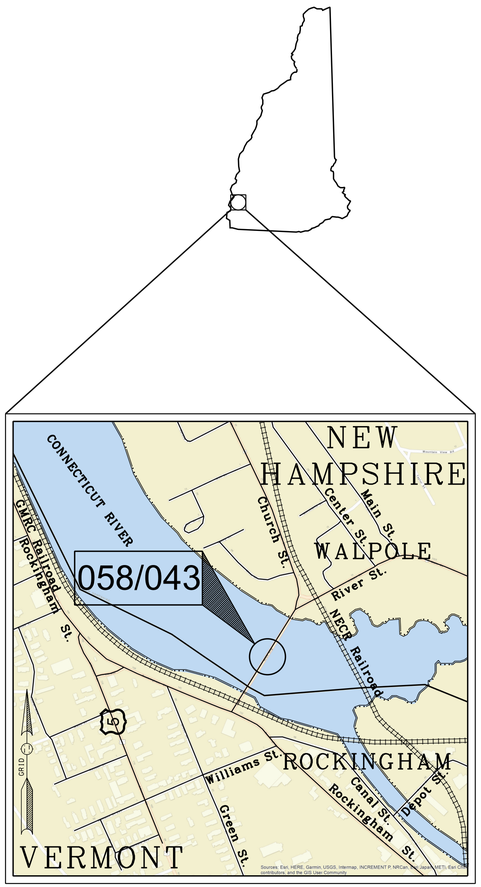
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

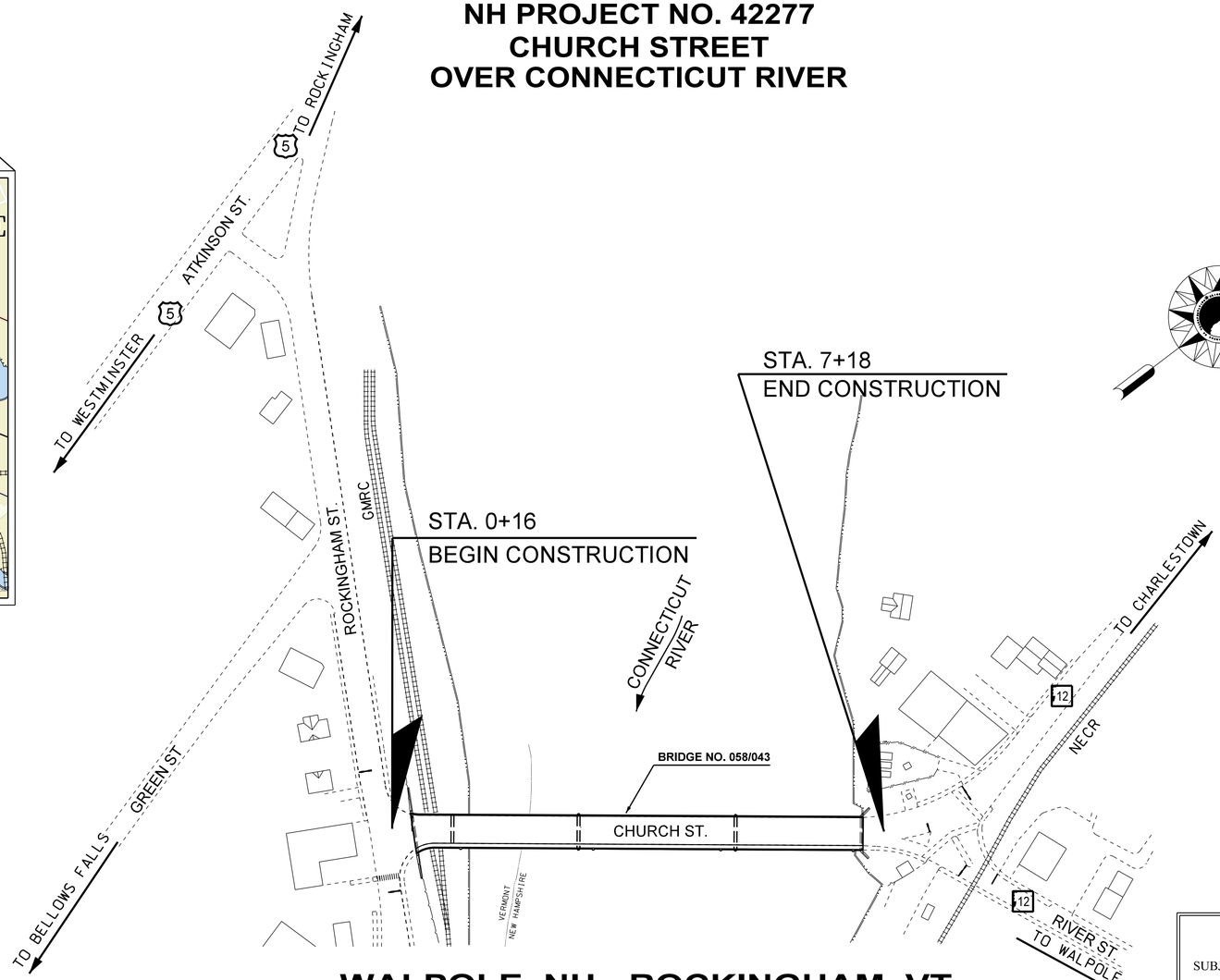
CONSTRUCTION PLANS
FEDERAL AID PROJECT

X-A004(799)
NH PROJECT NO. 42277
CHURCH STREET
OVER CONNECTICUT RIVER

DESIGN DATA	
AVERAGE DAILY TRAFFIC 20 20	13000 VPD
AVERAGE DAILY TRAFFIC 20 40	16000 VPD
PERCENT OF TRUCKS	8.0%
DESIGN SPEED	30 MPH
LENGTH OF PROJECT	702 FT



LOCATION MAP
NOT TO SCALE



WALPOLE, NH - ROCKINGHAM, VT
COUNTIES OF CHESHIRE, NH AND WINDHAM, VT
SCALE: 1"=100'

DRAWN BY XX	DATE XX
CHECKED BY XX	DATE XX

PS&E
PLANS
SUBJECT TO CHANGE
DATE 6/19/2020

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NHDOT THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL:

DIRECTOR OF PROJECT DEVELOPMENT

APPROVED:

ASSISTANT COMMISSIONER AND CHIEF ENGINEER — DATE

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A004(799)	42277	1	31

INDEX OF SHEETS

GENERAL NOTES

1. FOR STANDARD PLANS, SEE DEPARTMENT OF TRANSPORTATION WEBSITE AT: WWW.NH.GOV/DOT/ORG/PROJECTDEVELOPMENT/HIGHWAYDESIGN/STANDARDPLANS/INDEX.HTM.
2. HIGH TENSION OVERHEAD TRANSMISSION LINES ARE LOCATED THROUGHOUT THE PROJECT WITH CROSSINGS AT VARIOUS LOCATIONS AND RUNNING ALONG THE ROAD THROUGHOUT THE PROJECT EVEN ON REGULAR POLES. THE CONTRACTOR IS ADVISED THAT EXTREME CAUTION WILL BE REQUIRED IN THE OPERATION OF EQUIPMENT, ESPECIALLY CRANES AND PILE DRIVING EQUIPMENT.
3. MODIFY SUPERELEVATION ON EXISTING CURVES BY THE USE OF A LEVELING COURSE TO THE RATES INDICATED ON THE PLANS OR AS ORDERED.
4. EXISTING DELINEATORS AND WITNESS MARKERS THAT ARE REMOVED AND DETERMINED BY THE ENGINEER TO BE IN ACCEPTABLE CONDITION SHALL BE RESET (SUBSIDIARY). ADDITIONAL DELINEATORS AND WITNESS MARKERS ORDERED WILL BE PAID UNDER THE APPROPRIATE ITEMS OF THE CONTRACT.
5. NO EXISTING MONUMENTS, BOUNDS, OR BENCHMARKS SHALL BE DISTURBED WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION.
6. PERFORM ALL WORK WITHIN THE EXISTING RIGHT-OF-WAY, UNLESS OTHERWISE SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER.
7. REMOVE UNPROTECTED PROJECT MARKERS (SUBSIDIARY).
8. SURVEY DATA FOR THIS PROJECT WAS COLLECTED BY SDR AND THE FIELD NOTES CAN BE FOUND IN THE FIELD BOOK(S) _____. COORDINATES ARE NEW HAMPSHIRE STATE PLANE COORDINATES OF NAD83, ____ ADJUSTMENT AND THE BEARINGS ARE GRID. ELEVATIONS ARE REFERENCED TO ____ ____.
9. QUANTITIES FOR EMBANKMENT AND EXCAVATION FOR SLOPE ROUNDINGS AS SHOWN ON THE TYPICALS HAVE NOT BEEN CALCULATED AND ARE NOT INCLUDED IN THE QUANTITY SUMMARIES, AND ARE CONSIDERED SUBSIDIARY TO THE APPROPRIATE 203 ITEMS.

THE FOLLOWING GENERAL NOTES WILL BE USED ON THIS PROJECT:

1	2			5	6						

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STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

INDEX OF SHEETS & GENERAL NOTES

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
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GENERAL

EDGE OF PAVEMENT
TRAVELED WAY

PROPOSED ROADWAY | existing roadway | (pavement removed outside slope lines)

DRIVEWAYS

(label surface type)

BUILDINGS

(building to be removed)

(label house or type of building)

FOUNDATION

(label type)

LEACH FIELD

leach field

BRIDGE CROSSINGS

STREAM | OVERPASS

STEPS AND WALK

(label type)

INTERMITTENT WATER COURSE

SHORE LINE

river/stream | pond | (label name of water body)

POTENTIAL WET AREA SYMBOL

BRUSH OR WOODS LINE

TREES (PLANS)

(deciduous) (coniferous) (stump)

TREE OR STUMP (CROSS-SECTIONS)

(show station, circumference in feet & type)

HEDGE

(label type)

MONITORING WELL

mon W

WELL

W

FLAG POLE

fp

ORIGINAL GROUND (TYPICALS)

ROCK OUTCROP

ROCK LINE (TYPICALS & SECTIONS ONLY)

GUARDRAIL (label type)

existing | PROPOSED

bgr
cgr

JERSEY BARRIER

CURB (LABEL TYPE)

STONE WALL

RETAINING WALL (LABEL TYPE)

(points toward retained ground)

FENCE (LABEL TYPE)

SIGNS

(single post)
(double post)

GAS PUMP

gp

FUEL TANK (ABOVE GROUND)

ft (label size & type)

STORAGE TANK FILLER CAP

fc

SEPTIC TANK

S

GRAVE

gr

MAILBOX

mb

VENT PIPE

vp

SATELLITE DISH ANTENNA

da

PHONE

ph

GROUND LIGHT/LAMP POST

gl lp

BORING LOCATION

B

TEST PIT

TP

INTERSTATE NUMBERED HIGHWAY

293

UNITED STATES NUMBERED HIGHWAY

3

STATE NUMBERED HIGHWAY

102

SHORELAND - WETLAND

WETLAND DESIGNATION AND TYPE

2
PUB2E

DELINEATED WETLAND — DW
ORDINARY HIGH WATER — OHW
TOP OF BANK — TOB
TOP OF BANK & ORDINARY HIGH WATER — TOBOHW
NORMAL HIGH WATER — NHW
WIDTH AT BANK FULL — WBF
PRIME WETLAND — PWET
PRIME WETLAND 100' BUFFER — PWET100
NON-JURISDICTIONAL DRAINAGE AREA — NJDA
COWARDIN DISTINCTION LINE — CDL
TIDAL BUFFER ZONE — TBZ
DEVELOPED TIDAL BUFFER ZONE — DTBZ
HIGHEST OBSERVABLE TIDE LINE — HOTL
MEAN HIGH WATER — MHW
MEAN LOW WATER — MLW
VERNAL POOL — VP
SPECIAL AQUATIC SITE — SAS
REFERENCE LINE — REF
WATER FRONT BUFFER — WB50
NATURAL WOODLAND BUFFER — NWB150
PROTECTED SHORELAND — PS250
INVASIVE SPECIES LABEL

I.S. I | I.S. II

INVASIVE SPECIES — INV

FLOODPLAIN / FLOODWAY

500 YEAR FLOODPLAIN BOUNDARY — FP500
100 YEAR FLOODPLAIN BOUNDARY — FP100
FLOODWAY — FW

ENGINEERING

CONSTRUCTION BASELINE

30 | 31 | 32

PC, PT, POT (ON CONST BASELINE)

PI (IN CONSTRUCTION BASELINES)

INTERSECTION OR EQUATION OF TWO LINES

ORIGINAL GROUND LINE (PROFILES AND CROSS-SECTIONS)

PROFILE GRADE LINE (PROFILES AND CROSS-SECTIONS)

SLOPE LINE | CLEARING LINE

CLEARING LINE
SLOPE LINE
SLOPE LINE (FILL)
SLOPE LINE (CUT)

PROFILES AND CROSS SECTIONS:
ORIGINAL GROUND ELEVATION (LEFT)
FINISHED GRADE ELEVATION (RIGHT)

72.5
79.14

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STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

STANDARD SYMBOLS 1

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
11-21-2014	03_Symb1	42277	3	31

DRAINAGE

MANHOLE
CATCH BASIN — cb
DROP INLET — di
(existing) (PROPOSED)

DRAINAGE PIPE (existing) — (label size & type)
DRAINAGE PIPE (PROPOSED)
UNDERDRAIN (existing) W/ FLUSHING BASIN — fb — (label size & type)
UNDERDRAIN (PROPOSED) W/ FLUSHING BASIN
show direction of flow
HEADER (existing & PROPOSED) — (with stone outlet protection)
END SECTION (existing & PROPOSED) — METAL or PLASTIC; RCP
OPEN DITCH (PROPOSED)
EROSION CONTROL/ STONE SLOPE PROTECTION

BOUNDARIES / RIGHT-OF-WAY

RIGHT-OF-WAY LINE — (label type)
RR RIGHT-OF-WAY LINE
PROPERTY LINE
PROPERTY LINE (COMMON OWNER) — Z
TOWN LINE — BOW / CONCORD
COUNTY LINE — COOS / GRAFTON
STATE LINE — MAINE / NEW HAMPSHIRE
NATIONAL FOREST
CONSERVATION LAND — LC
BENCH MARK / SURVEY DISK
BOUND — bnd — (PROPOSED)
STATE LINE/ TOWN LINE MONUMENT — S/L — T/L
NHDOT PROJECT MARKER
IRON PIPE OR PIN — ip
DRILL HOLE IN ROCK — dh
TAX MAP AND LOT NUMBER — 156 / 14 — 1642/341 — 6.80 Ac.±
PROPERTY PARCEL NUMBER — 12
HISTORIC PROPERTY — H

UTILITIES

	existing	PROPOSED
TELEPHONE POLE		
POWER POLE		
JOINT OCCUPANCY		
MISCELLANEOUS/UNKNOWN POLE		
GUY POLE OR PUSH BRACE		
	(plot point at face not center of symbol)	
LIGHT POLE		
LIGHT ON POWER POLE		
LIGHT ON JOINT POLE		

POLE STATUS:
REMOVE, LEAVE, PROPOSED, OR TEMPORARY
AS APPLICABLE e.g.: — R L — P+04 25.0' — T+04 25.0'

RAILROAD — (label ownership)
RAILROAD SIGN
RAILROAD SIGNAL
UTILITY JUNCTION BOX — jb — JB
OVERHEAD WIRE — OW — (label type)

UNDERGROUND UTILITIES

WATER (on existing lines label size, type and note if abandoned)	W	PW
SEWER	S	PS
TELEPHONE	T	PT
ELECTRIC	E	PE
GAS	G	PG
LIGHTING	L	PL
INTELLIGENT TRANSPORTATION SYSTEM	ITS	
FIBER OPTIC	FO	PFO

WATER SHUT OFF — WSO
GAS SHUT OFF — GSO
HYDRANT — HYD

MANHOLES

SEWER	S	MHS
TELEPHONE	T	MHT
ELECTRICAL	E	MHE
GAS	G	MHG
UNKNOWN	U	

TRAFFIC SIGNALS / ITS

	existing	PROPOSED
MAST ARM (existing)		30' MA (NOTE ANGLE FROM ℄)
OPTICOM RECEIVER		
OPTICOM STROBE		
TRAFFIC SIGNAL		
PEDESTAL WITH PEDESTRIAN SIGNAL HEADS AND PUSH BUTTON UNIT		
SIGNAL CONDUIT	C	PC
CONTROLLER CABINET	cc	CC
METER PEDESTAL	mp	MP
PULL BOX	pb	PB
LOOP DETECTOR (QUADRUPOLE)		(label size)
LOOP DETECTOR (RECTANGULAR)		(label size)
CAMERA POLE (CCTV)		
FIBER OPTIC DELINEATOR	fod	FOD
FIBER OPTIC SPLICE VAULT	f	SVF
ITS EQUIPMENT CABINET	its	ITS
VARIABLE SPEED LIMIT SIGN		
DYNAMIC MESSAGE SIGN		
ROAD AND WEATHER INFO SYSTEM		

CONSTRUCTION NOTES

CURB MARK NUMBER - BITUMINOUS	B-1
CURB MARK NUMBER - GRANITE	G-1
CLEARING AND GRUBBING AREA	A
DRAINAGE NOTE	1
EROSION CONTROL NOTE	A
FENCING NOTE	A
GUARDRAIL NOTE	1
ITS NOTE	1
LIGHTING NOTE	A
TRAFFIC SIGNAL NOTE	1

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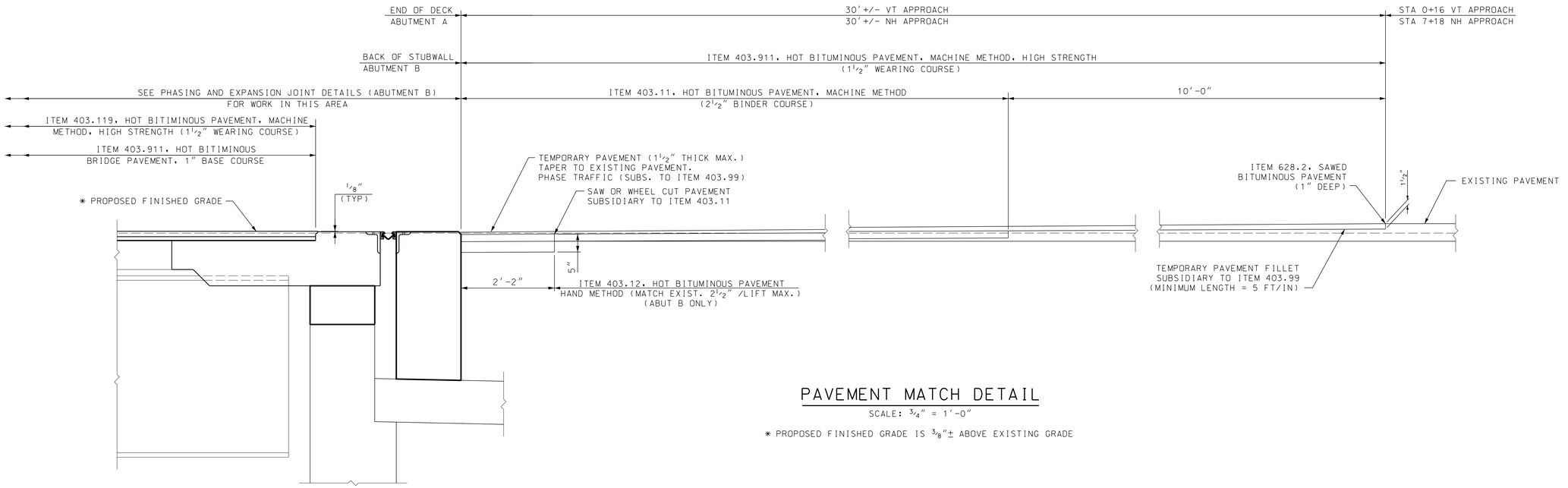
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

STANDARD SYMBOLS 2

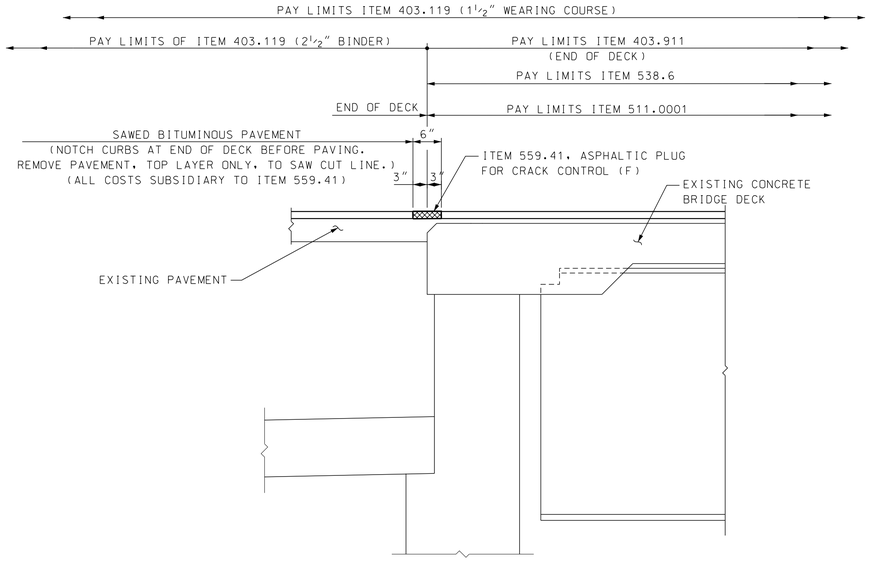
REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
9-1-2016	04_Symb2	42277	4	31



PAVEMENT MATCH DETAIL

SCALE: 3/4" = 1'-0"

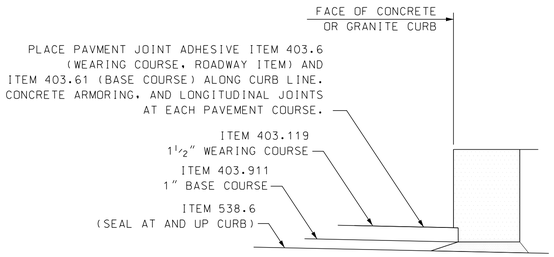
* PROPOSED FINISHED GRADE IS 3/8"± ABOVE EXISTING GRADE



ASPHALTIC PLUG FOR CRACK CONTROL

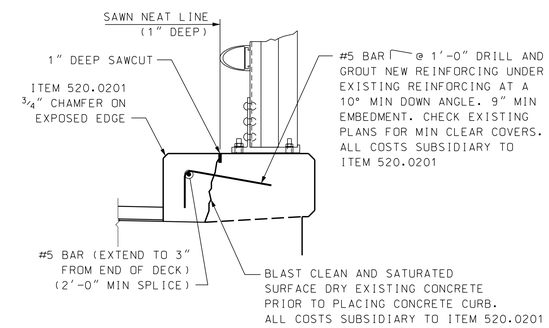
(ABUTMENT A)

SCALE: 3/4" = 1'-0"



CURB DETAIL

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



PROPOSED CONCRETE CURB

SCALE: 1" = 1'-0"

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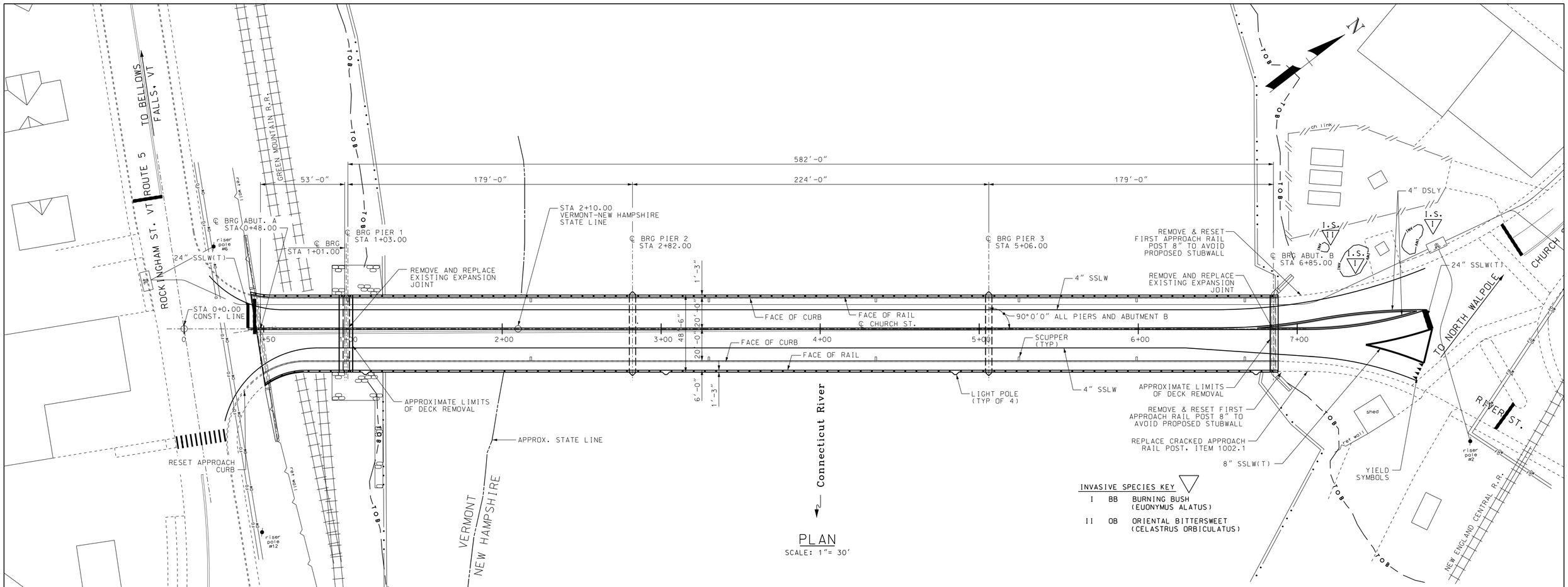
STATE OF NEW HAMPSHIRE

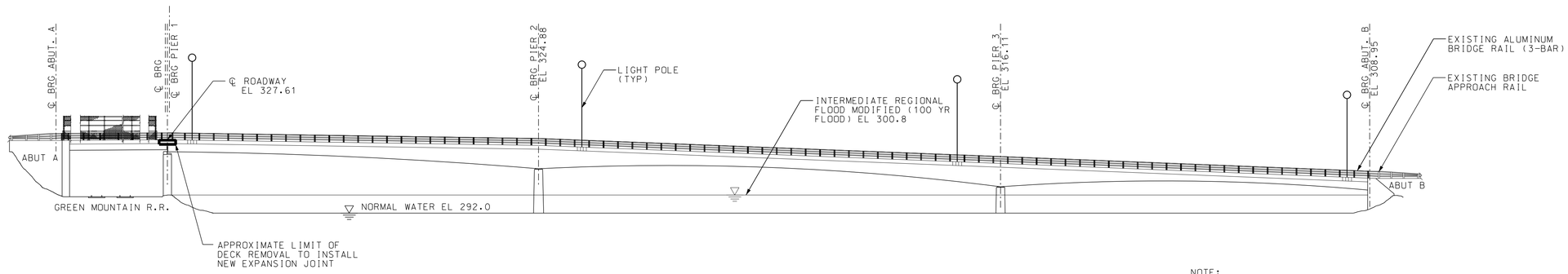
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

PAVEMENT MATCH AND CURB DETAILS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
42277curb_pave det	42277	5	31



PLAN
SCALE: 1"= 30'



ELEVATION
SCALE: 1"= 30'

NOTE:
FOR INDEX OF SHEETS, SEE SHEET 2.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER CONNECTICUT RIVER

GENERAL PLAN AND ELEVATION

BRIDGE SHEET 1 OF 19

REVISIONS AFTER PROPOSAL	BY	DATE		BY	DATE
			DESIGNED	JDG	04/2020	CHECKED	GAB	05/2020
			DRAWN	LRB	09/2019	CHECKED	JDG	05/2020
			QUANTITIES	JDG	11/2019	CHECKED	SRW	05/2020
			ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.	TOTAL SHEETS
			REV. DATE		X-A004(799)		6	31

FILE NUMBER

Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	42277pregen	AS NOTED

SCOPE OF WORK

BR. NO. 058/043 CHURCH STREET OVER CONNECTICUT RIVER
- REMOVE AND REPLACE DECK PAVEMENT AND MEMBRANE
- PARTIAL AND FULL DEPTH CONCRETE DECK REPAIRS
- PARTIALLY REMOVE AND REPLACE TOPS OF ABUTMENT BACKWALLS
- INSTALL STRIP SEAL EXPANSION JOINT AT ABUTMENT B
- REMOVE MODULAR EXPANSION JOINT AT PIER 1 AND REPLACE WITH A FINGER JOINT
- RESET BRIDGE APPROACH GRANITE CURB
- REPLACE MISSING BOLTS IN DIAPHRAGM
- REMOVE EXISTING LIGHT POLES

MATERIALS AND SPECIFICATIONS

(1) SPECIFICATIONS: AASHTO BRIDGE CONSTRUCTION SPECIFICATION WITH INTERIMS 2017
NHDOT 2016 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED
WELDING PER AASHTO/AWS D1.5-10 WITH REVISIONS PUBLISHED BY AASHTO AS OF THE BID OPENING DATE.

(2) REINFORCING STEEL: AASHTO M31 (ASTM A 615) GRADE 60 EPOXY COATED

(3) CONCRETE: PARTIAL DEPTH DECK REPAIRS = 4000 PSI
ITEM 520.01, CONCRETE CLASS AA

FULL DEPTH DECK REPAIRS, CURB SEATS, ABUTMENT AND WINGWALL REPAIRS.
= 4,000 PSI
ITEM 520.0201, CONCRETE CLASS AA, ABOVE FOOTINGS

BACKWALL AND DECK RECONSTRUCTION = 4,000 PSI
ITEM 520.02, CONCRETE CLASS AA, ABOVE FOOTINGS (F)

BENCHMARK NOTE

ALL EXISTING DISCS REPRESENTING STATE BENCHMARKS OR SURVEY TRIANGULATION POINTS MUST NOT BE DISTURBED. WHEN THE PROPOSED WORK INVOLVES DISTURBING ONE OF THESE DISCS, THE CONTRACTOR SHALL NOTIFY THE CONTRACT ADMINISTRATOR SUFFICIENTLY IN ADVANCE OF THE WORK TO PERMIT THE STATE TO TEMPORARILY RELOCATE THE AFFECTED MARKER.

TO THE CONTRACTOR

THE CONTRACTOR SHOULD BE AWARE THAT EXISTING STRUCTURE DIMENSIONS AND ELEVATIONS SHOWN ON THESE PLANS WERE TAKEN FROM ORIGINAL BRIDGE PLANS AND DO NOT NECESSARILY REPRESENT "AS-BUILT" DIMENSIONS AND ELEVATIONS. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS OF THE EXISTING STRUCTURES AND BE PREPARED TO MAKE ANY ADJUSTMENTS REQUIRED TO PROPERLY REHABILITATE THE BRIDGE. ANY DISCREPANCIES IN DIMENSIONS, CHARACTER, OR EXTENT OF THE EXISTING FEATURES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO ADVANCING THE WORK. THE EXISTING PLANS ARE AVAILABLE ON-LINE IN THE BID PACKAGE ON THE INVITATION TO BID WEB PAGE. FTER THE CONTRACT IS AWARDED, A COMPLETE SET OF EXISTING PLANS WILL BE FORWARDED TO THE CONTRACTOR UPON REQUEST. THE FILE NUMBER FOR THIS BRIDGE IS 2-13-1-1.

REMOVAL NOTES

(1) REMOVAL OF EXISTING BRIDGE STRUCTURE, ITEM 502., EXCEPT AS OTHERWISE SHOWN ON THE PLANS SHALL INCLUDE REMOVAL OF THE EXISTING BRIDGE DECK, BRIDGE CURB, AND BACKWALL NEEDED FOR EXPANSION JOINT REPLACEMENT.

(2) THE CONTRACTOR SHALL SUBMIT, FOR DOCUMENTATION IN ACCORDANCE WITH SECTION 105.02, A DETAILED OUTLINE OR PLAN OF THE PROPOSED METHOD FOR ITEM 502. PRIOR TO COMMENCEMENT OF ANY REMOVAL OF WORK.

(3) THE EXISTING PAVEMENT AND MEMBRANE, SHALL BE REMOVED UNDER ITEM 511.0001, CONCRETE BRIDGE DECK PAVEMENT REMOVAL (F).

GENERAL CONSTRUCTION NOTES

(1) TRAFFIC CHANNELIZING DEVICES, AND TRAFFIC CONTROL MEASURES SHALL BE IN PLACE BEFORE OPERATIONS BEGIN FOR EACH CONSTRUCTION PHASE.

(2) THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO INSURE THAT DEBRIS DOES NOT FALL INTO THE WATERWAY OR ONTO THE RAILROAD TRACKS BELOW EXISTING STRUCTURE. ALL COSTS SHALL BE PAID UNDER ITEM 502, AND SHALL INCLUDE THE ERECTION, MAINTENANCE, AND REMOVAL OF TEMPORARY STRUCTURES OR OTHER SUCH METHODS AS APPROVED.

(3) NO SCAFFOLDS SHALL BE ERECTED OR OPERATIONS CONDUCTED IN THE ROADWAY, UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.

(4) THE WELDING OF ATTACHMENTS TO STRUCTURAL STEEL FOR CONSTRUCTION PURPOSES SHALL NOT BE PERMITTED UNLESS APPROVED BY THE NHDOT, BUREAU OF BRIDGE DESIGN.

(5) PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL MAKE A RECORD OF THE EXISTING PAINT PAVEMENT MARKINGS. UPON COMPLETION OF THE BRIDGE WORK, THE PAVEMENT MARKINGS SHALL BE REPLACED IN KIND WITH ITEM 632.0104, RETROREFLECTIVE PAINT PAVE, MARKING, 4" LINE.

GENERAL CONSTRUCTION NOTES (CONT)

(6) ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4", UNLESS OTHERWISE NOTED.

(7) ITEM 538.6, BARRIER MEMBRANE, HEAT WELDED - MACHINE METHOD (F) SHALL BE OVERLAPPED PER MANUFACTURER'S REQUIREMENTS. AT DECK ENDS AND CURB LINES, A SEALANT/REPAIR MASTIC COMPATIBLE WITH ITEM 538.6 SHALL BE PLACED BETWEEN THE NEW MEMBRANE AND THE END DECK OR CURB TO SEAL THE MEMBRANE. ALL COSTS SHALL BE SUBSIDIARY TO ITEM 538.6.

(8) REMOVE ANY EXISTING LOOSE OR FLAKING EPOXY COATING FROM THE BACKWALL AND SEATS AS DIRECTED. COSTS PAID UNDER ITEM 502.

(9) FOR SALVAGE OF MATERIALS SEE PROSECUTION OF WORK.

(10) ITEM 538.2, BARRIER MEMBRANE, PEEL AND STICK - VERTICAL SURFACES (F), 2' WIDE, SHALL BE PLACED CENTERED OVER ALL HORIZONTAL AND VERTICAL CONSTRUCTION JOINTS WITH PROTECTION BOARD (SUBSIDIARY) EXCEPT THAT BARRIER SHALL COVER THE ENTIRE VERTICAL SURFACE OF THE BACK OF BACKWALL TO 1'-0" ONTO THE EXISTING APPROACH SLAB AS SHOWN IN SECTION A-A RECONSTRUCTION SHOWN ON BRIDGE SHEET 6.

(11) SUPPORT OF EXCAVATION NECESSARY TO COMPLETE WORK SHALL BE SUBSIDIARY TO THE EXCAVATION ITEMS OF WORK.

(12) APPLY PAVEMENT JOINT ADHESIVE ALONG ALL LONGITUDINAL JOINTS BETWEEN PAVEMENT PASSES AND ALONG BRIDGE CURB LINES AND EXPANSION JOINT ARMORING PRIOR TO PLACING ALL PAVEMENT COURSES. FOR BRIDGE BASE COURSE APPLY ITEM 403.61, PAVEMENT JOINT ADHESIVE (BRIDGE BASE) AND FOR WEARING COURSE APPLY ITEM 403.6, PAVEMENT JOINT ADHESIVE - ROADWAY ITEM.

(13) ITEM 563.8, RESETTING BRIDGE RAIL, SHALL BE PAID AS 1 LF PER POST.

REINFORCING NOTES

(1) EXISTING REINFORCING STEEL, UNLESS OTHERWISE SHOWN/NOTED IN THE PLANS, SHALL BE RETAINED.

(2) EXISTING REINFORCING STEEL THAT IS TO REMAIN IN PLACE WITHIN THE REMOVAL AREAS SHALL BE CUT AS REQUIRED TO PROVIDE 2 1/2" MINIMUM CLEAR COVER FROM THE PROPOSED CONCRETE SURFACES. EXCEPT AS OTHERWISE NOTED. ALL COSTS INCLUDED IN ITEM 502. ALL NEW REINFORCING BARS SHALL HAVE A MINIMUM CLEAR COVER OF 2 1/2" FROM PROPOSED CONCRETE SURFACES.

(3) ALL REINFORCING TO REMAIN IN PLACE SHALL BE INSPECTED FOR DAMAGE OR CORROSION JOINTLY BY THE CONTRACT ADMINISTRATOR AND CONTRACTOR AFTER EACH REMOVAL PHASE. ALL NEW REINFORCING STEEL REQUIRED TO REPAIR OR REPLACE EXISTING REINFORCEMENT SHALL BE PAID UNDER ITEM 1002.1, REPAIRS OR REPLACEMENTS AS NEEDED - BRIDGE STRUCTURES.

(4) PLACE REINFORCING STEEL TO AVOID RAIL POST ANCHOR ASSEMBLIES AND ANCHOR BOLTS AND EXPANSION JOINT ASSEMBLIES.

(5) REINFORCING LEGEND: SP = SPACE, SPL = SPLICE, FS = FAR SIDE.
NS = NEAR SIDE, BOT = BOTTOM, ALT = ALTERNATING

(6) FOR TYPICAL BEND DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS AND OTHER STANDARD PRACTICE SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE".

(7) PROPOSED REINFORCEMENT, AS SHOWN IN THE PLANS, REPLACING EXISTING REBAR TO BE REMOVED, SHALL BE PAID UNDER ITEM 544.2, REINFORCING STEEL EPOXY COATED (F) AND ITEM 544.21, REINFORCING STEEL, EPOXY COATED, MECHANICAL CONNECTORS (F).

(8) GALVANIC CORROSION PROTECTION SYSTEMS, ITEMS 540.511 AND 540.512, SHALL BE PLACED IN THE DECK AS SHOWN ON THE PLANS. SEE SPECIAL PROVISION FOR ADDITIONAL INFORMATION.

SUPERSTRUCTURE REHABILITATION NOTES

(1) BOLTS ARE MISSING AT THE LATERAL CONNECTION BRACKET (2 BOLTS). NEW $^{7}/_{8}$" DIAMETER BOLTS CONFORMING TO THE REQUIREMENTS OF ITEM 550 SHALL FILL THESE HOLES. ALL COSTS SHALL BE PAID UNDER ITEM 1002.1. REPAIRS OR REPLACEMENTS AS NEEDED - BRIDGE STRUCTURES. NO OTHER STRUCTURAL REPAIRS ARE ANTICIPATED.

(2) ITEM 538.6, BARRIER MEMBRANE, HEAT WELDED, MACHINE METHOD (F) SHALL BE LAPPED PER MANUFACTURER'S REQUIREMENTS. AT DECK ENDS, WHERE THE MEMBRANE WILL NOT LAP NEW OR EXISTING MEMBRANE, A SEALANT/REPAIR MASTIC COMPATIBLE WITH ITEM 538.6 SHALL BRIDGE ANY GAP BETWEEN THE EXISTING AND NEW MEMBRANE, OR BETWEEN THE NEW MEMBRANE AND THE END OF DECK WHEN THERE IS NO EXISTING MEMBRANE. ALL COSTS SHALL BE SUBSIDIARY TO ITEM 538.6.

(3) DURING ALL REMOVAL AND REPAIR OPERATIONS EXTREME CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING DECK REINFORCEMENT. ANY DAMAGE SHALL BE IMMEDIATELY REPORTED TO THE BUREAU OF BRIDGE DESIGN AND REPAIRED AS DIRECTED, AT THE CONTRACTOR'S EXPENSE.

(4) DURING CONCRETE END OF DECK REMOVAL OPERATIONS, EXTREME CARE SHALL BE TAKEN NOT TO DAMAGE TOP FLANGES OF EXISTING GIRDERS. ANY DAMAGE SHALL BE IMMEDIATELY REPORTED TO THE BUREAU OF BRIDGE DESIGN AND REPAIRED AS DIRECTED, AT THE CONTRACTOR'S EXPENSE.

(5) TO ACCOMPLISH THE PROPOSED EXPANSION JOINT REPAIRS, THE EXISTING DECK SHALL BE REMOVED TO LIMITS SHOWN IN THE PLANS UNDER ITEM 502., REMOVAL OF EXISTING BRIDGE STRUCTURE. ALL EXPOSED CONCRETE SURFACES OF THE DECK SHAL BE SAWCUT 1" DEEP TO PROVIDE CLEAN REMOVAL LINES (ALL COSTS INCLUDED IN ITEM 502.). NEW DECK END SHALL BE RECONSTRUCTED WITH ITEM 520.0201. PRIOR TO PLACING NEW CONCRETE, THE REMOVAL SURFACES SHALL BE BLAST CLEANED AND SATURATED SURFACE DRY (ALL COSTS INCLUDED IN ITEM 520.0201).

(6) AFTER REMOVAL OF EXISTING PAVEMENT AND MEMBRANE, THE EXISTING CONCRETE BRIDGE DECK SHALL BE "SOUNDED" TO DETERMINE AREAS REQUIRING PARTIAL AND FULL DEPTH DECK REPAIRS. ALL COSTS TO BE INCLUDED IN ITEM 511.02 OR ITEM 511.03.

(7) DETERIORATED AREAS OF DECK SHALL BE PATCHED WITH CONCRETE CLASS AA. PRIOR TO PLACING NEW CONCRETE, THE PREPARED AREAS SHALL BE BLAST CLEANED AND SATURATED SURFACE DRY (ALL COSTS SUBSIDIARY TO ITEM 520.01 OR 520.0201).

(8) UNLESS OTHERWISE NOTED, HOLES DRILLED INTO EXISTING CONCRETE SHALL BE DRILLED 1/2" DIAMETER LARGER THAN THE BAR DIAMETER AND GROUTED WITH AN APPROVED HIGH STRENGTH, NON-SHRINK CEMENTITIOUS GROUT. ALL COSTS FOR DRILLING AND GROUTING SHALL BE PAID FOR UNDER ITEM 520.0201.

(10) FOR DECK PATCHING, CURB OR BACKWALL WORK, ALL NEW REINFORCEMENT SHALL BE EPOXY COATED BARS. THE EXISTING BLACK REINFORCEMENT SHALL BE COATED WITH ANTI-CORROSION COATING AS NOTED IN THE SUPPLEMENTAL SPECIFICATION AMENDMENT TO SECTION 511. ALL COSTS SHALL BE SUBSIDIARY TO ITEM 511.0x, PREPARTATION FOR PARTIAL/FULL DEPTH CONCRETE BRIDGE DECK REPAIRS.

(11) EXPOSED SURFACES OF EXISTING ABUTMENTS, WINGS, BACKWALLS, AND BRIDGE SEATS SHALL BE WASHED, SUBSIDIARY TO ITEM 534.3. IN SUCH A MANNER THAT OVERSPRAY INTO SURFACE WATERS IS KEPT TO A MINIMUM. IF THE WATER BEADS, NO COATING NEEDS TO BE APPLIED. IF THE WATER DOES NOT BEAD COAT THE SURFACE WITH ITEM 534.3, WATER REPELLENT (SILANE-SILOXANE), APPLICATION RATE = 150 SF/GAL.

(12) RESET GRANITE APPROACH CURB AS SHOWN ON THE PLANS, ITEM 609.5.

Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	06_BridgeNotes 1	AS NOTED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER CONNECTICUT RIVER

PROJECT NOTES

BRIDGE SHEET 2 OF 19

REVISIONS AFTER PROPOSAL		BY	DATE		BY	DATE
	DESIGNED	JDG	05/2020	CHECKED	GAB	05/2020
	DRAWN	JTB	05/2020	CHECKED	JDG	05/2020
	QUANTITIES	JDG	05/2020	CHECKED	SRW	05/2020
	ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.	TOTAL SHEETS
	REV. DATE		X-A004(799)		7	31

FILE NUMBER

QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	VT QUANTITY	NH QUANTITY	TOTAL QUANTITY
304.301	CRUSHED GRAVEL	CY	---	20	20
403.119	HOT BITUMINOUS PAVEMENT, MACHINE METHOD, HIGH STRENGTH	T	275	310	585
403.12	HOT BITUMINOUS PAVEMENT, HAND METHOD	T	---	2	2
403.6	PAVEMENT JOINT ADHESIVE	LF	623	1772	2395
403.61	PAVEMENT JOINT ADHESIVE (BRIDGE BASE)	LF	712	2026	2738
403.911	HOT BITUMINOUS BRIDGE PAVEMENT, 1" BASE COURSE	T	42	119	161
403.99	TEMPORARY BITUMINOUS PAVEMENT	T	5	5	10
410.22	ASPHALT EMULSION FOR TACK COAT	GAL	240	275	515
417	COLD PLANING BITUMINOUS SURFACES	SY	248	149	397
502	REMOVAL OF EXISTING BRIDGE STRUCTURE	U	0.26	0.74	1
504.1	COMMON BRIDGE EXCAVATION (F)	CY	---	30	30
511.0001	CONCRETE BRIDGE DECK PAVEMENT REMOVAL (F)	SY	731	2080	2811
511.02	PREPARATION FOR PARTIAL DEPTH CONCRETE BRIDGE DECK REPAIRS	SY	166	474	640
511.03	PREPARATION FOR FULL DEPTH CONCRETE BRIDGE DECK REPAIRS	SY	31	89	120
512.02	PREPARATION FOR CONCRETE REPAIRS, CLASS II	SY	1	4	5
520.01	CONCRETE CLASS AA	CY	19	55	74
520.02	CONCRETE CLASS AA ABOVE FOOTINGS (F)	CY	18	21	39
520.0201	CONCRETE CLASS AA ABOVE FOOTINGS	CY	10	27	37
534.3	WATER REPELLENT (SILANE-SILOXANE)	GAL	30	66	96
538.2	BARRIER MEMBRANE, PEEL AND STICK - VERTICAL SURFACES (F)	SY	---	13	13
538.6	BARRIER MEMBRANE, HEAT WELDED - MACHINE METHOD (F)	SY	731	2081	2812
540.511	GALVANIC CORROSION PROTECTION SYSTEM (DISTRIBUTED ANODES)	LF	49	141	190
540.512	GALVANIC CORROSION PROTECTION SYSTEM (DISCRETE ANODES)	EA	741	2109	2850
541.5	PVC WATERSTOPS, NH TYPE 5 (F)	LF	---	49	49
544.2	REINFORCING STEEL, EPOXY COATED (F)	LB	1804	4013	5817
544.21	REINFORCING STEEL, EPOXY COATED, MECHANICAL CONNECTORS (F)	LB	402	624	1026
559.41	ASPHALTIC PLUG FOR CRACK CONTROL (F)	LF	13	36	49
561.1001	PREFABRICATED STRIP SEAL EXPANSION JOINT (F)	LF	13	36	49
561.3001	PREFABRICATED FINGER EXPANSION JOINT (F)	LF	13	36	49
562.1	SILICONE JOINT SEALANT (F)	LF	97	107	204
563.073	ALUMINUM POST ASSEMBLY FOR F RAIL (3-BAR)	EA	4	2	6
563.8	RESETTING BRIDGE RAIL	LF	4	2	6
565.802	ADJUSTING BRIDGE APPROACH RAIL	U	---	2	2

QUANTITIES (CONTINUED)

			VT	NH	TOTAL
609.5	RESET GRANITE CURB	LF	116	60	176
616.171	PORTABLE TRAFFIC SIGNAL SYSTEM	EACH	3	---	3
616.191	ALTERATIONS TO TRAFFIC SIGNALS	EACH	---	1	1
618.61	UNIFORMED OFFICER WITH VEHICLE	$	0.26	0.74	1
618.7	FLAGGERS	HR	208	592	800
619.1	MAINTENANCE OF TRAFFIC	U	0.26	0.74	1
619.25	PORTABLE CHANGEABLE MESSAGE SIGN	U	1	3	4
628.2	SAWED BITUMINOUS PAVEMENT	LF	141	45	186
628.22	SAWED BITUMINOUS PAVEMENT (BRIDGE)	LF	308	976	1284
632.0104	RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE	LF	735	2607	3342
632.0124	RETROREFLECTIVE PAINT PAVE. MARKING, 24" LINE	LF	20	12	32
632.0118	RETROREFLECTIVE PAINT PAVE. MARKING, 18" LINE	LF	14	38	52
632.02	RETROREFLECTIVE PAINT PAVE. MARKING, SYMBOL OR WORD	SF	---	12	12
632.911	OBLITERATE PAVEMENT MARKING LINE, 12" WIDE & UNDER	LF	75	215	290
692	MOBILIZATION	U	0.26	0.74	1
698.12	FIELD OFFICE TYPE B	MON	2	6	8
1002.1	REPAIRS OR REPLACEMENTS AS NEEDED - BRIDGE STRUCTURES	$	0.26	0.74	1
1010.15	FUEL ADJUSTMENT	$	0.26	0.74	1
1010.41	QUALITY CONTROL / QUALITY ASSURANCE (QC/QA) FOR CONCRETE	$	0.26	0.74	1

Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	02a_Quantities	AS NOTED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER CONNECTICUT RIVER

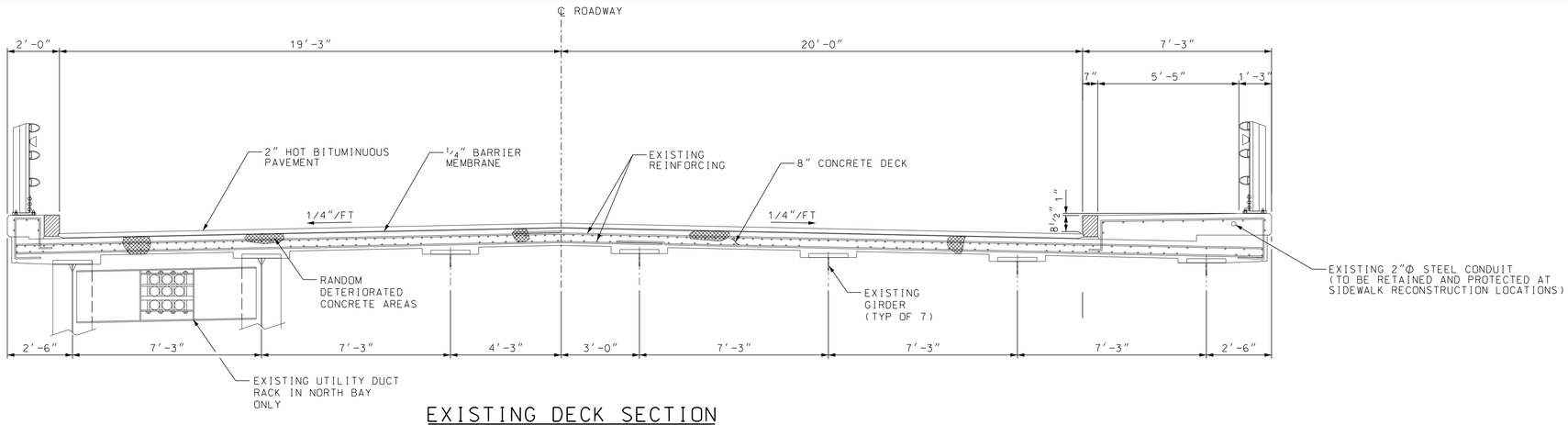
SUMMARY OF QUANTITIES

BRIDGE SHEET 3 OF 19

FILE NUMBER

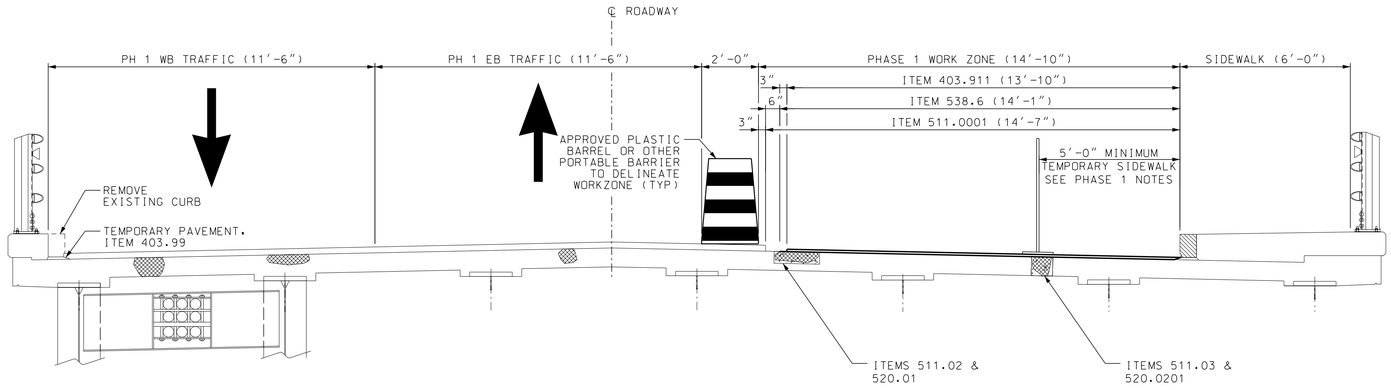
REVISIONS AFTER PROPOSAL	BY	DATE		BY	DATE
			DESIGNED JDG	05/2020	CHECKED SRW 05/2020
			DRAWN		CHECKED
			QUANTITIES		CHECKED

ISSUE DATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
REV. DATE	X-A004(799)	8	31



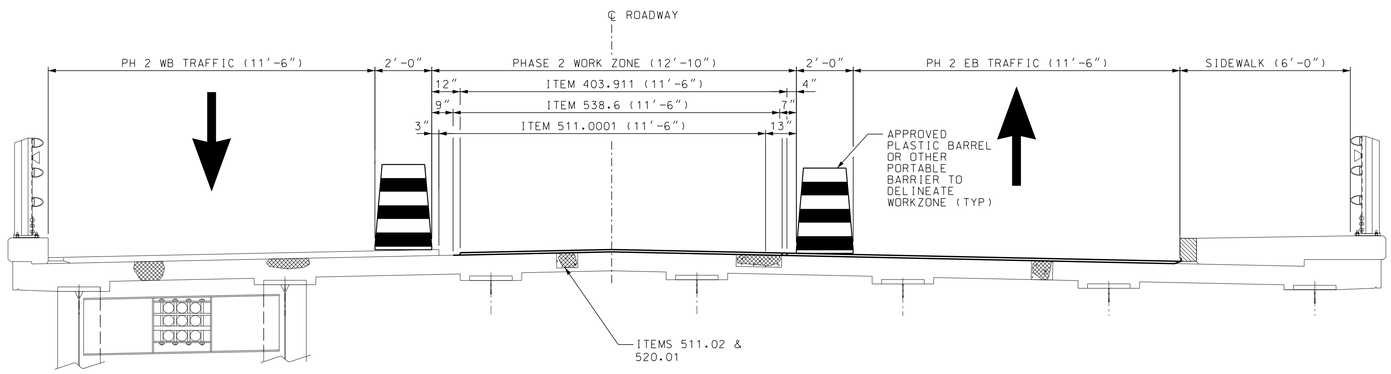
EXISTING DECK SECTION

SCALE: ⅜″=1′-0″



PHASE 1 CONSTRUCTION

SCALE: ⅜″=1′-0″



PHASE 2 CONSTRUCTION

SCALE: ⅜″=1′-0″

PHASE 1

1. REMOVE NORTHERN GRANITE CURB AND PLACE TEMPORARY PAVEMENT
2. INSTALL TRAFFIC CONTROL AND DIVERT ROADWAY AND PEDESTRIAN TRAFFIC TO TEMPORARY LOCATIONS. DETOUR TRUCK TRAFFIC
3. THE TEMPORARY SIDEWALK SHALL MEET ADA REQUIREMENTS
4. A TEMPORARY WOODEN BRIDGE OR STEEL PLATE MAY BE UTILIZED OVER THE PEDESTRIAN FACILITIES TO AVOID A FIELD SPLICE
5. ANY OPEN AREAS IN THE WORKZONE SHALL BE PLATED WHEN THE CONTRACTOR IS NOT PRESENT
6. COMPLETE AND OPEN SIDEWALK BEFORE PAVING AND MEMBRANE OPERATIONS BEGIN

PHASE 2

1. MAINTAIN WESTBOUND TRAFFIC IN NORTHERN TEMPORARY LANE.
2. SHIFT EASTBOUND TRAFFIC TO SOUTHERN TEMPORARY LANE.
3. MAINTAIN PEDESTRIAN TRAFFIC ON SIDEWALK.
4. MAINTAIN TRUCK DETOUR.

Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
HWY	42277typ	AS NOTED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER CONNECTICUT RIVER

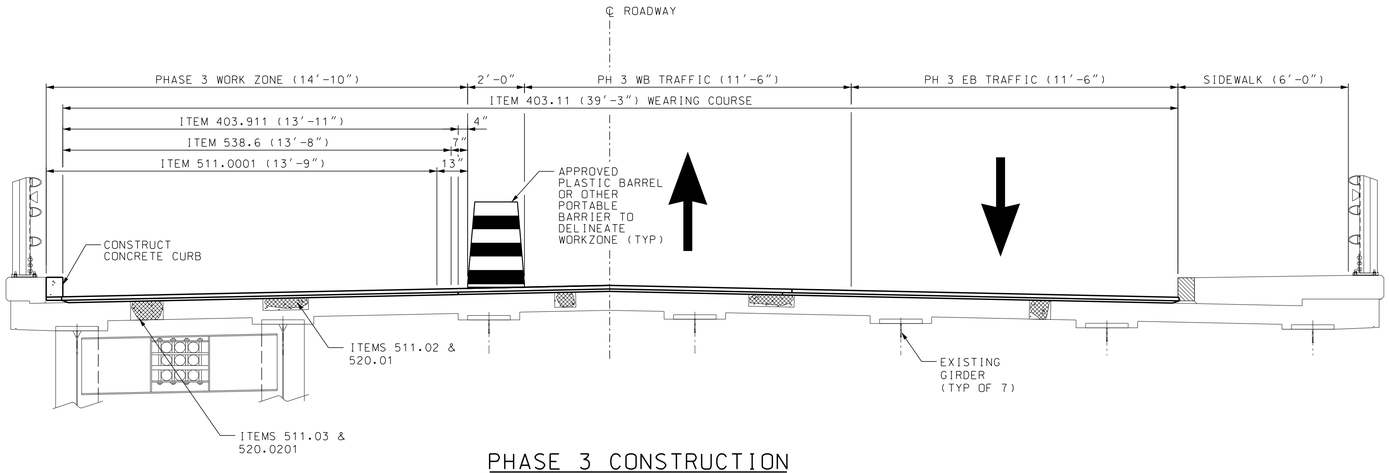
DECK PHASING 1

BRIDGE SHEET 4 OF 19

REVISIONS AFTER PROPOSAL	BY	DATE

	BY	DATE		BY	DATE
DESIGNED	ISM	04/2019	CHECKED	JDG	05/2020
DRAWN	JTB	05/2020	CHECKED	JDG	05/2020
QUANTITIES	JDG	05/2020	CHECKED	SRW	05/2020
ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.	TOTAL SHEETS
REV. DATE		X-A004(799)		9	31

FILE NUMBER

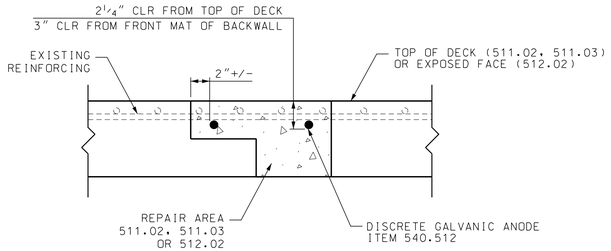


PHASE 3 CONSTRUCTION

SCALE: 3/8"=1'-0"

PHASE 3

1. SHIFT WESTBOUND TRAFFIC TO CENTER TEMPORARY LANE.
2. MAINTAIN EASTBOUND TRAFFIC IN TEMPORARY LANE.
3. MAINTAIN PEDESTRIAN TRAFFIC ON SIDEWALK.
4. MAINTAIN TRUCK DETOUR.



DISCRETE GALVANIC PROTECTION DETAIL

NOT TO SCALE

Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
HWY	42277typ	AS NOTED

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

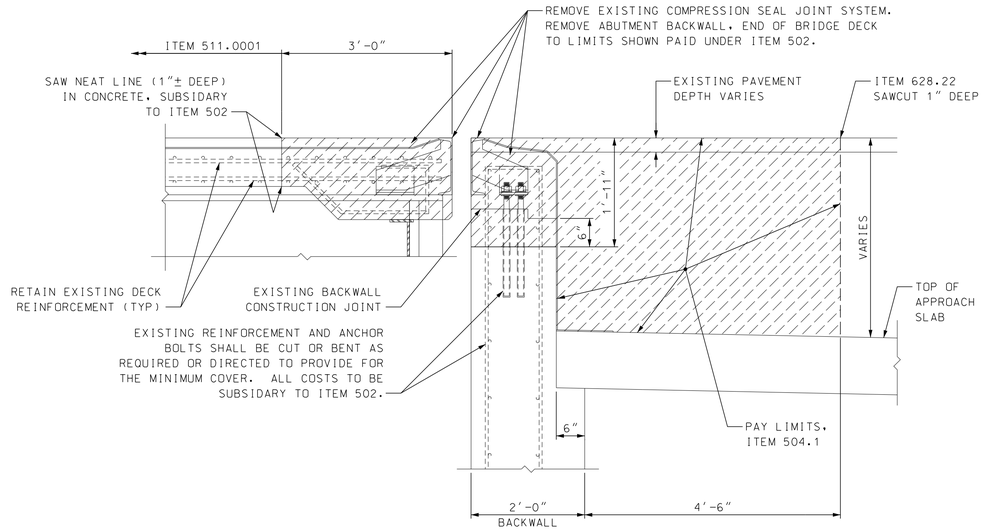
LOCATION CHURCH STREET OVER CONNECTICUT RIVER

DECK PHASING 2

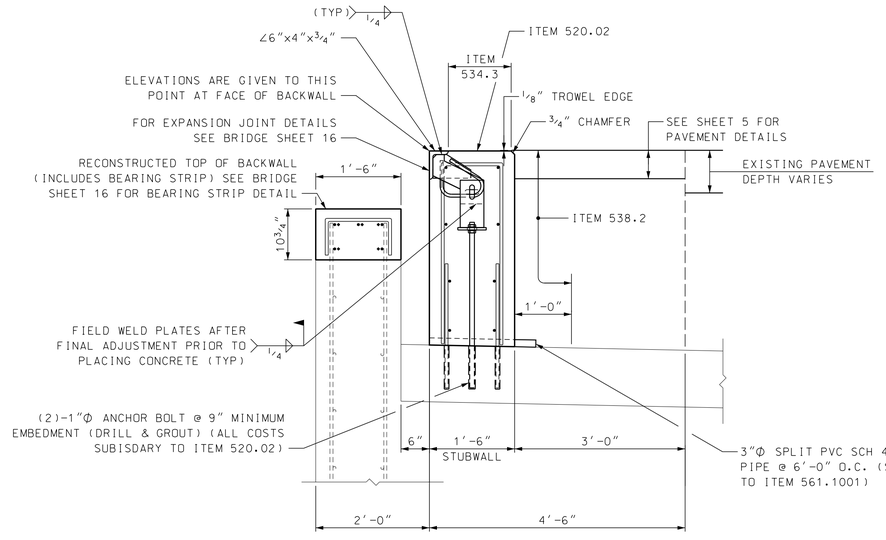
BRIDGE SHEET 5 OF 19

FILE NUMBER

REVISIONS AFTER PROPOSAL				BY	DATE		BY	DATE
			DESIGNED	ISM	04/2019	CHECKED	JDG	05/2020
			DRAWN	JTB	05/2020	CHECKED	JDG	05/2020
			QUANTITIES	JDG	05/2020	CHECKED	SRW	05/2020
			ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.	TOTAL SHEETS
			REV. DATE		X-A004(799)		10	31



SECTION A-A REMOVAL
SCALE: 3/4" = 1'-0"



SECTION A-A RECONSTRUCTION
SCALE: 3/4" = 1'-0"

NOTE:

1. FOR LOCATION OF SECTION A-A REMOVAL AND SECTION A-A RECONSTRUCTION SEE BRIDGE SHEET 7 THROUGH 9.

Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	42277phasing	AS NOTED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER CONNECTICUT RIVER

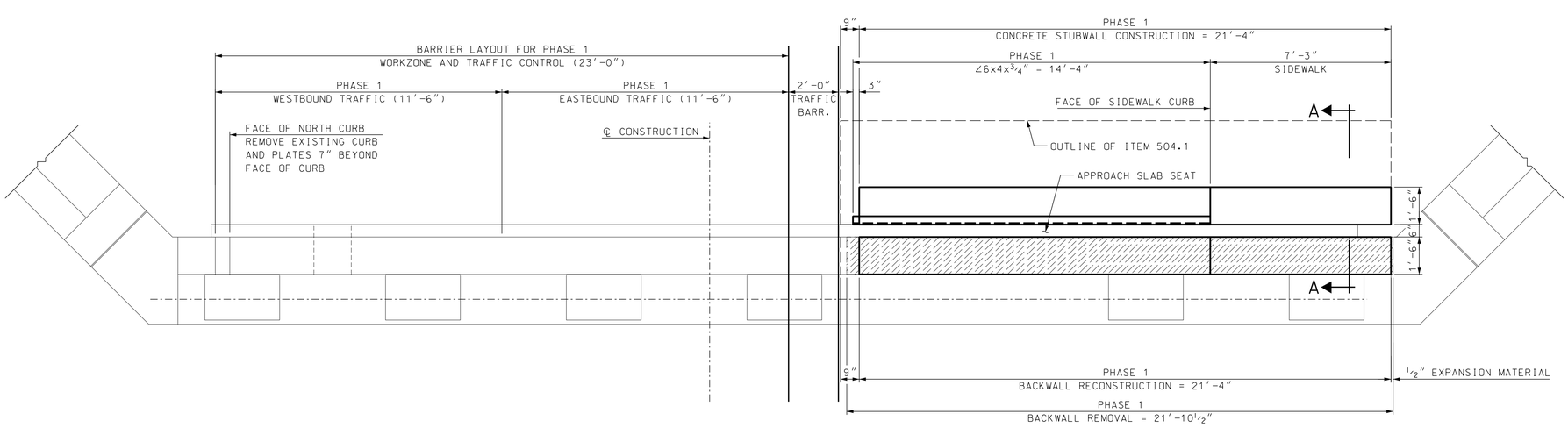
ABUTMENT B - STUBWALL SECTIONS

BRIDGE SHEET: 6 OF 19

REVISIONS AFTER PROPOSAL			BY	DATE		BY	DATE
			DESIGNED	JDG	05/2020	CHECKED	JDG	05/2020
			DRAWN	JTB	05/2020	CHECKED	JDG	05/2020
			QUANTITIES	JDG	05/2020	CHECKED	SRW	05/2020
			ISSUE DATE					
			REV. DATE					

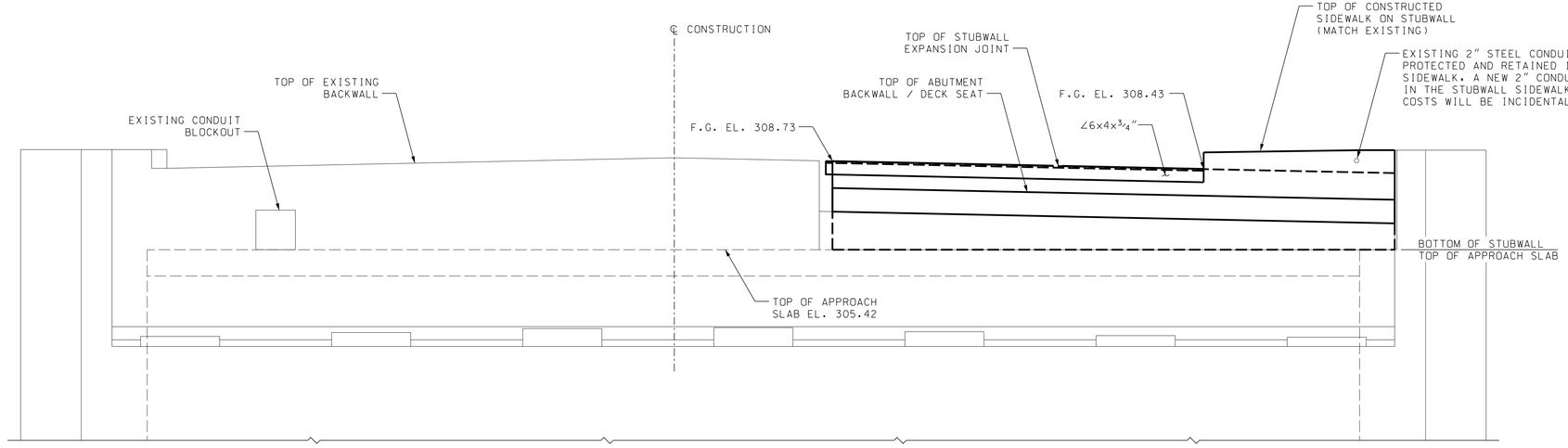
FILE NUMBER

FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A004(799)	11	31



PHASE 1 STUBWALL PLAN - ABUTMENT B

SCALE: 3/8"=1'-0"



PHASE 1 STUBWALL ELEVATION - ABUTMENT B

SCALE: 3/8"=1'-0"

NOTES:

1. F.G. ELEVATIONS ARE AT FACE OF STUBWALL.
2. FOR SECTION A-A SEE BRIDGE SHEET 6.

INDICATES BACKWALL REMOVAL

Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	42277phasing	AS NOTED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER CONNECTICUT RIVER

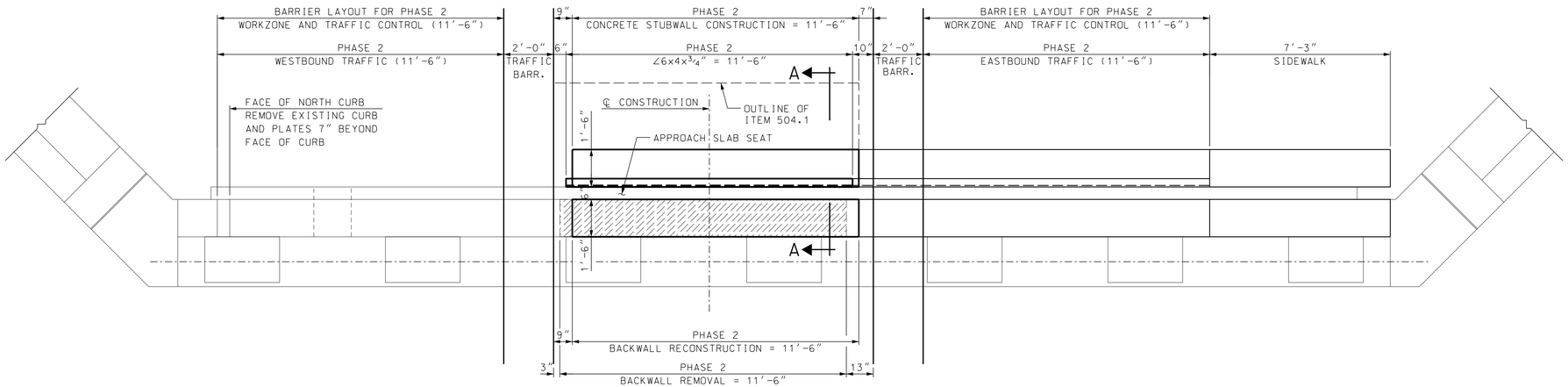
ABUTMENT B - STUBWALL PHASING 1 OF 3

BRIDGE SHEET 7 OF 19

REVISIONS AFTER PROPOSAL			BY	DATE		BY	DATE
		DESIGNED	JDG	05/2020	CHECKED	JDG	05/2020
		DRAWN	JTB	05/2020	CHECKED	JDG	05/2020
		QUANTITIES	JDG	05/2020	CHECKED	SRW	05/2020

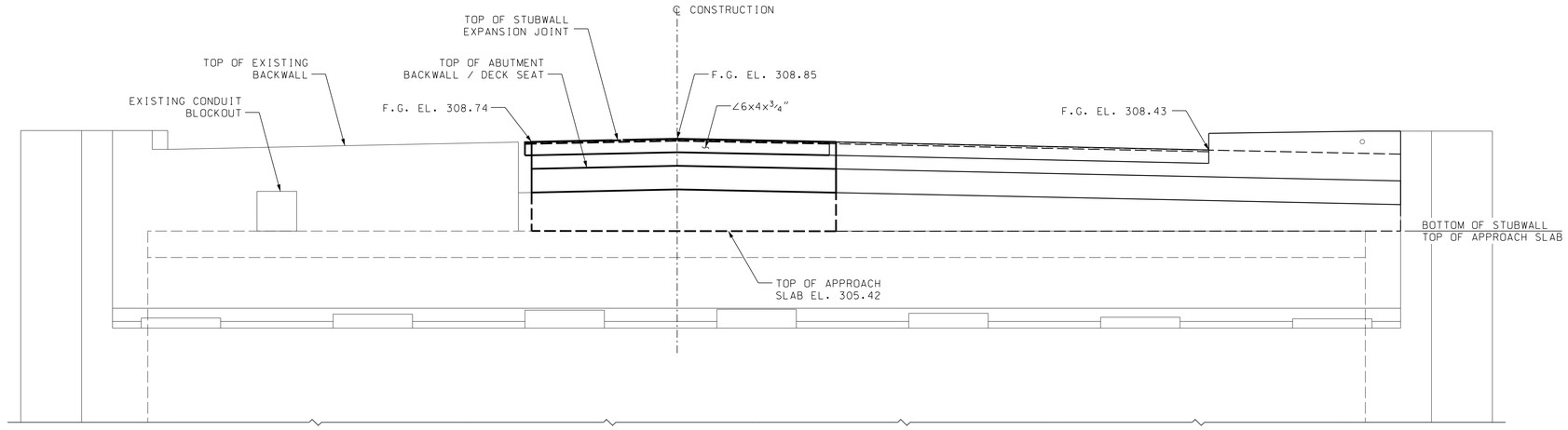
ISSUE DATE		FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
REV. DATE		X-A004(799)	12	31

FILE NUMBER



PHASE 2 STUBWALL PLAN - ABUTMENT B

SCALE: 3/8"=1'-0"



PHASE 2 STUBWALL ELEVATION - ABUTMENT B

SCALE: 3/8"=1'-0"

NOTES:

1. F.G. ELEVATIONS ARE AT FACE OF STUBWALL.
2. FOR SECTION A-A SEE BRIDGE SHEET 6.

INDICATES BACKWALL REMOVAL

Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	42277phasing	AS NOTED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

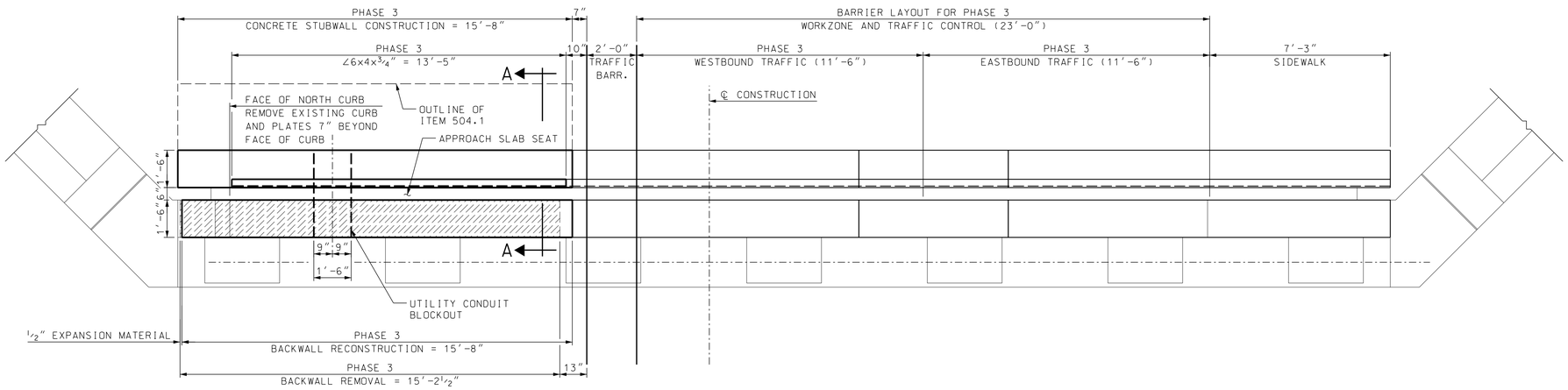
LOCATION CHURCH STREET OVER CONNECTICUT RIVER

ABUTMENT B - STUBWALL PHASING 2 OF 3

BRIDGE SHEET 8 OF 19

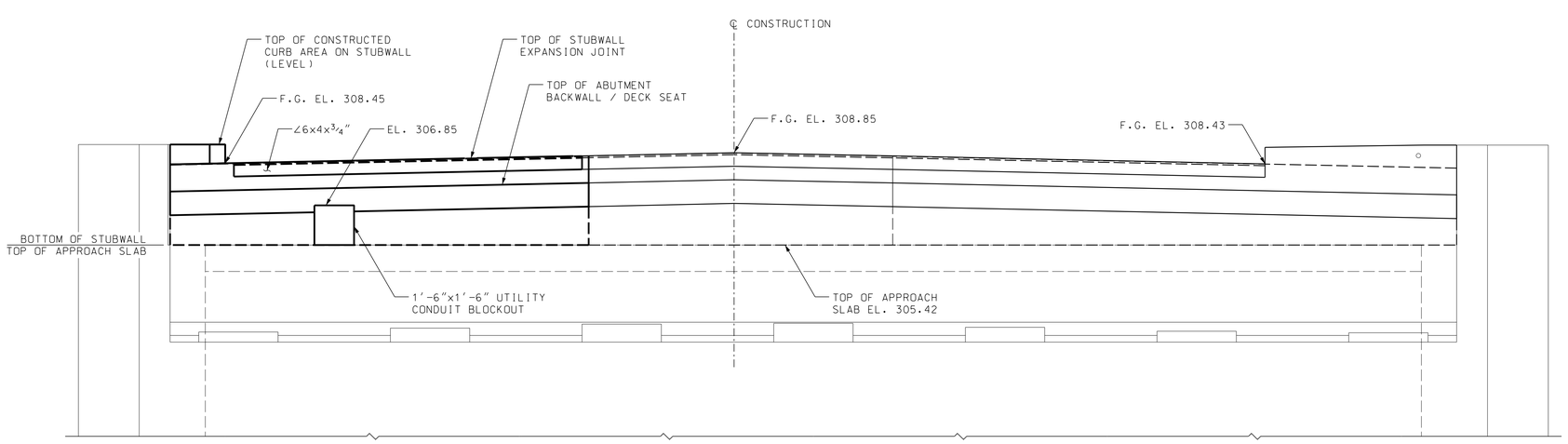
FILE NUMBER

REVISIONS AFTER PROPOSAL				BY	DATE		BY	DATE
			DESIGNED	JDG	05/2020	CHECKED	JDG	05/2020
			DRAWN	JTB	05/2020	CHECKED	JDG	05/2020
			QUANTITIES	JDG	05/2020	CHECKED	SRW	05/2020
			ISSUE DATE			FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
			REV. DATE			X-A004(799)	13	31



PHASE 3 STUBWALL PLAN - ABUTMENT B

SCALE: 3/8"=1'-0"



PHASE 3 STUBWALL ELEVATION - ABUTMENT B

SCALE: 3/8"=1'-0"

NOTES:

1. F.G. ELEVATIONS ARE AT FACE OF STUBWALL.
2. FOR SECTION A-A SEE BRIDGE SHEET 6.

INDICATES BACKWALL REMOVAL

Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	42277phasing	AS NOTED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

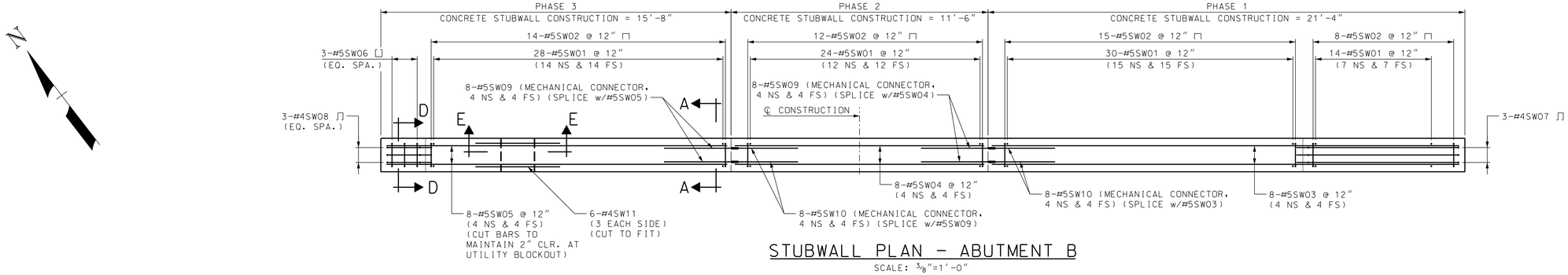
LOCATION CHURCH STREET OVER CONNECTICUT RIVER

ABUTMENT B - STUBWALL PHASING 3 OF 3

BRIDGE SHEET 9 OF 19

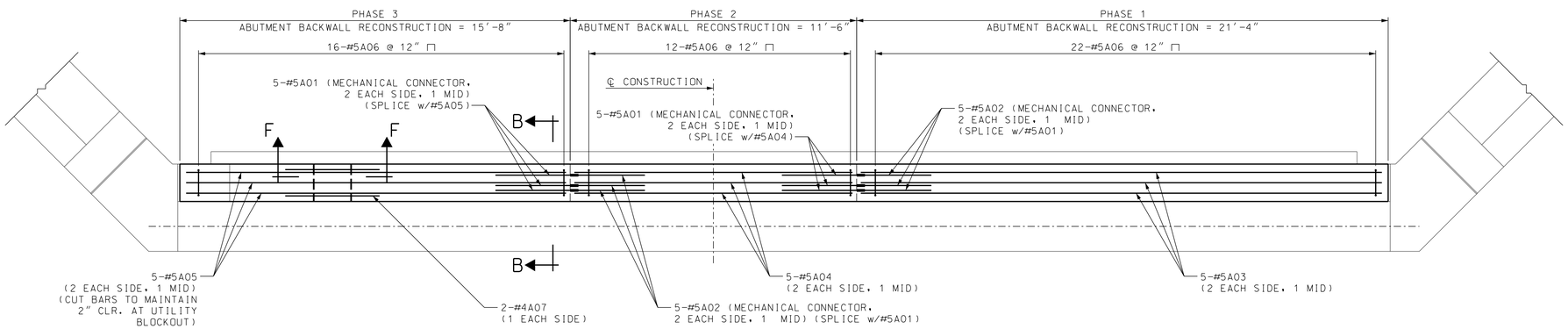
REVISIONS AFTER PROPOSAL				BY	DATE		BY	DATE
			DESIGNED	JDG	05/2020	CHECKED	JDG	05/2020
			DRAWN	JTB	05/2020	CHECKED	JDG	05/2020
			QUANTITIES	JDG	05/2020	CHECKED	SRW	05/2020
			ISSUE DATE			FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
			REV. DATE			X-A004(799)	14	31

FILE NUMBER



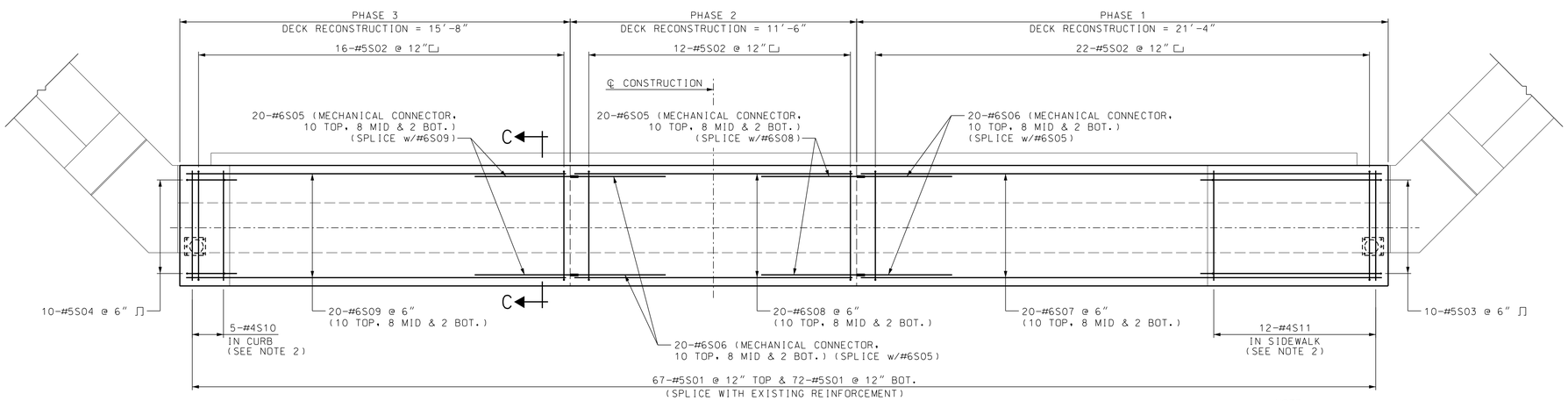
STUBWALL PLAN - ABUTMENT B

SCALE: $\frac{3}{8}$"=1'-0"



ABUTMENT BACKWALL PLAN - ABUTMENT B

SCALE: $\frac{3}{8}$"=1'-0"



DECK PLAN - ABUTMENT B

SCALE: $\frac{3}{8}$"=1'-0"

NOTE:

1. FOR SECTION A-A, B-B, C-C, D-D, E-E & F-F SEE BRIDGE SHEET 11.
2. SEE BRIDGE SHEET 12 SECTION B-B FOR SIDEWALK AND CURB REINFORCING PLACEMENT.

Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	42277phasing	AS NOTED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER CONNECTICUT RIVER

ABUTMENT B - STUBWALL REINFORCEMENT 1 OF 2

BRIDGE SHEET 10 OF 19

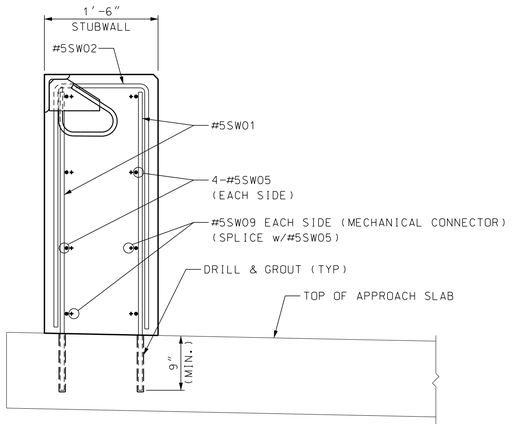
REVISIONS AFTER PROPOSAL							
					BY	DATE	
				DESIGNED	JDG	05/2020	CHECKED JDG 05/2020
				DRAWN	JTB	05/2020	CHECKED JDG 05/2020
				QUANTITIES	JDG	05/2020	CHECKED SRW 05/2020
				ISSUE DATE			
				REV. DATE			

FILE NUMBER

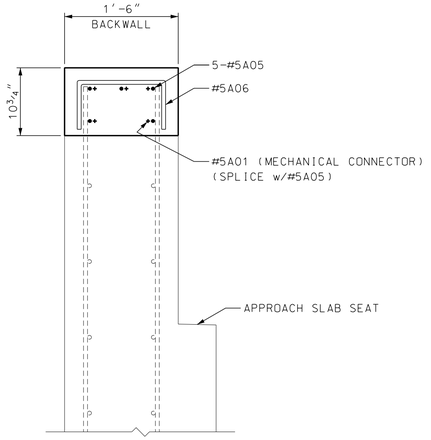
FEDERAL PROJECT NO. X-A004(799)

SHEET NO. 15

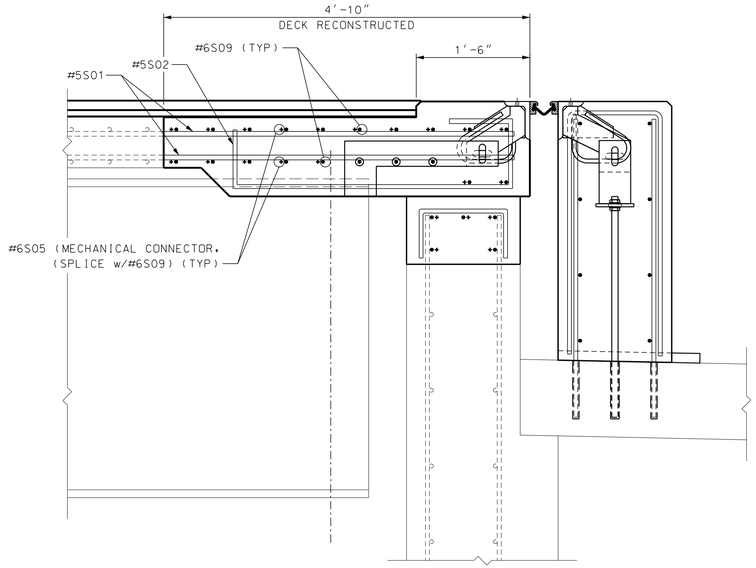
TOTAL SHEETS 31



SECTION A-A STUBWALL
SCALE: 1" = 1'-0"



SECTION B-B BACKWALL
SCALE: 1" = 1'-0"



SECTION C-C DECK
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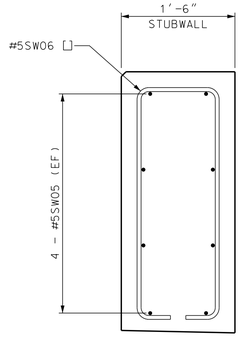
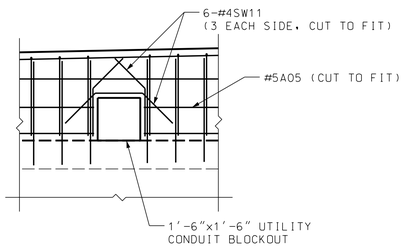
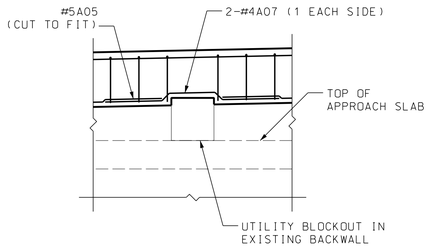


SECTION D-D STUBWALL
SCALE: 1" = 1'-0"



SECTION E-E
SCALE: ⅜"=1'-0"



SECTION F-F
SCALE: ⅜"=1'-0"

NOTE:

1. FOR LOCATION OF SECTION A-A, B-B, C-C, D-D, E-E & F-F SEE BRIDGE SHEET 10.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER CONNECTICUT RIVER

ABUTMENT B - STUBWALL REINFORCEMENT 2 OF 2

BRIDGE SHEET 11 OF 19

REVISIONS AFTER PROPOSAL							
					BY	DATE	
				DESIGNED	JDG	05/2020	CHECKED
				DRAWN	JTB	05/2020	CHECKED
				QUANTITIES	JDG	05/2020	CHECKED
				ISSUE DATE			
				REV. DATE			

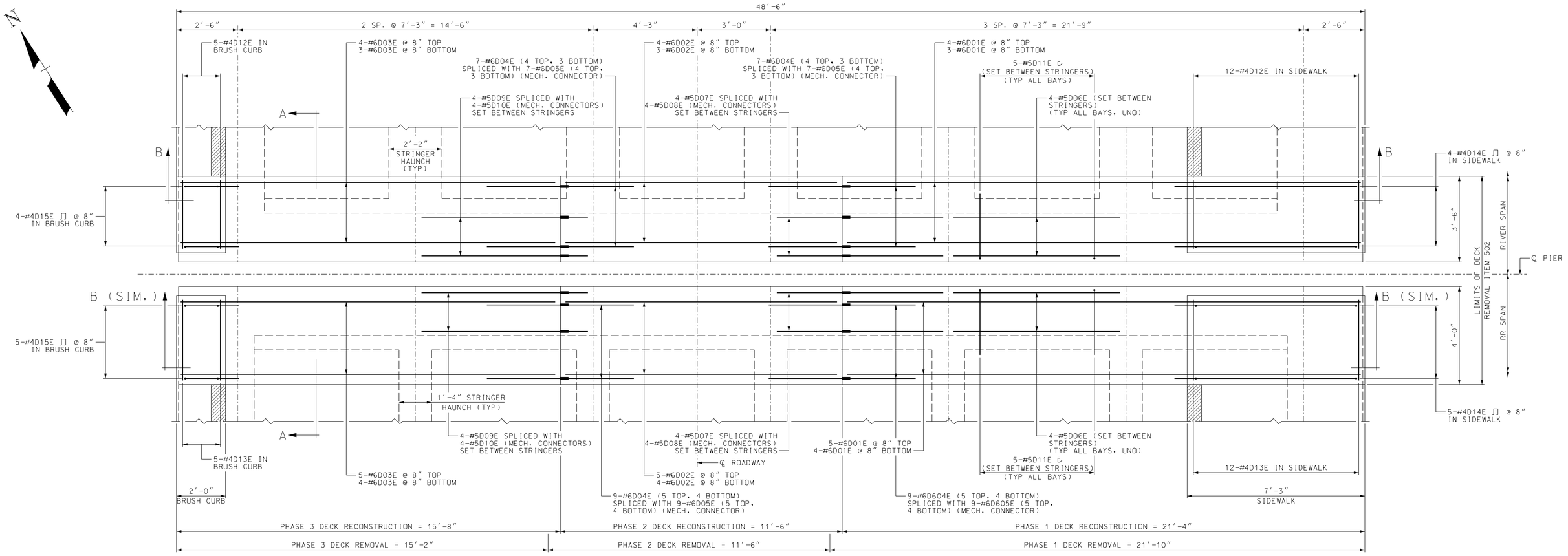
BY	DATE
JDG	05/2020
JDG	05/2020
SRW	05/2020

FILE NUMBER

FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A004(799)	16	31

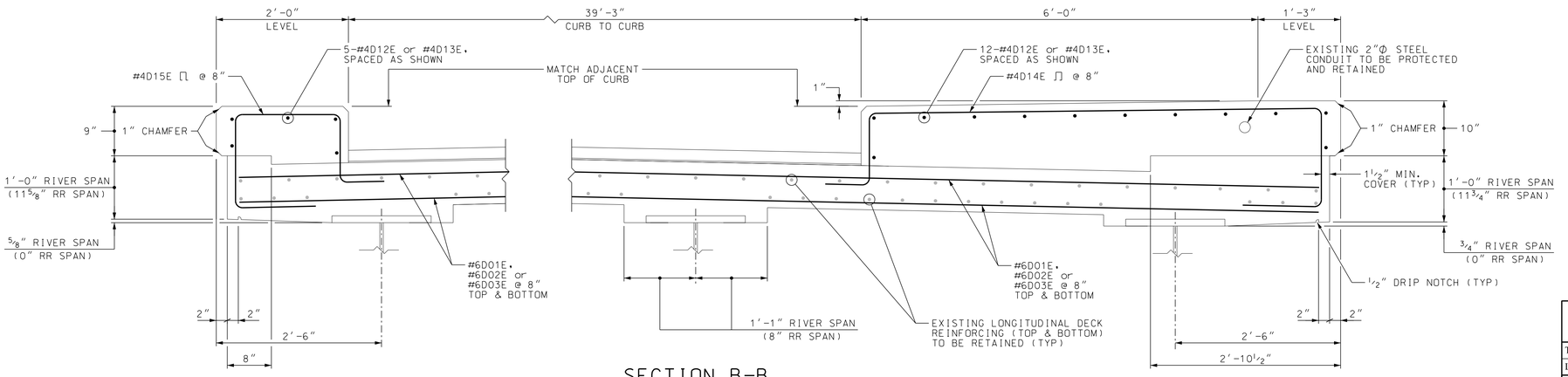
Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	42277phasing	AS NOTED



DECK PLAN – PIER 1

(EXISTING LONGITUDINAL REINFORCING TO BE RETAINED NOT SHOWN FOR CLARITY)
SCALE: 1/2″ = 1′-0″



SECTION B-B

SCALE: 1″ = 1′-0″

NOTE:

1. FOR SECTION A-A SEE BRIDGE SHEET 13.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER CONNECTICUT RIVER

DECK REINFORCING - PIER 1

BRIDGE SHEET 12 OF 19

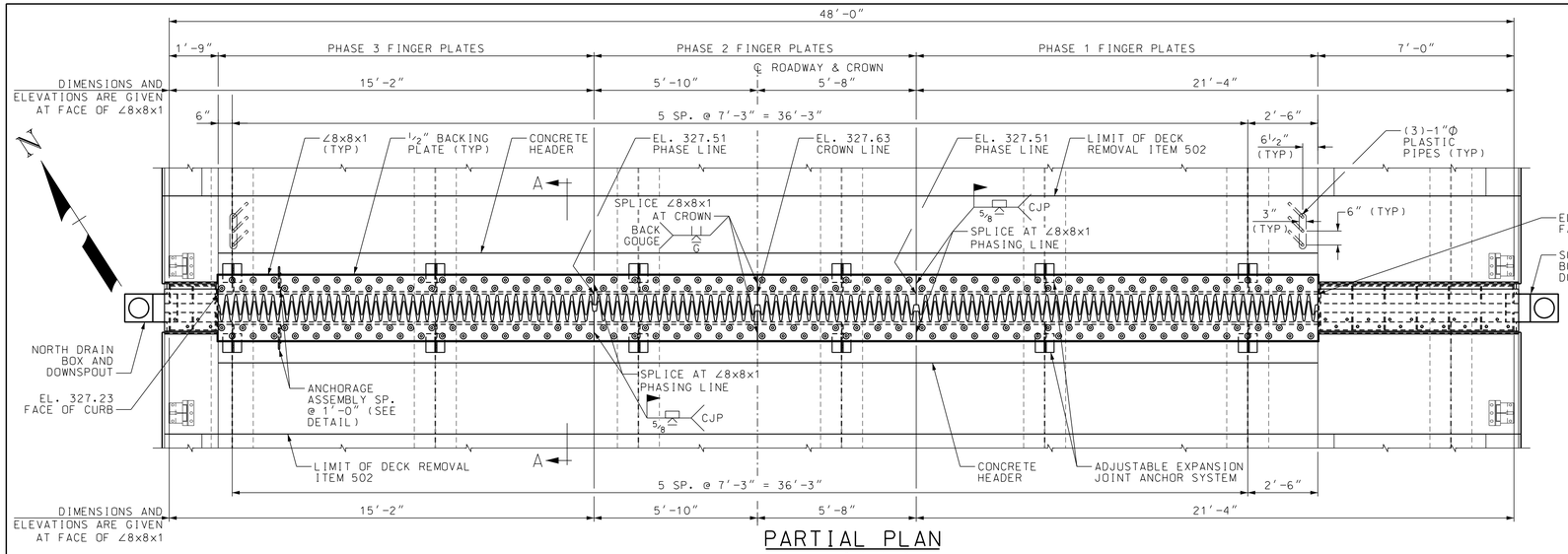
FILE NUMBER

REVISIONS AFTER PROPOSAL			BY	DATE		BY	DATE
		DESIGNED	GAB	04/2020	CHECKED	PAG	05/2020
		DRAWN	JTB	05/2020	CHECKED	PAG	05/2020
		QUANTITIES	PAG	05/2020	CHECKED	PAG	05/2020

ISSUE DATE		FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
REV. DATE		X-A004(799)	17	31

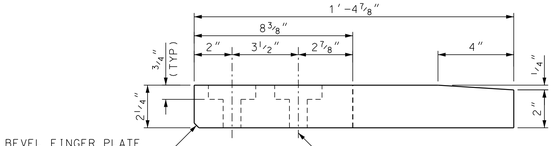
Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	42277Pier1reinf	AS NOTED



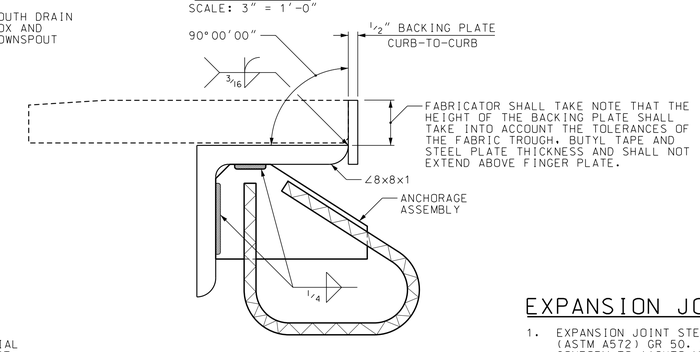
PARTIAL PLAN

SCALE: 3/8"=1'-0"



DETAIL A

SCALE: 3" = 1'-0"

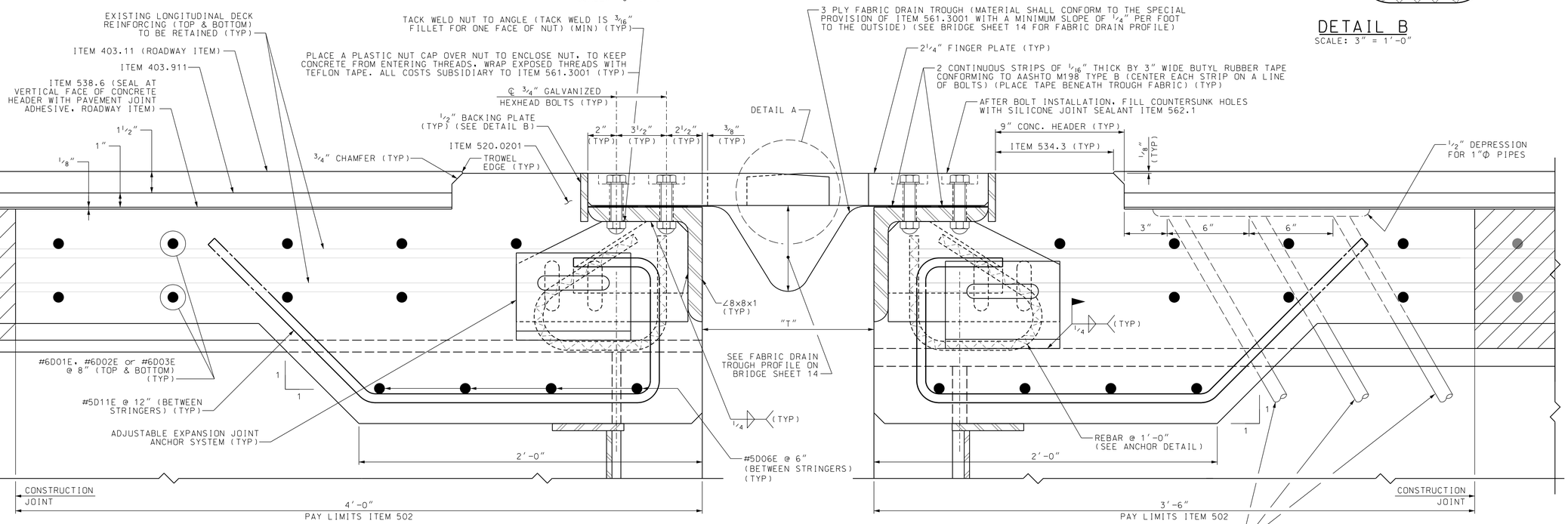


DETAIL B

SCALE: 3" = 1'-0"

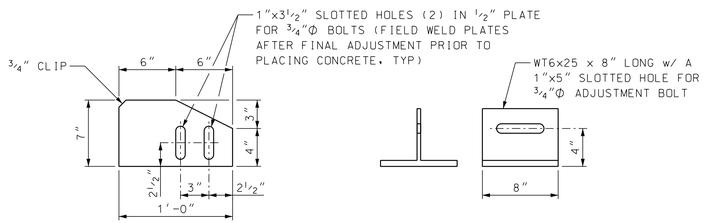
EXPANSION JOINT NOTES

1. EXPANSION JOINT STEEL SHALL BE AASHTO M223 (ASTM A572) GR 50. MINOR STEEL PLATES MAY CONFORM TO AASHTO M183 (ASTM A36). ALL STEEL SHALL BE GALVANIZED. THE ENTIRE ASSEMBLY SHALL BE PAID AS ITEM 561.3001, PREFABRICATED FINGER EXPANSION JOINT (F).
2. BOLTS IN THE CURBS OR SIDEWALKS SHALL BE STAINLESS STEEL COUNTERSUNK HEAD BOLTS WITH SOCKET HEADS AND SHALL CONFORM TO ASTM A276, TYPE 304. BOLTS IN THE ROADWAY SHALL BE GALVANIZED HIGH-STRENGTH BOLTS AND SHALL CONFORM TO ASTM A325.
3. SPLICES FOR EXPANSION JOINT STEEL SHALL DEVELOP FULL STRENGTH.
4. THE EXPANSION JOINT SHALL BE PRESET TO THE TEMPERATURE ANTICIPATED AT THE TIME OF INSTALLATION. FINAL SETTING IN THE FIELD SHALL BE DETERMINED BY THE CONTRACT ADMINISTRATOR (SEE TEMPERATURE ADJUSTMENT TABLE). THE MAXIMUM FACTORED MOVEMENT IS 5 3/8 INCHES.
5. PROTECT TOP OF EXPANSION JOINT DURING PLACEMENT OF CONCRETE AND BITUMINOUS PAVEMENT.
6. JOINT SUPPORT PLATES SHALL BE SHOP WELDED TO THE EXPANSION JOINT STEEL AND SHALL BE VERTICAL AFTER THE JOINT ASSEMBLY HAS BEEN ADJUSTED FOR ROADWAY CROSS-SLOPE AND PROFILE GRADE.
7. FASCIA AND CURB PLATES SHALL BE SHOP WELDED AND SHALL BE VERTICAL AFTER THE JOINT ASSEMBLY HAS BEEN ADJUSTED FOR ROADWAY CROSS-SLOPE AND GRADE.
8. IMMEDIATELY AFTER THE JOINT HAS BEEN SECURED TO THE STRUCTURAL STEEL, REMOVE SHIPPING DEVICES. WELDING OF SHIPPING DEVICES TO THE FINGER PLATE SHALL NOT BE ALLOWED.
9. THE FINGER PLATES SHALL BE CUT FROM ONE CONTINUOUS 2'-1 1/4" WIDE x 2 1/4" THICK PLATE AS SHOWN ON THE FINGER CUTTING DETAIL.
10. ELEVATIONS SHOWN AT THE TOP OF FINGER PLATES ARE 1/8" LOWER THAN THE PROPOSED FINISHED ROADWAY GRADE.
11. SEE BRIDGE SHEET 15 FOR DOWNSPOUT DETAILS AND NOTES.
12. THE FABRIC TROUGH SHALL BE PREFORMED FABRIC MATERIAL AND SHALL BE CUT DURING SHOP PRE-ASSEMBLY. THE TROUGH MAY BE SUPPLIED IN 4 LENGTHS WITH 1'-0" OVERLAP AT PHASING LINES AND AT THE CROWN.
13. TRIM EXCESS FABRIC BEHIND CURB PLATES.
14. AFTER BOLT INSTALLATION, FILL COUNTERSUNK HOLES WITH ITEM 562.1, SILICONE JOINT SEALANT (F) (APPROX. 1 LF/HOLE).



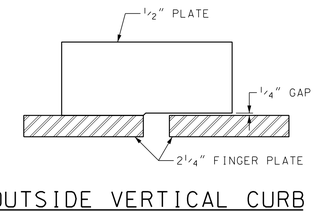
SECTION A-A

SCALE: 3"=1'-0"



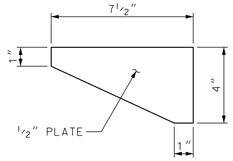
ADJUSTABLE EXPANSION JOINT ANCHOR SYSTEM

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



OUTSIDE VERTICAL CURB PLATE DETAIL

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



STIFFENER PLATE

SCALE: 3" = 1'-0"

TEMPERATURE ADJUSTMENT TABLE

TEMPERATURE	"T"
15°F	14"
30°F	13 7/16"
45°F	12 15/16"
60°F	12 3/8"
75°F	11 7/8"
90°F	11 5/16"

Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	42277FingerJt	AS NOTED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER CONNECTICUT RIVER

FINGER PLATE EXPANSION JOINT DETAILS (1 OF 3)

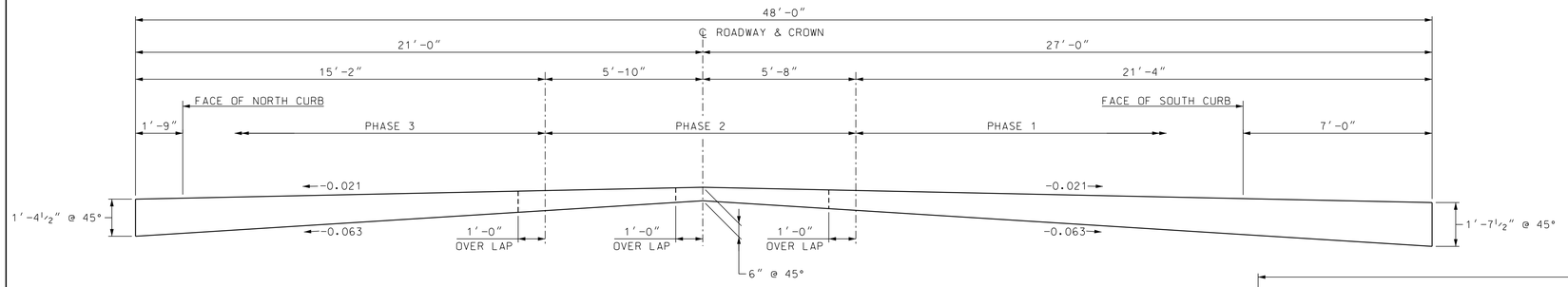
BRIDGE SHEET 13 OF 19

REVISIONS AFTER PROPOSAL

	BY	DATE		BY	DATE
DESIGNED	GAB	04/2020	CHECKED	PAG	05/2020
DRAWN	JTB	05/2020	CHECKED	PAG	05/2020
QUANTITIES	PAG	05/2020	CHECKED	PAG	05/2020

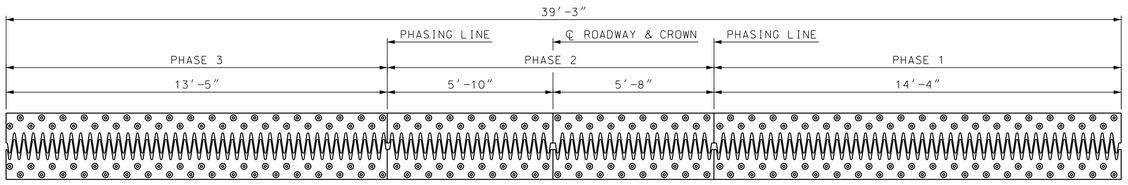
FILE NUMBER

ISSUE DATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
REV. DATE	X-A004(799)	18	31



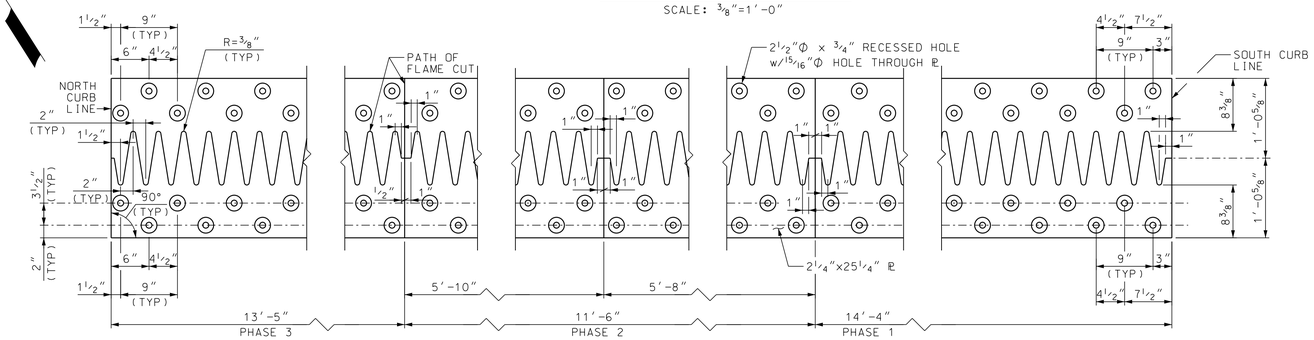
FABRIC DRAIN TROUGH PROFILE

SCALE: $\frac{3}{8}$″=1′-0″



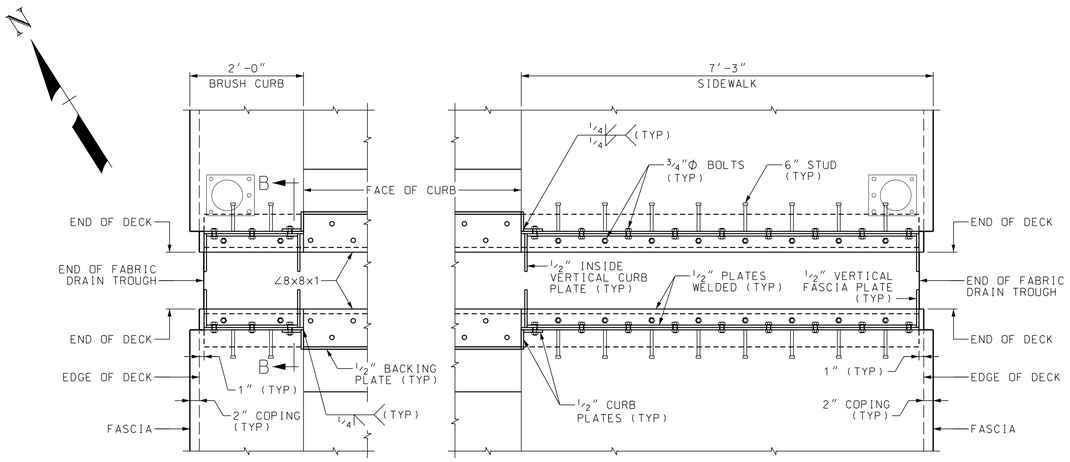
FINGER PLATE PLAN

SCALE: $\frac{3}{8}$″=1′-0″



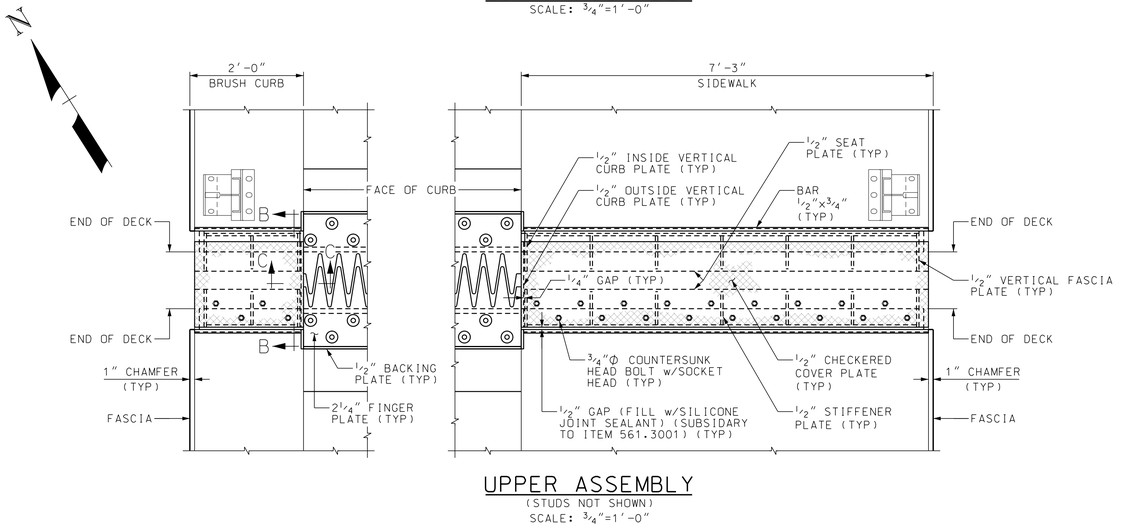
FINGER CUTTING PLATE DETAIL

SCALE: 1″=1′-0″



LOWER ASSEMBLY

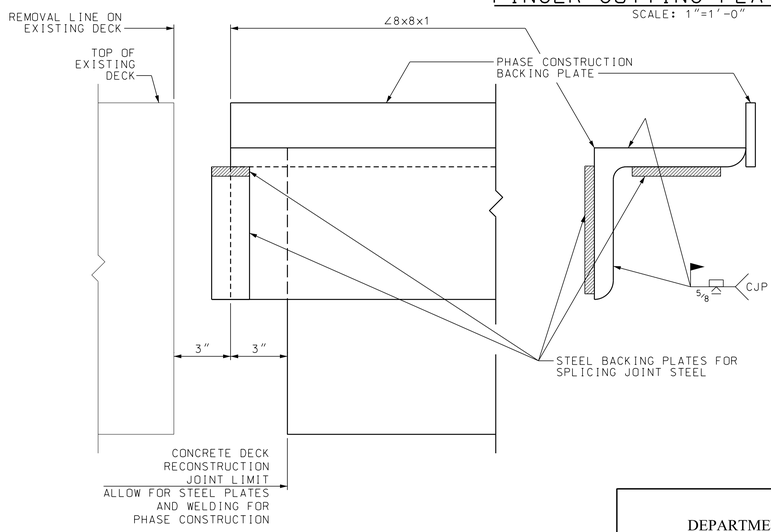
SCALE: $\frac{3}{4}$″=1′-0″



UPPER ASSEMBLY

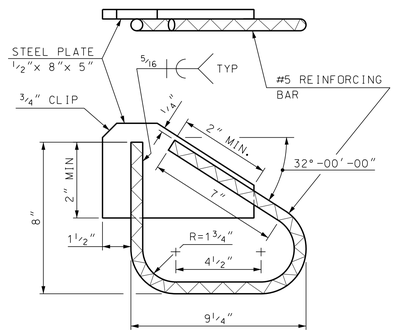
(STUDS NOT SHOWN)

SCALE: $\frac{3}{4}$″=1′-0″



PHASE CONSTRUCTION FIELD WELD SPLICE DETAILS

NOT TO SCALE



ANCHOR DETAIL

SCALE: 3″ = 1′-0″

Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	42277FingerJt	AS NOTED

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

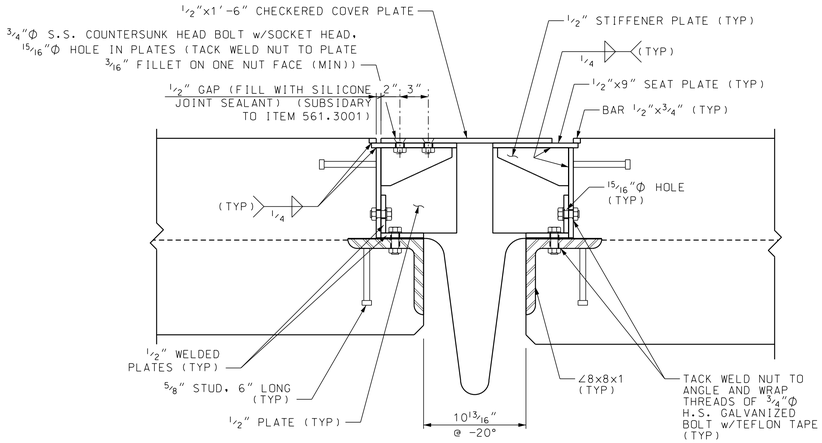
LOCATION CHURCH STREET OVER CONNECTICUT RIVER

FINGER PLATE EXPANSION JOINT DETAILS (2 OF 3)

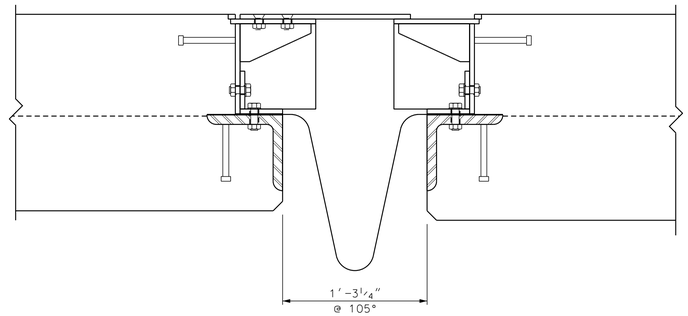
BRIDGE SHEET 14 OF 19

FILE NUMBER

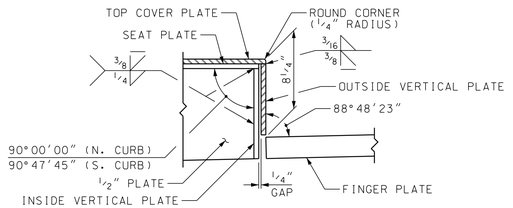
REVISIONS AFTER PROPOSAL		BY	DATE		BY	DATE
	DESIGNED	GAB	04/2020	CHECKED	PAG	05/2020
	DRAWN	JTB	05/2020	CHECKED	PAG	05/2020
	QUANTITIES	PAG	05/2020	CHECKED	PAG	05/2020
	ISSUE DATE			FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
	REV. DATE			X-A004(799)	19	31



SECTION B-B
SCALE: 1 1/2"=1'-0"
(MIN. OPENING)



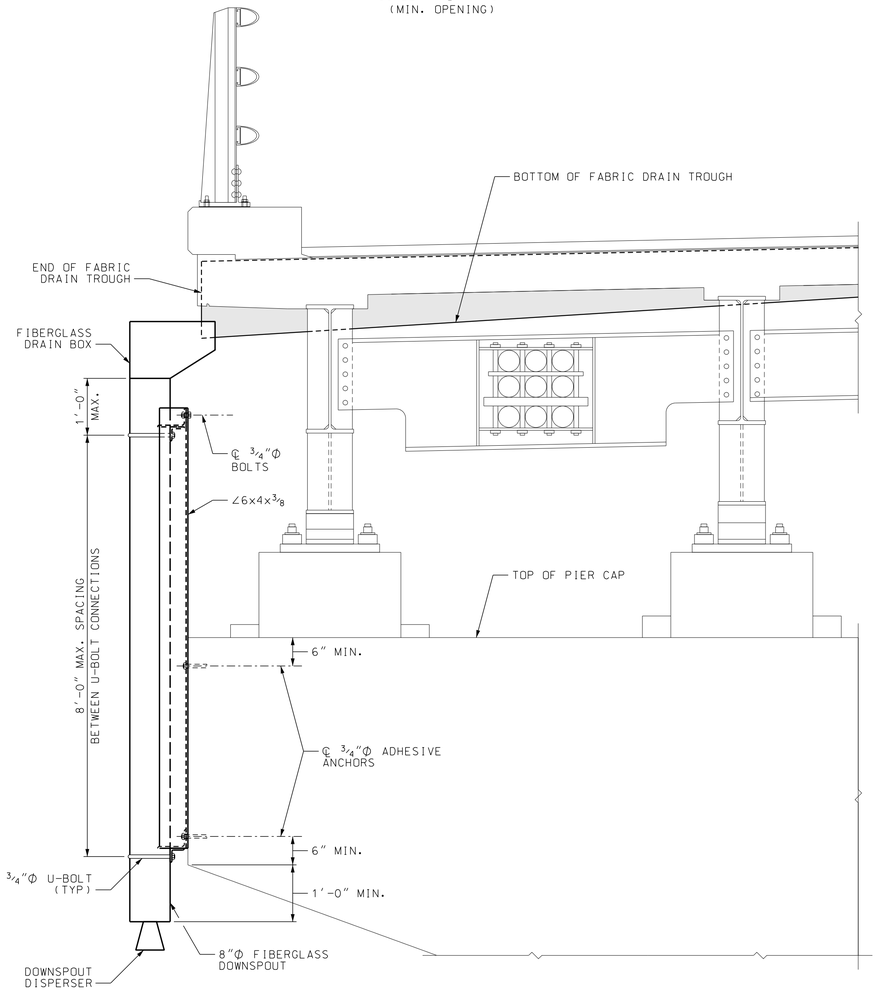
SECTION B-B
SCALE: 1 1/2"=1'-0"
(MAX. OPENING)



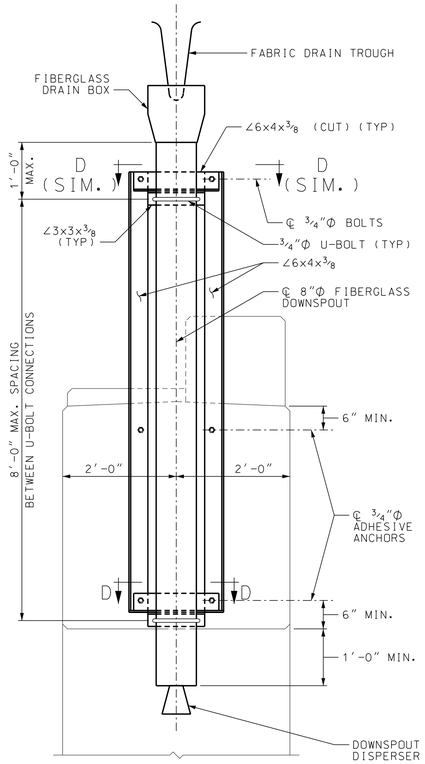
SECTION C-C
SCALE: 1 1/2" = 1'-0"

DOWNSPOUT NOTES

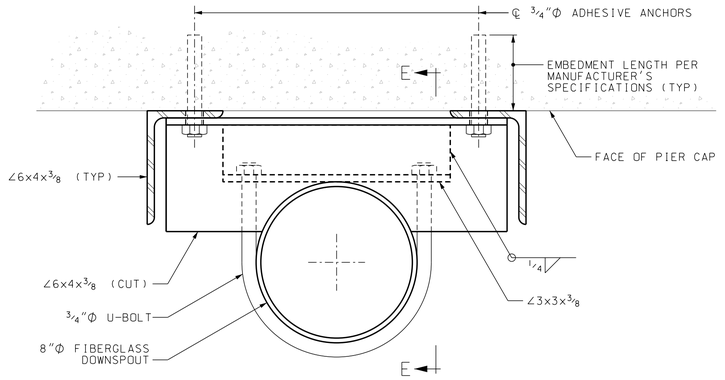
1. TWO (2) NEW FIBERGLASS DOWNSPOUT ASSEMBLIES SHALL BE INSTALLED, ONE AT EACH END OF THE NEW FABRIC DRAIN TROUGH.
2. THE FIBERGLASS DOWNSPOUT PIPE AND COMPONENT FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM D 2996. THE FINAL COLOR OF THE FIBERGLASS PIPE SHALL BE PIGMENTED CONCRETE GRAY.
3. STEEL ANGLES USED FOR DOWNSPOUT SUPPORT ASSEMBLIES SHALL BE A36 STEEL AND SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 550. ALL BOLTS AND RELATED HARDWARE SHALL BE ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 550.
4. PAYMENT FOR FIBERGLASS DRAIN BOXES, DOWNSPOUTS, STEEL ANGLES AND ATTACHMENT HARDWARE WILL BE SUBSIDIARY TO ITEM 561.3001.



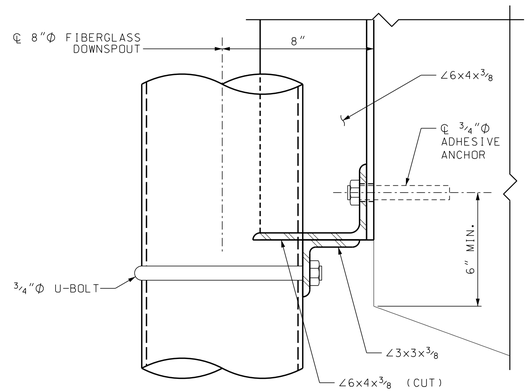
ELEVATION - DRAIN TROUGH & DOWNSPOUT
SCALE: 3/4" = 1'-0"



END ELEVATION - DRAIN TROUGH & DOWNSPOUT
SCALE: 3/4" = 1'-0"



SECTION D-D
SCALE: 3" = 1'-0"



SECTION E-E
SCALE: 3" = 1'-0"

Stantec

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	42277FingerJt	AS NOTED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER CONNECTICUT RIVER

FINGER PLATE EXPANSION JOINT DETAILS (3 OF 3)

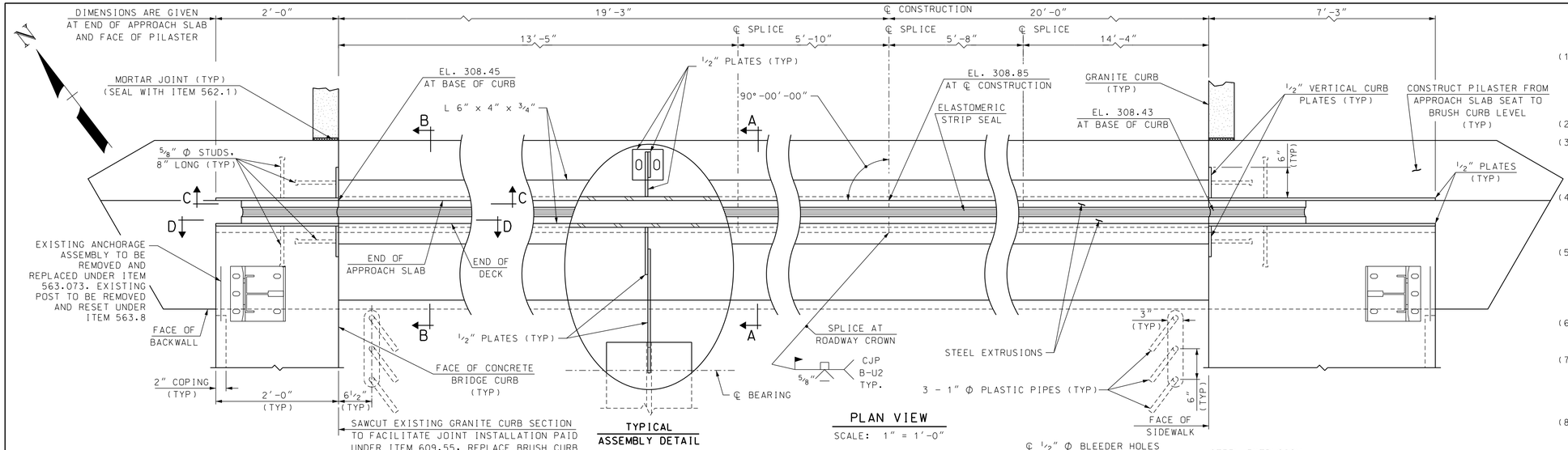
BRIDGE SHEET 15 OF 19

REVISIONS AFTER PROPOSAL	BY	DATE

	BY	DATE		BY	DATE
DESIGNED	GAB	04/2020	CHECKED	PAG	05/2020
DRAWN	JTB	05/2020	CHECKED	PAG	05/2020
QUANTITIES	PAG	05/2020	CHECKED	PAG	05/2020

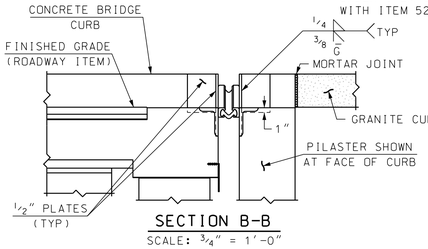
FILE NUMBER

ISSUE DATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
REV. DATE	X-A004(799)	20	31

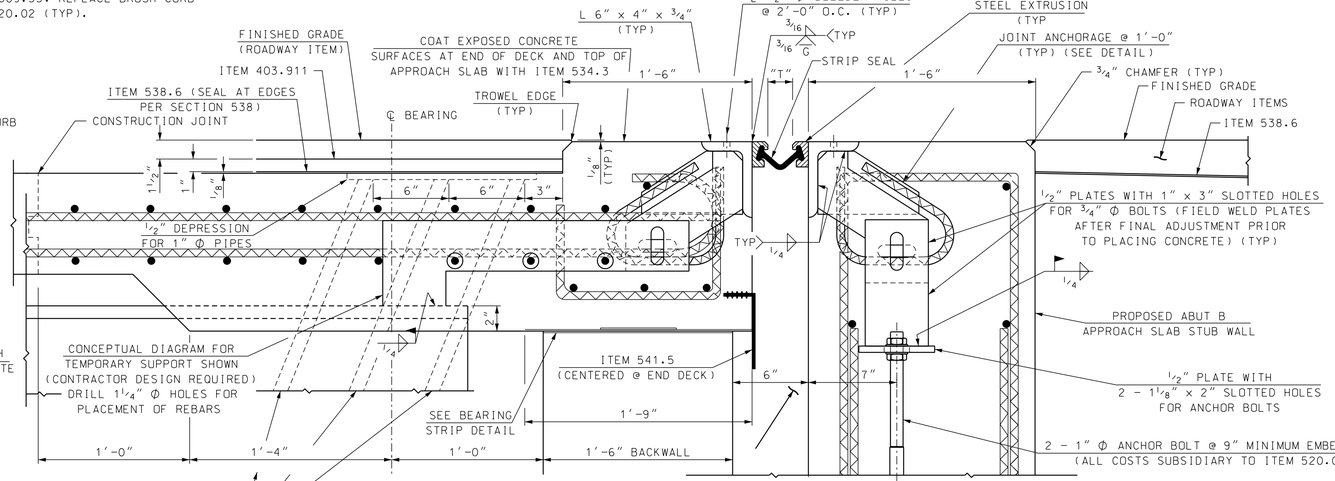


TYPICAL ASSEMBLY DETAIL

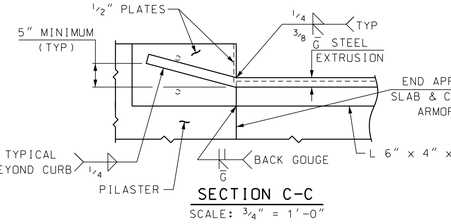
PLAN VIEW
SCALE: 1" = 1'-0"



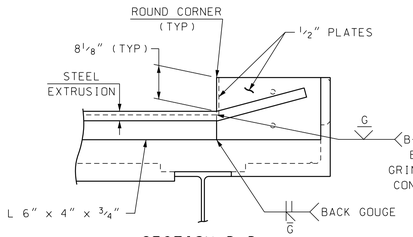
SECTION B-B
SCALE: 3/4" = 1'-0"



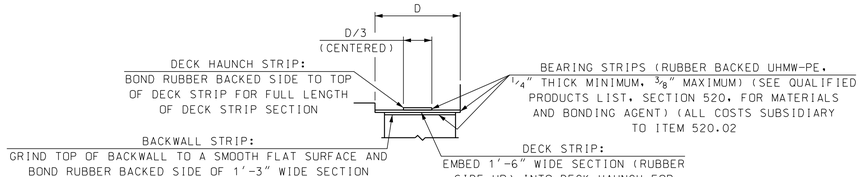
SECTION A-A
SCALE: 2" = 1'-0"



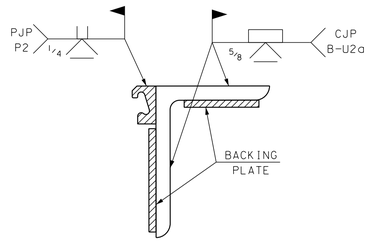
SECTION C-C
SCALE: 3/4" = 1'-0"



SECTION D-D
SCALE: 3/4" = 1'-0"



BEARING STRIP DETAIL
NOT TO SCALE



FIELD SPLICE WELD DETAIL

EXPANSION JOINT NOTES

(1) ALL EXPANSION JOINT STEEL, INCLUDING ANCHORS, SHALL BE GALVANIZED. STEEL ANGLES SHALL BE ASTM A572 GRADE 50. MINOR STEEL PLATES MAY CONFORM TO ASTM A36. THE ENTIRE ASSEMBLY, INCLUDING STRIP SEAL, SHALL BE PAID FOR AS ITEM 561.1001, PREFABRICATED STRIP SEAL EXPANSION JOINT (F).

(2) SPLICES FOR STEEL ANGLES SHALL DEVELOP FULL STRENGTH.

(3) EXPANSION JOINT OPENING SHALL BE ADJUSTED TO TEMPERATURE ANTICIPATED JUST PRIOR TO POURING DECK BLOCKOUT. FINAL SETTING IN THE FIELD SHALL BE DETERMINED BY THE CONTRACT ADMINISTRATOR. SEE TEMPERATURE ADJUSTMENT TABLE & NOTES.

(4) STRIP SEAL SHALL BE FURNISHED IN ONE CONTINUOUS LENGTH. NO SPLICES WILL BE ALLOWED. SEAL SHALL BE INSTALLED IN THE FIELD BY THE CONTRACTOR, IN ACCORDANCE WITH THE MANUFACTURER OF THE SEAL, USING AN APPROVED TOOL THAT WILL NOT DAMAGE THE SEAL.

(5) JOINT SUPPORT PLATES AND CURB PLATES SHALL BE SHOP WELDED TO EXPANSION JOINT STEEL AND SHALL BE NORMAL TO GRADE AFTER JOINT ASSEMBLY HAS BEEN ADJUSTED FOR ROADWAY CROSS-SLOPE AND GRADE. STEEL ANGLES AND EXTRUSIONS SHALL BE ASSEMBLED WITH A CONSTANT JOINT OPENING TO ENSURE PROPER PERFORMANCE AND WATER TIGHTNESS.

(6) THE EXPANSION JOINT ASSEMBLY SHALL BE INSTALLED ONLY AFTER BOTH ABUTMENTS HAVE BEEN BACKFILLED TO WITHIN 3'-0" OF FINISHED GRADE.

(7) IMMEDIATELY AFTER THE JOINT HAS BEEN SECURED TO THE STRUCTURAL STEEL AND BACKWALL, REMOVE SHIPPING DEVICES AND GRIND SMOOTH ANY WELDS ON EXPOSED SURFACES. REPAIR ANY DAMAGE TO GALVANIZED SURFACES IN ACCORDANCE WITH SECTION 550.

(8) PROTECT TOP OF EXPANSION JOINT DURING PLACEMENT OF CONCRETE AND BITUMINOUS PAVEMENT.

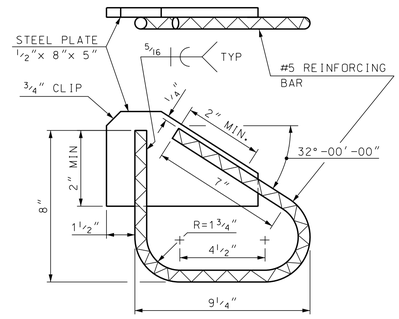
(9) THE STRIP SEAL HAS BEEN DESIGNED FOR A TOTAL FACTORED MOVEMENT OF 2.1 INCHES. DESIGN INCLUDES MOVEMENT DUE TO TEMPERATURE, SKEW, SHRINKAGE AND MINIMUM INSTALLATION WIDTH. THE CONTRACTOR SHALL USE AN SE-400 SEAL BY WATSON BOWMAN OR A2R-400 BY D.S. BROWN, AS NOTED IN THE QPL.

(10) ELEVATIONS SHOWN AT TOP OF ANGLES ARE 1/8" LOWER THAN PROPOSED FINISHED ROADWAY GRADE.

(11) NO "LOW PROFILE" STEEL EXTRUSIONS SHALL BE ALLOWED. SEE QPL FOR APPROVED PRODUCTS.

(12) PRIOR TO INSTALLING THE SEAL, ALL TEMPORARY FORM WORK SHALL BE REMOVED. STEEL ANGLES AND EXTRUSIONS SHALL BE MAINTAINED FREE FROM DIRT, WATER AND ANY OTHER LOOSE DEBRIS, WITH THE USE OF COMPRESSED AIR, TO ENSURE PROPER FIT OF THE SEAL. CARE SHALL BE TAKEN NOT TO DAMAGE GALVANIZED SURFACES.

(13) A TEMPORARY SEAL(S) SHALL BE INSTALLED PRIOR TO THE START OF THE WINTER MAINTENANCE PERIOD FOR ALL JOINT ASSEMBLIES OR PORTIONS THEREOF THAT WILL BE IN PLACE THROUGHOUT THE WINTER. ALL TEMPORARY SEALS SHALL BE REMOVED AND JOINT OPENINGS AND SUBSTRUCTURE SHALL BE CLEANED PRIOR TO INSTALLING THE FINAL SEAL. ALL COSTS SHALL BE SUBSIDIARY TO ITEM 561.1001.



ANCHOR DETAIL (90° CROSSING)
SCALE: 3" = 1'-0"

TEMPERATURE ADJUSTMENT TABLE	
TEMPERATURE	"T"
20°F	2 3/8"
35°F	2 3/16"
50°F	1 15/16"
65°F	1 3/4"
80°F	1 9/16"
95°F	1 5/16"

TEMPERATURE ADJUSTMENT NOTES

1. "T" DIMENSIONS ARE PERPENDICULAR TO FACE OF BACKWALL.
2. MINIMUM "T" WIDTH FOR SEAL INSTALLATION = 1 3/4" (APPROXIMATELY 65°F OR LESS).
3. VALUES IN THE TEMPERATURE ADJUSTMENT TABLE ARE FOR SETTING THE EXPANSION JOINT ASSEMBLY IMMEDIATELY PRIOR TO POURING THE DECK BLOCKOUT.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER THE CONNECTICUT RIVER

STRIP SEAL EXPANSION JOINT

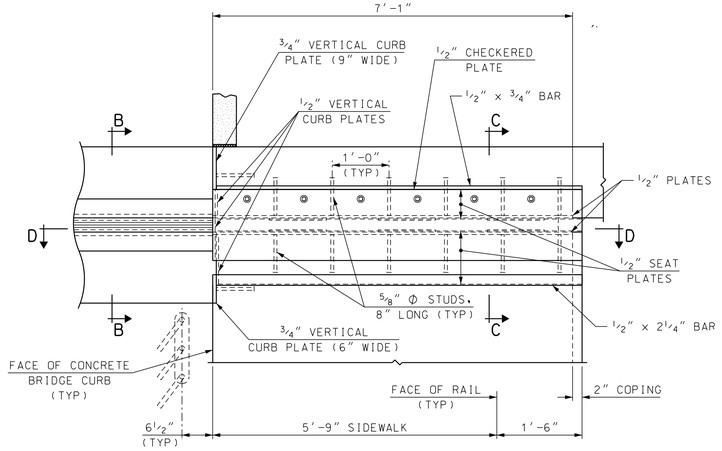
BRIDGE SHEET 16 OF 19

FILE NUMBER

REVISIONS AFTER PROPOSAL		BY	DATE		BY	DATE
	DESIGNED	JGS	9/2019	CHECKED	JDG	05/2020
	DRAWN	LRB	10/2019	CHECKED	JDG	05/2020
	QUANTITIES	JDG	05/2020	CHECKED	SRW	05/2020
	ISSUE DATE					
	REV. DATE					

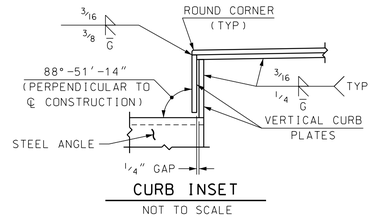
FEDERAL PROJECT NO. X-A004(799) SHEET NO. 21 TOTAL SHEETS 31

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
English/EXP-J	42277STRIP_SEAL-BKWLL_PANELS	AS NOTED



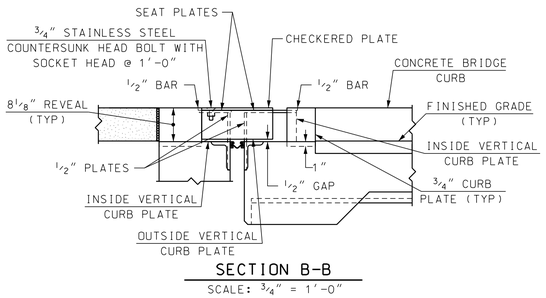
PARTIAL ASSEMBLY DETAIL

SCALE: ¾″ = 1′-0″



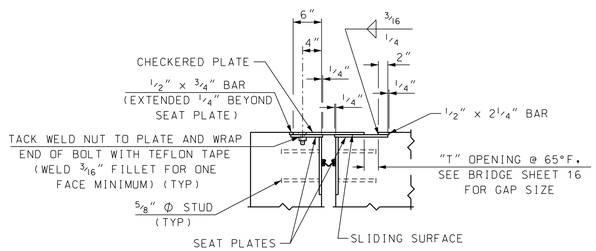
CURB INSET

NOT TO SCALE



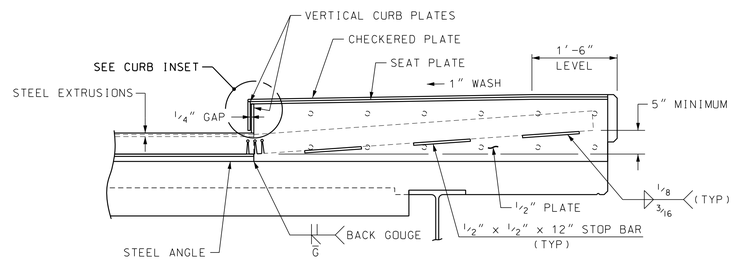
SECTION B-B

SCALE: ¾″ = 1′-0″



SECTION C-C

SCALE: ¾″ = 1′-0″



SECTION D-D

SCALE: ¾″ = 1′-0″

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER THE CONNECTICUT RIVER

SIDEWALK PLATE DETAILS

BRIDGE SHEET 17 OF 19

FILE NUMBER

REVISIONS AFTER PROPOSAL	BY	DATE

	BY	DATE		BY	DATE
DESIGNED	JGS	9/2019	CHECKED	JDG	05/2020
DRAWN	LRB	10/2019	CHECKED	JDG	05/2020
QUANTITIES	JDG	05/2020	CHECKED	SRW	05/2020
ISSUE DATE			FEDERAL PROJECT NO.		SHEET NO.
REV. DATE			X-A004(799)		22

TOTAL SHEETS 31

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
English/EXP-JTS	42277Exp Jt Sidewalk Plates	AS NOTED

ABUTMENT B - STUBWALL REINFORCEMENT — BRIDGE SHEET 10 OF 19

Mark	Size	Length	# Pieces	Type	A	B	C	D	E	F	G	H	J	K	R	O
SW01	#5	2.50	96	—												
SW02	#5	6.24	49	17		2.58	1.08	2.58								
SW03	#5	20.92	8	—												
SW04	#5	11.08	8	—												
SW05	#5	15.25	8	—												
SW06	#5	7.92	3	S6	0.83	2.58	1.08	2.58			0.83					
SW07	#4	9.83	3	S5	0.67	0.83	6.83	0.83			0.67					
SW08	#4	4.58	3	S5	0.67	0.83	1.58	0.83			0.67					
SW09	#5	3.00	16	C1												
SW10	#5	3.00	16	C2												
SW11	#4	4.67	6	N10		1.50	1.67	1.50				1.08	1.08	1.08	1.08	
A01	#5	3.00	10	C1												
A02	#5	3.00	10	C2												
A03	#5	20.92	5	—												
A04	#5	11.08	5	—												
A05	#5	15.25	5	—												
A06	#5	2.08	50	17		0.50	1.08	0.50								
A07	#4	5.37	2	N11	1.50	0.35	1.67	0.35	1.50			0.25	0.25	0.25	0.25	
S01	#5	4.63	139	—												
S02	#5	6.17	50	S6	0.00	0.75	3.67	0.92			0.83					
S03	#5	9.83	10	S5	0.67	0.83	6.83	0.83			0.67					
S04	#5	4.58	10	S5	0.67	0.83	1.58	0.83			0.67					
S05	#6	3.83	40	C1												
S06	#6	3.83	40	C2												
S07	#6	20.92	20	—												
S08	#6	11.08	20	—												
S09	#6	15.25	20	—												
S10	#4	4.63	17	—												

SECTION SUMMARY TOTAL WEIGHT (lbs):

ITEM #	DESCRIPTION	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18	TOTAL
544	REINFORCING STEEL	0	0	0	0	0	0	0	0	0	0	0	0
544.11	MECH. CONNECTOR	0	0	0	0	0	0	0	0	0	0	0	0
544.2	EPOXY COATED	0	107	2486	1419	0	0	0	0	0	0	0	4013
544.21	EPOXY MECH. CON.	0	0	163	461	0	0	0	0	0	0	0	623

DECK REINFORCING - PIER 1 — BRIDGE SHEET 12 OF 19

Mark	Size	Length	# Pieces	Type	A	B	C	D	E	F	G	H	J	K	R	O
D01E	#6	20.83	16	—												
D02E	#6	11.17	16	—												
D03E	#6	15.17	16	—												
D04E	#6	3.00	32	C1												
D05E	#6	3.00	32	C2												
				—												
D06E	#5	6.83	32	—												
D07E	#5	4.17	8	C1												
D08E	#5	2.67	8	C2												
D09E	#5	1.17	8	C1												
D10E	#5	5.67	8	C2												
D11E	#5	4.33	60	N2		0.58	0.83	1.67	1.25			0.92		0.92		
				—												
D12E	#4	2.75	17	—												
D13E	#4	3.25	17	—												
D14E	#4	11.25	9	S5	1.25	1.50	6.83	1.17			0.50					
D15E	#4	5.92	9	S5	1.25	1.42	1.58	1.17			0.50					

SECTION SUMMARY TOTAL WEIGHT (lbs):

ITEM #	DESCRIPTION	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18	TOTAL
544	REINFORCING STEEL	0	0	0	0	0	0	0	0	0	0	0	0
544.11	MECH. CONNECTOR	0	0	0	0	0	0	0	0	0	0	0	0
544.2	EPOXY COATED	0	171	499	1134	0	0	0	0	0	0	0	1804
544.21	EPOXY MECH. CON.	0	0	114	288	0	0	0	0	0	0	0	402

STANDARD INDUSTRY BENDS. STIRRUPS. & TIES

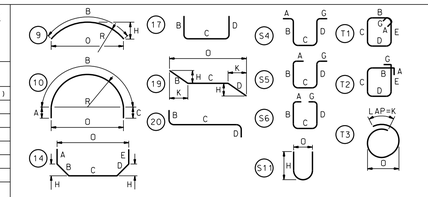
RECOMMENDED END HOOKS ALL GRADES (IN)

BAR SIZE	D Ø	180° HOOKS J	180° HOOKS A.G	90° HOOKS A.G
#3	2 1/4	5	3	6
#4	3	6	4	8
#5	3 3/4	7	5	10
#6	4 1/2	8	6	12
#7	5 1/4	10	7	14
#8	6	11	8	16
#9	9 1/2	15	11 3/4	19
#10	10 3/4	17	13 1/4	22
#11	12	19	14 3/4	24
#14	18 1/4	27	21 3/4	31

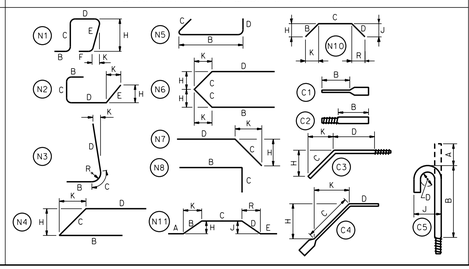
STIRRUP & TOE HOOK DIMENSIONS ALL GRADES (IN)

BAR SIZE	D Ø	90° HOOKS A.G	135° HOOKS A.G	135° HOOKS H(appr)
#3	1 1/2	4	4	2 1/2
#4	2	4 1/2	4 1/2	3
#5	2 1/2	6	5 1/2	3 3/4
#6	4 1/2	12	7 3/4	4 1/2
#7	5 1/4	14	9	5 1/4
#8	6	16	10 1/4	6

NOTE: D = finished inside bend d of hook. For additional data on standard bar bends not shown on this sheet see current CRSI Manual.



STANDARD N.H. & SPECIAL BENDS



NOTES:
1. FIGURES IN CIRCLE SHOW TYPE OF BEND.
2. UNLESS OTHERWISE DESIGNATED. ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING #18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET - STEEL BARS FOR CONCRETE REINFORCEMENT".AASHTO M 31-94 (ASTM A615).
3. FOR TYPICAL BENDING DETAILS. RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS AND OTHER STANDARD PRACTICE REFER TO THE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE".
4. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
5. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
6. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHEN NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE STANDARD HOOKS ARE TO BE USED.
7. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
8. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

▲ DENOTES BARS TO BE CUT IN FIELD. AS REQUIRED.
△ DENOTES BARS TO BE BENT IN FIELD.

ASTM STANDARD REINFORCING BARS

BAR SIZE	WEIGHT LBS/FT	DIAM IN	CROSS SECT AREA IN²
#3	0.376	0.375	0.11
#4	0.668	0.500	0.20
#5	1.043	0.625	0.31
#6	1.502	0.750	0.44
#7	2.044	0.875	0.60
#8	2.670	1.000	0.79
#9	3.400	1.128	1.00
#10	4.303	1.270	1.27
#11	5.313	1.410	1.56
#14	7.650	1.693	2.25
#18	13.600	2.257	4.00

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE
BRC	42277reinf scht	AS NOTED

Stantec

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT — BRIDGE NO. 058/043 — STATE PROJECT 42277

LOCATION CHURCH STREET OVER CONNECTICUT RIVER

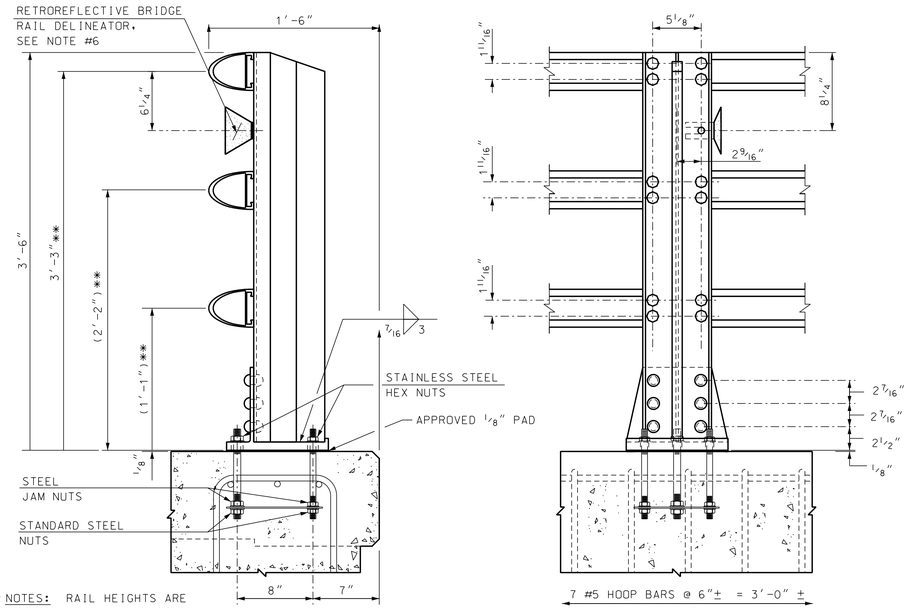
REINFORCING SCHEDULE

BRIDGE SHEET 18 OF 19

FILE NUMBER

REVISIONS AFTER PROPOSAL		BY	DATE		BY	DATE
	DESIGNED	JDG	05/2020	CHECKED	JDG	05/2020
	DRAWN	JTB	05/2020	CHECKED	JDG	05/2020
	QUANTITIES	JDG	05/2020	CHECKED	JDG	05/2020

ISSUE DATE		FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
REV. DATE		X-A004(799)	23	31



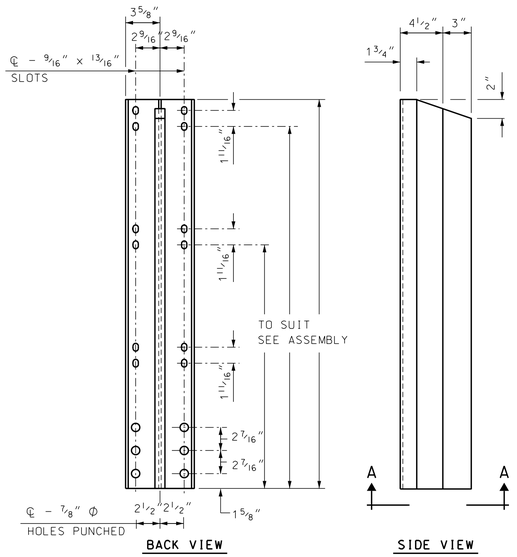
SECTION VIEW

BACK ELEVATION VIEW

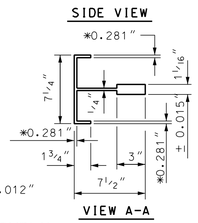
* REINFORCING CAPACITY SHALL MEET OR EXCEED THAT SHOWN

POST ASSEMBLY

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



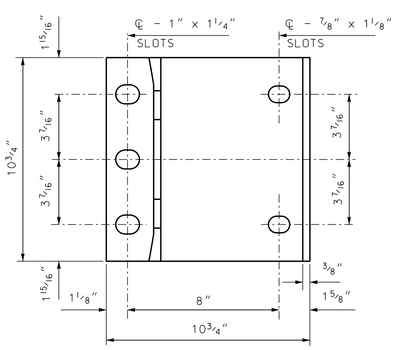
BACK VIEW



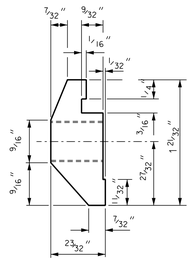
VIEW A-A

POST ASSEMBLY

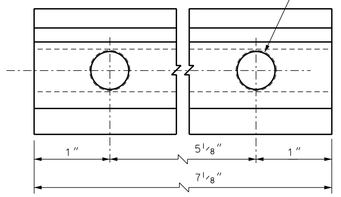
SCALE: 1 1/2" = 1'-0"



PLAN VIEW



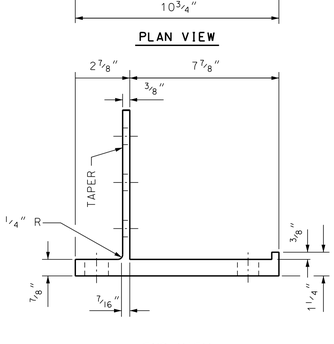
END VIEW



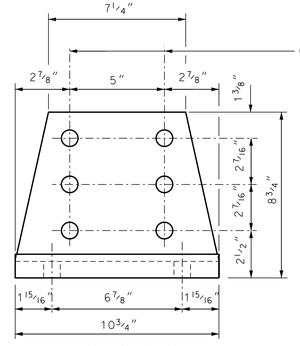
BACK VIEW

RAIL CLAMP BAR

FULL SIZE



END VIEW



ELEVATION VIEW

℄ - 7/8" Ø HOLES FOR 7/8" Ø HIGH BUTTON HEAD RIVETS ASTM B316 OR B221 ALLOY 6061-T6. RIVETS SHALL HAVE MANUFACTURED HIGH BUTTON HEADS MEETING THE DIMENSIONAL REQUIREMENTS OF ANSI B18.4 AND SHALL HAVE DRIVEN CONE POINT HEADS.

POST BASE DETAILS

SCALE: 3" = 1'-0"

RAIL NOTES:

1. POSTS SHALL BE NORMAL TO FINISHED GRADE.
2. THREADS FOR ANCHOR BOLTS MAY BE ROLLED OR CUT. IF CUT THREADS ARE USED, BOLT DIAMETER SHALL NOT BE LESS THAN NOMINAL DIAMETER. IF ROLLED THREADS ARE USED, BOLT DIAMETER SHALL NOT BE LESS THAN ROOT DIAMETER OF THREADS.
3. JOINTS IN RAIL LENGTH SHALL BE SPLICED AS DETAILED.
4. ENDS OF TUBE SECTIONS SHALL BE SAWED OR MILLED.
5. CUT ENDS SHALL BE TRUE AND SMOOTH.
6. EACH RAIL SECTION SHALL BE ATTACHED TO A MINIMUM OF THREE (3) POSTS.
7. GRIND ALL EDGES SMOOTH.

MATERIAL:

1. ALUMINUM EXTRUSIONS (POSTS, BASES, RAILS, SPLICE BARS, PINS AND CLAMP BARS) SHALL BE ASTM B221, ALLOY 6061-T6 OR ALLOY 6351-T5 (MIN. 10% ELONGATION).
2. STAINLESS STEEL ANCHOR STUDS, HEX HEAD BOLTS AND HEX NUTS (TYPE 302) SHALL BE ASTM A276, TYPE 430 MOD OR TYPE 304 MOD, (100,000 PSI AND 15% ELONGATION).
3. STEEL EMBEDDED JAM AND HEX NUTS SHALL BE ASTM A563 GRADE A OR BETTER.
4. ALUMINUM WASHERS SHALL BE ASTM B209, ALLOY 2024-T3 ALCLAD.
5. PREFORMED ELASTOMERIC BEARING PAD SHALL MEET REQUIREMENTS OF AASHTO M251.
6. RETROREFLECTIVE DELINEATORS, FIELD DRILLING OF POSTS, STAINLESS STEEL (TYPE 304) BOLTS, NUTS & WASHERS SHALL BE SUBSIDIARY TO ITEM 563.73. SEE STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION (DL-1) FOR ADDITION DETAILS AND SPACING.

ANCHOR ASSEMBLY NOTES:

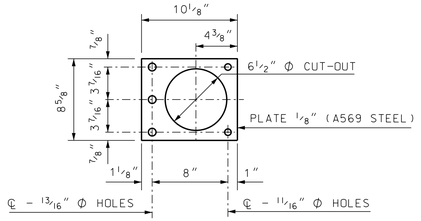
1. 3/4" AND 5/8" AMERICAN STANDARD FINISHED HEXAGON STEEL NUTS ON BOTTOM OF ANCHOR ASSEMBLY. 3/4" AND 5/8" AMERICAN STANDARD FINISHED HEXAGON STEEL JAM NUTS ON TOP OF ANCHOR PLATE.
2. 3/4" AND 5/8" STAINLESS STEEL HEXAGON NUTS ON TOP ENDS OF BOLTS WITH CLASS 2B THREADS. 13/16" I.D., 2" O.D., 1/8" THICK ALUMINUM WASHERS UNDER NUTS ON TOP. ALL NUTS SHALL COMPLY WITH AMERICAN HEXAGON ANSI SPEC. B18.2. STAINLESS STEEL HEXAGON NUTS SHALL HAVE FULL THREADS.

SPLICE BAR DETAILS:

1. SEE STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION (BR-R3) FOR DETAILS AND NOTES.

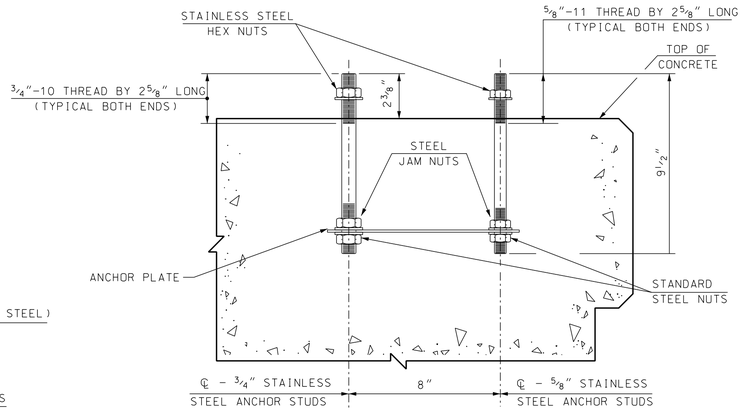
BALUSTER DETAILS:

1. SEE STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION (BR-R4) FOR DETAILS AND NOTES.



ANCHOR PLATE

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



POST ANCHOR ASSEMBLY

SCALE: 3" = 1'-0"

NOTES: RAIL HEIGHTS ARE GIVEN FOR USE WITH A SIDEWALK. WITH A BRUSH CURB, USE ( ).

** MATCH EXISTING RAIL HEIGHTS.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN WALPOLE, NH - ROCKINGHAM, VT BRIDGE NO. 058/043 STATE PROJECT 42277

LOCATION CHURCH STREET OVER CONNECTICUT RIVER

ALUMINUM BRIDGE RAIL (3-BAR)

BRIDGE SHEET 19 OF 19

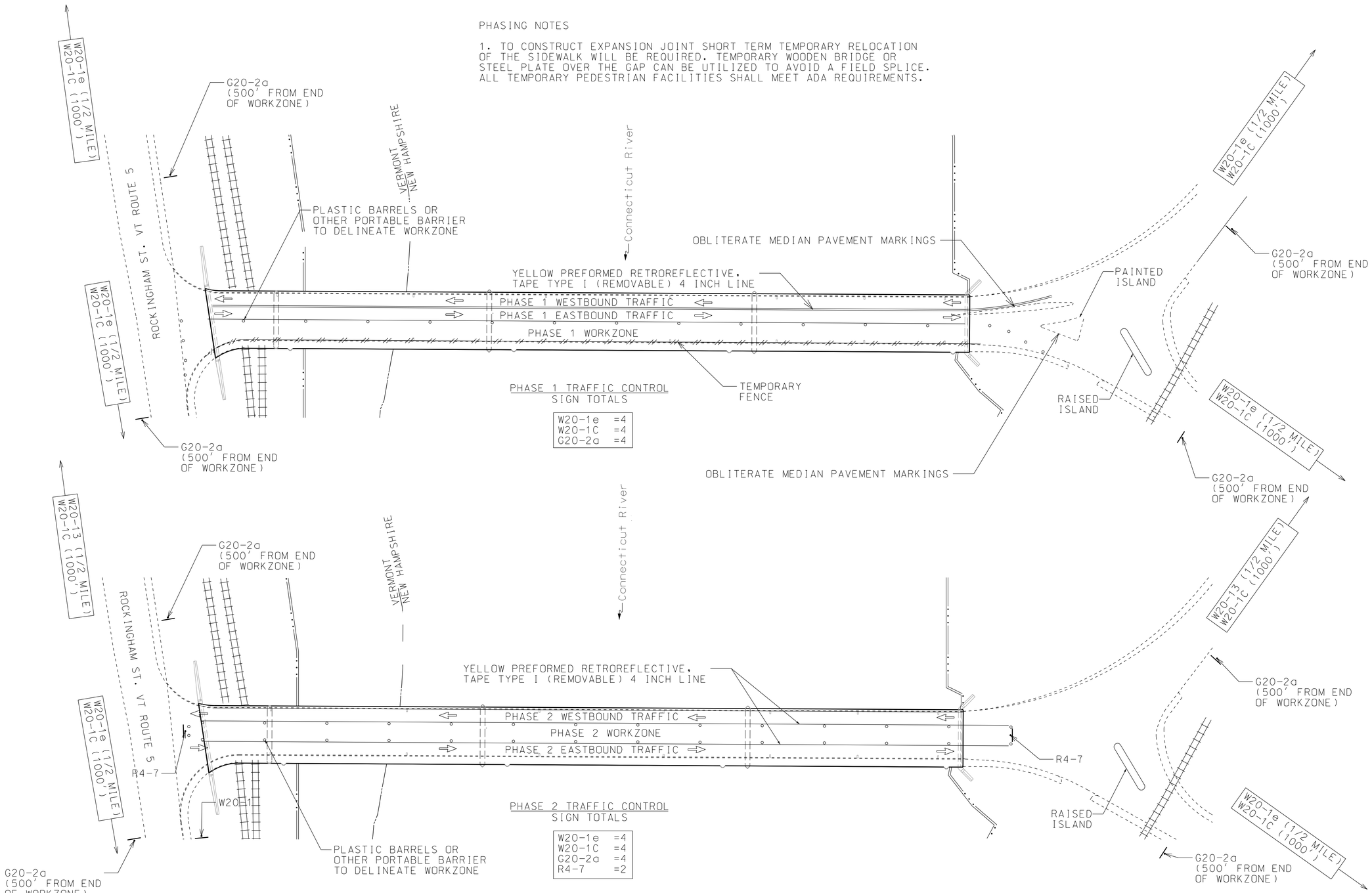
FILE NUMBER

REVISIONS AFTER PROPOSAL		BY	DATE		BY	DATE
	DESIGNED	JGS	9/2019	CHECKED	JDG	05/2020
	DRAWN	LRB	10/2019	CHECKED	JDG	05/2020
	QUANTITIES	JDG	05/2020	CHECKED	SRW	05/2020

SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE	ISSUE DATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
English/EXP-JTS	422773BarAlum	AS NOTED	REV. DATE	X-A004(799)	24	31

PHASING NOTES

1. TO CONSTRUCT EXPANSION JOINT SHORT TERM TEMPORARY RELOCATION OF THE SIDEWALK WILL BE REQUIRED. TEMPORARY WOODEN BRIDGE OR STEEL PLATE OVER THE GAP CAN BE UTILIZED TO AVOID A FIELD SPLICE. ALL TEMPORARY PEDESTRIAN FACILITIES SHALL MEET ADA REQUIREMENTS.



STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN			
TRAFFIC CONTROL 1			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
42277tc	42277	25	31

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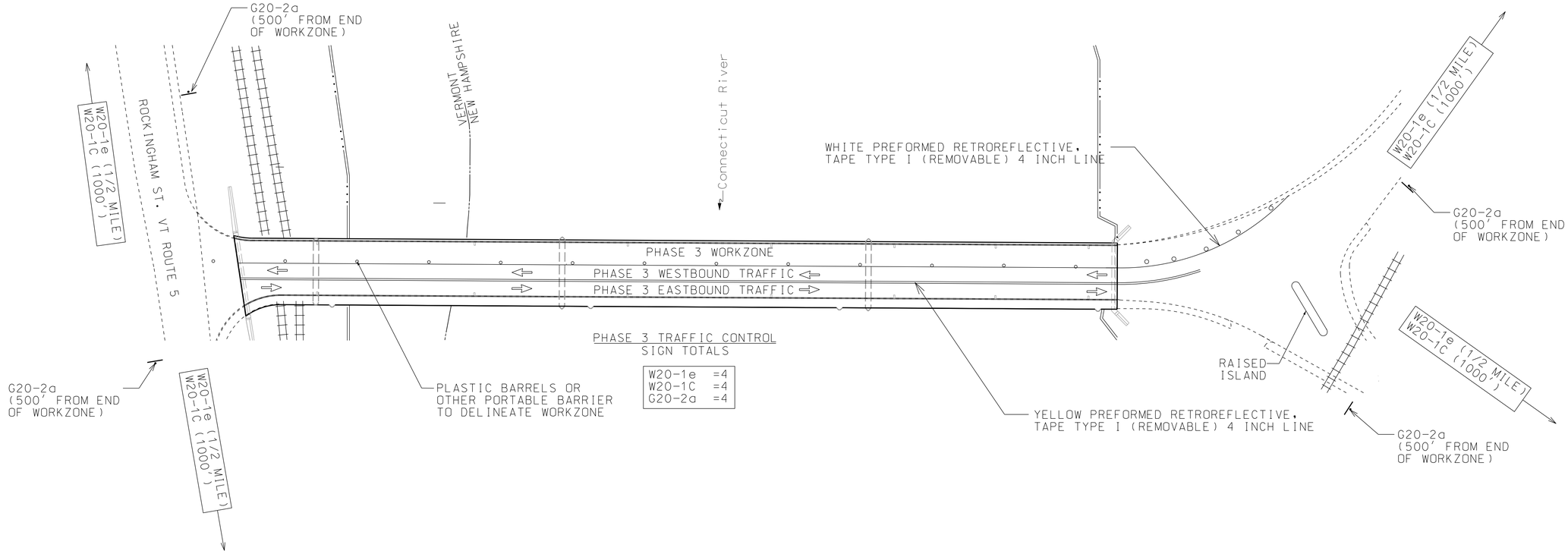

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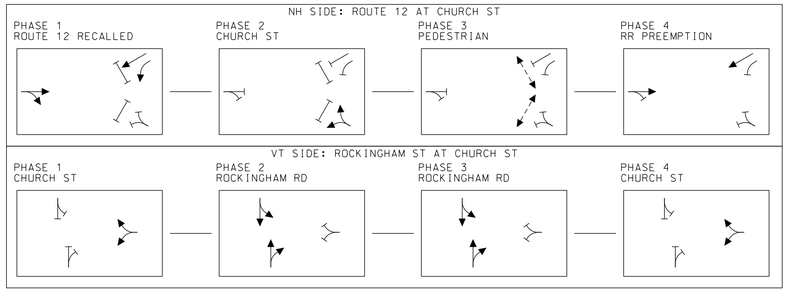
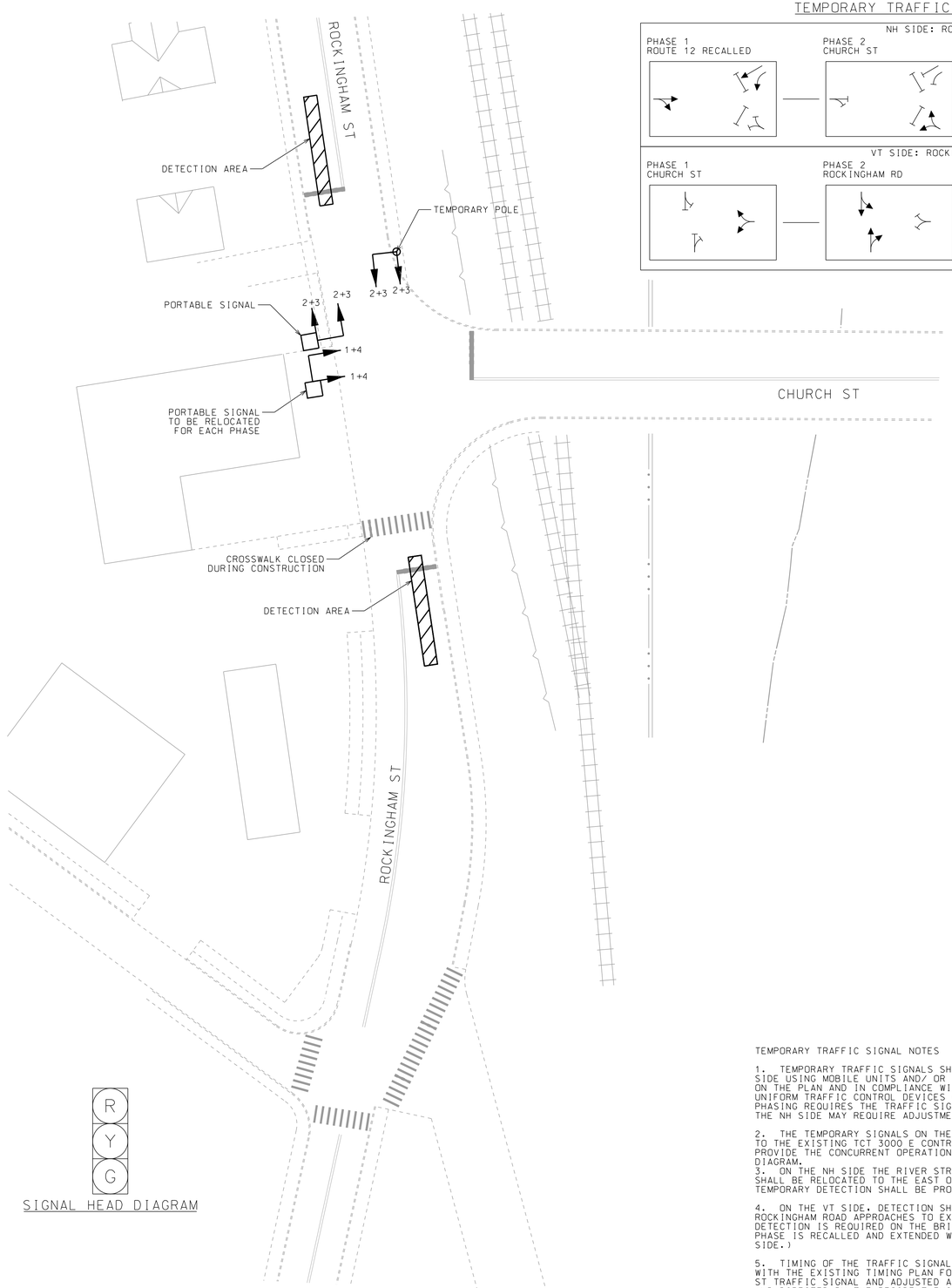
STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN			
TRAFFIC CONTROL 2			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
42277tc	42277	26	31

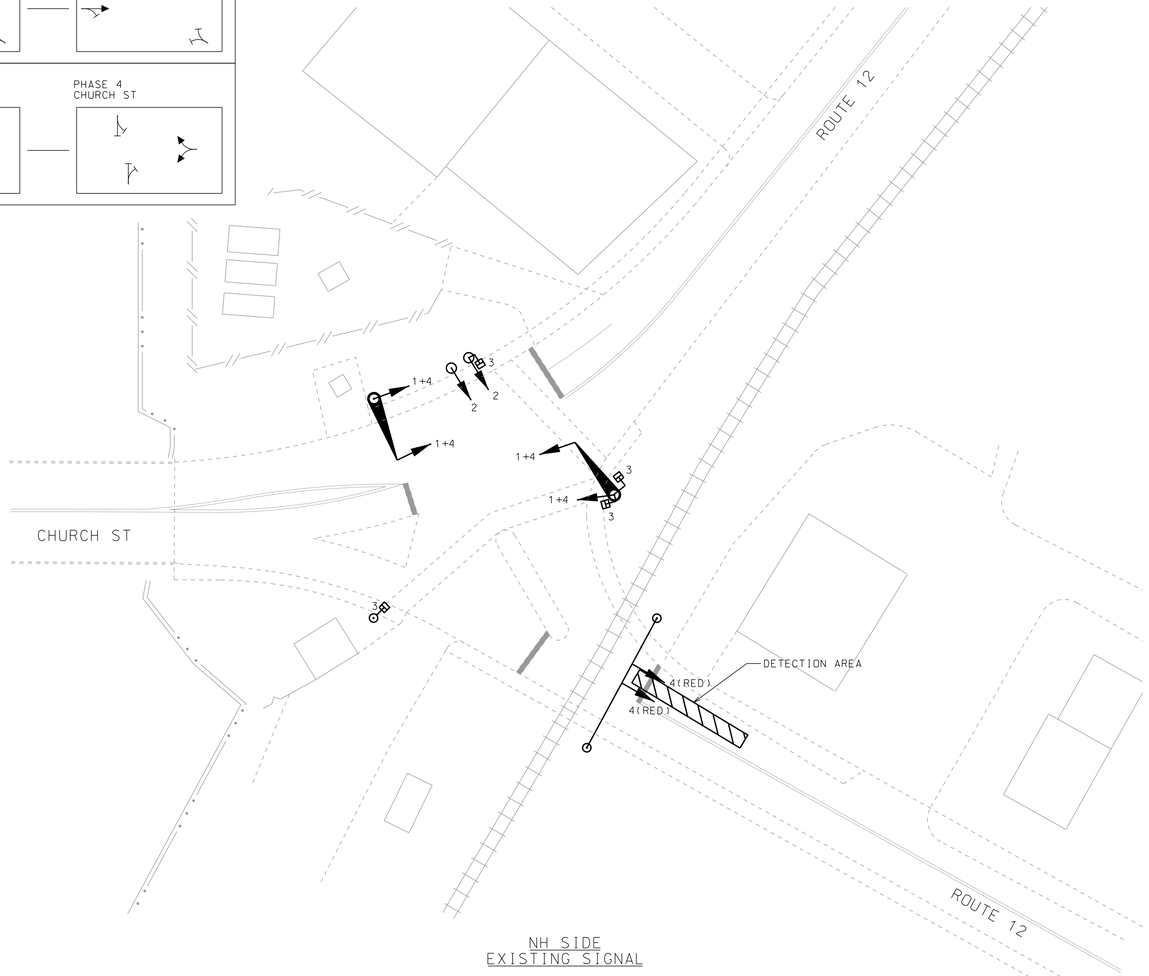
TEMPORARY TRAFFIC SIGNAL PHASING DIAGRAM





VT SIDE
TEMPORARY SIGNAL

SIGNAL HEAD DIAGRAM



NH SIDE
EXISTING SIGNAL

TEMPORARY TRAFFIC SIGNAL NOTES

1. TEMPORARY TRAFFIC SIGNALS SHALL BE LOCATED ON THE NH SIDE USING MOBILE UNITS AND/ OR TEMPORARY POLES AS SHOWN ON THE PLAN AND IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). AS CONSTRUCTION PHASING REQUIRES THE TRAFFIC SIGNAL HEAD LOCATIONS ON THE NH SIDE MAY REQUIRE ADJUSTMENTS.

2. THE TEMPORARY SIGNALS ON THE VT SIDE SHALL BE WIRED TO THE EXISTING TCT 3000 E CONTROLLER ON THE NH SIDE TO PROVIDE THE CONCURRENT OPERATION AS SHOWN IN THE PHASING DIAGRAM.
3. ON THE NH SIDE THE RIVER STREET APPROACH STOP BAR SHALL BE RELOCATED TO THE EAST OF THE RR TRACKS AND TEMPORARY DETECTION SHALL BE PROVIDED.

4. ON THE VT SIDE, DETECTION SHALL BE PROVIDED FOR THE ROCKINGHAM ROAD APPROACHES TO EXTEND PHASE 2. (NO DETECTION IS REQUIRED ON THE BRIDGE APPROACH AS THIS PHASE IS RECALLED AND EXTENDED WITH DETECTION ON THE NH SIDE.)

5. TIMING OF THE TRAFFIC SIGNAL WILL BE IN ACCORDANCE WITH THE EXISTING TIMING PLAN FOR THE NH 12 AT CHURCH ST TRAFFIC SIGNAL AND ADJUSTED AS REQUIRED IN THE FIELD AND DIRECTED BY THE RESIDENT ENGINEER.

WALPOLE NH — SIG ID: S-461-01
RTE 12 AT CHURCH ST
CABINET – M TYPE 1 TCT
CONTROLLER – PEEK 3000E

TRAFFIC SIGNAL TIMING				
	PHASE 1	PHASE 2	PHASE 3	PHASE 4
		CHURCH ST		RR PREEMPT
MINIMUM	10	5		
EXTENSION	5	4		
MAXIMUM	30	30		
YELLOW	4	4		
ALL RED	2	2		
WALK			7	
FLASHING DON'T WALK			30	
RECALL	ON	NL		
NOTES: PE1 = 2+4RR OLA=2				

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STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

TEMPORARY SIGNAL PLAN

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
42277tc	42277	27	31

ITEM #	IDENT #	SIGN SIZE WIDTH (inch)	SIGN SIZE HEIGHT (inch)	TEXT	TEXT DIMENSIONS LETTER HEIGHT (inch) UC	LC	CAPS	SHIELD SIZE (inch)	ARROW (inch)	NUMERAL (inch)	# SIGNS REQ'D	SIGN AREA (SQ. FT.) NOM AREA	TOTAL AREA	POSTS PER SIGN BREAKAWAY	STEEL I-BEAM	CONCRETE BASE	4" ALUMINUM	U-CHANNEL-GALV.	REMARKS
619.1	W20-1C	48	48	ROAD WORK 1000 FT			7D				4	16.0	64.0					2	BLACK / ORANGE
619.1	W20-1e	48	48	ROAD WORK 1/2 MILE			7D				4	16.0	64.0					2	BLACK / ORANGE
619.1	G20-2a	36	18	END ROAD WORK			4C				4	4.50	18.00					2	BLACK / ORANGE
619.1	R9-11a	24	12	SIDEWALK CLOSED CROSS HERE			2C				2	2.00	4.00					2	BLACK / WHITE MOUNTED ON BARRICADE
619.1	R5-2a (M)	36	36	NO TRAILER TRUCKS			7D 6D 6D				4	9.00	36.00					2	BLACK / WHITE
619.1	W5-2	48	48	NARROW BRIDGE			8D				4	16.0	64.0						BLACK / YELLOW MOUNT BELOW R5-2A(M)
619.1	M4-4	24	12	TRUCK			6C				26	2.00	52.00						BLACK / ORANGE MOUNT WITH DETOUR ROUTE ASSEMBLY
619.1	M4-8	24	12	DETOUR			6B				26	2.00	52.00						BLACK / ORANGE MOUNT WITH DETOUR ROUTE ASSEMBLY
619.1	M1-5 (12)	24	24	12			12D				15	4.00	60.00					2	BLACK /WHITE
619.1	M1-4 (5)	24	24	5			12D				11	4.00	44.00					2	BLACK /WHITE

ITEM #	IDENT #	SIGN SIZE WIDTH (inch)	SIGN SIZE HEIGHT (inch)	TEXT	TEXT DIMENSIONS LETTER HEIGHT (inch) UC	LC	CAPS	SHIELD SIZE (inch)	ARROW (inch)	NUMERAL (inch)	# SIGNS REQ'D	SIGN AREA (SQ. FT.) NOM AREA	TOTAL AREA	POSTS PER SIGN BREAKAWAY	STEEL I-BEAM	CONCRETE BASE	4" ALUMINUM	U-CHANNEL-GALV.	REMARKS
619.1	M6-3	21	15								8	2.19	17.50						BLACK / ORANGE MOUNT WITH DETOUR ROUTE ASSEMBLY
619.1	M4-6	24	12	END			6D				2	2.00	4.00						BLACK / ORANGE MOUNT WITH DETOUR ROUTE ASSEMBLY
619.1	M6-1L	21	15								5	2.19	10.94						BLACK / ORANGE MOUNT WITH DETOUR ROUTE ASSEMBLY
619.1	M6-1R	21	15								1	2.19	2.19						BLACK / ORANGE MOUNT WITH DETOUR ROUTE ASSEMBLY
619.1	M5-2R	21	15								2	2.19	4.38						BLACK / ORANGE MOUNT WITH DETOUR ROUTE ASSEMBLY
619.1	M5-1L	21	15								5	2.19	10.94						BLACK / ORANGE MOUNT WITH DETOUR ROUTE ASSEMBLY
619.1	M5-1R	21	15								1	2.19	2.19						BLACK / ORANGE MOUNT WITH DETOUR ROUTE ASSEMBLY
619.1	M5-2R	21	15								2	2.19	4.38						BLACK / ORANGE MOUNT WITH DETOUR ROUTE ASSEMBLY

GENERAL NOTES

1. ALL GUIDE SIGNS SHALL HAVE TYPE III TEXT AND BORDER WITH TYPE III BACKGROUND SHEETING, UNLESS OTHERWISE SPECIFIED. ALL GUIDE SIGNS WITH ITEM NUMBERS 615.01 OR 615.04 (TYPE A & TYPE AA) SHALL HAVE FLAT SHEET DEMOUNTABLE TEXT AND BORDER AS PRESCRIBED IN THE SPECIFICATIONS.
2. THERE SHALL BE NO GAPS IN THE BORDERS OF ALL GUIDE SIGNS.
3. ALL REGULATORY AND WARNING SIGNS SHALL HAVE TYPE I BACKGROUND SHEETING, UNLESS OTHERWISE SPECIFIED.
4. ALL GUIDE SIGNS SHALL CONTAIN THE SIZE AND DATE OF MANUFACTURE, LOCATED IN THE LOWER LEFT CORNER OF THE FRONT FACE. THESE LETTERS AND NUMBERS SHALL BE 2" NON-REFLECTIVE WHITE (I.E., 3-98 10' x 15').
5. REFER TO THE "STANDARD HIGHWAY SIGNS MANUAL" AS PUBLISHED BY THE USDOT-FHWA FOR EXACT DETAILS OF BORDERS, ETC.
6. REFER TO THE "STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION" AS PUBLISHED BY THE NHDOT FOR EXACT DETAILS OF PERMANENT SIGNING STANDARDS.
7. THE MINIMUM SIGN HEIGHT FOR A ROADSIDE SIGN IN A RURAL DISTRICT SHALL BE INCREASED FROM 5 FEET TO 6 FEET. ALL OTHER SIGN HEIGHTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD.

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION ○ BUREAU OF TRAFFIC

SIGN TEXT LAYOUT 1

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
42277typ		28	31

ITEM #	IDENT #	SIGN SIZE WIDTH (inch)	SIGN SIZE HEIGHT (inch)	TEXT	TEXT DIMENSIONS LETTER HEIGHT (inch) UC	LC	CAPS	SHIELD SIZE (inch)	ARROW (inch)	NUMERAL (inch)	# SIGNS REQ'D	SIGN AREA (SQ. FT.) NOM AREA	TOTAL AREA	POSTS PER SIGN BREAKAWAY	STEEL I-BEAM	CONCRETE BASE	4" ALUMINUM	U-CHANNEL-GALV.	REMARKS
619.1		60	12	TRACTOR TRAILERS			5C				5	5.00	25.00						BLACK / ORANGE MOUNT WITH R11-3(M)
619.1		60	12	DETOUR AHEAD			5C				5	5.00	25.00						BLACK / ORANGE MOUNT WITH R11-3(M)
619.1	R11-3 (M)	60	30	BRIDGE CLOSED 200 FEET AHEAD LOCAL TRAFFIC ONLY			6C 5C 4C				1	12.50	12.50					2	BLACK / WHITE
619.1	R11-3 (M)	60	30	BRIDGE CLOSED 500 FEET AHEAD LOCAL TRAFFIC ONLY			6C 5C 4C				1	12.50	12.50					2	BLACK / WHITE
619.1	R11-3 (M)	60	30	BRIDGE CLOSED 2 MILES AHEAD LOCAL TRAFFIC ONLY			6C 5C 4C				1	12.50	12.50					2	BLACK / WHITE
619.1	R11-3 (M)	60	30	BRIDGE CLOSED 3 MILES AHEAD LOCAL TRAFFIC ONLY			6C 5C 4C				1	12.50	12.50					2	BLACK / WHITE
619.1	R11-3 (M)	60	30	BRIDGE CLOSED 4 MILES AHEAD LOCAL TRAFFIC ONLY			6C 5C 4C				1	12.50	12.50					2	BLACK / WHITE

ITEM #	IDENT #	SIGN SIZE WIDTH (inch)	SIGN SIZE HEIGHT (inch)	TEXT	TEXT DIMENSIONS LETTER HEIGHT (inch) UC	LC	CAPS	SHIELD SIZE (inch)	ARROW (inch)	NUMERAL (inch)	# SIGNS REQ'D	SIGN AREA (SQ. FT.) NOM AREA	TOTAL AREA	POSTS PER SIGN BREAKAWAY	STEEL I-BEAM	CONCRETE BASE	4" ALUMINUM	U-CHANNEL-GALV.	REMARKS

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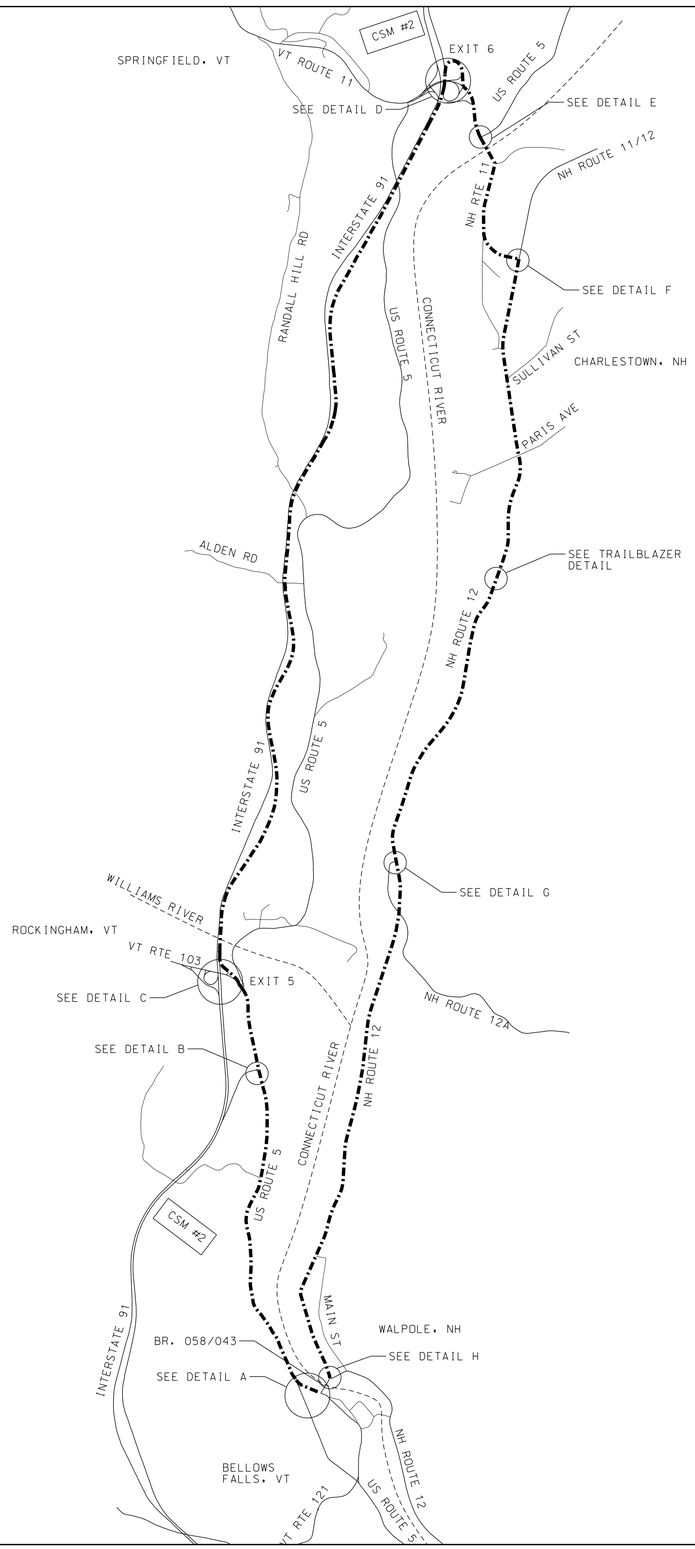
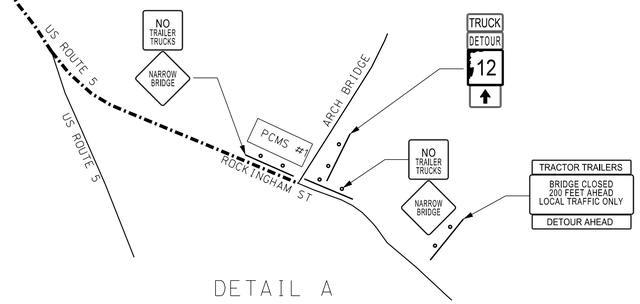
STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF TRAFFIC

SIGN TEXT LAYOUT 2

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
42277typ		29	31





DETAIL A

PCMS #1

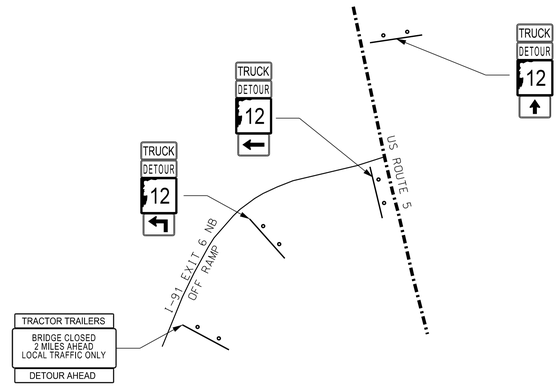
BRIDGE CLOSED TO
MESSAGE #1
TRUCKS STARTING (DATE)
MESSAGE #2

PUT MESSAGES IN PLACE 4 WEEKS PRIOR TO START OF PHASED CONSTRUCTION WORK.

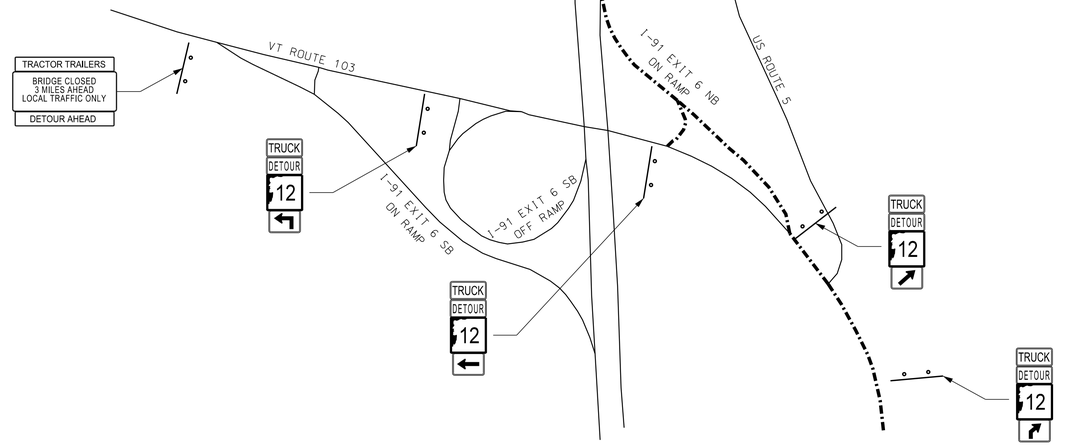
PCMS #2

TRUCKS TO NH
MESSAGE #1
USE EXIT 5
MESSAGE #2

MESSAGE IN PLACE DURING CLOSURE



DETAIL B



DETAIL C

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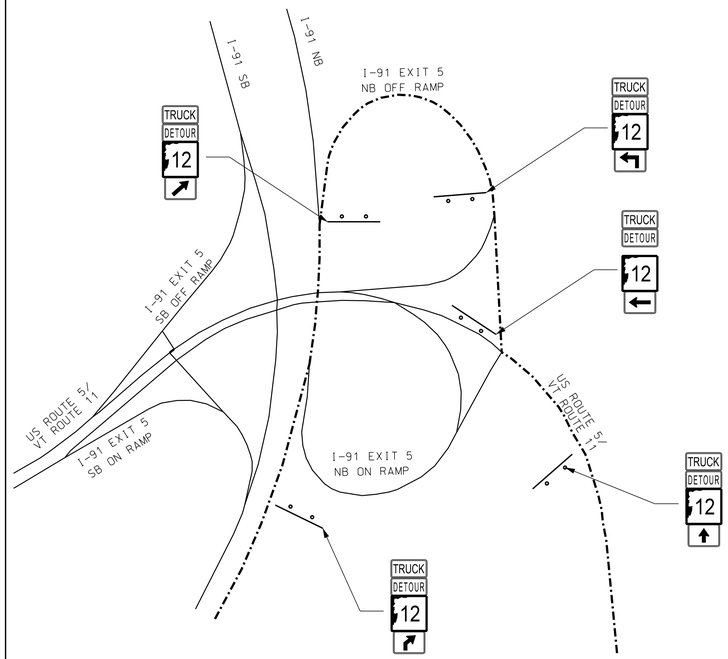
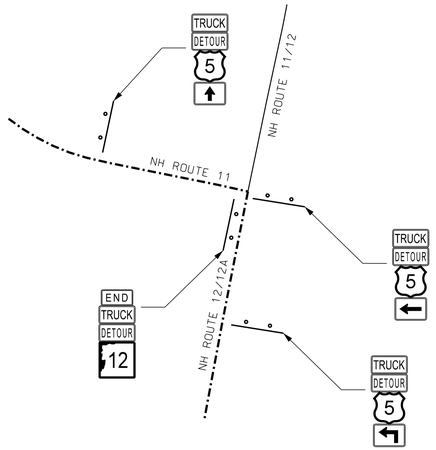
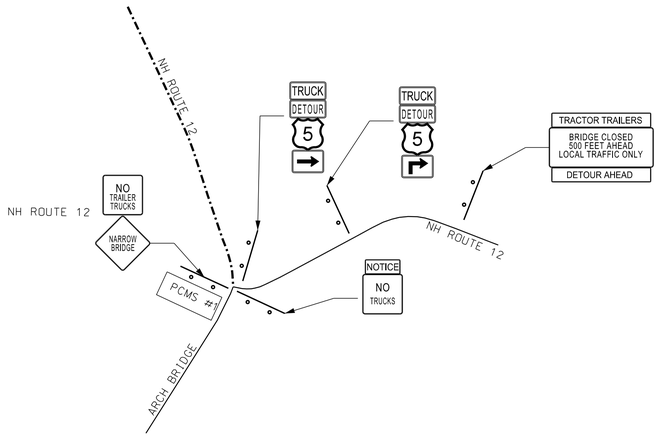
STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN			
DETOUR PLAN 1			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
42277typ	42277	30	31



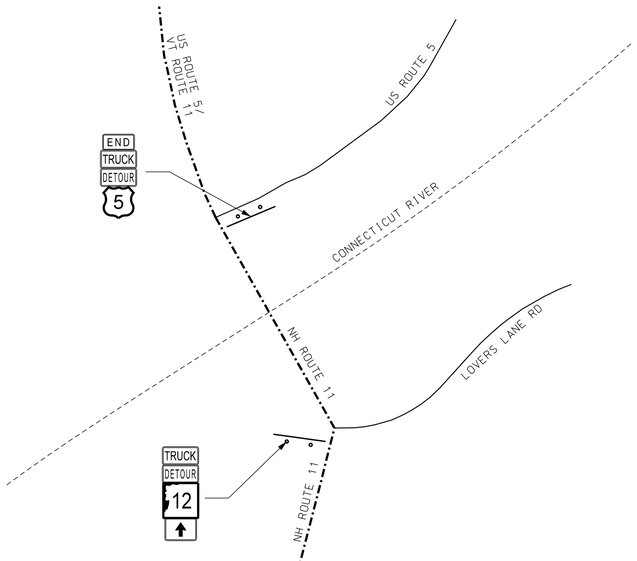
DETAIL D



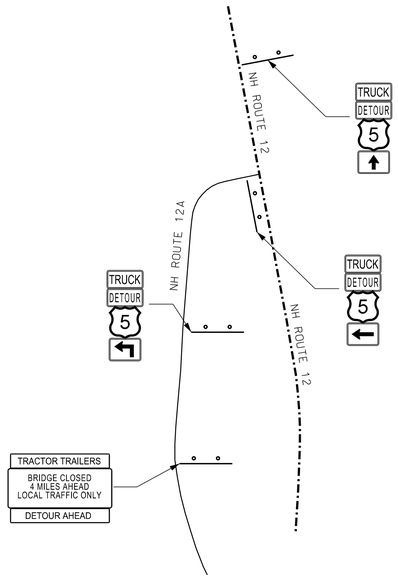
DETAIL F



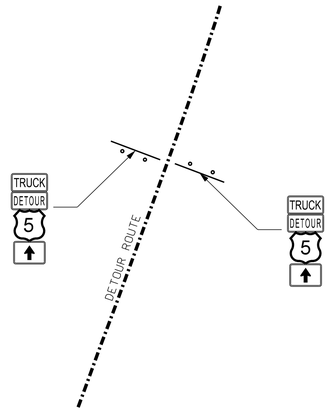
DETAIL H



DETAIL E



DETAIL G



TRAILBLAZER
DETAIL

Stantec

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

DETOUR PLAN 2

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
42277typ	42277	31	31