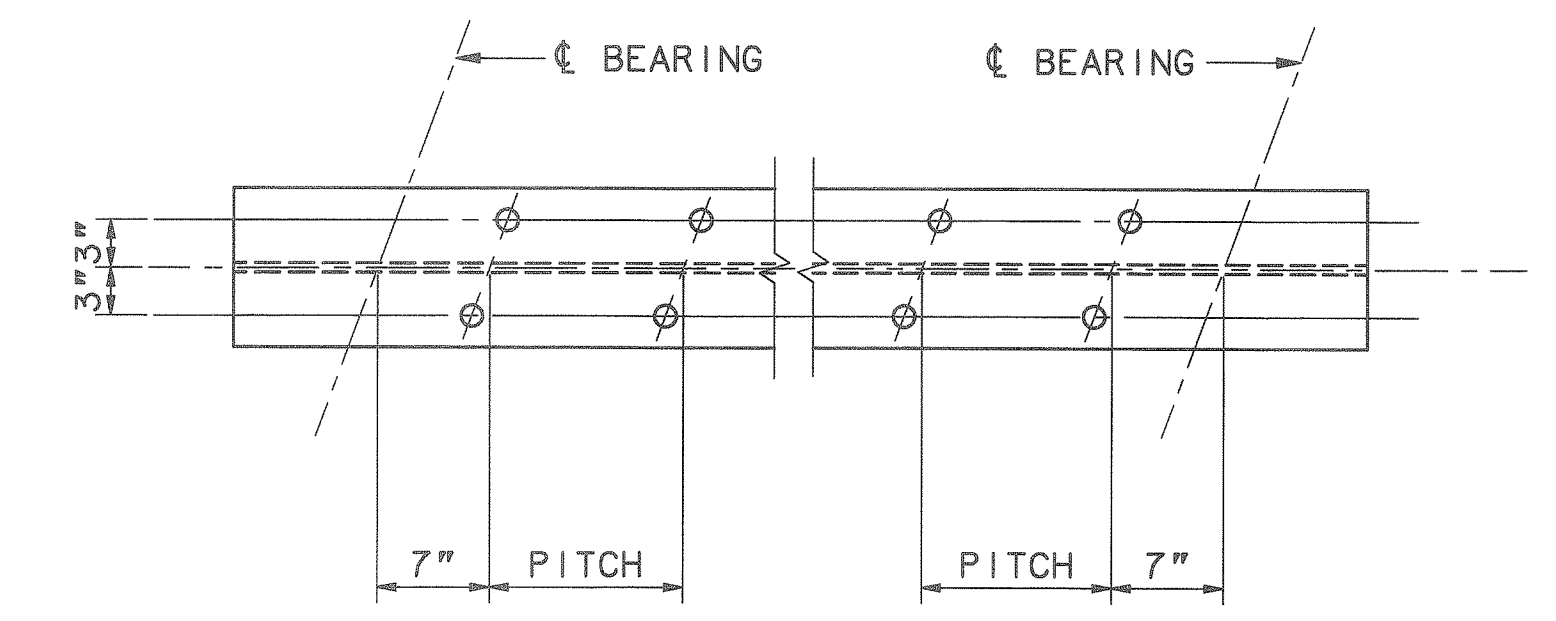
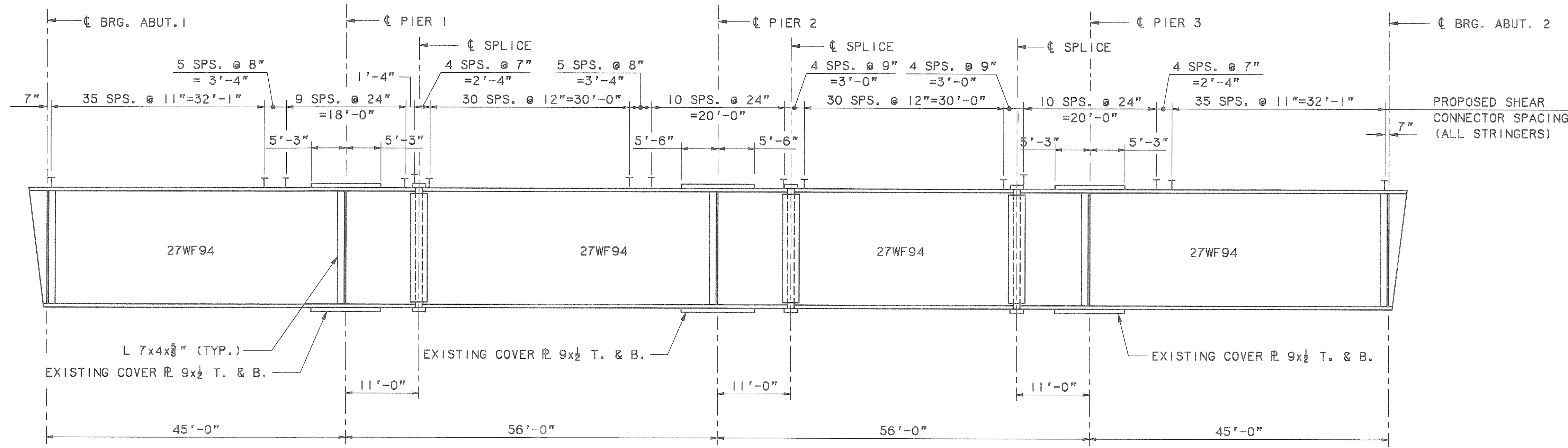
No.	Revision	By	Date	In Charge Of	RAL
		Designed	GPM	1/95	
		Drawn	RSJ	1/95	
		Checked	SHR	1/95	

MAINETPK



NOTES

- EXISTING DIAPHRAGMS ARE CONNECTED TO THE STRINGERS WITH THE USE OF BOLTS AND/OR RIVETS. ALL BOLTS AND RIVETS WHICH ARE REMOVED TO JACK THE SUPERSTRUCTURE SHALL BE REPLACED WITH NEW 3/4" A-325 BOLTS, H.S. NUTS AND WASHERS, WHICH SHALL BE INCIDENTAL TO ITEM 504.721.
- PROPOSED SHEAR CONNECTORS ARE SHOWN ON THE EXISTING STRINGER ELEVATIONS. SHEAR CONNECTORS ARE PAID FOR UNDER ITEM 505.092.

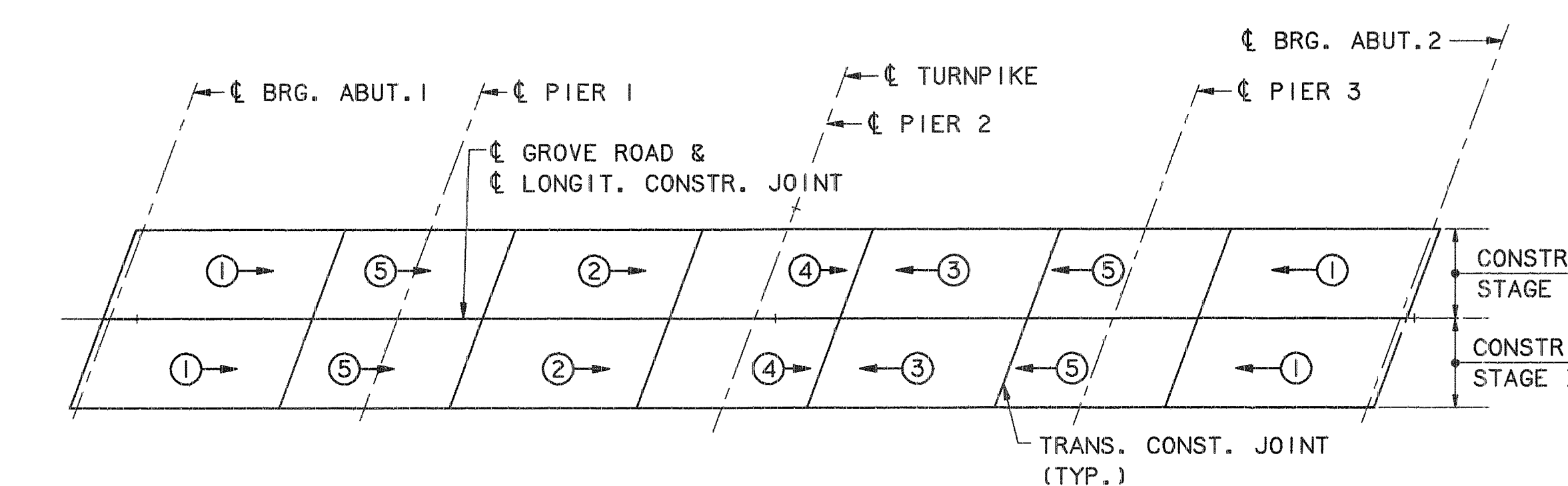
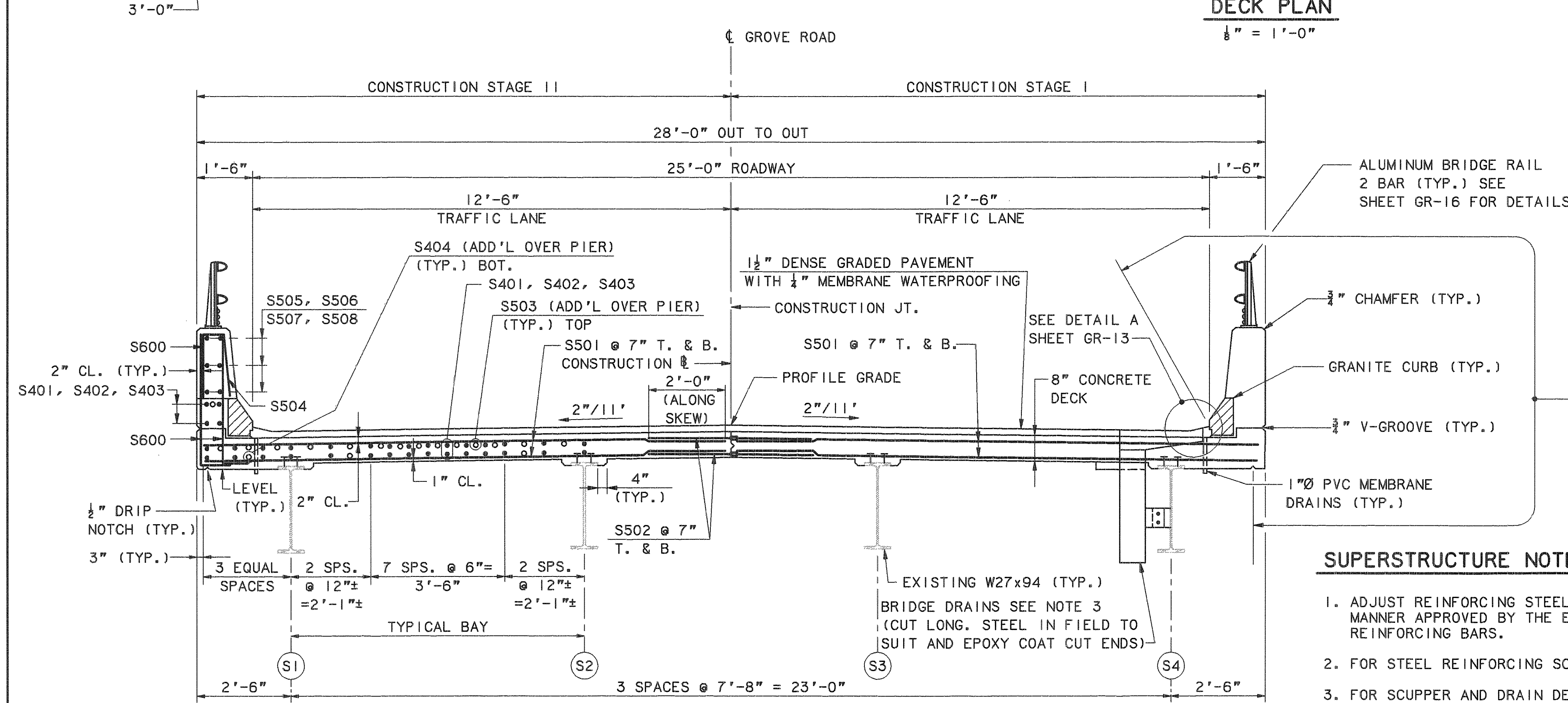
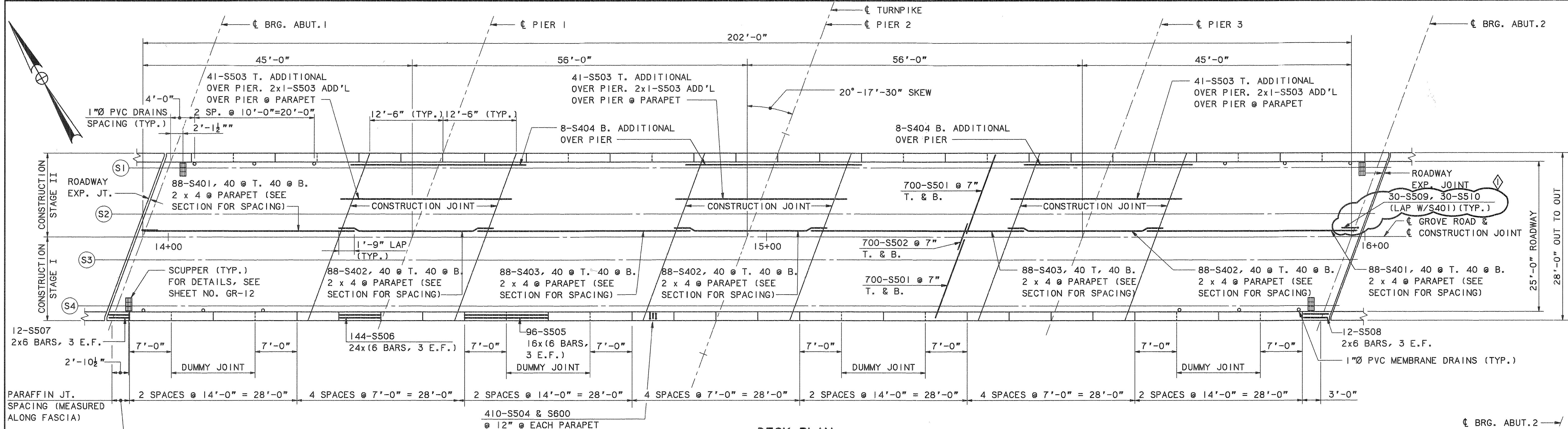


Maine Turnpike Authority
Maine Turnpike
GROVE ROAD UNDERPASS
FRAMING PLAN AND STRINGER ELEVATION

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 95.11 Sheet No. **GR-9**
34 OF 51

No.	Revision	By:	Date:	In charge of:	RAL
		Designed	GPM	1/95	
		Drawn	LS	1/95	
		Checked	HNL	1/95	



- PLACEMENT NOTES**
1. THE NUMBERS IN CIRCLES INDICATE POURING SEQUENCE. POURS MAY BE MADE IN THE SAME DAY FOR 1, 2, 3 AND FOR POURS 4 AND 5. A WAITING PERIOD OF 72 HOURS IS NECESSARY BETWEEN POURS 3 AND 4.
 2. THE FORMWORK AND ITS SUPPORTS, OVER THE FULL WIDTH OF THE STRUCTURAL SLAB FOR STAGE I CONSTRUCTION, SHALL REMAIN IN PLACE UNTIL A MINIMUM OF 48 HOURS HAS ELAPSED AFTER PLACEMENT OF THE SLAB, AFTER WHICH, REMOVAL OF FORMWORK FOR SECTIONS MEETING THE REQUIREMENTS FOR FORM REMOVAL OF SECTION 502, STRUCTURAL CONCRETE, OF THE STANDARD SPECIFICATIONS, MAY PROCEED.

- 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 STEEL REINFORCING SCHEDULE, SEE SHEET GR-17.
 3. FOR SCUPPER AND DRAIN DETAILS SEE SHEET NO. GR-12.
 4. FOR 2-BAR ALUMINUM BRIDGE RAILING DETAILS, SEE SHEET NO. GR-16.
 5. FOR SLAB DETAILS, SEE SHEET NOS. GR-12 AND GR-13.
 6. FOR ROADWAY EXPANSION JOINT DETAILS, SEE SHEET NOS. GR-14 GR-15.

Maine Turnpike Authority
Maine Turnpike
 GROVE ROAD UNDERPASS
DECK PLAN AND TYPICAL SECTION

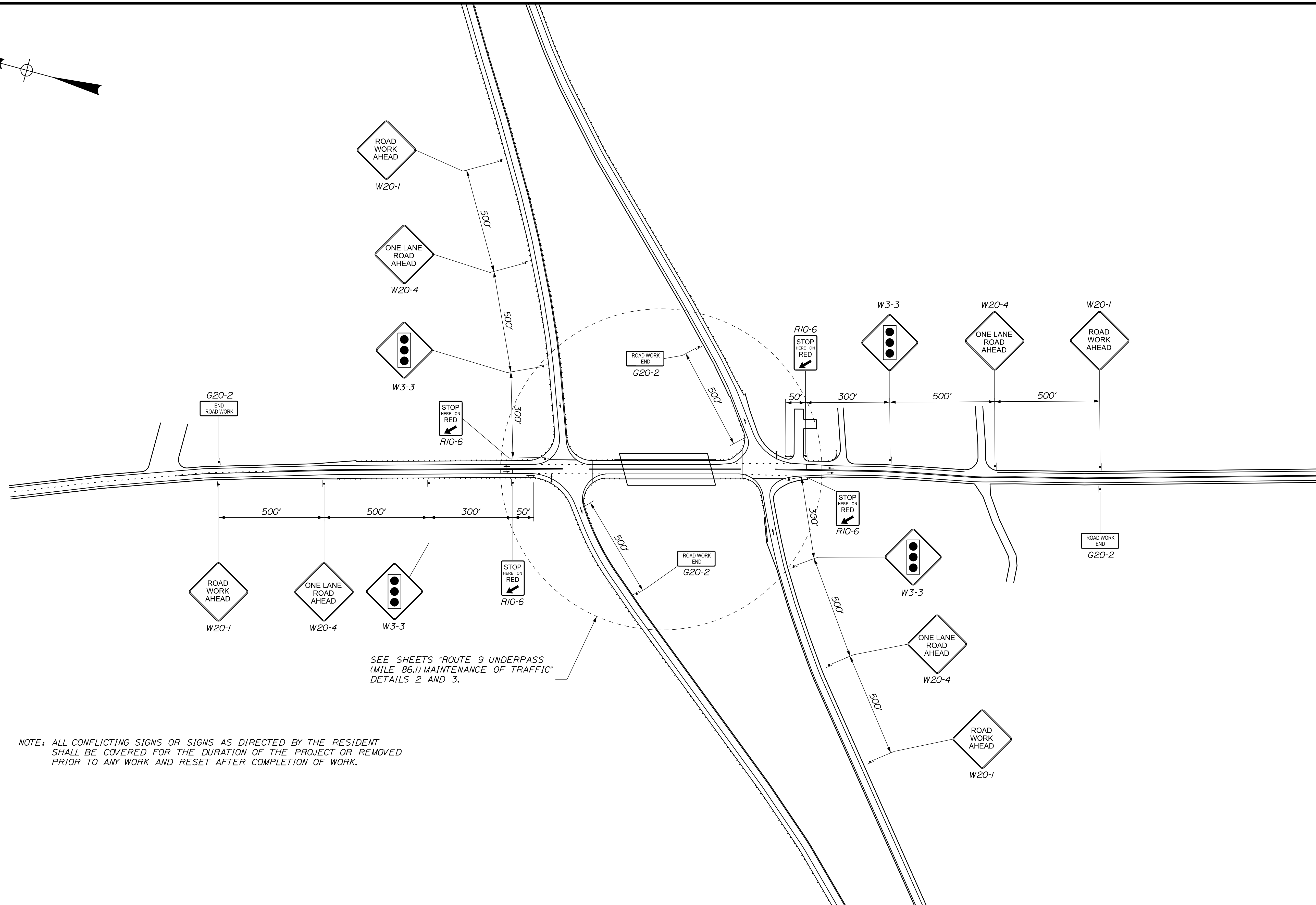
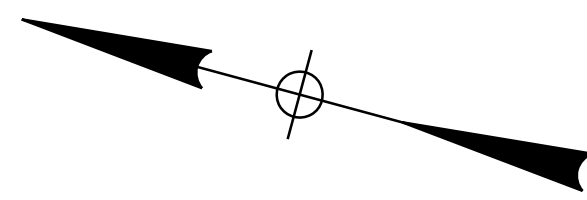
By: GPM Date: 1/95
 Designed: GPM
 Drawn: LS
 Checked: HNL
 In charge of: RAL

Contract 95.11 Sheet No. GR-11

No.	Revision	By:	Date:	In charge of:
1		GPM	4/14/95	RAL

Date: 4/22/2021

Filename: ...XXX-MOT_Dtis_01-NEW_Route 9.dgn



NOTE: ALL CONFLICTING SIGNS OR SIGNS AS DIRECTED BY THE RESIDENT SHALL BE COVERED FOR THE DURATION OF THE PROJECT OR REMOVED PRIOR TO ANY WORK AND RESET AFTER COMPLETION OF WORK.

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by: **TYLIN INTERNATIONAL**

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date	By	Date
Designed	TWA	8/2020	Checked	BLT 11/2020
Drawn	TWA	8/2020	In Charge of	DSM 03/2021

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 FAX: (207) 781-4753

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

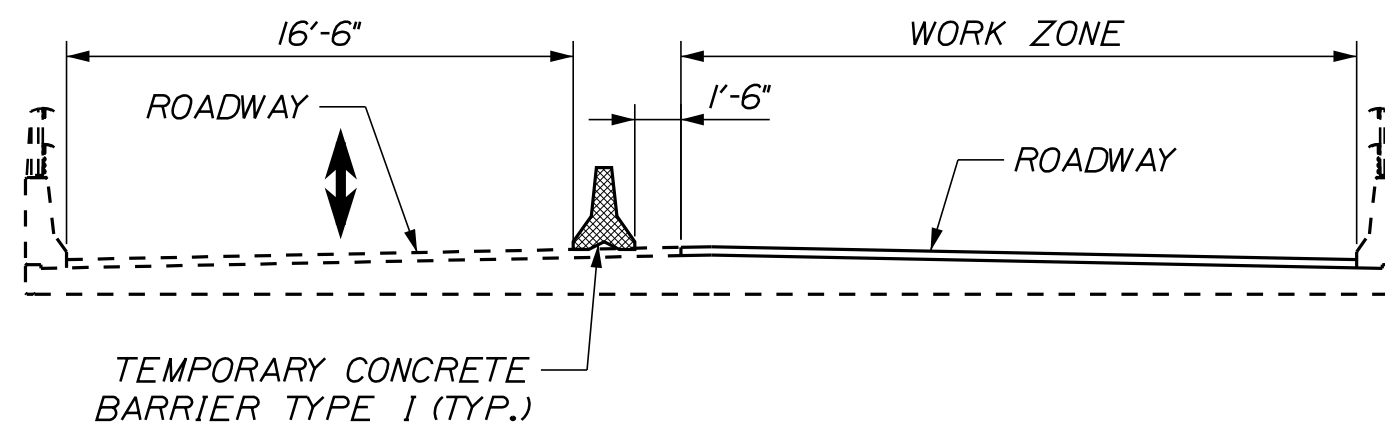
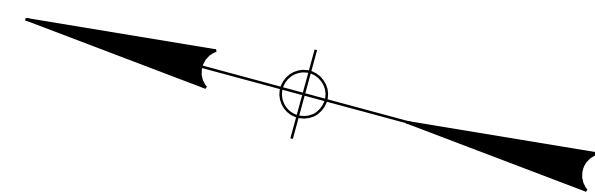
2021 BRIDGE REPAIRS

ROUTE 9 UNDERPASS (MILE 86.1)
 MAINTENANCE OF TRAFFIC DETAILS 1 OF 4

SHEET NUMBER: RT9-01

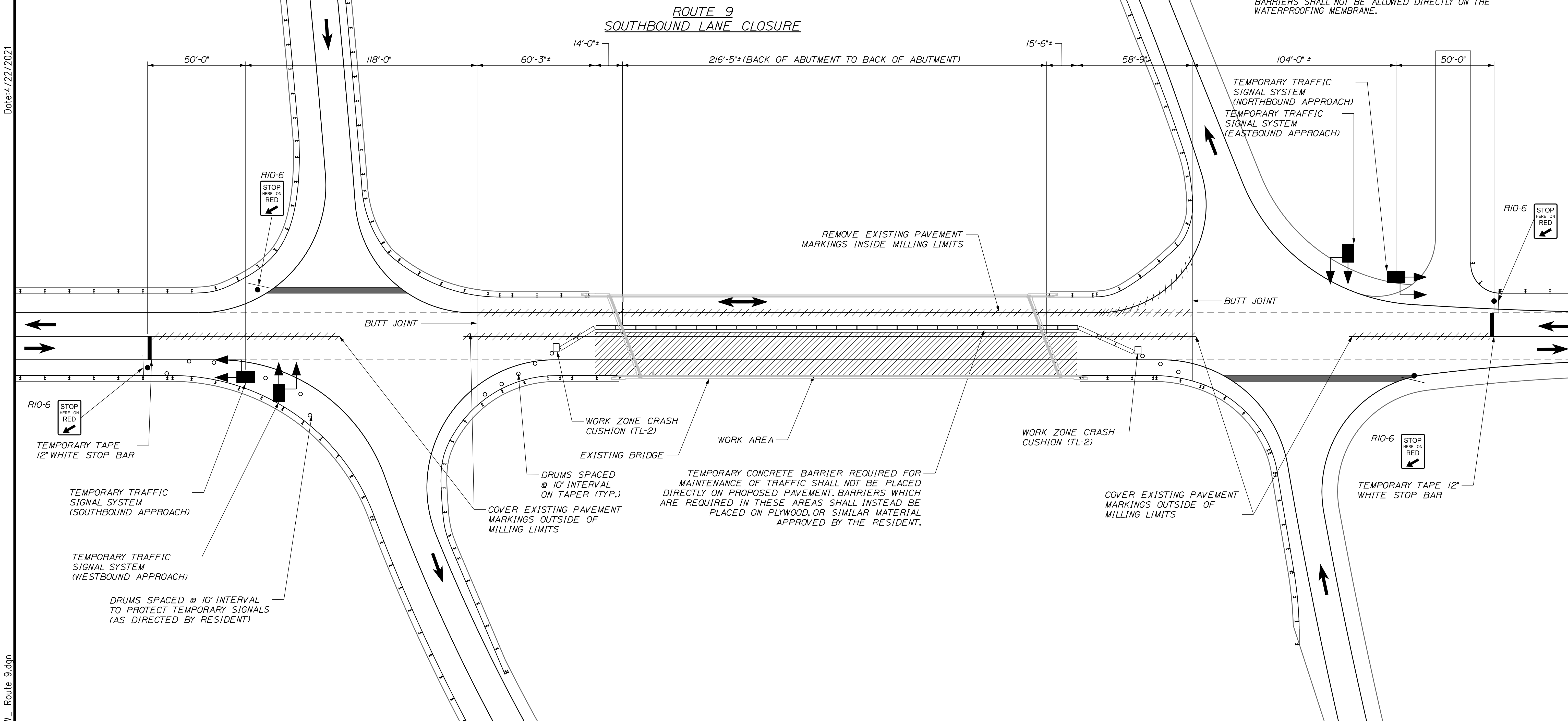
CONTRACT: 2021.03

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- NOTES:**
- FOR SIGNAL TIMING AND TEMPORARY SIGNAL NOTES SEE SHEET "ROUTE 9 UNDERPASS (MILE 86.1) MAINTENANCE OF TRAFFIC DETAILS 4 OF 4".
 - SEE GENERAL NOTES SHEET GN-01.
 - AT THE CONTRACTOR'S OPTION, THE FINAL SURFACE PAVEMENT FOR SOUTHBOUND AND NORTHBOUND LANES MAY BE PLACED IN A SINGLE OPERATION. AT NO TIME WILL THE CONTRACTOR BE ALLOWED TO CLOSE BOTH LANES. TRAFFIC AND TEMPORARY CONCRETE BARRIERS SHALL NOT BE ALLOWED DIRECTLY ON THE WATERPROOFING MEMBRANE.

Date: 4/22/2021



Filename: ...XXX-MOT_Dtls_02-NEW_Route 9.dgn

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by: **TYLIN INTERNATIONAL**

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date		By	Date
Designed	TWA	8/2020	Checked	BLT	11/2020
Drawn	TWA	8/2020	In Charge of	DSM	03/2021

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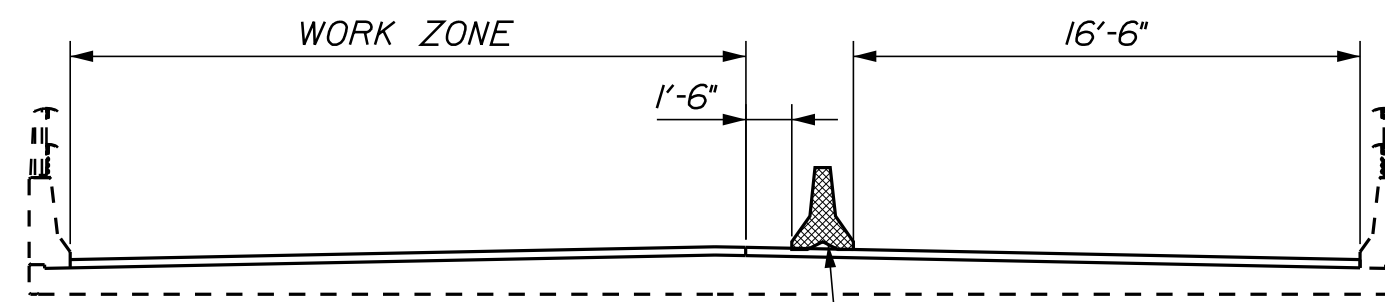
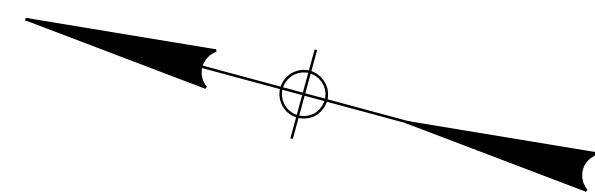
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

ROUTE 9 UNDERPASS (MILE 86.1)
 MAINTENANCE OF TRAFFIC DETAILS 2 OF 4

SHEET NUMBER: RT9-02
 CONTRACT: 2021.03
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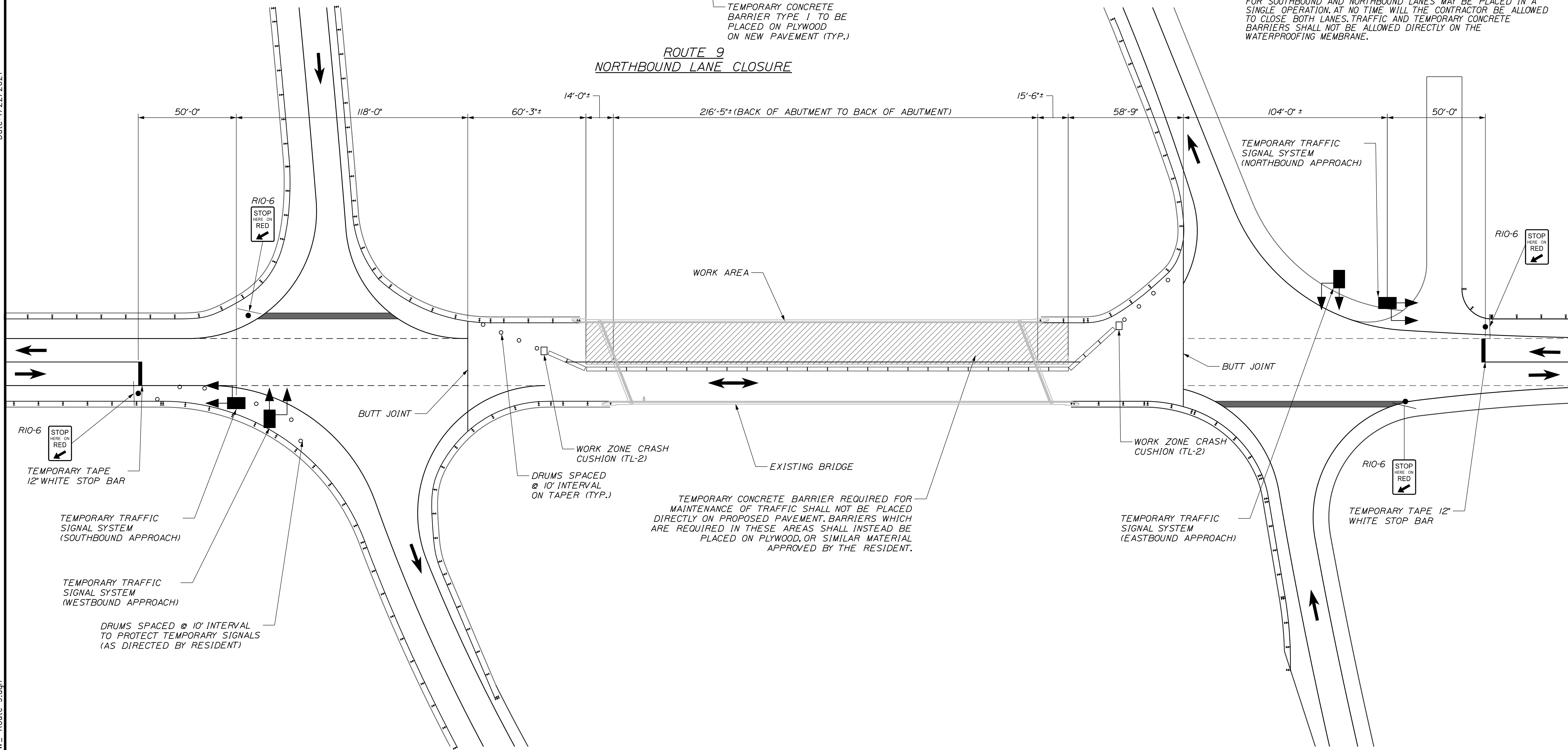
TEMPORARY CONCRETE BARRIER TYPE 1 TO BE PLACED ON PLYWOOD ON NEW PAVEMENT (TYP.)

**ROUTE 9
NORTHBOUND LANE CLOSURE**

NOTES:

1. FOR SIGNAL TIMING AND TEMPORARY SIGNAL NOTES SEE SHEET "ROUTE 9 UNDERPASS (MILE 86.1) MAINTENANCE OF TRAFFIC DETAILS 4 OF 4".
2. SEE GENERAL NOTES SHEET GN-01.
3. AT THE CONTRACTOR'S OPTION, THE FINAL SURFACE PAVEMENT FOR SOUTHBOUND AND NORTHBOUND LANES MAY BE PLACED IN A SINGLE OPERATION. AT NO TIME WILL THE CONTRACTOR BE ALLOWED TO CLOSE BOTH LANES. TRAFFIC AND TEMPORARY CONCRETE BARRIERS SHALL NOT BE ALLOWED DIRECTLY ON THE WATERPROOFING MEMBRANE.

Date: 4/22/2021



Filename: ...XXX-MOT_Dtlis_03-NEW_Route 9.dgn

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date		By	Date
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Drawn	TWA	8/2020	In Charge of	DSM	03/2021

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen

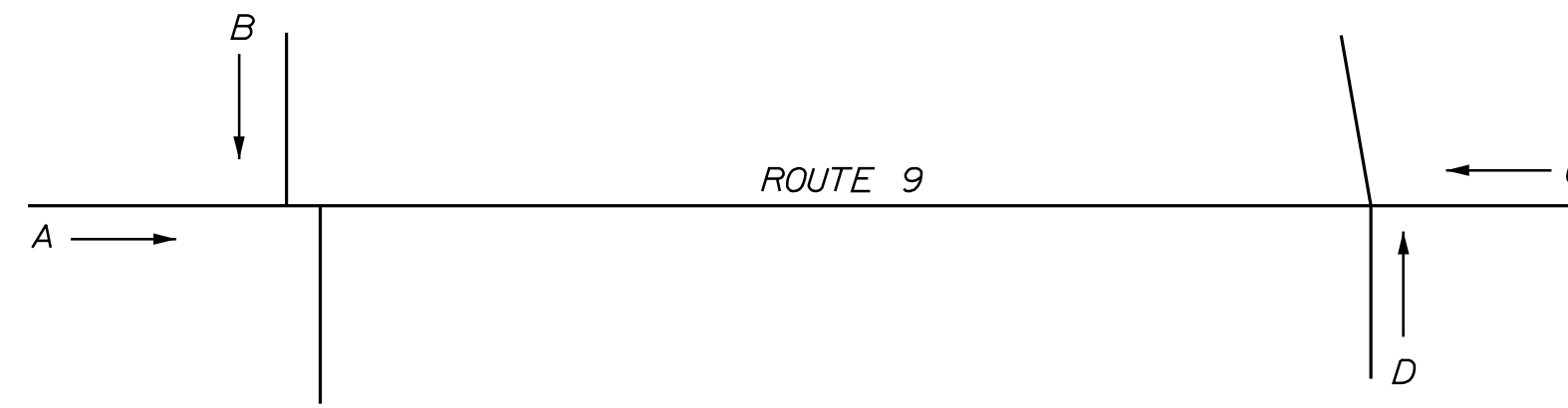
2021 BRIDGE REPAIRS

ROUTE 9 UNDERPASS (MILE 86.1)
 MAINTENANCE OF TRAFFIC DETAILS 3 OF 4

SHEET NUMBER: RT9-02
 CONTRACT: 2021.03
 38 OF 51

SIGNAL TIMING

INTERSECTION	ROUTE 9 EB AT SB RAMPS	SB OFF-RAMP	ROUTE 9 WB AT NB RAMPS	NB OFF-RAMP
MOVEMENT	EB TH/RT	SB LT/RT	WB TH/RT	NB LT/RT
PHASE	A	B	C	D
MIN GREEN	5	5	5	5
YELLOW	3	3	3	3
ALL RED	24	28	24	28
MAX SPLIT	30	15	30	15
VEH EXTENSION	3	3	3	3



TEMPORARY SIGNAL NOTES:


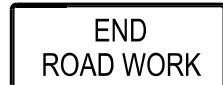



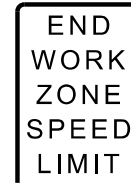

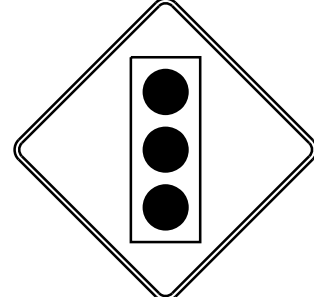


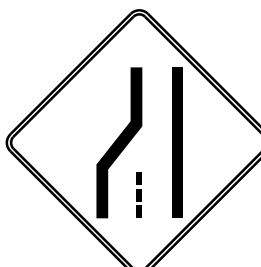
- I. LOCATIONS OF TEMPORARY TRAFFIC SIGNAL SYSTEMS ARE APPROXIMATE. FINAL LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
2. TRAFFIC SIGNAL WORK SHALL BE COMPLETED IN A MANNER AND ORDER THAT WILL CAUSE THE MINIMUM DISRUPTION TO TRAFFIC.
3. ALL SIGNAL SECTIONS SHALL HAVE LED LENSES 12 INCHES IN DIAMETER WITH 5 INCH BACK PLATES.
4. TEMPORARY TRAFFIC SIGNAL SYSTEMS SHALL BE TRAILER MOUNTED SIGNAL HEADS WITH ALL NECESSARY POWER SUPPLY AND SIGNAL TIMING CONTROL AND SHALL INCLUDE VEHICLE DETECTION EQUIPMENT. WOODEN POLES AND A SPAN WIRE WILL ALTERNATIVELY BE ALLOWED AS A TEMPORARY SIGNAL AT THE APPROVAL OF THE AUTHORITY.
5. IF A VEHICLE IS DETECTED ON PHASE B IT SHALL FOLLOW PHASE A AND PHASE A ALL RED TIME SHALL BE 8 SECONDS.
6. IF A VEHICLE IS DETECTED ON PHASE D IT SHALL FOLLOW PHASE C AND PHASE C ALL RED TIME SHALL BE 8 SECONDS.
7. ALL SIGNALS SHALL BE TRAFFIC ACTUATED.
8. THE ALL RED TIMINGS PROVIDED ARE BASED ON AN AVERAGE SPEED OF 20 MPH.
9. IF NEEDED, SIGNAL TIMING'S SHALL BE ADJUSTED BY THE CONTRACTOR AS DIRECTED BY THE RESIDENT AT NO ADDITIONAL COST.
10. ALL WORK SHALL COMPLY WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 2009 EDITION AND ALL REVISIONS.
- II. FOR SIGN DETAILS SEE MAINTENANCE OF TRAFFIC SIGN SUMMARY SHEETS.






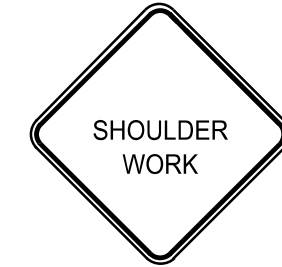
Date: 4/22/2021

Filename: ...XXX-MOT_Dtls_04-NEW_Route 9.dgn

Scale:		Designed by:				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		2021 BRIDGE REPAIRS																												
<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													CONSULTANT PROJECT MANAGER: Daniel S. Myers		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>By</th> <th>Date</th> <th>Checked</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Designed</td> <td>TWA 8/2020</td> <td>Checked</td> <td>x</td> <td>1/2020</td> </tr> <tr> <td>Drawn</td> <td>TWA 8/2020</td> <td>In Charge of</td> <td>DSM</td> <td>03/2021</td> </tr> </tbody> </table>		By	Date	Checked	By	Date	Designed	TWA 8/2020	Checked	x	1/2020	Drawn
No.	Revision	By	Date																																			
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						MTA PROJECT MANAGER: Kristi Van Ooyen		CONTRACT: 2021.03		39 OF 51																												

Date: 4/22/2021

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"		6" 6" 6"	4" 4"		4	ORANGE	BLACK		16.00 (64)	
G20-2	36"	24"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2009			8	ORANGE	BLACK		6.00 (48)	
G20-5aP	48"	24"					4	ORANGE	BLACK		8.00 (16)	
R2-1	48"	60"					4	WHITE	BLACK		20.00 (40)	
R2-6aP	36"	24"					4	WHITE	BLACK		6.00 (12)	
R2-12	36"	54"					4	WHITE	BLACK		13.50 (27)	
R10-6	24"	36"					4	WHITE	BLACK		6.00 (24)	
W3-3	36"	36"					4	ORANGE	BLACK		9.00 (36)	
W3-4	48"	48"					4	ORANGE	BLACK		16.00 (64)	
W3-5	48"	48"					4	ORANGE	BLACK		16.00 (64)	
W4-2 (LEFT) (RIGHT)	48"	48"					4 4	ORANGE	BLACK		16.00 (64) (64)	

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			
W8-1	48"	48"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2009			4	ORANGE	BLACK		16.00 (64)	
W8-24A	48"	48"					4	ORANGE	BLACK		16.00 (64)	
W20-1 (AHEAD) (1 MILE)	48"	48"					4 4	ORANGE	BLACK		16.00 (64) (64)	
W20-4	36"	36"					4	ORANGE	BLACK		9.00 (36)	
W20-5 (LEFT) (RIGHT)	48"	48"					4 4	ORANGE	BLACK		16.00 (64) (64)	
W21-5	48"	48"					4	ORANGE	BLACK		16.00 (64)	

Filename: ...XXX_MOT_Sum_01_Route 9.dgn

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date		By	Date
Designed	TWA	8/2020	Checked	BLT	11/2020
Drawn	TWA	8/2020	In Charge of	DSM	03/2021

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

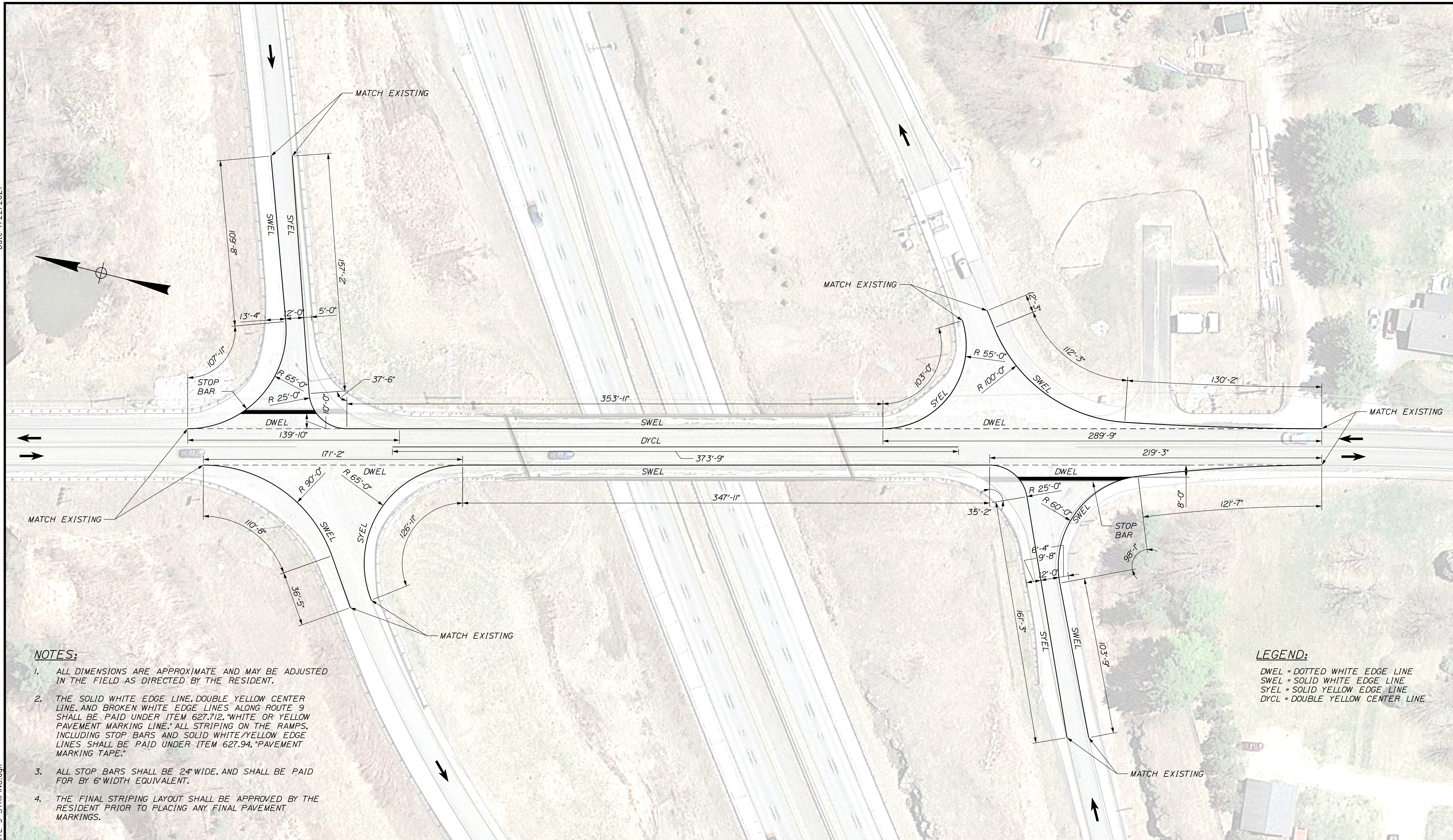
ROUTE 9 UNDERPASS (MILE 86.1)
 MAINTENANCE OF TRAFFIC SIGN SUMMARY

SHEET NUMBER: RT9-05

CONTRACT: 2021.03 40 OF 51

Date: 4/22/2021

Filename: ... \MSTAYXXX_ROUTE 9 STRIPING.dgn



NOTES:

1. ALL DIMENSIONS ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD AS DIRECTED BY THE RESIDENT.
2. THE SOLID WHITE EDGE LINE, DOUBLE YELLOW CENTER LINE, AND BROKEN WHITE EDGE LINES ALONG ROUTE 9 SHALL BE PAID UNDER ITEM 627.712, "WHITE OR YELLOW PAVEMENT MARKING LINE." ALL STRIPING ON THE RAMPS, INCLUDING STOP BARS AND SOLID WHITE/YELLOW EDGE LINES SHALL BE PAID UNDER ITEM 627.94, "PAVEMENT MARKING TAPE."
3. ALL STOP BARS SHALL BE 24" WIDE, AND SHALL BE PAID FOR BY 6" WIDTH EQUIVALENT.
4. THE FINAL STRIPING LAYOUT SHALL BE APPROVED BY THE RESIDENT PRIOR TO PLACING ANY FINAL PAVEMENT MARKINGS.


LEGEND:

- DWEL = DOTTED WHITE EDGE LINE
- SWEL = SOLID WHITE EDGE LINE
- SYEL = SOLID YELLOW EDGE LINE
- DYCL = DOUBLE YELLOW CENTER LINE

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:			
TYLIN INTERNATIONAL			
CONSULTANT PROJECT MANAGER: Daniel S. Myers			
Designed	By	Date	Checked
	BLT	03/2021	SRD
Drawn	By	Date	In Charge of
	BLT	03/2021	DSM

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



MAINE
TURNPIKE

THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

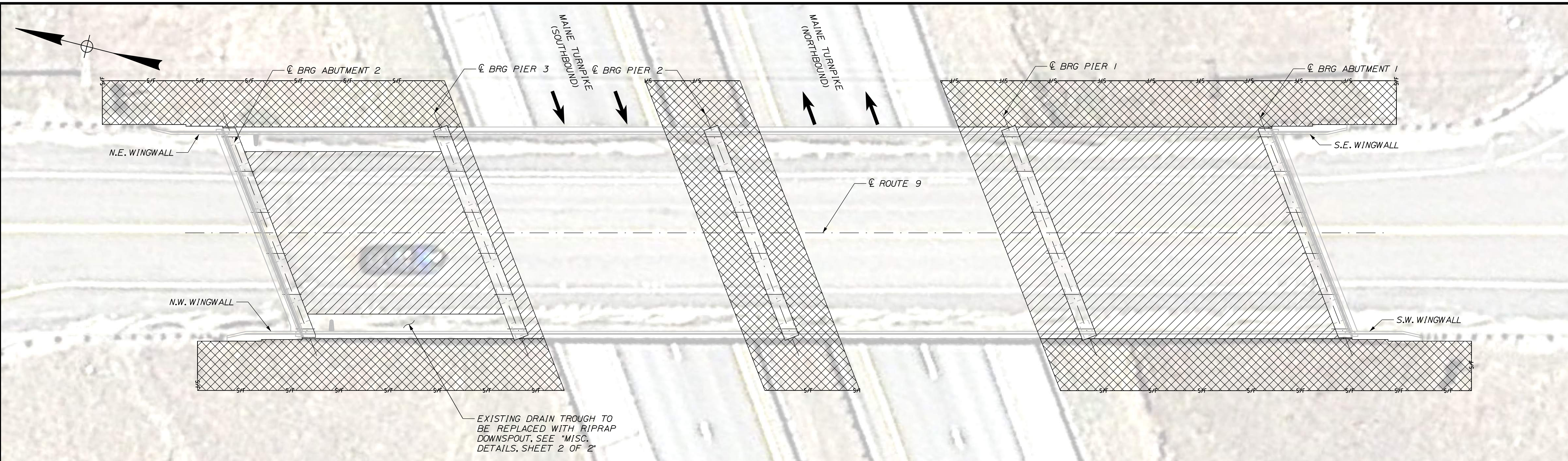
2021 BRIDGE REPAIRS

ROUTE 9 UNDERPASS (MILE 86.1)

RAMP STRIPING PLAN

SHEET NUMBER: RT9-06
 CONTRACT: 2021.03
 41 OF 51

Date: 4/22/2021



LIMIT OF DISTURBANCE PLAN - ROUTE 9

LEGEND:

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

AREAS:

- CONTRACT LIMIT OF DISTURBANCE:
- ROUTE 9 = 0.09 ACRES
- CONTRACTOR'S LIMIT OF DISTURBANCE AREA FOR ACCESS AND STORAGE:
- ROUTE 9 = 0.10 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. SEE SPECIFICATIONS FOR CONTRACTOR'S SUBMITTAL REQUIREMENTS IF INCREASING THE LIMITS OF DISTURBANCE TO THE PROJECT ESTIMATED QUANTITIES.

Filename: ...XXX_MM_86.1_Limit_of_Disturbance.DGN

Scale: 1'-0" or AS NOTED or SCALE BAR or NOT TO SCALE

No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date		By	Date
Designed	BLT	8/2020	Checked	DSM	8/2020
Drawn	SAM	8/2020	In Charge of	DSM	03/2021

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

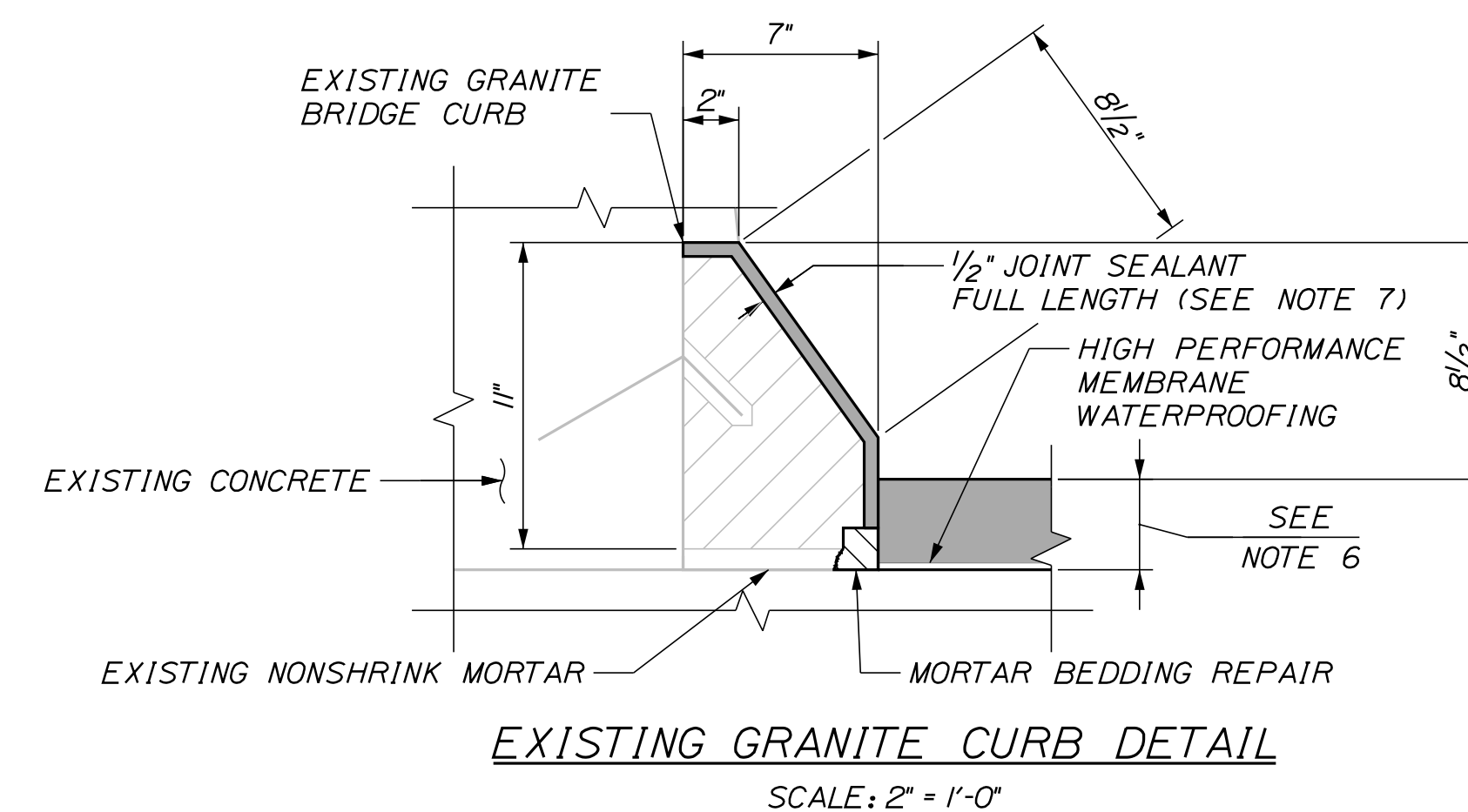
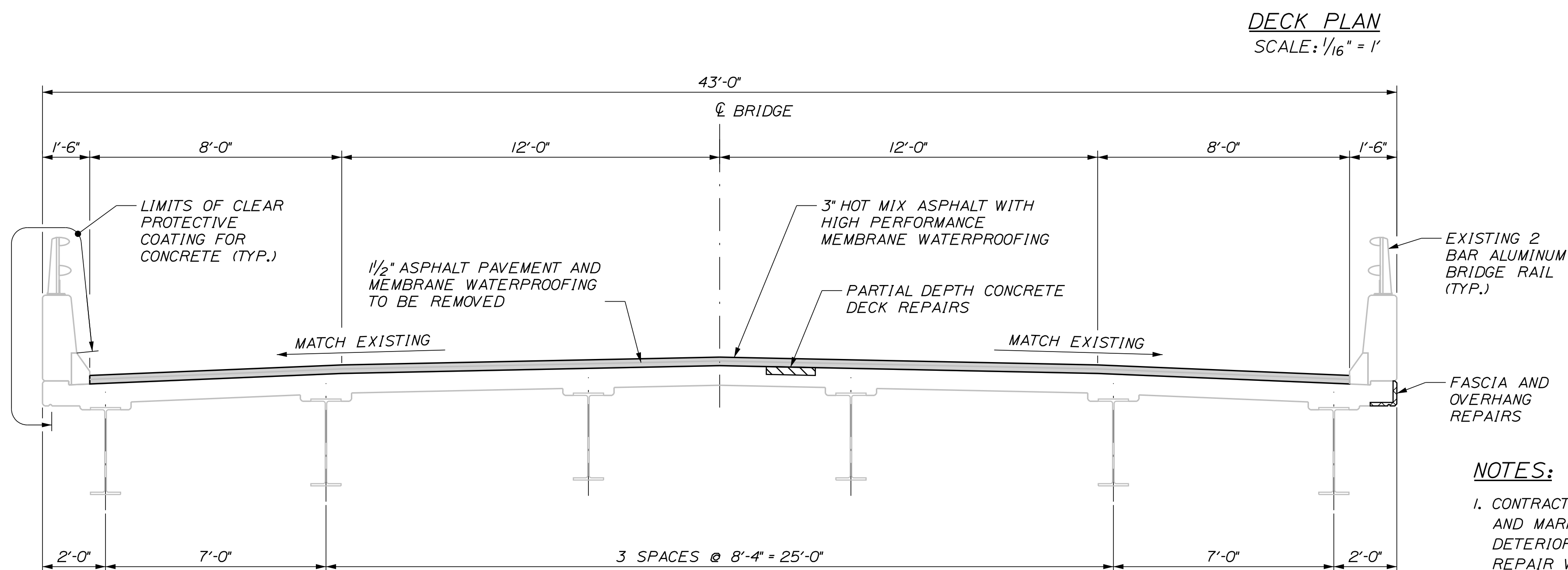
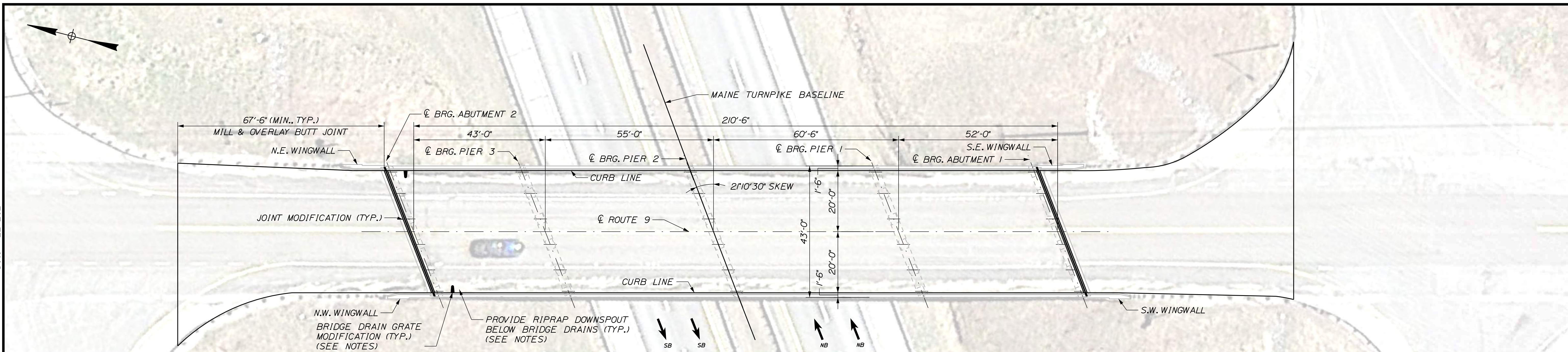
ROUTE 9 UNDERPASS (MILE 86.1)
LIMIT OF DISTURBANCE

SHEET NUMBER: RT9-07

CONTRACT: 2021.03

42 OF 51

Date: 4/22/2021



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, FASCIA OVERHANGS, AND PARAPET JOINTS. COORDINATE WORK WITH THE RESIDENT. PAYMENT FOR REPAIR WORK SHALL BE UNDER THE 518 PAY ITEMS.
- ALL PVC DECK WEEPS WHICH DRAIN ONTO PIERS, ABUTMENTS OR STRUCTURAL STEEL SHALL BE EXTENDED AND DIVERTED AWAY FROM BRIDGE COMPONENTS BELOW DECK, AND SHALL EXTEND 1 FT BELOW BOTTOM FLANGE, AS DIRECTED BY THE RESIDENT. PAYMENT SHALL BE MADE UNDER ITEM 502.7011, "WEEP DRAIN EXTENSIONS." SEE DETAIL SHEET "MISCELLANEOUS DETAILS SHEET 1 OF 2".
- FOR WORK REQUIRED AT RIPRAP DOWNSPOUTS, SEE "MISCELLANEOUS DETAILS SHEET 2 OF 2".
- A BEAD OF HOT-APPLIED RUBBERIZED ASPHALT SEALER SHALL BE APPLIED ALONG CURB LINES AFTER INSTALLATION OF BASE COURSE. PAYMENT SHALL NOT BE MADE DIRECTLY BUT SHALL BE CONSIDERED INCIDENTAL TO RELATED CONTRACT ITEMS.
- MODIFY BRIDGE DRAIN GRATE AND EXTEND DOWNSPOUTS, FOR BRIDGE DRAIN GRATE MODIFICATION NOTES AND DETAILS, SEE SHEET, "MISCELLANEOUS DETAILS SHEET 1 OF 2".
- THE CONTRACTOR SHALL TREAT CORNERS AND THE VERTICAL FACE OF CURBING IN ACCORDANCE WITH SPECIAL PROVISION SECTION 508.
- JOINT SEALANT SHALL BE A MATERIAL FROM THE MAINEDOT APPROVED PRODUCTS LIST AS APPROVED BY THE RESIDENT. JOINT SEALANT SHALL BE INCIDENTAL TO ITEM 518.39, "GRANITE CURB JOINT MORTAR AND BEDDING REPAIR".

LEGEND:

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

ROUTE 9 ESTIMATE SUPERSTRUCTURE REPAIR QUANTITIES		
FULL DEPTH CONCRETE DECK REPAIRS (S.F.)	PARTIAL DEPTH CONCRETE DECK REPAIRS (S.F.)	FASCIA AND OVERHANG REPAIRS (S.F.)
5 S.F.	85 S.F.	50 S.F.

Scale: AS NOTED			
No.	Revision	By	Date

Designed by: TYLIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Daniel S. Myers					
	By	Date		By	Date
Designed	JJL	3/2020	Checked	BLT	3/2020
Drawn	JJL	3/2020	In Charge of	DSM	03/2021

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

ROUTE 9 UNDERPASS (MILE 86.1)

DECK PLAN & SECTION

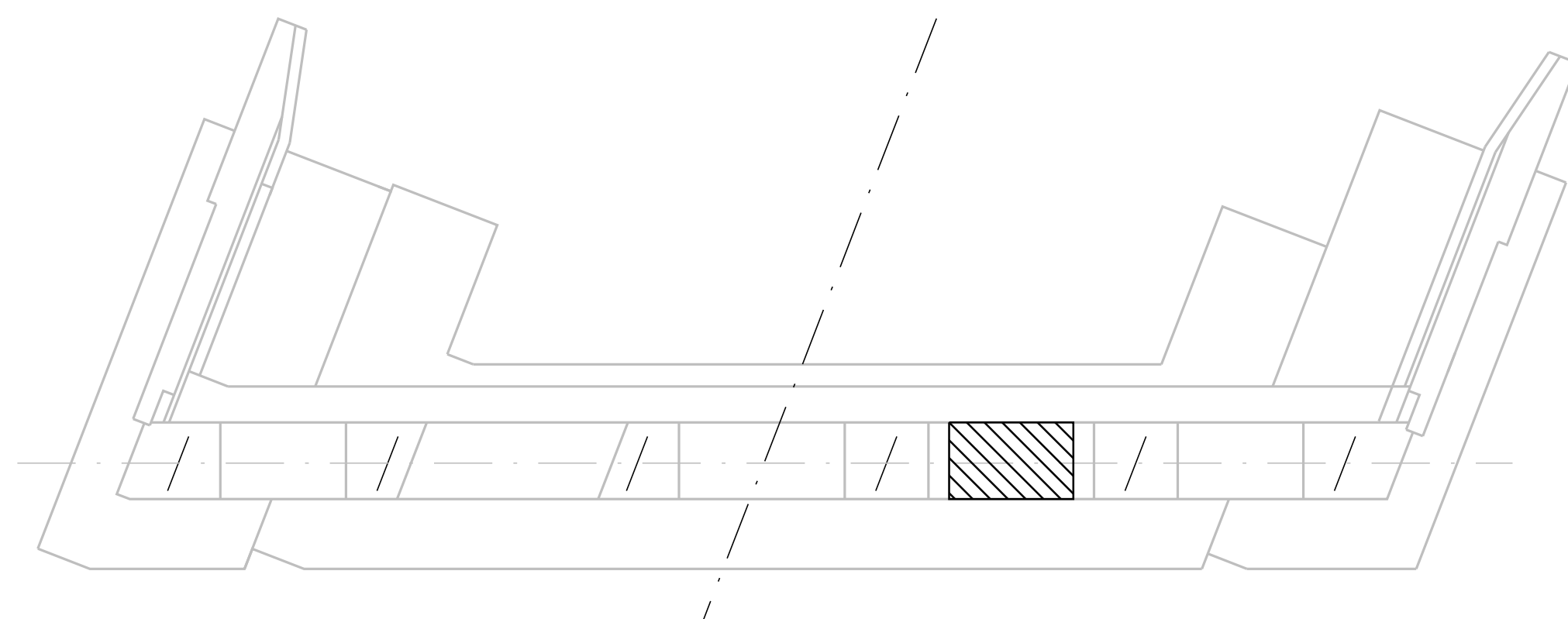
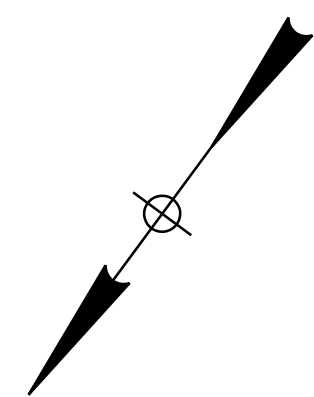
SHEET NUMBER: RT9-08

CONTRACT: 2021.03

43 OF 51

Filename: ...XXX_MM_86.1_Typical_Deck_Plan_Section.dgn

Date: 4/22/2021



ABUTMENT NO. 1 PLAN

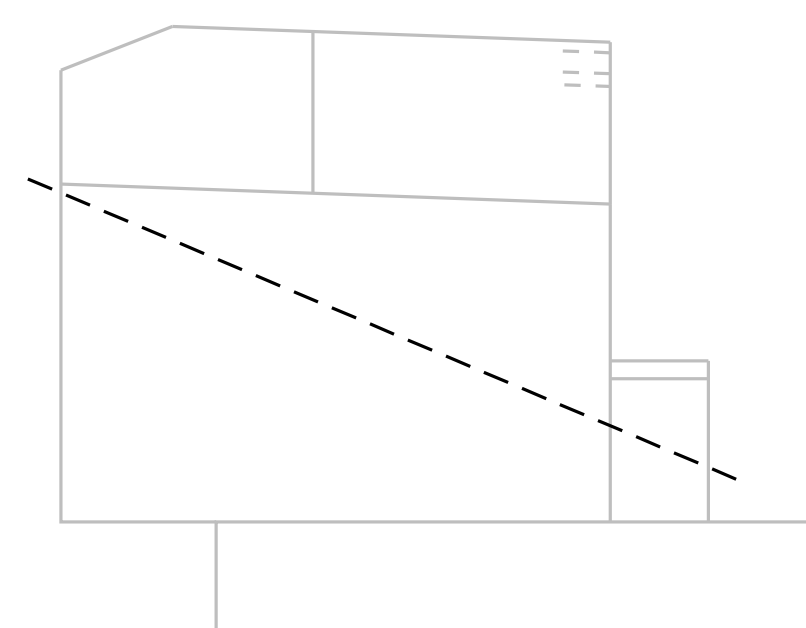
ESTIMATED QUANTITY OF REPAIRS			
	ABUT. NO. 1	ABUT. NO. 2	TOTAL
ABUTMENT REPAIRS	50 SF	0 SF	50 SF

NOTES:

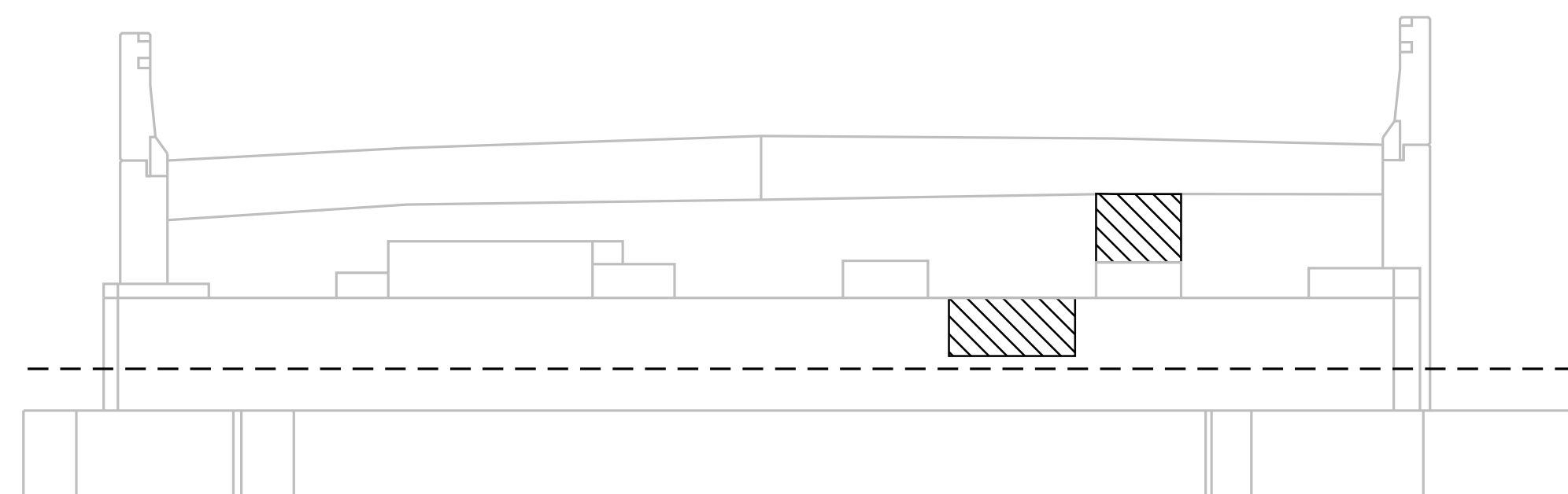
- FOR PROCEDURAL NOTES SEE SHEET "BRIDGE GENERAL NOTES".
- SHOULD CONCRETE REPAIR EXTEND BELOW GRADE, ANY EXCAVATION REQUIRED WILL BE CONSIDERED INCIDENTAL TO ITEM 518.10, "ABUTMENT REPAIRS".

LEGEND:

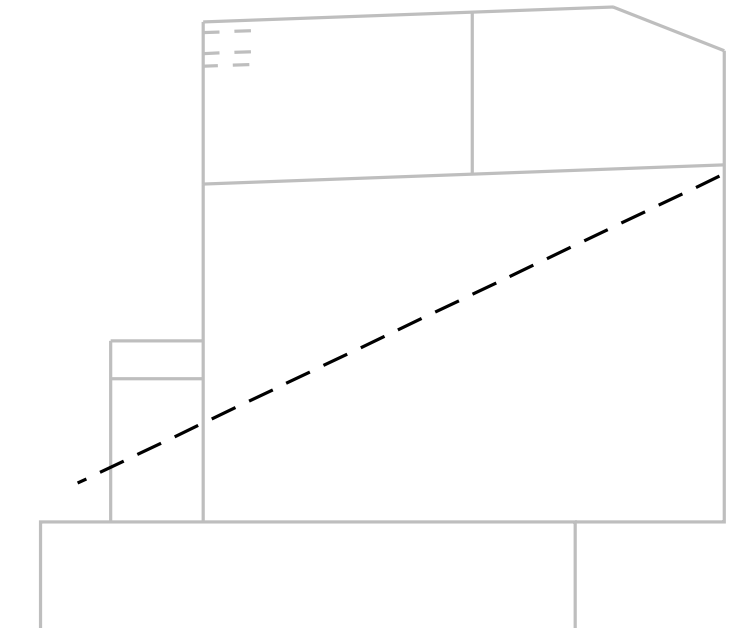
- LIMIT OF CONCRETE SURFACE REPAIRS
- LIMIT OF EPOXY INJECTED CRACK REPAIR
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND



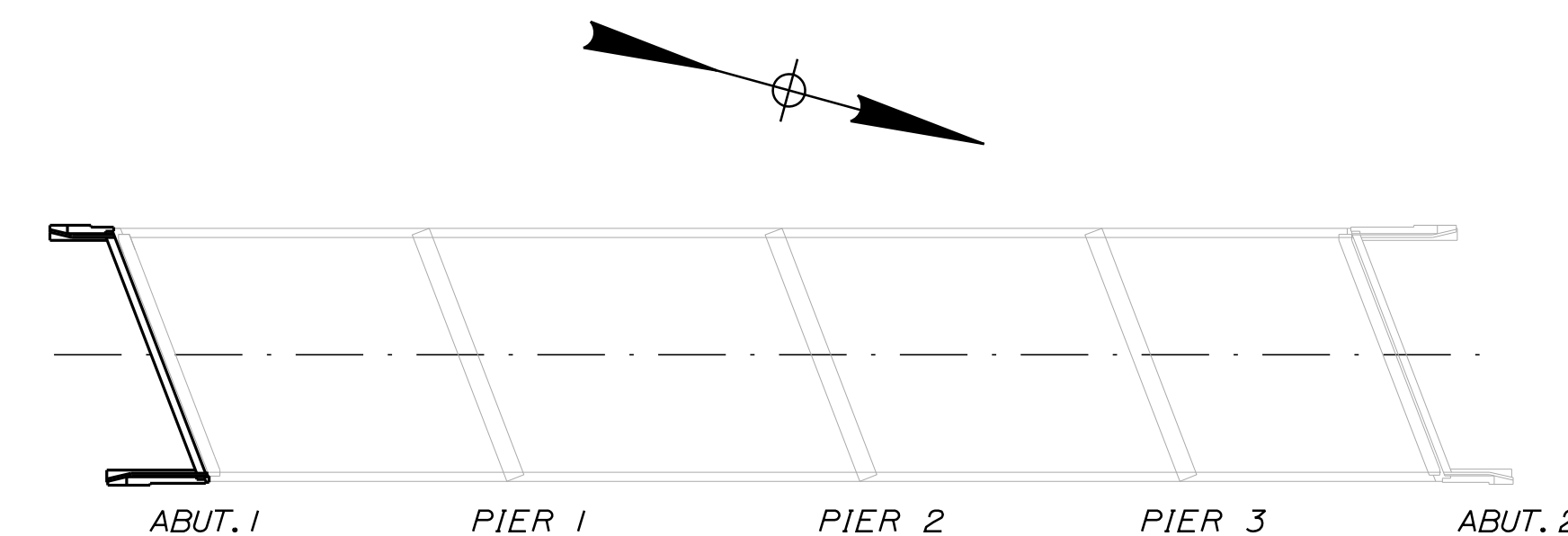
N.E. WINGWALL



ABUTMENT NO. 1 ELEVATION



S.E. WINGWALL



LOCATION PLAN

Filename: ...XXX_MM_86.1_Existing_Substructures.DGN

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TY-LIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Daniel S. Myers					
	By	Date		By	Date
Designed	JJL	3/2020	Checked	BLT	3/2020
Drawn	JJL	3/2020	In Charge of	DSM	03/2021

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THE GOLD STAR
MEMORIAL HIGHWAY

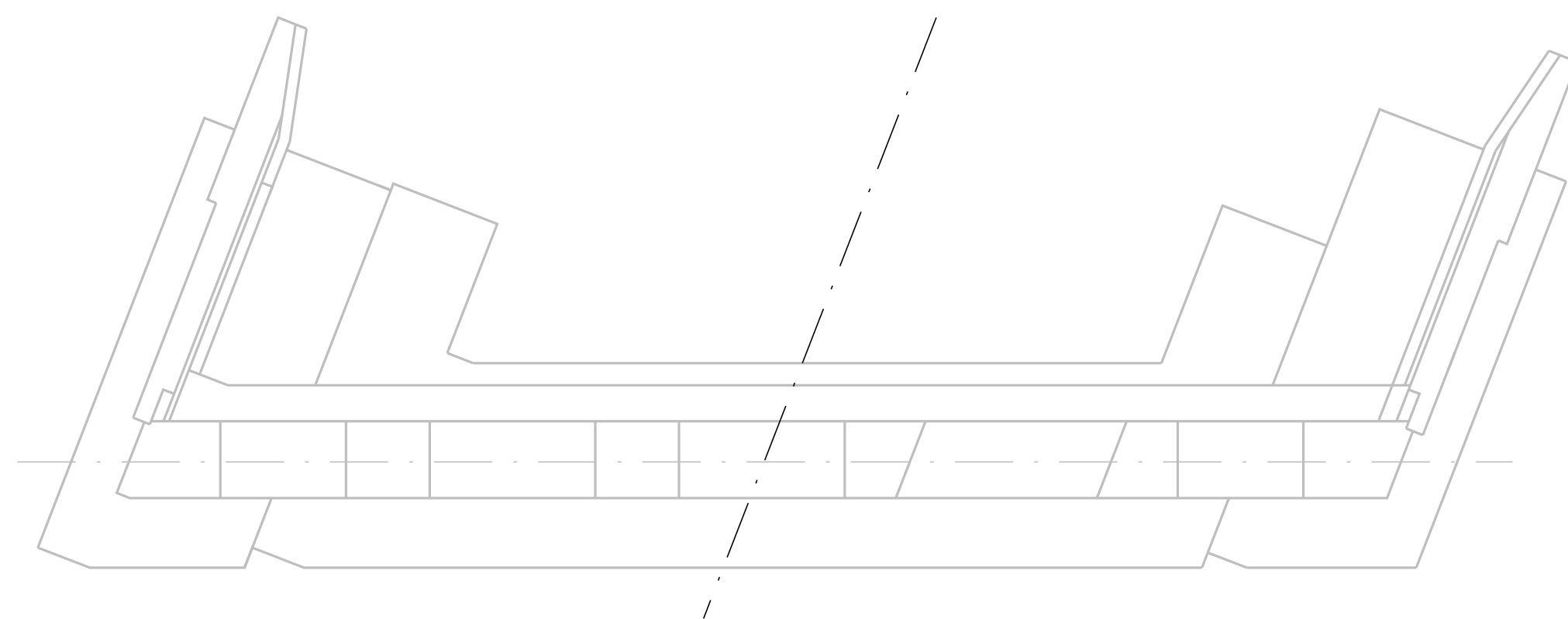
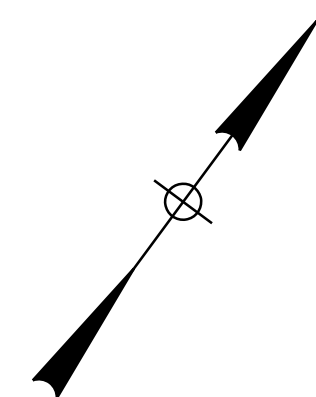
MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

ROUTE 9 UNDERPASS (MILE 86.1)
 SUBSTRUCTURE REPAIRS - 1 OF 5

SHEET NUMBER: RT9-09
 CONTRACT: 2021.03
 44 OF 51

Date: 4/22/2021



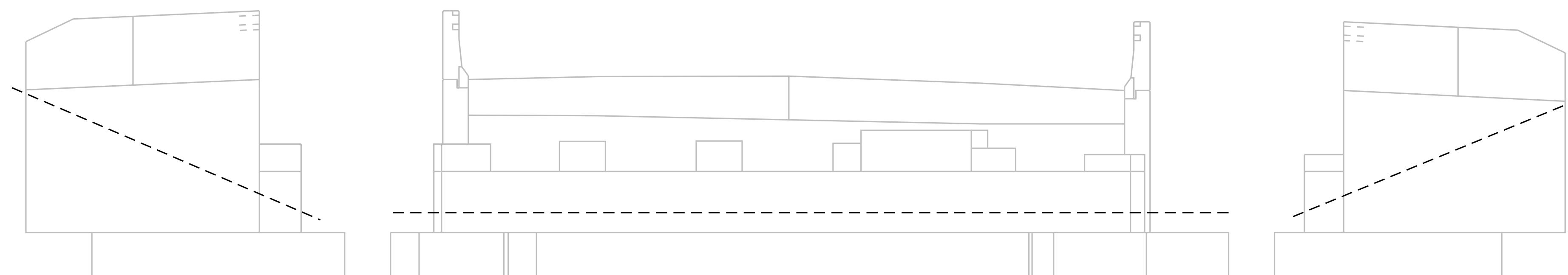
ABUTMENT NO. 2 PLAN

NOTES:

1. FOR PROCEDURAL NOTES SEE SHEET "BRIDGE GENERAL NOTES".
2. SHOULD CONCRETE REPAIR EXTEND BELOW GRADE, ANY EXCAVATION REQUIRED WILL BE CONSIDERED INCIDENTAL TO ITEM 518.10, "ABUTMENT REPAIRS".
3. FOR QUANTITY, SEE SHEET "ROUTE 9 (MILE 86.1) SUBSTRUCTURE REPAIRS 1 OF 5"

LEGEND:

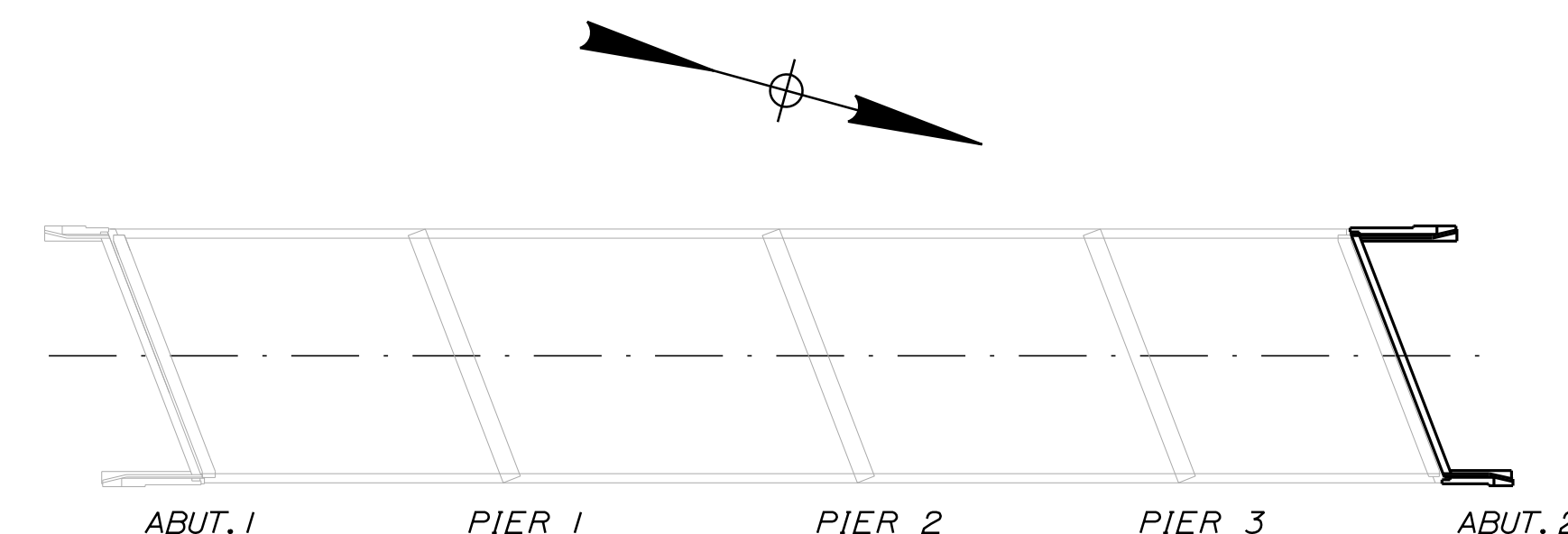
- LIMIT OF CONCRETE SURFACE REPAIRS
- LIMIT OF EPOXY INJECTED CRACK REPAIR
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND



S.W. WINGWALL

ABUTMENT NO. 2 ELEVATION

N.W. WINGWALL



LOCATION PLAN

Filename: ...XXX_MM_86.1_Existing_Substructures.DGN

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TYLIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Daniel S. Myers					
	By	Date		By	Date
Designed	JJL	3/2020	Checked	BLT	3/2020
Drawn	JJL	3/2020	In Charge of	DSM	03/2021

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THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

ROUTE 9 UNDERPASS (MILE 86.1)
SUBSTRUCTURE REPAIRS - 2 OF 5

SHEET NUMBER: RT9-10
CONTRACT: 2021.03
45 OF 51

Date: 4/22/2021

Filename: ...XXX_MM_86_1_Existing_Substructures.DGN

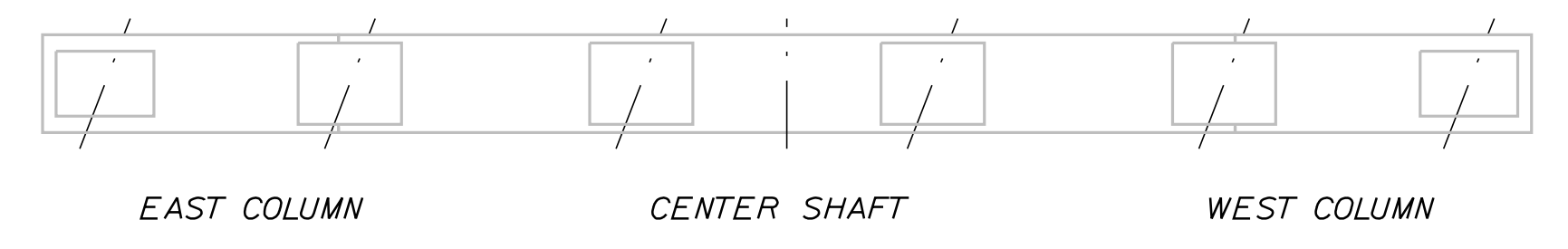
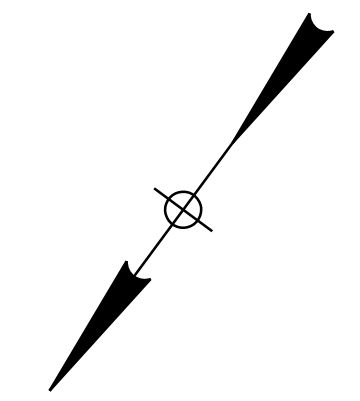
ESTIMATED QUANTITY OF REPAIRS				
	PIER NO. 1	PIER NO. 2	PIER NO. 3	TOTAL
PIER REPAIRS	40 SF	200 SF	50 SF	290 SF

NOTES:

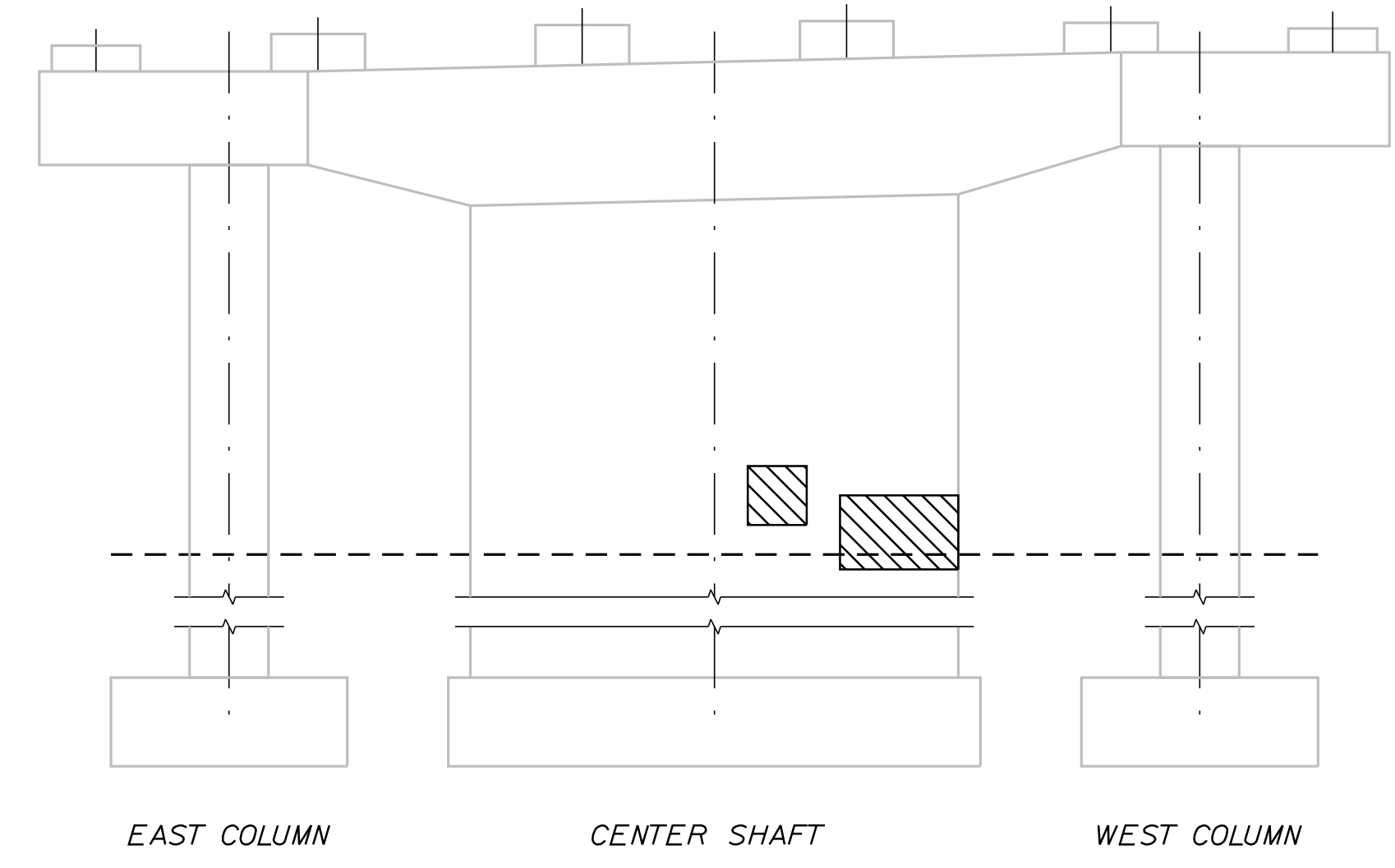
- FOR PROCEDURAL NOTES SEE SHEET "BRIDGE GENERAL NOTES".
- SHOULD CONCRETE REPAIR EXTEND BELOW GRADE, ANY EXCAVATION REQUIRED WILL BE CONSIDERED INCIDENTAL TO ITEM 518.20, "PIER REPAIRS".

LEGEND:

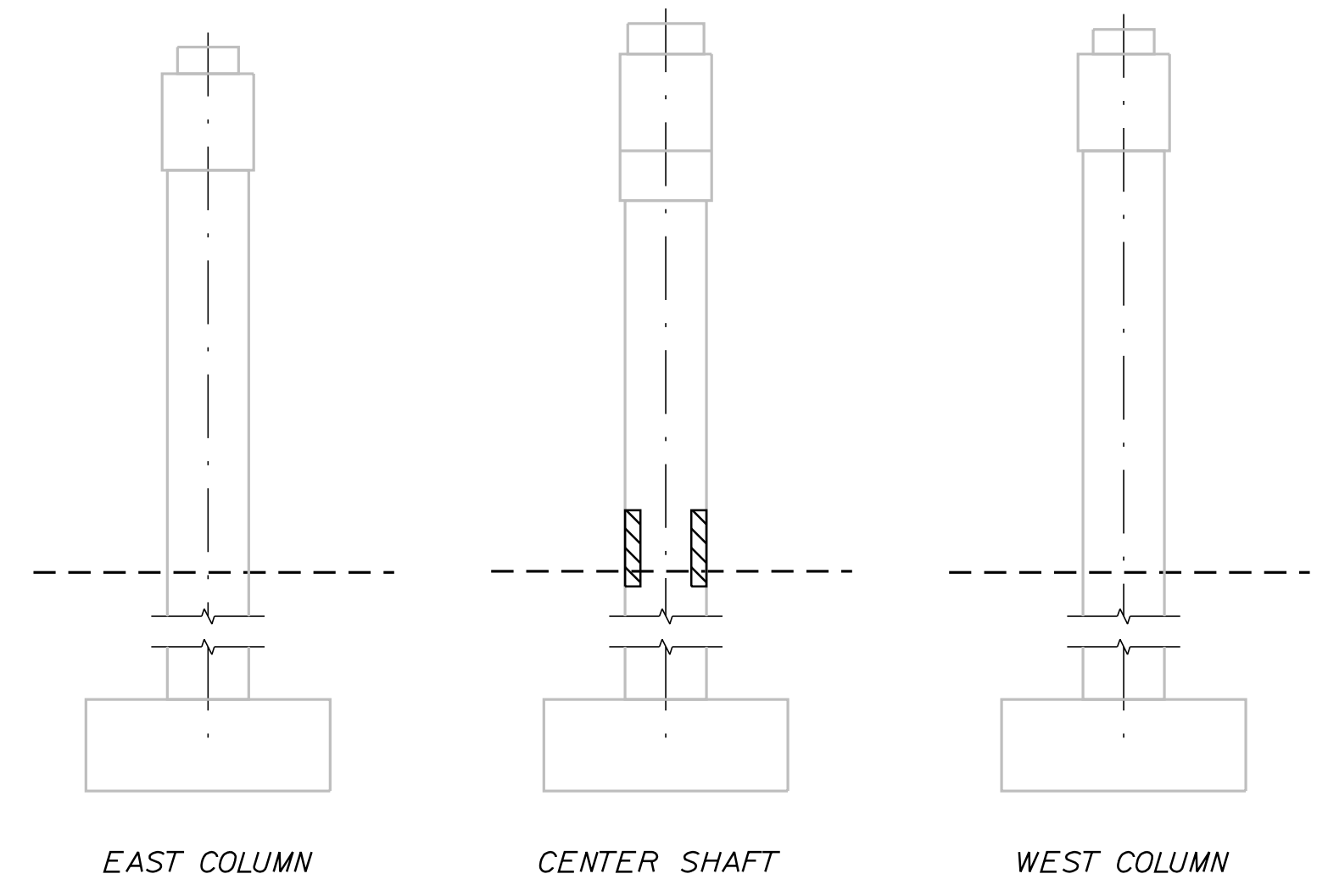
- LIMIT OF CONCRETE SURFACE REPAIRS
- LIMIT OF EPOXY INJECTED CRACK REPAIR
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND



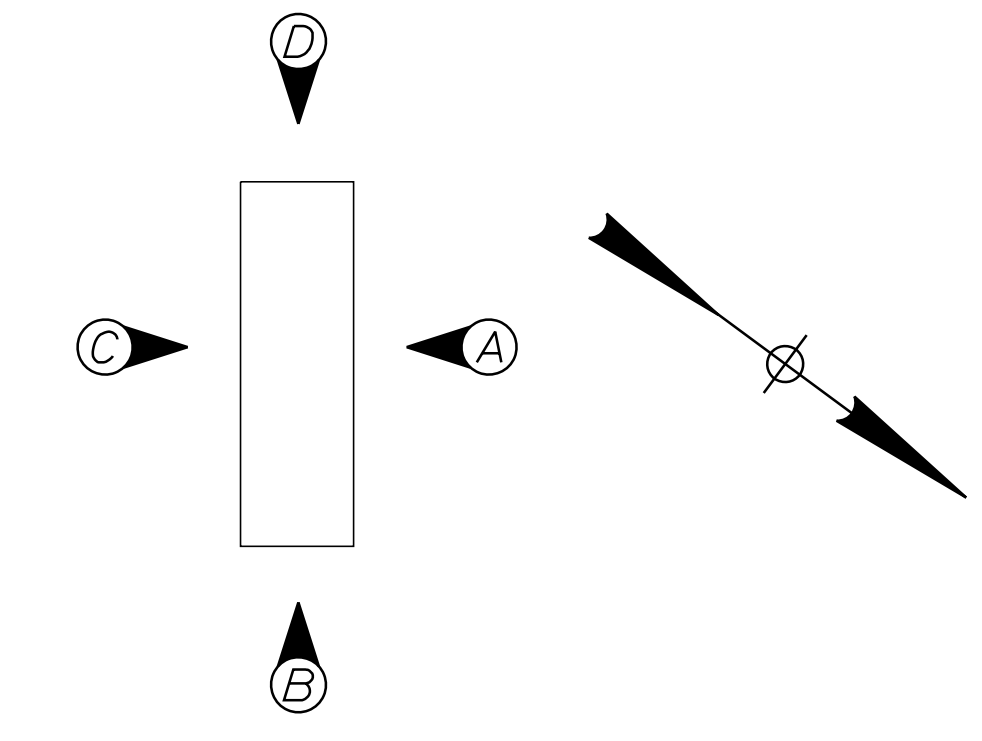
PLAN



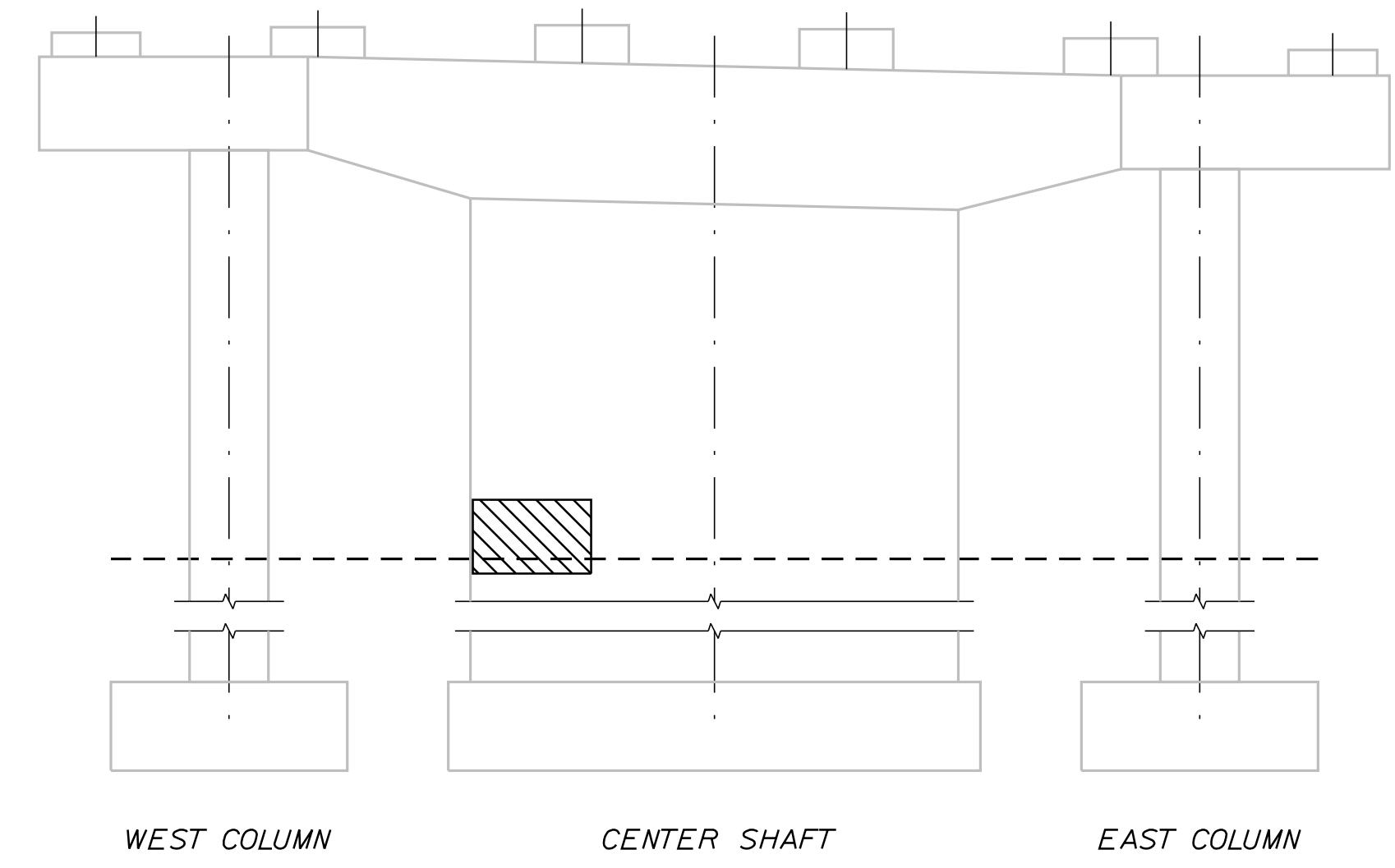
ELEVATION A



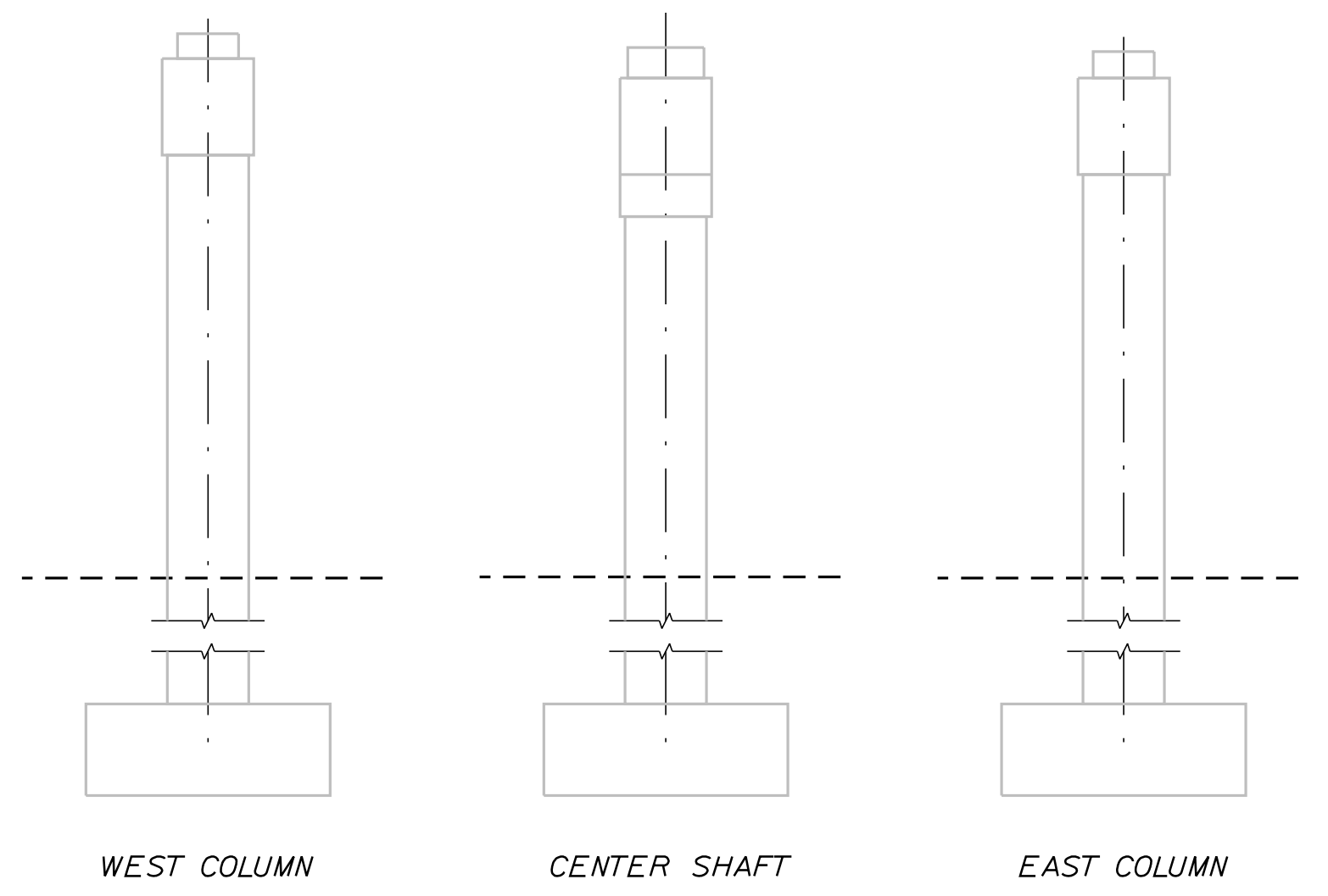
ELEVATION D



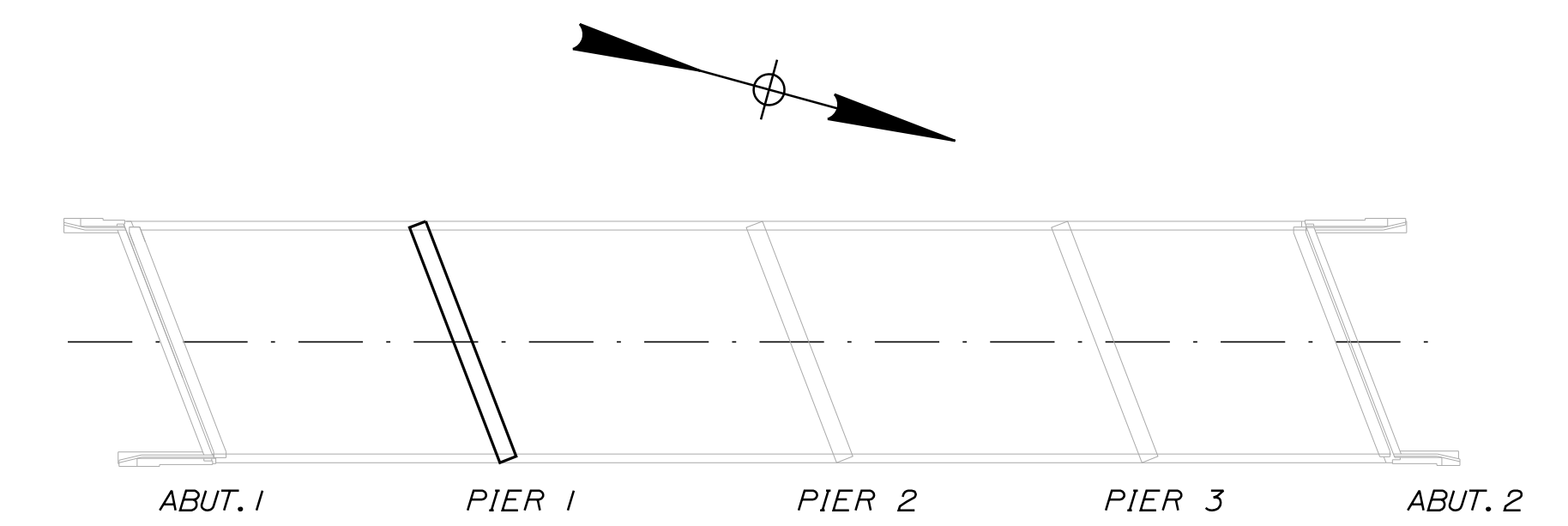
PIER ELEVATIONS



ELEVATION C



ELEVATION B



LOCATION PLAN

PIER 1

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:

TYLIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

Designed	By	Date	Checked	By	Date
Drawn	JJL	3/2020	In Charge of	BLT	3/2020
	JJL	3/2020		DSM	03/2021

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THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

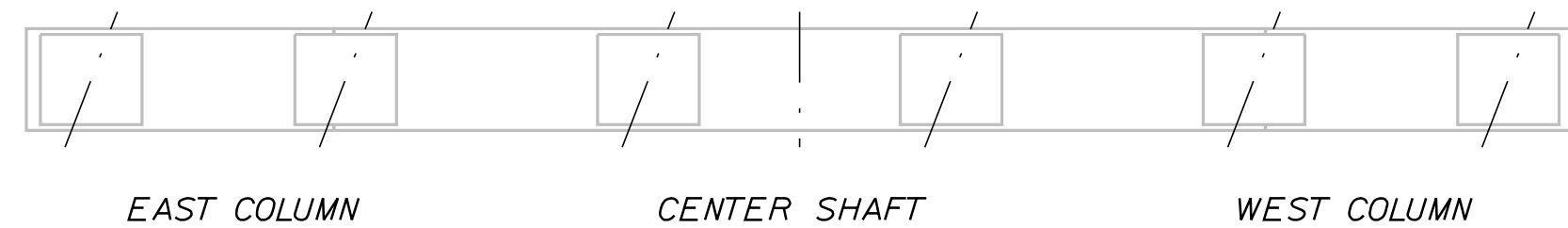
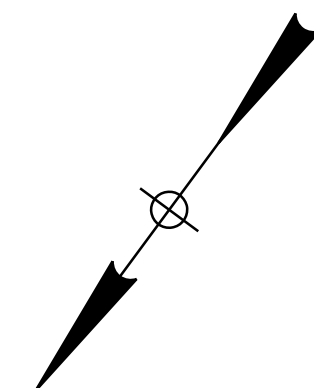
ROUTE 9 UNDERPASS (MILE 86.1)
 SUBSTRUCTURE REPAIRS - 3 OF 5

SHEET NUMBER: RT9-11

CONTRACT: 2021.03 46 OF 51

Date: 4/22/2021

Filename: ...XXX_MM_86.1_Existing_Substructures.DGN



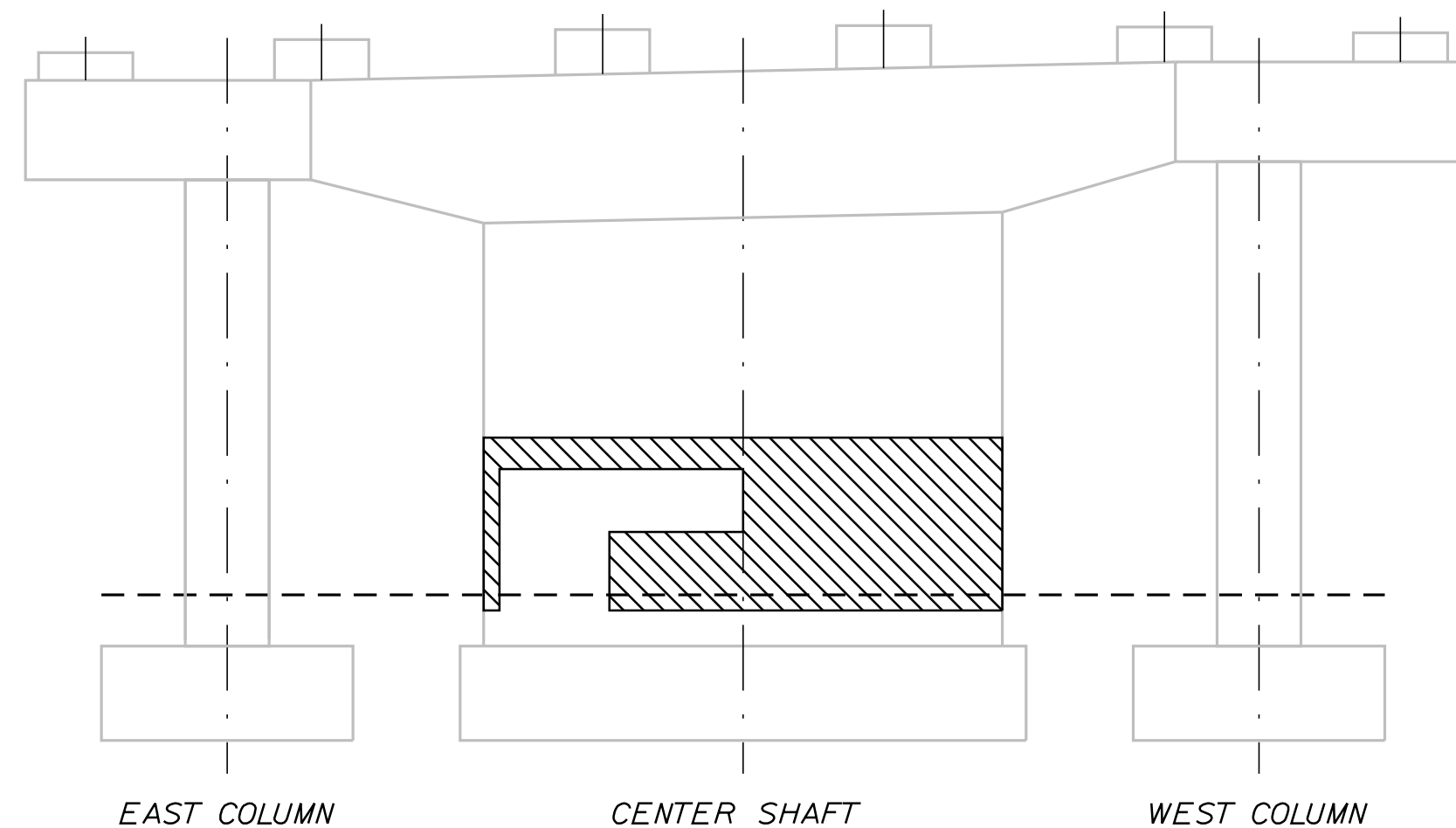
PLAN

NOTES:

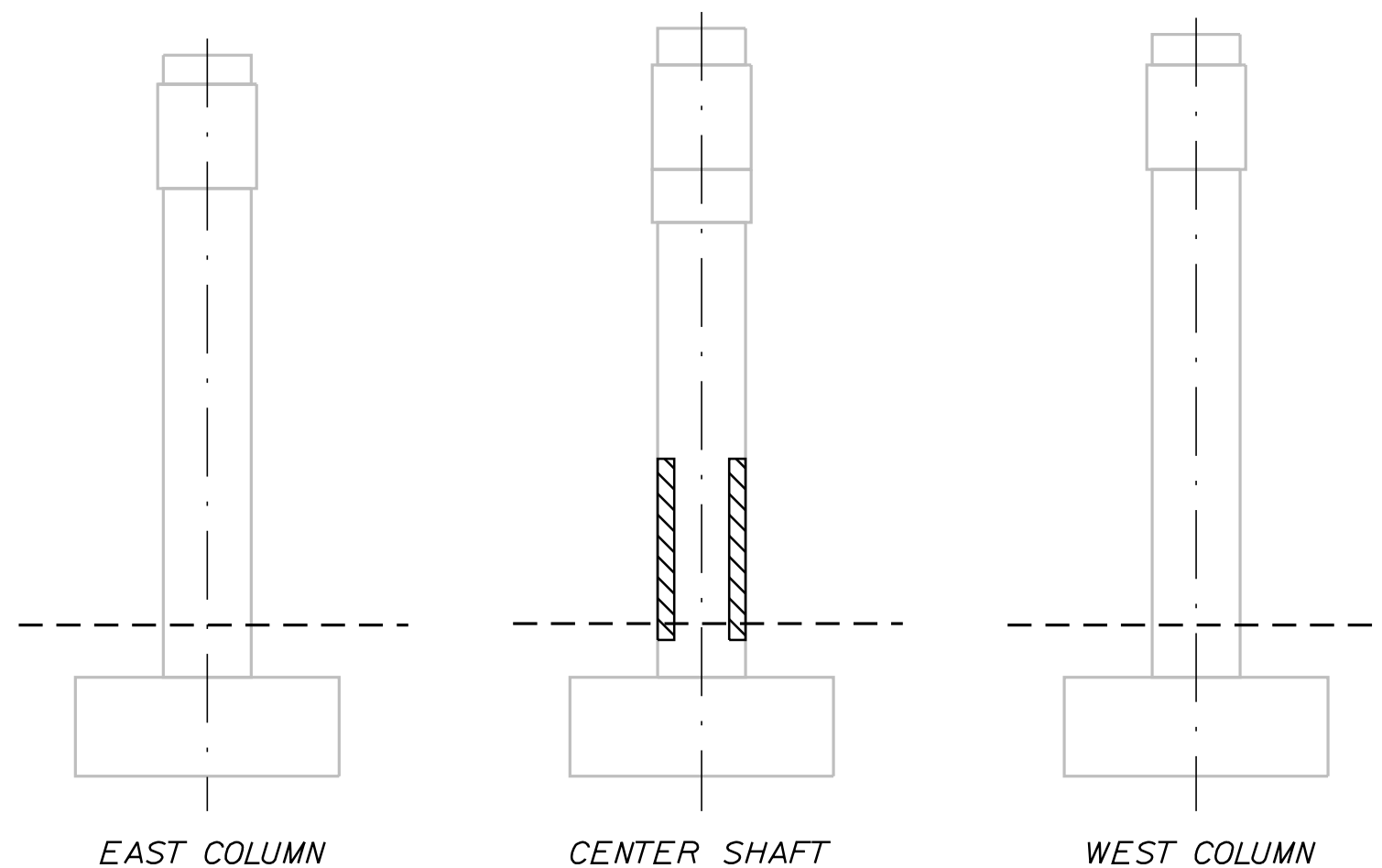
1. FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES".
2. SHOULD CONCRETE REPAIR EXTEND BELOW GRADE, ANY EXCAVATION REQUIRED WILL BE CONSIDERED INCIDENTAL TO ITEM 518.20, "PIER REPAIRS".
3. FOR QUANTITY, SEE SHEET "ROUTE 9 (MILE 86.1) SUBSTRUCTURE REPAIRS 3 OF 5"

LEGEND:

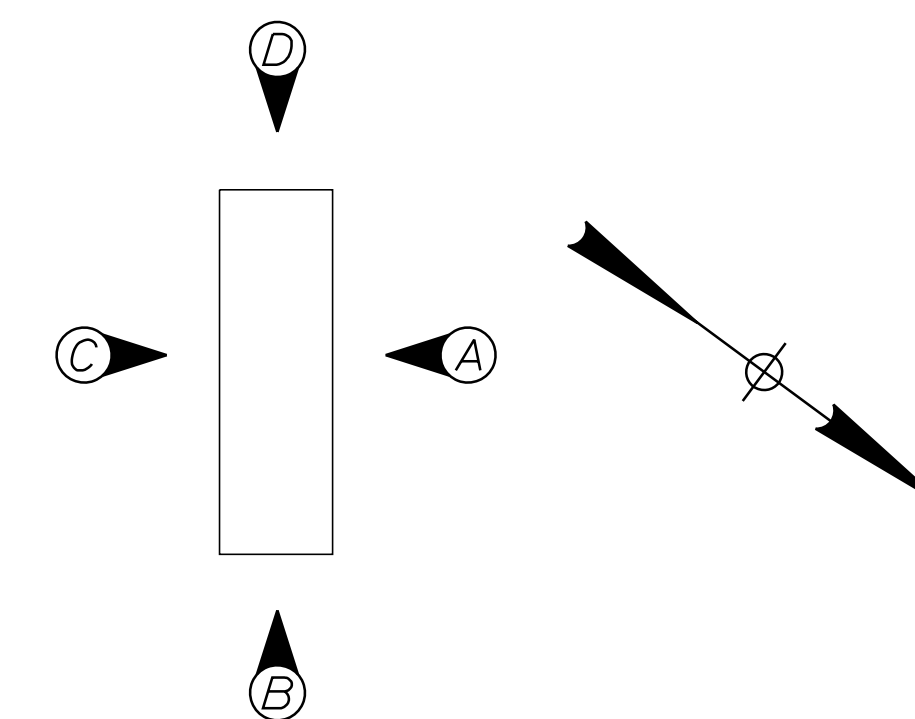
- LIMIT OF CONCRETE SURFACE REPAIRS
- LIMIT OF EPOXY INJECTED CRACK REPAIR
- EXISTING CONCRETE
- EXISTING AND PROPOSED GROUND



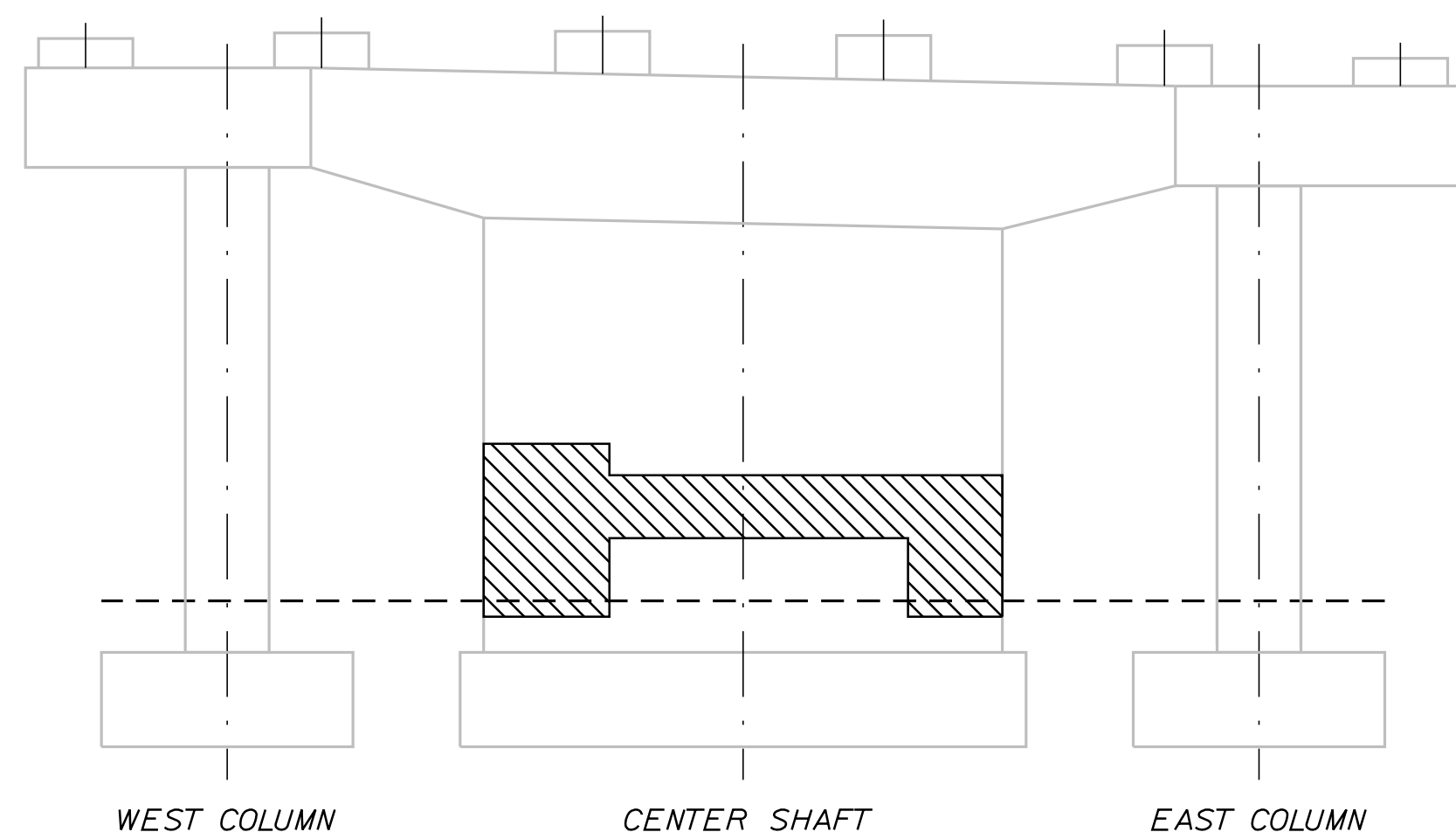
ELEVATION A



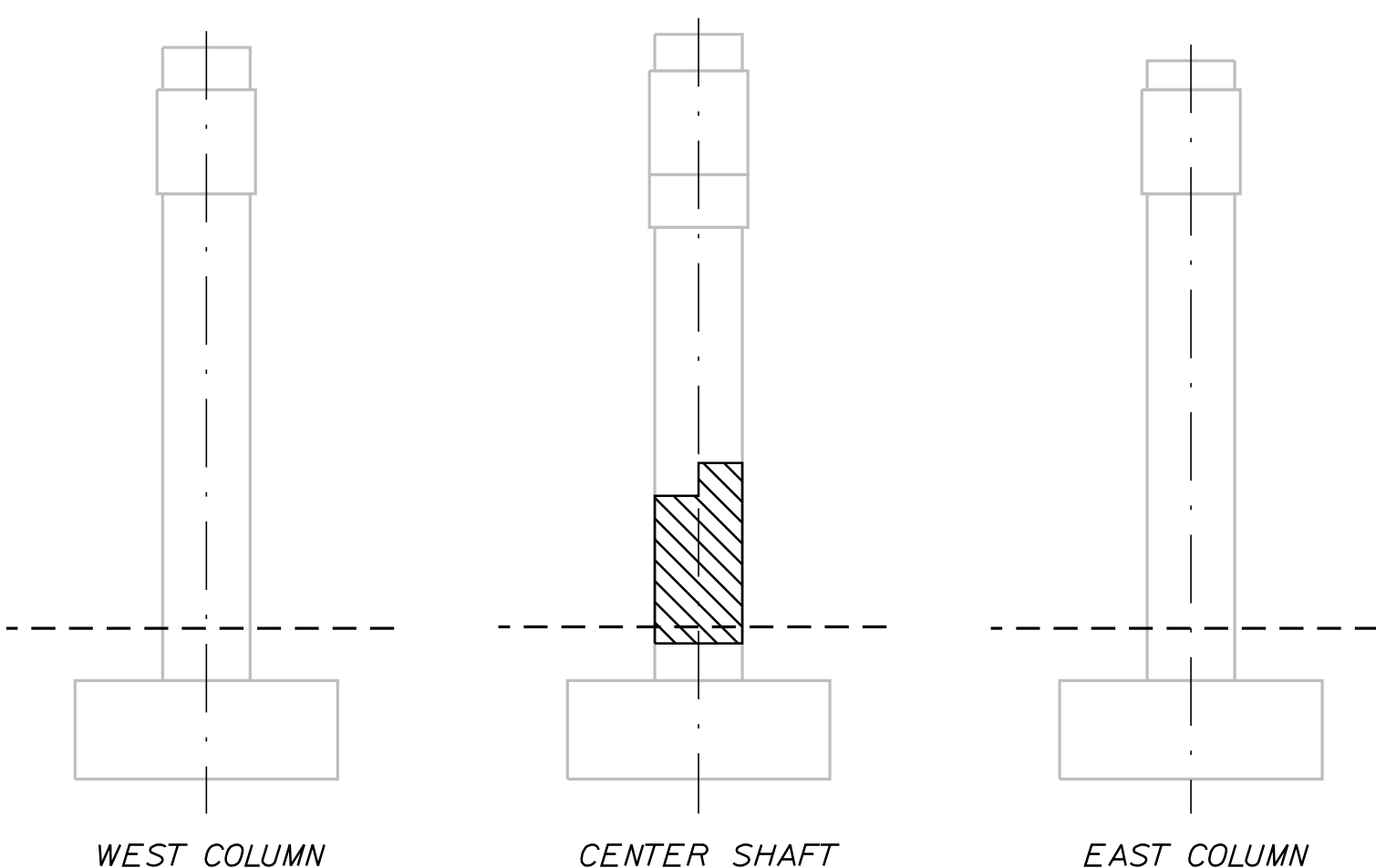
ELEVATION D



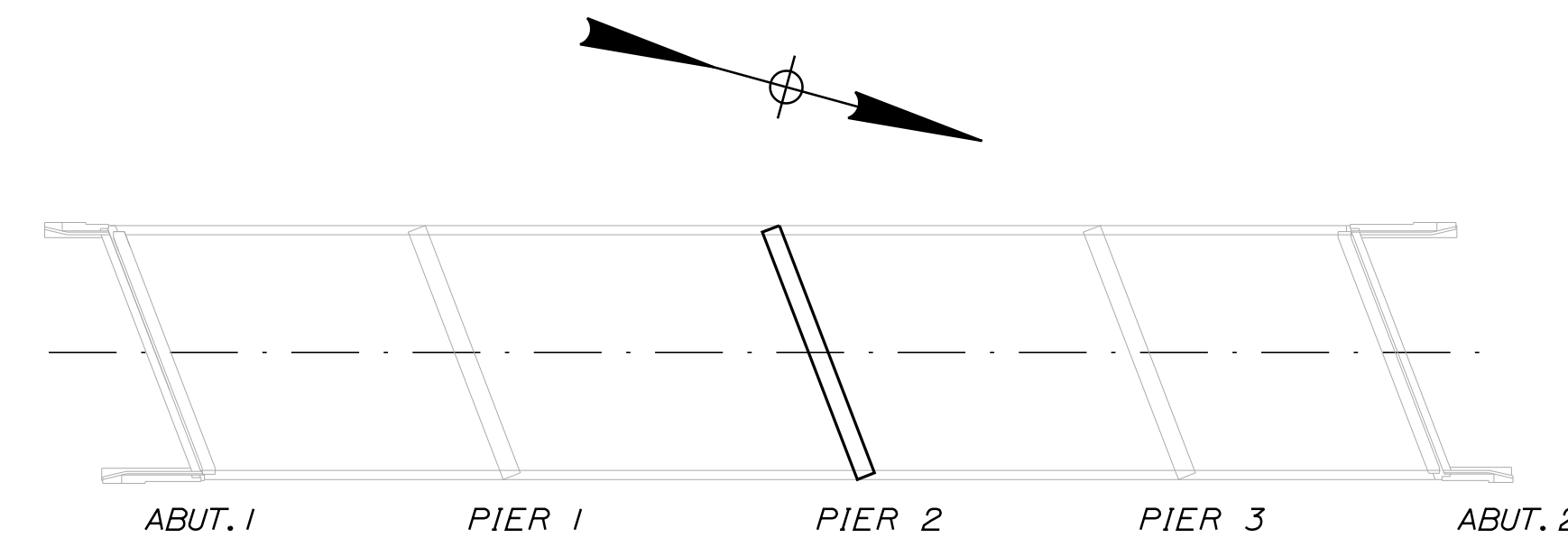
PIER ELEVATIONS



ELEVATION C



ELEVATION B



LOCATION PLAN

PIER 2

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TYLIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Daniel S. Myers					
Designed	By	Date	Checked	By	Date
Drawn	JJL	3/2020	In Charge of	BLT	3/2020
	JJL	3/2020		DSM	03/2021

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THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

2021 BRIDGE REPAIRS

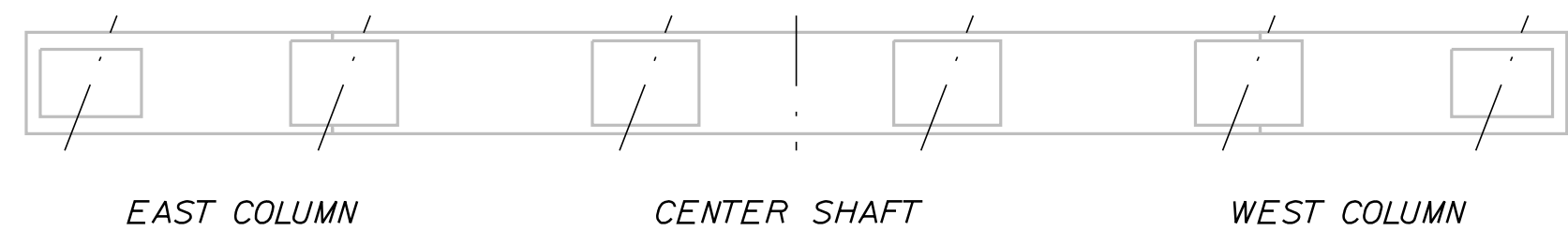
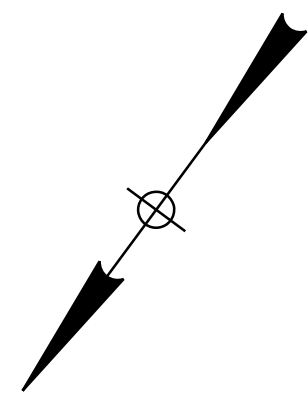
ROUTE 9 UNDERPASS (MILE 86.1)
 SUBSTRUCTURE REPAIRS - 4 OF 5

SHEET NUMBER: RT9-12
 CONTRACT: 2021.03

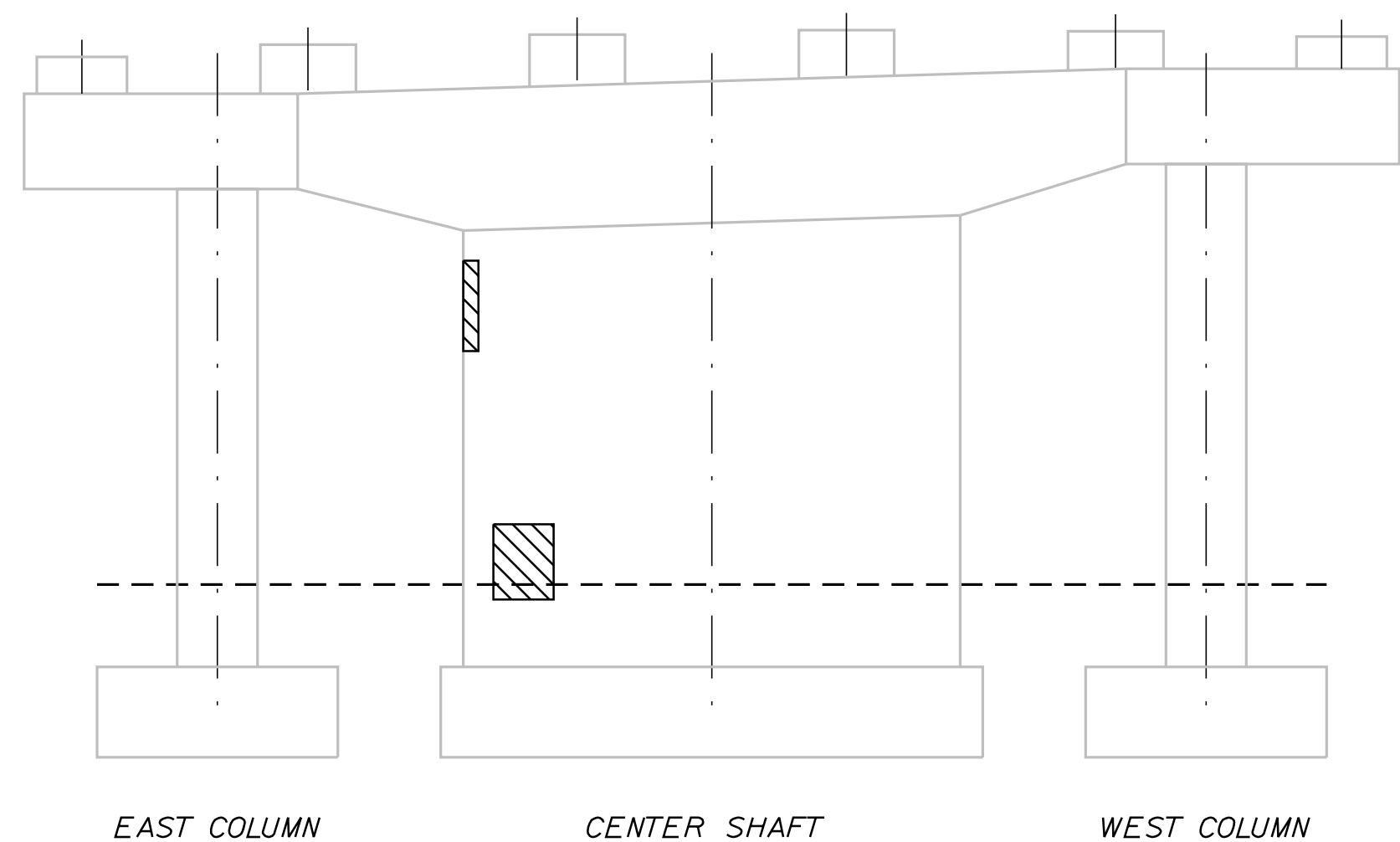
47 OF 51

Date: 4/22/2021

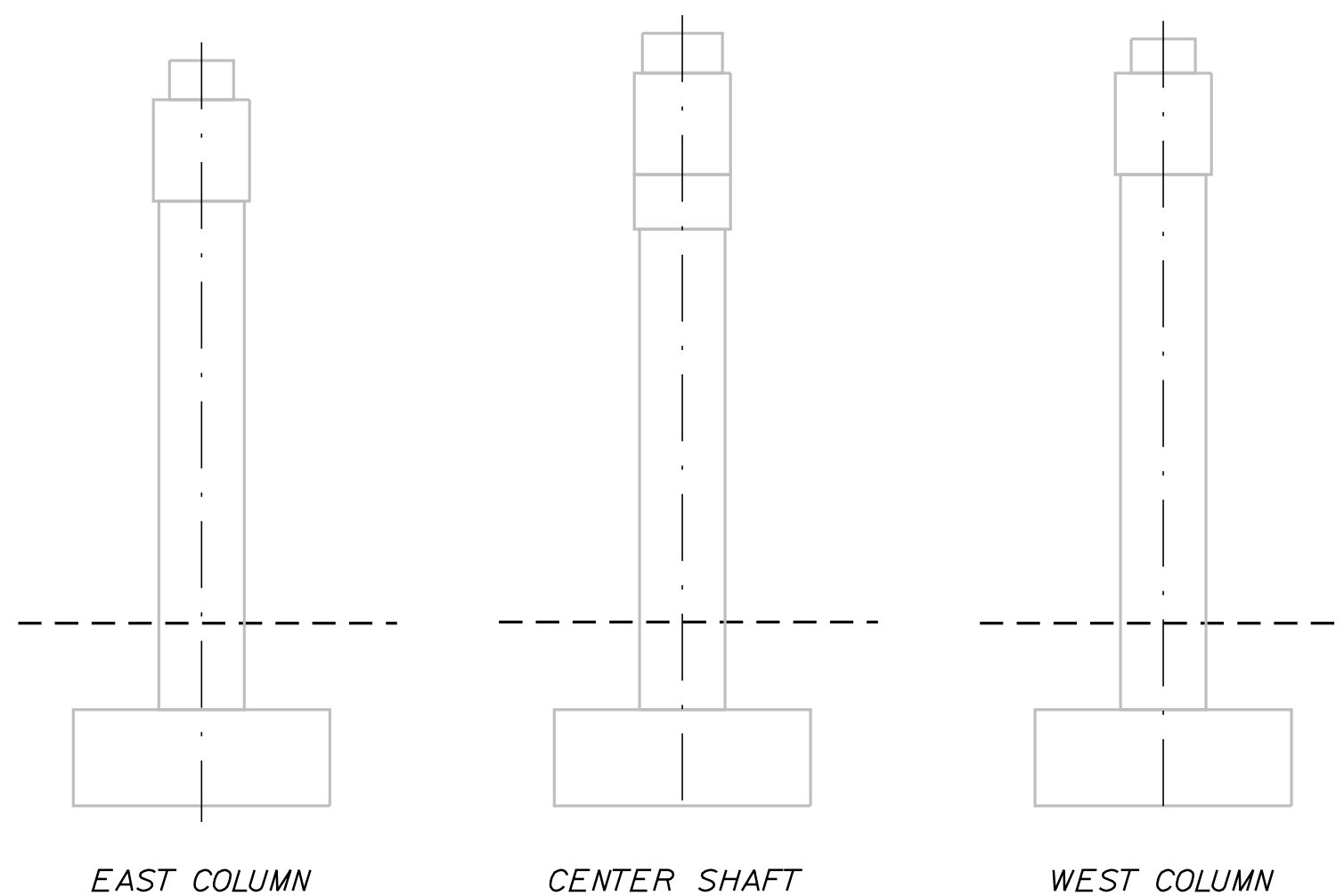
Filename: ...XXX_MM_86.1_Existing_Substructures.DGN



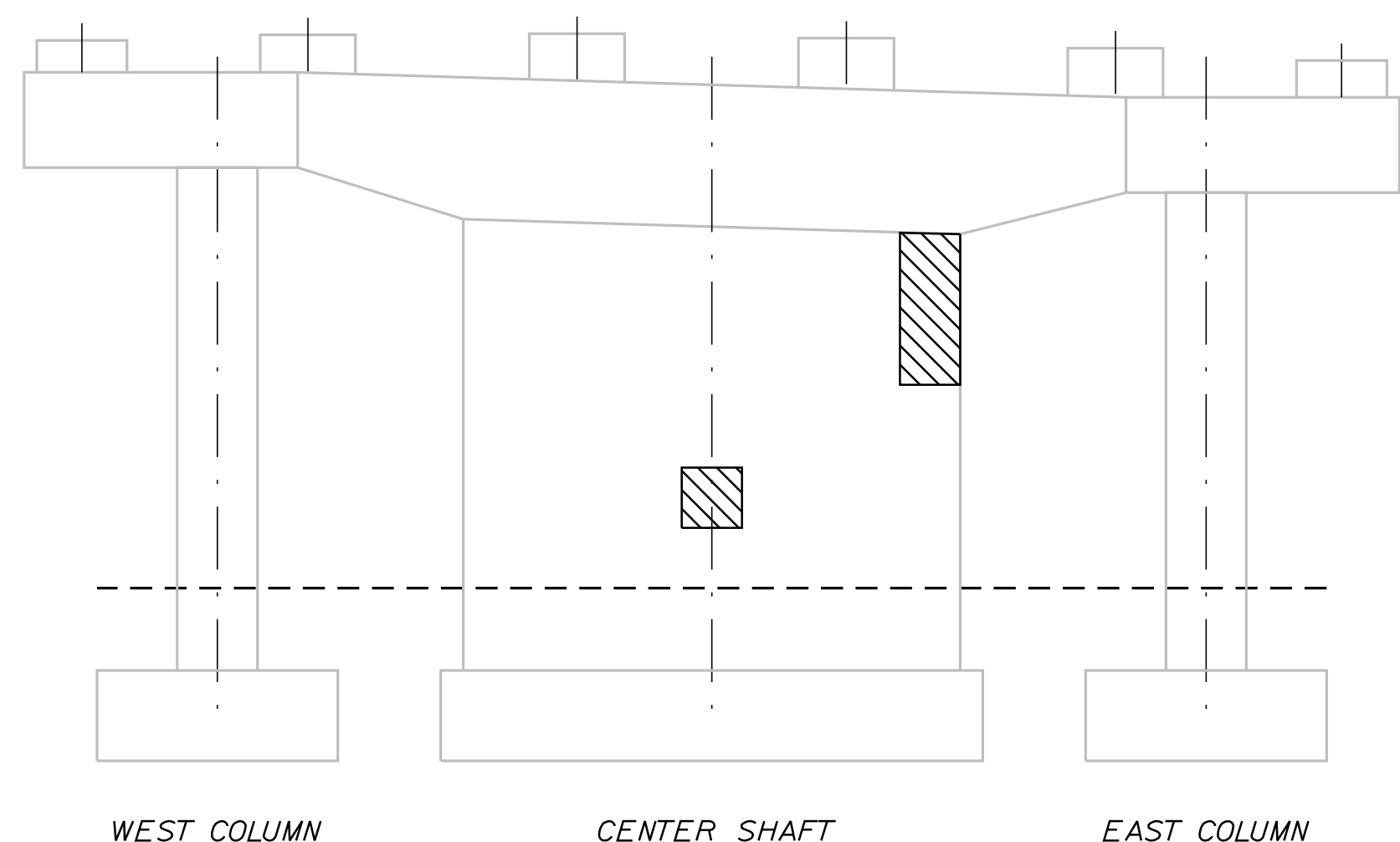
PLAN



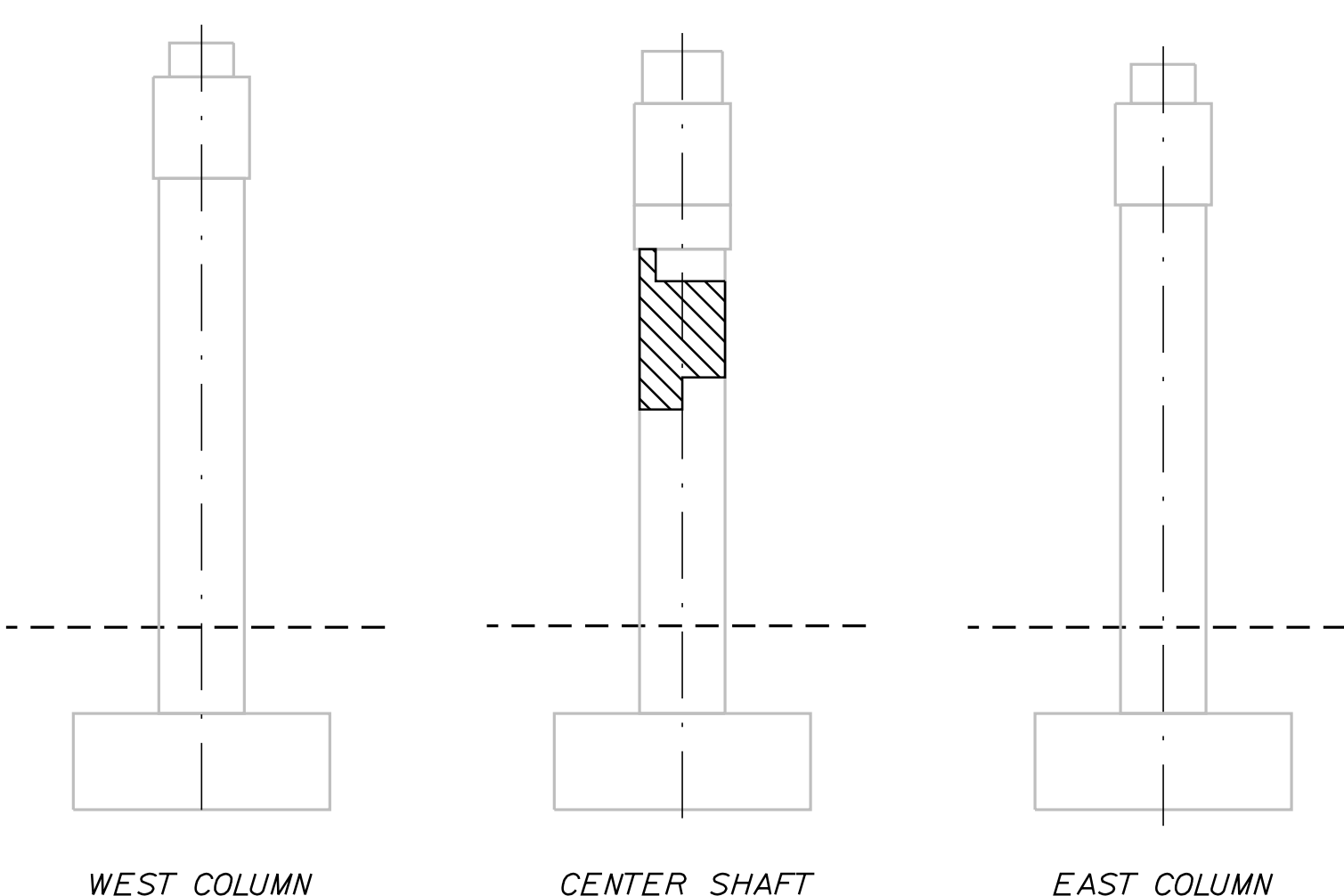
ELEVATION A



ELEVATION D



ELEVATION C



ELEVATION B

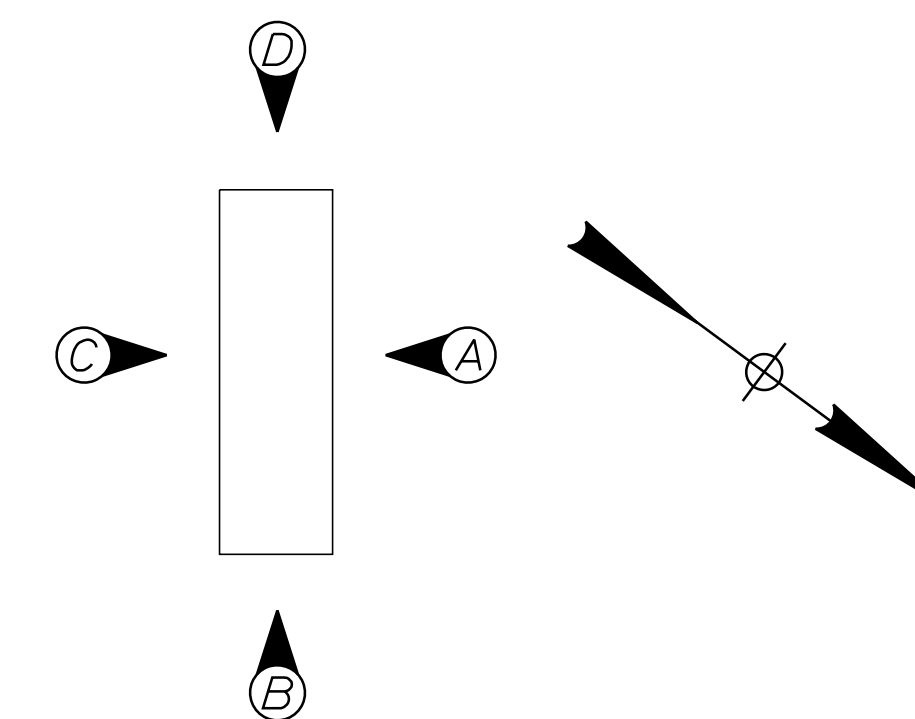
PIER 3

NOTES:

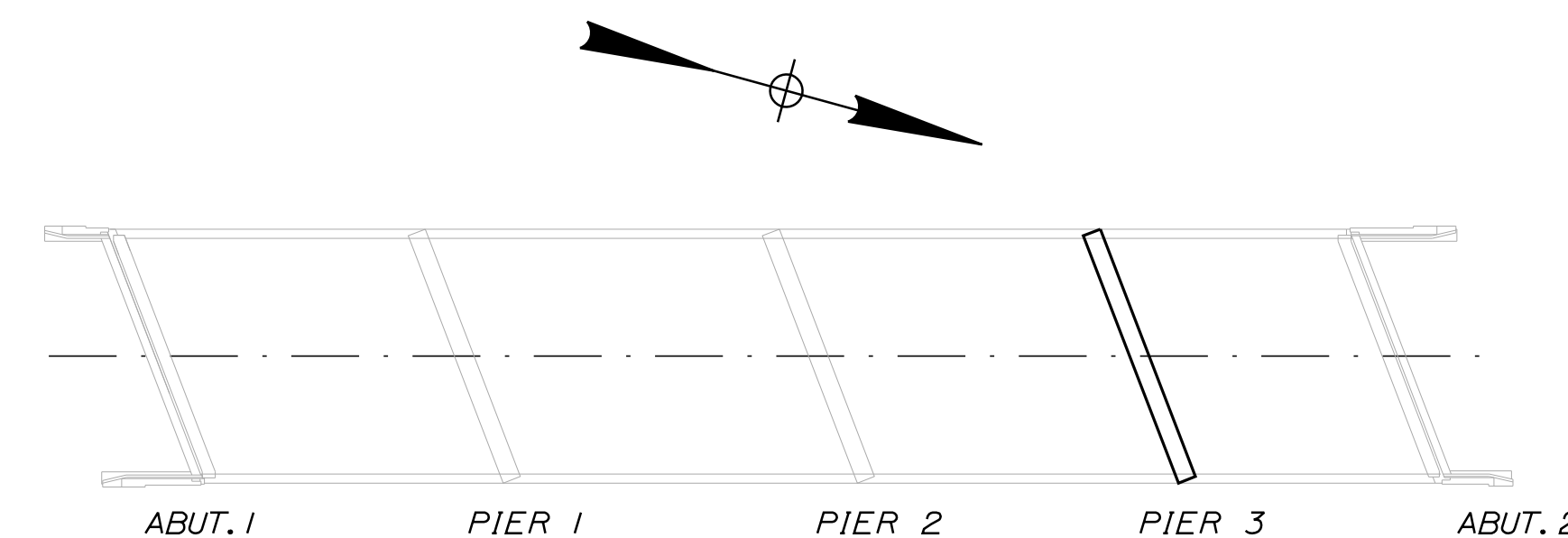
1. FOR PROCEDURAL NOTES SEE SHEET "GENERAL NOTES".
2. SHOULD CONCRETE REPAIR EXTEND BELOW GRADE, ANY EXCAVATION REQUIRED WILL BE CONSIDERED INCIDENTAL TO ITEM 518.20, "PIER REPAIRS".
3. FOR QUANTITY, SEE SHEET "ROUTE 9 (MILE 86.1) SUBSTRUCTURE REPAIRS 3 OF 5"

LEGEND:

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



PIER ELEVATIONS



LOCATION PLAN

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
TYLIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Daniel S. Myers					
Designed	By	Date	Checked	By	Date
Drawn	JJL	3/2020	In Charge of	BLT	3/2020
	JJL	3/2020		DSM	03/2021

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THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen

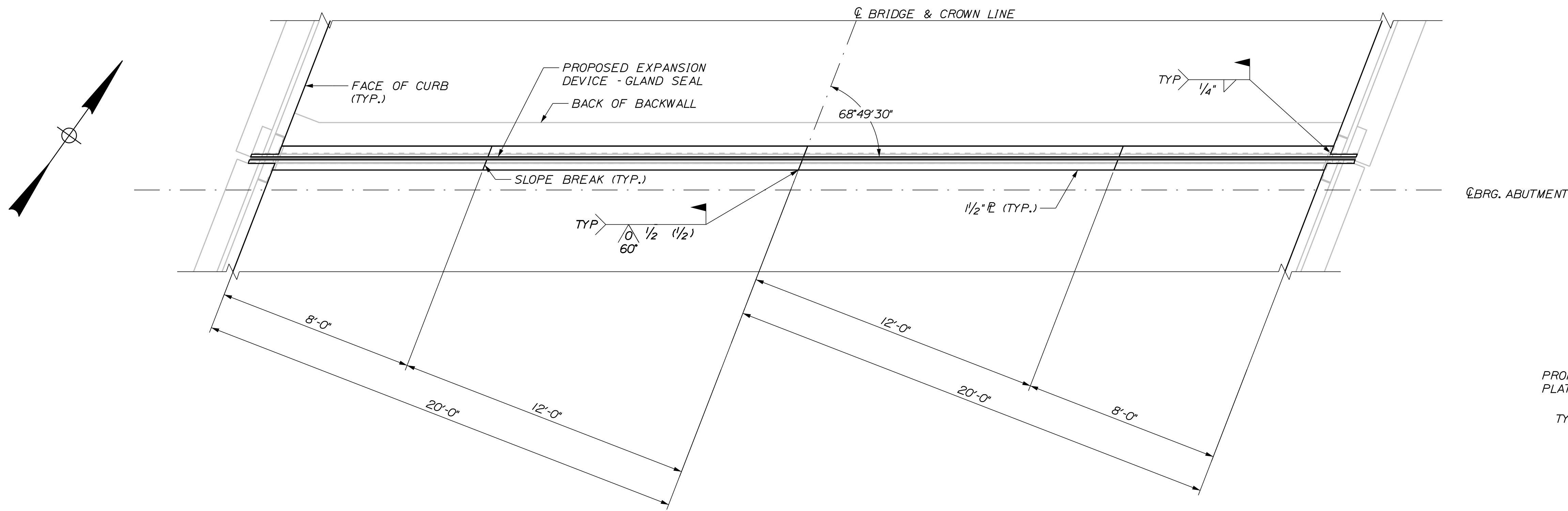
2021 BRIDGE REPAIRS

ROUTE 9 UNDERPASS (MILE 86.1)
 SUBSTRUCTURE REPAIRS - 5 OF 5

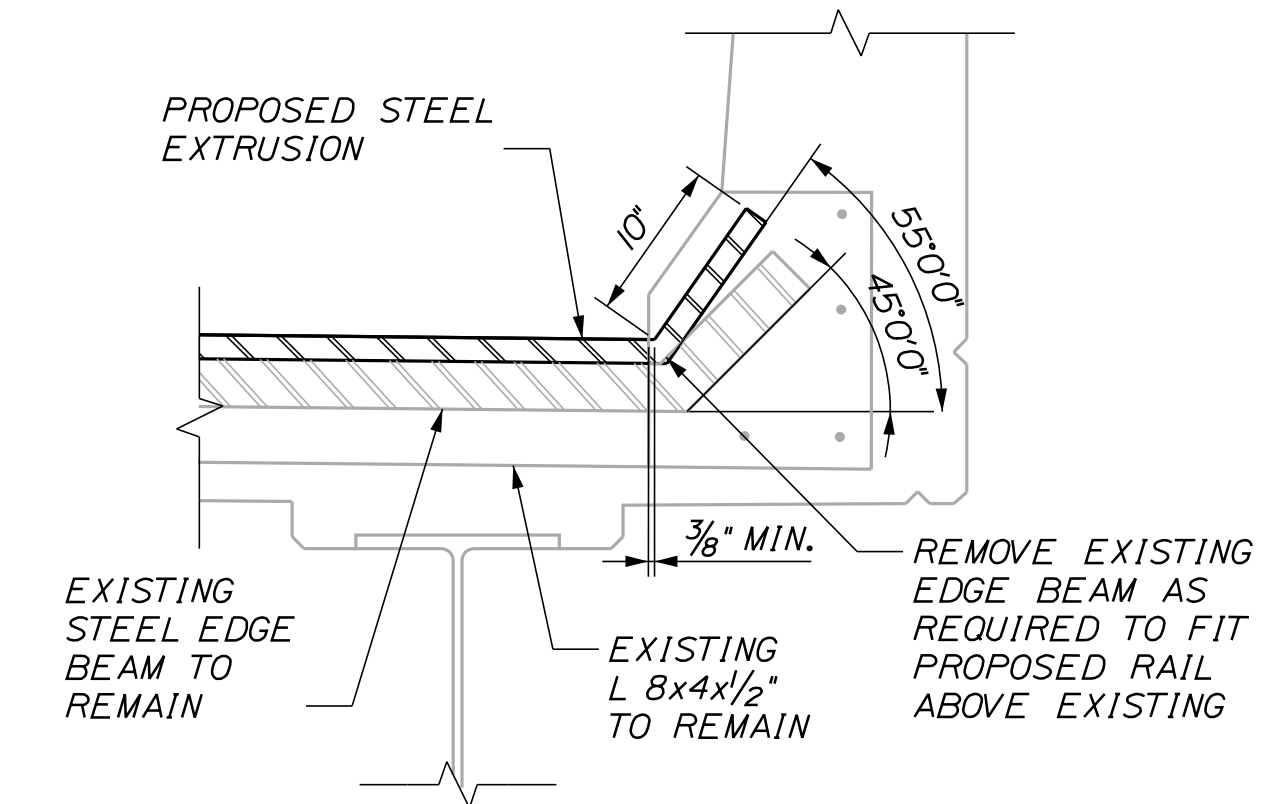
SHEET NUMBER: RT9-13
 CONTRACT: 2021.03
 48 OF 51

Date: 4/22/2021

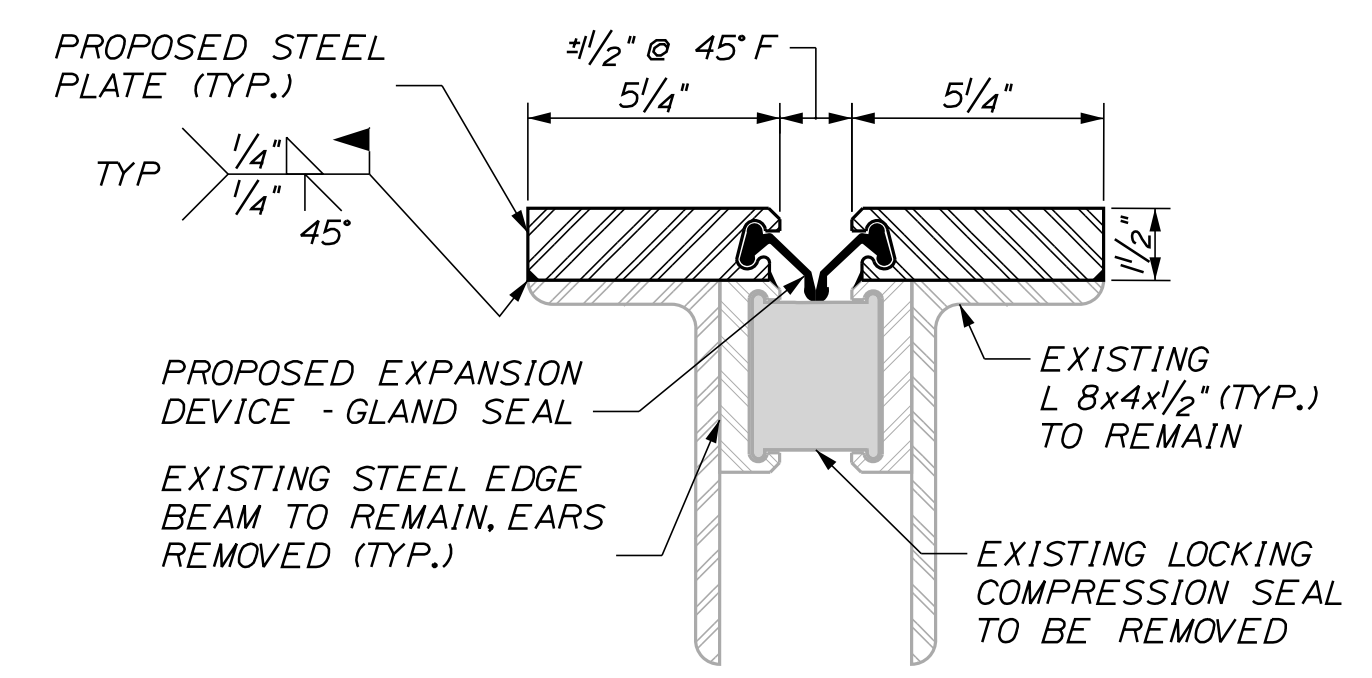
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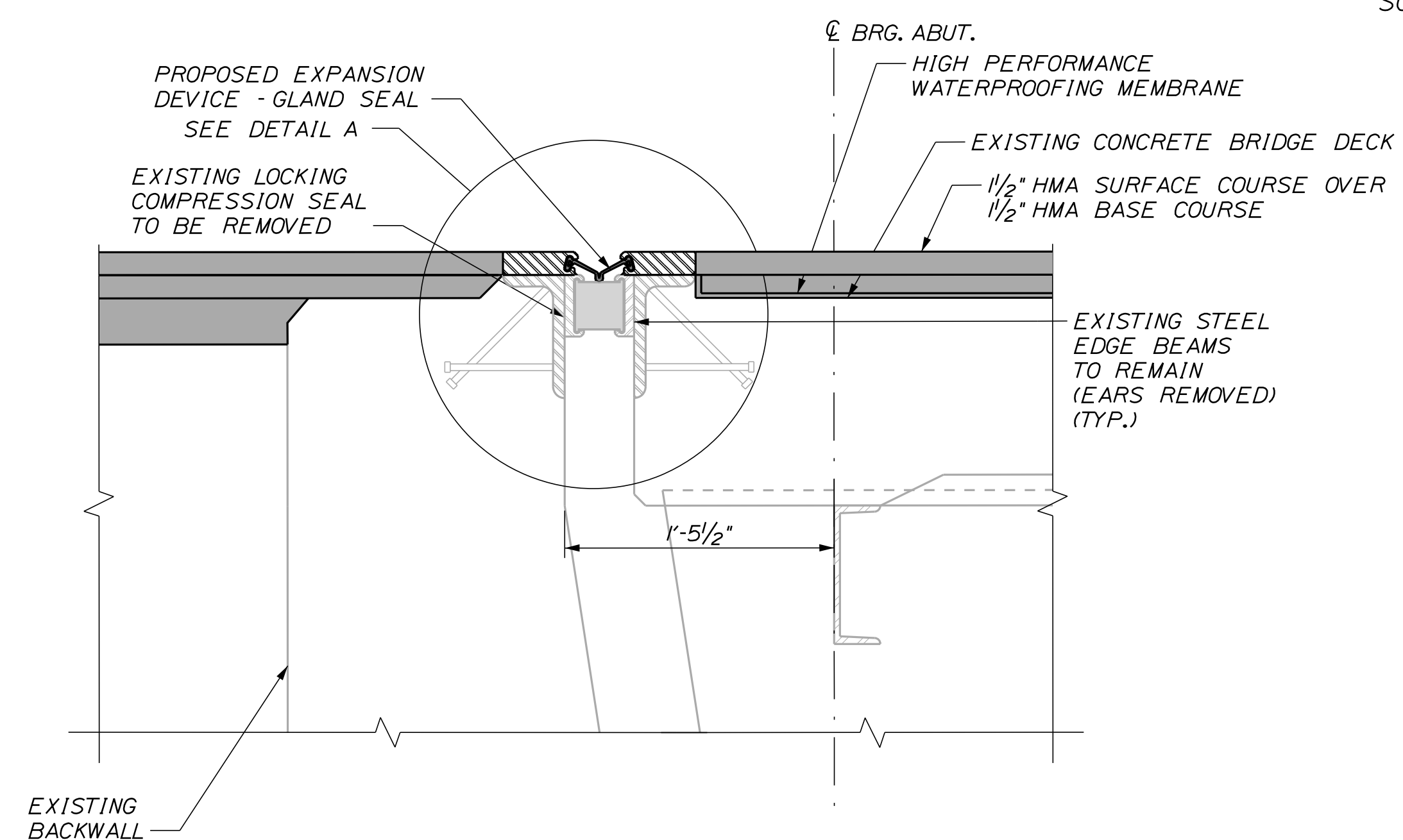
ABUTMENT PLAN - ROUTE 9
 (ABUTMENT 2 SHOWN, ABUTMENT 1 SIMILAR)
 SCALE: 3/8" = 1'-0"



CURB DETAIL
 1" = 1'-0"



DETAIL A
 3" = 1'-0"

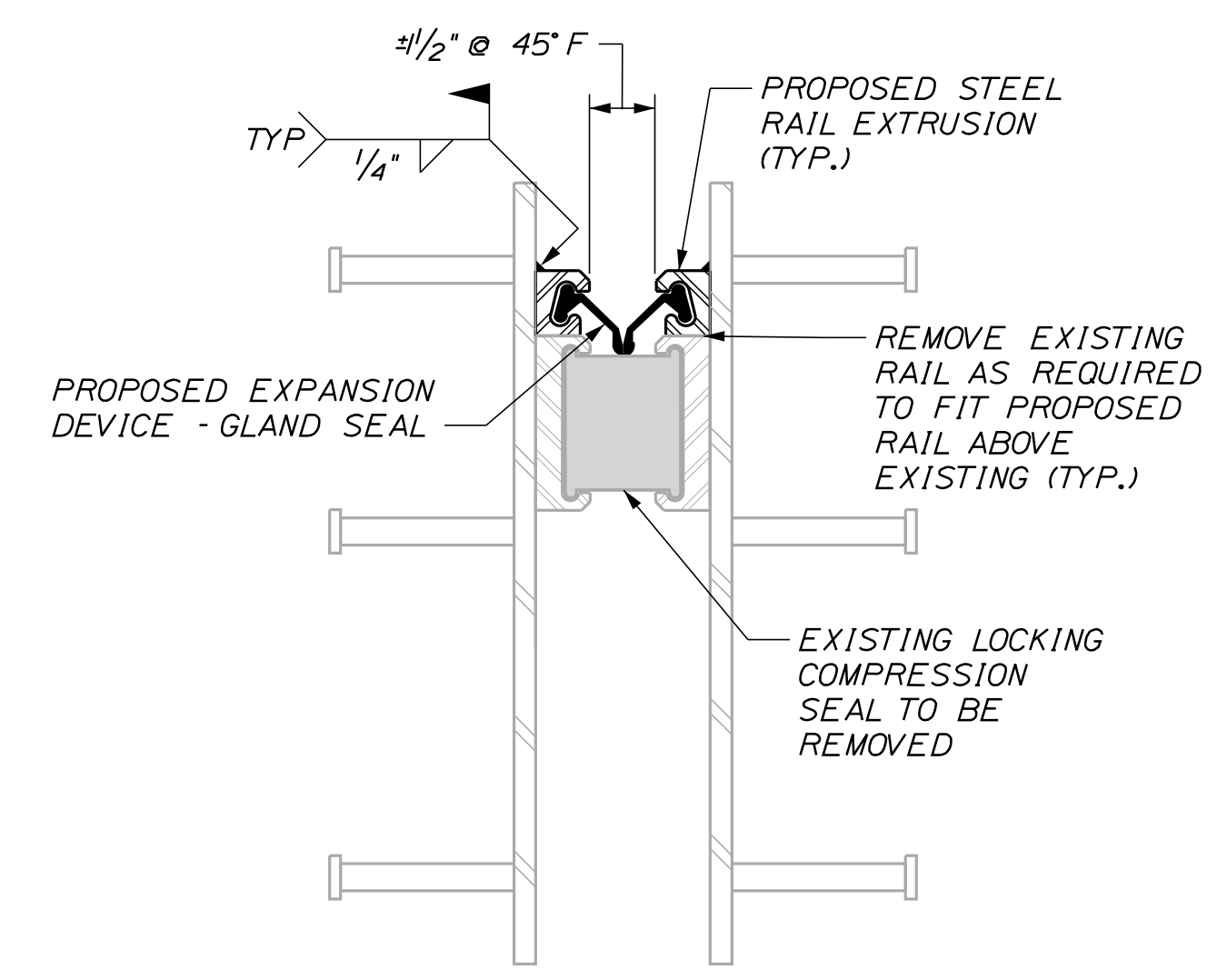


TYPICAL SECTION ABUTMENT
 1/2" = 1'-0"

JOINT INSTALLATION TABLE FOR ABUTMENTS							
TEMP (°F)	15°	25°	35°	45°	55°	65°	75°
OPENING	1 3/4"	1 5/8"	1 9/16"	1 1/2"	1 7/16"	1 3/8"	1 1/4"

EXPANSION JOINT NOTES:

1. CONTRACTOR SHALL FIELD MEASURE EXISTING CURB PLATE AND JOINT DIMENSIONS PRIOR TO DEVELOPMENT OF SHOP DRAWINGS.
2. EXPANSION JOINT MODIFICATIONS AT EACH ABUTMENT SHALL BE PAID UNDER ITEM 520.211, "EXPANSION DEVICE MODIFICATIONS, (ROUTE 9)".
3. THE ELASTOMERIC STRIP SEAL SHALL HAVE A MINIMUM RANGE OF MOVEMENT OF 3 INCHES. STRIP SEAL SHALL BE D.S. BROWN A2R-400 OR WATSON BOWMAN ACME SE-400.
4. AT THE CONTRACTOR'S OPTION, AREAS ON THE PROPOSED STEEL PLATE OR PROPOSED STEEL RAIL EXTRUSIONS CAN BE MASKED IN AREAS WHICH WILL BE WELDED IN THE FIELD. THE CONTRACTOR WILL BE RESPONSIBLE FOR FIELD TOUCH-UPS WITH PRODUCT ON THE MAINEDOT QUALIFIED PRODUCTS LIST FOR GALVANIZING REPAIR PAINTS AT NO ADDITIONAL COST TO THE AUTHORITY.



SECTION A-A
 3" = 1'-0"
 (CONCRETE NOT SHOWN)

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AS NOTED							
No.	Revision	By	Date	CONSULTANT PROJECT MANAGER: Daniel S. Myers			
				Designed	By	Date	Checked
				Drawn	By	Date	In Charge of
				BLT	BLT	8/2020	DSM
				BLT	BLT	8/2020	DSM

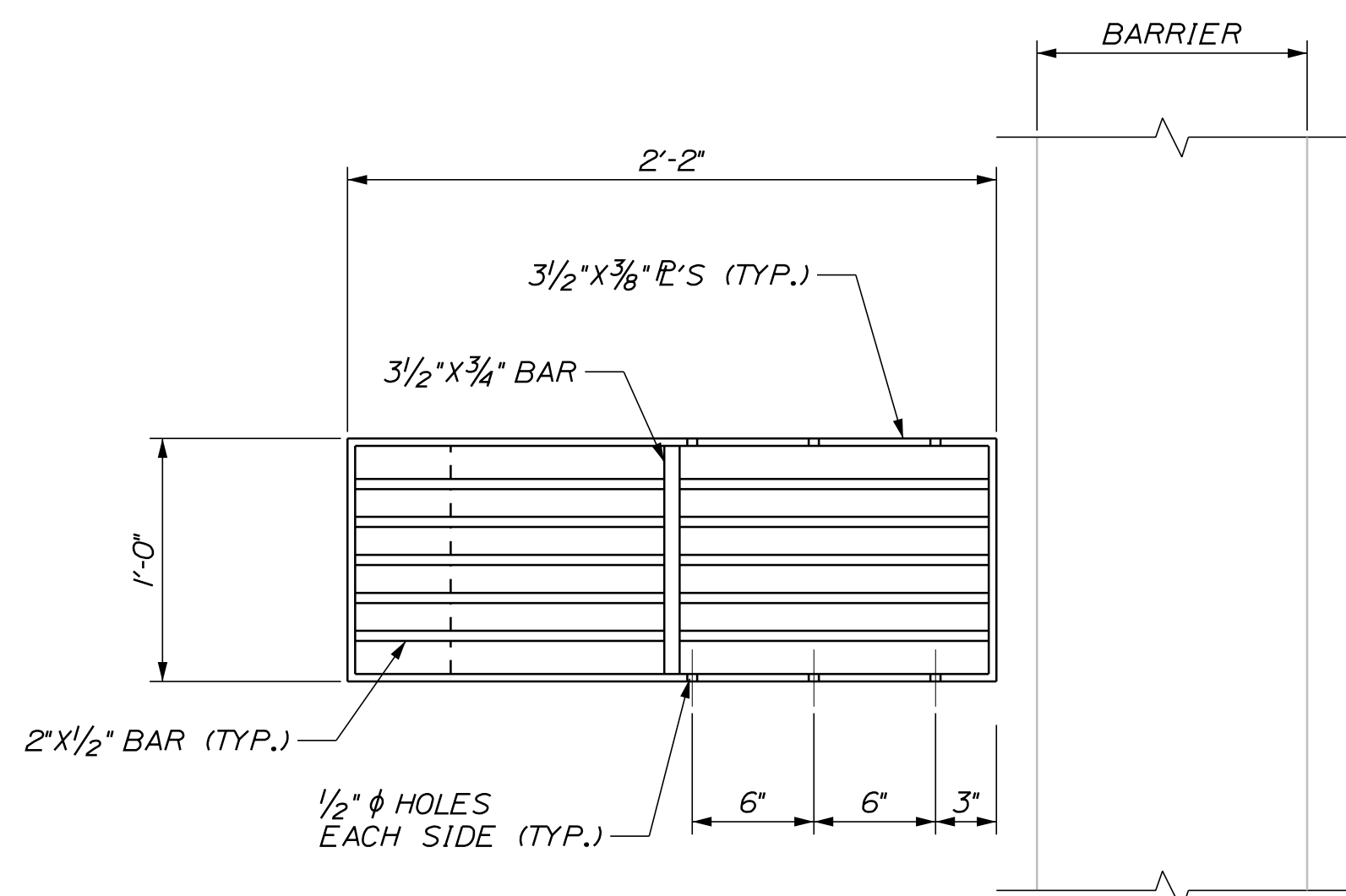
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THE GOLD STAR MEMORIAL HIGHWAY

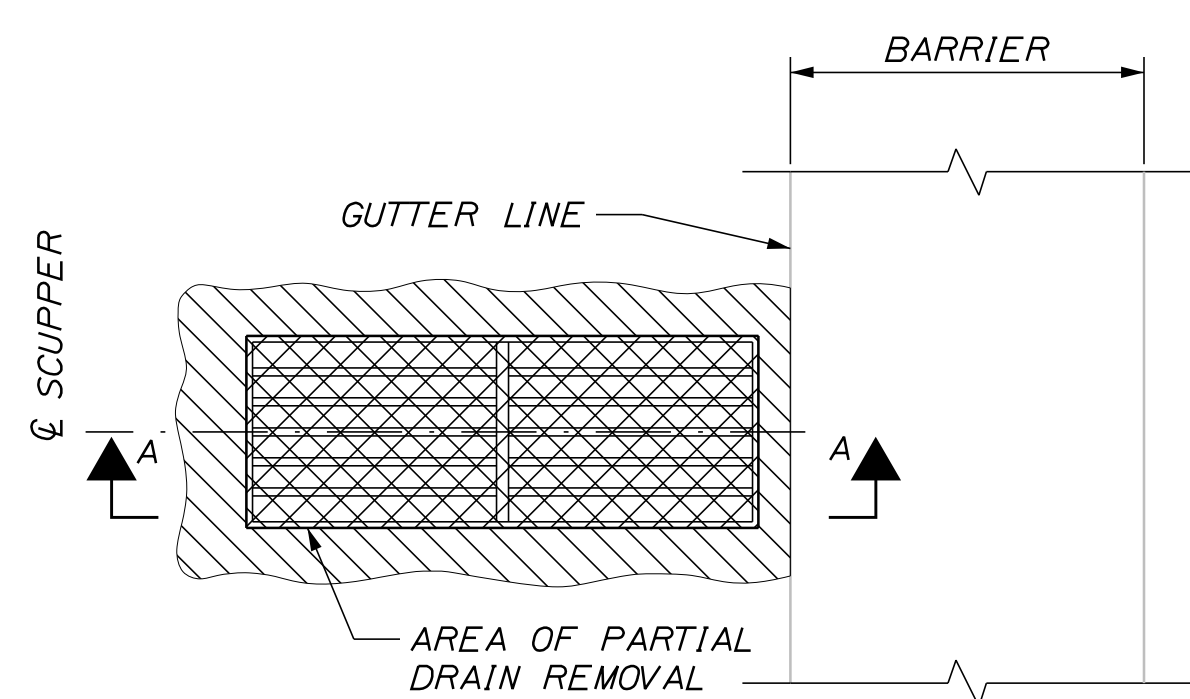
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2021 BRIDGE REPAIRS
 ROUTE 9 UNDERPASS (MILE 86.1)
 JOINT DETAILS
 SHEET NUMBER: RT9-14
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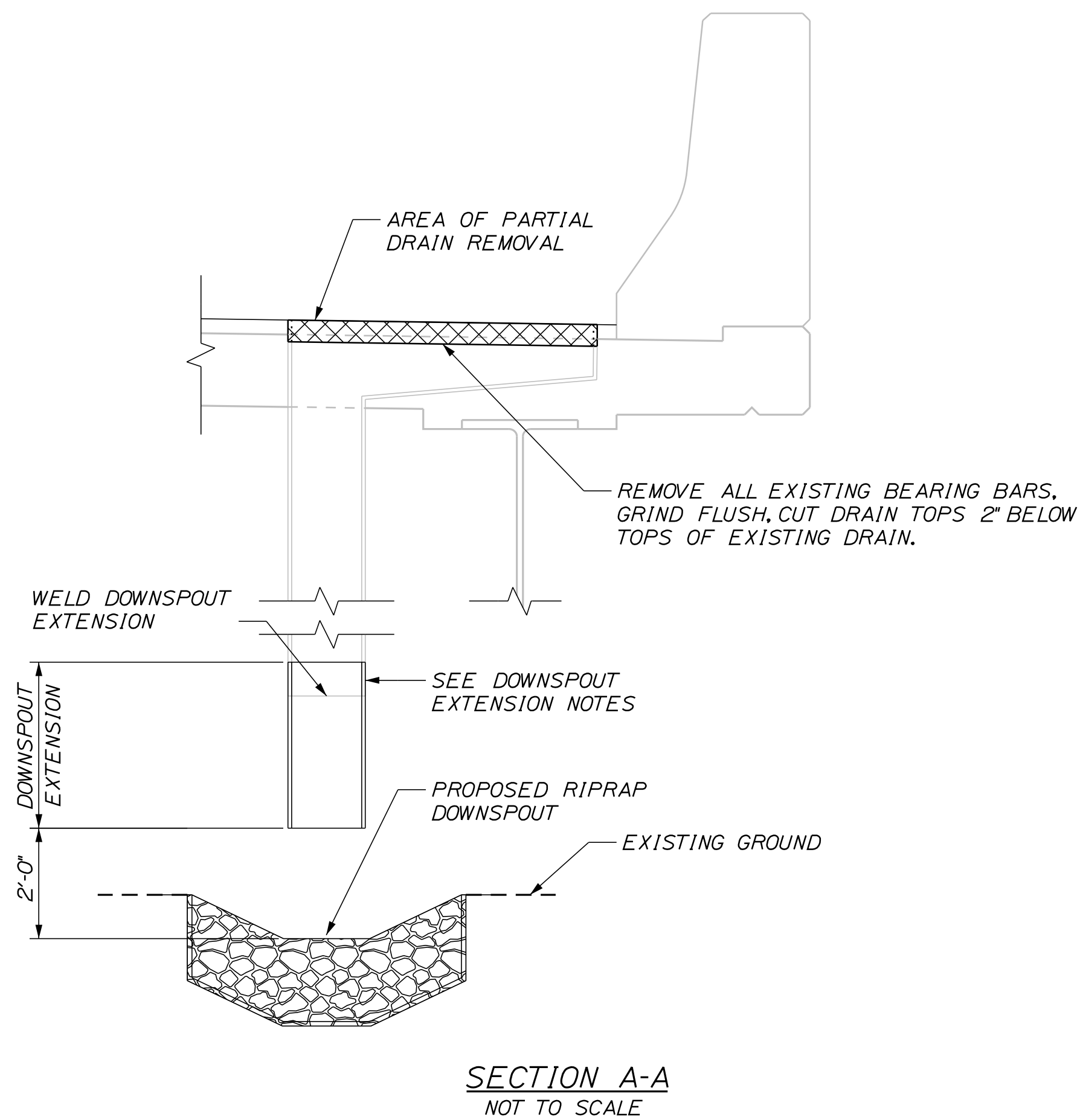
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PROPOSED PLAN
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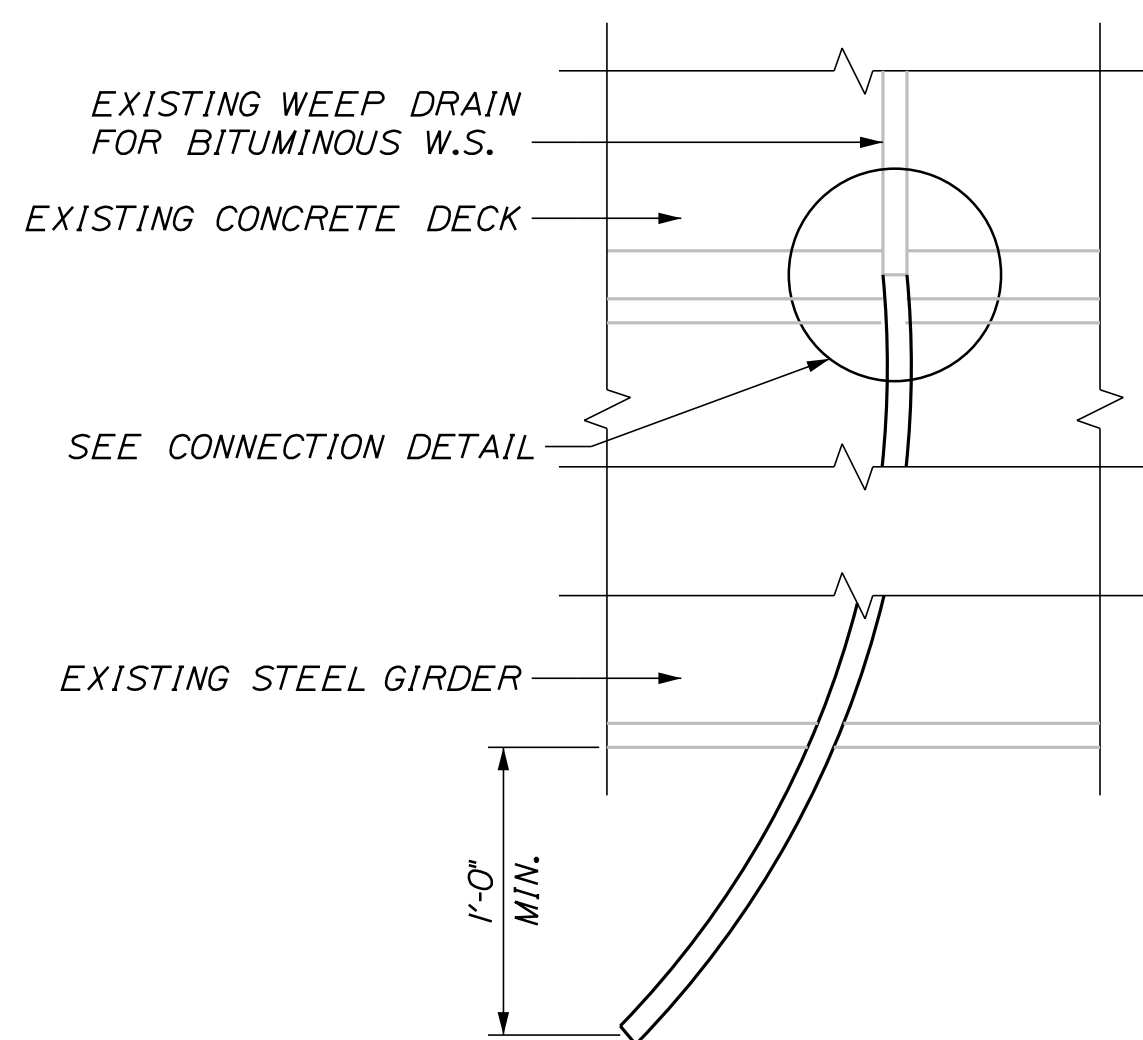


EXISTING PLAN
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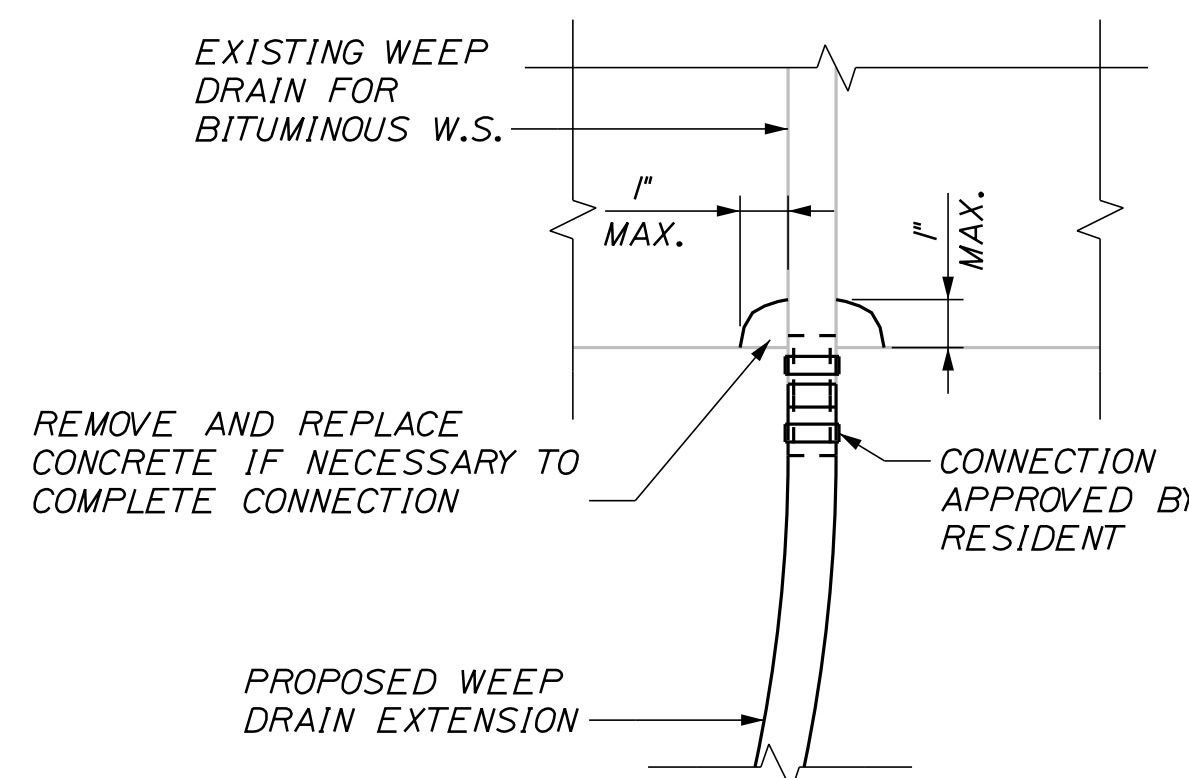


SECTION A-A
NOT TO SCALE

BRIDGE DRAIN GRATE MODIFICATION
(GROVE STREET UNDERPASS BRIDGE)



WEEP DRAIN EXTENSION
SCALE: 3" = 1'-0"



NOTE: DECK REINFORCEMENT NOT SHOWN FOR CLARITY

WEEP DRAIN CONNECTION DETAIL
NOT TO SCALE

DOWNSPOUT EXTENSION NOTES:

1. PRIOR TO STARTING THE WORK THE CONTRACTOR SHALL FIELD MEASURE EACH DRAIN. THIS INFORMATION SHALL BE USED FOR THE FABRICATION OF THE DOWNSPOUT EXTENSIONS.
2. DOWNSPOUT EXTENSIONS SHALL CONFORM TO ASTM A 36 AND SHALL BE HOT DIP GALVANIZED AFTER FABRICATION. IN ACCORDANCE WITH ASTM A 123.
3. PREPARE NEW AND EXISTING DOWNSPOUT FOR FIELD WELD. FIELD WELD THE EXTERIOR PERIMETER JOINTS BETWEEN NEW AND EXISTING DOWNSPOUTS. THE INTERIOR AND EXTERIOR OF THE NEW DOWNSPOUT WELDS SHALL BE COATED WITH AN APPROVED COLD GALVANIZING COMPOUND AFTER WELDING.
4. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS ASSOCIATED WITH THE BRIDGE DRAIN MODIFICATION WILL BE UNDER ITEM 502.701, "BRIDGE DRAIN GRATE MODIFICATION."

BRIDGE DRAIN GRATE MODIFICATION NOTES:

1. PRIOR TO STARTING THE WORK THE CONTRACTOR SHALL FIELD MEASURE EACH DRAIN. THIS INFORMATION SHALL BE USED FOR THE FABRICATION OF THE DRAIN GRATE EXTENSIONS.
2. CONTRACTOR SHALL CLEANLY CUT AND REMOVE THE TOP OF EXISTING DRAINS 2" BELOW EXISTING TOP OF DRAIN. THE DECK CONCRETE AROUND THE FULL PERIMETER OF THE DRAIN SHALL BE MECHANICALLY REMOVED TO A MINIMUM DEPTH OF 1/2" BY A MINIMUM WIDTH OF 3".
3. ALL PLATES SHALL CONFORM TO ASTM A 36. DRAIN GRATE EXTENSIONS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A 123.
4. ALIGNMENT TABS ARE OPTIONAL. AFFIX AND GALVANIZE WITH DRAIN GRATE EXTENSIONS, IF USED.
5. PREPARE EXISTING DRAIN BODY AND NEW DRAIN TOP GRATE EXTENSION FOR FIELD WELD. FIELD WELD THE EXTERIOR PERIMETER JOINT BETWEEN EXISTING DRAIN BODY AND NEW TOP OF DRAIN AFTER WELDING. THE INTERIOR AND EXTERIOR OF THE NEW TOP OF DRAIN SHALL BE COATED WITH AN APPROVED COLD GALVANIZING COMPOUND.
6. AREAS OF CONCRETE REMOVAL SHALL BE PATCHED USING A SHALLOW CONCRETE PATCHING MATERIAL SELECTED FROM THE MTA APPROVED PRODUCTS LIST. CONCRETE PATCH SHALL BE PLACED, FINISHED AND CURED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
7. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS ASSOCIATED WITH THE BRIDGE DRAIN MODIFICATION WILL BE UNDER ITEM 502.701, "BRIDGE DRAIN GRATE MODIFICATION."

WEEP DRAIN EXTENSION NOTES:

1. ALL PVC DECK WEEPS WHICH DRAIN ONTO PIERS, ABUTMENTS OR STRUCTURAL STEEL SHALL BE EXTENDED AND DIVERTED AWAY FROM BRIDGE COMPONENTS BELOW DECK, AND SHALL EXTEND 1 FT BELOW BOTTOM FLANGE. AS DIRECTED BY THE RESIDENT. PAYMENT SHALL BE MADE UNDER PAY ITEM 502.701, "WEEP DRAIN EXTENSIONS."

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No.	Revision	By	Date

Designed by:					
TYLIN INTERNATIONAL					
CONSULTANT PROJECT MANAGER: Daniel S. Myers					
	By	Date		By	Date
Designed	BLT	8/2020	Checked	BLT	8/2020
Drawn	SAM	8/2020	In Charge of	DSM	03/2021

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MAINE
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MTA PROJECT MANAGER: Kristi Van Ooyen

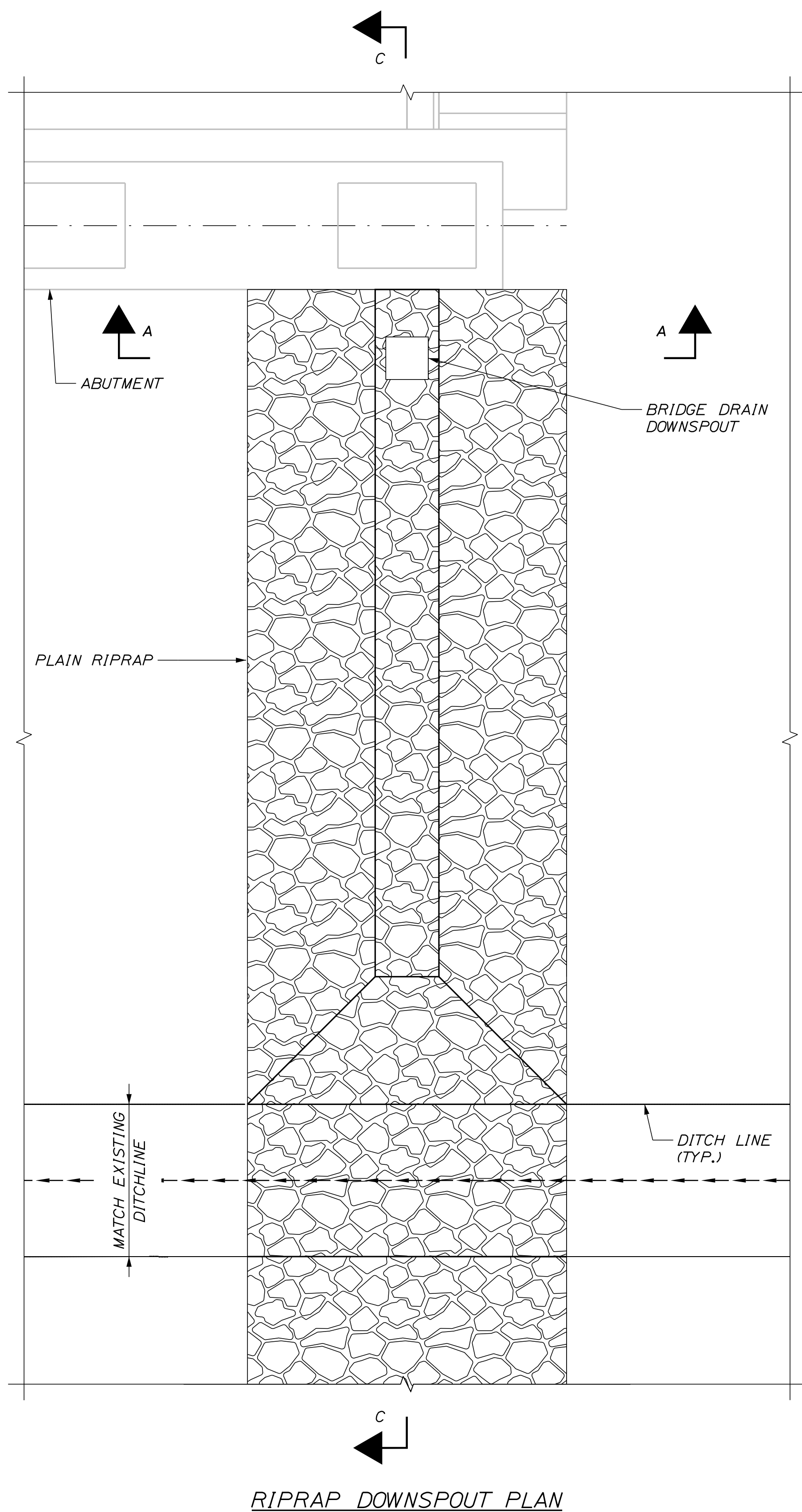
2021 BRIDGE REPAIRS

MISCELLANEOUS DETAILS
SHEET 1 OF 2

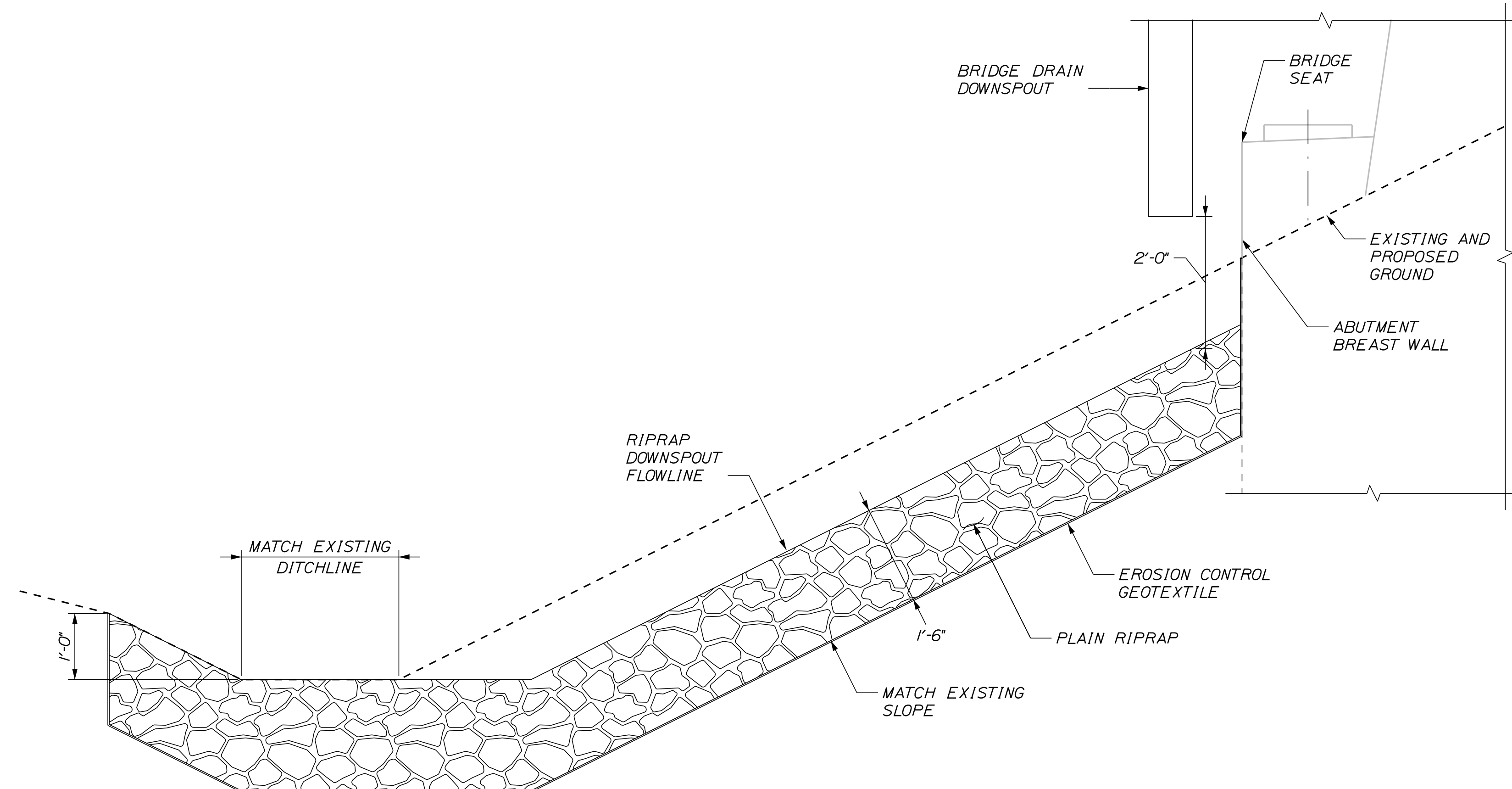
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Date: 4/22/2021

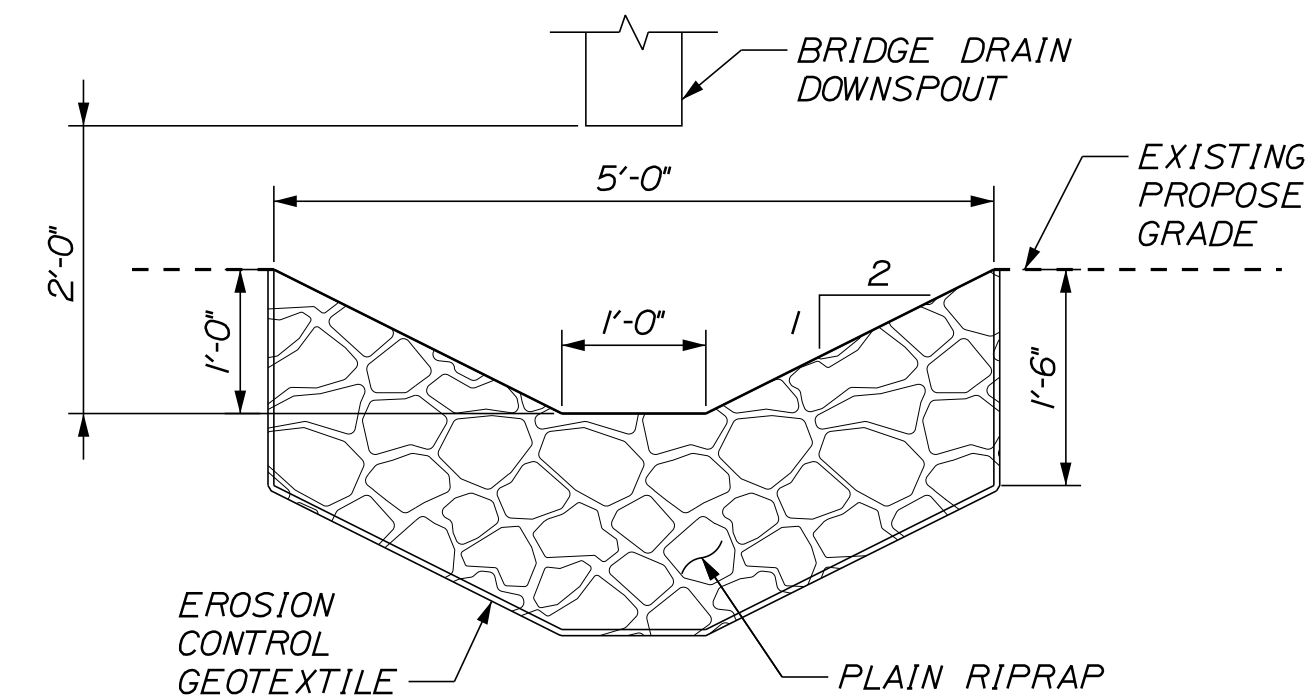
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RIPRAP DOWNSPOUT PLAN



SECTION C-C



SECTION A-A

NOTES:

1. PAYMENT FOR ALL EQUIPMENT, MATERIALS, AND LABOR REQUIRED TO PLACE RIPRAP DOWNSPOUTS SHALL BE MADE UNDER ITEM 610.08, "PLAIN RIPRAP" AND ITEM 620.58, "EROSION CONTROL GEOTEXTILE".
2. RIPRAP DOWNSPOUTS SHALL BE PLACED PARALLEL TO THE BRIDGE CENTERLINE, IN THE APPROXIMATE LOCATIONS OF THE EXISTING DRAIN TROUGHS AND DOWNSPOUTS.
3. ANY EXISTING RIPRAP DOWNSPOUTS OR TROUGHS SHALL BE REMOVED ENTIRELY PRIOR TO PLACING PROPOSED RIPRAP DOWNSPOUTS WITH APPROVAL BY THE RESIDENT.
4. THE PROPOSED RIPRAP DOWNSPOUTS SHALL BE INSTALLED AS SOON AS PRACTICAL AFTER THE REMOVAL OF ANY EXISTING UNDERBRIDGE DRAINAGE SYSTEM. ANY DAMAGE TO EXISTING SLOPES AFTER THE EXISTING UNDERBRIDGE DRAINAGE SYSTEM HAS BEEN REMOVED, AND PRIOR TO INSTALLATION OF PROPOSED RIPRAP DOWNSPOUTS, WILL BE REPAIRED AT NO ADDITIONAL COST TO THE AUTHORITY.
5. SPLICES IN EROSION CONTROL GEOTEXTILE UNDER RIPRAP DOWNSPOUTS WILL NOT BE ALLOWED.

Scale:			
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No.	Revision	By	Date

Designed by:

TY-LIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

Designed	By	Date	Checked	By	Date
Drawn	JJL	11/2020	In Charge of	DSM	03/2021

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THE GOLD STAR
MEMORIAL HIGHWAY

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2021 BRIDGE REPAIRS

MISCELLANEOUS DETAILS
SHEET 2 OF 2

SHEET NUMBER: DET-02

CONTRACT: 2021.03

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