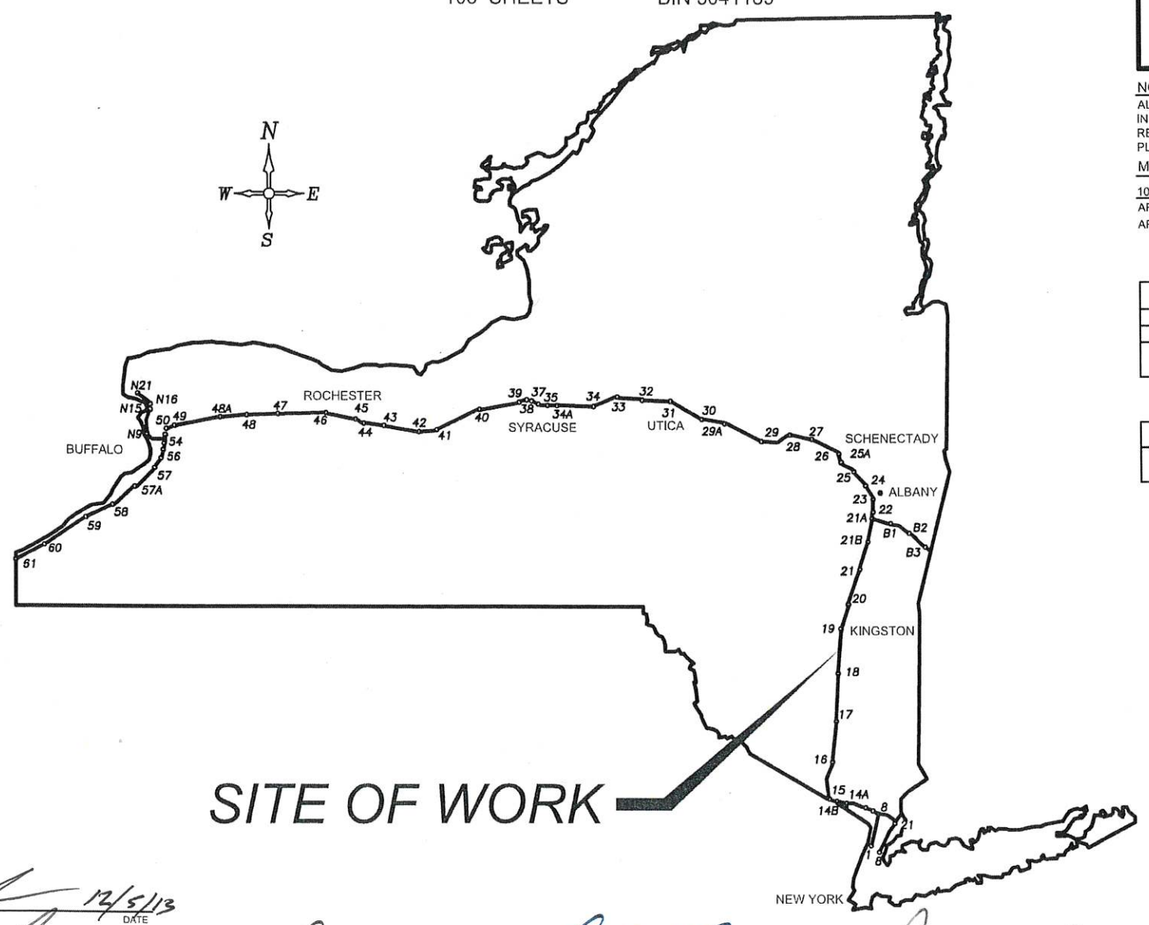
TAA 23-25B

NEW YORK STATE OF OPPORTUNITY. | Thruway Authority

ALBANY DIVISION
PLANS FOR
REHABILITATION OF I-87 BRIDGE OVER
WALLKILL RIVER
AT
MILEPOST 81.72
IN
ULSTER COUNTY

TAA 23-25B D214941

105 SHEETS BIN 5041189



TYPE OF CONSTRUCTION:

BRIDGE REHABILITATION; SUPERSTRUCTURE REPLACEMENT, ASPHALT REPLACEMENT, SUBSTRUCTURE REPAIRS, JOINT REPLACEMENT AT EACH APPROACH, CONCRETE BARRIER REPLACEMENT, GUIDE RAIL INSTALLATION, AND CONDUIT RELOCATION

STANDARD SHEETS:

THE LATEST REVISIONS OF THE STANDARD SHEETS MAINTAINED BY NYSDOT, WHICH ARE CURRENT AS OF THE STANDARD SPECIFICATIONS ADOPTION DATE SHOWN ON THE PROPOSAL COVER SHALL BE CONSIDERED TO BE IN EFFECT. ALL PAY ITEMS AND WORK CONTAINED IN THE CONTRACT AND ANY ADDITIONAL PAY ITEMS AND WORK ENCOUNTERED DURING THE COURSE OF THE CONTRACT SHALL BE SUBJECT TO THE APPLICABLE STANDARD SHEET(S) UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.

THE LATEST REVISIONS OF THE NYSTA STANDARD SHEETS MAINTAINED BY THE AUTHORITY, WHICH ARE CURRENT ON THE DATE OF ADVERTISEMENT FOR BIDS, SHALL BE CONSIDERED TO BE IN EFFECT. ALL PAY ITEMS AND WORK CONTAINED IN THE CONTRACT AND ANY ADDITIONAL PAY ITEMS AND WORK ENCOUNTERED DURING THE COURSE OF THE CONTRACT SHALL BE SUBJECT TO THE APPLICABLE STANDARD SHEET(S) LISTED ON DWG. SS-1 UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS

BRIDGE MAINTENANCE GUIDELINES

UPON COMPLETION OF THIS PROJECT, THE BRIDGE STRUCTURES REPAIRED, REHABILITATED OR RECONSTRUCTED HEREUNDER SHALL BE MAINTAINED IN ACCORDANCE WITH THE CURRENT AASHTO MANUAL FOR BRIDGE MAINTENANCE, AND THE NEW YORK STATE THRUWAY AUTHORITY MAINTENANCE DIRECTIVES:

BRIDGE MANAGEMENT PROGRAM MD 05-16, BRIDGE MANAGEMENT ACTIVITIES MD 05-3, AND BRIDGE INSPECTION PROGRAM MD 95-5.

SPECIAL MAINTENANCE REQUIREMENTS: NONE

NOTES:

ALL WORK CONTEMPLATED UNDER THIS CONTRACT IS TO BE COVERED BY AND IN CONFORMITY WITH THE STANDARD SPECIFICATIONS (US CUSTOMARY) REFERENCED IN THE CONTRACT "PROPOSAL" EXCEPT AS MODIFIED BY THESE PLANS OR CHANGES SET FORTH IN THE CONTRACT "PROPOSAL".

MAINTENANCE JURISDICTION

100% AUTHORITY

APPROACH GUIDE RAILING, APPROACH PAVEMENT, MEDIAN GUIDE RAILING, SHOULDERS, APPROACH SLAB, BRIDGE DECK, BRIDGE RAIL/BARRIER/PARAPET AND BRIDGE SUPERSTRUCTURE.

LOAD RATING TABLE - WALLKILL BIN 5041189

CONTROLLING MEMBER	LRFR INVENTORY	LRFR OPERATING	LFR INVENTORY	LFR OPERATING
INTERIOR GIRDER END SPAN	1.28	1.67	74 TONS	124 TONS

	PROJECT LIMITS		CONTRACT LIMITS	
WALLKILL MP 81.72	MP 81.70	MP 81.80	MP 80.40	MP 83.10

UDIG NY
UNDERGROUND FACILITIES PROTECTION ORGANIZATION
CALL 811

PREPARED AND RECOMMENDED BY:
SHEETS 56 TO 72, 102 TO 105
Ram Sharma DATE 11/20/2023
KC ENGINEERING & LAND SURVEYING PC
Engineering and Land Surveying, P.C.

PREPARED AND RECOMMENDED BY:
SHEETS 1 TO 55, 73 TO 101
Christina M Minkler DATE 11/20/2023
JMT OF NEW YORK, INC.
JMT

CONTRACTOR'S NAME:
AWARD DATE:
COMPLETION DATE:
FINAL ACCEPTANCE DATE:
INSPECTION FIRM'S NAME:
RESIDENT ENG./EIC:
FINAL COST TOTAL:

FISCAL SHARE	COST(S)

INSPECTION FIRM CONSULTANT STAMP:

RECOMMENDED BY: DIRECTOR, OFFICE OF DESIGN 12/5/13 DATE

RECOMMENDED BY: DIVISION DIRECTOR 12/5/23 DATE

RECOMMENDED BY: TRAFFIC ENGINEER for 12/7/23 DATE

RECOMMENDED BY: DIRECTOR, OFFICE OF CONSTRUCTION MANAGEMENT 12/7/23 DATE

RECOMMENDED BY: DIRECTOR OF MAINTENANCE AND OPERATIONS 12/7/23 DATE

APPROVED BY: CHIEF ENGINEER 12/7/23 DATE

REVIEWED BY PROJECT MANAGER BUREAU DIRECTOR

FILE NAME = &FILE&
DATE/TIME = &DATE&
USER = &NTUSER&

ALIGNMENT

ABBR.	DESCRIPTION
AH	AHEAD
AZ	AZIMUTH
BK	BACK
℄	BASELINE
BRG	BEARING
℄	CENTERLINE
CS	CURVE TO SPIRAL
e	SUPERELEVATION RATE (CROSS SLOPE)
EQ	EQUALITY
EXT	EXTERNAL
HCL	HORIZONTAL CONTROL LINE
HSD	HEADLIGHT SIGHT DISTANCE
L	LENGTH OF CIRCULAR CURVE
LS	LENGTH OF SPIRAL
LVC	LENGTH OF VERTICAL CURVE
E	CENTER CORRECTION OF VERTICAL CURVE
ℳ	MAIN LINE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
POL	POINT ON LINE
PSD	PASSING SIGHT DISTANCE
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS
SC	SPIRAL TO CURVE
SSD	STOPPING SIGHT DISTANCE
ST	SPIRAL TO TANGENT
STA	STATION
T	TANGENT LENGTH
TGL	THEORETICAL GRADE LINE
TS	TANGENT TO SPIRAL
VC	VERTICAL CURVE

TOPOGRAPHY (DRAINAGE)

ABBR.	DESCRIPTION
BB	BOTTOM OF BANK (STREAM)
BC	BOTTOM OF CURB
BO	BOTTOM OF OPENING
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
CIP	CAST IRON PIPE
℄ STRM	CENTERLINE OF STREAM
CMP	CORRUGATED METAL PIPE
CP	CONCRETE PIPE
CSP	CORRUGATED STEEL PIPE
CULV	CULVERT
DIA	DIAMETER
DMH	DRAINAGE MANHOLE
DS	DRAINAGE STRUCTURE PIPE
D'XING	DITCH CROSSING
EHW	EXTREME HIGH WATER
EL	ELEVATION
ELEV	ELEVATION
ELW	EXTREME LOW WATER
ES	END SECTION
HW	HEADWALL
INV	INVERT
MH	MANHOLE
MHW	MEAN HIGH WATER
OHW	ORDINARY HIGH WATER
OLW	ORDINARY LOW WATER
RCP	REINFORCED CONCRETE PIPE
SICPP	SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE
TB	TOP OF BANK (STREAM)
TC	TOP OF CURB
TG	TOP OF GRATE
VCP	VITRIFIED CLAY PIPE

TOPOGRAPHY (MISCELLANEOUS)

ABBR.	DESCRIPTION
ABUT	ABUTMENT
AOBE	AS ORDERED BY ENGINEER
ASPH	ASPHALT
BDY	BOUNDARY
BLDG	BUILDING
BM	BENCH MARK
CC	CENTER TO CENTER
CONC	CONCRETE
CONST	CONSTRUCTION
CR	COUNTY ROAD
D	DEED DISTANCE
DM	DIRECT MEASUREMENT
DWY	DRIVEWAY
EP	EDGE OF PAVEMENT
ES	EDGE OF SHOULDER
FEE	FEE ACQUISITION
FEE WO/A	FEE ACQUISITION WITHOUT ACCESS
FP	FENCE POST
FD	FOUNDATION
FL	FENCE LINE
GAR	GARAGE
GR	GRAVEL
HO	HOUSE
HWY	HIGHWAY
IP	IRON PIN OR IRON PIPE
MB	MAILBOX
MON	MONUMENT
N&W	NAIL AND WASHER
OG	ORIGINAL GROUND
O/H	OVERHEAD
P	PARCEL
PAV'T	PAVEMENT
PE	PERMANENT EASEMENT
PED POLE	PEDESTRIAN POLE
ℙ	PROPERTY LINE
POR	PORCH
RR	RAILROAD
RTE	ROUTE
ROW	RIGHT OF WAY
RW	RETAINING WALL
SH	STATE HIGHWAY
SHLDR	SHOULDER
SPK	SPIKE
ST	STREET
STK	STAKE
STY	STORY
SW	SIDEWALK
TE	TEMPORARY EASEMENT
TO	TEMPORARY OCCUPANCY
U/G	UNDERGROUND
WW	WING WALL

UTILITIES

ABBR.	DESCRIPTION
E	ELECTRIC
EMH	ELECTRIC MANHOLE
G	GAS
GP	GUY POLE
GSB	GAS SERVICE BOX (HOUSE LINE)
GV	GAS VALVE (MAIN LINE)
HYD	HYDRANT
LP	LIGHT POLE
LPG	LOW PRESSURE GAS
PP	POWER POLE
SA	SANITARY SEWER
SMH	SANITARY MANHOLE
ST	STORM SEWER
T	TELEPHONE
TCB	TRAFFIC CONTROL BOX
TELBOX	TELEPHONE BOX
TEL P	TELEPHONE POLE
TMH	TELEPHONE MANHOLE
CTV	CABLE TELEVISION
W	WATER
WSB	WATER SERVICE BOX (HOUSE LINE)
WV	WATER VALVE (MAIN LINE)

SUBSURFACE EXPLORATION

ABBR.	DESCRIPTION
REPLACE ABBREVIATION "AB" WITH:	
AH	HAND AUGER
CP	CONE PENTROMETER
DA	2¼ INCHES CASED DRILL HOLE
DM	DRILLING MUD
DN	4 INCHES CASED DRILL HOLE
FH	HOLLOW FLIGHT AUGER
PA	POWER AUGER
PH	PROBE
PT	PERCOLATION TEST HOLE
RP	1 INCH SAMPLER (RETRACTABLE PLUG)
	TO BE DEFINED AT THE TIME OF EXPLORATION
SP	SEISMIC POINT
TP	TEST PIT
ABBREVIATION "C" IN CATEGORIES: DA, DM, DN, AND FH WITH:	
B	BRIDGE
C	CUT
D	DAM
F	FILL
K	CULVERT
W	WALL
X	TO BE USED IF ONE OF THE ABOVE CANNOT BE DEFINED AT THE TIME THE EXPLORATION IS MADE

STANDARD SYMBOL (PLANS)	ITEM PAYMENT UNIT: ESTIMATE OF QUANTITIES SHEET	EQUIVALENT NOMENCLATURE: (SPECS/PROPOSAL)
"	-	INCHES
'	LF	LINEAR FEET
mi	MI	MILES
ft^2	SF	SQUARE FEET
YD^2	SY	SQUARE YARD
AC	AC	ACRES
YD^3	CY	CUBIC YARD
GAL	GAL	GALLON
lb	LB	POUND
TON	TON	TON

INDEX

TOTAL NUMBER OF SHEETS: 105

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT: ALBANY DIVISION MP 81.72

TITLE OF DRAWING: INDEX AND ABBREVIATIONS

CONTRACT NUMBER: TAA 23-25B

DATE: 11/16/2023

DRAWING NUMBER: IND-1

ALIGNMENT

STYLE	NAME	DESCRIPTION
	AC	CONTROL (CENTERLINE)
	AD_P	DETOUR
	AT_P	TRANSITION CONTROL

BRIDGE

STYLE	NAME	DESCRIPTION
	BR	RAIL
	BSHT	SHEET PILING

CONTROL

STYLE	NAME	DESCRIPTION
	CB	BASELINE
	CBPR	BASELINE, PROJECTION

DRAINAGE

STYLE	NAME	DESCRIPTION
ST	DCP	CULVERT PIPE
ST	DCP_P	CULVERT PIPE (DIR)
	DDG_P	DITCH, GRASS LINED
	DDP_P	DITCH, PAVED INVERT
	DDS_P	DITCH, STONE LINED
	DFL_P	FLOW LINE
	DSSD	SLOTTED DRAIN
UD	DUD_P	UNDERDRAIN

ENVIRONMENTAL

STYLE	NAME	DESCRIPTION
FL	EBLHS	BALE, STRAW
	ECT	CURTAIN, TURBIDITY
	EDMC	DAM, COFFER
	EDMEC_P	DAM, EARTHEN CHECK
	EDMGSC_P	DAM, GRAVEL BAG/SAND BAG CHECK
	EDMPC_P	DAM, PREFABRICATED CHECK
	EDMSC_P	DAM, STONE CHECK
	EFNS	FENCE, SILT
	EFNSV	FENCE, SILT & VEGETATION
	EFNV	FENCE, VEGETATION
AA	EWAA_P	WETLAND, ADJACENT AREA
FW	EWF	WETLAND, FEDERAL
FW SW	EWFS	WETLAND, FEDERAL AND STATE
WM	EWM	WETLAND, MITIGATION AREA
SW	EWS	WETLAND, STATE

LANDSCAPE

STYLE	NAME	DESCRIPTION
	LABL	AREA, BRUSH LINE
	LAHR	AREA, HEDGE ROW
	LAPB	AREA, PLANTING BED
	LAWA	AREA, WOODED AREA OUTLINE
	LAWE	AREA, WATERS EDGE
	LCUT_P	CUT LIMIT
	LFILL_P	FILL LIMIT
	LFNC	FENCE
	LTRC	TREE ROW, CONIFEROUS
	LTRD	TREE ROW, DECIDUOUS
	LWH	WALL, H PILE
	LWR	WALL, RETAINING
	LWS	WALL, STONE

ROW MAPPING

STYLE	NAME	DESCRIPTION
	MDL	DEED LINE
PE	MEE	EASEMENT, EXISTING
PE	MEP_P	EASEMENT, PERMANENT
APE	MEPA_P	EASEMENT, PERMANENT, APPROX.
TE	MET_P	EASEMENT, TEMPORARY
ATE	META_P	EASEMENT. TEMPORARY, APPROX.
FEE	MF_P	FEE ACQUISITION, W/ ACCESS
AFEE	MFA_P	FEE ACQUISITION, APPROXIMATE
	MFS_P	FEE ACQUISITION, SHAPE
FEE W/OA	MFWOA_P	FEE ACQUISITION, W/O ACCESS
	MHA	HISTORICAL, ACQUISITION
HB	MHB	HIGHWAY BOUNDARY
AHB	MHBA	HIGHWAY BOUNDARY, APPROX.
	MHBW	HWY BOUNDARY, FACE OF WALL
HB W/OA	MHBWOA	HIGHWAY BOUNDARY, W/O ACCESS
	MJC	JURISDICTION, CITY
	MJCY	JURISDICTION, COUNTY
	MJHD	JURISDICTION, HISTORIC DISTRICT
	MJLL	JURIS., (GREAT, MILITARY) LOT LINE
	MJN	JURISDICTION, NATION
	MJPB	JURISDICTION, PUBLIC LANDS
	MJS	JURISDICTION, STATE
	MJT	JURISDICTION, TOWN
	MJV	JURISDICTION, VILLAGE
	MPL	PROPERTY LOT LINE
	MPLA	PROPERTY LOT LINE, APPROXIMATE
	MSL	SUB LOT LINE

ROADWAY

STYLE	NAME	DESCRIPTION
CZ	RCZ_P	CLEAR ZONE
	RG	GUIDE RAIL, MISCELLANEOUS
	RGB	GUIDE RAIL, BOX BEAM
	RGBM	GUIDE RAIL, BOX BEAM, MEDIAN
	RGC	GUIDE RAIL, CABLE
	RGCB	GUIDE RAIL, CONCRETE BARRIER
	RGP_P	GUIDE POST
	RGW	GUIDE RAIL, W BEAM
	RGWM	GUIDE RAIL, W BEAM, MEDIAN
	RPB	PARKING BUMPER
	RRC	RAIL ROAD, CATENARY
3rd	RRER	RAIL ROAD, 3RD RAIL
	RRPLS_P	RAIL, PHOTO, LARGE SCALE
	RRPSS	RAIL, PHOTO, SMALL SCALE
	RRS	RUMBLE STRIP
	RRSLS_P	RAIL, SURVEY, LARGE SCALE
	RRSSS	RAIL, SURVEY, SMALL SCALE

SIGNS

STYLE	NAME	DESCRIPTION
	SBLB	BILLBOARDS
	SM	MULTIPLE POST
	SSO	STRUCTURE, OVERHEAD
	SSOC	STRUCTURE, OVHD. CANTILEVER

STRIPING

STYLE	NAME	DESCRIPTION
	STB•	BROKEN LINE
	STDB•	DOUBLE BROKEN LINE
	STDL•	DOTTED LINE LONG
	STDS•	DOTTED LINE SHORT
	STFB•	FULL BARRIER LINE
	STH•	HATCH LINE
	STPB•	PARTIAL BARRIER LINE
	STRCT	ROUNDABOUT, CAT TRACKS
	STRYL	ROUNDABOUT, YIELD LINE
	STSB	STOP BAR
	STSE•	SOLID, EDGE
	STXL	X WALK, LADDER LINE
	STXLB	X WALK, LADDER BAR LINE

• = W (WHITE) OR Y (YELLOW)

TRAFFIC CONTROL

STYLE	NAME	DESCRIPTION
	TCSW	SIGNAL, SPAN WIRE

TRAFFIC WORK ZONE

	NAME	DESCRIPTION
	TWZBT_P	BARRIER, TEMPORARY
	TWZBTWL_P	BARRIER, TEMPORARY, W/ WARNING LIGHTS
	TWZCD_P	CHANNELIZING DEVICE
	TWZPMRC_P	PAVEMENT MARKING REMOVAL OR COVERING

UTILITIES

STYLE	NAME	DESCRIPTION
C	UC	CONDUIT, UNDERGROUND
]C[	UCH	CONDUIT, HANGING
OC	UCO	CONDUIT, OVERHEAD
E	UE	ELECTRIC LINE, UNDERGROUND
]E[	UEH	ELECTRIC LINE, HANGING
OE	UEO	ELECTRIC LINE, OVERHEAD
OET	UETO	ELECTRIC TRANSMISSION, OVERHEAD
	UESS	ELECTRIC, SUBSTATIONS
FO	UFO	FIBER OPTIC, UNDERGROUND
]FO[	UFOH	FIBER OPTIC, HANGING
OFO	UFOO	FIBER OPTIC, OVERHEAD
G	UG	GAS, UNDERGROUND
]G[	UGH	GAS, HANGING
OG	UGO	GAS, OVERHEAD
IC	UIC	INFORM CABLE, UNDERGROUND
]IC[	UICH	INFORM CABLE, HANGING
O	UO	OIL LINE, UNDERGROUND
]O[	UOH	OIL LINE, HANGING
	UPBP	POLE, BRACE, PUSH BRACE
	UPGW	POLE, GUY WIRE
SA	USA	SANITARY SEWER, UNDERGROUND
]SA[	USAH	SANITARY SEWER, HANGING
SAF	USAF	SANITARY SEWER, FORCE MAIN, UGND
]SAF[	USAFH	SANITARY SEWER, FORCE MAIN, HANG
T	UT	TELEPHONE, UNDERGROUND
]T[	UTH	TELEPHONE, HANGING
OT	UTO	TELEPHONE, OVERHEAD
CTV	UTV	CABLE TV, UNDERGROUND
]CTV[	UTVH	CABLE TV, HANGING
OCTV	UTVO	CABLE TV, OVERHEAD
UU	UUU	UNKNOWN, UNDERGROUND
]UU[	UUH	UNKNOWN, HANGING
OUU	UUO	UNKNOWN, OVERHEAD
W	UW	WATER LINE, UNDERGROUND
]W[	UWH	WATER LINE, HANGING
OW	UWO	WATER LINE, OVERHEAD

1. THE LEGEND ILLUSTRATES MAPPING FEATURES (EXISTING AND PROPOSED).
2. FEATURES ARE SHOWN AS EITHER LINEAR (ROADWAY GUIDERAIL, ROADWAY SIDEWALK, UTILITY LINES, ETC.) OR POINT (SIGN, UTILITY POLE, ETC.).
3. FEATURES SHOWN ON THE LEGEND AS EXISTING FEATURES ALSO HAVE CORRESPONDING PROPOSED FEATURES.
4. PROPOSED FEATURE SYMBOLOGY IS IDENTICAL TO EXISTING FEATURE SYMBOLOGY EXCLUDING LINE WEIGHT. LINE WEIGHT FOR PROPOSED FEATURES IS THICKER (0.015 in ON B SIZE DRAWINGS).
5. MAPPING FEATURES NOT INCLUDED ON THE LEGEND SHEET DO NOT HAVE A UNIQUE SYMBOLOGY (SUCH AS THE PAVEMENT EDGE, PAVEMENT EDGE OF TRAVEL WAY) AND SHOULD BE LABELED ON THE PLANS.
6. FEATURES SHOWN AT THE HEAVIER WEIGHT ARE PROPOSED ONLY AND DO NOT HAVE CORRESPONDING EXISTING FEATURES.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

TITLE OF DRAWING
LEGEND
LINE SYMBOLOGY

CONTRACT NUMBER:
TAA 23-25B

DATE:
11/16/2023

DRAWING NUMBER:
LEG-1

USER = jmtpw11-pw-svc
FILE NAME = A72128_cp_leg_01.dgn
DATE/TIME = 16-NOV-2023 23:58
DESIGN SUPERVISOR M. COLLINGWOOD
DESIGN R. JABLONSKI
DRAFTING T. BURTNICK
CHECK M. COLLINGWOOD
CHECK M. COLLINGWOOD

ALIGNMENT

CELL	NAME	DESCRIPTION
	ACC	CENTER OF CURVATURE
	ACOGO	COGO
	ACS	CURVE TO SPIRAL
	ADPI_P	DETOUR, POINT OF INTERSECT.
	ADPL_P	DETOUR, POINT ON LINE
	AEQN	EQUATION
A	AEQNAHD	EQUATION AHEAD
B	AEQNBK	EQUATION BACK
	AEVT	EVENT STATION
	APC	POINT OF CURVATURE
	APCC	POINT OF COMPOUND CURVATURE
	API	POINT OF INTERSECTION
	APOB	POINT OF BEGINNING
	APOC	POINT OF CURVATURE
	APOE	POINT OF END
	APOL	POINT ON LINE
	APOS	POINT ON SPIRAL
	APOT	POINT ON TANGENT
	APOVC	POINT ON VERTICAL CURVE
	APOVT	POINT ON VERTICAL TANGENT
	APORC	POINT ON REVERSE CURVE
	APT	POINT OF TANGENCY
	APVC	POINT OF VERTICAL CURVATURE
	APVCC	POINT OF VERT. CMPND CURVE
	APVI	POINT OF VERT. INTERSECTION
	APVRC	POINT OF VERT. REVERSE CURVE
	APVT	POINT OF VERTICAL TANGENCY
	ASC	SPIRAL TO CURVE
	ASPI	SPIRAL POINT OF INTERSECTION
	ASTS	SPIRAL TO SPIRAL
	AST	SPIRAL TO TANGENT
	ATS	TANGENT TO SPIRAL
	AVEVT	VERTICAL EVENT POINT
	AVHIGH	VERTICAL HIGH POINT
	AVLOW	VERTICAL LOW POINT

BRIDGE

	BSC	BRIDGE, SCUPPER

CONTROL

	CBP	BASELINE, POINT
	CBPOL	BASELINE, POINT ON LINE
	CBSP	BASELINE, SPUR POINT
	CBTP	BASELINE, TIE POINT
	CPBM	BENCHMARK

CONTROL (CONT.)

CELL	NAME	DESCRIPTION
	CPH	POINT, HORIZ. PHOTOGRAMMETRY
	CPSM	POINT, SURVEY MARKER, PERM.
	CPSV	POINT, VERT., PHOTOGRAMMETRY

DRAINAGE

	DINV	INVERT
	DS	STRUCTURE, RECTANGULAR
	DSI	STRUCTURE, INVERT
	DSM	STRUCTURE, MANHOLE
	DSMTXX_P	STRUCTURE, MANHOLE, TYPE "XX" "XX" = 48, 60, 72, 96
	DSR	STRUCTURE, ROUND
	DST"X"CB P	STRUCTURE, RECT., WITH CURB TYPE "X" "X" = F, G, N, O, P, R
	DST"X" P	STRUCTURE, RECT., TYPE "X" "X" = I, K, L, M, O, P, U

ENVIRONMENTAL

CULV	EIOP_P	STR., INLET, OUTLET PROT.
GB	EIPGB_P	STR., INLET PROT., GRAVEL BAG
H/S	EIPHS_P	STR., INLET PROT., HAY/STRAW
PRFB	EIPP_P	STR., INLET PROT., PREFAB.
SF	EIPSF_P	STR., INLET PROT., SILT FENCE
	ERCB	RISER, CONCRETE BOX
	ETRS_P	TRAP, SEDIMENT
	EWFG	WETLAND FLAG

GEOTECHNICAL

	GDH	DRILL HOLE

LANDSCAPE

	LELS	ELEVATION, SPOT
	LFP	FLAG POLE
	LMB	MAILBOX
	LPB	PAPER BOX
	LPST	POST, SINGLE
	LRB	ROCK, BOULDER
	LSHC	SHRUB, CONIFEROUS
	LSHD	SHRUB, DECIDUOUS
	LTC	TREE, CONIFEROUS
	LTD	TREE, DECIDUOUS
	LTS	TREE, STUMP
	LTW P	TREE, WELL OR WALL
	LUKP	UNKNOWN POINT

ITS

CELL	NAME	DESCRIPTION
A	IANT P	ANTENNAS
AD	IASCTS	ACCOU. SPEED/COUNT SNSR.S
P	ICABPAD	CABINET & PAD
	ICCTV	CCTV SITE
CDPD	ICDPD	CDPD TRANSCEIVER
	ICELLT	CELL PHONE TOWER
	ICJB	CONDUIT JACK OR BORING
	ICNTLCAB	CONTROLLER CABINET
C	ICPB	COMMUNICATION PULL BOX
	ICTD	CONDUIT TURNING DOWN
	ICTU	CONDUIT TURNING UP
C	ICVTRT	COMM. VEH. ROAD TRANSCEIVER
	IDEFAULT	DEFAULT
EZ	IEZR	E-ZPASS READER
EZ-T	IEZTR	TRANSMITTAL READER
XC	IFOXCAB	FIBER OPTIC X-CONNECT CABINET
	IFUSSPL	FUSION SPLICE
	IHARADV	HAR ADVISORY SIGN
H	IHARST	HAR SITE
LC	ILC	LOAD CENTER
	IMECSPL	MECHANICAL SPLICE
PM	IMSCS	PORT. SPEED & COUNT SENSOR
M	IMSCTS	MICRO SPEED & COUNT SENSOR
M	IMT	MICROWAVE TRANSCEIVER
VMS	IOVHVMS	PERM. OVERHEAD VMS
PA	IPASCS	PORT. ACCOU. SPD & CNT. SENSOR
	IPEDS	PEDESTRIAN SIGNAL HEAD
	IPSS	PAVEMENT SURFACE SENSOR
PVMS	IPVMS	PERM. VMS
RM	IRM	RAMP METER
RWIS	IRWIS	RDWY WEATHER INFO. SENSOR
	ISP	SOLAR PANEL
SS	ISST	SPREAD SPECT. TRANSCEIVER
TC	ITDB	TELEPHONE DEMARCATION BLK
TP	ITP	SUBSURFACE TEMP. PROBE
	IVTRT	VEHICLE TO RDWY TRANSCEIVER
WIM	IWIMD	WEIGHT IN MOTION DETECTOR
WVR	IWVR	WIRELESS VIDEO REPEATER
V	IWVRC	WIRELESS VIDEO RECEIVER
V	IWVTT	WIRELESS VIDEO TRANSMITTER

ROW MAPPING

CELL	NAME	DESCRIPTION
	MDL1P	DEED LINE, TYPE 1
	MDL2P	DEED LINE, TYPE 2
	MDL3P	DEED LINE, TYPE 3
	MDL4P	DEED LINE, TYPE 4
	MDL5P	DEED LINE, TYPE 5
	MEEP	EASEMENT, EXISTING
A	MEPAP_P	EASEMENT, PERM., APPROX.
	MEPP_P	EASEMENT, PERM., BACK LINE
	MEPSP_P	EASEMENT, PERM., SHAPE
A	MFAP_P	FEE ACQUISITION, APPROX.
	MFP_P	FEE ACQUISITION, BACK LINE
	MFSP_P	FEE ACQUISITION, SHAPE
	MHBAP	HIGHWAY BNDRY., APPROX.
	MHBCP	HISTORICAL, BLDG. CORNERS
	MHBP	HIGHWAY BNDRY, PT.
	MJCP	PT., JURIS. CITY
	MPBC	PT., BUILDING CORNER
	MPCC	PT., CROSS CUT
	MPDH	PT., DRILL HOLE
	MPF	PT., FENCE LOCATION
	MPIP	PT., IRON PIPE
	MPIR	PT., IRON ROD
	MPM	PT., MONUMENT
	MPMM	PT., MONUMENT, MISC.
	MPN	PT., NAIL
	MPRS	PT., RAILROAD SPIKE
	MPSP	PT., SPIKE
	MPST	PT., STAKE
	MPTW	PT., TREE W/ WIRE
	MPWL	PT., WALL LOCATION

ROW ACQUISITION

M1 P1 FEE	MFS_P_T	FEE ACQUISITION
M1 P1 PE	MEPS_P_T	EASEMENT, PERMANENT
M1 P1 TE	METS_P_T	EASEMENT, TEMPORARY
M1 P1 TO	METS_P_T	OCCUPANCY, TEMPORARY
M1 P1 FEE W/O A	MFS_P_T	FEE ACQUISITION W/O ACCESS

ROADWAY

	RES P	ELEVATION, SPOT
	RGA	GUIDE RAIL, ANCHOR
	RGP	GUIDE POST, SINGLE

SIGNS

CELL	NAME	DESCRIPTION
	S	SINGLE POST
	S_P	SINGLE POST, PROPOSED
	SB_P	BACK TO BACK, PROPOSED
	SDEL	DELINEATORS
	SPM	PARKING METER
REM	SRM	REFERENCE MARKERS
	SRSC3	SHLD, CTY, 123 DIG.
	SRSC4	SHLD, CTY, 4 DIG.
	SRSCT2	SHLD, CTY TOUR, 1-2 DIG.
	SRSCT4	SHLD, CTY TOUR, 3-4 DIG.
	SRSI	SHLD, INTERSTATE
	SRSN2	SHLD, NATIONAL, 2 DIG.
	SRSN3	SHLD, NATIONAL, 3 DIG.
	SRSS2	SHLD, STATE, 2 DIG.
	SRSS3	SHLD, STATE, 3 DIG.
	SRSS4	SHLD, STATE, 4 DIG.

TRAFFIC CONTROL

	TCBJ	BOX, JUNCTION
	TCBP	BOX, PULL BOX
	TCBS	BOX, SPLICE
C	TCMC	MICROCOMPUTER CABINET
	TCPP	PED POLE
	TCSH	SIGNAL HEADS
	TCSP	SIGNAL POLE

TRAFFIC WORK ZONE

	TWZAP_P	ARROW PANEL
	TWZAPC_P	ARROW PANEL, CAUTION MODE
	TWZAPT_P	ARROW PANEL, TRAILER OR SUPPORT
	TWZBCD_P	BARRICADE (TYPE III)
	TWZCMS_P	CHANGEABLE MESSAGE SIGN (PVMS)
	TWZFLG_P	FLAGGER
	TWZFT_P	FLAG TREE
	TWZIA_P	IMPACT ATTENUATOR / CRASH CUSHION (TEMPORARY)
	TWZLUM_P	LUMINAIRE (TEMPORARY)
	TWZSDT_P	SYMBOL, DIRECTION OF TRAFFIC
	TWZSDTD_P	SYMBOL, DIRECTION OF TEMPORARY TRAFFIC DETOUR
	TWZSGN_P	SIGN (TEMPORARY)
	TWZSIG_P	SIGNAL, TRAFFIC OR PEDESTRIAN (TEMPORARY)
	TWZWL_P	WARNING LIGHT
	TWZWV_P	WORK VEHICLE
	TWZWVA_P	WORK VEHICLE WITH TRUCK MOUNTED ATTENUATOR

UTILITIES

CELL	NAME	DESCRIPTION
E	UEB	ELECTRIC, BOX
E	UEM	ELECTRIC, METER
E	UEMH	ELECTRIC, MANHOLE
E	UEPT	ELECTRIC, POLE, TRANS.
G	UGM	GAS, METER
G	UGMH	GAS, MANHOLE
	UGLM	GAS, LINE MARKER
FP	UGP	GAS/FUEL PUMP
	UGV	GAS, VALVE
	UGVT	GAS, VENT
	ULP	LIGHTING, POLE
	ULPM	LIGHTING, POLE, MEDIAN
	ULPP	LIGHTING, POLE, PED.
	UMFC	MISC. FILLER CAP
	UOLM	OIL, LINE MARKER
	UP	POLE, WITH UTILITY
	UPD	POLE, DEAD (NO UTILITY)
	UPL	POLE, WITH LIGHT
S	USMH	SANITARY SEWER MANHOLE
P	UTB	TELEPHONE, BOOTH
	UTLM	TELEPHONE, LINE MARKER
T	UTMH	TELEPHONE, MANHOLE
	UTVLM	CABLE TV, LINE MARKER
C	UTVPB	CABLE TV, PULL BOX
	UUB	UNKNOWN, BOX
	UUJB	UNKNOWN, JUNCTION BOX
	UUMH	UNKNOWN, MANHOLE
	UUPB	UNKNOWN, PULL BOX
	UUVL	UNKNOWN, VALVE
	UUVT	UNKNOWN, VENT
W	UUW	UNKNOWN, WELL
	UWFH	WATER, FIRE HYDRANT
W	UWM	WATER, METER
W	UWMH	WATER, MANHOLE
	UWV	WATER, VALVE
W	UWW	WATER, WELL

1. THE LEGEND ILLUSTRATES MAPPING FEATURES (EXISTING AND PROPOSED).
2. FEATURES ARE SHOWN AS EITHER LINEAR (ROADWAY GUIDERAIL, ROADWAY SIDEWALK,UTILITY LINES, ETC.) OR POINT (SIGN, UTILITY POLE, ETC.).
3. FEATURES SHOWN ON THE LEGEND AS EXISTING FEATURES ALSO HAVE CORRESPONDING PROPOSED FEATURES.
4. PROPOSED FEATURE SYMBOLOGY IS IDENTICAL TO EXISTING FEATURE SYMBOLOGY EXCLUDING LINE WEIGHT. LINE WEIGHT FOR PROPOSED FEATURES IS THICKER (0.015 in ON B SIZE DRAWINGS).
5. MAPPING FEATURES NOT INCLUDED ON THE LEGEND SHEET DO NOT HAVE A UNIQUE SYMBOLOGY (SUCH AS THE PAVEMENT EDGE, PAVEMENT EDGE OF TRAVEL WAY) AND SHOULD BE LABELED ON THE PLANS.
6. FEATURES SHOWN AT THE HEAVIER WEIGHT ARE PROPOSED ONLY AND DO NOT HAVE CORRESPONDING EXISTING FEATURES.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	LEGEND POINT SYMBOLOGY
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	LEG-2

GENERAL HIGHWAY NOTES

1. CURRENT NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND NYS SUPPLEMENT SHALL BE IN EFFECT FOR THIS PROJECT.

2. ADDITIONAL NOTES MAY BE FOUND ON SUBSEQUENT DRAWINGS. SUCH NOTES, WHILE PERTAINING TO THE SPECIFIC DRAWING THEY ARE PLACED ON, ALSO SUPPLEMENT THE GENERAL NOTES LISTED HEREIN.

3. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF THE WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITION MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH THE FIELD CONDITIONS AND AOBE.

4. THE CONTRACTOR SHALL EXAMINE AND VERIFY IN THE FIELD ALL EXISTING CONDITIONS AND DIMENSIONS WITH THOSE SHOWN ON THE PLANS. IF FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL USE THE FIELD CONDITIONS AND DIMENSIONS, AND MAKE THE APPROPRIATE CHANGES TO THOSE SHOWN ON THE PLANS AS APPROVED BY THE ENGINEER.

5. THERE SHALL BE NO CLAIM AGAINST THE NYSTA BY THE CONTRACTOR FOR WORK PERTAINING TO MODIFICATIONS AS MAY BE REQUIRED DUE TO ANY DIFFERENCE BETWEEN ACTUAL FIELD CONDITIONS AND THOSE SHOWN BY THE DETAILS AND DIMENSIONS ON THE CONTRACT PLANS. THE CONTRACTOR WILL BE PAID AT THE UNIT BID PRICE FOR THE ACTUAL QUANTITIES OF MATERIALS USED OR FOR THE WORK PERFORMED, AS INDICATED BY THE VARIOUS ITEMS INDICATED IN THE CONTRACT.

6. AT ALL TIMES, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE OF SURFACE RUNOFF FROM THE TRAVEL LANES AND CONTROL OF THE RUNOFF TO PREVENT EROSION, POLLUTION, SEDIMENTATION OR OTHER DISCHARGES WHICH WOULD AFFECT PROPERTIES ADJACENT TO THE WORK SITE. ALL MEASURES TAKEN TO PROVIDE POSITIVE DRAINAGE SHALL BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR VARIOUS ITEMS IN THE CONTRACT.

7. THE CONTRACTOR SHOULD NOTE THAT ADDITIONAL WORK MAY BE REQUIRED AS THE CONTRACT PROGRESSES WHICH IS NOT SHOWN OR NOTED ON THE PLANS. THIS WORK SHALL BE PERFORMED BY THE CONTRACTOR AOBE AND PAYMENT SHALL BE MADE AT THE UNIT BID PRICE FOR THE APPROPRIATE ITEMS.

8. NO PAYMENT SHALL BE MADE FOR WORK CALLED FOR BY NOTES ON THE PLANS, IN THE SPECIFICATIONS, OR UNDER THE HEADING GENERAL NOTES UNLESS PAYMENT IS SPECIFICALLY INDICATED BY ITEM NUMBER. THE COST OF WORK FOR WHICH NO PAYMENT IS INDICATED SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS ITEMS IN THE CONTRACT.

9. WHENEVER ITEMS IN THE CONTRACT REQUIRE MATERIALS TO BE REMOVED AND DISPOSED, THE COST OF SUPPLYING A DISPOSAL AREA AND TRANSPORTATION TO THAT AREA AND SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THOSE ITEMS.

10. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORTS, BRACING OR OTHER DEVICES THAT MAY BE REQUIRED OR THAT MAY BE DIRECTED BY THE ENGINEER TO PROTECT THE SAFETY OF ADJACENT STRUCTURES, ROADWAYS OR THE VARIOUS ITEMS IN THE CONTRACT. NO SEPARATE PAYMENT SHALL BE MADE.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GUARDING AND PROTECTING ALL OPEN EXCAVATION IN ACCORDANCE WITH THE PROVISION OF SECTION 107.05 "SAFETY & HEALTH REQUIREMENTS" OF THE NYSDOT STANDARD SPECIFICATIONS. IN ADDITION, A MINIMUM OF 1-INCH THICK PLATE WILL BE REQUIRED AT ALL EXCAVATIONS THAT ARE TO BE COVERED AOBE. THE PLATES SHALL BE SECURELY FASTENED DOWN TO THE SATISFACTION OF THE ENGINEER AND SHALL BE STRUCTURALLY CAPABLE OF CARRYING ALL IMPOSED LOADS. THE COST SHALL BE INCLUDED UNDER VARIOUS ITEMS IN THE CONTRACT.

12. THE CONTRACTOR SHALL KEEP ALL DRAINAGE FACILITIES, WITHIN THE CONTRACT LIMITS, CLEAN AND FULLY OPERATIONAL AT ALL TIMES. THIS WORK SHALL BE INCLUDED UNDER VARIOUS ITEMS IN THE CONTRACT.

13. IF THE ENGINEER NOTIFIES THE CONTRACTOR OF ANY HAZARDOUS CONSTRUCTION PRACTICES, ALL OPERATIONS IN THE AFFECTED AREA SHALL BE DISCONTINUED AND IMMEDIATE ACTIONS SHALL BE TAKEN TO CORRECT THE SITUATION TO THE SATISFACTION OF THE ENGINEER BEFORE WORK IS RESUMED.

14. THE CONTRACTOR SHALL BE REQUIRED TO PROTECT HIS WORKERS AT ALL TIMES IN CONFORMANCE WITH APPLICABLE OSHA REGULATIONS.

15. PROTECTION OF THE PUBLIC: THE CONTRACTOR SHALL MAINTAIN AND PROTECT THRUWAY TRAFFIC IN ACCORDANCE WITH SECTION 619, THE TRAFFIC CONTROL PLANS, THE MUTCD AND THE NEW YORK STATE SUPPLEMENT TO THE MUTCD. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF SECTION 107, LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC, OF THE STANDARD SPECIFICATION.

16. THE CONTRACTOR SHALL COORDINATE THEIR WORK WITH OTHER CONTRACTORS AND AUTHORITY MAINTENANCE FORCES AND SCHEDULE HIS OPERATIONS SO AS TO CAUSE A MINIMUM DISRUPTION TO TRAFFIC.

17. THERE IS NO IDENTIFIED SPOIL AREA WITHIN THE THRUWAY AUTHORITY'S RIGHT-OF-WAY FOR THIS CONTRACT. THEREFORE, THE CONTRACTOR SHALL REMOVE ALL SURPLUS MATERIAL AND WASTE FROM THRUWAY AUTHORITY (AUTHORITY) PROPERTY. THE CONTRACTOR SHALL BID ACCORDINGLY FOR THIS CONDITION.

ENVIRONMENTAL NOTES:

1. ACTIVITIES MUST BE CONDUCTED IN A MANNER TO PREVENT DISTURBANCE AND DISCHARGE OF POLLUTANTS TO SURFACE WATERS. PLACEMENT OF FILL AND APPROPRIATE SEDIMENTATION AND EROSION CONTROL MEASURES DURING CONSTRUCTION SHALL PREVENT DISCHARGE TO SURFACE WATERS.

EROSION & SEDIMENT CONTROL NOTES:

1. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLACED PRIOR TO STARTING EARTHWORK OPERATIONS AND SHALL REMAIN IN PLACE UNTIL THE SOIL IS STABILIZED WITH SEEDING AND/OR MULCH.

2. THE LOCATIONS OF EROSION AND SEDIMENT CONTROL MEASURES, AS INDICATED ON THE EROSION CONTROL PLANS, MAY REQUIRE FIELD ADJUSTMENT DEPENDING UPON THE SEQUENCE OF CONSTRUCTION ACTIVITIES, CONSTRUCTION METHODS, AND/OR ACTUAL FIELD CONDITIONS. THE ENGINEER SHALL BE NOTIFIED OF ANY SIGNIFICANT FIELD CHANGES TO THE EROSION AND SEDIMENT CONTROL MEASURES INDICATED IN THE PLANS.

3. STORM WATER FROM DISTURBED AREAS MUST BE ALLOWED TO SETTLE (VIA A SEDIMENT TRAP) OR PASS THROUGH AN APPROPRIATE SEDIMENT CONTROL DEVICE BEFORE DISCHARGE BEYOND DISTURBED AREAS OR INTO INLETS OF OTHER DRAINAGE SYSTEMS.

4. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM WATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL DEVICES.

5. REFER TO NYSDOT STANDARD SHEETS 209-01 THROUGH 209-07 FOR ADDITIONAL INFORMATION REGARDING THE APPLICATION, INSTALLATION, AND INSPECTION REQUIREMENTS OF SOIL EROSION AND SEDIMENT CONTROL MEASURES.

6. ANY SEDIMENT TRAPPED BEHIND EROSION CONTROL MEASURES MUST BE REMOVED PRIOR TO REMOVAL OF THE EROSION CONTROL DEVICE.

7. MINIMIZE EXPOSED SOILS WHEREVER POSSIBLE. THIS CAN BE ACCOMPLISHED THROUGH PROPER CONSTRUCTION SEQUENCING AND USE OF MULCH AND TEMPORARY SEEDING.

8. THE CONTRACTOR SHALL INITIATE STABILIZATION MEASURES (I.E., JUTE MESH, SEED OR MULCH) AS SOON AS PRACTICABLE IN AREAS WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT NO MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

9. ALL STORM DRAINAGE OUTLETS SHALL BE STABILIZED BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.

UTILITY NOTES

1. LOCATION OF UTILITIES, PUBLIC AND/OR PRIVATE, INDICATED ON THE PLANS AS EXISTING AND/OR TO BE CONSTRUCTED ARE APPROXIMATE ONLY. THEIR EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD. ADDITIONAL UTILITY LINES, WHETHER ABANDONED OR IN SERVICE, MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT OPERATIONS AND TAKE NECESSARY PRECAUTIONS SUCH THAT INTERFERENCE WITH OR DAMAGE TO THESE OR OTHER FACILITIES DURING THE COURSE OF CONSTRUCTION IS PREVENTED. PRIOR TO ANY EXCAVATION, THE CONTRACTOR IS TO CALL UDIG NY TO HAVE UNDERGROUND UTILITIES LOCATED, 1-800-962-7962 OR 811. CONTRACTOR SHALL BE RESPONSIBLE TO CONDUCT EXPLORATORY TEST PITS AS MAY BE REQUIRED TO DETERMINE UNDERGROUND CONDITIONS, THE COST OF WHICH SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 206.05 -TEST PITS. A QUANTITY OF 4 TEST PITS HAS BEEN INCLUDED IN THE CONTRACT. THE NEED FOR TEST PIT EXCAVATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO EXCAVATING.

2. IN THE EVENT THE CONTRACTOR DAMAGES AN EXISTING UTILITY SERVICE, CAUSING THE INTERRUPTION IN SAID SERVICE, THE CONTRACTOR SHALL IMMEDIATELY COMMENCE WORK TO RESTORE SERVICE AND MAY NOT CEASE WORK UNTIL SERVICE IS RESTORED. ALL COSTS TO REPAIR OR REPLACE DAMAGED UTILITIES SHALL BE AT THE EXPENSE OF THE CONTRACTOR. IF THE CONTRACTOR DOES NOT MAKE IMMEDIATE NECESSARY REPAIRS, THE RESPECTIVE OWNING COMPANIES OR MUNICIPAL FORCES MAY DO THE WORK, AND THE COST THEREOF CHARGED AGAINST THE CONTRACTOR.

3. PRIVATE UTILITY COMPANIES ARE ALSO REQUIRED TO ALTER/RELOCATE THEIR FACILITIES WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL LAY OUT THE PROJECT CENTERLINE AND OTHER FEATURES TO PROVIDE THE UTILITY COMPANIES WITH SUFFICIENT INFORMATION TO ALTER/RELOCATE THEIR FACILITIES. THE COST OF THIS WORK SHALL BE INCLUDED UNDER ITEM 625.01. ALTERATIONS/RELOCATIONS OF UTILITIES MAY NOT ALL BE SHOWN IN THE CONTRACT PLANS. ADDITIONAL ALTERATIONS/RELOCATIONS MAY BE REQUIRED BY THEIR RESPECTIVE OWNERS.

FIBER OPTIC LINE NOTES

1. THE THRUWAY'S FIBER OPTIC LINES ARE LOCATED WITHIN THE ENTIRE WORK LIMITS OF THIS PROJECT. THE APPROXIMATE LOCATION IS SHOWN ON THE DRAWINGS. THE CONTRACTOR IS ADVISED TO CONTACT UDIG NY AT 1-800-962-7962 OR 811, PRIOR TO ANY EXCAVATION. FUTHERMORE PURSUANT TO N.Y.S. CODE RULE 753, THE CONTRACTOR MUST BE PREPARED TO VERIFY THE LOCATION OF THE FIBER OPTIC LINE THROUGH HAND DUG TEST HOLES AT ONE OR MORE LOCATIONS WITHIN THE WORK AREA PRIOR TO ANY EXCAVATION.

2. CONTRACTOR SHALL COORDIINATE FIBER OPTIC RELOCATIONS WITH ADESTA, LLC, A G4S COMPANY. CONTACT ANDY CONKLIN AT 518-869-5053.

WORK TO BE DONE:

1. THE FOLLOWING IS A GENERAL DESCRIPTION OF THE WORK TO BE DONE UNDER THIS CONTRACT. THIS LIST IS INTENDED TO GIVE THE CONTRACTOR A GENERAL DESCRIPTION OF THE WORK INVOLVED IN THE CONTRACT AND IS NOT A COMPLETE LISTING OF ALL WORK TO BE DONE. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS EVEN THOUGH NOT SPECIFICALLY MENTIONED IN THIS LIST.

2. COMPLETE ALL HIGHWAY RECONSTRUCTION TO THE LIMITS SHOWN IN THE PLANS AND TO SATISFY ALL STAGES OF WORK ZONE TRAFFIC CONTROL.

3. STAGE 1 OF WORK ZONE TRAFFIC CONTROL TO INCLUDE PREPARATION OF MEDIAN AREA FOR CROSSOVER STAGES 2 AND 3 THROUGH THE USE OF STANDARD SHOULDER AND LANE CLOSURES.

4. IMPLEMENT PROVISIONS OF WORK ZONE TRAFFIC CONTROL PLANS FOR STAGE 2 TRAFFIC.

5. PRIOR TO SHIFTING TRAFFIC TO SOUTHBOUND STRUCTURE, REPAIR PEDESTAL FOR G7 AT BEGIN ABUTMENT AND INSTALL TEMPORARY TIE-DOWN SYSTEMS AT LOCATIONS ORDER BY ENGINEER FOR GIRDERS IN SOUTHBOUND STRUCTURE AT BEGIN AND END ABUTMENTS. ANY REPAIRS TO ABUTMENT CONCRETE NEEDED TO ENSURE PROPER ANCHORAGE TO BE COMPLETED AS ORDERED BY ENGINEER.

6. RELOCATION OF FIBER OPTIC CONDUITS TO EXISTING FASCIA GIRDER AT MEDIAN OF SOUTHBOUND BRIDGE TO BE COMPLETED BY OTHERS.

7. REMOVE NORTHBOUND SUPERSTRUCTURE; REMOVE AND STORE GUIDE RAIL ALONG RTE. 213 AND AT NORTHWEST QUADRANT OF COVERED BRIDGE (PERRINE'S BRIDGE).

8. INSTALL SOLDIER PILE AND LAGGING WALL AT BEGIN AND END ABUTMENTS; EXCAVATE IN PREPARATION OF BACKWALL REPLACEMENT; COMPLETE REPAIRS TO SUBSTRUCTURE CONCRETE.

9. CONSTRUCT PROPOSED ABUTMENT BACKWALLS AND PEDESTALS AT ABUTMENTS AND PIERS; BACKFILL AREA BEHIND BACKWALLS AND REMOVE LAGGING.

10. ERECT STEEL GIRDERS G8 TO G14 FROM ABUTMENTS TO FIELD SPLICE LOCATIONS OVER PIERS IN SPANS 1 & 3.

11. POUR COUNTERWEIGHTS IN SPANS 1 & 3; PREPARE TEMPORARY SUPPORT CONNECTION FROM EXISTING SOUTHBOUND BRIDGE TO PROVIDE STABILITY TO DROP IN SECTION OF GIRDER G8; ERECT DROP-IN SECTIONS OF GIRDERS G8 TO G14 BETWEEN FIELD SPLICES.

12. INSTALL SUPERSTRUCTURE DECK FORMS, SHEAR CONNECTOR, AND REINFORCING; INSTALL SCUPPERS AND DOWNSPOUTS; POUR CONCRETE DECK.

13. FORM, INSTALL REINFORCING, AND POUR SLEEPER SLABS AND APPROACH SLAB; INSTALL MODULAR JOINT AT SOUTH APPROACH AND ARMORLESS JOINT AT NORTH APPROACH.

14. FORM, INSTALL REINFORCING, AND POUR CONCRETE BARRIER ALONG MEDIAN AND FASCIA; INSTALL TRANSITION RAIL AND CURBING AT ENDS OF BARRIERS; INSTALL APPROACH DRAINAGE.

15. LONGITUDINAL SAWCUT BRIDGE DECK, APPROACH SLABS, AND SLEEPER SLABS; APPLY PROTECTIVE SEALER ON CONCRETE; INSTALL SNOW FENCING.

16. COMPLETE HIGHWAY APPROACH WORK INCLUDING FULL DEPTH RECONSTRUCTION, MILL AND OVERLAY, PAVEMENT MARKINGS, AND GUIDE RAIL INSTALLATION ALONG SHOULDER.

17. RELOCATION OF FIBER OPTIC CONDUITS TO FASCIA GIRDER G8 AT THE MEDIAN OF NORTHBOUND BRIDGE TO BE COMPLETED BY OTHERS.

18. IMPLEMENT PROVISIONS OF WORK ZONE TRAFFIC CONTROL PLANS FOR STAGE 3 TRAFFIC.

19. REMOVE SOUTHBOUND SUPERSTRUCTURE.

20. INSTALL LAGGING AT BEGIN AND END ABUTMENTS; EXCAVATE IN PREPARATION OF BACKWALL REPLACEMENT; COMPLETE REPAIRS TO SUBSTRUCTURE CONCRETE.

21. CONSTRUCT PROPOSED ABUTMENT BACKWALLS AND PEDESTALS AT ABUTMENTS AND PIERS; BACKFILL AREA BEHIND BACKWALLS AND REMOVE LAGGING. REMOVE TOPS OF SOLDIER PILES TO BELOW SUBGRADE.

22. ERECT STEEL GIRDERS G1 TO G7 FROM ABUTMENTS TO FIELD SPLICE LOCATIONS OVER PIERS IN SPANS 1 & 3.

23. POUR COUNTERWEIGHTS IN SPANS 1 & 3; PREPARE TEMPORARY SUPPORT CONNECTION FROM BRIDGE G8 TO PROVIDE STABILITY TO DROP IN SECTION OF GIRDER G7; ERECT DROP-IN SECTIONS OF GIRDERS G1 TO G7 BETWEEN FIELD SPLICES.

24. INSTALL SUPERSTRUCTURE DECK FORMS, SHEAR CONNECTOR, AND REINFORCING; INSTALL SCUPPERS AND DOWNSPOUTS; POUR CONCRETE DECK.

25. FORM, INSTALL REINFORCING, AND POUR SLEEPER SLABS AND APPROACH SLAB; INSTALL MODULAR JOINT AT SOUTH APPROACH AND ARMORLESS JOINT AT NORTH APPROACH.

26. FORM, INSTALL REINFORCING, AND POUR CONCRETE BARRIER ALONG MEDIAN AND FASCIA; INSTALL TRANSITION RAIL AND CURBING AT ENDS OF BARRIERS; INSTALL APPROACH DRAINAGE.

27. LONGITUDINAL SAWCUT BRIDGE DECK, APPROACH SLABS, AND SLEEPER SLABS; APPLY PROTECTIVE SEALER ON CONCRETE; INSTALL SNOW FENCING.

28. COMPLETE HIGHWAY APPROACH WORK INCLUDING FULL DEPTH RECONSTRUCTION, MILL AND OVERLAY, PAVEMENT MARKINGS, GUIDE RAIL INSTALLATION ALONG SHOULDER, AND MEDIAN BARRIER INSTALLATION.

29. REINSTALL GUIDE RAIL ALONG RTE. 213; REINSTALL FENCING AT COVERED (PERRINE'S) RBIDGE; CLEAN UP AS DIRECTED BY THE ENGINEER.

ALTERED BY: ON:	AFFIX SEAL: Matthew Wayne Collingwood ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

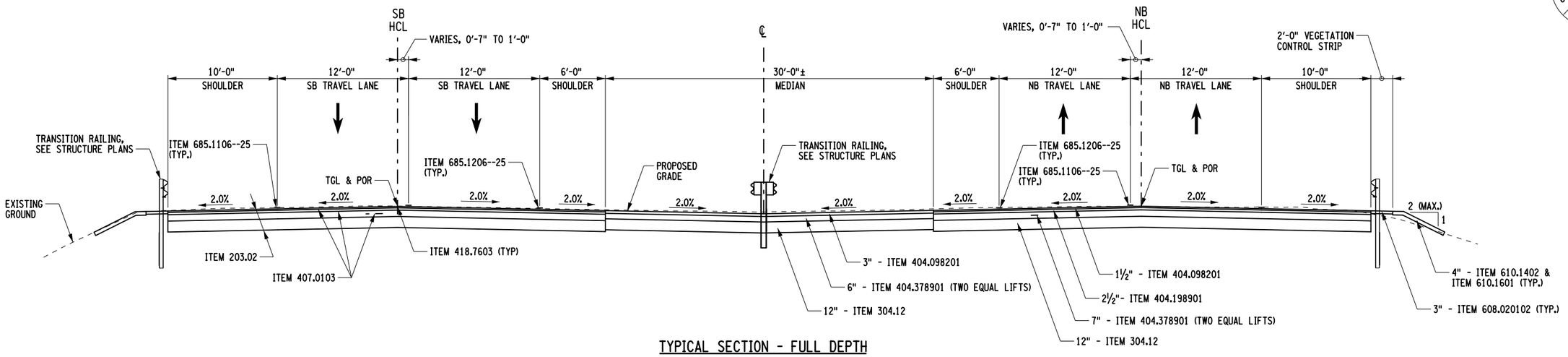
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	GENERAL NOTES
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	GNN-1

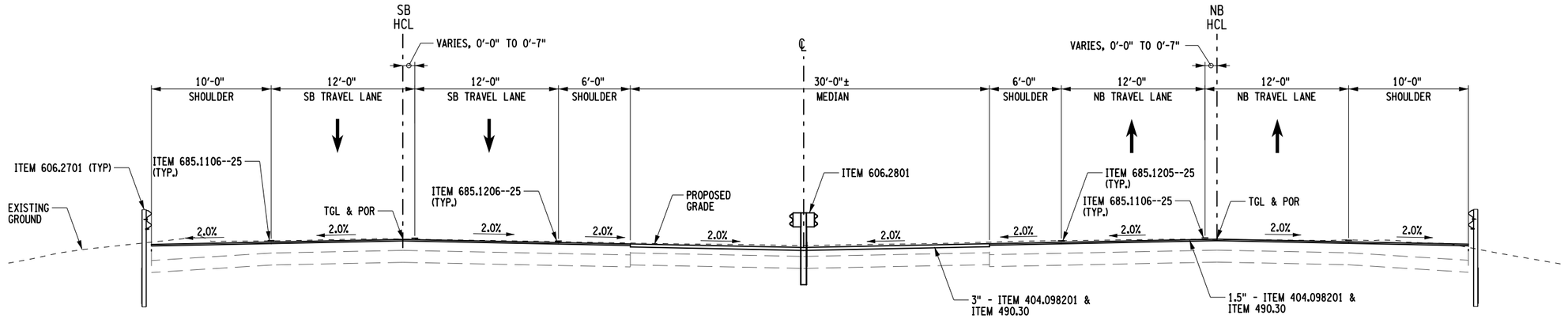
DESIGN SUPERVISOR M. COLLINGWOOD | DRAFTING M. COLLINGWOOD | DESIGN T. BURTNICK | CHECK R. JABLONSKI | CHECK M. COLLINGWOOD
DATE/TIME = 16-NOV-2023 23:58 | USER = jmtpw11-pw-svc
FILE NAME = A72128_cp_gnn_01.dgn



TYPICAL SECTION - FULL DEPTH

NTS

STA. NB 18+75.50 TO STA. NB 18+98.77
STA. NB 23+08.99 TO STA. NB 23+26.50
STA. SB 18+53.30 TO STA. SB 18+70.81
STA. SB 22+80.65 TO STA. SB 23+02.80



TYPICAL SECTION - MILL AND FILL

NTS

STA. NB 17+00.00 TO STA. NB 18+75.50
STA. NB 23+26.50 TO STA. NB 24+00.00
STA. SB 17+00.00 TO STA. SB 18+53.30
STA. SB 23+02.80 TO STA. SB 24+00.00

ITEM	DESCRIPTION	UNIT	ITEM	DESCRIPTION	UNIT
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	606.2701	HPBO (MOD.) CORRUGATED BEAM GUIDE RAILING	LF
304.12	SUBBASE COURSE, TYPE 2	CY	606.2801	HPBO (MOD.) CORRUGATED BEAM MEDIAN BARRIER	LF
404.098201	9.5 F2 TOP COURSE ASPHALT, 80 SERIES COMPACTION	TON	608.020102	ASPHALT SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS, AND VEGETATION CONTROL STRIPS	TON
404.198901	19 F9 BINDER COURSE ASPHALT, 80 SERIES COMPACTION	TON			
404.378901	37.5 F9 BASE COURSE ASPHALT, 80 SERIES COMPACTION	TON	610.1402	TOPSOIL - ROADSIDE	CY
407.0103	STRAIGHT TACK COAT	GAL	610.1601	TURF ESTABLISHMENT - ROADSIDE	SY
418.7603	ASPHALT PAVEMENT JOINT ADHESIVE	LF	685.1106--25	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS	LF
490.30	MISCELLANEOUS COLD MILLING OF BITUMINOUS CONCRETE	SY	685.1206--25	YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS	LF

NOTES

1. ASPHALT PAVEMENT JOINT ADHESIVE TO BE USED AT ALL VERTICAL PAVEMENT JOINTS.
2. MIARDS TO BE INSTALLED ALONG RIGHT SHOULDER AND MEDIAN SHOULDER UNDER ITEM 649.01 AND PER NYSDOT STANDARD SHEET 649-02. SEE MST-1 FOR MIARD INSTALLATION LIMITS.

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION 'ALTERED BY' FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72
TITLE OF DRAWING: TYPICAL SECTIONS

CONTRACT NUMBER: TAA 23-25B
DATE: 11/16/2023
DRAWING NUMBER: TYP-1

DESIGN SUPERVISOR: M. COLLINGWOOD
DRAFTING: M. COLLINGWOOD
DESIGN: T. BURTNICK
CHECK: R. RABLONSKI
M. COLLINGWOOD
DATE/TIME = 17-NOV-2023 00:04
USER = jmtpw11-pw-svc
FILE NAME = A72128.cp_typ-01.dgn

New York State Thruway Authority Standard Sheets

The following NYS Thruway Authority standard sheets, marked with an "X" in first column, apply to this project.

X	SHEET NO.	SUBJECT
	TA 201-01	Clearing and Grubbing *(Dwg. CG)*
	TA 203-01	Shoulder Backup 1R Projects *(Dwg. SB)*
	TA 203-02	Slope Flattening Details
	TA 402-01	Highway Pavement Repair Details *(Dwg. PRD)*
	TA 402-02	Bridge Deck Wearing Course Resurfacing *(Dwg. BDR)*
	TA 402-03	Overhead Bridge Underclearance Improvement *(Dwg. BU)*
	TA 603-01	Culvert Extension Details
	TA 605-01	Underdrain Details
	TA 606-01	Modified Thrie Beam (Mod.) Guiderail *(Dwg. GR-1)*
	TA 606-02	*Vacant*
	TA 606-03	Corrugated Median Barrier to Corrugated Beam Guide Railing Transition Detail D *(Dwg. GR-4)*
	TA 606-04	Box Beam to 42" Single Slope Half Section Concrete Barrier Pier Protection *(Dwg. GR-5)*
	TA 606-05	HPBO (Mod.) Corrugated Beam to 42" Single Slope Half Section Concrete Barrier Pier Protection *(Dwg. GR-6)*
	TA 606-06	Typical U-Turn Median Rail Layout and Roadway Transverse Section
	TA 606-07	Modified Thrie Beam Guiderail with Rock Rail
	TA 611-01	Living Snow Fences
	TA 614-01	Tree Removal
X	TA 619-01	Work Zone Traffic Control Tables & Legend
X	TA 619-02	General Work Zone Traffic Control Notes & Channelizing Devices
X	TA 619-03	Shoulder Closure Short-Term or Intermediate-Term Stationary
X	TA 619-04	Shoulder Closure Short-Duration Stationary and Mobile
X	TA 619-05	Signing & Delineation for Shoulder Work Spaces with Temporary Concrete Barrier
X	TA 619-06	Work Beyond Shoulder
	TA 619-07	Be Prepared to Stop and Uneven Lanes Signing
X	TA 619-08	Single Lane Closure Short- or Intermediate-Term Stationary: 65 MPH Zone
	TA 619-09	Double Lane Closure Short- or Intermediate-Term Stationary: 65 MPH Zone
	TA 619-10	Center Lane Closure Short- or Intermediate-Term Stationary: 65 MPH Zone
	TA 619-11	Lane Shift: 65 MPH Zone
	TA 619-12	Single Lane Closure Short- or Intermediate-Term Stationary: 55 MPH Zone
	TA 619-13	Double Lane Closure Short- or Intermediate-Term Stationary: 55 MPH Zone
	TA 619-14	Center Lane Closure Short- or Intermediate-Term Stationary: 55 MPH Zone
	TA 619-15	Lane Shift: 55 MPH Zone
	TA 619-16	Work Zone Traffic Control at Interchanges, Service Areas and Parking Areas
	TA 619-17	Work Zone Traffic Control for Miscellaneous Operations
X	TA 619-18	Mobile Lane Closure
	TA 619-19	Mobile Lane Closure: Narrow Shoulder Area
X	TA 619-20	Short-Duration Lane Closure
	TA 619-21	Short-Duration Double Lane Closure
X	TA 619-22	Work Zone Traffic Control Guide for Pavement Striping Operations
X	TA 619-23	Mobile Lane Closure for Pavement Striping Operations
	TA 619-24	Mobile Lane Closure for Pavement Striping Operations: Narrow Shoulder Area
	TA 619-25	Work Zone Traffic Control for Pavement Striping Operations at Interchanges, Service Areas and Parking Areas
	TA 619-26	Temporary Rock Catchment Barrier (Sheets 1-3)
	TA 619-27	Workzone Overhead Gantry Signing
	TA 619-30	New York Division Traffic Management Tables (Sheets 1-27)
X	TA 619-31	Albany Division 1,150 Veh/Hr/Lane Traffic Management Tables (Sheets 1-18)
	TA 619-32	Syracuse Division 1,150 Veh/Hr/Lane Traffic Management Tables (Sheets 1-18)
	TA 619-33	Buffalo Division 1,150 Veh/Hr/Lane Traffic Management Tables (Sheets 1-37)
	TA 619-34	*Vacant*
X	TA 619-35	Albany Division 1,300 Veh/Hr/Lane Traffic Management Tables (Sheets 1-18)
	TA 619-36	Syracuse Division 1,300 Veh/Hr/Lane Traffic Management Tables (Sheets 1-18)
	TA 619-37	Buffalo Division 1,300 Veh/Hr/Lane Traffic Management Tables (Sheets 1-37)
	TA 625-01	ROW and Survey Markers
	TA 645-01	Wrong Way Deterrence Sign
	TA 646-01	Reference Marker Details (Sheets 1-2)
	TA 670-01	Fiber Optic & Backbone Handhole Relocation Details
	TA 680-01	Inductance Loop Installation
	TA 680-02	Highway Advisory Radio (Sheets 1-9)
X	TA 685-01	Pavement Marking Details: Asphalt and Concrete Pavement (Sheets 1-2)
	TA 685-02	Pavement Marking Details: Tapered Acceleration and Deceleration Lanes
	TA 685-03	Vacant
X	TA 685-04	Temporary Pavement Marking Details
	TA 690-01	Loop and Treadle Plan (Sheets 1-2)
	TA 690-02	Toll Lane Slab Reinforcement Plan
	TA 690-03	10 ft Treadle Frame (Sheets 1-4)

The officially adopted New York State Thruway Authority Standard Sheets book is available on the Thruway Authority's website at: http://www.thruway.ny.gov/business/contractors/standard-sheets/index.shtml

Highway Work Type

The marked types & treatments apply to the indicated milepost range(s) below.

MILEPOST FROM:	81.72						
TO:	81.72						
PROJECT TYPE	**X**	**X**	**X**	**X**	**X**	**X**	**X**
1R Resurfacing							
2R Resurfacing							
3R Rehabilitation							
Reconstruction							
Safety Improvements							
Drainage							
Rock Slope Remediation							
Pavement Striping	X						
Other:							
PAVEMENT TREATMENT	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Isolated Pavement Repairs Only							
Thin Overlay without Milling							
Thin Overlay with Milling	X						
1" Mill & Inlay without Shoulders							
1" Mill & Inlay with Shoulders							
2" Mill & Inlay without Shoulders							
2" Mill & Inlay with Shoulders							
Mill to Concrete with 4" Overlay							
Mill to Concrete with 4.5" Overlay							
Mill to Concrete with 5" Overlay							
Crack and Seat with Overlay							
Rubblize with Overlay							
Other:							

Structure Work Type

The marked types apply to the indicated milepost(s) below.

MILEPOST:	81.72						
PROJECT TYPE	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Bridge Washing							
Scour Protection							
Channel Cleaning							
Railing System							
Protective Screening							
Painting							
Steel Repair							
Wearing Surface Treatment							
Deck Repairs							
Joint Rehabilitation							
Joint Replacement							
Bearing Rehabilitation							
Bearing Replacement	X						
Hanger Pin Replacement							
Security							
Seismic Retrofit							
Substructure Rehabilitation	X						
Electrical							
Cathodic Protection System							
Fendor or Pier Protection System							
Deck Replacement							
Superstructure Replacement	X						
Bridge Replacement							
Added Bridge (New Location)							
Abandoned Bridge							
Other:							

New York State Department of Transportation Standard Sheets

The latest revisions of the New York State Department of Transportation Standard Sheets maintained by NYSDOT, which are current as of the Standard Specifications adoption date shown on the Proposal cover, shall be considered to be in effect. All pay items and work contained in the Contract and any additional pay items and work encountered during the course of the Contract shall be subject to the applicable standard sheet(s) unless otherwise specified in the Contract documents.

The officially adopted New York State Department of Transportation Standard Sheets book is available on the NYSDOT website at:
https://www.dot.ny.gov/main/business-center/engineering/specifications/busi-e-standards-usc

REV. 8/22

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

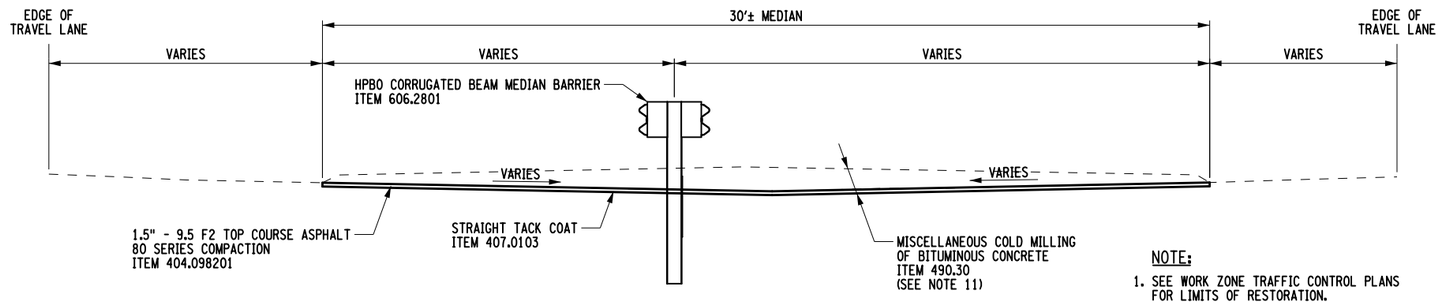
JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72
TITLE OF DRAWING: NYSTA STANDARD SHEETS LISTING AND WORK TYPE TABLES

CONTRACT NUMBER: TAA 23-25B
DATE: 11/16/2023
DRAWING NUMBER: SS-1

WORK ZONE TRAFFIC CONTROL NOTES:

1. WINTER SHUTDOWN IS TO OCCUR BETWEEN STAGE 2 AND STAGE 3 WORK. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL THEIR PLAN TO ADDRESS ANY GAPS IN MEDIAN BARRIER LEFT AT THE CONCLUSION OF STAGE 2 WORK. COST FOR ANY WORK ASSOCIATED WITH WINTER SHUTDOWN SHALL BE INCLUDED IN ITEM 619.01.
2. THE CONTRACTOR SHALL BE PREPARED TO IMMEDIATELY RESPOND AND REPAIR ANY DAMAGED GUIDE RAIL OR TEMPORARY POSITIVE BARRIER WITHIN THE PROJECT LIMITS DURING CONSTRUCTION AND WINTER SHUTDOWN PERIODS.
3. PROPOSED CHANGES TO WORK ZONE TRAFFIC CONTROL PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL TWO (2) WEEKS IN ADVANCE OF WORK.
4. MEDIAN AREA TEMPORARY PAVEMENT SLOPES SHALL NOT BE LESS THAN 2.0% OR EXCEED 6.0%. USE ROLLOVER OF 8.0% MAX. AT PAVT/SHOULDER JOINT.
5. ITEM 407.0103 SHALL BE PLACED BETWEEN ALL PAVEMENT COURSES.
6. ITEM 418.7603, ASPHALT PAVEMENT JOINT ADHESIVE, SHALL BE APPLIED TO THE VERTICAL FACE OF ALL PAVEMENT CONSTRUCTION JOINTS.
7. THE CONTRACTOR SHALL ADJUST INLET GRATES TO THE GRADE OF THE TEMPORARY CROSSOVER. THE COST OF THIS WORK TO BE INCLUDED UNDER ITEM 604.070101. REFER TO STAGE 2 AND STAGE 3 TRAFFIC CONTROL PLANS FOR LOCATIONS. THE INLET GRATES SHALL BE RETURNED TO THE ORIGINAL ELEVATION AT THE CONCLUSION OF STAGE 3 WORK.
8. UPON COMPLETION OF STAGE 3, THE MEDIAN AREA SHALL RESTORED PER THE MEDIAN RESTORATION SECTION SHOWN ON THIS SHEET. THE MILLING SHALL ACCOMMODATE PLACEMENT OF 1.5" THICK ASPHALT OVERLAY (ITEM 404.098201).
9. NYS ROUTE 213 CLOSURES WILL BE REQUIRED FOR ANY OVERHEAD WORK RELATED TO REMOVAL OF THE EXISTING SUPERSTRUCTURE AND ERECTION OF THE PROPOSED SUPERSTRUCTURE. CLOSURES SHALL BE SCHEDULED DURING OVER NIGHT HOURS WITH A MAXIMUM DURATION OF TWENTY (20) MINUTES.
10. EXISTING GUIDE RAIL ALONG NYS ROUTE 213 IN CONFLICT WITH CRANE PLACEMENT SHALL BE REMOVED AND STORED UNDER ITEM 606.61 AND REESTABLISHED UNDER ITEM 606.5148. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF NON TRAVERSABLE SLOPES IN THE ABSENCE OF GUIDE RAIL.
11. MILLING DEPTH WITHIN THE MEDIAN AREA SHALL INCLUDE REMOVAL OF TEMPORARY ASPHALT AND AN ADDITIONAL 1.5 INCHES OF EXISTING PAVEMENT. REFER TO TRAFFIC CONTROL PLANS FOR EXISTING AND PROPOSED PAVEMENT ELEVATIONS WITHIN MEDIAN AREA.



NOTE:
1. SEE WORK ZONE TRAFFIC CONTROL PLANS FOR LIMITS OF RESTORATION.

MEDIAN RESTORATION SECTION
NTS

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

REVISIONS

DATE	DESCRIPTION	BY	SYM.

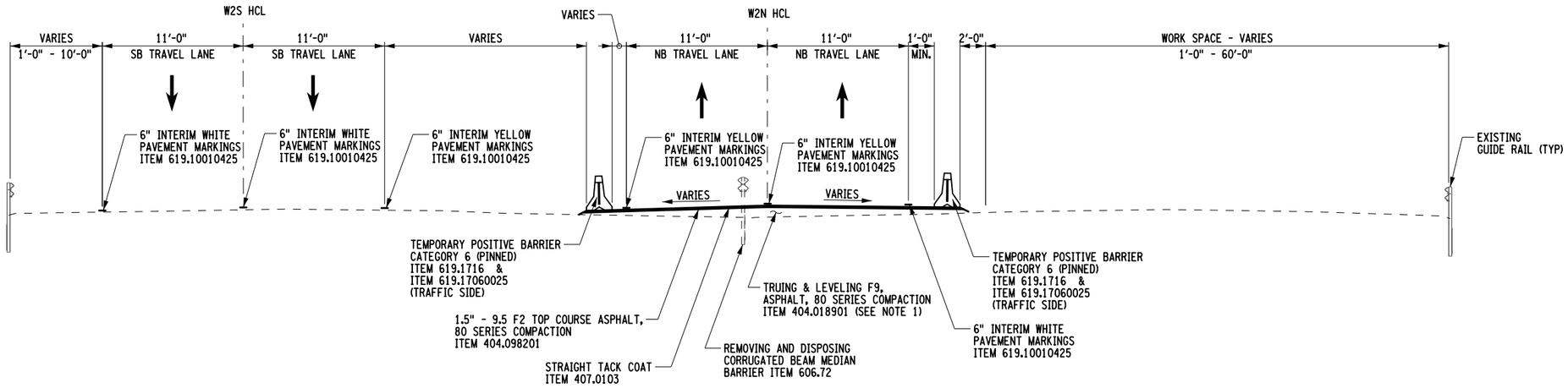
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72
TITLE OF DRAWING: WORK ZONE TRAFFIC CONTROL DETAILS - WALLKILL BRIDGE

CONTRACT NUMBER: TAA 23-25B
DATE: 11/16/2023
DRAWING NUMBER: TC-1

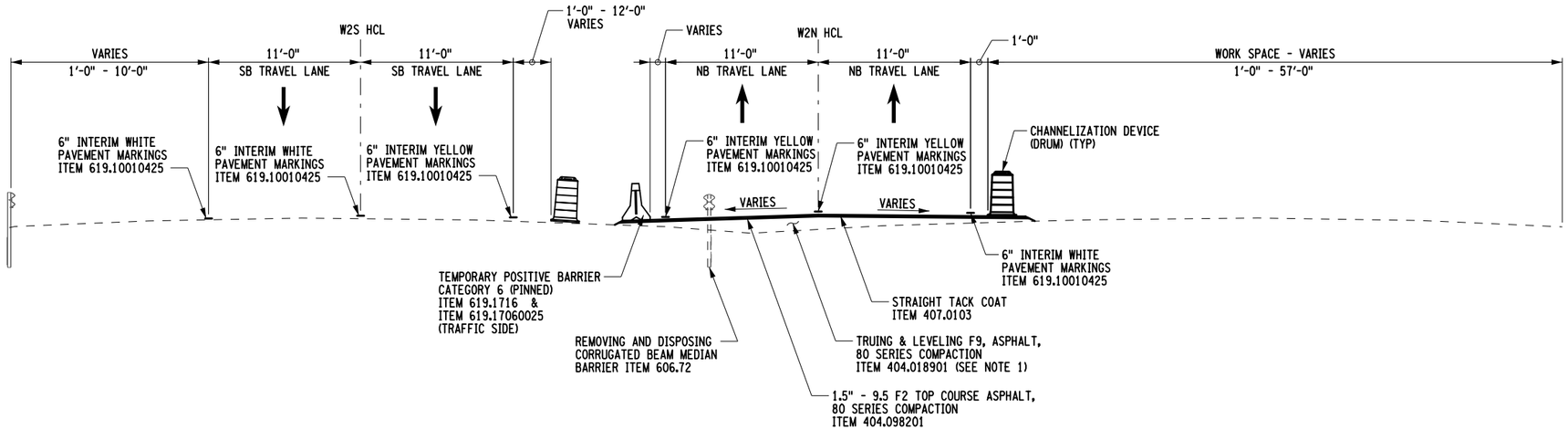
FILE NAME = A72128_cp_tcd_01.dgn
USER = jmtpw11-pw-svc
DATE/TIME = 17-NOV-2023 00:05
DESIGN SUPERVISOR: M. COLLINGWOOD
DESIGN: R. JABLONSKI
CHECK: M. COLLINGWOOD
DRAFTING: T. BURTNICK
CHECK: M. COLLINGWOOD



STAGE 2 CROSSOVER SECTION

NTS

STA W2S 11+74 TO STA W2S 16+69
STA W2N 11+00 TO STA W2N 17+39



STAGE 2 CROSSOVER SECTION

NTS

STA W2S 23+58 TO STA W2S 29+76
STA W2N 24+26 TO STA W2N 30+66

NOTE:

1. REFER TO TC-7 AND TC-9 FOR EXISTING AND PROPOSED ELEVATIONS FOR TEMPORARY MEDIAN PAVEMENT.

ALTERED BY: ON:	AFFIX SEAL: Matthew Wayne Collingwood ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72	DATE: 11/16/2023
TITLE OF DRAWING: WORK ZONE TRAFFIC CONTROL TYPICAL SECTIONS - STAGE 2	DRAWING NUMBER: TC-2

HORIZONTAL CONTROL TABLE - STAGE 2				
H.C.L. POINT	H.C.L. STATION	COORDINATES NORTH	COORDINATES EAST	DESCRIPTION
I-87 SOUTHBOUND (STAGE 2)				
P.O.B.	W2S 10+00.00	1086270.899	613314.463	BEGIN ALIGNMENT
P.I.	W2S 11+00.02	1086367.050	613286.909	P.I.
P.C.	W2S 15+40.11	1086789.646	613164.052	P.C. CURVE W2S1
P.I.	W2S 19+87.97 BK= W2S 19+87.71 AH	1087223.769	613054.001	P.I. CURVE W2S1 (R = 15009.20)
P.T.	W2S 24+35.56	1087663.681	612970.030	P.T. CURVE W2S1
P.I.	W2S 28+75.62	1088098.420	612901.800	P.I.
P.O.E.	W2S 29+75.62	1088197.183	612886.119	END ALIGNMENT

HORIZONTAL CONTROL TABLE - STAGE 2				
H.C.L. POINT	H.C.L. STATION	COORDINATES NORTH	COORDINATES EAST	DESCRIPTION
I-87 NORTHBOUND (STAGE 2)				
P.O.B.	W2N 10+00.00	1086222.748	613399.028	BEGIN ALIGNMENT
P.C.	W2N 11+00.01	1086318.807	613371.185	P.C. CURVE W2N1
P.I.	W2N 12+38.89 BK= W2N 12+38.44 AH	1086452.192	613332.522	P.I. CURVE W2N1 (R = 2001.20)
P.R.C.	W2N 13+77.32	1086578.958	613275.806	P.R.C. CURVE W2N1 / CURVE W2N2
P.I.	W2N 15+58.95 BK= W2N 15+57.96 AH	1086744.752	613201.628	P.I. CURVE W2N2 (R = 2001.20)
P.C.C.	W2N 17+39.59	1086921.190	613158.512	P.C.C. CURVE W2N2 / CURVE W2N3
P.I.	W2N 20+83.46 BK= W2N 20+83.34 AH	1087255.234	613076.883	P.I. CURVE W2N3 (R = 14982.20)
P.C.C.	W2N 24+27.21	1087592.671	613010.665	P.C.C. CURVE W2N3 / CURVE W2N4
P.I.	W2N 26+08.34 BK= W2N 26+07.36 AH	1087770.411	612975.786	P.I. CURVE W2N4 (R = 2001.20)
P.R.C.	W2N 27+88.49	1087951.524	612973.386	P.R.C. CURVE W2N4 / CURVE W2N5
P.I.	W2N 29+27.23 BK= W2N 29+26.79 AH	1088090.254	612971.549	P.I. CURVE W2N5 (R = 2001.20)
P.T./P.O.E.	W2N 30+65.53	1088227.402	612950.585	P.T. CURVE W2N5 / END ALIGNMENT

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL
HORIZONTAL CONTROL
TABLE - STAGE 2

CONTRACT NUMBER:
TAA 23-25B

DATE:
11/16/2023

DRAWING NUMBER:
TC-3

FILE NAME = A72128.cp_tct.01.dgn
USER = jmtpw1-pw-svc
DATE/TIME = 17-NOV-2023 00:08
DESIGN SUPERVISOR M. COLLINGWOOD
DRAFTING T. BURTNICK
DESIGN R. JABLONSKI
CHECK M. COLLINGWOOD

GRID NORTH

NYS THRUWAY I-87 (SOUTHBOUND)

NYS THRUWAY I-87 (SOUTHBOUND)

MATCH LINE - SEE DWG. TC-5

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NYS THRUWAY I-87 (NORTHBOUND)

NYS THRUWAY I-87 (NORTHBOUND)

1000′

1000′

2640′

STATE LAW
FINES
DOUBLED FOR
SPEEDING
IN
WORK ZONES

NYR9-12
(48"x72")

ROAD
WORK
1 MILE

W20-1
(48"x48")

WORK ZONE TRAFFIC CONTROL PLAN - STAGE 2

20 0 20 40 60 80′
SCALE

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · LICENSED PROFESSIONAL ENGINEER · 096625

REVISIONS

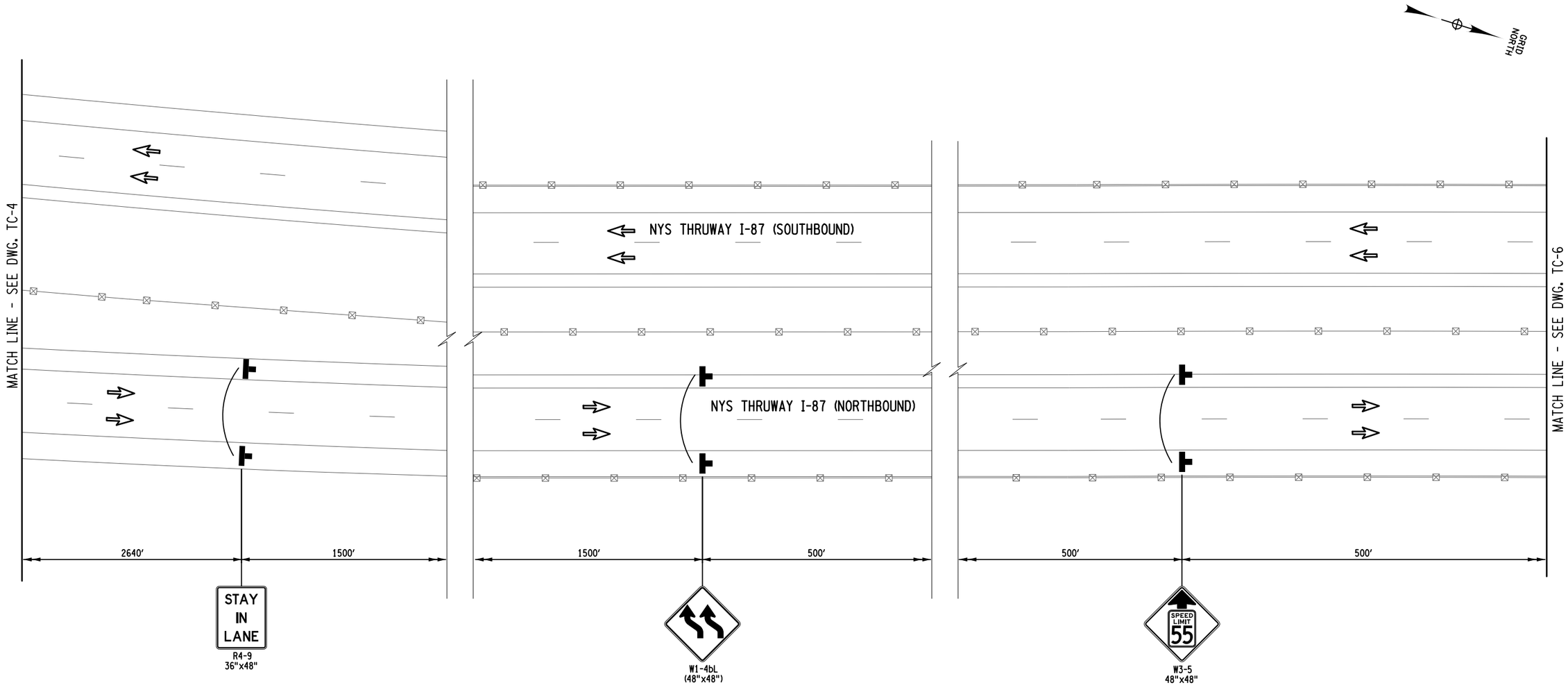
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72
TITLE OF DRAWING: WORK ZONE TRAFFIC CONTROL PLANS - STAGE 2 WALLKILL BRIDGE (1 OF 8)

CONTRACT NUMBER: TAA 23-25B
DATE: 11/16/2023
DRAWING NUMBER: TC-4



LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

WORK ZONE TRAFFIC CONTROL PLAN - STAGE 2

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

20 0 20 40 60 80′
SCALE

ALTERED BY:	AFFIX SEAL: Matthew Wayne Collingwood
ON:	ON: 11/20/2023

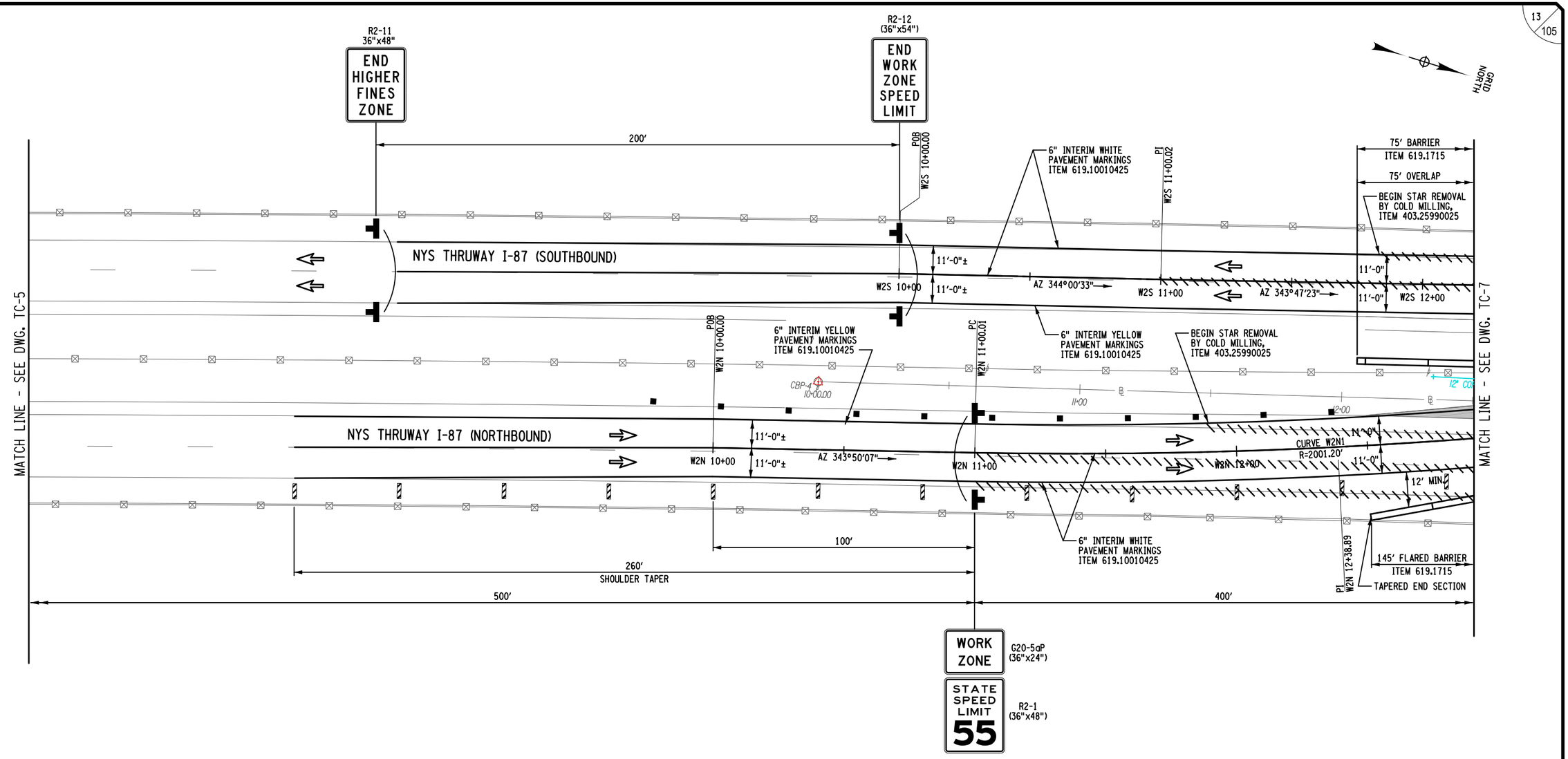
REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	WORK ZONE TRAFFIC CONTROL PLANS - STAGE 2 WALLKILL BRIDGE (2 OF 8)
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	TC-5



LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

WORK ZONE TRAFFIC CONTROL PLAN - STAGE 2

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W2N1

PC = STA. W2N 11+00.01
PRC = STA. W2N 13+77.32
R = 2001.20'
L = 277.31'
T = 138.88'
Δ = 07°-56'-22"
emax = N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL PLANS - STAGE 2
WALLKILL BRIDGE (3 OF 8)

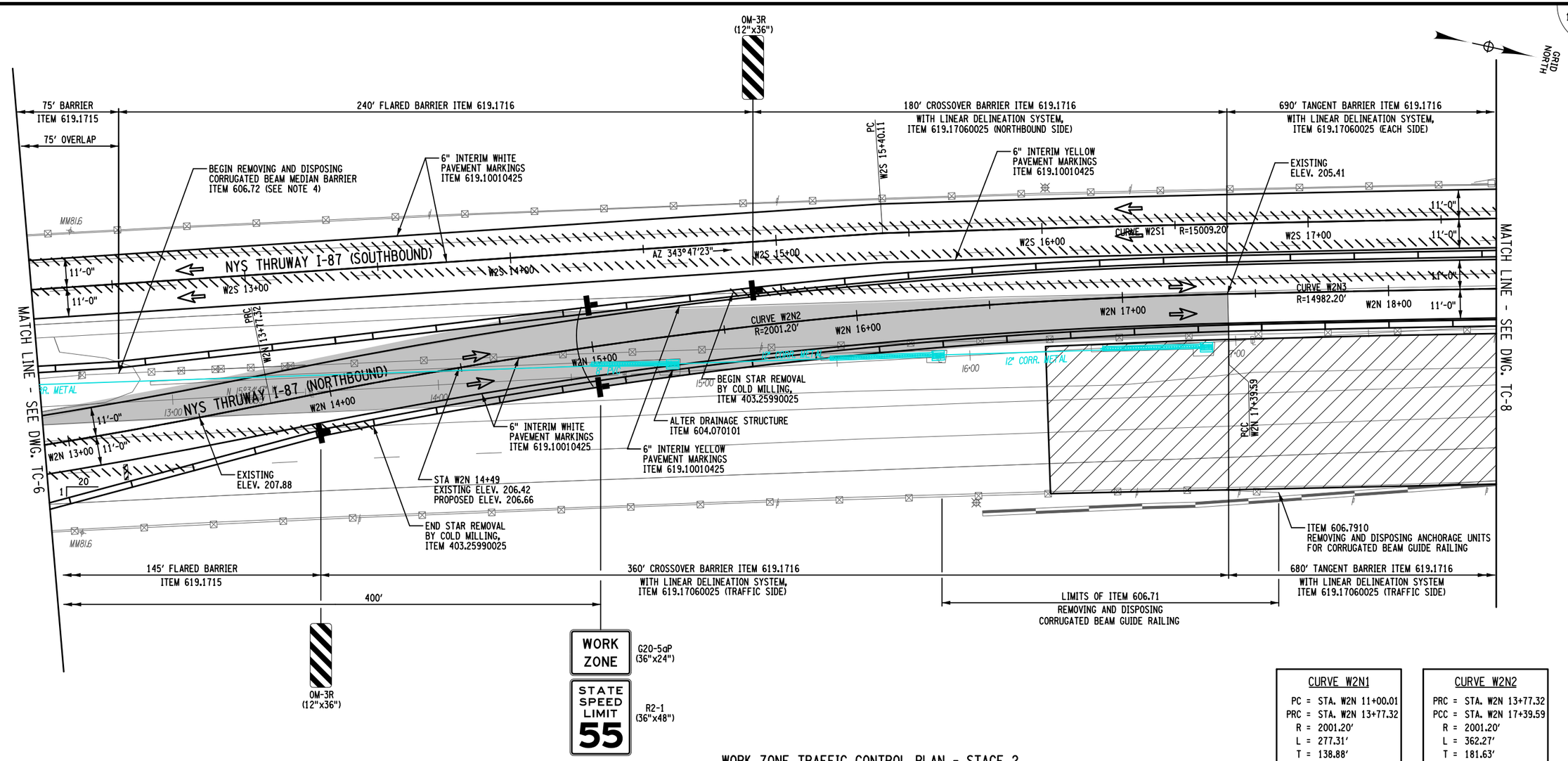
CONTRACT NUMBER: TAA 23-25B

DATE: 11/16/2023

DRAWING NUMBER: TC-6

DESIGN SUPERVISOR M. COLLINGWOOD
DRAFTING M. COLLINGWOOD
DESIGN R. JABLONSKI
CHECK T. BURTNICK
CHECK M. COLLINGWOOD

FILE NAME = A72128_cp_tcp_3_stg2_SB.dgn DATE/TIME = 16-NOV-2023 23:59 USER = jmtpw11-pw-svc



WORK ZONE TRAFFIC CONTROL PLAN - STAGE 2

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.
3. EXISTING CONCRETE BARRIER ALONG NORTHBOUND SHOULDER TO BE REMOVED AND RETURNED TO NYSTA. COST INCLUDED IN ITEM 619.01
4. EXPOSED END OF CORRUGATED BEAM MEDIAN RAIL TO BE TEMPORARILY ANCHORED TO GROUND UNDER ITEM 606.24 - ANCHORAGE UNITS FOR CORRUGATED BEAM MEDIAN BARRIER. ANCHORAGE UNIT SHALL BE REMOVED AT THE CONCLUSION OF STAGE 3 CONSTRUCTION UNDER ITEM 606.7910 - REMOVING AND DISPOSING ANCHORAGE UNITS FOR CORRUGATED BEAM GUIDE RAILING AND MEDIAN BARRIER

CURVE W2N1
PC = STA. W2N 11+00.01
PRC = STA. W2N 13+77.32
R = 2001.20'
L = 277.31'
T = 138.88'
Δ = 07°-56'-22"
emax = N.C.

CURVE W2N2
PRC = STA. W2N 13+77.32
PCC = STA. W2N 17+39.59
R = 2001.20'
L = 362.27'
T = 181.63'
Δ = 10°-22'-19"
emax = N.C.

CURVE W2N3
PCC = STA. W2N 17+39.59
PCC = STA. W2N 24+27.21
R = 14982.20'
L = 687.63'
T = 343.87'
Δ = 02°-37'-47"
emax = N.C.

CURVE W2S1
PC = STA. W2S 15+40.11
PT = STA. W2S 24+35.56
R = 15009.20'
L = 895.44'
T = 447.85'
Δ = 03°-25'-06"
emax = N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:	AFFIX SEAL: Matthew Wayne Collingwood
ON:	ON: 11/20/2023

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · 096625 · LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

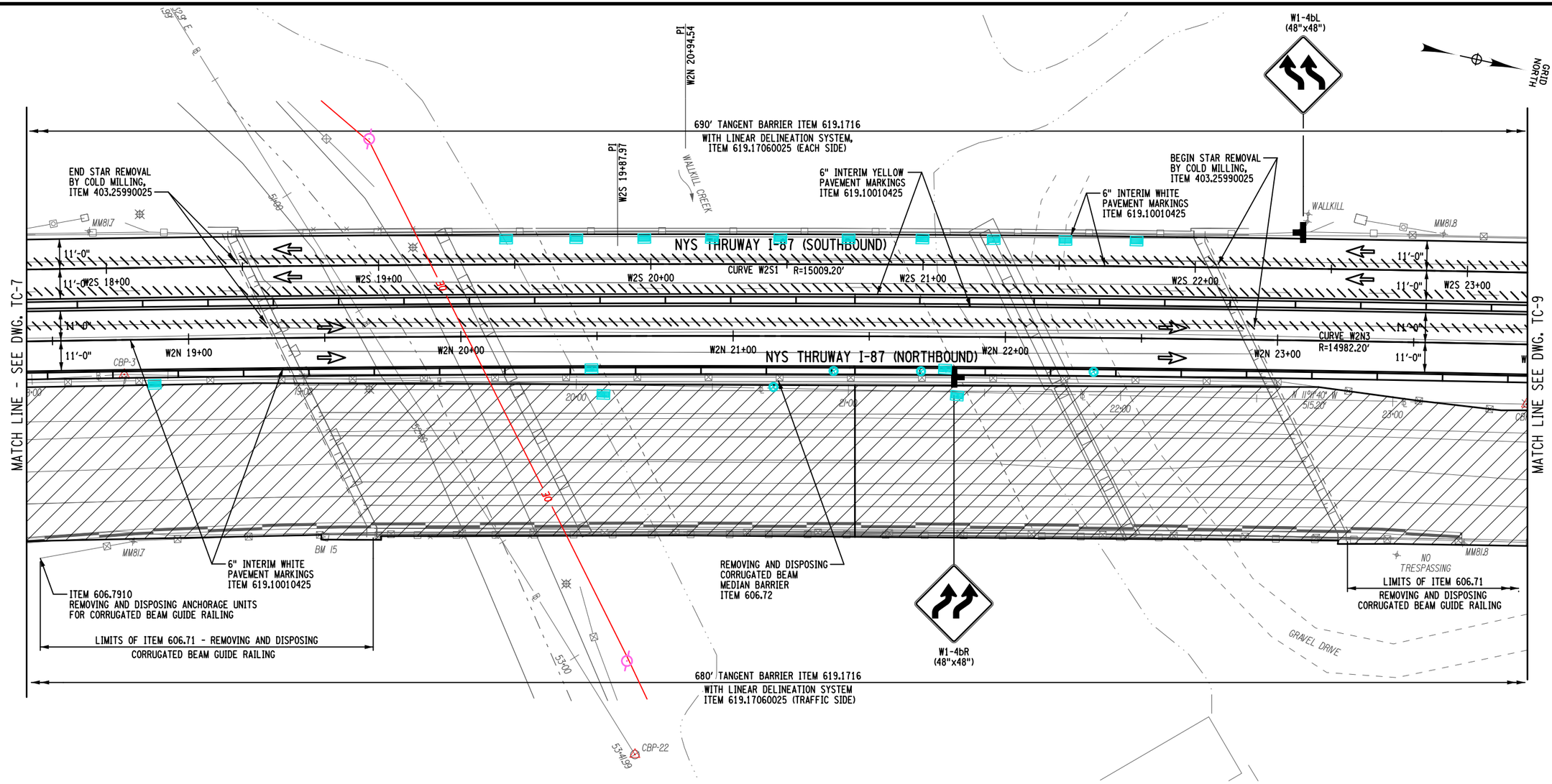
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	WORK ZONE TRAFFIC CONTROL PLANS - STAGE 2 WALLKILL BRIDGE (4 OF 8)
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	TC-7

M. COLLINGWOOD CHECK
T. BURTNICK DRAFTING
M. COLLINGWOOD DESIGN
R. JABLONSKI
M. COLLINGWOOD DESIGN SUPERVISOR
DATE/TIME = 17-NOV-2023 00:00
USER = jmtpw11-pw-svc
FILE NAME = A72128.cp_top.4.stg2.SB.dgn



LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

WORK ZONE TRAFFIC CONTROL PLAN - STAGE 2

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.
3. EXISTING CONCRETE BARRIER ALONG NORTHBOUND SHOULDER TO BE REMOVED AND RETURNED TO NYSTA. COST INCLUDED IN ITEM 619.01

CURVE W2S1

PC = STA. W2S 15+40.11
PT = STA. W2S 24+35.56
R = 15009.20'
L = 895.44'
T = 447.85'
Δ = 03°-25'-06"
emax = N.C.

CURVE W2N3

PCC = STA. W2N 17+39.59
PCC = STA. W2N 24+27.21
R = 14982.20'
L = 687.63'
T = 343.87'
Δ = 02°-37'-47"
emax = N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

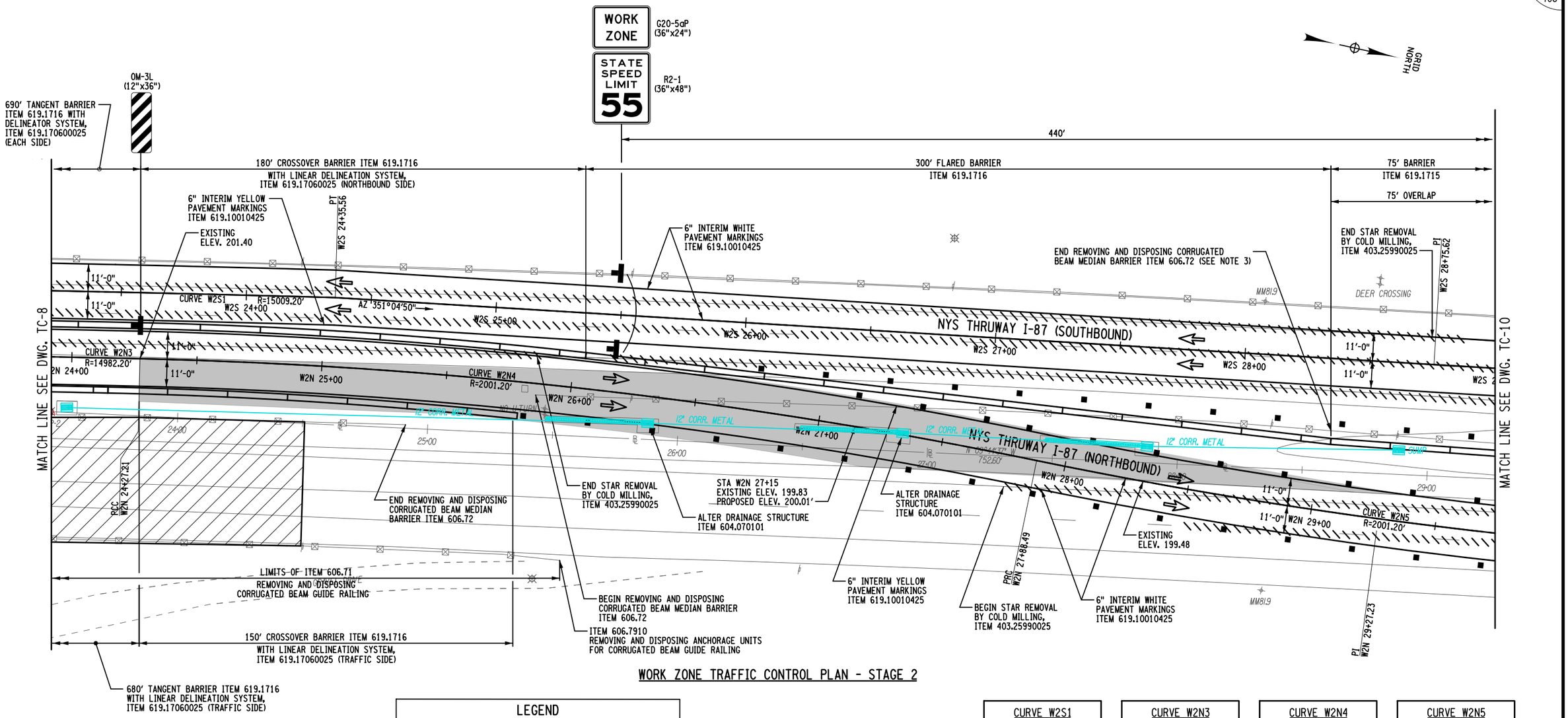
LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL PLANS - STAGE 2
WALLKILL BRIDGE (5 OF 8)

CONTRACT NUMBER: TAA 23-25B

DATE: 11/16/2023

DRAWING NUMBER: TC-8



WORK ZONE TRAFFIC CONTROL PLAN - STAGE 2

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.
3. EXPOSED END OF CORRUGATED BEAM MEDIAN RAIL TO BE TEMPORARILY ANCHORED TO GROUND UNDER ITEM 606.24 - ANCHORAGE UNITS FOR CORRUGATED BEAM MEDIAN BARRIER. ANCHORAGE UNIT SHALL BE REMOVED AT THE CONCLUSION OF STAGE 3 CONSTRUCTION UNDER ITEM 606.7910 - REMOVING AND DISPOSING ANCHORAGE UNITS FOR CORRUGATED BEAM GUIDE RAILING AND MEDIAN BARRIER.

CURVE W2S1
PC = STA. W2S 15+40.11
PT = STA. W2S 24+35.56
R = 15009.20'
L = 895.44'
T = 447.85'
Δ = 03°-25'-06"
emax = N.C.

CURVE W2N3
PCC = STA. W2N 17+39.59
PCC = STA. W2N 24+27.21
R = 14982.20'
L = 687.63'
T = 343.87'
Δ = 02°-37'-47"
emax = N.C.

CURVE W2N4
PCC = STA. W2N 24+27.21
PRC = STA. W2N 27+88.49
R = 2001.20'
L = 361.28'
T = 181.13'
Δ = 10°-20'-37"
emax = N.C.

CURVE W2N5
PRC = STA. W2N 27+88.49
PT = STA. W2N 29+27.23
R = 2001.20'
L = 277.04'
T = 138.74'
Δ = 07°-55'-55"
emax = N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

DATE	DESCRIPTION	BY	SYM.

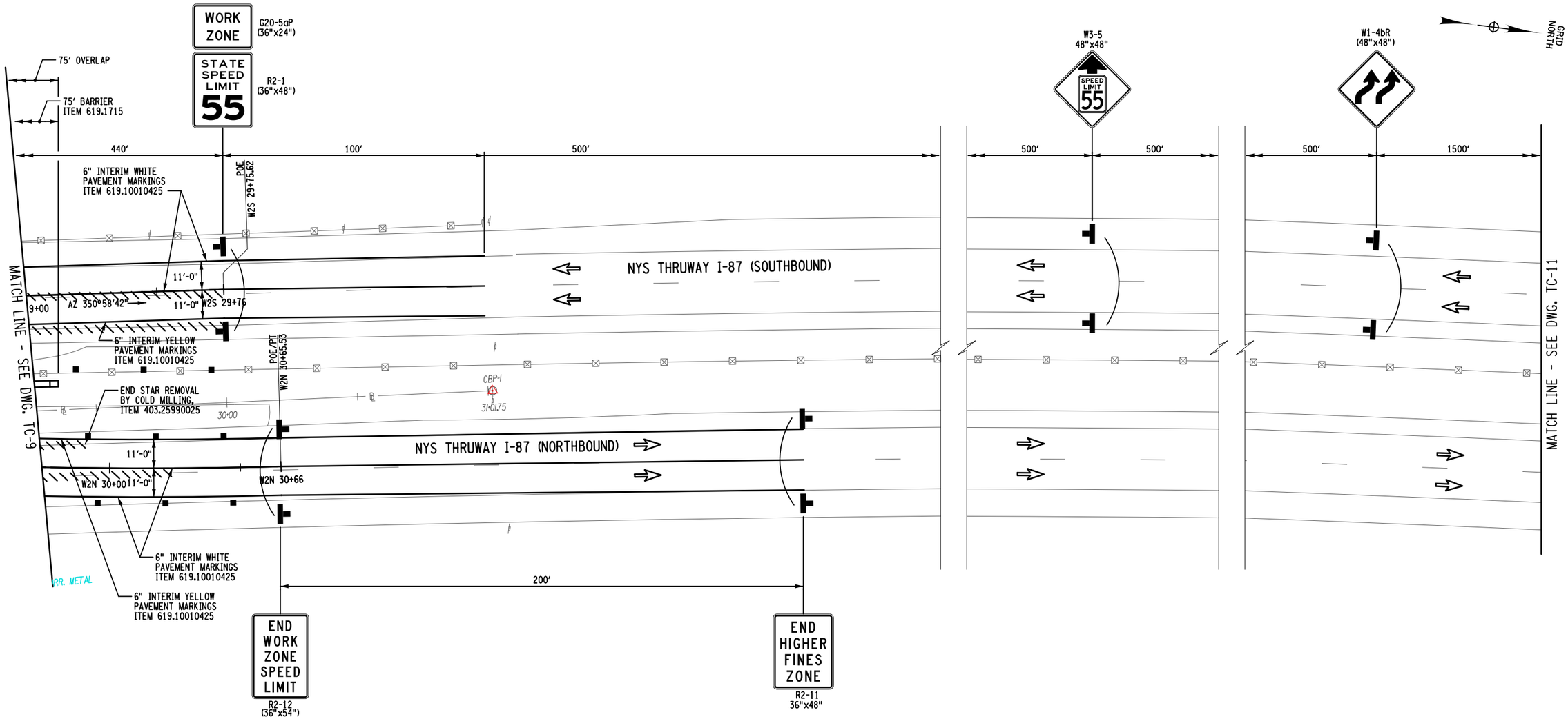
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72
TITLE OF DRAWING: WORK ZONE TRAFFIC CONTROL PLANS - STAGE 2 WALLKILL BRIDGE (6 OF 8)

CONTRACT NUMBER: TAA 23-25B
DATE: 11/16/2023
DRAWING NUMBER: TC-9

DESIGN SUPERVISOR M. COLLINGWOOD | DRAFTING T. BURTNICK | DESIGN R. JABLONSKI | CHECK M. COLLINGWOOD | CHECK
FILE NAME = A72128.cp .tcp.6.stg2.SB.dgn DATE/TIME = 17-NOV-2023 00:01 USER = jmtpw11-pw-svc



WORK ZONE TRAFFIC CONTROL PLAN - STAGE 2

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W2N5

PRC =	STA. W2N 27+88.49
PT =	STA. W2N 29+27.23
R =	2001.20'
L =	277.04'
T =	138.74'
Δ =	07°-55'-55"
emax =	N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:	AFFIX SEAL: Matthew Wayne Collingwood
ON:	ON: 11/20/2023

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · 096625 · LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

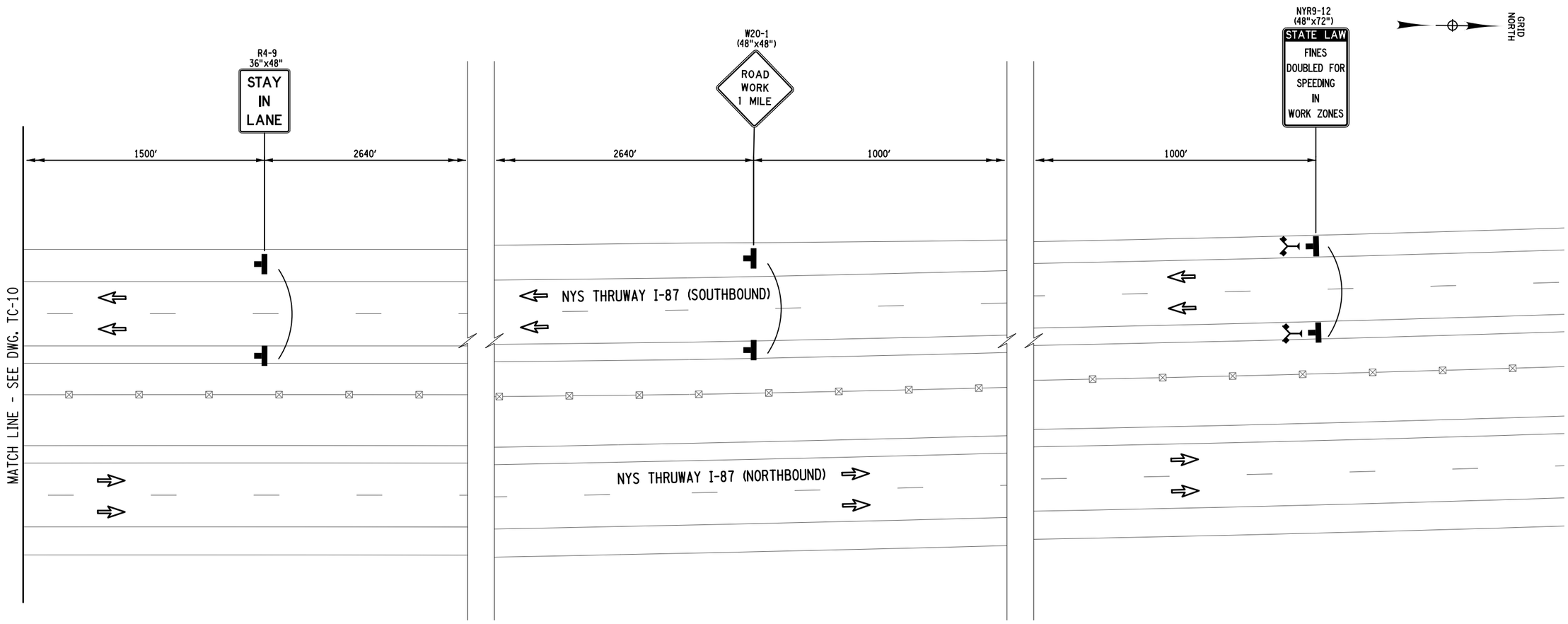
REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	WORK ZONE TRAFFIC CONTROL PLANS - STAGE 2 WALLKILL BRIDGE (7 OF 8)
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	TC-10



WORK ZONE TRAFFIC CONTROL PLAN - STAGE 2

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

20 0 20 40 60 80'
SCALE

ALTERED BY:	AFFIX SEAL: Matthew Wayne Collingwood
ON:	ON: 11/20/2023

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · LICENSED PROFESSIONAL ENGINEER · 096625

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

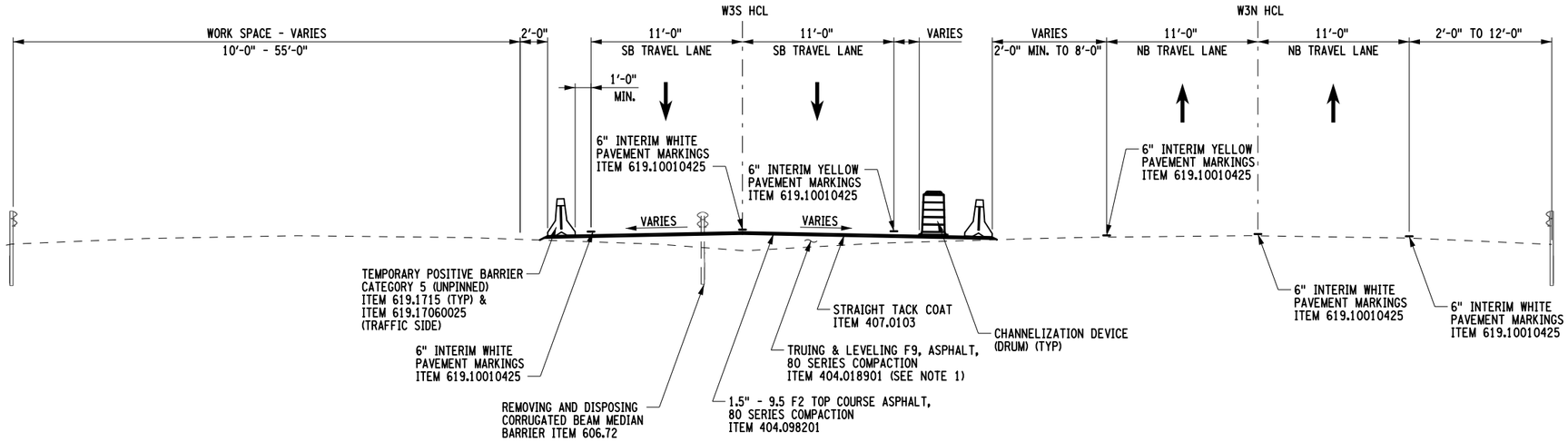
REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

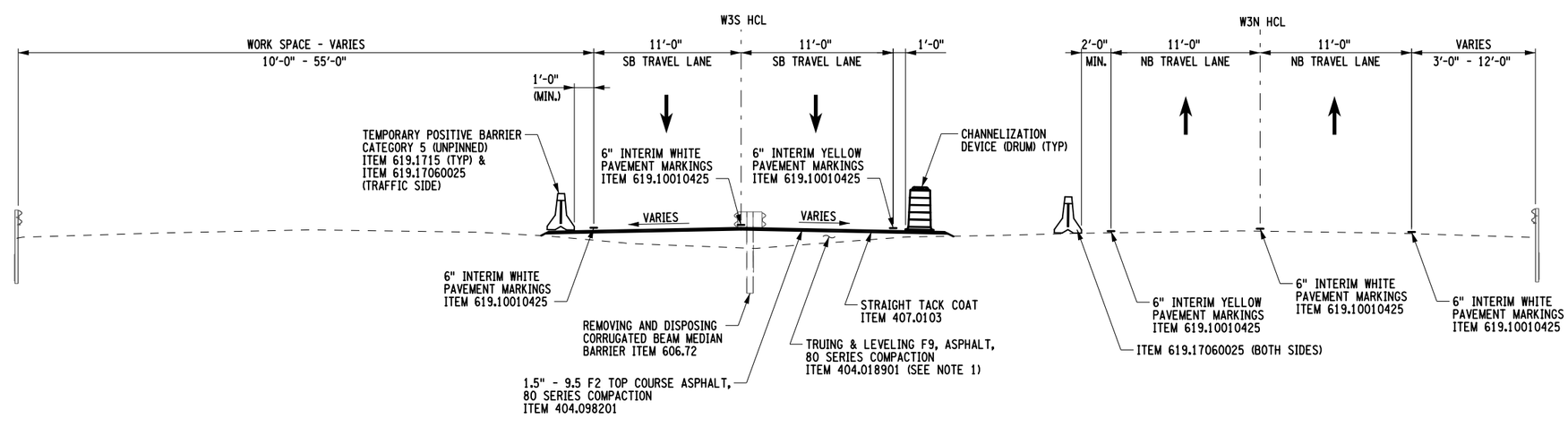
TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	WORK ZONE TRAFFIC CONTROL PLANS - STAGE 2 WALLKILL BRIDGE (8 OF 8)
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	TC-11



STAGE 3 CROSSOVER SECTION

NTS

STA W3S 10+00 TO STA W3S 15+54
STA W3N 10+00 TO STA W3N 15+64



STAGE 3 CROSSOVER SECTION

NTS

STA W3S 23+72 TO STA W3S 29+31
STA W3N 23+84 TO STA W3N 29+24

NOTE:

1. REFER TO TC-17 AND TC-19 FOR EXISTING AND PROPOSED ELEVATIONS FOR TEMPORARY MEDIAN PAVEMENT.

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL TYPICAL SECTIONS - STAGE 3

CONTRACT NUMBER: TAA 23-25B

DATE: 11/16/2023

DRAWING NUMBER: TC-12

FILE NAME = A72128.cp_tcs_2_stg3_NB.dgn DATE/TIME = 17-NOV-2023 00:01 USER = jmtpw11-pw-svc

DESIGN SUPERVISOR M. COLLINGWOOD DESIGN R. JABLONSKI CHECK T. BURTNICK DRAFTING M. COLLINGWOOD CHECK M. COLLINGWOOD

HORIZONTAL CONTROL TABLE - STAGE 3

H.C.L. POINT	H.C.L. STATION	COORDINATES NORTH	COORDINATES EAST	DESCRIPTION
I-87 SOUTHBOUND (STAGE 3)				
P.O.B./P.C.	W3S 10+00.00	1086314.011	613301.543	BEGIN ALIGNMENT / P.C. CURVE W3S1
P.I.	W3S 11+81.84 BK= W3S 11+80.84 AH	1086488.710	613251.089	P.I. CURVE W3S1 (R = 2000.00)
P.R.C.	W3S 13+62.68	1086669.643	613232.970	P.R.C. CURVE W3S1 / CURVE W3S2
P.I.	W3S 15+01.81 BK= W3S 15+01.37 AH	1086808.083	613219.105	P.I. CURVE W3S2 (R = 2000.00)
P.R.C.	W3S 16+40.50	1086943.271	613186.206	P.R.C. CURVE W3S2 / CURVE W3S3
P.I.	W3S 19+72.40 BK= W3S 19+72.29 AH	1087265.759	613107.724	P.I. CURVE W3S3 (R = 15007.00)
P.R.C.	W3S 23+04.19	1087591.402	613043.577	P.R.C. CURVE W3S3 / CURVE W3S4
P.I.	W3S 24+43.32 BK= W3S 24+42.88 AH	1087727.910	613016.687	P.I. CURVE W3S4 (R = 2000.00)
P.R.C.	W3S 25+82.01	1087859.380	612971.154	P.R.C. CURVE W3S4 / CURVE W3S5
P.I.	W3S 27+56.84 BK= W3S 27+55.95 AH	1088024.590	612913.937	P.I. CURVE W3S5 (R = 2000.00)
P.T./P.O.E.	W3S 29+30.79	1088197.221	612886.253	P.T. CURVE W3S5 / END ALIGNMENT

HORIZONTAL CONTROL TABLE - STAGE 3

H.C.L. POINT	H.C.L. STATION	COORDINATES NORTH	COORDINATES EAST	DESCRIPTION
I-87 NORTHBOUND (STAGE 3)				
P.O.B.	W3N 10+00.00	1086319.595	613372.806	BEGIN ALIGNMENT
P.I.	W3N 11+54.59	1086468.100	613329.865	P.I.
P.C.	W3N 15+94.58	1086895.822	613226.677	P.C. CURVE W3N1
P.I.	W3N 19+89.45 BK= W3N 19+89.27 AH	1087279.146	613131.880	P.I CURVE W3N1 (R = 14979.00)
P.T.	W3N 23+84.14	1087666.932	613057.410	P.T. CURVE W3N1
P.I.	W3N 28+24.06	1088098.630	612972.769	P.I.
P.O.E.	W3N 29+24.06	1088197.365	612956.919	END ALIGNMENT

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL
HORIZONTAL CONTROL
TABLE - STAGE 3

CONTRACT NUMBER:
TAA 23-25B

DATE:
11/16/2023

DRAWING NUMBER:
TC-13

M. COLLINGWOOD DESIGN SUPERVISOR
T. BURTNICK DRAFTING
M. COLLINGWOOD CHECK
R. JABLONSKI DESIGN
M. COLLINGWOOD CHECK
DATE/TIME = 17-NOV-2023 00:07
USER = jmtpw11-pw-svc
FILE NAME = A72128_cp_tct_02.dgn

GRID NORTH

NYS THRUWAY I-87 (SOUTHBOUND)

NYS THRUWAY I-87 (NORTHBOUND)

1000′

1000′

2640′

STATE LAW
FINES DOUBLED FOR SPEEDING IN WORK ZONES

NYR9-12
(48"x72")

ROAD WORK 1 MILE

W20-1
(48"x48")

MATCH LINE - SEE DWG. TC-15

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

WORK ZONE TRAFFIC CONTROL PLAN - STAGE 3

20 0 20 40 60 80′
SCALE

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · 096625 · LICENSED PROFESSIONAL ENGINEER · EXCELSIOR

REVISIONS

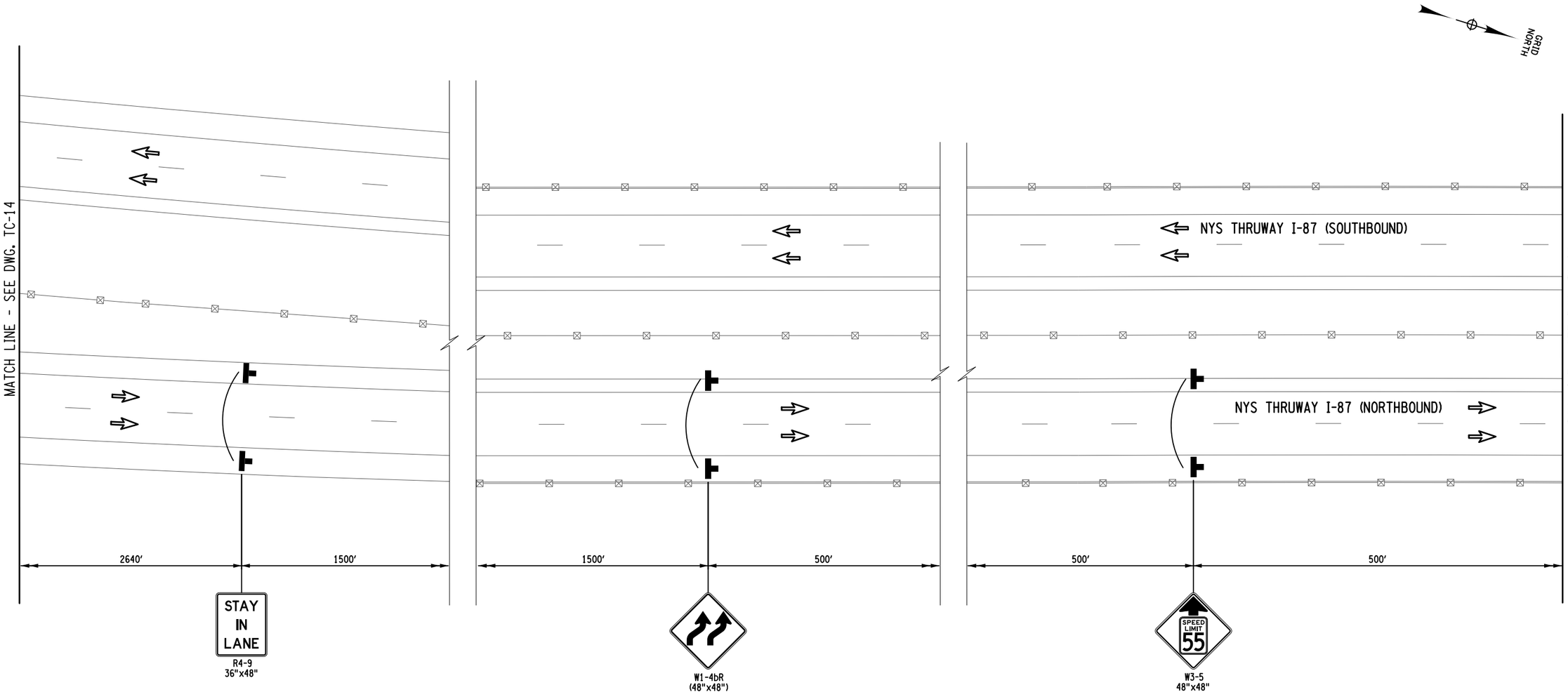
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72
TITLE OF DRAWING: WORK ZONE TRAFFIC CONTROL PLANS - STAGE 3 WALLKILL BRIDGE (1 OF 8)

CONTRACT NUMBER: TAA 23-25B
DATE: 11/16/2023
DRAWING NUMBER: TC-14



LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

WORK ZONE TRAFFIC CONTROL PLAN - STAGE 3

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

20 0 20 40 60 80′
SCALE

ALTERED BY:	AFFIX SEAL: Matthew Wayne Collingwood
ON:	ON: 11/20/2023

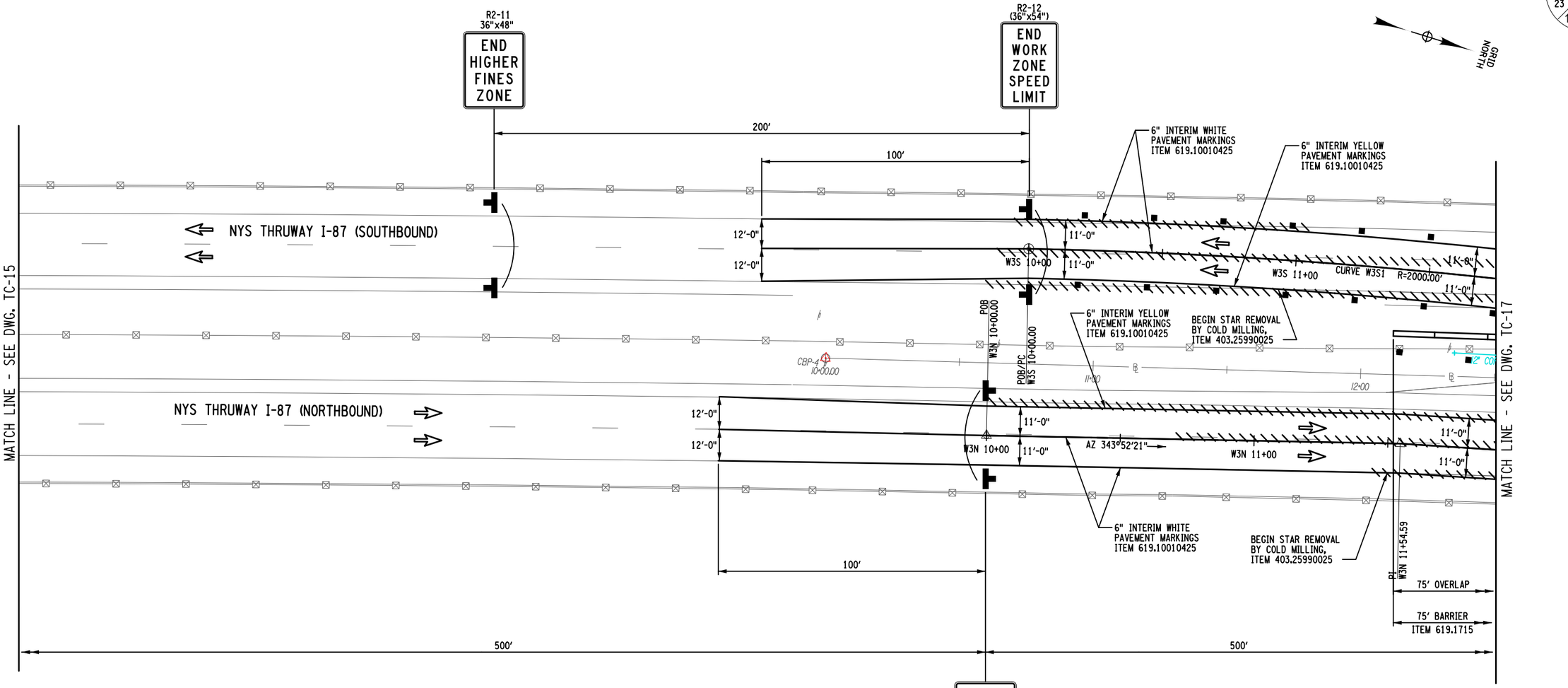
REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	WORK ZONE TRAFFIC CONTROL PLANS - STAGE 3 WALLKILL BRIDGE (2 OF 8)
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	TC-15



WORK ZONE TRAFFIC CONTROL PLAN - STAGE 3

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W3S1

PC =	STA. W3S 10+00.00
PRC =	STA. W3S 13+62.68
R =	2000.00'
L =	362.68'
T =	181.84'
Δ =	10°-23'-24"
emax =	N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · LICENSED PROFESSIONAL ENGINEER · 096625

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	WORK ZONE TRAFFIC CONTROL PLANS - STAGE 3 WALLKILL BRIDGE (3 OF 8)
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	TC-16

GRID NORTH

280' CROSSOVER BARRIER ITEM 619.1715
WITH LINEAR DELINEATION SYSTEM,
ITEM 619.17060025 (TRAFFIC SIDE)

660' TANGENT BARRIER ITEM 619.1715
WITH LINEAR DELINEATION SYSTEM,
ITEM 619.17060025 (TRAFFIC SIDE)

LIMITS OF ITEM 606.71
REMOVING AND DISPOSING
CORRUGATED BEAM GUIDE RAILING

LIMITS OF ITEM 606.73
REMOVING AND DISPOSING
BOX BEAM GUIDE RAILING

EXISTING
ELEV. 205.55

6" INTERIM YELLOW
PAVEMENT MARKINGS
ITEM 619.10010425

6" INTERIM WHITE
PAVEMENT MARKINGS
ITEM 619.10010425

END STAR REMOVAL
BY COLD MILLING,
ITEM 403.25990025

EXISTING
ELEV. 207.56

STA W3S 14+15
EXISTING ELEV. 206.92
PROPOSED ELEV. 207.00

ALTER DRAINAGE STRUCTURE
ITEM 604.070101

STA W3N 15+84
BEGIN STAR REMOVAL
BY COLD MILLING,
ITEM 403.25990025

ALTER DRAINAGE
STRUCTURE
ITEM 604.070101

MATCH LINE - SEE DWG. TC-16

MATCH LINE - SEE DWG. TC-18

NYS THRUWAY I-87 (SOUTHBOUND)

NYS THRUWAY I-87 (NORTHBOUND)

CURVE W3S1
R=2000.00'

CURVE W3S2
R=2000.00'

CURVE W3S3
R=15007.00'

CURVE W3N1 R=14979.00'

AZ 346°26'12"

N 15°34'47" W
833.95'

12" CORR. METAL

8" PVC

11'-0"

75' OVERLAP

75' BARRIER
ITEM 619.1715

250' FLARED BARRIER ITEM 619.1715

180' CROSSOVER BARRIER ITEM 619.1715
WITH LINEAR DELINEATION SYSTEM,
ITEM 619.17060025 (SOUTHBOUND SIDE)

660' TANGENT BARRIER ITEM 619.1715
WITH LINEAR DELINEATION SYSTEM,
ITEM 619.17060025 (BOTH SIDES)

500'

OM-3L
(12"x36")

WORK ZONE
G20-5aP
(36"x24")

STATE SPEED LIMIT 55
R2-1
(36"x48")

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

WORK ZONE TRAFFIC CONTROL PLAN - STAGE 3

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W3S1	CURVE W3S2	CURVE W3S3	CURVE W3N1
PC = STA. W3S 10+00.00	PRC = STA. W3S 13+62.68	PRC = STA. W3S 16+40.50	PC = STA. W3N 15+94.58
PRC = STA. W3S 13+62.68	PRC = STA. W3S 16+40.50	PRC = STA. W3S 23+04.19	PT = STA. W3N 23+84.13
R = 2000.00'	R = 2000.00'	R = 15007.00'	R = 14979.00'
L = 362.68'	L = 277.82'	L = 663.69'	L = 789.56'
T = 181.84'	T = 139.13'	T = 331.90'	T = 394.87'
Δ = 10°-23'-24"	Δ = 07°-57'-32"	Δ = 02°-32'-02"	Δ = 03°-01'-13"
emax = N.C.	emax = N.C.	emax = N.C.	emax = N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · 096625 · LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

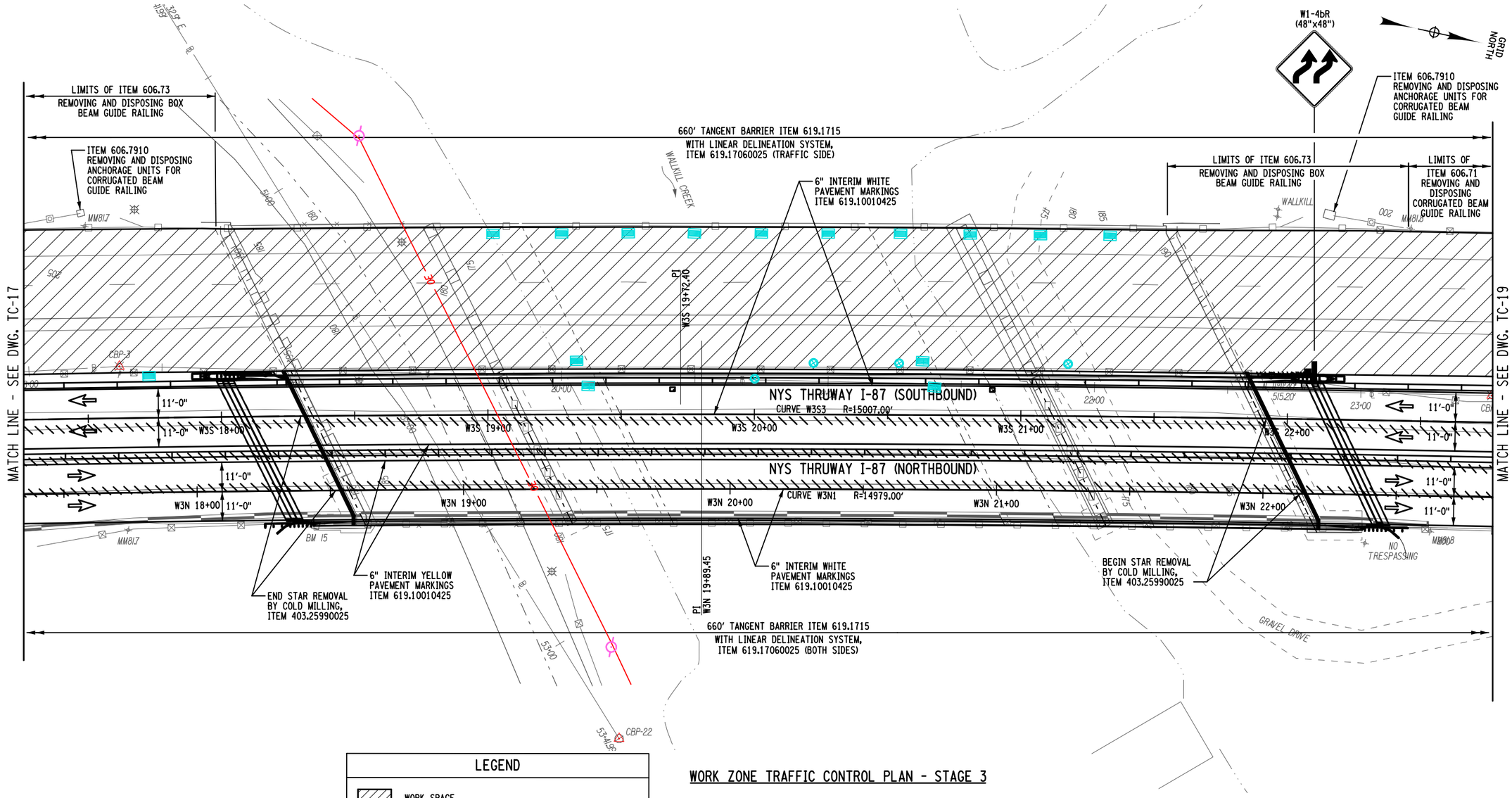
TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL PLANS - STAGE 3
WALLKILL BRIDGE (4 OF 8)

CONTRACT NUMBER: TAA 23-25B

DATE: 11/16/2023

DRAWING NUMBER: TC-17

FILE NAME = A72128.cp_tcp.4.stg3.NB.dgn USER = jmtpw11-pw-svc
DESIGN SUPERVISOR M. COLLINGWOOD DESIGN R. JABLONSKI DRAFTING T. BURTNICK CHECK M. COLLINGWOOD CHECK DATE/TIME = 17-NOV-2023 00:03



WORK ZONE TRAFFIC CONTROL PLAN - STAGE 3

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W3S3	
PRC =	STA. W3S 16+40.50
PRC =	STA. W3S 23+04.19
R =	15007.00'
L =	663.69'
T =	331.90'
Δ =	02°-32'-02"
emax =	N.C.

CURVE W3N1	
PC =	STA. W3N 15+94.58
PT =	STA. W3N 23+84.13
R =	14979.00'
L =	789.56'
T =	394.87'
Δ =	03°-01'-13"
emax =	N.C.

20 0 20 40 60 80'
SCALE

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

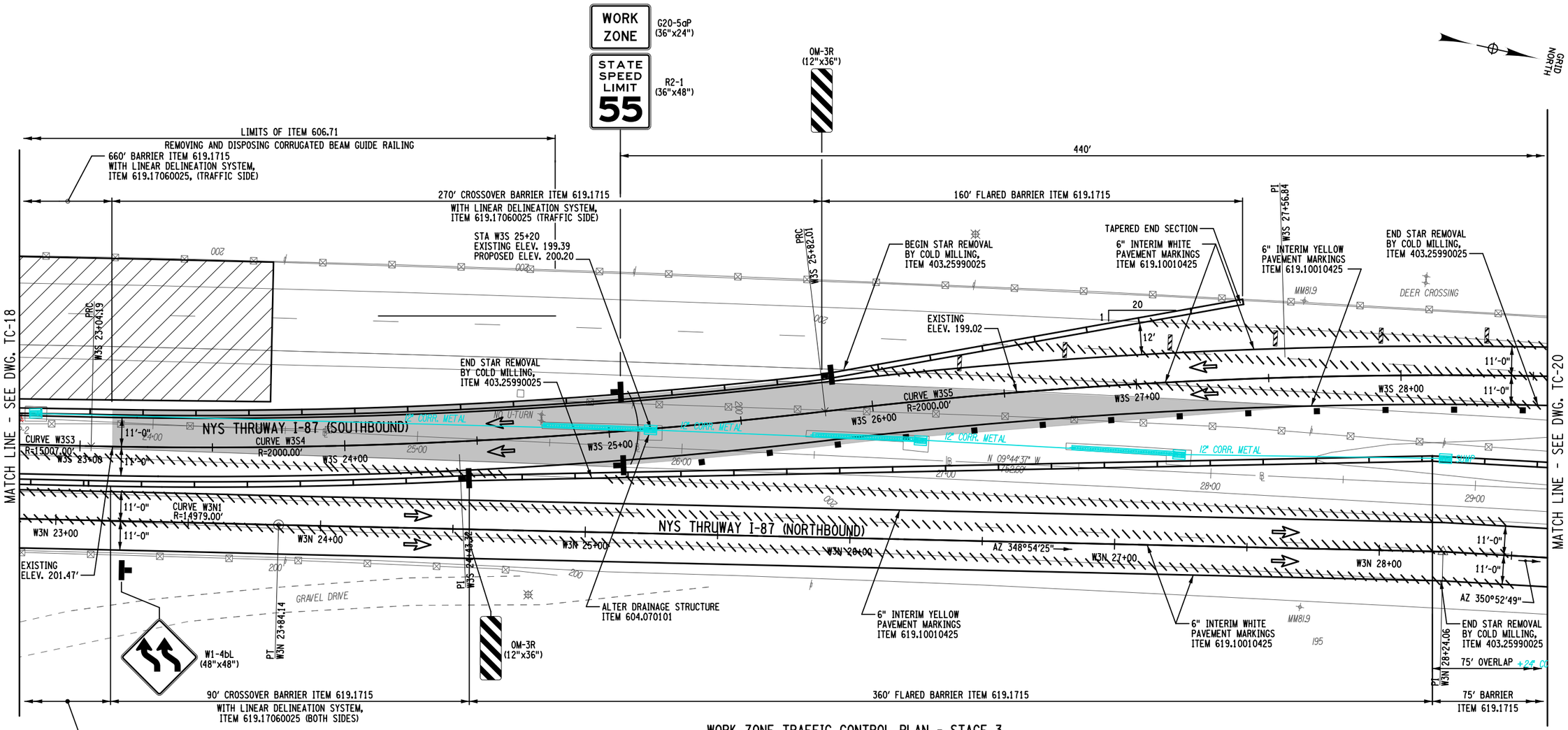
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	WORK ZONE TRAFFIC CONTROL PLANS - STAGE 3 WALLKILL BRIDGE (5 OF 8)
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	TC-18

FILE NAME = A72128_cp_tcp_5_stg3_NB.dgn USER = jmtpw11-pw-svc
DESIGN SUPERVISOR M. COLLINGWOOD DESIGN R. JABLONSKI DRAFTING M. COLLINGWOOD DATE/TIME = 17-NOV-2023 00:02 CHECK T. BURTNICK CHECK M. COLLINGWOOD



WORK ZONE TRAFFIC CONTROL PLAN - STAGE 3

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:
1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W3S3
PRC = STA. W3S 16+40.50
PRC = STA. W3S 23+04.19
R = 15007.00'
L = 663.69'
T = 331.90'
Δ = 02°-32'-02"
emax = N.C.

CURVE W3S4
PRC = STA. W3S 23+04.19
PRC = STA. W3S 25+82.01
R = 2000.00'
L = 277.82'
T = 139.13'
Δ = 07°-57'-32"
emax = N.C.

CURVE W3S5
PRC = STA. W3S 25+82.01
PT = STA. W3S 29+30.79
R = 2000.00'
L = 348.79'
T = 174.84'
Δ = 09°-59'-31"
emax = N.C.

CURVE W3N1
PC = STA. W3N 15+94.58
PT = STA. W3N 23+84.13
R = 14979.00'
L = 789.56'
T = 394.87'
Δ = 03°-01'-13"
emax = N.C.

20 0 20 40 60 80'
1" = 40'

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

MATTHEW WAYNE COLLINGWOOD LICENSED PROFESSIONAL ENGINEER 096625 STATE OF NEW YORK EXCELSIOR

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

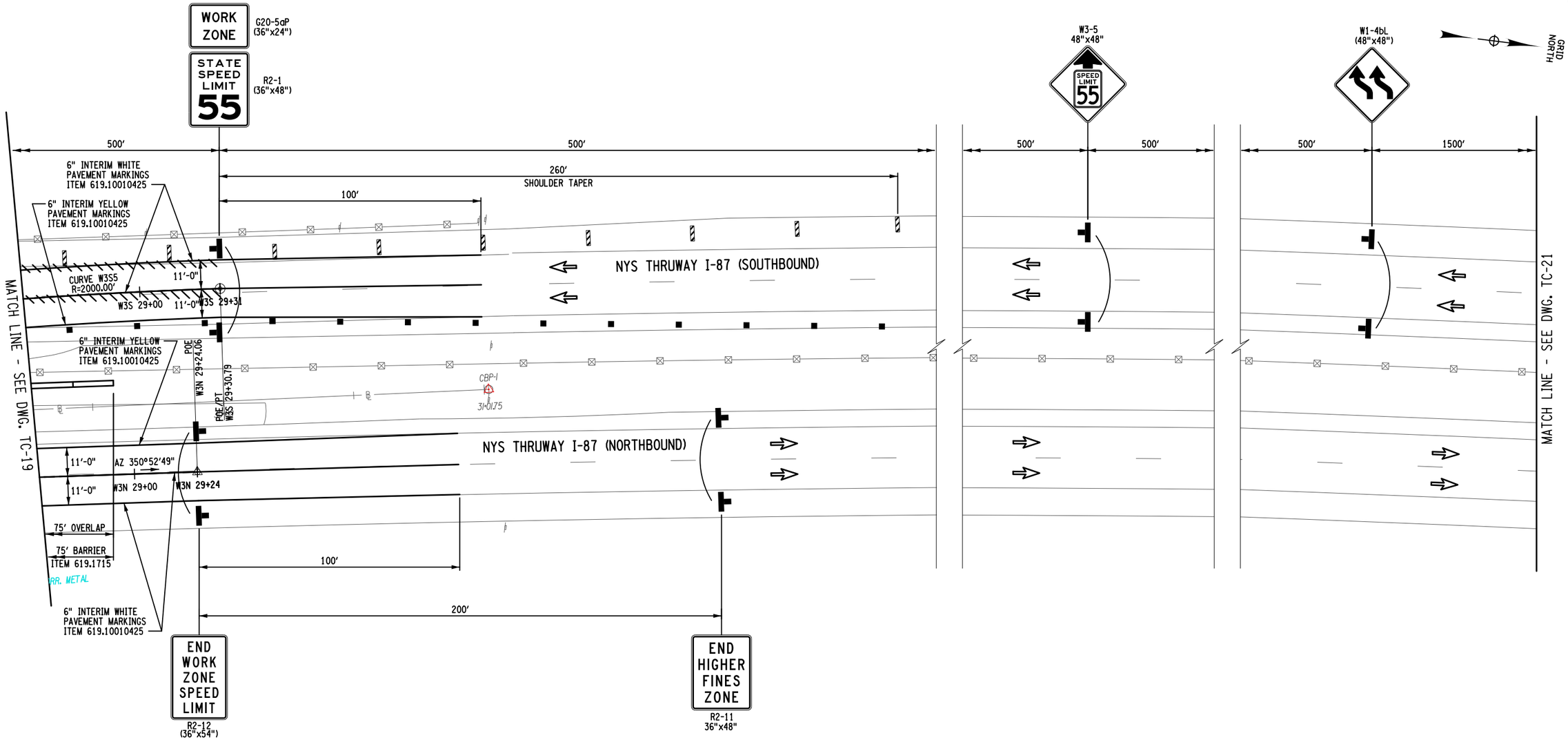
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72
TITLE OF DRAWING: WORK ZONE TRAFFIC CONTROL PLANS - STAGE 3 WALLKILL BRIDGE (6 OF 8)

CONTRACT NUMBER: TAA 23-25B
DATE: 11/16/2023
DRAWING NUMBER: TC-19



LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

WORK ZONE TRAFFIC CONTROL PLAN - STAGE 3

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

CURVE W3S5

PRC =	STA. W3S 25+82.01
PT =	STA. W3S 29+30.79
R =	2000.00′
L =	348.79′
T =	174.84′
Δ =	09°-59′-31"
emax =	N.C.

20 0 20 40 60 80′
1" = 40′

ALTERED BY:	AFFIX SEAL: Matthew Wayne Collingwood
ON:	ON: 11/20/2023

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · 096625 · LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION 'ALTERED BY' FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	WORK ZONE TRAFFIC CONTROL PLANS - STAGE 3 WALLKILL BRIDGE (7 OF 8)
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	TC-20

GRID NORTH

R4-9
36"x48"
STAY IN LANE

W20-1
(48"x48")
ROAD WORK 1 MILE

NYR9-12
(48"x72")
STATE LAW
FINES DOUBLED FOR SPEEDING IN WORK ZONES

1500′ 2640′ 2640′ 1000′ 1000′

MATCH LINE - SEE DWG. TC-20

NYS THRUWAY I-87 (SOUTHBOUND)

NYS THRUWAY I-87 (NORTHBOUND)

WORK ZONE TRAFFIC CONTROL PLAN - STAGE 3

LEGEND

- WORK SPACE
- TEMPORARY BARRIER
- CHANNELIZING DEVICE @ 40 FT. SPACING, ITEM 619.01
- TEMPORARY SIGN, ITEM 619.01
- TYPE III BARRICADE @ 40 FT. SPACING, ITEM 619.04
- COVER EXISTING PAVEMENT MARKINGS, ITEM 619.0803
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT & RESTORATION AREA
- WARNING FLAG TREE MIN. 18"X18"

NOTES:

1. WORK SPACE (MATERIAL STORAGE, EQUIPMENT, WORKERS, ETC.) SHALL NOT ENCROACH WITHIN THE DEFLECTION DISTANCE OF ADJACENT TCB AND/OR GUIDE RAILING.
2. MILLED-IN AUDIBLE ROADWAY DELINEATORS REMOVED FOR WORK ZONE TRAFFIC CONTROL ACTIVITIES SHALL BE REESTABLISHED UNDER ITEM 649.01.

20 0 20 40 60 80′
1" = 40′

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · 096625 · LICENSED PROFESSIONAL ENGINEER

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

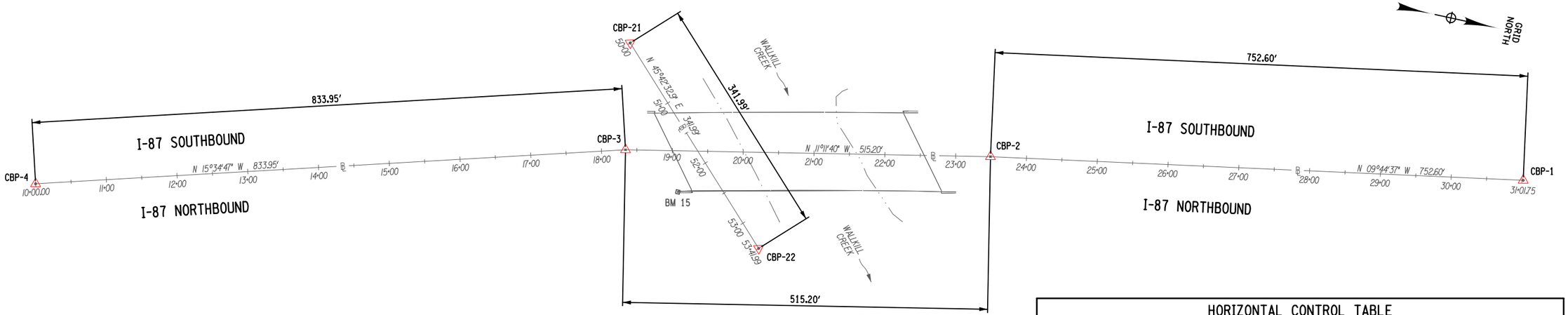
LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

TITLE OF DRAWING
WORK ZONE TRAFFIC CONTROL PLANS - STAGE 3
WALLKILL BRIDGE (8 OF 8)

CONTRACT NUMBER:
TAA 23-25B

DATE:
11/16/2023

DRAWING NUMBER:
TC-21



SURVEY BASELINE

75 0 75 150 225 300'

GRAPHIC SCALE

HORIZONTAL CONTROL TABLE

H.C.L. POINT	H.C.L. STATION	COORDINATES NORTH	COORDINATES EAST	DESCRIPTION
I-87 SOUTHBOUND				
P.O.B./P.C.	SB 10+00.00	1086229.646	613326.175	BEGIN ALIGNMENT / P.C. CURVE SB1
P.I.	SB 12+61.18 BK=	1086480.144	613252.243	P.I. CURVE SB1
	SB 12+61.12 AH			(R = 15057.00)
P.C.C.	SB 15+22.31	1086733.056	613187.044	P.C.C. CURVE SB1/SB2
P.I.	SB 16+22.87 BK=	1086830.437	613161.940	P.I. CURVE SB2
	SB 16+22.87 AH			(R = 10056.50)
P.T.	SB 17+23.43	1086928.301	613138.788	P.T. CURVE SB2
P.C.	SB 18+23.43	1087025.615	613115.766	P.C. CURVE SB3
P.I.	SB 20+76.21 BK=	1087271.600	613057.573	P.I. CURVE SB3
	SB 20+76.16 AH			(R = 15056.00)
P.T.	SB 23+28.93	1087519.400	613007.670	P.T. CURVE SB3
P.C.	SB 24+28.93	1087617.431	612987.928	P.C. CURVE SB4
P.I.	SB 25+29.50 BK=	1087716.017	612968.074	P.I. CURVE SB4
	SB 25+29.50 AH			(R = 10056.50)
P.C.C.	SB 26+30.06	1087814.980	612950.196	P.C.C. CURVE SB4/SB5
P.I.	SB 28+79.94 BK=	1088060.881	612905.773	P.I. CURVE SB5
	SB 28+79.89 AH			(R = 15057.00)
P.T./P.O.E.	SB 31+29.77	1088308.121	612869.533	P.T. CURVE SB5/END ALIGNMENT
I-87 NORTHBOUND				
P.O.B./P.C.	NB 10+00.00	1086249.460	613393.312	BEGIN ALIGNMENT / P.C. CURVE NB1
P.I.	NB 12+75.98 BK=	1086514.153	613315.191	P.I. CURVE NB1
	NB 12+75.92 AH			(R = 14987.00)
P.T.	NB 15+51.90	1086781.542	613246.868	P.T. CURVE NB1
P.C.	NB 16+51.90	1086878.429	613222.112	P.C. CURVE NB2
P.I.	NB 17+51.77 BK=	1086975.195	613197.387	P.I. CURVE NB2
	NB 17+51.77 AH			(R = 9987.50)
P.C.C.	NB 18+51.64	1087072.436	613174.601	P.C.C. CURVE NB2/NB3
P.I.	NB 21+04.51 BK=	1087318.633	613116.913	P.I. CURVE NB3
	NB 21+04.46 AH			(R = 14988.00)
P.C.C.	NB 23+57.32	1087566.636	613067.563	P.C.C. CURVE NB3/NB4
P.I.	NB 24+57.20 BK=	1087664.590	613048.071	P.I. CURVE NB4
	NB 24+57.20 AH			(R = 9987.50)
P.T.	NB 25+57.07	1087762.915	613030.541	P.T. CURVE NB4
P.C.	NB 26+57.07	1087861.363	613012.990	P.C. CURVE NB5
P.I.	NB 28+88.54 BK=	1088089.245	612972.363	P.I. CURVE NB5
	NB 28+88.51 AH			(R = 14987.00)
P.T./P.O.E.	NB 31+19.98	1088318.272	612938.793	P.T. CURVE NB5 / END ALIGNMENT

TABLE OF BENCHMARKS

BM NO	STATION	OFFSET	LT/RT	ELEVATION	NORTHING	EASTING	DESCRIPTION
15	℄ 19+08.90	58.10'	RT	205.19'	1087141.733	613181.482	TOP OF BOLT

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

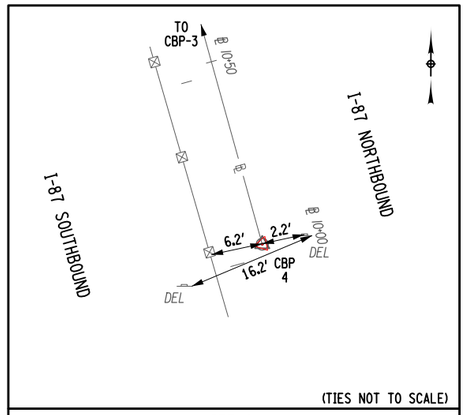
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72

TITLE OF DRAWING: SURVEY CONTROL DATA

CONTRACT NUMBER: TAA 23-25B

DATE: 11/16/2023

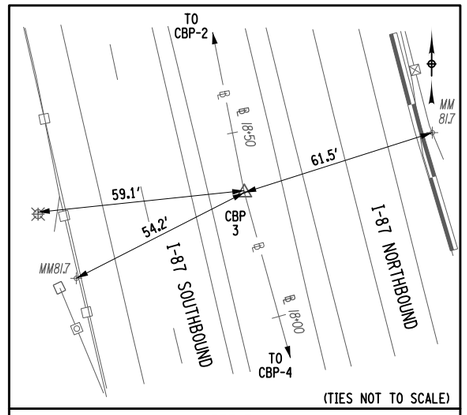
DRAWING NUMBER: SCD-1



CBP-4
℄ STA. 10+00.00

CAPPED REBAR SET IN GRASS MEDIAN
OF I-87 TO THE SOUTH OF THE WALLKILL BRIDGE

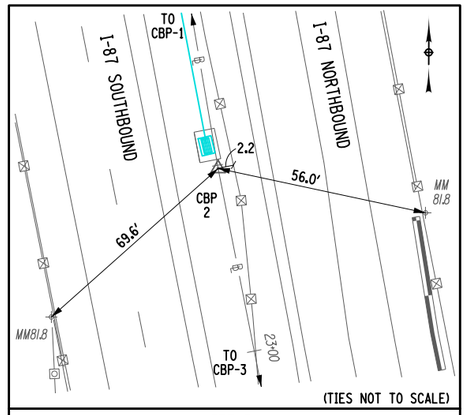
NYSPCS NAD83 (2011) ZONE E. ZONE
N: 1086253.6222
E: 613363.0184
EL: 208.85



CBP-3
℄ STA. 18+33.95

MAG NAIL SET IN THE EAST SHOULDER OF I-87
SOUTHBOUND TO THE SOUTH OF THE WALLKILL BRIDGE

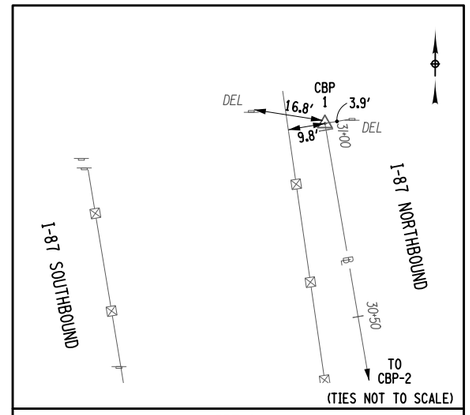
NYSPCS NAD83 (2011) ZONE E. ZONE
N: 1087056.9309
E: 613139.0382
EL: 204.44



CBP-2
℄ STA. 23+49.15

MAG NAIL SET IN THE EAST SHOULDER OF I-87
SOUTHBOUND TO THE SOUTH OF THE WALLKILL BRIDGE

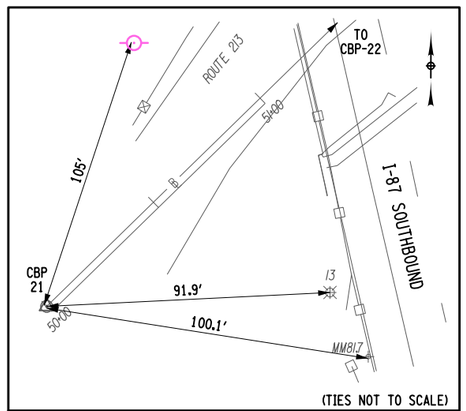
NYSPCS NAD83 (2011) ZONE E. ZONE
N: 1087562.3238
E: 613039.0179
EL: 201.27



CBP-1
℄ STA. 31+01.75

CAPPED REBAR SET IN GRASS MEDIAN OF I-87
TO THE NORTH OF THE WALLKILL BRIDGE

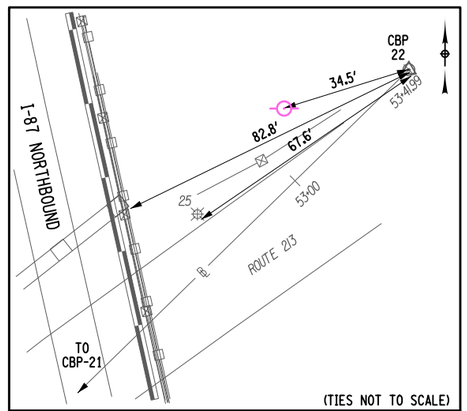
NYSPCS NAD83 (2011) ZONE E. ZONE
N: 1088304.0684
E: 612911.6487
EL: 195.97



CBP-21
℄ STA. 50+00.00

CAPPED REBAR SET TO THE NORTH OF
RT 213 TO THE WEST OF THE WALLKILL BRIDGE

NYSPCS NAD83 (2011) ZONE E. ZONE
N: 1087031.3014
E: 612990.3154
EL: 178.89



CBP-22
℄ STA. 53+41.99

CAPPED REBAR SET TO THE NORTH OF
RT 213 TO THE EAST OF THE WALLKILL BRIDGE

NYSPCS NAD83 (2011) ZONE E. ZONE
N: 1087270.1115
E: 613235.1113
EL: 180.19

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72

TITLE OF DRAWING
SURVEY CONTROL DATA

CONTRACT NUMBER:
TAA 23-25B

DATE:
11/16/2023

DRAWING NUMBER:
SCD-2

GUIDE RAILING - INSTALLATION

STATION	TO	STATION	OFFSET	RADIUS	LENGTH	ITEM 606.24 (EA)	ITEM 606.2701 (LF)	ITEM 606.2703 (EA)	ITEM 606.28 (EA)	ITEM 606.2801 (LF)	ITEM 606.8902 (EA)	ITEM 606.8903 (EA)	ITEM 606.8905 (EA)	REMARKS
W2S 12+50			32.0' RT			1.0								STAGE 2 WZTC TEMPORARY INSTALL
W2S 28+40			32.0' RT			1.0								STAGE 2 WZTC TEMPORARY INSTALL
NB 16+56		NB 19+00	22.0' RT		244		244.0					1.0		INSTALL DURING STAGE 2 WORK
NB 23+30		NB 25+43	21.0' RT	-	213.0		213.0					1.0		INSTALL DURING STAGE 2 WORK
NB 16+00			22.0' RT								1.0			INSTALL DURING STAGE 2 WORK
NB 25+43			28.0' RT	-				1.0						INSTALL DURING STAGE 2 WORK
SB 16+71		SB 18+62	21.0' LT		191		191.0					1.0		INSTALL DURING STAGE 3 WORK
SB 22+80		SB 25+12	21.0' LT	-	232.0		232.0					1.0		INSTALL DURING STAGE 3 WORK
SB 16+15		SB 16+71	21.0' LT	-	-						1.0			INSTALL DURING STAGE 3 WORK
SB 25+12		SB 25+67	21.0' LT	-	-						1.0			INSTALL DURING STAGE 3 WORK
NB 13+44		NB 19+00	35.0' LT	-	556.0					556.0		2.0		INSTALL DURING STAGE 3 WORK
NB 23+03		NB 25+03	VAR.	-	200.0					200.0				INSTALL DURING STAGE 3 WORK
SB 25+50		SB 28+22	28.0' RT	-	272.0					272.0		2.0		INSTALL DURING STAGE 3 WORK
NB 25+00			26.5' LT	-	-				1.0					INSTALL DURING STAGE 3 WORK
SB 25+50			28.0' RT	-	-				1.0					INSTALL DURING STAGE 3 WORK
NB 12+90		NB 13+44	37.0' LT										1.0	INSTALL DURING STAGE 3 WORK
SB 28+22		SB 28+93	28.0' RT	-	-								1.0	INSTALL DURING STAGE 3 WORK
					TOTALS	2.0	880.0	1.0	2.0	1028.0	3.0	8.0	2.0	

MIARDS INSTALLATION TABLE

STATION	STATION	SIDE	ITEM 649.01 (LF)
SB 12+25	SB 18+90	LT	665.0
SB 22+50	SB 29+15	LT	665.0
SB 11+80	SB 19+00	RT	720.0
SB 22+60	SB 29+40	RT	680.0
NB 11+60	NB 19+10	LT	750.0
NB 22+75	NB 29+55	LT	680.0
NB 12+20	NB 19+25	RT	705.0
NB 22+85	NB 29+00	RT	615.0
		TOTAL	5480.0

GUIDE RAIL ITEM DESCRIPTION TABLE

ITEM	DESCRIPTION	UNITS
606.24	ANCHORAGE UNITS FOR CORRUGATED BEAM MEDIAN BARRIER	EA
606.2701	HPBO (MOD.) CORRUGATED BEAM GUIDE RAILING	LF
606.2703	ANCHORAGE UNITS FOR HPBO (MOD.) CORRUGATED BEAM GUIDERAILING	EA
606.28	HEAVY POST BLOCKED-OUT (MOD.) CORRUGATED BEAM MEDIAN BARRIER END TERMINAL (ENERGY-ABSORBING)	EA
606.2801	HPBO (MOD.) CORRUGATED BEAM MEDIAN BARRIER	LF
606.5148	RESETTING CORRUGATED BEAM GUIDE RAILING (NEW POSTS)	LF
606.61	REMOVING AND STORING CORRUGATED BEAM GUIDE RAILING	LF
606.71	REMOVING AND DISPOSING CORRUGATED BEAM GUIDE RAILING	LF
606.72	REMOVING AND DISPOSING CORRUGATED BEAM MEDIAN BARRIER	LF
606.73	REMOVING AND DISPOSING BOX BEAM GUIDE RAILING	LF
606.7910	REMOVING AND DISPOSING ANCHORAGE UNITS FOR CORRUGATED BEAM GUIDE RAILING AND MEDIAN BARRIER	EA
606.8902	TRANSITION: HEAVY POSTS BLOCKED OUT (MOD.) CORRUGATED BEAM GUIDE RAILING TO WEAK POST CORRUGATED BEAM GUIDE RAILING	EA
606.8903	TRANSITION: HPBO (MOD) CORRUGATED BEAM GUIDE RAILING TO SINGLE SLOPE CONCRETE HALF SECTION BARRIER	EA
606.8905	TRANSITION: HEAVY POSTS BLOCKED OUT (MOD.) CORRUGATED BEAM MEDIAN BARRIER TO WEAK POST CORRUGATED BEAM MEDIAN BARRIER	EA

GUIDE RAIL REMOVAL TABLE

STATION	STATION	SIDE	ITEM 606.5148 (LF)	ITEM 606.61 (LF)	ITEM 606.71 (LF)	ITEM 606.72 (LF)	ITEM 606.73 (LF)	ITEM 606.7910 (EA)	REMARKS
			80.0						STATE ROUTE 213
				80.0					STATE ROUTE 213
W2S 12+50		CTR						1.0	AT CONCLUSION OF STAGE 3 WORK
W2S 28+40		CTR						1.0	AT CONCLUSION OF STAGE 3 WORK
SB 12+95	SB 25+10	CTR				1215.0			DURING STAGE 2 WORK
SB 25+60	SB 29+00	CTR				340.0			DURING STAGE 2 WORK
NB 16+00	NB 19+00	RT			300.0			1.0	DURING STAGE 2 WORK
NB 23+30	NB 25+63	RT			233.0				DURING STAGE 2 WORK
NB 25+63		RT						1.0	DURING STAGE 2 WORK
SB 16+15	SB 18+62	LT			247.0				DURING STAGE 3 WORK
SB 18+00	SB 18+90	LT					90.0	1.0	DURING STAGE 3 WORK
SB 22+50	SB 23+30	LT					80.0	1.0	DURING STAGE 3 WORK
SB 22+80	SB 25+67	LT			287.0				DURING STAGE 3 WORK
		TOTAL	80.0	80.0	1067.0	1555.0	170.0	6.0	

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

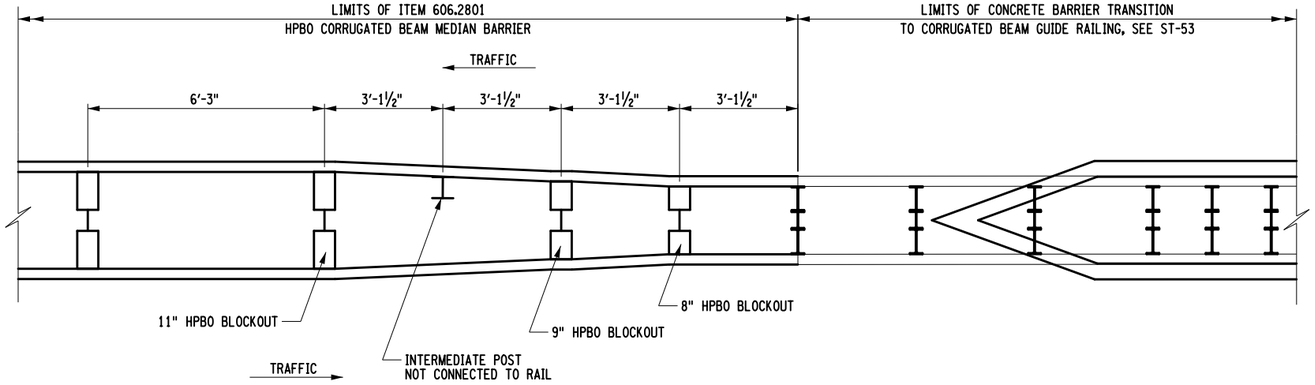
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

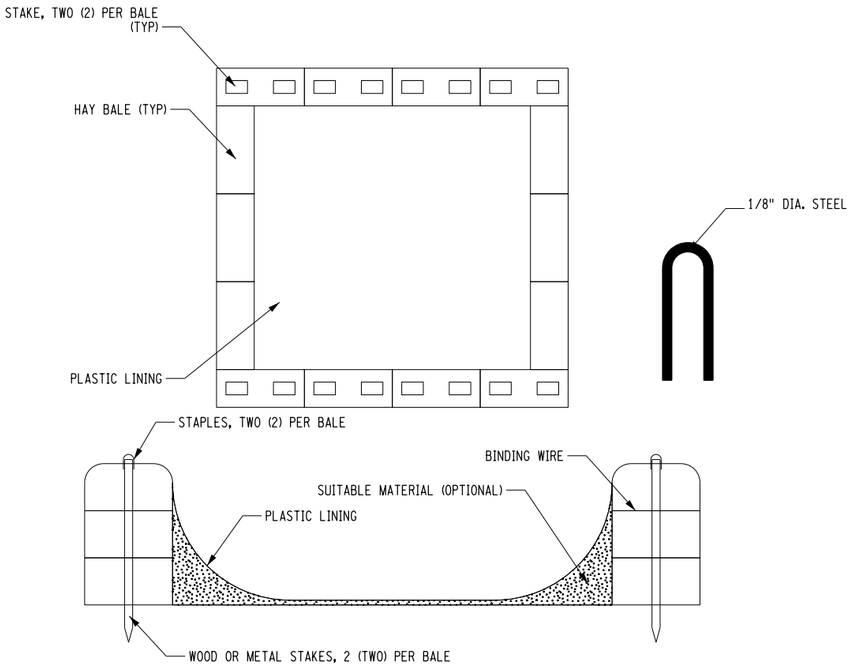
JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72
TITLE OF DRAWING: MISCELLANEOUS TABLES

CONTRACT NUMBER: TAA 23-25B
DATE: 11/16/2023
DRAWING NUMBER: MST-1



APPROACH MEDIAN BARRIER TRANSITION DETAIL
NTS



CONCRETE WASHOUT DETAIL
NTS

ALTERED BY:	AFFIX SEAL: Matthew Wayne Collingwood
ON:	ON: 11/20/2023

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · 096625 · LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

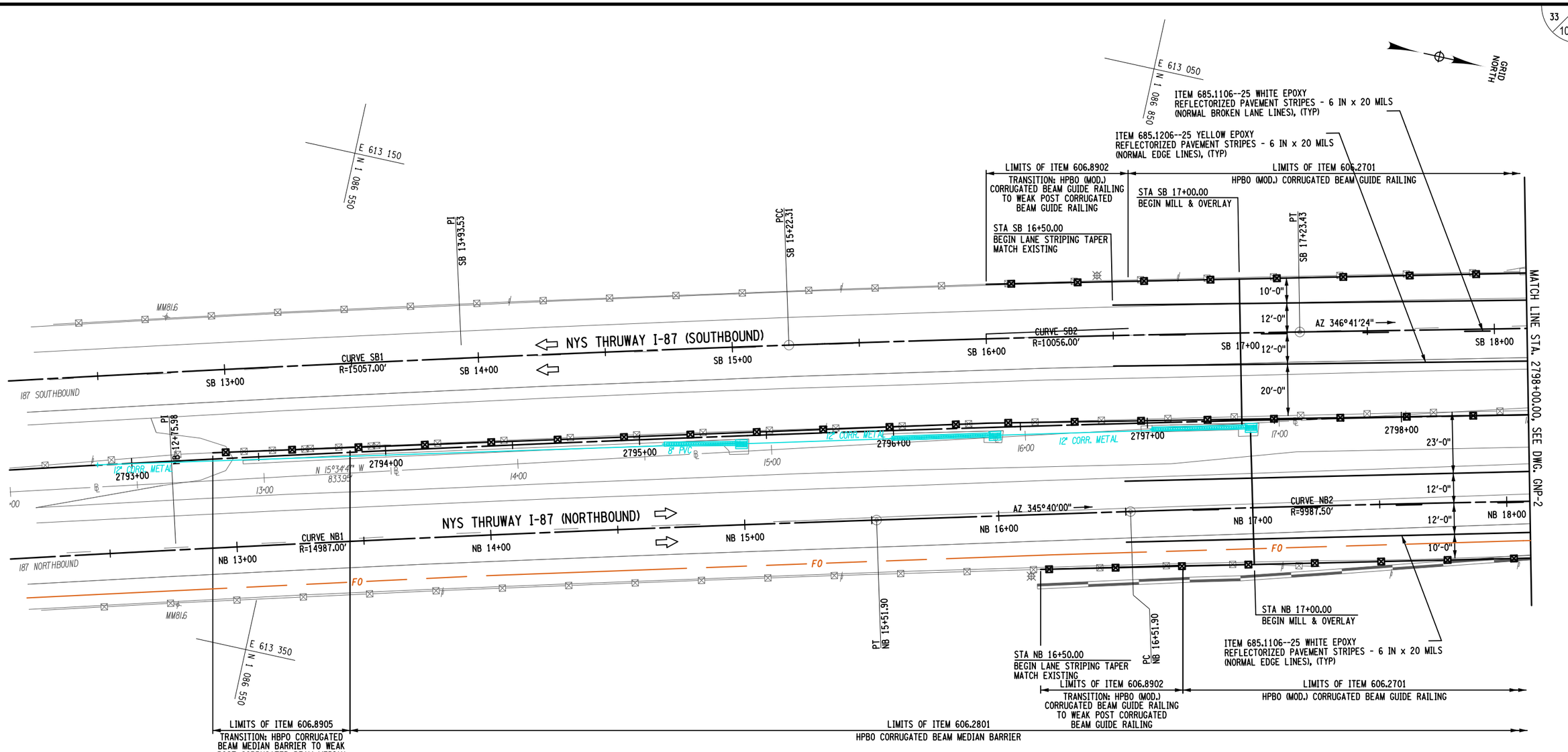
REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	MISCELLANEOUS DETAILS
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	MSD-1



PLAN

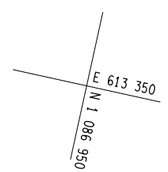
CURVE SB1	
PC =	STA. SB 10+00.00
PCC =	STA. SB 15+22.31
R =	15057.00'
L =	522.31'
T =	261.18'
Δ =	01°-59'-15"
emax =	N.C.

CURVE SB2	
PCC =	STA. SB 15+22.31
PT =	STA. SB 17+23.43
R =	10056.00'
L =	201.12'
T =	100.57'
Δ =	01°-08'-45"
emax =	N.C.

CURVE NB1	
PC =	STA. NB 10+00.00
PT =	STA. NB 15+51.90
R =	14987.00'
L =	551.90'
T =	275.98'
Δ =	02°-06'-36"
emax =	N.C.

CURVE NB2	
PC =	STA. NB 16+51.90
PCC =	STA. NB 18+51.64
R =	9987.50'
L =	199.74'
T =	99.88'
Δ =	01°-08'-45"
emax =	N.C.

NOTE:
GUIDE RAIL REMOVAL ITEMS NOT SHOWN FOR CLARITY. SEE MST-1 FOR LIMITS OF GUIDE RAIL REMOVAL AND INSTALLATION.



20 0 20 40 60 80'
1" = 40'

ALTERED BY:	AFFIX SEAL: Matthew Wayne Collingwood
ON:	ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

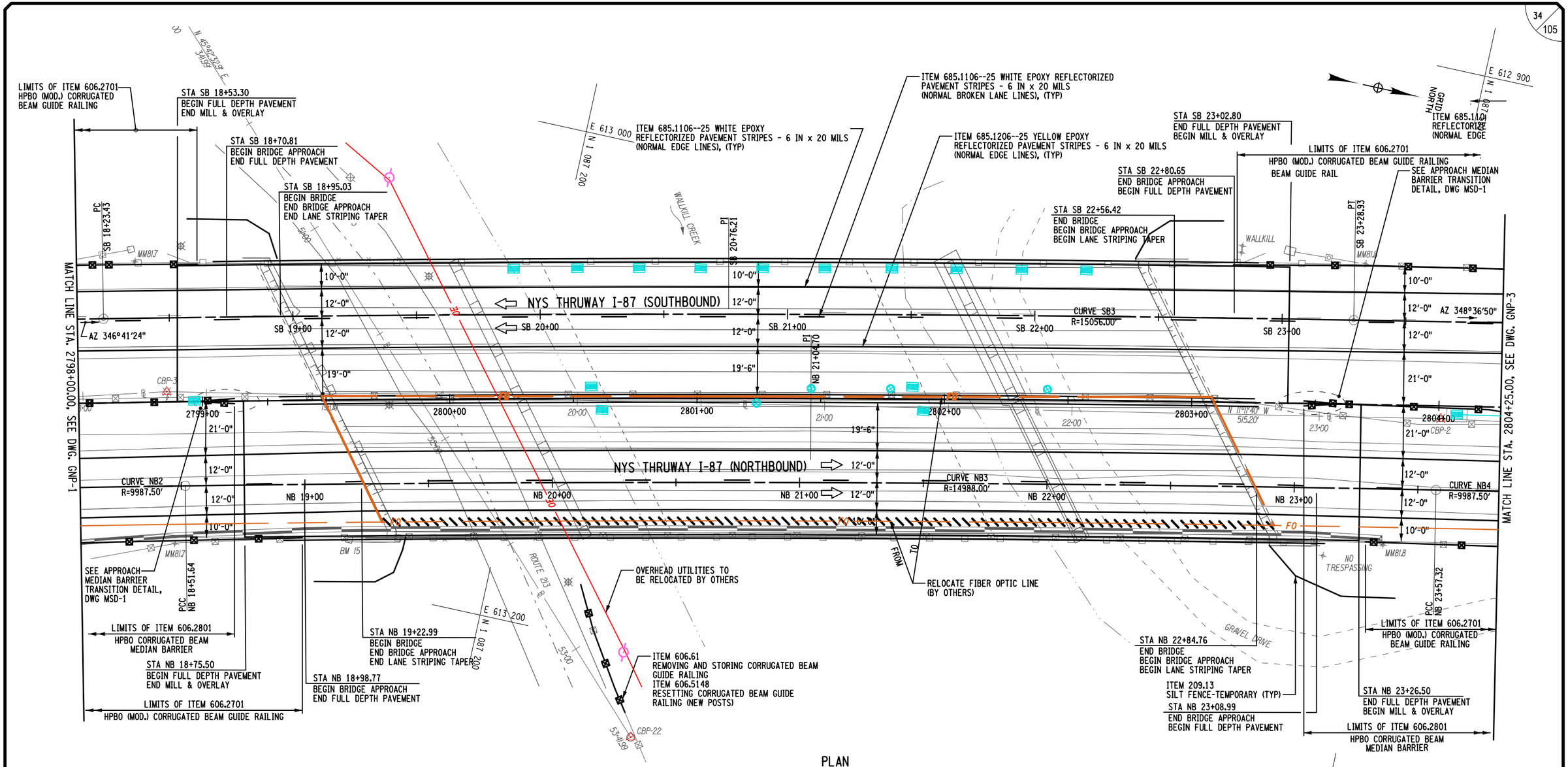
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	GENERAL PLAN
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	GNP-1

FILE NAME = A72128.cp_gnp.01.dgn USER = jmtpw11-pw-svc
DESIGN SUPERVISOR M. COLLINGWOOD DESIGN M. COLLINGWOOD DRAFTING R. JABLONSKI CHECK T. BURTNICK CHECK M. COLLINGWOOD DATE/TIME = 16-NOV-2023 23:59



PLAN

NOTE:

GUIDE RAIL REMOVAL ITEMS NOT SHOWN FOR CLARITY. SEE MST-1 FOR LIMITS OF GUIDE RAIL REMOVAL AND INSTALLATION.

CURVE SB3
PC = STA. SB 18+23.43
PT = STA. SB 23+28.93
R = 15056.00'
L = 505.50'
T = 252.78'
Δ = 01°-55'-25"
emax = N.C.

CURVE NB2
PC = STA. NB 16+51.90
PCC = STA. NB 18+51.64
R = 9987.50'
L = 199.74'
T = 99.88'
Δ = 01°-08'-45"
emax = N.C.

CURVE NB3
PCC = STA. NB 18+51.64
PCC = STA. NB 23+57.32
R = 14988.00'
L = 505.68'
T = 252.87'
Δ = 01°-55'-59"
emax = N.C.

CURVE NB4
PCC = STA. NB 23+57.32
PT = STA. NB 25+57.07
R = 9987.50'
L = 199.74'
T = 99.88'
Δ = 01°-08'-45"
emax = N.C.

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · LICENSED PROFESSIONAL ENGINEER · 096625

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

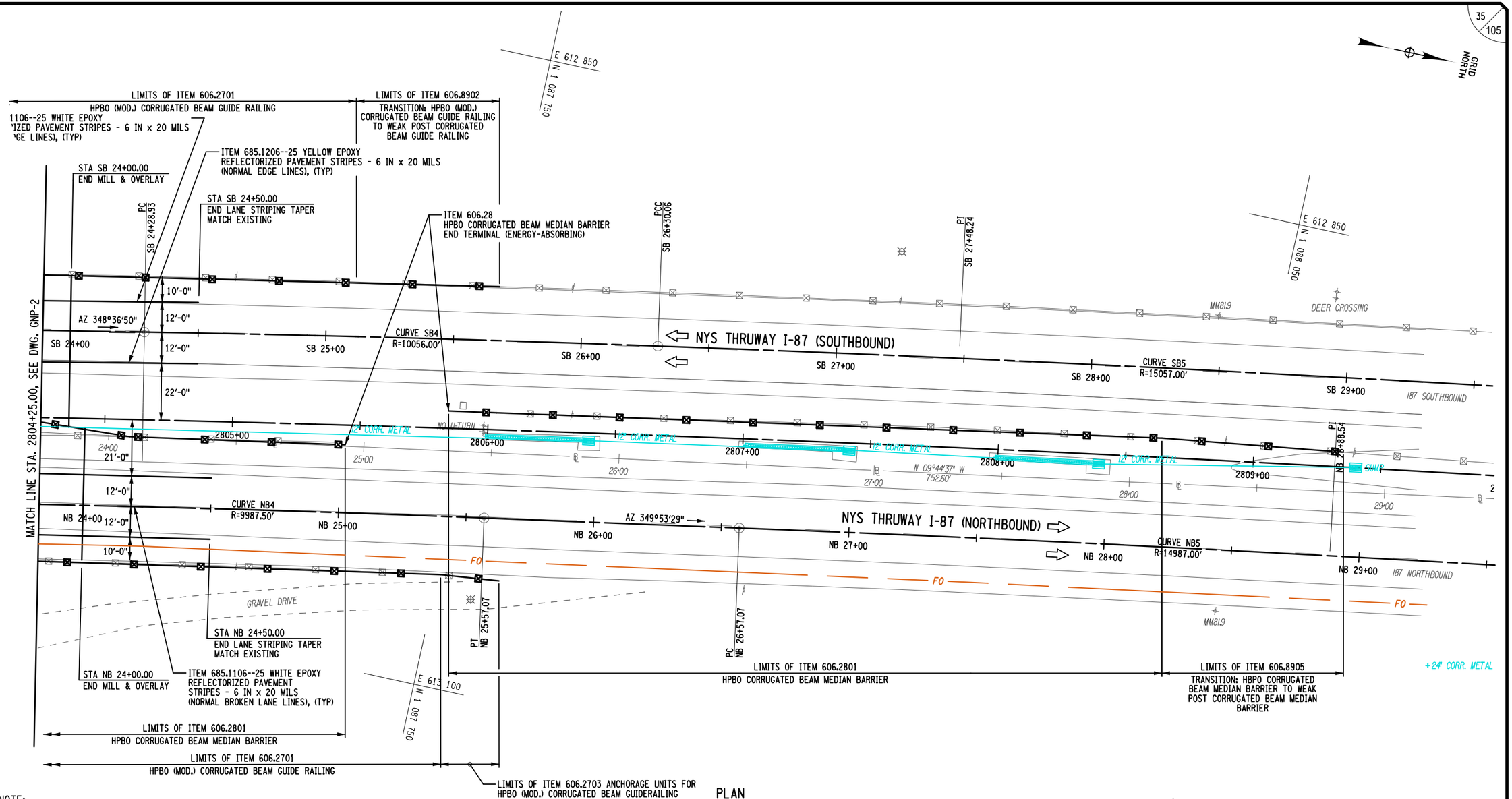
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72
TITLE OF DRAWING: GENERAL PLAN

CONTRACT NUMBER: TAA 23-25B
DATE: 11/16/2023
DRAWING NUMBER: GNP-2

DESIGN SUPERVISOR M. COLLINGWOOD | DRAFTING T. BURTNICK | DESIGN R. JABLONSKI | CHECK M. COLLINGWOOD | CHECK
DATE/TIME = 16-NOV-2023 23:58 | USER = jmtpw11-pw
FILE NAME = A72128.cp_gnp.02.dgn



PLAN

NOTE:

GUIDE RAIL REMOVAL ITEMS NOT SHOWN FOR CLARITY. SEE MST-1 FOR LIMITS OF GUIDE RAIL REMOVAL AND INSTALLATION.

CURVE SB4	
PC =	STA. SB 24+28.93
PCC =	STA. SB 26+30.06
R =	10056.00'
L =	201.12'
T =	100.57'
Δ =	01°-08'-45"
emax =	N.C.

CURVE SB5	
PCC =	STA. SB 26+30.06
PT =	STA. SB 31+29.77
R =	15057.00'
L =	499.72'
T =	249.88'
Δ =	01°-54'-06"
emax =	N.C.

CURVE NB4	
PCC =	STA. NB 23+57.32
PT =	STA. NB 25+57.07
R =	9987.50'
L =	199.74'
T =	99.88'
Δ =	01°-08'-45"
emax =	N.C.

CURVE NB5	
PC =	STA. NB 26+57.07
PT =	STA. NB 31+19.98
R =	14987.00'
L =	462.91'
T =	231.48'
Δ =	01°-46'-11"
emax =	N.C.

E 613 100
N 1 088 050

20 0 20 40 60 80'
1" = 40'

ALTERED BY:
ON:

AFFIX SEAL: Matthew Wayne Collingwood
ON: 11/20/2023

STATE OF NEW YORK · MATTHEW WAYNE COLLINGWOOD · 096625 · LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

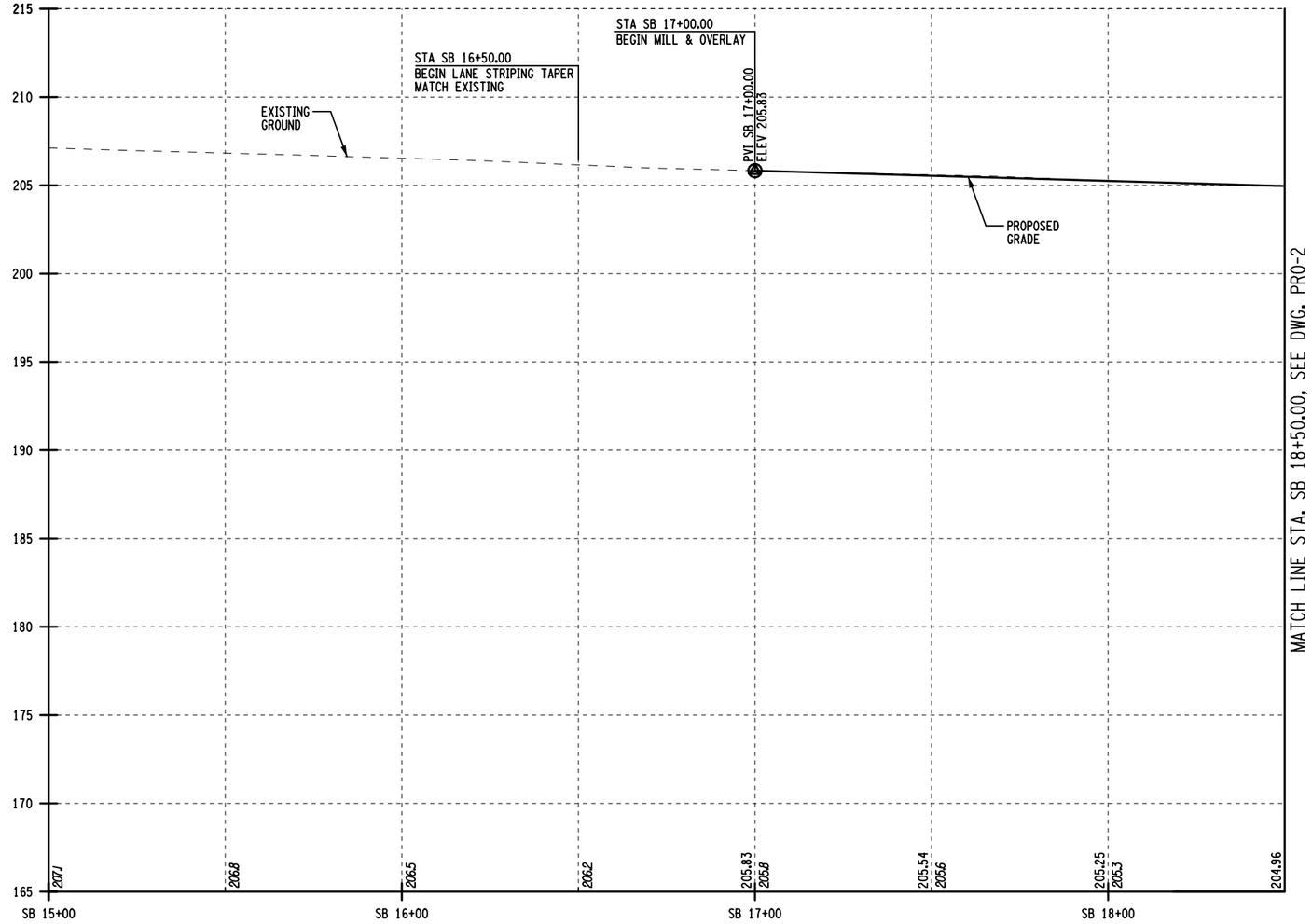
REVISIONS

DATE	DESCRIPTION	BY	SYM.

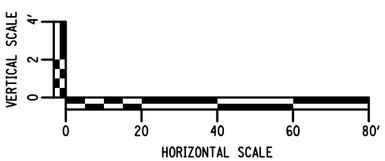
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	GENERAL PLAN
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	GNP-3



I-87 SOUTHBOUND PROFILE



ALTERED BY:	AFFIX SEAL: Matthew Wayne Collingwood
ON:	ON: 11/20/2023

REVISIONS

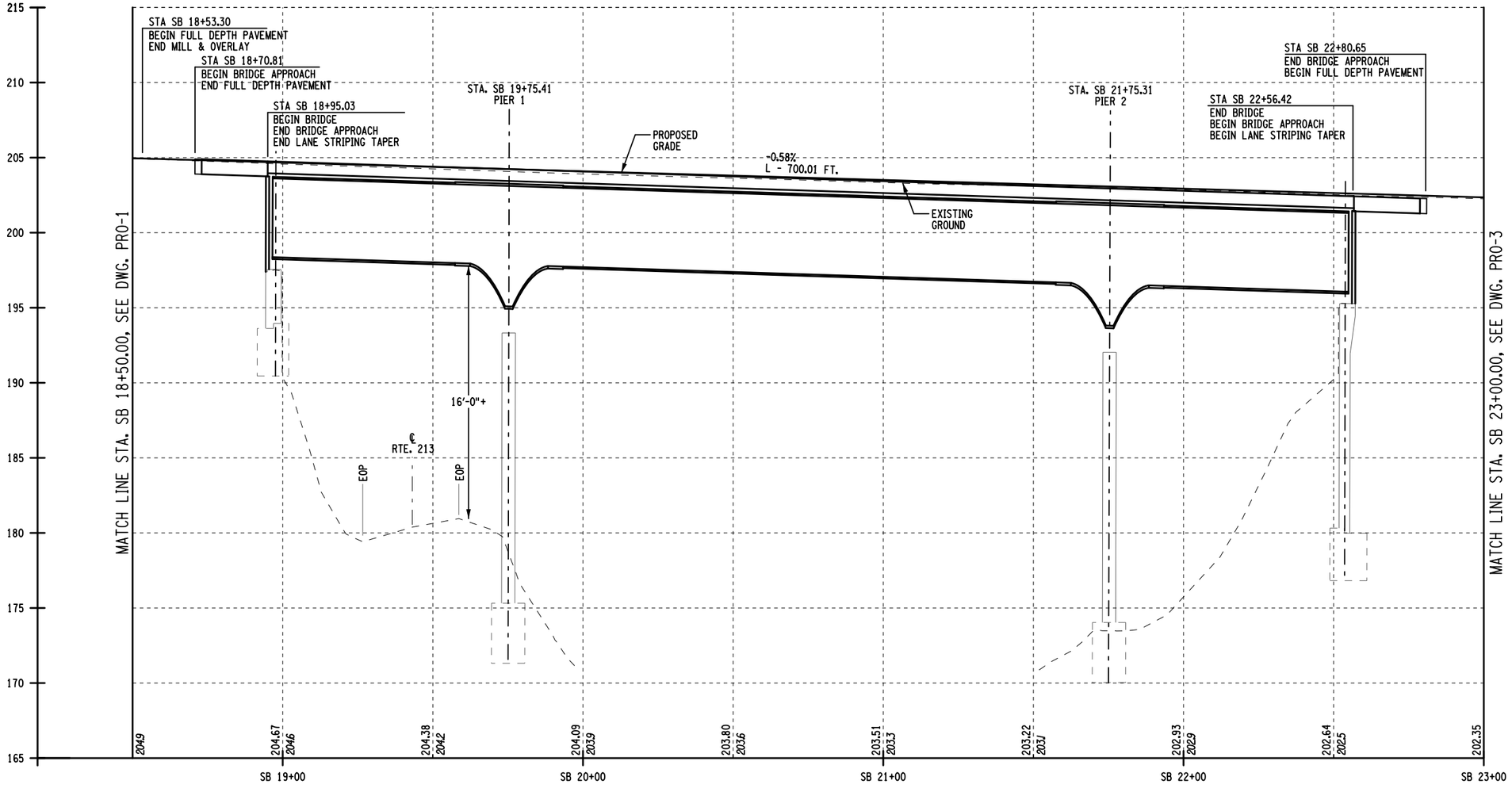
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

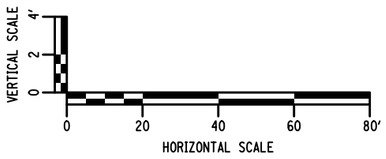
JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72	DATE: 11/16/2023
TITLE OF DRAWING: PROFILE	DRAWING NUMBER: PRO-1

DESIGN SUPERVISOR: M. COLLINGWOOD
DRAFTING: M. COLLINGWOOD
DESIGN: T. BURTNICK
CHECK: R. JABLONSKI
CHECK: M. COLLINGWOOD
DATE/TIME = 17-NOV-2023 00:07
USER = jmtpw11-pw-svc
FILE NAME = A72128_cp_p1o_01.dgn



I-87 SOUTHBOUND PROFILE



ALTERED BY: ON:	AFFIX SEAL: Matthew Wayne Collingwood ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

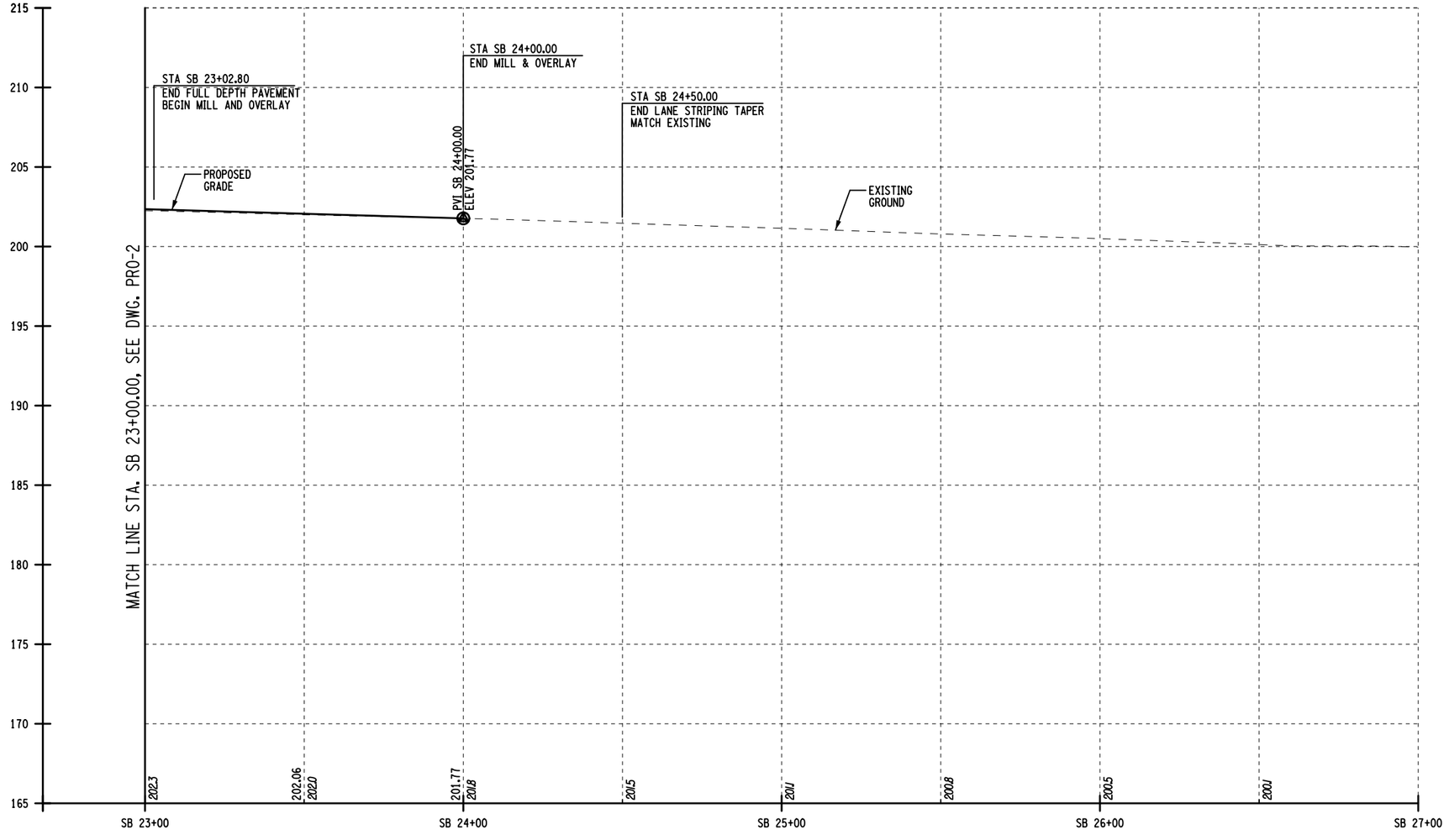
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

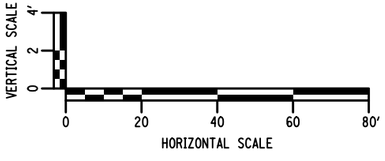
JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	PROFILE
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	PRO-2

DESIGN SUPERVISOR M. COLLINGWOOD | DESIGN R. JABLONSKI | DRAFTING M. COLLINGWOOD | CHECK T. BURTNICK | CHECK M. COLLINGWOOD
DATE/TIME = 16-NOV-2023 23:59 | USER = jmtpw11-pw-svc
FILE NAME = A72128.cp_p3o.02.dgn



I-87 SOUTHBOUND PROFILE



ALTERED BY:	AFFIX SEAL: Matthew Wayne Collingwood
ON:	ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

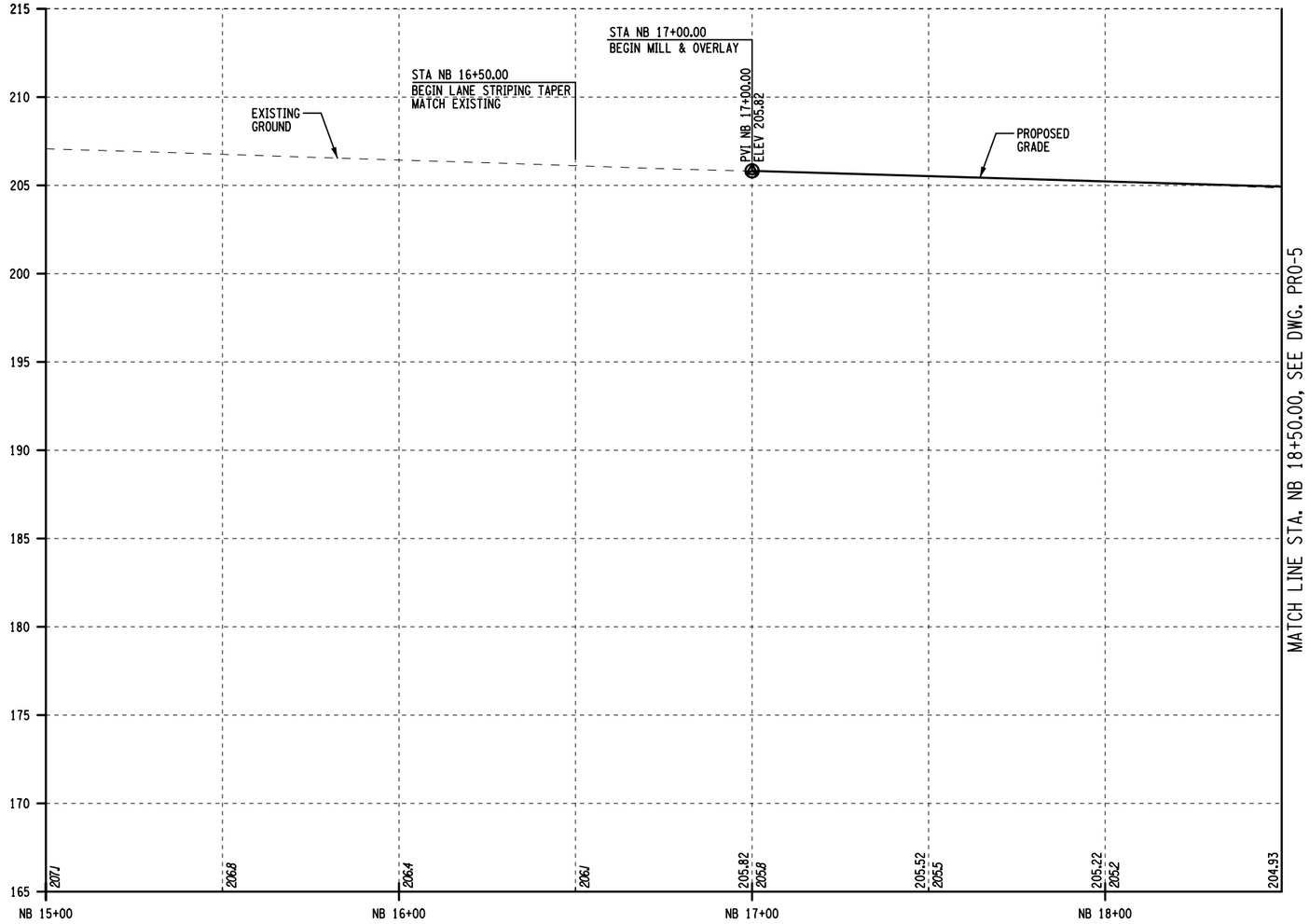
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

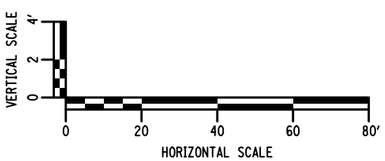
JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	PROFILE
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	PRO-3

DESIGN SUPERVISOR M. COLLINGWOOD | DESIGN R. JABLONSKI | DRAFTING T. BURTNICK | CHECK M. COLLINGWOOD | CHECK M. COLLINGWOOD
FILE NAME = A72128..cp_p3o.03.dgn DATE/TIME = 17-NOV-2023 08:07 USER = jmtpw11-pw-svc



I-87 NORTHBOUND PROFILE



ALTERED BY: ON:	AFFIX SEAL: Matthew Wayne Collingwood ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

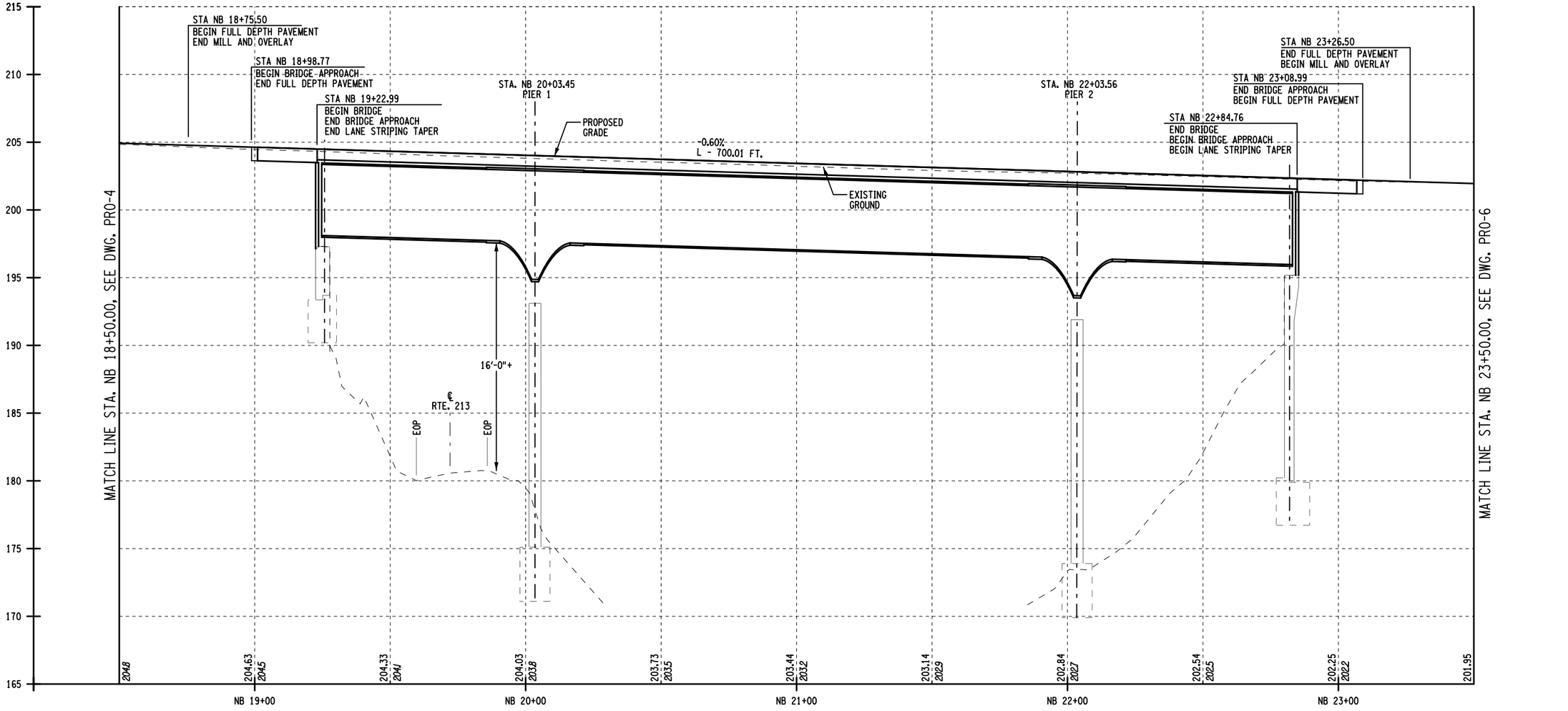
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

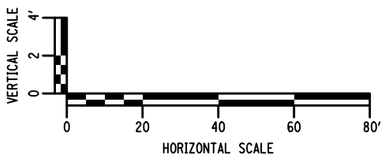
JMT

TITLE OF PROJECT REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT ALBANY DIVISION MP 81.72	DATE: 11/16/2023
TITLE OF DRAWING PROFILE	DRAWING NUMBER: PRO-4

FILE NAME = A72128.cp_p3o_04.dgn USER = jmtpw11-pw-svc DATE/TIME = 17-NOV-2023 00:05
DESIGN SUPERVISOR M. COLLINGWOOD DESIGN R. JABLONSKI CHECK T. BURTNICK DRAFTING M. COLLINGWOOD CHECK M. COLLINGWOOD



I-87 NORTHBOUND PROFILE



ALTERED BY:	AFFIX SEAL: Matthew Wayne Collingwood
ON:	ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION 'ALTERED BY' FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

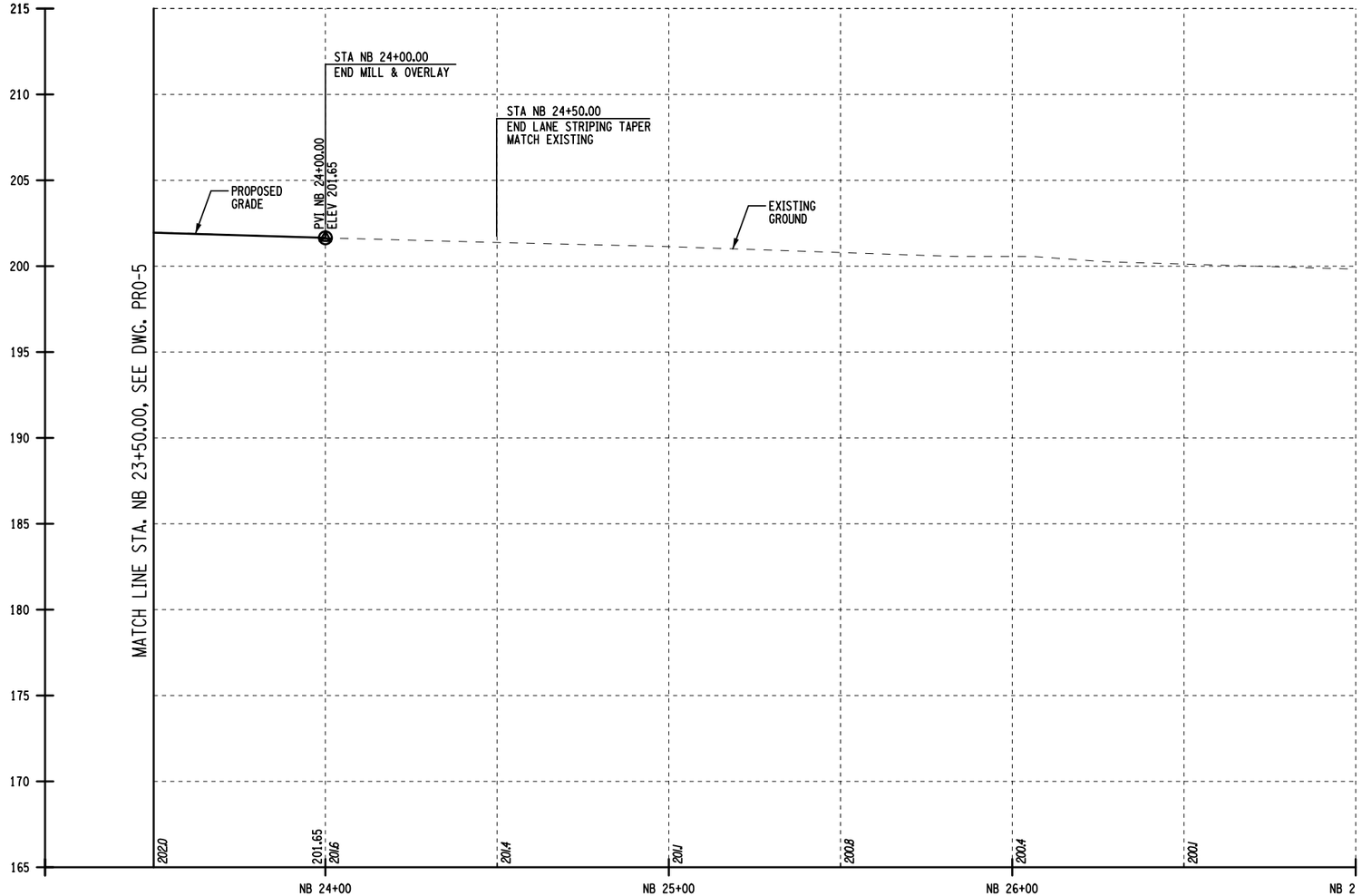
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

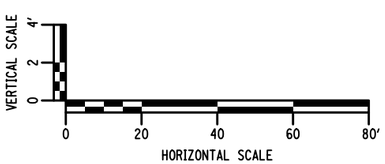
JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72
TITLE OF DRAWING	PROFILE
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	PRO-5

DESIGN SUPERVISOR M. COLLINGWOOD | DESIGN R. JABLONSKI | DRAFTING M. COLLINGWOOD | CHECK T. BURTNICK | CHECK M. COLLINGWOOD | DATE/TIME = 17-NOV-2023 00:05 | USER = jmtpw11-pw-svc | FILE NAME = A72128.cp_p3o.05.dgn



I-87 NORTHBOUND PROFILE



ALTERED BY: ON:	AFFIX SEAL: Matthew Wayne Collingwood ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

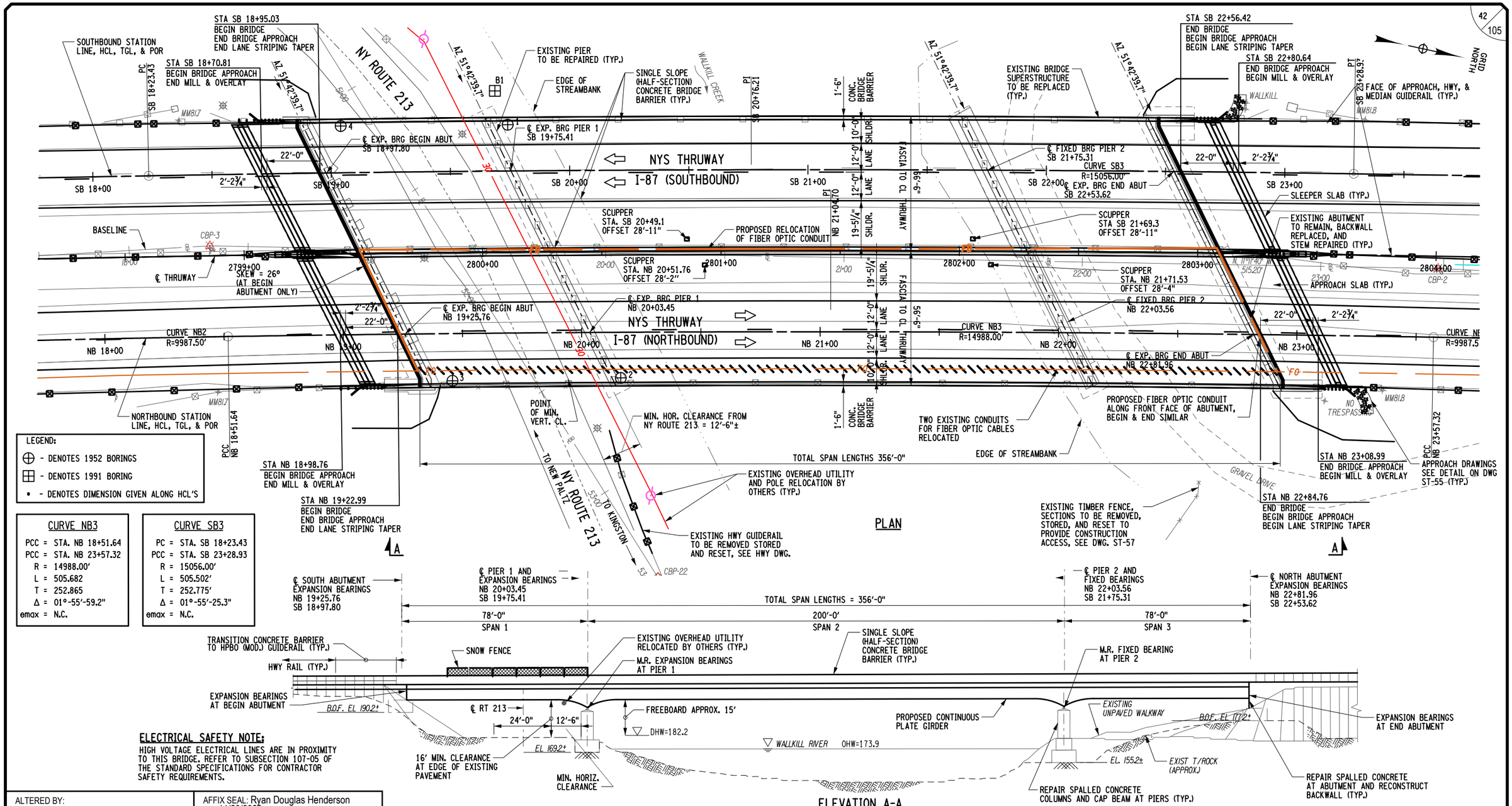
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT ALBANY DIVISION MP 81.72	DATE: 11/16/2023
TITLE OF DRAWING PROFILE	DRAWING NUMBER: PRO-6

DESIGN SUPERVISOR M. COLLINGWOOD
DESIGN M. COLLINGWOOD
DRAFTING R. JABLONSKI
CHECK T. BURTNICK
CHECK M. COLLINGWOOD
USER = jmtpw11-pw-svc
DATE/TIME = 17-NOV-2023 00:06
FILE NAME = A72128.cp_p3o.06.dgn



PLAN

LEGEND:
- ⊕ - DENOTES 1952 BORINGS
- ⊞ - DENOTES 1991 BORING
- • - DENOTES DIMENSION GIVEN ALONG HCL'S

CURVE NB3	
PCC =	STA. NB 18+51.64
PCC =	STA. NB 23+57.32
R =	14988.00'
L =	505.682
T =	252.865
Δ =	01°-55'-59.2"
emax =	N.C.

CURVE SB3	
PC =	STA. SB 18+23.43
PCC =	STA. SB 23+28.93
R =	15056.00'
L =	505.502'
T =	252.775'
Δ =	01°-55'-25.3"
emax =	N.C.

ELEVATION A-A

ELECTRICAL SAFETY NOTE:
HIGH VOLTAGE ELECTRICAL LINES ARE IN PROXIMITY TO THIS BRIDGE. REFER TO SUBSECTION 107-05 OF THE STANDARD SPECIFICATIONS FOR CONTRACTOR SAFETY REQUIREMENTS.

LOAD RATING						
(LRFR)			(LFR)			CONTROLLING MEMBER
INVENTORY	HL-93	1.28	INVENTORY	HS	74.52 TONS	GIRDER 3-5 & 10-12, POSITIVE MOMENT, END SPAN
OPERATING	HL-93	1.67	OPERATING	HS	124.20 TONS	GIRDER 3-5 & 10-12, POSITIVE MOMENT, END SPAN

HL-93 LIVE LOADING (LRFR)
HS-20 LIVE LOADING (LFR)
INCLUDES FUTURE WEARING SURFACE OF 0.025 KSF

HYDRAULIC TABLE	DESIGN	BASIC
RECURRENCE INTERVAL (YEARS)	50	100
PEAK DISCHARGE (CFS)	23616	27169
HIGH WATER ELEVATION	182.2	183.5

(INFORMATION FROM 1993 STUDY BY EBASCO INFRASTRUCTURE)

20 0 20 40 60 80'
1" = 40'

ALTERED BY:
ON:

AFFIX SEAL: Ryan Douglas Henderson
ON: 11/20/2023

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER
082023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION 'ALTERED BY' FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

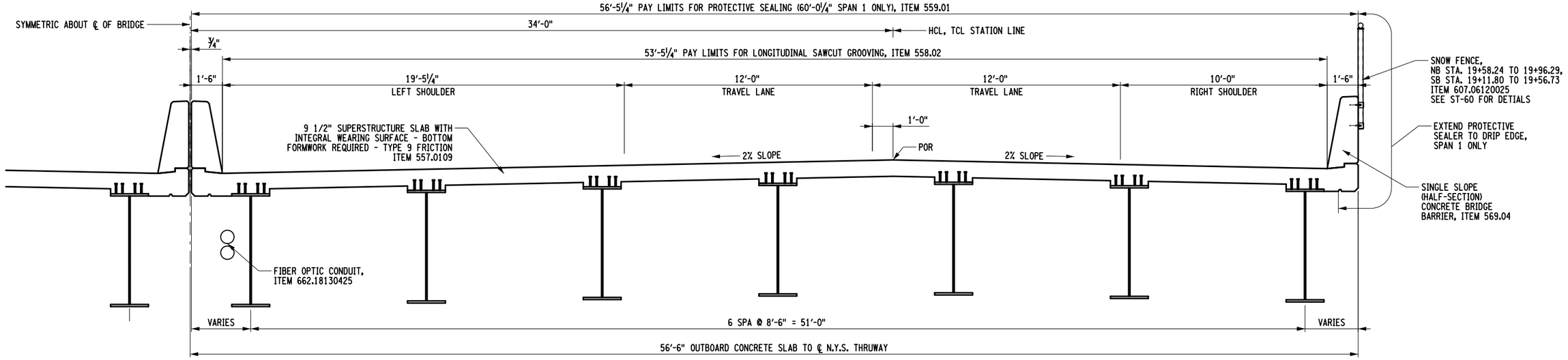
TITLE OF DRAWING
GENERAL PLAN & ELEVATION

CONTRACT NUMBER:
TAA 23-25B

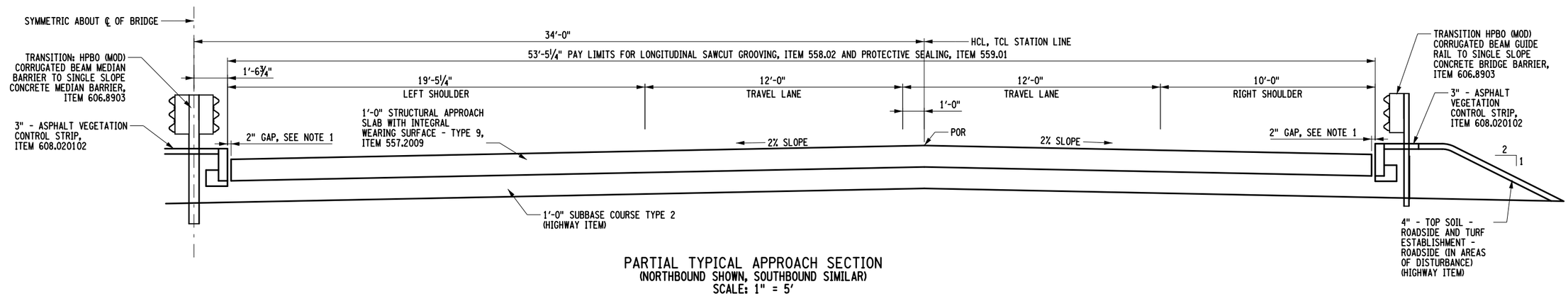
DATE:
11/16/2023

DRAWING NUMBER:
ST-01

CHECK
DRAFTING
USER = rdaucher
DATE/TIME = 16-NOV-2023 18:35
DESIGN
R. HENDERSON
FILE NAME = A72128.cpb.gen.01.dgn
DESIGN SUPERVISOR



PARTIAL TYPICAL BRIDGE SECTION
(NORTHBOUND SHOWN, SOUTHBOUND SIMILAR)
SCALE: 1" = 5'



PARTIAL TYPICAL APPROACH SECTION
(NORTHBOUND SHOWN, SOUTHBOUND SIMILAR)
SCALE: 1" = 5'

NOTES
1. FILL 2" GAP WITH BITUMINOUS MATERIAL OR COMPRESSIBLE FOAM AND JOINT SEALANT.
2. RECESS DIAMOND GRINDING FOR INLAID PAVEMENT MARKINGS AND WHITE & YELLOW HIGHLY REFLECTORIZED TRIPLE DROP EPOXY PAVEMENT STRIPES NOT SHOWN FOR CLARITY, SEE HIGHWAY DRAWINGS.

ALTERED BY:	AFFIX SEAL: Ryan Douglas Henderson
ON:	ON: 12/11/2023

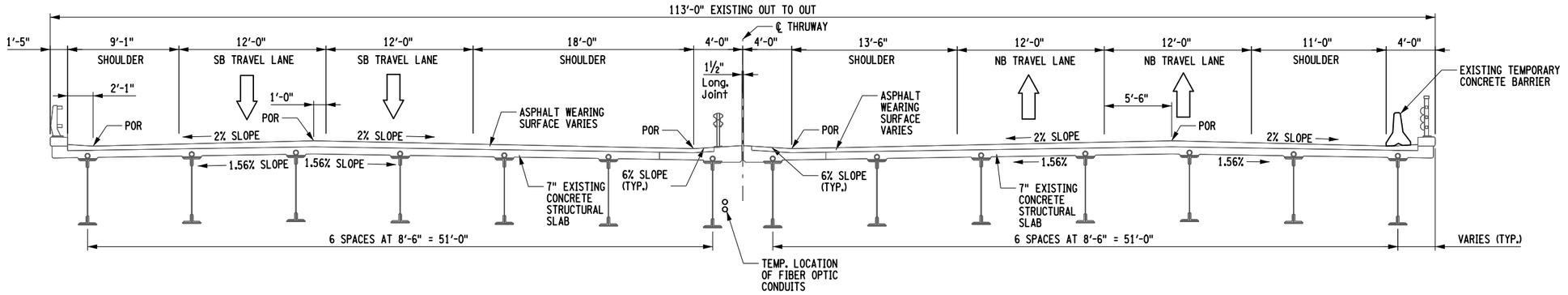
STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ 082023 ★ LICENSED PROFESSIONAL ENGINEER

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

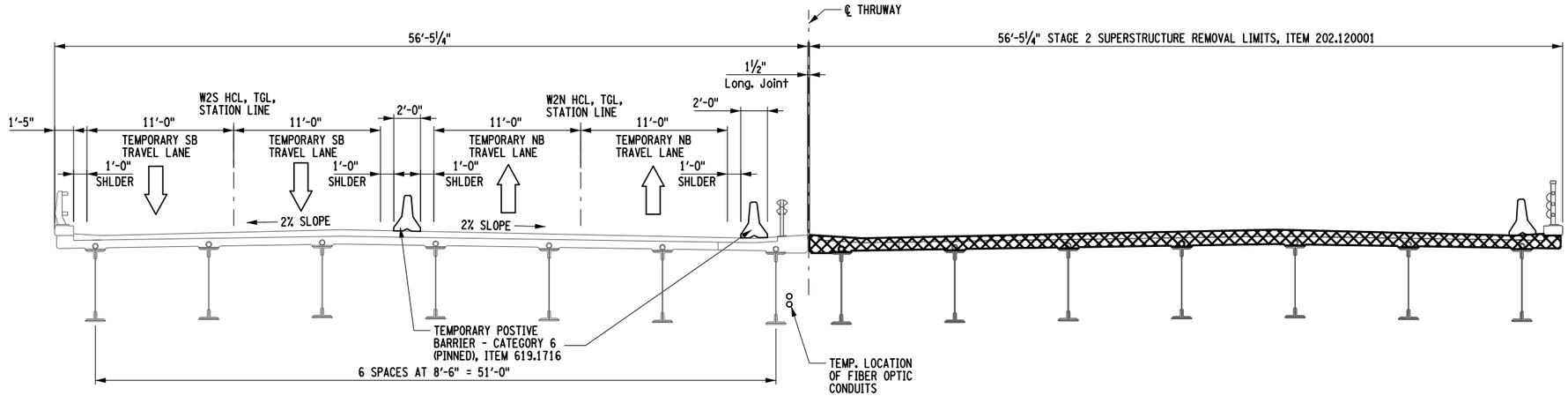
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	TYPICAL BRIDGE SECTIONS
CONTRACT NUMBER:	TAA 23-25B
DATE:	12/11/2023
DRAWING NUMBER:	ST-02



EXISTING SECTION
NOT TO SCALE



STAGE 2 SECTION
NOT TO SCALE

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

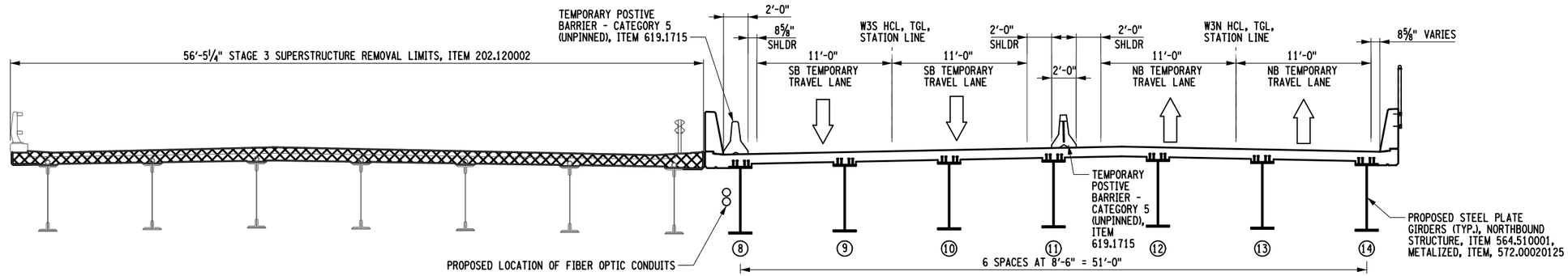
NOTES:
1. SEE DRAWING ST-14 FOR SUPERSTRUCTURE REMOVAL DRAWING.
2. SEE DRAWINGS ST-15 THROUGH ST-27 FOR SUBSTRUCTURE REMOVAL AND REPAIR DRAWINGS.
3. REFER TO RECORD PLANS FOR EXISTING STEEL GIRDER PROPERTIES.
4. INTERIM PAVEMENT MARKINGS AND LINEAR DELINEATION SYSTEM NOT SHOWN FOR CLARITY, SEE HIGHWAY DRAWINGS.
5. DIMENSIONS SHOWN FOR THE EXISTING SECTIONS ARE APPROXIMATE AND BASED ON RECORD PLANS AND FIELD SURVEY. ACTUAL DIMENSIONS MAY VARY.
6. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

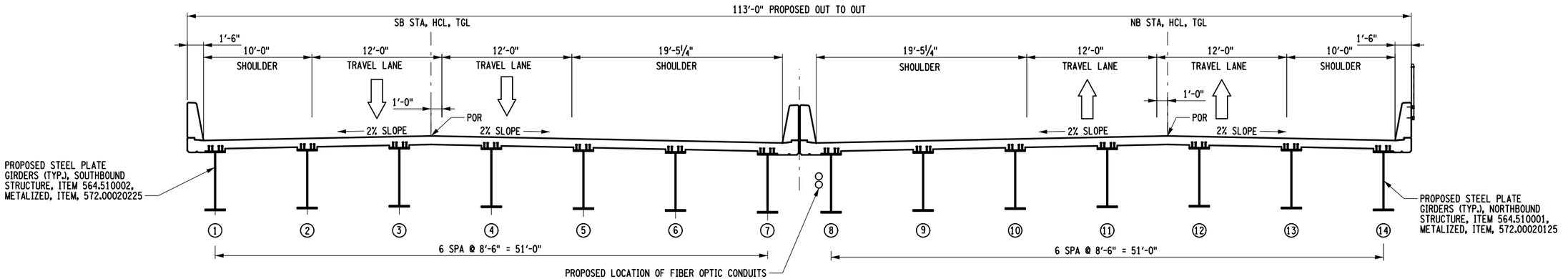
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING STAGE CONSTRUCTION SECTIONS (1 OF 2)	DRAWING NUMBER: ST-03



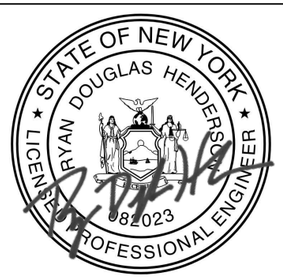
STAGE 3 SECTION
NOT TO SCALE



FINAL PROPOSED SECTION
NOT TO SCALE

NOTES:
1. SEE DRAWING ST-14 FOR SUPERSTRUCTURE REMOVAL DRAWING.
2. SEE DRAWINGS ST-15 THROUGH ST-27 FOR SUBSTRUCTURE REMOVAL AND REPAIR DRAWINGS.
3. REFER TO RECORD PLANS FOR EXISTING STEEL GIRDER PROPERTIES.
4. INTERIM PAVEMENT MARKINGS AND LINEAR DELINEATION SYSTEM NOT SHOWN FOR CLARITY, SEE HIGHWAY DRAWINGS.
5. DIMENSIONS SHOWN FOR THE EXISTING SECTIONS ARE APPROXIMATE AND BASED ON RECORD PLANS AND FIELD SURVEY. ACTUAL DIMENSIONS MAY VARY.
6. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023



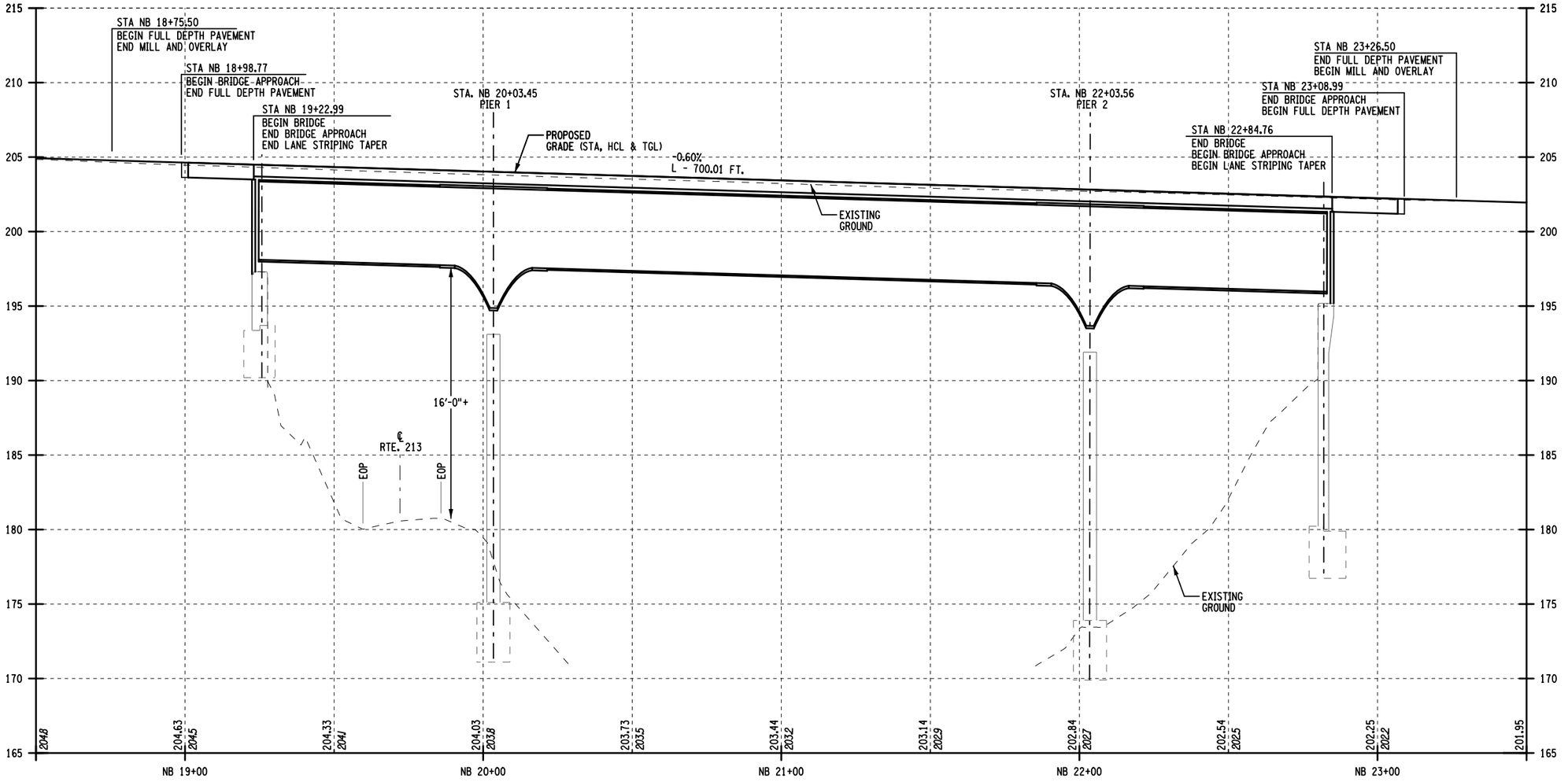
REVISIONS

DATE	DESCRIPTION	BY	SYM.

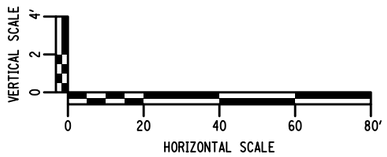
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING STAGE CONSTRUCTION SECTIONS (2 OF 2)	DRAWING NUMBER: ST-04



PORPOSED I-87 PROFILE (NORTHBOUND)



ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

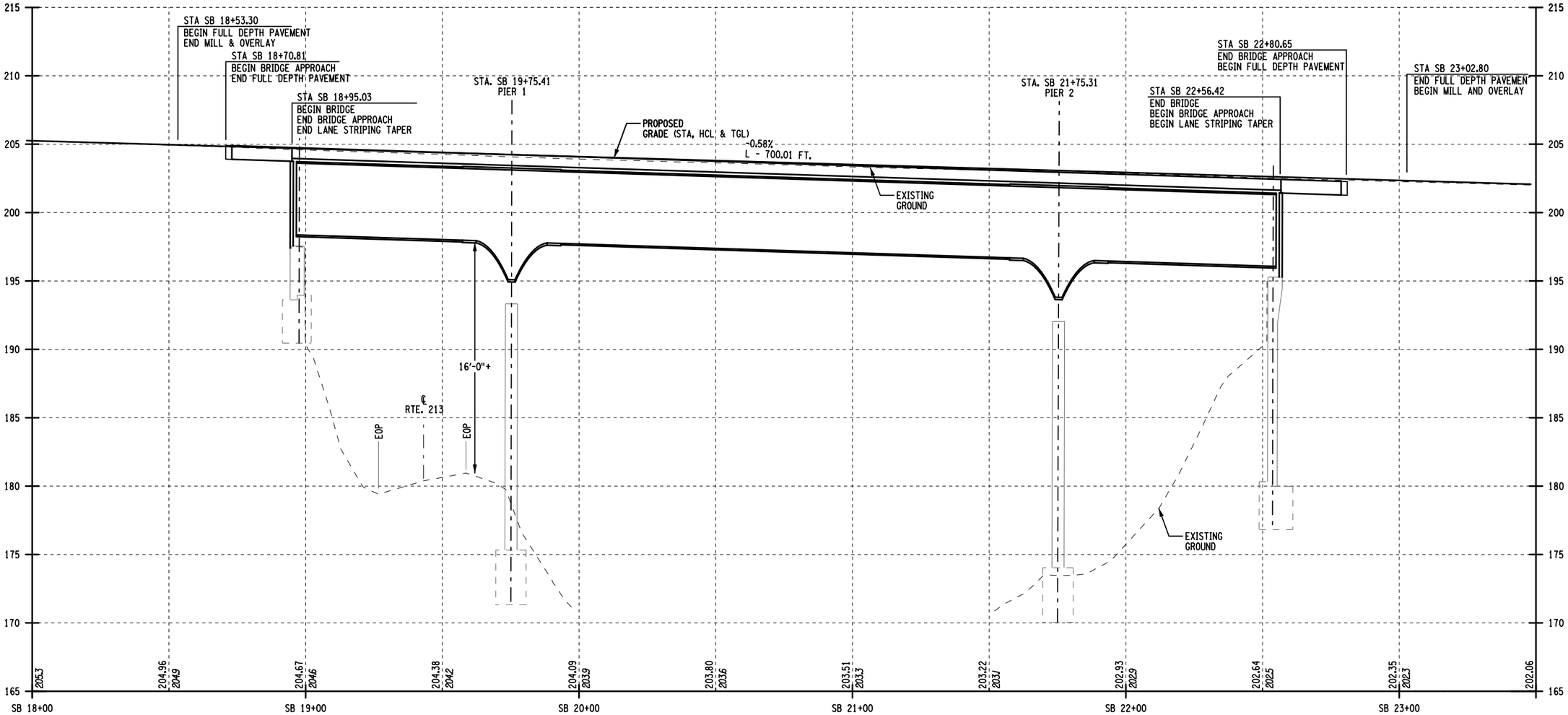
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

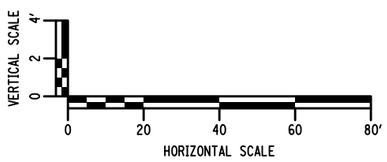
JMT

TITLE OF PROJECT REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING I-87 PROFILE (NORTHBOUND)	DRAWING NUMBER: ST-05

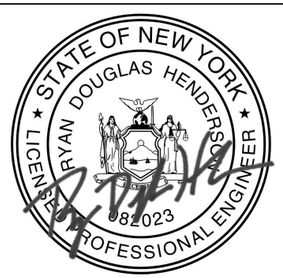
FILE NAME = AT2128.cpb.p3o.NB.dgn
DESIGN SUPERVISOR R. HENDERSON
DRAFTING
CHECK
DATE/TIME = 11/16/2023
DESIGN
USER = BENTLEYHOSTING\jmtpwllcs01$
CHECK



PROPOSED I-87 PROFILE (SOUTHBOUND)



ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023



REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING I-87 PROFILE (SOUTHBOUND)	DRAWING NUMBER: ST-06

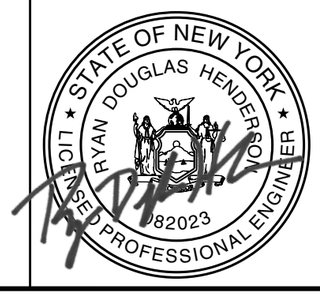
ESTIMATE OF QUANTITES

ITEM NO.	DESCRIPTION	UNIT	QTY	FINAL QTY
202.120001	REMOVING EXISTING SUPERSTRUCTURE	LS	1	
202.120002	REMOVING EXISTING SUPERSTRUCTURE	LS	1	
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	20	
203.03	EMBANKMENT IN PLACE	CY	578	
203.21	SELECT STRUCTURAL FILL	CY	236	
206.01	STRUCTURE EXCAVATION	CY	811	
207.26	PREFABRICATED COMPOSITE STRUCTURAL DRAIN	SY	213	
551.13	FURNISHING EQUIPMENT FOR DRIVING PILES	LS	1	
552.2001	HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL	LF	28	
552.2002	HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL	LF	50	
552.2101	ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL	LF	12	
552.2102	ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL	LF	12	
552.2201	SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL	LF	40	
552.2202	SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL	LF	62	
552.230201	UNTREATED WOODING LAGGING FOR SOLDIER PILE AND LAGGING WALL	SF	149	
552.230202	UNTREATED WOODING LAGGING FOR SOLDIER PILE AND LAGGING WALL	SF	148	
555.0105	CONCRETE FOR STRUCTURES, CLASS A	CY	686	
555.09	CONCRETE FOR STRUCTURES, CLASS HP	CY	109	
556.0203	GALVANIZED BAR REINFORCEMENT FOR STRUCTURES	LB	67035	
556.03	STUD SHEAR CONNECTORS FOR BRIDGES	EA	25424	
557.0109	SUPERSTRUCTURE SLAB WITH INTEGRAL WEARING SURFACE - BOTTOM FORMWORK REQUIRED - TYPE 9 FRICTION	SY	4541	
557.2009	STRUCTURAL APPROACH SLAB WITH INTEGRAL WEARING SURFACE - TYPE 9 FRICTION	SY	701	
558.02	LONGITUDINAL SAWCUT GROOVING OF STRUCTURAL SLAB SURFACE	SY	4819	
559.01	PROTECTIVE SEALING OF STRUCTURAL CONCRETE ON NEW BRIDGE, DECKS AND BRIDGE DECK OVERLAYS	SF	43844	
559.02	PROTECTIVE SEALING OF NEW STRUCTURAL CONCRETE	SF	13812	
559.04	PROTECTIVE SEALING OF CONCRETE WITH COATING TYPE PROTECTIVE SEALER	SF	14451	
564.510001	STRUCTURAL STEEL (NORTHBOUND SUPERSTRUCTURE)	LB	1077300	
564.510002	STRUCTURAL STEEL (SOUTHBOUND SUPERSTRUCTURE)	LB	1077300	
564.510003	STRUCTURAL STEEL (TEMPORARY TIE-DOWNS)	LB	4180	
564.510004	STRUCTURAL STEEL (COUNTERWEIGHTS)	LB	357000	
565.1523	TYPE M.R. EXPANSION BEARINGS (451K TO 675K)	EA	14	
565.1723	TYPE M.R. FIXED BEARINGS (451K TO 675K)	EA	14	
565.2034	TYPE E.B. EXPANSION BEARINGS (169K TO 225K)	EA	28	
566.02	MODULAR EXPANSION JOINT SYSTEM - TWO CELL	LF	119	
567.60	ARMORLESS BRIDGE JOINT	LF	119	
569.04	SINGLE SLOPE (HALF SECTION) CONCRETE BRIDGE BARRIER	LF	1568	
572.00020125	METALIZING	LS	1	
572.00020225	METALIZING	LS	1	
576.01	SCUPPERS (TYPE A)	EA	4	
576.21	DOWNSPOUT SYSTEM (PVC)	LF	28	
580.01	REMOVAL OF STRUCTURAL CONCRETE	CY	136	
582.05	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS A CONCRETE	CY	1	
582.06	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS D CONCRETE	SF	981	
586.0201	DRILLING AND GROUTING BOLTS OR REINFORCEMENT BARS	EA	787	
586.0301	DRILLING AND GROUTING BOLTS OR REINFORCING BARS WITH PULLOUT TESTS	EA	529	
586.10	FIELD DRILL HOLES IN EXISTING STRUCTURAL STEEL	EA	310	
606.8903	TRANSITION: HPBO (MOD) CORRUGATED BEAM GUIDE RAIL TO SINGLE SLOPE CONCRETE HALF SECTION BARRIER	EA	8	
607.06120025	PROTECTIVE SCREENING (SNOW FENCE)	LF	83	
607.97000008	REMOVE AND RESET EXISTING FENCE	LF	38	
609.0301	STONE CURB - BRIDGE (TYPE A)	LF	121	
620.03	STONE FILL (LIGHT)	CY	8	
620.0801	BEDDING MATERIAL, TYPE 1	CY	9	
660.61002025	REIMBURSEMENT TO ADESTA, AN ALLIED UNIVERSAL COMPANY FOR FURNISHING UTILITY SERVICES	DC	1100000	
662.18130425	FURNISH AND INSTALL FIBER REINFORCED EPOXY (F.R.E.) CONDUIT	LF	960	
662.74125325	HDPE INNERDUCT 1 1/4 INCH ID	LF	2880	
683.50000025	NEMA 4X STAINLESS STEEL ENCLOSURE	EA	4	

INDEX OF DRAWINGS

ALTERED BY:
ON:

AFFIX SEAL: Ryan Douglas Henderson
ON: 12/11/2023



REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
ESTIMATE OF QUANTITIES & INDEX OF DRAWINGS

CONTRACT NUMBER: TAA 23-25B

DATE: 12/11/2023

DRAWING NUMBER: ST-07

GENERAL NOTES:

1. DESIGN SPECIFICATIONS: NYSDOT LRFD BRIDGE DESIGN SPECIFICATIONS WITH ALL PROVISIONS IN EFFECT AS OF DECEMBER 2023 (FOR DESIGN PURPOSES, COMPRESSIVE STRENGTH OF CONCRETE FOR SUBSTRUCTURES AND DECK SLABS AT 28 DAYS: f'c = 3,000 psi.)

2. MATERIAL AND CONSTRUCTION SPECIFICATIONS: NYSDOT STANDARD SPECIFICATIONS (US CUSTOMARY) - CONSTRUCTION AND MATERIALS WITH ALL PROVISIONS DATED AS SHOWN ON THE FRONT COVER OF THE PROPOSAL, EXCEPT AS MODIFIED IN THESE PLANS AND PROPOSAL.

3. THIS BRIDGE, INCLUDING EXISTING ELEMENTS AND THOSE REPAIRED OR REPLACED UNDER THIS CONTRACT, SHALL BE MAINTAINED IN ACCORDANCE WITH THE GUIDELINES CONTAINED IN THE CURRENT VERSION OF THE AASHTO MAINTENANCE MANUAL FOR ROADWAYS AND BRIDGES.

4. THE LOAD RATINGS ARE IN ACCORDANCE WITH THE AASHTO MANUAL FOR BRIDGE EVALUATION. DESIGN LIVE LOAD - SUPERSTRUCTURE: AASHTO HL - 93.

5. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS FOR WHICH NO SCALE IS SHOWN ARE DRAWN PROPORTIONALLY AND ARE FULLY DIMENSIONED.

6. ALL SHOP DRAWINGS FOR THIS PROJECT SHALL BE PREPARED IN U.S. CUSTOMARY UNITS.

7. NO KNOWN ASBESTOS CONTAINING MATERIALS ARE BELIEVED TO EXIST AND/OR THE WORK TO BE PERFORMED UNDER THIS CONTRACT DOES NOT REQUIRE THE DISTURBANCE, DESTRUCTION OR REMOVAL OF ANY OF THESE MATERIALS. IT IS THE EXPRESS INTENT OF THIS CONTRACT THAT THESE MATERIALS ARE NOT TO BE DISTURBED IN ANY WAY. SHOULD THE CONTRACTOR DISTURB OR ENCOUNTER ANY SUCH MATERIALS, THE CONTRACTOR SHALL IMMEDIATELY STOP WORK AND NOTIFY THE ENGINEER. THE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION FROM THE ENGINEER BEFORE PROCEEDING.

8. EMBANKMENT IN PLACE, ITEM 203.03 AND SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE PLACED SIMULTANEOUSLY, ON BOTH SIDES OF THE VERTICAL PAYMENT LINE.

9. THE COST OF WATER USED FOR COMPACTION OF THE SELECT STRUCTURAL FILL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203.21 SELECT STRUCTURE FILL.

10. THE COST OF WATER USED FOR COMPACTION OF EMBANKMENT IN PLACE MATERIAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203.03 EMBANKMENT IN PLACE.

11. TOP OF BACKWALLS SHALL BE STEEL TROWEL FINISHED. TWO SHEETS OF SHEET GASKET (TREATED BOTH SIDES), MEETING REQUIREMENTS OF 728-06, SHALL BE PLACED ON THE TOP OF THE BACKWALLS OF FIXED AND EXPANSION ABUTMENTS. THE CONTRACTOR SHALL INCLUDE COSTS FOR THIS WORK IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.

12. THE CONTRACTOR, WITH THE APPROVAL OF THE DCES, MAY ELECT TO INTRODUCE CONSTRUCTION JOINTS IN THE BACKWALLS AT LOCATIONS NOT SHOWN IN THE PLANS. CONSTRUCTION JOINTS SHALL BE PROVIDED WITH SHEAR KEYS AND WATERSTOPS. THE COST OF ALL JOINT MATERIAL AND WATERSTOPS AT CONCRETE CONSTRUCTION JOINTS, CONTRACTION AND EXPANSION JOINTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS CONCRETE ITEMS IN THE CONTRACT.

SUPERSTRUCTURE NOTES

1. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A709, GRADE 50.

2. DIAPHRAGMS SHALL BE FABRICATED TO FIT GIRDERS ERECTED WITH THEIR WEBS PLUMB FOR THE STEEL DEAD LOAD CONDITION, ALSO KNOWN AS STEEL DEAD LOAD FIT (SDLF).

3. DIAPHRAGMS SHALL BE FABRICATED TO FIT GIRDERS ERECTED WITH THEIR WEBS PLUMB UNDER FULL DEAD LOAD CONDITIONS, ALSO KNOWN AS TOTAL DEAD LOAD FIT (TDLF).

METALIZING NOTES

1. ALL GIRDERS, INCLUDING STIFFENERS AND CONNECTION PLATES, SHALL BE METALIZED. METALIZING SHALL WRAP 1" OVER THE TOP FLANGE. THE METALIZING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 572.0002NN25 - METALIZING.

2. ALL PRIMARY MEMBERS SHALL BE METALIZED. THE COST OF METALIZING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 572.0002NN25 - METALIZING. THE CONTRACTOR SHALL HOT-DIP GALVANIZE THE SECONDARY MEMBERS MEETING THE REQUIREMENTS OF 719-01 TYPE I OF THE NYSDOT STANDARD SPECIFICATIONS CONSTRUCTION AND MATERIALS. THE COST OF THE HOT-DIP GALVANIZING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 572.0002NN25 - METALIZING.

3. ALL EXPOSED STEEL COMPONENTS OF BRIDGE BEARINGS, INCLUDING THE SOLE PLATE AND THE MASONRY PLATE, SHALL BE METALIZED. THE COST OF METALIZING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 572.0002NN25 - METALIZING.

4. ALL BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.

5. DRILLED HOLES SHALL BE CLEANED OF ALL EXCESS MATERIAL THAT PREVENTS THE PROPER INSTALLATION OF THE BOLTS.

6. THE CONTRACTOR SHALL PROVIDE FOR THE STABILITY OF STRUCTURAL STEEL DURING ALL PHASES OF ERECTION AND CONSTRUCTION, IN ACCORDANCE WITH SECTION 2, SUBSECTION 204 OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL (SCM). THE GIRDERS FOR THIS BRIDGE SHALL BE STABILIZED DURING ERECTION BY USE OF FALSEWORK, TEMPORARY BRACING, COMPRESSION FLANGE STIFFENING TRUSSES, CHOOSING ALTERNATE PICKING POINTS, OR BY USE OF A HOLDING CRANE UNTIL A SUFFICIENT NUMBER OF GIRDERS HAVE BEEN ERECTED AND CROSS FRAMES INSTALLED. THE MEANS AND METHODS USED BY THE CONTRACTOR SHALL BE DOCUMENTED ON THE ERECTION DRAWINGS AND INCLUDED IN THE SUPPORTING STABILITY CALCULATIONS. THE ERECTION DRAWINGS AND STABILITY CALCULATIONS SHALL BE SEALED BY A REGISTERED NEW YORK STATE PROFESSIONAL ENGINEER AND SUBMITTED TO THE DCES IN ACCORDANCE WITH THE SCM.

7. THE DESIGN OF THIS STRUCTURE ASSUMES THAT THE STRUCTURAL STEEL IS COMPLETELY ERECTED BEFORE IT IS ALLOWED TO DEFLECT UNDER ITS OWN DEAD LOAD. DEFLECTIONS INCURRED DURING THE VARIOUS STAGES OF THE ERECTION ARE NOT CONSIDERED. THEREFORE, THE ACTUAL ERECTION MEANS AND METHODS EMPLOYED BY THE CONTRACTOR MAY HAVE A SUBSTANTIAL EFFECT ON THE FINAL STEEL PROFILE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE FINAL ALIGNMENT AND PROFILE OF THE ERECTED STEEL CONFORMS TO SECTION 12, SUBSECTIONS 1213, 1214, AND 1215 OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL (SCM). ANY CORRECTIVE WORK NECESSARY TO RE-POSITION PREVIOUSLY ERECTED STEEL TO ACHIEVE ACCEPTABLE ALIGNMENT AND PROFILE SHALL BE SUBMITTED TO THE DCES IN ACCORDANCE WITH THE SCM. ANY CORRECTIVE WORK NECESSARY SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE STATE.

8. IF THE CONTRACTOR ELECTS TO MOVE THE SPLICE LOCATION SHOWN IN THE PLANS, THE CONTRACTOR SHALL HAVE A REGISTERED NEW YORK STATE PROFESSIONAL ENGINEER REDESIGN THE SPLICE. THE SHOP DRAWINGS AND DESIGN CALCULATIONS FOR THE REDESIGNED SPLICE SHALL BE SUBMITTED TO THE DCES IN ACCORDANCE WITH THE SCM. THE COST OF REDESIGN SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS STEEL ITEMS.

9. DIMENSIONS FOR THICKNESSES OF STEEL ROLLED ANGLE SHAPES AND STRUCTURAL TUBING ARE SHOWN ACCORDING TO THE AISC MANUAL.

SUPERSTRUCTURE SLAB NOTES

1. THE PROVISIONS OF THE CURRENT SPECIFICATIONS FOR SUPERSTRUCTURE SLABS ALLOW THE OPTION OF 3 FORMING SYSTEMS FOR THE SLABS.

2. ON THIS BRIDGE, ONLY THE FOLLOWING OPTION(S) WILL BE PERMITTED: PERMANENT CORRUGATED METAL AND REMOVABLE WOODEN FORMS ARE ALLOWED.

3. IN ORDER TO PREVENT MOVEMENT OF THE BRIDGE OVERHANG BRACKET DURING THE DECK CONCRETE PLACEMENT, AS WELL AS TO PREVENT LATERAL DISTORTION OF THE GIRDER WEB, A DEEP OVERHANG BRACKET THAT IS BRACED BY THE BOTTOM FLANGE SHALL BE USED.

4. THE CONTRACTOR SHALL MAKE NO DEVIATIONS FROM THE HAUNCH DETAILS SHOWN IN THE PLANS WITHOUT THE PERMISSION OF THE DCES.

5. THE DETAILS FOR THE BARRIER REINFORCEMENT ARE FOR THE SLIP- FORMED OR CAST-IN-PLACE OPTION ONLY. COST OF BARRIER AND ANCHORAGE REINFORCEMENT ORIGINATING IN THE DECK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BARRIER ITEM.

6. THE DETAILS FOR THE BARRIER REINFORCEMENT ARE FOR THE SLIP- FORMED OR CAST-IN-PLACE OPTION ONLY. COST OF BARRIER AND ANCHORAGE REINFORCEMENT ORIGINATING IN THE SLAB SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BARRIER ITEM. COST OF BARRIER ANCHORAGE REINFORCEMENT ORIGINATING IN THE PRESTRESSED UNIT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PRESTRESSED ITEM.

7. THE SPECIFICATIONS FOR PERMANENT CONCRETE TRAFFIC BARRIER FOR STRUCTURES ALLOWS THE OPTION OF THREE CONSTRUCTION METHODS: CAST-IN-PLACE, SLIP FORMED, OR PRECAST. FOR THIS BRIDGE, ONLY CAST-IN-PLACE AND SLIP FORMING ARE ALLOWED.

8. SHOP DRAWING SUBMITTALS ARE REQUIRED FOR THE FOLLOWING BRIDGE RAILING AND/OR TRANSITION BRIDGE RAILING ITEMS: 606.8903.

9. TOP SURFACES OF NEW BRIDGE DECKS AND APPROACH SLABS SHALL BE SEALED IN ACCORDANCE WITH ITEM 559.01 PROTECTIVE SEALING OF STRUCTURAL CONCRETE ON NEW BRIDGE DECKS AND BRIDGE DECK OVERLAYS.

10. EXPOSED SURFACES OF NEW CONCRETE PARAPETS OR BARRIERS SHALL BE SEALED IN ACCORDANCE WITH ITEM 559.02 PROTECTIVE SEALING OF NEW STRUCTURAL CONCRETE. ONLY PENETRATING TYPE SEALERS SHALL BE USED.

11. CARE SHALL BE TAKEN TO PREVENT CONTAMINATION OF THE WATERWAY BY THE SEALER. IF THE MANUFACTURER'S INSTRUCTIONS REQUIRE MIXING OF THE SEALER PRIOR TO APPLICATION, MIXING SHALL OCCUR IN A MANNER THAT WILL PREVENT CONTAMINATION OF THE WATERWAY. THE CONTRACTOR SHALL HAVE AVAILABLE FOR IMMEDIATE USE MATERIALS TO SOAK UP OR CONTAIN ANY ACCIDENTAL SPILLS. PRIOR TO THE APPLICATION OF THE SEALER, ANY OPENINGS IN THE SURFACE OF THE BRIDGE DECK OR IN THE WALKING SURFACE, SUCH AS SCUPPERS OR OPEN DRAINS SHALL BE COVERED TO PREVENT CONTAMINATION OF THE WATERWAY. CARE SHALL BE TAKEN TO PREVENT SPRAYED SEALER FROM ENTERING THE WATERWAY BY ROLLING THE SEALER OR BY PHYSICALLY ISOLATING THE AREA TO BE SPRAYED FROM THE WATERWAY BY THE USE OF TARPS OR OTHER BARRIER-TYPE MEANS TO THE SATISFACTION OF THE EIC.

REMOVAL NOTES

1. EXISTING SUPERSTRUCTURE SHALL BE REMOVED UNDER ITEM 202.12nnnn REMOVING EXISTING SUPERSTRUCTURES.

2. SUPERSTRUCTURE REMOVAL SHALL MEET THE PROVISIONS OF 202-3.01 - GENERAL AND SAFETY REQUIREMENTS, OF THE NYSDOT STANDARD SPECIFICATIONS CONSTRUCTION AND MATERIALS. A REMOVAL PLAN, SEALED BY A REGISTERED NEW YORK STATE PROFESSIONAL ENGINEER, SHALL BE SUBMITTED TO THE ENGINEER THIRTY (30) DAYS PRIOR TO BEGINNING THE DEMOLITION.

3. RECORD PLANS: RECORD PLANS COVERING PREVIOUS WORK WILL BE AVAILABLE FOR REVIEW FOR ALL PERSPECTIVE BIDDERS ON AUTHORITY'S WEBSITE PRIOR TO THE LETTING DATE.

4. LIMITS AND METHODS FOR THE REMOVAL OF PAINT AT LOCATIONS OF FASTENER REMOVAL OR FLAME CUTTING SHALL MEET THE PROVISIONS OF 202-3.01 GENERAL, OF THE NYSDOT STANDARD SPECIFICATIONS CONSTRUCTION AND MATERIALS. THE COST OF PAINT REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE SUPERSTRUCTURE REMOVAL ITEM(S) (OR THE UNIT PRICE BID FOR THE SUBSTRUCTURE REMOVAL ITEM). PAINT WASTE NOT COLLECTED BY VACUUM METHODS SHALL BE COLLECTED USING THE ENVIRONMENTAL GROUND AND/OR WATERWAY PROTECTION ITEM(S). WASTE SHALL BE DISPOSED OF USING THE TREATMENT AND DISPOSAL OF PAINT REMOVAL WASTE ITEM.

5. LOOSE AND/OR PEELING PAINT ON STEEL SURFACES MAY BECOME DISLODGED DURING REMOVAL OPERATIONS OR DURING TRANSPORTATION FROM THE SITE UNLESS APPROPRIATE MEASURES ARE TAKEN. THE CONTRACTOR SHALL FORMULATE AND SUBMIT A METHOD OF REMEDIATING THE CONDITION FOR APPROVAL BY THE ENGINEER. WORKER LEAD PROTECTION IN ACCORDANCE WITH 29 CFR 1926.62 SHALL BE SATISFIED. REMEDIATION METHODS COULD INCLUDE TRANSPORTING AFFECTED MEMBERS IN CLOSED TRUCKS, WRAPPING AFFECTED MEMBERS PRIOR TO REMOVAL, ENCAPSULATING THE LOOSE PAINT OR REMOVAL OF LOOSE PAINT PRIOR TO DISMANTLING OPERATIONS. THE COST OF REMEDIATION THIS CONDITION SHALL BE INCLUDED IN THE LUMP SUM PRICE(S) BID FOR THE SUPERSTRUCTURE REMOVAL ITEM(S) (OR THE UNIT PRICE BID FOR THE SUBSTRUCTURE REMOVAL ITEM.) THE USE OF ENVIRONMENTAL GROUND AND/OR WATERWAY PROTECTION ITEMS WILL BE REQUIRED. DEPENDING ON THE ALTERNATIVE CHOSEN, THE TREATMENT AND DISPOSAL OF PAINT REMOVAL WASTE ITEM MAY BE REQUIRED. BECAUSE OF THE ABOVE- MENTIONED CONDITION, THE CONTRACTOR SHALL EXAMINE THE CONDITION OF THE STRUCTURE'S PAINT PRIOR TO SUBMITTING A BID.

RECONSTRUCTION NOTES

1. DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH FIELD CONDITIONS.

2. THE CONTRACTOR SHALL VERIFY DIMENSIONS NECESSARY FOR THE PROPER FIT OF STEEL PIECES PRIOR TO THE FABRICATION OF THE STEEL. THE COST OF FIELD VERIFYING DIMENSIONS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR STRUCTURAL STEEL ITEMS.

3. THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE STATE, WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE OR WHICH ARE TO REMAIN THE PROPERTY OF THE STATE, THE DAMAGED MATERIALS SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.

4. WHEN ITEMS IN THE CONTRACT REQUIRE MATERIALS TO BE REMOVED AND DISPOSED OF, THE COST OF SUPPLYING A DISPOSAL AREA AND TRANSPORTATION TO THAT AREA SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THOSE ITEMS.

5. DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT DROP WASTE CONCRETE, DEBRIS, AND OTHER MATERIAL TO THE AREA BELOW THE BRIDGE EXCEPT WHERE THE PLANS SPECIFICALLY PERMIT THE DROPPING OF MATERIAL. PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE USED TO CATCH THE MATERIAL. IF ADEQUATE PROTECTIVE DEVICES ARE NOT BEING EMPLOYED, THE WORK SHALL BE STOPPED UNTIL ADEQUATE PROTECTION IS PROVIDED.

6. ALL MATERIAL FALLING ON THE AREA BELOW AND ADJACENT TO THE BRIDGE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO COST TO THE STATE.

7. THE COST OF FURNISHING, INSTALLING, MAINTAINING, REMOVING AND DISPOSING OF ALL PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE INCLUDED IN THE UNIT PRICE BID USING THE APPROPRIATE ITEMS IN THE CONTRACT.

8. THE DETAILS SHOWN IN THE CONTRACT PLANS INDICATE THE SPALLS, SCALES AND CRACKS NOTED FROM A FIELD INSPECTION BY THE DESIGNER. ALL MAJOR AREAS OF SPALLING, SCALING, AND CRACKING KNOWN TO EXIST AT THE TIME OF CONTRACT PREPARATION HAVE BEEN SHOWN TO INDICATE THE APPROXIMATE EXTENT OF DETERIORATION REQUIRING REPAIRS BY THE CONTRACTOR.

9. THE CONTRACTOR SHALL PROVIDE THE ENGINEER ACCESS TO ALL PIER SURFACES FOR SOUNDING. THE ENGINEER WILL DETERMINE AND MARK OUT FINAL REMOVAL LIMITS. THE ENGINEER WILL SUBMIT LABELED DIGITAL PHOTOS OF THE PIER TO THE REGIONAL STRUCTURES ENGINEER ALONG WITH THE CONTRACTOR'S PROPOSED REMOVAL AND REPLACEMENT SEQUENCE FOR APPROVAL. A MINIMUM OF 10 CALENDAR DAYS SHALL BE ALLOWED FOR REVIEW AND APPROVAL. REMOVAL OF CONCRETE SHALL NOT COMMENCE WITHOUT AN APPROVED REMOVAL PLAN. THE COST OF THIS WORK SHALL BE INCLUDED IN THE REMOVAL AND REPLACEMENT CONCRETE ITEMS.

10. AREAS THAT ARE GREATER IN DEPTH SHALL BE REPAIRED USING ITEM 582.05 REMOVAL OF STRUCTURAL CONCRETE REPLACEMENT WITH CLASS A CONCRETE. THESE GUIDELINES ARE APPROXIMATE, AND THE FINAL DETERMINATION OF WHICH ITEM TO USE WILL BE MADE BY THE ENGINEER.

11. AREAS OF CONCRETE DETERIORATION SHALL BE REPAIRED USING ITEM 582.05 - REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS A CONCRETE OR ITEM 582.06 - REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS D CONCRETE SHOWN IN THE PLANS OR AS ORDERED BY THE ENGINEER.

12. ALL CONCRETE SURFACES RECEIVING NEW CONCRETE SHALL BE SANDBLASTED. PRIOR TO THE APPLICATION OF NEW CONCRETE, THE SURFACES SHALL BE AIR CLEANED THEN PRE-WET FOR 12 HOURS. THERE WILL BE NO SEPARATE PAYMENT FOR THIS WORK. THE COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS CONCRETE REPAIR ITEMS IN THE CONTRACT.

13. TO TEST FOR CONCRETE/GROUT INCOMPATIBILITY IT IS RECOMMENDED THAT THE CONTRACTOR INSTALL AND PROOF LOAD TEST SEVERAL ANCHOR RODS AND/OR TENSION REINFORCEMENT BARS PRIOR TO GROUTING. THIS TEST IS FOR THE CONTRACTOR'S CONVENIENCE AND IS NOT PART OF THE ACCEPTANCE TESTING FOR THIS ITEM.

14. THE EMBEDMENT DEPTH SHOWN IN THE PLANS FOR DRILLING AND GROUTING IS FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR'S ENGINEER SHALL DETERMINE THE DEVELOPMENT LENGTH REQUIRED TO DEVELOP THE FULL STRENGTH OF THE ANCHOR ROD AND/OR REINFORCING BAR. THE CALCULATIONS SHALL BE BASED ON THE SIZE OF THE ROD/BAR, ACTUAL EDGE DISTANCE TO THE ROD/BAR, THE PROXIMITY TO OTHER RODS/BARS, ESTIMATED CONCRETE STRENGTH, AND THE GROUT SUPPLIER'S RECOMMENDATIONS. THE CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS AND DETAILS SEALED BY A REGISTERED NEW YORK STATE PROFESSIONAL ENGINEER TO THE ENGINEER FOR APPROVAL.

15. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE FOLLOWING DIMENSIONS IN THE FIELD PRIOR TO THE FABRICATION OF NEW SUPERSTRUCTURE COMPONENTS: EXISTING SPAN LENGTHS.
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE TOP OF PEDESTAL ELEVATIONS PRIOR TO CASTING NEW PEDESTALS AND INSTALLING THE NEW BEARINGS.

16. IF THE STRUCTURE HAS A BRIDGE IDENTIFICATION NUMBER (B.I.N.) PLATE ATTACHED, THE CONTRACTOR SHALL PROTECT IT DURING CONSTRUCTION OR REMOVE AND REMOUNT IT AFTER CONSTRUCTION IS COMPLETED.

17. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL CONDUCT OPERATIONS IN SUCH A MANNER AS TO PREVENT OR REDUCE TO A MINIMUM ANY DAMAGE TO ANY STREAM FROM POLLUTION BY DEBRIS, SEDIMENT, CONSTRUCTION MATERIALS OR OTHER FOREIGN MATERIALS, OR FROM T HE OPERATION OF EQUIPMENT IN OR NEAR SUCH STREAMS. THE CONTRACTOR SHALL NOT RETURN DIRECTLY TO A STREAM ANY WATER WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS WHICH CAUSE THE STREAM TO BECOME POLLUTED WITH SAND, SILT, CEMENT, OIL, OR OTHER IMPURITIES. IF THE CONTRACTOR USES WATER FROM A STREAM, THE CONTRACTOR SHALL CONSTRUCT AN INTAKE OR TEMPORARY DAM TO PROTECT AND MAINTAIN WATER RIGHTS AND TO SUSTAIN FISH LIFE DOWNSTREAM.

18. THE CONSTRACTOR WILL PROVIDE ALL NECESSARY PROCEDURES TO PROTECT THE ADJACENT HISOTORIC WOODEN COVERED BRIDGE FROM THE CONSTRUCTION DEBRIS AT ALL TIMES DURING THE ENTIRE PERIOD FOR THIS CONTRACT.

19. ALL THE CONTRACTOR'S PERSONNEL, VEHICLES, OR EQUIPMENT ARE PROHIBITED TO USE THIS HISTORIC WOODEN COVERED BRIDGE AT ANY TIME.

CONTROL OF WET CONCRETE WASTE

CONTRACTORS SHALL NOT WASH CONCRETE TRUCKS, TOOLS, OR EQUIPMENT ONTO BARE GROUND OR DIRECTLY INTO STORM OR SANITARY SYSTEMS (INCLUDING SWALES, DITCHES, STREAMS, PONDS, WETLANDS, ETC.). EXCESS CONCRETE AND CONCRETE WASH WATER SHALL BE COLLECTED IN A WASHBASIN AND DISPOSED OF PROPERLY. CONCRETE WASHOUT AREAS SHALL BE DESIGNED TO THE MOST CURRENT VERSION OF THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL. ALL CONRETE WASHOUT AREAS UTILIZED BY THE CONTRACTOR SHALL BE PRE-APPROVED BY THE THRUWAY PROJECT ENGINEER (TPE).

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023
	STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · LICENSED PROFESSIONAL ENGINEER · 082023

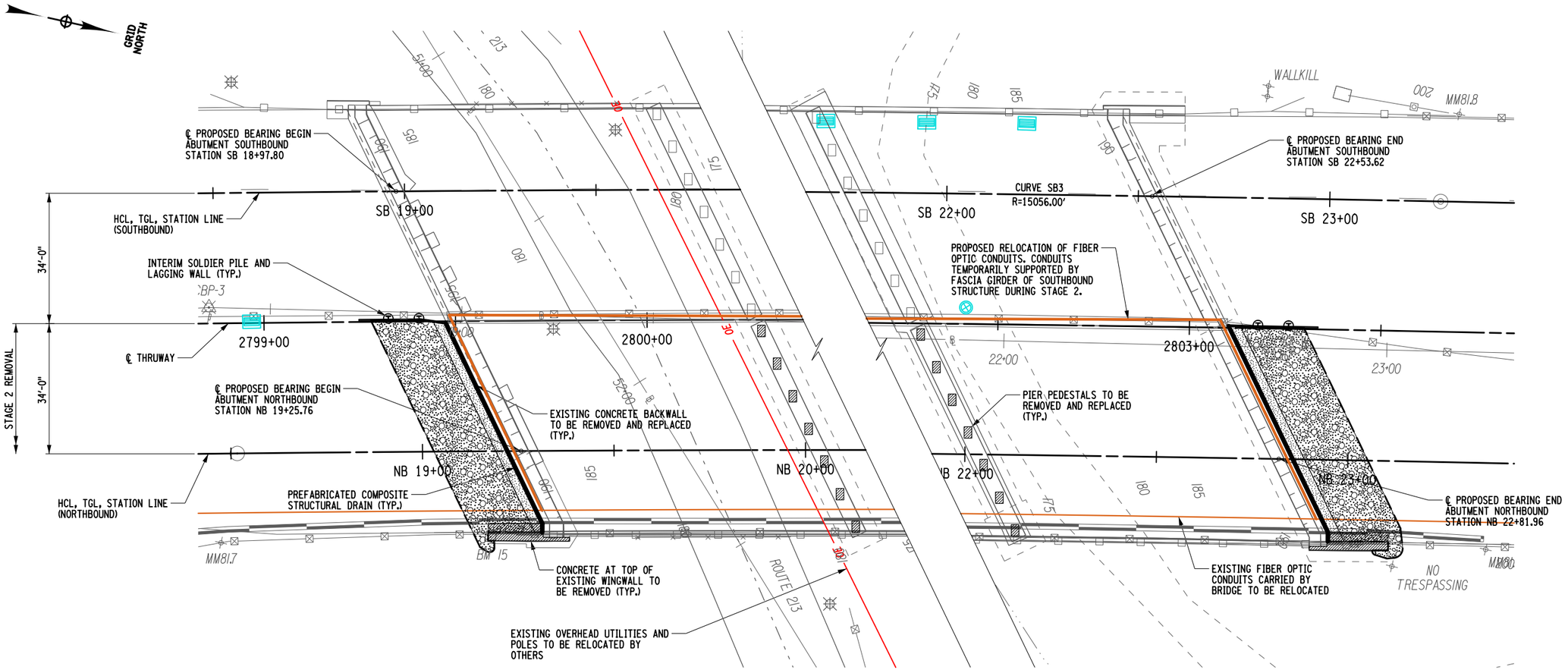
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	GENERAL NOTES
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	ST-08



STAGE 2 - EXCAVATION AND EMBANKMENT PLAN

15 0 15 30 45 60'

1" = 30'

INTERIM SOLDIER PILE AND LAGGING WALL ITEMS:
ITEM 552.2001 - HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL (BEGIN, INSTALLED IN STAGE 2)
ITEM 552.2002 - HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL (END, INSTALLED IN STAGE 2)
ITEM 552.2101 - ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL (BEGIN, INSTALLED IN STAGE 2)
ITEM 552.2102 - ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL (END, INSTALLED IN STAGE 2)
ITEM 552.2201 - SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL (BEGIN, INSTALLED IN STAGE 2)
ITEM 552.2202 - SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL (END, INSTALLED IN STAGE 2)
ITEM 552.230201 - UNTREATED WOOD LAGGING FOR SOLDIER PILE AND LAGGING WALL (BEGIN)
ITEM 552.230202 - UNTREATED WOOD LAGGING FOR SOLDIER PILE AND LAGGING WALL (END)
ITEM 551.13 FURNISHING EQUIPMENT FOR DRIVING PILES

LEGEND

- EXISTING GROUND SURFACE
- SELECT STRUCTURE FILL (ITEM 203.21), COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY
- EMBANKMENT IN PLACE (ITEM 203.03)
- PREFABRICATED COMPOSITE STRUCTURAL DRAIN (ITEM 207.26)
- AREA ENCLOSED WITHIN THESE LINES DESIGNATES LIMIT LINES FOR STRUCTURE EXCAVATION. (ITEM 206.01)
- REMOVAL OF STRUCTURAL CONCRETE (580.01)

NOTES

1. FOR INTERIM SOLDIER PILING AND LAGGING WALL DETAILS, SEE DRAWINGS ST-12 THROUGH ST-13.
2. FOR REMOVAL DETAILS, SEE DRAWING ST-14.
3. FOR STAGE 2 EXCAVATION AND EMBANKMENT PLANS AND DETAILS, SEE DRAWINGS ST-10 THROUGH ST-11.
4. ALL PLACEMENTS OF SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE COMPACTED TO 95 PERCENT STANDARD PROCTOR MAXIMUM DENSITY.
5. HIGHWAY EMBANKMENT MATERIAL ITEM 203.03 AND SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE PLACED SIMULTANEOUSLY, IN CONTACT, ON BOTH SIDES OF THE VERTICAL LINE.
6. FOR FIBER OPTIC CONDUIT RELOCATION DETAILS, SEE DRAWING ST-59

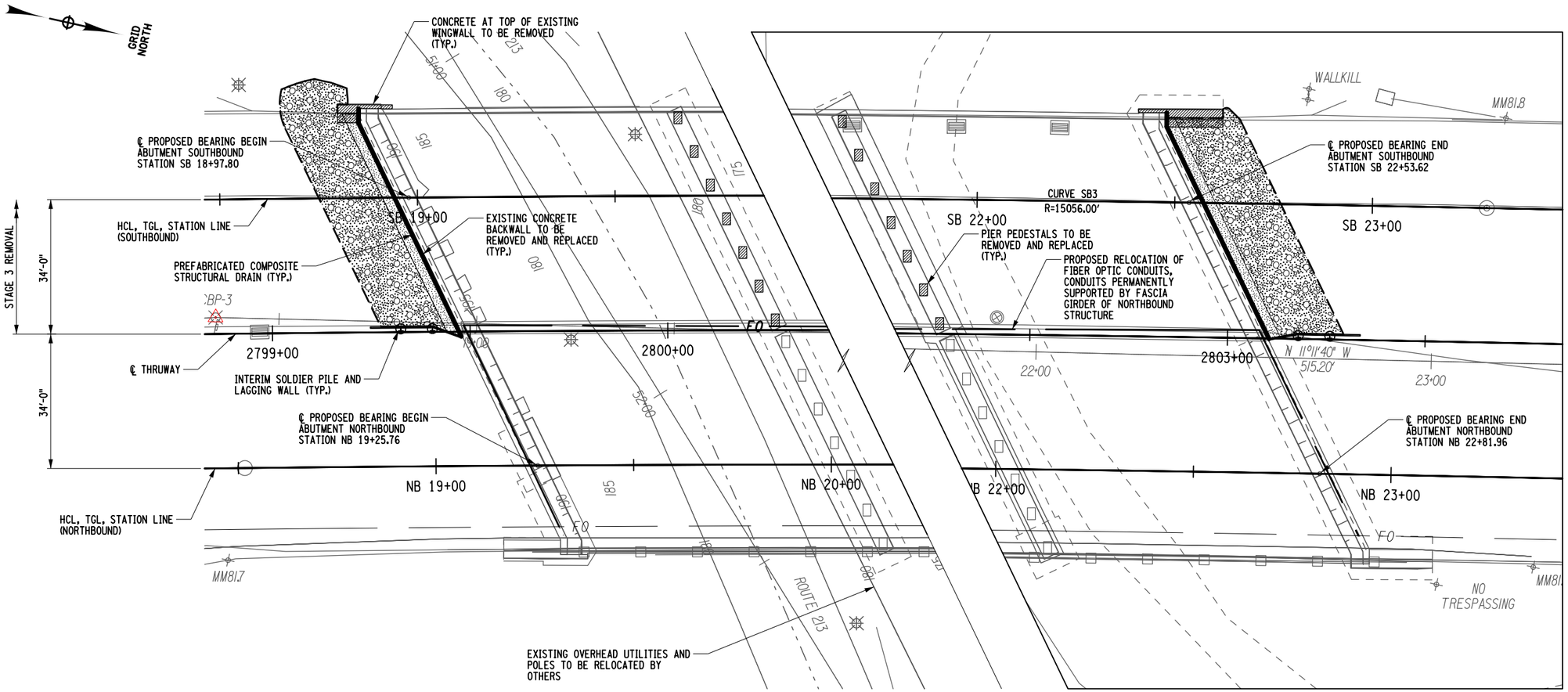
ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING: EXCAVATION AND EMBANKMENT PLAN STAGE 2	DRAWING NUMBER: ST-09



STAGE 3 - EXCAVATION AND EMBANKMENT PLAN

15 0 15 30 45 60'

1" = 30'

INTERIM SOLDIER PILE AND LAGGING WALL ITEMS:
ITEM 552.2001 - HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL (BEGIN, INSTALLED IN STAGE 2)
ITEM 552.2002 - HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL (END, INSTALLED IN STAGE 2)
ITEM 552.2101 - ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL (BEGIN, INSTALLED IN STAGE 2)
ITEM 552.2102 - ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL (END, INSTALLED IN STAGE 2)
ITEM 552.2201 - SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL (BEGIN, INSTALLED IN STAGE 2)
ITEM 552.2202 - SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL (END, INSTALLED IN STAGE 2)
ITEM 552.230201 - UNTREATED WOOD LAGGING FOR SOLDIER PILE AND LAGGING WALL (BEGIN)
ITEM 552.230202 - UNTREATED WOOD LAGGING FOR SOLDIER PILE AND LAGGING WALL (END)
ITEM 551.13 FURNISHING EQUIPMENT FOR DRIVING PILES

LEGEND

- EXISTING GROUND SURFACE
- SELECT STRUCTURE FILL (ITEM 203.21), COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY
- EMBANKMENT IN PLACE (ITEM 203.03)
- PREFABRICATED COMPOSITE STRUCTURAL DRAIN (ITEM 207.26)
- AREA ENCLOSED WITHIN THESE LINES DESIGNATES LIMIT LINES FOR STRUCTURE EXCAVATION. (ITEM 206.01)
- REMOVAL OF STRUCTURAL CONCRETE (580.01)

NOTES

1. FOR INTERIM SOLDIER PILING AND LAGGING WALL DETAILS, SEE DRAWINGS ST-12 THROUGH ST-13.
2. FOR REMOVAL DETAILS, SEE DRAWING ST-14.
3. FOR STAGE 2 EXCAVATION AND EMBANKMENT PLANS AND DETAILS, SEE DRAWINGS ST-10 THROUGH ST-11.
4. ALL PLACEMENTS OF SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE COMPACTED TO 95 PERCENT STANDARD PROCTOR MAXIMUM DENSITY.
5. HIGHWAY EMBANKMENT MATERIAL ITEM 203.03 AND SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE PLACED SIMULTANEOUSLY, IN CONTACT, ON BOTH SIDES OF THE VERTICAL LINE.
6. FOR FIBER OPTIC CONDUIT RELOCATION DETAILS, SEE DRAWING ST-59

ALTERED BY:	AFFIX SEAL: Ryan Douglas Henderson
ON:	ON: 11/20/2023

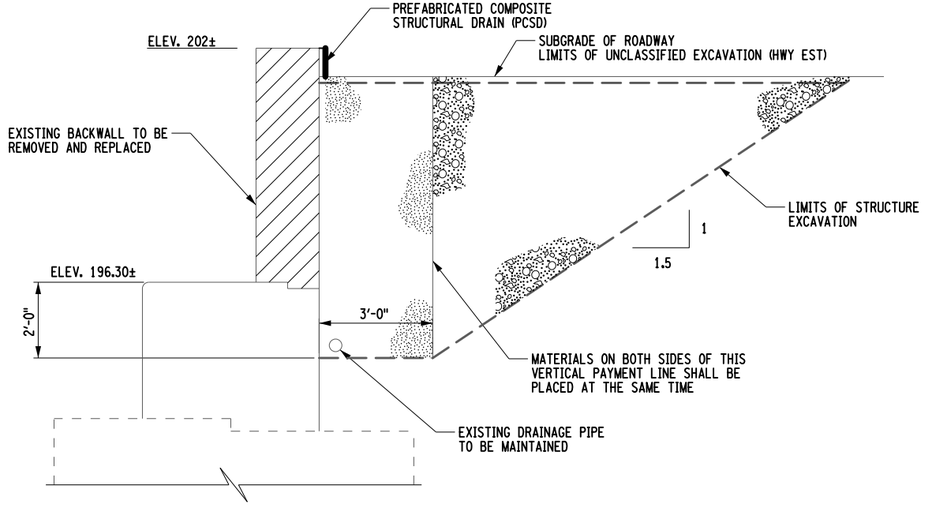
STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · LICENSED PROFESSIONAL ENGINEER · 082023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

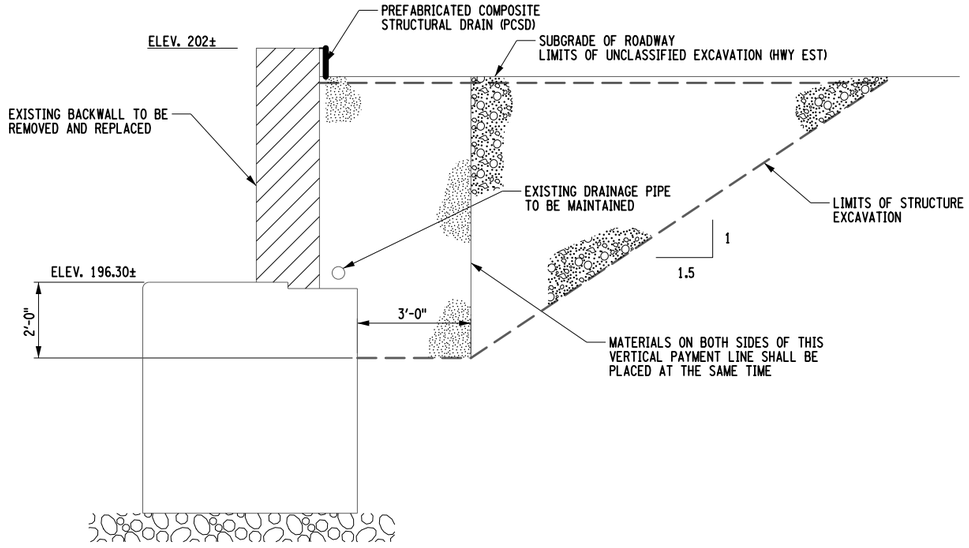
JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	EXCAVATION AND EMBANKMENT PLAN STAGE 3
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	ST-10



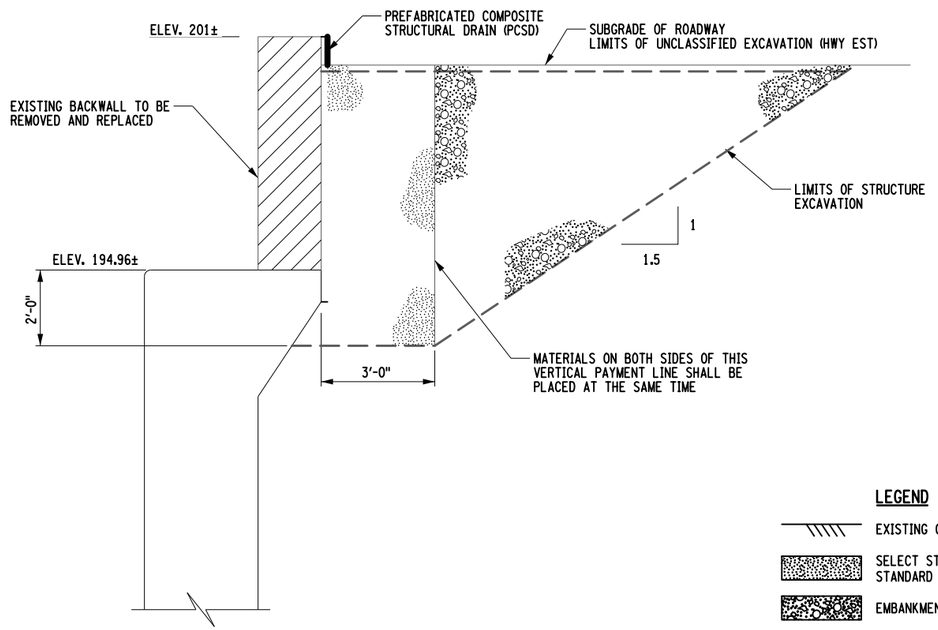
A ST-9 / A ST-10 TYPICAL BEGIN ABUTMENT SECTION

NOT TO SCALE



B ST-9 / B ST-10 TYPICAL BEGIN ABUTMENT SECTION

NOT TO SCALE



C ST-9 / C ST-10 TYPICAL END ABUTMENT SECTION

NOT TO SCALE

LEGEND

- EXISTING GROUND SURFACE
- SELECT STRUCTURE FILL (ITEM 203.21), COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY
- EMBANKMENT IN PLACE (ITEM 203.03)
- PREFABRICATED COMPOSITE STRUCTURAL DRAIN (ITEM 207.26)
- AREA ENCLOSED WITHIN THESE LINES DESIGNATES LIMIT LINES FOR STRUCTURE EXCAVATION. (ITEM 206.01)
- REMOVAL OF STRUCTURAL CONCRETE (580.01)

NOTES:

1. SEE ST-09 AND ST-10 FOR PLAN VIEWS OF EARTHWORK AND ADDITIONAL NOTES.
2. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONS.

ALTERED BY:	AFFIX SEAL: Ryan Douglas Henderson
ON:	ON: 11/20/2023

STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · 082023 · LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

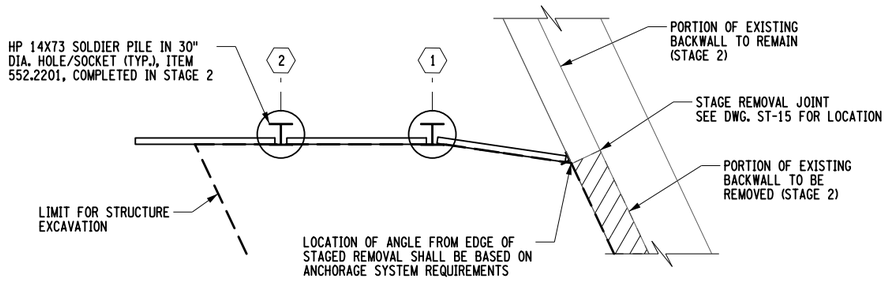
REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

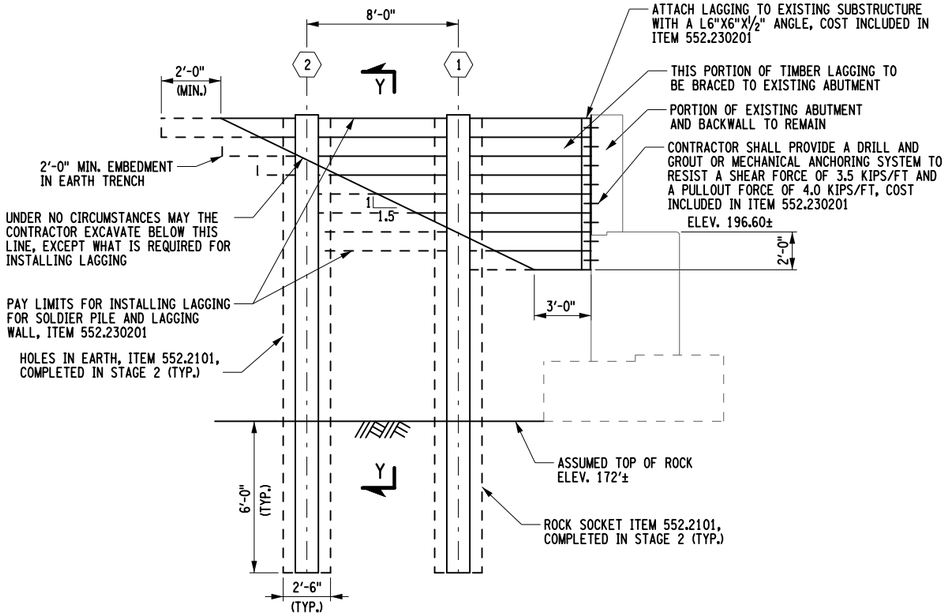
JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING: EXCAVATION AND EMBANKMENT SECTIONS	DRAWING NUMBER: ST-11



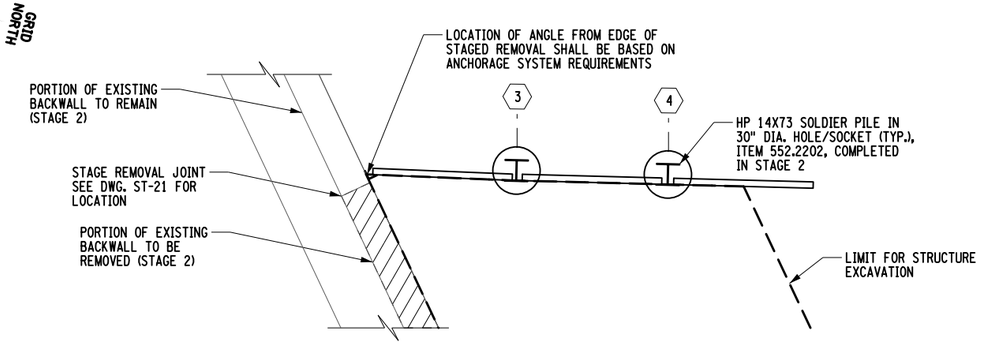
STAGE 2 PLAN - BEGIN BRIDGE SOLDIER PILE AND LAGGING WALL

NOT TO SCALE



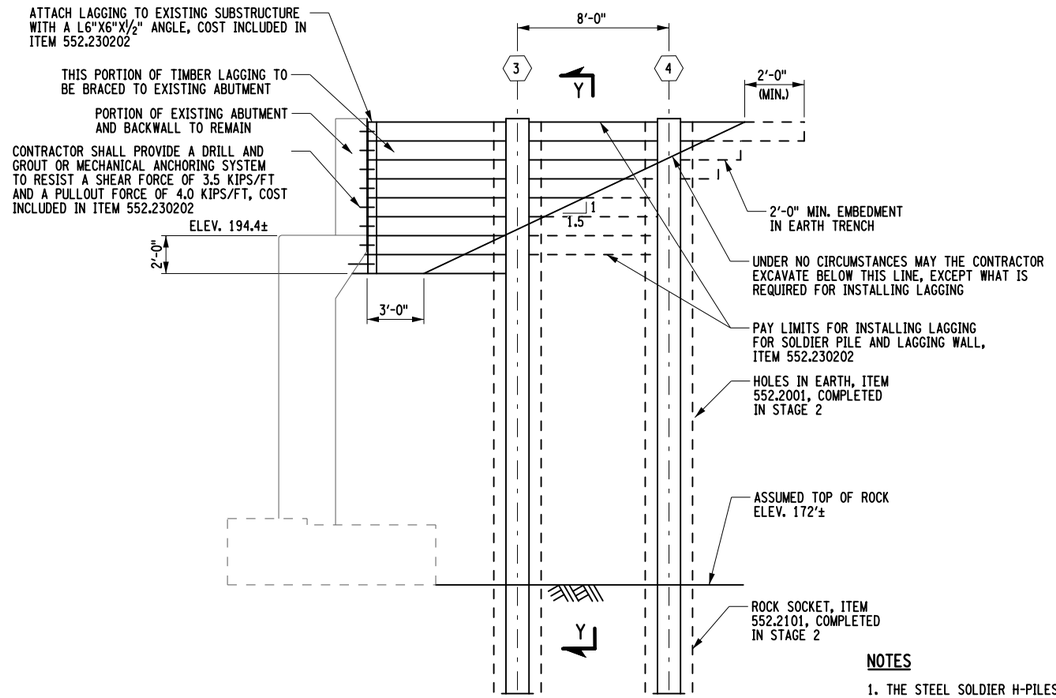
STAGE 2 ELEVATION - BEGIN BRIDGE SOLDIER PILE AND LAGGING WALL

NOT TO SCALE



STAGE 2 PLAN - END BRIDGE SOLDIER PILE AND LAGGING WALL

NOT TO SCALE



STAGE 2 ELEVATION - END BRIDGE SOLDIER PILE AND LAGGING WALL

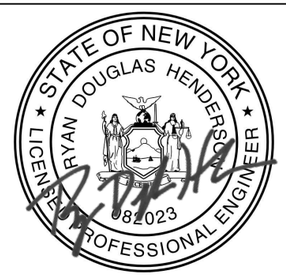
NOT TO SCALE

PILE NUMBER	STATION	OFFSET (IN FEET)	PILE TOP ELEVATIONS (IN FEET)	DEPTH OF EXCAVATION (IN FEET)	REQUIRED PILE TIP ELEV. (IN FEET)	REQUIRED PILE LENGTH (IN FEET)	ASSUMED ROCK ELEVATION (IN FEET)	MINIMUM ROCK SOCKET (IN FEET)	MINIMUM PILE SECTION MODULUS (IN INCHES^3)	RECOMMENDED SOLDIER PILE SECTION	MINIMUM DIA. OF HOLE (IN INCHES)	AS-BUILT PILE LENGTH (IN FEET)
1	18+95.51	33.17 RT	204.03	2.50	185.00	19.03	191.00	6.00	107	HP14X73	30	
2	19+03.52	33.17 RT	203.99	7.25	185.00	18.99	191.00	6.00	107	HP14X73	30	
3	22+81.80	33.17 RT	201.79	6.25	172.00	29.79	178.00	6.00	107	HP14X73	30	
4	22+89.82	33.17 RT	201.75	1.25	172.00	29.75	178.00	6.00	107	HP14X73	30	

NOTES

1. THE STEEL SOLDIER H-PILES SHALL BE ASTM 572 GRADE 50.
2. A SURCHARGE LOAD OF 250 PSF WAS APPLIED TO THE TOP OF THE WALL.
3. WHEN NO LONGER NECESSARY FOR EXCAVTION SUPPORT AFTER STAGE 3 BACKFILLING IS COMPLETE, REMOVE LAGGING AND CUT OFF AND REMOVE SOLDIER PILES TO THE SUBGRADE SURFACE.
4. SEE SECTION Y-Y ON DRAWING NO. ST-13.
5. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONS.

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

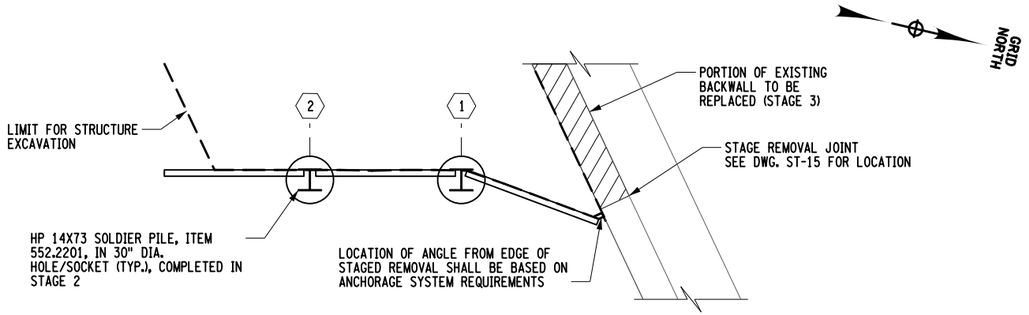


REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

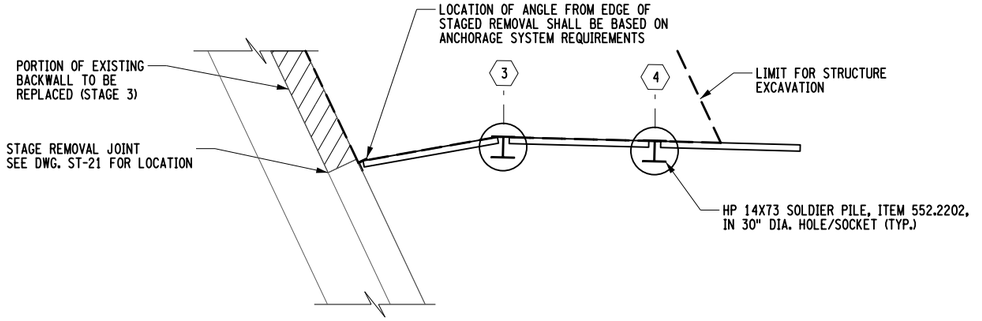
JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING: INTERIM SOLDIER PILE AND LAGGING WALL PLAN AND ELEVATION STAGE 2	DRAWING NUMBER: ST-12



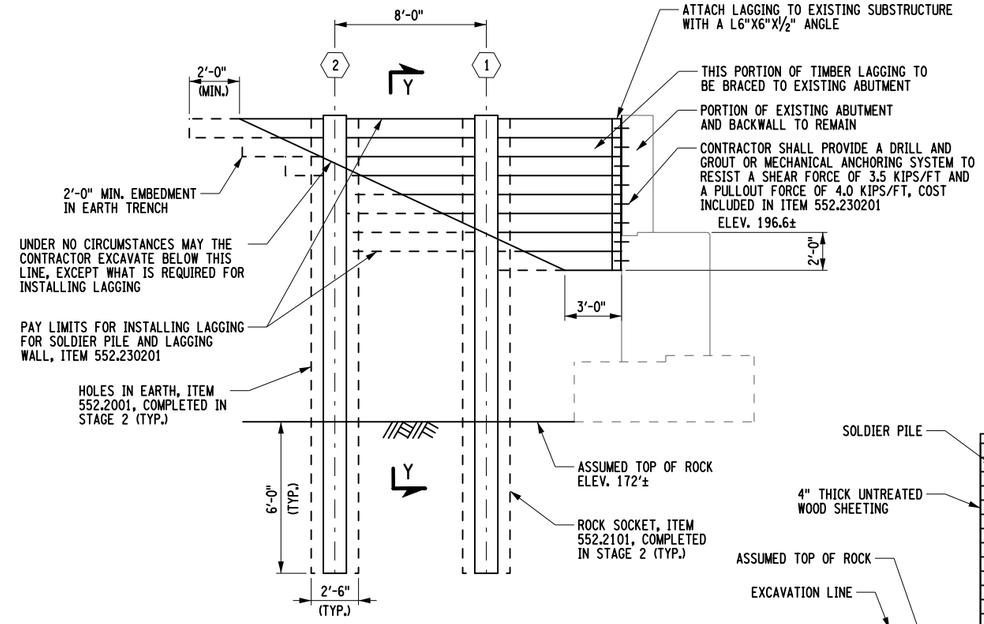
STAGE 3 PLAN - BEGIN BRIDGE SOLDIER PILE AND LAGGING WALL

NOT TO SCALE



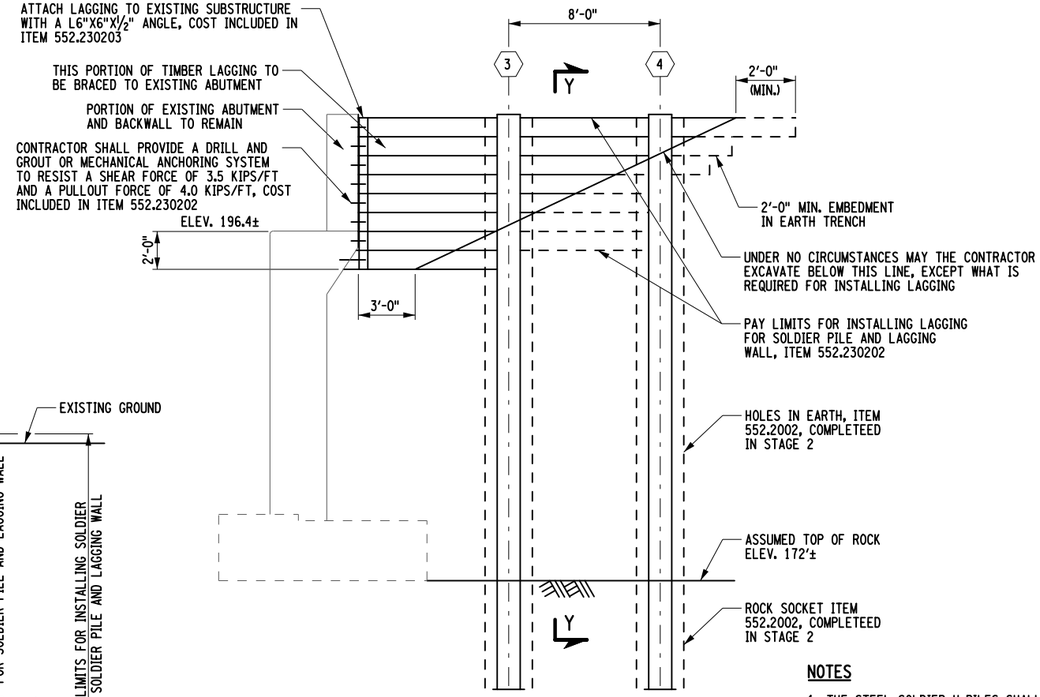
STAGE 3 PLAN - END BRIDGE SOLDIER PILE AND LAGGING WALL

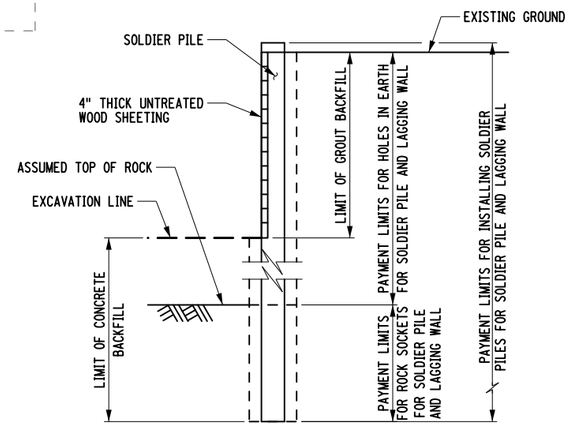
NOT TO SCALE



STAGE 3 ELEVATION - BEGIN BRIDGE SOLDIER PILE AND LAGGING WALL

NOT TO SCALE





SECTION Y-Y FOR PILES PLACED IN A HOLE

NOT TO SCALE

NOTES

1. THE STEEL SOLDIER H-PILES SHALL BE ASTM 572 GRADE 50.
2. A SURCHARGE LOAD OF 250 PSF WAS APPLIED TO THE TOP OF THE WALL.
3. WHEN NO LONGER NECESSARY FOR EXCAVTION SUPPORT AFTER STAGE 3 BACKFILLING IS COMPLETE, REMOVE LAGGING AND CUT OFF AND REMOVE SOLDIER PILES TO THE SUBGRADE SURFACE.
4. SEE PILE TABLE ON DRAWING NO. ST-12.
5. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONS.

ALTERED BY:	AFFIX SEAL: Ryan Douglas Henderson
ON:	ON: 11/20/2023

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER 082023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

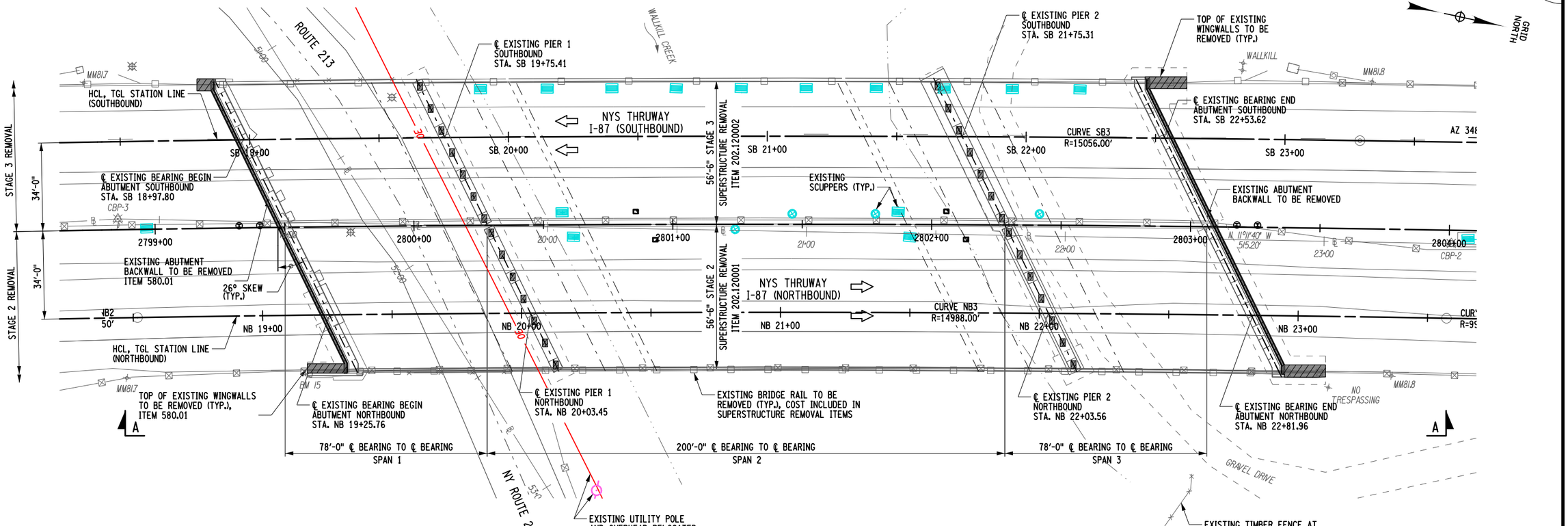
REVISIONS

DATE	DESCRIPTION	BY	SYM.

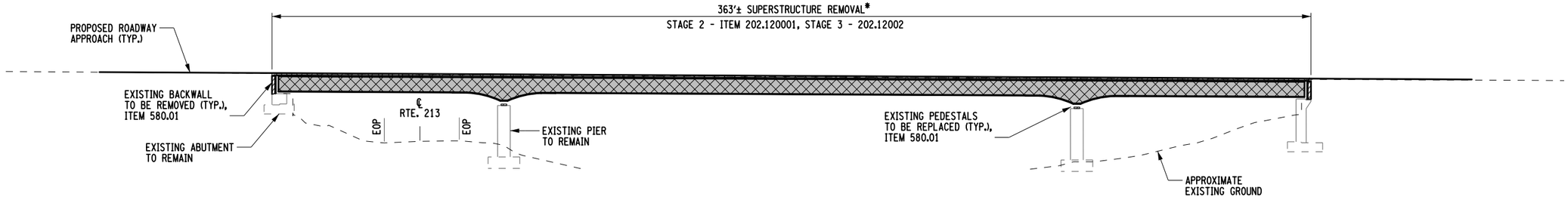
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING: INTERIM SOLDIER PILE AND LAGGING WALL PLAN AND ELEVATION STAGE 3	DRAWING NUMBER: ST-13



REMOVAL PLAN
NOT TO SCALE



REMOVAL ELEVATION A-A
NOT TO SCALE

LEGEND

* DENOTES DIMENSION MEASURED ALONG HCL.

LIMITS OF SUPERSTRUCTURE REMOVAL STAGE 2 - ITEM 202.120001, STAGE 3 - 202.120002

LIMITS OF CONCRETE REMOVAL, ITEM 580.01

NOTES:

1. SEE DWG. ST-8 FOR BRIDGE REMOVAL NOTES.
2. SEE DWG. ST-3 & ST-4 FOR BRIDGE STAGING SECTIONS.
3. SEE DWG. ST-15 THRU ST-27 FOR SUBSTRUCTURE REMOVAL DETAILS.
4. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

ALTERED BY:	AFFIX SEAL: Ryan Douglas Henderson
ON:	ON: 11/20/2023

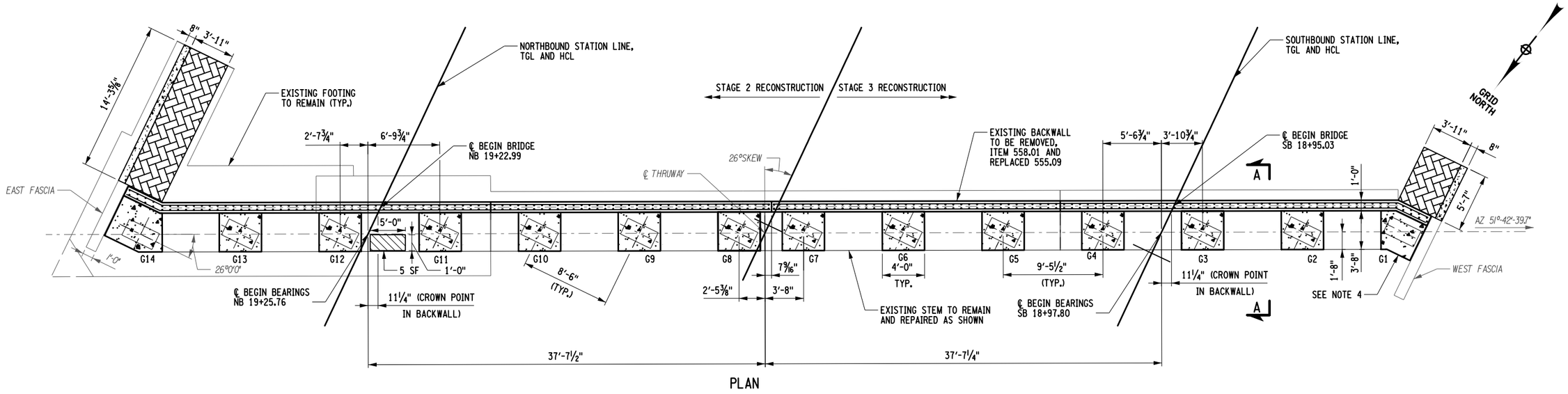
STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · LICENSED PROFESSIONAL ENGINEER · 082023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

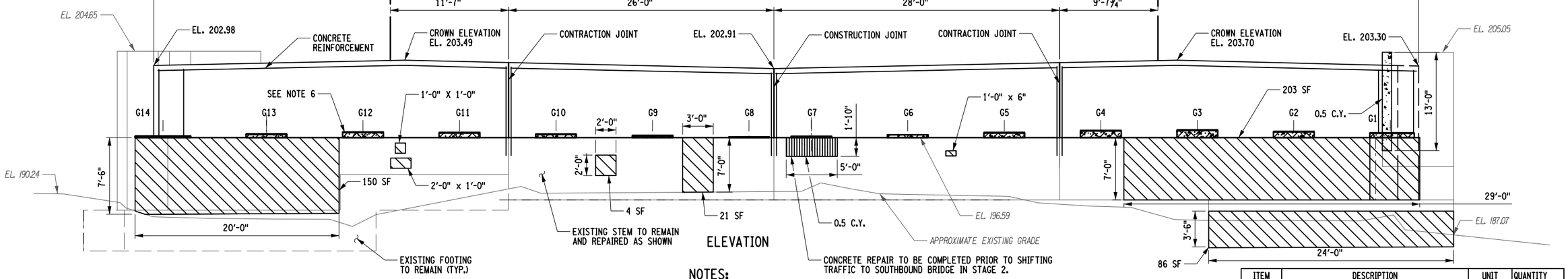
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	REMOVAL PLAN AND ELEVATION
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	ST-14



PLAN



ELEVATION

5 0 5 10 15 20

1" = 10'

LEGEND:

- ITEM 580.01 REMOVAL OF STRUCTURAL CONCRETE
- ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP
- ITEM 582.06 REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE
- ITEM 582.05 REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS A CONCRETE

NOTES:

1. SEE DWG. ST-27 FOR CONCRETE REPAIR DETAILS.
2. ESTIMATE OF DETERIORATED CONCRETE ARE BASED ON PREVIOUS INSPECTION. CONTRACTOR SHALL SOUND ALL SUBSTRUCTURAL CONCRETE IN PRESENCE OF ENGINEER TO DETERMINE THE EXTENT OF ACTUAL CONCRETE DETERIORATION AND MAKE REPAIRS AS PER DWG. NO. ST-27.
3. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
4. SEE DWG. NO. ST-16 FOR BEARING LAYOUT AND PEDESTAL DETAILS.
5. SEE DWG. NO. ST-26 FOR SECTION A-A, EXISTING BACKWALL REMOVAL AND PROPOSED BACKWALL VERTICAL RECONSTRUCTION LIMIT DETAILS.
6. SEE DWG. NO. ST-24 FOR PEDESTAL ELEVATION DETAILS.
7. CONCRETE SPALL REPAIR AT G7 PEDESTAL SHALL BE COMPLETED PRIOR TO START OF STAGE 2 CONSTRUCTION.
8. PARTIAL BACKWALL REINFORCEMENT SHOWN ONLY FOR CLARITY PURPOSE.
9. APPLY PROTECTIVE SEALER, ITEM 559.02 (NEW STRUCTURAL CONCRETE), AND 559.04 (EXISTING STRUCTURAL CONCRETE), TO ENTIRE SURFACE AREA OF THE ABUTMENT.

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP•	CY	36.80
559.02	PROTECTIVE SEALING OF NEW STRUCTURAL CONCRETE	SF	2067.00
559.04	PROTECTIVE SEALING OF CONCRETE WITH COATING TYPE PROTECTIVE SEALER	SF	1330.00
580.01	REMOVAL OF STRUCTURAL CONCRETE	CY	69.50
582.05	REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS A CONCRETE	CY	0.50
582.06	REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE	SF	479.00

• PEDESTAL AND WINGWALL QUANTITY NOT INCLUDED.

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 11/16/2023

STATE OF NEW YORK · YOGENDRA GAUCHAN · 105642 · LICENSED PROFESSIONAL ENGINEER

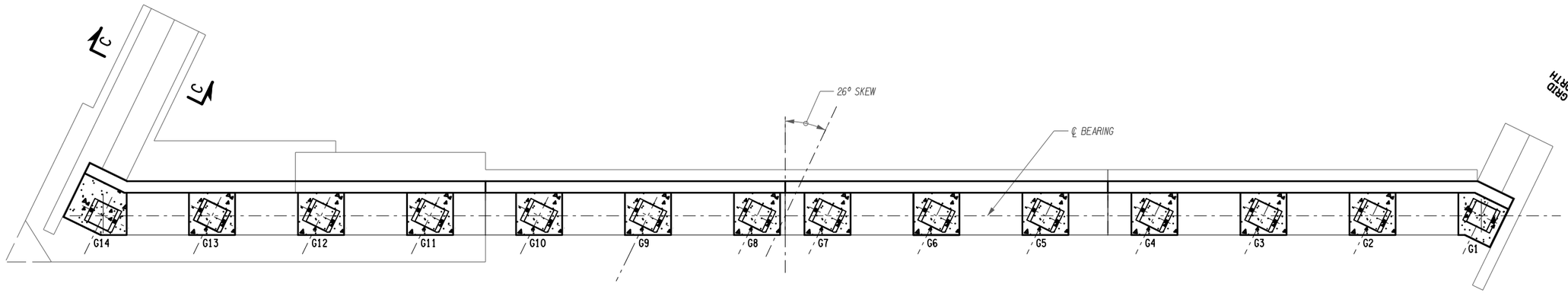
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

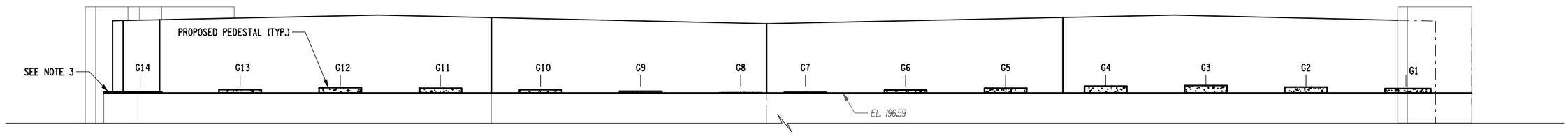
Engineering and Land Surveying, P.C.

TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	SOUTH ABUTMENT - PLAN AND ELEVATION
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/17/2023
DRAWING NUMBER:	ST-15

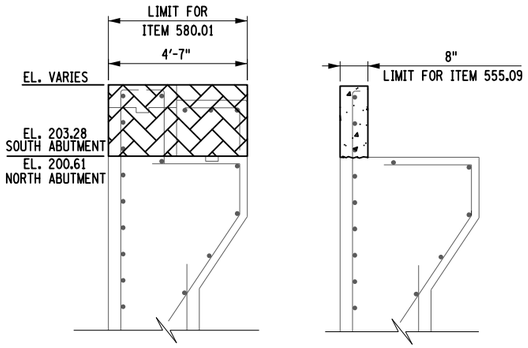
FILE NAME = USER = KCEPC\bvaddi DATE/TIME = 11/16/2023
DESIGN SUPERVISOR: R.SHARMA | DESIGN: B.VADDI/C.VOHRA | DRAFTING: J.BOLGER | CHECK: Y.GAUCHAN | CHECK: Y.GAUCHAN



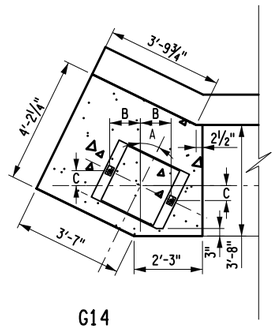
PLAN



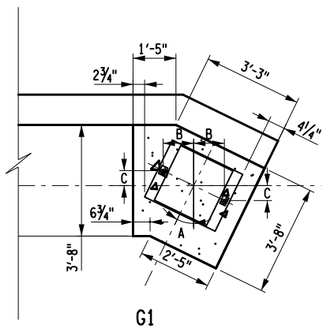
ELEVATION



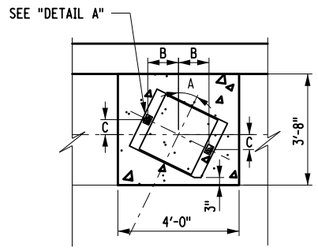
EXISTING SECTION C-C PROPOSED
(N.T.S.)
SE WINGWALL SECTION SHOWN
(SW, NW AND NE WINGWALLS SIMILAR)



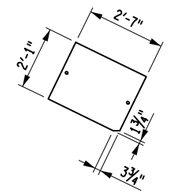
G14



G1



G2 THROUGH G13



"DETAIL A"
MASONRY ℄ CLIPPING

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP	CY	11.00
580.01	REMOVAL OF STRUCTURAL CONCRETE	CY	8.00
586.0201	DRILLING AND GROUTING OF VERTICAL BARS•	EA	334.00

• SOUTH ABUTMENT BACKWALL

ANCHOR BOLT LAYOUT TABLE				
LOCATION	BRG. PT.	A	B1	C
SOUTH ABUTMENT	G1-G14	26°	1'- ⅛"	6"

LEGEND:

ITEM 580.01 REMOVAL OF STRUCTURAL CONCRETE

ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP

EXPANSION BEARING LAYOUT
(PARTIAL PLAN - BACKWALL AND BRIDGE SEAT ONLY)
(N.T.S)

NOTES:

1. SEE DWG. NO. ST-28 FOR MASONRY PLATE DETAILS.
2. PROPOSED BACKWALL REINFORCEMENT NOT SHOWN FOR CLARITY.
3. SEE DWG. NO. ST-24 FOR PEDESTAL ELEVATION DETAILS.
4. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
5. ALL REINFORCEMENT TO BE PAID UNDER ITEM 556.0203 UNLESS OTHERWISE NOTED.
6. THE COST OF FURNISHING AND PLACING TYPE D WATERSTOPS SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE CONCRETE ITEMS.

5' 0 5' 10' 15' 20'
1" = 10'

ALTERED BY:	AFFIX SEAL: Yogendra Gauchan
ON:	ON: 11/16/2023

STATE OF NEW YORK · YOGENDRA GAUCHAN · 105642 · LICENSED PROFESSIONAL ENGINEER

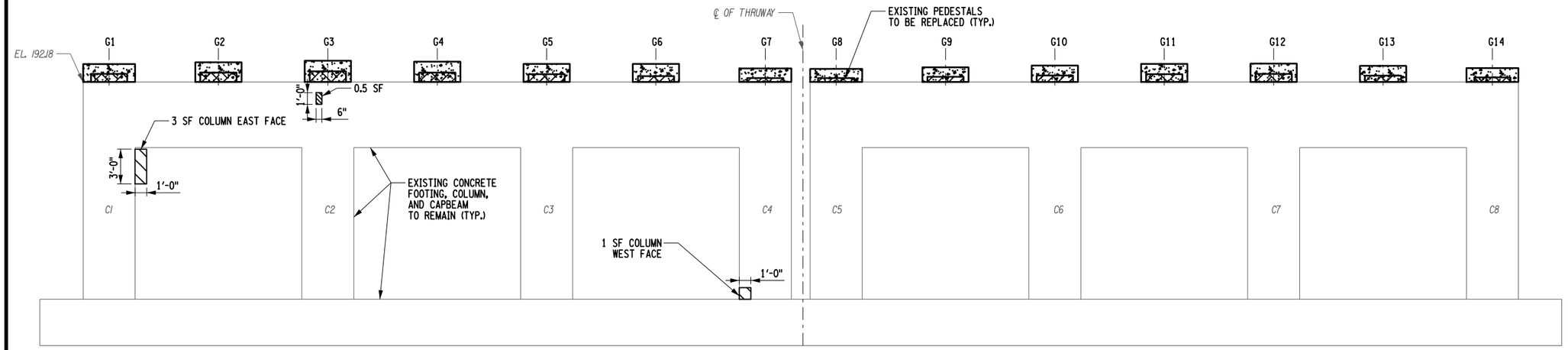
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

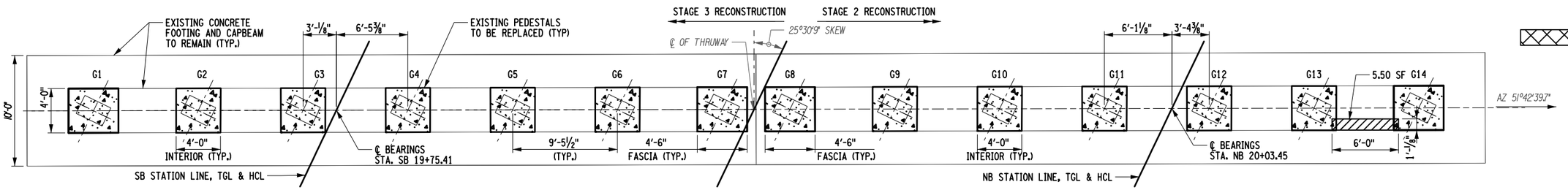
Engineering and Land Surveying, P.C.

TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	SOUTH ABUTMENT - BEARING LAYOUT AND PEDESTAL DETAILS
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/17/2023
DRAWING NUMBER:	ST-16

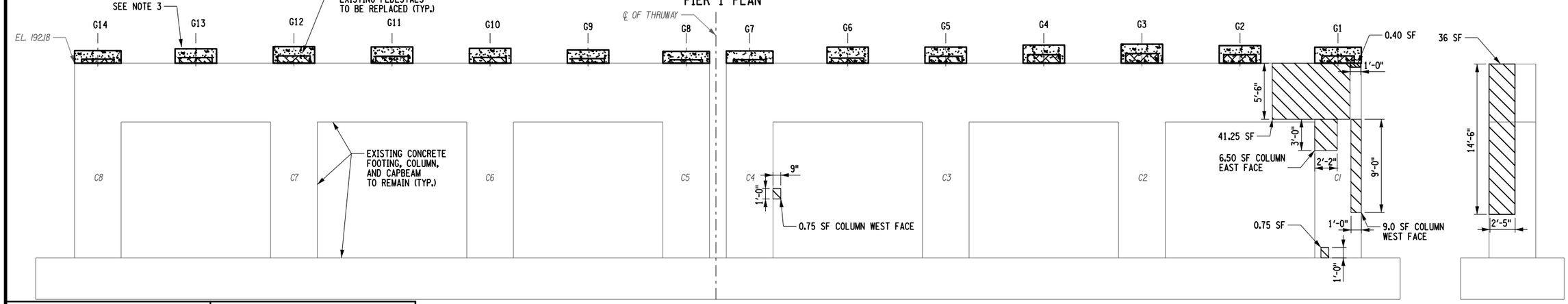
FILE NAME = DESIGN SUPERVISOR R.SHARMA
DATE/TIME = 11/16/2023 DESIGN Y.GAUCHAN
USER = KCEPC\bvaddi DRAFTING B.VADDI/C.VOHRA
CHECK Y.GAUCHAN
CHECK J.BOLGER



PIER 1 SOUTH ELEVATION



PIER 1 PLAN



PIER 1 NORTH ELEVATION

PIER 1 C1 (WEST FACE)

ITEM	DESCRIPTION	UNIT	QUANTITY
582.06	REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE	SF	108.00

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP	CY	17.00
559.02	PROTECTIVE SEALING OF NEW STRUCTURAL CONCRETE	SF	680.00
559.04	PROTECTIVE SEALING OF CONCRETE WITH COATING TYPE PROTECTIVE SEALER	SF	3906.00
580.01	REMOVAL OF STRUCTURAL CONCRETE	CY	14.00

5 0 5 10 15 20
1" = 10'

NOTES:

1. SEE DWG. NO. ST-27 FOR CONCRETE REPAIR DETAILS.
2. SEE DWG. NO. ST-18 FOR BEARING LAYOUT AND PEDESTAL DETAILS.
3. SEE DWG. NO. ST-23 FOR PEDESTAL ELEVATION DETAILS.
4. ESTIMATE OF DETERIORATED CONCRETE ARE BASED ON PREVIOUS INSPECTION. CONTRACTOR SHALL SOUND ALL SUBSTRUCTURAL CONCRETE IN PRESENCE OF ENGINEER TO DETERMINE THE EXTENT OF ACTUAL CONCRETE DETERIORATION.
5. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
6. APPLY PROTECTIVE SEALER, ITEM 559.02 (NEW STRUCTURAL CONCRETE) AND 559.04 (EXISTING STRUCTURAL CONCRETE), TO ENTIRE SURFACE AREA OF THE PIER.

LEGEND:

- ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP
- ITEM 582.06 REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE
- ITEM 580.01 REMOVAL OF STRUCTURAL CONCRETE

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 11/16/2023

STATE OF NEW YORK · YOGENDRA GAUCHAN · 105642 · LICENSED PROFESSIONAL ENGINEER

REVISIONS

DATE	DESCRIPTION	BY	SYM.

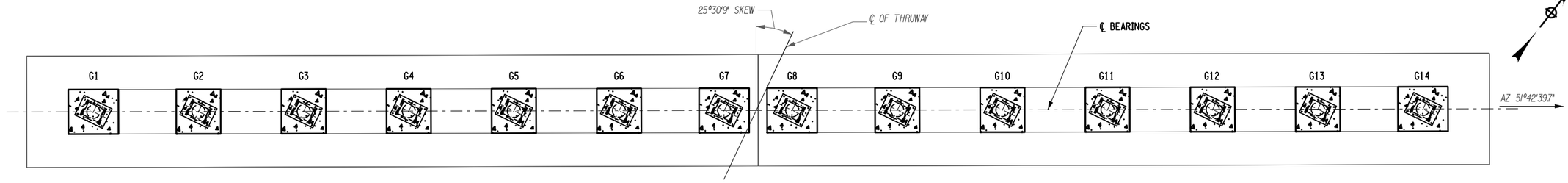
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

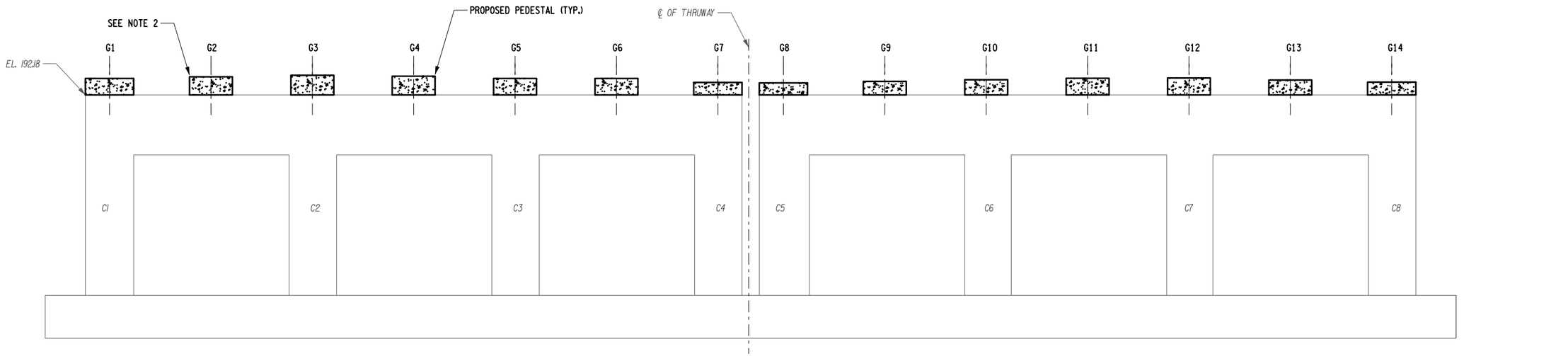
TITLE OF PROJECT: I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: PIER 1 - PLAN AND ELEVATION

CONTRACT NUMBER: TAA 23-25B
DATE: 11/17/2023
DRAWING NUMBER: ST-17

FILE NAME =
DESIGN SUPERVISOR R.SHARMA
DESIGN DATE/TIME = 11/16/2023
CHECK Y.GAUCHAN
DRAFTING B.VADDI/C.VOHRA
CHECK Y.GAUCHAN
USER = KCEPC\bvaddi



PIER 1
PLAN



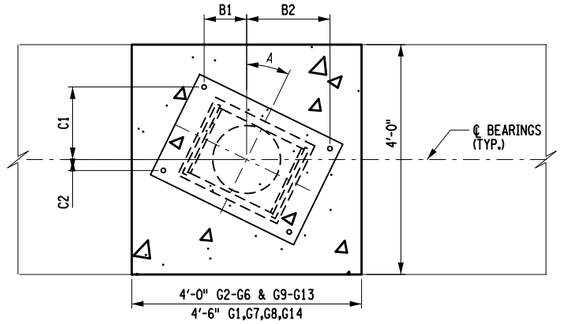
PIER 1
SOUTH ELEVATION

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP	CY	17.00

ANCHOR BOLT LAYOUT TABLE						
LOCATION	BRG. PT.	A1	B1	B2	C1	C2
PIER 1	G1-G14	26°	8 ⅞"	1'-3 ⅜"	1'- 13⅛"	⅞"

LEGEND:

ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP



MR (EXPANSION) BEARING LAYOUT
(PARTIAL PLAN)
(N.T.S)

NOTES:
1. SEE DWG. NO. ST-29 FOR MASONRY PLATE DETAILS.
2. SEE DWG. NO. ST-23 FOR PEDESTAL ELEVATION DETAILS.
3. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
4. APPLY PROTECTIVE SEALER, ITEM 559.04, TO ENTIRE SURFACE AREA OF PIER.

5 0 5 10 15 20
1" = 10'

ALTERED BY:
ON:

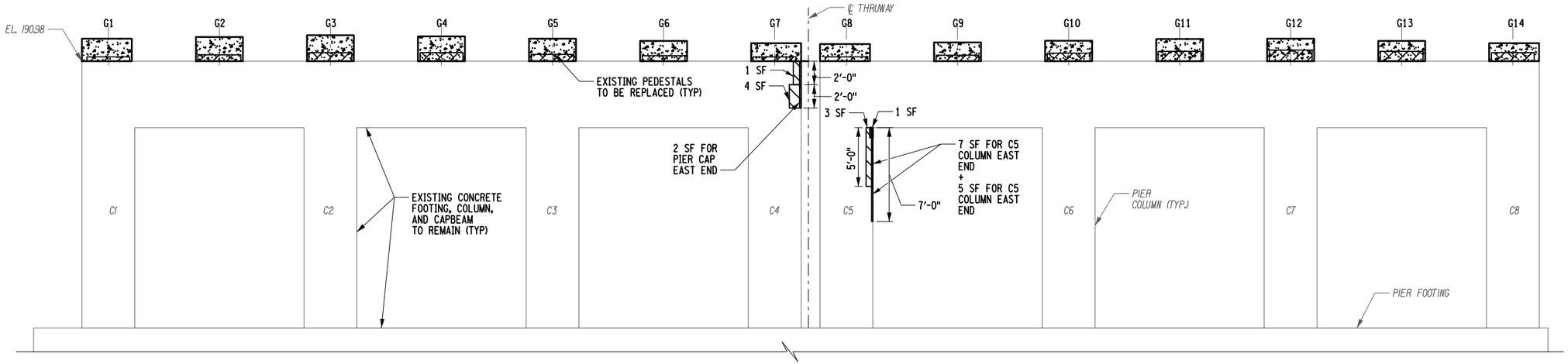
AFFIX SEAL: Yogendra Gauchan
ON: 11/16/2023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

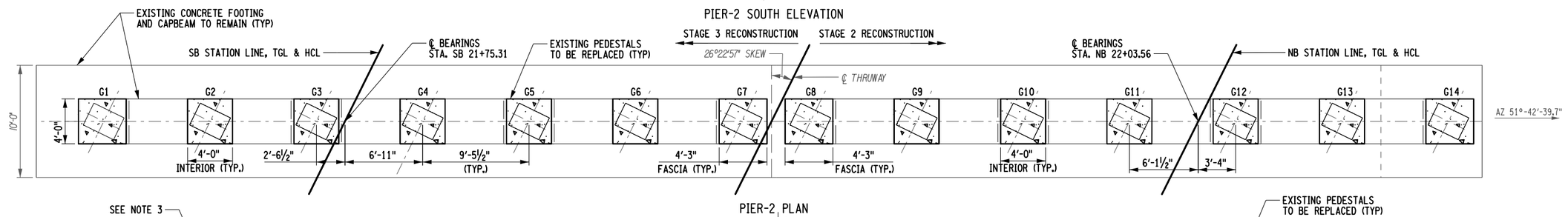
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

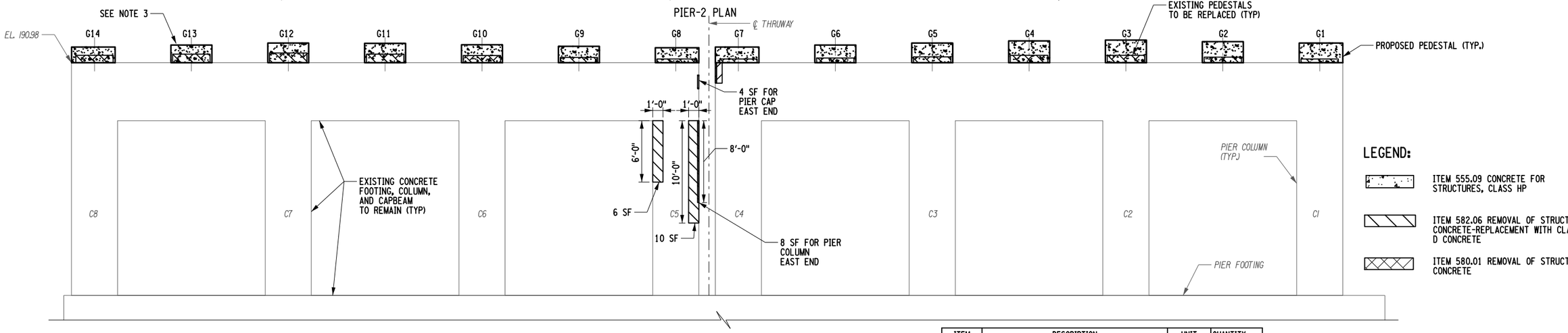
TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	PIER 1 - BEARING LAYOUT AND PEDESTAL DETAILS
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/17/2023
DRAWING NUMBER:	ST-18



PIER-2 SOUTH ELEVATION



PIER-2 PLAN



PIER-2 NORTH ELEVATION

NOTES:

1. SEE DWG. ST-27 FOR CONCRETE REPAIR DETAILS.
2. SEE DWG. ST-20 FOR BEARING LAYOUT AND PEDESTAL DETAILS.
3. SEE DWG. NO. ST-23 FOR PEDESTAL ELEVATION DETAILS.
4. DETERIORATED PEDESTAL CONCRETE SHALL BE REMOVED UNDER ITEM 580.01.
5. ESTIMATE OF DETERIORATED CONCRETE IS BASED ON PREVIOUS INSPECTION. CONTRACTOR SHALL SOUND ALL SUBSTRUCTURAL CONCRETE IN PRESENCE OF ENGINEER TO DETERMINE THE EXTENT OF ACTUAL CONCRETE DETERIORATION.
6. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
7. APPLY PROTECTIVE SEALER, ITEM 559.02 (NEW STRUCTURAL CONCRETE) AND 559.04 (EXISTING STRUCTURAL CONCRETE), TO ENTIRE SURFACE AREA OF PIER.

LEGEND:

- ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP
- ITEM 582.06 REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE
- ITEM 580.01 REMOVAL OF STRUCTURAL CONCRETE

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP	CY	19.50
559.02	PROTECTIVE SEALING OF NEW STRUCTURAL CONCRETE	SF	748.00
559.04	PROTECTIVE SEALING OF CONCRETE WITH COATING TYPE PROTECTIVE SEALER	SF	3753.00
580.01	REMOVAL OF STRUCTURAL CONCRETE	CY	14.00
582.06	REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE	SF	50.50

5' 0 5' 10' 15' 20'
1" = 10'

ALTERED BY:	AFFIX SEAL: Yogendra Gauchan
ON:	ON: 11/16/2023

STATE OF NEW YORK · YOGENDRA GAUCHAN · 105642 · LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

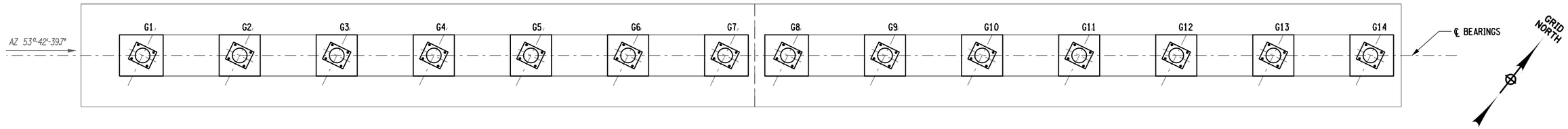
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

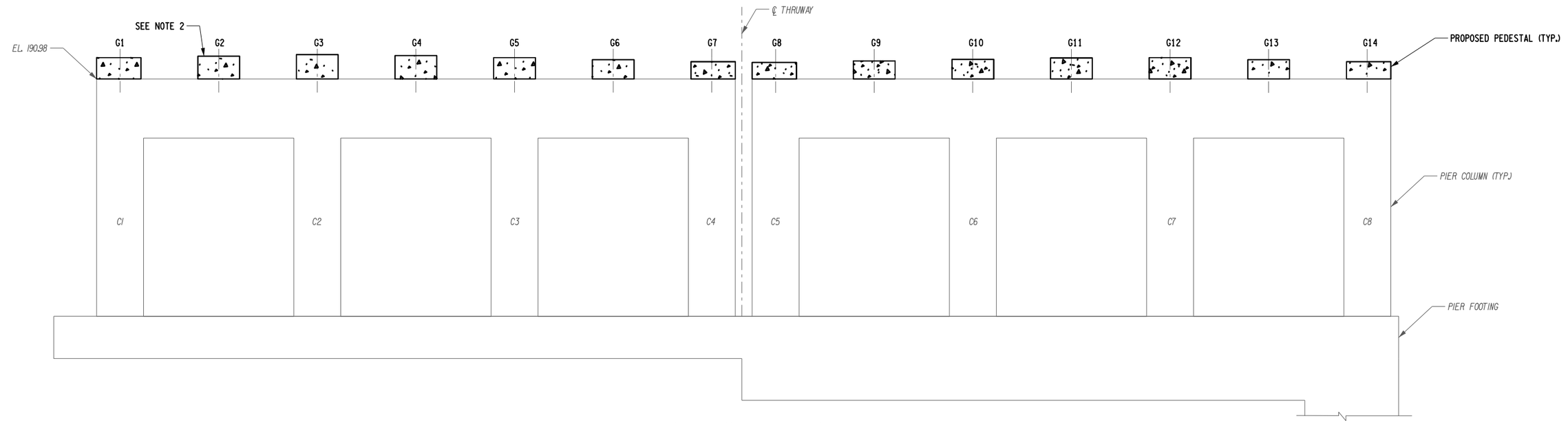
KG Engineering and Land Surveying, P.C.

TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	PIER 2 - PLAN AND ELEVATION
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/17/2023
DRAWING NUMBER:	ST-19

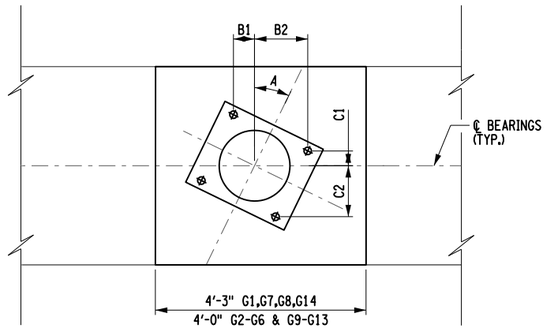
FILE NAME = DESIGN SUPERVISOR R.SHARMA
USER = KCEPC\bvaddi DESIGN CHECK DRAFTING B.VADDI/C.VOHRA CHECK Y.GAUCHAN DESIGN Y.GAUCHAN
DATE/TIME = 11/16/2023 CHECK J.BOLGER



PIER 2 PLAN



PIER 2 SOUTH ELEVATION



FIXED ROTATIONAL BEARING LAYOUT
N.T.S.

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP	CY	19.50

ANCHOR BOLT LAYOUT TABLE						
LOCATION	BRG. PT.	A	B1	B2	C1	C2
PIER 2	G1-G14	26°	2 1/16"	1'-7/8"	3 3/16"	1'- 3/8"

LEGEND:

ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP

NOTES:
1. SEE DWG. NO. ST-29 FOR MASONRY PLATE DETAILS.
2. SEE DWG. NO. ST-23 FOR PEDESTAL ELEVATION DETAILS.
3. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
4. APPLY PROTECTIVE SEALER, ITEM 559.04, TO ENTIRE SURFACE AREA OF PIER.

5' 0 5' 10' 15' 20'
1" = 10'

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 11/16/2023

STATE OF NEW YORK
YOGENDRA GAUCHAN
LICENSED PROFESSIONAL ENGINEER
105642

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

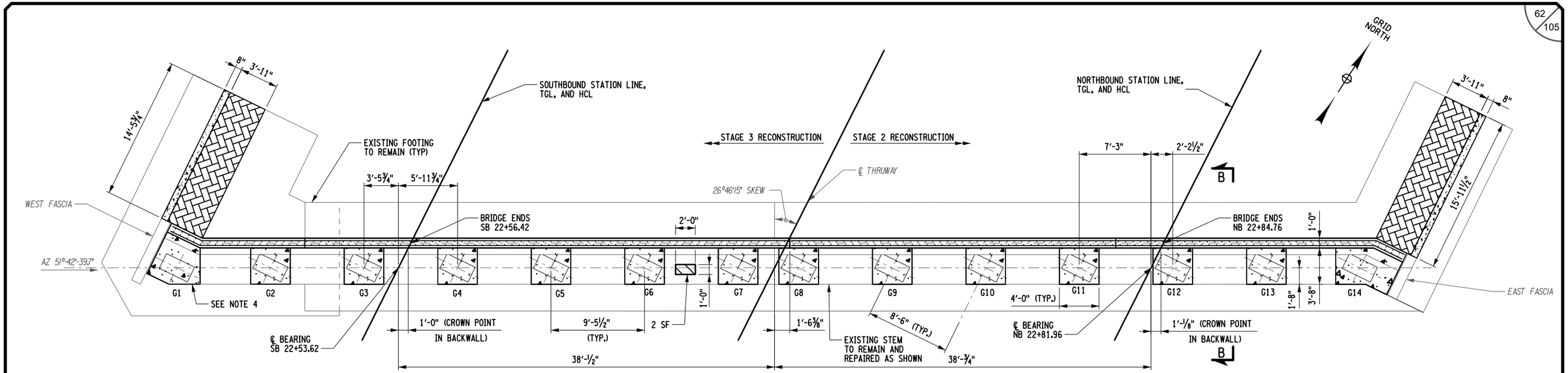
TITLE OF PROJECT
I-87 OVER WALLKILL RIVER
BRIDGE REHABILITATION

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

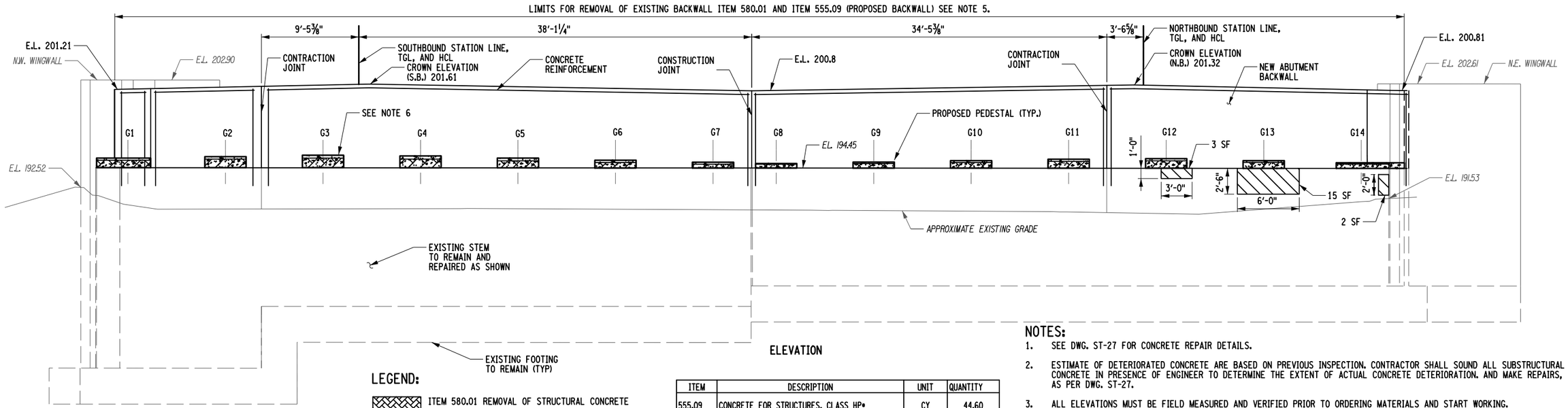
TITLE OF DRAWING
PIER 2 - BEARING LAYOUT
AND PEDESTAL DETAILS

CONTRACT NUMBER: TAA 23-25B
DATE: 11/17/2023
DRAWING NUMBER: ST-20

FILE NAME =
DESIGN SUPERVISOR R.SHARMA
DRAFTING J.BOLGER
DESIGN Y.GAUCHAN
CHECK B.VADDI/C.VOHRA
CHECK Y.GAUCHAN
DATE/TIME = 11/16/2023
USER = KCEPC\bvaddi



PLAN



ELEVATION

LEGEND:

- ITEM 580.01 REMOVAL OF STRUCTURAL CONCRETE
- ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP
- ITEM 582.06 REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE

5 0 5 10 15 20

1" = 10'

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP*	CY	44.60
559.02	PROTECTIVE SEALING OF NEW STRUCTURAL CONCRETE	SF	2046.00
559.04	PROTECTIVE SEALING OF CONCRETE WITH COATING TYPE PROTECTIVE SEALER	SF	2371.00
580.01	REMOVAL OF STRUCTURAL CONCRETE	CY	73.50
582.06	REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH CLASS D CONCRETE	SF	299.50

*PEDESTAL QUANTITY NOT INCLUDED

NOTES:

1. SEE DWG. ST-27 FOR CONCRETE REPAIR DETAILS.
2. ESTIMATE OF DETERIORATED CONCRETE ARE BASED ON PREVIOUS INSPECTION. CONTRACTOR SHALL SOUND ALL SUBSTRUCTURAL CONCRETE IN PRESENCE OF ENGINEER TO DETERMINE THE EXTENT OF ACTUAL CONCRETE DETERIORATION. AND MAKE REPAIRS, AS PER DWG. ST-27.
3. ALL ELEVATIONS MUST BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
4. SEE DWG. NO. ST-22 FOR BEARING LAYOUT AND PEDESTAL DETAILS.
5. SEE DWG. NO. ST-26 FOR SECTION B-B, EXISTING BACKWALL REMOVAL AND PROPOSED BACKWALL VERTICAL RECONSTRUCTION LIMIT DETAILS.
6. SEE DWG. NO. ST-25 FOR PEDESTAL ELEVATION DETAILS.
7. PARTIAL BACKWALL REINFORCEMENT SHOWN ONLY FOR CLARITY PURPOSE.
8. THE COST OF FURNISHING AND PLACING WATERSTOPS SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE CONCRETE ITEMS.
9. APPLY PROTECTIVE SEALER, ITEM 559.02 (NEW STRUCTURAL CONCRETE) AND 559.04 (EXISTING STRUCTURAL CONCRETE), TO ENTIRE SURFACE AREA OF ABUTMENT.

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 11/16/2023

STATE OF NEW YORK · YOGENDRA GAUCHAN · LICENSED PROFESSIONAL ENGINEER · 105642

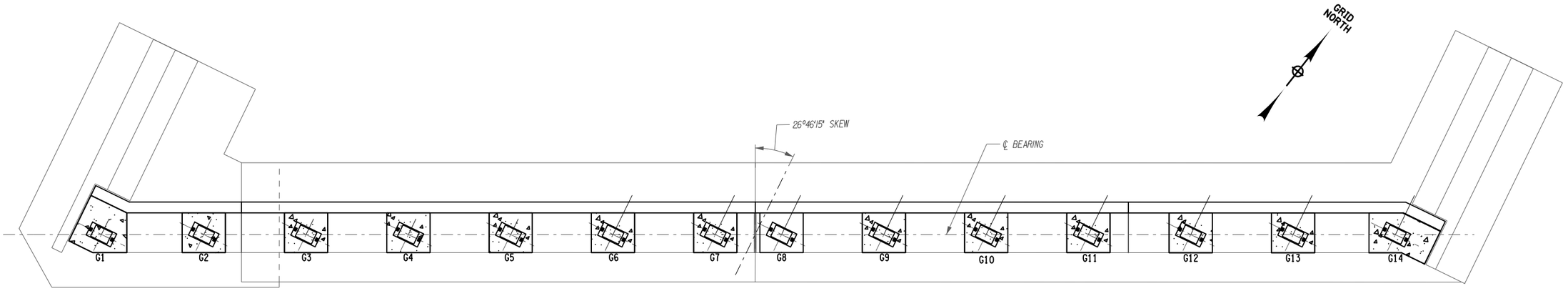
REVISIONS

DATE	DESCRIPTION	BY	SYM.

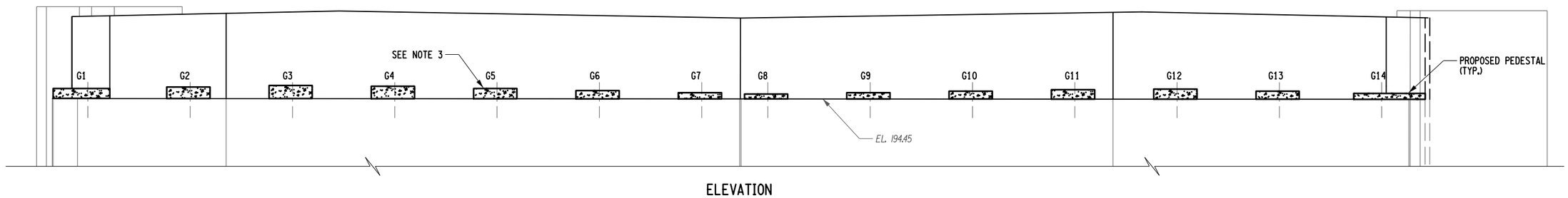
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	NORTH ABUTMENT - PLAN AND ELEVATION
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/17/2023
DRAWING NUMBER:	ST-21



PLAN

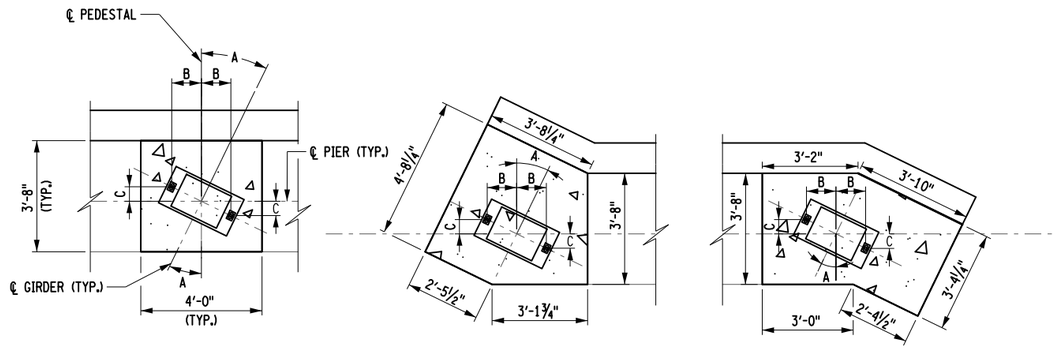


ELEVATION

ANCHOR BOLT LAYOUT TABLE				
LOCATION	BRG. PT.	A	B	C
NORTH ABUTMENT	G1-G14	26°	4 1⅛"	5 1⅛"

ITEM	DESCRIPTION	UNIT	QUANTITY
555.09	CONCRETE FOR STRUCTURES, CLASS HP	CY	10.00
580.01	REMOVAL OF STRUCTURAL CONCRETE	CY	11.50
586.0201	DRILLING AND GROUTING OF VERTICAL BARS•	EA	338.00

• NORTH ABUTMENT BACKWALL



G2 THROUGH G13 G1 G14

EXPANSION BEARING LAYOUT
N.T.S.

LEGEND:

ITEM 555.09 CONCRETE FOR STRUCTURES, CLASS HP

NOTES:

1. SEE DWG. NO. ST-28 FOR MASONRY PLATE DETAILS.
2. PROPOSED BACKWALL REINFORCEMENT NOT SHOWN FOR CLARITY.
3. SEE DWG. NO. ST-25 FOR PEDESTAL ELEVATION DETAILS.
4. ALL ELEVATIONS SHALL BE FIELD MEASURED AND VERIFIED PRIOR TO ORDERING MATERIALS AND START WORKING.
5. SEE ST-19 FOR WINGWALL SECTIONS.

5′ 0 5′ 10′ 15′ 20′
1" = 10′

ALTERED BY:
ON:

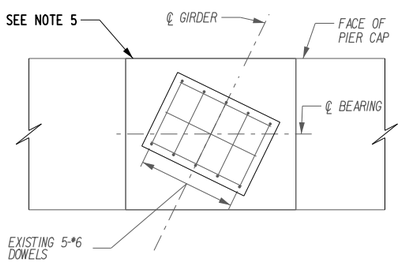
AFFIX SEAL: Yogendra Gauchan
ON: 11/16/2023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

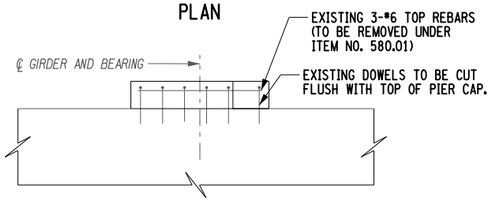
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	NORTH ABUTMENT - BEARING LAYOUT AND PEDESTAL DETAILS
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/17/2023
DRAWING NUMBER:	ST-22

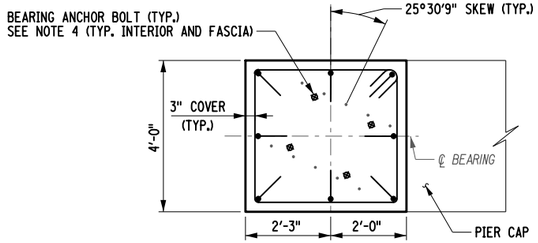


PLAN

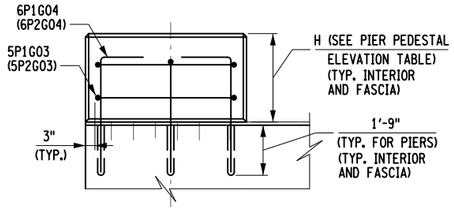


ELEVATION

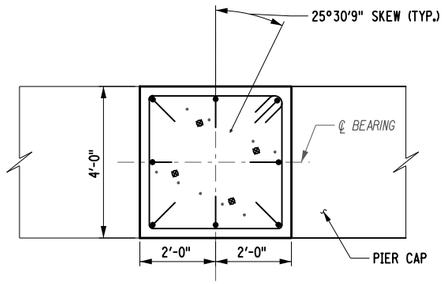
EXISTING PEDESTAL REINFORCEMENT
(TYPICAL FOR PIER 1)
(PIER 2 SIMILAR)



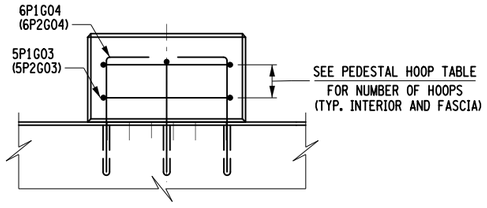
PLAN (FASCIA PEDESTAL)



ELEVATION (FASCIA PEDESTAL)



PLAN (INTERIOR PEDESTAL)



ELEVATION (INTERIOR PEDESTAL)

PROPOSED PEDESTAL REINFORCEMENT
(TYPICAL FOR PIER 1)
(PIER 2 SIMILAR)

PIER PEDESTAL ELEVATION (SEE NOTE 1 AND •)							
PIER 1	ELEVATION (SEE NOTE 1)		PEDESTAL HEIGHT (IN) (SEE NOTE 2)	PIER 2	ELEVATION (SEE NOTE 1)		PEDESTAL HEIGHT (IN) (SEE NOTE 2)
	EXISTING (FT)	PROPOSED (FT)			EXISTING (FT)	PROPOSED (FT)	
G1	192.88	193.72	18.48	G1	191.69	192.90	23.01
G2	192.99	193.87	20.28	G2	191.80	193.04	24.69
G3	193.10	194.01	21.96	G3	191.90	193.19	26.49
G4	192.99	193.93	21.00	G4	191.79	193.10	25.41
G5	192.84	193.73	18.60	G5	191.64	192.90	23.01
G6	192.68	193.54	16.32	G6	191.48	192.71	20.73
G7	192.52	193.35	14.04	G7	191.32	192.51	18.33
G8	192.51	193.31	13.56	G8	191.31	192.44	17.49
G9	192.62	193.45	15.24	G9	191.42	192.58	19.17
G10	192.73	193.60	17.04	G10	191.52	192.73	20.97
G11	192.84	193.74	18.72	G11	191.63	192.87	22.65
G12	192.88	193.77	19.08	G12	191.68	192.90	23.01
G13	192.72	193.57	16.68	G13	191.52	192.71	20.73
G14	192.57	193.38	14.40	G14	191.29	192.51	18.33

DRILLING AND GROUTING OF VERTICAL BARS (ITEM 586.0201)	
LOCATION	QUANTITY (EA)
PIER 1	112
PIER 2	112

PEDESTAL HOOP TABLE	
PEDESTAL HEIGHT	NUMBER OF HOOPS
4" TO 8"	1
8" TO 11"	2
11" TO 14"	3
14" TO 17"	4
17" TO 20"	5
20" TO 23"	6
23" TO 26"	7
26" TO 29"	8

NOTES:

1. THE ELEVATIONS NOTED ON THIS DRAWING ARE BASED ON A FIELD SURVEY PERFORMED BY THE AUTHORITY IN SEPTEMBER 2022 AND CONFIRMED OCTOBER 2022. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS AND ADJUST THE FINAL HEIGHTS OF THE PEDESTALS ACCORDINGLY.
2. AVAILABLE PEDESTAL HEIGHTS AT THE PIERS SHALL BE ASSESSED PRIOR TO FINALIZING OVERALL HEIGHT OF M.R. TYPE BEARINGS. THE CONTRACTOR SHALL COORDINATE AVAILABLE HEIGHTS WITH THE BEARING MANUFACTURER.
3. CONSTRUCTION OF CONCRETE PEDESTALS SHALL NOT COMMENCE UNTIL BEARING SHOP DRAWING SUBMITTALS HAVE BEEN APPROVED.
4. SEE DWG. NO. ST-18 AND ST-20 FOR PIER 1 AND PIER 2 ANCHOR BOLT LAYOUT DETAILS.
5. EXISTING CONCRETE TO BE COMPLETELY REMOVED (ITEM 580.01) AND CUT TOP OF DOWEL TO BRIDGE SEAT LEVEL (ITEM 580.01) TO INSTALL NEW PEDESTAL UNDER ITEM NO. 555.09.
6. ALL REINFORCEMENT SHOWN SHALL BE PAID FOR UNDER ITEM 556.0203 - GALVANIZED BAR REINFORCEMENT FOR STRUCTURES UNLESS OTHERWISE NOTED.
7. DRILLING AND GROUTING OF PROPOSED PEDESTAL DOWELS INTO EXISTING PIER SEAT SHALL BE PAID UNDER ITEM NO. 586.0201

• THESE ELEVATIONS MAY HAVE TO BE ADJUSTED TO ACCOMMODATE THE ACTUAL BEARINGS FURNISHED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES IN THE BEARINGS WHICH MAY AFFECT THE PEDESTAL ELEVATIONS.

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 11/16/2023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT
I-87 OVER WALLKILL RIVER
BRIDGE REHABILITATION

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

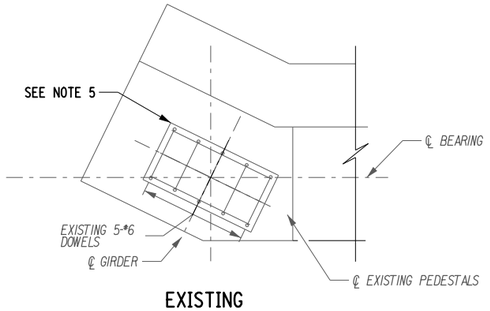
TITLE OF DRAWING
PEDESTAL DETAILS - 1

CONTRACT NUMBER: TAA 23-25B

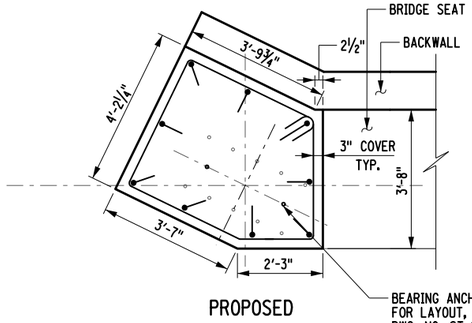
DATE: 11/17/2023

DRAWING NUMBER: ST-23

FILE NAME =
DESIGN SUPERVISOR R.SHARMA
DRAFTING J.BOLGER
DESIGN B.VADDI/C.VOHRA
CHECK Y.GAUCHAN
CHECK Y.GAUCHAN
DATE/TIME = 11/16/2023
USER = KCEPC\bvaddi

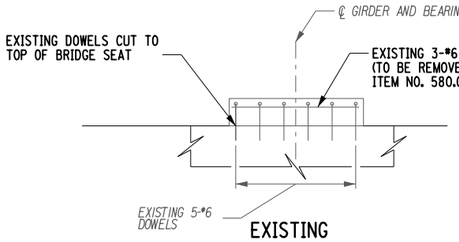


EXISTING

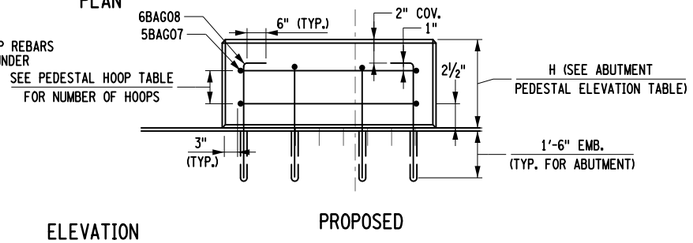


PROPOSED

PLAN

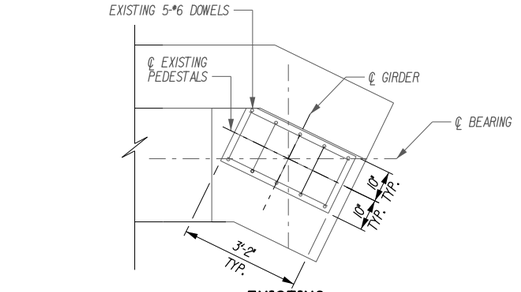


EXISTING

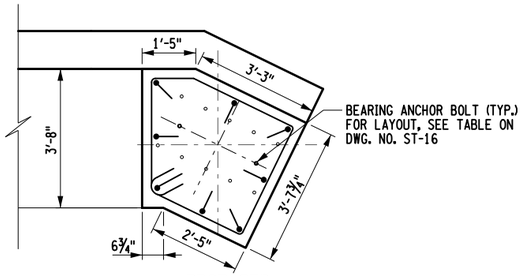


PROPOSED

ELEVATION
G14 PEDESTAL (SOUTH ABUTMENT)

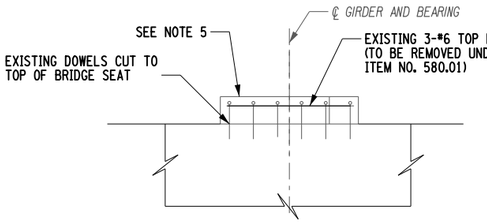


EXISTING

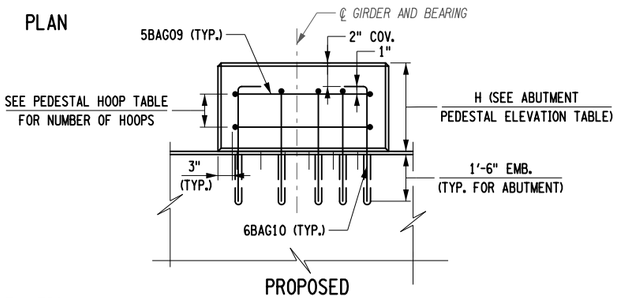


PROPOSED

PLAN

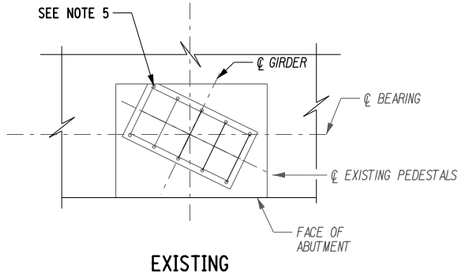


EXISTING

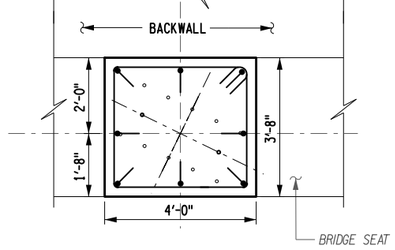


PROPOSED

ELEVATION
G1 PEDESTAL (SOUTH ABUTMENT)

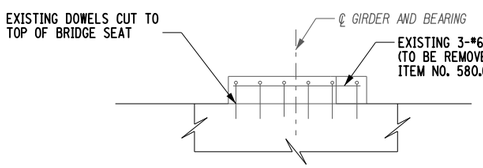


EXISTING

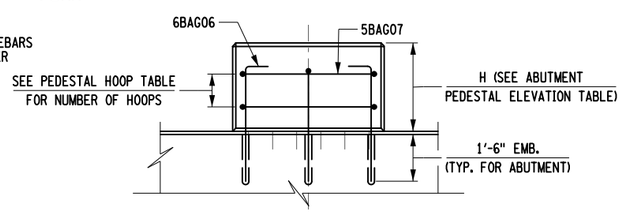


PROPOSED

PLAN



EXISTING



PROPOSED

ELEVATION
G2 THROUGH G13 PEDESTAL (SOUTH ABUTMENT)

ABUTMENT PEDESTAL ELEVATION (SEE NOTE 1 AND •)			
SOUTH ABUTMENT	ELEVATION (SEE NOTE 1) EXISTING (FT)	PROPOSED (FT)	PEDESTAL HEIGHT (IN) (SEE NOTE 2)
G1	197.29	197.00	4.93
G2	197.40	197.14	6.61
G3	197.51	197.29	8.41
G4	197.43	197.24	7.81
G5	197.27	197.04	5.41
G6	197.12	196.85	3.13••
G7	196.96	196.66	0.85••
G8	196.93	196.60	0.13••
G9	197.03	196.75	1.93••
G10	197.14	196.89	3.61••
G11	197.25	197.04	5.41
G12	197.32	197.09	6.01
G13	197.16	196.90	3.73••
G14	197.00	196.70	1.33••

•• THICKER MASONRY PLATE SHALL BE USED INSTEAD OF PEDESTAL WHERE PROPOSED PEDESTAL HEIGHT IS LESS THAN 4"

PEDESTAL HOOP TABLE	
PEDESTAL HEIGHT	NUMBER OF HOOPS
4" TO 8"	1
8" TO 11"	2
11" TO 14"	3
14" TO 17"	4
17" TO 20"	5
20" TO 23"	6
23" TO 26"	7
26" TO 29"	8

DRILLING AND GROUTING OF VERTICAL BARS (ITEM 586.0201)	
LOCATION	QUANTITY (EA)
SOUTH ABUTMENT PEDESTAL	113

NOTES:

1. THE ELEVATION NOTED ON THIS DRAWINGS ARE BASED ON A FIELD SURVEY PERFORMED BY THE AUTHORITY IN SEPTEMBER 2022 AND CONFIRMED OCTOBER 2022. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS AND ADJUST THE FINAL HEIGHTS OF THE PEDESTALS ACCORDINGLY.
2. AVAILABLE PEDESTAL HEIGHTS AT THE ABUTMENT SHALL BE ASSESSED PRIOR TO FINALIZING OVERALL HEIGHT OF E.B. TYPE BEARINGS.
3. CONSTRUCTION OF CONCRETE PEDESTALS SHALL NOT COMMENCE UNTIL BEARING SHOP DRAWING SUBMITTALS HAVE BEEN APPROVED.
4. SEE DWG. NO. ST-16 FOR SOUTH ABUTMENT ANCHOR BOLT LAYOUT DETAIL.
5. EXISTING CONCRETE TO BE COMPLETELY REMOVED (ITEM 580.01) AND CUT TOP OF DOWEL TO BRIDGE SEAT LEVEL (ITEM 580.01) TO INSTALL NEW PEDESTAL UNDER ITEM NO. 555.09.
6. ALL REINFORCEMENT SHOWN TO BE PAID FOR UNDER ITEM 556.0203 - GALVANIZED BAR REINFORCEMENT FOR STRUCTURES UNLESS OTHERWISE NOTED.
7. DRILLING AND GROUTING OF PROPOSED PEDESTAL DOWELS INTO EXISTING ABUTMENT SEAT SHALL BE PAID UNDER ITEM NO. 586.0201

•. THESE ELEVATIONS MAY HAVE TO BE ADJUSTED TO ACCOMMDATE THE ACTUAL BEARINGS FURNISHED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES IN THE BEARINGS WHICH MAY AFFECT THE PEDESTAL ELEVATIONS.

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 11/16/2023

STATE OF NEW YORK · YOGENDRA GAUCHAN · LICENSED PROFESSIONAL ENGINEER · 105642

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

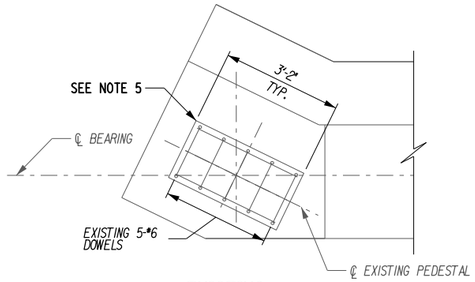
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

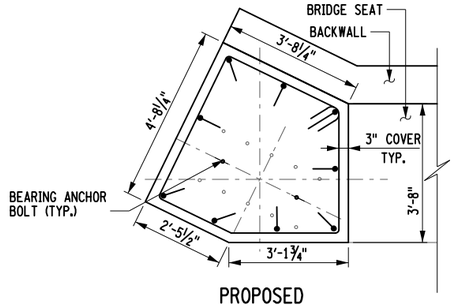
Engineering and Land Surveying, P.C.

TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	PEDESTAL DETAILS - 2
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/17/2023
DRAWING NUMBER:	ST-24

FILE NAME =
DESIGN SUPERVISOR R.SHARMA
DRAFTING J.BOLGER
DESIGN Y.GAUCHAN
CHECK B.VADDI/C.VOHRA
DATE/TIME = 11/16/2023
USER = KCEPC\bvaddi
CHECK Y.GAUCHAN

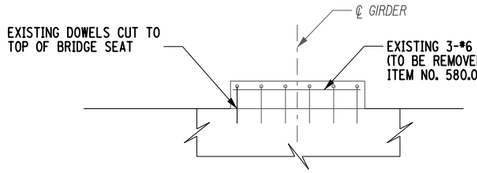


EXISTING

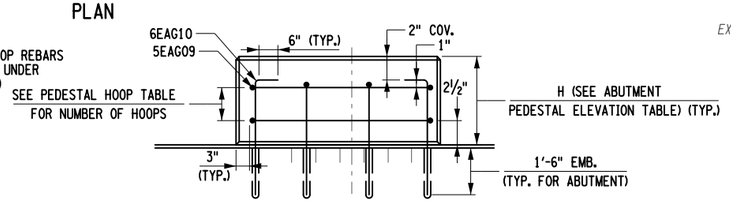


PROPOSED

PLAN

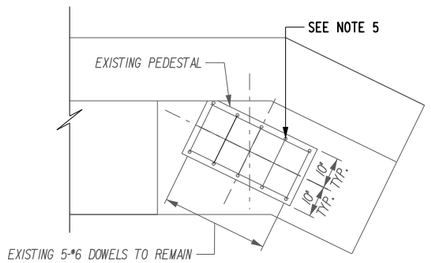


EXISTING

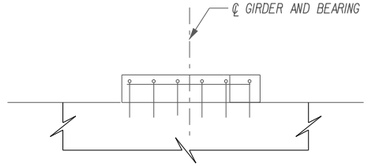


PROPOSED

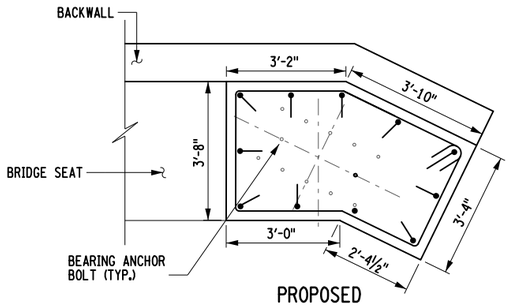
ELEVATION
G1 PEDESTAL (NORTH ABUTMENT)



EXISTING

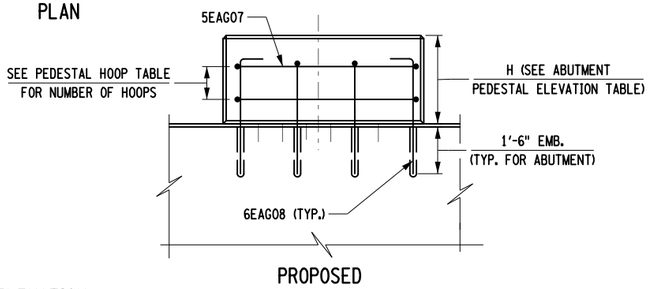


EXISTING



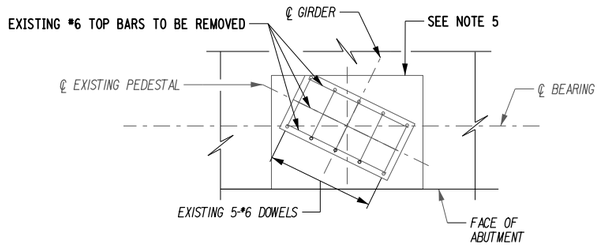
PROPOSED

PLAN

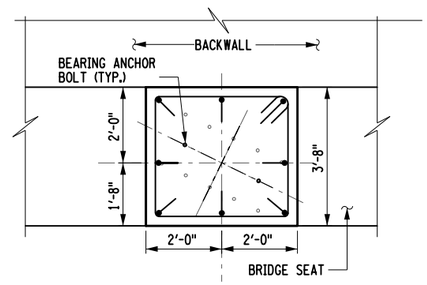


PROPOSED

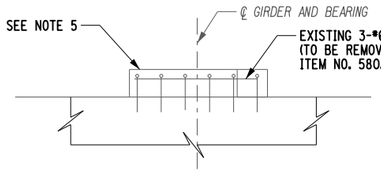
ELEVATION
G14 PEDESTAL (NORTH ABUTMENT)



EXISTING

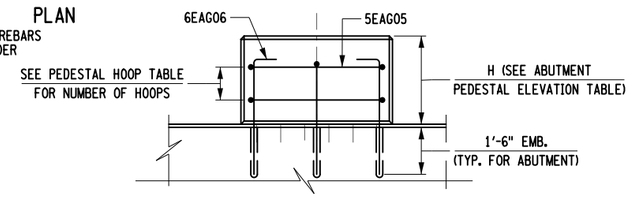


PROPOSED



EXISTING

PLAN



PROPOSED

ELEVATION
G2 THROUGH G13 PEDESTAL (NORTH ABUTMENT)

PEDESTAL HOOP TABLE	
PEDESTAL HEIGHT	NUMBER OF HOOPS
4" TO 8"	1
8" TO 11"	2
11" TO 14"	3
14" TO 17"	4
17" TO 20"	5
20" TO 23"	6
23" TO 26"	7
26" TO 29"	8

ABUTMENT PEDESTAL ELEVATION (SEE NOTE 1 AND •)			
NORTH ABUTMENT	ELEVATION (SEE NOTE 1)		PEDESTAL HEIGHT (IN) (SEE NOTE 2)
	EXISTING (FT)	PROPOSED (FT)	
G1	195.17	195.37	11.08
G2	195.28	195.51	12.76
G3	195.39	195.66	14.56
G4	195.29	195.59	13.72
G5	195.14	195.39	11.32
G6	194.98	195.20	9.04
G7	194.82	195.01	6.76
G8	194.79	194.89	5.32
G9	194.89	195.03	7.00
G10	195.00	195.17	8.68
G11	195.11	195.32	10.48
G12	195.18	195.38	11.20
G13	195.03	195.19	8.92
G14	194.87	194.99	6.52

DRILLING AND GROUTING OF VERTICAL BARS (ITEM 586.0201)	
LOCATION	QUANTITY (EA)
NORTH ABUTMENT PEDESTAL	116

NOTES:

1. THE ELEVATION NOTED ON THIS DRAWINGS ARE BASED ON A FIELD SURVEY PERFORMED BY THE AUTHORITY IN SEPTEMBER 2022 AND CONFIRMED OCTOBER 2022. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS AND ADJUST THE FINAL HEIGHTS OF THE PEDESTALS ACCORDINGLY.
2. AVAILABLE PEDESTAL HEIGHTS AT THE ABUTMENT SHALL BE ASSESSED PRIOR TO FINALIZING OVERALL HEIGHT OF E.B. TYPE BEARINGS.
3. CONSTRUCTION OF CONCRETE PEDESTALS SHALL NOT COMMENCE UNTIL BEARING SHOP DRAWING SUBMITTALS HAVE BEEN APPROVED.
4. SEE DWG. NO. ST-22 FOR NORTH ABUTMENT ANCHOR BOLT LAYOUT DETAIL.
5. EXISTING CONCRETE TO BE COMPLETELY REMOVED (ITEM 580.01) AND CUT TOP OF DOWEL TO BRIDGE SEAT LEVEL (ITEM 580.01) TO INSTALL NEW PEDESTAL UNDER ITEM NO.555.09.
6. ALL REINFORCEMENT SHOWN TO BE PAID FOR UNDER ITEM 556.0203 - GALVANIZED BAR REINFORCEMENT FOR STRUCTURES UNLESS OTHERWISE NOTED.
7. DRILLING AND GROUTING OF PROPOSED PEDESTAL DOWELS INTO EXISTING ABUTMENT SEAT SHALL BE PAID UNDER ITEM NO. 586.0201.

•. THESE ELEVATIONS MAY HAVE TO BE ADJUSTED TO ACCOMMDATE THE ACTUAL BEARINGS FURNISHED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES IN THE BEARINGS WHICH MAY AFFECT THE PEDESTAL ELEVATIONS.

ALTERED BY:	AFFIX SEAL: Yogendra Gauchan
ON:	ON: 11/16/2023

STATE OF NEW YORK
YOGENDRA GAUCHAN
105642
LICENSED PROFESSIONAL ENGINEER

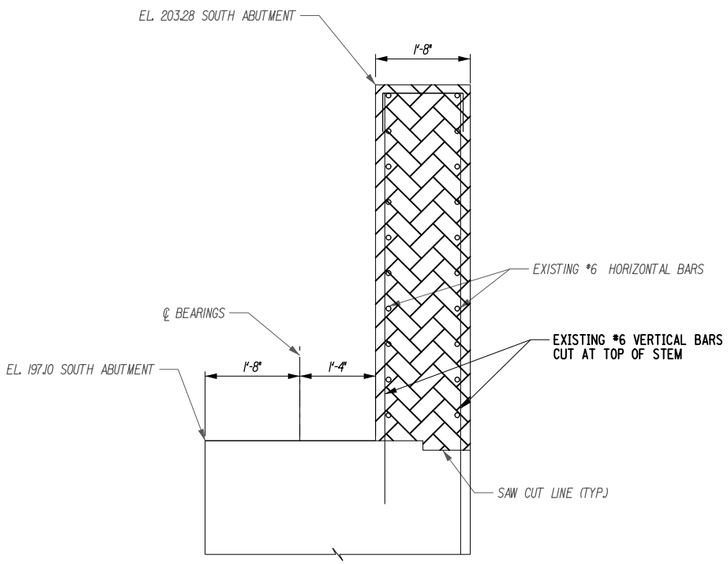
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

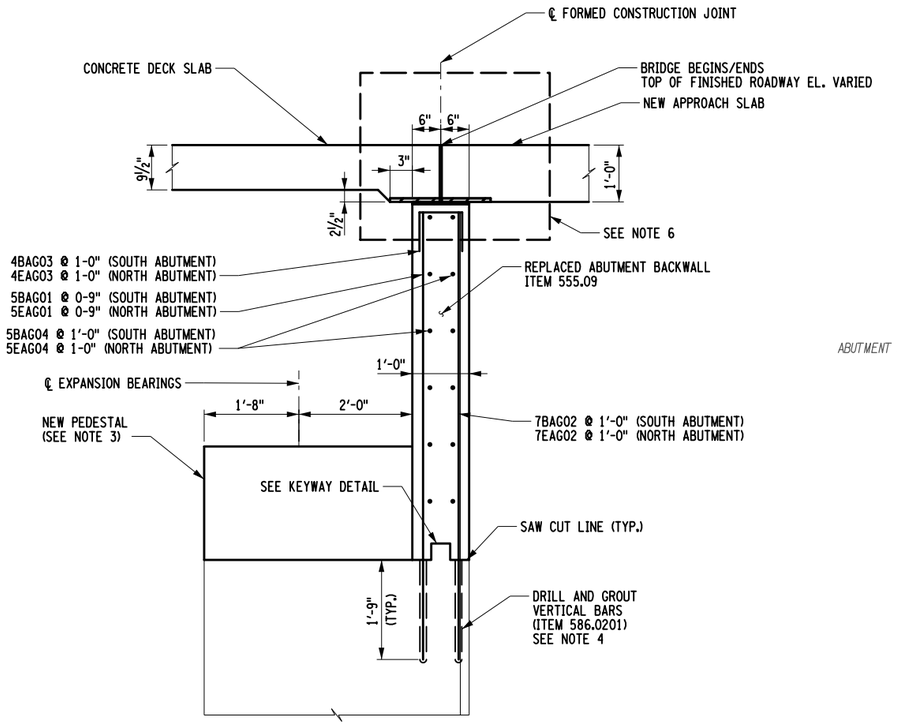
Engineering and Land Surveying, P.C.

TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	PEDESTAL DETAILS - 3
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/17/2023
DRAWING NUMBER:	ST-25

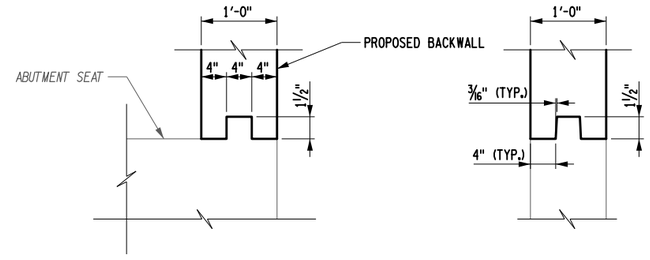
FILE NAME = DESIGN SUPERVISOR R.SHARMA
DATE/TIME = 11/16/2023 DESIGN Y.GAUCHAN
USER = KCEPC\bvaddi CHECK B.VADDI/C.VOHRA
DRAFTING J.BOLGER
CHECK Y.GAUCHAN



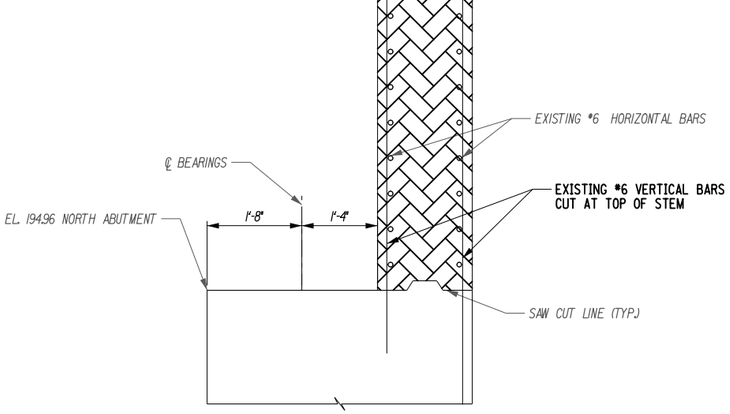
EXISTING SOUTH ABUTMENT BACKWALL SECTION



PROPOSED ABUTMENT BACKWALL SECTION
SECTION A-A/ SECTION B-B



KEYWAY DETAIL
(WATERSTOP NOT SHOWN)



EXISTING NORTH ABUTMENT BACKWALL SECTION

LEGEND:

ITEM 580.01 REMOVAL OF STRUCTURAL CONCRETE

ALTERED BY:	AFFIX SEAL: JOHN BOLGER
ON:	ON: 11/16/23

STATE OF NEW YORK
JOHN BAIR BOLGER
LICENSED PROFESSIONAL ENGINEER
098786

NOTES:

1. ALL REINFORCEMENT SHOWN TO BE PAID FOR UNDER ITEM 556.0203 - GALVANIZED BAR REINFORCEMENT FOR STRUCTURES UNLESS OTHERWISE NOTED.
2. FOR ABUTMENT REINFORCING PLANS AND ELEVATIONS, SEE DWG. ST-15, ST-21.
3. FOR NEW PEDESTAL DETAILS AND ELEVATIONS, SEE DWG. ST-23, ST-24, ST-25.
4. NEW DRILL AND GROUT VERTICAL REINFORCEMENT AT REAR FACE SHALL BE PLACED BETWEEN EXISTING VERTICAL BARS.
5. ALL REINFORCEMENT SHALL HAVE 2" COVER UNLESS OTHERWISE NOTED.
6. SEE JOINTLESS ABUTMENT DETAIL ON DWG. ST-45.

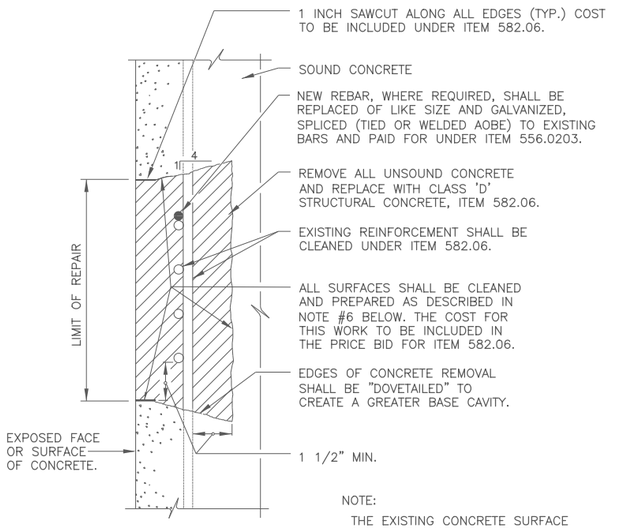
1'-4" 0 1'-4" 2'-8" 4' 5'-4"
3/8" = 1'

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT: I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/17/2023
TITLE OF DRAWING: PROPOSED BACKWALL SECTIONS	DRAWING NUMBER: ST - 26

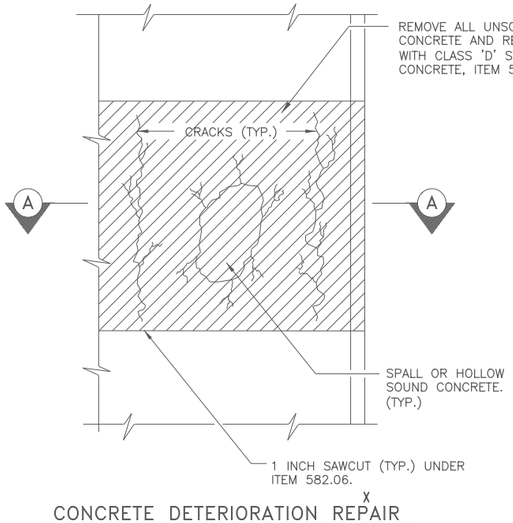


NOTE:
THE EXISTING CONCRETE SURFACE CAN BE PLANAR OR CURVED.

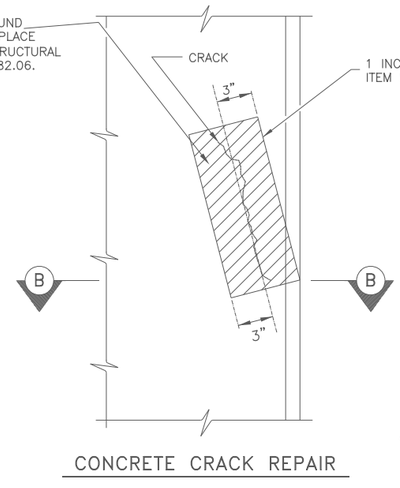
SECTION

TYPICAL CONCRETE SURFACE REPAIR SECTION

N.T.S.



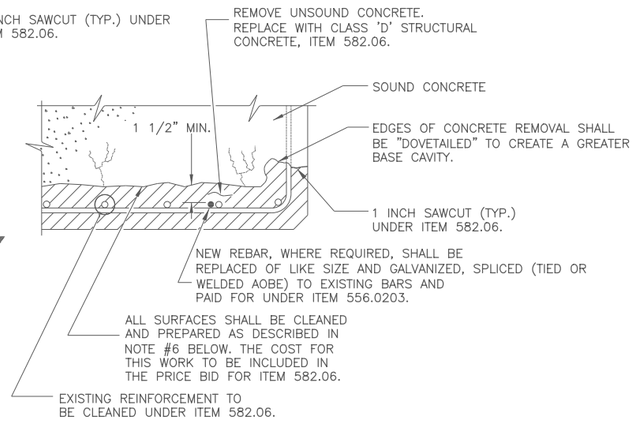
CONCRETE DETERIORATION REPAIR



CONCRETE CRACK REPAIR

CONCRETE SURFACE REPAIR

N.T.S.

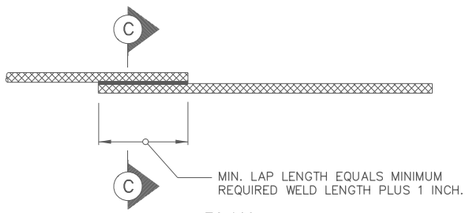


SECTION A–A
SECTION B–B SIMILAR

PLAN

LAPPED, TIED SPLICE

N.T.S.

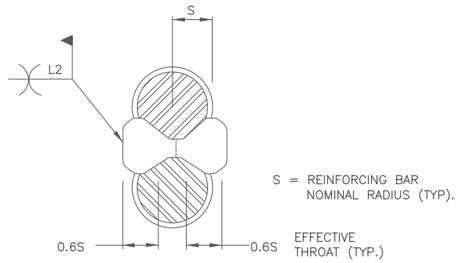


PLAN

WELDED SPLICE

N.T.S.

SINGLE FLARE V – GROOVE WELD



DOUBLE FLARE V – GROOVE WELD

SECTION C–C

N.T.S.

CONCRETE REPAIR NOTES:

1. FOR GENERAL NOTES SEE DRAWING ST–8.
2. FOR LOCATIONS OF CONCRETE REPAIRS SEE DRAWINGS ST–15, ST–17, ST–19, AND ST–21.
3. SUBSTRUCTURE DETERIORATION REQUIRING REPAIR AS INDICATED ON THE PLANS HAS BEEN DETERMINED BY A FIELD INSPECTION. ALL OF THE MAJOR AREAS, KNOWN TO EXIST AT THE TIME, HAVE BEEN SHOWN TO INDICATE THE APPROXIMATE EXTENT OF DETERIORATION THAT WILL HAVE TO BE REPAIRED BY THE CONTRACTOR.
4. THE ANTICIPATED EXTENT OF CONCRETE REPAIR HAS BEEN INDICATED ON THE CONTRACT PLANS. THE PROJECT ENGINEER SHALL EXAMINE THE SUBSTRUCTURE CONCRETE AND ESTABLISH THOSE AREAS OF REPAIR TO BE MADE WITH CLASS "D" CONCRETE. THE EXTENT OF CONCRETE REPAIR TO BE MADE SHALL BE APPROVED BY THE PROJECT ENGINEER.
5. DETERIORATED REINFORCEMENT SHALL BE REPLACED OF LIKE SIZE AND GALVANIZED, ITEM 556.0203, AND HAVE A MINIMUM LAP OF 30 BAR DIAMETERS OR A WELDED SPLICE SHALL BE PROVIDED (SEE WELDED SPLICE DETAILS ON THIS DRAWING). IF WELDED, WELDERS SHALL BE QUALIFIED IN ACCORDANCE WITH THE "NEW YORK STATE STEEL CONSTRUCTION MANUAL".
6. WHEN JOINING FRESH CONCRETE TO NEW CONCRETE WHICH HAS ALREADY SET, OR TO EXISTING CONCRETE, THE CONCRETE IN PLACE SHALL HAVE ITS SURFACE SCOURED OR ABRADED WITH A SUITABLE TOOL TO REMOVE ALL LOOSE AND FOREIGN MATERIALS. THIS SURFACE SHALL BE SCRUBBED WITH WIRE BROOMS. AFTER THE SURFACE PREPARATION HAS BEEN ACCEPTED, THIS SURFACE SHALL BE THOROUGHLY WET AND KEPT SO FOR A PERIOD OF 12 HOURS IMMEDIATLY PRIOR TO PLACING THE NEW CONCRETE. THIS MAY BE ACCOMPLISHED BY CONTINUOUS WETTING WITH SOAKER HOSES OR THE USE OF BURLAP/BURLENE/ETC. SO THAT MOISTURE CAN BE MAINTAINED. IF, IN THE OPINION OF THE ENGINEER, CONDITIONS OR THE SITUATION PROHIBITS THIS, THEN THE SURFACES SHALL BE WETTED FOR AS LONG AS POSSIBLE. THE CONTRACTOR SHALL REMOVE ANY PUDDLES OR FREE STANDING WATER WITH OIL–FREE COMPRESSED AIR, AND PROTECT THE SURFACES FROM DRYING, SO THAT THE EXISTING CONCRETE REMAINS IN A CLEAN, SATURATED SURFACE DRY CONDITION UNTIL PLACEMENT OF THE NEW CONCRETE. IMMEDIATELY BEFORE PLACING THE NEW CONCRETE, THE FORMS SHALL BE DRAWN TIGHT AGAINST THE CONCRETE ALREADY IN PLACE.
7. AT ALL CONCRETE REMOVAL LOCATIONS, THE MINIMUM DEPTH OF REMOVAL SHALL BE NO LESS THAN 1 1/2 INCHES BEHIND THE INNERMOST LAYER OF EXPOSED REINFORCING BARS, OR TO SOUND CONCRETE, WHICHEVER IS GREATER.
8. WHERE CONCRETE REMOVAL AND REPLACEMENT NECESSITATES ADJACENT SEPARATE CONCRETE PLACEMENTS, CONCRETE REMOVAL SHALL NOT BE ALLOWED WITHIN 1 FOOT OF ADJACENT REPAIR AREAS. ADJACENT AREAS WHERE THIS 1 FOOT BUFFER IS NOT ATTAINABLE SHALL BE COMBINED INTO A SINGLE REPAIR AREA.
9. IN SEQUENCING WORK, THE CONTRACTOR SHALL NOT BEGIN CONCRETE REMOVAL AT A LOCATION ADJACENT TO A COMPLETED REPAIR UNTIL A MINIMUM OF 7 CURING DAYS HAVE PASSED.
10. A PROTECTIVE OR PENETRATING SEALER FOR CONCRETE SHALL BE APPLIED TO ALL EXPOSED SUBSTRUCTURE CONCRETE SURFACES EXCEPT THE UNDERSIDE OF PIER CAPBEAMS.
11. THE EXTENT OF CONCRETE REMOVAL FOR ANY COMPONENT SHALL NOT JEOPARDIZE ITS STRUCTURAL INTEGRITY. THE CONTRACTOR SHALL SUBMIT, PRIOR TO COMMENCEMENT OF THIS WORK, A REMOVAL PLAN AND SCHEDULE FOR PROJECT ENGINEER APPROVAL.
12. ALTHOUGH THE DEPTH OF REMOVAL TO SOUND CONCRETE MAY, AT SOME LOCATIONS, EXTEND TO DEPTHS GREATER THAN 5 INCHES, IT IS THE INTENT OF THIS PROJECT THAT THE CONTRACTOR SHALL MAKE ALL NECESSARY REPAIRS WITH CLASS "D" CONCRETE PER ITEM 582.06.

MINIMUM WELD LENGTHS

BAR SIZE	SINGLE FLARE L1 V–GROOVE WELD	DOUBLE FLARE L2 V–GROOVE WELD
5	4"	2 1/2"
6	4 1/2"	2 3/4"
7	5"	3"
8	5 1/2"	3 1/4"
9	6"	3 1/2"

ALTERED BY:
ON:

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT
I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
CONCRETE REPAIR DETAILS

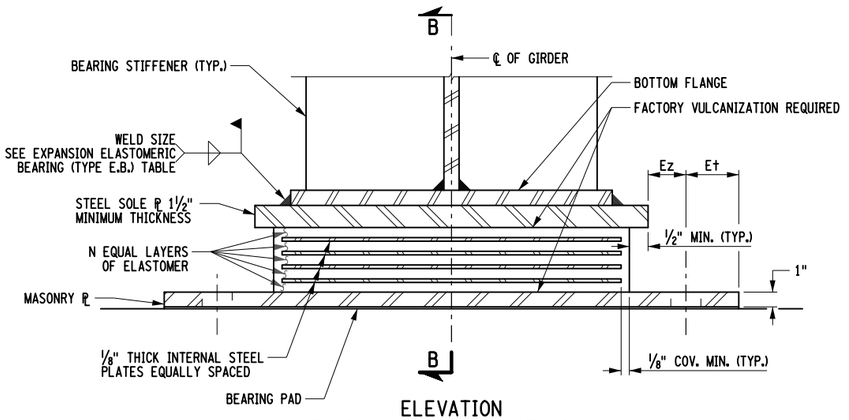
CONTRACT NUMBER:
TAA 23-25B

DATE:
11/17/2023

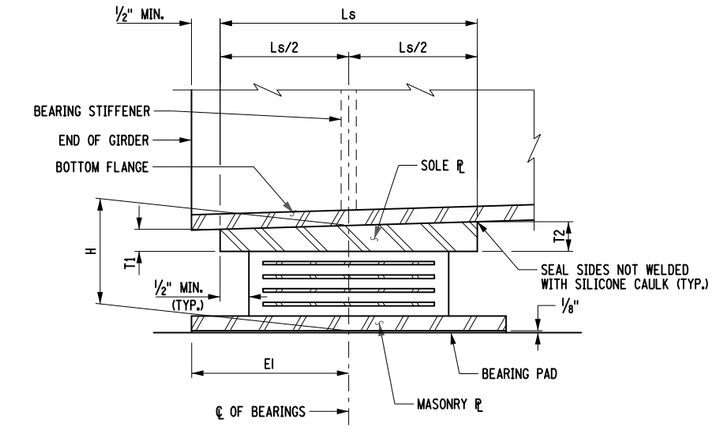
DRAWING NUMBER:
ST-27

FILE NAME =
USER = KCEPC\bvaddi
DATE/TIME = 11/16/2023

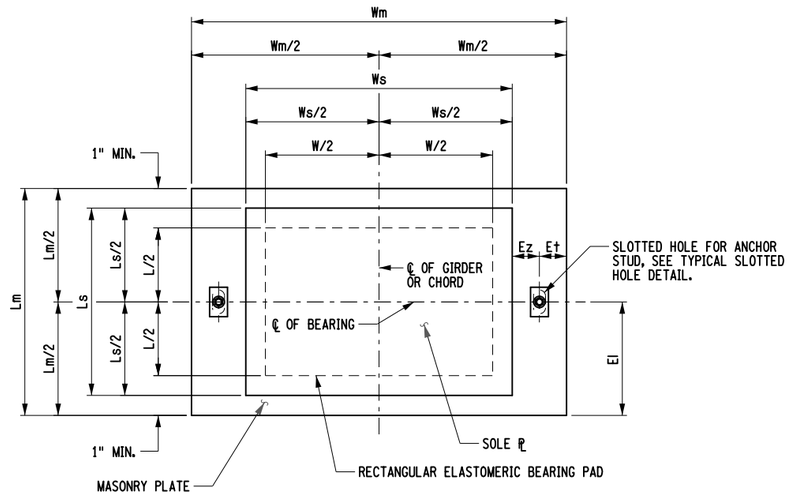
DESIGN SUPERVISOR R.SHARMA
DRAFTING B.VADDI/C.VOHRA
DESIGN Y.GAUCHAN
CHECK J.BOLGER
CHECK Y.GAUCHAN



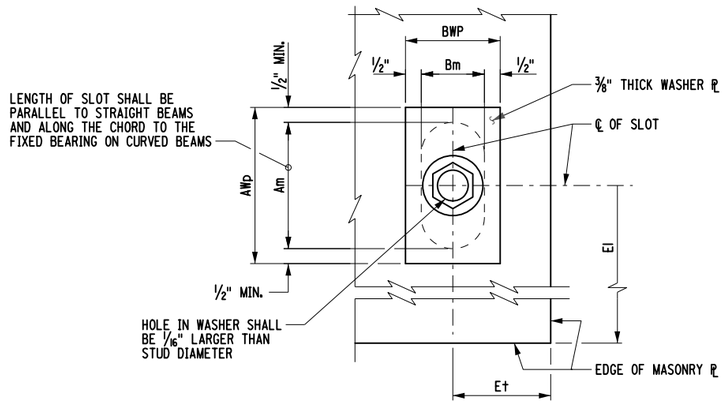
ELEVATION
TYPICAL EXPANSION BEARING



SECTION B-B



PLAN
TYPICAL RECTANGULAR EXPANSION BEARING



TYPICAL SLOTTED HOLE DETAIL
MASONRY PLATE

NOTES:
1. THE BEARINGS SHALL MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 565 UNLESS OTHERWISE NOTED.
2. ALL ELASTOMER SHALL BE 50 DUROMETER HARDNESS ON THE SHORE A SCALE.
3. ALL STEEL EXCEPT THE INTERNAL STEEL PLATES SHALL CONFORM TO ASTM A709, GR. 50, UNLESS OTHERWISE NOTED.
4. BEARING PADS SHALL CONFORM TO ONE OF THE FOLLOWING MATERIAL SPECIFICATIONS: 728-01, 728-02 OR 728-03.
5. INSTALLATION ALIGNMENT:
   THE MAXIMUM VARIATION FROM PERFECT ALIGNMENT UNDER FULL DEAD LOAD SHALL NOT EXCEED 3/8". THIS VARIATION SHALL BE MEASURED AS THE HORIZONTAL DISTANCE BETWEEN THE CENTERLINE OF THE HIGHEST ELASTOMER SURFACE AND THE CENTERLINE OF THE LOWEST ELASTOMER SURFACE.
6. CONCRETE SURFACES UNDER THE BEARINGS SHALL CONFORM TO SUBSECTION 565-3.02 "CONCRETE BEARING SURFACE PREPARATION" OF THE NEW YORK STATE STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS.
7. THE BEARING PAD, ANCHOR STUDS WASHER PLATES AND NUTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARING ITEM.
8. IF THE ANCHOR STUDS ARE SET UNDER THE SOLE PLATE, A MINIMUM CLEARANCE EQUAL TO TWO TIMES THE THICKNESS OF ANCHOR NUT PLUS 1" SHALL BE MAINTAINED BETWEEN THE TOP OF MASONRY PLATE AND BOTTOM OF SOLE PLATE.
9. T2 IS UPSTATION OF T1.
10. TABLE DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
11. LOADS SHOWN IN THIS TABLE ARE UNFACTORED.
12. FOR PEDESTAL REINFORCEMENT DETAILS, SEE DWG. NO'S. ST-23, ST-24, ST-25.
13. FOR ANCHOR STUD LAYOUT DETAILS, SEE DWG. NO'S ST-16 AND ST-22.

EXPANSION ELASTOMERIC BEARING (TYPE E.B.) TABLE

LOCATION	ITEM NO.	QUANTITY REQUIRED	D.L. + S.D.L (kips)	L.L. WITHOUT IMPACT (kips)	TOTAL DESIGN REACTION (kips)	SHAPE FACTOR	ELASTOMER LAYER					HRT	COMP. AREA (SQ. In.)	SHEAR AREA (SQ. In.)	MASONRY PLATE								ANCHOR STUDS		WELD SIZE	WASHER PLATE		SOLE PLATE				BRG. H
							THK/LAYER	NO. LAYERS	L	W	D				Wm	Lm	Tm	Et	EI	Ez	Am	Bm	DIA.	STUDS/BRG.		AWp	BWp	Ws	Ls	T1	T2	
SOUTH. ABUTMENT.	565.2034	14	119	83	202	11.74	0.5	12	23	24		6	540	552	31	25	1*	2	12.5	1.5	2.5	1.375	1	2	5/16	3.5	2.375	25	24	1.644	1.5	9.947
NORTH. ABUTMENT.	565.2034	14	122	85	206	8.24	0.5	4	14	20		2	272	280	30	16	1	2	8	1.5	2.5	1.375	1	2	5/16	3.5	2.375	23	15	1.5	1.5	4.875

• THE THICKNESS OF MASONRY PLATE WILL NEED TO BE MODIFIED WHERE PEDESTAL HEIGHT IS LESS THAN 4". SEE DWG. ST-24 FOR GIRDER LOCATION.

ALTERED BY:
ON:

AFFIX SEAL: JOHN BOLGER
ON: 11/16/23

STATE OF NEW YORK
JOHN BAIR BOLGER
098786
LICENSED PROFESSIONAL ENGINEER

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

KS Engineering and Land Surveying, P.C.

TITLE OF PROJECT
I-87 OVER WALLKILL RIVER
BRIDGE REHABILITATION

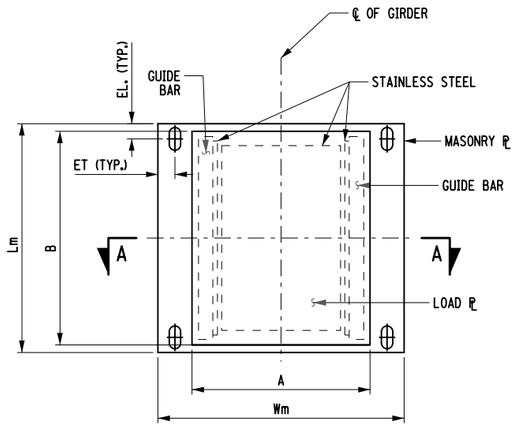
LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
EXPANSION ELASTOMERIC BEARING DETAILS

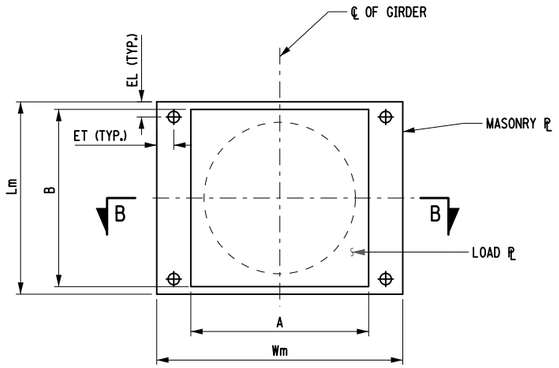
CONTRACT NUMBER: TAA 23-25B

DATE: 11/17/2023

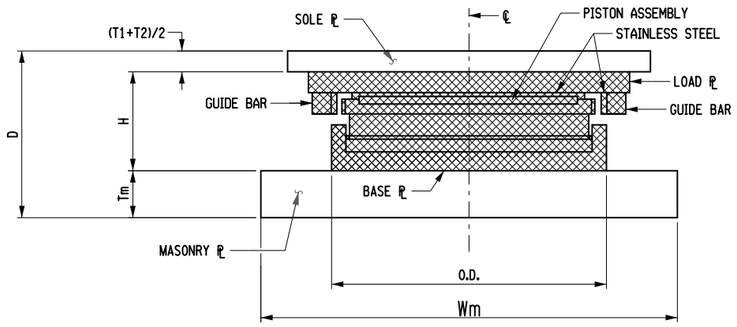
DRAWING NUMBER: ST-28



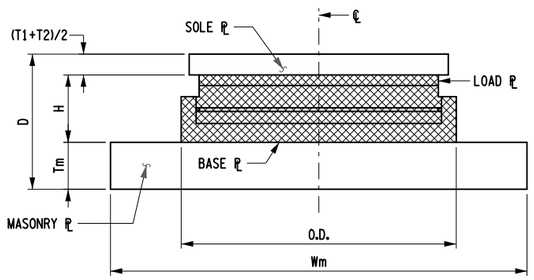
GUIDED EXPANSION M.R. BEARING
(SOLE PLATE NOT SHOWN FOR CLARITY)
NOT TO SCALE



FIXED M.R. BEARING
(SOLE PLATE NOT SHOWN FOR CLARITY)
NOT TO SCALE



SECTION A-A
SAMPLE GUIDED EXPANSION M.R. BEARING SCHEMATIC
(POT TYPE SHOWN, DISK TYPE SIMILAR)
NOT TO SCALE



SECTION B-B
SAMPLE FIXED M.R. BEARING SCHEMATIC
(POT TYPE SHOWN, DISK TYPE SIMILAR)
NOT TO SCALE

INDICATES PARTS DESIGNED BY THE MANUFACTURER.

ALTERED BY: ON:	AFFIX SEAL: JOHN BOLGER ON: 11/16/23

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

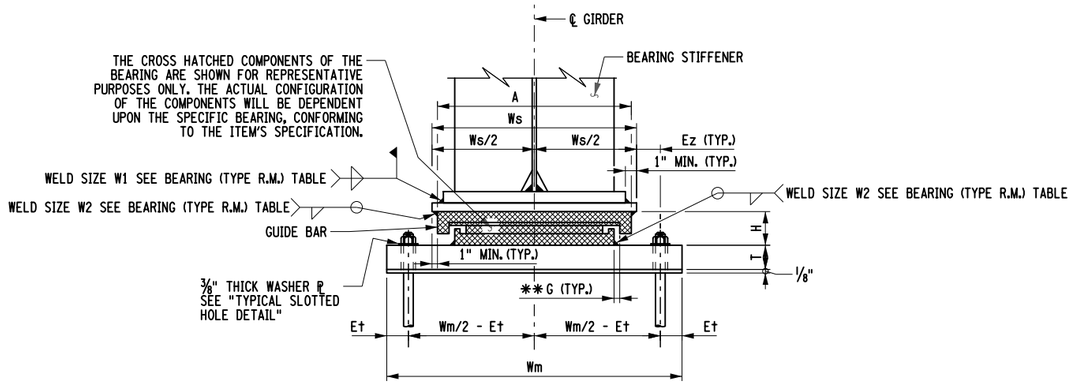
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

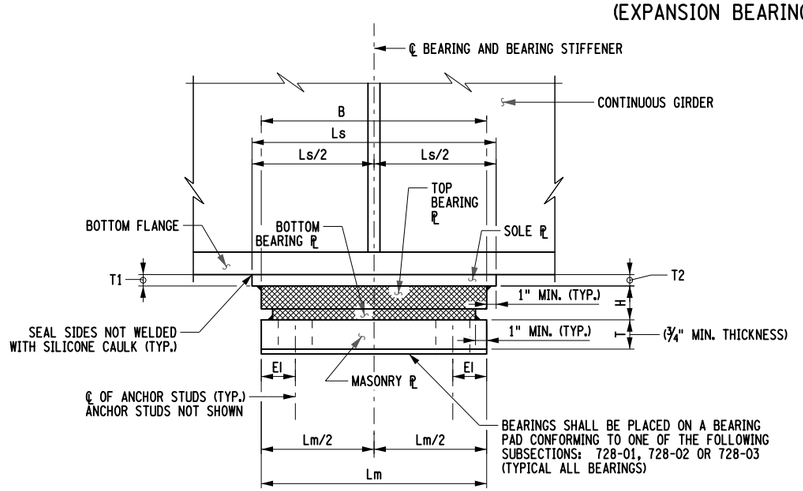
Engineering and Land Surveying, P.C.

TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	MULTI-ROTATIONAL BEARING DETAILS (1 OF 2)
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/17/2023
DRAWING NUMBER:	ST-29

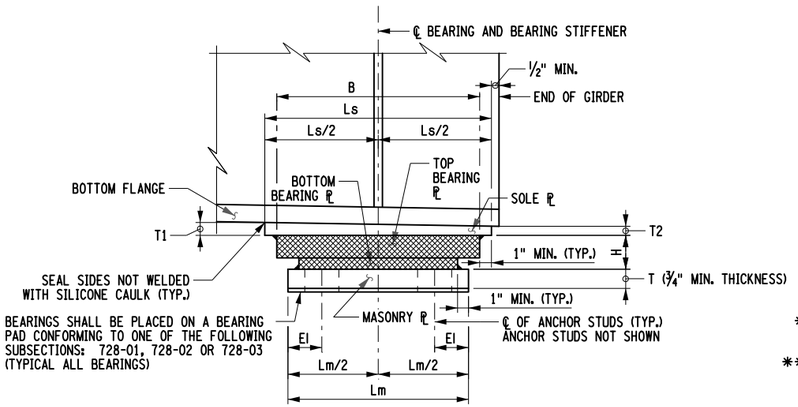
FILE NAME =
DESIGN SUPERVISOR R.SHARMA
DESIGN Y.GAUCHAN
DRAFTING B.VADDI/C.VOHRA
CHECK Y.GAUCHAN
CHECK J.BOLGER
USER = KCEPC\bvaddi
DATE/TIME = 11/16/2023



FRONT VIEW WITH ANCHOR STUDS
OUTSIDE OF SOLE PLATE
(EXPANSION BEARING SHOWN FIXED BEARING SIMILAR)



SIDE VIEW AT AN
INTERIOR SUPPORT
(EXPANSION BEARING SHOWN FIXED BEARING SIMILAR)



SIDE VIEW AT AN
END SUPPORT
(EXPANSION BEARING SHOWN FIXED BEARING SIMILAR)

NOTES:

THE CONTRACTOR SHALL SUPPLY MULTI- ROTATIONAL STRUCTURAL BRIDGE BEARINGS CONFORMING TO THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 565 AND SUBJECT TO THE FOLLOWING CONDITIONS:

1. THE BEARING DEVICE SUPPLIED SHALL BE CAPABLE OF TRANSMITTING THE LOADS AND MOVEMENT SHOWN ON THESE PLANS.
2. THE DIMENSION "H" IN THE BEARING TABLE REPRESENTS THE ASSUMED TOTAL HEIGHT OF BEARING MECHANISM BETWEEN THE SOLE PLATE AND MASONRY PLATE USED BY THE DESIGNER TO ESTABLISH THE PEDESTAL ELEVATIONS. THE MINIMUM PEDESTAL HEIGHT SHALL NOT BE CHANGED WITHOUT WRITTEN APPROVAL OF THE DEPUTY CHIEF ENGINEER (STRUCTURES).
3. ALL STEEL SHALL CONFORM TO ASTM A709, GR. 50.
4. ALL STEEL FABRICATION SHALL CONFORM TO THE PROVISIONS OF THE LATEST EDITION OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
5. ALL METAL COMPONENTS OF THE BEARING SYSTEM WHICH ARE LIABLE TO COME INTO CONTACT DURING TRANSLATION SHALL HAVE A TEFLON SLIDING SURFACE FINISH.
6. ALL EXPANSION BEARINGS SHALL HAVE A MAXIMUM FRICTION COEFFICIENT OF 3%.
7. THE BEARING DEVICE, MASONRY PLATE, SOLE PLATE, ANCHOR STUDS, NUTS, WASHER PLATES, AND BEARING PAD SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARING ITEMS.
8. IF THE ANCHOR STUDS ARE SET UNDER THE SOLE PLATE, A MINIMUM CLEARANCE EQUAL TO TWO TIMES THE THICKNESS OF ANCHOR NUT PLUS 1" SHALL BE MAINTAINED BETWEEN THE TOP OF MASONRY PLATE AND BOTTOM OF THE SOLE PLATE.
9. FOR BEARINGS OF CAPACITY ≥500 kips, USE 3/16" MINIMUM BEARING PAD IN LIEU OF 1/8".
10. WHEN THE THICKNESS OF THE MASONRY PLATE OR ANY OTHER PLATE BEING WELDED EXCEEDS 1 1/2", THE PLATES SHALL BE PREHEATED IN ACCORDANCE WITH THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
11. THE DIMENSIONS "A AND B" IN THE BEARING TABLE REPRESENT THE ASSUMED LOAD PLATE DIMENSIONS USED BY THE DESIGNER TO SIZE THE SOLE PLATE AND MASONRY PLATE.
12. FOR PEDESTAL REINFORCEMENT DETAILS, SEE DWG. NO ST-23.
13. FOR ANCHOR STUD LAYOUT DETAILS, SEE ST-18 AND ST-20.

* WHENEVER JACKING OF THE SUPERSTRUCTURE IS REQUIRED TO RESET THE BEARINGS, THE CONTRACTOR SHALL SUBMIT A JACKING PROCEDURE TO THE E.I.C. FOR APPROVAL.

** ONE WAY LONGITUDINAL MOVEMENT IS THE MAXIMUM ONE-WAY MOVEMENT (EXPANSION OR CONTRACTION) OF THE SUPERSTRUCTURE WHEN BEARINGS ARE SET AT 68°F PLUS 1 INCH OF TOLERANCE.

*** ON WIDE STRUCTURES AND ON CURVED STRUCTURES PROVISIONS SHALL BE MADE FOR LIMITED LATERAL MOVEMENT.

MAXIMUM (ABSOLUTE) DUE TO LL+I ONLY. BEVELED SOLE PLATES ACCOUNT FOR GRADE & DL EFFECTS. BEARING DESIGN SHOULD ACCOUNT FOR GRADE EFFECTS WHEN SOLE PLATES ARE NOT BEVELED.

BEARING (TYPE R.M.) TABLE

LOCATION	FIX./EXP.	ITEM NO.	QUANTITY REQUIRED	DESIGN LOADS						•ONE WAY MOVEMENT	••(G) GUIDE CLEARANCE	MASONRY PLATE							WASHER PLATE		SOLE PLATE				LOAD PLATE		BRG. H	ANCHOR STUDS		WELD SIZE	
				VERTICAL (SERVICE)			STRENGTH					Lm	Wm	Tm	ET	EI	Am	Bm	AWp	BWp	Ls	Ws	T1	T2	A	B		DIA.	STUDS/BRG.	W1	W2
				DC	DW	LL+IM	VERT.	HORIZ.	ROTATION. (RAD)•••																						
PIER. 1	EXP.	565.1523	14	322	27.5	226	600	114		2.529	0.379	23.375	33.25	1.5625	2	3.25	2.5	1.375	3.5	2.375	25.8125	28.5	0.905	0.75	26.5	22.75	8.25	1	4	5/16	5/16
PIER. 2	FIX.	565.1723	14	315	27	225	600	114		-	-	23.375	28.125	1	2	3.25	2.5	1.375	3.5	2.375	19	24	0.875	0.875	17	17	4.75	1	4	5/16	5/16

ALTERED BY:
ON:

AFFIX SEAL: JOHN BOLGER
ON: 11/16/23

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT
I-87 OVER WALLKILL RIVER
BRIDGE REHABILITATION

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

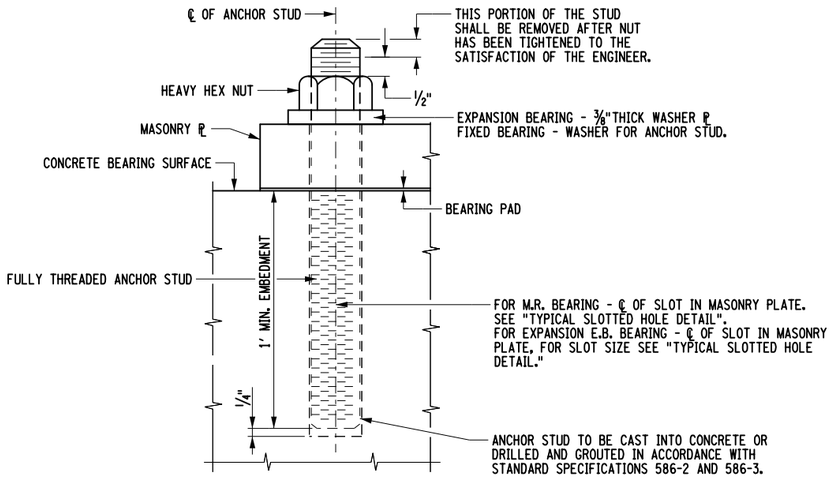
TITLE OF DRAWING
MULTI-ROTATIONAL
BEARING DETAILS (2 OF 2)

CONTRACT NUMBER: TAA 23-25B

DATE: 11/17/2023

DRAWING NUMBER: ST-30

USER = KCEPC\bvaddi
FILE NAME =
DATE/TIME = 11/16/2023
DESIGN SUPERVISOR: R.SHARMA
DRAFTING: J.BOLGER
DESIGN: B.VADDI/C.VOHRA
CHECK: Y.GAUCHAN
CHECK: Y.GAUCHAN



ANCHOR STUD

NOTES:

1. ANCHOR STUDS, WASHERS, WASHER PLATES, ANCHOR PLATES, AND NUTS SHALL MEET THE REQUIREMENTS OF SUBSECTION 723-60. THEY SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF MATERIAL SUBSECTION 719-01, "GALVANIZED COATINGS AND REPAIR METHODS." THE COST, INCLUDING GALVANIZING, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARING ITEM.
2. GUIDE BARS AND SLOTTED HOLES SHALL BE ORIENTED PARALLEL TO THE ASSUMED DIRECTION OF MOVEMENT.

ALTERED BY: ON:	AFFIX SEAL: JOHN BOLGER ON: 11/16/23

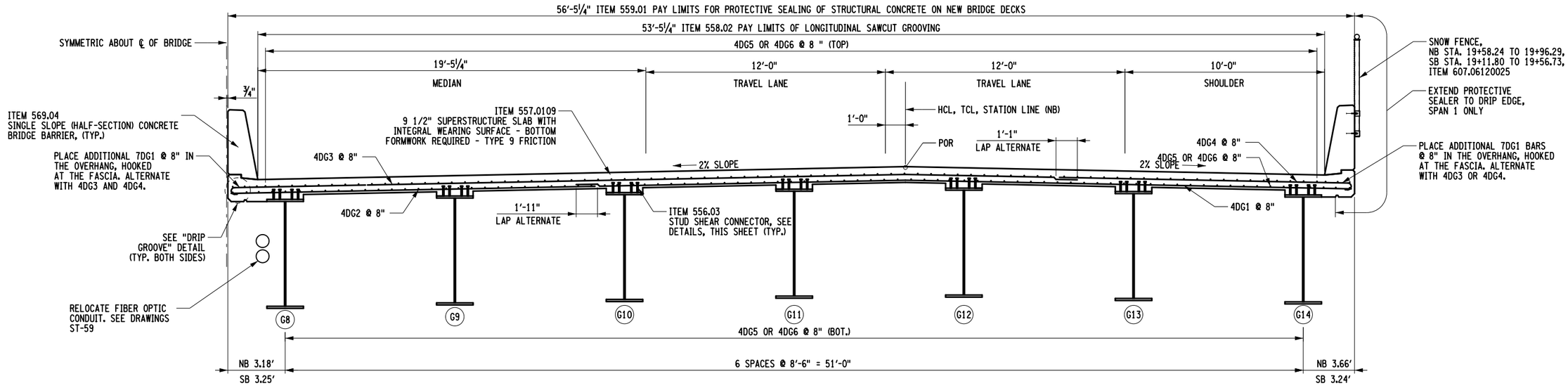
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

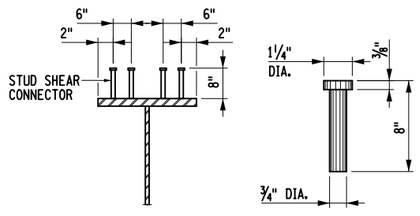
KG Engineering and Land Surveying, P.C.

TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	BEARING CONNECTION DETAILS
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/17/2023
DRAWING NUMBER:	ST-31

FILE NAME = DESIGN SUPERVISOR R.SHARMA DRAFTING J.BOLGER DESIGN Y.GAUCHAN CHECK B.VADDI/C.VOHRA CHECK Y.GAUCHAN DATE/TIME = 11/16/2023 USER = KCEPC\bvaddi



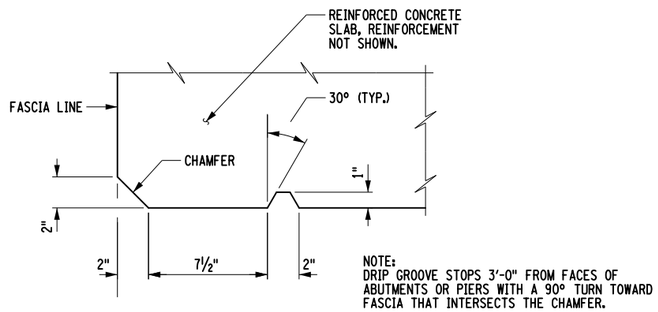
PARTIAL TRANSVERSE BRIDGE SECTION
(NORTHBOUND SHOWN, SOUTHBOUND SIMILAR)
SCALE: 3/16" = 1'



STUD SHEAR CONNECTOR DETAIL

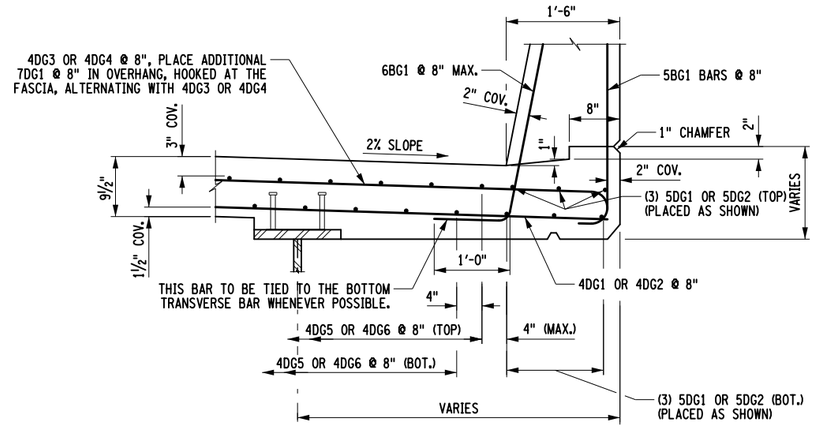
STUD DETAIL

NOT TO SCALE



NOTE:
DRIP GROOVE STOPS 3'-0" FROM FACES OF ABUTMENTS OR PIERS WITH A 90° TURN TOWARD FASCIA THAT INTERSECTS THE CHAMFER.

DRIP GROOVE DETAIL
NOT TO SCALE



FASCIA DETAIL
NOT TO SCALE

NOTES:

1. (G) DENOTES GALVANIZED BARS.
2. FOR SUPERSTRUCTURE SLAB REINFORCEMENT PLAN, SEE DRAWINGS ST-45 THRU ST-47.
3. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

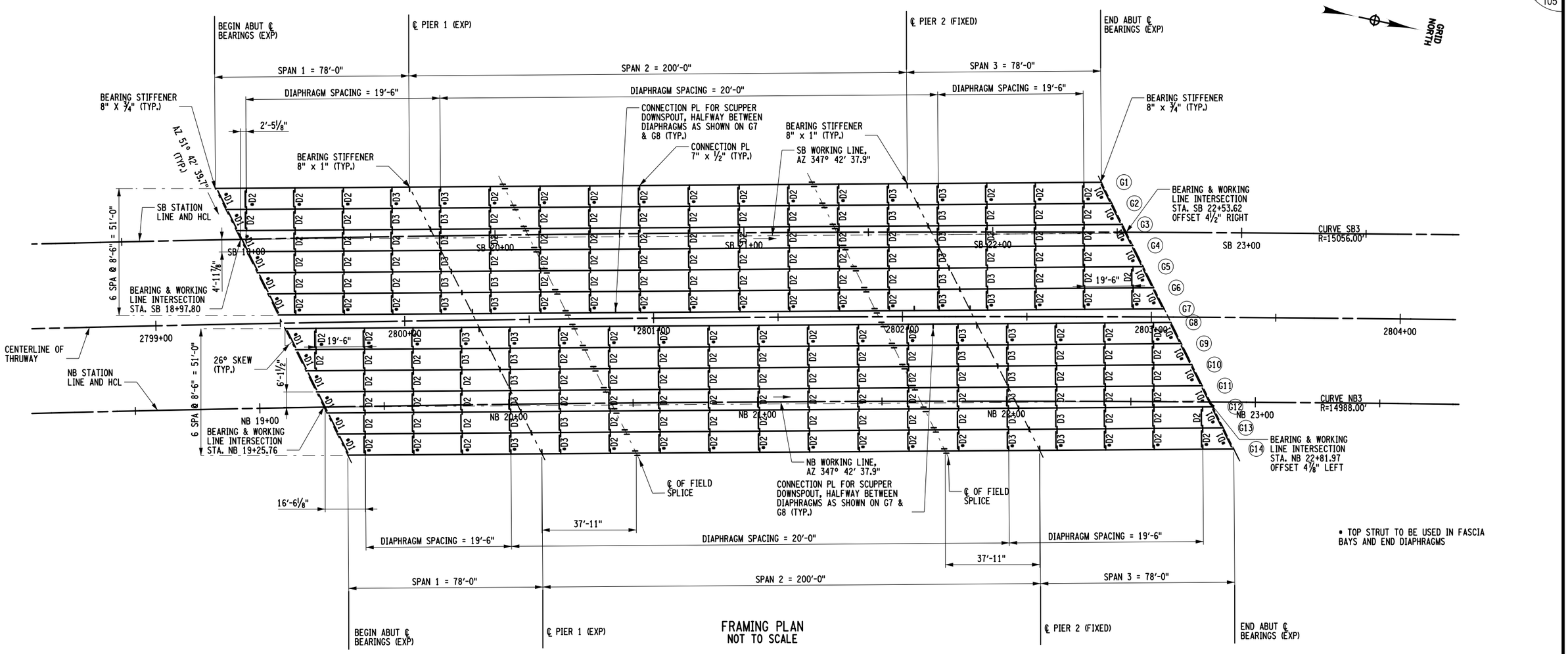
STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER 082023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

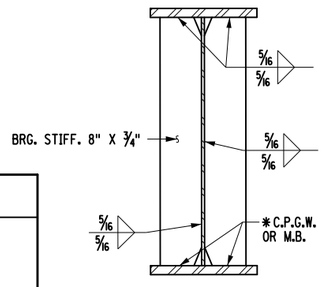
JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING: TRANSVERSE BRIDGE SECTION	DRAWING NUMBER: ST-32

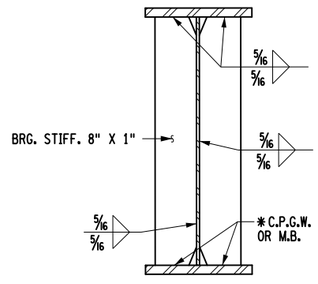


• TOP STRUT TO BE USED IN FASCIA BAYS AND END DIAPHRAGMS

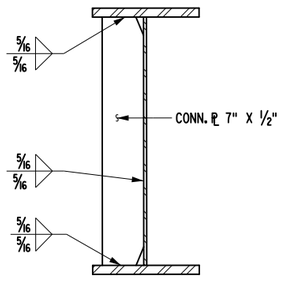
FRAMING PLAN
NOT TO SCALE



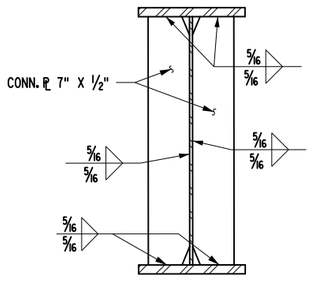
BEARING STIFFENER AT ABUTMENT



BEARING STIFFENER AT PIER



FASCIA GIRDER CONNECTION ℄



INTERIOR GIRDER CONNECTION ℄

NOTES:

* C.P.G.W. = COMPLETE PENETRATION GROOVE WELD
* M.B. = MILL TO BEAR

ALTERED BY:	AFFIX SEAL: Ryan Douglas Henderson
ON:	ON: 11/20/2023

STATE OF NEW YORK ★ LICENSE ★ RYAN DOUGLAS HENDERSON 082023 PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

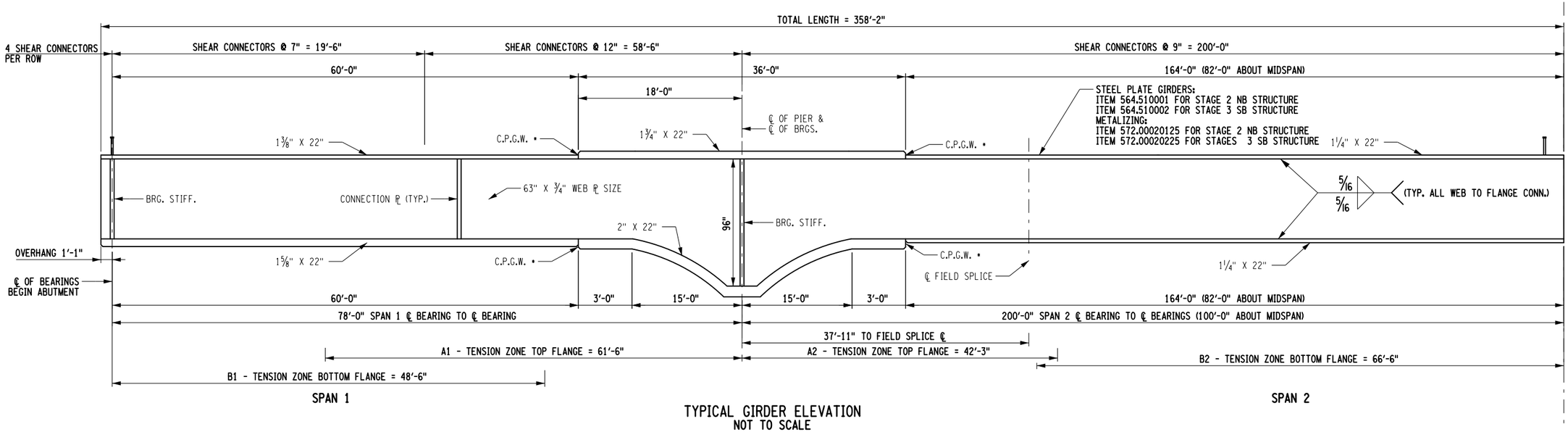
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

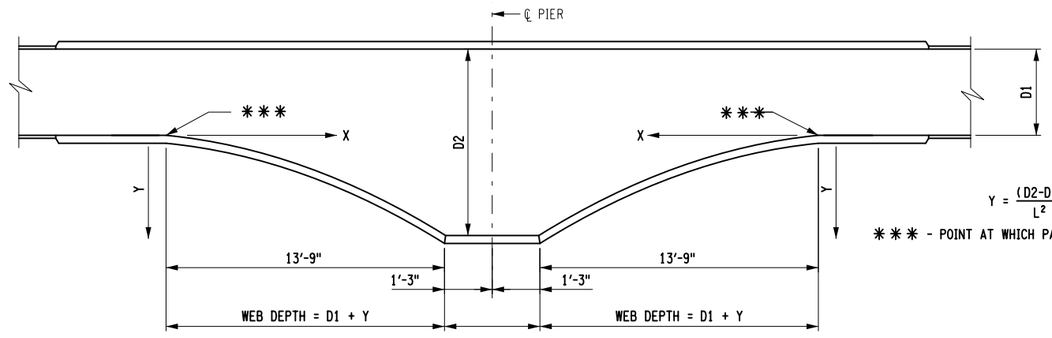
JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	FRAMING PLAN
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	ST-33

GIRDER SYMMETRIC ABOUT MIDSPAN



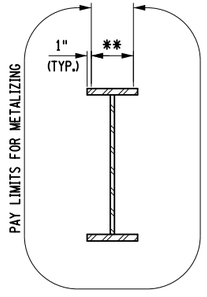
TYPICAL GIRDER ELEVATION
NOT TO SCALE



$Y = \frac{(D2-D1)}{L^2} X^2$ (X & Y IN FEET)

*** - POINT AT WHICH PARABOLIC HAUNCH IS TANGENT TO THE WEB.

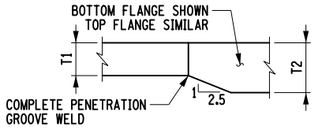
GIRDER HAUNCH DETAIL
NOT TO SCALE



** COAT THIS AREA WITH AN ORGANIC ZINC PRIMER CONFORMING TO NYSDOT MATERIAL SPECIFICATION 708-01 OR 708-02. PRIME COAT SHALL BE APPLIED AT A THICKNESS BETWEEN 0.5 AND 1.5 MILS. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR THE METALIZING ITEM.

ALL COSTS FOR BOLTS, NUTS, AND WASHERS SHALL BE INCLUDED IN THE PRICE BID FOR STRUCTURAL STEEL.

METALIZING LIMITS
NOT TO SCALE



FLANGE THICKNESS TAPER

NOTES:
1. * C.P.G.W. = COMPLETE PENETRATION GROOVE WELD
2. FOR FRAMING PLAN SEE DRAWING ST-33.
3. UNLESS SHOWN IN DETAILS, THERE SHALL BE NO WELDING WITHIN THE TENSION ZONES. THE ATTACHMENT OF THE FORMING DEVICES OR OTHER CONSTRUCTION AIDS BY WELDING WITHIN THE TENSION AREA SHOWN IS PROHIBITED.
4. THERE SHALL BE NO WELDING TO METALIZED GIRDERS FOR THE ATTACHMENT FOR FORMING DEVICES.
5. THE ENDS OF ALL GIRDERS AND THE BEARING STIFFENERS SHALL BE VERTICAL UNDER FULL DEAD LOAD. ALL CONNECTION PLATES AND INTERMEDIATE STIFFENERS MAY BE PERPENDICULAR TO THE TOP FLANGES.
6. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ 082023 ★ LICENSED PROFESSIONAL ENGINEER

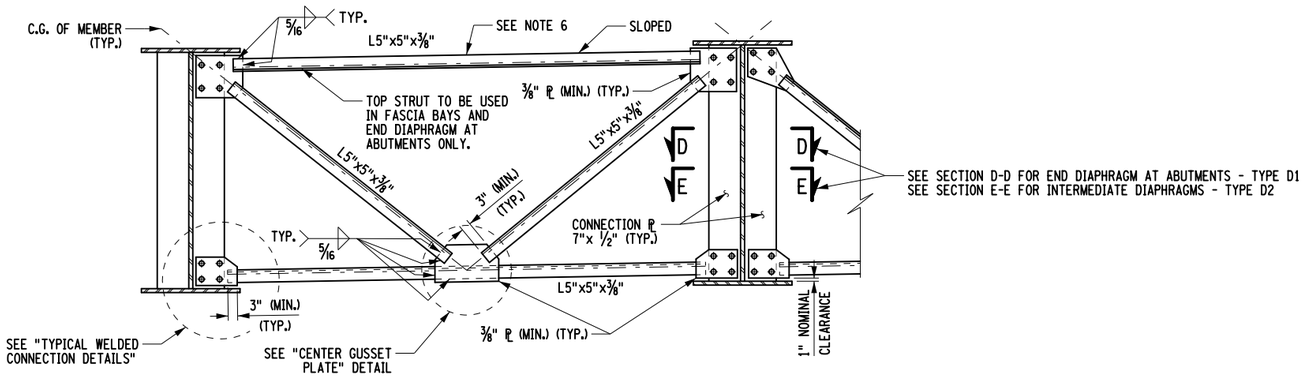
NOT TO SCALE

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

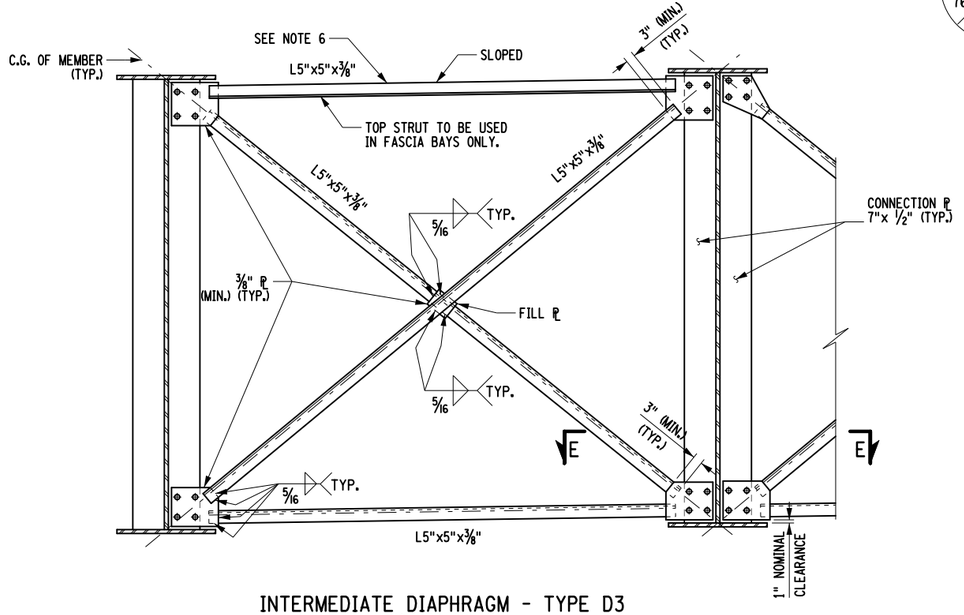
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

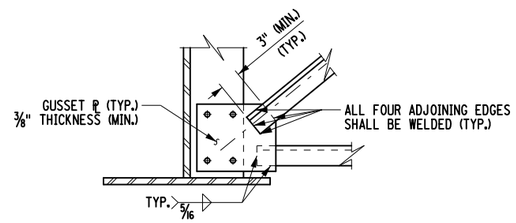
TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	GIRDER DETAILS
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	ST-34



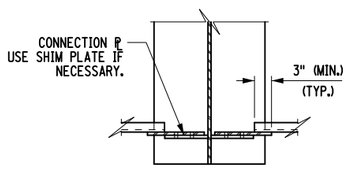
END DIAPHRAGM AT ABUTMENTS - TYPE D1
INTERMEDIATE DIAPHRAGM - TYPE D2
NOT TO SCALE



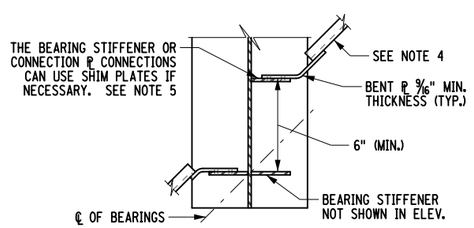
INTERMEDIATE DIAPHRAGM - TYPE D3
NOT TO SCALE



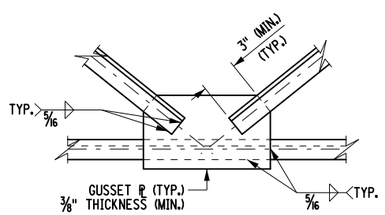
TYPICAL WELDED CONNECTION DETAILS



SECTION E-E
DIAPHRAGM - TYPE D2 AND D3



SECTION D-D
DIAPHRAGM - TYPE D1

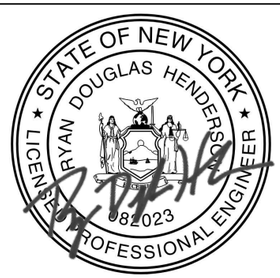


CENTER GUSSET PLATE

NOTES:

1. CONNECTIONS SHALL BE MADE ACCORDING TO THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
2. ANGLES, GUSSET PLATES, AND FILL PLATES SHALL BE GALVANIZED IN ACCORDANCE WITH METALIZING ITEM, COST INCLUDED IN METALIZING ITEM.
3. UNLESS OTHERWISE INDICATED, BOLTED CONNECTIONS SHALL BE MADE WITH 7/8" DIA. ASTM F3125, GRADE A325 BOLTS, TYPE 1, WITH A563, GRADE DH NUTS (NOT DIPPED GALVANIZED) AND ASTM F436, TYPE 1 WASHERS.
4. THE CONTRACTOR MAY PLACE DIAPHRAGMS ON EITHER SIDE OF THE BEARING STIFFENERS OR CONNECTION PLATES AS NECESSARY FOR CORRECT ALIGNMENT, PROVIDED THERE WILL BE NO INTERFERENCE WITH OTHER STRUCTURAL DETAILS.
5. TAPERED OR FLAT SHIM PLATES MAY BE USED IN THE CONNECTION BETWEEN SKEWED DIAPHRAGMS AND THE BEARING STIFFENERS, STIFFENER CONNECTION PLATES OR GUSSET PLATES. VARIABLE THICKNESSES OF SHIM PLATES MAY BE USED. THE MINIMUM THICKNESS OF SHIM PLATE SHALL BE 1/8" WITH A MAXIMUM NUMBER OF THREE SHIM PLATES PERMITTED AT ANY CONNECTION. THE TOTAL THICKNESS OF ALL SHIM PLATES USED AT ANY CONNECTION SHALL NOT EXCEED 1". SHIM PLATES SHALL HAVE THE DIMENSIONS OF THE FAYING SURFACE. THE SHIM MATERIAL SHALL CONFORM TO ASTM DESIGNATION A709(W) FOR WEATHERING STEEL APPLICATIONS. NO ADDITIONAL PAYMENT WILL BE MADE FOR FURNISHING AND PLACING THE SHIM PLATES.
6. IN ORDER TO MAXIMIZE THE DISTANCE BETWEEN THE OUTSTANDING LEG OF THE TOP STRUT AND THE BOTTOM OF THE STRUCTURAL SLAB, THIS STRUT SHALL BE ORIENTED AS SHOWN. IN ADDITION, ON STRUCTURES WITH STRAIGHT BEAMS OR GIRDERS, THE POSITION OF THIS STRUT SHALL BE LOWERED (TO THE EXTENT THAT IT DOES NOT INTERFERE WITH THE ALIGNMENT OF THE DIAGONAL STRUTS AS SHOWN).
7. ALL BOLT HEADS SHALL BE PLACED ON THE TOP SIDE OF CONNECTIONS UNLESS OTHERWISE NOTED.
8. DETAILS ON DRAWINGS LABELED "NOT TO SCALE ARE INTENTIONALLY CONNECTIONS DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023



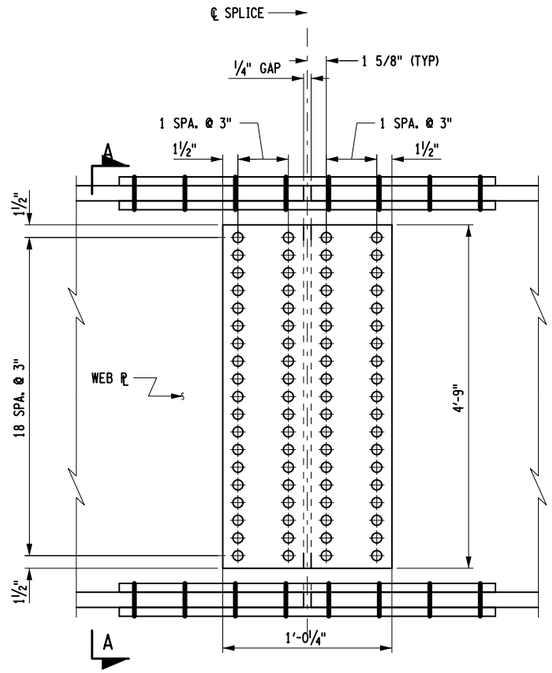
REVISIONS

DATE	DESCRIPTION	BY	SYM.

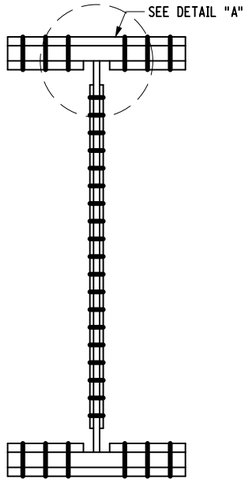
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

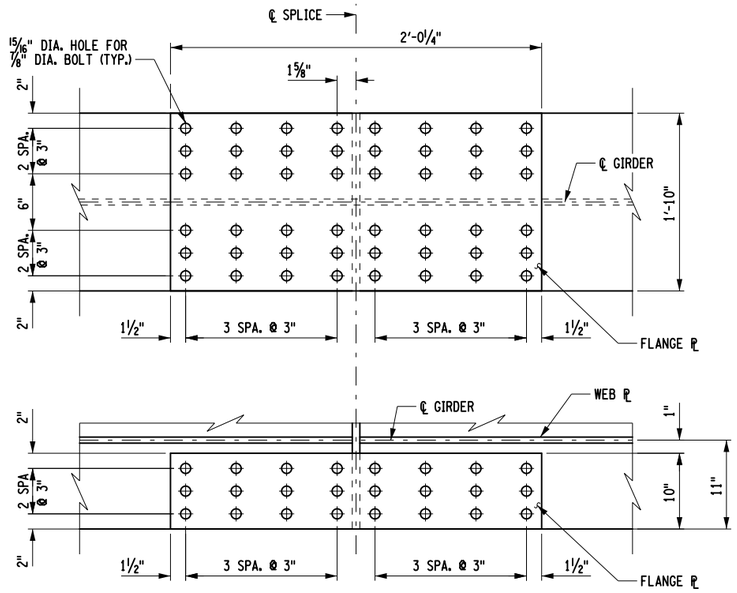
TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	CROSSFRAME DETAILS
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	ST-35



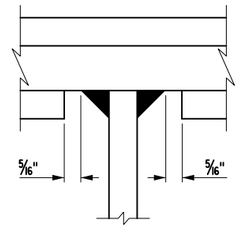
WEB SPLICE DETAIL



SECTION A-A



TOP & BOTTOM FLANGE SPLICE DETAIL



DETAIL "A"

GIRDER SPLICE NOTES:

ALL COSTS FOR BOLTS, NUTS, AND WASHERS SHALL BE INCLUDED IN THE PRICE BID FOR STRUCTURAL STEEL.

SPLICE DESIGNS ARE BASED ON THE LOCATIONS INDICATED. THE CONTRACTOR HAS THE OPTION OF USING ALTERNATE SPLICE LOCATIONS. HOWEVER, RELOCATION REQUESTS MUST BE SUBMITTED TO THE DIRECTOR OF STRUCTURES DESIGN BUREAU FOR APPROVAL. FIELD SPLICE REVISIONS DUE TO SPLICE RELOCATION SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER. NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR RELOCATING THE SPLICE. FABRICATION SHALL CONFORM TO THE CURRENT NEW YORK STATE STEEL CONSTRUCTION MANUAL.

ALL SPLICE PLATES SHALL BE ASTM A709 GRADE 50 AND THEIR COST INCLUDED IN THE PRICE BID FOR THE STRUCTURAL STEEL.

BOLTS, NUTS & WASHERS:

ALL BOLTS SHALL BE ⅞" DIAMETER.

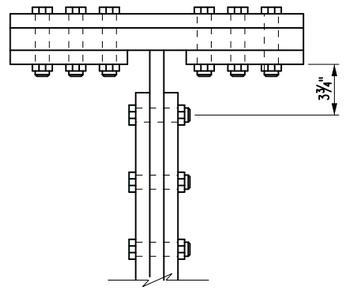
GALVANIZED/METALIZED STEEL APPLICATIONS:

BOLTS SHALL BE ASTM F3125, GRADE A325, TYPE 1 (HOT DIPPED GALVANIZED).

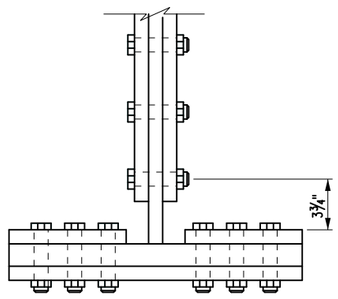
NUTS SHALL BE A563, GRADE DH (HOT DIPPED GALVANIZED); OR A194, GRADE 2H (HOT DIP GALVANIZED).

WASHERS SHALL BE F436, TYPE 1 (HOT DIPPED GALVANIZED).

	TOP FLANGE SPLICE	BOTTOM FLANGE SPLICE	WEB SPLICE
SPLICE ℄	1 - ℄ 1'-10"x¾"x2'-0¼" 2 - ℄ 10"x¾"x2'-0¼"	1 - ℄ 1'-10"x¾"2'-0¼" 2 - ℄ 10"x¾"x2'-0¼"	2 - ℄ 1'-0¼"x½"x4'-9"
NO. OF BOLTS	24 EACH SIDE	24 EACH SIDE	38 EACH SIDE



TOP FLANGE



BOTTOM FLANGE

⅞" DIAMETER BOLT ENTERING AND TIGHTENING CLEARANCES

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
GIRDER FIELD SPLICE DETAILS

CONTRACT NUMBER: A72128

DATE: 11/16/2023

DRAWING NUMBER: ST-36

MOMENT & SHEAR TABLE			CL OF BRGS. BEG ABUT	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 2	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. END ABUT.
GIRDER 8	D.L.	MOMENT	0.00	452.20	550.90	300.40	-125.60	-636.70	-1233.10	-1914.60	-2681.60	-3536.80	-4482.70	-1951.00	2.10	1397.90	2236.50	2517.80	2241.90	1408.70	18.30	-1929.30	-4455.30	-3532.80	-2698.30	-1946.90	-1276.10	-685.40	-175.00	255.30	515.10	430.60	0.00
		SHEAR	80.60	35.30	-10.00	-49.20	-60.10	-71.00	-81.90	-92.80	-103.90	-115.40	141.90	111.60	83.70	55.90	28.00	0.10	-27.70	-55.60	-83.50	-111.30	-141.70	112.40	101.60	91.10	80.90	70.60	60.30	50.00	11.50	-33.20	-77.80
	S.D.L.	MOMENT	0.00	-10.20	-40.10	-89.80	-159.10	-248.10	-356.90	-485.40	-633.60	-801.50	-989.10	-406.10	47.40	371.20	565.40	630.00	565.10	370.50	46.30	-407.50	-990.80	-800.40	-632.50	-484.40	-356.10	-247.40	-158.40	-89.20	-39.60	-9.80	0.00
		SHEAR	0.00	-2.60	-5.10	-7.60	-10.20	-12.70	-15.20	-17.70	-20.30	-22.80	32.40	25.90	19.40	13.00	6.50	0.00	-6.50	-13.00	-19.40	-25.90	-32.40	22.80	20.30	17.70	15.20	12.70	10.10	7.60	5.10	2.60	0.00
	HL-93 (+)	MOMENT	0.00	553.70	946.90	1185.90	1279.60	1239.70	1191.10	990.70	674.20	302.60	206.50	366.30	943.20	1917.10	2535.40	2738.00	2538.80	1917.90	949.10	366.70	206.90	303.20	675.80	991.70	1209.80	1306.10	1280.10	1185.80	946.90	551.60	0.00
		SHEAR	82.30	70.50	58.80	47.80	37.60	28.20	19.90	13.10	8.00	3.60	125.00	109.40	93.80	77.00	60.30	44.70	30.70	18.80	9.60	3.90	108.60	98.70	88.60	78.30	67.70	57.20	46.80	42.70	41.50	40.80	40.50
	HL-93 (-)	MOMENT	0.00	-375.60	-751.20	-1126.70	-1502.30	-1877.90	-2253.50	-2629.10	-3004.60	-3398.00	-3872.30	-1605.40	-338.10	-287.50	-237.00	-186.70	-237.20	-287.70	-338.30	-1772.50	-3865.90	-3392.70	-3333.80	-2182.40	-1870.70	-1559.00	-1501.80	-935.60	-623.90	-372.80	0.00
		SHEAR	-40.00	-40.60	-41.20	-42.40	-46.50	-56.90	-67.40	-77.80	-88.10	-98.10	-107.90	-3.90	-9.60	-18.80	-30.60	-44.60	-60.30	-76.90	-93.80	-110.10	-125.00	-3.60	-8.00	-13.20	-20.00	-28.50	-37.80	-48.10	-59.20	-71.00	-83.50
GIRDER 9	D.L.	MOMENT	0.00	627.10	721.60	397.60	-57.70	-605.00	-1244.30	-1975.70	-2799.50	-3718.30	-4734.70	-2067.30	-9.40	1460.50	2342.40	2636.20	2342.00	1459.70	-10.60	-2069.00	-4736.50	-3718.60	-2800.20	-1976.90	-1245.90	-607.00	-60.20	394.60	718.20	623.20	0.00
		SHEAR	114.50	46.30	-22.00	-52.50	-64.30	-76.10	-87.90	-99.70	-111.60	-124.00	149.50	117.60	88.20	58.80	29.40	0.00	-29.40	-58.80	-88.20	-117.60	-149.50	123.90	111.60	99.60	87.80	76.00	64.20	52.40	22.00	-46.30	-114.60
	S.D.L.	MOMENT	0.00	-11.50	-42.70	-93.60	-164.20	-254.50	-364.60	-494.30	-643.80	-812.90	-1001.80	-418.40	35.30	359.50	554.00	618.90	554.30	360.00	36.20	-417.30	-1000.30	-812.80	-643.60	-494.10	-364.30	-254.20	-163.80	-93.10	-42.20	-10.90	0.00
		SHEAR	-0.20	-2.70	-5.30	-7.80	-10.30	-12.80	-15.40	-17.90	-20.40	-23.00	32.40	25.90	19.40	13.00	6.50	0.00	-6.50	-13.00	-19.40	-25.90	-32.40	23.00	20.40	17.90	15.40	12.90	10.30	7.80	5.30	2.70	0.20
	HL-93 (+)	MOMENT	0.00	543.60	931.90	1170.70	1267.70	1233.10	1190.20	999.80	693.20	309.30	189.40	326.30	692.50	1476.90	1977.30	2142.70	1983.50	1475.70	691.20	326.30	189.50	309.30	693.10	999.70	1208.40	1409.20	988.40	921.20	739.10	434.50	0.00
		SHEAR	95.90	82.40	68.80	56.10	44.30	33.40	23.60	15.60	9.50	4.20	145.30	127.20	109.10	89.50	69.90	51.60	35.10	21.20	10.70	4.10	126.30	114.70	102.90	90.80	78.70	66.50	54.50	50.90	49.60	48.80	48.50
	HL-93 (-)	MOMENT	0.00	-377.30	-754.60	-1131.90	-1509.20	-1886.50	-2263.80	-2641.10	-3018.30	-3406.70	-3876.20	-1594.30	-243.00	-205.80	-168.60	-132.10	-169.30	-206.60	-243.80	-1772.30	-3876.30	-3785.00	-2510.90	-2197.20	-1695.10	-2124.10	-961.20	-675.60	-420.70	-192.90	0.00
		SHEAR	-47.90	-48.50	-49.20	-50.60	-54.10	-66.10	-78.10	-90.20	-102.20	-113.90	-125.40	-4.10	-10.70	-21.30	-35.10	-51.50	-69.90	-89.50	-109.10	-128.10	-145.30	-4.30	-9.60	-15.70	-23.80	-33.70	-44.60	-56.50	-69.30	-83.00	-97.30
GIRDER 10	D.L.	MOMENT	0.00	495.30	490.00	173.10	-245.60	-756.30	-1359.20	-2054.10	-2841.30	-3723.60	-4703.50	-2036.20	21.60	1491.40	2373.20	2666.90	2372.50	1490.10	19.60	-2038.90	-4706.50	-3723.80	-2841.90	-2055.00	-1360.50	-758.00	-247.60	170.70	487.20	492.10	0.00
		SHEAR	95.90	31.10	-27.80	-47.80	-59.60	-71.40	-83.20	-95.00	-106.90	-119.30	149.50	117.60	88.20	58.80	29.40	0.00	-29.40	-58.80	-88.20	-117.60	-149.50	119.20	106.90	94.90	83.10	71.30	59.50	47.70	27.80	-31.10	-96.00
	S.D.L.	MOMENT	0.00	-11.50	-42.70	-93.60	-164.20	-254.50	-364.60	-494.30	-643.80	-812.90	-1001.80	-418.40	35.30	359.50	554.00	618.90	554.30	360.00	36.20	-417.30	-1000.30	-812.80	-643.60	-494.10	-364.30	-254.20	-163.80	-93.10	-42.20	-10.90	0.00
		SHEAR	-0.20	-2.70	-5.30	-7.80	-10.30	-12.80	-15.40	-17.90	-20.40	-23.00	32.40	25.90	19.40	13.00	6.50	0.00	-6.50	-13.00	-19.40	-25.90	-32.40	23.00	20.40	17.90	15.40	12.90	10.30	7.80	5.30	2.70	0.20
	HL-93 (+)	MOMENT	0.00	543.60	931.90	1170.70	1267.70	1233.10	1190.20	999.80	693.20	309.30	189.40	326.30	692.50	1476.90	1977.30	2142.70	1983.50	1475.70	691.20	326.30	189.50	309.30	693.10	999.70	1208.40	1409.20	988.40	921.20	739.10	434.50	0.00
		SHEAR	95.90	82.40	68.80	56.10	44.30	33.40	23.60	15.60	9.50	4.20	145.30	127.20	109.10	89.50	69.90	51.60	35.10	21.20	10.70	4.10	126.30	114.70	102.90	90.80	78.70	66.50	54.50	50.90	49.60	48.80	48.50
	HL-93 (-)	MOMENT	0.00	-377.30	-754.60	-1131.90	-1509.20	-1886.50	-2263.80	-2641.10	-3018.30	-3406.70	-3876.20	-1594.30	-243.00	-205.80	-168.60	-132.10	-169.30	-206.60	-243.80	-1772.30	-3876.30	-3785.00	-2510.90	-2197.20	-1695.10	-2124.10	-961.20	-675.60	-420.70	-192.90	0.00
		SHEAR	-47.90	-48.50	-49.20	-50.60	-54.10	-66.10	-78.10	-90.20	-102.20	-113.90	-125.40	-4.10	-10.70	-21.30	-35.10	-51.50	-69.90	-89.50	-109.10	-128.10	-145.30	-4.30	-9.60	-15.70	-23.80	-33.70	-44.60	-56.50	-69.30	-83.00	-97.30
GIRDER 11	D.L.	MOMENT	0.00	495.30	490.00	173.10	-245.60	-756.30	-1359.20	-2054.10	-2841.30	-3723.60	-4703.50	-2036.20	21.60	1491.40	2373.20	2666.90	2372.50	1490.10	19.60	-2038.90	-4706.50	-3723.80	-2841.90	-2055.00	-1360.50	-758.00	-247.60	170.70	487.20	492.10	0.00
		SHEAR	95.90	31.10	-27.80	-47.80	-59.60	-71.40	-83.20	-95.00	-106.90	-119.30	149.50	117.60	88.20	58.80	29.40	0.00	-29.40	-58.80	-88.20	-117.60	-149.50	119.20	106.90	94.90	83.10	71.30	59.50	47.70	27.80	-31.10	-96.00
	S.D.L.	MOMENT	0.00	-11.50	-42.70	-93.60	-164.20	-254.50	-364.60	-494.30	-643.80	-812.90	-1001.80	-418.40	35.30	359.50	554.00	618.90	554.30	360.00	36.20	-417.30	-1000.30	-812.80	-643.60	-494.10	-364.30	-254.20	-163.80	-93.10	-42.20	-10.90	0.00
		SHEAR	-0.20	-2.70	-5.30	-7.80	-10.30	-12.80	-15.40	-17.90	-20.40	-23.00	32.40	25.90	19.40	13.00	6.50	0.00	-6.50	-13.00	-19.40	-25.90	-32.40	23.00	20.40	17.90	15.40	12.90	10.30	7.80	5.30	2.70	0.20
	HL-93 (+)	MOMENT	0.00	543.60	931.90	1170.70	1267.70	1233.10	1190.20	999.80	693.20	309.30	189.40	326.30	692.50	1476.90	1977.30	2142.70	1983.50	1475.70	691.20	326.30	189.50	309.30	693.10	999.70	1208.40	1409.20	988.40	921.20	739.10	434.50	0.00
		SHEAR	95.90	82.40	68.80	56.10	44.30	33.40	23.60	15.60	9.50	4.20	145.30	127.20	109.10	89.50	69.90	51.60	35.10	21.20	10.70	4.10	126.30	114.70	102.90	90.80	78.70	66.50	54.50	50.90	49.60	48.80	48.50
	HL-93 (-)	MOMENT	0.00	-377.30	-754.60	-1131.90	-1509.20	-1886.50	-2263.80	-2641.10	-3018.30	-3406.70	-3876.20	-1594.30	-243.00	-205.80	-168.60	-132.10	-169.30	-206.60	-243.80	-1772.30	-3876.30	-3785.00	-2510.90	-2197.20	-1695.10	-2124.10	-961.20	-675.60	-420.70	-192.90	0.00
		SHEAR	-47.90	-48.50	-49.20	-50.60	-54.10	-66.10	-78.10	-90.20	-102.20	-113.90	-125.40	-4.10	-10.70	-21.30	-35.10	-51.50	-69.90	-89.50	-109.10	-128.10	-145.30	-4.30	-9.60	-15.70	-23.80	-33.70	-44.60	-56.50	-69.30	-83.00	-97.30

DESIGN LOAD TABLE			
		UNIT	LOAD K/ft.
GIRDER G8	D.L.	SLAB	0.912
		HAUNCH	0.034
		GIRDER	0.384
		S.I.P. FORMS	0.013
		DIAPHRAGM	0.058
		UTILITIES	0.000
		TOTAL	1.401
	S.D.L.	SIDEWALK	0.000
		RAILING	0.171
		FUTURE W.S.	0.153
		TOTAL	0.324

NOTE: SEE ST-58 FOR ADDITIONAL LOADING FROM COUNTERWEIGHT

DESIGN LOAD TABLE			
		UNIT	LOAD K/ft.
GIRDER G9 & G13	D.L.	SLAB	1.009
		HAUNCH	0.034
		GIRDER	0.384
		S.I.P. FORMS	0.027
		DIAPHRAGM	0.058
		UTILITIES	0.000
		TOTAL	1.512
	S.D.L.	SIDEWALK	0.000
		RAILING	0.171
		FUTURE W.S.	0.153
		TOTAL	0.324

NOTE: SEE ST-58 FOR ADDITIONAL LOADING FROM COUNTERWEIGHT

DESIGN LOAD TABLE			
		UNIT	LOAD K/ft.
GIRDER G10-G12	D.L.	SLAB	1.009
		HAUNCH	0.034
		GIRDER	0.384
		S.I.P. FORMS	0.027
		DIAPHRAGM	0.058
		UTILITIES	0.000
		TOTAL	1.512
	S.D.L.	SIDEWALK	0.000
		RAILING	0.171
		FUTURE W.S.	0.153
		TOTAL	0.324

NOTE: SEE ST-58 FOR ADDITIONAL LOADING FROM COUNTERWEIGHT

ALTERED BY:
ON:

AFFIX SEAL: Ryan Douglas Henderson
ON: 11/20/2023

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER 082023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
NORTHBOUND MOMENT AND SHEAR AND DESIGN LOAD TABLES (1 OF 2)

CONTRACT NUMBER: TAA 23-25B

DATE: 11/16/2023

DRAWING NUMBER: ST-37

MOMENT & SHEAR TABLE			CL OF BRGS. BEG ABUT	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 2	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. END ABUT.
GIRDER 12	D.L.	MOMENT	0.00	495.30	490.00	173.10	-245.60	-756.30	-1359.20	-2054.10	-2841.30	-3723.60	-4703.50	-2036.20	21.60	1491.40	2373.20	2666.90	2372.50	1490.10	19.60	-2038.90	-4706.50	-3723.80	-2841.90	-2055.00	-1360.50	-758.00	-247.60	170.70	487.20	492.10	0.00
		SHEAR	95.90	31.10	-27.80	-47.80	-59.60	-71.40	-83.20	-95.00	-106.90	-119.30	149.50	117.60	88.20	58.80	29.40	0.00	-29.40	-58.80	-88.20	-117.60	-149.50	119.20	106.90	94.90	83.10	71.30	59.50	47.70	27.80	-31.10	-96.00
	S.D.L.	MOMENT	0.00	-11.50	-42.70	-93.60	-164.20	-254.50	-364.60	-494.30	-643.80	-812.90	-1001.80	-418.40	35.30	359.50	554.00	618.90	554.30	360.00	36.20	-417.30	-1000.30	-812.80	-643.60	-494.10	-364.30	-254.20	-163.80	-93.10	-42.20	-10.90	0.00
		SHEAR	-0.20	-2.70	-5.30	-7.80	-10.30	-12.80	-15.40	-17.90	-20.40	-23.00	32.40	25.90	19.40	13.00	6.50	0.00	-6.50	-13.00	-19.40	-25.90	-32.40	23.00	20.40	17.90	15.40	12.90	10.30	7.80	5.30	2.70	0.20
	HL-93 (+)	MOMENT	0.00	543.60	931.90	1170.70	1267.70	1233.10	1190.20	999.80	693.20	309.30	189.40	326.30	692.50	1476.90	1977.30	2142.70	1983.50	1475.70	691.20	326.30	189.50	309.30	693.10	999.70	1208.40	1409.20	988.40	921.20	739.10	434.50	0.00
		SHEAR	95.90	82.40	68.80	56.10	44.30	33.40	23.60	15.60	9.50	4.20	145.30	127.20	109.10	89.50	69.90	51.60	35.10	21.20	10.70	4.10	126.30	114.70	102.90	90.80	78.70	66.50	54.50	50.90	49.60	48.80	48.50
	HL-93 (-)	MOMENT	0.00	-377.30	-754.60	-1131.90	-1509.20	-1886.50	-2263.80	-2641.10	-3018.30	-3406.70	-3876.20	-1594.30	-243.00	-205.80	-168.60	-132.10	-169.30	-206.60	-243.80	-1772.30	-3876.30	-3785.00	-2510.90	-2197.20	-1695.10	-2124.10	-961.20	-675.60	-420.70	-192.90	0.00
		SHEAR	-47.90	-48.50	-49.20	-50.60	-54.10	-66.10	-78.10	-90.20	-102.20	-113.90	-125.40	-4.10	-10.70	-21.30	-35.10	-51.50	-69.90	-89.50	-109.10	-128.10	-145.30	-4.30	-9.60	-15.70	-23.80	-33.70	-44.60	-56.50	-69.30	-83.00	-97.30
GIRDER 13	D.L.	MOMENT	0.00	627.10	721.60	397.60	-57.70	-605.00	-1244.30	-1975.70	-2799.50	-3718.30	-4734.70	-2067.30	-9.40	1460.50	2342.40	2636.20	2342.00	1459.70	-10.60	-2069.00	-4736.50	-3718.60	-2800.20	-1976.90	-1245.90	-607.00	-60.20	394.60	718.20	623.20	0.00
		SHEAR	114.50	46.30	-22.00	-52.50	-64.30	-76.10	-87.90	-99.70	-111.60	-124.00	149.50	117.60	88.20	58.80	29.40	0.00	-29.40	-58.80	-88.20	-117.60	-149.50	123.90	111.60	99.60	87.80	76.00	64.20	52.40	22.00	-46.30	-114.60
	S.D.L.	MOMENT	0.00	-11.50	-42.70	-93.60	-164.20	-254.50	-364.60	-494.30	-643.80	-812.90	-1001.80	-418.40	35.30	359.50	554.00	618.90	554.30	360.00	36.20	-417.30	-1000.30	-812.80	-643.60	-494.10	-364.30	-254.20	-163.80	-93.10	-42.20	-10.90	0.00
		SHEAR	-0.20	-2.70	-5.30	-7.80	-10.30	-12.80	-15.40	-17.90	-20.40	-23.00	32.40	25.90	19.40	13.00	6.50	0.00	-6.50	-13.00	-19.40	-25.90	-32.40	23.00	20.40	17.90	15.40	12.90	10.30	7.80	5.30	2.70	0.20
	HL-93 (+)	MOMENT	0.00	543.60	931.90	1170.70	1267.70	1233.10	1190.20	999.80	693.20	309.30	189.40	326.30	692.50	1476.90	1977.30	2142.70	1983.50	1475.70	691.20	326.30	189.50	309.30	693.10	999.70	1208.40	1409.20	988.40	921.20	739.10	434.50	0.00
		SHEAR	95.90	82.40	68.80	56.10	44.30	33.40	23.60	15.60	9.50	4.20	145.30	127.20	109.10	89.50	69.90	51.60	35.10	21.20	10.70	4.10	126.30	114.70	102.90	90.80	78.70	66.50	54.50	50.90	49.60	48.80	48.50
	HL-93 (-)	MOMENT	0.00	-377.30	-754.60	-1131.90	-1509.20	-1886.50	-2263.80	-2641.10	-3018.30	-3406.70	-3876.20	-1594.30	-243.00	-205.80	-168.60	-132.10	-169.30	-206.60	-243.80	-1772.30	-3876.30	-3785.00	-2510.90	-2197.20	-1695.10	-2124.10	-961.20	-675.60	-420.70	-192.90	0.00
		SHEAR	-47.90	-48.50	-49.20	-50.60	-54.10	-66.10	-78.10	-90.20	-102.20	-113.90	-125.40	-4.10	-10.70	-21.30	-35.10	-51.50	-69.90	-89.50	-109.10	-128.10	-145.30	-4.30	-9.60	-15.70	-23.80	-33.70	-44.60	-56.50	-69.30	-83.00	-97.30
GIRDER 14	D.L.	MOMENT	0.00	456.30	562.40	322.60	-89.60	-583.70	-1159.70	-1817.80	-2558.00	-3383.30	-4296.00	-1864.30	9.20	1345.80	2145.60	2408.50	2134.60	1323.80	-23.80	-1908.30	-4350.60	-3391.90	-2524.70	-1752.70	-1073.40	-486.30	8.40	410.90	630.70	494.20	0.00
		SHEAR	81.00	36.10	-8.90	-47.60	-58.10	-68.60	-79.10	-89.60	-100.30	-111.30	136.40	107.10	80.30	53.40	26.60	-0.30	-27.10	-54.00	-80.80	-107.60	-137.00	117.40	105.00	93.00	81.20	69.30	57.50	45.70	5.60	-40.60	-86.80
	S.D.L.	MOMENT	0.00	-9.70	-39.20	-88.30	-157.20	-245.80	-354.10	-482.10	-629.80	-797.20	-984.40	-402.00	50.70	373.90	567.40	631.40	565.70	370.40	45.60	-408.90	-992.90	-804.50	-636.20	-487.70	-358.90	-249.80	-160.40	-90.70	-40.70	-10.50	0.00
		SHEAR	0.00	-2.50	-5.00	-7.60	-10.10	-12.60	-15.10	-17.70	-20.20	-22.70	32.40	25.90	19.40	12.90	6.40	0.00	-6.50	-13.00	-19.50	-26.00	-32.40	22.80	20.30	17.80	15.30	12.70	10.20	7.70	5.10	2.60	0.10
	HL-93 (+)	MOMENT	0.00	593.50	1014.60	1270.00	1369.60	1325.90	1272.90	1056.90	716.80	320.90	215.90	396.30	1044.10	2102.20	2774.30	2988.20	2758.50	2080.30	1004.20	387.30	226.80	330.40	734.70	1073.20	1306.60	1407.40	1378.50	1276.00	1019.20	593.10	0.00
		SHEAR	89.90	77.00	64.10	52.10	40.90	30.80	21.60	14.20	8.60	3.90	136.50	119.30	102.30	83.90	65.70	48.60	33.30	20.40	10.40	4.30	118.80	108.00	96.90	85.60	74.10	62.60	51.30	47.10	45.80	45.10	44.80
	HL-93 (-)	MOMENT	0.00	-399.50	-799.10	-1198.60	-1598.10	-1997.70	-2397.20	-2796.80	-3196.30	-3615.90	-4122.50	-1708.00	-374.30	-317.30	-260.30	-203.30	-253.60	-306.70	-359.80	-1929.50	-4191.30	-3679.40	-3616.00	-2368.40	-2030.00	-1691.60	-1623.40	-1014.90	-676.60	-398.60	0.00
		SHEAR	-43.40	-43.90	-44.70	-45.90	-50.70	-62.10	-73.50	-84.90	-96.10	-107.10	-117.70	-4.10	-10.50	-20.60	-33.60	-49.00	-66.20	-84.40	-102.70	-120.50	-136.80	-4.00	-8.80	-14.50	-22.00	-31.20	-41.50	-52.70	-64.80	-77.70	-91.30

DESIGN LOAD TABLE			
		UNIT	LOAD K/ft.
GIRDER G10-G12	D.L.	SLAB	1.009
		HAUNCH	0.034
		GIRDER	0.384
		S.I.P. FORMS	0.027
		DIAPHRAGM	0.058
		UTILITIES	0.000
		TOTAL	1.512
	S.D.L.	SIDEWALK	0.000
		RAILING	0.171
		FUTURE W.S.	0.153
		TOTAL	0.324

NOTE: SEE ST-58 FOR ADDITIONAL LOADING FROM COUNTERWEIGHT

DESIGN LOAD TABLE			
		UNIT	LOAD K/ft.
GIRDER G9 & G13	D.L.	SLAB	1.009
		HAUNCH	0.034
		GIRDER	0.384
		S.I.P. FORMS	0.027
		DIAPHRAGM	0.058
		UTILITIES	0.000
		TOTAL	1.512
	S.D.L.	SIDEWALK	0.000
		RAILING	0.171
		FUTURE W.S.	0.153
		TOTAL	0.324

NOTE: SEE ST-58 FOR ADDITIONAL LOADING FROM COUNTERWEIGHT

DESIGN LOAD TABLE			
		UNIT	LOAD K/ft.
GIRDER G14	D.L.	SLAB	0.922
		HAUNCH	0.027
		GIRDER	0.384
		S.I.P. FORMS	0.013
		DIAPHRAGM	0.058
		UTILITIES	0.000
		TOTAL	1.405
	S.D.L.	SIDEWALK	0.000
		RAILING	0.171
		FUTURE W.S.	0.153
		TOTAL	0.324

NOTE: SEE ST-58 FOR ADDITIONAL LOADING FROM COUNTERWEIGHT

ALTERED BY:	AFFIX SEAL: Ryan Douglas Henderson
ON:	ON: 11/20/2023

STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · 082023 · LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: NORTHBOUND MOMENT AND SHEAR AND DESIGN LOAD TABLES (2 OF 2)

CONTRACT NUMBER: TAA 23-25B
DATE: 11/16/2023
DRAWING NUMBER: ST-38

FILE NAME = A72128.cpb.tbl.com.04.dgn DESIGN SUPERVISOR R. HENDERSON DATE/TIME = 11/16/2023 USER = BENTLEYHOSTING\jmtpwllcs01$ CHECK DRAFTING DESIGN CHECK

MOMENT & SHEAR TABLE			CL OF BRGS. BEG ABUT	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 2	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. END ABUT.
GIRDER 1	D.L.	MOMENT	0.00	441.30	530.50	271.80	-161.10	-677.80	-1278.30	-1962.70	-2731.20	-3586.60	-4531.30	-1966.80	11.10	1423.70	2271.10	2553.20	2270.10	1421.70	8.10	-1970.80	-4535.90	-3586.20	-2733.30	-1966.70	-1283.70	-684.00	-167.60	265.50	524.90	437.10	0.00
		SHEAR	79.20	34.00	-11.10	-50.10	-60.90	-71.60	-82.40	-93.10	-104.00	-115.30	143.80	113.00	84.80	56.50	28.20	0.00	-28.30	-56.50	-84.80	-113.10	-143.80	115.00	103.70	92.90	82.20	71.50	60.90	50.20	11.30	-33.80	-78.90
	S.D.L.	MOMENT	0.00	-10.20	-40.10	-89.70	-159.00	-248.10	-356.80	-485.30	-633.50	-801.40	-989.00	-405.70	48.00	372.00	566.50	631.30	566.60	372.20	48.30	-405.20	-988.40	-799.80	-632.10	-484.10	-355.80	-247.10	-158.30	-89.10	-39.60	-9.90	0.00
		SHEAR	0.00	-2.60	-5.10	-7.60	-10.20	-12.70	-15.20	-17.70	-20.30	-22.80	32.40	25.90	19.40	13.00	6.50	0.00	-6.50	-13.00	-19.40	-25.90	-32.40	22.80	20.20	17.70	15.20	12.70	10.10	7.60	5.10	2.60	0.00
	HL-93 (+)	MOMENT	0.00	558.80	955.50	1196.50	1291.10	1250.80	1201.70	999.40	680.00	305.20	208.90	370.10	954.90	1938.60	2565.30	2769.90	2562.90	1950.60	961.20	371.90	208.80	305.50	680.80	999.90	1220.60	1272.80	1320.80	1196.30	955.20	556.70	0.00
		SHEAR	83.30	71.30	59.40	48.30	38.00	28.60	20.10	13.20	8.00	3.60	126.50	110.60	94.90	77.90	61.10	45.20	31.00	19.00	9.70	4.00	109.80	99.80	89.70	79.20	68.60	57.90	47.30	43.00	41.90	41.10	40.90
	HL-93 (-)	MOMENT	0.00	-378.90	-757.90	-1136.80	-1515.80	-1894.70	-2273.70	-2652.60	-3031.60	-3428.60	-3907.20	-1620.30	-343.00	-292.00	-241.10	-190.20	-240.30	-291.60	-342.80	-1791.20	-3897.20	-3799.70	-2514.10	-2200.00	-1697.30	-1890.30	-1257.60	-1134.50	-629.30	-375.60	0.00
		SHEAR	-40.50	-41.00	-41.70	-42.90	-47.10	-57.60	-68.10	-78.70	-89.10	-99.20	-109.10	-3.90	-9.70	-19.00	-30.90	-45.20	-61.00	-77.80	-94.80	-111.30	-126.50	-3.60	-8.10	-13.30	-20.20	-28.80	-38.30	-48.70	-59.90	-71.80	-84.40
GIRDER 2	D.L.	MOMENT	0.00	627.10	721.60	397.60	-57.70	-605.00	-1244.30	-1975.70	-2799.50	-3718.30	-4734.70	-2067.30	-9.40	1460.50	2342.40	2636.20	2342.00	1459.70	-10.60	-2069.00	-4736.50	-3718.60	-2800.20	-1976.90	-1245.90	-607.00	-60.20	394.60	718.20	623.20	0.00
		SHEAR	114.50	46.30	-22.00	-52.50	-64.30	-76.10	-87.90	-99.70	-111.60	-124.00	149.50	117.60	88.20	58.80	29.40	0.00	-29.40	-58.80	-88.20	-117.60	-149.50	123.90	111.60	99.60	87.80	76.00	64.20	52.40	22.00	-46.30	-114.60
	S.D.L.	MOMENT	0.00	-11.50	-42.70	-93.60	-164.20	-254.50	-364.60	-494.30	-643.80	-812.90	-1001.80	-418.40	35.30	359.50	554.00	618.90	554.30	360.00	36.20	-417.30	-1000.30	-812.80	-643.60	-494.10	-364.30	-254.20	-163.80	-93.10	-42.20	-10.90	0.00
		SHEAR	-0.20	-2.70	-5.30	-7.80	-10.30	-12.80	-15.40	-17.90	-20.40	-23.00	32.40	25.90	19.40	13.00	6.50	0.00	-6.50	-13.00	-19.40	-25.90	-32.40	23.00	20.40	17.90	15.40	12.90	10.30	7.80	5.30	2.70	0.20
	HL-93 (+)	MOMENT	0.00	543.60	931.90	1170.70	1267.70	1233.10	1190.20	999.80	693.20	309.30	189.40	326.30	692.50	1476.90	1977.30	2142.70	1983.50	1475.70	691.20	326.30	189.50	309.30	693.10	999.70	1208.40	1409.20	988.40	921.20	739.10	434.50	0.00
		SHEAR	95.90	82.40	68.80	56.10	44.30	33.40	23.60	15.60	9.50	4.20	145.30	127.20	109.10	89.50	69.90	51.60	35.10	21.20	10.70	4.10	126.30	114.70	102.90	90.80	78.70	66.50	54.50	50.90	49.60	48.80	48.50
	HL-93 (-)	MOMENT	0.00	-377.30	-754.60	-1131.90	-1509.20	-1886.50	-2263.80	-2641.10	-3018.30	-3406.70	-3876.20	-1594.30	-243.00	-205.80	-168.60	-132.10	-169.30	-206.60	-243.80	-1772.30	-3876.30	-3785.00	-2510.90	-2197.20	-1695.10	-2124.10	-961.20	-675.60	-420.70	-192.90	0.00
		SHEAR	-47.90	-48.50	-49.20	-50.60	-54.10	-66.10	-78.10	-90.20	-102.20	-113.90	-125.40	-4.10	-10.70	-21.30	-35.10	-51.50	-69.90	-89.50	-109.10	-128.10	-145.30	-4.30	-9.60	-15.70	-23.80	-33.70	-44.60	-56.50	-69.30	-83.00	-97.30
GIRDER 3	D.L.	MOMENT	0.00	495.30	490.00	173.10	-245.60	-756.30	-1359.20	-2054.10	-2841.30	-3723.60	-4703.50	-2036.20	21.60	1491.40	2373.20	2666.90	2372.50	1490.10	19.60	-2038.90	-4706.50	-3723.80	-2841.90	-2055.00	-1360.50	-758.00	-247.60	170.70	487.20	492.10	0.00
		SHEAR	95.90	31.10	-27.80	-47.80	-59.60	-71.40	-83.20	-95.00	-106.90	-119.30	149.50	117.60	88.20	58.80	29.40	0.00	-29.40	-58.80	-88.20	-117.60	-149.50	119.20	106.90	94.90	83.10	71.30	59.50	47.70	27.80	-31.10	-96.00
	S.D.L.	MOMENT	0.00	-11.50	-42.70	-93.60	-164.20	-254.50	-364.60	-494.30	-643.80	-812.90	-1001.80	-418.40	35.30	359.50	554.00	618.90	554.30	360.00	36.20	-417.30	-1000.30	-812.80	-643.60	-494.10	-364.30	-254.20	-163.80	-93.10	-42.20	-10.90	0.00
		SHEAR	-0.20	-2.70	-5.30	-7.80	-10.30	-12.80	-15.40	-17.90	-20.40	-23.00	32.40	25.90	19.40	13.00	6.50	0.00	-6.50	-13.00	-19.40	-25.90	-32.40	23.00	20.40	17.90	15.40	12.90	10.30	7.80	5.30	2.70	0.20
	HL-93 (+)	MOMENT	0.00	543.60	931.90	1170.70	1267.70	1233.10	1190.20	999.80	693.20	309.30	189.40	326.30	692.50	1476.90	1977.30	2142.70	1983.50	1475.70	691.20	326.30	189.50	309.30	693.10	999.70	1208.40	1409.20	988.40	921.20	739.10	434.50	0.00
		SHEAR	95.90	82.40	68.80	56.10	44.30	33.40	23.60	15.60	9.50	4.20	145.30	127.20	109.10	89.50	69.90	51.60	35.10	21.20	10.70	4.10	126.30	114.70	102.90	90.80	78.70	66.50	54.50	50.90	49.60	48.80	48.50
	HL-93 (-)	MOMENT	0.00	-377.30	-754.60	-1131.90	-1509.20	-1886.50	-2263.80	-2641.10	-3018.30	-3406.70	-3876.20	-1594.30	-243.00	-205.80	-168.60	-132.10	-169.30	-206.60	-243.80	-1772.30	-3876.30	-3785.00	-2510.90	-2197.20	-1695.10	-2124.10	-961.20	-675.60	-420.70	-192.90	0.00
		SHEAR	-47.90	-48.50	-49.20	-50.60	-54.10	-66.10	-78.10	-90.20	-102.20	-113.90	-125.40	-4.10	-10.70	-21.30	-35.10	-51.50	-69.90	-89.50	-109.10	-128.10	-145.30	-4.30	-9.60	-15.70	-23.80	-33.70	-44.60	-56.50	-69.30	-83.00	-97.30
GIRDER 4	D.L.	MOMENT	0.00	495.30	490.00	173.10	-245.60	-756.30	-1359.20	-2054.10	-2841.30	-3723.60	-4703.50	-2036.20	21.60	1491.40	2373.20	2666.90	2372.50	1490.10	19.60	-2038.90	-4706.50	-3723.80	-2841.90	-2055.00	-1360.50	-758.00	-247.60	170.70	487.20	492.10	0.00
		SHEAR	95.90	31.10	-27.80	-47.80	-59.60	-71.40	-83.20	-95.00	-106.90	-119.30	149.50	117.60	88.20	58.80	29.40	0.00	-29.40	-58.80	-88.20	-117.60	-149.50	119.20	106.90	94.90	83.10	71.30	59.50	47.70	27.80	-31.10	-96.00
	S.D.L.	MOMENT	0.00	-11.50	-42.70	-93.60	-164.20	-254.50	-364.60	-494.30	-643.80	-812.90	-1001.80	-418.40	35.30	359.50	554.00	618.90	554.30	360.00	36.20	-417.30	-1000.30	-812.80	-643.60	-494.10	-364.30	-254.20	-163.80	-93.10	-42.20	-10.90	0.00
		SHEAR	-0.20	-2.70	-5.30	-7.80	-10.30	-12.80	-15.40	-17.90	-20.40	-23.00	32.40	25.90	19.40	13.00	6.50	0.00	-6.50	-13.00	-19.40	-25.90	-32.40	23.00	20.40	17.90	15.40	12.90	10.30	7.80	5.30	2.70	0.20
	HL-93 (+)	MOMENT	0.00	543.60	931.90	1170.70	1267.70	1233.10	1190.20	999.80	693.20	309.30	189.40	326.30	692.50	1476.90	1977.30	2142.70	1983.50	1475.70	691.20	326.30	189.50	309.30	693.10	999.70	1208.40	1409.20	988.40	921.20	739.10	434.50	0.00
		SHEAR	95.90	82.40	68.80	56.10	44.30	33.40	23.60	15.60	9.50	4.20	145.30	127.20	109.10	89.50	69.90	51.60	35.10	21.20	10.70	4.10	126.30	114.70	102.90	90.80	78.70	66.50	54.50	50.90	49.60	48.80	48.50
	HL-93 (-)	MOMENT	0.00	-377.30	-754.60	-1131.90	-1509.20	-1886.50	-2263.80	-2641.10	-3018.30	-3406.70	-3876.20	-1594.30	-243.00	-205.80	-168.60	-132.10	-169.30	-206.60	-243.80	-1772.30	-3876.30	-3785.00	-2510.90	-2197.20	-1695.10	-2124.10	-961.20	-675.60	-420.70	-192.90	0.00
		SHEAR	-47.90	-48.50	-49.20	-50.60	-54.10	-66.10	-78.10	-90.20	-102.20	-113.90	-125.40	-4.10	-10.70	-21.30	-35.10	-51.50	-69.90	-89.50	-109.10	-128.10	-145.30	-4.30	-9.60	-15.70	-23.80	-33.70	-44.60	-56.50	-69.30	-83.00	-97.30

DESIGN LOAD TABLE			
		UNIT	LOAD K/ft.
GIRDER G1	D.L.	SLAB	0.930
		HAUNCH	0.034
		GIRDER	0.384
		S.I.P. FORMS	0.013
		DIAPHRAGM	0.058
		UTILITIES	0.000
		TOTAL	1.419
	S.D.L.	SIDEWALK	0.000
		RAILING	0.171
		FUTURE W.S.	0.153
		TOTAL	0.324

NOTE: SEE ST-58 FOR ADDITIONAL LOADING FROM COUNTERWEIGHT

DESIGN LOAD TABLE			
		UNIT	LOAD K/ft.
GIRDER G2 & G6	D.L.	SLAB	1.009
		HAUNCH	0.034
		GIRDER	0.384
		S.I.P. FORMS	0.027
		DIAPHRAGM	0.058
		UTILITIES	0.000
		TOTAL	1.512
	S.D.L.	SIDEWALK	0.000
		RAILING	0.171
		FUTURE W.S.	0.153
		TOTAL	0.324

NOTE: SEE ST-58 FOR ADDITIONAL LOADING FROM COUNTERWEIGHT

DESIGN LOAD TABLE			
		UNIT	LOAD K/ft.
GIRDER G3 - G5	D.L.	SLAB	1.009
		HAUNCH	0.034
		GIRDER	0.384
		S.I.P. FORMS	0.027
		DIAPHRAGM	0.058
		UTILITIES	0.000
		TOTAL	1.512
	S.D.L.	SIDEWALK	0.000
		RAILING	0.171
		FUTURE W.S.	0.153
		TOTAL	0.324

NOTE: SEE ST-58 FOR ADDITIONAL LOADING FROM COUNTERWEIGHT

ALTERED BY:
ON:

AFFIX SEAL: Ryan Douglas Henderson
ON: 11/20/2023

STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · LICENSED PROFESSIONAL ENGINEER · 082023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
SOUTHBOUND MOMENT AND SHEAR AND DESIGN LOAD TABLES (1 OF 2)

CONTRACT NUMBER: TAA 23-25B

DATE: 11/16/2023

DRAWING NUMBER: ST-39

MOMENT & SHEAR TABLE			CL OF BRGS. BEG ABUT	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 2	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. END ABUT.
GIRDER 5	D.L.	MOMENT	0.00	495.30	490.00	173.10	-245.60	-756.30	-1359.20	-2054.10	-2841.30	-3723.60	-4703.50	-2036.20	21.60	1491.40	2373.20	2666.90	2372.50	1490.10	19.60	-2038.90	-4706.50	-3723.80	-2841.90	-2055.00	-1360.50	-758.00	-247.60	170.70	487.20	492.10	0.00
		SHEAR	95.90	31.10	-27.80	-47.80	-59.60	-71.40	-83.20	-95.00	-106.90	-119.30	149.50	117.60	88.20	58.80	29.40	0.00	-29.40	-58.80	-88.20	-117.60	-149.50	119.20	106.90	94.90	83.10	71.30	59.50	47.70	27.80	-31.10	-96.00
	S.D.L.	MOMENT	0.00	-11.50	-42.70	-93.60	-164.20	-254.50	-364.60	-494.30	-643.80	-812.90	-1001.80	-418.40	35.30	359.50	554.00	618.90	554.30	360.00	36.20	-417.30	-1000.30	-812.80	-643.60	-494.10	-364.30	-254.20	-163.80	-93.10	-42.20	-10.90	0.00
		SHEAR	-0.20	-2.70	-5.30	-7.80	-10.30	-12.80	-15.40	-17.90	-20.40	-23.00	32.40	25.90	19.40	13.00	6.50	0.00	-6.50	-13.00	-19.40	-25.90	-32.40	23.00	20.40	17.90	15.40	12.90	10.30	7.80	5.30	2.70	0.20
	HL-93 (+)	MOMENT	0.00	543.60	931.90	1170.70	1267.70	1233.10	1190.20	999.80	693.20	309.30	189.40	326.30	692.50	1476.90	1977.30	2142.70	1983.50	1475.70	691.20	326.30	189.50	309.30	693.10	999.70	1208.40	1409.20	988.40	921.20	739.10	434.50	0.00
		SHEAR	95.90	82.40	68.80	56.10	44.30	33.40	23.60	15.60	9.50	4.20	145.30	127.20	109.10	89.50	69.90	51.60	35.10	21.20	10.70	4.10	126.30	114.70	102.90	90.80	78.70	66.50	54.50	50.90	49.60	48.80	48.50
	HL-93 (-)	MOMENT	0.00	-377.30	-754.60	-1131.90	-1509.20	-1886.50	-2263.80	-2641.10	-3018.30	-3406.70	-3876.20	-1594.30	-243.00	-205.80	-168.60	-132.10	-169.30	-206.60	-243.80	-1772.30	-3876.30	-3785.00	-2510.90	-2197.20	-1695.10	-2124.10	-961.20	-675.60	-420.70	-192.90	0.00
		SHEAR	-47.90	-48.50	-49.20	-50.60	-54.10	-66.10	-78.10	-90.20	-102.20	-113.90	-125.40	-4.10	-10.70	-21.30	-35.10	-51.50	-69.90	-89.50	-109.10	-128.10	-145.30	-4.30	-9.60	-15.70	-23.80	-33.70	-44.60	-56.50	-69.30	-83.00	-97.30
GIRDER 6	D.L.	MOMENT	0.00	627.10	721.60	397.60	-57.70	-605.00	-1244.30	-1975.70	-2799.50	-3718.30	-4734.70	-2067.30	-9.40	1460.50	2342.40	2636.20	2342.00	1459.70	-10.60	-2069.00	-4736.50	-3718.60	-2800.20	-1976.90	-1245.90	-607.00	-60.20	394.60	718.20	623.20	0.00
		SHEAR	114.50	46.30	-22.00	-52.50	-64.30	-76.10	-87.90	-99.70	-111.60	-124.00	149.50	117.60	88.20	58.80	29.40	0.00	-29.40	-58.80	-88.20	-117.60	-149.50	123.90	111.60	99.60	87.80	76.00	64.20	52.40	22.00	-46.30	-114.60
	S.D.L.	MOMENT	0.00	-11.50	-42.70	-93.60	-164.20	-254.50	-364.60	-494.30	-643.80	-812.90	-1001.80	-418.40	35.30	359.50	554.00	618.90	554.30	360.00	36.20	-417.30	-1000.30	-812.80	-643.60	-494.10	-364.30	-254.20	-163.80	-93.10	-42.20	-10.90	0.00
		SHEAR	-0.20	-2.70	-5.30	-7.80	-10.30	-12.80	-15.40	-17.90	-20.40	-23.00	32.40	25.90	19.40	13.00	6.50	0.00	-6.50	-13.00	-19.40	-25.90	-32.40	23.00	20.40	17.90	15.40	12.90	10.30	7.80	5.30	2.70	0.20
	HL-93 (+)	MOMENT	0.00	543.60	931.90	1170.70	1267.70	1233.10	1190.20	999.80	693.20	309.30	189.40	326.30	692.50	1476.90	1977.30	2142.70	1983.50	1475.70	691.20	326.30	189.50	309.30	693.10	999.70	1208.40	1409.20	988.40	921.20	739.10	434.50	0.00
		SHEAR	95.90	82.40	68.80	56.10	44.30	33.40	23.60	15.60	9.50	4.20	145.30	127.20	109.10	89.50	69.90	51.60	35.10	21.20	10.70	4.10	126.30	114.70	102.90	90.80	78.70	66.50	54.50	50.90	49.60	48.80	48.50
	HL-93 (-)	MOMENT	0.00	-377.30	-754.60	-1131.90	-1509.20	-1886.50	-2263.80	-2641.10	-3018.30	-3406.70	-3876.20	-1594.30	-243.00	-205.80	-168.60	-132.10	-169.30	-206.60	-243.80	-1772.30	-3876.30	-3785.00	-2510.90	-2197.20	-1695.10	-2124.10	-961.20	-675.60	-420.70	-192.90	0.00
		SHEAR	-47.90	-48.50	-49.20	-50.60	-54.10	-66.10	-78.10	-90.20	-102.20	-113.90	-125.40	-4.10	-10.70	-21.30	-35.10	-51.50	-69.90	-89.50	-109.10	-128.10	-145.30	-4.30	-9.60	-15.70	-23.80	-33.70	-44.60	-56.50	-69.30	-83.00	-97.30
GIRDER 7	D.L.	MOMENT	0.00	473.10	594.70	369.10	-30.10	-512.50	-1078.20	-1727.10	-2459.60	-3278.20	-4185.60	-1826.30	-8.60	1288.70	2065.60	2321.90	2057.90	1273.40	-31.60	-1857.00	-4223.90	-3282.60	-2442.50	-1693.90	-1034.10	-462.80	20.10	414.50	630.10	493.30	0.00
		SHEAR	83.20	38.10	-6.90	-45.80	-56.50	-67.20	-77.90	-88.50	-99.40	-110.60	132.40	103.90	77.90	51.90	25.80	-0.20	-26.20	-52.20	-78.30	-104.30	-132.80	113.60	101.80	90.30	78.90	67.60	56.20	44.90	5.30	-40.40	-86.20
	S.D.L.	MOMENT	0.00	-10.30	-40.20	-89.90	-159.30	-248.40	-357.20	-485.70	-634.00	-801.90	-989.60	-406.60	46.80	370.50	564.70	629.20	564.20	369.60	45.30	-408.50	-992.00	-801.60	-633.70	-485.60	-357.10	-248.40	-159.40	-90.10	-40.50	-10.60	0.00
		SHEAR	-0.10	-2.60	-5.10	-7.60	-10.20	-12.70	-15.20	-17.70	-20.30	-22.80	32.40	25.90	19.40	12.90	6.50	0.00	-6.50	-13.00	-19.50	-25.90	-32.40	22.80	20.30	17.70	15.20	12.70	10.10	7.60	5.10	2.60	0.00
	HL-93 (+)	MOMENT	0.00	559.80	957.50	1199.40	1294.40	1254.60	1205.60	1003.70	683.70	306.50	207.40	368.30	949.30	1937.10	2567.40	2771.60	2565.50	1933.60	945.30	366.80	208.60	307.80	686.30	1005.90	1226.10	1277.30	1294.80	1200.50	958.80	555.90	0.00
		SHEAR	83.40	71.50	59.60	48.40	38.10	28.70	20.10	13.30	8.10	3.60	126.70	110.80	95.10	78.00	61.20	45.20	31.00	19.00	9.70	3.90	110.00	100.10	89.80	79.30	68.70	58.00	47.40	43.40	42.20	41.50	41.20
	HL-93 (-)	MOMENT	0.00	-380.20	-760.30	-1140.50	-1520.70	-1900.80	-2281.00	-2661.20	-3041.40	-3439.10	-3918.70	-1623.90	-339.70	-288.40	-237.20	-185.90	-236.30	-286.80	-337.20	-1798.10	-3918.60	-3821.20	-2529.00	-2212.90	-1707.00	-1901.90	-1521.80	-948.30	-761.60	-376.40	0.00
		SHEAR	-40.60	-41.20	-41.90	-43.00	-47.10	-57.60	-68.20	-78.80	-89.20	-99.40	-109.30	-3.90	-9.70	-19.00	-31.00	-45.20	-61.20	-78.00	-95.00	-111.60	-126.70	-3.70	-8.10	-13.40	-20.30	-28.90	-38.40	-48.80	-60.10	-72.00	-84.60

DESIGN LOAD TABLE			
		UNIT	LOAD K/ft.
GIRDER G3 - G5	D.L.	SLAB	1.009
		HAUNCH	0.034
		GIRDER	0.384
		S.I.P. FORMS	0.027
		DIAPHRAGM	0.058
		UTILITIES	0.000
		TOTAL	1.512
	S.D.L.	SIDEWALK	0.000
		RAILING	0.171
		FUTURE W.S.	0.153
		TOTAL	0.324

NOTE: SEE ST-58 FOR ADDITIONAL LOADING FROM COUNTERWEIGHT

DESIGN LOAD TABLE			
		UNIT	LOAD K/ft.
GIRDER G2 & G6	D.L.	SLAB	1.009
		HAUNCH	0.034
		GIRDER	0.384
		S.I.P. FORMS	0.027
		DIAPHRAGM	0.058
		UTILITIES	0.000
		TOTAL	1.512
	S.D.L.	SIDEWALK	0.000
		RAILING	0.171
		FUTURE W.S.	0.153
		TOTAL	0.324

NOTE: SEE ST-58 FOR ADDITIONAL LOADING FROM COUNTERWEIGHT

DESIGN LOAD TABLE			
		UNIT	LOAD K/ft.
GIRDER G7	D.L.	SLAB	0.890
		HAUNCH	0.027
		GIRDER	0.384
		S.I.P. FORMS	0.013
		DIAPHRAGM	0.058
		UTILITIES	0.000
		TOTAL	1.373
	S.D.L.	SIDEWALK	0.000
		RAILING	0.171
		FUTURE W.S.	0.153
		TOTAL	0.324

NOTE: SEE ST-58 FOR ADDITIONAL LOADING FROM COUNTERWEIGHT

ALTERED BY:	AFFIX SEAL: Ryan Douglas Henderson
ON:	ON: 11/20/2023

STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · LICENSED PROFESSIONAL ENGINEER · 082023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

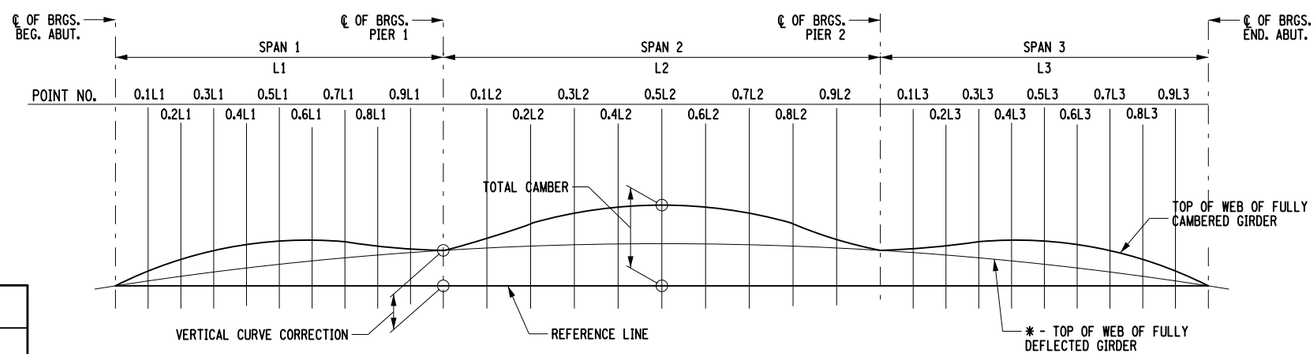
JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: SOUTHBOUND MOMENT AND SHEAR AND DESIGN LOAD TABLES (2 OF 2)

CONTRACT NUMBER: TAA 23-25B
DATE: 11/16/2023
DRAWING NUMBER: ST-40

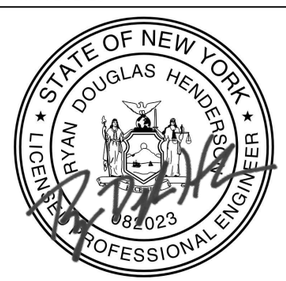
FILE NAME = A72128.cpb.tbl.com.02.dgn DESIGN SUPERVISOR R. HENDERSON DESIGN DATE/TIME = 11/16/2023 CHECK USER = BENTLEYHOSTING\jmtpwllcs01$ CHECK

CAMBER TABLE		CL OF BRGS. BEG. ABUT.	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 2	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. END ABUT.
GIRDER 8	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.008	0.014	0.018	0.019	0.019	0.016	0.013	0.008	0.004	0.000	-0.009	-0.014	-0.016	-0.017	-0.017	-0.017	-0.016	-0.014	-0.009	0.000	0.004	0.008	0.013	0.016	0.019	0.019	0.018	0.014	0.008	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.012	-0.023	-0.033	-0.042	-0.049	-0.052	-0.049	-0.040	-0.024	0.000	0.087	0.207	0.326	0.411	0.441	0.411	0.327	0.208	0.087	0.000	-0.024	-0.040	-0.049	-0.052	-0.049	-0.042	-0.033	-0.023	-0.012	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.007	-0.015	-0.025	-0.035	-0.045	-0.051	-0.052	-0.044	-0.027	0.000	0.106	0.261	0.417	0.528	0.569	0.529	0.417	0.261	0.106	0.000	-0.027	-0.045	-0.052	-0.051	-0.045	-0.035	-0.025	-0.015	-0.007	0.000
GIRDER 9	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.010	0.017	0.021	0.022	0.021	0.018	0.014	0.009	0.005	0.000	-0.010	-0.015	-0.016	-0.017	-0.017	-0.017	-0.016	-0.015	-0.010	0.000	0.005	0.009	0.014	0.018	0.021	0.022	0.021	0.017	0.010	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.011	-0.022	-0.032	-0.041	-0.048	-0.051	-0.049	-0.040	-0.024	0.000	0.088	0.211	0.333	0.419	0.450	0.419	0.333	0.211	0.088	0.000	-0.024	-0.040	-0.049	-0.051	-0.048	-0.041	-0.032	-0.022	-0.011	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.005	-0.012	-0.021	-0.032	-0.041	-0.048	-0.050	-0.043	-0.027	0.000	0.106	0.264	0.423	0.537	0.578	0.537	0.423	0.264	0.106	0.000	-0.027	-0.043	-0.050	-0.048	-0.041	-0.032	-0.021	-0.012	-0.005	0.000
GIRDER 10	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.007	0.012	0.015	0.016	0.015	0.013	0.010	0.006	0.003	0.000	-0.006	-0.008	-0.008	-0.007	-0.006	-0.007	-0.008	-0.008	-0.006	0.000	0.003	0.006	0.010	0.013	0.015	0.016	0.015	0.012	0.007	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.011	-0.022	-0.032	-0.041	-0.048	-0.051	-0.049	-0.040	-0.024	0.000	0.088	0.211	0.333	0.419	0.450	0.419	0.333	0.211	0.088	0.000	-0.024	-0.040	-0.049	-0.051	-0.048	-0.041	-0.032	-0.022	-0.011	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.007	-0.016	-0.027	-0.038	-0.048	-0.054	-0.054	-0.046	-0.028	0.000	0.110	0.270	0.432	0.547	0.588	0.547	0.432	0.270	0.110	0.000	-0.028	-0.046	-0.054	-0.054	-0.048	-0.038	-0.027	-0.016	-0.007	0.000
GIRDER 11	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.007	0.012	0.015	0.016	0.015	0.013	0.010	0.006	0.003	0.000	-0.006	-0.008	-0.008	-0.007	-0.006	-0.007	-0.008	-0.008	-0.006	0.000	0.003	0.006	0.010	0.013	0.015	0.016	0.015	0.012	0.007	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.011	-0.022	-0.032	-0.041	-0.048	-0.051	-0.049	-0.040	-0.024	0.000	0.088	0.211	0.333	0.419	0.450	0.419	0.333	0.211	0.088	0.000	-0.024	-0.040	-0.049	-0.051	-0.048	-0.041	-0.032	-0.022	-0.011	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.007	-0.016	-0.027	-0.038	-0.048	-0.054	-0.054	-0.046	-0.028	0.000	0.110	0.270	0.432	0.547	0.588	0.547	0.432	0.270	0.110	0.000	-0.028	-0.046	-0.054	-0.054	-0.048	-0.038	-0.027	-0.016	-0.007	0.000
GIRDER 12	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.007	0.012	0.015	0.016	0.015	0.013	0.010	0.006	0.003	0.000	-0.006	-0.008	-0.008	-0.007	-0.006	-0.007	-0.008	-0.008	-0.006	0.000	0.003	0.006	0.010	0.013	0.015	0.016	0.015	0.012	0.007	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.011	-0.022	-0.032	-0.041	-0.048	-0.051	-0.049	-0.040	-0.024	0.000	0.088	0.211	0.333	0.419	0.450	0.419	0.333	0.211	0.088	0.000	-0.024	-0.040	-0.049	-0.051	-0.048	-0.041	-0.032	-0.022	-0.011	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.007	-0.016	-0.027	-0.038	-0.048	-0.054	-0.054	-0.046	-0.028	0.000	0.110	0.270	0.432	0.547	0.588	0.547	0.432	0.270	0.110	0.000	-0.028	-0.046	-0.054	-0.054	-0.048	-0.038	-0.027	-0.016	-0.007	0.000
GIRDER 13	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.010	0.017	0.021	0.022	0.021	0.018	0.014	0.009	0.005	0.000	-0.010	-0.015	-0.016	-0.017	-0.017	-0.017	-0.016	-0.015	-0.010	0.000	0.005	0.009	0.014	0.018	0.021	0.022	0.021	0.017	0.010	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.011	-0.022	-0.032	-0.041	-0.048	-0.051	-0.049	-0.040	-0.024	0.000	0.088	0.211	0.333	0.419	0.450	0.419	0.333	0.211	0.088	0.000	-0.024	-0.040	-0.049	-0.051	-0.048	-0.041	-0.032	-0.022	-0.011	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.005	-0.012	-0.021	-0.032	-0.041	-0.048	-0.050	-0.043	-0.027	0.000	0.106	0.264	0.423	0.537	0.578	0.537	0.423	0.264	0.106	0.000	-0.027	-0.043	-0.050	-0.048	-0.041	-0.032	-0.021	-0.012	-0.005	0.000
GIRDER 14	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.008	0.015	0.018	0.020	0.019	0.016	0.013	0.009	0.004	0.000	-0.009	-0.015	-0.018	-0.019	-0.020	-0.019	-0.018	-0.015	-0.009	0.000	0.004	0.009	0.013	0.016	0.019	0.020	0.018	0.015	0.008	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.009	-0.019	-0.027	-0.035	-0.041	-0.044	-0.042	-0.035	-0.021	0.000	0.076	0.183	0.288	0.364	0.391	0.364	0.290	0.184	0.076	0.000	-0.020	-0.034	-0.042	-0.043	-0.040	-0.034	-0.026	-0.018	-0.009	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.005	-0.011	-0.019	-0.028	-0.037	-0.043	-0.044	-0.038	-0.024	0.000	0.094	0.235	0.377	0.479	0.516	0.480	0.378	0.236	0.095	0.000	-0.024	-0.038	-0.044	-0.042	-0.036	-0.027	-0.018	-0.010	-0.004	0.000



CAMBER DIAGRAM - CONTINUOUS SPANS

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

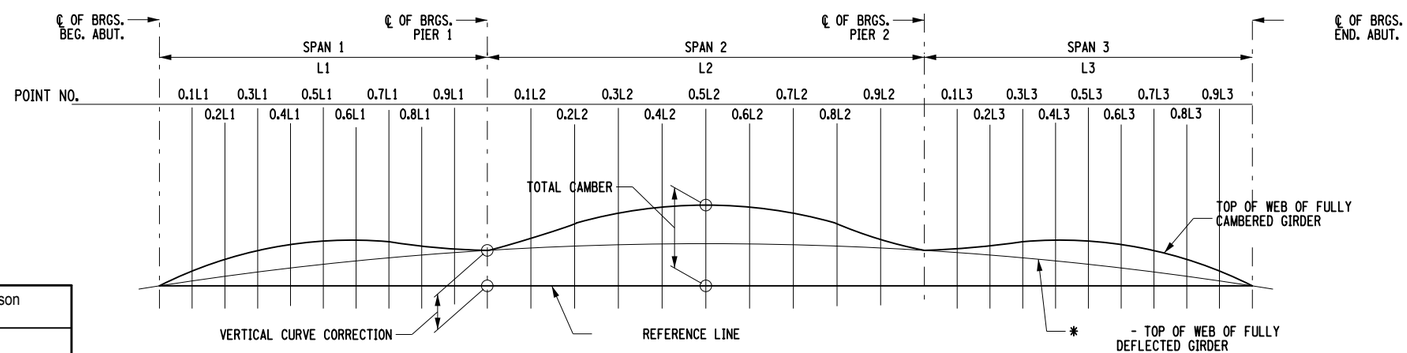
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	NORTHBOUND CAMBER TABLE AND DIAGRAM
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	ST-41

	CAMBER TABLE	CL OF BRGS. BEG. ABUT.	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 2	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. END ABUT.
GIRDER 1	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.008	0.014	0.018	0.019	0.019	0.016	0.013	0.008	0.004	0.000	-0.009	-0.014	-0.016	-0.017	-0.017	-0.017	-0.016	-0.014	-0.009	0.000	0.004	0.008	0.013	0.016	0.019	0.019	0.018	0.014	0.008	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.012	-0.023	-0.034	-0.043	-0.050	-0.052	-0.050	-0.041	-0.024	0.000	0.087	0.209	0.328	0.412	0.443	0.412	0.328	0.208	0.087	0.000	-0.024	-0.040	-0.049	-0.051	-0.049	-0.042	-0.033	-0.023	-0.011	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.007	-0.016	-0.026	-0.036	-0.046	-0.052	-0.053	-0.045	-0.027	0.000	0.106	0.262	0.418	0.530	0.570	0.530	0.418	0.262	0.106	0.000	-0.027	-0.044	-0.052	-0.051	-0.045	-0.035	-0.025	-0.015	-0.007	0.000
GIRDER 2	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.010	0.017	0.021	0.022	0.021	0.018	0.014	0.009	0.005	0.000	-0.010	-0.015	-0.016	-0.017	-0.017	-0.017	-0.016	-0.015	-0.010	0.000	0.005	0.009	0.014	0.018	0.021	0.022	0.021	0.017	0.010	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.011	-0.022	-0.032	-0.041	-0.048	-0.051	-0.049	-0.040	-0.024	0.000	0.088	0.211	0.333	0.419	0.450	0.419	0.333	0.211	0.088	0.000	-0.024	-0.040	-0.049	-0.051	-0.048	-0.041	-0.032	-0.022	-0.011	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.005	-0.012	-0.021	-0.032	-0.041	-0.048	-0.050	-0.043	-0.027	0.000	0.106	0.264	0.423	0.537	0.578	0.537	0.423	0.264	0.106	0.000	-0.027	-0.043	-0.050	-0.048	-0.041	-0.032	-0.021	-0.012	-0.005	0.000
GIRDER 3	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.007	0.012	0.015	0.016	0.015	0.013	0.010	0.006	0.003	0.000	-0.006	-0.008	-0.008	-0.007	-0.006	-0.007	-0.008	-0.008	-0.006	0.000	0.003	0.006	0.010	0.013	0.015	0.016	0.015	0.012	0.007	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.011	-0.022	-0.032	-0.041	-0.048	-0.051	-0.049	-0.040	-0.024	0.000	0.088	0.211	0.333	0.419	0.450	0.419	0.333	0.211	0.088	0.000	-0.024	-0.040	-0.049	-0.051	-0.048	-0.041	-0.032	-0.022	-0.011	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.007	-0.016	-0.027	-0.038	-0.048	-0.054	-0.054	-0.046	-0.028	0.000	0.110	0.270	0.432	0.547	0.588	0.547	0.432	0.270	0.110	0.000	-0.028	-0.046	-0.054	-0.054	-0.048	-0.038	-0.027	-0.016	-0.007	0.000
GIRDER 4	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.007	0.012	0.015	0.016	0.015	0.013	0.010	0.006	0.003	0.000	-0.006	-0.008	-0.008	-0.007	-0.006	-0.007	-0.008	-0.008	-0.006	0.000	0.003	0.006	0.010	0.013	0.015	0.016	0.015	0.012	0.007	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.011	-0.022	-0.032	-0.041	-0.048	-0.051	-0.049	-0.040	-0.024	0.000	0.088	0.211	0.333	0.419	0.450	0.419	0.333	0.211	0.088	0.000	-0.024	-0.040	-0.049	-0.051	-0.048	-0.041	-0.032	-0.022	-0.011	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.007	-0.016	-0.027	-0.038	-0.048	-0.054	-0.054	-0.046	-0.028	0.000	0.110	0.270	0.432	0.547	0.588	0.547	0.432	0.270	0.110	0.000	-0.028	-0.046	-0.054	-0.054	-0.048	-0.038	-0.027	-0.016	-0.007	0.000
GIRDER 5	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.007	0.012	0.015	0.016	0.015	0.013	0.010	0.006	0.003	0.000	-0.006	-0.008	-0.008	-0.007	-0.006	-0.007	-0.008	-0.008	-0.006	0.000	0.003	0.006	0.010	0.013	0.015	0.016	0.015	0.012	0.007	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.011	-0.022	-0.032	-0.041	-0.048	-0.051	-0.049	-0.040	-0.024	0.000	0.088	0.211	0.333	0.419	0.450	0.419	0.333	0.211	0.088	0.000	-0.024	-0.040	-0.049	-0.051	-0.048	-0.041	-0.032	-0.022	-0.011	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.007	-0.016	-0.027	-0.038	-0.048	-0.054	-0.054	-0.046	-0.028	0.000	0.110	0.270	0.432	0.547	0.588	0.547	0.432	0.270	0.110	0.000	-0.028	-0.046	-0.054	-0.054	-0.048	-0.038	-0.027	-0.016	-0.007	0.000
GIRDER 6	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.010	0.017	0.021	0.022	0.021	0.018	0.014	0.009	0.005	0.000	-0.010	-0.015	-0.016	-0.017	-0.017	-0.017	-0.016	-0.015	-0.010	0.000	0.005	0.009	0.014	0.018	0.021	0.022	0.021	0.017	0.010	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.011	-0.022	-0.032	-0.041	-0.048	-0.051	-0.049	-0.040	-0.024	0.000	0.088	0.211	0.333	0.419	0.450	0.419	0.333	0.211	0.088	0.000	-0.024	-0.040	-0.049	-0.051	-0.048	-0.041	-0.032	-0.022	-0.011	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.005	-0.012	-0.021	-0.032	-0.041	-0.048	-0.050	-0.043	-0.027	0.000	0.106	0.264	0.423	0.537	0.578	0.537	0.423	0.264	0.106	0.000	-0.027	-0.043	-0.050	-0.048	-0.041	-0.032	-0.021	-0.012	-0.005	0.000
GIRDER 7	I. STEEL D.L. (ft)	0.000	-0.003	-0.007	-0.010	-0.013	-0.015	-0.016	-0.015	-0.013	-0.007	0.000	0.028	0.067	0.107	0.135	0.145	0.135	0.107	0.067	0.028	0.000	-0.007	-0.013	-0.015	-0.016	-0.015	-0.013	-0.010	-0.007	-0.003	0.000
	II. CONCRETE D.L. (ft)	0.000	0.008	0.015	0.018	0.020	0.019	0.016	0.013	0.009	0.004	0.000	-0.009	-0.015	-0.018	-0.019	-0.020	-0.019	-0.018	-0.015	-0.009	0.000	0.004	0.009	0.013	0.016	0.019	0.020	0.018	0.015	0.008	0.000
	III. SUPERIMPOSED D.L. (ft)	0.000	-0.009	-0.018	-0.026	-0.034	-0.040	-0.043	-0.041	-0.034	-0.020	0.000	0.075	0.181	0.286	0.360	0.387	0.360	0.286	0.181	0.075	0.000	-0.020	-0.034	-0.041	-0.043	-0.040	-0.034	-0.027	-0.018	-0.009	0.000
	IV. VERTICAL CURVE (ft)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I+II+III+IV (ft)	0.000	-0.004	-0.010	-0.018	-0.027	-0.036	-0.042	-0.044	-0.038	-0.023	0.000	0.094	0.234	0.375	0.475	0.512	0.476	0.375	0.234	0.094	0.000	-0.023	-0.038	-0.044	-0.042	-0.036	-0.027	-0.018	-0.010	-0.004	0.000



CAMBER DIAGRAM - CONTINUOUS SPANS

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · 082023 · LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

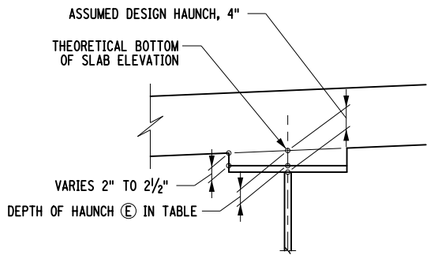
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	SOUTHBOUND CAMBER TABLE AND DIAGRAM
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	ST-42

	HAUNCH TABLE	CL OF BRGS. BEG. ABUT.	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 2	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. END ABUT.
GIRDER 8	A. REQ'D BOTTOM OF SLAB ELEVATION	203.14	203.09	203.05	203.00	202.96	202.91	202.87	202.82	202.78	202.73	202.69	202.57	202.45	202.33	202.21	202.09	201.97	201.85	201.73	201.61	201.49	201.44	201.39	201.34	201.30	201.25	201.20	201.15	201.10	201.05	201.01
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	-0.002	-0.008	-0.013	-0.022	-0.029	-0.037	-0.034	-0.030	-0.019	0.000	0.076	0.191	0.309	0.393	0.423	0.393	0.309	0.196	0.076	0.000	-0.019	-0.030	-0.034	-0.037	-0.029	-0.022	-0.013	-0.008	-0.002	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 9	A. REQ'D BOTTOM OF SLAB ELEVATION	203.28	203.24	203.19	203.15	203.10	203.06	203.01	202.97	202.92	202.88	202.83	202.71	202.60	202.48	202.36	202.24	202.12	202.00	201.88	201.75	201.63	201.58	201.54	201.49	201.44	201.39	201.34	201.29	201.25	201.20	201.15
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	-0.001	-0.007	-0.012	-0.021	-0.028	-0.031	-0.034	-0.030	-0.019	0.000	0.080	0.195	0.319	0.403	0.433	0.403	0.319	0.195	0.080	0.000	-0.019	-0.030	-0.034	-0.031	-0.028	-0.021	-0.012	-0.007	-0.001	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 10	A. REQ'D BOTTOM OF SLAB ELEVATION	203.43	203.39	203.34	203.30	203.25	203.21	203.16	203.11	203.07	203.02	202.98	202.86	202.74	202.62	202.50	202.38	202.26	202.14	202.02	201.90	201.78	201.73	201.68	201.63	201.58	201.54	201.49	201.44	201.39	201.34	201.29
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	-0.006	-0.012	-0.017	-0.026	-0.033	-0.036	-0.039	-0.035	-0.019	0.000	0.084	0.202	0.327	0.413	0.444	0.413	0.327	0.202	0.084	0.000	-0.019	-0.035	-0.039	-0.036	-0.033	-0.026	-0.017	-0.012	-0.006	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 11	A. REQ'D BOTTOM OF SLAB ELEVATION	203.58	203.53	203.49	203.44	203.40	203.35	203.31	203.26	203.21	203.17	203.12	203.01	202.89	202.77	202.65	202.53	202.41	202.29	202.16	202.04	201.92	201.87	201.82	201.78	201.73	201.68	201.63	201.58	201.53	201.48	201.44
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	-0.006	-0.012	-0.017	-0.026	-0.033	-0.036	-0.039	-0.035	-0.019	0.000	0.084	0.202	0.327	0.413	0.444	0.413	0.327	0.202	0.084	0.000	-0.019	-0.035	-0.039	-0.036	-0.033	-0.026	-0.017	-0.012	-0.006	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 12	A. REQ'D BOTTOM OF SLAB ELEVATION	203.63	203.58	203.53	203.48	203.44	203.39	203.34	203.29	203.24	203.20	203.15	203.03	202.91	202.78	202.66	202.54	202.43	202.31	202.19	202.07	201.95	201.91	201.86	201.82	201.77	201.73	201.68	201.64	201.59	201.55	201.50
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	-0.006	-0.012	-0.017	-0.026	-0.033	-0.036	-0.039	-0.035	-0.019	0.000	0.084	0.202	0.327	0.413	0.444	0.413	0.327	0.202	0.084	0.000	-0.019	-0.035	-0.039	-0.036	-0.033	-0.026	-0.017	-0.012	-0.006	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 13	A. REQ'D BOTTOM OF SLAB ELEVATION	203.43	203.39	203.34	203.29	203.24	203.19	203.14	203.10	203.05	203.00	202.95	202.83	202.71	202.59	202.47	202.35	202.23	202.11	201.99	201.88	201.76	201.71	201.67	201.62	201.58	201.53	201.49	201.44	201.40	201.35	201.31
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	-0.001	-0.007	-0.012	-0.021	-0.028	-0.031	-0.034	-0.030	-0.019	0.000	0.080	0.195	0.319	0.403	0.433	0.403	0.319	0.195	0.080	0.000	-0.019	-0.030	-0.034	-0.031	-0.028	-0.021	-0.012	-0.007	-0.001	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 14	A. REQ'D BOTTOM OF SLAB ELEVATION	203.24	203.19	203.14	203.09	203.05	203.00	202.95	202.90	202.85	202.81	202.76	202.64	202.52	202.39	202.27	202.15	202.04	201.92	201.80	201.68	201.56	201.52	201.47	201.43	201.38	201.34	201.29	201.25	201.20	201.16	201.11
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	0.001	-0.004	-0.007	-0.015	-0.021	-0.029	-0.027	-0.025	-0.016	0.000	0.066	0.170	0.272	0.346	0.370	0.346	0.272	0.170	0.066	0.000	-0.015	-0.024	-0.027	-0.028	-0.020	-0.014	-0.006	-0.003	0.001	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															



GIRDER HAUNCH DETAIL

ALTERED BY:
ON:

AFFIX SEAL: Ryan Douglas Henderson
ON: 11/20/2023

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER
082023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
NORTHBOUND HAUNCH TABLE AND DETAILS

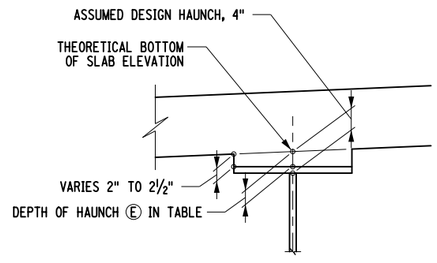
CONTRACT NUMBER: TAA 23-25B

DATE: 11/16/2023

DRAWING NUMBER: ST-43

FILE NAME = A72128_cpb_tbl_a_02.dgn DESIGN SUPERVISOR R. HENDERSON DATE/TIME = 11/16/2023 DESIGN CHECK DRAFTING CHECK USER = BENTLEYHOSTING_jmtpwllcs01$

HAUNCH TABLE		CL OF BRGS. BEG. ABUT.	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 1	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. PIER 2	0.1 L1	0.2 L1	0.3 L1	0.4 L1	0.5 L1	0.6 L1	0.7 L1	0.8 L1	0.9 L1	CL OF BRGS. END ABUT.
GIRDER 1	A. REQ'D BOTTOM OF SLAB ELEVATION	203.53	203.49	203.45	203.40	203.36	203.32	203.27	203.23	203.19	203.14	203.10	202.99	202.87	202.76	202.65	202.53	202.42	202.30	202.18	202.07	201.95	201.90	201.86	201.81	201.76	201.72	201.67	201.62	201.58	201.53	201.49
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	-0.002	-0.008	-0.014	-0.023	-0.030	-0.037	-0.035	-0.031	-0.019	0.000	0.076	0.196	0.314	0.393	0.428	0.393	0.314	0.196	0.076	0.000	-0.019	-0.030	-0.034	-0.036	-0.029	-0.022	-0.013	-0.008	-0.001	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 2	A. REQ'D BOTTOM OF SLAB ELEVATION	203.68	203.64	203.60	203.55	203.51	203.47	203.42	203.38	203.33	203.29	203.25	203.13	203.02	202.91	202.79	202.68	202.56	202.45	202.33	202.21	202.09	202.05	202.00	201.96	201.91	201.86	201.82	201.77	201.72	201.68	201.63
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	-0.001	-0.007	-0.012	-0.021	-0.028	-0.031	-0.034	-0.030	-0.019	0.000	0.080	0.195	0.319	0.403	0.433	0.403	0.319	0.195	0.080	0.000	-0.019	-0.030	-0.034	-0.031	-0.028	-0.021	-0.012	-0.007	-0.001	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 3	A. REQ'D BOTTOM OF SLAB ELEVATION	203.83	203.79	203.74	203.70	203.66	203.61	203.57	203.53	203.48	203.44	203.39	203.28	203.17	203.05	202.94	202.82	202.71	202.59	202.47	202.36	202.24	202.19	202.15	202.10	202.05	202.01	201.96	201.91	201.87	201.82	201.77
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	-0.006	-0.012	-0.017	-0.026	-0.033	-0.036	-0.039	-0.035	-0.019	0.000	0.084	0.202	0.327	0.413	0.444	0.413	0.327	0.202	0.084	0.000	-0.019	-0.035	-0.039	-0.036	-0.033	-0.026	-0.017	-0.012	-0.006	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 4	A. REQ'D BOTTOM OF SLAB ELEVATION	203.78	203.73	203.68	203.64	203.59	203.54	203.50	203.45	203.40	203.36	203.31	203.19	203.07	202.95	202.84	202.72	202.60	202.49	202.37	202.26	202.15	202.10	202.06	202.01	201.97	201.92	201.88	201.84	201.79	201.75	201.71
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	-0.006	-0.012	-0.017	-0.026	-0.033	-0.036	-0.039	-0.035	-0.019	0.000	0.084	0.202	0.327	0.413	0.444	0.413	0.327	0.202	0.084	0.000	-0.019	-0.035	-0.039	-0.036	-0.033	-0.026	-0.017	-0.012	-0.006	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 5	A. REQ'D BOTTOM OF SLAB ELEVATION	203.58	203.54	203.49	203.44	203.39	203.35	203.30	203.25	203.21	203.16	203.11	203.00	202.88	202.76	202.64	202.53	202.41	202.29	202.18	202.06	201.95	201.91	201.86	201.82	201.77	201.73	201.69	201.64	201.60	201.55	201.51
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	-0.006	-0.012	-0.017	-0.026	-0.033	-0.036	-0.039	-0.035	-0.019	0.000	0.084	0.202	0.327	0.413	0.444	0.413	0.327	0.202	0.084	0.000	-0.019	-0.035	-0.039	-0.036	-0.033	-0.026	-0.017	-0.012	-0.006	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 6	A. REQ'D BOTTOM OF SLAB ELEVATION	203.39	203.34	203.29	203.25	203.20	203.15	203.11	203.06	203.01	202.97	202.92	202.80	202.68	202.57	202.45	202.33	202.22	202.10	201.99	201.87	201.76	201.71	201.67	201.62	201.58	201.54	201.49	201.45	201.41	201.36	201.32
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	-0.001	-0.007	-0.012	-0.021	-0.028	-0.031	-0.034	-0.030	-0.019	0.000	0.080	0.195	0.319	0.403	0.433	0.403	0.319	0.195	0.080	0.000	-0.019	-0.030	-0.034	-0.031	-0.028	-0.021	-0.012	-0.007	-0.001	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															
GIRDER 7	A. REQ'D BOTTOM OF SLAB ELEVATION	203.19	203.15	203.10	203.05	203.01	202.96	202.91	202.87	202.82	202.77	202.73	202.61	202.49	202.37	202.25	202.14	202.02	201.91	201.79	201.68	201.56	201.52	201.47	201.43	201.39	201.34	201.30	201.25	201.21	201.17	201.12
	B. TOP OF STEEL EL. (FIELD MEASURE)																															
	C = A - B																															
	D. CONCRETE + S.D.L. DEFLECTION	0.000	0.001	-0.003	-0.006	-0.014	-0.020	-0.028	-0.026	-0.024	-0.015	0.000	0.066	0.165	0.267	0.341	0.365	0.341	0.267	0.165	0.066	0.000	-0.015	-0.024	-0.026	-0.028	-0.020	-0.014	-0.007	-0.003	0.001	0.000
	E. DEPTH OF HAUNCH REQ'D = C + D (ft)																															



FLANGE WIDTH ≥ 1'-4"

GIRDER HAUNCH DETAIL

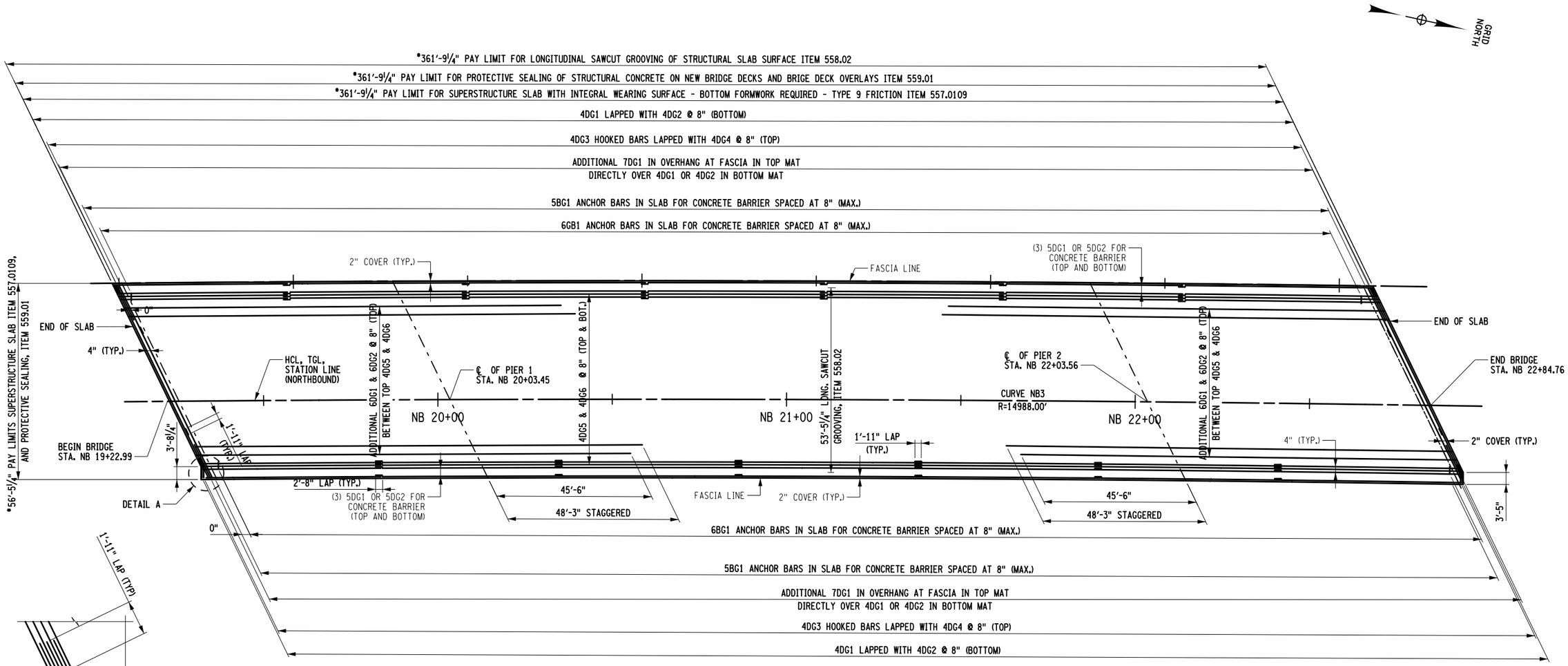
ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

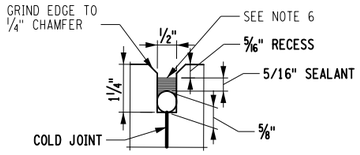
TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING: SOUTHBOUND HAUNCH TABLE AND DETAILS	DRAWING NUMBER: ST-44



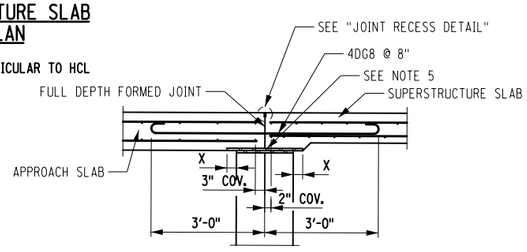
DETAIL A CORNER DETAIL
NOT TO SCALE

SUPERSTRUCTURE SLAB TABLE		
SUPERSTRUCTURE SLAB (SY) ITEM 557.0109	LONGITUDINAL SAWCUT GROOVING (SY) ITEM 558.02	PROTECTIVE SEALER (SF) ITEM 559.01
2270	2149	19344

NORTHBOUND SUPERSTRUCTURE SLAB REINFORCEMENT PLAN
NOT TO SCALE
• DIMENSIONS MEASURED ALONG OR PERPENDICULAR TO HCL



JOINT RECESS DETAIL



REINFORCEMENT DETAIL FOR JOINTLESS ABUTMENTS
X = MAXIMUM TEMPERATURE MOVEMENT OF THE SUPERSTRUCTURE ROUNDED TO THE NEXT 1" (MIN.) FOR EXPANSION, 1" FOR FIXED
BRIDGE END X = 5"
BRIDGE BEGIN X = 2"

NOTES:

1. ALL REINFORCEMENT IS GRADE 60 GALVANIZED.
2. LAPS IN TRANSVERSE AND LONGITUDIONAL REINFORCEMENT SHALL BE STAGGERED.
3. WELDED SPLICES ARE NOT PERMITTED.
4. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN ROPORTIONAL AND ARE FULLY DIMENSIONED.
5. TOP OF BACKWALLS SHALL BE STEEL TROWEL FINISHED. COMPRESSED SYNTHETIC SHEET GASKET (TWO" THICK SHEETS,TREATED BOTH SIDES), MATERIAL SPECIFICATION 728-06, SHALL BE PLACED ON TOP OF THE BACKWALLS. PAYMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM 557.2009.
6. FILL THE RECESS WITH A STRUCTURAL JOINT MATERIAL, SILICONE SEALANT, FROM NYSDOT'S APPROVED LIST FOR ITEM 567.51000016. IF THE RECESS IS SAW CUT, WATER BLAST IMMEDIATELY FOLLOWING CUTTING TO REMOVE ANY RESIDUAL SLURRY BEFORE IT DRIES. CLEAN THE VERTICAL FACES OF THE RECESS BY ABRASIVE BLAST, AND AIR BLOW THE RESIDUE FROM THE RECESS. PRIME THE VERTICAL FACES WITH THE MANUFACTURER'S RECOMMENDED PRIMER, AND ALLOW TO DRY. PLACE A 5/8" DIA. SOFT CLOSED CELL BACKER ROD IN THE BOTTOM OF THE RECESS. POUR THE SILICONE SEALANT TO A DEPTH OF APPROX. 5/16". PAYMENT TO BE INCLUDED IN THE UNIT BID PRICE FOR THE APPROACH SLAB.

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

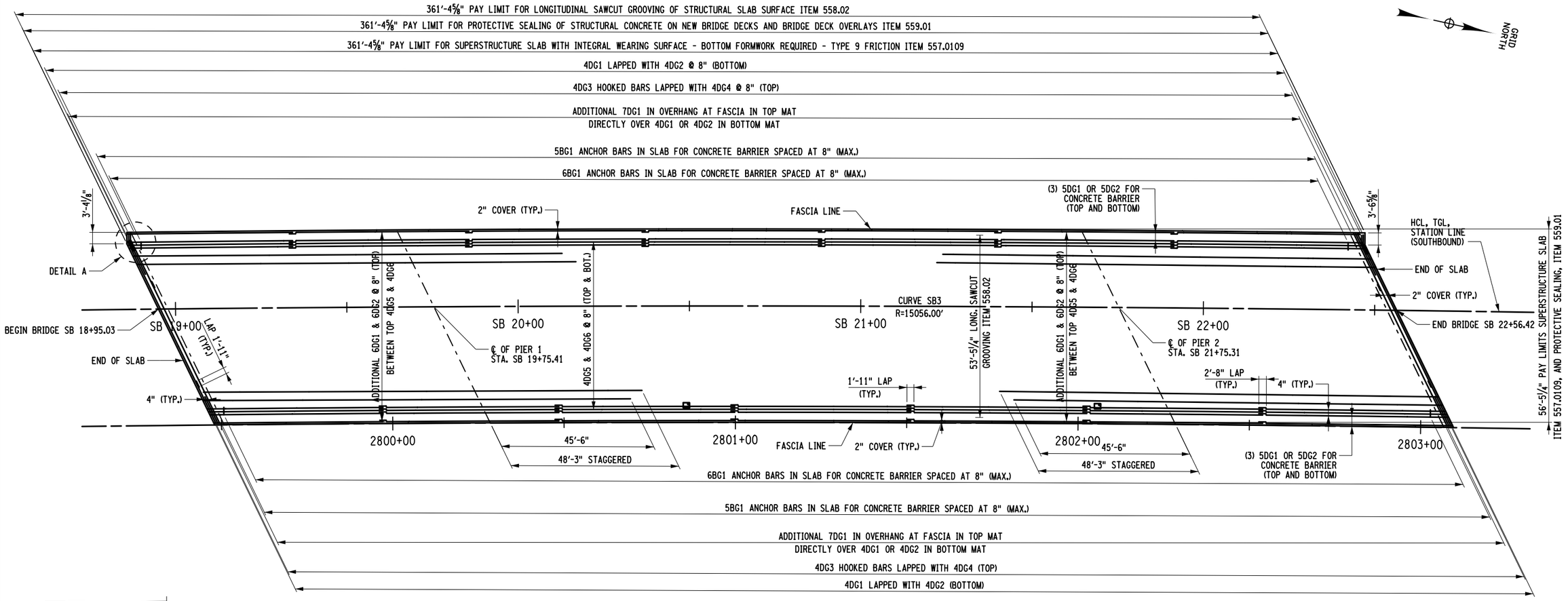
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: NORTHBOUND SUPERSTRUCTURE SLAB REINFORCEMENT PLAN

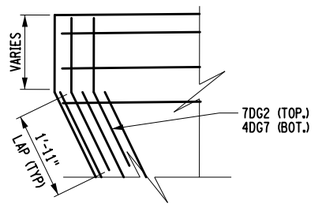
CONTRACT NUMBER: TAA 23-25B
DATE: 11/16/2023
DRAWING NUMBER: ST-45



SOUTHBOUND SUPERSTRUCTURE SLAB REINFORCEMENT PLAN

NOT TO SCALE

• DIMENSIONS MEASURED ALONG OR PERPENDICULAR TO HCL



DETAIL A CORNER DETAIL

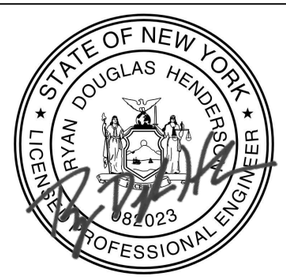
NOT TO SCALE

SUPERSTRUCTURE SLAB TABLE		
SUPERSTRUCTURE SLAB (SY) ITEM 557.0109	LONGITUDIONAL SAWCUT GROOVING (SY) ITEM 558.02	PROTECTIVE SEALER (SF) ITEM 559.01
2270	2149	19344

NOTES:

1. ALL REINFORCEMENT IS GRADE 60 GALVANIZED.
2. LAPS IN TRANSVERSE AND LONGITUDIONAL REINFORCEMENT SHALL BE STAGGERED.
3. WELDED SPLICES ARE NOT PERMITTED.
4. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.
5. SEE DWG. ST-45 FOR INFORMATION, DETAILS AND NOTES REGARDING JOINTLESS DETAILS AT ABUTMENTS.

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

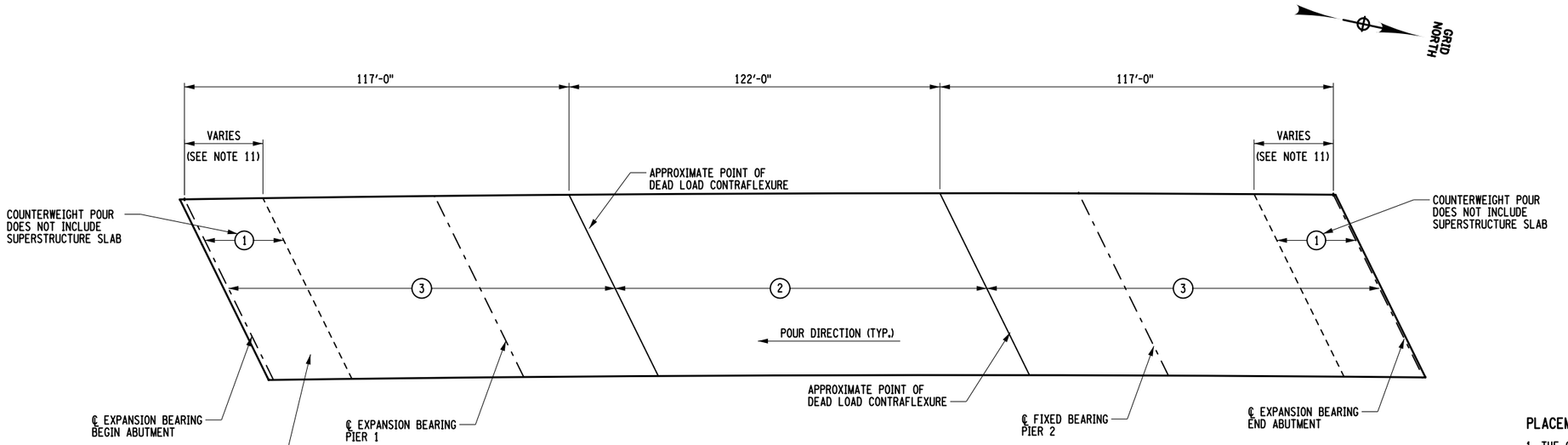


REVISIONS			
DATE	DESCRIPTION	BY	SYM.

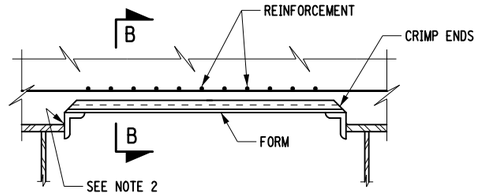
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

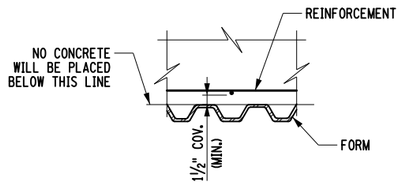
TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING: SOUTHBOUND SUPERSTRUCTURE SLAB REINFORCEMENT PLAN	DRAWING NUMBER: ST-46



POUR SEQUENCE
(NORTHBOUND SHOWN, SOUTHBOUND SIMILAR)
NOT TO SCALE



PERMANENT CORRUGATED METAL FORM DETAIL
NOT TO SCALE



SECTION B-B
NOT TO SCALE

PLACEMENT NOTES:

1. THE CONCRETE DECK SLAB FOR THIS STRUCTURE SHALL BE PLACED ACCORDING TO THE POURING SEQUENCE SHOWN IN THE CONTRACT PLANS. REQUESTS FOR AN ALTERNATE DECK POURING SEQUENCE WILL NOT BE CONSIDERED.
2. THE VALUES SHOWN IN THE CAMBER AND HAUNCH TABLES ARE BASED ON THE DECK PLACEMENT SEQUENCE SHOWN IN THE PLANS.
3. CONCRETE PLACEMENT AND FINISHING OPERATIONS SHALL BE PERFORMED AS RAPIDLY AS POSSIBLE. THE ENGINEER MAY DIRECT THE CONTRACTOR TO STOP PLACEMENT OPERATIONS AT ANY TIME IF, IN THE ENGINEER'S OPINION, CONCRETE PLACED DURING THE PLACEMENT HAS STARTED TO SET, OR IS ABOUT TO SET, AND FURTHER PLACEMENT OF CONCRETE WILL CAUSE DEFLECTION CRACKING.
4. LONGITUDINAL CONSTRUCTION JOINTS NOT SHOWN IN THE PLANS ARE NOT PERMITTED.
5. THE CONTRACTOR SHALL OPERATE FINISHING MACHINE(S) AS CLOSE TO THE SKEW ANGLE AS PRACTICABLE FOR SKEW ANGLE.
6. THE CONTRACTOR SHALL PLACE WET BURLAP CURING BLANKETS ON THE CONCRETE DECK WITHIN 30 MINUTES OF THE CONCRETE BEING DEPOSITED INTO THE FORMS OR 5 MINUTES AFTER FINISHING, WHICHEVER COMES FIRST. THE PLACEMENT OF THE TURF DRAG TEXTURE SHALL NOT INTERFERE WITH THESE REQUIREMENTS.
7. IF THE CONTRACTOR'S DECK PLACEMENT OPERATION IS STOPPED PRIOR TO COMPLETION, WHETHER BY THE CONTRACTOR'S DECISION OR BY DIRECTION OF THE ENGINEER, THE CONTRACTOR SHALL PROVIDE A FINISHED DECK GRADE WHICH MATCHES THE PLANNED PROFILE. ANY SUBSEQUENT REVISIONS TO DECK FORMS MADE NECESSARY BY SUCH ACTION SHALL BE AT NO COST TO THE STATE.
8. PLACEMENT MAY BE ACCOMPLISHED BY THE SIMULTANEOUS OPERATION OF TWO FINISHING MACHINES AND CREWS. A MINIMUM RATE OF 30 CUBIC YARDS PER HOUR SHALL BE MAINTAINED BY EACH MACHINE.
9. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH THE PROPOSED SET RETARDING WATER REDUCING ADMIXTURE (ASTM C494 TYPE D, SRWR) AND A COPY OF THE MANUFACTURER'S LITERATURE SPECIFYING THE RECOMMENDED RANGE TO PROVIDE SUFFICIENT RETARDATION. THIS SRWR DOSAGE SHALL NOT BE REDUCED AS THE PLACEMENT PROGRESSES. THE ENGINEER WILL REJECT ANY CONCRETE DELIVERY THAT CONTAINS AN ADMIXTURE DOSAGE RATE BEYOND THE MANUFACTURER'S RECOMMENDED RANGE. ANY SUPPLIER CODES DENOTING SRWR SHALL BE GIVEN TO THE ENGINEER FOR MONITORING PURPOSES.
10. CONSTRUCTION JOINTS SHALL BE PLACED PARALLEL TO THE SKEW ANGLE. DECK CONCRETE SHALL BE PLACED SO THAT THE LEADING EDGE IS PARALLEL TO THE SKEW. FINISHING MACHINE(S) SHALL BE OPERATED AS CLOSE TO THE SKEW ANGLE AS PRACTICABLE. TEXTURING MAY BE DONE LONGITUDINAL, TRANSVERSE OR PARALLEL TO THE ALIGNMENT OF THE FINISHING MACHINE.
11. ALL AREAS SHOWN ON THE PLANS AS "PLACEMENT 1" ARE THE CONCRETE COUNTERWEIGHT AT THE ENDS OF THE BRIDGE. PLACEMENT OF THIS CONCRETE SHALL OCCUR PRIOR TO SETTING THE GIRDERS IN SPAN 2 BETWEEN FIELD SPLICES. FOR COUNTERWEIGHT DETAILS SEE DRAWING ST-58.
12. SUBSEQUENT PLACEMENTS WILL NOT BE PERMITTED UNTIL 72 HOURS OF ACCEPTABLE CURING AFTER THE COMPLETION OF THE PREVIOUS PLACEMENT HAS BEEN ACHIEVED.
13. THE CONTRACTOR MAY DIVIDE PLACEMENT 2 INTO SEPARATE POURS. THE 72 HOUR WAITING PERIOD BETWEEN PLACEMENTS SHALL BE OBSERVED.

ALTERED BY:
ON:

AFFIX SEAL: Ryan Douglas Henderson
ON: 12/11/2023

STATE OF NEW YORK ★ LICENSED PROFESSIONAL ENGINEER ★ RYAN DOUGLAS HENDERSON 082023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

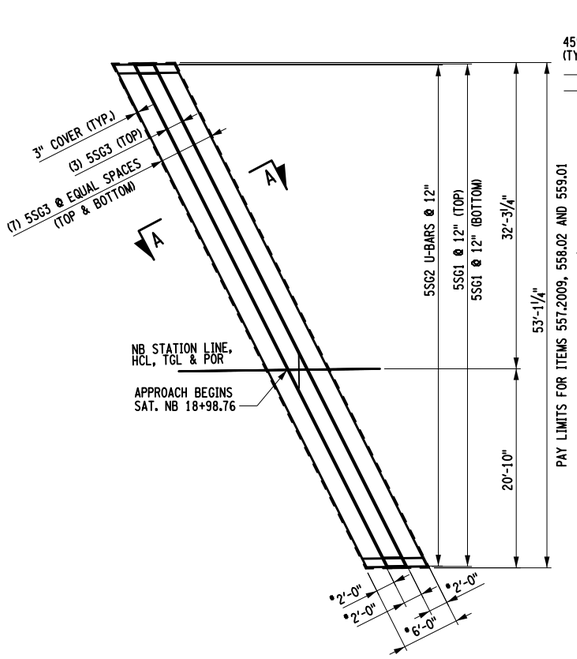
LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

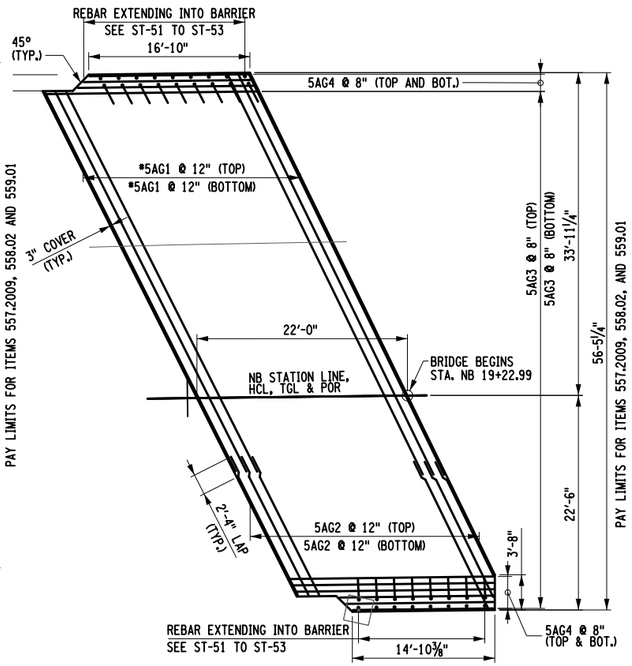
TITLE OF DRAWING
SUPERSTRUCTURE SLAB
PLACEMENT NOTES AND DETAILS

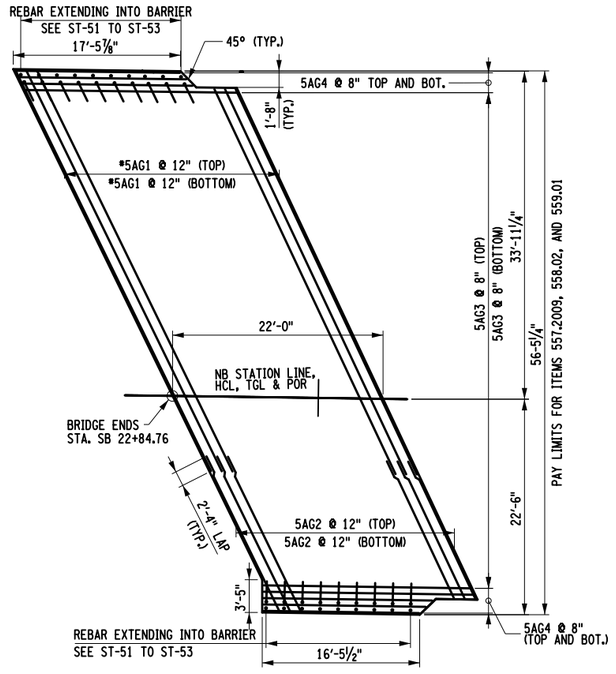
CONTRACT NUMBER:
TAA 23-25B

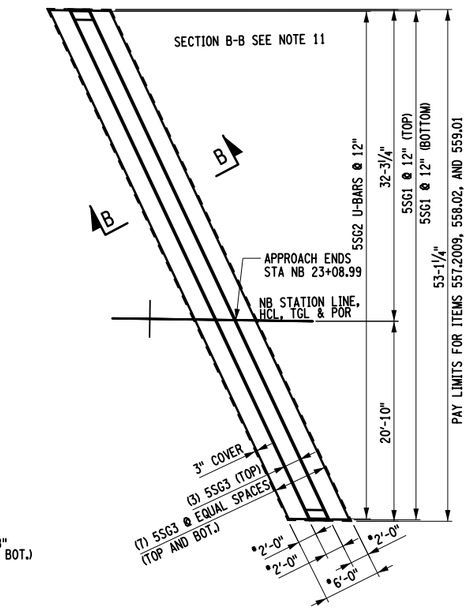
DATE:
12/11/2023

DRAWING NUMBER:
ST-47







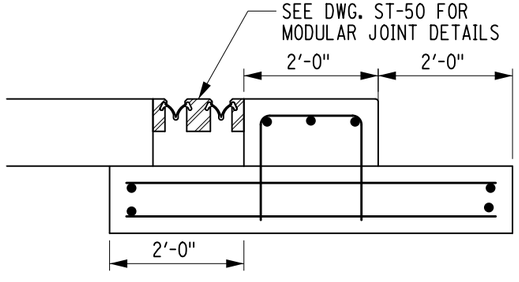


NORTHBOUND APPROACH AND SLEEPER REINFORCEMENT

NOT TO SCALE

DIMENSION SHOWN ALONG OR PERPENDICULAR TO HCL
(EXCEPT AS DESIGNATED BY •)

APPROACH SLAB TABLE			
LOCATION	CONCRETE APPROACH SLAB 557.2009 (SY)	LONGITUDINAL SAWCUT GROOVING 558.02 (SY)	PROTECTIVE SEALER 559.01 (SY)
BEGIN APPROACH SLAB			
END APPROACH SLAB			



SECTION A-A SLEEPER SLAB

NOT TO SCALE

NOTE:
1. EXCAVATION FOR SLEEPER SLABS SHALL BE CAREFULLY MADE AFTER COMPACTED ABUTMENT EMBANKMENT IS IN PLACE. THE SLEEPER SLABS SHALL BE FOUND ON UNDISTURBED COMPACT MATERIAL OR RE-COMPACTED MATERIAL. NO LOOSE BACKFILL SHALL BE ALLOWED. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE SLEEPER SLAB FROM TEMPORARY LOADINGS OR ANY CONDITION WHICH COULD CAUSE MOVEMENTS OR UNEVEN SETTLEMENT OF THE SLEEPER SLAB.
2. TO PERMIT UNHINDERED LONGITUDINAL MOVEMENT OF SLAB, THE SURFACE OF THE SUBBASE COURSE MUST BE ACCURATELY CONTROLLED TO FOLLOW AND BE PARALLEL TO BE ROADWAY GRADE AND CROSS SLOPE. POLYETHYLENE CURING COVERS (WHITE OPAQUE) IN ACCORDANCE WITH MATERIAL SPECIFICATION SUBSECTION 711-04 SHALL BE PLACED ON FINISHED SUBBASE COURSE THE FULL WIDTH OF THE APPROACH SLAB PRIOR TO PLACEMENT OF THE REINFORCEMENT. THE CURING COVERS SHALL BE 0.004 INCH THICK, AND LAPS SHALL BE 2 FT. MINIMUM.
3. TOP OF SLEEPER SLABS SHALL BE STEEL TROWEL FINISHED AND COATED WITH A 0.04 INCH NOMINAL THICKNESS OF PERFORMANCE GRADE ASPHALT AS INDICATED IN THE PROPOSAL, OR MATERIAL SPECIFICATION 702-3101. THE TOP OF SLEEPER SLABS SHALL FOLLOW THE CROSS SLOPE AND GRADE OF THE ROADWAY, COST TO BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.
4. FILL THE RECESS WITH A STRUCTURAL JOINT MATERIAL, LIQUID SEALANT, FROM THE DEPARTMENTS APPROVED LIST. THE MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR THOSE SEALANTS THAT REQUIRES A PRIMER. THE CONCRETE SHALL CURE FOR MINIMUM OF 7 DAYS BEFORE JOINT IS SEALED. SEALING SHALL ONLY BE PREFORMED WHEN THE CONCRETE TEMPERATURE IS 40°F OR ABOVE. BOTH JOINT FACES SHALL BE SAND BLASTED TO ROUGHEN THE SURFACE AND TO REMOVE ALL SURFACE MOISTURE AND ANY OTHER MATERIAL THAT MAY INTERFERE WITH BOND.
5. TOP SURFACE OF STRUCTURAL SLABS, APPROACH SLABS AND EXPOSED TOP SURFACES OF SLEEPER SHALL BE GROOVED UNDER THE SAWCUT GROOVING OF STRUCTURAL SLAB SURFACE ITEM.
6. COMPRESSED SYNTHETIC SHEET GASKET (TREATED BOTH SIDES), MATERIAL SPECIFICATIONS 728-06, TWO 0.06 INCH THICK SHEETS. PRICE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.
7. THE TOTAL MOVEMENT CALCULATED AT THE SOUTH SLEEPER SLAB IS 0.31 INCHES AND NORTH SLEEPER SLAB IS 1.09 INCHES.
8. ALL REINFORCEMENT SHALL HAVE 3 INCH COVER UNLESS OTHERWISE NOTED.
9. (G) DENOTES GALVANIZED COATED BARS.
10. DETAILS NO THE DRAWINGS LABELED AS "NOT TO SCALE: ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALES IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.
11. SEE SECTION B-B ON DWG ST-49

ALTERED BY:	AFFIX SEAL: Ryan Douglas Henderson
ON:	ON: 11/20/2023

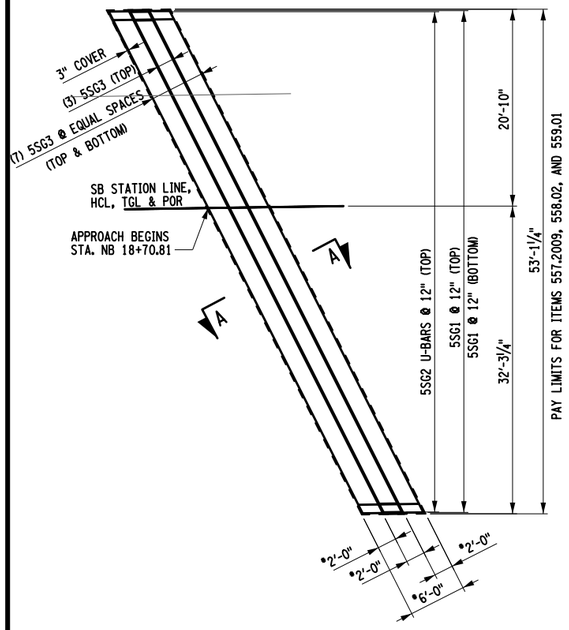
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

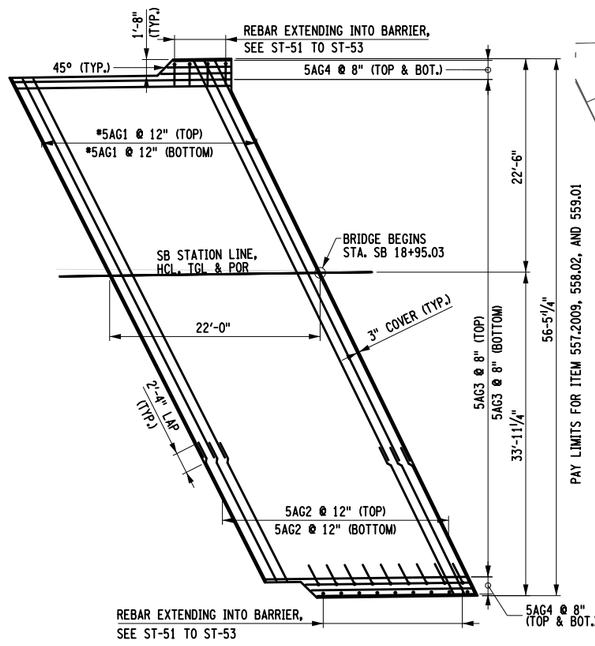
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

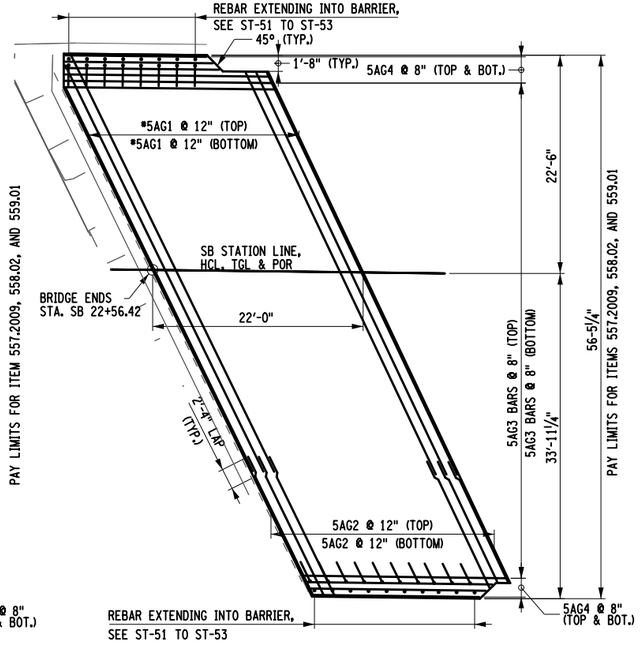
JMT

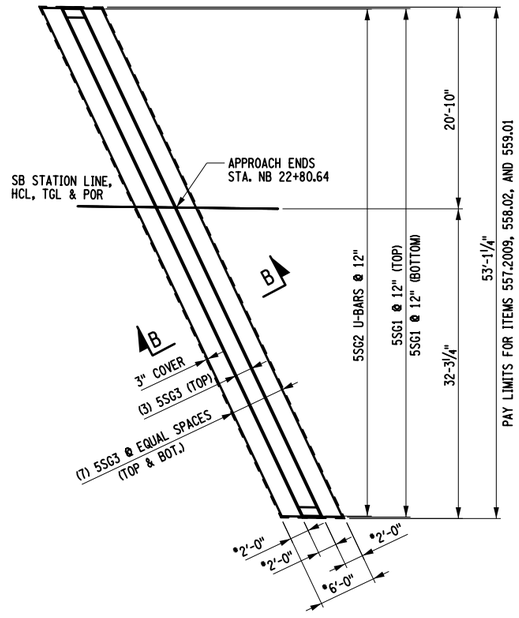
TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING: NORTHBOUND APPROACH SLAB REINFORCEMENT PLAN	DRAWING NUMBER: ST-48

FILE NAME = A72128_opb_slb_ap3_02.dgn
USER = BENTLEYHOSTING\jmtpwllcs01$
DATE/TIME = 11/16/2023
DESIGN SUPERVISOR R. HENDERSON
DESIGN
DRAFTING
CHECK
CHECK





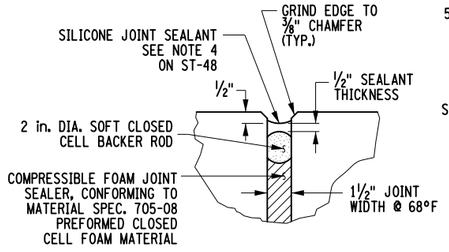




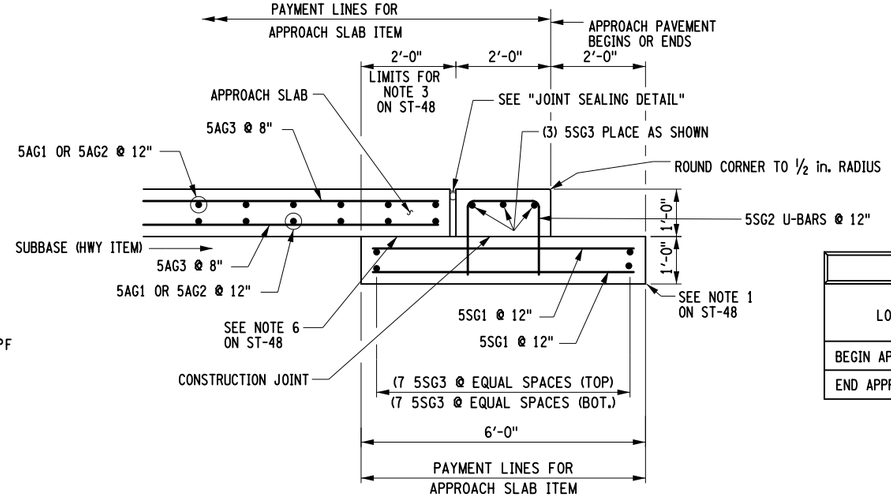
SOUTHBOUND APPROACH AND SLEEPER REINFORCEMENT

NOT TO SCALE

DIMENSION SHOWN ALONG OR PERPENDICULAR TO HCL
(EXCEPT AS DESIGNATED BY *)



JOINT SEALING DETAIL



SECTION B-B SLEEPER SLAB

APPROACH SLAB TABLE

LOCATION	CONCRETE APPROACH SLAB 557.2009 (SY)	LONGITUDINAL SAWCUT GROOVING 558.02 (SY)	PROTECTIVE SEALER 559.01 (SY)
BEGIN APPROACH SLAB	173	128	1271
END APPROACH SLAB	175	130	1288

NOTES:
1. SEE SECTION A-A ON DWG. ST-48
2. SEE MODULAR JOINT DETAILS DWG. ST-50
3. SEE NOTES ON DWG. ST-48

ALTERED BY:
ON:

AFFIX SEAL: Ryan Douglas Henderson
ON: 11/20/2023

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER
082023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT
REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER

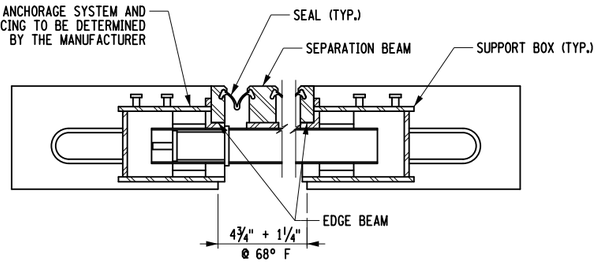
LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 – BIN 5041189

TITLE OF DRAWING
SOUTHBOUND APPROACH SLAB REINFORCEMENT PLAN

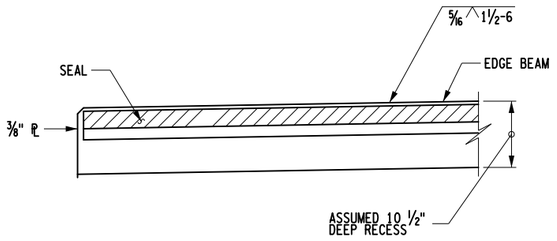
CONTRACT NUMBER: TAA 23-25B

DATE: 11/16/2023

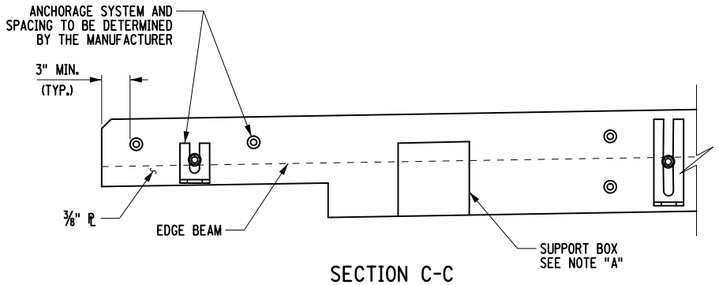
DRAWING NUMBER: ST-49



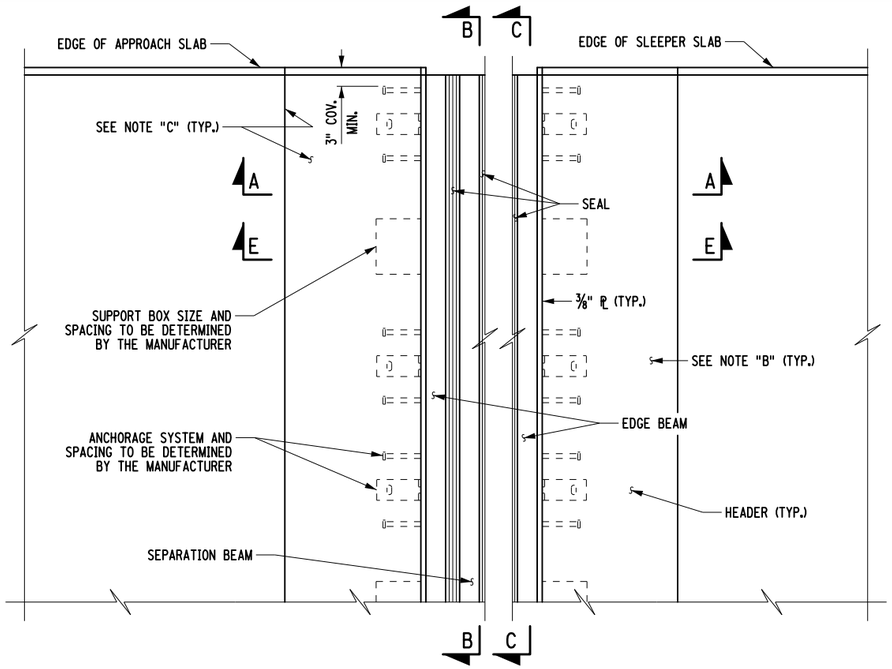
SECTION E-E
(HEADER ONLY SHOWN FOR CLARITY)



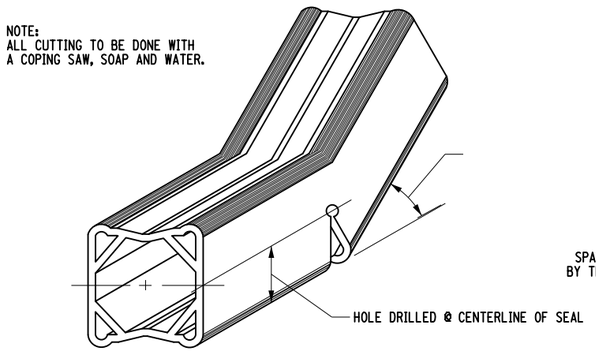
SECTION B-B



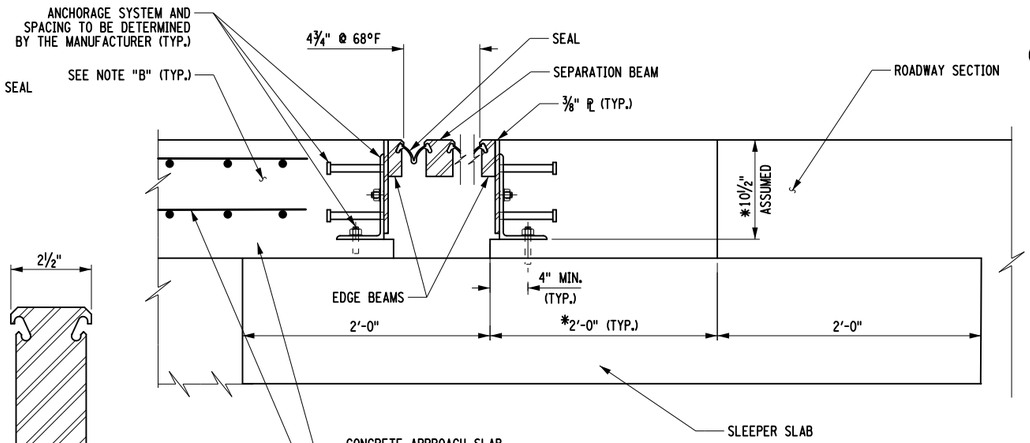
SECTION C-C



PARTIAL PLAN
(MULTICELL MODULAR JOINT SYSTEM AT APPROACH/SLEEPER SLAB)
ITEM 566.02

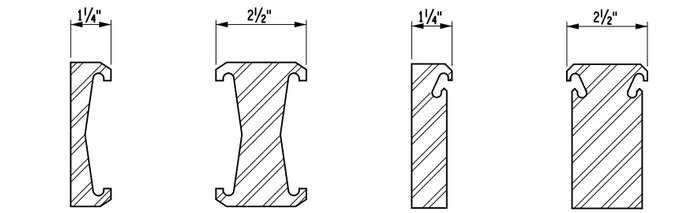


DETAIL FOR CUTTING
BOX SEAL

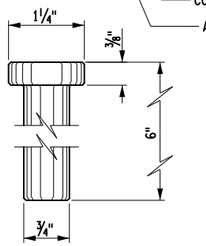


SECTION A-A AT APPROACH
AND SLEEPER SLAB

* IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT THE DIMENSIONS SHOWN ARE ADEQUATE FOR THE PROVIDED.



EDGE BEAM FOR BOX SEAL | SEPARATION BEAM FOR BOX SEAL | EDGE BEAM FOR STRIP SEAL | SEPARATION BEAM FOR STRIP SEAL



DETAIL OF HEADED CONCRETE
ANCHOR STUD

STRIP SEAL CROSS SECTION

NOTE "B"

THE CONCRETE FURNISHED AND PLACED IN THE RECESSES FOR INSTALLING THE JOINT SYSTEM SHALL COMPLY WITH THE SPECIFICATIONS FOR THE CURRENT SLAB ITEM, EXCEPT THAT MACHINE FINISHING WILL NOT BE REQUIRED AND CURING TIME NEED NOT EXCEED 7 DAYS. THE COST FOR FURNISHING AND PLACING THIS CONCRETE SHALL BE INCLUDED IN THE UNIT PRICE OF THE SLAB ITEM.

NOTES:

IT IS DESIRABLE TO HAVE THE MODULAR JOINT WITH ITS SEAL ASSEMBLED IN THE SHOP AND DELIVERED TO THE JOB SITE ALL SET FOR INSTALLATION IN ITS PREFORMED RECESS IN THE STRUCTURAL SLAB. IN CASES WHERE THE JOINT CANNOT BE ASSEMBLED IN THE SHOP, DUE TO ITS EXCESSIVE LENGTH CAUSING SHIPPING PROBLEMS, THE JOINT SHALL HAVE THE SEAL IN PLACE BEFORE THE STRUCTURE IS OPENED TO TRAFFIC, INCLUDING CONSTRUCTION TRAFFIC, AND BEFORE DISCONTINUING OPERATION WHEN WORK IS SUSPENDED DURING THE WINTER.

MODULAR JOINT SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL JOINT SUPPLIED MAY VARY SIGNIFICANTLY FROM THE ONE SHOWN HERE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADJUST ALL REQUIRED DIMENSIONS IN THE FIELD, BASED ON FIELD VERIFIED DIMENSIONS, TO ACCOMMODATE THE ACTUAL MODULAR JOINT SUPPLIED.

STRIP SEAL OR BOX SEAL MAY BE USED AT THE CONTRACTOR'S OPTION.

THE SUPPLIER OF THE JOINT SYSTEM MUST BE ON THE NYSDOT APPROVED LIST.

THE ASSUMED DIMENSIONS OF THE BLOCKOUT (DEPTH AND WIDTH) ARE PLACED ON THE PLANS. IF THE JOINT SYSTEM SUPPLIED BY THE FABRICATOR/CONTRACTOR REQUIRES A CHANGE TO THE BLOCKOUT SIZE OR SUPPORT SYSTEM DETAILED IN THE PLANS, THAT CHANGE TO THE BLOCKOUT OR SUPPORT SYSTEM SHALL BE THE CONTRACTOR'S RESPONSIBILITY. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE CHANGES TO THE BLOCKOUT OR SUPPORT SYSTEM AS A RESULT OF THE SUPPLIED JOINT SYSTEM.

ENDS OF BOX SEAL TO BE CAPPED WITH NEOPRENE SPONGE AS APPROVED BY ENGINEER.

CAULKING COMPOUND FOR STRUCTURES CONFORMING TO N.Y.S. STANDARD SPECIFICATIONS SUBSECTION 705-06 SHALL BE USED TO SEAL BETWEEN THE CURB AND THE ⅜" PLATE. COST TO BE INCLUDED IN THE UNIT PRICE FOR THE CURB ITEM.

ALTERED BY:	AFFIX SEAL: Ryan Douglas Henderson
ON:	ON: 11/20/2023

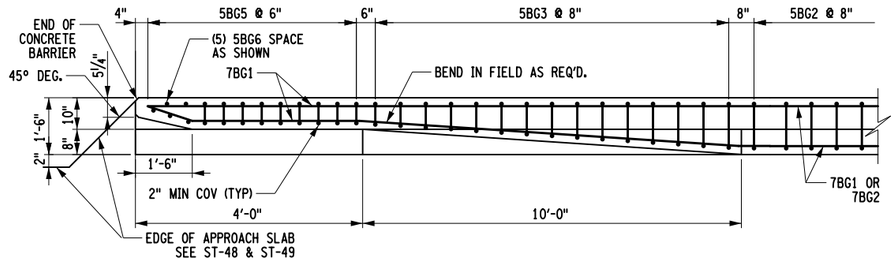
STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · LICENSED PROFESSIONAL ENGINEER · 082023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

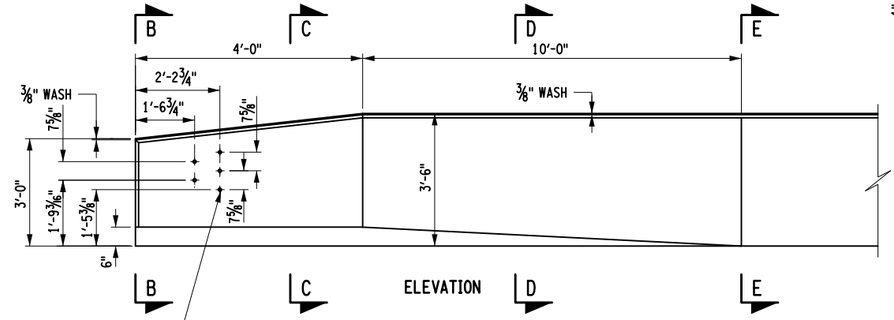
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING: JOINT DETAILS	DRAWING NUMBER: ST-50

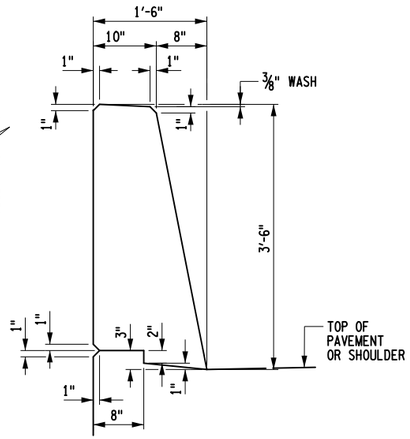


PLAN

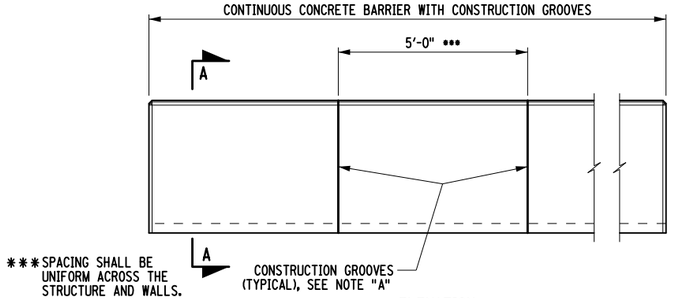


1" DIA. P.V.C. PIPE OR 1" DIA. GALVANIZED STEEL PIPE (ASTM A53, NPS 1" DIA.). THE COST OF FURNISHING AND PLACING SHALL BE INCLUDED IN THE CONCRETE BARRIER ITEM.

CONCRETE BARRIER TRANSITION
NOT TO SCALE



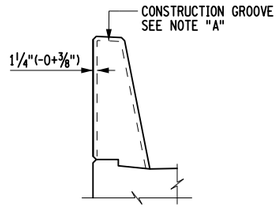
TYPICAL BARRIER SECTION
NOT TO SCALE



***SPACING SHALL BE UNIFORM ACROSS THE STRUCTURE AND WALLS.

ELEVATION

CONCRETE BARRIER GROOVE SPACING
NOT TO SCALE

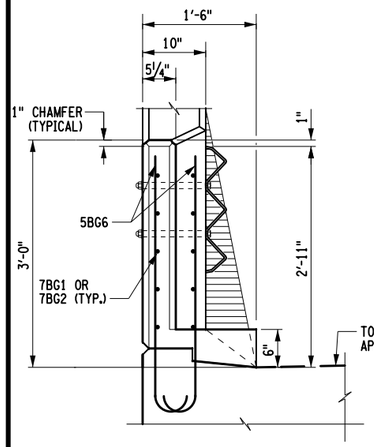


SECTION A-A
NOT TO SCALE

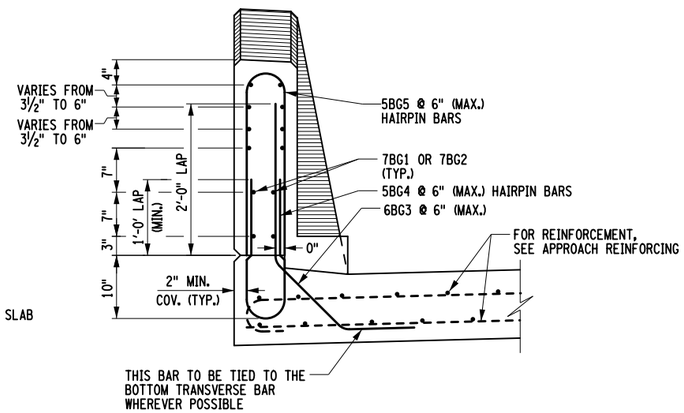
NOTE "A":

CONSTRUCTION GROOVES SHALL BE MADE BY:
1. FORMING FOR CAST-IN-PLACE CONSTRUCTED FORMS.
2. SAWING THE SET CONCRETE WITHIN 8 HOURS OF PLACEMENT FOR CAST-IN-PLACE SLIP FORMED.
3. CUTTING THE PLASTIC CONCRETE.

COMBINATION OF THESE METHODS MAY BE EMPLOYED.
THE DEPTH OF THE GROOVES SHALL BE 1¼"(-0+⅜").
FORMED GROOVES SHALL MAKE A 60° ANGLE WITH THE SURFACE.
CUT GROOVES SHALL BE FINISHED WITH SHALLOW (¾"± ¼") CONSTANT DEPTH 45° CHAMFERS AT THE SURFACE.
THE LONGITUDINAL REINFORCING BARS FOR THE CONCRETE BARRIERS SHALL BE CONTINUOUS BETWEEN BRIDGE EXPANSION JOINTS. WHERE SPLICES ARE REQUIRED, THE LENGTH OF THE LAP SHALL BE SUFFICIENT TO DEVELOP EACH BAR.

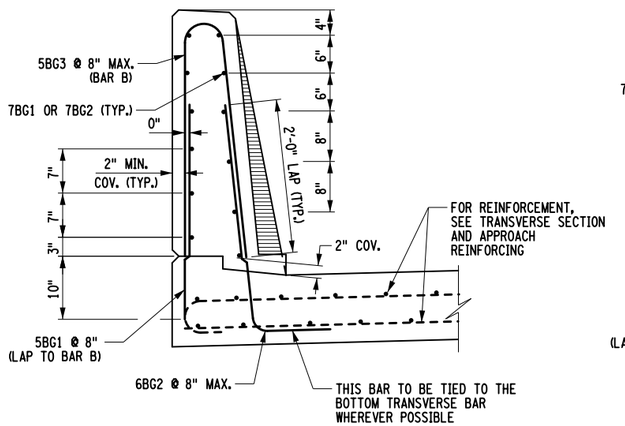


BARRIER END SECTION B-B
NOT TO SCALE

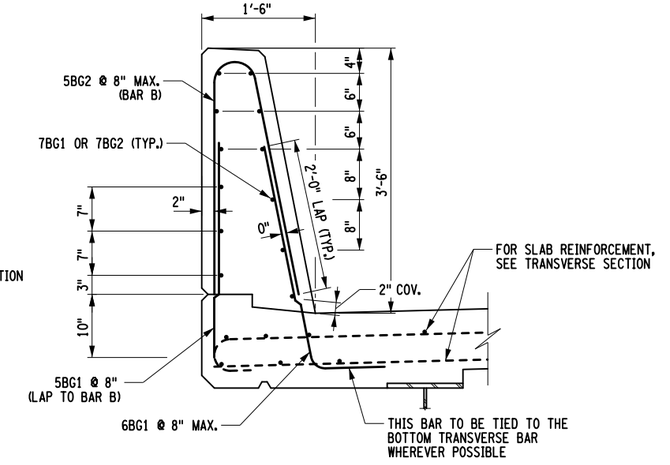


BARRIER SECTION C-C
NOT TO SCALE

NOTE "B"
DECK CROSS SLOPES OTHER THAN NORMAL CROWN MAY REQUIRE THIS LEG TO BE BENT IN FIELD TO MAINTAIN A 2" MINIMUM COVER AT FRONT FACE OF BARRIER.



BARRIER SECTION D-D
NOT TO SCALE



BARRIER SECTION E-E
NOT TO SCALE

ALTERED BY:	AFFIX SEAL: Ryan Douglas Henderson
ON:	ON: 11/20/2023

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER 082023

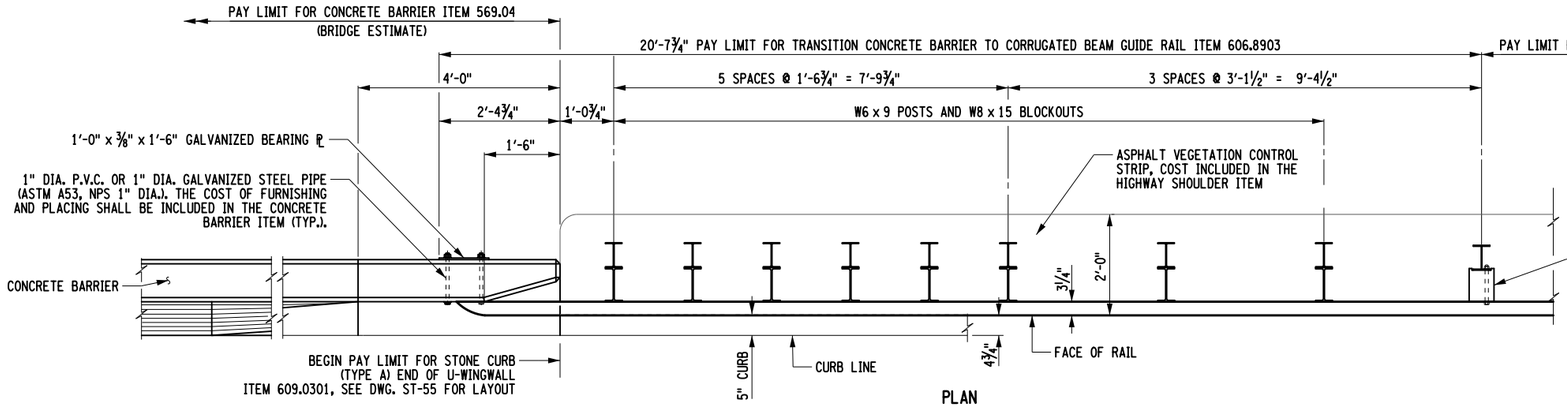
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

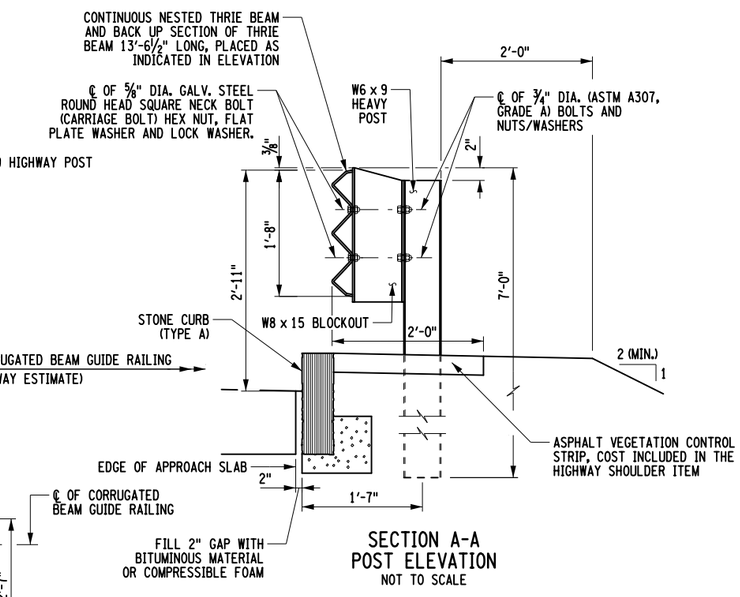
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

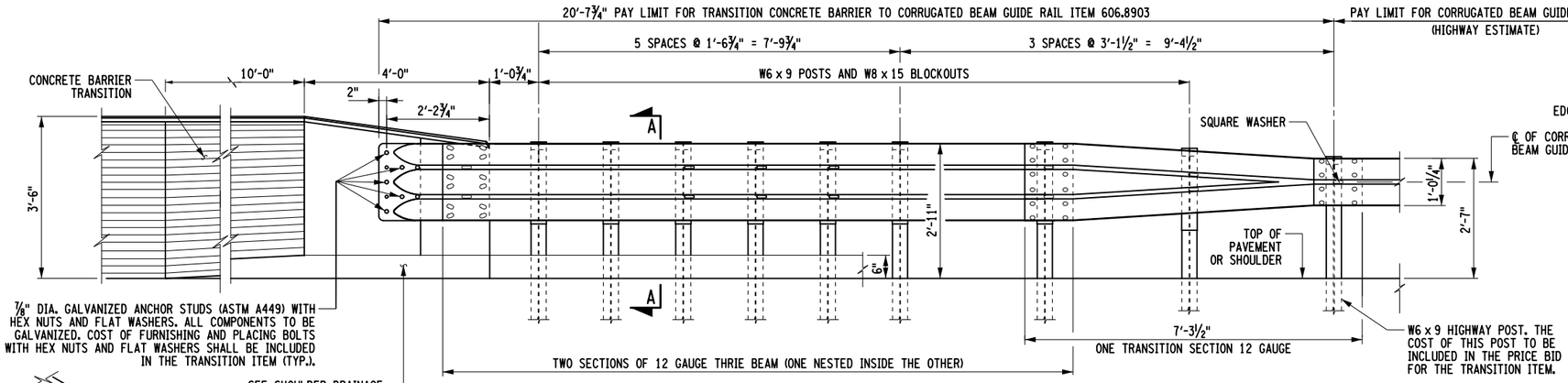
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

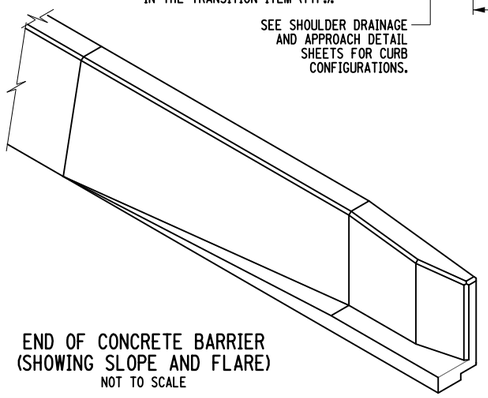
TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING: CONCRETE BARRIER DETAILS	DRAWING NUMBER: ST-51



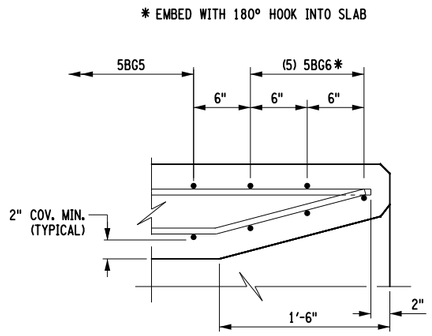




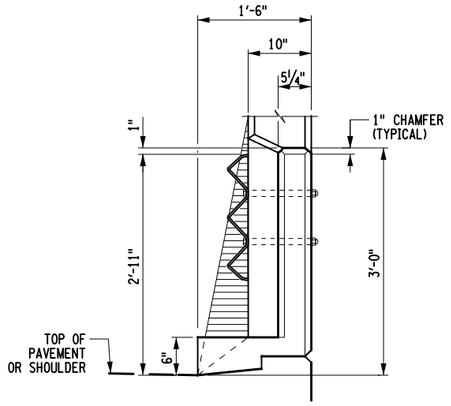
ELEVATION
CONCRETE BARRIER TRANSITION TO CORRUGATED BEAM GUIDE RAILING
NOT TO SCALE



END OF CONCRETE BARRIER
(SHOWING SLOPE AND FLARE)
NOT TO SCALE



REINFORCEMENT PLAN
(TRANSITION CONCRETE BARRIER END)
NOT TO SCALE



BARRIER END VIEW
NOT TO SCALE

NOTES:

(G) DENOTES GALVANIZED BAR.

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

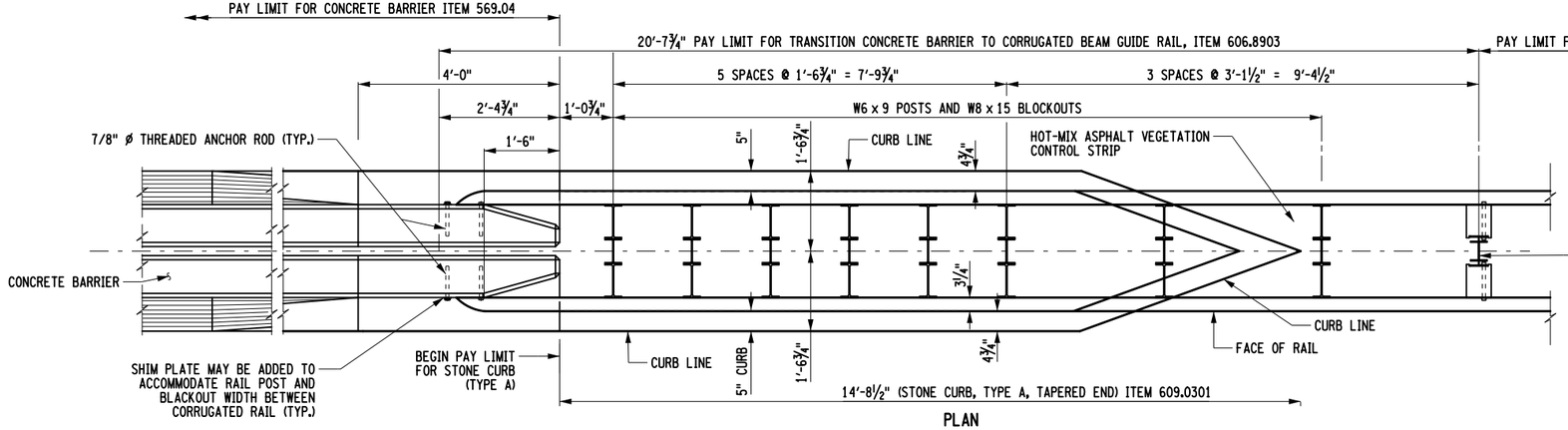
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

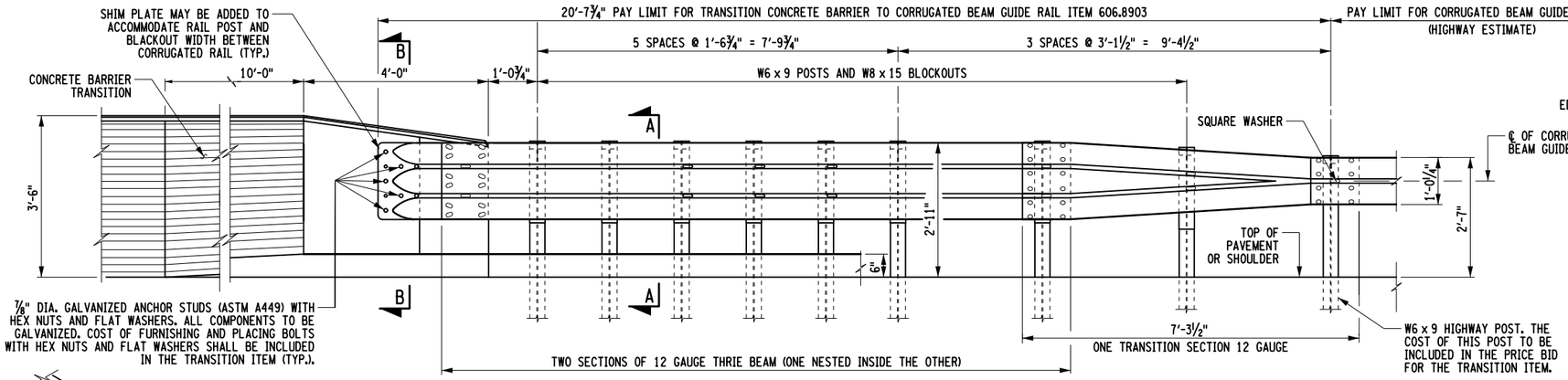
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

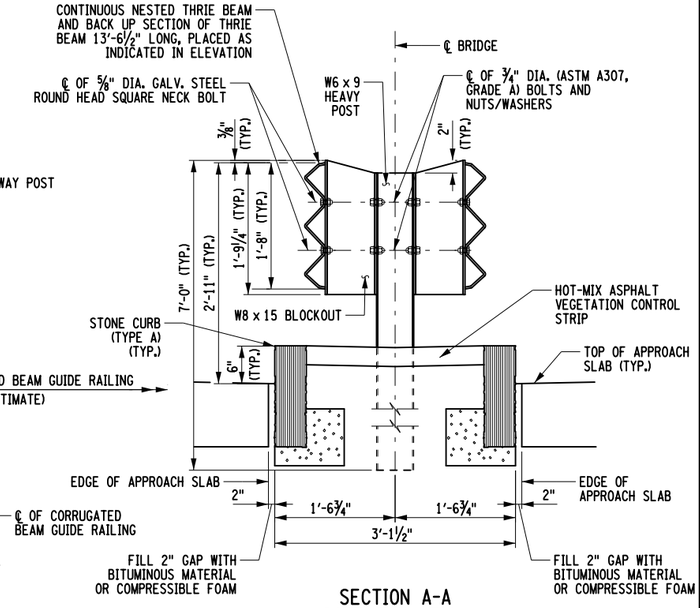
TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING: CONCRETE BRIDGE BARRIER TRANSITION TO GUIDERAIL	DRAWING NUMBER: ST-52



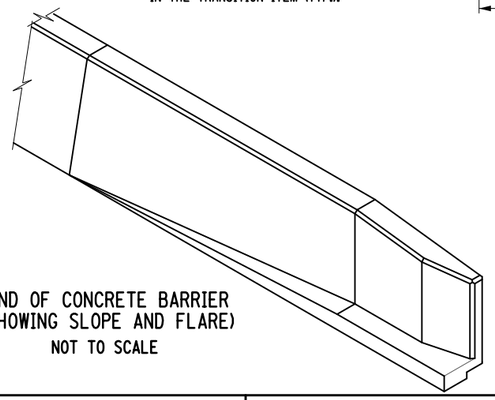
PLAN



ELEVATION
CONCRETE BARRIER TRANSITION TO CORRUGATED BEAM GUIDE RAILING
NOT TO SCALE

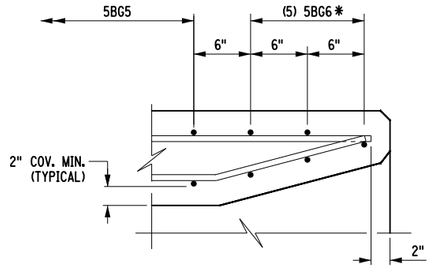


SECTION A-A
POST ELEVATION
NOT TO SCALE

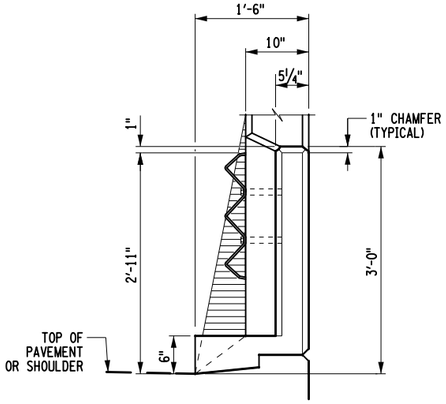


END OF CONCRETE BARRIER
(SHOWING SLOPE AND FLARE)
NOT TO SCALE

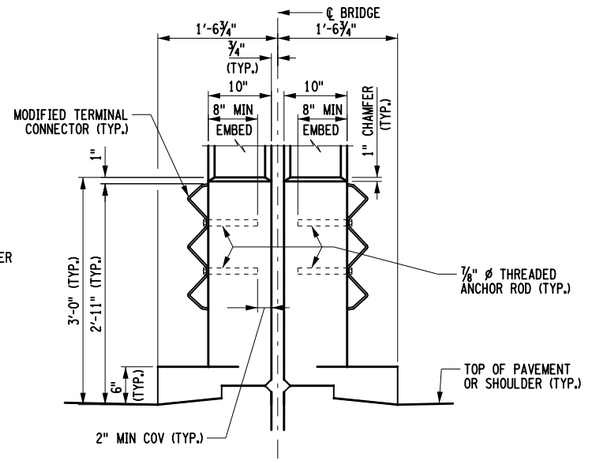
* EMBED WITH 180° HOOK INTO SLAB



REINFORCEMENT PLAN
(TRANSITION CONCRETE BARRIER END)
NOT TO SCALE



BARRIER END VIEW
NOT TO SCALE



SECTION B-B
NOT TO SCALE

NOTES:
FOR RAILING DETAILS, SEE DWG ST-54

(G) DENOTES GALVANIZED BARS.

DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

ALTERED BY:	AFFIX SEAL: Ryan Douglas Henderson
ON:	ON: 11/20/2023

STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · LICENSED PROFESSIONAL ENGINEER · 082023

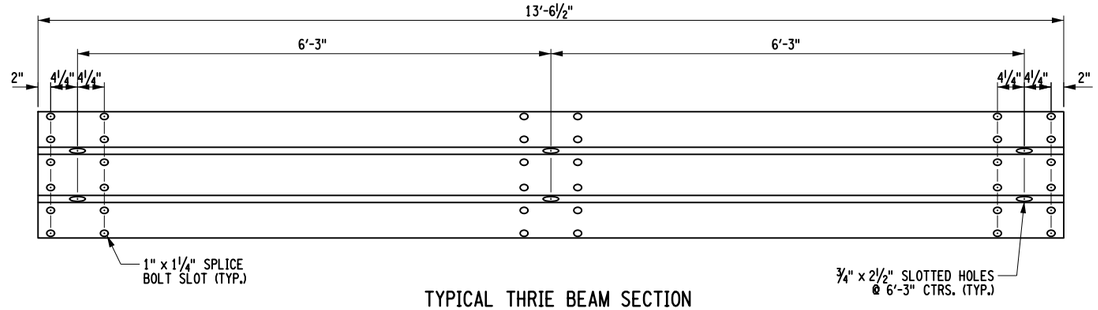
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

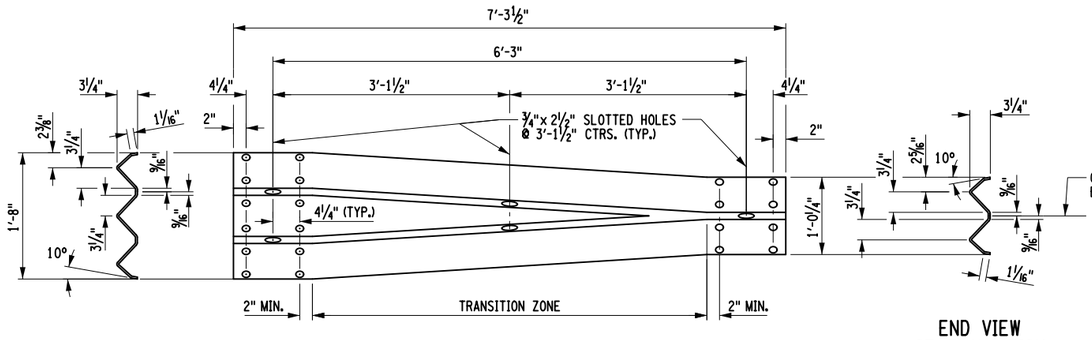
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING: MEDIAN CONCRETE BRIDGE BARRIER TRANSITION TO GUIDERAIL	DRAWING NUMBER: ST-53



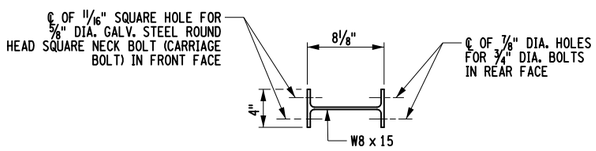
TYPICAL THRIE BEAM SECTION
NOT TO SCALE



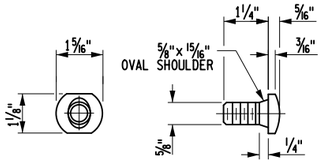
END VIEW
OF TRANSITION

TRANSITION SECTION
NOT TO SCALE

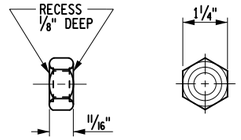
END VIEW
OF TRANSITION



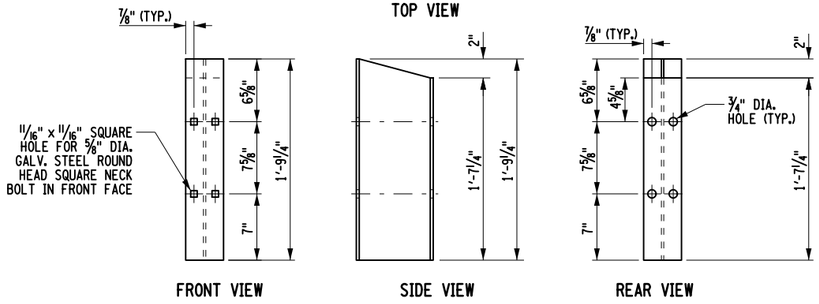
TOP VIEW



SPLICE BOLT
ASTM A307, GRADE A

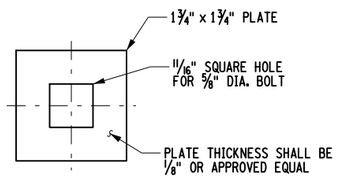


HEX NUT
ASTM A563 GRADE A OR BETTER

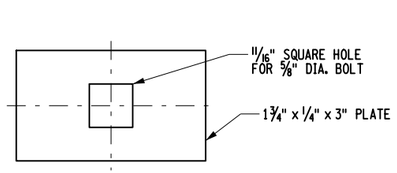


FRONT VIEW SIDE VIEW REAR VIEW

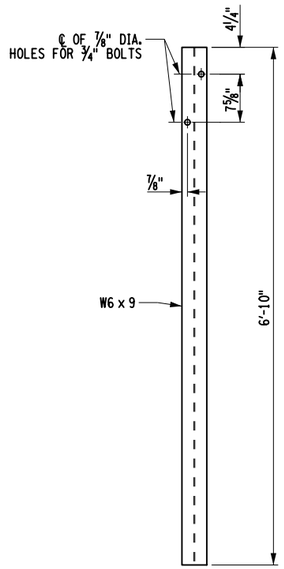
THRIE BEAM BLOCKOUT DETAIL
NOT TO SCALE



SQUARE WASHER
NOT TO SCALE

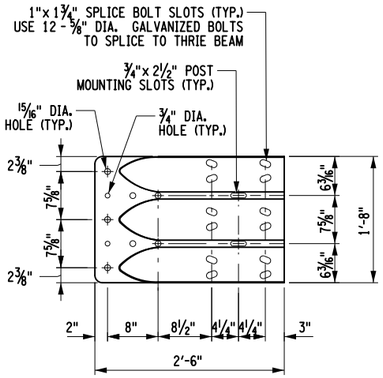


FLAT PLATE WASHER
NOT TO SCALE

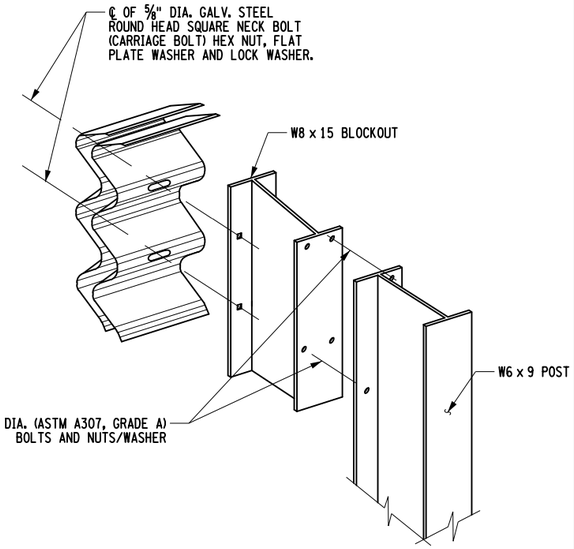


POST DETAIL
NOT TO SCALE

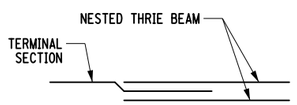
BEAM SPLICE HARDWARE
NOT TO SCALE



MODIFIED TERMINAL CONNECTOR
NOT TO SCALE

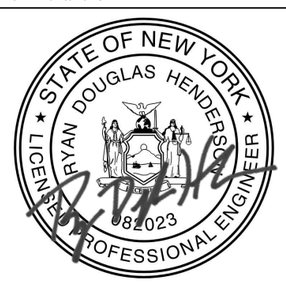


THRIE BEAM ASSEMBLY
NOT TO SCALE



TYPICAL SPLICE LAYOUT
NOT TO SCALE

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

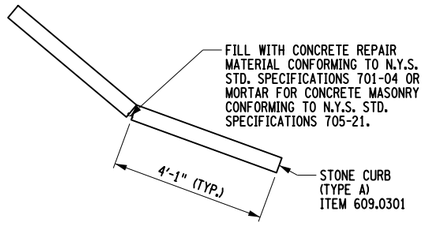


REVISIONS			
DATE	DESCRIPTION	BY	SYM.

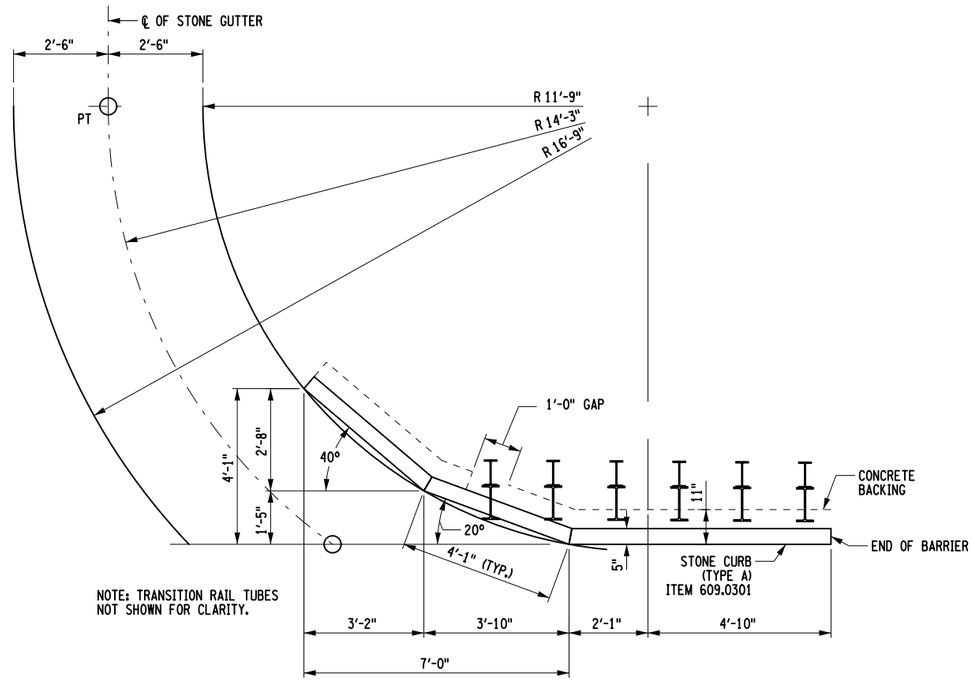
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

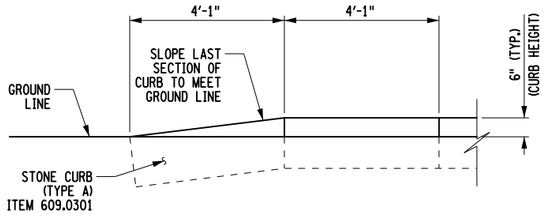
TITLE OF PROJECT REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING CONCRETE BRIDGE BARRIER TRANSITION DETAILS	DRAWING NUMBER: ST-54



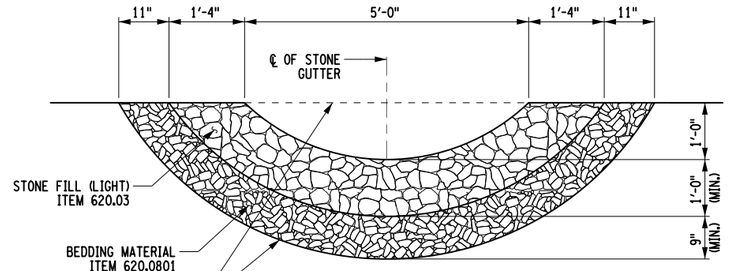
ALTERNATE CURB JOINT DETAIL
NOT TO SCALE



LAYOUT OF DRAINAGE CURBING AND STONE GUTTER
NOT TO SCALE



ELEVATION OF CURB TAPER
NOT TO SCALE



SECTION THRU STONE GUTTER
NOT TO SCALE

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER 082023

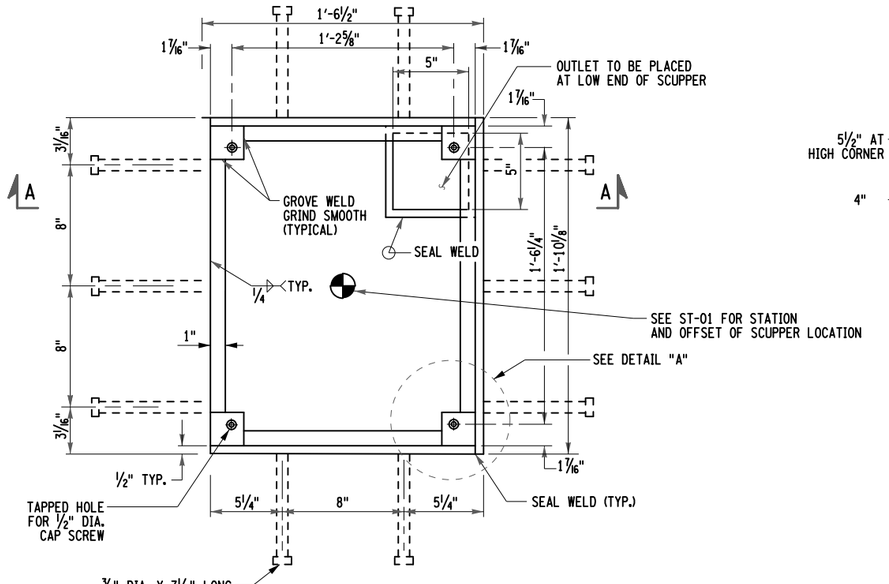
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

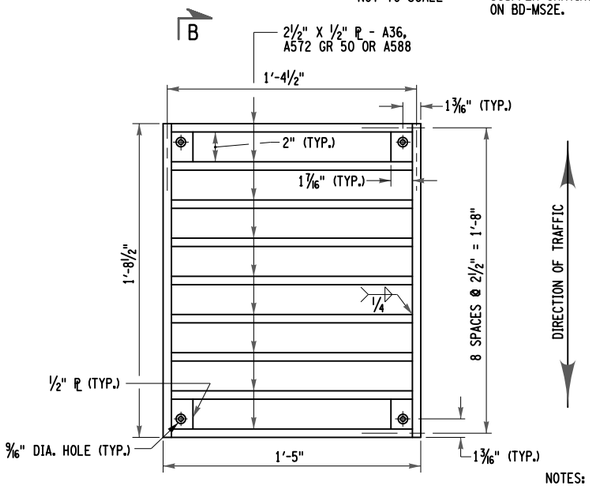
TITLE OF PROJECT REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING APPROACH DRAINAGE DETAILS	DRAWING NUMBER: ST-55



PLAN
NOT TO SCALE

NOTE:

GRATING NOT SHOWN, SEE SCUPPER GRATING DETAIL ON BD-MS2E.



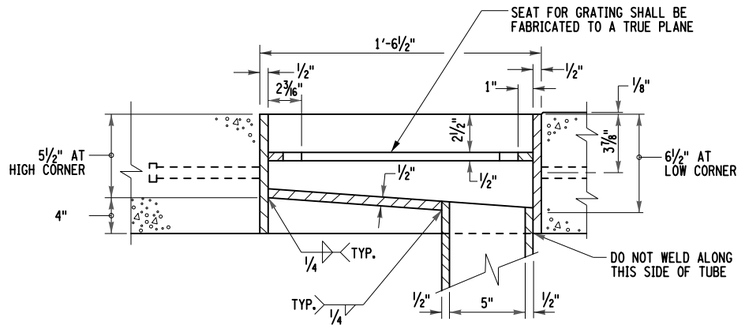
PLAN
NOT TO SCALE

SCUPPER GRATING

NOTES:

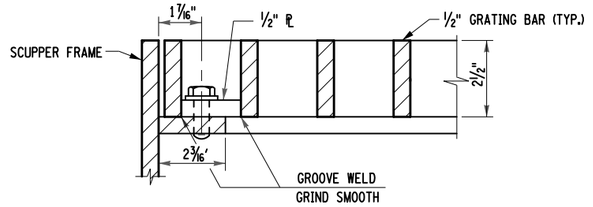
GRATING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE SCUPPER ITEM.

ALL MATERIAL SHALL BE GALVANIZED IN ACORDANCE WITH N.Y.S. STANDARD SPECIFICATIONS MATERIAL SPECIFICATION 719-01.

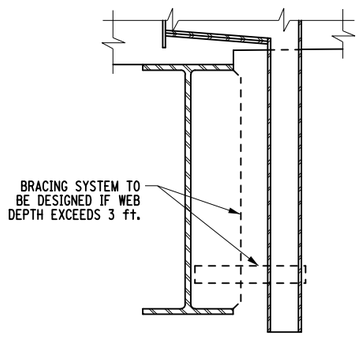


SECTION B-B
NOT TO SCALE

FABRICATED SCUPPER-TYPE "B2"



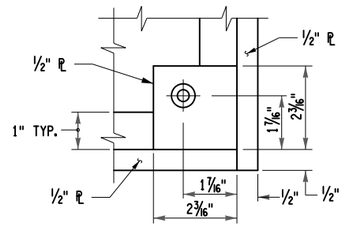
SECTION A-A
(FABRICATED SCUPPER & GRATE)
NOT TO SCALE



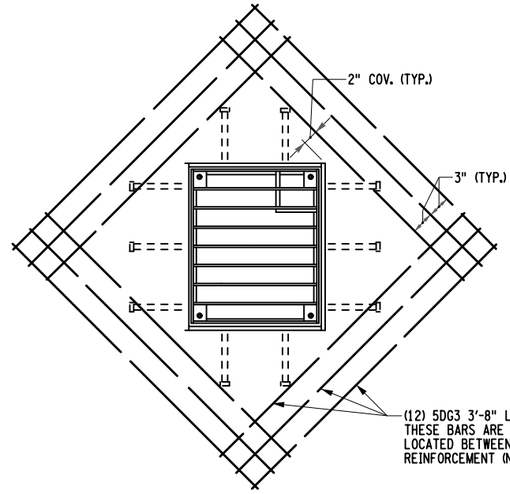
DETAILS OF SPILL AREA FOR SCUPPERS
NOT TO SCALE

NOTE:

DOWNSPOUT TO BE EXTENDED 1'-0" BELOW THE BOTTOM OF BOTTOM FLANGE. COST TO BE INCLUDED IN THE PRICE BID FOR THE SCUPPER ITEM.



DETAIL "A"
NOT TO SCALE



REINFORCEMENT PLAN AT SCUPPERS
NOT TO SCALE

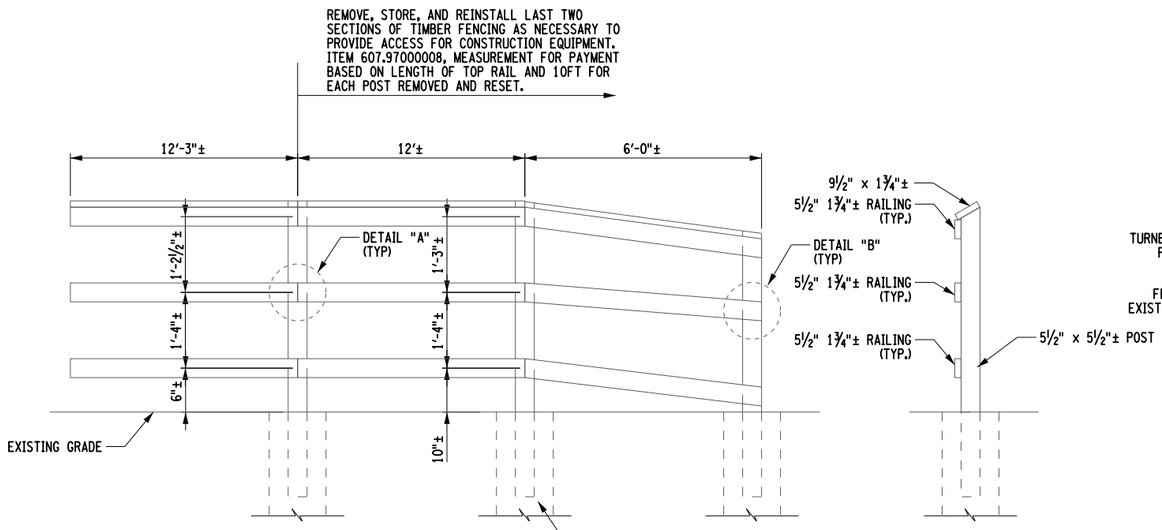
ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

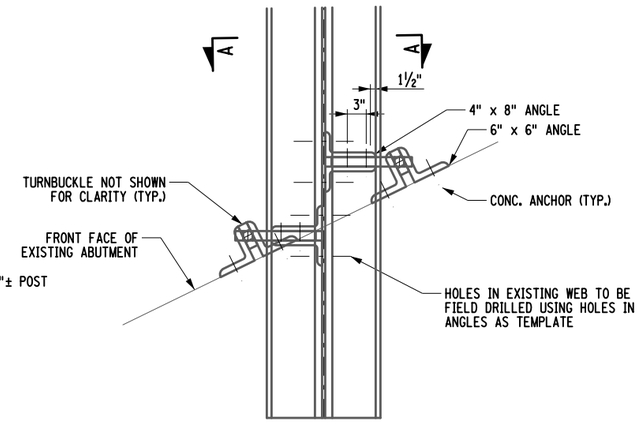
JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	MISCELLANEOUS DETAILS (1 OF 5)
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	ST-56



EXISTING FENCE RAILING DETAIL
AT NORTHWEST CORNER OF COVERED BRIDGE
NOT TO SCALE

FENCE POST ELEVATION
NOT TO SCALE



TIE DOWN PLAN
NOT TO SCALE

TEMPORARY TIE-DOWN NOTES:

1. CONCRETE REPAIRS TO FACE OF EXISTING ABUTMENT STEM SHALL BE COMPLETED PRIOR TO INSTALLATION OF CONCRETE ANCHORS.

2. LOCATIONS OF TIE DOWN ASSEMBLIES AT ABUTMENTS SUPPORTING SOUTHBOUND STRUCTURE SHALL BE DETERMINED BY ENGINEER. ALL TIE DOWN ASSEMBLIES WILL BE INSTALLED PRIOR TO SHIFTING NORTHBOUND TRAFFIC ONTO SOUTHBOUND SUPERSTRUCTURE IN STAGE 2. ANY CONCRETE REPAIRS NEEDED ON FENCE OF ABUTMENT WILL BE COMPLETED PRIOR TO INSTALLATION OF 6"X6" ANGLES. EMBEDMENT OF CONCRETE ANCHORS MAY NEED TO BE INCREASED TO ENSURE EMBEDMENT INTO SOUND CONCRETE.

3. CONCRETE ANCHORS MUST HAVE A WORKING CAPACITY OF A COMBINED X KIPS IN SHEAR AND X KIPS IN TENSION.

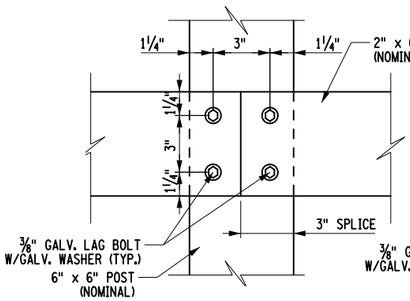
4. CONTRACTOR WILL SELECT TURNBUCKLE WITH A MINIMUM WORKING CAPACITY OF 25KIPS AND PROVIDE INFORMATION TO ENGINEER FOR APPROVAL.

5. COST OF EACH ASSEMBLY WILL BE BASED ON THE WEIGHT OF THE ANGLES AND STEEL PLATES, ITEM 564.510003, AND INCLUDE ALL ELEMENTS OF WORK INCLUDING THE TURNBUCKLE. COST OF ANCHORS WILL BE INCLUDED IN DRILL AND GROUT ITEM 586.0301 AND 556.0203.

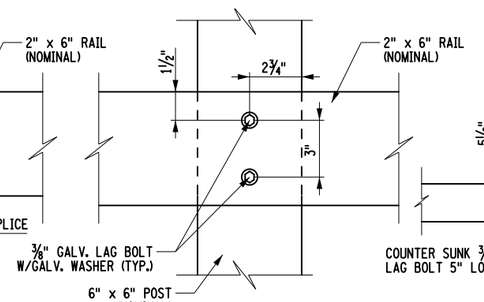
6. STEEL ANGLES WILL BE ASTM A572 GRADE 50.

7. BOLTS FOR CONNECTIONS BETWEEN STEEL ELEMENTS WILL BE 7/8" DIA. GRADE A325 TYPE 3 WITH A563 GRADE DH3 NUTS AND F436 TYPE 3 WASHERS.

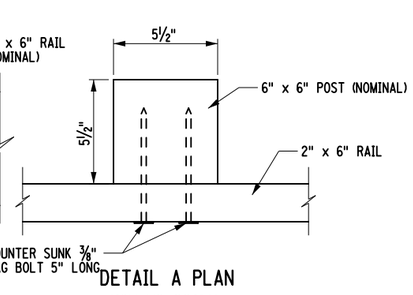
TIE DOWN DETAILS FOR EXISTING GIRDERS



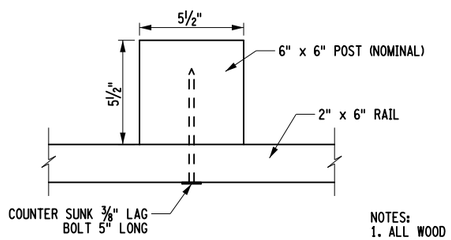
DETAIL A ELEVATION
NOT TO SCALE



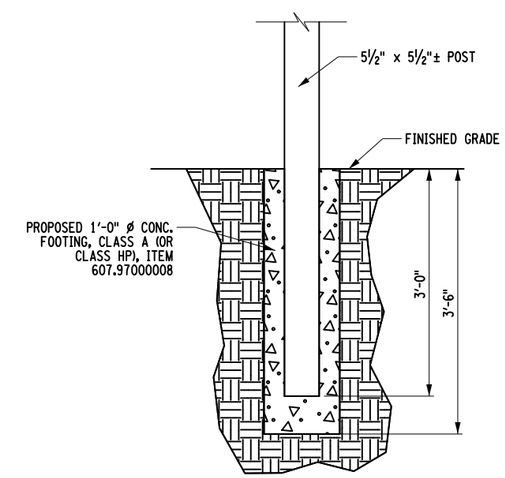
DETAIL B ELEVATION
NOT TO SCALE

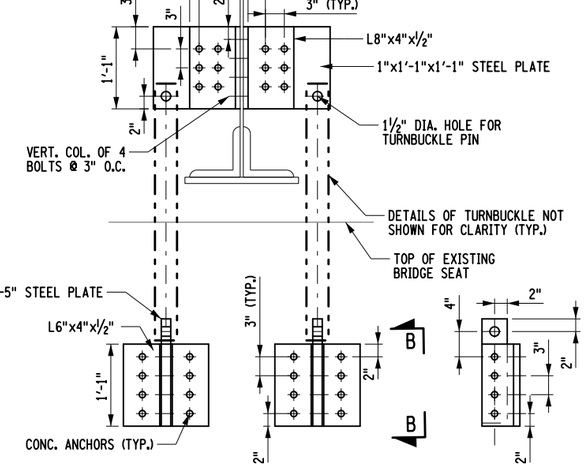


DETAIL A PLAN
NOT TO SCALE



DETAIL B PLAN
NOT TO SCALE





SECTION A-A
NOT TO SCALE

SECTION B-B
NOT TO SCALE

NOTES:
1. ALL WOOD SHALL MEET SECTION 710-13 OF THE STANDARD SPECS.
2. ONLY ONE WOOD TYPE SHALL BE USED IN THE FENCE.
3. POST AND RAIL SIZES ARE INDICATED WITH NOMINAL DIMENSIONS.
4. COST OF ALL CONNECTION HARDWARE, REUSE OF EXISTING OR NEW TO MATCH EXISTING WILL BE INCLUDED IN ITEM 607.97000008.

ALTERED BY: ON:	AFFIX SEAL: Ryan Douglas Henderson ON: 11/20/2023

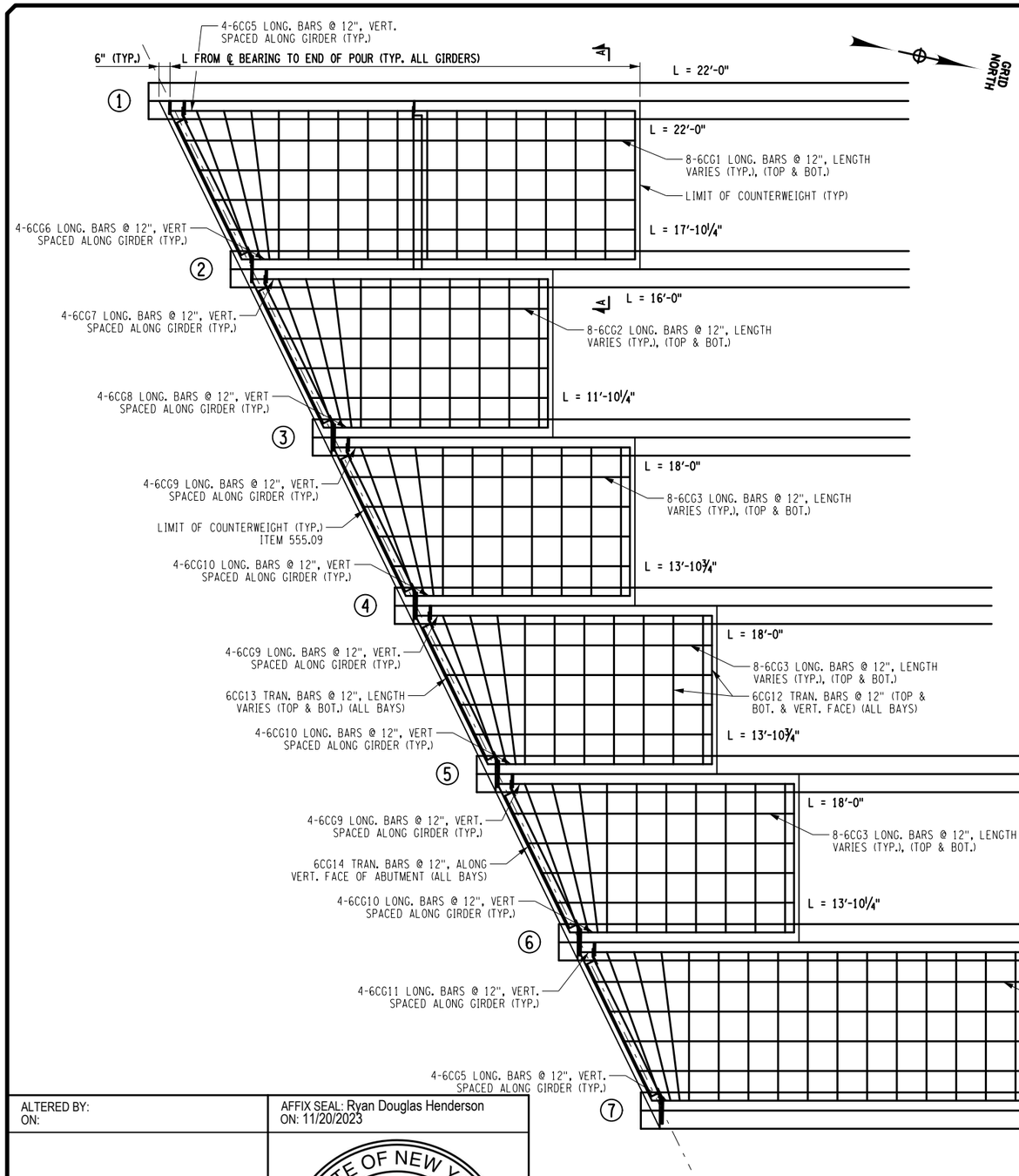
REVISIONS

DATE	DESCRIPTION	BY	SYM.

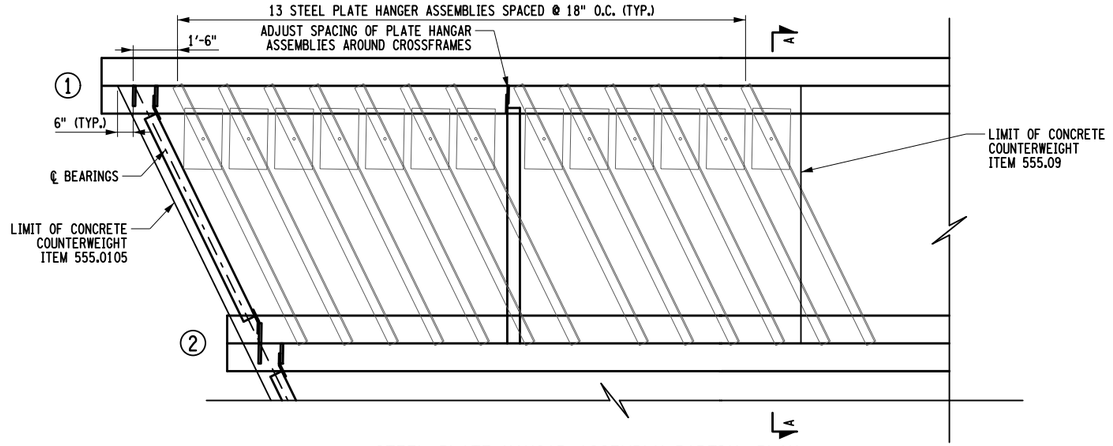
NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

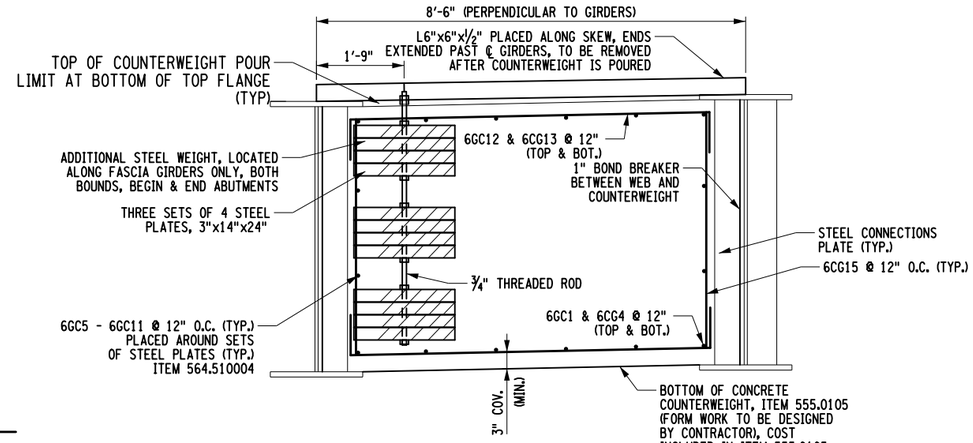
TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	MISCELLANEOUS DETAILS (2 OF 5)
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/16/2023
DRAWING NUMBER:	ST-57



CONCRETE COUNTERWEIGHT LAYOUT PLAN
(SOUTHBOUND BEGIN ABUTMENT SHOWN, NORTHBOUND AND END ABUTMENT SIMILAR)
NOT TO SCALE

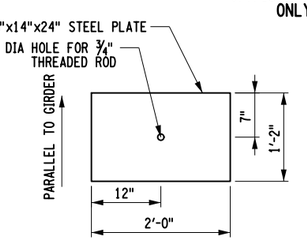


STEEL PLATE HANGAR ASSEMBLY PARTIAL PLAN
GIRDERS G1-G2 SHOWN AT BEGIN ABUTMENT, SOUTHBOUND (G6-G7, G8-G9, & G13-G14, AND END ABUTMENT SIMILAR)
NOT TO SCALE



SECTION A-A
(TYPICAL ALL BAYS, HANGAR ASSEMBLIES ONLY AT G1, G7, G8, & G14)
NOT TO SCALE

NOTE: 6GC12, 6GC14, & 6GC15 AT VERTICAL EXPOSED FACE AND FACE AT ABUTMENT NOT SHOWN FOR CLARITY



STEEL PLATE DETAIL
NOT TO SCALE

NOTES:

1. THREADED ROD WILL BE ASTM 307 WITH DOUBLE ASTM F3125 WASHERS AND ASTM F3125 NUTS.
2. STEEL PLATES WILL BE ASTM A36
3. COST OF THREADED RODS, WASHERS, NUTS, AND ANGLES TO TEMPORARILY SUPPORT ASSEMBLE WILL BE INCIDENTAL TO THE WEIGHT OF THE STEEL PLATES AND INCLUDED IN THE COST FOR THE ITEM 564.510004.
4. ALL FORMWORK REQUIRED TO PLACE THE CONCRETE FOR THE COUNTERWEIGHTS WILL BE INCLUDED IN ITEM 555.09.

ALTERED BY:	AFFIX SEAL: Ryan Douglas Henderson
ON:	ON: 11/20/2023

STATE OF NEW YORK ★ LICENSED ★ RYAN DOUGLAS HENDERSON 082023 PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

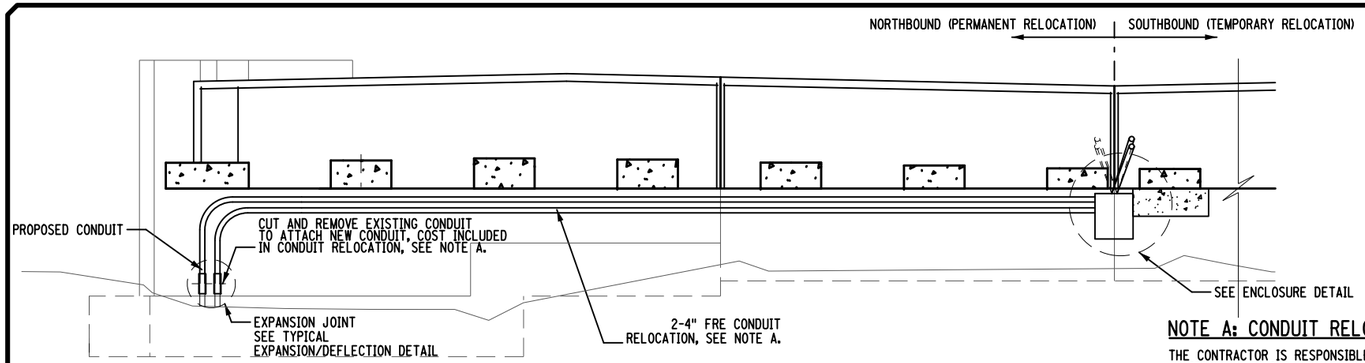
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

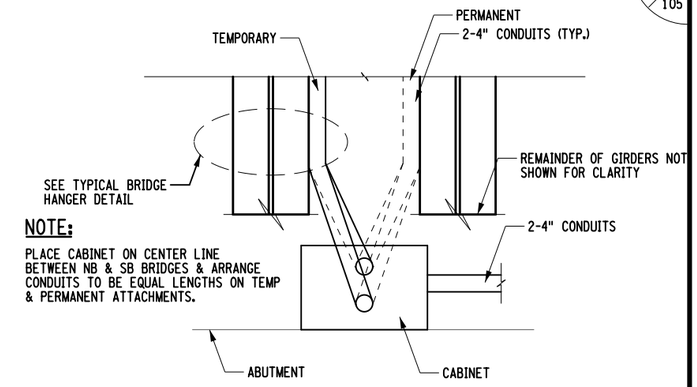
TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER	CONTRACT NUMBER: TAA 23-25B
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189	DATE: 11/16/2023
TITLE OF DRAWING: MISCELLANEOUS DETAILS (3 OF 5)	DRAWING NUMBER: ST-58

FILE NAME = A72128.cpb.dtl.mls.03.dgn USER = BENTLEYHOSTING_jmtpw11c:60\$ DATE/TIME = 11/16/2023
DESIGN SUPERVISOR R. HENDERSON DESIGN CHECK DRAFTING CHECK



FIBER OPTIC RELOCATION DETAIL - AT ABUTMENT
(BEGIN ABUTMENT SHOWN, END ABUTMENT SIMILAR)

NTS



NOTE:

PLACE CABINET ON CENTER LINE BETWEEN NB & SB BRIDGES & ARRANGE CONDUITS TO BE EQUAL LENGTHS ON TEMP & PERMANENT ATTACHMENTS.

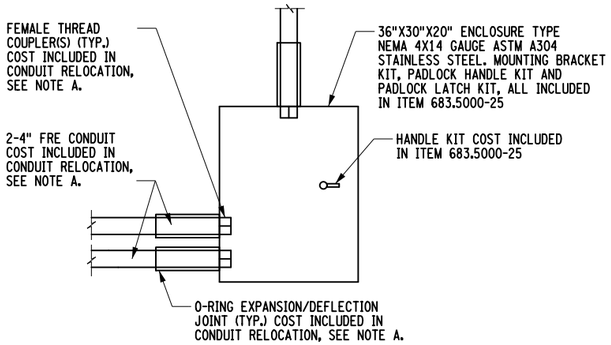
FIBER OPTIC RELOCATION DETAIL - PLAN VIEW

NTS

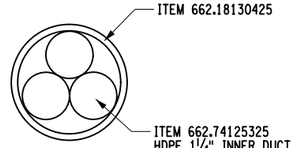
NOTE A: CONDUIT RELOCATION, ITEM 662.18130425

THE CONTRACTOR IS RESPONSIBLE FOR THESE SITE READY OBLIGATIONS: ADDITIONAL DETAILS REGARDING THESE SITE READY OBLIGATIONS CAN BE FOUND IN THE APPROPRIATE CONTRACT PLANS AND SPECIFICATIONS:

1. HAND HOLES/MANHOLES OR PULL BOXES NECESSARY FOR THE DESIGN ROUTE
2. 2'-4" FRE CONDUITS WITH (3) 1-1/4" HDPE IN EACH 4 INCH (6) TOTAL. 1-1/4" HDPE (SDR-9 OR SDR-11)
3. NEMA 4X ENCLOSURE - 2 MINIMUM PER SPAN AT THE TRANSITION FROM THE 4 INCH FRE CONDUITS TO THE FLEXIBLE CONDUIT. NOTE: NOT TO BE USED FOR EXPANSION COMPENSATION
4. CONDUIT EXPANSION JOINTS - 2 MINIMUM PER EACH CONDUIT RUN
5. TRACER WIRE AND UNDERGROUND WARNING TAPE
6. UTILITY HANGERS
7. MISCELLANEOUS STEEL FOR UTILITY SUPPORTS
8. TIMBER PLANKING
9. INSTALL 1800 LB. MULE TAPE IN EACH CONDUIT
10. CONDUIT/DUCT PROOFING
11. COST FOR HOT SLIDE BETWEEN FROM TEMPORARY TO PERMANENT POSITION WILL BE PAID FOR UNDER ITEM 662.18130425. LABOR FOR RELOCATION WILL BE PROVIDED BY THE CONTRACTOR UNDER THE SUPERVISION OF ADESTA.



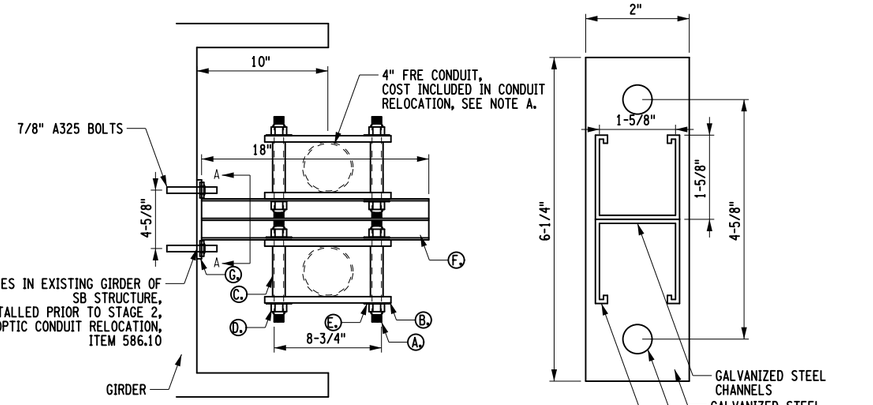
TYPICAL ENCLOSURE DETAIL
NTS



F.R.E. DETAIL
NTS

DETAIL	REQ'D PER HANGER ASSEMBLY	DESCRIPTION
A	4	3/4" X 20" THREADED ROD ASTM A449 GALV.
B	4	2" X 1/2" X 10" FRP PLATE
C	4	1" FRP SPACER TUBE
D	8	3/4" HEX LOCK NUT HDG PER ASTM A153
E	8	3/4" FLAT WASHER HDG PER ASTM A153
F	2	1-5/8" X 1-5/8" X 18" GALV. STEEL CHANNELS
G	1	6-1/4" X 2" X 3/8" GALVANIZED STEEL BACK PLATE

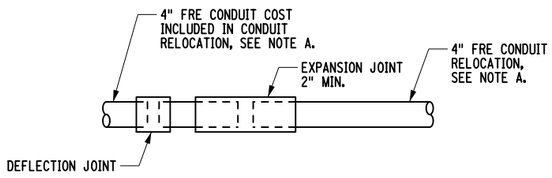
HANGER DETAIL TABLE
ALL ITEMS INCLUDED IN CONDUIT RELOCATION, SEE NOTE A



1. ALL COST INCURRED FOR MATERIAL AND INSTALLATION OF PROPOSED HANGER SHALL BE INCLUDED IN CONDUIT RELOCATION, SEE NOTE A.
2. HANGAR ASSEMBLY TO BE PLACED AT 10'-0" INERVALS ALONG BRIDGE FACSIA

TYPICAL BRIDGE HANGER DETAIL
NTS

SECTION A-A
NTS



1. EXPANSION/DEFLECTIONS TO BE PLACED AT THE PAVEMENT EXPANSION JOINTS, AT EACH ENCLOSURE AND AT WINGWALL AND BARRIER JOINTS.
2. EXPANSION JOINT TO BE PLACED A MINIMUM OF 12" FROM NEAREST HANGER

TYPICAL EXPANSION/DEFLECTION DETAIL
NTS

NOTE:

ATTACHMENT TO EXISTING SB BRIDGE GIRDER SHOWN. ATTACHMENT TO PROPOSED NB GIRDER SIMILAR. HOLES IN WEB OF PROPOSED GIRDER TO BE FABRICATED IN SHOP, LOCATION TO BE DETERMINED BASED ON FINAL HANGER ASSEMBLY CONFIGURATION.

BOLT MATERIAL:

BOLTS SHALL BE ASTM F3125 GRADE A325, TYPE 1 (HOT DIPPED) GALVANIZED.

NUTS SHALL BE A563, GRADE DH (HOT DIPPED GALVANIZED); OR A194, GRADE 2H (HOT DIPPED GALVANIZED).

WASHERS SHALL BE F436, TYPE 1 (HOT DIPPED GALVANIZED).

WORK TO BE DONE:

1. INSTALL TEMPORARY BLOCKING BETWEEN BOTTOM FLANGES OF FASCIA BEAMS OF NB AND SB STRUCTURES.
2. FIELD DRILL HOLES FOR BRIDGE HANGERS IN EXISTING GIRDER UNDER ITEM 586.10
3. ATTACH BRIDGE HANGERS TO SB FASCIA BEAM.
4. INSTALL CONDUIT ACROSS BRIDGE.
5. INSTALL NEW FIBER OPTIC CONDUIT.
6. MAKE SPLICES WITH EXISTING FIBER OPTIC LINE.
7. DEMOLISH NB STRUCTURE AND RECONSTRUCT.
8. REINSTALL TIMBER PLANKING BETWEEN FLANGES OF BEAMS OF NB AND SB STRUCTURES.
9. INSTALL PERMANENT BRIDGE HANGERS IN NB BRIDGE.
10. HOT SLIDE RELOCATED CONDUIT INTO FINAL POSITION ON NB BRIDGE.

ALTERED BY:
ON:

AFFIX SEAL: Ryan Douglas Henderson
ON: 12/11/2023

STATE OF NEW YORK · RYAN DOUGLAS HENDERSON · LICENSED PROFESSIONAL ENGINEER · 082023

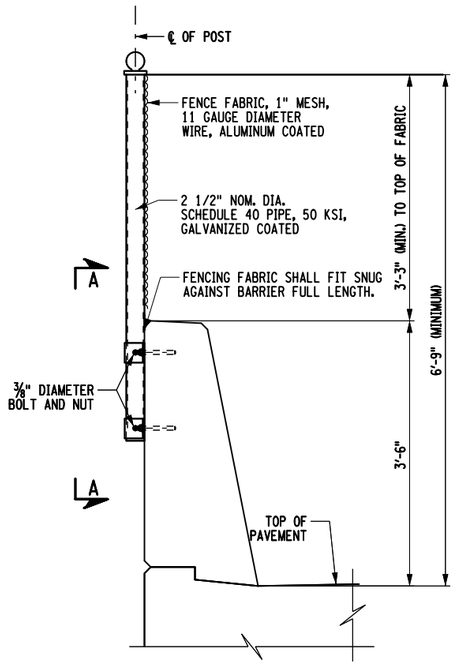
REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

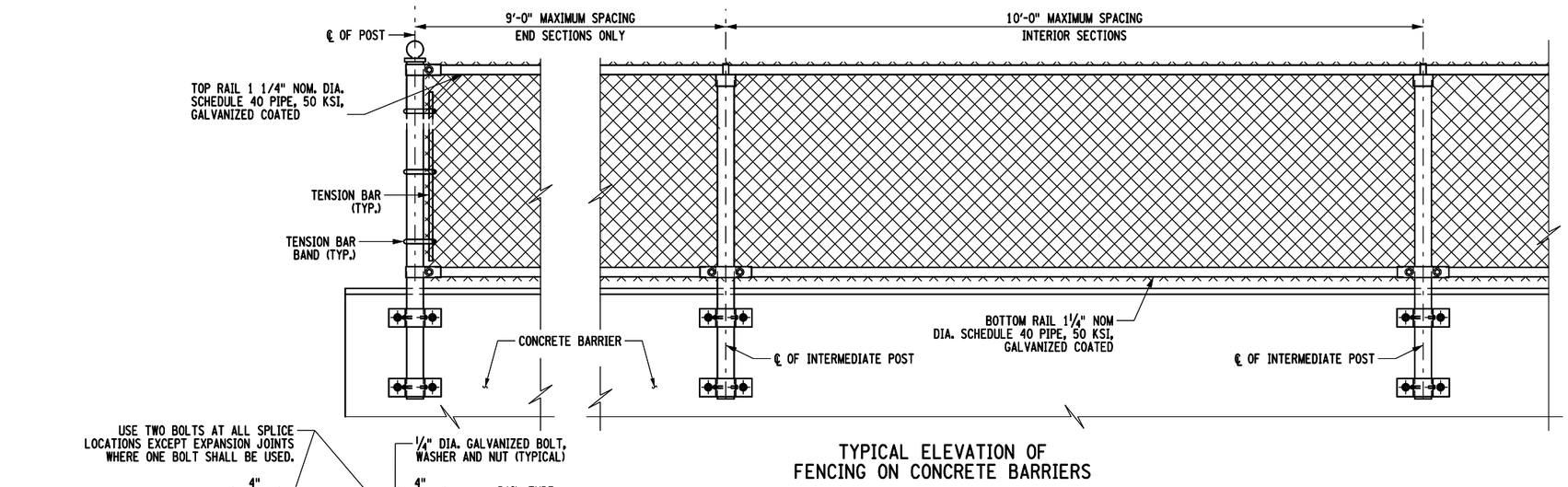
JMT

TITLE OF PROJECT: REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: MISCELLANEOUS DETAILS (4 OF 5)

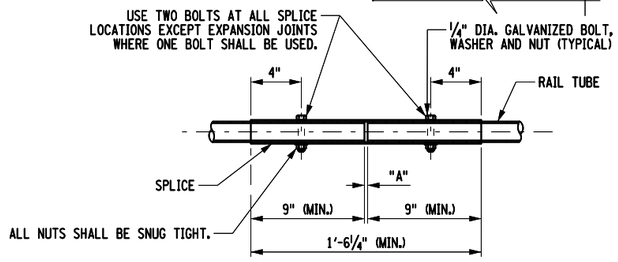
CONTRACT NUMBER: TAA 23-25B
DATE: 12/11/2023
DRAWING NUMBER: ST-59



FENCING ON
SINGLE SLOPE BARRIER

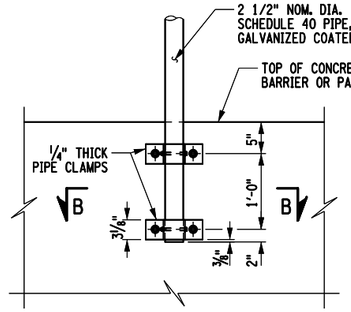


TYPICAL ELEVATION OF
FENCING ON CONCRETE BARRIERS

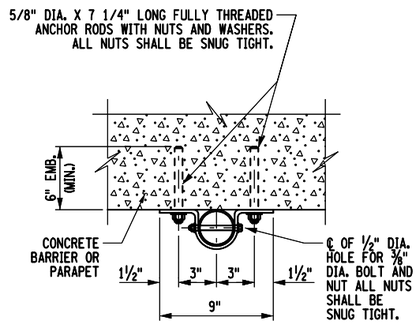


NOTE:
"A" = 1/4" EXCEPT FOR EXPANSION JOINT LOCATIONS WHERE THIS DIMENSION SHALL BE SET EQUAL TO THE BRIDGE DECK JOINT OPENING PLUS 1/4" (MIN.)

TYPICAL RAIL SPLICE DETAIL
(TOP & BOTTOM RAIL)



SECTION A-A



SECTION B-B

NOTE:

1. THE INTERIOR SECTIONS OF SNOW FENCE POSTS SHALL BE PLACED SO THAT THE SPACING OF THE POSTS IS UNIFORM AND DOES NOT EXCEED 10'-0".
2. THE FULLY THREADED ANCHOR RODS FOR THE SNOW FENCE POST MAY BE DRILLED AND GROUTED INTO THE BARRIER OR PARAPET AS SHOWN.
3. DRILLING AND GROUTING OF FULLY THREADED ANCHOR RODS SHALL BE DONE AND PAID FOR IN ACCORDANCE WITH SPECIFICATION 586.0310---25 - DRILLING & GROUTING OF BOLTS OR REINFORCING BARS - CHEMICALLY CURING - WITH PULLOUT TESTS.
4. IT IS PERMISSIBLE TO INSTALL SHIM PLATES BEHIND THE VERTICAL FENCE POSTS TO ACHIEVE PLUMB. SHIMS MUST HAVE 11/16" DIA. HOLES MATCHING THE PIPE CLAMP FOR THE 5/8" DIA. ANCHOR BOLTS. SHIMS SHALL BE OF STAINLESS STEEL (ASTM A666-03). THE REQUIRED QUANITY AND THICKNESS OF SHIMS WILL BE DETERMINED IN THE FIELD.
5. THE SNOW FENCING SHALL BE PAID FOR UNDER ITEM 607.0612--25 - PROTECTIVE SCREENING (SNOW FENCE).
6. 5/8" DIA. ANCHOR BOLTS FOR FENCING SHALL BE F1554 GR105. BOLTS SHALL HAVE A MECHANICALLY DEPOSITED ZINC COATING IN ACCORDANCE WITH CLASS 50 OF ASTM B695.
7. 3/8" DIA. BOLTS SHALL BE ASTM A449 GR92 AND HOT DIPPED GALVANIZED IN ACCORDANCE WITH NYS STANDARD SPEC. 719-01 OR MECHANICALLY DEPOSITED ZINC COATED AS DESCRIBED ABOVE.
8. ALL NUTS SHALL BE ASTM A563 HEAVY HEX GRADE DH AND HOT DIPPED GALVANIZED IN ACCORDANCE WITH NYS STANDARD SPEC. 719-01 OR MECHANICALLY DEPOSITED ZINC COATED AS DESCRIBED ABOVE.
9. ALL WASHERS SHALL BE ASTM F436 AND HOT DIPPED GALVANIZED IN ACCORDANCE WITH NYS STANDARD SPEC. 719-01 OR MECHANICALLY DEPOSITED ZINC COATED AS DESCRIBED ABOVE.

ALTERED BY:
ON:

AFFIX SEAL: Ryan Douglas Henderson
ON: 12/11/2023

STATE OF NEW YORK ★ RYAN DOUGLAS HENDERSON ★ LICENSED PROFESSIONAL ENGINEER 082023

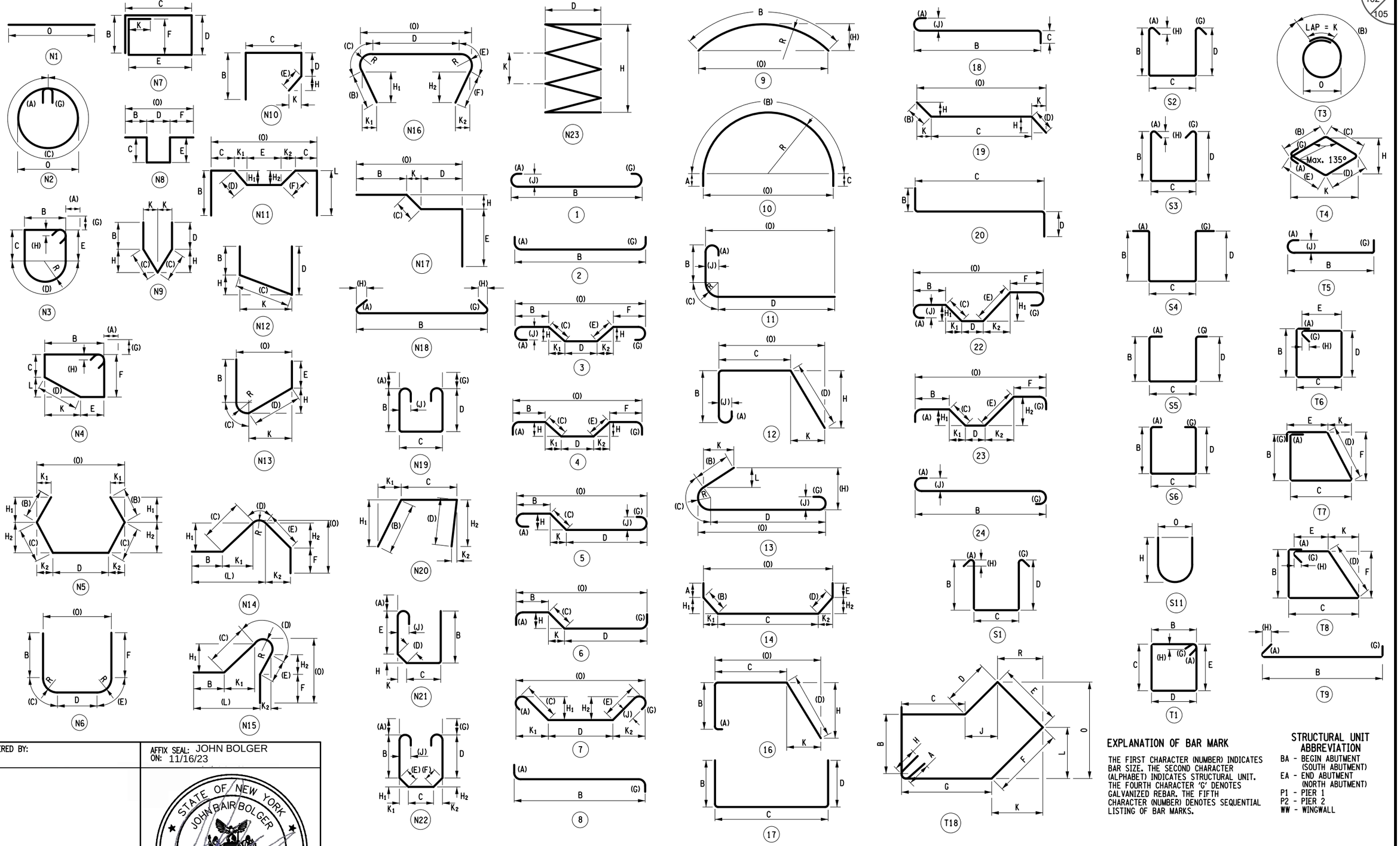
REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

JMT

TITLE OF PROJECT	REHABILITATION OF I-87 BRIDGES OVER WALLKILL RIVER
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	MISCELLANEOUS DETAILS (5 OF 5)
CONTRACT NUMBER:	TAA 23-25B
DATE:	12/11/2023
DRAWING NUMBER:	ST-60



EXPLANATION OF BAR MARK

THE FIRST CHARACTER (NUMBER) INDICATES BAR SIZE. THE SECOND CHARACTER (ALPHABET) INDICATES STRUCTURAL UNIT. THE FOURTH CHARACTER 'G' DENOTES GALVANIZED REBAR. THE FIFTH CHARACTER (NUMBER) DENOTES SEQUENTIAL LISTING OF BAR MARKS.

STRUCTURAL UNIT ABBREVIATION

BA - BEGIN ABUTMENT (SOUTH ABUTMENT)
EA - END ABUTMENT (NORTH ABUTMENT)
P1 - PIER 1
P2 - PIER 2
WW - WINGWALL

ALTERED BY:
ON:

AFFIX SEAL: JOHN BOLGER
ON: 11/16/23

STATE OF NEW YORK · JOHN BAIR BOLGER · LICENSED PROFESSIONAL ENGINEER · 098786

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT	I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT	ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING	BARLIST - 1
CONTRACT NUMBER:	TAA 23-25B
DATE:	11/17/2023
DRAWING NUMBER:	ST-61

FILE NAME = USER = KCEPC\bvaddi
DESIGN SUPERVISOR R.SHARMA
DESIGN Y.GAUCHAN
DRAFTING B.VADDI/C.VOHRA
CHECK J.BOLGER
DATE/TIME = 11/16/2023
CHECK Y.GAUCHAN

MARK	NO.	LENGTH	TYPE	WEIGHT	A	B	C	D	E	F	G	H/H1	H2	J	K/K1	K2	L	O
BEGIN ABUTMENT BAR LIST																		
5BAG01	167	9-6	N1	1655														9-6
7BAG2	167	8-10	N1	3015														8-10
4BAG03	126	2-6	17	210		1-0	0-6	1-0										
5BAG04	18	123-9	N1	2323														123-9
5BAG05	15	14-11	T1	233	0-6½	3-9	3-2	3-9	3-2		0-6½	0-3¾						
6BAG06	96	1-10	17	264		0-6	1-4	0-0										
5BAG07	1	16-0	N4	17	0-6½	3-3¼	1-11¼	2-11¼	3-2	3-7½	0-6½	0-3¾			1-3½		2-7¾	
6BAG08	8	1-10	17	22		0-6	1-4	0-0										
5BAG09	1	20-10	N11	22		3-2	4-3	2-8	2-2½	3-2		2-7¾	3-2		0-3¾	0-0	1-1¼	11-0¼
6BAG10	9	1-10	17	25		0-6	1-4	0-0										
SUBTOTAL GALV. BARS				7786	LB													
BEGIN ABUTMENT WINGWALL BAR LIST																		
4BWG01	14	4-0	17	37		0-7	3-5	0-0										
4BWG02	3	13-9	N1	28														13-9
4BWG03	5	4-2	17	14		0-9	0-0	3-5										
4BWG04	3	5-0	N1	10														5-0
SUBTOTAL GALV. BARS				89	LB													
END ABUTMENT BAR LIST																		
5EAG01	169	9-8	N1	1704														9-8
7EAG2	169	9-0	N1	3109														
4EAG03	127	2-6	17	212		1-0	0-6	1-0										
5EAG04	18	125-0	N1	2347														125-0
5EAG05	30	14-11	T1	467	0-6½	3-9	3-2	3-9	3-2		0-6½	0-3¾						
6EAG06	96	1-11	17	276		0-6	1-5	0-0										
5EAG07	2	19-5	N4	40	0-6½	2-1¾	3-3	5-5½	3-3¼	4-2	0-6½	0-3¾			2-6½		4-10	
6EAG08	8	1-11	17	23		0-6	1-5	0-0										
5EAG09	3	16-4	N4	51	0-6½	3-2	2-9½	3-6¼	2-11	2-10	0-6½	0-3¾			3-2		1-6½	
6EAG10	9	1-11	17	26		0-6	1-5	0-0										
SUBTOTAL GALV. BARS				8254	LB													
END ABUTMENT WINGWALL BAR LIST																		
4EWG01	16	4-3	17	45		0-10	3-5	0-0										
4EWG02	3	15-7	N1	31														15-7
4EWG03	14	3-9	17	35		0-4	3-5	0-0										
4EWG04	3	13-10	N1	28														13-10
SUBTOTAL GALV. BARS				139	LB													
PIER 1 BAR LIST																		
5P1G01	57	15-1	T1	897	0-6½	3-6	3-6	3-6	3-6		0-6½	0-3¾						
		AVG.					AVG.											
6P1G02	80	3-6	17	415		0-6	2-11½	0-0										
6P1G02	C	VARIES	FROM		3-3	TO	2-8	(1	SET OF	80)								
5P1G03	9	15-7	T1	146	0-6½	3-6	3-9	3-6	3-9		0-6½	0-3¾						

MARK	NO.	LENGTH	TYPE	WEIGHT	A	B	C	D	E	F	G	H/H1	H2	J	K/K1	K2	L	O
		AVG.					AVG.											
6P1G04	32	3-6	17	166		0-6	2-11½	0-0										
6P1G04	C	VARIES	FROM		3-3	TO	2-8	(1	SET OF	32)								
SUBTOTAL GALV. BARS				1625	LB													
PIER 2 BAR LIST																		
5P2G01	75	15-1	T1	1180	0-6½	3-6	3-6	3-6	3-6		0-6½	0-3¾						
		AVG.					AVG.											
6P2G02	80	3-10	17	455		0-6	3-3½	0-0										
6P2G02	C	VARIES	FROM		2-11	TO	3-8	(1	SET OF	80)								
5P2G03	12	15-7	T1	195	0-6½	3-9	3-6	3-9	3-6		0-6½	0-3¾						
		AVG.					AVG.											
6P2G04	32	3-10	17	182		0-6	3-3½	0-0										
6P2G04	C	VARIES	FROM		2-11	TO	3-8	(1	SET OF	32)								
SUBTOTAL GALV. BARS				2013	LB													
TOTAL GALV. BARS				13040	LB	IN ABUTMENT												
TOTAL GALV. BARS				3637	LB	IN PIER												
TOTAL GALV. BARS				228	LB	IN WINGWALL												
TOTAL GALV. BARS				16906	LB	ENTIRE STRUCTURE												

ALTERED BY:
ON:

AFFIX SEAL: JOHN BOLGER
ON: 11/16/23

STATE OF NEW YORK
JOHN BAIR BOLGER
098786
LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT: I-87 OVER WALLKILL RIVER BRIDGE REHABILITATION
LOCATION OF PROJECT: ALBANY DIVISION MP 81.72 - BIN 5041189
TITLE OF DRAWING: BARLIST-2

CONTRACT NUMBER: TAA 23-25B
DATE: 11/17/2023
DRAWING NUMBER: ST-62

USER = KCEPC\bvadd
DATE/TIME = 11/16/2023
FILE NAME =
DESIGN SUPERVISOR R.SHARMA
DESIGN Y.GAUCHAN
DRAFTING B.VADDI/C.VOHRA
CHECK Y.GAUCHAN
CHECK J.BOLGER

MARK	NO.	LENGTH	TYPE	WEIGHT	A	B	C	D	E	F	G	H/H1	H2	J	K/K1	K2	L	O
SUPERSTRUCTURE SLAB (NORTH BOUND) BAR LIST																		
4DG1	544	36-0	N1	13081														36-0
4DG2	544	32-5	N1	11769														32-4¾
4DG3	544	40-0	T5	14532	0-6	39-6					0-0			0-4¼				
4DG4	544	24-9	T5	8990	0-6	24-3					0-0			0-4¼				
4DG5	1014	60-0	N1	40637														60-0
4DG6	164	13-2	N1	1442														13-2
4DG7	6	5-3	N1	21														5-3
4DG8	190	6-9	1	857	0-6	5-9¼					0-6			0-4¼				
5DG1	36	60-0	N1	2253														60-0
5DG2	6	17-8	N1	111														17-8
6DG1	41	126-4	N1	7779														126-4
6DG2	42	129-1	N1	8142														129-1
7DG1	1074	6-12	T5	15335	0-10¾	6-1					0-0			0-8¾				
7DG2	544	6-0	T5	6680	0-10¾	5-1¼					0-0			0-8¾				
SUBTOTAL GALV. BARS				131628	LB													
SUPERSTRUCTURE SLAB (SOUTHBOUND) BAR LIST																		
4DG1	544	36-0	N1	13081														36-0
4DG2	544	32-5	N1	11769														32-4¾
4DG3	544	40-0	T5	14532	0-6	39-6					0-0			0-4¼				
4DG4	544	24-9	T5	8990	0-6	24-3					0-0			0-4¼				
4DG5	1014	60-0	N1	40637														60-0
4DG6	164	13-2	N1	1442														13-2
4DG7	6	5-3	N1	21														5-3
4DG8	190	6-9	1	857	0-6	5-9¼					0-6			0-4¼				
5DG9	36	60-0	N1	2253														60-0
5DG10	6	17-8	N1	111														17-8
6DG11	41	126-4	N1	7779														126-4
6DG12	42	129-1	N1	8142														129-1
7DG13	1074	6-12	T5	15335	0-10¾	6-1					0-0			0-8¾				
7DG14	544	6-0	T5	6680	0-10¾	5-1¼					0-0			0-8¾				
SUBTOTAL GALV. BARS				131628	LB													
APPROACH SLAB (NORTHBOUND) BAR LIST																		
5AG1	46	40-0	N1	1919														40-0
5AG2	46	24-10	N1	1190														24-9¾
5AG3	170	21-8	N1	3841														21-8
5AG4	24	21-8	N1	541														21-7½
SUBTOTAL GALV. BARS				7492	LB													
APPROACH SLAB (SOUTHBOUND) BAR LIST																		
5AG1	46	40-0	N1	1919														40-0
5AG2	46	24-10	N1	1190														24-9¾
5AG3	170	21-8	N1	3841														21-8
5AG4	24	21-8	N1	541														21-7½
SUBTOTAL GALV. BARS				7492	LB													

MARK	NO.	LENGTH	TYPE	WEIGHT	A	B	C	D	E	F	G	H/H1	H2	J	K/K1	K2	L	O	R
SLEEPER SLAB (NORTHBOUND) BAR LIST																			
5SG1	116	5-8	N1	685														5-8	
5SG2	58	5-0	17	303		1-8	1-8	1-8											
5SG3	17	62-6	N1	1107														62-5½	
SUBTOTAL GALV. BARS				2096	LB														
SLEEPER SLAB (SOUTHBOUND) BAR LIST																			
5SG1	116	5-8	N1	685														5-8	
5SG2	58	5-0	17	303		1-8	1-8	1-8											
5SG3	17	62-6	N1	1107														62-5½	
SUBTOTAL GALV. BARS				2096	LB														
LEFT BARRIER (NORTHBOUND) BAR LIST																			
5BG1	598	3-3	N1	2028														3-3	
5BG2	568	6-9	13	3972		3-2	0-8¾	2-9¾			0-0	1-1½		0-0	3-1¼		0-7½	3-0¾	0-3
5BG3	16	4-6	13	75		1-0½	0-7½	2-9¾			0-0	1-0¾		0-0	0-10		0-7½	3-0¾	0-3
5BG4	9	6-2	S11	57								2-11						0-6	
5BG5	9	5-8	S11	53								2-8						0-6	
5BG6	5	3-5	T5	18	0-7	2-10					0-0			0-5					
6BG7	598	4-1	17	3668		1-0	3-1	0-0											
6BG8	16	4-1	17	98		1-0	3-1	0-0											
6BG9	9	4-1	N20	55		2-0	1-0¼	1-0				1-5	0-8¼		1-5	0-8¾			
7BG10	72	60-0	N1	8831														60-0	
7BG11	12	54-8	N1	1341														54-8	
SUBTOTAL GALV. BARS				20195	LB														
RIGHT BARRIER (NORTHBOUND) BAR LIST																			
5BG1	598	3-3	N1	2028														3-3	
5BG2	568	6-9	13	3972		3-2	0-8¾	2-9¾			0-0	1-1½		0-0	3-1¼		0-7½	3-0¾	0-3
5BG3	16	4-6	13	75		1-0½	0-7½	2-9¾			0-0	1-0¾		0-0	0-10		0-7½	3-0¾	0-3
5BG4	9	6-2	S11	57								2-11						0-6	
5BG5	9	5-8	S11	53								2-8						0-6	
5BG6	5	3-5	T5	18	0-7	2-10					0-0			0-5					
6BG7	598	4-1	17	3668		1-0	3-1	0-0											
6BG8	16	4-1	17	98		1-0	3-1	0-0											
6BG9	9	4-1	N20	55		2-0	1-0¼	1-0				1-5	0-8¼		1-5	0-8¾			
7BG10	72	60-0	N1	8831														60-0	

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 11/16/2023

STATE OF NEW YORK
YOGENDRA GAUCHAN
LICENSED PROFESSIONAL ENGINEER
105642

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT
I-87 OVER WALLKILL RIVER
BRIDGE REHABILITATION

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
BAR LIST-3

CONTRACT NUMBER:
TAA 23-25B

DATE:
11/17/2023

DRAWING NUMBER:
ST-63

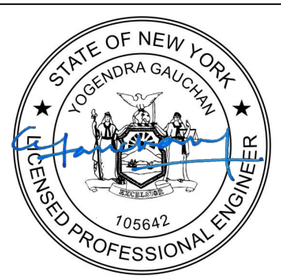
FILE NAME = DESIGN SUPERVISOR R.SHARMA
DATE/TIME = 11/16/2023 DESIGN Y.GAUCHAN
USER = KCEPC\bvaddi CHECK B.VADDI/C.VOHRA
DRAFTING J.BOLGER
CHECK Y.GAUCHAN

MARK	NO.	LENGTH	TYPE	WEIGHT	A	B	C	D	E	F	G	H/H1	H2	J	K/K1	K2	L	O	R
7BG11	12	54-8	N1	1341														54-8	
SUBTOTAL GALV. BARS				15847	LB														
RIGHT BARRIER (SOUTHBOUND) BAR LIST																			
5BG1	544	3-3	T5	1839	0-7	2-8					0-0			0-5					
5BG2	16	6-9	13	112		3-2	0-8¾	2-9¾			0-0	1-1½		0-0	3-1¼		0-7½	3-0¾	0-3
5BG3	7	4-6	13	33		1-0½	0-7½	2-9¾			0-0	1-0¾		0-0	0-10		0-7½	3-0¾	0-3
5BG4	16	6-2	S11	102								2-11						0-6	
5BG5	16	5-8	S11	94								2-8						0-6	
5BG6	5	3-5	T5	18	0-7	2-10					0-0			0-5					
6BG7	544	4-1	17	3337		1-0	3-1	0-0											
6BG8	16	4-1	17	98		1-0	3-1	0-0											
6BG9	7	4-1	N20	42		2-0	1-0¼	1-0				1-5	0-8¼		1-5	0-8¾			
7BG10	72	60-0	N1	8831														60-0	
7BG11	12	54-8	N1	1341														54-8	
SUBTOTAL GALV. BARS				15847	LB														
TOTAL GALV. BARS				14983	LB	IN APPROACH SLAB													
TOTAL GALV. BARS				63508	LB	IN BARRIER													
TOTAL GALV. BARS				4191	LB	IN SLEEPER SLAB													
TOTAL GALV. BARS				262399	LB	IN SUPERSTRUCTURE SLAB													
TOTAL GALV. BARS				345082	LB	ENTIRE STRUCTURE													

MARK	NO.	LENGTH	TYPE	WEIGHT	A	B	C	D	E	F	G	H/H1	H2	J	K/K1	K2	L	O
BEGIN AND END ABT. (NB & SB) COUNTERWEIGHT BAR LIST																		
		AVG.																AVG.
6CG1	32	19-7	N1	942														19-7
6CG1	0	VARIES	FROM		21-8	TO	17-6¼	(1	SET OF	32)								
		AVG.																AVG.
6CG2	32	13-7	N1	653														13-7¼
6CG2	0	VARIES	FROM		15-8	TO	11-6¼	(1	SET OF	32)								
		AVG.																AVG.
6CG3	96	15-7	N1	2248														15-7¼
6CG3	0	VARIES	FROM		17-8	TO	13-6¼	(1	SET OF	96)								
		AVG.																AVG.
6CG4	32	23-9	N1	1141														23-9
6CG4	0	VARIES	FROM		25-9¾	TO	21-8	(1	SET OF	32)								
6CG5	32	21-8	N1	1041														21-8
6CG6	16	17-6	N1	421														17-6¼
6CG7	16	15-8	N1	376														15-8
6CG8	16	11-6	N1	277														11-6¼
6CG9	48	17-4	N1	1249														17-4
6CG10	48	13-6	N1	975														13-6¼
6CG11	16	25-10	N1	620														25-9¾
6CG12	608	9-3	17	8448		1-1½	7-0	1-1½										
		AVG.					AVG.											
6CG13	240	9-8	17	3477		1-1½	7-4¾	1-1½										
6CG13	0	VARIES	FROM		7-0	TO	7-9½	(1	SET OF	240)								
6CG14	120	10-1	17	1810		1-1½	7-9½	1-1½										
6CG15	1236	4-9	N1	8819														4-9
SUBTOTAL GALV. BARS				32498	LB													
TOTAL GALV. BARS				32498	LB	IN COUNTERWEIGHT												
TOTAL GALV. BARS				32498	LB	ENTIRE STRUCTURE												

ALTERED BY:
ON:

AFFIX SEAL: Yogendra Gauchan
ON: 11/16/2023



REVISIONS

DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

Engineering and Land Surveying, P.C.

TITLE OF PROJECT
I-87 OVER WALLKILL RIVER
BRIDGE REHABILITATION

LOCATION OF PROJECT
ALBANY DIVISION
MP 81.72 - BIN 5041189

TITLE OF DRAWING
BAR LIST-4

CONTRACT NUMBER: TAA 23-25B

DATE: 11/17/2023

DRAWING NUMBER: ST-64

FILE NAME =
DESIGN SUPERVISOR R.SHARMA
DRAFTING
DESIGN Y.GAUCHAN
DATE/TIME = 11/16/2023
CHECK B.VADDI/C.VOHRA
CHECK Y.GAUCHAN
USER = KCEPC\bvaddi J.BOLGER