REHABILITATION OF BRIDGE P-10-036
HANCOCK ROAD OVER DANIELS BROOK

HANCOCK ROAD · PITTSFIELD · MASSACHUSETTS

CONSTRUCTION DOCUMENTS

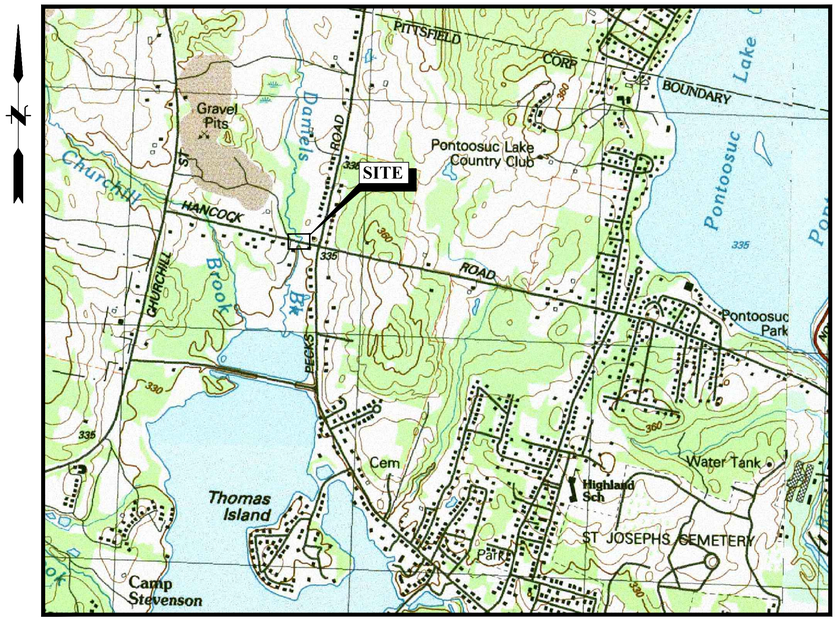
MAY 15, 2024

PREPARED FOR

CITY OF PITTSFIELD
70 ALLEN STREET
PITTSFIELD, MA 01201

PREPARED BY

FUSS & O'NEILL
1550 MAIN STREET, SUITE 400
SPRINGFIELD, MA 01103
413.452.0445
www.fando.com



LOCATION MAP
SCALE: 1" = 1000'

SHEET INDEX

COMMONWEALTH OF MASSACHUSETTS
NICHOLAS J. LAPOINTE
CIVIL
No. 51106
REGISTERED PROFESSIONAL ENGINEER
5-15-2024

PROJ. No.: 20100916.K50
DATE: MAY 15, 2024

GI-001

GENERAL SYMBOLS

EXISTING	PROPOSED	
CB (OR CI, LB)	CB	CATCH BASIN (OR GUTTER INLET, OR LEACHING BASIN)
CBCI (OR GICI)	CBCI (OR GICI)	CATCH BASIN (OR GUTTER INLET) WITH CURB INLET (GUTTERMOUTH)
		EDGESTONE–TYPE NOTED
		EDGE OF ROAD
EHH	EHH	ELECTRIC HANDHOLE (NUMBER AS NOTED)
EMH	EMH	ELECTRIC MANHOLE "
TMH	TMH	TELEPHONE MANHOLE "
WMH	WMH	WATER MANHOLE "
S	SMH	SEWER MANHOLE "
D	D	DRAINAGE MANHOLE "
GG	GG	GAS GATE
WG	WG	WATER GATE
CS	CS	CURB STOP
Hyd	HYD	HYDRANT
FA	FA	FIRE ALARM BOX
PM	PM	PARKING METER
LP	LP	STREET LIGHT POLE
	UP	UTILITY POLE
Guy	GUY	GUY POLE
12" RCP D		DRAIN PIPE (UNDER 24")
	21'–24"RCP D	DRAIN PIPE (DOUBLE LINE 24" AND OVER)
8" VCP S	82'–8"VCP S	SEWER MAIN " "
E	E	ELECTRIC DUCT " "
4" HP G	8"GAS G	GAS MAIN " "
8" C.I. W	12"DI W	WATER MAIN " "
T	T	TELEPHONE DUCT " "
MB	MB	MAIL BOX
		HIGHWAY GUARD (TYPE NOTED)
		FENCE (SIZE AND TYPE NOTED)
MHB	MHB	HIGHWAY/PROPERTY BOUND (TYPE NOTED)
LABEL/DATE	LABEL/DATE	CITY, TOWN, OR COUNTY LAYOUT
		STATE HIGHWAY LAYOUT (S.H.L.O.)
		EASEMENT LINE
PL	PL	PROPERTY LINE
NAME	NAME	CITY, TOWN, OR COUNTY BOUNDARY
NAME	NAME	STATE BOUNDARY
N00°00'00"E		BASE OR SURVEY LINE
	+57.59 10 P.C. N00°00'00"E	CONSTRUCTION BASELINE
		TREE (SIZE AND TYPE NOTED)
		APPROXIMATE FULL DEPTH AREA
		COMPOST FILTER TUBE
BVW		BORDERING VEGETATED WETLAND
		50' BUFFER TO WETLAND
		100' BUFFER TO WETLAND
		100' INNER RIPARIAN
		200' RIVERFRONT BUFFER
		MAJOR CONTOUR
		MINOR CONTOUR

GENERAL SYMBOLS

	EXISTING TREE LINE
WA	APPROXIMATE BORING
BE	WETLAND FLAGS
	WETLAND SYMBOL

TRAFFIC SIGNAL SYMBOLS

EXISTING	PROPOSED	
		FLASHING BEACON CONTROL & METER PEDESTAL
75		SIGNAL POST & BASE
	A	FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD
		PEDESTRIAN PUSH BUTTON

PAVEMENT MARKINGS AND SIGNING SYMBOLS

EXISTING	PROPOSED	
		PAVEMENT ARROW AND LEGEND
CW	CW	CROSSWALK, 2–12" WHITE LINES (WIDTH NOTED)
SL	SL	STOP LINE, 12" WHITE LINE 4.0' BEHIND CW (TYP)
		YIELD LINE, 24" x 36" WHITE TRIANGLE, 36" O.C.
SWCHL	SWCHL	SOLID WHITE CHANNELIZING LINE–SIZE AS NOTED
SYCHL	SYCHL	SOLID YELLOW CHANNELIZING LINE–SIZE AS NOTED
BWLL	BWLL	BROKEN WHITE LANE LINE – 4"
SWLL	SWLL	SOLID WHITE LANE LINE – 4"
DYCL	DYCL	DOUBLE YELLOW CENTERLINE – 4"
SYEL	DWLL	DASHED WHITE LANE LINE – 4"
SWEL	SYEL	SOLID YELLOW EDGE LINE – 4"
BYLL	SWEL	SOLID WHITE EDGE LINE – 4"
	BYLL	BROKEN YELLOW LANE LINE – 4"
		BICYCLE LANE
Sign		BICYCLE DETECTION LEGEND
		SIGN AND POST
		DELINEATOR

REGULATORY REQUIREMENTS

1. ALL WORK SHALL CONFORM WITH THE ORDER OF CONDITIONS (OOC) ISSUED FOR THE PROJECT, MASSDEP FILE #: 263–1117.
2. NOTIFY CITY OF PITTSFIELD CONSERVATION COMMISSION A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION.
3. FIELD INSPECTOR SHALL BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION.
4. POST DEP SIGN NUMBER ASSIGNED IN ACCORDANCE WITH THE ORDER OF CONDITIONS.
5. APPROVED PLANS SHALL BE ON SITE AT ALL TIMES.
6. WITHIN LOCAL RIGHTS–OF–WAY, PERFORM THE WORK IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS.
7. WITHIN STATE RIGHTS–OF–WAY, PERFORM THE WORK IN ACCORDANCE WITH THE MASS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
8. THE CONTRACTOR IS RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. PERFORM CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
9. DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.

GENERAL NOTES:

1. INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION AND MAY BE INCOMPLETE, AND WHERE SHOWN SHOULD BE CONSIDERED APPROXIMATE. NO GUARANTEE TO THE ACCURACY OF THE EXISTING UTILITIES FACILITIES SHOWN IN THIS PROJECT IS EXPRESSED OR IMPLIED UNLESS OTHERWISE NOTED. CONTRACTOR SHALL CONTACT "Mass DIG–SAFE", 1–888–344–7233. CONTRACTOR SHALL MAINTAIN MARKINGS WHERE NEEDED DURING PROJECT. ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION. THE CONTRACTOR SHALL VERIFY LOCATIONS OF UTILITIES AND SERVICE LATERALS PRIOR TO CONSTRUCTION. ANY CONFLICTS WITH LOCATIONS OF LIGHT POLES, TREES, ETC. SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY LOCAL AND STATE APPROVALS AND PERMITS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CONFORM TO ALL REQUIREMENTS OF THE LOCAL AND STATE AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES REQUIRED FOR THIS WORK INCLUDING BUT NOT LIMITED TO CITY SIDEWALK AND EXCAVATION PERMITS AND ASSOCIATED BONDING.
3. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES AND STRUCTURES. THOSE OF WHICH HAVE BEEN DAMAGED SHALL BE PROMPTLY REPAIRED TO EXISTING OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
4. THE ROADWAY IS TO BE GRADED SMOOTHLY AND EVENLY IN ACCORDANCE WITH THE GRADING AND TIE PLANS, PROFILE, AND CROSS SECTIONS. THE CONTRACTOR IS RESPONSIBLE FOR INSURING A POSITIVE DRAINAGE FLOW TO ALL CATCH BASINS WITHOUT CREATING ANY FLAT SPOTS THAT WILL RESULT IN STANDING WATER.
5. THE CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS TO REMOVE ANY PERSONAL ITEMS, LANDSCAPING, PLANT BULBS, PAVERS LOCATED IN THE TEMPORARY EASEMENT AND CITY LAYOUT.
6. ANY PUBLIC OR PRIVATE PROPERTY DISTURBED AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE RESTORED AS QUICKLY AS POSSIBLE AND TO THE SATISFACTION OF THE ENGINEER.
7. RIM OR FRAME ELEVATIONS OF ALL UTILITY STRUCTURES SHALL BE ADJUSTED TO MEET FINISHED PAVED SURFACES. PRIVATE UTILITIES WHO ARE RESPONSIBLE FOR ADJUSTING THEIR OWN STRUCTURES SHALL BE NOTIFIED AT LEAST 2 WEEKS IN ADVANCE BY THE CONTRACTOR.
8. STAGING AREAS AND MATERIAL STOCK PILES SHALL BE LIMITED WITHIN THE SITE AND LOCATED SO AS NOT TO INTERFERE WITH PEDESTRIAN OR VEHICULAR TRAFFIC UNLESS APPROVED OTHERWISE BY THE CITY. THE CONTRACTOR SHALL PROVIDE SAFETY DEVICES (IF ORDERED BY THE ENGINEER) TO PROTECT STOCK PILES/WORK STAGING AREAS. IF THIS WORK IS SO ORDERED THERE WILL BE NO ADDITIONAL COMPENSATION MADE TO THE CONTRACTOR.
9. HOURS OF WORK SHALL BE DEFINED IN THE CONTRACT DOCUMENTS. THE CITY RESERVES THE RIGHT TO ADJUST THESE HOURS IN THE INTEREST OF PUBLIC SAFETY.
10. ACCESS TO PRIVATE PROPERTIES MUST BE MAINTAINED AT ALL TIMES. FOR SECURITY REASONS ALL PRIVATELY OWNED FENCING THAT IS TO BE REMOVED SHALL BE REPLACED WITHIN 72 HOURS OF REMOVAL.
11. INSTALL SEDIMENTATION AND EROSION CONTROL MEASURES PRIOR TO START OF CONSTRUCTION. EXISTING AND PROPOSED CATCH BASINS DOWNGRADE OF ALL WORK AREAS SHALL UTILIZE SILT SACKS DURING CONSTRUCTION.

MAP REFERENCE

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN ARE BASED ON THE TOPOGRAPHIC SURVEY PLAN ENTITLED: TOPO OF DANIEL'S BROOK, PREPARED FOR FUSS & O'NEILL, HANCOCK RD., PITTSFIELD MA. REVISED THROUGH: JANUARY 30, 2019. PREPARED FOR THE CITY OF PITTSFIELD BY GUNTLOW & ASSOCIATES, INC., 55 NORTH STREET WILLIAMSTOWN MA, 01267. PHONE 413–458–2198. FAX 413–458–2712.
2. TOPOGRAPHIC ELEVATIONS ARE BASED ON N.A.V.D 1988.
3. WETLAND DELINEATIONS PERFORMED BY WETLAND SPECIALIST OF GUNTLOW AND ASSOCIATES ON DECEMBER 20TH, 2018.
4. 100 YEAR FLOOD BOUNDARY BASE ON "FIRM, FLOOD INSURANCE RATE MAP," PANEL 5 OF 20, COMMUNITY–PANEL 250037 0005 C, EFFECTIVE DATE FEBRUARY 19, 1982. NO DETAILED ELEVATION STUDY IS AVAILABLE.

ABBREVIATIONS

GENERAL

ABAN	ABANDON
ADJ	ADJUST
APPROX	APPROXIMATE
BIT	BITUMINOUS
BOS	BOTTOM OF SLOPE
(B.O.)	BY OTHERS
CLF	CHAINLINK FENCE
CONC	CONCRETE
ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EXIST	EXISTING
FND	FOUNDATION
GRAN	GRANITE
HMA	HOT MIX ASPHALT
LOAM	LOAM BORROW
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
NTS	NOT TO SCALE
PGL	PROFILE GRADE LINE
PROP	PROPOSED
PVM'T	PAVEMENT
REM.	REMOVE
REMOD	REMODEL
RET.	RETAIN
R&D	REMOVE AND DISCARD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
STA	STATION
TEMP	TEMPORARY
TOS	TOP OF SLOPE
TYP	TYPICAL

UTILITIES

ACCMP	ASHPALT COATED CORRIGATED METAL PIPE
CAP	CORRUGATED ALUMINUM PIPE
CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT
PVC	POLYVINYLCHLORIDE PIPE
PWW	PAVED WATER WAY
RCP	REINFORCED CONCRETE PIPE
TSV&B	TAPPING SLEEVE VALVE AND BOX
UP	UTILITY POLE

ALIGNMENT/GRADING

CC	CENTER OF CURVE
HP	HIGH POINT
LP	LOW POINT
PC	POINT OF CURVE
PI	POINT OF INTERSECTION
PNT	POINT
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT
25.45	SPOT ELEVATION

PROFILES

AD	ALGEBRAIC DIFFERENCE IN RATES OF GRADE
ELEV	ELEVATION
HSD	HORIZONTAL SIGHT DISTANCE
K	RATE OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVC	POINT OF VERTICAL CURVE
PVT	POINT OF VERTICAL TANGENT
PVRC	POINT OF VERTICAL REVERSE CURVE
PVCC	POINT OF VERTICAL COMPOUND CURVE
SSD	STOPPING SIGHT DISTANCE
VC	VERTICAL CURVE

TRAFFIC SIGNAL SYSTEMS

R	STEADY CIRCULAR RED
Y	STEADY CIRCULAR YELLOW
G	STEADY CIRCULAR GREEN
FR	FLASHING CIRCULAR RED
–FR→	FLASHING RED ARROW
FY	FLASHING CIRCULAR YELLOW
–FY→	FLASHING YELLOW ARROW
G	STEADY VERTICAL GREEN ARROW
←X–	STEADY LEFT ARROW (RED, YELLOW OR GREEN PREFIX)
–X→	STEADY RIGHT ARROW (RED, YELLOW OR GREEN PREFIX)
W	STEADY WALK–WHITE
DW	STEADY DON'T WALK–PORTLAND ORANGE
FDW	FLASHING DON'T WALK–PORTLAND ORANGE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SEAL

SEAL

COMMONWEALTH OF MASSACHUSETTS
NICHOLAS J. LAPOINTE
CIVIL
No. 61108
REGISTERED
PROFESSIONAL ENGINEER
5-15-2024

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FUSS & O'NEILL
1550 MAIN STREET, SUITE 400
SPRINGFIELD, MA 01103
413.452.0445
www.fando.com

CITY OF PITTSFIELD

GENERAL NOTES

HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
DATE: 05/15/2024

GEN-101

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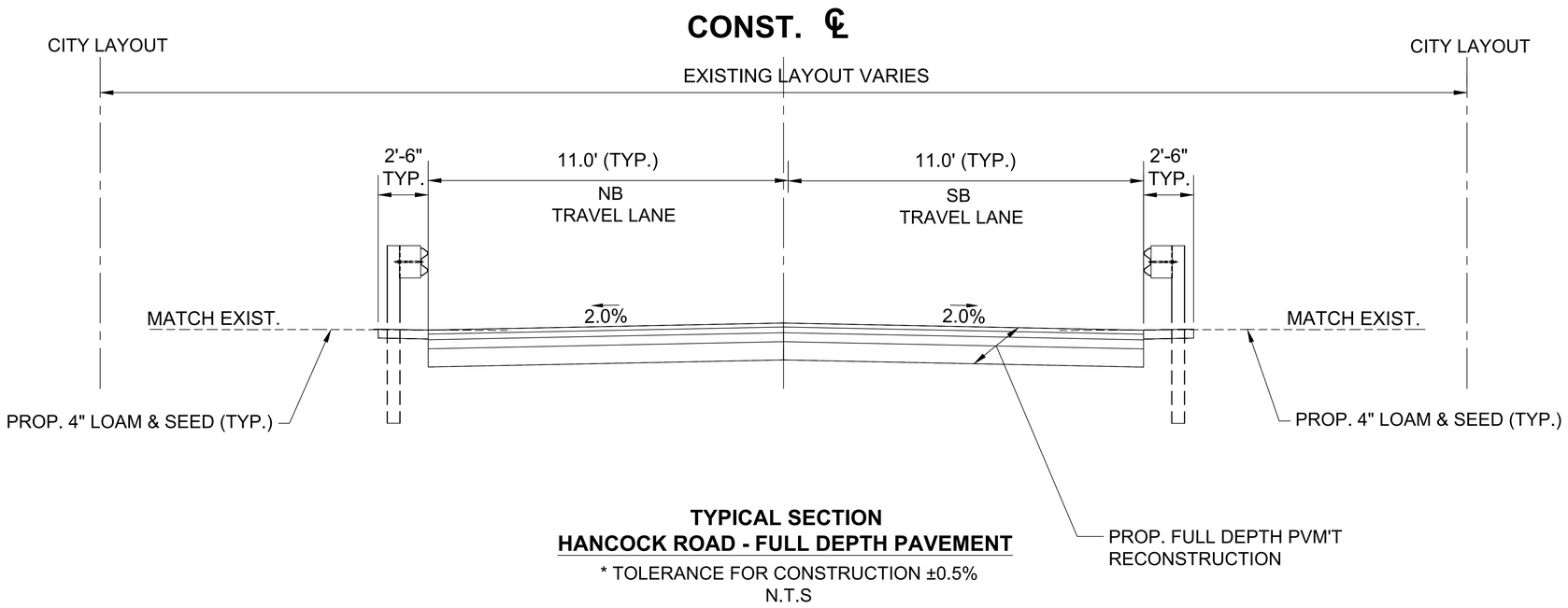

TYPICAL SECTION
HANCOCK ROAD - FULL DEPTH PAVEMENT

* TOLERANCE FOR CONSTRUCTION ±0.5%
N.T.S

PAVEMENT NOTES

PROPOSED BRIDGE PAVEMENT OVERLAY - HANCOCK ROAD

1-1/2" SUPERPAVE BRIDGE SURFACE COURSE - (12.5) OVER

1-1/2" SUPERPAVE BRIDGE PROTECTIVE COURSE - (12.5) OVER

MEMBRANE WATERPROOFING

PROPOSED FULL DEPTH CONSTRUCTION - HANCOCK ROAD

SURFACE: 1-1/2" SUPERPAVE SURFACE COURSE - (12.5) OVER

INTERMEDIATE: 2-1/2" SUPERPAVE INTERMEDIATE COURSE - (SIC 19.0) OVER

SUBBASE: 12" GRAVEL BORROW, M1.03.0 TYPE B

ASPHALT EMULSION FOR TACK COAT AND HMA JOINT SEALANT SHALL BE APPLIED PER SPECIFICATIONS.

HMA FOR PATCHING SHALL BE USED FOR ALL PERMANENT, PARTIAL, AND FULL DEPTH PAVEMENT REPAIRS OF UNSOUND PAVEMENT PER MassDOT SPECIFICATION, DIV. II, SECTION 450. THIS INCLUDES ALL PERMANENT TRENCH REPAIR FOR DRAINAGE WORK

HMA FOR MISCELLANEOUS WORK SHALL BE USED FOR ALL TEMPORARY CONSTRUCTION, TAPER RAMPS, CURB CUT RAMPS, TEMPORARY TRENCH REPAIR, ETC.

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COMMONWEALTH OF MASSACHUSETTS
NICHOLAS J. LAPOINTE
CIVIL
No. 51106
REGISTERED PROFESSIONAL ENGINEER
5-15-2024

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TYPICAL SECTIONS

HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

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TYP-101

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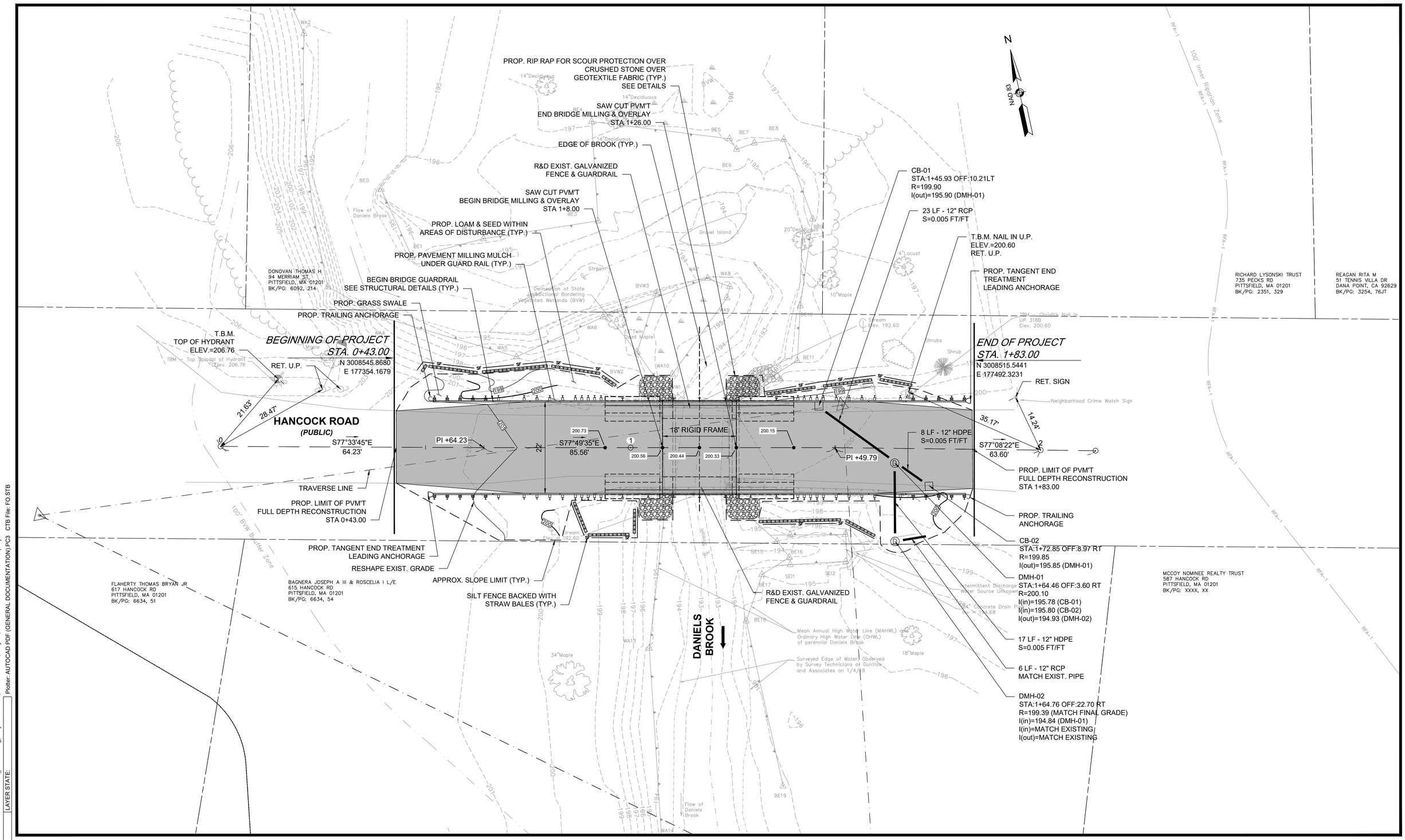

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1550 MAIN STREET, SUITE 400
SPRINGFIELD, MA 01103
413.452.0445
www.fando.com

CITY OF PITTSFIELD

CONSTRUCTION PLAN

HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
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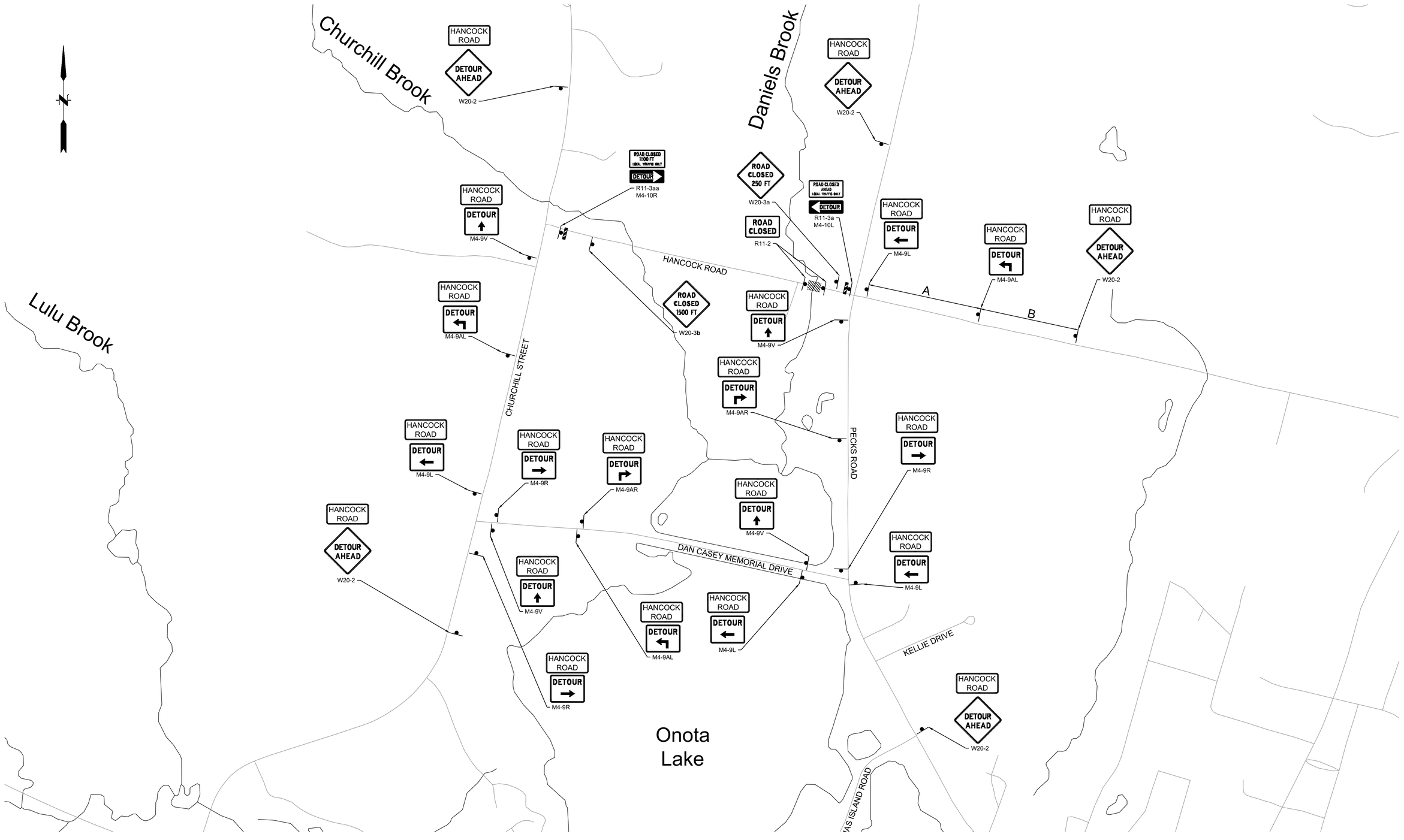
CS-101



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1550 MAIN STREET, SUITE 400
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CITY OF PITTSFIELD

TRAFFIC MANAGEMENT PLAN
-DETOUR PLAN-
HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
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TM-101

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IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	NUMBER OF SIGNS REQUIRED	POST SIZE AND NUMBER REQUIRED	SIGN FACE AREA (S.F.)	TOTAL AREA (S.F.)
	WIDTH (IN)	HEIGHT (IN)					
R11–2	48	30	ROAD CLOSED	2	SEE NOTE 2	10	20
R11–3a	60	30	ROAD CLOSED AHEAD LOCAL TRAFFIC ONLY	1	SEE NOTE 2	12.5	12.5
R11–3aa	60	30	ROAD CLOSED 1800 FT LOCAL TRAFFIC ONLY	1	SEE NOTE 2	12.5	12.5
W20–2	36	36	DETOUR AHEAD	5	P–5 5	9	45
W20–3a	36	36	ROAD CLOSED 250 FT	1	P–5 1	9	9
W20–3b	36	36	ROAD CLOSED 1500 FT	1	P–5 1	9	9
M4–9L	30	24	DETOUR ←	4	P–5 4	5	20
M4–9R	30	24	DETOUR →	3	P–5 3	5	15
M4–9V	30	24	DETOUR ↑	4	P–5 4	5	20
M4–9AL	30	24	DETOUR ↰	3	P–5 3	5	15
M4–9AR	30	24	DETOUR ↱	2	P–5 2	5	10
M4–10L	48	18	← DETOUR	1	SEE NOTE 2	6	6
M4–10R	48	18	DETOUR →	1	SEE NOTE 2	6	6
M4–9P	30	12	HANCOCK ROAD	20	20	2.5	50

TYPICAL CONSTRUCTION SIGNING

N.T.S.

NOTE:

1. COLOR OF SIGN BACKGROUND, LEGEND, AND BORDER TO BE AS INDICATED IN THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

2. ROAD CLOSED SIGNS SHALL BE MOUNTED ON A TYPE 3 BARRICADE.

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SEAL

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NICHOLAS J. LAPOINTE CIVIL No. 51109 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS

5-15-2024

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CITY OF PITTSFIELD

TRAFFIC MANAGEMENT PLAN
-SIGN SUMMARY-

HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
DATE: 05/15/2024

TM-102

NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS, UNLESS SUPERCEDED BY THESE PLANS.
2. ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
3. TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
4. TEMPORARY CONSTRUCTION SIGNING, BARRICADES, AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
5. SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, CHANNELIZING DEVICES, BARRIERS, AND CRASH ATTENUATORS MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
6. CONTRACTORS SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT, AND SIMILAR OPERATIONS.
7. THE FIRST FIVE PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A LIGHTS.
8. THE ADVISORY SPEED LIMIT, IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.
9. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
10. MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
11. MINIMUM LANE WIDTH IS TO BE 11 FEET (3.3m) UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
12. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.

LEGEND:

- REFLECTORIZED PLASTIC DRUM OR 36" CONE
- P/F POLICE/FLAGGER DETAIL
- TYPE III BARRICADE
- CHANGEABLE MESSAGE SIGN
- ARROW BOARD
- WORK ZONE
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR
- MEDIAN BARRIER
- MEDIAN BARRIER WITH WARNING LIGHTS
- WORK VEHICLE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC OR PEDESTRIAN SIGNAL
- SIGN

massDOT Massachusetts Department of Transportation Highway Division

Notes for Traffic Management

FIGURE GEN-1

GENERAL GUIDELINES

SUGGESTED WORK ZONE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS **		
	A	B	C
LOCAL OR LOW VOLUME ROADWAYS*	350 (100)	350 (100)	350 (100)
MOST OTHER ROADWAYS*	500 (150)	500 (150)	500 (150)
FREEWAYS AND EXPRESSWAYS*	1,000 (300)	1,500 (450)	2,640 (800)

* ROAD TYPE TO BE DETERMINED BY THE LOCAL MUNICIPALITY.

** DISTANCES ARE SHOWN IN FEET (METERS). THE COLUMN HEADINGS A, B, AND C ARE THE DIMENSIONS SHOWN IN THE DETAIL/ TYPICAL SETUP FIGURES. THE A DIMENSION IS THE DISTANCE FROM THE TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN. THE B DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGNS. THE C DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGNS. (THE "THIRD" SIGN IS THE FIRST ONE TYPICALLY ENCOUNTERED BY A DRIVER APPROACHING A TEMPORARY TRAFFIC CONTROL (TTC) ZONE.)

THE "THIRD" SIGN ABOVE IS TYPICALLY REFERRED TO AS AN "ADVANCE WARNING" SIGN ON THE TTCP SETUPS. THESE ADVANCE WARNING SIGNS ARE LOCATED PRIOR TO THE PROJECT LIMITS ON ALL APPROACHES (i.e. THE W20-1 SERIES (ROAD WORK XX FT) SIGNS), AND USUALLY REMAIN FOR THE DURATION OF THE PROJECT. ADDITIONAL SIGNS (i.e. "RIGHT LANE CLOSED 1 MILE" AND "LEFT LANE CLOSED 1 MILE") HAVE BEEN SHOWN IN SOME FIGURES AS EXAMPLES OF REINFORCEMENT SIGN PLACEMENT BUT ARE USED IN RARE OCCASIONS.

THE FIRST AND SECOND WARNING SIGNS ABOVE ARE REFERRED TO AS THE OPERATIONAL (DAY-TO-DAY) WORK ZONE SIGNS AND MAY BE MOVED DEPENDING ON WHERE THE SPECIFIC ROADWAY WORK FOR THAT DAY IS LOCATED.

R2-10a SIGNS SHALL BE PLACED BETWEEN THE SECOND AND THIRD SIGNS AS DESCRIBED ABOVE.

R2-10a, R2-10e, AND W20-1 SERIES SIGNS ARE TO BE INCLUDED ON ALL DETAILS/TYPICAL SETUPS.

Based on: Table 6C-1 MUTCD LATEST EDITION

STOPPING SIGHT DISTANCE AS A FUNCTION OF SPEED

SPEED* (km/h)	DISTANCE (m)
30	35
40	50
50	65
60	85
70	105
80	130
90	160
100	185
110	220
120	250

SPEED* (mph)	DISTANCE (ft)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730
75	820

*POSTED SPEED, OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED

THESE VALUES MAY BE USED TO DETERMINE THE LENGTH OF LONGITUDINAL BUFFER SPACES.

THE DISTANCES IN THE ABOVE CHART REPRESENT THE MINIMAL VALUES FOR BUFFER SPACING.

Source: Table 6C-2 MUTCD LATEST EDITION

massDOT Massachusetts Department of Transportation Highway Division

Notes for Traffic Management

FIGURE GEN-2

NOTES ON WORK ZONE DISTANCES

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SEAL

SEAL

COMMONWEALTH OF MASSACHUSETTS NICHOLAS J. LAPOINTE CIVIL No. 51108 REGISTERED PROFESSIONAL ENGINEER

5-15-2024

SCALE:
HORZ.:
VERT.:
DATUM:
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VERT.:
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GRAPHIC SCALE

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413.452.0445
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CITY OF PITTSFIELD

TRAFFIC MANAGEMENT PLAN
-NOTES AND GENERAL GUIDELINES-

HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
DATE: 05/15/2024

TM-103

File Path: J:\DWG\P20100916K50\Civil\Plan\20100916.K50_TMP01.dwg Layout: TMP-103 Plotted: Wed, May 15, 2024 - 3:04 PM User: alex.stripsky
MS VIEW: LAYER STATE:
Plotter: AL48-LG-MONO (MERGE).PC3 CTB File: FO 2008 MONO.CTB

CONVENTIONAL ROADWAY– A STREET OR HIGHWAY OTHER THAN A LOW–VOLUME ROAD, EXPRESSWAY, OR FREEWAY.

EXPRESSWAY– A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.

FREEWAY– A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS.

LOW–VOLUME ROAD– A FACILITY LYING OUTSIDE OF BUILT–UP AREAS OF CITIES, TOWNS, AND COMMUNITIES, AND IT SHALL HAVE A TRAFFIC VOLUME OF LESS THAN 400 AADT. IT SHALL NOT BE A FREEWAY, EXPRESSWAY, INTERCHANGE RAMP, FREEWAY SERVICE ROAD OR A ROAD ON A DESIGNATED STATE HIGHWAY SYSTEM.

Source: MUTCD LATEST EDITION

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH (L)*
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5L
SHOULDER TAPER	AT LEAST 0.33L
ONE–LANE, TWO–WAY TRAFFIC TAPER	50 FT MIN.(15 m) 100 FT(30 m) MAX.
DOWNSTREAM TAPER	50 FT MIN.(15 m) 100 FT MAX.(30 m) PER LANE

Source: Table 6C–3 MUTCD LATEST EDITION

FORMULAS FOR DETERMINING TAPER LENGTHS

SPEED LIMIT (S)	TAPER LENGTH (L) FEET
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR MORE	$L = WS$

SPEED LIMIT (S)	TAPER LENGTH (L) Meters
60 KM/H OR LESS	$L = \frac{WS^2}{155}$
70 KM/H OR MORE	$L = \frac{WS}{1.6}$

WHERE: L = TAPER LENGTH IN FEET (METERS)

W = WIDTH OF OFFSET IN FEET (METERS)

S = POSTED SPEED LIMIT, OR OFF–PEAK 85TH–PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICAPATED OPERATING SPEED IN MPH (KM/H)

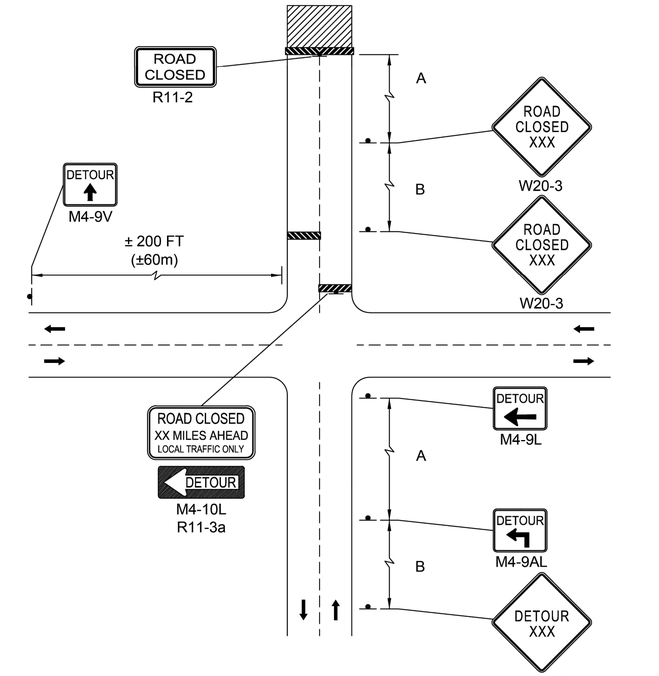
Source: Table 6C–4 MUTCD LATEST EDITION

massDOT Massachusetts Department of Transportation Highway Division

Notes for Traffic Management

FIGURE GEN-3

NOTES ON WORK ZONE DISTANCES



massDOT Massachusetts Department of Transportation Highway Division

Standard Details and Drawings for the Development of Temporary Traffic Control Plans

FIGURE D-1

DETOUR ADVANCE SIGNING

NOT TO SCALE

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No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

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COMMONWEALTH OF MASSACHUSETTS
NICHOLAS J. LAPOINTE
CIVIL
No. 51108
REGISTERED PROFESSIONAL ENGINEER
5-15-2024

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413.452.0445
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CITY OF PITTSFIELD

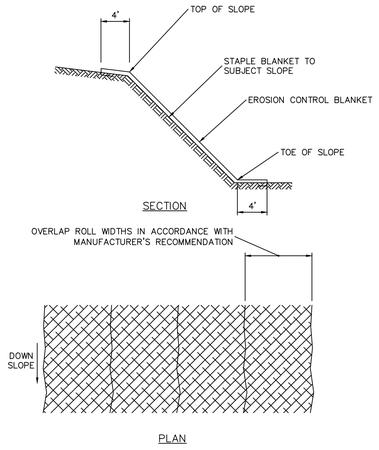
TRAFFIC MANAGEMENT PLAN
-STANDARD DETAILS-

HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
DATE: 05/15/2024

TM-104

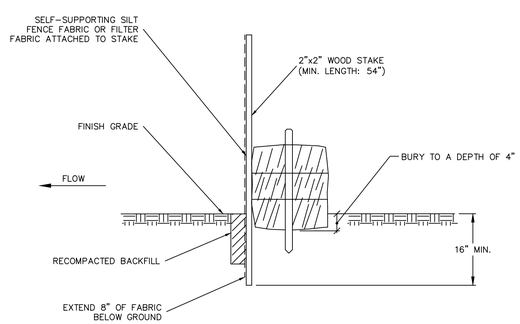


NOTE:

REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS FOR DETAILS ON INSTALLATION INCLUDING STAPLING PATTERN, OVERLAPPING DETAILS, EDGE EMBEDMENT, AND ANCHOR DETAILS. TO BE INSTALLED ON SLOPES 3:1 OR GREATER.

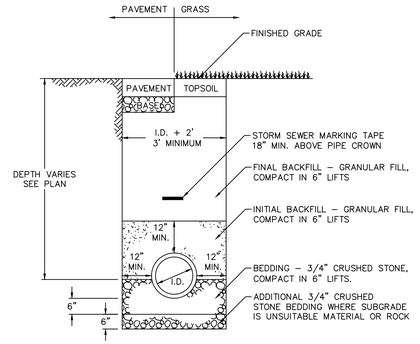
EROSION CONTROL BLANKET

SCALE: N.T.S.



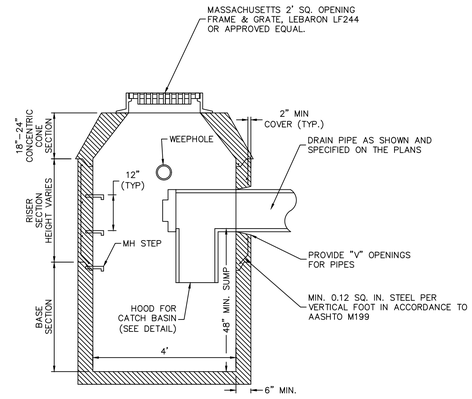
SILT FENCE BACKED W/ STRAW BALES

SCALE: N.T.S.



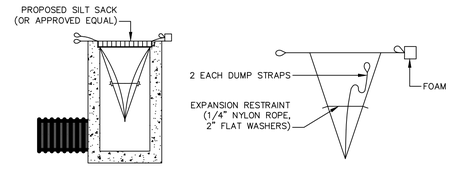
STORMWATER DRAINAGE TRENCH

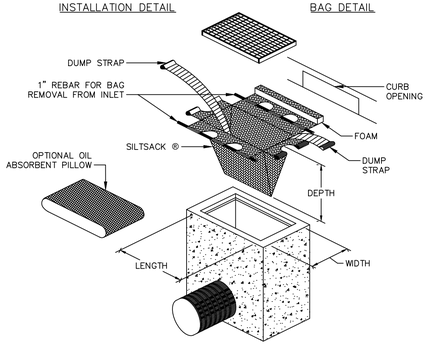
SCALE: N.T.S.



PRECAST CONCRETE CATCH BASIN

SCALE: NOT TO SCALE

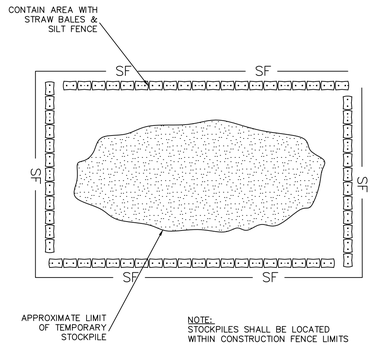




NOTES:
1. INSPECT INLET PROTECTION WEEKLY AND AFTER EACH SIGNIFICANT RAIN EVENT. REMOVE ACCUMULATED SEDIMENT WHEN SILT SACK BECOMES MORE THAN 1/4 FULL.

INLET PROTECTION

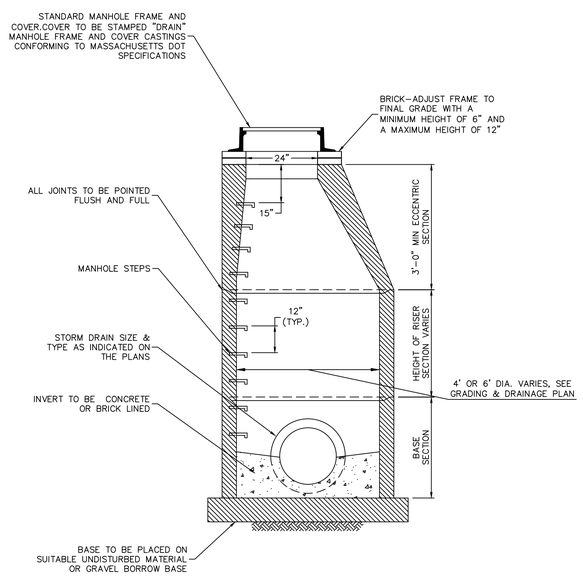
SCALE: NOT TO SCALE



NOTE:
STOCKPILES SHALL BE LOCATED WITHIN CONSTRUCTION FENCE LIMITS

TEMPORARY SOIL STOCKPILE

SCALE: N.T.S.



DRAINAGE MAHNOLE

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No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

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CIVIL
No. 51106
REGISTERED PROFESSIONAL ENGINEER
5-15-2024

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CITY OF PITTSFIELD

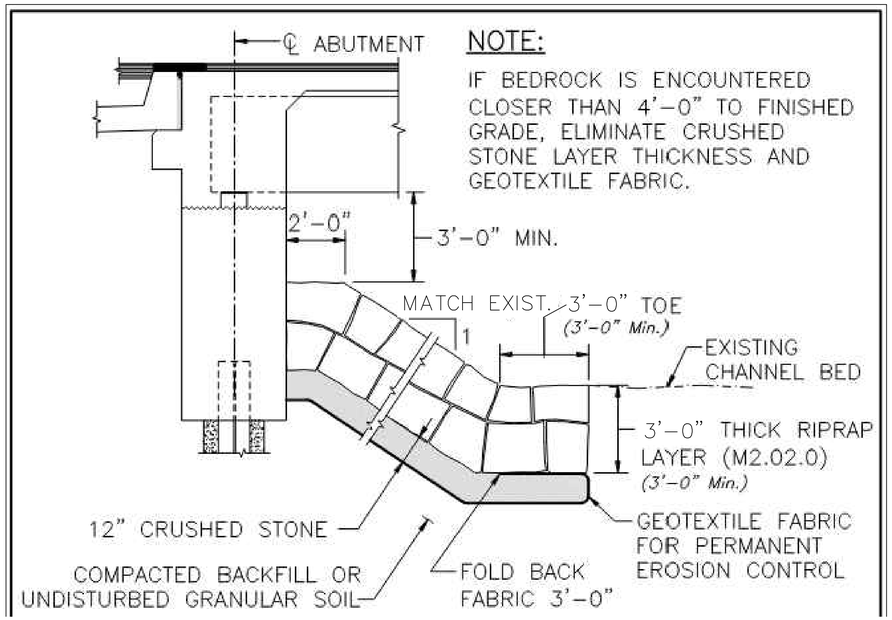
CONSTRUCTION DETAILS

HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
DATE: 05/15/2024

CD-101



RIP RAP FOR SCOUR PROTECTION

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No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

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COMMONWEALTH OF MASSACHUSETTS
NICHOLAS J. LAPOINTE
CIVIL
No. 51108
REGISTERED PROFESSIONAL ENGINEER

5-15-2024

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1550 MAIN STREET, SUITE 400
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CITY OF PITTSFIELD

CONSTRUCTION DETAILS

HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
DATE: 05/15/2024

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Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB

GENERAL

1. THE STRUCTURAL REPAIRS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2020 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LOAD RESISTANCE AND FACTOR DESIGN (LRFD) BRIDGE DESIGN SPECIFICATIONS AND IN ACCORDANCE WITH THE 2013 MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT) LRFD BRIDGE MANUAL WITH 2020 INTERIM REVISIONS.
2. THE STRUCTURAL COMPONENTS HAVE BEEN DESIGNED TO SUPPORT THE DEAD LOADS OF THE BRIDGE AND THE LIVE LOAD ASSOCIATED WITH A HL-93 DESIGN VEHICLE.
3. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY CLEARANCES TO ANY POTENTIAL OBSTRUCTION WHICH SHALL INCLUDE BUT NOT BE LIMITED TO EXISTING OVERHEAD UTILITIES, UNDERGROUND UTILITIES, AND ANY OTHER NATURAL OR MANMADE FEATURE THAT WOULD PREVENT THE CONSTRUCTION OR INSTALLATION OF ANY PART OF THE WORK OR ITEM REQUIRED TO COMPLETE THE WORK, PRIOR TO MOBILIZING EQUIPMENT TO THE SITE.
4. THE CONTRACTOR SHALL SUBMIT THE FOLLOWING SHOP DRAWINGS FOR REVIEW AND APPROVAL BEFORE PROCEEDING WITH THE WORK AND SHALL CHECK ALL DIMENSIONS AND ACCEPT FULL RESPONSIBILITY FOR DIMENSIONAL CORRECTNESS. SHOP DRAWINGS SHALL BEAR THE REVIEW AND APPROVAL STAMP OF THE CONTRACTOR.
   - REINFORCING STEEL
   - GROUT
   - ANCHOR ADHESIVE
   - CONTROL OF WATER
   - DEBRIS CONTAINMENT
   - INSTALLATION SEQUENCE
5. STRUCTURAL PLANS SHALL NOT BE REPRODUCED IN WHOLE OR IN PART FOR USE AS SHOP DRAWINGS OR ERECTION PLANS. (THERE WILL BE NO RELAXATION OF THIS RESTRICTION FOR ANY TRADE.)
6. ALL STRUCTURAL WORK SHOWN OR SPECIFIED ON THESE DRAWINGS IS SUBJECT TO REVIEW BY THE STRUCTURAL ENGINEER OF RECORD. ASPECTS OF THE WORK FOUND NOT IN CONFORMANCE WITH THE STRUCTURAL DOCUMENTS SHALL BE CORRECTED AS DIRECTED BY THE ENGINEER.
7. THE WORK SHOWN ON THE PLANS SHALL CONSIST OF CONTROLLING WATER IN THE AREA OF THE WORK AS NEEDED, DEBRIS CONTAINMENT, INSTALLATION OF SUPPLEMENTAL BRIDGE BEAM SUPPORTS AND ANCHOR BOLTS, INSTALLATION OF A STEEL BEAM AND ELASTOMERIC BEARING PADS, AND REMOVAL OF DETERIORATED CONCRETE AS NEEDED FOR THE INSTALLATION OF THE SUPPORTS AND BEAM. EARTHWORK AND CONCRETE REPAIR WORK ASSOCIATED WITH THE REPAIR OF THE EXISTING ABUTMENT IS NOT REQUIRED.
8. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 2024 EDITION.

EXISTING CONDITIONS

1. REPRESENTATION OF EXISTING CONDITIONS CONTAINED IN THESE PLANS ARE FURNISHED ONLY FOR THE INFORMATION AND CONVENIENCE OF THE CONTRACTOR. IT SHALL BE UNDERSTOOD AND AGREED THAT THE OWNER DOES NOT WARRANT OR GUARANTEE THAT EXISTING CONDITIONS DURING CONSTRUCTION WILL BE THE SAME AS THOSE INDICATED BY INFORMATION GIVEN ON THE DRAWINGS. THE CONTRACTOR MUST SATISFY ITSELF REGARDING CHARACTER, AND CONDITIONS OF THE VARIOUS MATERIALS AND WORK TO BE DONE.
2. ALL DIMENSIONS AND DETAILS SHOWN FOR THE EXISTING STRUCTURE ARE NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE AND VERIFY ALL DIMENSIONS AND DETAILS NECESSARY FOR THE COMPLETION OF THE WORK BY FIELD MEASUREMENTS AND/OR SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF, AND SHALL NOT ORDER ANY MATERIAL OR COMMENCE WITH ANY FABRICATION OR WORK UNTIL THE MEASUREMENTS NEEDED FOR THE ACCURATE FABRICATION OF COMPONENTS HAVE BEEN COMPLETED.
3. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER.

CONTROL OF WATER

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING WATER UNDER THE BRIDGE AS REQUIRED TO COMPLETE THE WORK.

DEBRIS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTAINING ALL DEBRIS GENERATED DURING THE WORK AND PREVENTING THE DEBRIS FROM DROPPING INTO OR BEING DISPERSED IN THE BROOK.
2. ALL DEBRIS SHALL BE CAPTURED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS. GROUNDWATER, AND BYPASS SURFACE WATER AROUND SITE EXCAVATIONS.

DRAWING SCALES

1. SCALES NOTED ON THE PLANS ARE NOT APPLICABLE TO REDUCED SIZE PRINTS. DIVIDE SCALE BY 2 FOR HALF-SIZE PRINTS.

HYDRAULIC INFORMATION

1. GAUGING STATION INFORMATION IS NOT AVAILABLE. THE CONTRACTOR SHALL MONITOR THE WEATHER, PRECIPITATION AND WATER LEVEL IN THE BROOK AS NEEDED TO ENSURE THAT THE WORK WILL NOT BE DELAYED BY UNEXPECTED WATER SURFACE ELEVATION INCREASES.

DELIVERY AND ERECTION

1. THE CONTRACTOR IS FULLY RESPONSIBLE FOR COORDINATING THE DELIVERY AND INSTALLATION OF THE REPAIR MATERIALS. ALL COMPONENTS SHALL BE DELIVERED TO A LOCATION SECURED BY THE CONTRACTOR AND STORED IN A MANNER THAT WILL PREVENT DAMAGE.
2. THE CONTRACTOR IS RESPONSIBLE FOR ALL THE EQUIPMENT, LABOR AND MATERIALS RELATED TO AND REQUIRED FOR THE CONSTRUCTION AND INSTALLATION OF THE WORK SHOWN ON THE PLANS.

SITE CLEARANCE

1. SELECTIVE CLEARING SHALL ONLY BE TO THE LIMITS REQUIRED TO COMPLETE THE WORK AND INSTALL THE DEWATERING DISCHARGE SETTLING BASIN.

EROSION CONTROL NOTES

1. DISTURBANCE OF SOIL SURFACES IS REGULATED BY STATE LAW AND LOCAL ORDINANCE. ALL WORK SHALL COMPLY WITH THE FOLLOWING CRITERIA TO PREVENT OR MINIMIZE SOIL EROSION.
2. THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL DEVICES IS THE RESPONSIBILITY OF THE CONTRACTOR. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLAN, OR AS DIRECTED BY THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE CITY OF PITTSFIELD. ALL EROSION CONTROL DEVICES SHALL BE MAINTAINED IN EFFECTIVE CONDITION DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL USE THE LATEST EDITION OF THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS IN CONSTRUCTING THE EROSION AND SEDIMENT CONTROLS INDICATED ON THE PLANS. ALL EROSION AND SEDIMENT CONTROL MEASURES OR WORKS AND REHABILITATION MEASURES MUST CONFORM TO OR EXCEED THE SPECIFICATIONS OR STANDARDS SET OUT IN THIS HANDBOOK.
4. THE CONTRACTOR SHALL INSPECT EROSION AND SEDIMENT CONTROL DEVICES AT THE END OF EACH WORKING DAY, AFTER EACH STORM EVENT, AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE TIMELY INSTALLATION, INSPECTION, MAINTENANCE, AND/OR REPLACEMENT OF ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES TO ENSURE PROPER OPERATION THROUGHOUT THE LIFE OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF PERMANENT MEASURES UNTIL CONSTRUCTION OF THE PROJECT IS COMPLETED OR UNTIL IT IS ACCEPTED BY THE OWNER. THE OWNER IS RESPONSIBLE THEREAFTER.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN ROADS, CONTROL DUST, AND TAKE ALL NECESSARY MEASURES TO ENSURE THAT THE SITE AND ALL ROADS BE MAINTAINED IN A MUD- AND DUST-FREE CONDITION AT ALL TIMES THROUGHOUT THE LIFE OF THE CONTRACT. DUST CONTROL SHALL INCLUDE, BUT IS NOT LIMITED TO, WATER AND/OR CRUSHED STONE OR COARSE GRAVEL, SUBJECT TO THE APPROVAL OF THE ENGINEER.
7. THERE ARE NO PROPOSED VEHICULAR CONSTRUCTION ENTRANCE(S).
8. THE CONTRACTOR SHALL INSTALL ALL SEDIMENT CONTROL BARRIERS AS SHOWN ON THE SITE DEVELOPMENT PLANS. CLEANOUT OF ACCUMULATED SEDIMENT BEHIND SEDIMENT CONTROL BARRIER IS NECESSARY IF ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER BECOMES FILLED WITH SEDIMENT. REPLACE BARRIER IMMEDIATELY IF BARRIER DECOMPOSED OR BECOMES INEFFECTIVE.
9. THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO ORIGINAL CONDITION. AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESODDED, RESEEDED, OR OTHERWISE RESTORED TO THEIR ORIGINAL STATE. TREES AND OTHER EXISTING VEGETATION SHALL BE RETAINED WHEREVER FEASIBLE.
10. PERMANENT VEGETATIVE COVER SHALL BE APPLIED TO ALL DISTURBED AREAS THAT HAVE REACHED FINISHED GRADE AS SOON AS POSSIBLE, BUT NOT MORE THAN TEN (10) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS PERMANENTLY CEASED. THE RECOMMENDED PERMANENT SEEDING DATES ARE APRIL 1 THROUGH MAY 31 AND AUGUST 15 THROUGH OCTOBER 15.
11. PERMANENT VEGETATIVE COVER OUTSIDE IMPERVIOUS SURFACES, OR NOT OTHERWISE SPECIFIED ON THE PLANS SHALL RECEIVE THE FOLLOWING SEED MIXTURE, OR APPROVED EQUAL:

30% OF CHEWINGS FESCUE	APPLICATION RATE: 0.90LBS/1,000SF
30% OF KENTUCKY BLUEGRASS	APPLICATION RATE: 0.90LBS/1,000SF
40% OF PERENNIAL RYEGRASS	APPLICATION RATE: 0.45LBS/1,000SF

12. FERTILIZER SHALL BE APPLIED AT THE RATE OF 850 POUNDS PER ACRE OR 19.5 POUNDS PER 1,000 SQUARE FEET OF 10-20-20 OR EQUIVALENT.
13. AREAS WHICH HAVE BEEN SEEDED SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING IN ADDITION TO AREAS WHICH CANNOT BE SEEDED WITHIN THE RECOMMENDED SEEDING DATES AND ANY SOIL STOCKPILE AREAS. MULCHING SHOULD BE PERFORMED AS SOON AS POSSIBLE, BUT NOT MORE THAN TEN (10) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS BEEN COMPLETED.
14. ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. WHERE EROSION IS OBSERVED, ADDITIONAL MULCH MUST BE APPLIED. IF NETTING IS USED, THE NET SHALL BE INSPECTED AFTER RAINSTORMS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, THE NET MUST BE REINSTALLED AS NECESSARY AFTER REPAIRING DAMAGE TO SLOPE. INSPECTIONS SHALL TAKE PLACE UNTIL GRASSES ARE FIRMLY ESTABLISHED. GRASS IS CONSIDERED TO BE FIRMLY ESTABLISHED AT A MINIMUM HEIGHT OF THREE (3) INCHES.

EROSION CONTROL NOTES (CONT.)

15. STRAW OR HAY MULCH, WOOD FIBER MULCH, AND HYDROMULCH ARE RECOMMENDED. STRAW OR HAY MULCH SHOULD BE APPLIED AT A RATE OF 2 TONS PER ACRE, WOOD FIBER MULCH SHOULD BE APPLIED AT A RATE OF 1,500-2,000 POUNDS PER ACRE, OR HYDROMULCH APPLIED AT A RATE OF 1,500 POUNDS PER ACRE. WOOD FIBER MULCH SHOULD NOT BE USED ALONE IN THE WINTER OR DURING HOT, DRY WEATHER. STRAW OR HAY MULCH MUST BE ANCHORED IMMEDIATELY AFTER SPREADING TO PREVENT WINDBLOWING. MULCH ANCHORING SHOULD ALSO BE USED ON SLOPES GREATER THAN THREE (3) PERCENT AND CONCENTRATED FLOW AREAS SUCH AS DIVERSION AND WATERWAY CHANNELS.
16. IF SEEDING CANNOT BE COMPLETED IMMEDIATELY OR WITHIN THE RECOMMENDED SEEDING DATES, USE TEMPORARY MULCHING TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
17. ANY EXISTING OR PROPOSED STORMWATER DRAINAGE STRUCTURES WHICH MAY BE SUBJECT TO SEDIMENTATION PROCESSES, INCLUDING INLET/OUTLET STRUCTURES AND OUTFALL AREAS SHALL BE PROTECTED WITH STAKED HAYBALES, SILT SACKS, OR OTHER APPROVED MEASURES THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD.
15. ALL EXCESS EXCAVATED MATERIALS, EXCESS FILL, EXCESS CONSTRUCTION MATERIALS, AND DEBRIS SHALL BE REMOVED FROM THE SITE AND SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS.
16. WASTE DISPOSAL: MATERIALS WHICH COULD BE A POTENTIAL SOURCE OF STORMWATER POLLUTION SUCH AS GASOLINE, DIESEL FUEL, HYDRAULIC OIL, ETC., SHALL BE STORED AT THE END OF EACH DAY IN A STORAGE TRAILER OR COVERED LOCATION AND TAKEN OFF-SITE AND PROPERLY DISPOSED OF. ALL TYPES OF WASTE GENERATED AT THIS SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH STATE LAW AND/OR REGULATIONS.
17. GOOD HOUSEKEEPING: THE PROJECT SITE SHALL PROVIDE FOR THE MINIMIZATION OF EXPOSURE OF CONSTRUCTION DEBRIS (INCLUDING, BUT NOT LIMITED TO, INSULATION, WIRING, PAINTS AND PAINT CANS, SOLVENTS, WALL BOARD, ETC.) TO PRECIPITATION BY MEANS OF DISPOSAL AND/OR PROPER SHELTER OR COVER. CONSTRUCTION WASTE MUST BE PROPERLY DISPOSED OF IN ORDER TO AVOID EXPOSURE TO PRECIPITATION AT THE END OF EACH WORKING DAY.

MATERIALS

1. THE FOLLOWING MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE LATEST EDITION OF THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES:
   - 1.1 CONCRETE (905.2) – 5,000 PSI, ⅜ IN., 710 SILICA FUME MODIFIED CEMENT CONCRETE IN RIGID FRAME SLAB/LEGS
   - 1.2 CONCRETE (901.) – 4000 PSI, 1½", 565 CEM. CONC. IN WINGWALLS
   - 1.3 REINFORCING BARS (910.1) – EPOXY COATED
   - 1.4 MEMBRANE WATERPROOFING (965.) – COAL TAR EMULSION REINFORCED WITH TWO PLIES OF COATED GLASS FABRIC
   - 1.5 DAMP-PROOFING (970.)
   - 1.6 ANCHOR ADHESIVE – ADHESIVE FOR ANCHORING REBAR DOWELS INTO EXISTING CONCRETE SHALL BE HIT-RE 500 EPOXY ANCHORING ADHESIVE SYSTEM OR APPROVED EQUIVALENT

File Path: J:\DWG\P2010\0916\K50\Structural\Plan\20100916.K50_STR01.dwg Layout: SA-101 Plotted: Wed, May 15, 2024 - 3:04 PM User: alex.stripsky
Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB
LAYER STATE:
MS VIEW:

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.			XX/XX	XX

SEAL

COMMONWEALTH OF MASSACHUSETTS
JAIME FRENCH
STRUCTURAL
No. 49387
REGISTERED
PROFESSIONAL ENGINEER
5-15-24

SEAL

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CITY OF PITTSFIELD

GENERAL NOTES

HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
DATE: 05/15/2024

SA-101

46' BRIDGE LENGTH

℄ OF EXISTING BRIDGE

14' RECONSTRUCTED WINGWALL (TYP.)

18' CONCRETE SLAB

14' RECONSTRUCTED WINGWALL (TYP.)

TRANSITION TO VERMONT SYSTEM BRIDGE RAIL SEE SA-108

FACE OF BRIDGE RAIL

STA. 0+93.79
EL. 200.73

STA. 1+07.79
EL. 200.56

22'-11" OUT TO OUT

22'-4" CLEAR WIDTH

4'-4"

STA. 1+16.79
EL. 200.44

STA. 1+25.79
EL. 200.33

STA. 1+39.79
EL. 200.15

℄ OF ROADWAY

1'-2" TOP STEM/CONC. DECK END

RIPRAP (TYP.)

SLOPE LIMIT

Delineation of State Jurisdictional Bordering Vegetated Wetlands (BVW)

Stream
Elev. 192.60

Stream
Elev = 192.60

12" Twin Dead Maple

20" Deciduous

4" Locust

10" Maple

Shrubs

Shrub

Gravel Island

24" Concrete Drain Pipe
Inv = 194.68

Intermittent Discharge
Water Source Unknown

IBM – Chris
UP 3188
Elev. 200.6

Hancock Road

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

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CITY OF PITTSFIELD

BRIDGE LAYOUT

HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
DATE: 05/15/2024

SA-102

File Path: J:\DWG\P2010\0916\K50\Structural\Plan\20100916.K50_STP01.dwg, Layout: SA-102, Plotted: Wed, May 15, 2024 - 3:05 PM User: Alex.Stripsky
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LAYER STATE:
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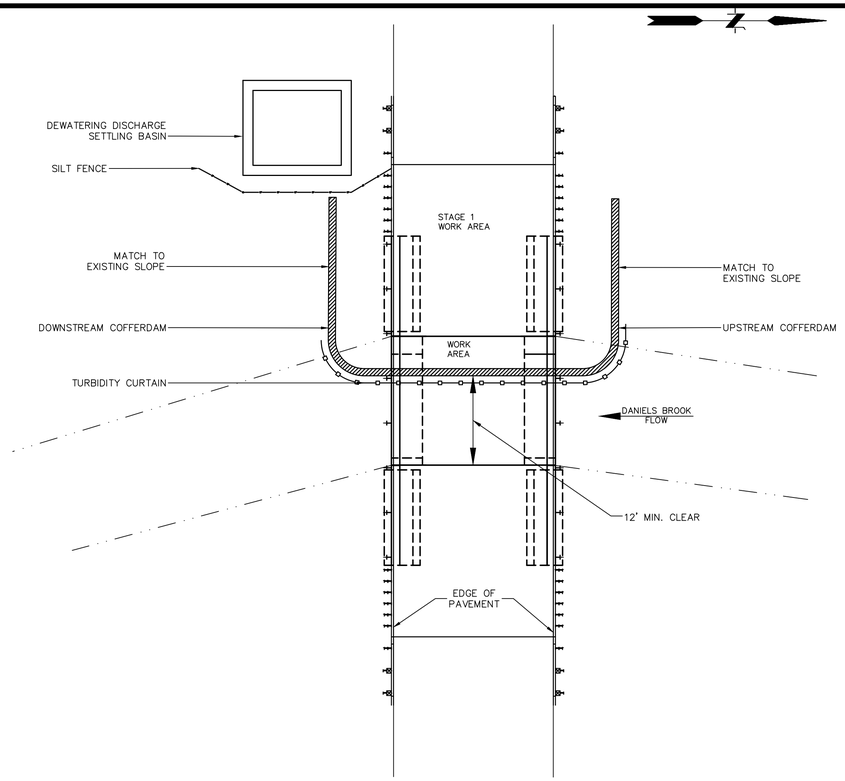
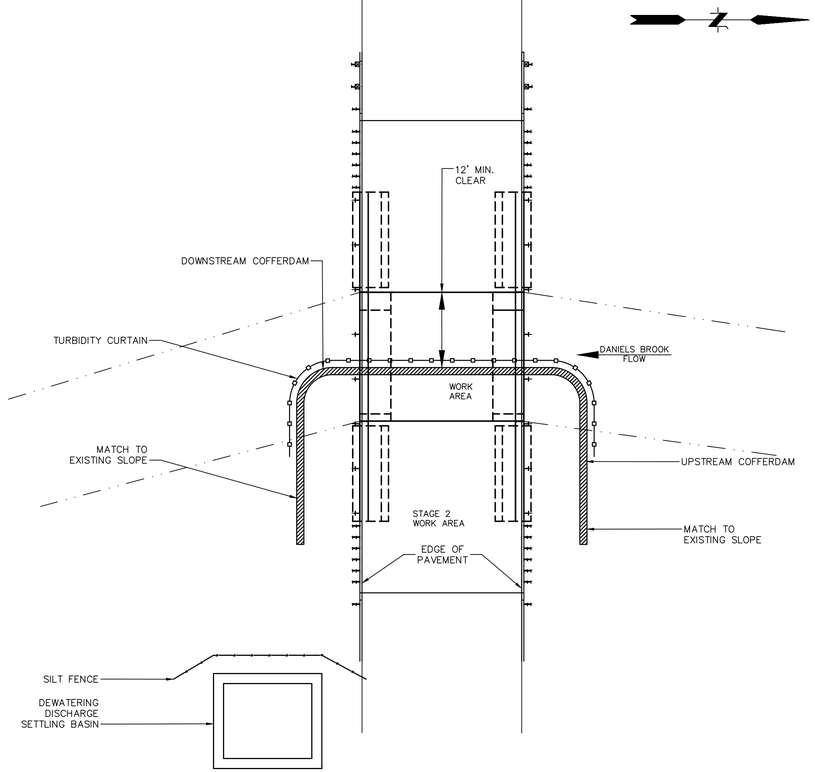


1 WATER CONTROL PLAN – PHASE A

SCALE: 1"= 20'-0"

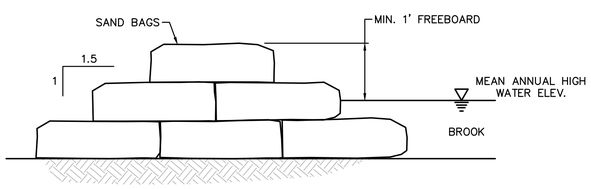


2 WATER CONTROL PLAN – PHASE B

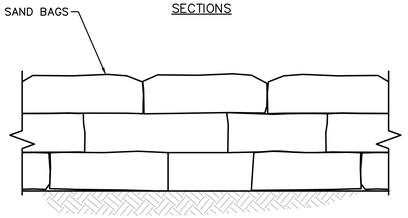
SCALE: 1"= 20'-0"

PROPOSED SEQUENCE:

1. THE CONTRACTOR SHALL MAKE FIELD MEASUREMENTS PRIOR TO FABRICATION OF ANY COMPONENT AND SHALL VERIFY SITE CONDITIONS AND CONSTRAINTS PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR SHALL INSTALL PHASE A TEMPORARY TURBIDITY CONTROL(S) AND DEWATERING DISCHARGE SETTLING BASIN PRIOR TO THE INSTALLATION OF THE COFFERDAM.
3. INSTALL A SANDBAG COFFERDAM ONLY TO THE EXTENT REQUIRED FOR THE EXCAVATION OF THE AREA IN FRONT OF THE ABUTMENT TO EXPOSE THE TOP OF THE ABUTMENT FOUNDATION TO MAKE NECESSARY REPAIRS.
4. EXCAVATION SHALL BE BY HAND AND THE EXCAVATED MATERIAL STORED WITHIN THE LIMITS OF THE COFFERDAM.
5. DEWATER EXCAVATION AS NEEDED TO COMPLETE BRIDGE SLAB AND ABUTMENT REPAIRS.
6. ONCE THE BRIDGE REPAIRS ARE COMPLETED AND ACCEPTED, THE CONTRACTOR SHALL REPLACE AND COMPACT THE EXCAVATED MATERIAL. AREA SHALL BE RESTORED TO EXISTING CONDITIONS.
7. REMOVE THE COFFERDAM AFTER BACKFILLING HAS BEEN COMPLETED, RESTORE ANY AREAS DISTURBED BY COFFERDAM TO EXISTING CONDITIONS.
8. REPEAT PROCESS FOR PHASE B WORK.
9. RESTORE REMAINING DISTURBED AREAS TO EXISTING CONDITIONS.
10. REMOVE THE TEMPORARY TURBIDITY CONTROL(S) AFTER SITE IS RESTORED AND STABLE.



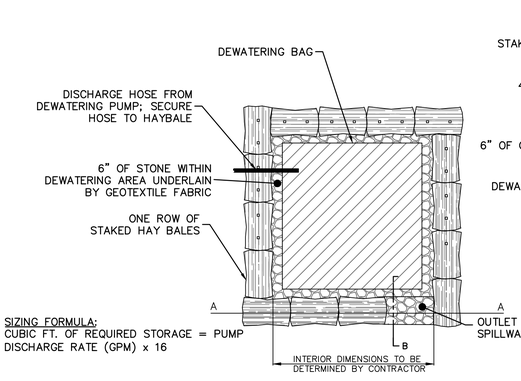
SECTIONS



ELEVATION

3 TEMPORARY COFFER DAM

SCALE: N.T.S.

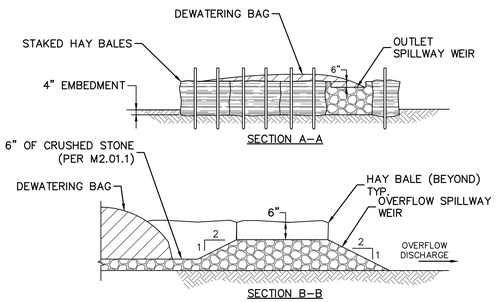


PLAN

SIZING FORMULA:
CUBIC FT. OF REQUIRED STORAGE = PUMP DISCHARGE RATE (GPM) x 16

4 CONSTRUCTION DEWATERING DISCHARGE SETTLING BASIN

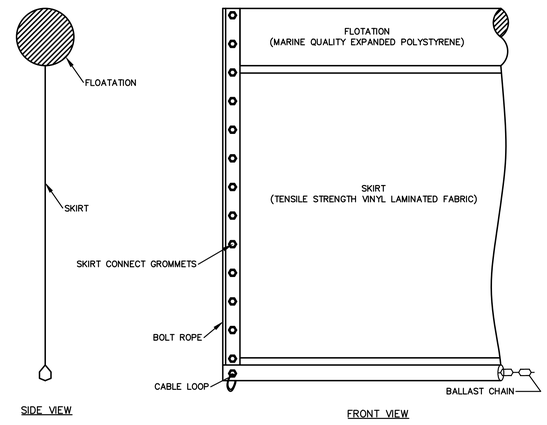
SCALE: N.T.S.



SECTION A–A

SECTION B–B

NOTES:
1. HAY BALES FOR EROSION CONTROL SHALL CONFORM TO SECTION 767 OF THE STANDARD SPECIFICATIONS INCLUDING MATERIALS AND CONSTRUCTION METHODS.
2. BALES OF HAY SHALL BE FASTENED WITH WIRE AND HAVE A MINIMUM SIZE OF 1'x1.5'x3'.
3. STONE SHALL CONSIST OF 1–1/2 INCH STONE CONFORMING TO SUBSECTION M2.01.1 OF THE STANDARD SPECIFICATIONS.
4. FILTER FABRIC SHALL CONFORM TO A TYPE I FABRIC AS INCLUDED WITHIN SECTION M9.50.0 OF THE STANDARD SPECIFICATIONS.
5. FILTER BAG (SILT BAG): MANUFACTURED NON–WOVEN GEOTEXTILE FABRIC BAG, SEWN WITH HIGH–STRENGTH THREAD, WITH A SPOUT TO ACCOMMODATE A 4–INCH DISCHARGE HOSE (MAXIMUM), AND ATTACHED STRAPS.



SIDE VIEW

FRONT VIEW

5 TURBIDITY CURTAIN

SCALE: N.T.S.

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CITY OF PITTSFIELD

WATER CONTROL PLAN

HANCOCK ROAD REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
DATE: 05/15/2024

SA-103

File Path: J:\DWG\P2010\0916\K50\Structural\Plan\20100916.K50_STR03_MP.dwg Layout: SA-103 Plotted: Wed, May 15, 2024 - 3:05 PM User: alex.stripsky
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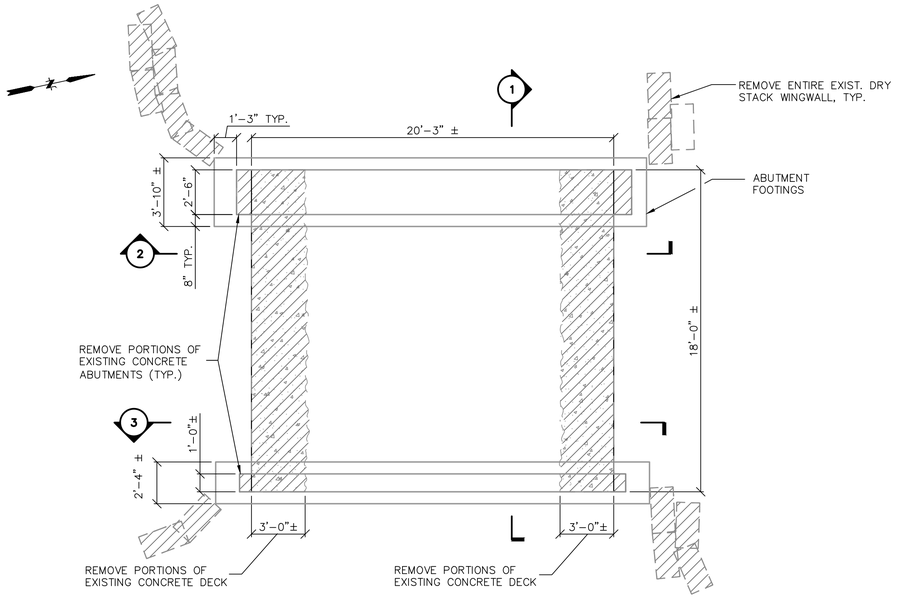
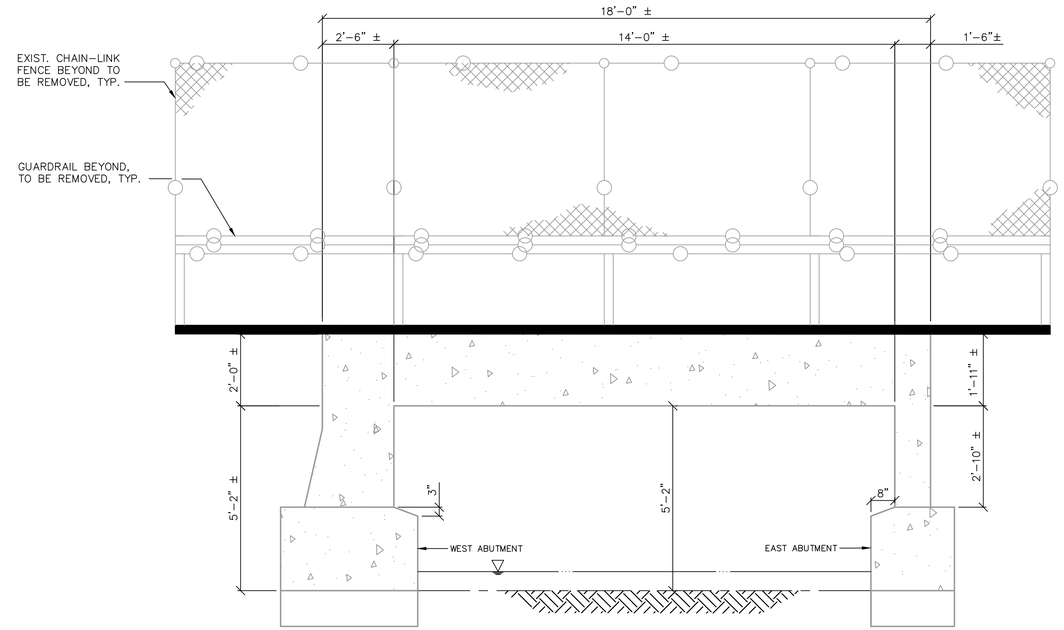
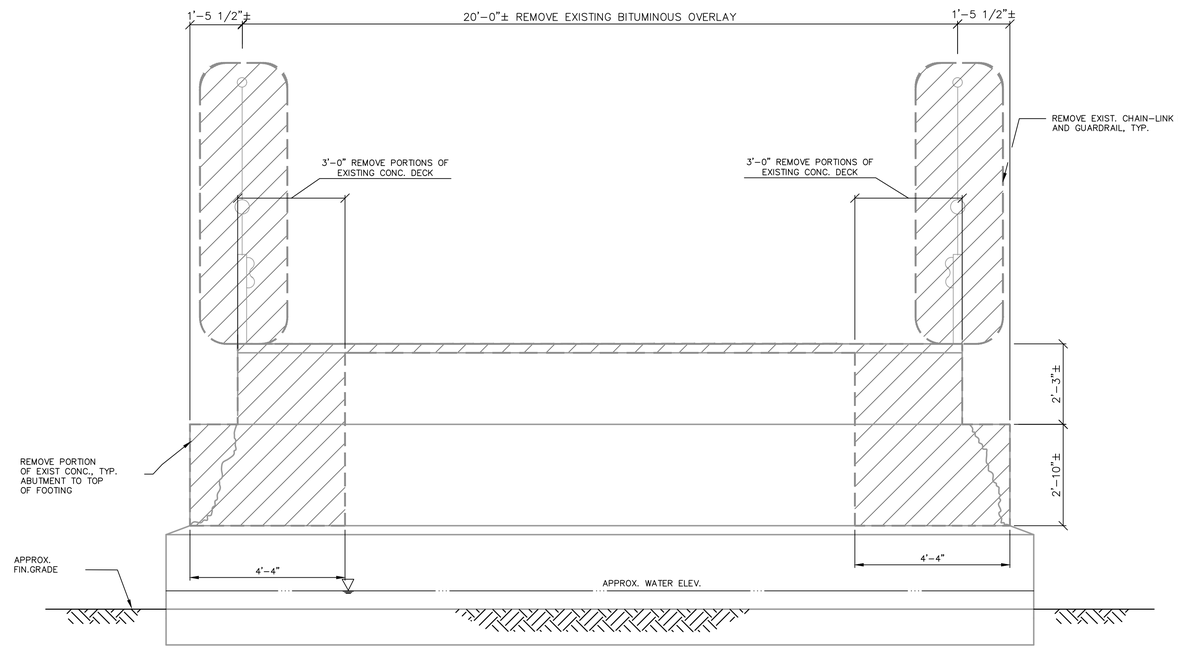


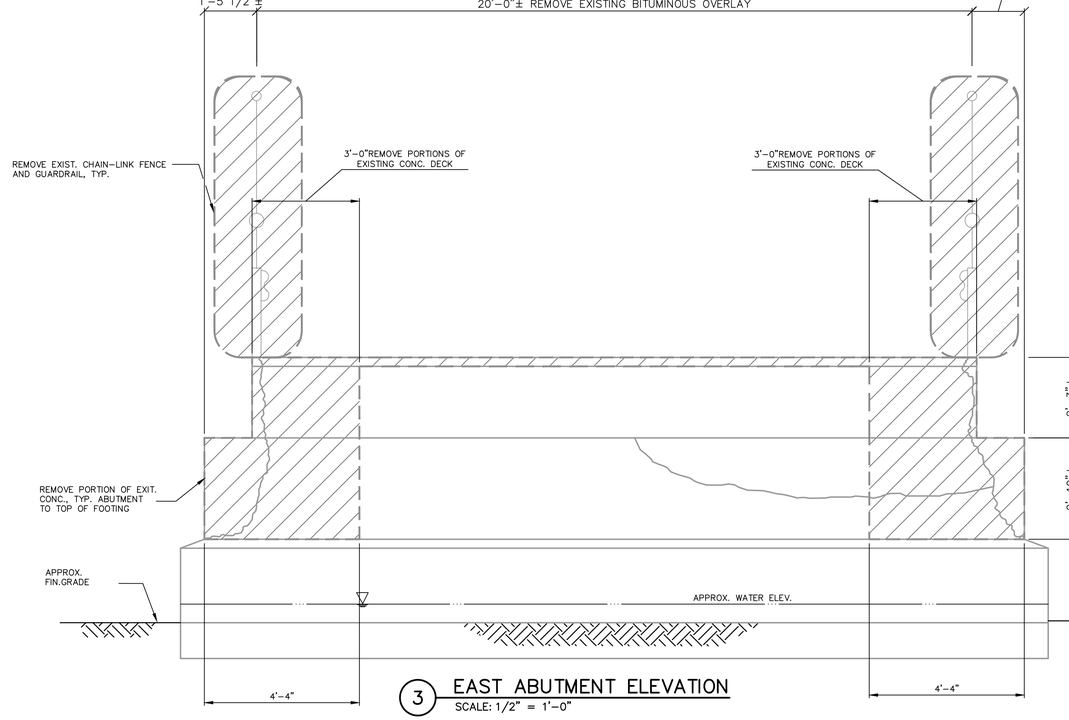
EXISTING BRIDGE PLAN
SCALE: 1/4" = 1'-0"



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



2 WEST ABUTMENT ELEVATION
SCALE: 1/2" = 1'-0"



3 EAST ABUTMENT ELEVATION
SCALE: 1/2" = 1'-0"

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CITY OF PITTSFIELD

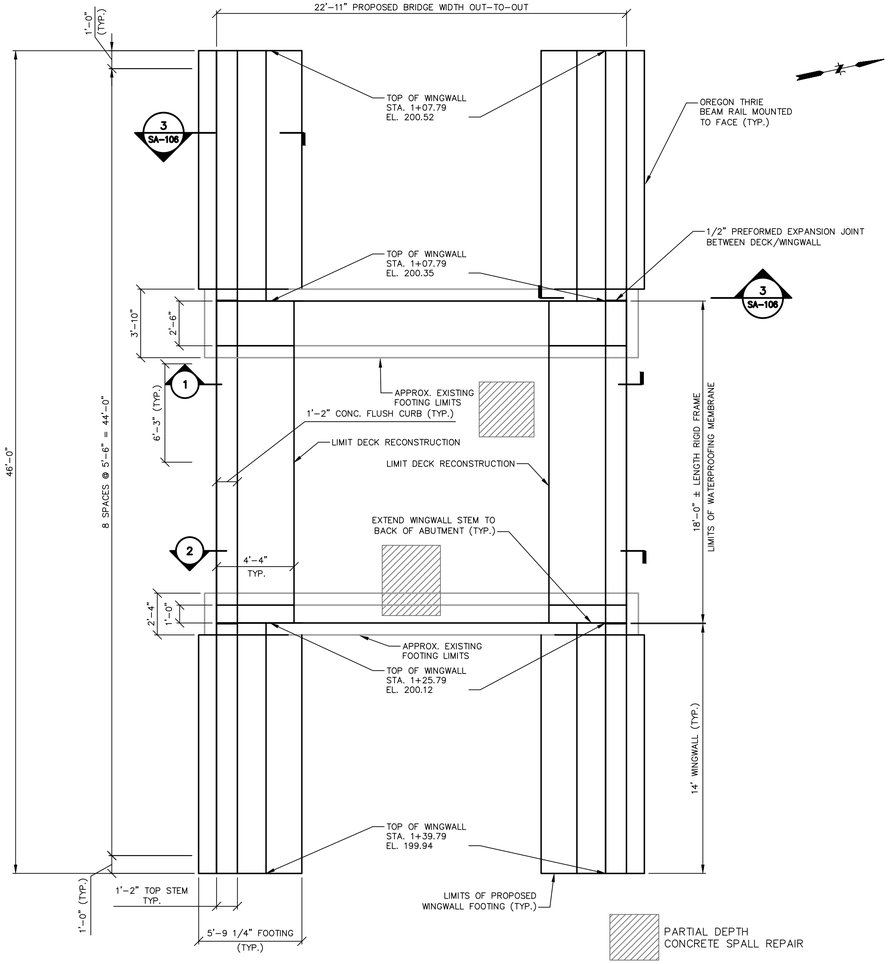
DEMOLITION PLAN AND DETAILS

HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
DATE: 05/15/2024

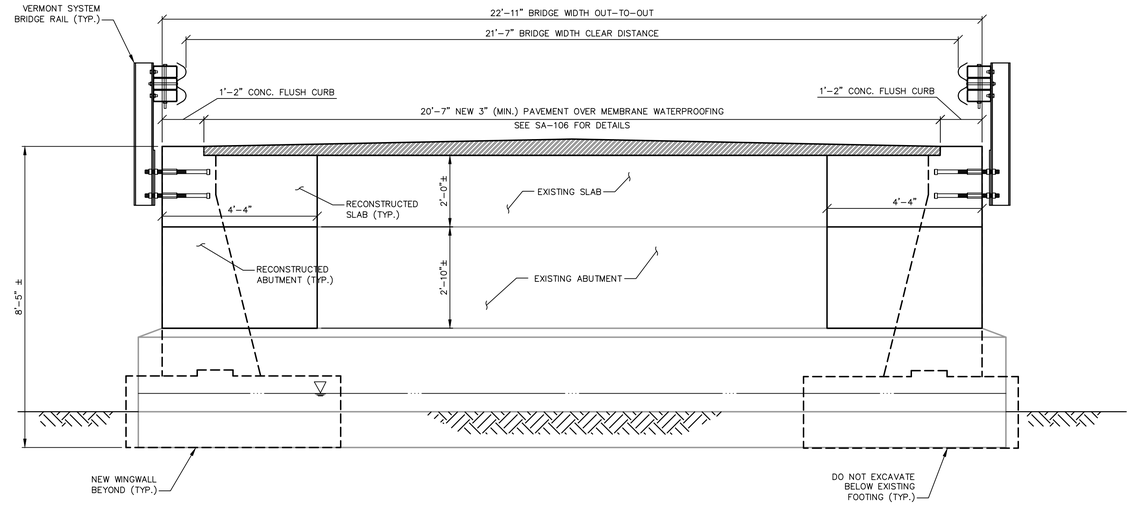
SA-104



REPAIRED BRIDGE PLAN

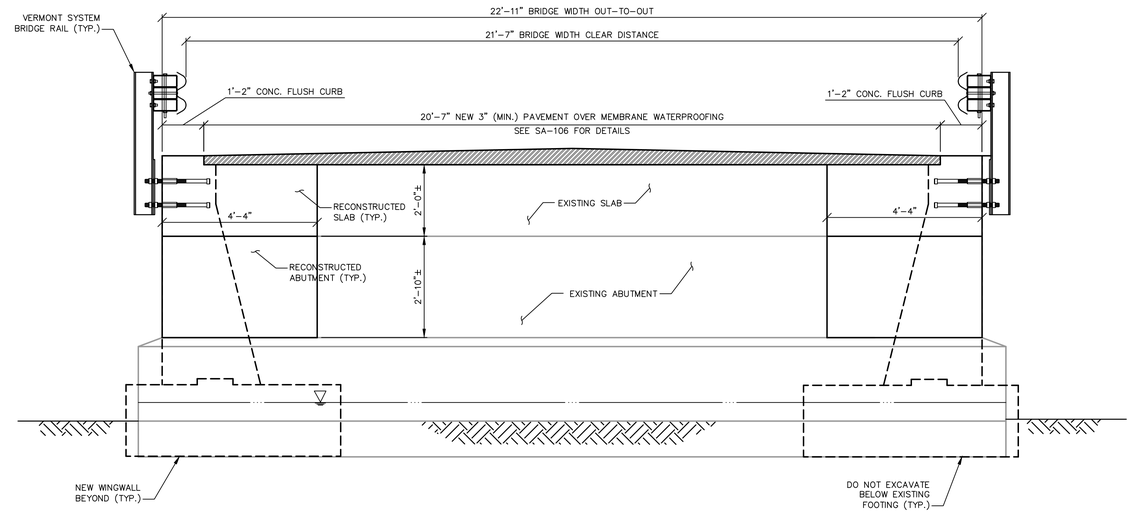
SCALE: **1/4"=1'-0"**

NOTES: ENGINEER TO INSPECT DURING CONSTRUCTION TO DETERMINE IF ADDITIONAL SLAB REPAIRS ARE REQUIRED, TO BE PAID FOR AT THE UNIT COST FOR "PARTIAL DEPTH CONCRETE REPAIR"



1 REPAIRED WEST ABUTMENT

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



2 REPAIRED EAST ABUTMENT

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

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CITY OF PITTSFIELD

REPAIR PLAN AND DETAILS

HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
DATE: 05/15/2024

SA-105

File Path: J:\DWG\P20100916K50\Structural\Plan\20100916.K50_STR01.dwg Layout: SA-105 Plotted: Wed, May 15, 2024 - 3:05 PM User: alex.stripsky
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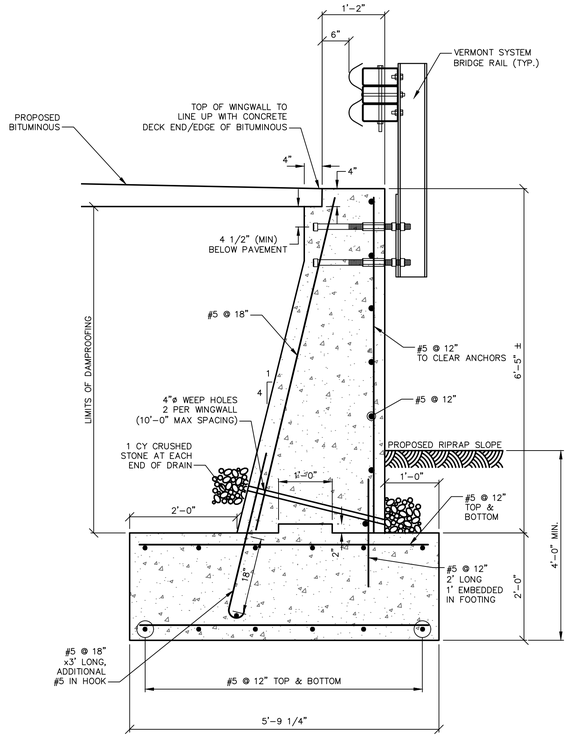
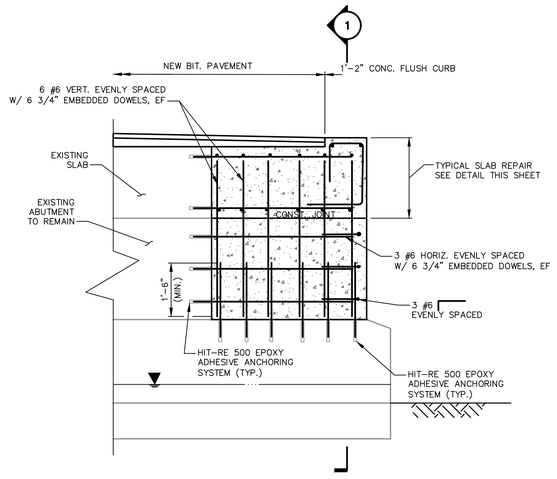
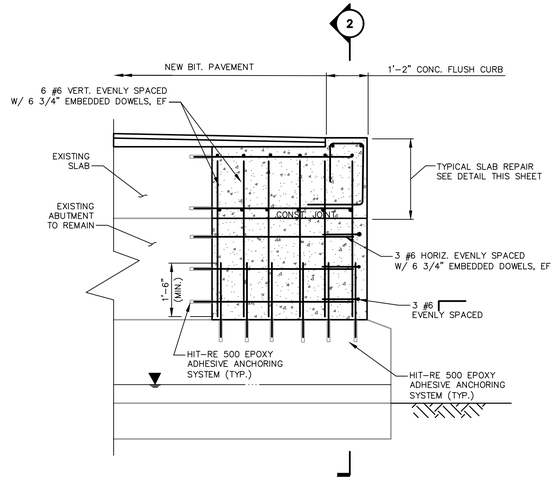


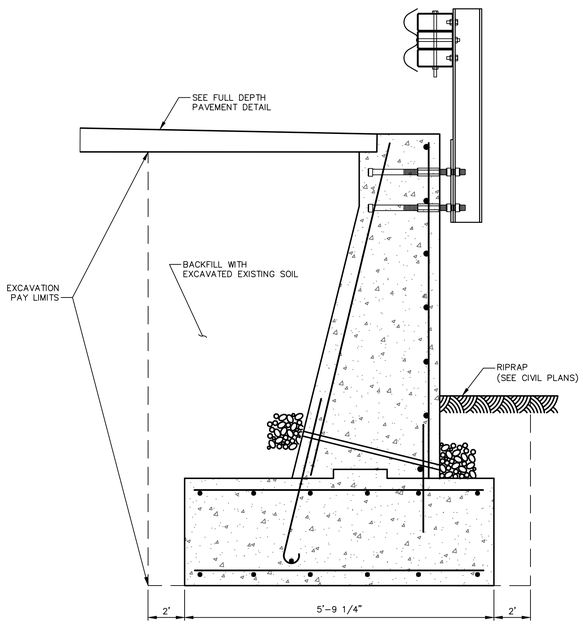
3 SECTION AT WINGWALL
SCALE: 3/4" = 1'-0"



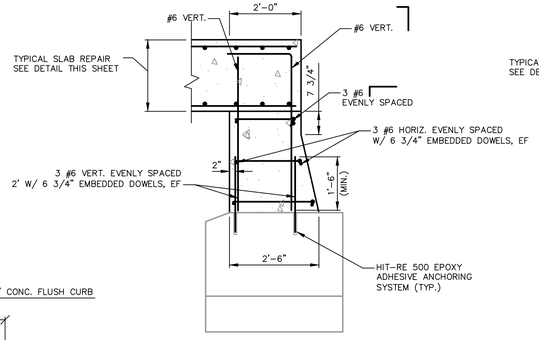
ABUTMENT REPAIR DETAIL – WEST ABUTMENT
SCALE: 1/2" = 1'-0"



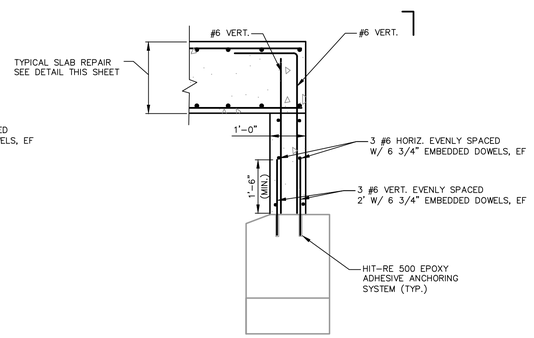
ABUTMENT REPAIR DETAIL – EAST ABUTMENT
SCALE: 1/2" = 1'-0"



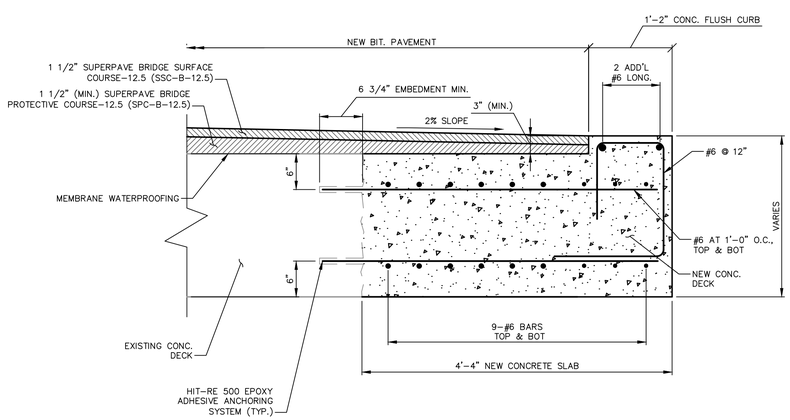
STRUCTURE EXCAVATION PAY LIMITS
SCALE: 3/4" = 1'-0"



1 W. ABUT SECTION
SCALE: 1/2" = 1'-0"



2 E. ABUT SECTION
SCALE: 1/2" = 1'-0"



SLAB REPAIR
SCALE: 1"=1'-0"

NOTES:
1. ADJUST REINFORCEMENT SPACING AS NEEDED TO FIT ANCHORS FOR THRIE BEAM POSTS (SEE SA-102 FOR THRIE BEAM SPACING AND SA-107 THRIE BEAM BRIDGE RAIL ELEVATION FOR ANCHOR LOCATION).
2. VARY SUPERPAVE BRIDGE PROTECTIVE COARSE AS NEEDED TO MATCH APPROACH PAVEMENT.

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CITY OF PITTSFIELD

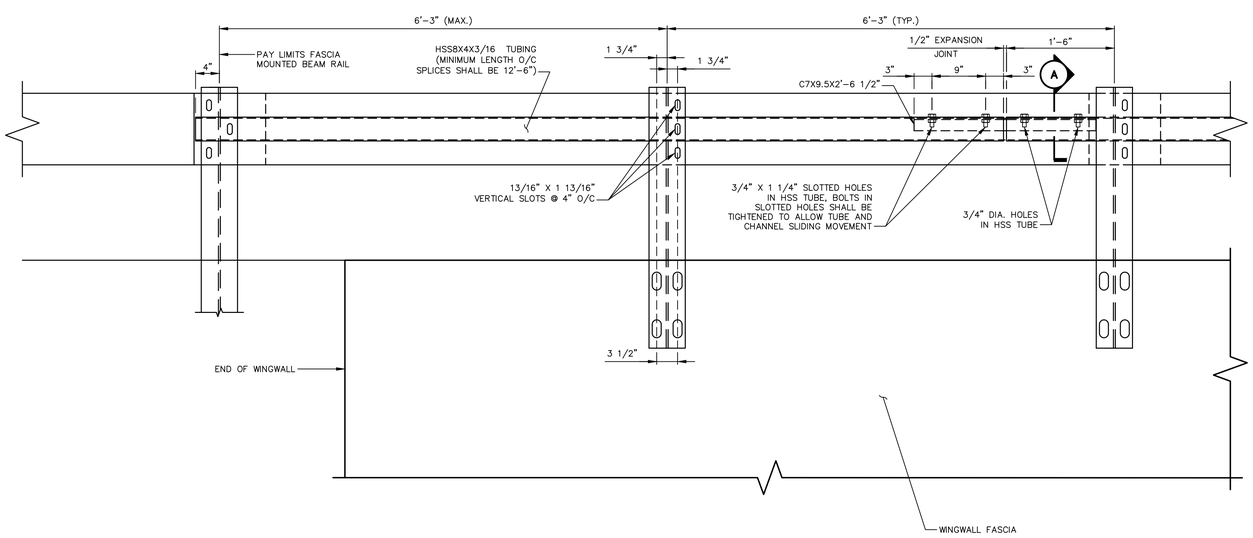
REPAIR DETAILS

HANCOCK ROAD BRIDGE REHABILITATION

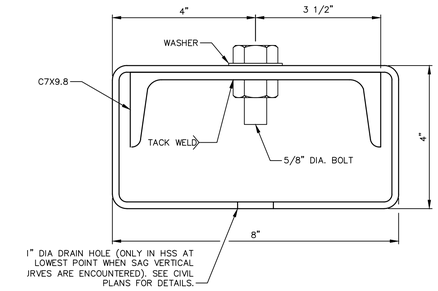
PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
DATE: 05/15/2024

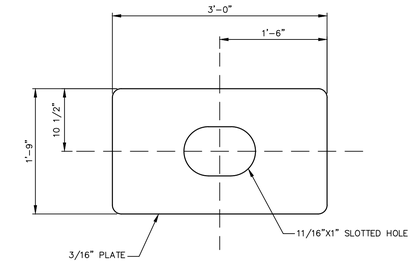
SA-106



RAILING ELEVATION
SCALE: 1" = 1'-0"

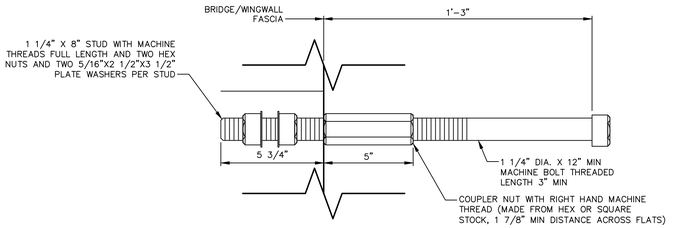


A HSS TUBE CONNECTION DETAIL
SCALE: 6" = 1'-0"

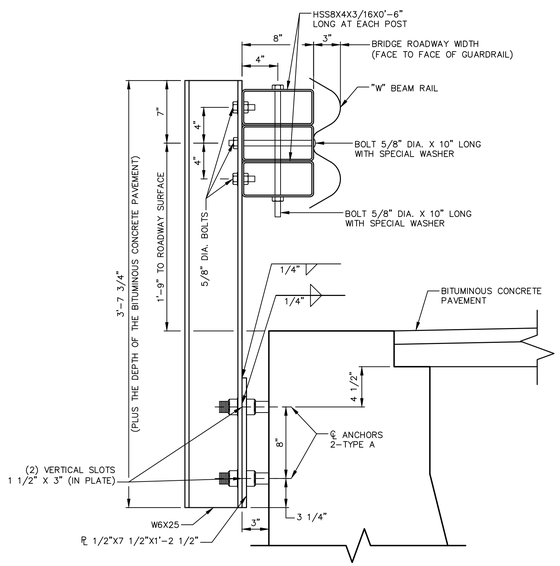


SPECIAL WASHER
SCALE: 1'-0" = 1'-0"

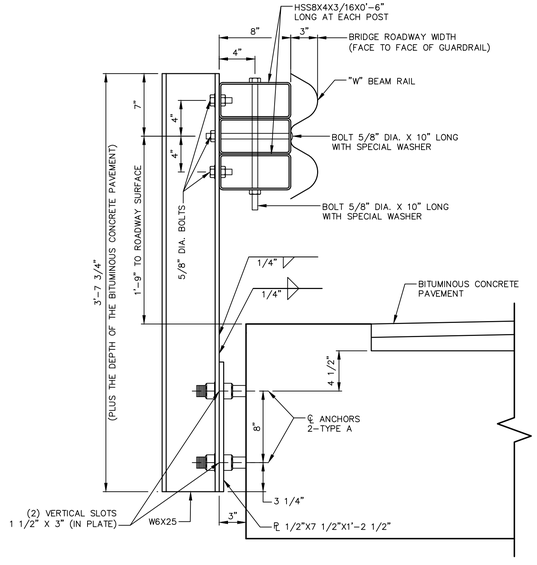
NOTE:
PLACE WASHER BETWEEN BOLT HEAD AND FACE OF RAIL.



TYPE A ANCHOR DETAIL
SCALE: 3" = 1'-0"



RAILING SECTION AT WINGWALL
SCALE: 1 1/2" = 1'-0"



RAILING SECTION AT CONCRETE SLAB
SCALE: 1 1/2" = 1'-0"

NOTES:
1. ALL WORK AND MATERIALS SHALL CONFORM TO SECTION 601 OF THE MASSDOT STANDARD SPECIFICATIONS.
2. PRIOR TO GALVANIZING THE ASSEMBLED POST, GRIND ALL EDGES TO A MINIMUM RADIUS OF 1/16".
3. ALL POSTS SHALL BE SET NORMAL TO GRADE.
4. SPLICES FOR THE STEEL BEAM GUARDRAIL SHALL LAP IN THE DIRECTION OF TRAFFIC.
5. GUARDRAIL DELINEATORS, CONFORMING TO SECTION 601, SHALL BE INSTALLED AT 25' INTERVALS WITHIN 100' OF AN END TREATMENTS OR TRAILING ANCHORAGE AND AT 100' INTERVALS IN ALL OTHER AREAS UNLESS OTHERWISE SHOWN IN THE PLANS.
6. THE MINIMUM DISTANCE FROM THE LAST POST TO THE END OF WINGWALL SHALL BE 1'-6".
7. FERRULES SHALL BE 12L14 COLD DRAWN CARBON STEEL.
8. HOLES IN RAIL FOR RAIL TUBE ATTACHMENT MAY BE FIELD DRILLED. HOLES SHALL BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO INSTALLATION.
9. THIS RAILING IS A VTrans STANDARD RAIL AND HAS NOT BEEN DESIGNED TO CURRENT LOADING REQUIREMENTS OR ANALYZED TO CURRENT CRASH TEST STANDARDS. THIS RAILING MAY BE USED ON BRIDGES THAT MEET THE FOLLOWING REQUIREMENTS:
   A. THE STRUCTURE IS NOT LOCATED ON THE NATIONAL HIGHWAY SYSTEM OR THE STATE HIGHWAY SYSTEM.
   B. THE STRUCTURE REQUIRES A TL-2 SERVICE LEVEL.
   C. THE ROADWAY DESIGN IS 30 MPH OR LESS.
   D. THE ROADWAY HAS AN ADT OF 600 VEHICLES OR LESS.

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FUSS & O'NEILL
1550 MAIN STREET, SUITE 400
SPRINGFIELD, MA 01103
413.452.0445
www.fando.com

CITY OF PITTSFIELD

VERMONT SYSTEM BRIDGE RAIL AND TRANSITION

HANCOCK ROAD BRIDGE REHABILITATION

PITTSFIELD MASSACHUSETTS

PROJ. No.: 20100916.K50
DATE: 05/15/2024

SA-107

File Path: J:\DWG\P2010\0916\K50\Structural\Plan\20100916.K50_STR01.dwg Layout: SA-107 Plotted: Wed, May 15, 2024 - 3:05 PM User: alex.stripsky
Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB
LAYER STATE:
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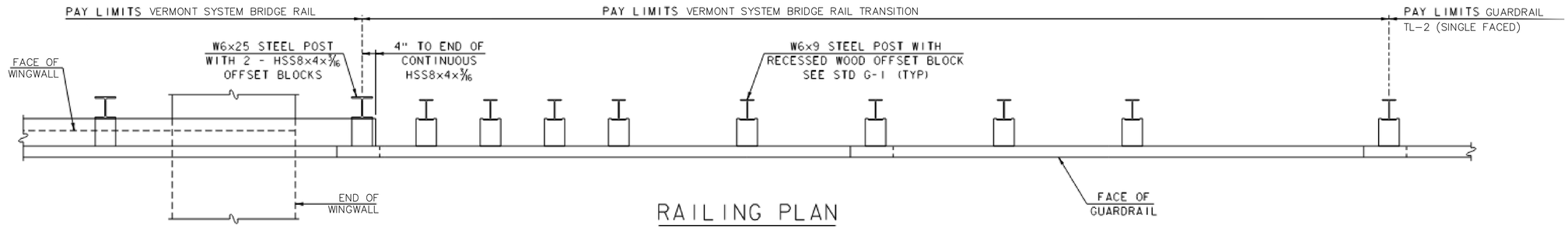
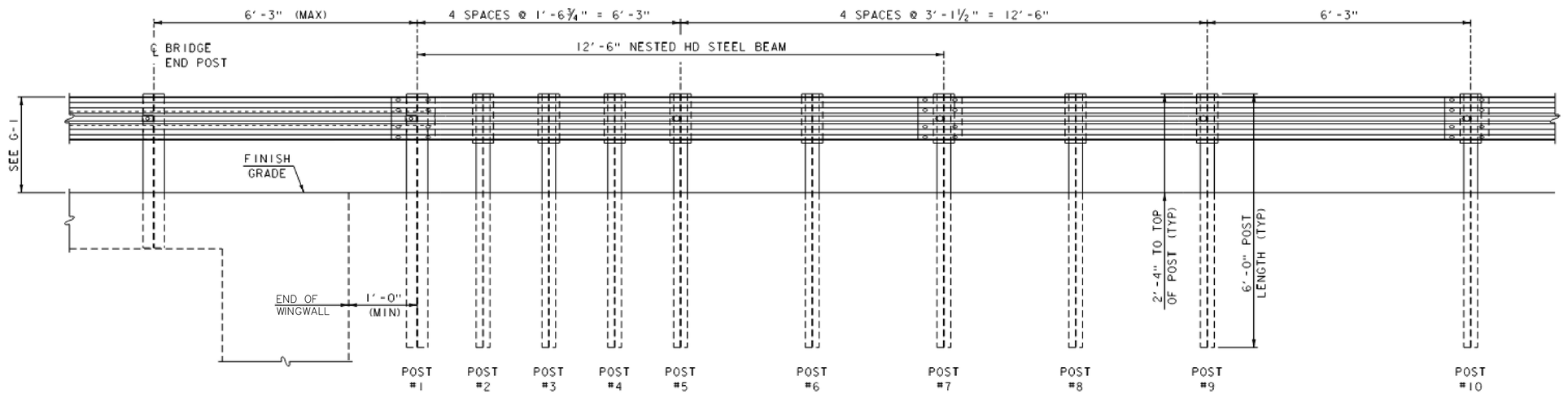
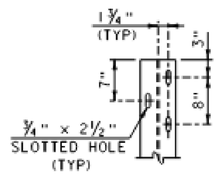


RAILING PLAN



RAILING ELEVATION



POST #1 HOLE DETAIL

NOTES:
1. PAYMENT FOR POST #1, HSS8X4X3/16 OFFSET BLOCKS AND TUBULAR BACKUP RAIL EXTENDING TO POST #1 OFF THE BRIDGE SHALL BE MADE UNDER VERMONT SYSTEM BRIDGE RAIL.
2. BLOCKOUTS SHALL BE RECESSED WOOD ONLY. STEEL OR PLASTIC BLOCKOUTS ARE NOT PERMITTED.
3. GUARDRAIL IS NOT ATTACHED TO POST NUMBERS 2–4, 6 AND 8. THREE SHALL BE NO GAP BETWEEN THE POSTS THAT ARE NOT ATTACHED AND THE RAIL.
4. POSTS MAY BE SET IN DRILLED HOLES OR DRIVEN TO GRADE.
5. THIS RAILING IS A VTrans STANDARD RAIL AND HAS NOT BEEN DESIGNED TO CURRENT LOADING REQUIREMENTS OR ANALYZED TO CURRENT CRASH TEST STANDARDS. THIS RAILING MAY BE USED ON BRIDGES THAT MEET THE FOLLOWING REQUIREMENTS:
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