

DESCRIPTION KEY PLAN, LOCUS, PROFILE & NOTES EXISTING AND PROPOSED CROSS SECTIONS FRAMING PLAN AND DECK DETAILS BACKWALL & WINGWALL DETAILS ROADWAY PLAN AND TYPICAL SECTION TEMPORARY TRAFFIC CONTROL PLAN DEERFIELD RIVER PROJECT LOCATION BRIDGE NO. C-05-027

LOCUS SCALE: 1'' = 2000'

DODGE CORNER RD

SHEET NO.

THE ORIGINAL DESIGN LOADING FOR THIS BRIDGE IS IN ACCORDANCE TO THE SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS, 1935 EDITION, FOR H-15 LOADING. THE DECK REPLACEMENT IS DESIGNED IN ACCORDANCE WITH THE 9TH EDITION, 2020 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS LRFD BRIDGE DESIGN SPECIFICATIONS WITH CURRENT INTERIM SPECIFICATIONS THROUGH 2024, FOR HL-93

INDEX

GENERAL PLAN AND SECTION

BRIDGE RAILING DETAILS

EXISTING PLANS:

PLANS FOR THE EXISTING BRIDGE ARE AVAILABLE THROUGH THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PLANS AND RECORDS ROOM, 10 PARK PLAZA, BOSTON, MA.

TRAFFIC:

BRIDGE TO BE CLOSED TO TRAFFIC DURING CONSTRUCTION. SEE DETOUR ROUTE ON SHEET 8

EXISTING CONDITIONS:

THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND EXISTING DETAILS NECESSARY FOR THE COMPLETION OF WORK BY FIELD MEASUREMENT AND SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUACY AND ACCURACY THEREOF AND SHALL NOT ORDER ANY MATERIALS OR COMMENCE ANY FABRICATION UNTIL THE REQUIRED MEASUREMENTS HAVE BEEN MADE ON THE ACTUAL STRUCTURE AND THE EXTENT OF PROPOSED WORK HAS BEEN APPROVED BY THE ENGINEER.

UTILITIES:

THE CONTRACTOR SHALL LOCATE AND PROTECT FROM DAMAGE ALL EXISTING UTILITIES.

PLAN REVISIONS:

IF THERE ARE REVISIONS TO THE APPROVED PLANS, THE CONTRACTOR SHALL SUBMIT THESE CHANGES TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. ONCE THESE REVISIONS ARE APPROVED BY THE MUNICIPALITY'S DESIGNER OF RECORD, AS-BUILT PLANS SHALL BE SUBMITTED TO MASSDOT.

SCALES:

SCALES NOTED ON PLANS ARE NOT APPLICABLE TO REDUCED SIZE PRINTS. DIVIDE SCALE BY TWO FOR HALF SIZE PRINTS.

REINFORCEMENT:

ALL REINFORCING STEEL SHALL BE EPOXY COATED AND CONFORM TO THE REQUIREMENTS OF AASHTO M31 GRADE 60. UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS, ALL BARS SHALL BE LAPPED AS FOLLOWS

MODIFICATION CONDITION		#4 BARS	#5 BARS	#6 BARS
1.	NONE	16"	17"	21"
2.	12" CONCRETE BELOW BAR	18"	22"	27"
3.	COATED BARS, COVER < 3DB,	21"	26"	31"
	OR CLEAR SPACING < 6BD			
4.	COATED BARS, ALL OTHER CASES	S 17"	21"	25"
5.	CONDITION 2. AND 3.	23"	29"	35"
6.	CONDITION 2. AND 4.	21"	27"	32"

ALL OTHER BARS SHALL BE LAPPED AS SHOWN ON THE CONSTRUCTION DRAWINGS.

CONCRETE:

5000 PSI 3/4" 685 HP CEMENT CONCRETE SHALL BE USED FOR DECK AND SAFETY CURB CONCRETE. 5000 PSI 3/8" 710 HP CEMENT CONCRETE SHALL BE USED FOR THE WINGWALL CAPS AND ABUTMENT REPAIRS.

SURVEY:

SURVEY PERFORMED BY A-PLUS CONSTRUCTION SERVICES CORP., OF 17 ACCORD PARK DRIVE, UNIT #102, NORWELL, MA, 02061-1629 ON 03/07/2024. COPY OF FILE MAY BE OBTAINED FROM GILL ENGINEERING ASSOCIATES. THE COORDINATES, IN U.S. SURVEY FEET, ARE REFERENCED TO THE MASSACHUSETTS COORDINATE SYSTEM (MCS), MAINLAND ZONE, NAD83(2011) EPOCH 2010. THE ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988(USFT).

BENCH MARK: BENCH MARK: MAGNETIC NAIL SET 2 3052959.953 NORTHING: 294924.521 EASTING: **ELEVATION:** 538.861

BENCH MARK: MAGNETIC NAIL SET 3 NORTHING: 3052943.340 295028.522

538.810

ESTIMATED QUANTITIES NOT CHADANTEED

	NOT GUARANTEED		
NO.	<u>ITEM</u>	<u>UNIT</u>	<u>QUANTIT</u>
114.11	PARTIAL DEMOLITION OF SUPERSTRUCTURE	LS	1
120.	EARTH EXCAVATION	CY	90
127.12	REINFORCED CONCRETE SUBSTRUCTURE EXCAVATION	CY	5
151.	GRAVEL BORROW	CY	70
170.	FINE GRADING AND COMPACTING	SY	120
452.	ASPHALT EMULSION FOR TACK COAT	GAL	13
460.22	SUPERPAVE SURFACE COURSE - 9.5 (SSC - 9.5)	TON	16
460.31	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC - 12.5)	TON	22
509.	GRANITE TRANSITION CURB FOR PEDESTRIAN CURB RAMPS — STRAIGHT	FT	26
620.131	GUARDRAIL, DEEP POST (SINGLE FACED)	FT	50
620.32	GUARDRAIL - CURVED, TL-2 (SINGLE FACED)	FT	15
627.01	ROUNDED END UNIT	EA	1
627.1	TRAILING ANCHORAGE	EA	3
628.25	TRANSITION TO THRIE BEAM	EA	4
657.	TEMPORARY FENCE	FT	300
751.7	COMPOST BLANKET	CY	2
765.	SEEDING	SY	50
767.121	SEDIMENT CONTROL BARRIER	FT	210
769.	PAVEMENT MILLING MULCH UNDER GUARD RAIL	FT	160
852.	SAFETY SIGNING FOR TRAFFIC MANAGEMENT	SF	259.5
853.1	PORTABLE BREAKAWAY BARRICADE TYPE III	EA	9
853.2	TEMPORARY BARRIER (TL-2)	FT	60
856.12	PORTABLE CHANGEABLE MESSAGE SIGN	DAY	30
859.	REFLECTORIZED DRUM	DAY	1080
905.01	5000 PSI, 3/8 IN., 710 HP CEMENT CONCRETE FOR SUBSTRUCTURE REPAIRS	CY	4
909.2	CEMENTITIOUS MORTAR FOR PATCHING	SF	15
910.1	STEEL REINFORCEMENT FOR SUBSTRUCTURE REPAIRS — EPOXY COATED	LB	100
912.5	DRILLED AND GROUTED #5 DOWELS	EA	90
992.1	ALTERATION TO BRIDGE STRUCTURE	LS	1

COMMONWEALTH OF MASSACHUSETTS MassDOT, Highway Division APPROVED UNDER PROVISIONS OF MASS. GEN. LAWS CH 85 S 35 STATE BRIDGE ENGINEER

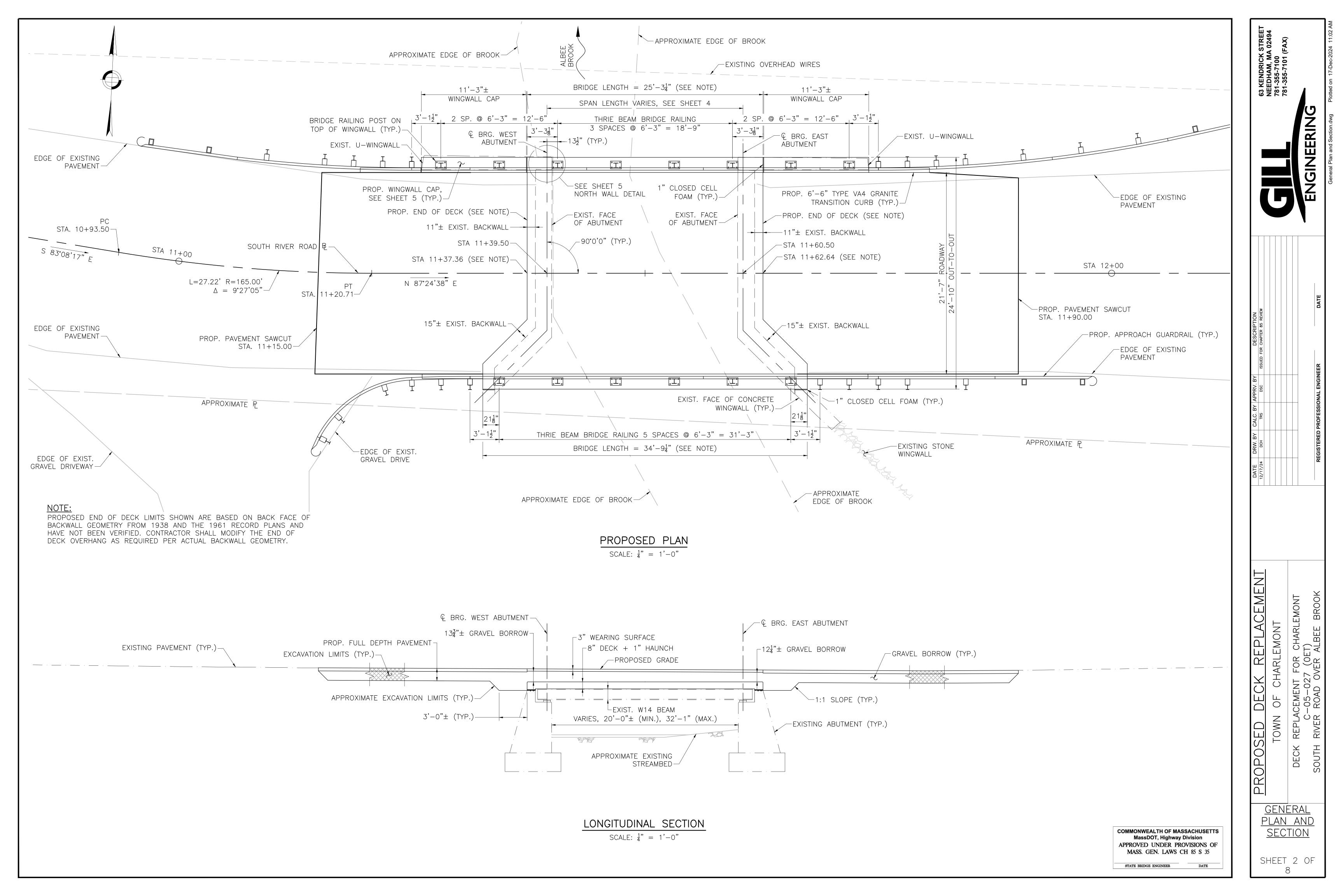
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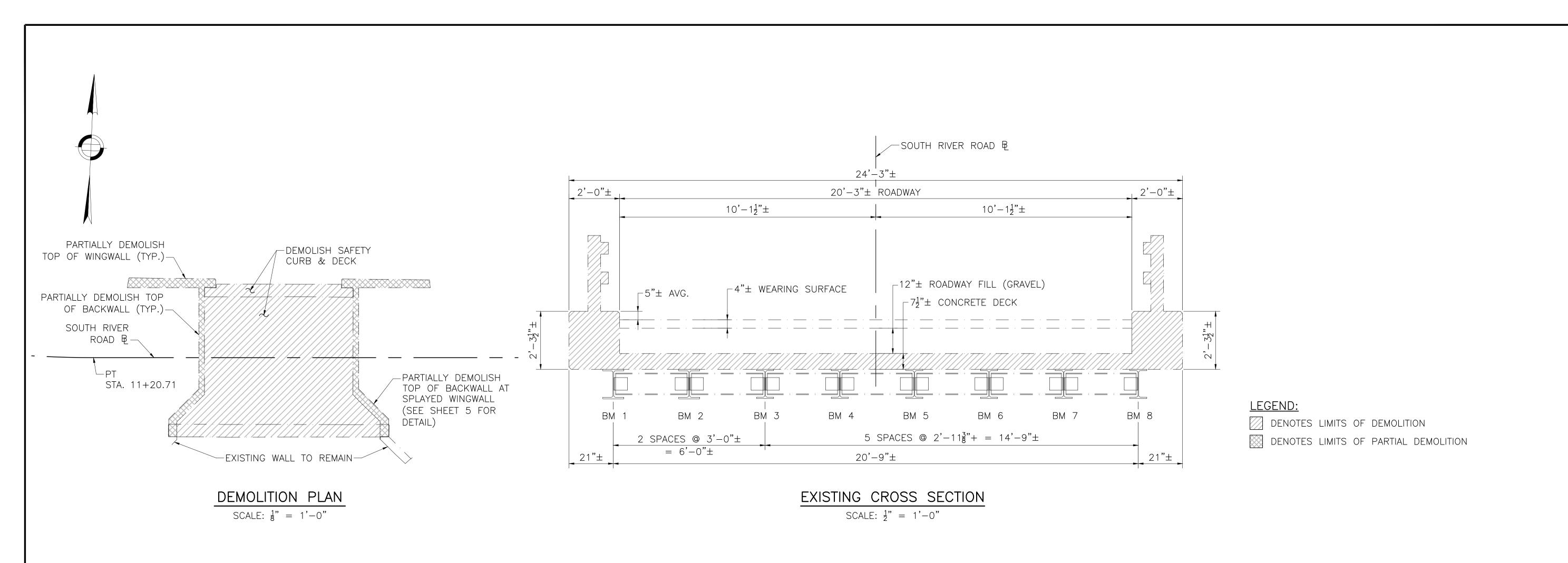
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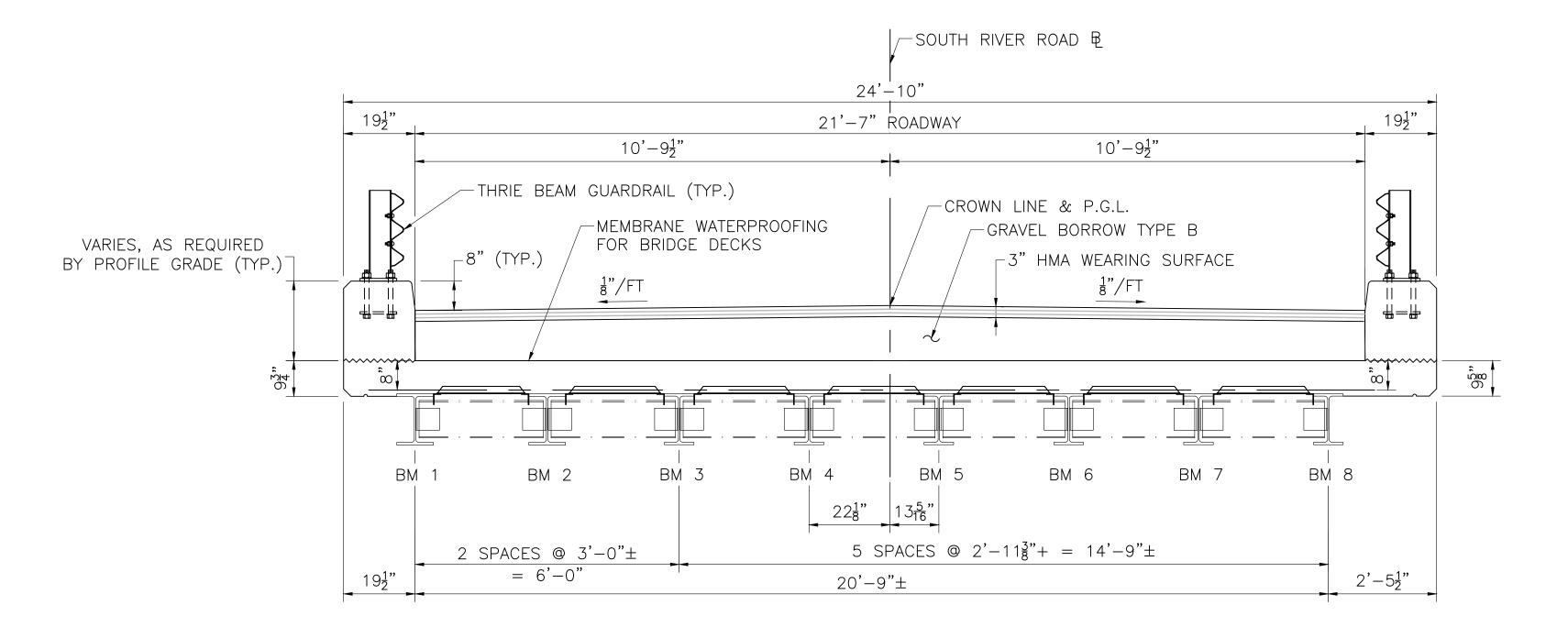
HEATH

KEY PLAN, LOCUS, PROFILE &

<u>NOTES</u> SHEET 1 OF







DEMOLITION NOTES:

- 1. ALL DEMOLITION WORK SHALL BE DONE IN A SINGLE PHASE.
- 2. FOR ADDITIONAL DEMOLITION REQUIREMENTS SEE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- 3. DEMOLISH ANY MATERIAL INCIDENTAL TO THE PROPOSED CONSTRUCTION AS DIRECTED BY THE RESIDENT ENGINEER.
- 4. ALL DEMOLITION WORK SHALL BE DONE IN CONFORMANCE WITH ALL APPLICABLE FEDERAL STATE AND LOCAL LAWS, REGULATIONS AND PERMITS AND THE JOB SPECIFCATIONS.
- 5. THE CONTRACTOR SHALL SUBMIT HIS PROPOSED DEMOLITION PROCEDURE TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK. SEE SPECIAL PROVISIONS FOR ADDITIONAL DETAILS.

PROPOSED CROSS SECTION

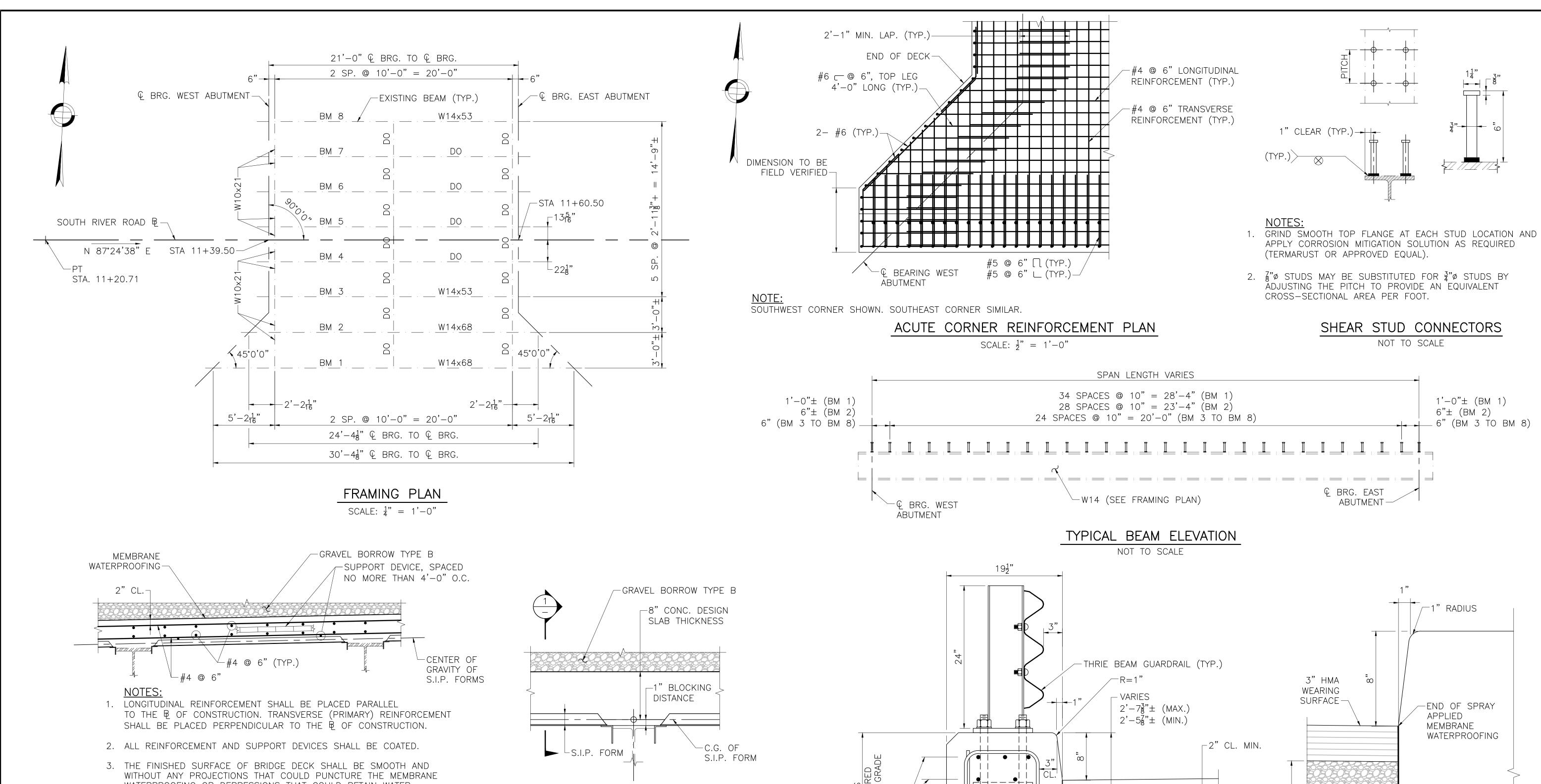
SCALE: $\frac{1}{2}$ " = 1'-0"

NOTE: SECTIONS TAKEN LOOKING WEST.

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 S 35

STATE BRIDGE ENGINEER DATE

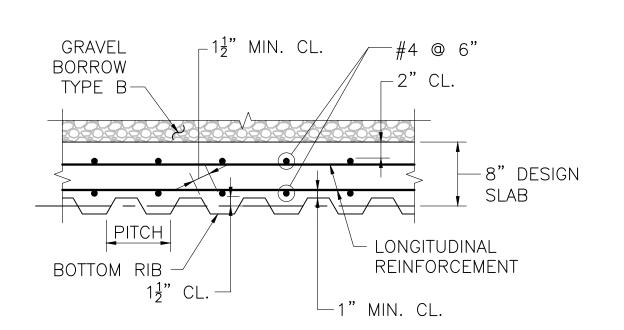
63 KENDRICK STREET NEEDHAM, MA 02494 781-355-7100 781-355-7101 (FAX) ENGINEERING REPLACEMENT CHARLEMONT CHARLEMONT 0F NWOL DECK EXISTING AND **PROPOSED** <u>CROSS</u> **SECTIONS** SHEET 3 OF



WATERPROOFING OR DEPRESSIONS THAT COULD RETAIN WATER.

TYPICAL DECK REINFORCEMENT

SCALE: $\frac{3}{4}$ " = 1'-0"



NOT TO SCALE

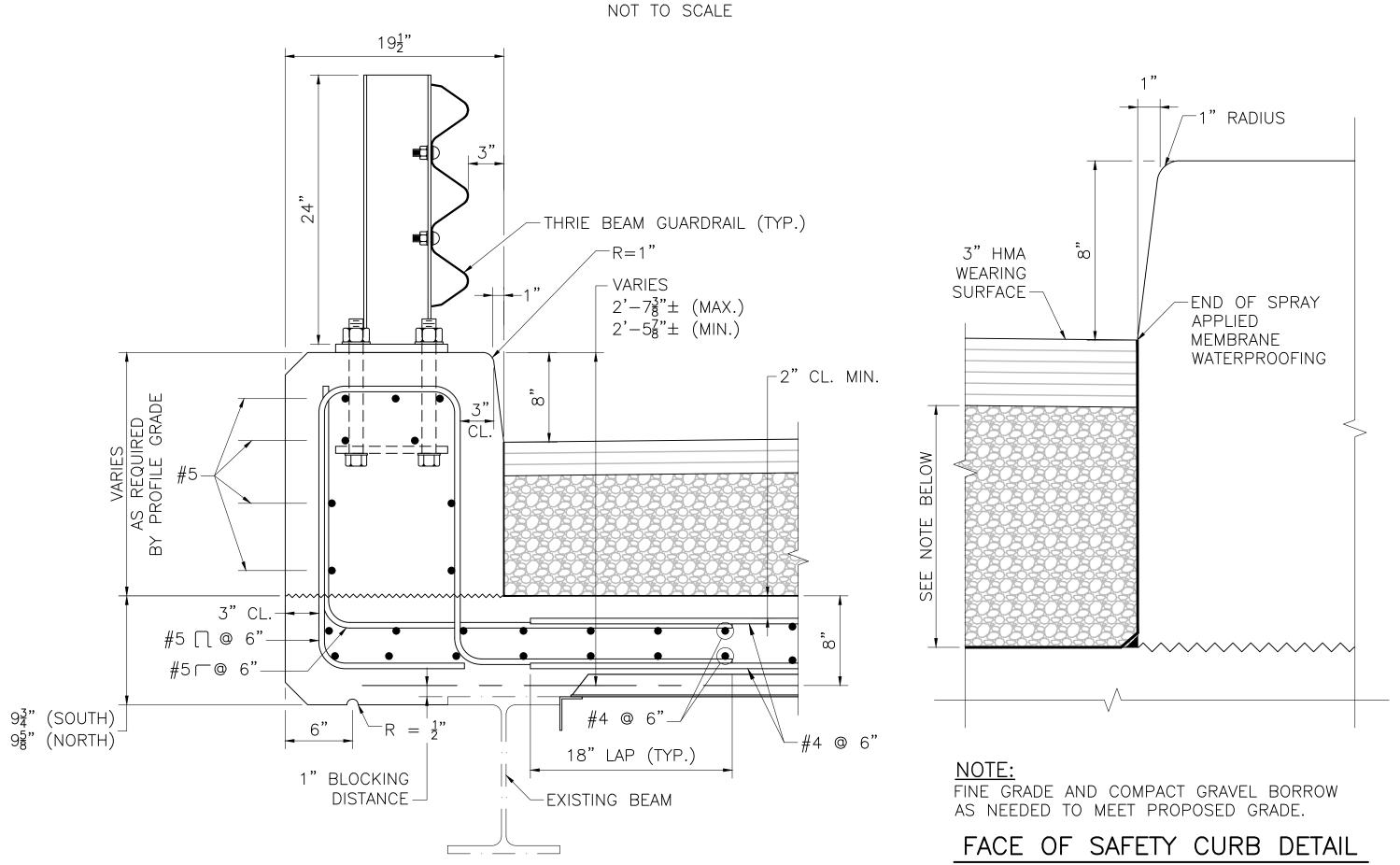
STAY-IN-PLACE NOTES:

1. FORM ENDS SHALL BE CRIMPED CLOSED IN A TAPERED MANNER. SEPARATE END CLOSURE PIECES WILL NOT BE ALLOWED.

HAUNCH DETAIL

NOT TO SCALE

- 2. SUPPORT ANGLES SHALL BE PLACED IN THE "LEG DOWN" POSITION WHERE POSSIBLE. WHERE "LEG UP" POSITION IS NECESSARY, THE UPPER MOST PORTION OF THE ANGLE SHALL NOT PROJECT MORE THAN 1" ABOVE THE TOP FLANGE OR COVER PLATE. THE CONTRACTOR SHALL HAVE AN ASSORTMENT OF ANGLES OF VARIOUS SIZES AVAILABLE ON THE SITE TO CONFORM TO THIS REQUIREMENT.
- 3. ALL MAIN STEEL REINFORCEMENT IN THE LOWER MAT SHALL BE CENTERED OVER THE VALLEY OF THE S.I.P. FORM.
- 4. CONTRACTOR SHALL DESIGN AND DETAIL ALL ELEMENTS OF THE FORMING SYSTEM AND SHALL SUBMIT TO THE ENGINEER FOR APPROVAL.
- 5. IN CASES WHERE STANDARD 2" OR 3" DEEP S.I.P. FORMS DO NOT SATISFY DESIGN REQUIREMENTS AN ALTERNATIVE FORMING SYSTEM CONSISTING OF DEEPER S.I.P. FORMS OR REMOVABLE FORMS SHALL BE DESIGNED AND DETAILED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. THE DESIGN THICKNESS OF THE SLAB SHALL NOT BE REDUCED.



SAFETY CURB REINFORCEMENT DETAIL

SCALE: $1\frac{1}{2}$ " = 1'-0"

63 KENDRICK STREET NEEDHAM, MA 02494 781-355-7100 781-355-7101 (FAX) ENGINEERIN ACEMENT IARLEMONT RLEMONT CHA 0F NWOL PROPO FRAMING PLAN AND DECK DETAILS

SHEET 4 OF

NOT TO SCALE

SCALE: 3'' = 1'-0''

COMMONWEALTH OF MASSACHUSETTS

MassDOT, Highway Division

APPROVED UNDER PROVISIONS OF

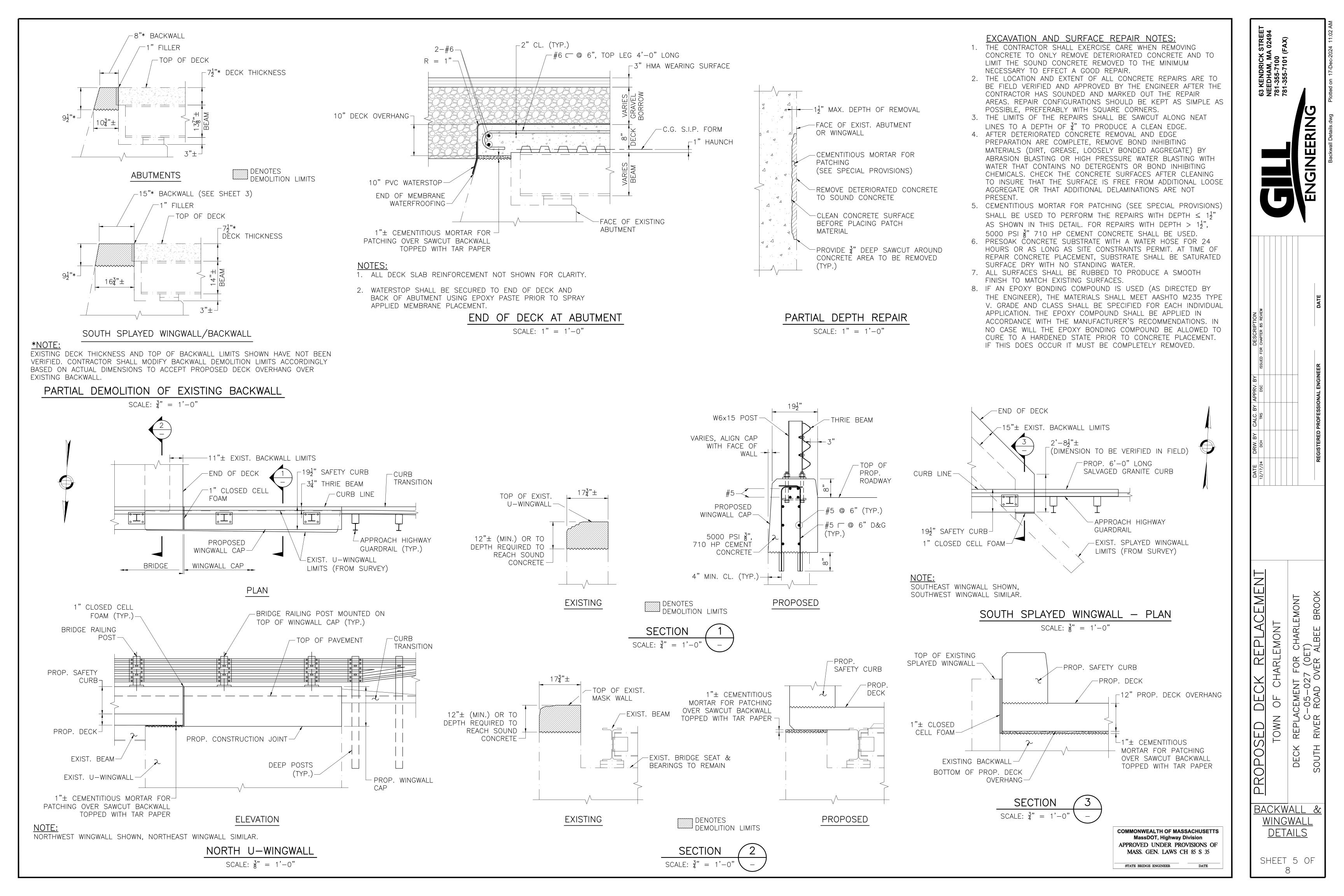
MASS. GEN. LAWS CH 85 S 35

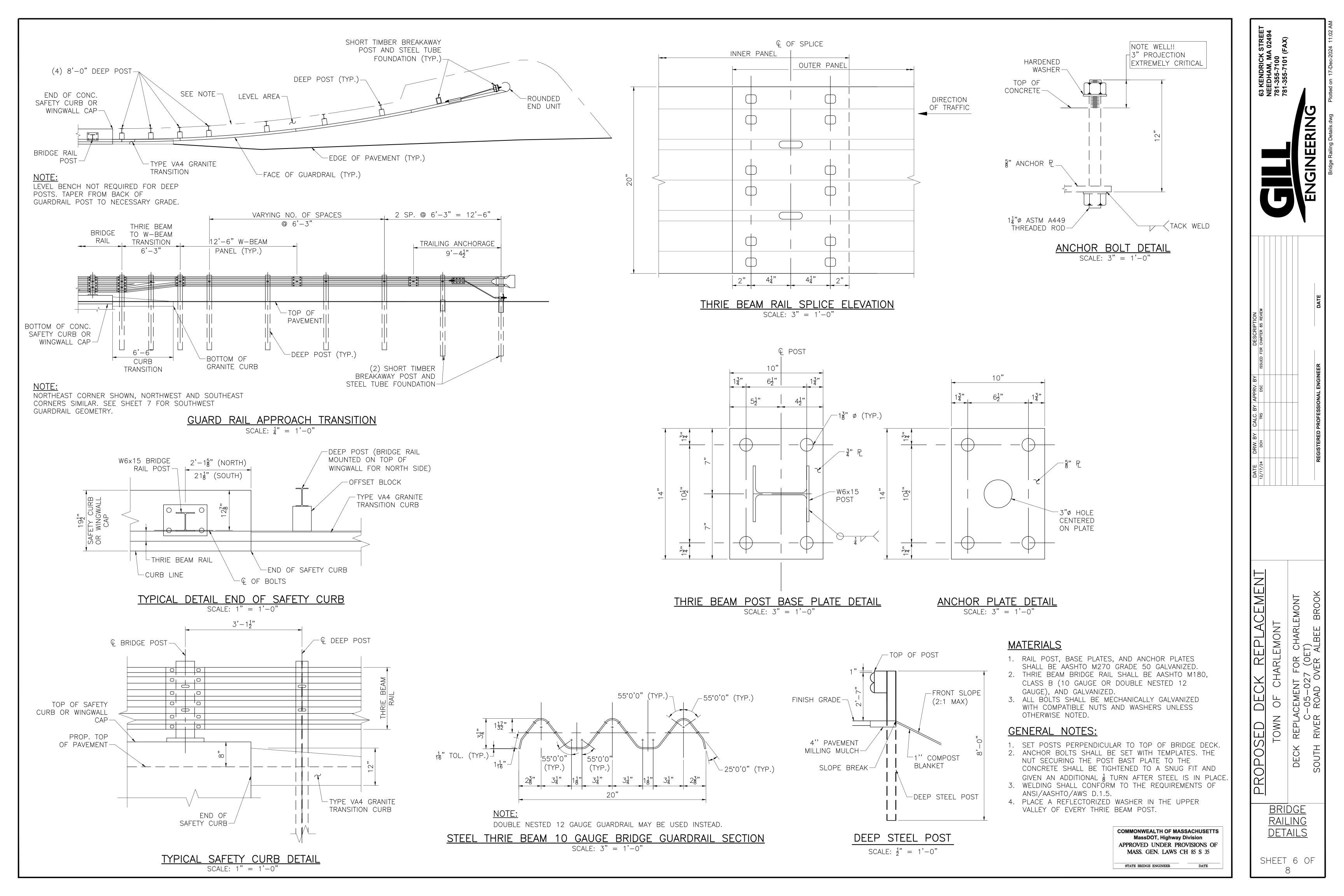
STATE BRIDGE ENGINEER

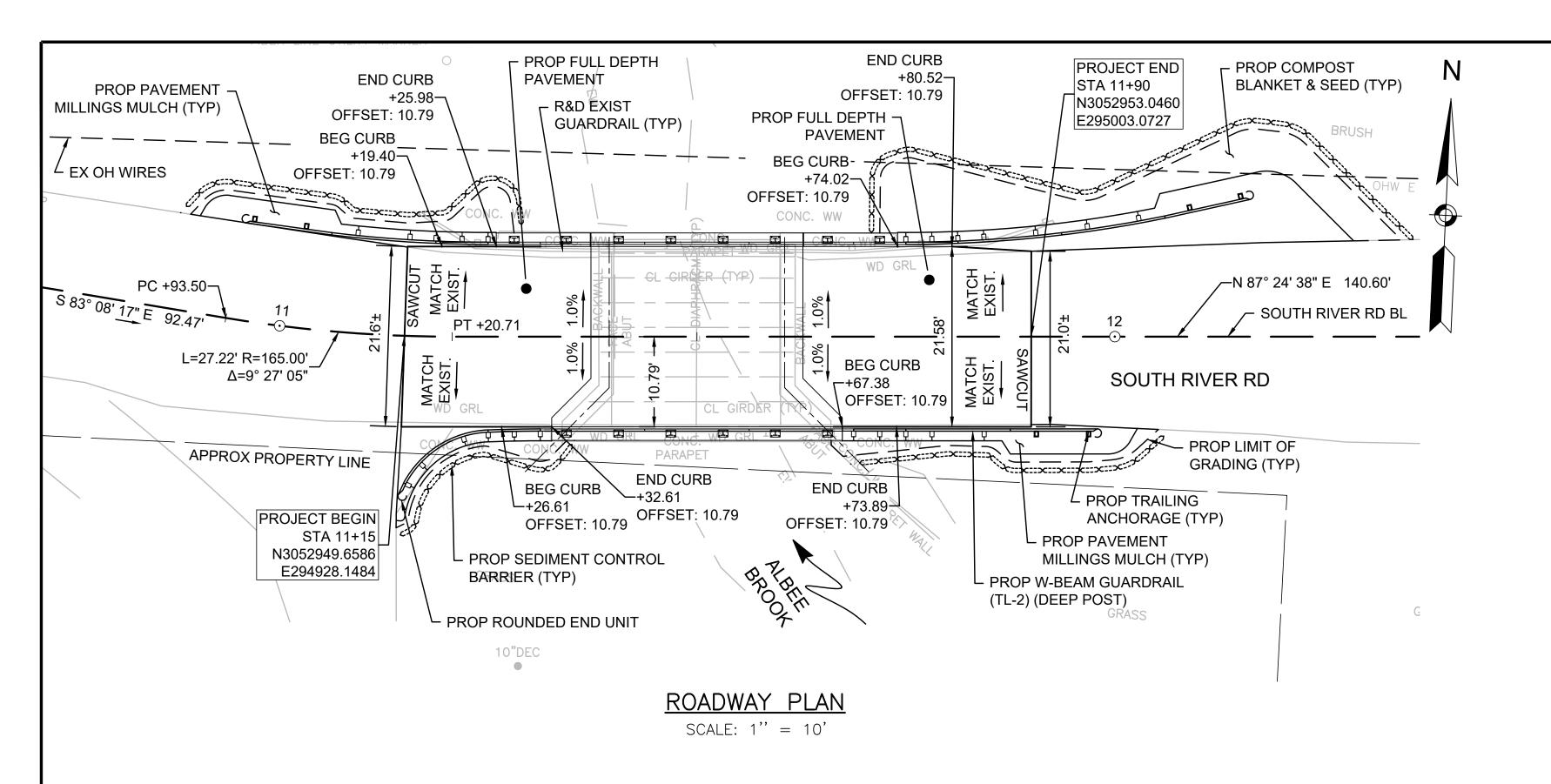
 $1'-0"\pm (BM 1)$

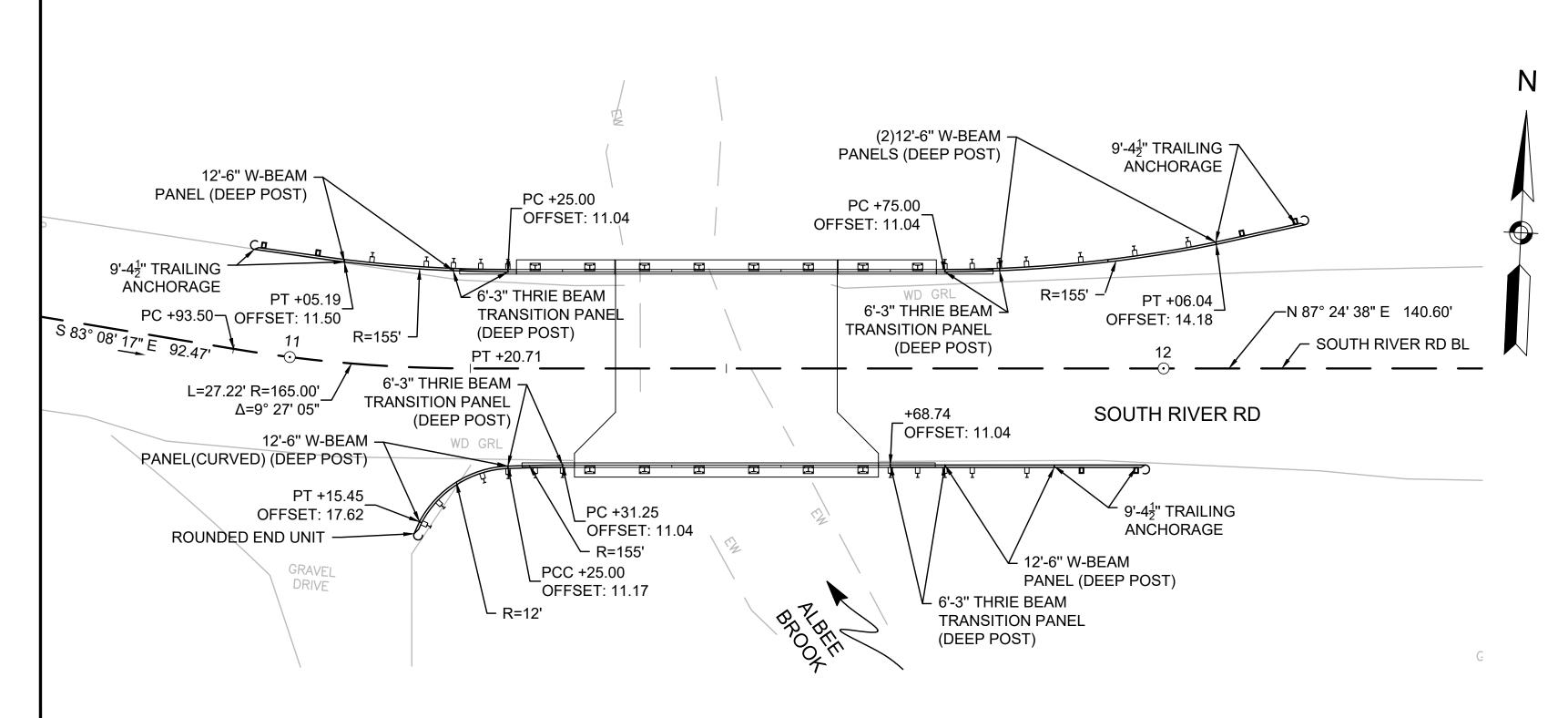
_ 6" (BM 3 TO BM 8)

6"± (BM 2)



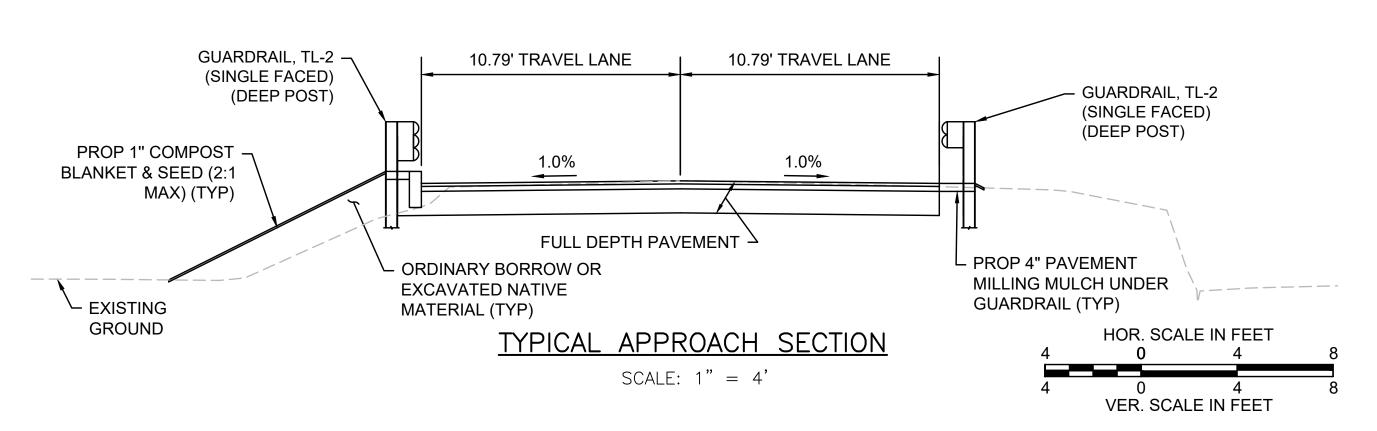






GUARDRAIL PLAN VIEW

SCALE: 1" = 10"



PAVEMENT NOTES:

PROPOSED FULL DEPTH PAVEMENT

BASE:

SURFACE COURSE: 1.5" HOT MIX ASPHALT - SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER

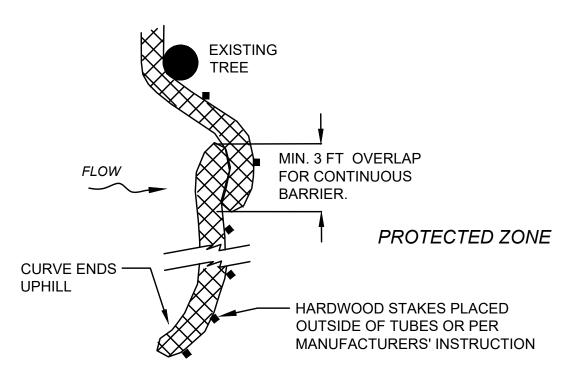
ASPHALT EMULSION FOR TACK COAT OVER

2.5" HOT MIX ASPHALT - SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5)

12" GRAVEL BORROW, TYPE B

(EXISTING BASE MATERIAL MAY REMAIN IF SUITABLE AS DETERMINED BY THE

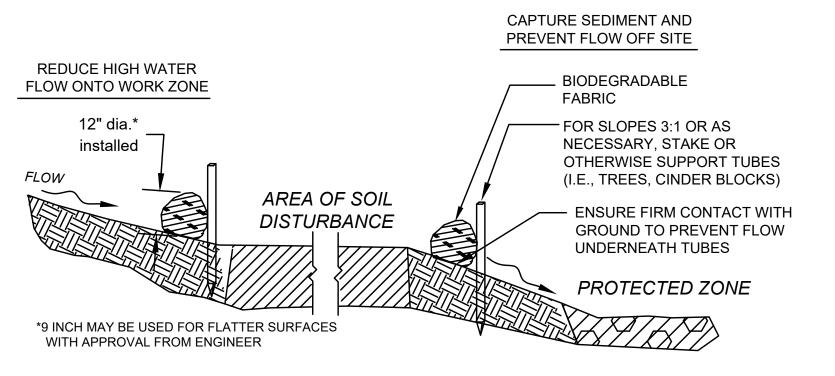
ENGINEER)



PLACE TUBE AS CLOSE TO LIMIT OF SOIL DISTURBANCE AS POSSIBLE, ALONG CONTOURS, AND PERPENDICULAR TO FLOW.

ADJUST LOCATION AS REQUIRED FOR OPTIMUM EFFECTIVENESS. DO NOT INSTALL IN WATERWAYS.

PLAN VIEW



SECTION

SEDIMENT BARRIER — COMPOST FILTER TUBE

NOT TO SCALE

PLAN AND
TYPICAL
SECTION

SHEET 7 OF

ROADWAY

DECK

PROPO

63 KENDRICK STREET NEEDHAM, MA 02494 781-355-7100 781-355-7101 (FAX) GINEERIN REPLACEMENT HARLEMONT CHARLEMONT FOR (OF REPLA(C-RIVER NWO_ SED

