

SITE OF WORK

CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS



REPLACEMENT OF GREAT VALLEY BRIDGE #9 (GV09) MARTIN ROAD BRIDGE OVER FORKS CREEK TOWN OF GREAT VALLEY CATTARAUGUS COUNTY PIN 5758.47 & BIN 3321730

34 SHEETS

RECOMMENDED BY:
JOSEPH T. PILLITTERE
COMMISSIONER CCDPW
CATTARAUGUS COUNTY

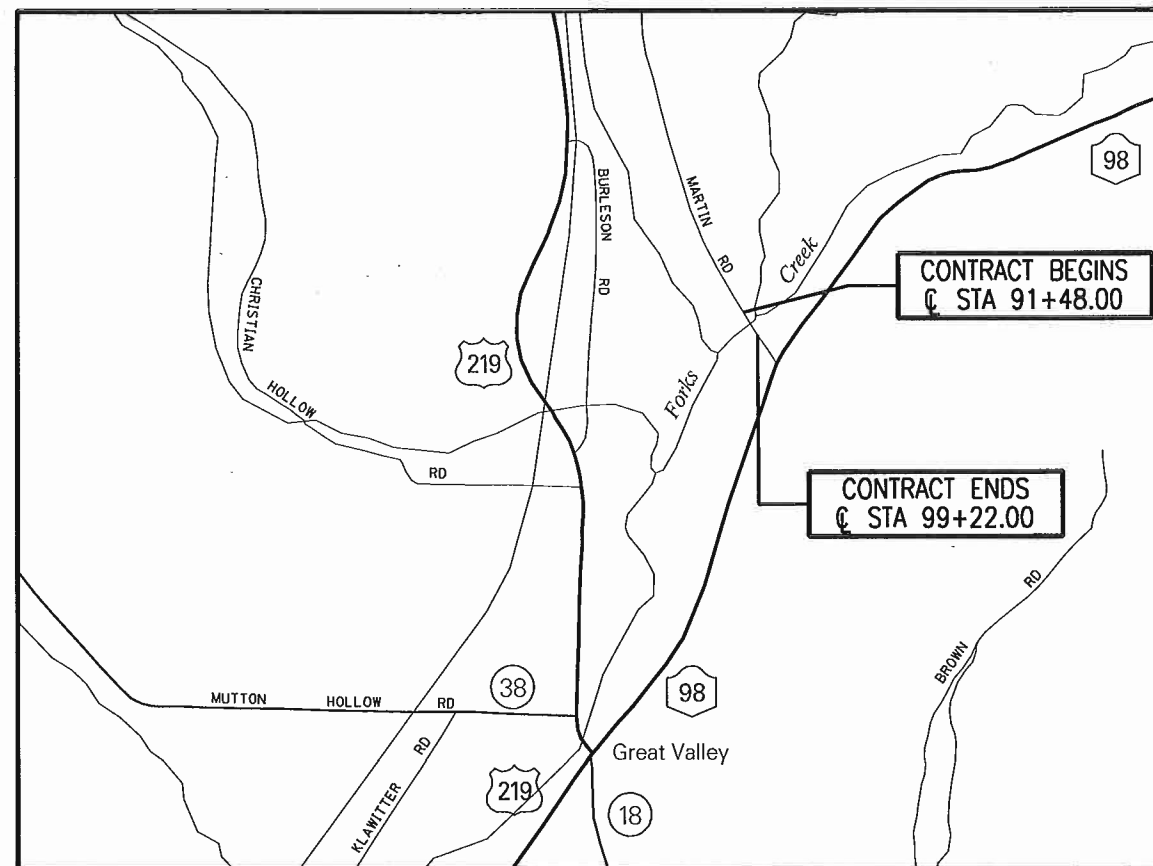
PREPARED AND RECOMMENDED BY:

KH Miller 8/31/17
KEVIN H. MILLER, P.E.
N.Y.S.P.E. LICENSE NO. 68248
BERGMANN ASSOCIATES

DATE



CONTRACTOR'S NAME: _____
AWARD DATE: _____
COMPLETION DATE: _____
ENGINEER-IN-CHARGE: _____



PROJECT LOCATION
NOT TO SCALE

THE MARTIN ROAD BRIDGE (BIN 3321730) IS LOCATED IN THE TOWN OF GREAT VALLEY IN CATTARAUGUS COUNTY. THE EXISTING BRIDGE CARRIES MARTIN ROAD OVER FORKS CREEK.

TYPE OF CONSTRUCTION

BRIDGE REPLACEMENT WITH CONCRETE CANTILEVER ABUTMENTS ON CAST-IN-PLACE PILES, PRESTRESSED CONCRETE BEAM SUPERSTRUCTURE AND APPROACH ROADWAY IMPROVEMENTS.

HIGHWAY STANDARD SHEETS

209-01, 606-04, 619-01, 619-02, 619-04, 619-10, 619-11, 619-12

ALL WORK CONTEMPLATED UNDER THIS CONTRACT IS TO BE COVERED BY AND IN CONFORMITY WITH THE NYSOT STANDARD SPECIFICATIONS (ENGLISH UNITS) OF SEPTEMBER 1, 2017 WITH CURRENT ADDITIONS AND MODIFICATIONS EXCEPT AS MODIFIED ON THESE PLANS AND IN THE ITEMIZED PROPOSAL.

B
Bergmann
associates

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Buffalo, NY 14202

716.852.3211 / 716.852.1787 fax
Engineers / Architects / Planners / Surveyors

Project Number: 8293.00 File Name: 829300_CPH_CVR_COVER.DGN

Drawing Number:

COVER

INDEX ON SHEET NO. 2

ALIGNMENT	
ABBR.	DESCRIPTION
AH	AHEAD
AZ	AZIMUTH
BK	BACK
b	BASELINE
BRG	BEARING
c	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
f	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

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)

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
c 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

TOPOGRAPHY (DRAINAGE) CON'T	
ABBR.	DESCRIPTION
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
TB	TOP OF BANK (STREAM)
TC	TOP OF CURB
TG	TOP OF GRATE
VCP	VITRIFIED CLAY PIPE
SICPP	SMOOTH INTERIOR CORRUGATED POLYETHYLENE 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

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Bridge Replacement

Martin Road Over
Forks Creek
P.I.N. 5758.47

Cattaraugus
County DPW

Engineering Division
8810 Route 242
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REVISIONS			
NO.	DATE	DESCRIPTION	REV. CK'D



SEPTEMBER, 2017
Date

INDEX AND
ABBREVIATIONS

NOTE:
Unauthorized alteration or addition to this
drawing is a violation of the New York State
Education Law Article 145, Section 7209.

Project Manager:
K.H.M.

Designed By:
J.P.A.

Drawn By:
M.M.M.

Project Number:
8293.00

Drawing Number:

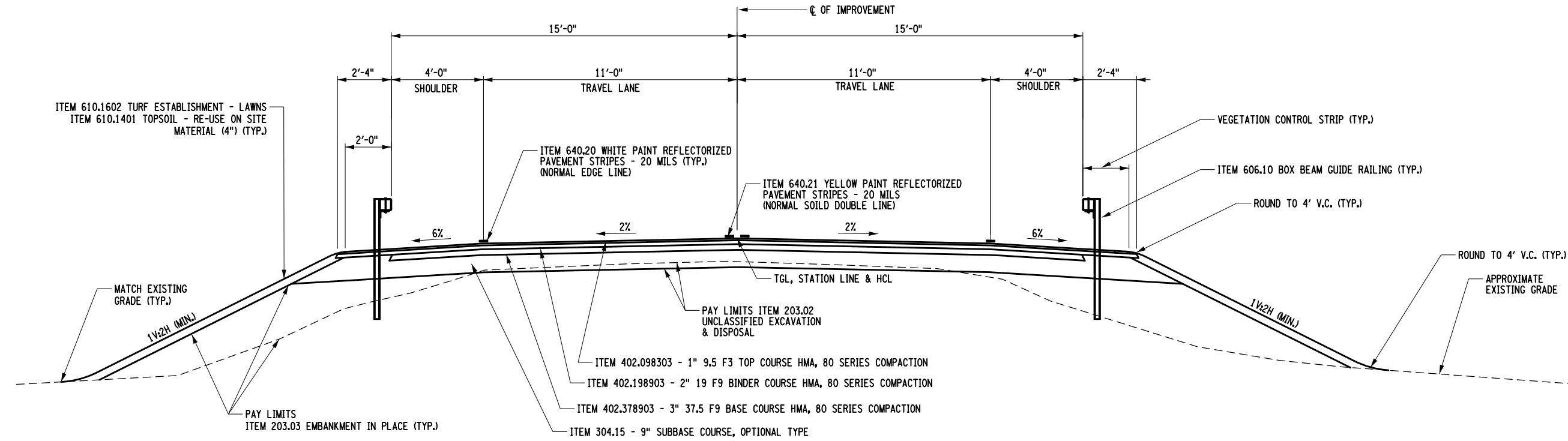
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M.D.D.

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INDEX

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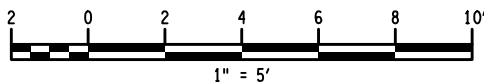


TYPICAL HIGHWAY SECTION

STATION 92+85.00 TO STATION 95+05.25
STATION 96+21.75 TO STATION 97+74.00



ASPHALT STEP DETAIL
NOT TO SCALE



Bridge Replacement

Martin Road Over
Forks Creek
P.I.N. 5758.47

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SEPTEMBER 2017
Date

TYPICAL HIGHWAY SECTION

NOTE:
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Project Manager:
J.C.K.
Designed By:
J.C.K.
Drawn By:
J.C.K.
Project Number:
8293.00
Drawing Number:

Checked By:
T.E.M.
Date Issued:
SEPT 2017
Scale:
AS NOTED

TS-1

ESTIMATE OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	TOTAL	
			ESTIMATED	FINAL
201.06	CLEARING AND GRUBBING	LS	NEC	
202.120001	REMOVING EXISTING SUPERSTRUCTURES	LS	NEC	
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	311	
203.03	EMBANKMENT IN PLACE	CY	370	
203.21	SELECT STRUCTURE FILL	CY	230	
206.01	STRUCTURE EXCAVATION	CY	1220	
206.0201	TRENCH AND CULVERT EXCAVATION	CY	125	
207.26	PREFABRICATED COMPOSITE STRUCTURAL DRAIN	SY	85	
209.1003	SEED AND MULCH – TEMPORARY	SY	650	
209.13	SILT FENCE – TEMPORARY	LF	1007	
209.140101	SEDIMENT TRAP, EARTH BERM – TEMPORARY	EA	1	
209.1901	ROLLED EROSION CONTROL PRODUCT, CLASS II TYPE A, INTERMEDIATE	SY	650	
304.15	SUBBASE COURSE, OPTIONAL TYPE	CY	460	
402.000013	PLANT PRODUCTION QUALITY ADJUSTMENT TO HMA ITEMS	QU	23	
402.098303	9.5 F3 TOP COURSE HMA, 80 SERIES COMPACTION	TON	85	
402.198903	19 F9 BINDER COURSE HMA, 80 SERIES COMPACTION	TON	154	
402.378903	37.5 F9 BASE COURSE HMA, 80 SERIES COMPACTION	TON	192	
407.0102	DILUTED TACK COAT	GAL	182	
490.30	MISCELLANEOUS COLD MILLING OF BITUMINOUS CONCRETE	SY	122	
551.11	CAST-IN-PLACE CONCRETE PILES	LF	1995	
551.13	FURNISHING EQUIPMENT FOR DRIVING PILES	LS	NEC	
551.14	DYNAMIC PILE TESTING	EA	4	
553.020001	COFFERDAMS (TYPE 2)	EA	1	
553.020002	COFFERDAMS (TYPE 2)	EA	1	
555.970100CA	CONCRETE FOR STRUCTURES, CLASS HP (REINFORCEMENT INCLUDED AND NO BAR LIST IN PLANS)	CY	73.4	
555.970200CA	FOOTING CONCRETE, CLASS HP (REINFORCEMENT INCLUDED AND NO BAR LIST IN PLANS)	CY	111.2	
557.0503	SUPERSTRUCTURE SLAB WITH INTEGRAL WEARING SURFACE – BOTTOM FORMWORK NOT REQUIRED – TYPE 3 FRICTION	SY	291	
557.2003	STRUCTURAL APPROACH SLAB WITH INTEGRAL WEARING SURFACE – TYPE 3 FRICTION	SY	142	
557.950000CA	CORROSION INHIBITOR FOR SUPERSTRUCTURE SLABS AND STRUCTURAL APPROACH SLABS	GAL	705	
558.02	LONGITUDINAL SAWCUT GROOVING OF STRUCTURAL SLAB SURFACE	SY	382	
559.18960118	PROTECTIVE SEALING OF STRUCTURAL CONCRETE ON NEW BRIDGE DECKS AND BRIDGE DECK OVERLAYS	SF	3980	
563.02	PRESTRESSED CONCRETE BOX BEAM UNITS	SF	2400	
565.1922	TYPE E.L. BEARINGS (56 TO 111 KIPS)	EA	16	
568.54	STEEL BRIDGE RAILING (THREE RAIL)	LF	169	
568.70	TRANSITION BRIDGE RAILING	LF	128	
606.10	BOX BEAM GUIDE RAILING	LF	486	
606.120201	BOX BEAM GUIDE RAILING END ASSEMBLY, TYPE IIA	EA	4	
610.1401	TOPSOIL – REUSE ON-SITE MATERIALS	CY	75	
610.1602	TURF ESTABLISHMENT – LAWNS	SY	642	
619.01	BASIC WORK ZONE TRAFFIC CONTROL	LS	NEC	
619.04	TYPE III CONSTRUCTION BARRICADE	EA	41	
620.05	STONE FILLING (HEAVY)	CY	420	

ESTIMATE OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	TOTAL	
			ESTIMATED	FINAL
625.01	SURVEY OPERATIONS	LS	NEC	
627.50140008	CUTTING PAVEMENT	LF	86	
637.11	ENGINEER'S FIELD OFFICE – TYPE 1	MNTH	7	
637.34	OFFICE TECHNOLOGY AND SUPPLIES	DC	1200	
640.20	WHITE PAINT REFLECTORIZED PAVEMENT STRIPES – 20 MILS	LF	1078	
640.21	YELLOW PAINT REFLECTORIZED PAVEMENT STRIPES – 20 MILS	LF	1078	
645.81	TYPE A SIGN POSTS	EA	2	
647.31	RELOCATE SIGN PANEL, SIGN PANEL ASSEMBLY SIZE I (UNDER 30 SQUARE FEET)	EA	2	
647.61	REM AND DISPOSE GROUND MOUNTED TYPE A SIGN SUPPORT(S), FDNS AND ANY ATTACHED SIGNS – SIZE I (UNDER 30 SQUARE FEET)	EA	4	
663.1501	DRY HYDRANT	EA	1	
697.03	FIELD CHANGE PAYMENT	DC	49000	
699.040001	MOBILIZATION	LS	NEC	

Bridge Replacement

Martin Road Over Forks Creek
P.I.N. 5758.47

Cattaraugus County DPW


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REVISIONS			
NO.	DATE	DESCRIPTION	REV. CK'D



SEPTEMBER, 2017
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ESTIMATE OF QUANTITIES

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K.H.M.

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M.D.D.

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QUAN-1

4 of 34

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ALIGNMENT		LANDSCAPE		ROADWAY		UTILITIES	
STYLE	DESCRIPTION	STYLE	DESCRIPTION	STYLE	DESCRIPTION	STYLE	DESCRIPTION
	CONTROL (CENTERLINE)		AREA, BRUSH LINE		CLEAR ZONE		CONDUIT, UNDERGROUND
	DETOUR		AREA, HEDGE ROW		GUIDE RAIL, MISCELLANEOUS		CONDUIT, HANGING
	TRANSITION CONTROL		AREA, PLANTING BED		GUIDE RAIL, BOX BEAM		CONDUIT, OVERHEAD
BRIDGE			AREA, WOODED AREA OUTLINE		GUIDE RAIL, BOX BEAM, MEDIAN		ELECTRIC LINE, UNDERGROUND
	RAIL		AREA, WATERS EDGE		GUIDE RAIL, CABLE		ELECTRIC LINE, HANGING
	SHEET PILING		CUT LIMIT		GUIDE RAIL, CONCRETE BARRIER		ELECTRIC LINE, OVERHEAD
CONTROL			FILL LIMIT		GUIDE POST		ELECTRIC TRANSMISSION, OVERHEAD
	BASELINE		FENCE		GUIDE RAIL, W BEAM		ELECTRIC, SUBSTATIONS
	BASELINE, PROJECTION		TREE ROW, CONIFEROUS		GUIDE RAIL, W BEAM, MEDIAN		FIBER OPTIC, UNDERGROUND
DRAINAGE			TREE ROW, DECIDUOUS		PARKING BUMPER		FIBER OPTIC, HANGING
	CULVERT PIPE		WALL, H PILE		RAIL ROAD, CATENARY		FIBER OPTIC, OVERHEAD
	CULVERT PIPE (DIR)		WALL, RETAINING		RAIL ROAD, 3RD RAIL		GAS, UNDERGROUND
	DITCH, GRASS LINED		WALL, STONE		RAIL, PHOTO, LARGE SCALE		GAS, HANGING
	DITCH, PAVED INVERT	ROW MAPPING			RAIL, PHOTO, SMALL SCALE		GAS, OVERHEAD
	DITCH, STONE LINED		DEED LINE		RUMBLE STRIP		INFORM CABLE, UNDERGROUND
	FLOW LINE		EASEMENT, EXISTING		RAIL, SURVEY, LARGE SCALE		INFORM CABLE, HANGING
	SLOTTED DRAIN		EASEMENT, PERMANENT		RAIL, SURVEY, SMALL SCALE		OIL LINE, UNDERGROUND
ENVIRONMENTAL			EASEMENT, PERMANENT, APPROX.	SIGNS			OIL LINE, HANGING
	BALE, STRAW		EASEMENT, TEMPORARY		BILLBOARDS		POLE, BRACE, PUSH BRACE
	CURTAIN, TURBIDITY		EASEMENT, TEMPORARY, APPROX.		MULTIPLE POST		POLE, GUY WIRE
	DAM, COFFER TYPE		FEE ACQUISITION, W/ ACCESS		STRUCTURE, OVERHEAD		SANITARY SEWER, UNDERGROUND
	DAM, EARTHEN, CHECK		FEE ACQUISITION, APPROXIMATE		STRUCTURE, OVHD, CANTILEVER		SANITARY SEWER, HANGING
	DAM, PREFAB, CHECK		FEE ACQUISITION, SHAPE	STRIPING			SANITARY SEWER, FORCE MAIN, UGND
	DAM, STONE, CHECK		FEE ACQUISITION, W/O ACCESS		BROKEN LINE		SANITARY SEWER, FORCE MAIN, HANG
	FENCE, SILT		HISTORICAL, ACQUISITION		DOUBLE BROKEN LINE		TELEPHONE, UNDERGROUND
	FENCE, SILT & VEGETATION		HIGHWAY BOUNDARY		DOTTED LINE LONG		TELEPHONE, HANGING
	FENCE, VEGETATION		HIGHWAY BOUNDARY, APPROX.		DOTTED LINE SHORT		TELEPHONE, OVERHEAD
	WETLAND, ADJACENT AREA		HWY BOUNDARY, FACE OF WALL		FULL BARRIER LINE		CABLE TV, UNDERGROUND
	WETLAND, FEDERAL		HIGHWAY BOUNDARY, W/O ACCESS		HATCH LINE		CABLE TV, HANGING
	WETLAND, FEDERAL AND STATE		JURISDICTION, CITY		PARTIAL BARRIER LINE		UNKNOWN, UNDERGROUND
	WETLAND, MITIGATION AREA		JURISDICTION, COUNTY		ROUNDABOUT, CAT TRACKS		UNKNOWN, HANGING
	WETLAND, STATE		JURISDICTION, HISTORIC DISTRICT		ROUNDABOUT, YIELD LINE		UNKNOWN, OVERHEAD
<div>1. THE LEGEND ILLUSTRATES MAPPING FEATURES (EXISTING AND PROPOSED).</div> <div>2. FEATURES ARE SHOWN AS EITHER LINEAR (ROADWAY GUIDERAIL, ROADWAY SIDEWALK, UTILITY LINES, ETC.) OR POINT (SIGN, UTILITY POLE, ETC.).</div> <div>3. FEATURES SHOWN ON THE LEGEND AS EXISTING FEATURES ALSO HAVE CORRESPONDING PROPOSED FEATURES.</div> <div>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).</div> <div>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.</div> <div>6. FEATURES SHOWN AT THE HEAVIER WEIGHT ARE PROPOSED ONLY AND DO NOT HAVE CORRESPONDING EXISTING FEATURES.</div>			JURISDICTION, NATION		STOP BAR		WATER LINE, UNDERGROUND
			JURISDICTION, PUBLIC LANDS		SOLID, EDGE		WATER LINE, HANGING
			JURISDICTION, STATE		X WALK, LADDER LINE		WATER LINE, OVERHEAD
			JURISDICTION, TOWN		• = W (WHITE) OR Y (YELLOW)		
			JURISDICTION, VILLAGE	TRAFFIC CONTROL			
			PROPERTY LOT LINE		SIGNAL, SPAN WIRE		
			PROPERTY LOT LINE, APPROXIMATE	TRAFFIC WORK ZONE			
			SUB LOT LINE		BARRIER, TEMPORARY		
					BARRIER, TEMPORARY, W/ WARNING LIGHTS		
					CHANNELIZING DEVICE		
					PAVEMENT MARKING REMOVAL OR COVERING		

Bridge Replacement

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REVISIONS			
NO.	DATE	DESCRIPTION	REV. CK'D



SEPTEMBER, 2017
Date

LEGEND LINE SYMBOLOGY

NOTE:
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Project Manager:
K.H.M.
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Checked By:
M.D.D.
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File Name: 829300_CPH_LEG_LEGEND POINT SYMBOLGY.DGN

ALIGNMENT		DRAINAGE		ITS		ROW MAPPING		SIGNS		UTILITIES							
CELL	DESCRIPTION	CELL	DESCRIPTION	CELL	DESCRIPTION	CELL	DESCRIPTION	CELL	DESCRIPTION	CELL	DESCRIPTION						
	CENTER OF CURVATURE		INVERT		ANTENNAS		DEED LINE, TYPE 1		SINGLE POST		ELECTRIC, BOX						
	COGO		STRUCTURE, RECTANGULAR		ACCOU. SPEED/COUNT SNSR.S		DEED LINE, TYPE 2		SINGLE POST, PROPOSED		ELECTRIC, METER						
	CURVE TO SPIRAL		STRUCTURE, INVERT		CABINET & PAD		DEED LINE, TYPE 3		BACK TO BACK, PROPOSED		ELECTRIC, MANHOLE						
	DETOUR, POINT OF INTERSECT.		STRUCTURE, MANHOLE		CCTV SITE		DEED LINE, TYPE 4		DELINEATORS		ELECTRIC, POLE, TRANS.						
	DETOUR, POINT ON LINE		STRUCTURE, MANHOLE, TYPE "XX" "XX" = 48, 60, 72, 96		CDPD TRANSCEIVER		DEED LINE, TYPE 5		PARKING METER		GAS, METER						
	EQUATION				CELL PHONE TOWER		EASEMENT, EXISTING		REFERENCE MARKERS		GAS, MANHOLE						
	EQUATION AHEAD			STRUCTURE, ROUND		CONDUIT JACK OR BORING		EASEMENT, PERM., APPROX.		SHLD, CTY, 123 DIG.		GAS, LINE MARKER					
	EQUATION BACK		STRUCTURE, RECT., WITH CURB TYPE "X" "X" = F, G, N, O, P, R		CONTROLLER CABINET		EASEMENT, PERM., BACK LINE		SHLD, CTY, 4 DIG.		GAS/FUEL PUMP						
	EVENT STATION				COMMUNICATION PULL BOX		EASEMENT, PERM., SHAPE		SHLD, CTY TOUR, 1-2 DIG.		GAS, VALVE						
	POINT OF CURVATURE		STRUCTURE, RECT., TYPE "X" "X" = I, K, L, M, O, P, U		CONDUIT TURNING DOWN		FEE ACQUISITION, APPROX.		SHLD, CTY TOUR, 3-4 DIG.		GAS, VENT						
	POINT OF COMPOUND CURVATURE				CONDUIT TURNING UP		FEE ACQUISITION, BACK LINE		SHLD, INTERSTATE		LIGHTING, POLE						
	POINT OF INTERSECTION	ENVIRONMENTAL			COMM. VEH. ROAD TRANSCEIVER		FEE ACQUISITION, SHAPE		SHLD, NATIONAL, 2 DIG.		LIGHTING, POLE, MEDIAN						
	POINT OF BEGINNING				DEFAULT		HIGHWAY BNDRY., APPROX.		SHLD, NATIONAL, 3 DIG.		LIGHTING, POLE, PED.						
	POINT OF CURVATURE		STR., INLET, OUTLET PROT.		E-ZPASS READER		HISTORICAL, BLDG. CORNERS		SHLD, STATE, 2 DIG.		MISC. FILLER CAP						
	POINT OF END		STR., INLET PROT., GRAVEL BAG		TRANSMITTAL READER		HIGHWAY BNDRY, PT.		SHLD, STATE, 3 DIG.		OIL, LINE MARKER						
	POINT ON LINE		STR., INLET PROT., HAY/STRAW		FIBER OPTIC X-CONNECT CABINET		PT., JURIS. CITY		SHLD, STATE, 4 DIG.		POLE, WITH UTILITY						
	POINT ON SPIRAL		STR., INLET PROT., HAY/STRAW		FUSION SPLICE		PT., BUILDING CORNER	TRAFFIC CONTROL			POLE, DEAD (NO UTILITY)						
	POINT ON TANGENT		STR., INLET PROT., PREFAB.		HAR ADVISORY SIGN		PT., CROSS CUT				POLE, WITH LIGHT						
	POINT ON VERTICAL CURVE		STR., INLET PROT., PREFAB.		HAR SITE		PT., DRILL HOLE		BOX, JUNCTION		SANITARY SEWER MANHOLE						
	POINT ON VERTICAL TANGENT		STR., INLET PROT., SILT FENCE		LOAD CENTER		PT., FENCE LOCATION		BOX, PULL BOX		TELEPHONE, BOOTH						
	POINT ON REVERSE CURVE		RISER, CONCRETE BOX		MECHANICAL SPLICE		PT., IRON PIPE		BOX, SPLICE		TELEPHONE, LINE MARKER						
	POINT OF TANGENCY		TRAP, SEDIMENT		PORT. SPEED & COUNT SENSOR		PT., IRON ROD		MICROCOMPUTER CABINET		TELEPHONE, MANHOLE						
	POINT OF VERTICAL CURVATURE		WETLAND FLAG		MICRO SPEED & COUNT SENSOR		PT., MONUMENT		PED POLE		CABLE TV, LINE MARKER						
	POINT OF VERT. CMPND CURVE	GEOTECHNICAL			MICROWAVE TRANSCEIVER		PT., MONUMENT, MISC.		SIGNAL HEADS		CABLE TV, PULL BOX						
	POINT OF VERT. INTERSECTION				PERM. OVERHEAD VMS		PT., NAIL		SIGNAL POLE		UNKNOWN, BOX						
	POINT OF VERT. REVERSE CURVE		DRILL HOLE		PORT. ACCOU. SPD & CNT. SENSOR		PT., RAILROAD SPIKE	TRAFFIC WORK ZONE			UNKNOWN, JUNCTION BOX						
	POINT OF VERTICAL TANGENCY	LANDSCAPE			PEDESTRIAN SIGNAL HEAD		PT., SPIKE				UNKNOWN, MANHOLE						
	SPIRAL TO CURVE				PAVEMENT SURFACE SENSOR		PT., STAKE		ARROW PANEL		UNKNOWN, PULL BOX						
	SPIRAL POINT OF INTERSECTION		ELEVATION, SPOT		PERM. VMS		PT., TREE W/ WIRE		ARROW PANEL, CAUTION MODE		UNKNOWN, VALVE						
	SPIRAL TO SPIRAL		FLAG POLE		RAMP METER		PT., WALL LOCATION		ARROW PANEL, TRAILER OR SUPPORT		UNKNOWN, VENT						
	SPIRAL TO TANGENT		MAILBOX		RDWY WEATHER INFO. SENSOR	ROW ACQUISITION			BARRICADE (TYPE III)		UNKNOWN, WELL						
	TANGENT TO SPIRAL		PAPER BOX		SOLAR PANEL				CHANGEABLE MESSAGE SIGN (PVMS)		WATER, FIRE HYDRANT						
	VERTICAL EVENT POINT		POST, SINGLE		SPREAD SPECT. TRANSCEIVER		FEE ACQUISITION		FLAGGER		WATER, METER						
	VERTICAL HIGH POINT		ROCK, BOULDER		TELEPHONE DEMARCATION BLK		EASEMENT, PERMANENT		FLAG TREE		WATER, MANHOLE						
	VERTICAL LOW POINT		SHRUB, CONIFEROUS		SUBSURFACE TEMP. PROBE		EASEMENT, TEMPORARY		IMPACT ATTENUATOR / CRASH CUSHION (TEMPORARY)		WATER, VALVE						
BRIDGE			SHRUB, DECIDUOUS		VEHICLE TO RDWY TRANSCEIVER		OCCUPANCY, TEMPORARY		LUMINAIRE (TEMPORARY)								
			TREE, CONIFEROUS		WEIGHT IN MOTION DETECTOR		FEE ACQUISITION W/O ACCESS		SYMBOL, DIRECTION OF TRAFFIC								
	BRIDGE, SCUPPER		TREE, DECIDUOUS		WIRELESS VIDEO REPEATER	ROADWAY			SIGN (TEMPORARY)								
CONTROL			TREE, STUMP		WIRELESS VIDEO RECEIVER				SIGNAL, TRAFFIC OR PEDESTRIAN (TEMPORARY)								
			TREE, WELL OR WALL		WIRELESS VIDEO TRANSMITTER				WARNING LIGHT								
			UNKNOWN POINT						WORK VEHICLE								
	BASLINE, POINT												WORK VEHICLE WITH TRUCK MOUNTED ATTENUATOR				
	BASLINE, POINT ON LINE																
	BASLINE, SPUR POINT																
	BASLINE, TIE POINT																
	BENCHMARK																
	POINT, HORIZ. PHOTOGRAMMETRY																
	POINT, SURVEY MARKER, PERM.																
	POINT, VERT., PHOTOGRAMMETRY																
		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 (0.40 mm 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.															

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SEPTEMBER, 2017
Date

LEGEND POINT SYMBOLOGY

NOTE:
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Project Manager: K.H.M.

Designed By: _____

Checked By: M.D.D.

Drawn By: M.M.M.

Date Issued: SEP. 2017

Project Number: 8293.00

Scale: NO SCALE

Drawing Number: _____

L-2

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GENERAL NOTES

DESIGN SPECIFICATIONS: NYSDOT LRFD BRIDGE DESIGN SPECIFICATIONS WITH ALL PROVISIONS IN EFFECT AS OF JANUARY 1, 2017 (FOR DESIGN PURPOSES, COMPRESSIVE STRENGTH OF CONCRETE FOR SUBSTRUCTURES AND DECK SLABS AT 28 DAYS: f'c = 3000 psi.)

LIVE LOAD: AASHTO HL - 93

CONSTRUCTION AND MATERIALS SPECIFICATIONS: STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, OFFICE OF ENGINEERING, DATED SEPTEMBER 1, 2017, WITH CURRENT ADDITIONS AND MODIFICATIONS.

STRUCTURAL CONCRETE SHALL CONFORM TO THE FOLLOWING:

COMPONENT	NYSDOT CLASS
SUPERSTRUCTURE SLAB	CLASS E
APPROACH & SLEEPER SLABS	CLASS E
ABUTMENTS & WINGWALLS	CLASS HP

CORROSION INHIBITOR, ITEM 557.950000CA, SHALL BE MIXED IN ALL CAST-IN-PLACE STRUCTURAL CONCRETE (DECK, APPROACH SLABS, SUBSTRUCTURES) AT A RATE OF 4 GALLONS PER CUBIC YARD.

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.

ALL SHOP DRAWINGS SUBMITTED FOR THIS PROJECT SHALL BE IN US CUSTOMARY UNITS.

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

THE COST OF ALL JOINT MATERIAL SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS ITEMS OF THE CONTRACT, UNLESS OTHERWISE SPECIFIED ON THE PLANS.

THE LOAD RATINGS ARE IN ACCORDANCE WITH THE AASHTO MANUAL FOR BRIDGE EVALUATION - FIRST EDITION 2008.

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

THIS BRIDGE SHALL BE MAINTAINED IN ACCORDANCE WITH THE GUIDELINES CONTAINED IN THE CURRENT EDITION OF THE AASHTO MAINTENANCE MANUAL; THE MAINTENANCE AND MANAGEMENT OF ROADWAYS AND BRIDGES.

FOUNDATION NOTES

THE GENERAL SUBSURFACE CONDITIONS AT THE SITE OF THIS STRUCTURE ARE AS SHOWN IN THE CONTRACT DRAWINGS

THE ABUTMENT PILES ARE DESIGNED TO SUPPORT A MAXIMUM STRENGTH LIMIT STATE AXIAL LOAD OF 90 KIPS PER PILE. DRIVE THESE PILES TO A NOMINAL RESISTANCE OF 139 KIPS PER PILE.

THE MAXIMUM SERVICE LIMIT STATE AXIAL LOAD APPLIED TO THE PILES IS 68 KIPS.

THE CONTRACTOR SHALL NOT ADVANCE THE PILE TIPS BELOW ELEVATION 1436. CONTACT THE ENGINEER IF THE PILE NOMINAL RESISTANCE IS NOT ACHIEVED AT THE FINAL PILE TIP ELEVATION.

THE USE OF WATER JET OR VIBRATORY HAMMERS IS PROHIBITED.

EQUIP ALL CAST-IN-PLACE CONCRETE PILES WITH SHOES.

AFTER COMPLETION OF THE PILE INSTALLATION, THE ENGINEER WILL COMPLETE THE "ACTUAL PILE LENGTH" TABLE FOR INCLUSION IN THE AS-BUILT PLANS.

SUBSTRUCTURE NOTES

ALL PLACEMENTS OF SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE COMPACTED TO 95 PERCENT OF STANDARD PROCTOR MAXIMUM DENSITY.

HIGHWAY EMBANKMENT MATERIAL (HIGHWAY ESTIMATE) AND SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE PLACED SIMULTANEOUSLY, IN CONTACT, ON BOTH SIDES OF THE VERTICAL PAYMENT LINE.

TOP OF BACKWALLS SHALL BE STEEL TROWEL FINISHED. SHEET GASKET (TREATED BOTH SIDES), 728-06, SHALL BE PLACED ON THE TOP OF THE BACKWALLS OF FIXED AND EXPANSION ABUTMENTS. TWO SHEETS SHALL BE USED; PAYMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.

THE CONTRACTOR, WITH THE PERMISSION OF THE ENGINEER, MAY ELECT TO INTRODUCE CONSTRUCTION JOINTS IN THE ABUTMENTS AT LOCATIONS NOT SHOWN ON THE PLANS. THESE CONSTRUCTION JOINTS SHALL BE PROVIDED WITH SHEAR KEYS AND WATERSTOPS.

COFFERDAM NOTES

SHOULD THE CONTRACTOR ELECT TO LAY BACK A PORTION OF THE EXISTING EARTH ADJACENT TO AN EXCAVATION REQUIRING A COFFERDAM, ANY REQUIRED EXTENSIONS OF THE COFFERDAM NECESSARY TO KEEP WATER FROM ENTERING THE EXCAVATION SHALL BE FURNISHED AND PLACED AT NO COST TO THE COUNTY.

WHERE A COFFERDAM IS USED, THE COST OF DEWATERING THE ENTIRE EXCAVATION, REGARDLESS OF SOURCE OF WATER, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE COFFERDAM ITEM.

DEWATERING OF THE COFFERDAM SHALL BE ACCOMPLISHED BY PUMPING THE WATER TO AN APPROVED UPLAND VEGETATED AREA OUTSIDE OF THE STREAMBED AS SHOWN ON THE PLANS AND/OR APPROVED BY THE E.I.C. TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL, SUCH AS HAY BALES OR APPROVED EQUAL, MAY BE REQUIRED AS DETERMINED BY THE ENGINEER-IN-CHARGE. NO SETTLEMENT BASIN SHALL BE CONSTRUCTED.

ORDINARY HIGH WATER IS ESTIMATED TO BE 1468.9. THIS IS DEFINED AS THE WATER SURFACE ELEVATION FOR THE MEAN ANNUAL FLOOD, WHICH IS THE FLOOD THAT HAS A RECURRENCE INTERVAL OF 2.33 YEARS.

ORDINARY WATER IS ESTIMATED TO BE 1468.2. THIS IS DEFINED AS THE HIGHEST SURFACE WATER ELEVATION LIKELY TO BE ENCOUNTERED DURING ONE CONSTRUCTION SEASON (OTHER THAN MAJOR FLOODS). IT IS ALWAYS LESS THAN THE ORDINARY HIGH WATER ELEVATION AND IT IS USUALLY AN OBSERVED ELEVATION RATHER THAN A COMPUTED ONE.

LOW WATER IS ESTIMATED TO BE APPROXIMATELY 1465.0 THIS WATER ELEVATION IS THE NORMAL LOW WATER ELEVATION PREVALENT DURING ONE CONSTRUCTION SEASON FOR MORE THAN 25% OF THE TIME. IT IS AN OBSERVED ELEVATION RATHER THAN A COMPUTED ONE.

SUPERSTRUCTURE NOTES

TOP SURFACES OF NEW BRIDGE DECKS AND APPROACH SLABS SHALL BE SEALED ACCORDING TO ITEM 559.18960118 PROTECTIVE SEALING OF STRUCTURAL CONCRETE ON NEW BRIDGE DECKS AND BRIDGE DECK OVERLAYS.

CONCRETE BOX BEAMS SHALL BE FABRICATED IN ACCORDANCE WITH THE CURRENT EDITION OF THE NYSDOT PRESTRESSED CONCRETE CONSTRUCTION MANUAL.

REMOVAL NOTES

EXISTING STEEL SHEET PILE SUBSTRUCTURE INCLUDING TIEBACKS SHALL BE REMOVED UNDER ITEM 202.120001 IN THE BRIDGE ESTIMATE.

EXISTING SUPERSTRUCTURE SHALL BE REMOVED UNDER ITEM 202.120001 IN THE BRIDGE ESTIMATE.

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF SUBSECTION 202-3.01 GENERAL AND SAFETY REQUIREMENTS. A REMOVAL PLAN, SIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK, SHALL BE SUBMITTED TO THE ENGINEER THIRTY (30) DAYS PRIOR TO BEGINNING THE DEMOLITION.

RECORD PLANS FOR THIS STRUCTURE ARE NOT AVAILABLE.

ALL EXISTING STEEL BRIDGE COMPONENTS MAY ONLY BE SCRAPPED BY THE CONTRACTOR. NO EXISTING STEEL BRIDGE COMPONENTS MAY BE SALVAGED FOR REUSE.

RECONSTRUCTION NOTES

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

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 COUNTY, 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 COUNTY, THE DAMAGED MATERIALS SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.

WHENEVER 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 PRICES BID FOR THOSE ITEMS.

DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT BE ALLOWED TO 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 THE ENGINEER DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

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 COUNTY.

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

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

STREAM PROTECTION NOTE

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, OR OTHER FOREIGN MATERIAL, OR FROM MANIPULATION OF EQUIPMENT AND/OR MATERIALS 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 THIS WATER 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 REQUIRED TO PROTECT AND MAINTAIN WATER RIGHTS AND TO SUSTAIN FISH LIFE DOWNSTREAM.

FORKS CREEK IS A CLASS C TROUT STREAM. NO IN-STREAM WORK, INCLUDING STREAM BANK WORK WHICH MAY LEAD TO SEDIMENTATION OF THE STREAM, SHALL BE PERFORMED FROM OCTOBER 1ST TO JUNE 1ST.

DECK PLACEMENT NOTES

CONCRETE PLACEMENT AND FINISHING OPERATIONS SHALL BE PERFORMED AS RAPIDLY AS POSSIBLE. THE ENGINEER MAY ORDER 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.

LONGITUDINAL CONSTRUCTION JOINTS WILL NOT BE PERMITTED.

FINISHING MACHINE(S) SHALL BE OPERATED AS CLOSE TO THE SKEW ANGLE AS PRACTICABLE FOR SKEW ANGLES BETWEEN 0° AND 50° WHEN THE SKEW ANGLE IS GREATER THAN 50° THE FINISHING MACHINE(S) SHALL BE OPERATED AT AN ANGLE OF 50°.

WET BURLAP CURING BLANKETS ARE REQUIRED TO BE PLACED 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.

IN THE EVENT THE CONTRACTOR'S DECK PLACEMENT OPERATION IS STOPPED PRIOR TO COMPLETION, WHETHER BY THE CONTRACTOR'S OWN DECISION OR BY ORDER OF THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FINISHED DECK GRADE WHICH MATCHES THE PLANNED PROFILE. ANY SUBSEQUENT REVISIONS TO DECK FORMS MADE NECESSARY BY SUCH ACTION SHALL BE AT THE CONTRACTOR'S EXPENSE.

UTILITY NOTES

LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND UNDERGROUND UTILITIES MAY NOT BE SHOWN IN THEIR ENTIRETY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE PRESENCE AND LOCATION OF ALL UNDERGROUND UTILITIES BY CONTACTING DIG SAFELY NEW YORK AT 1-800-962-7962.

IN THE EVENT THAT THE CONTRACTOR DAMAGES AN EXISTING UTILITY SERVICE CAUSING AN INTERRUPTION IN SAID SERVICE, HE SHALL IMMEDIATELY COMMENCE WORK TO RESTORE THE SERVICE AND SHALL NOT CEASE HIS WORK OPERATION UNTIL SERVICE IS RESTORED.

QUALITY LEVEL DESIGNATIONS:

QUALITY LEVEL A - THE HIGHEST DEGREE OF ACCURACY; THE UTILITY INFORMATION ON THE CONTRACT PLANS HAS BEEN FIELD LOCATED AND VERIFIED BY EXCAVATION, WHEN APPROPRIATE. (SHOWN AS QLA)

QUALITY LEVEL B - SUBSURFACE GEOPHYSICAL LOCATING TECHNIQUES (IE. UNDERGROUND CAMERAS, RADAR, SONAR, TONE OUTS, ETC.) AND EXISTING RECORD PLANS HAVE BEEN USED TO LOCATE UTILITIES. NO EXCAVATIONS WERE PERFORMED. (SHOWN AS QLB)

QUALITY LEVEL C - RECORD INFORMATION PROVIDED BY UTILITY OWNERS WAS PLOTTED ON THE CONTRACT PLANS. DEPTHS WERE NOT FIELD VERIFIED. PHYSICAL SURFACE FEATURES LIKE MANHOLES, VALVE BOXED AND HYDRANTS HAVE BEEN FIELD LOCATED. (SHOWN AS QLC)

QUALITY LEVEL D - EXISTING UTILITY COMPANY RECORDS WERE USED TO LOCATE SUBSURFACE UTILITIES. (SHOWN AS QLD)

THE CONTRACTOR SHALL COORDINATE HIS OPERATIONS WITH THE FOLLOWING UTILITIES:

VERIZON - AN UNDERGROUND TELEPHONE LINE RUNS ALONG THE EAST SIDE OF MARTIN ROAD ALONG THE NORTHERN APPROACH UNTIL IT JUNCTIONS AT A UTILITY POLE NEAR THE BRIDGE AND THEN RUNS OVERHEAD TO THE EAST OF MARTIN ROAD. THE QUALITY LEVEL DESIGNATION IS QLD.

VERIZON CONTACT: JAMES MURPHY, (716) 840-8698

Bridge Replacement

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Forks Creek
P.I.N. 5758.47

Cattaraugus County DPW

Engineering Division
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REVISIONS				
NO.	DATE	DESCRIPTION	REV.	CK'D



SEPTEMBER, 2017
Date

GENERAL NOTES

NOTE:
Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.

Project Manager: K.H.M.	
Designed By: J.P.A.	Checked By: M.D.D.
Drawn By: M.M.M.	Date Issued: SEP. 2017
Project Number: 8293.00	Scale: NO SCALE

Drawing Number:

GN-1

Bridge
Replacement

Martin Road Over
Forks Creek
P.I.N. 5758.47

Cattaraugus
County DPW

Engineering Division
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NO.	DATE	DESCRIPTION	REV.	CK'D



SEPTEMBER 2017
Date

WORK ZONE

TRAFFIC CONTROL

DETOUR ROUTE

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Education Law Article 145, Section 7209.

Project Manager:

J.C.K.

Designed By:

LAL

Drawn By:

LAL

Project Number:

8293.00

Drawing Number:

Checked By:

TEM

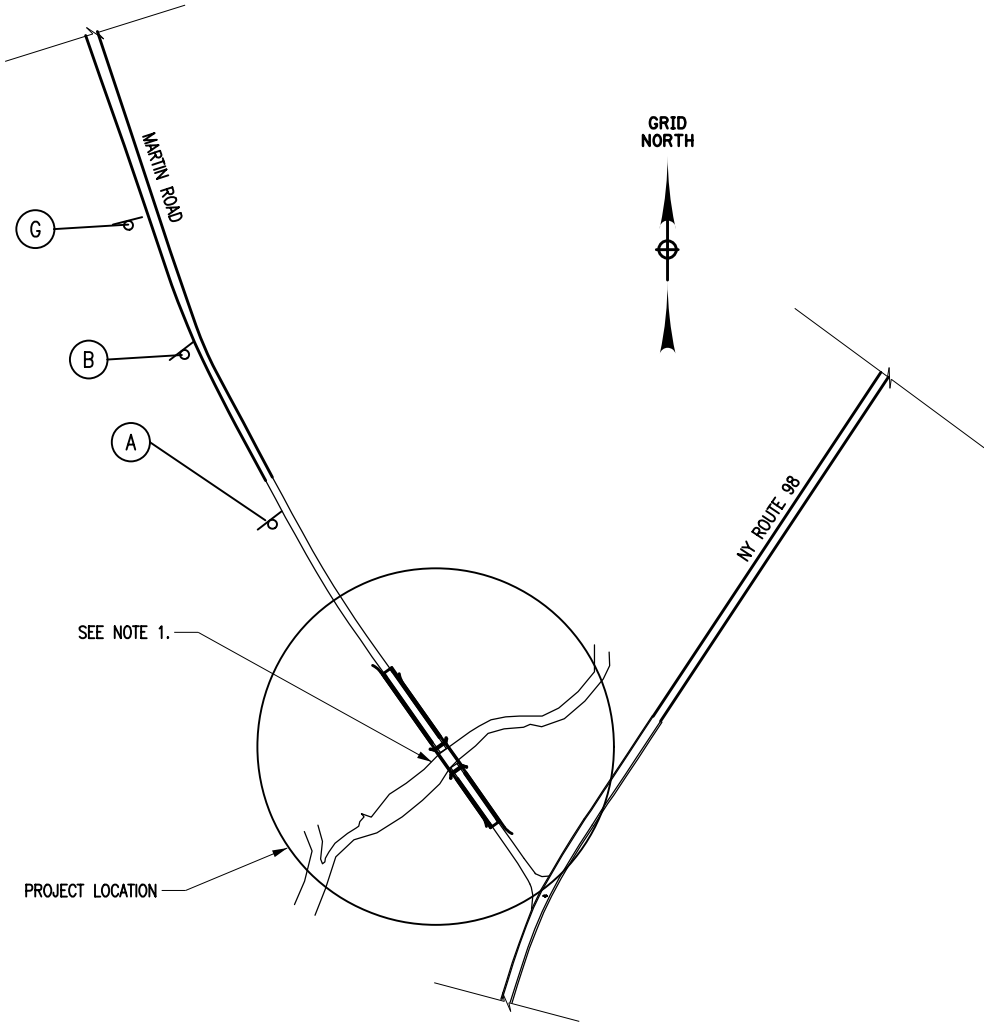
Date Issued:

SEPT 2017

Scale:







1:12000


WZTC-1



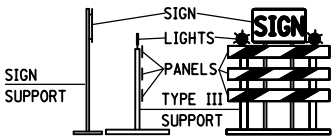
NOTES:

1. SEE DWG. NO. WZTC-2 FOR SIGNS SCHEDULE AND ROAD CLOSURE DETAIL.
2. THE BRIDGE IS CURRENTLY CLOSED. THE EXISTING DETOUR WILL BE MAINTAINED BY THE COUNTY. SEE NOTE 11 ALSO.
3. ANY ADDITIONAL SIGNS SHOWN ON THESE PLANS AND THE BRIDGE CLOSURE DETAIL (I.E. SIGNS, BARRIERS, DRUMS, CONES, ETC.) SHALL BE IN PLACE PRIOR TO BEGINNING ANY WORK.
4. THE CONTRACTOR SHALL ENSURE THAT PLACEMENT OF CONES, DRUMS, OR BARRICADES WILL NOT INTERFERE WITH SIGHT DISTANCES.
6. VEHICLES BELONGING TO THE CONTRACTOR AND THE CONTRACTOR'S EMPLOYEES SHALL NOT BE PARKED ON THE PAVEMENT OR SHOULDERS ALONG THE ROADWAY BEING USED BY THE GENERAL PUBLIC (WITHIN THE PROJECT LIMITS).
7. VEHICLES BELONGING EITHER TO THE CONTRACTOR OR THE CONTRACTOR'S EMPLOYEES SHALL NOT BE PARKED IN A MANNER WHICH OBSTRUCTS SIGNS, BARRIERS, BARRICADES, OR OTHER TRAFFIC CONTROL DEVICES, NOR IN A MANNER WHICH INTERFERES WITH ACCESS TO ABUTTING PROPERTIES.
8. THE CONTRACTOR SHALL NOT PARK EQUIPMENT OR STORE MATERIAL WHERE IT IS DEEMED BY THE ENGINEER TO BE A SAFETY HAZARD. THE CONTRACTOR SHALL NOT PARK EQUIPMENT OVERNIGHT WHERE IT IS DEEMED TO BE A SAFETY HAZARD TO TRAFFIC.
9. DELINEATION DEVICES SHALL CONFORM TO THE MUTCD AND THE NEW YORK STATE SUPPLEMENT.
10. THE SIGN LOCATIONS ON THE PLANS ARE APPROXIMATE. EXACT LOCATIONS SHALL BE DETERMINED BY THE ENGINEER TO ENSURE SIGHT DISTANCE AND VIABILITY OF EXISTING SIGNS.
11. THE EXISTING DETOUR SHALL REMAIN IN PLACE AND WILL BE MAINTAINED BY THE COUNTY THROUGH THE DURATION OF THE PROJECT. IN THE AREA AROUND THE BRIDGE THE CONTRACTOR SHALL PROVIDE AND MAINTAIN THE CLOSURE AND APPROACH SIGNS AS INDICATED IN THE CONTRACT PLANS. IN THOSE AREAS WHERE THERE IS A DUPLICATION IN THE SIGNS, THE CONTRACTOR SHALL REMOVE THE COUNTY SIGNS AND STORE THEM FOR COUNTY PICK UP AND SHALL INSTALL THEIR SIGNS IN ACCORDANCE WITH THE CONTRACT PLANS. IN THE EVENT THAT THERE ARE CONFLICTS OR CONTRADICTIONS BETWEEN THE COUNTY AND CONTRACT SIGNS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THE CONFLICT CAN BE RESOLVED. ALL COSTS FOR COORDINATION WITH THE COUNTY SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 619.01.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE HIGHWAY WORK PERMIT FROM NYSDOT FOR THE SIGNS INSTALLED WITHIN THE STATE RIGHT OF WAY. THE COST IS INCLUDED IN ITEM 619.01.

SIGN FACES	 W20-3	 W20-3	 R11-3b SEE DETAIL 1	 R11-02 M4-10R SEE DETAIL 1	 R11-02	 D3-1 W20-3
LOCATION	(A)	(B)	(C)	(D)	(E)	(F)
QUANTITY	1	1	1	1	1	2

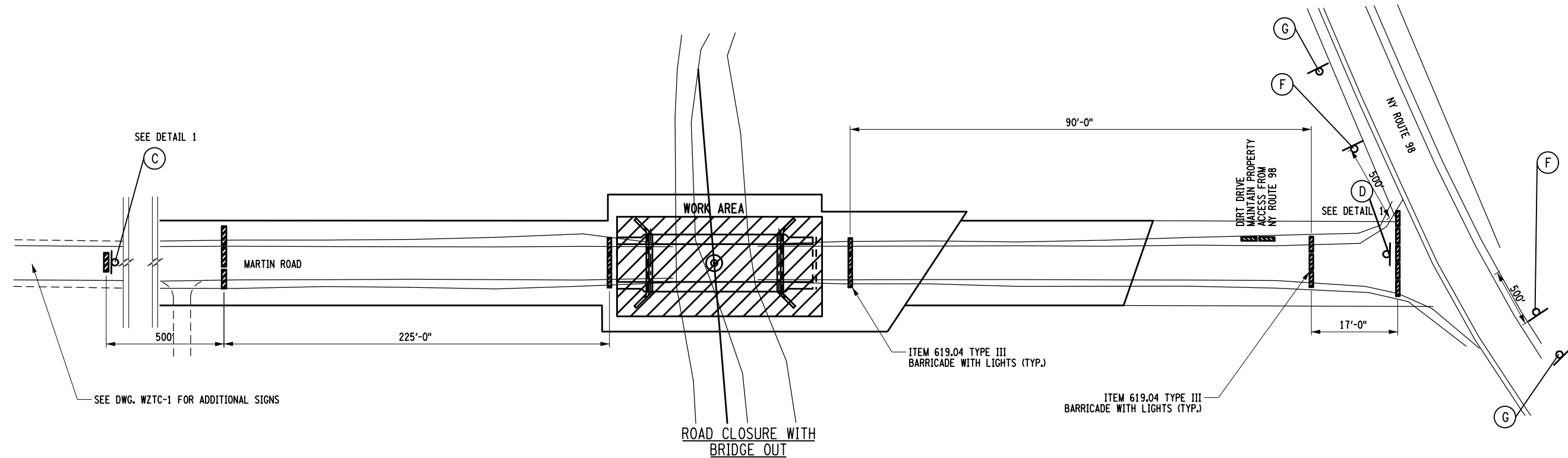
SIGN FACES	 W20-1
LOCATION	(G)
QUANTITY	2

DETOUR SIGN SCHEDULE



DETAIL 1:

- NOTES:
- R11-3b MAY BE LOCATED ON THE RIGHT SHOULDER, IF EXISTING PAVEMENT IS TOO NARROW. THE SIGN PANEL SHALL BE ON A SEPARATE SIGN SUPPORT, NOT ON THE TYPE III BARRICADE.
 - SEE M.U.T.C.D SECTION 6F.63 and FIGURE 6F-7 FOR DETAILS ON THE DIRECTION OF STRIPING ON BARRICADES.



Bridge Replacement

Martin Road Over
Forks Creek
P.I.N. 5758.47

Cattaraugus County DPW

Engineering Division
8810 Route 242
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office: 716.206.5100
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REVISIONS			
NO.	DATE	DESCRIPTION	REV. CK'D



SEPTEMBER 2017
Date

WORK ZONE TRAFFIC CONTROL SIGNS NOTES AND DETAILS

NOTE:
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Project Manager:
J.C.K.
Designed By:
LAL
Drawn By:
LAL
Project Number:
8293.00
Drawing Number:

Checked By:
TEM
Date Issued:
SEPT 2017
Scale:
NA

WZTC-2

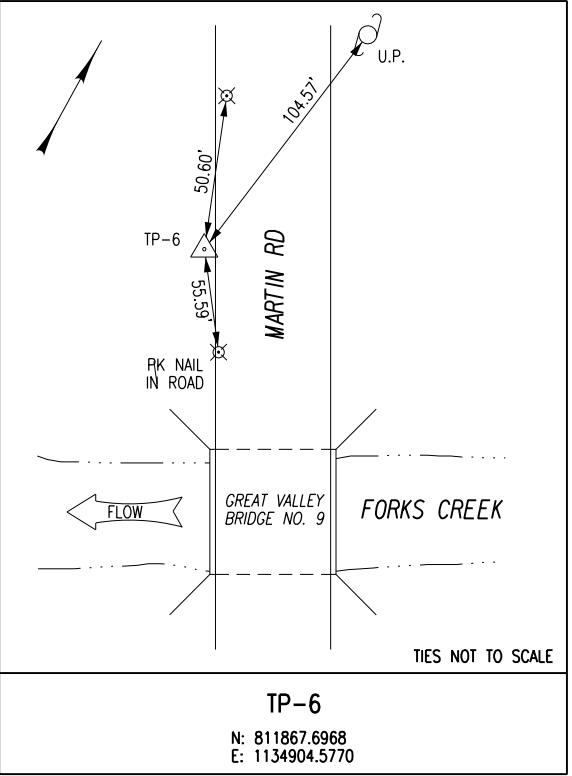
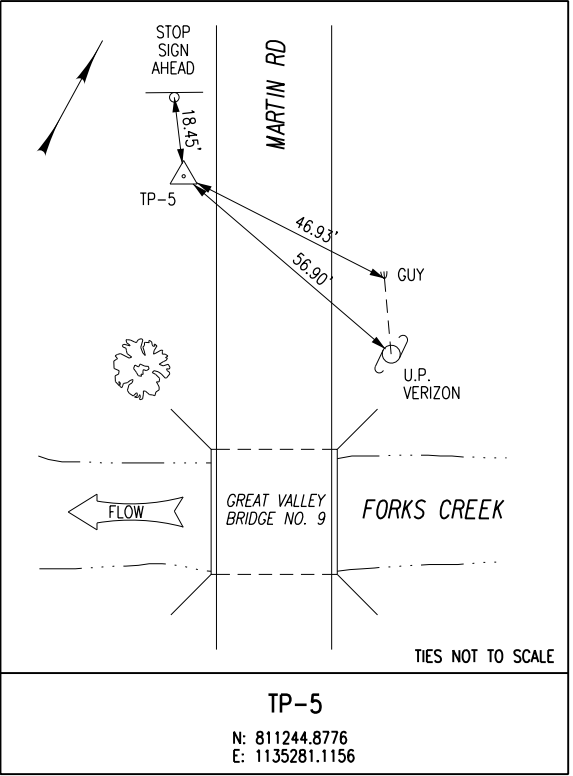
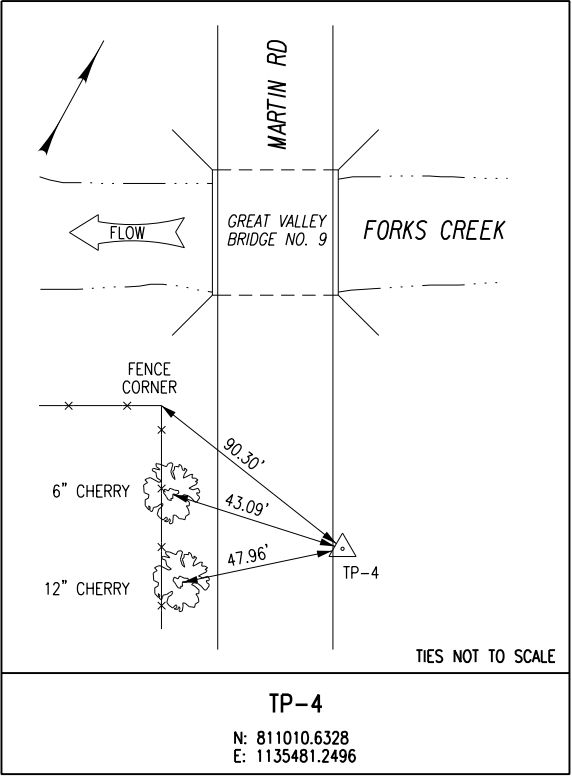
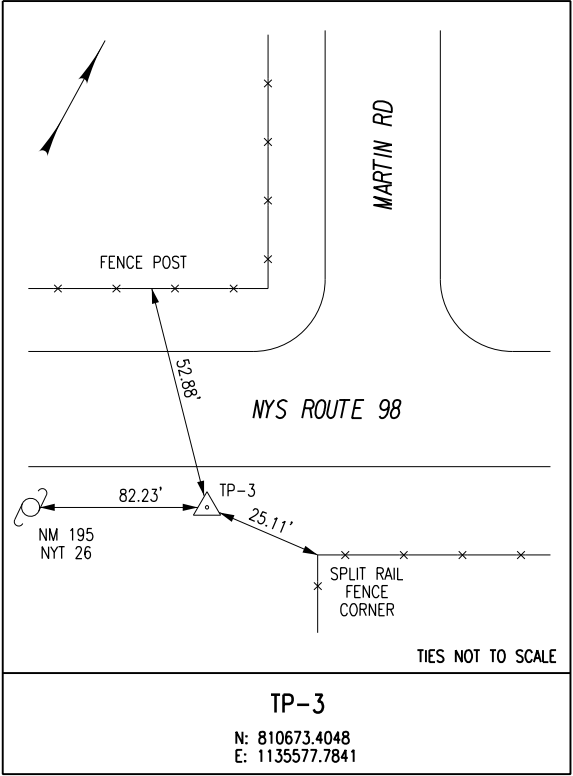
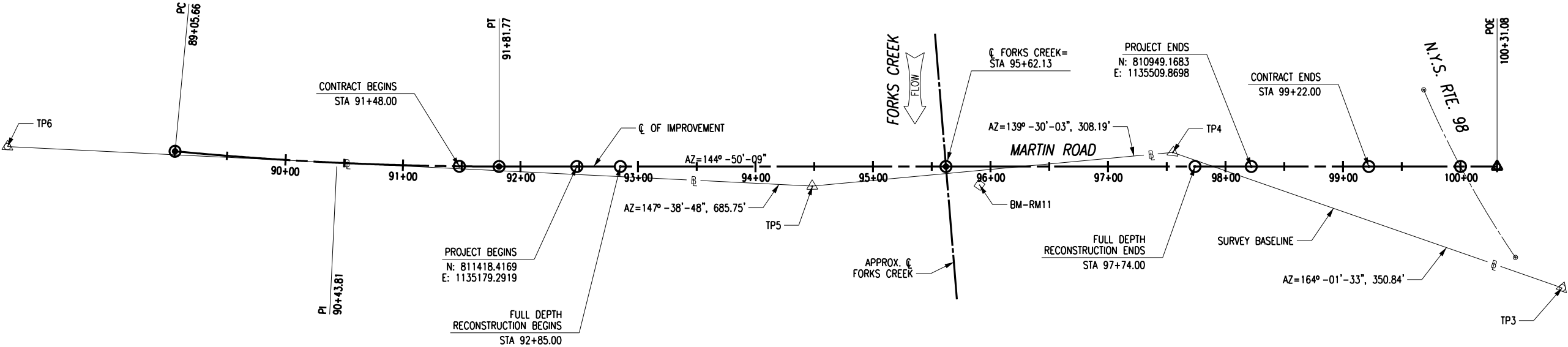
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HORIZONTAL AND VERTICAL CONTROL

HORIZONTAL AND VERTICAL CONTROL FOR THIS PROJECT
WAS ESTABLISHED BY GPS VIA THE OPUS TOOL AT THE NGS WEBSITE

HORIZONTAL DATUM NAD 83/96
VERTICAL DATUM NAVD 88

BENCHMARK TABLE		
BM NO.	ELEVATION	DESCRIPTION
RM11	1472.2	"X" IN CAP, SOUTHWEST WINGWALL



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Date

SURVEY CONTROL DATA

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Project Manager:
K.H.M.

Designed By:
J.P.A.

Drawn By:
M.M.M.

Project Number:
8293.00

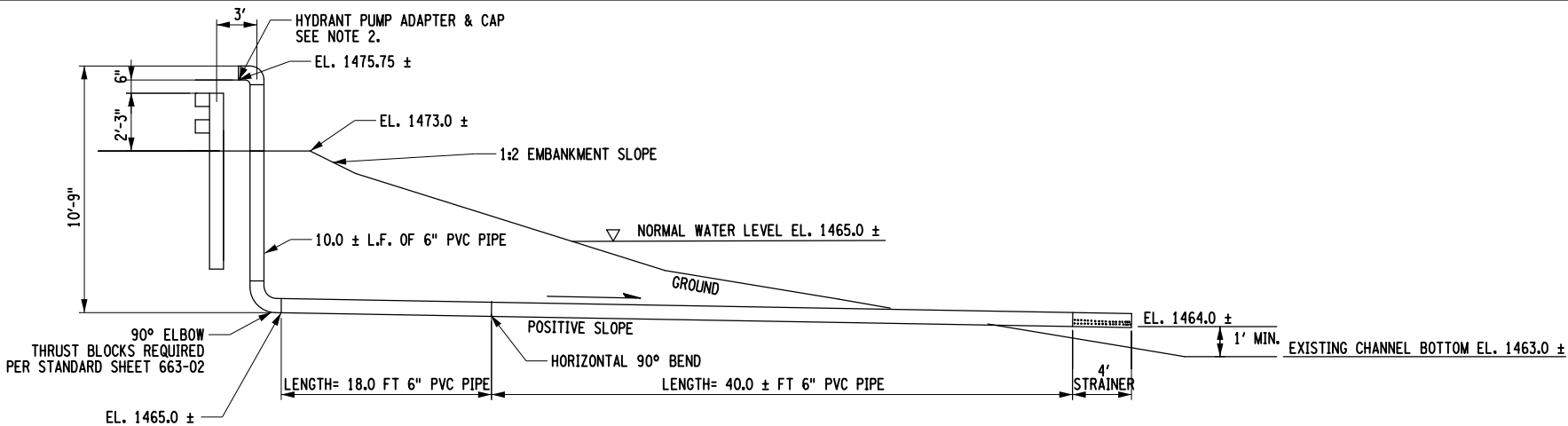
Drawing Number:

Checked By:
M.D.D.

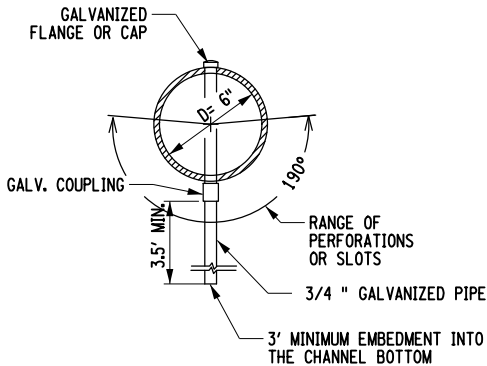
Date Issued:
SEP. 2017

Scale:
AS SHOWN

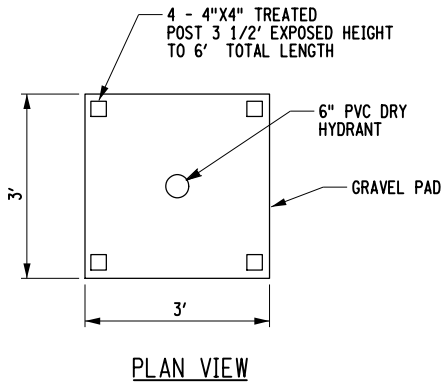
SC-1



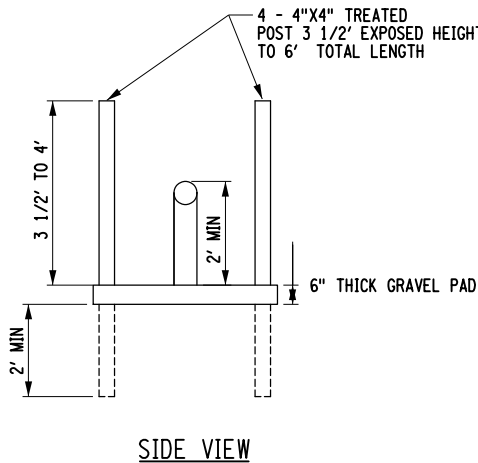
DRY HYDRANT PROFILE
NOT TO SCALE



PIPE SUPPORT DETAILS
NOT TO SCALE



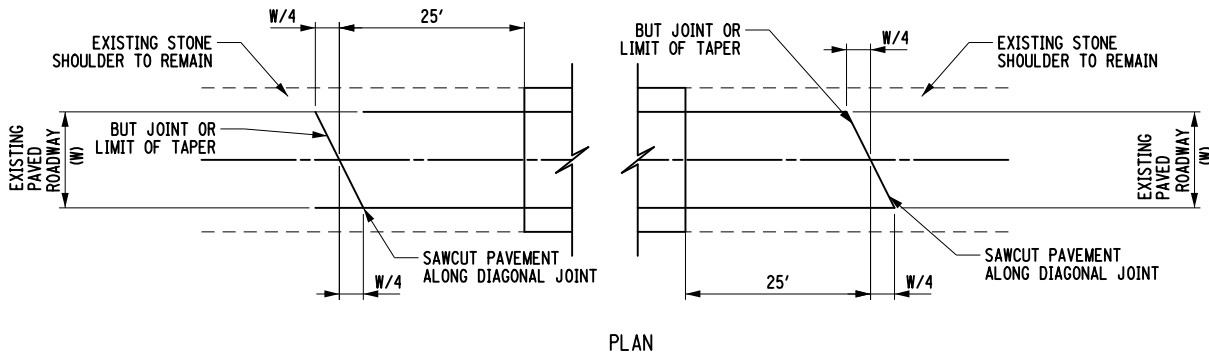
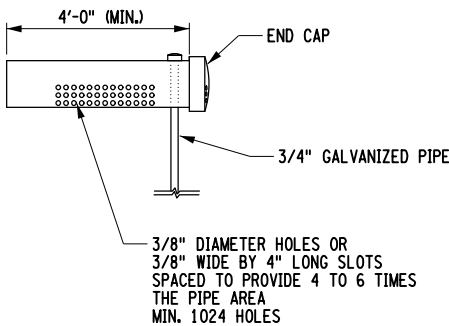
PLAN VIEW



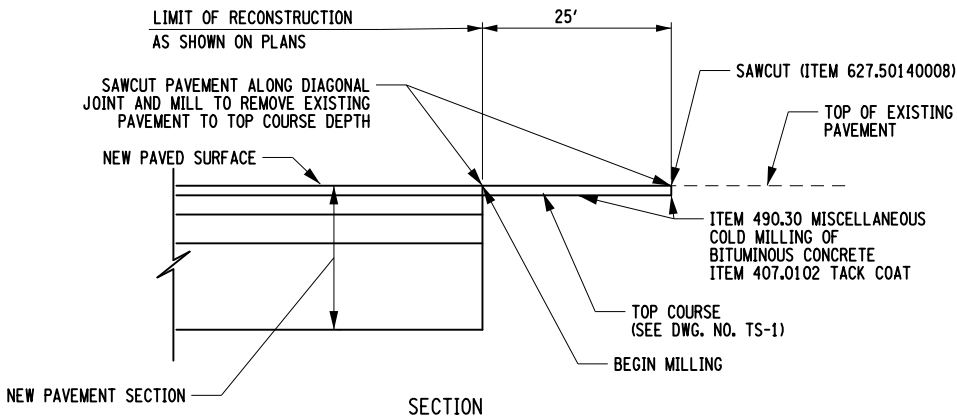
SIDE VIEW

PROTECTIVE BASE PAD DETAILS
NOT TO SCALE

- NOTES:
- ALL FITTINGS AND WORK REQUIRED TO INSTALL THE DRY HYDRANT INCLUDING ANY RESTRAINTS AND THRUST BLOCKS AS SHOWN ON THESE PLANS SHALL BE INCLUDED IN ITEM 663.1501 DRY HYDRANT.
 - THE CONTRACTOR SHALL COORDINATE WITH THE GREAT VALLEY FIRE DEPARTMENT TO ENSURE THE HOOK-UP IS COMPATIBLE WITH THEIR EQUIPMENT.



PLAN



SECTION

NOTES:

- BUTT JOINTS WILL BE REQUIRED AT THE JUNCTION OF THE NEW AND EXISTING PAVEMENTS OR AOE. TO PROVIDE A SMOOTH RIDING PAVEMENT TRANSITION.
- ALL WORK TO BE PAID FOR SEPARATELY UNDER THE APPROPRIATE ITEMS IN THE CONTRACT.

PAVEMENT TERMINATION DETAIL
NOT TO SCALE

PROPOSED GUIDE RAIL				
STATION		OFFSET	ITEM 606.10 (LF)	ITEM 606.120201 (EA)
FROM	TO			
93+56.76	93+80.25	15.3 RT		1
93+80.25	94+88.25	15.9 RT	108.0	
94+88.25	96+36.75	16.4 RT	BRIDGE ESTIMATE	
96+36.75	97+44.75	15.5 RT	108.0	
97+44.75	97+68.25	15.5 RT		1
93+20.76	93+44.25	15.4 LT		1
93+44.25	94+88.25	15.9 LT	144.0	
94+88.25	96+36.75	16.4 LT	BRIDGE ESTIMATE	
96+36.75	97+62.75	15.5 LT	126	
97+62.75	97+86.24	15.5 LT		1
TOTAL			486	4

SILT FENCE				
STATION		OFFSET		ITEM 209.13 (LF)
FROM	TO	FROM	TO	
92+63	93+28	22 RT	21 RT	65
93+28	93+71	24 RT	20 RT	43
93+69	93+83	23 RT	22 RT	14
93+83	94+68	24 RT	25 RT	85
94+66	95+03	24 RT	23 RT	37
95+00	95+41	37 RT	37 RT	41
96+05	96+24	35 RT	36 RT	19
96+20	96+86	34 RT	25 RT	66
96+85	97+42	23 RT	23 RT	57
97+37	98+09	23 RT	22 RT	72
92+50	93+44	24 LT	19 LT	94
93+37	93+80	24 LT	19 LT	43
93+77	94+14	22 LT	21 LT	37
94+12	94+54	24 LT	24 LT	42
94+50	94+90	23 LT	24 LT	40
94+87	95+07	22 LT	24 LT	20
95+00	95+22	38 LT	39 LT	22
95+91	96+31	36 LT	24 LT	40
96+31	96+49	30 LT	26 LT	18
96+48	96+95	30 LT	30 LT	47
96+94	97+08	26 LT	28 LT	14
97+03	97+25	23 LT	22 LT	22
97+25	97+49	24 LT	24 LT	24
97+47	97+92	21 LT	25 LT	45
TOTAL				1007

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NO.	DATE	DESCRIPTION	REV. CK'D



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Date

MISCELLANEOUS HIGHWAY TABLES & DETAILS

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Project Manager: J.C.K.
Designed By: J.C.K.
Drawn By: J.C.K.
Project Number: 8293.00
Drawing Number:

Checked By: T.E.M.
Date Issued: SEPT 2017
Scale: N.T.S.

MD-1

GENERAL EROSION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL COMPLY WITH ALL GENERAL NOTES FOR THE UNITED STATES ARMY CORPS OF ENGINEERS, SECTION 404 NATIONWIDE PERMITS.
2. THE CONTRACTOR SHALL COMPLY WITH ALL GENERAL NOTES FOR THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, SECTION 401 WATER QUALITY CERTIFICATION.
3. THE ELEMENTS ON THESE PAGES KNOWN AS "EROSION AND SEDIMENT CONTROL" (ESC) SHALL BE USED DURING CONSTRUCTION IN ANY AREA WHERE FINE MATERIALS MAY ENTER THE WATERS OF THE STATE OF NEW YORK.
4. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE ENGINEER IN CHARGE HIS WRITTEN SCHEDULE AND PROPOSED MEASURES FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL WORK AND SCHEDULE OF OPERATIONS AS REQUIRED BY SECTION 209 OF THE NYSDOT STANDARD SPECIFICATIONS.
5. ALL STREAM CHANNEL WORK SHALL BE LIMITED TO WITHIN THE DESIGNATED RIGHT OF WAY, EASEMENT, TEMPORARY OCCUPANCY OR RELEASE LIMITS.
6. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT CONTAMINATION OF ANY STREAM OR WATERWAY BY SILT, SEDIMENT, FUELS, SOLVENTS, LUBRICANTS, EPOXY COATINGS, CONCRETE LEACHATE OR ANY OTHER POLLUTANT ASSOCIATED WITH CONSTRUCTION AND CONSTRUCTION PROCEDURES.
7. DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO ANY WATERS, NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS OR OTHER DEVICES BE ALLOWED TO ENTER ANY WETLAND OR WATERS.
8. ANY DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM THE BED AND BANKS OF ALL WATER AREAS TO APPROPRIATE UPLAND AREAS FOR DISPOSAL.
9. ALL DREDGED AND EXCAVATED MATERIAL THAT IS DISPOSED OF ON AN UPLAND SITE SHALL BE SUITABLY STABILIZED WITH SEED AND MULCH IN ACCORDANCE WITH SECTION 209 OF THE NYSDOT STANDARD SPECIFICATIONS SO THAT IT CANNOT REASONABLY RE-ENTER ANY WATER BODY OR WETLAND AREA.
10. INSPECTION, PERIODIC CLEANING AND MAINTENANCE OF TEMPORARY SOIL EROSION AND POLLUTION CONTROL DEVICES SHALL BE PERFORMED ON A SCHEDULE BASIS IN ACCORDANCE WITH SECTION 209 OF THE NYSDOT STANDARD SPECIFICATIONS. THE COST OF INSTALLING, CLEANING AND REMOVING TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL DEVICES SHALL BE PAID FOR UNDER THE ITEMS SHOWN.
11. ALL CONTROL MEASURES SHALL BE PLACED PRIOR TO STARTING EARTH WORK OPERATIONS AND SHALL REMAIN IN PLACE UNTIL THE NEW SLOPES ARE STABILIZED WITH SEEDING, MULCH AND/OR SLOPE PROTECTION, IN ACCORDANCE WITH SECTION 209 OF THE NYSDOT STANDARD SPECIFICATIONS.
12. ALL DEWATERING OPERATIONS OF EXCAVATED AREAS SHALL BE DONE IN A MANNER THAT WILL NOT CREATE EROSION OR SEDIMENT-LADEN WATER. AS DEWATERING OPERATIONS OF EXCAVATED AREAS BECOME NECESSARY, THIS WATER SHALL BE DIVERTED TO THE SEDIMENT TRAP (ITEM 209.140101).
13. HEAVY EQUIPMENT SHALL NOT BE DRIVEN IN THE WATER.
14. TEMPORARY CONSTRUCTION ENTRANCES, IF REQUIRED, SHALL BE STABILIZED AND SHALL INCLUDE WASHING AREAS IN ACCORDANCE WITH NYSDOT STANDARD SHEETS AND SPECIFICATIONS.
15. ALL AREAS OF SOIL DISTURBANCES RESULTING FROM THIS PROJECT SHALL BE STABILIZED BY SEED AND MULCH - TEMPORARY AND/OR ROLLED EROSION CONTROL PRODUCTS IN ACCORDANCE WITH SECTION 209-3.01 OF THE NYSDOT STANDARD SPECIFICATIONS WITHIN ONE WEEK OF FINAL GRADING. IF CONSTRUCTION ACTIVITIES ARE DISCONTINUED IN AREAS OF SOIL DISTURBANCE BEFORE FINAL GRADING IS COMPLETE, TEMPORARY GRADING SHALL BE STABILIZED BY SEEDING AND MULCH -TEMPORARY (ITEM 209.1003) WITHIN 7 DAYS OF EXPOSURE. MULCH SHALL BE MAINTAINED UNTIL SUITABLE VEGETATIVE COVER IS ESTABLISHED. IN NO CASE SHALL MORE THAN ONE PAYMENT BE MADE FOR THE APPLICATION OF SEED AND MULCH -TEMPORARY (ITEM 209.1003) AND/OR ROLLED EROSION CONTROL PRODUCTS (ITEM 209.1901) IN ANY GIVEN AREA REGARDLESS OF THE NUMBER OF APPLICATIONS REQUIRED TO COMPLY WITH THESE NOTES AND SPECIFICATIONS.
16. IN ADDITION TO THE REQUIREMENT OF NOTE 15, ROLLED EROSION CONTROL PRODUCTS (ITEM 209.1901) SHALL BE USED ON ALL WORKED SLOPES OF 1 V ON 4 H OR STEEPER.
17. OTHER EROSION CONTROL MEASURES MAY BE REQUIRED A.O.B.E. IN ADDITION TO SCHEMES SHOWN. PAYMENT FOR ADDITIONAL WORK SHALL BE MADE UNDER THE APPROPRIATE ITEMS IN THE CONTRACT.
18. RING ANY TEMPORARY STOCKPILES OF TOPSOIL OR FILL WITH SILT FENCES AS SHOWN IN THE SILT FENCE DETAIL IN THE STANDARD SHEETS AND STANDARD SPECIFICATIONS TO CONTAIN ANY EROSION OF THE PILE. PILES EXPOSED FOR LONGER THAN ONE WEEK SHALL BE STABILIZED BY SEEDING, MULCH AND OR SLOPE PROTECTION IN ACCORDANCE WITH SECTION 209 OF THE STANDARD SPECIFICATIONS.
19. WHERE SILT FENCE IS USED IN AREAS OF CONCENTRATED FLOW, THE ENGINEER IN CHARGE MAY CALL FOR BACKING THE SILT FENCE WITH STRAW BALES. AN APPROVED GEOTEXTILE OR FILTER FENCE MAY BE SUBSTITUTED FOR STRAW BALES AT NO ADDITIONAL COST TO THE COUNTY. GEOTEXTILE SHALL SATISFY THE REQUIREMENTS OF SECTION 207-2 OF THE STANDARD SPECIFICATIONS.
20. ALL METHODS AND EQUIPMENT PROPOSED BY THE CONTRACTOR TO ACCOMPLISH THE WORK SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER IN CHARGE.
21. ALL STORM DRAINAGE OUTLETS SHALL BE STABILIZED, AS REQUIRED AND A.O.B.E., BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
22. 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 BEFORE ENTERING A WATERBODY.
23. STORM WATER FROM DISTURBED AREAS MUST BE PASSED THROUGH A SEDIMENT TRAP (FOR COLLECTED RUNOFF IN A DITCH OR PIPE) OR SILTATION FENCE (USED ALONG LINES OF EQUAL ELEVATION) BEFORE DISCHARGE BEYOND DISTURBED AREAS OR INTO INLETS OF OTHER DRAINAGE SYSTEMS.
24. NO MATERIAL SHALL BE ALLOWED TO BE DROPPED INTO THE STREAM CHANNEL. ANY DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION OF THIS PROJECT SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM THE BED AND BANKS OF ALL WATER AREAS AND MOVED TO AN APPROPRIATE UPLAND AREA FOR DISPOSAL.
25. THE LOCATIONS OF EROSION AND SEDIMENT CONTROL MEASURES, AS INDICATED IN THE CONTRACT DOCUMENTS MAY REQUIRE FIELD ADJUSTMENTS DEPENDING ON THE SEQUENCE OF CONSTRUCTION ACTIVITIES, CONSTRUCTION METHODS AND/OR ACTUAL FIELD CONDITIONS.
26. THE REGIONAL ENVIRONMENTAL CONTACT SHALL BE NOTIFIED OF ANY SIGNIFICANT FIELD CHANGES TO THE EROSION AND SEDIMENT CONTROL MEASURES INDICATED IN THE CONTRACT DOCUMENTS.
27. ALL IN-STREAM WORK SHALL BE CONDUCTED BETWEEN JUNE 2ND AND SEPTEMBER 30TH IN COORDINATION WITH THE COUNTY'S GENERAL PERMIT.
28. THE CONTRACTOR SHALL NOT USE THE STREAM BED OR BANKS AS A STAGING AREA FOR EQUIPMENT OR MATERIALS. AFTER EACH WORK DAY, ALL MECHANIZED EQUIPMENT SHALL BE REMOVED FROM THE BED AND BANKS OF THE CREEK AND STORED IN AN APPROVED UPLAND SITE.
29. CONTROLS SHALL BE ESTABLISHED TO PREVENT THE TRACKING, SPILLING, AND DROPPING OF SEDIMENTS OUTSIDE OF THE WORK AREAS BY CONSTRUCTION VEHICLES. IF WASHING IS PERFORMED, THE WASHING AREA SHALL BE LOCATED IN AN AREA WHICH WILL DRAIN INTO AN APPROVED SEDIMENT CONTROL MEASURE(S). NO SEPARATE PAYMENT WILL BE MADE FOR MAINTENANCE, ESTABLISHMENT AND MATERIALS FOR WASHING AREAS; COST TO BE INCLUDED IN THE UNIT BID PRICES OF VARIOUS EROSION AND SEDIMENT CONTROL ITEMS STATED IN THE CONTRACT.
30. TO AVOID TRANSPORT OF INVASIVE SPECIES, ALL EQUIPMENT TO BE UTILIZED AT BRIDGE SITES SHALL BE CLEANED PRIOR TO ARRIVING ON THE PROJECT SITE. IF THE EQUIPMENT BECOMES CONTAMINATED WITH INVASIVES DURING WORK, THIS EQUIPMENT SHALL BE CLEANED PRIOR TO RELOCATION TO THE NEXT SITE. APPROVAL TO PROCEED AT EACH BRIDGE SITE SHALL BE OBTAINED FROM THE EIC IN CONSULTATION WITH THE CONSTRUCTION ENVIRONMENTAL COORDINATOR.

Bridge
Replacement
Martin Road Over
Forks Creek
P.I.N. 5758.47

Cattaraugus
County DPW

Engineering Division
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SEPTEMBER 2017
Date

EROSION AND SEDIMENT
CONTROL NOTES

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Project Manager: J.C.K.	
Designed By: J.C.K.	Checked By: T.E.M.
Drawn By: J.C.K.	Date Issued: SEPT 2017
Project Number: 8293.00	Scale: NOT TO SCALE
Drawing Number:	

EC-1

Bridge Replacement

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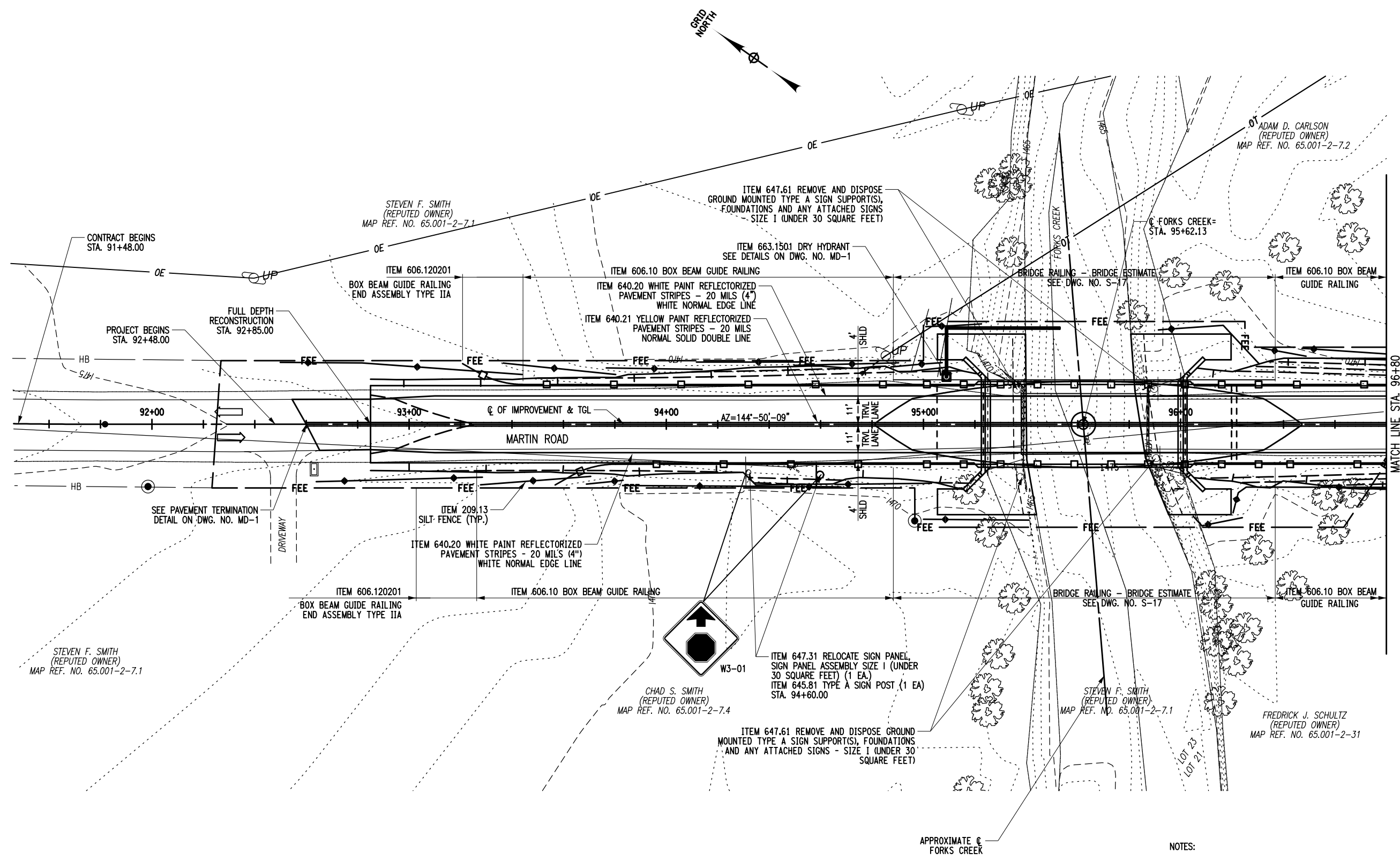


PLAN-1

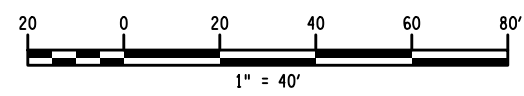
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Project Manager: J.C.K.	
Designed By: P.G.P.	Checked By: J.C.K.
Drawn By: P.G.P.	Date Issued: SEPT 2017
Project Number: 8293.00	Scale: AS SHOWN
Drawing Number:	

PL-1

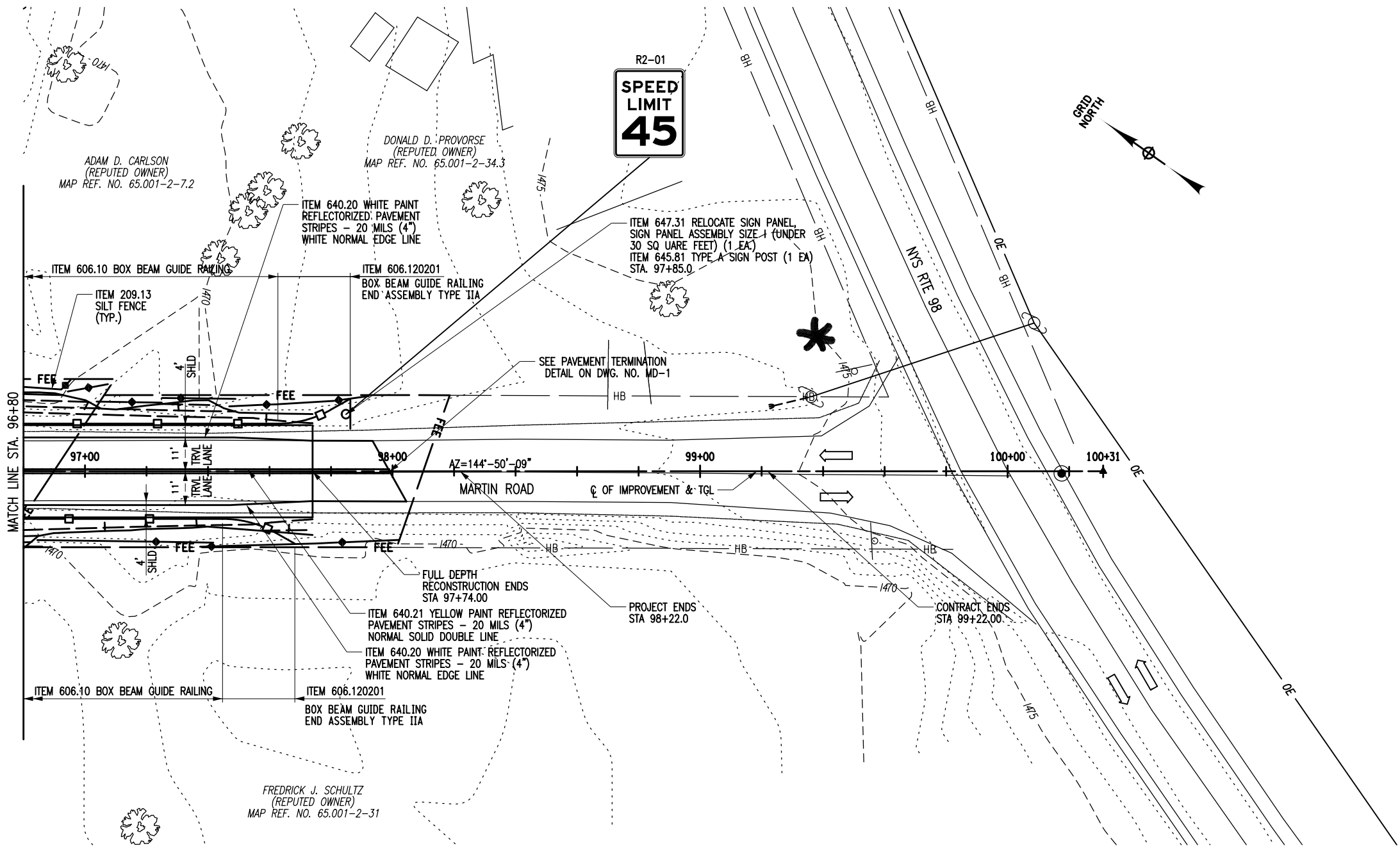


- NOTES:
- SEE BRIDGE PLANS FOR BRIDGE ITEMS AND CALLOUTS.
 - SEE DWG. NO. MD-1 FOR GUIDE RAILING TABLES, AND SILT FENCE TABLES.
 - SEE DWG. NO. EC-1 FOR EROSION CONTROL NOTES.



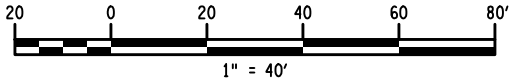
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NOTES:

1. SEE BRIDGE PLANS FOR BRIDGE ITEMS AND CALLOUTS.
2. SEE DWG. NO. MT-1 FOR GUIDE RAILING TABLES, AND SILT FENCE TABLES.
3. SEE DWG. NO. EC-1 FOR EROSION CONTROL NOTES.



Bridge Replacement

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SEPTEMBER 2017
Date

PLAN-2

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Project Manager:

J.C.K.

Designed By:

P.G.P.

Drawn By:

P.G.P.

Project Number:

8293.00

Drawing Number:

Checked By:

J.C.K.

Date Issued:

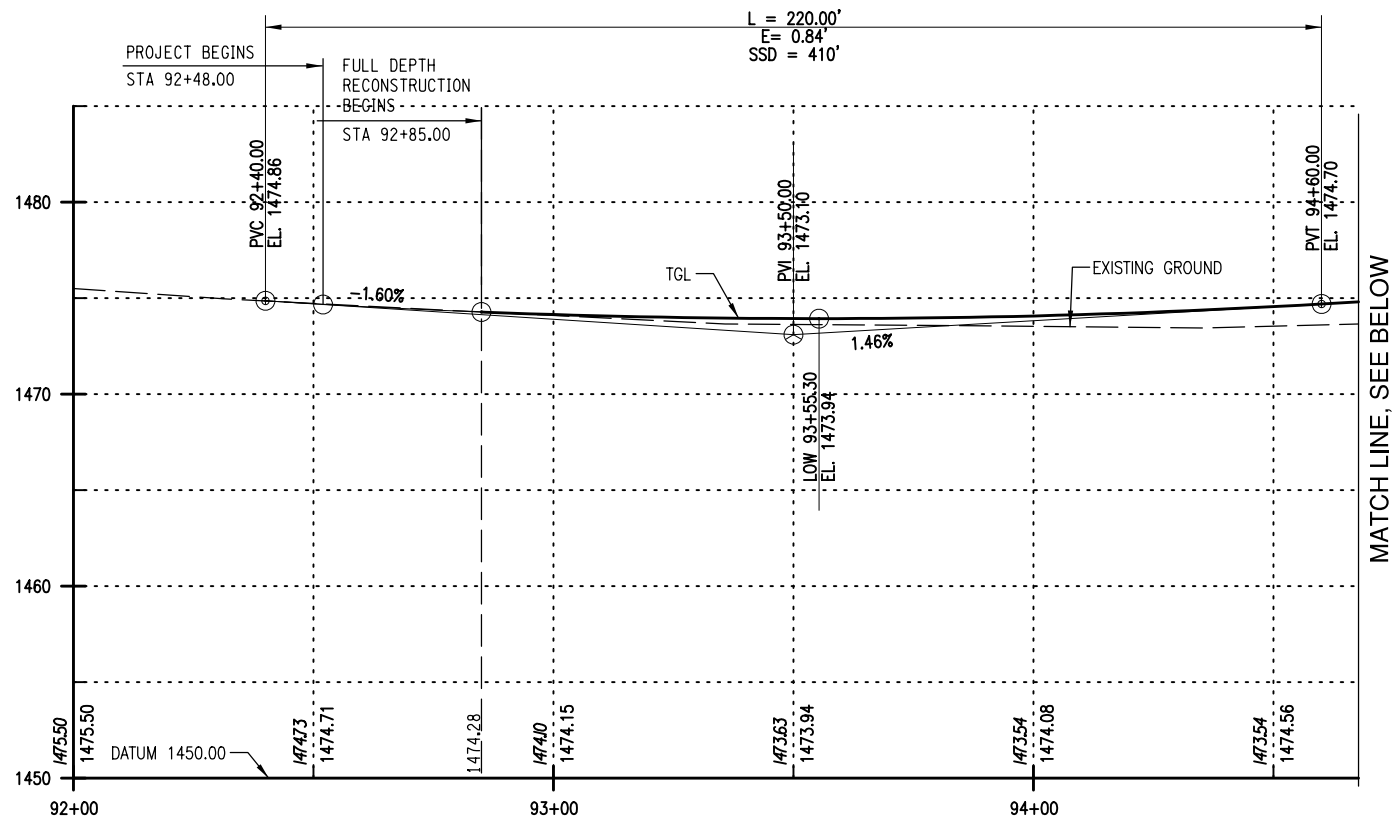
SEPT 2017

Scale:

AS SHOWN

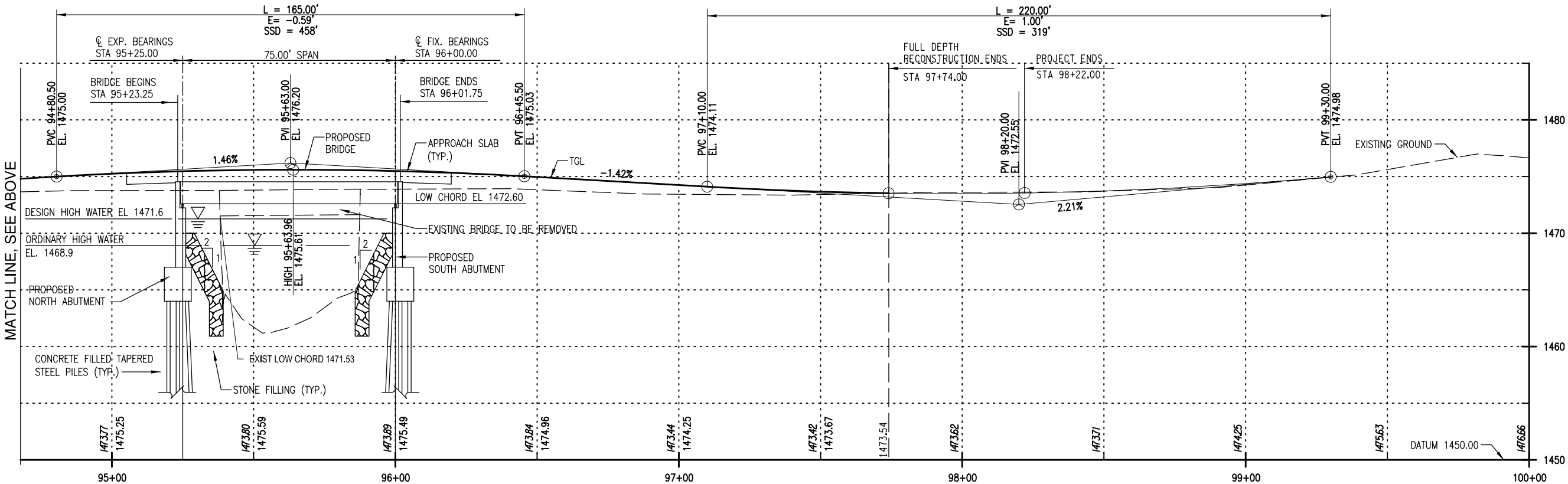
PL-2

Print Date: 8/31/2017 7:16:23 AM
File Name: H:\2010\10071-Replacement of Great Valley Bridge #9\Final Design 2012\18. CADD\Transportation\829300_cpt_gnp_profile 01.dgn



PROFILE
SCALE: 1"=40' HORIZ.
1"=10' VERT.

MATCH LINE, SEE BELOW



PROFILE
SCALE: 1"=40' HORIZ.
1"=10' VERT.

Bridge Replacement

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Project Manager:

J.C.K.

Designed By:

Checked By:

Drawn By:

Date Issued:

SEPT 2017

Project Number:

8293.00

Scale:

AS SHOWN

Drawing Number:

PR-1

Bridge Replacement
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fax: 716.852.1767

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REVISIONS			
NO.	DATE	DESCRIPTION	REV. CK'D



SEPTEMBER, 2017
Date

**BRIDGE PLAN
AND ELEVATION**

NOTE:
Unauthorized alteration or addition to this
drawing is a violation of the New York State
Education Law Article 145, Section 7209.

Project Manager:
K.H.M.

Designed By:
J.P.A.

Drawn By:
M.M.M.

Project Number:
8293.00

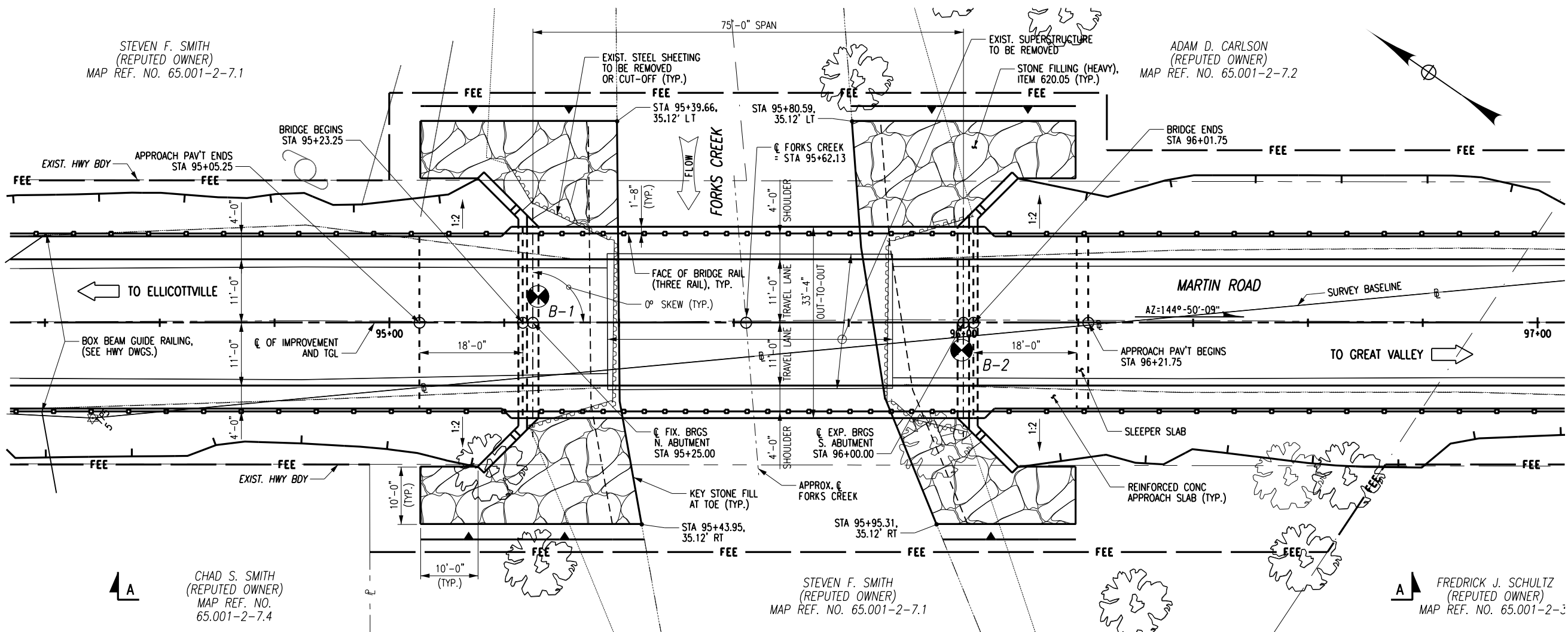
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Checked By:
M.D.D.

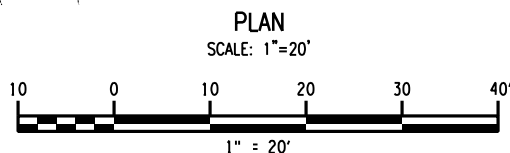
Date Issued:
SEP. 2017

Scale:
1" = 20'

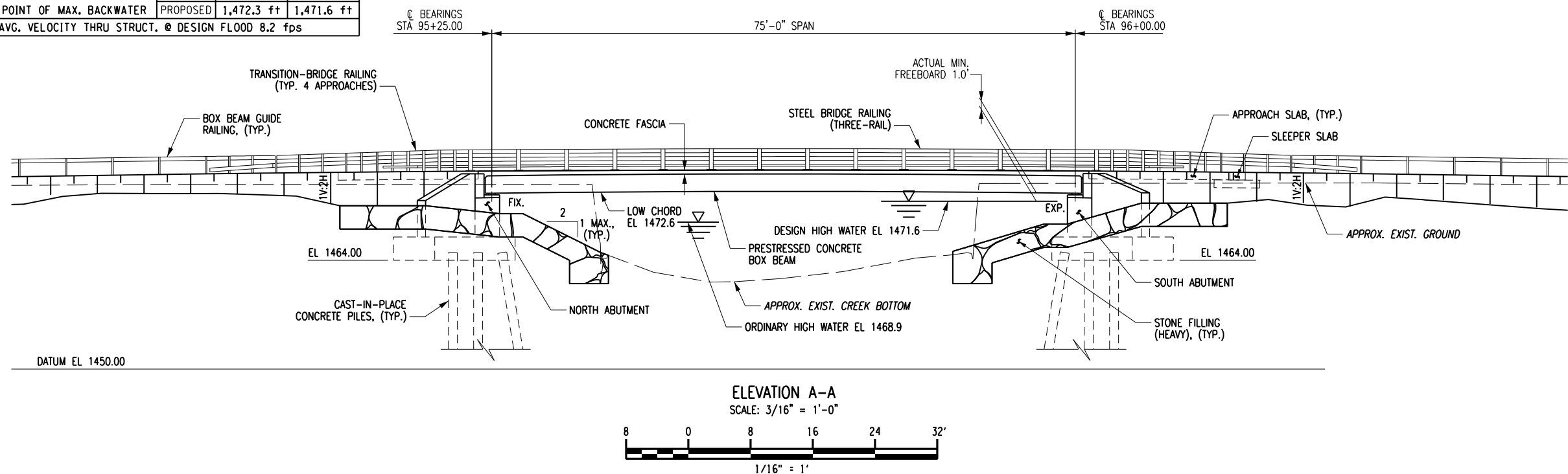
S-1



HYDRAULIC DATA			
DRAINAGE AREA	26.1 SQ MI	BASIC FLOOD	DESIGN FLOOD
REQUENCY INTERVAL (YEARS)	100	50	
PEAK DISCHARGE	cfs	4,810 cfs	4,120 cfs
HIGH WATER ELEVATION AT	EXISTING	1,473.2 ft	1,473.1 ft
POINT OF MAX. BACKWATER	PROPOSED	1,472.3 ft	1,471.6 ft
AVG. VELOCITY THRU STRUCT. @ DESIGN FLOOD 8.2 fps			



LOAD RATING (LRFD)		
INVENTORY	HL	TONS
OPERATING	HL	TONS
(TABLE TO BE FILLED IN BY E.I.C.)		



Bridge Replacement

Martin Road Over
Forks Creek
P.I.N. 5758.47

Cattaraugus County DPW

Engineering Division
8810 Route 242
Little Valley, NY 14755

Bergmann
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BRIDGE AND APPROACH SECTIONS

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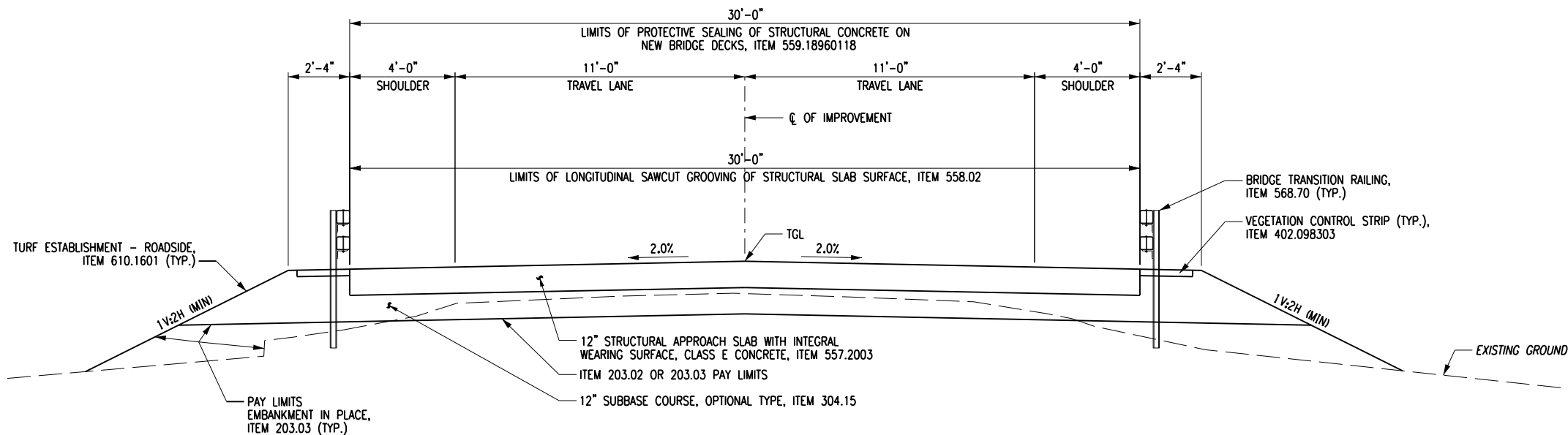
SEP. 2017

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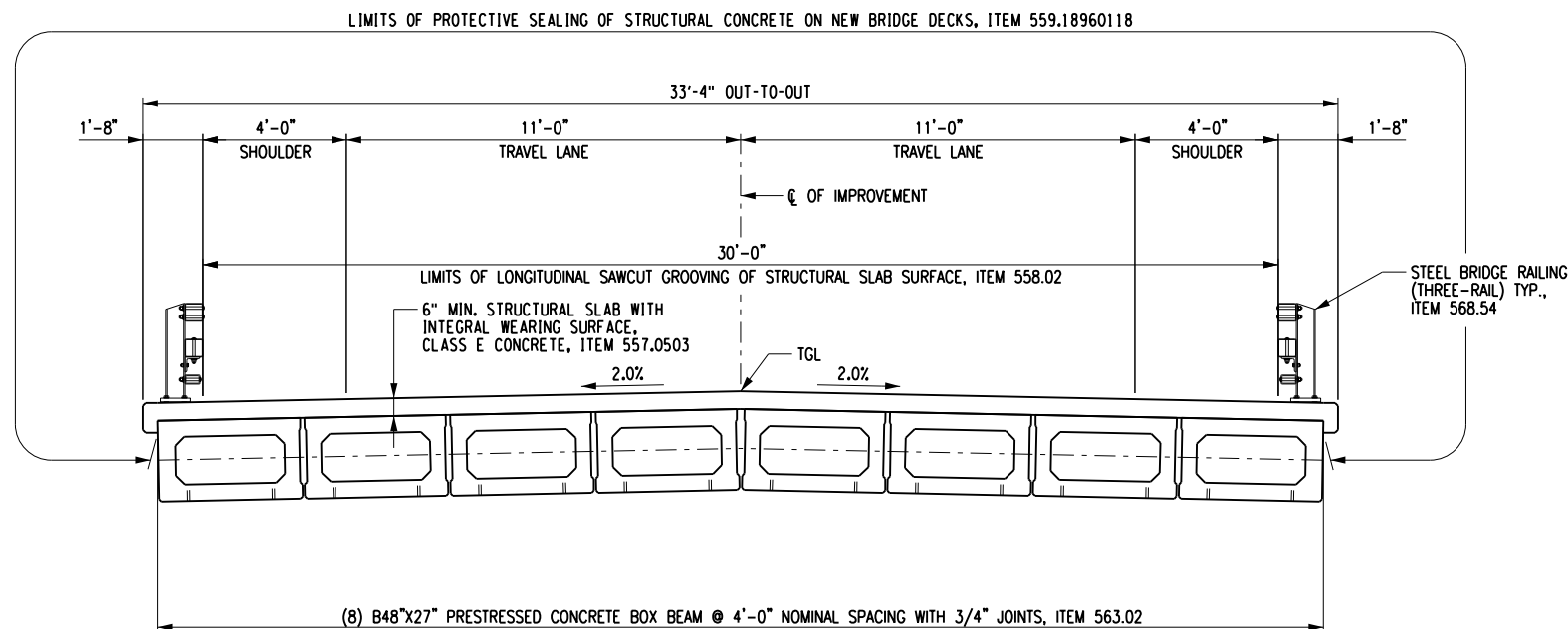
3/16" = 1'-0"

S-2

17 of 34



TYPICAL APPROACH SECTION
(LOOKING UP STATION)
SCALE: 3/16" = 1'-0"



TYPICAL BRIDGE SECTION
SCALE: 3/16" = 1'-0"

Bridge
Replacement
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Date

BORING LOGS - 1

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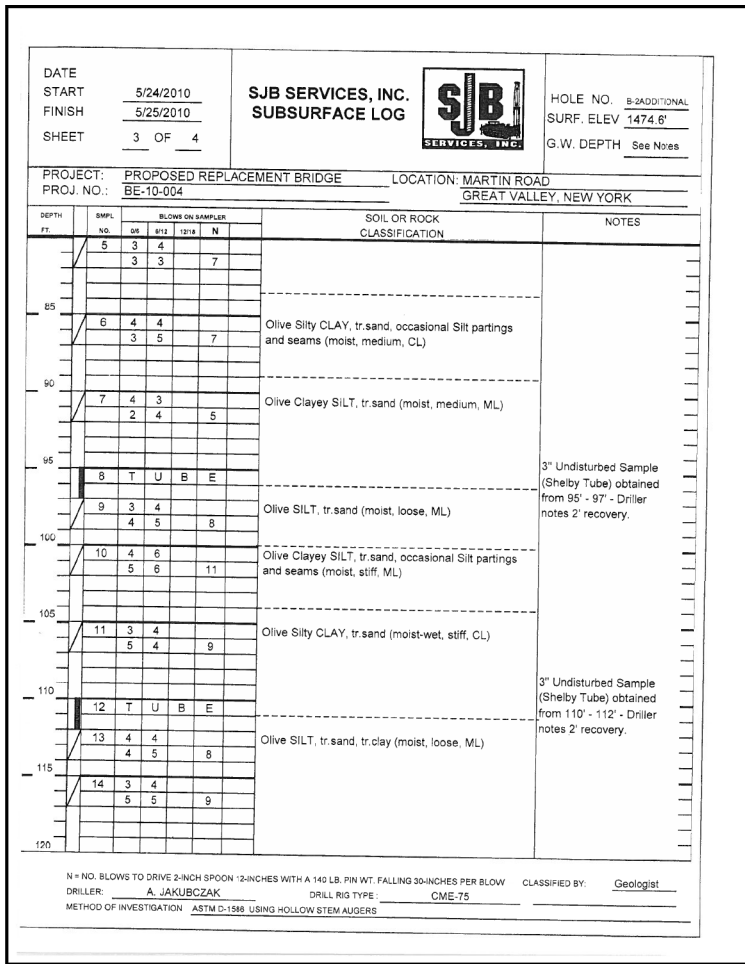
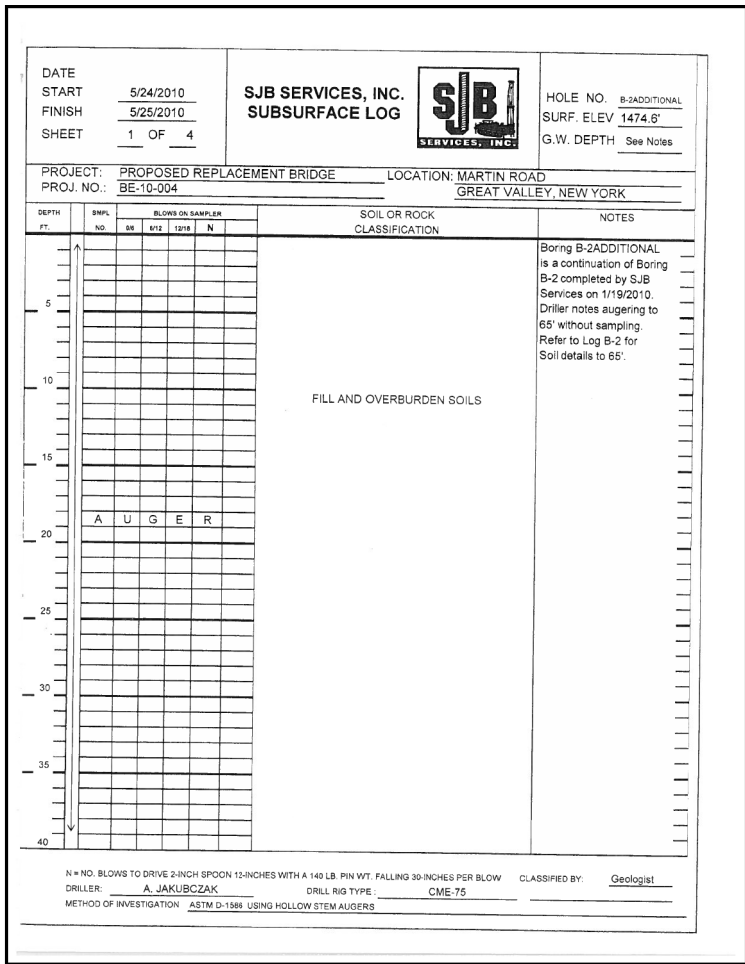
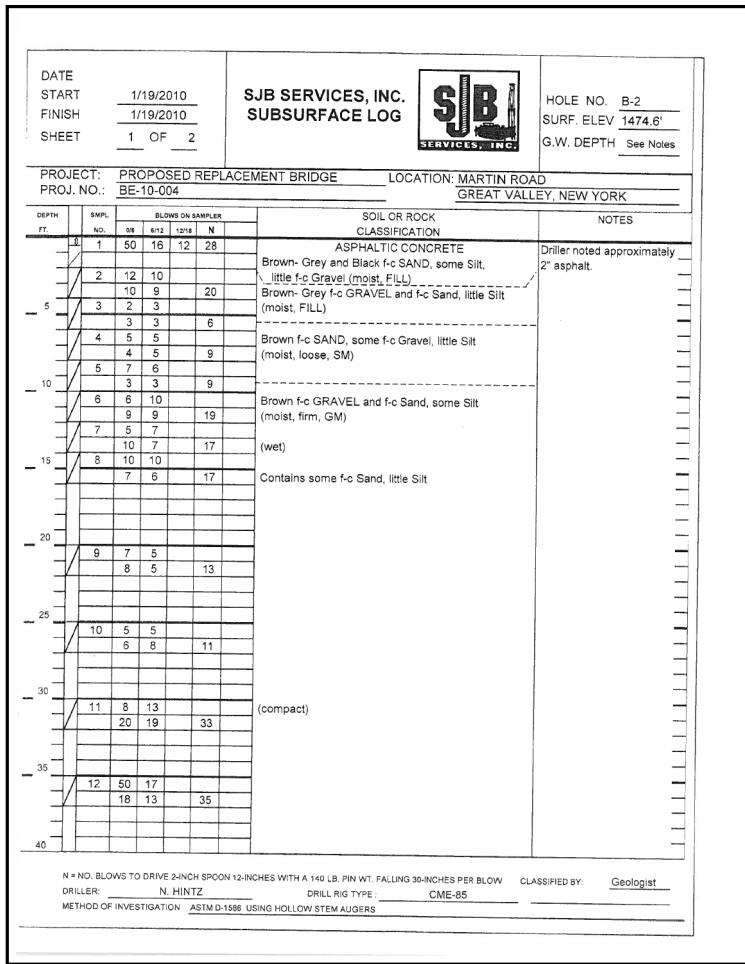
Scale:
NO SCALE

S-3

DATE START FINISH SHEET	1/18/2010 1/18/2010 1 OF 2	SJB SERVICES, INC. SUBSURFACE LOG	HOLE NO. B-1 SURF. ELEV 1474.4' G.W. DEPTH See Notes			
PROJECT: PROPOSED REPLACEMENT BRIDGE PROJ. NO.: BE-10-004		LOCATION: MARTIN ROAD GREAT VALLEY, NEW YORK				
DEPTH FT.	SAMPL. NO. 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000	SOIL OR ROCK CLASSIFICATION	NOTES			
1	34	37	23	60	ASPHALTIC CONCRETE	Driller noted approximately 2" asphalt.
2	12	12			Brown-Black f-c SAND, some Silt tr.-little f-c Gravel (moist, FILL)	
3	4	5		23		Poor Recovery Samples #2, #3, #4
4	4	4		11		
5	3	3		7		
6	11	11		22		No Recovery Sample #6
7	10	11		20		
8	9	9		18		
9	5	5		11		
10	6	8				
11	12	20		46		
12	34	24		52		

DATE START FINISH SHEET	5/19/2010 5/19/2010 1 OF 3	SJB SERVICES, INC. SUBSURFACE LOG	HOLE NO. B-1-ADDITIONAL SURF. ELEV 1474.4' G.W. DEPTH See Notes	
PROJECT: PROPOSED REPLACEMENT BRIDGE PROJ. NO.: BE-10-004		LOCATION: MARTIN ROAD GREAT VALLEY, NEW YORK		
DEPTH FT.	SAMPL. NO. 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000	SOIL OR ROCK CLASSIFICATION	NOTES	
FILL AND OVERBURDEN SOILS				
A U G E R				

DATE START FINISH SHEET	1/18/2010 1/18/2010 2 OF 2	SJB SERVICES, INC. SUBSURFACE LOG	HOLE NO. B-1 SURF. ELEV 1474.4' G.W. DEPTH See Notes
PROJECT: PROPOSED REPLACEMENT BRIDGE PROJ. NO.: BE-10-004		LOCATION: MARTIN ROAD GREAT VALLEY, NEW YORK	
DEPTH FT.	SAMPL. NO. 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571		



Bridge
Replacement
Martin Road Over
Forks Creek
P.I.N. 5758.47

Cattaraugus
County DPW

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REVISIONS				
NO.	DATE	DESCRIPTION	REV.	CK'D



SEPTEMBER, 2017
Date

REMOVAL/
EXCAVATION PLAN
AND SECTIONS

NOTE:
Unauthorized alteration or addition to this
drawing is a violation of the New York State
Education Law Article 145, Section 7209.

Project Manager:
K.H.M.

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J.P.A.

Drawn By:
M.M.M.

Project Number:
8293.00

Drawing Number:

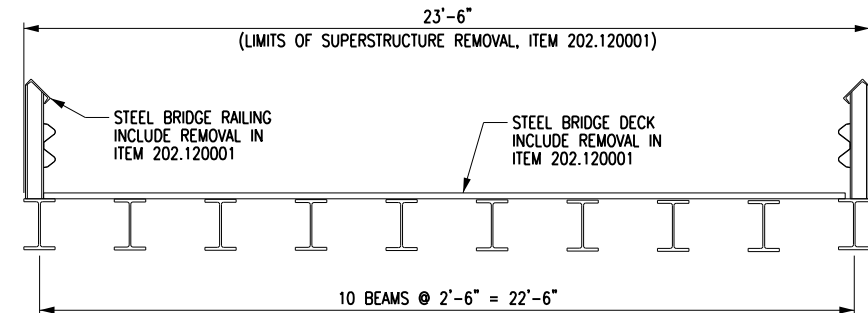
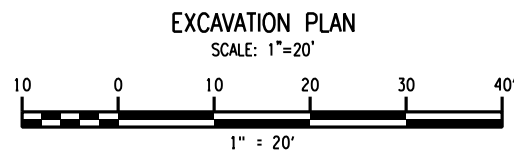
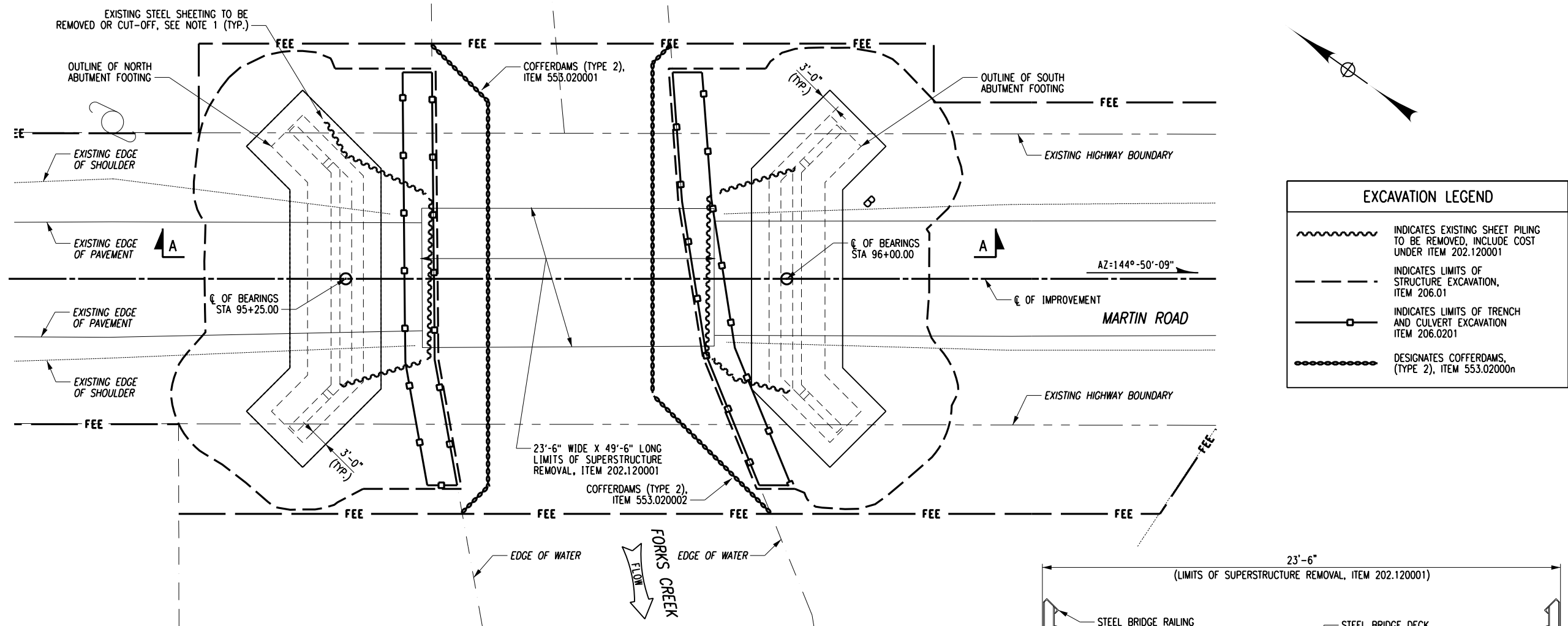
Checked By:
M.D.D.

Date Issued:
SEP. 2017

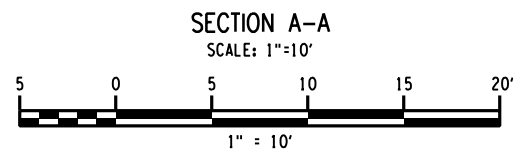
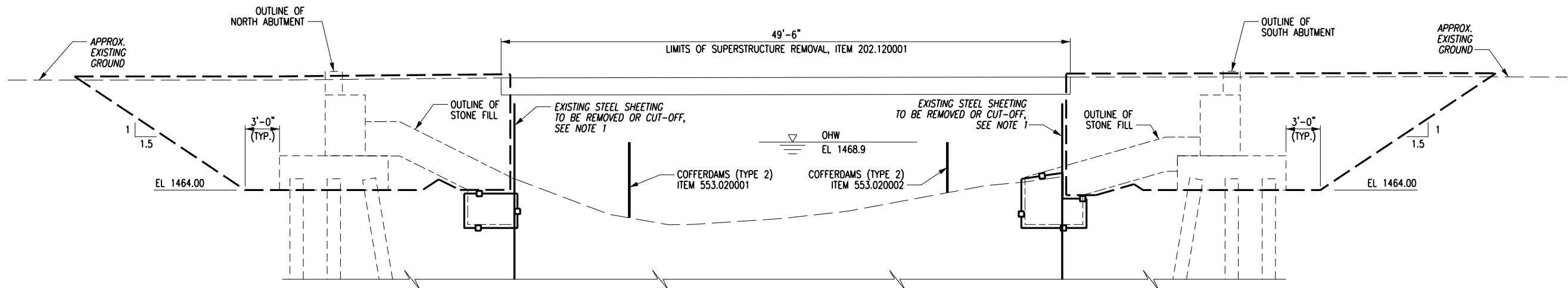
Scale:
1" = 20'

S-5

20 of 34



BRIDGE REMOVAL SECTION
NOT TO SCALE



NOTES:

1. EXISTING STEEL SHEETING SHALL BE REMOVED OR CUT-OFF AS NECESSARY TO CONSTRUCT ABUTMENT AND PLACE STONE FILLING. STEEL SHEETING SHALL BE CUT-OFF A MINIMUM OF 1' BELOW PROPOSED GRADE. INCLUDE COST FOR STEEL SHEETING REMOVAL IN ITEM 202.120001.

Bridge
Replacement
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SEPTEMBER, 2017
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BACKFILL PLAN
AND SECTIONS

NOTE:
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Project Manager:
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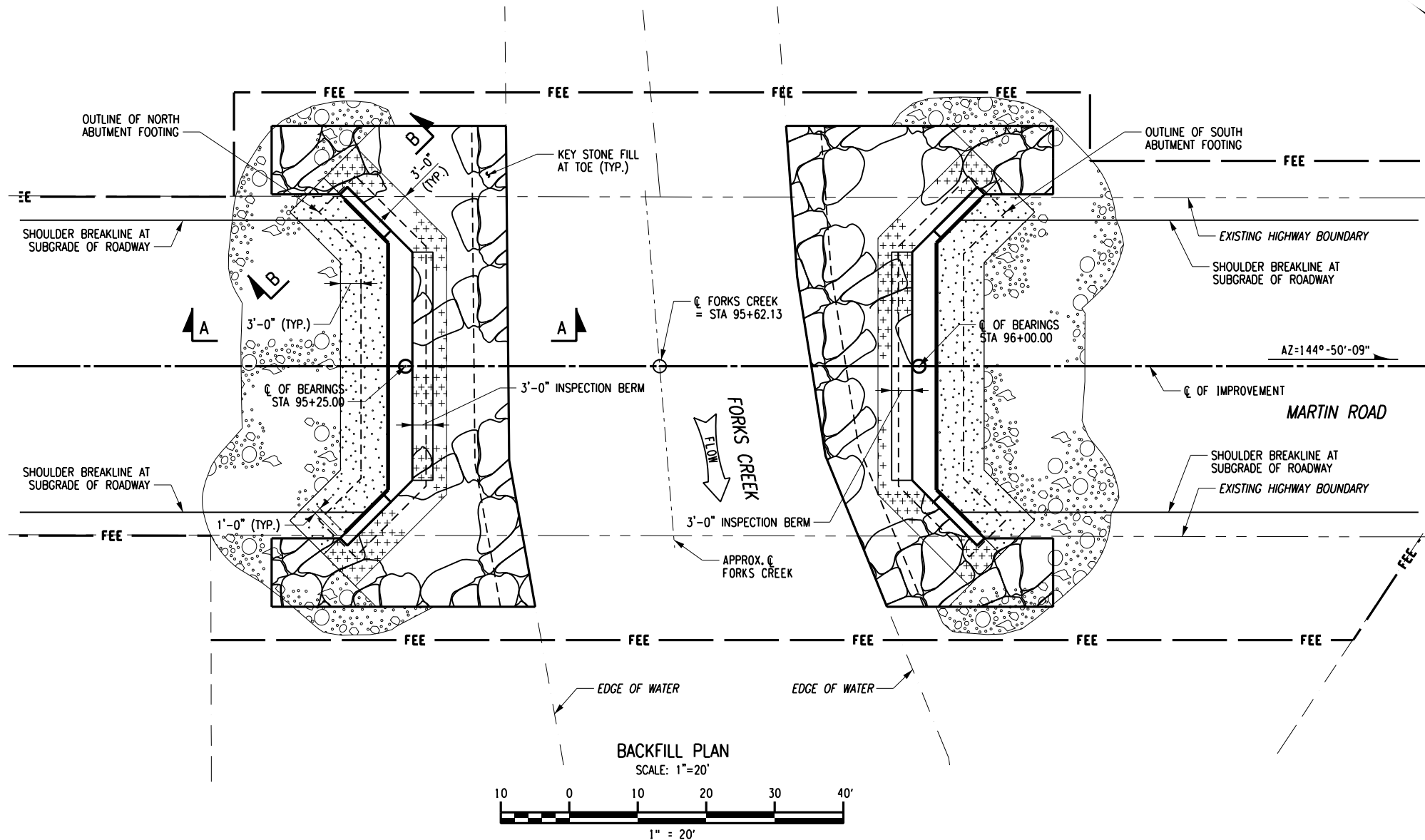
Checked By:
M.D.D.

Date Issued:
SEP. 2017

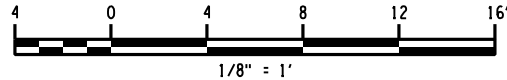
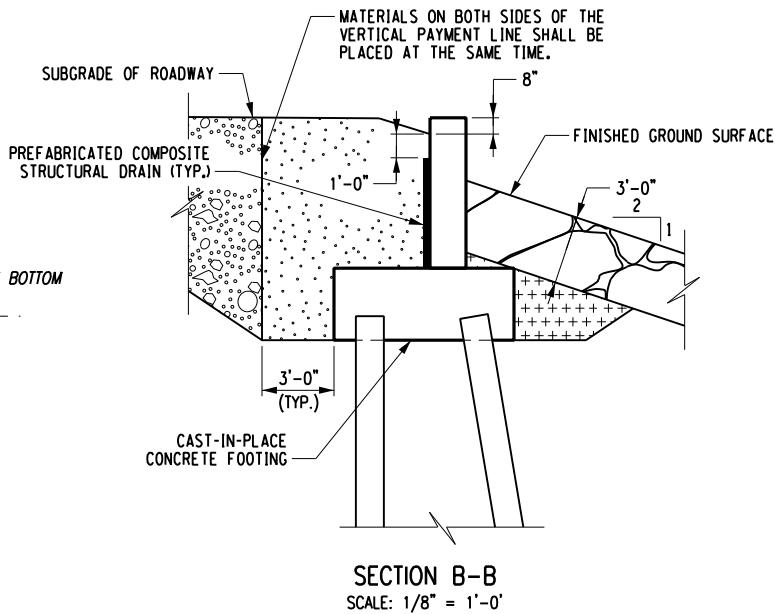
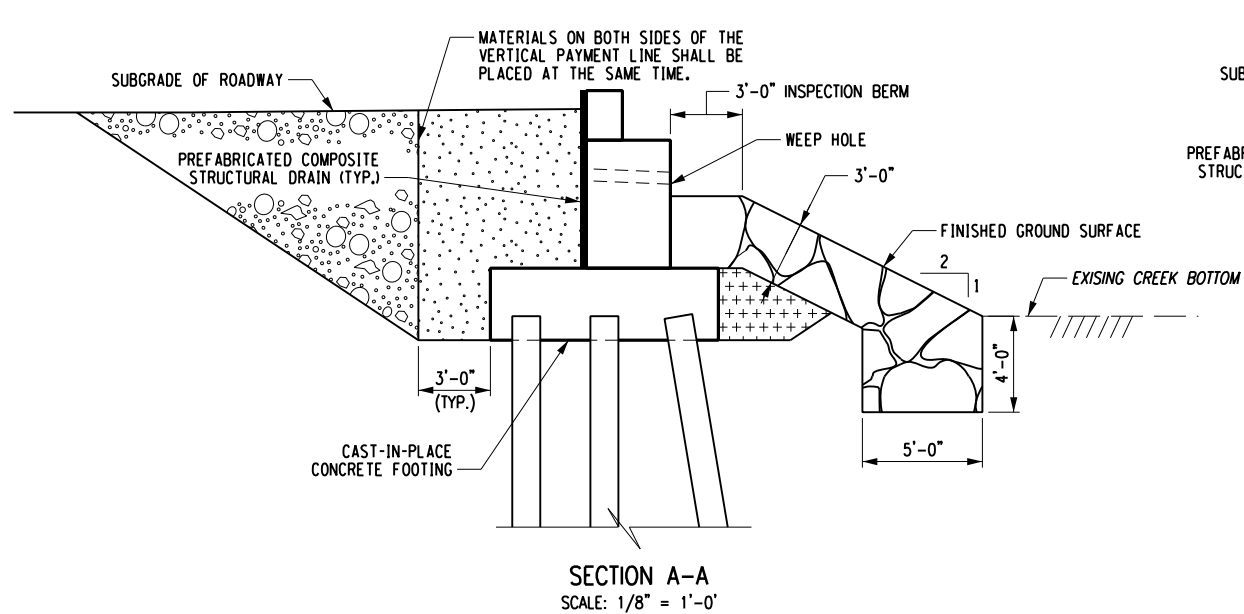
Scale:
NO SCALE

S-6

21 of 34



BACKFILL LEGEND	
	INDICATES LIMITS OF HIGHWAY EMBANKMENT MATERIAL, (HIGHWAY ESTIMATE)
	INDICATES LIMITS OF SELECT STRUCTURE FILL, COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY (ITEM 203.21)
	INDICATES LIMITS OF SUITABLE EXCAVATED MATERIAL AS PROVIDED FOR UNDER ITEM 206.01 STRUCTURE EXCAVATION OR 206.0201 TRENCH AND CULVERT EXCAVATION
	INDICATES LIMITS OF STONE FILLING, ITEM 620.05
	PREFABRICATED COMPOSITE STRUCTURAL DRAIN (PCSD) TERMINATE 1'-0" FROM WINGWALL ENDS, ITEM 207.26
	EXISTING GROUND SURFACE



Bridge Replacement

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Date

TYPICAL ABUTMENT PLAN AND ELEVATION

NOTE:
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Drawn By:
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Project Number:
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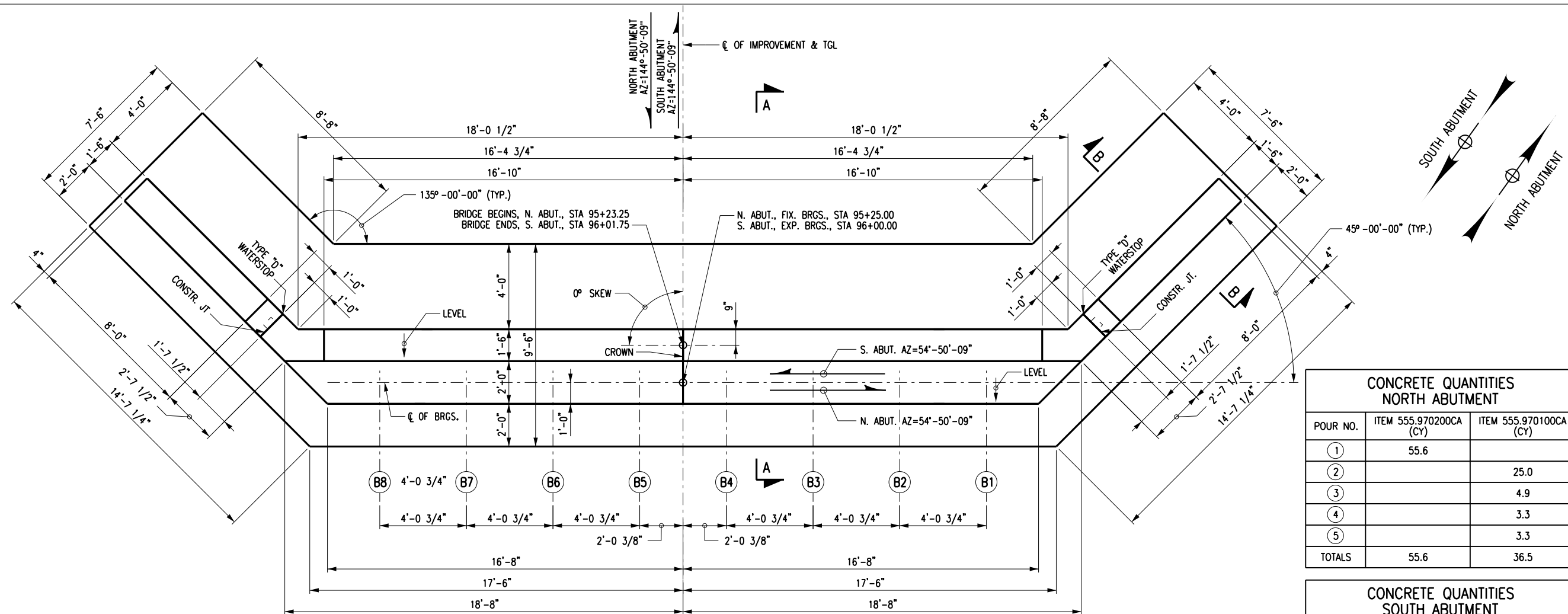
Drawing Number:

Checked By:
M.D.D.

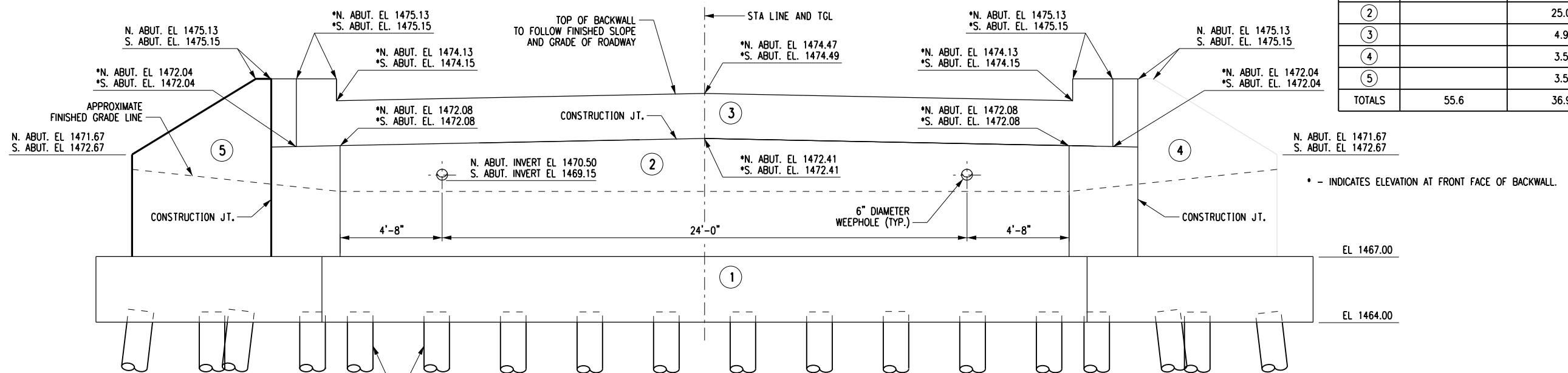
Date Issued:
SEP. 2017

Scale:
AS SHOWN

S-7



PLAN
(NORTH ABUTMENT SHOWN - SOUTH ABUTMENT SIMILAR)



ELEVATION
(NORTH ABUTMENT SHOWN - SOUTH ABUTMENT SIMILAR)

NOTES:

- FOR THE FOLLOWING SEE:
A. ABUTMENT SECTION A-A DWG. NO. S-10
B. WINGWALL SECTION B-B S-10
C. FOR KEYWAY DETAILS BD-AB6E R1
- (X) - INDICATES POUR NUMBER.
- ALL ELEVATIONS ARE SHOWN IN FEET.
- (BX) - BEAM IDENTIFICATION (S. ABUTMENT ORIENTATION REVERSE).

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SEPTEMBER, 2017
Date

TYPICAL
PILE LAYOUT

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K.H.M.

Designed By:
J.P.A.

Drawn By:
M.M.M.

Project Number:
8293.00

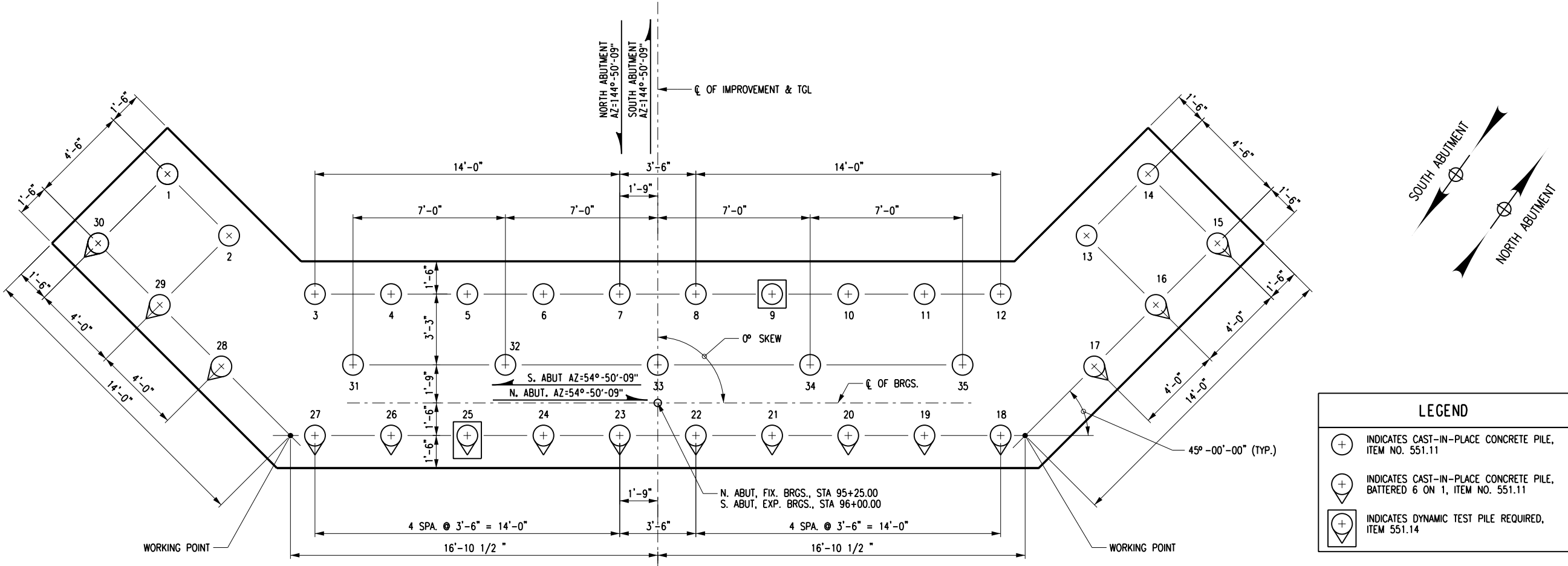
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SEP. 2017

Scale:
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S-8



FOOTING PILE LAYOUT
(NORTH ABUTMENT SHOWN - SOUTH ABUTMENT SIMILAR)

PILE TABLE NORTH PILE CAP			
PILE NO.	LENGTH BELOW CUT-OFF	PILE NO.	LENGTH BELOW CUT-OFF
1		19	
2		20	
3		21	
4		22	
5		23	
6		24	
7		25	
8		26	
9		27	
10		28	
11		29	
12		30	
13		31	
14		32	
15		33	
16		34	
17		35	
18			

PILE TABLE SOUTH PILE CAP			
PILE NO.	LENGTH BELOW CUT-OFF	PILE NO.	LENGTH BELOW CUT-OFF
1		19	
2		20	
3		21	
4		22	
5		23	
6		24	
7		25	
8		26	
9		27	
10		28	
11		29	
12		30	
13		31	
14		32	
15		33	
16		34	
17		35	
18			

PILE NOTES:

- CAST-IN-PLACE CONCRETE PILES SHALL BE 14 INCH DIAMETER TAPERED PILES WITH AN 8 INCH PILE TIP. THE TAPER LENGTH SHALL BE 15 FEET (0.40 INCH/FOOT TAPER).
- PIPE CASINGS FOR THE CAST-IN-PLACE CONCRETE PILES SHALL CONFORM TO ASTM A252, GRADE 2. THE MINIMUM PIPE CASING THICKNESS SHALL BE 0.22 INCH.
- THE PILE CUT-OFF ELEVATION IS 1464.5 FEET.
- THE ESTIMATED PILE TIP ELEVATION IS 1436 FEET, REFER TO FOUNDATION NOTES ON DWG. NO. GN-1.
- MECHANICAL PILE SPLICES ARE PROHIBITED.

NOTES:

- FOR THE FOLLOWING SEE:
A. FOUNDATION NOTES DWG. NO. GN-1
B. PILE DETAILS S-19

Martin Road Over
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P.I.N. 5758.47

Cattaraugus County DPW

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TYPICAL ABUTMENT REINFORCEMENT PLANS

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Project Manager:
K.H.M.

Designed By:
J.P.A.

Drawn By:
M.M.M.

Project Number:
8293.00

Checked By:
M.D.D.

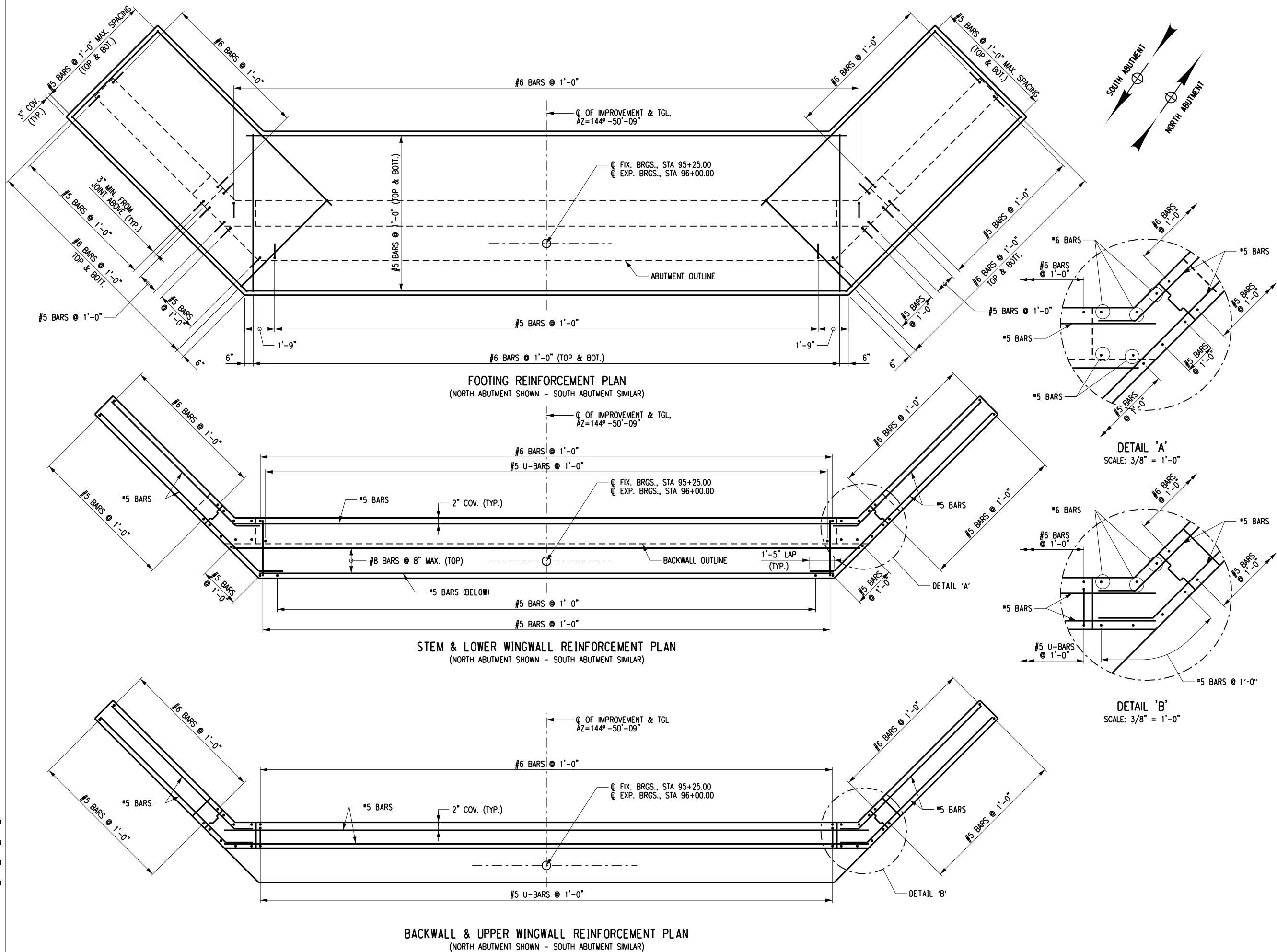
Date Issued:
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S-9

24 of 34



Print Date: 12/5/2012 2:03:44 PM
File Name: 829300_CPB_ABT_RNF_NORTH ABUT REINFORCEMENT.DGN

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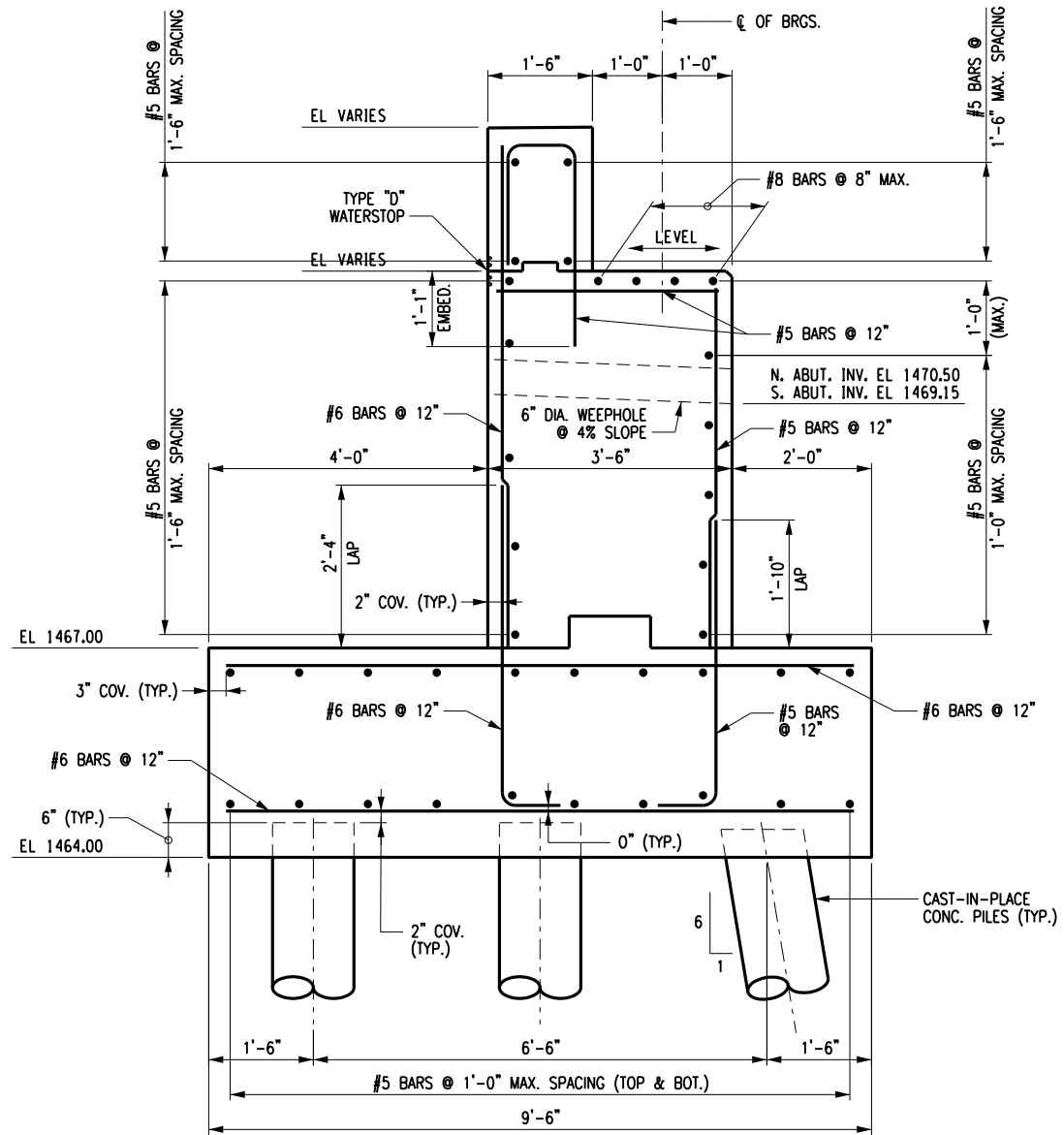
SEPTEMBER, 2017
Date

TYPICAL ABUTMENT REINFORCEMENT SECTIONS

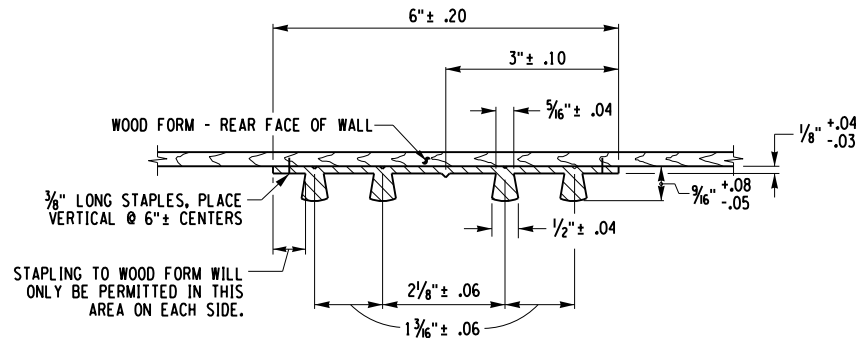
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Designed By: J.P.A.
Drawn By: M.M.M.
Project Number: 8293.00
Drawing Number: _____
Checked By: M.D.D.
Date Issued: SEP. 2017
Scale: AS SHOWN

S-10



ABUTMENT SECTION A-A
SCALE: 3/8" = 1'-0"



TYPE D WATERSTOP
NOT TO SCALE

TYPE D WATERSTOP NOTES

HOLES MUST NOT BE MADE IN WATERSTOP FOR ANY PURPOSE EXCEPT AS REQUIRED FOR STAPLING TO FORMS.

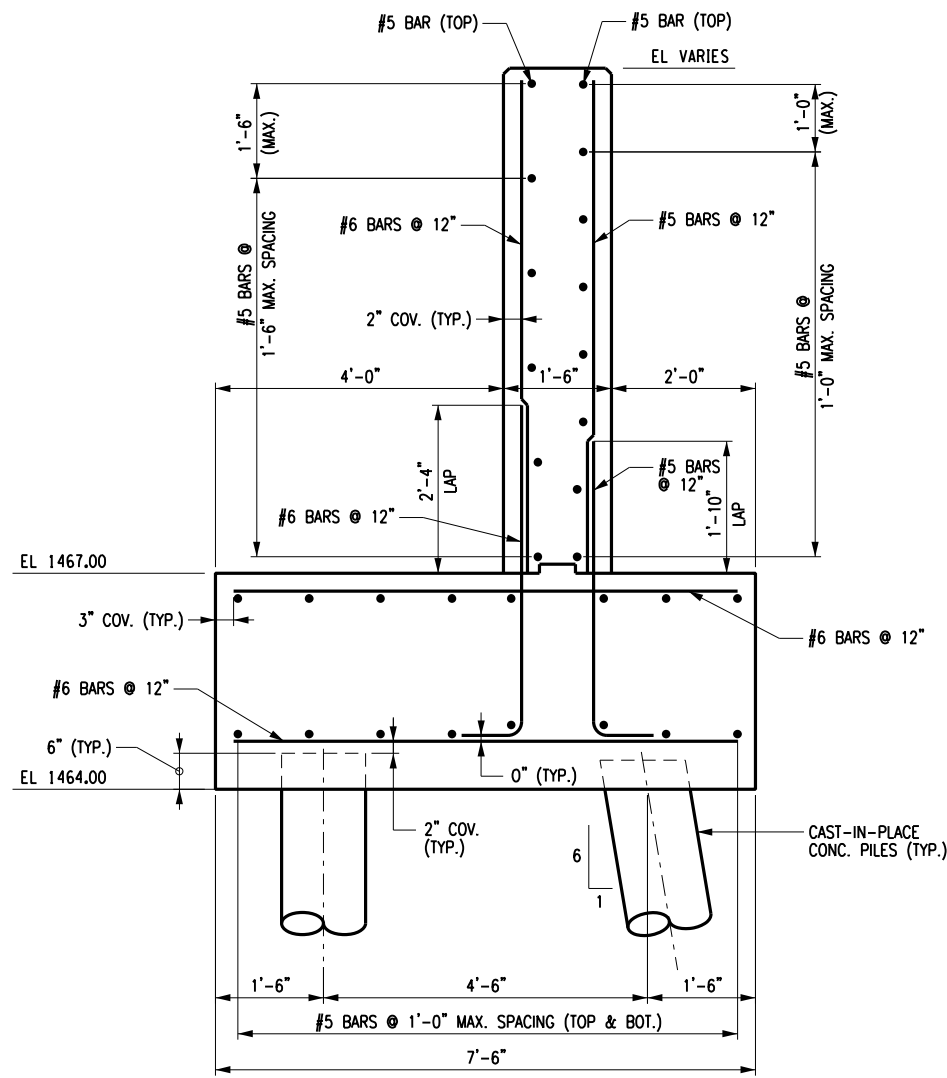
TYPE D WATERSTOP SHALL BE LIGHT GRAY IN COLOR.

PVC USED IN WATERSTOPS SHALL CONFORM TO THE REQUIREMENTS OF N.Y.S. STANDARD SPECIFICATIONS SUBSECTION 705-11.

THE COST OF FURNISHING AND PLACING WATERSTOPS SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE CONCRETE ITEMS.

FIELD SPLICES SHOULD BE AVOIDED IF POSSIBLE, HOWEVER, HEAT WELDED BUTT SPLICES WILL BE PERMITTED ON LONG STRAIGHT RUNS (GENERALLY IN EXCESS OF 50 FEET) AT POINTS APPROVED BY THE ENGINEER.

WATERSTOPS SHALL BE SHIPPED IN STAIGHT SECTIONS HAVING A MINIMUM LENGTH OF 10 FEET UNLESS SHORTER LENGTHS ARE REQUIRED.



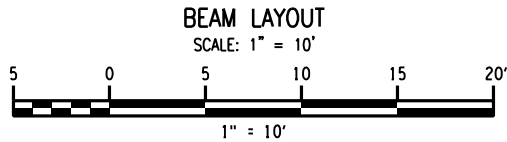
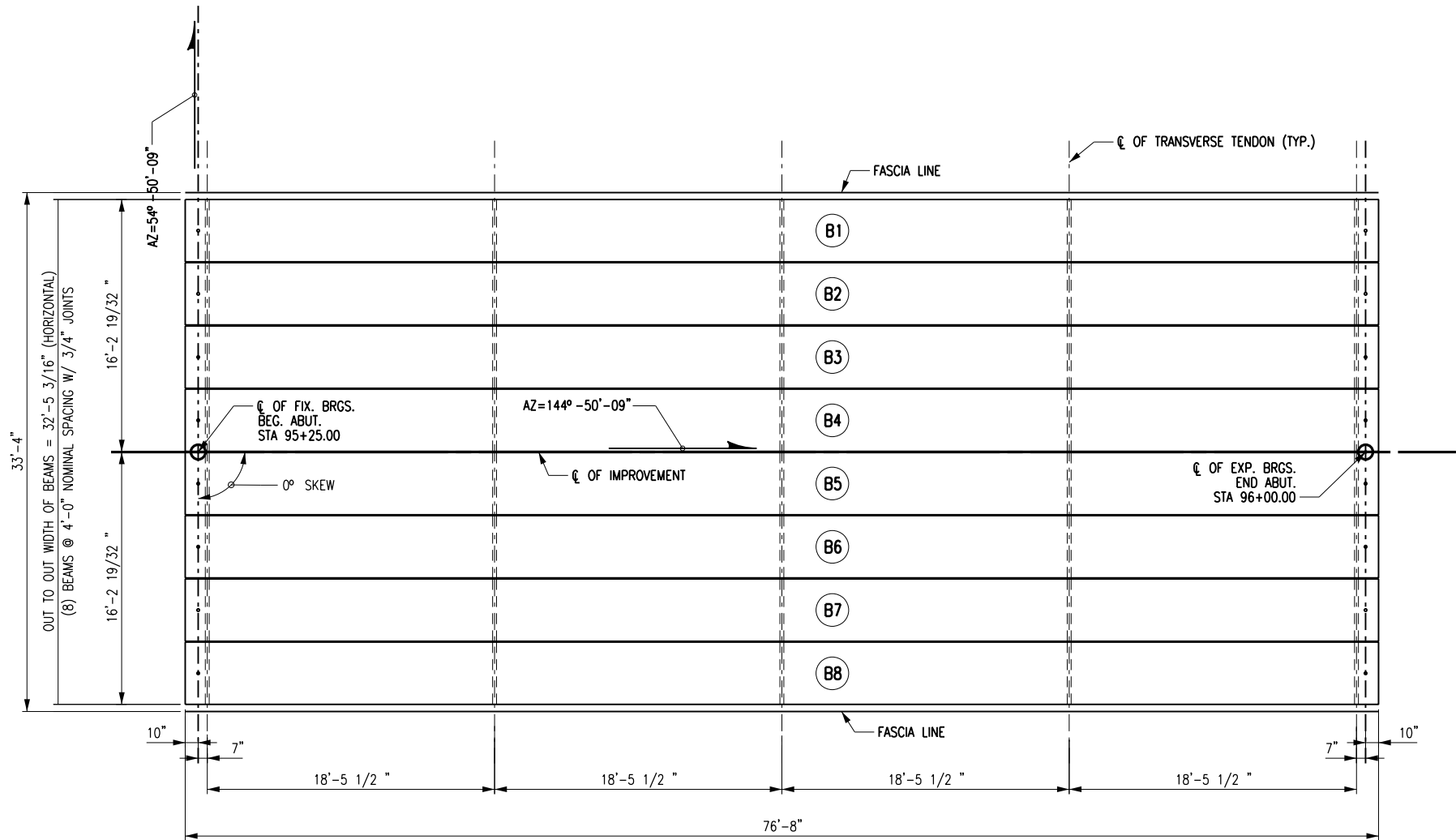
WINGWALL SECTION B-B
SCALE: 3/8" = 1'-0"

NOTES:

- FOR THE FOLLOWING SEE:
A. LOCATION OF SECTIONS A-A & B-B

DWG. NO. S-7

Print Date: 10/10/2012 3:01:47 PM
File Name: 829300_CPB_FRM_BEAM_LAYOUT.DGN



CAMBER TABLE		
CAMBER DUE TO PRESTRESSED FORCE AND BEAM D.L. (WITHOUT GROWTH) @ TRANSFER (in.)	↑	1.95
DEFLECTION DUE TO SLAB DEAD LOAD (in.)	↓	0.59
DEFLECTION DUE TO SUPERIMPOSED D.L. (in.)	↓	0.03

DESIGN LOAD TABLE			
	UNIT	REACTION AT ABUTMENT (kips)	MAX. MOM. MIDSPAN (kip-ft.)
D.L.	BEAM	28.6	536.5
	SLAB	12.2	229.6
S.D.L.	RAILINGS	0.8	14.9
	FUTURE W.S.	3.1	58.6
L.L. + I	HL-93	69.7	671.5

REACTIONS AND MOMENTS ARE UNFACTORED.

SEQUENCE OF CONSTRUCTION SINGLE STAGE ADJACENT BOX BEAMS OR SLAB UNITS

- 1) PLACE BEARINGS AS SHOWN ON THE CONTRACT PLANS.
- 2) PLACE THE BOX BEAMS OR SLAB UNITS ON THE BEARINGS.
- 3) DRILL AND CLEAN DOWEL HOLES IN THE BRIDGE SEAT.
- 4) INSTALL ANCHOR DOWELS.
- 5) WASH SHEAR KEYS THOROUGHLY TO REMOVE ANY FOREIGN MATERIAL. INSTALL BACKER RODS IN THE SHEAR KEYS.
- 6) GROUT AND CURE THE SHEAR KEYS WITH AN APPROVED GROUT MATERIAL FOLLOWING MANUFACTURER'S INSTRUCTIONS. ALL SHEAR KEYS SHALL BE COMPLETELY FILLED.
- 7) TENSION THE TRANSVERSE TENDONS TO 28 kips/STRAND NO SOONER THAN 24 HOURS AFTER BUT WITHIN 21 DAYS AFTER PLACEMENT OF GROUT IN THE LAST SHEAR KEY.
- 8) CLEAN AND PRE-WET THE TOP SURFACES OF THE BEAMS PRIOR TO PLACING CONCRETE FOR DECK POUR. CURE THE SLAB USING APPROPRIATE APPROVED METHODS.

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FRAMING PLAN

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Drawn By:
M.M.M.

Project Number:
8293.00

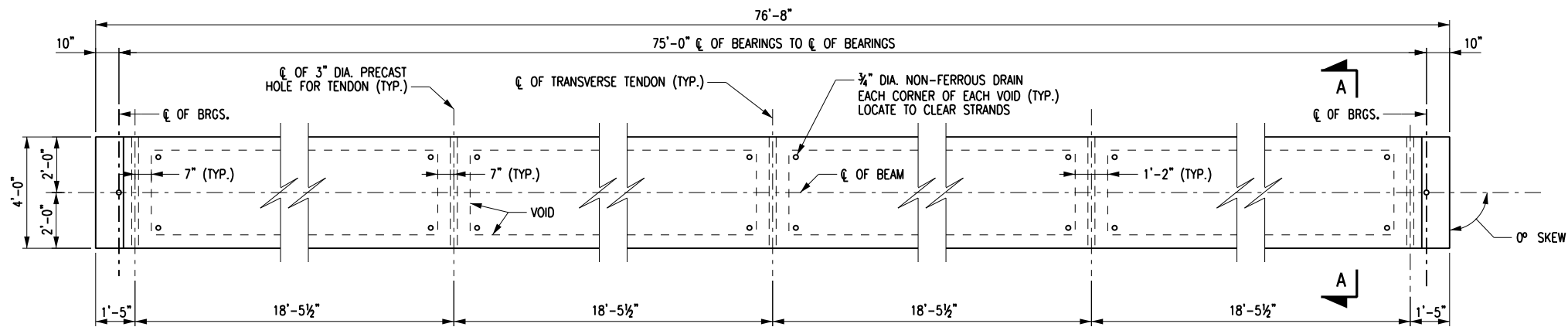
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Checked By:
M.D.D.

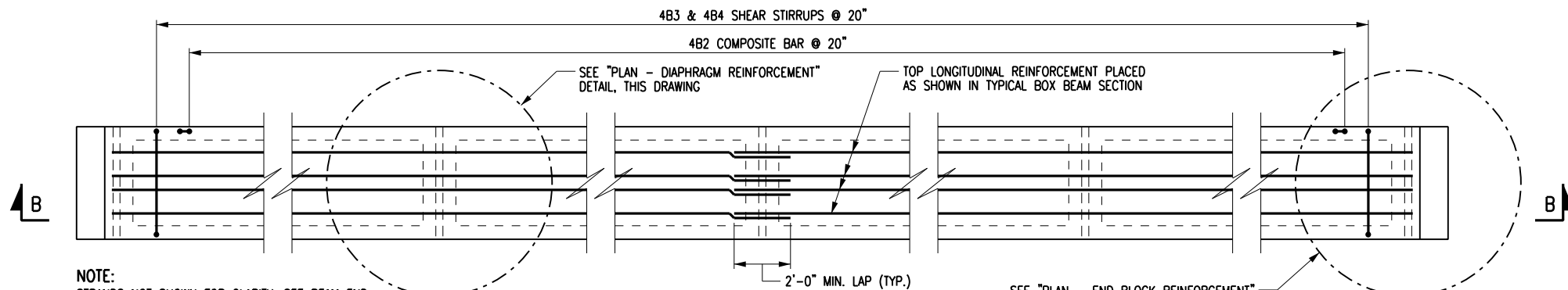
Date Issued:
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Scale:
1" = 10'

S-11

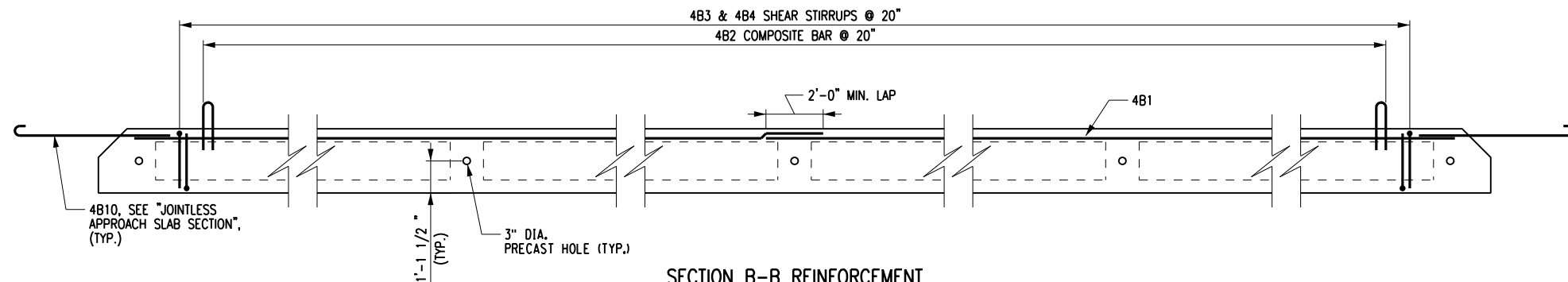


PLAN - BOX BEAM
NOT TO SCALE

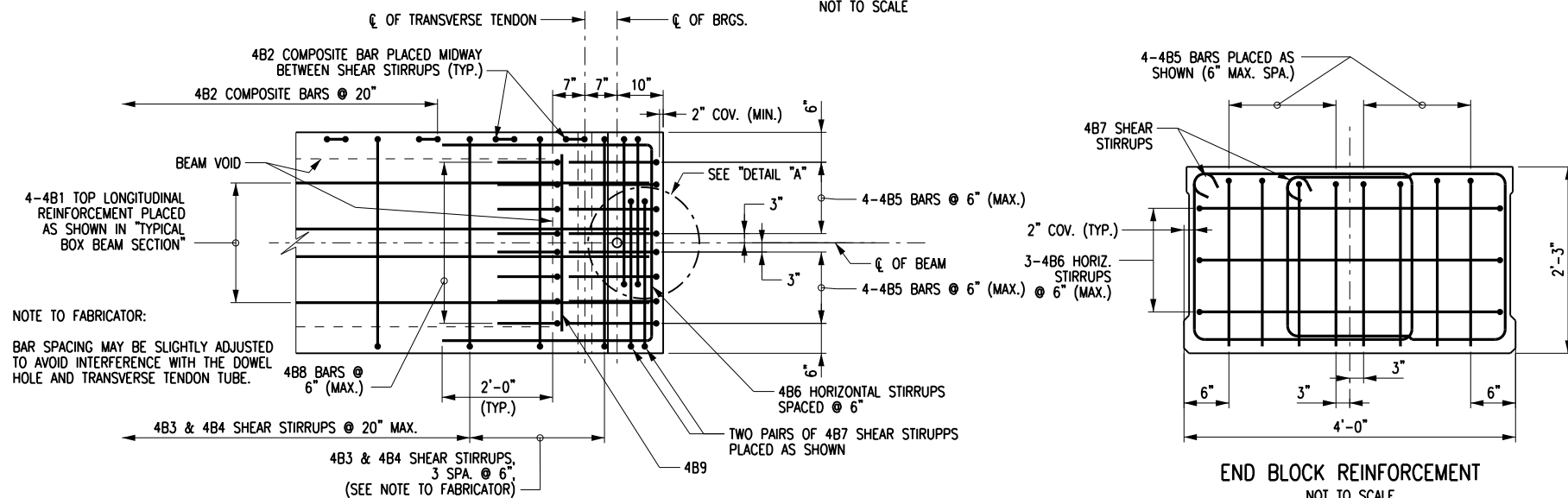


NOTE:
STRANDS NOT SHOWN FOR CLARITY, SEE BEAM END BLOCK REINFORCEMENT AND DIAPHRAM REINFORCEMENT DETAILS FOR MORE INFORMATION.

REINFORCEMENT PLAN - BOX BEAM
NOT TO SCALE

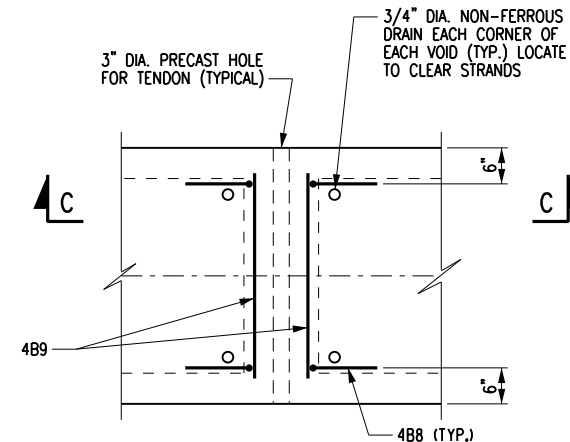


SECTION B-B REINFORCEMENT
NOT TO SCALE

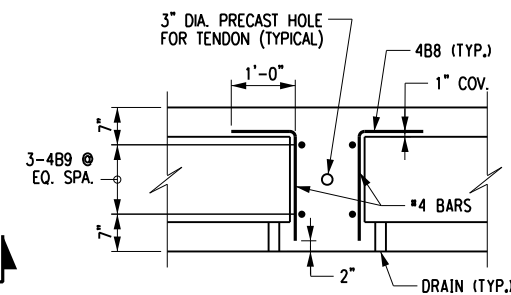


PLAN - END BLOCK REINFORCEMENT

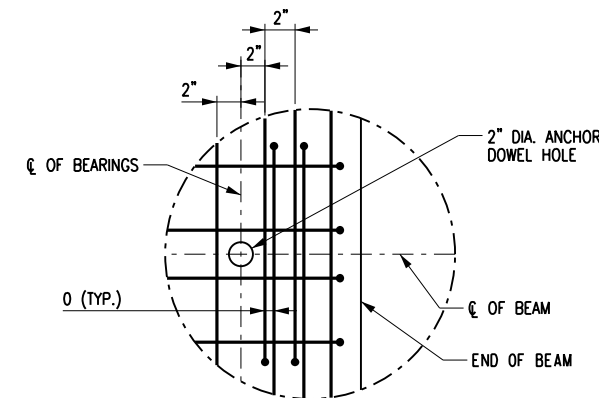
END BLOCK REINFORCEMENT
NOT TO SCALE



PLAN



SECTION C-C
DIAPHRAGM REINFORCEMENT
NOT TO SCALE



DETAIL A
NOT TO SCALE

NOTES:

- | | |
|------------------------------------|----------|
| 1. FOR THE FOLLOWING SEE: | DWG. NO. |
| A. TYPICAL BOX BEAM SECTION | S-13 |
| B. SECTION A-A | S-13 |
| C. JOINTLESS APPROACH SLAB SECTION | S-15 |

Bridge Replacement

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BOX BEAM DETAILS - 1

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Scale:
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S-12

Bridge
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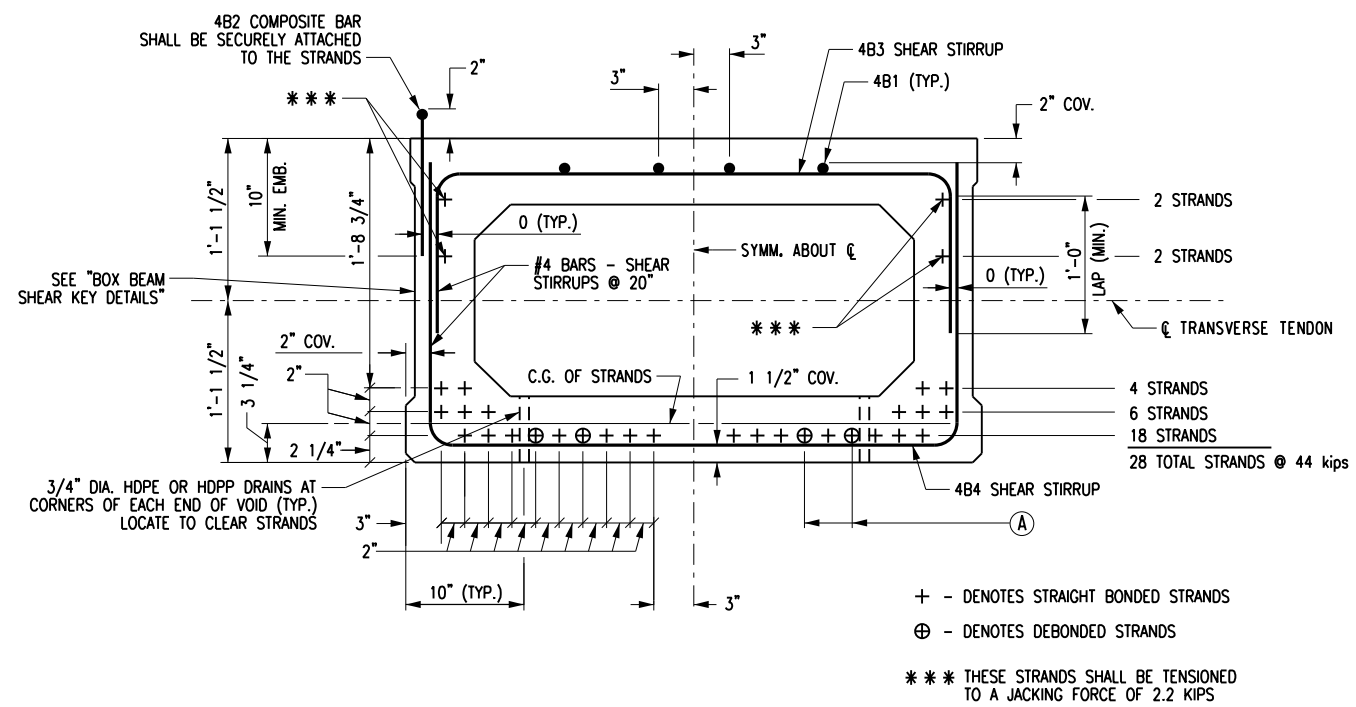
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BOX BEAM
DETAILS - 2

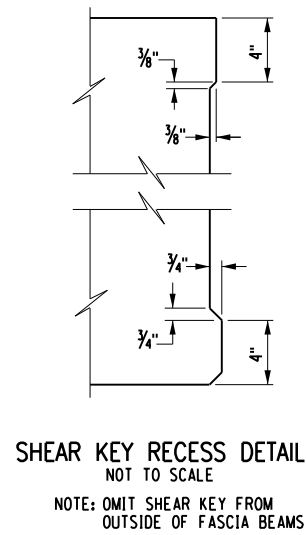
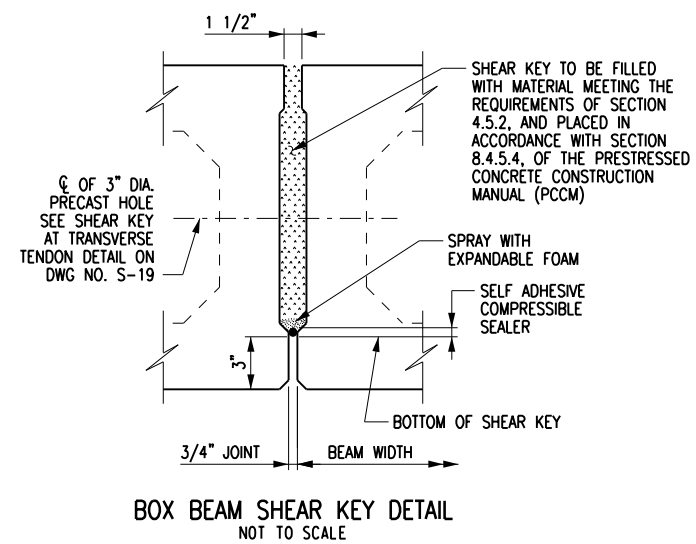
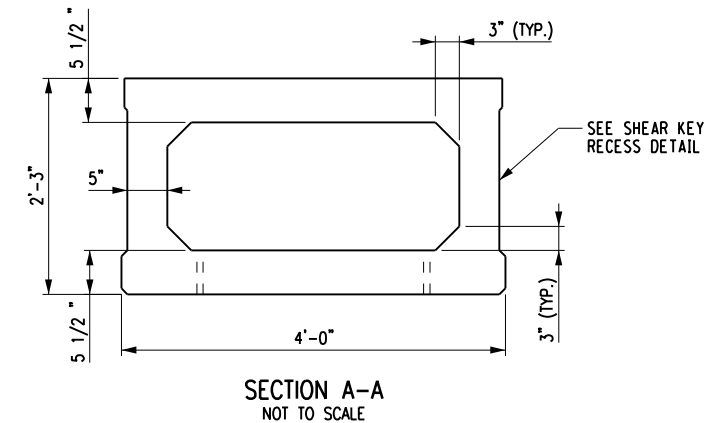
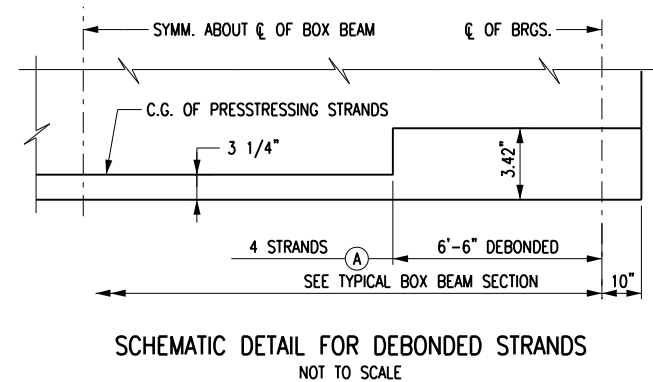
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Drawing Number:

S-13



TYPICAL BOX BEAM SECTION



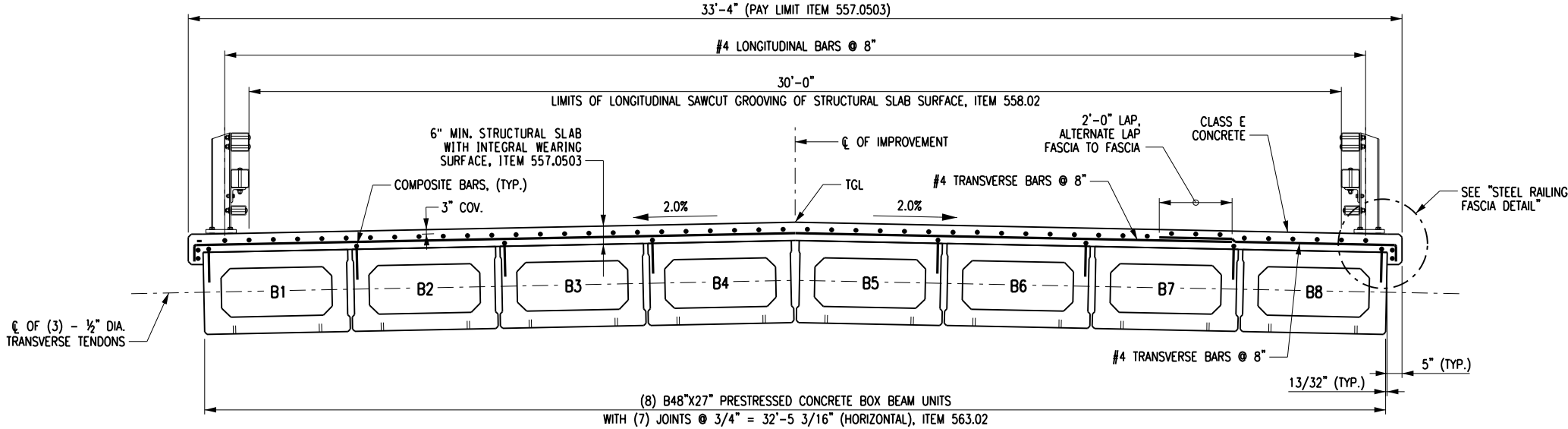
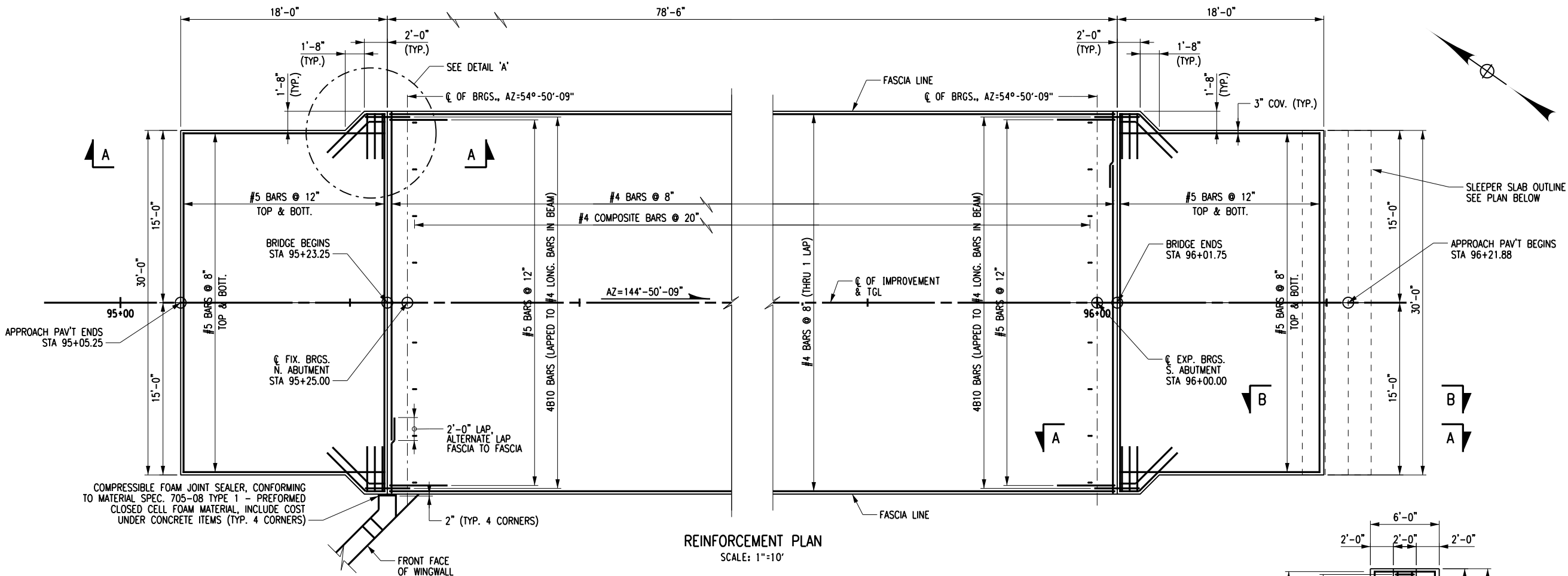
NOTES:

1. THE PRESTRESSING STRANDS SHALL BE 0.6 in. DIAMETER WITH A GUARANTEED ULTIMATE STRENGTH OF 270 ksi.
JACKING FORCE = 44 kips PER STRAND
REQUIRED MINIMUM CONCRETE STRENGTH AT TRANSFER = 8 ksi.
REQUIRED MINIMUM CONCRETE STRENGTH AT 56 DAYS = 10 ksi.
THE ALLOWABLE TENSION IN THE PRESTRESSED CONCRETE UNITS:
AT TRANSFER = 0.2 ksi.
AT SERVICE LIMIT STATE = 0.3 ksi (SERVICE III).
2. ALL EXPOSED CORNERS, EXCEPT THE TOP, SHALL BE CHAMFERED 3/4" in.
3. ALL TEMPORARY INSERTS SHALL BE APPROVED BY THE COUNTY AND DETAILED ON THE PRESTRESSED CONCRETE "SHOP DRAWINGS".
4. BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60. THE TOPS OF THE PRESTRESSED UNITS SHALL RECIEVE A TRANSVERSE ROUGHENED FINISH WITH AN AMPLITUDE OF 1/4 in.

PRESTRESSED CONCRETE BOX BEAM REINFORCEMENT																			
MARK	NO.	LENGTH	TYPE	WEIGHT	A	B	C	D	E	F	G	H H1	H2	J	K K1	K2	L	O	R
4B1	8	38'-6"	1	205	0'-0"	38'-6"					0'-0"			0'-0"					
4B2	50	2'-2"	10	73	0'-10"	0'-6"	0'-10"											0'-4"	0'-2"
4B3	51	6'-2"	17	209		1'-3"	3'-8"	1'-3"											
4B4	51	7'-6"	17	256		1'-11"	3'-8"	1'-11"											
4B5	16	3'-4"	14	35	0'-10"	0'-11"	1'-7"	0'-0"	0'-0"			0'-10"	0'-0"		0'-4"	0'-0"		0'-11"	
4B6	6	11'-3"	17	44		3'-10"	3'-7"	3'-10"											
4B7	8	9'-5"	T1	51	0'-5"	2'-5"	1'-11"	2'-5"	1'-11"		0'-5"	0'-3"							
4B8	28	2'-9"	17	51		1'-0"	1'-9"	0'-0"											
4B9	24	3'-3"	1	53	0'-0"	3'-3"													
4B10	8	6'-6"	1	35	0'-6"	1'-0"													

ALL DIMENSIONS ARE OUT-TO-OUT DIMENSIONS
COST OF BAR REINFORCEMENT TO BE INCLUDED IN PRESTRESSED BEAM ITEM
BAR LIST IS FOR A SINGLE BEAM

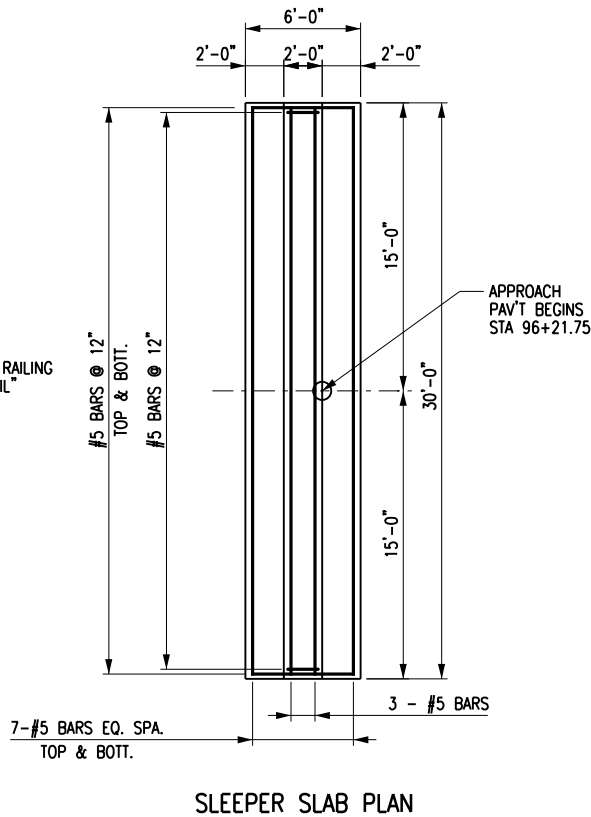
Print Date: 10/12/2012 4:46:07 PM
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CONCRETE QUANTITIES			
POUR DESCRIPTION	ITEM 557.0503 (SY)	ITEM 557.2003 (SY)	ITEM 558.02 (SY)
DECK	290.7		261.7
N. APPROACH SLAB		61.0	60.0
SLEEPER SLAB		20.0	
S. APPROACH SLAB		61.0	60.0
TOTALS	290.7	142.0	381.7

NOTES:

- FOR THE FOLLOWING SEE:
 - SECTIONS A-A & B-B DWG. NO. S-15
 - DETAIL 'A' S-15
 - STEEL RAILING FASCIA DETAIL S-15



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DECK & APPROACH SLAB PLAN & SECTIONS

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Project Manager:

K.H.M.

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Drawn By:

M.M.M.

Project Number:

8293.00

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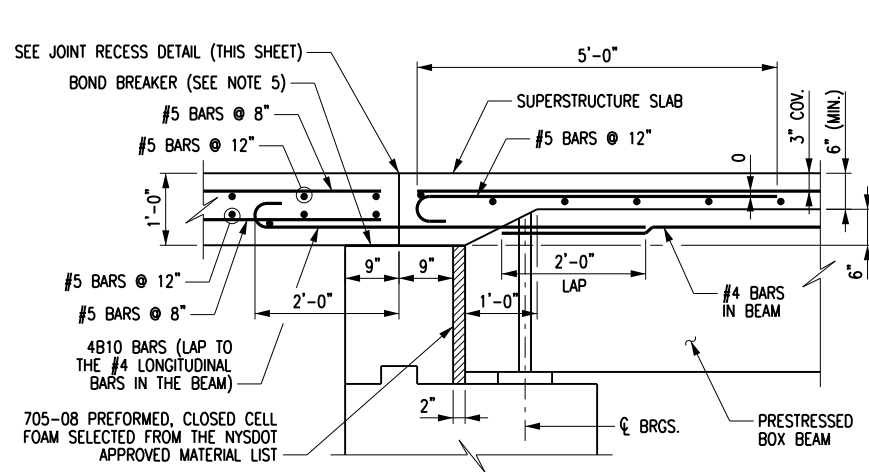
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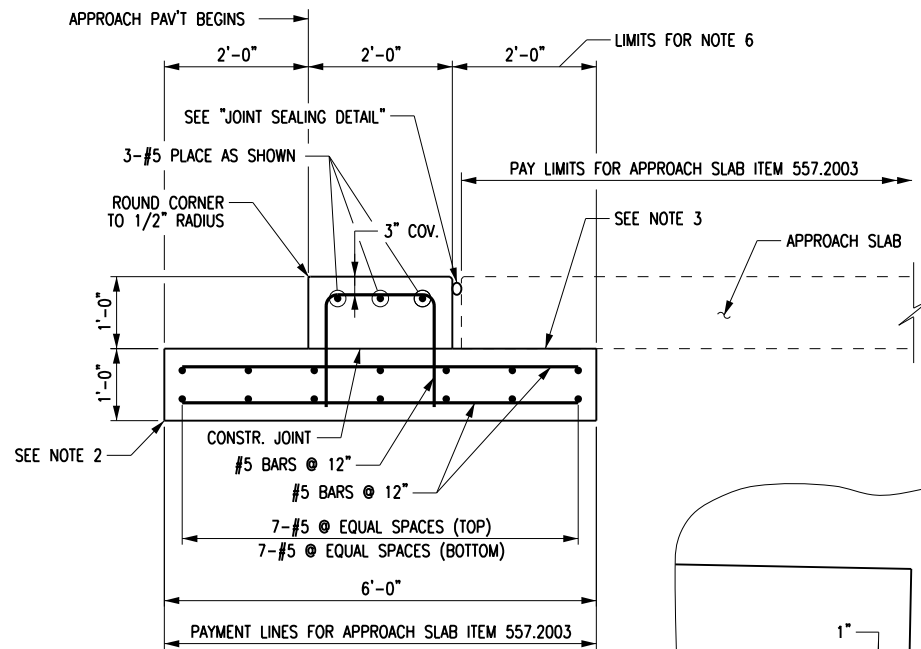
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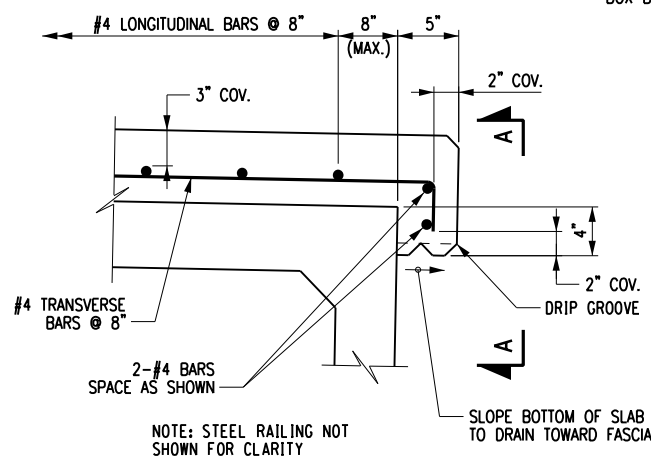
S-14



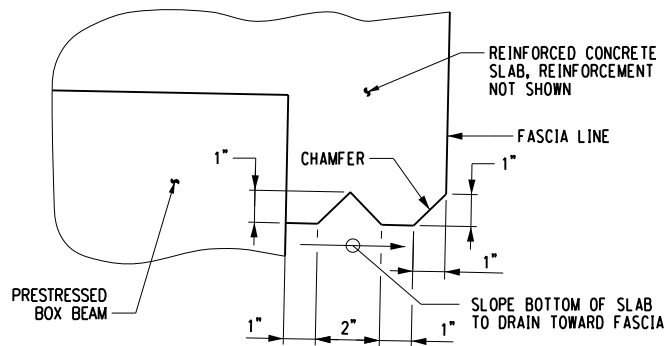
JOINTLESS APPROACH SLAB SECTION
NOT TO SCALE



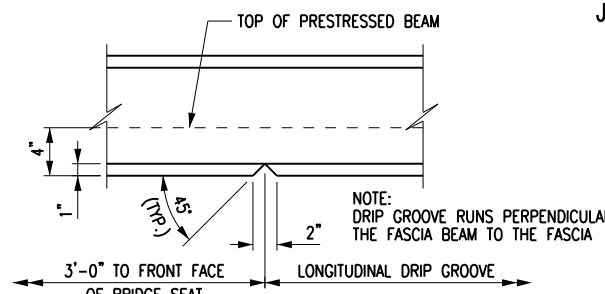
SECTION B-B
NOT TO SCALE



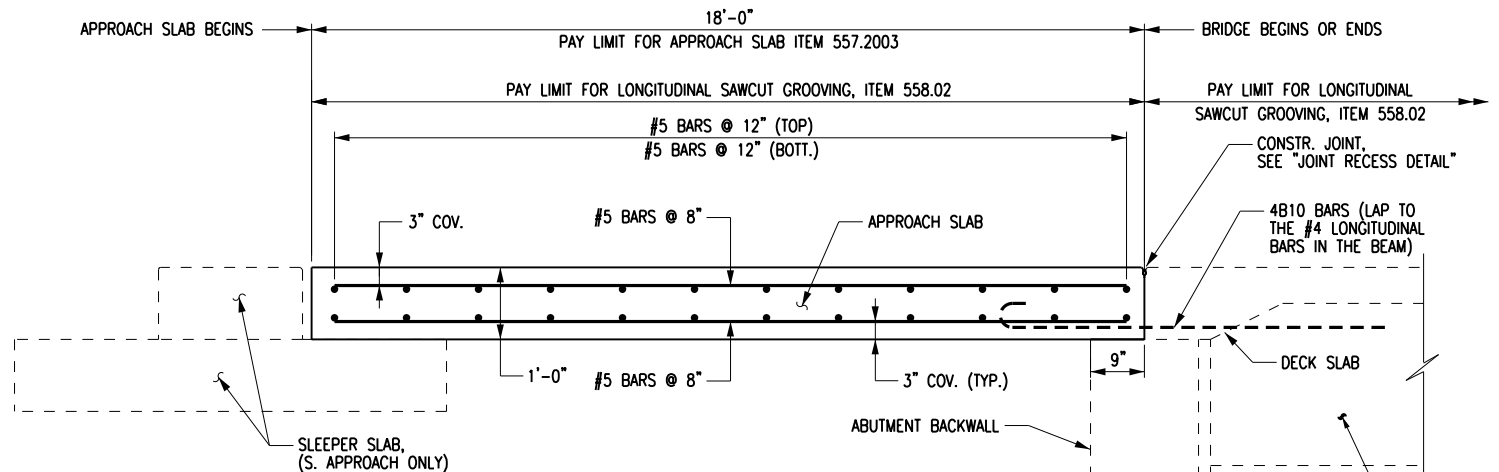
STEEL RAILING FASCIA DETAIL
NOT TO SCALE



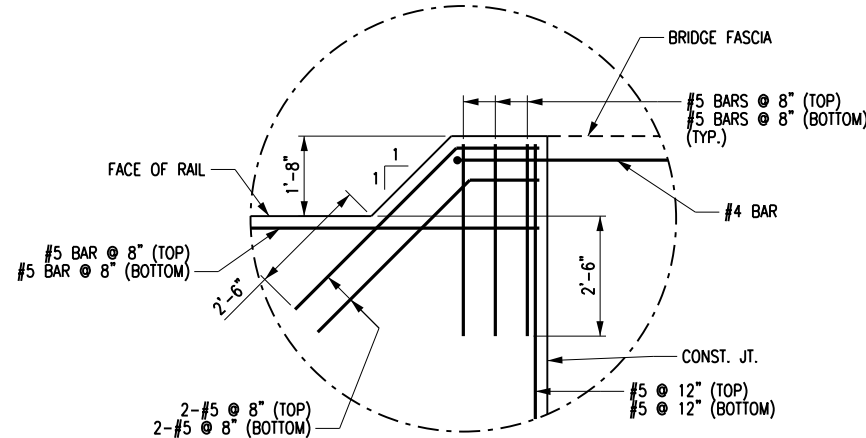
LONGITUDINAL DRIP GROOVE DETAIL
NOT TO SCALE



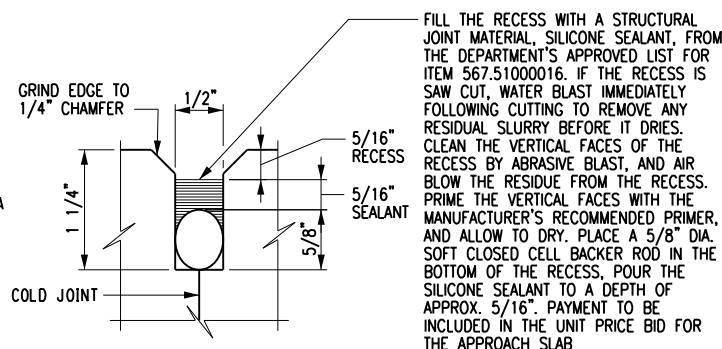
ELEVATION A-A
(SHOWING DRIP GROOVE DETAIL)
NOT TO SCALE



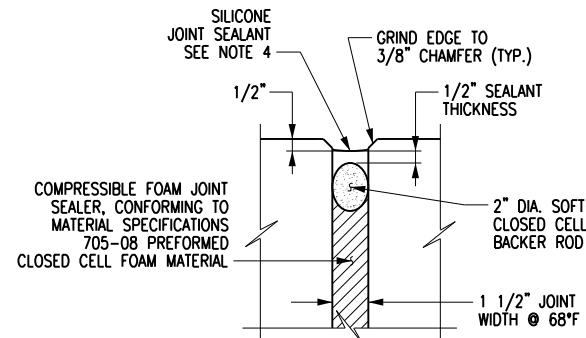
SECTION A-A
NOT TO SCALE



DETAIL A
(TYP. 4 CORNERS)
NOT TO SCALE



JOINT RECESS DETAIL
NOT TO SCALE



JOINT SEALING DETAIL
NOT TO SCALE

NOTES:

- FOR THE FOLLOWING SEE:
A. LOCATION OF SECTIONS A-A & B-B S-14
B. LOCATION OF DETAIL A S-14
C. CONCRETE QUANTITIES S-14
- EXCAVATION FOR SLEEPER SLABS SHALL BE CAREFULLY MADE AFTER COMPACTED ABUTMENT EMBANKMENT IS IN PLACE. THE SLEEPER SLABS SHALL BE FOUNDED 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.
- COMPRESSED SYNTHETIC SHEET GASKET (TREATED BOTH SIDES), MATERIAL SPECIFICATION 728-06, TWO 0.06 in. THICK SHEETS. PRICE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.
- FILL THE RECESS WITH A STRUCTURAL JOINT MATERIAL, LIQUID SEALANT, FROM THE DEPARTMENT'S APPROVED LIST. THE MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED FOR THOSE SEALANTS THAT REQUIRE A PRIMER. THE CONCRETE SHALL CURE FOR MINIMUM OF 7 DAYS BEFORE JOINT IS SEALED. SEALING SHALL ONLY BE PERFORMED 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.
- TOP OF BACKWALL SHALL BE TROWEL FINISHED. SHEET GASKET (TREATED BOTH SIDES) MATERIAL SPECIFICATION 728-06, SHALL BE PLACED ON THE TOP OF BACKWALLS. TWO 1/16" THICKSHEETS SHALL BE USED, AND PAYMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.
- TOP OF SLEEPER SLAB SHALL BE TROWEL FINISHED AND COATED WITH A 0.04 in. NOMINAL THICKNESS OF PERFORMANCE GRADE ASPHALT AS INDICATED IN THE PROPOSAL, OR MATERIAL SPECIFICATION 702-3101. THE TOP OF THE SLEEPER SLAB SHALL FOLLOW THE CROSS SLOPE AND GRADE OF ROADWAY. COST TO INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.

Bridge Replacement

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APPROACH SLAB SECTION AND DETAILS

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K.H.M.

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J.P.A.

Drawn By:
D.C.M.

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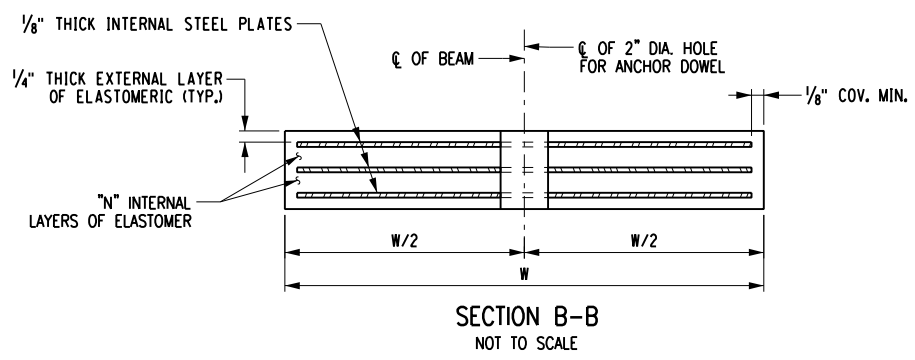
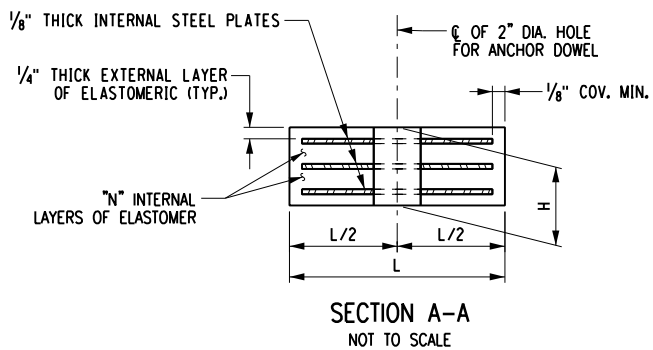
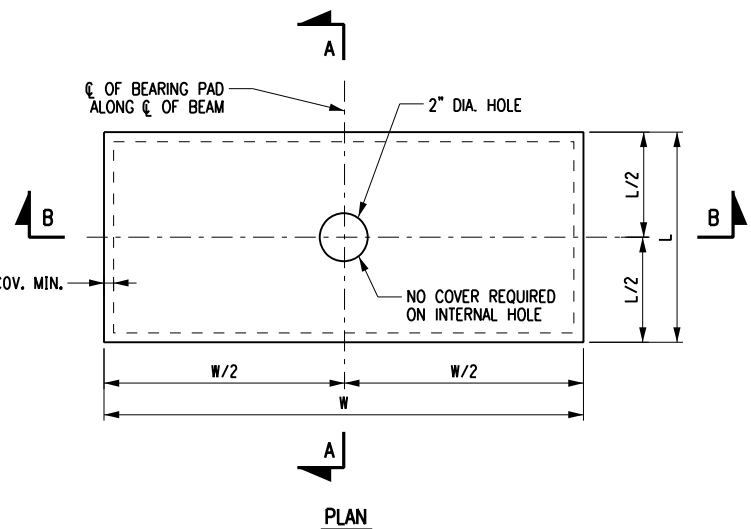
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Scale:
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S-15



TYPICAL RECTANGULAR
STEEL LAMINATED ELASTOMERIC BEARING (TYPE E.L.)
NOT TO SCALE

- NOTES:
1. THE BEARINGS SHALL MEET THE REQUIREMENTS OF N.Y.S. STANDARD SPECIFICATION SECTION 565 UNLESS OTHERWISE NOTED.
 2. ALL ELASTOMER SHALL BE 50 DUROMETER HARDNESS ON THE SHORE A SCALE.
 3. INSTALLATION ALIGNMENT:
THE MAXIMUM VARIATION FROM PERFECT ALIGNMENT UNDER FULL DEAD LOAD SHALL NOT EXCEED 3/16 in. 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.
 4. CONCRETE SURFACES UNDER THE BEARINGS SHALL CONFORM TO SUBSECTION 565-3.02 "CONCRETE BEARING SURFACE PREPARATION" OF THE N.Y.S. STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS.

STEEL LAMINATED ELASTOMERIC BEARING (TYPE E.L.) TABLE																
LOCATION	FIX/ EXP.	ITEM NO.	QUANTITY REQUIRED	D.L. + S.D.L. (kips)	L.L. WITHOUT IMPACT (kips)	TOTAL DESIGN REACTION (kips)	SHAPE FACTOR	INTERNAL ELASTOMER LAYER				hrt (in.)	COMP. AREA (SQ. in.)	SHEAR AREA (SQ. in.)	BRG. H	ANCHOR DOWEL DIAMETER (in.)
								THK/LAYER	NO. LAYERS	L	W					
N. ABUT	FIX	565.1922	8	45	52	97	7.15	0.5	3	10	34	2.0	325.9	336.9	2.5	1.0
S. ABUT	EXP.	565.1922	8	45	52	97	7.15	0.5	3	10	34	2.0	325.9	336.9	2.5	1.0

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ELASTOMERIC
BEARINGS

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NOT TO SCALE

S-16

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RAILING LAYOUT

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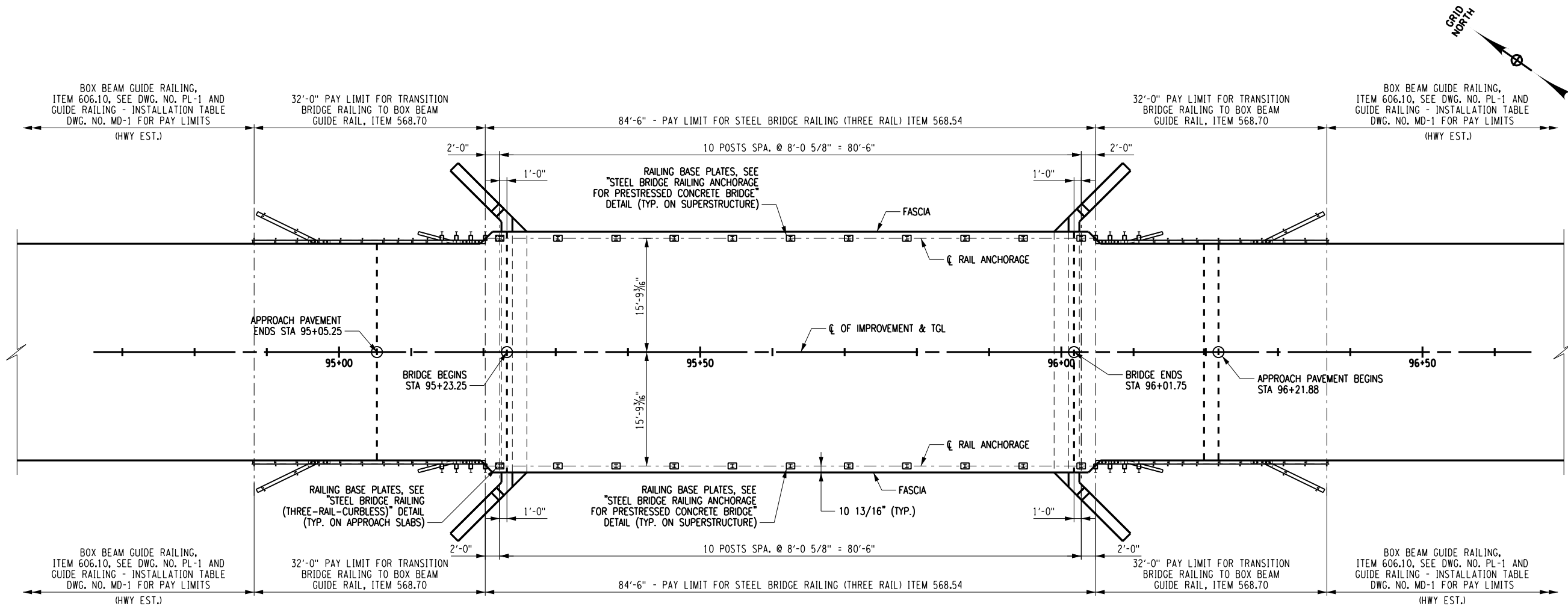
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Scale:
1/16" = 1'-0"

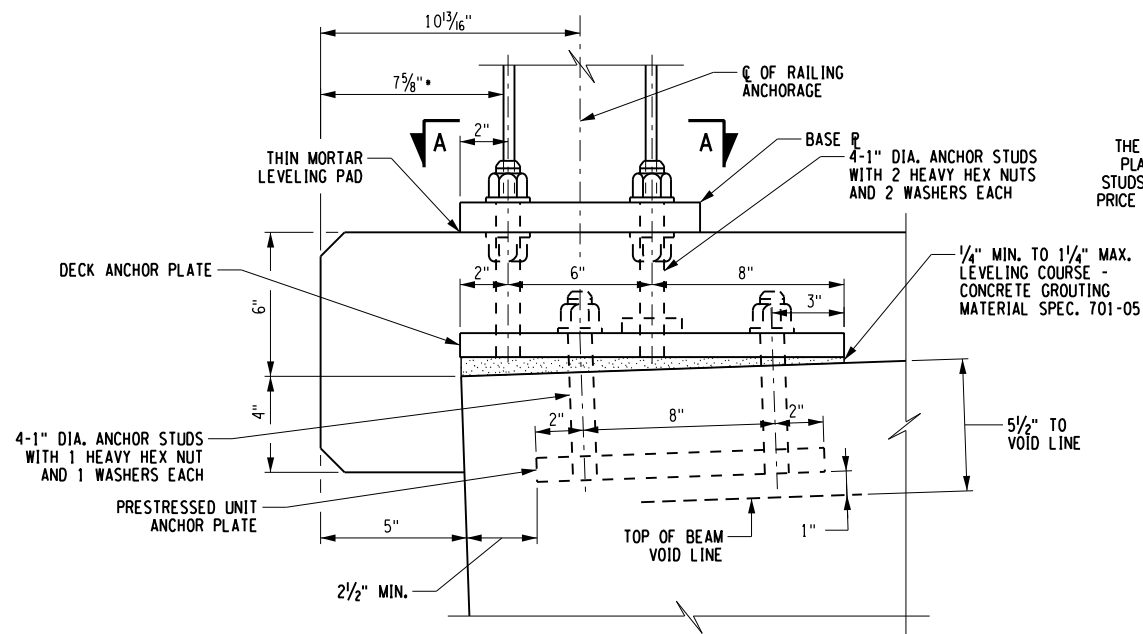
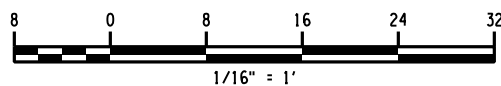
S-17

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RAILING LAYOUT

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



**STEEL BRIDGE RAILING ANCHORAGE
FOR PRESTRESSED CONCRETE BRIDGE**

THE COST OF THE DECK ANCHOR
PLATE AND THE RAILING ANCHOR
STUDS SHALL BE INCLUDED IN THE
PRICE BID FOR THE BRIDGE RAILING

1/4" MIN. TO 1/4" MAX.
LEVELING COURSE -
CONCRETE GROUTING
MATERIAL SPEC. 701-05

5/8" TO
VOID LINE

2 1/2" MIN.

1 1/2"

1"

2"

6"

10"

6"

2"

1'-6"

1'-10"

1'-4"

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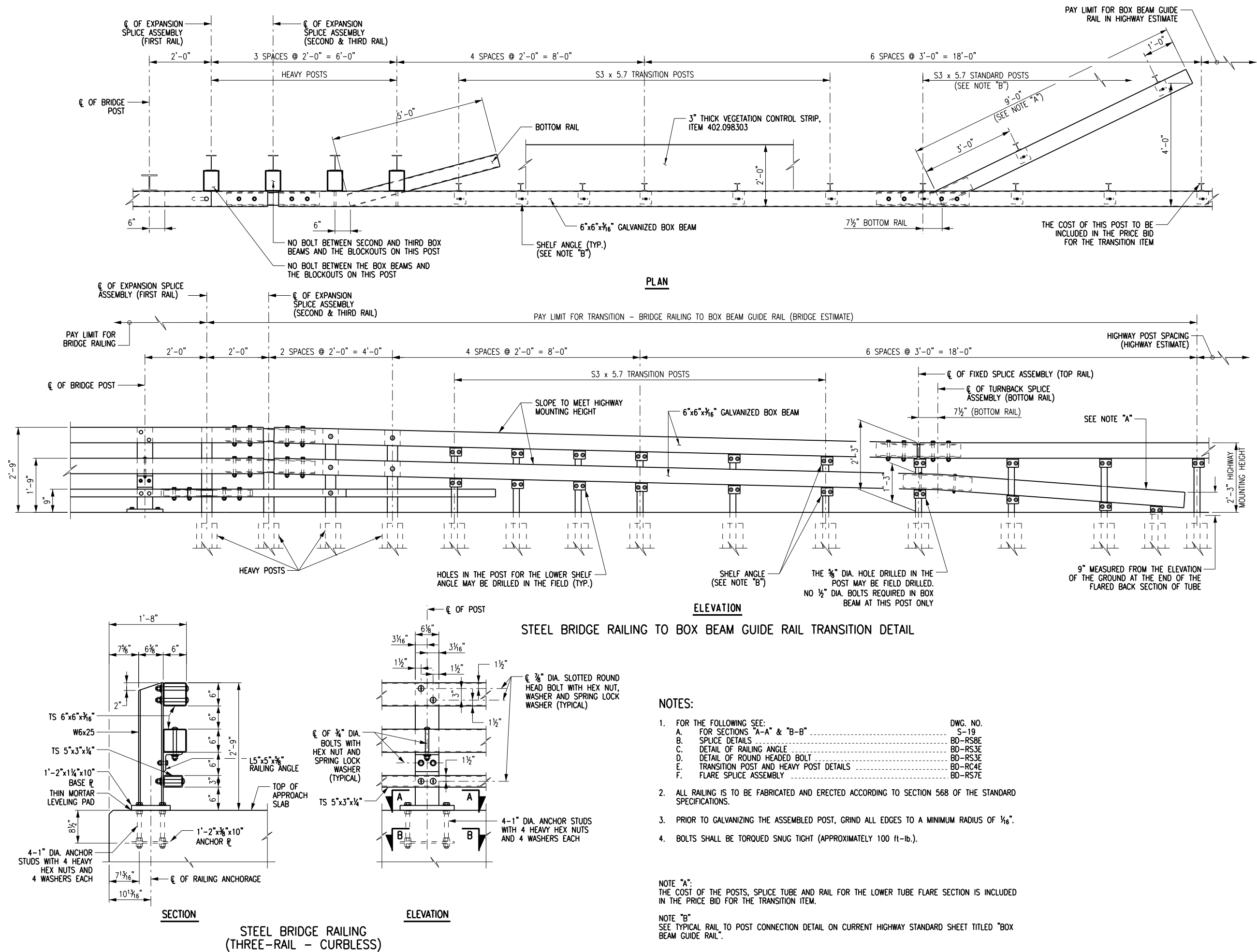
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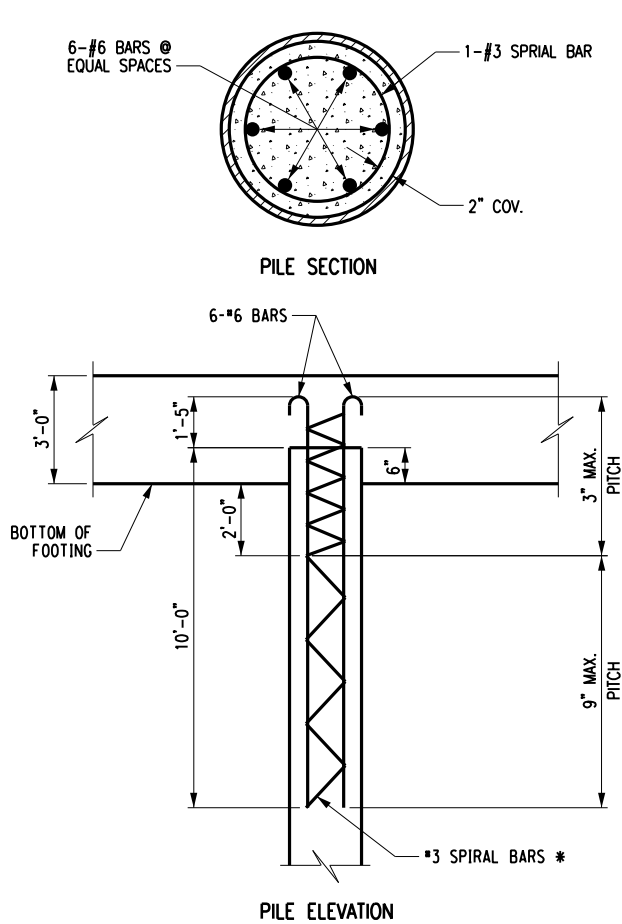
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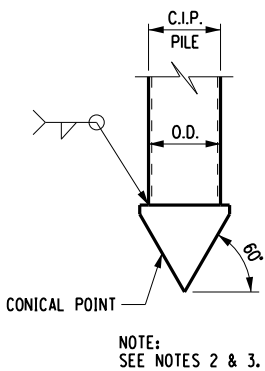


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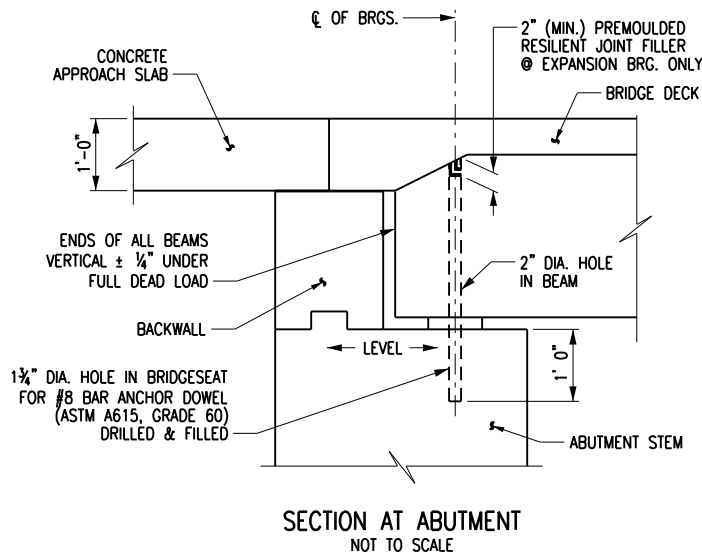
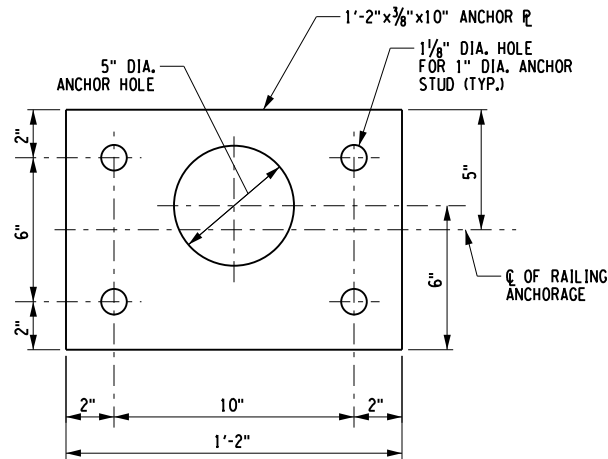
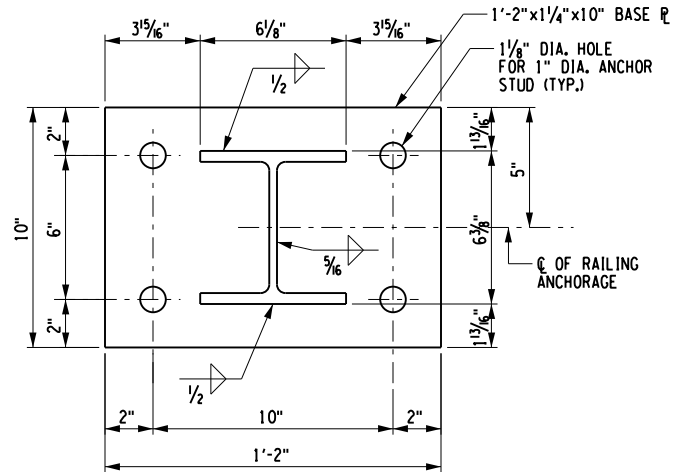


* TWO SEPARATE SPIRAL BARS MAY BE USED, ONE FOR A PITCH OF 3" AND THE SECOND FOR A PITCH OF 9". IF TWO BARS ARE USED, A WELDED SPLICE SHALL BE USED. SEE NOTES 2 & 3.

CAST-IN-PLACE CONCRETE
PILE REINFORCEMENT
NOT TO SCALE



NOT TO SCALE



BEAM ANCHORAGE NOTES

PREMOULDED RESILIENT JOINT FILLER SHALL MEET THE REQUIREMENTS OF 705-07 AND BE PAID FOR UNDER BEARING ITEM.

THE ENDS OF BEAM AND ANCHOR DOWEL HOLES SHALL BE MADE VERTICAL $\pm \frac{1}{4}$ ", UNDER D.L. AND GRADE. ANCHOR DOWELS TO BE PAID FOR UNDER BEARING ITEM. DOWEL HOLE FILL MATERIAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ELASTOMERIC BEARING ITEM AND SHALL MEET MATERIAL REQUIREMENTS AS FOLLOWS:

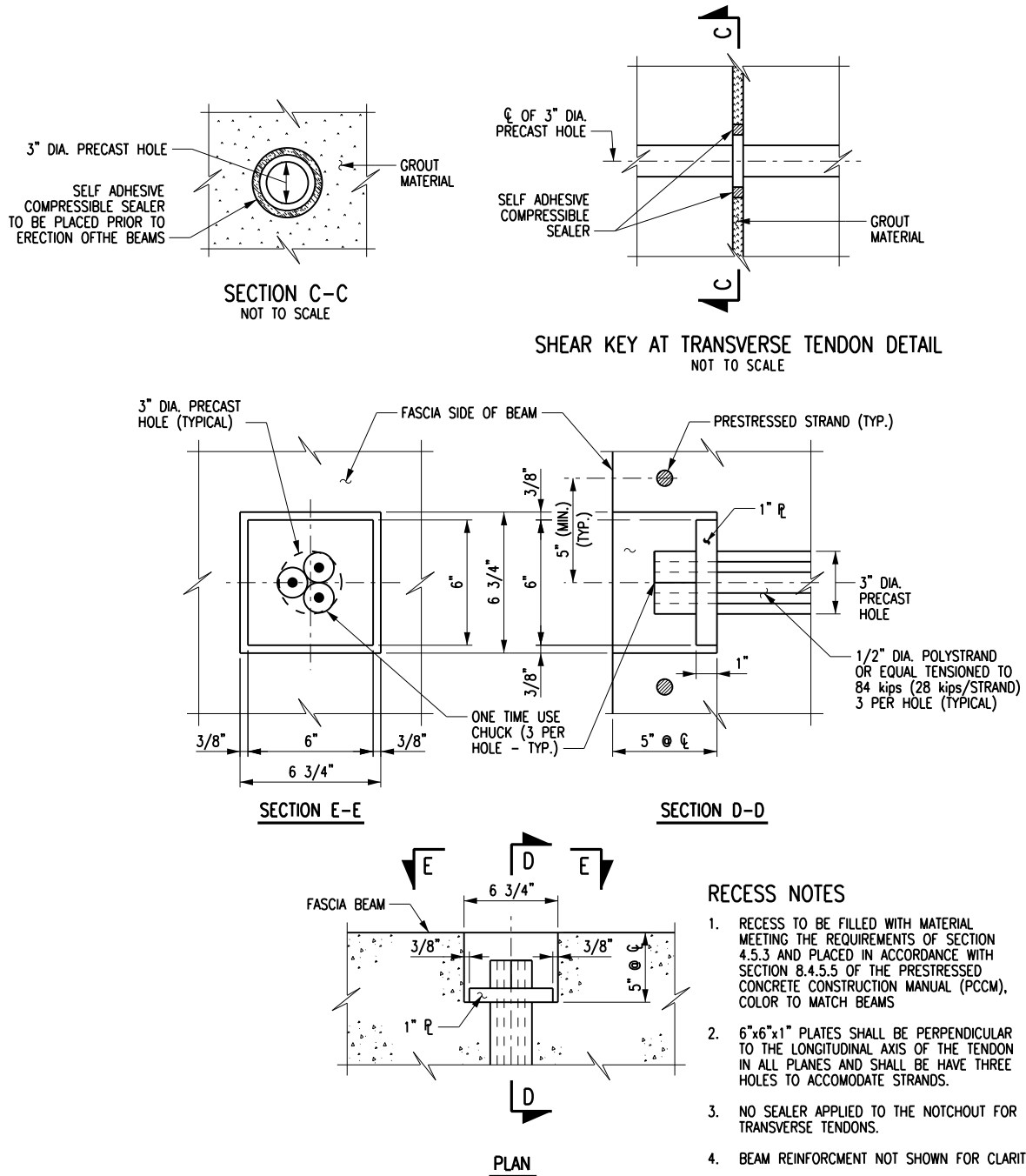
EXPANSION END MATERIAL OPTION:

N.Y.S. MAT. SPEC. 702-0700 - ASPHALT FILLER
FED. MAT. SPEC. SS-S-200E - ELASTOMERIC POLYMER TYPE, TWO COMPONENT JET FUEL RESISTANT, COLD APPLIED

FIXED END MATERIAL OPTION:

** N.Y.S. MAT. SPEC. 721-03 - EPOXY POLYSULFIDE GROUT WITH SAND
** N.Y.S. MAT. SPEC. 721-01 - EPOXY RESIN SYSTEM WITH SAND
N.Y.S. MAT. SPEC. 701-05 - CONCRETE GROUTING MATERIAL
N.Y.S. MAT. SPEC. 701-06 - CEMENT BASED GROUT MATERIALS FOR SHEAR KEYS

** - MOISTURE FREE, SANDBLAST SAND SHALL BE ADDED IN THE RATIO OF (1) PART EPOXY TO (2) PARTS SAND.



RECESS NOTES

1. RECESS TO BE FILLED WITH MATERIAL MEETING THE REQUIREMENTS OF SECTION 4.5.3 AND PLACED IN ACCORDANCE WITH SECTION 8.4.5.5 OF THE PRESTRESSED CONCRETE CONSTRUCTION MANUAL (PCCM), COLOR TO MATCH BEAMS
2. 6"x6"x1" PLATES SHALL BE PERPENDICULAR TO THE LONGITUDINAL AXIS OF THE TENDON IN ALL PLANES AND SHALL BE HAVE THREE HOLES TO ACCOMODATE STRANDS.
3. NO SEALER APPLIED TO THE NOTCHOUT FOR TRANSVERSE TENDONS.
4. BEAM REINFORCEMENT NOT SHOWN FOR CLARITY.

NOTES:

1. FOR THE FOLLOWING SEE: DWG. NO.
A. LOCATIONS OF SECTION A-A S-17 & S-18
B. LOCATION OF SECTION B-B S-18
2. A "WELDING PROCEDURE SPECIFICATION" (WPS) APPROVED BY THE COUNTY IS REQUIRED.
3. ALL WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER IN CONFORMANCE WITH REQUIREMENTS FOR WELDING SPECIFIED IN THE N.Y.S. STEEL CONSTRUCTION MANUAL.

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MISCELLANEOUS DETAILS

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