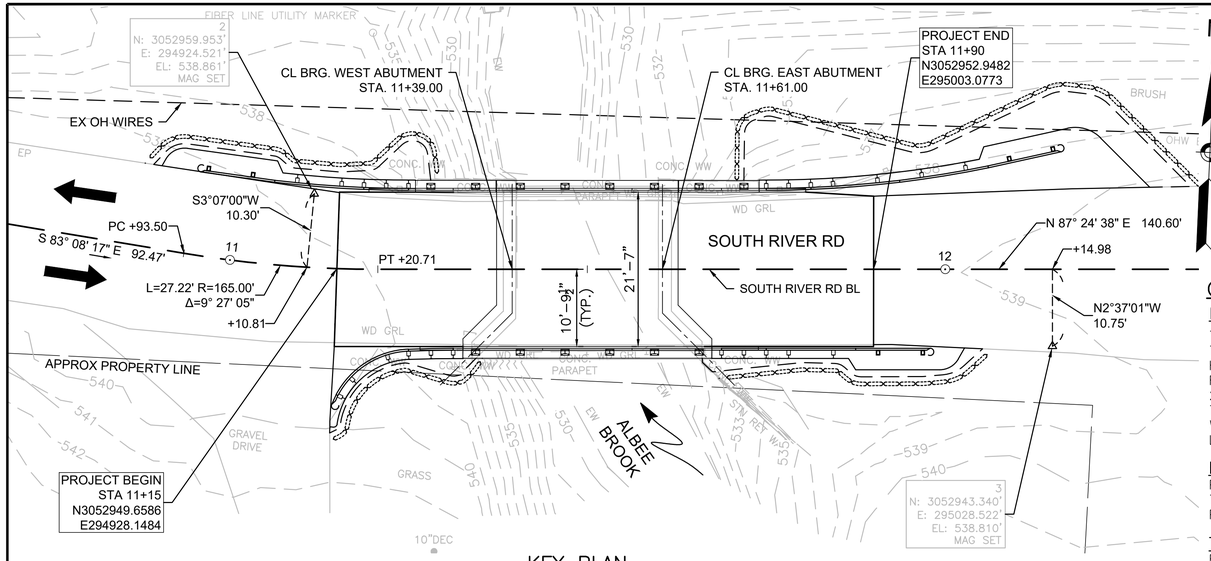
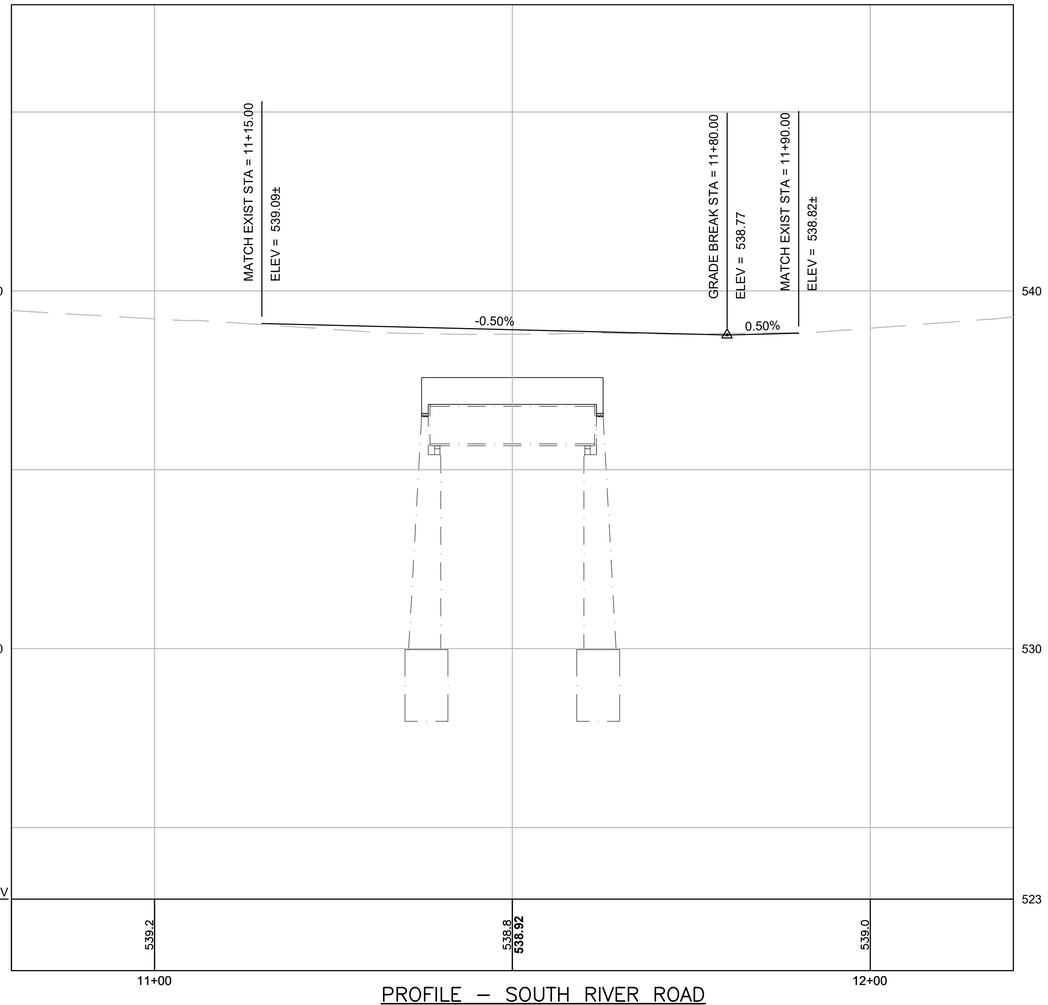


KEY PLAN

SCALE: 1'' = 10'



PROFILE – SOUTH RIVER ROAD

HORIZONTAL SCALE: 1'' = 10'
VERTICAL SCALE: 1'' = 2'

INDEX

GENERAL NOTES:

DESIGN:

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 LOADING.

EXISTING PLANS:

PLANS FOR THE EXISTING BRIDGE ARE AVAILABLE ELECTRONICALLY THROUGH THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PLANS AND RECORDS.

TRAFFIC:

BRIDGE TO BE CLOSED TO TRAFFIC DURING CONSTRUCTION. SEE DETOUR ROUTE ON SHEET 10

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:

ANY REVISIONS TO THE APPROVED PLANS MUST BE SUBMITTED TO THE ENGINEER OF RECORD AND THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT) FOR THEIR REVIEW AND APPROVAL. 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, OR CLEAR SPACING < 6BD	21"	26"	31"
4. COATED BARS, ALL OTHER CASES	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, ABUTMENT REPAIRS AND BEAM END ENCASEMENT.

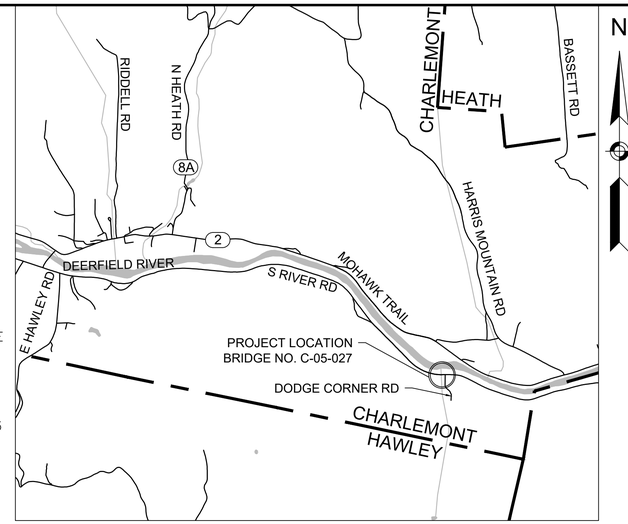
SURVEY:

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
NORTHING: 3052959.953
EASTING: 294924.521
ELEVATION: 538.861

BENCH MARK: MAGNETIC NAIL SET 3
NORTHING: 3052943.340
EASTING: 295028.522
ELEVATION: 538.810



LOCUS

SCALE: 1'' = 2000'

STRUCTURAL STEEL:

ALL STRUCTURAL STEEL MEMBERS SHALL BE AASHTO M270 GRADE 50, PAINTED FEDERAL STANDARD 595 B COLOR CHIP NUMBER 14062 – DARK GREEN. ALL BOLTS SHALL BE ASTM F3125 GRADE A325 TYPE I MECHANICALLY GALVANIZED IN ACCORDANCE WITH AASHTO M298 (ASTM B695) CLASS 50. UNLESS OTHERWISE NOTED, NUTS AND WASHERS SHALL BE LISTED AS SUITABLE IN THE ASTM F3125 SPECIFICATION FOR GRADE A325. NUTS SHALL BE MECHANICALLY GALVANIZED BY THE SAME PROCESS AND SHALL BE LUBRICATED WITH LUBRICANT CONTAINING VISIBLE DYE.

ESTIMATED QUANTITIES

NOT GUARANTEED

NO.	ITEM	UNIT	QUANTITY
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 REPAIRS	CY	6
909.2	CEMENTITIOUS MORTAR FOR PATCHING	SF	15
910.1	STEEL REINFORCEMENT FOR 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 — 4/28/2025 DATE

63 KENDRICK STREET
NEEDHAM, MA 02494
781-355-7100
781-355-7101 (FAX)

GILL ENGINEERING

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DANIEL S. CROVO
NO. 35441
CIVIL
Daniel S. Crovo
REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF MASSACHUSETTS
4/28/2025

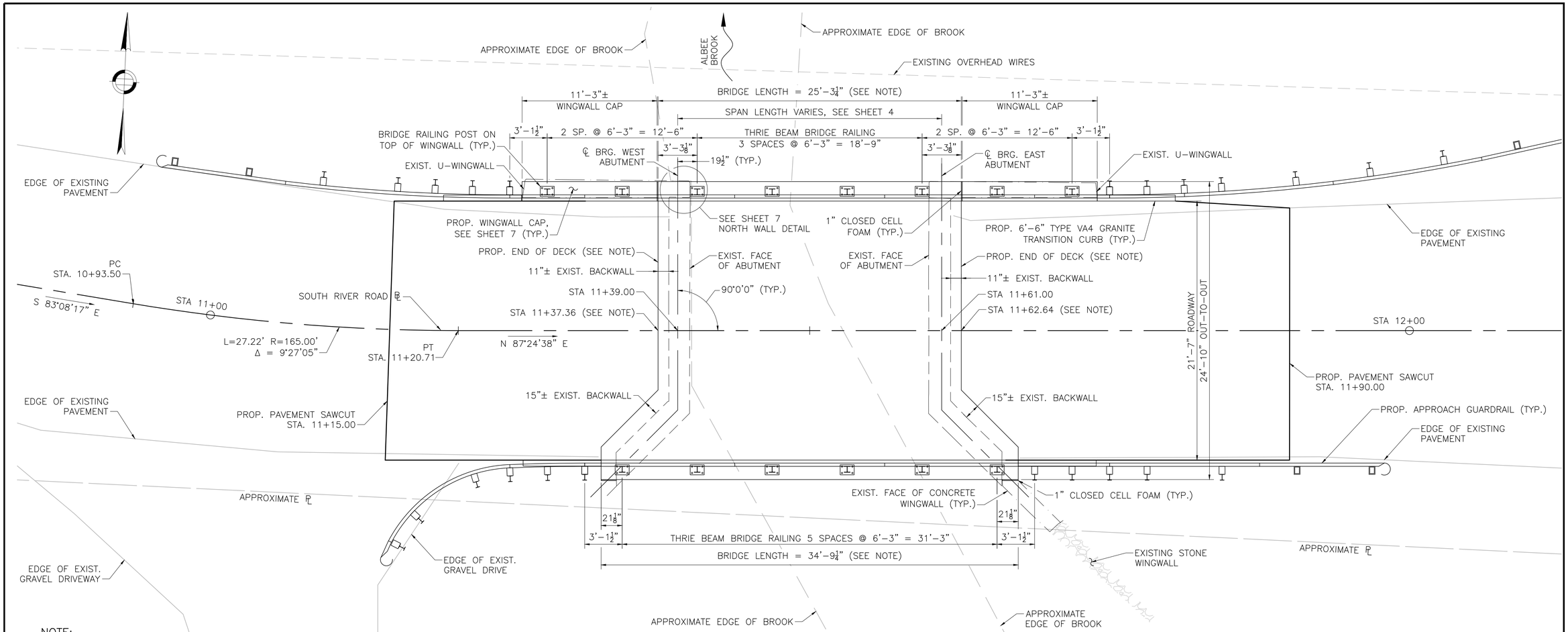
PROPOSED DECK REPLACEMENT

TOWN OF CHARLEMONT

DECK REPLACEMENT FOR CHARLEMONT
C–05–027 (OET)
SOUTH RIVER ROAD OVER ALBEE BROOK

KEY PLAN, LOCUS, PROFILE & NOTES

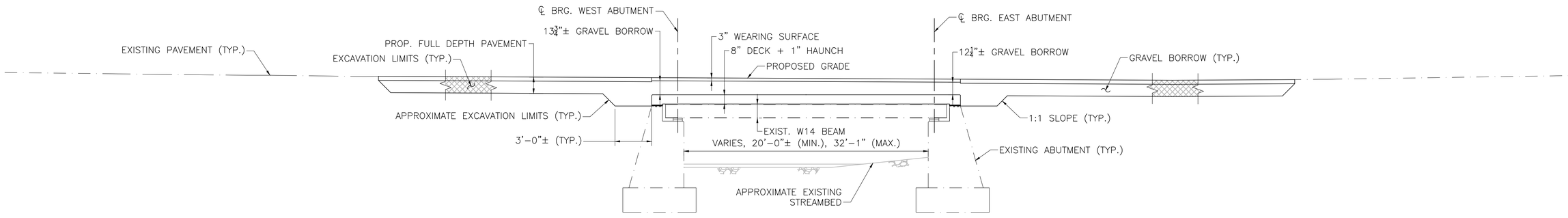
SHEET 1 OF 10



NOTE:
PROPOSED END OF DECK LIMITS SHOWN ARE BASED ON BACK FACE OF BACKWALL GEOMETRY FROM 1938 AND THE 1961 RECORD PLANS AND HAVE NOT BEEN VERIFIED. CONTRACTOR SHALL MODIFY THE END OF DECK OVERHANG AS REQUIRED PER ACTUAL BACKWALL GEOMETRY.

PROPOSED PLAN

SCALE: ¼" = 1'-0"



LONGITUDINAL SECTION

SCALE: ¼" = 1'-0"

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GILL ENGINEERING

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General Plan and Section.dwg

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REGISTERED PROFESSIONAL ENGINEER — DATE

COMMONWEALTH OF MASSACHUSETTS
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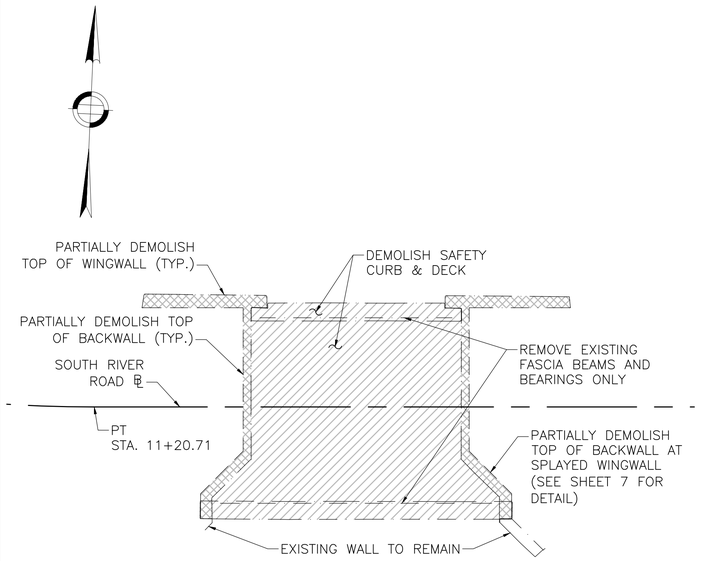
Daniel S. Crovo
REGISTERED PROFESSIONAL ENGINEER
4/28/2025

PROPOSED DECK REPLACEMENT

TOWN OF CHARLEMONT

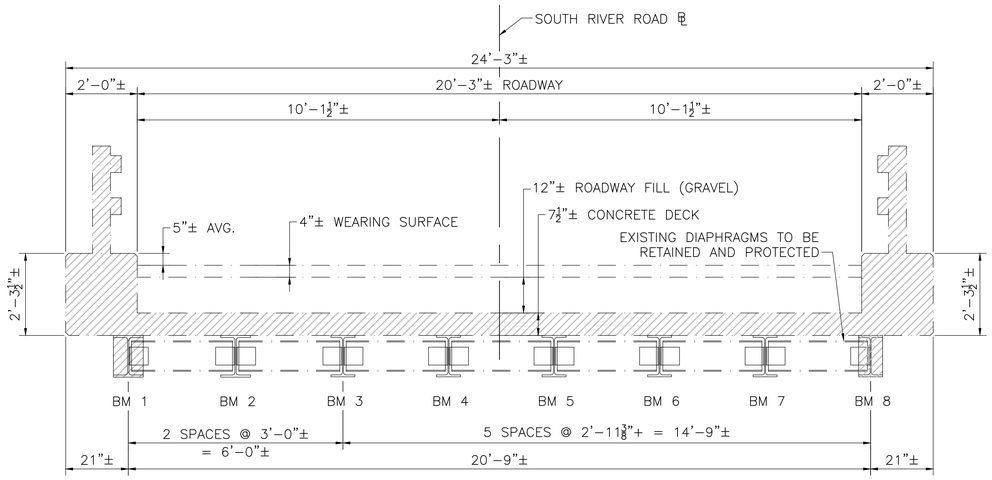
DECK REPLACEMENT FOR CHARLEMONT
C-05-027 (0ET)
SOUTH RIVER ROAD OVER ALBEE BROOK

GENERAL PLAN AND SECTION



DEMOLITION PLAN

SCALE: $\frac{1}{8}$" = 1'–0"

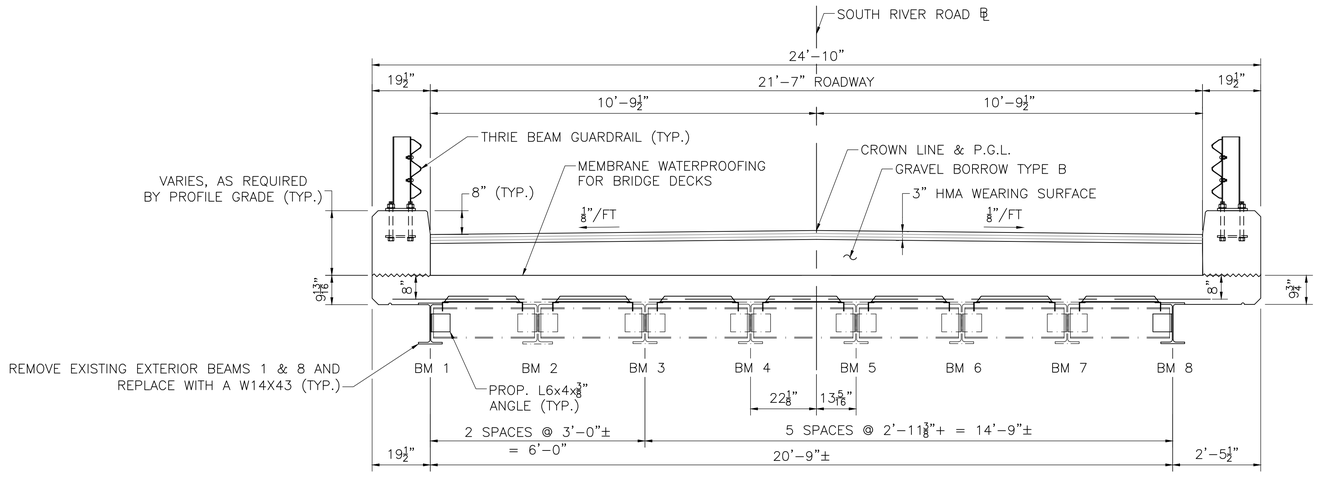


EXISTING CROSS SECTION

SCALE: $\frac{1}{2}$" = 1'–0"

LEGEND:

- DENOTES LIMITS OF DEMOLITION
- DENOTES LIMITS OF PARTIAL DEMOLITION



PROPOSED CROSS SECTION

SCALE: $\frac{1}{2}$" = 1'–0"

NOTE:
SECTIONS TAKEN LOOKING WEST.

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. PROTECT EXISTING DIAPHRAGMS WHERE POSSIBLE.
4. DEMOLISH ANY MATERIAL INCIDENTAL TO THE PROPOSED CONSTRUCTION AS DIRECTED BY THE RESIDENT ENGINEER.
5. ALL DEMOLITION WORK SHALL BE DONE IN CONFORMANCE WITH ALL APPLICABLE FEDERAL STATE AND LOCAL LAWS, REGULATIONS AND PERMITS AND THE JOB SPECIFCATIONS.
6. THE CONTRACTOR SHALL SUBMIT HIS PROPOSED DEMOLITION PROCEDURE TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK. SEE SPECIAL PROVISIONS FOR ADDITIONAL DETAILS.

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Existing and Proposed Cross Section.dwg Plotted on 15-Apr-2025 2:59 PM

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REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS
DANIEL S. CROVO
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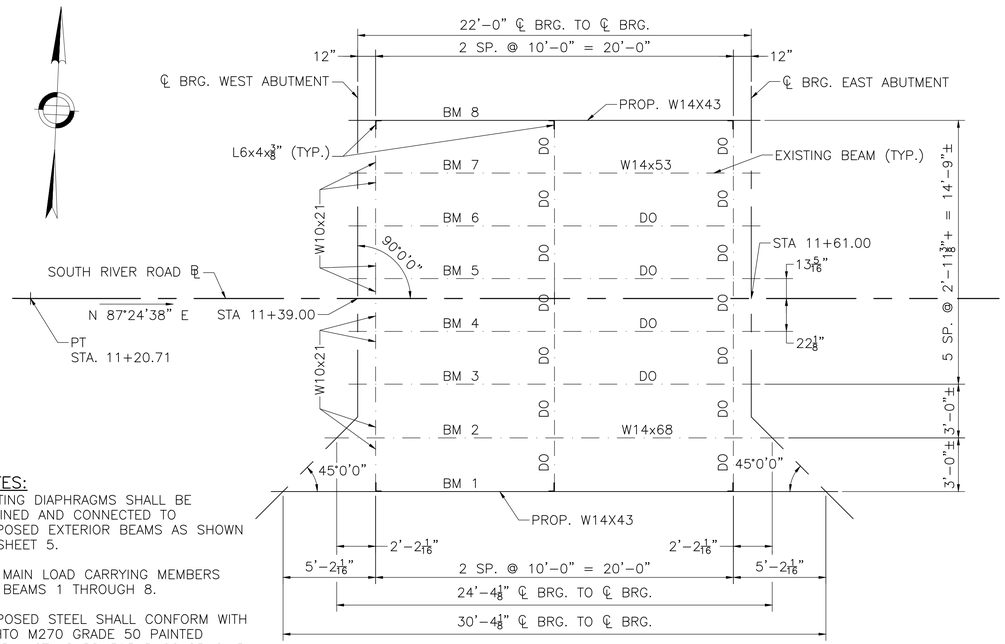
REGISTERED PROFESSIONAL ENGINEER
4/28/2025

PROPOSED DECK REPLACEMENT

TOWN OF CHARLEMONT

DECK REPLACEMENT FOR CHARLEMONT
C-05-027 (0ET)
SOUTH RIVER ROAD OVER ALBEE BROOK

EXISTING AND PROPOSED CROSS SECTIONS

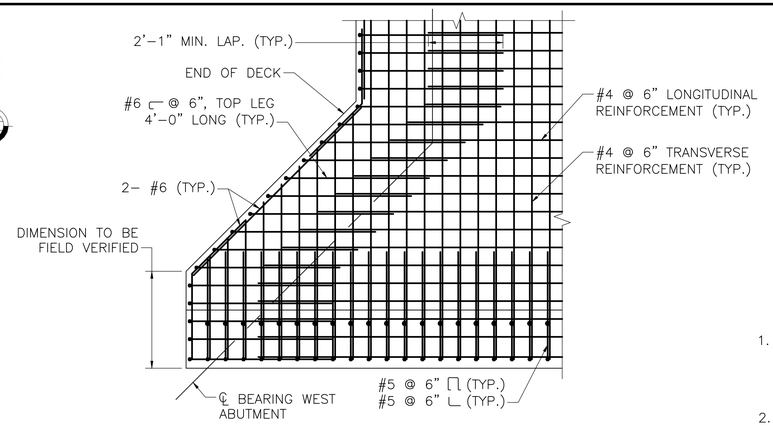


NOTES:

1. EXISTING DIAPHRAGMS SHALL BE RETAINED AND CONNECTED TO PROPOSED EXTERIOR BEAMS AS SHOWN ON SHEET 5.
2. THE MAIN LOAD CARRYING MEMBERS ARE BEAMS 1 THROUGH 8.
3. PROPOSED STEEL SHALL CONFORM WITH AASHTO M270 GRADE 50 PAINTED FEDERAL STANDARD 595 B COLOR CHIP NUMBER 14062 – DARK GREEN.
4. SEE SHEET 5 FOR STEEL DETAILS.

FRAMING PLAN

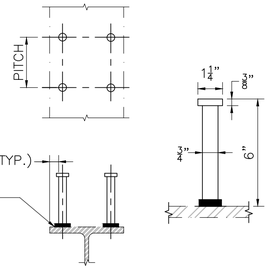
SCALE: ¼" = 1'-0"



NOTE:
SOUTHWEST CORNER SHOWN. SOUTHEAST CORNER SIMILAR.

ACUTE CORNER REINFORCEMENT PLAN

SCALE: ½" = 1'-0"

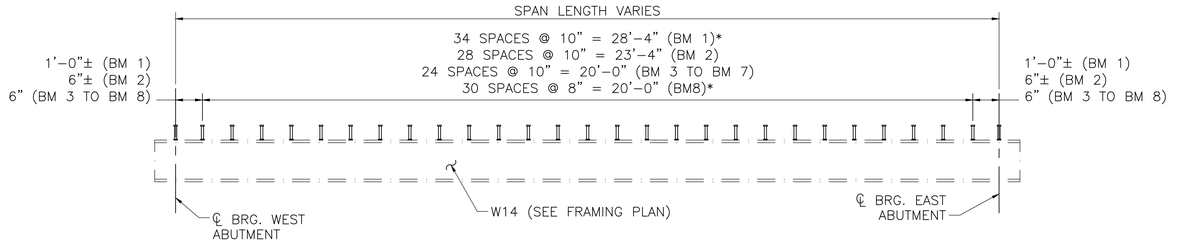


NOTES:

1. THE TOP OF THE TOP FLANGES OF ALL BEAMS TO RECEIVE WELDED STUDS SHALL BE CLEANED OF ANY PAINT, EXCESSIVE RUST OR MILL SCALE, DIRT, MOISTURE AND ALL OTHER FOREIGN MATERIALS PRIOR TO WELDING THE STUDS.
2. ⅞"ø STUDS MAY BE SUBSTITUTED FOR ¾"ø STUDS BY ADJUSTING THE PITCH TO PROVIDE AN EQUIVALENT CROSS-SECTIONAL AREA PER FOOT.

SHEAR STUD CONNECTORS

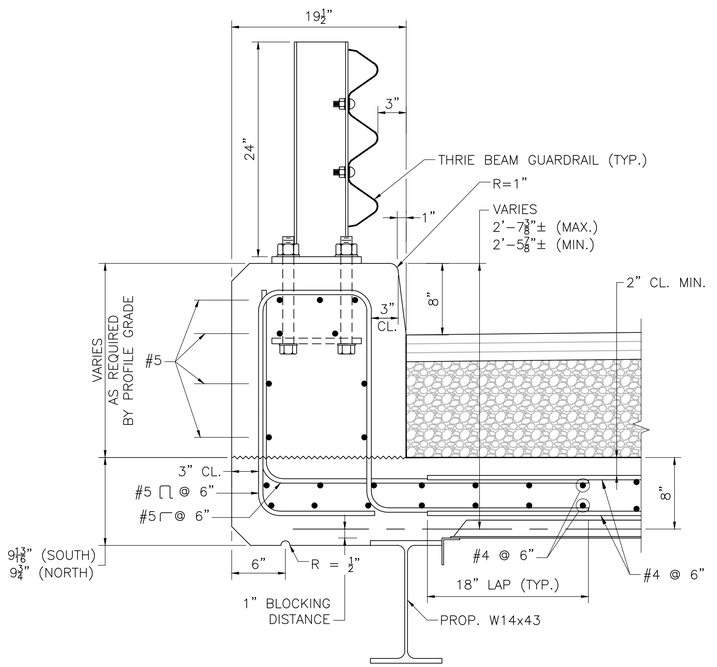
NOT TO SCALE



TYPICAL BEAM ELEVATION

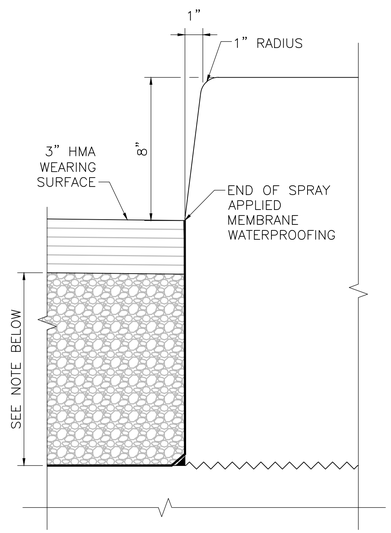
(*) – BEAMS 1 & 8 NEW

NOT TO SCALE



SAFETY CURB REINFORCEMENT DETAIL

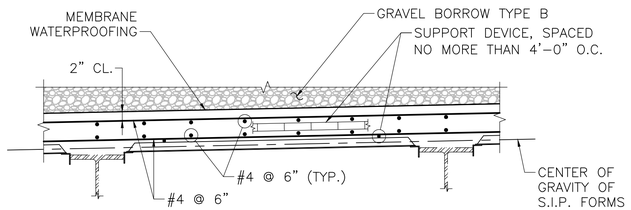
SCALE: 1½" = 1'-0"



NOTE:
FINE GRADE AND COMPACT GRAVEL BORROW AS NEEDED TO MEET PROPOSED GRADE.

FACE OF SAFETY CURB DETAIL

SCALE: 3" = 1'-0"

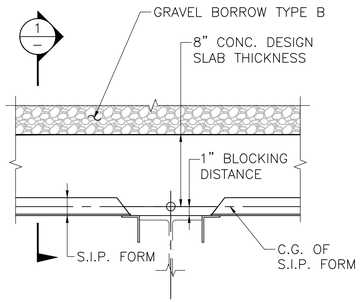


NOTES:

1. LONGITUDINAL REINFORCEMENT SHALL BE PLACED PARALLEL TO THE ℄ OF CONSTRUCTION. TRANSVERSE (PRIMARY) REINFORCEMENT SHALL BE PLACED PERPENDICULAR TO THE ℄ OF CONSTRUCTION.
2. ALL REINFORCEMENT AND SUPPORT DEVICES SHALL BE COATED.
3. THE FINISHED SURFACE OF BRIDGE DECK SHALL BE SMOOTH AND WITHOUT ANY PROJECTIONS THAT COULD PUNCTURE THE MEMBRANE WATERPROOFING OR DEPRESSIONS THAT COULD RETAIN WATER.

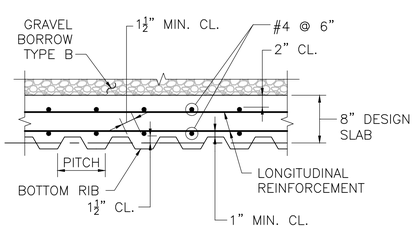
TYPICAL DECK REINFORCEMENT

SCALE: ¾" = 1'-0"



HAUNCH DETAIL

NOT TO SCALE



SECTION 1 – 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.
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.

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
APPROVED UNDER PROVISIONS OF MASS. GEN. LAWS CH 85 S 35
4/28/2025
STATE BRIDGE ENGINEER — DATE

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Framing Plan and Deck Details.dwg — Plotted on 15-Apr-2025 2:59 PM

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REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS
DANIEL S. GROVO
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REGISTERED PROFESSIONAL ENGINEER
4/28/2025

PROPOSED DECK REPLACEMENT

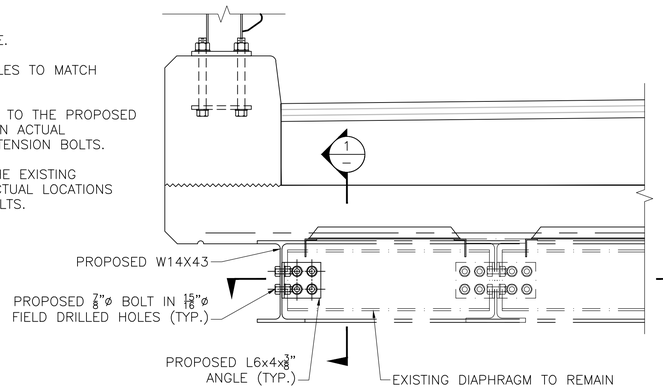
TOWN OF CHARLEMONT

DECK REPLACEMENT FOR CHARLEMONT
C-05-027 (OET)
SOUTH RIVER ROAD OVER ALBEE BROOK

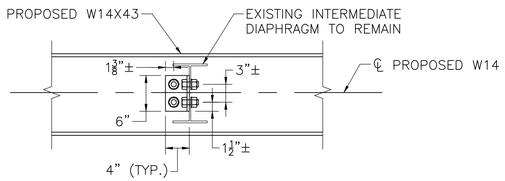
FRAMING PLAN AND DECK DETAILS

DIAPHRAGM CONNECTION NOTES:

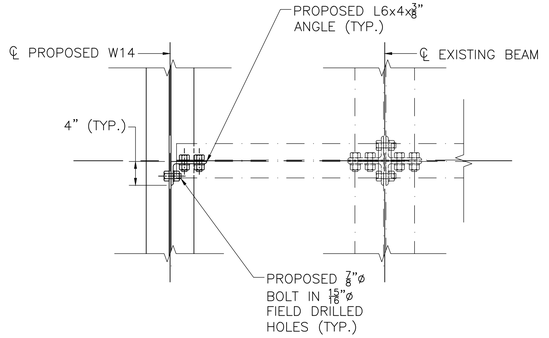
1. PROPOSED BOLT LAYOUT IS APPROXIMATE.
2. FIELD DRILL HOLES IN CONNECTION ANGLES TO MATCH EXISTING HOLES IN DIAPHRAGM.
3. ATTACH DIAPHRAGM CONNECTION ANGLES TO THE PROPOSED EXTERIOR BEAMS IN THE FIELD BASED ON ACTUAL LOCATIONS OF DIAPHRAGMS AND FULLY TENSION BOLTS.
4. ATTACH NEW CONNECTION ANGLES TO THE EXISTING DIAPHRAGMS IN THE FIELD BASED ON ACTUAL LOCATIONS OF DIAPHRAGMS AND FULLY TENSION BOLTS.



CROSS SECTION
SCALE: 1" = 1'–0"



SECTION 1/–
SCALE: 1" = 1'–0"



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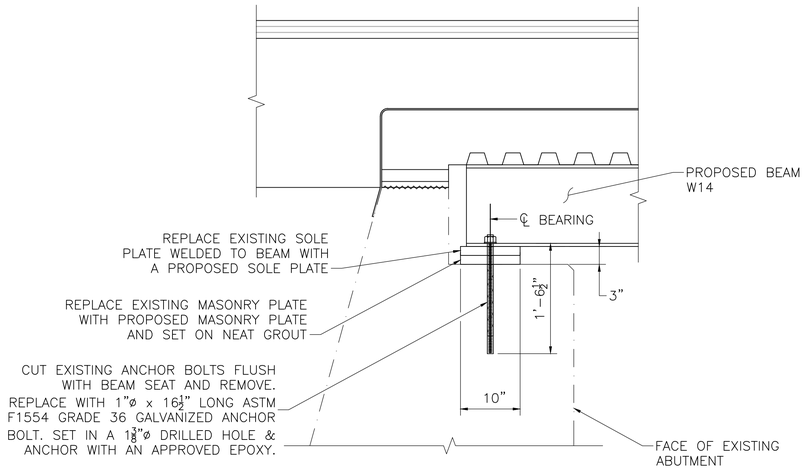
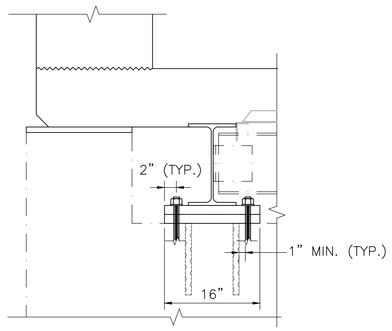
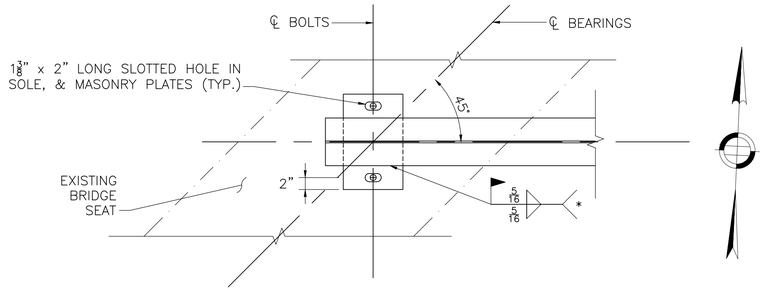
SCALE: 1" = 1'–0"



PROPOSED BEAM 1 BEARING ELEVATION
SCALE: 1" = 1'–0"



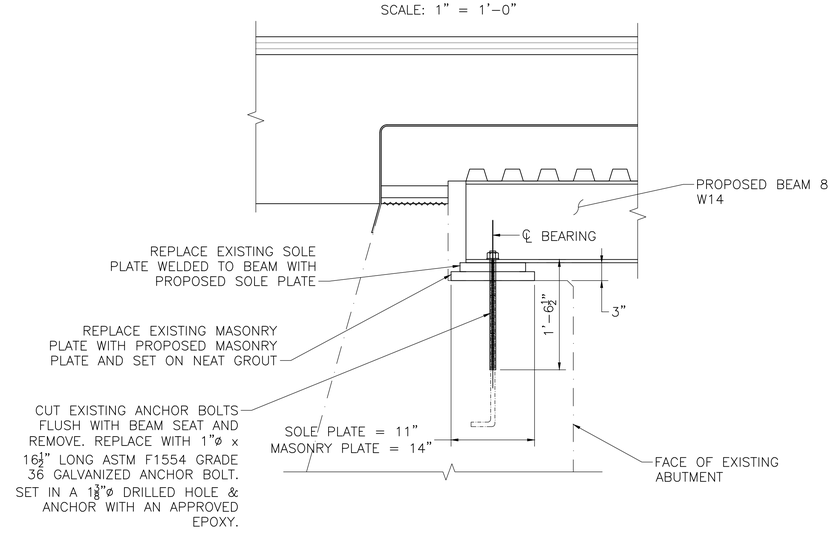
BEAM 1 BEARING DETAIL
SCALE: 1" = 1'–0"



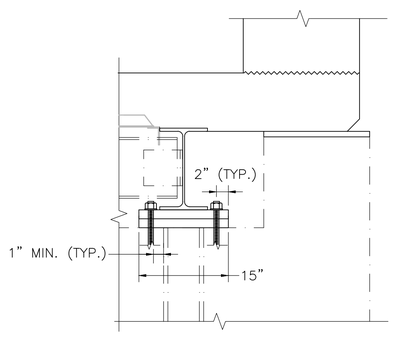
(*) – WELDS SHALL TERMINATE 1/4" FROM EDGE OF PLATE

BEAM 1 BEARING PLAN
SCALE: 1" = 1'–0"

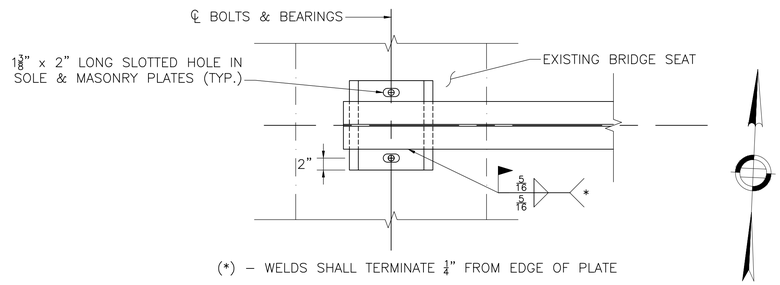
NOTE:
WEST ABUT. SHOWN EAST ABUT. OPPOSITE HAND



PROPOSED BEAM 8 BEARING ELEVATION
SCALE: 1" = 1'–0"



BEAM 8 BEARING DETAIL
SCALE: 1" = 1'–0"



(*) – WELDS SHALL TERMINATE 1/4" FROM EDGE OF PLATE

BEAM 8 BEARING PLAN
SCALE: 1" = 1'–0"

BEARING NOTES:

1. NEW BEARING PLATES SHALL BE INSTALLED WITH THE PROPOSED EXTERIOR BEAMS WITH DIMENSIONS:

BEAM 1 –	BEAM 8 –
SOLE PLATE: 10"x16"x1 1/2"	SOLE PLATE: 11"x14"x1 1/2"
MASONRY PLATE: 10"x16"x1 1/2"	MASONRY PLATE: 14x14x1 1/2"

2. BEARING PLATES SHALL BE POSITIONED TO MAINTAIN THE EXISTING CENTERLINE OF BEARING

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STATE BRIDGE ENGINEER — 4/28/2025 DATE

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781-355-7101 (FAX)

GILL ENGINEERING

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REGISTERED PROFESSIONAL ENGINEER — DATE

COMMONWEALTH OF MASSACHUSETTS
DANIEL S. CROVO
NO. 35441
CIVIL
REGISTERED PROFESSIONAL ENGINEER
4/28/2025

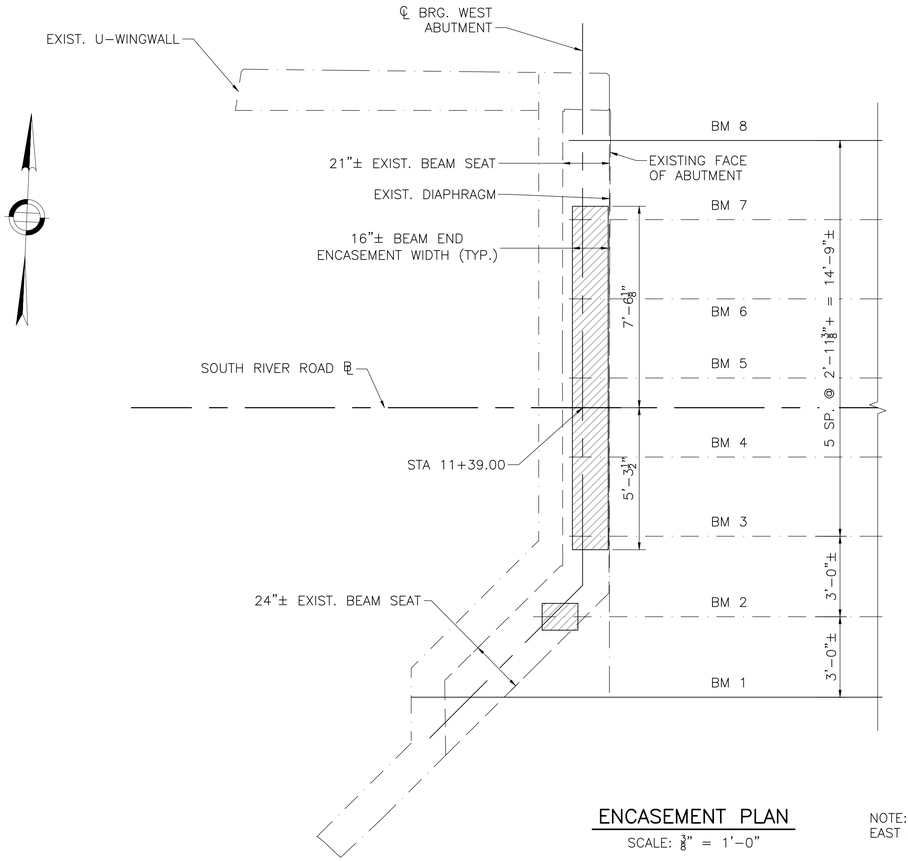
PROPOSED DECK REPLACEMENT

TOWN OF CHARLEMONT

DECK REPLACEMENT FOR CHARLEMONT
C–05–027 (OET)
SOUTH RIVER ROAD OVER ALBEE BROOK

STEEL DETAILS

Steel Details.dwg Plotted on 15-Apr-2025 2:59 PM



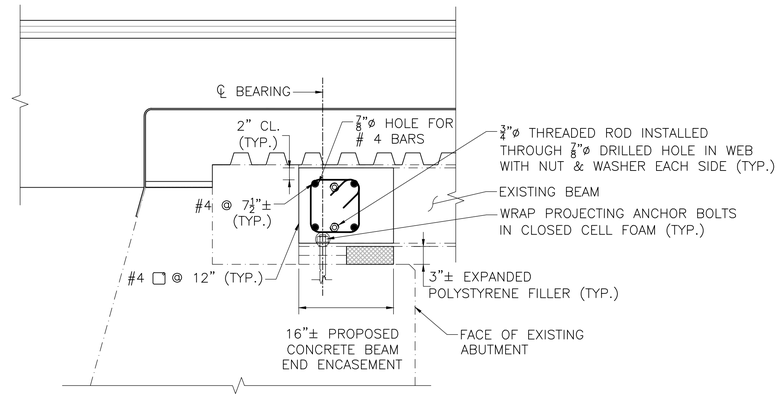
ENCASEMENT PLAN

SCALE: ⅜" = 1'–0"

NOTE: WEST ABUTMENT SHOWN
EAST ABUTMENT SIMILAR

ENCASEMENT NOTES:

1. THE EXISTING CONCRETE BEAM SEATS, BACKWALLS, AND STRUCTURAL STEEL SHALL BE CLEANED OF ALL LOOSE DEBRIS PRIOR TO PLACEMENT OF THE BEAM END ENCASEMENT. ALL DEBRIS AND DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE BEAM SEAT. THE EXISTING STRUCTURAL STEEL SHALL BE CLEANED TO REMOVE ALL LOOSE RUST AND PAINT. TIGHTLY ADHERING PAINT DOES NOT NEED TO BE REMOVED.
2. THE CONTRACTOR SHALL ASSUME ALL EXISTING COATINGS CONTAIN LEAD UNLESS OTHERWISE DETERMINED BY TESTING. ALL DEBRIS CREATED BY OPERATIONS SHALL BE CONTAINED AND DISPOSED OF.
3. THREADED RODS SHALL BE ¾"ø AND CONFORM TO ASTM A307 GRADE A. NUTS AND WASHERS SHALL CONFORM TO AASHTO M291 AND M293 RESPECTIVELY.
4. NO REPAIRS SHALL COMMENCE UNTIL MEASUREMENTS HAVE BEEN MADE AND MATERIALS ARE ON HAND FOR THE REPAIR.

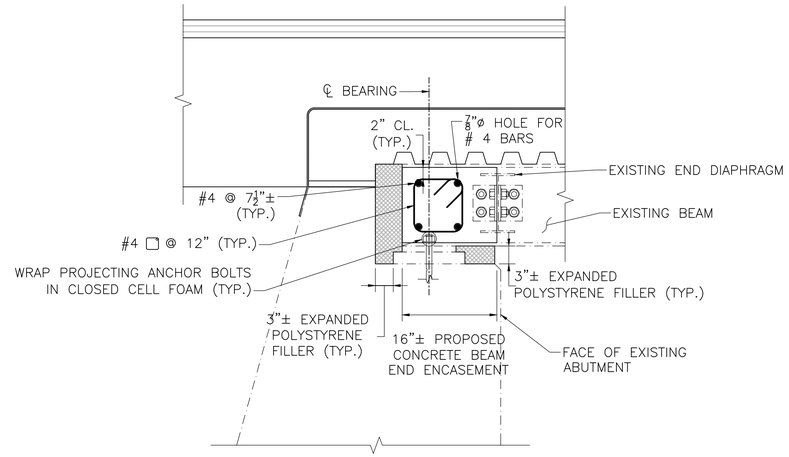


BEAM 2 ENCASEMENT DETAIL

SCALE: 1" = 1'–0"

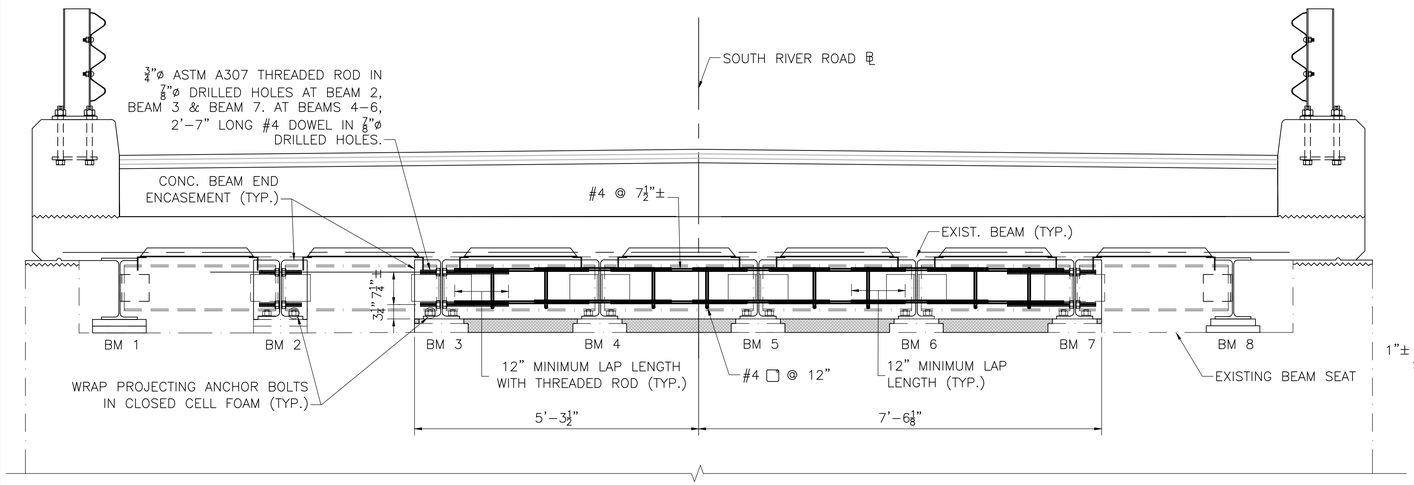
NOTE:

1. BEAM 6 SIMILAR



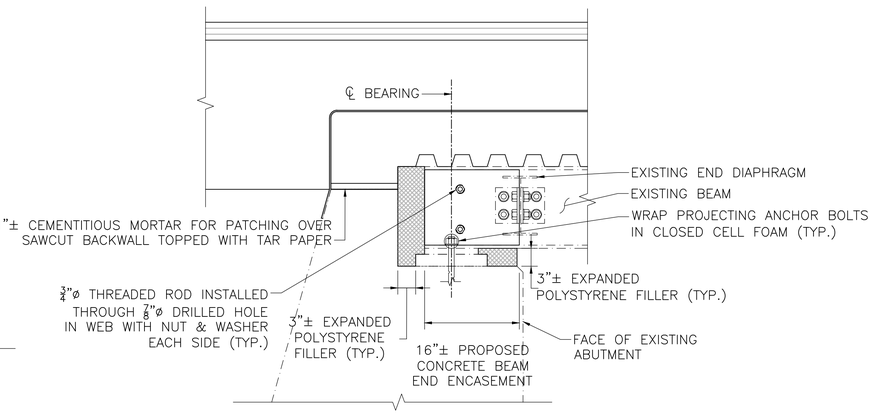
BEAMS 3–5 ENCASEMENT DETAIL

SCALE: 1" = 1'–0"



ENCASEMENT SECTION

SCALE: ¾" = 1'–0"



BEAMS 7 ENCASEMENT DETAIL

SCALE: 1" = 1'–0"

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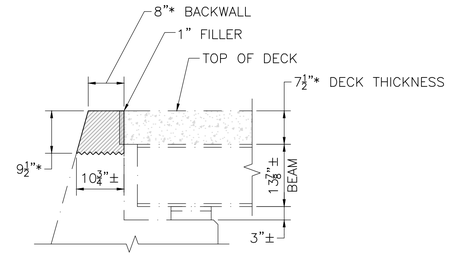
PROPOSED DECK REPLACEMENT

TOWN OF CHARLEMONT

DECK REPLACEMENT FOR CHARLEMONT
C–05–027 (OET)
SOUTH RIVER ROAD OVER ALBEE BROOK

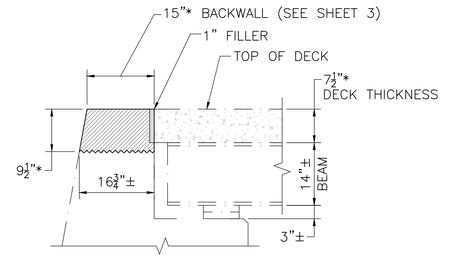
ENCASEMENT DETAILS

SHEET 6 OF 10



ABUTMENTS

DENOTES DEMOLITION LIMITS

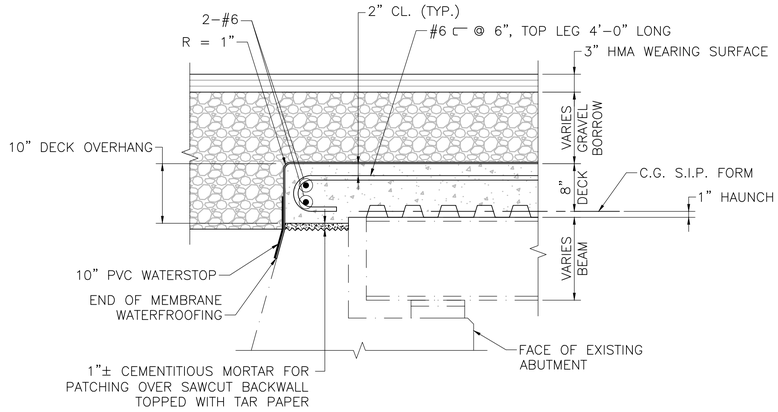


SOUTH SPLAYED WINGWALL/BACKWALL

*NOTE:
EXISTING DECK THICKNESS AND TOP OF BACKWALL LIMITS SHOWN HAVE NOT BEEN VERIFIED. CONTRACTOR SHALL MODIFY BACKWALL DEMOLITION LIMITS ACCORDINGLY BASED ON ACTUAL DIMENSIONS TO ACCEPT PROPOSED DECK OVERHANG OVER EXISTING BACKWALL.

PARTIAL DEMOLITION OF EXISTING BACKWALL

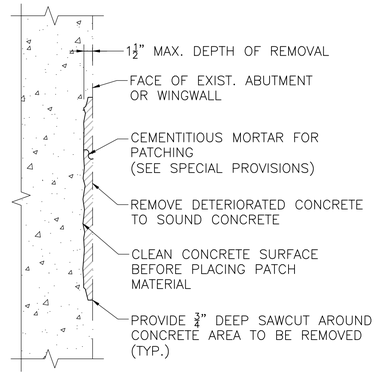
SCALE: ¾" = 1'–0"



NOTES:
1. ALL DECK SLAB REINFORCEMENT NOT SHOWN FOR CLARITY.
2. WATERSTOP SHALL BE SECURED TO END OF DECK AND BACK OF ABUTMENT USING EPOXY PASTE PRIOR TO SPRAY APPLIED MEMBRANE PLACEMENT.

END OF DECK AT ABUTMENT

SCALE: 1" = 1'–0"

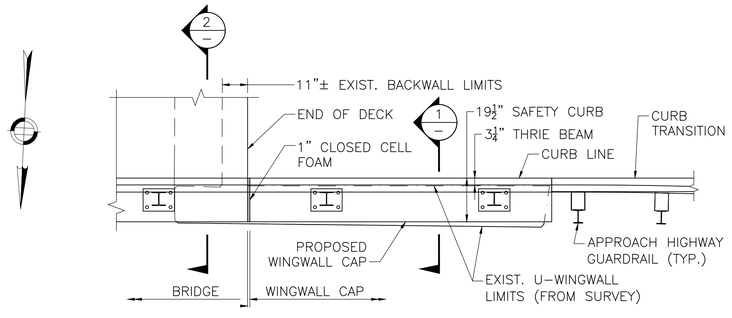


PARTIAL DEPTH REPAIR

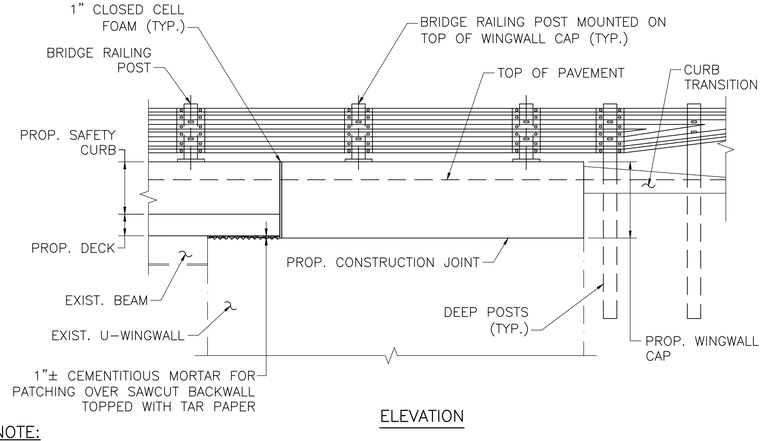
SCALE: 1" = 1'–0"

EXCAVATION AND SURFACE REPAIR NOTES:

1. THE CONTRACTOR SHALL EXERCISE CARE WHEN REMOVING CONCRETE TO ONLY REMOVE DETERIORATED CONCRETE AND TO LIMIT THE SOUND CONCRETE REMOVED TO THE MINIMUM NECESSARY TO EFFECT A GOOD REPAIR.
2. THE LOCATION AND EXTENT OF ALL CONCRETE REPAIRS ARE TO BE FIELD VERIFIED AND APPROVED BY THE ENGINEER AFTER THE CONTRACTOR HAS SOUNDED AND MARKED OUT THE REPAIR AREAS. REPAIR CONFIGURATIONS SHOULD BE KEPT AS SIMPLE AS POSSIBLE, PREFERABLY WITH SQUARE CORNERS.
3. THE LIMITS OF THE REPAIRS SHALL BE SAWCUT ALONG NEAT LINES TO A DEPTH OF ¾" TO PRODUCE A CLEAN EDGE.
4. AFTER DETERIORATED CONCRETE REMOVAL AND EDGE PREPARATION ARE COMPLETE, REMOVE BOND INHIBITING MATERIALS (DIRT, GREASE, LOOSELY BONDED AGGREGATE) BY ABRASION BLASTING OR HIGH PRESSURE WATER BLASTING WITH WATER THAT CONTAINS NO DETERGENTS OR BOND INHIBITING CHEMICALS. CHECK THE CONCRETE SURFACES AFTER CLEANING TO INSURE THAT THE SURFACE IS FREE FROM ADDITIONAL LOOSE AGGREGATE OR THAT ADDITIONAL DELAMINATIONS ARE NOT PRESENT.
5. CEMENTITIOUS MORTAR FOR PATCHING (SEE SPECIAL PROVISIONS) SHALL BE USED TO PERFORM THE REPAIRS WITH DEPTH ≤ 1½" AS SHOWN IN THIS DETAIL. FOR REPAIRS WITH DEPTH > 1½", 5000 PSI ⅜" 710 HP CEMENT CONCRETE SHALL BE USED.
6. PRESOAK CONCRETE SUBSTRATE WITH A WATER HOSE FOR 24 HOURS OR AS LONG AS SITE CONSTRAINTS PERMIT. AT TIME OF REPAIR CONCRETE PLACEMENT, SUBSTRATE SHALL BE SATURATED SURFACE DRY WITH NO STANDING WATER.
7. ALL SURFACES SHALL BE RUBBED TO PRODUCE A SMOOTH FINISH TO MATCH EXISTING SURFACES.
8. IF AN EPOXY BONDING COMPOUND IS USED (AS DIRECTED BY THE ENGINEER), THE MATERIALS SHALL MEET AASHTO M235 TYPE V. GRADE AND CLASS SHALL BE SPECIFIED FOR EACH INDIVIDUAL APPLICATION. THE EPOXY COMPOUND SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. IN NO CASE WILL THE EPOXY BONDING COMPOUND BE ALLOWED TO CURE TO A HARDENED STATE PRIOR TO CONCRETE PLACEMENT. IF THIS DOES OCCUR IT MUST BE COMPLETELY REMOVED.



PLAN

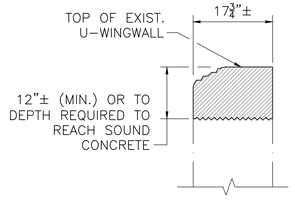


ELEVATION

NOTE:
NORTHWEST WINGWALL SHOWN, NORTHEAST WINGWALL SIMILAR.

NORTH U–WINGWALL

SCALE: ⅜" = 1'–0"



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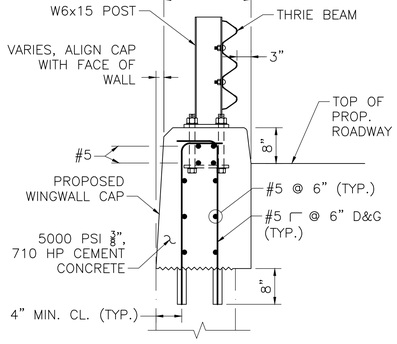
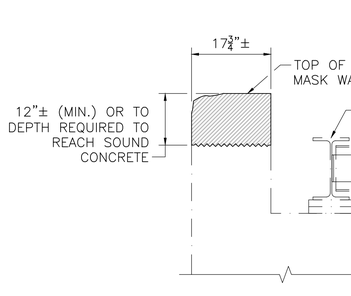


PROPOSED

DENOTES DEMOLITION LIMITS

SECTION 1 – (SCALE: ¾" = 1'–0")



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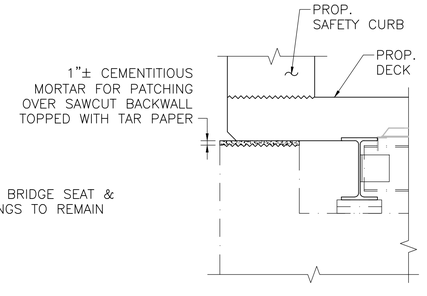
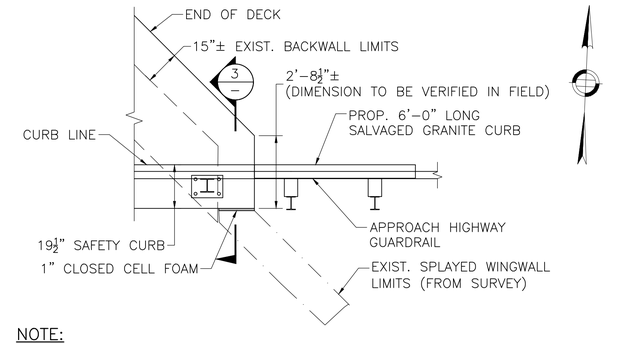


PROPOSED

DENOTES DEMOLITION LIMITS

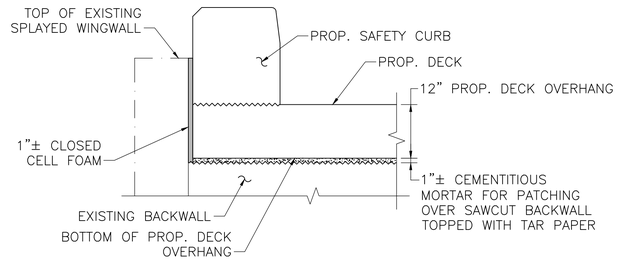
SECTION 2 – (SCALE: ¾" = 1'–0")



NOTE:
SOUTHEAST WINGWALL SHOWN, SOUTHWEST WINGWALL SIMILAR.

SOUTH SPLAYED WINGWALL – PLAN

SCALE: ⅜" = 1'–0"



SECTION 3 – (SCALE: ¾" = 1'–0")

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DANIEL S. CROVO NO. 35441 CIVIL — Daniel S. Crovo — REGISTERED PROFESSIONAL ENGINEER — 4/28/2025

PROPOSED DECK REPLACEMENT

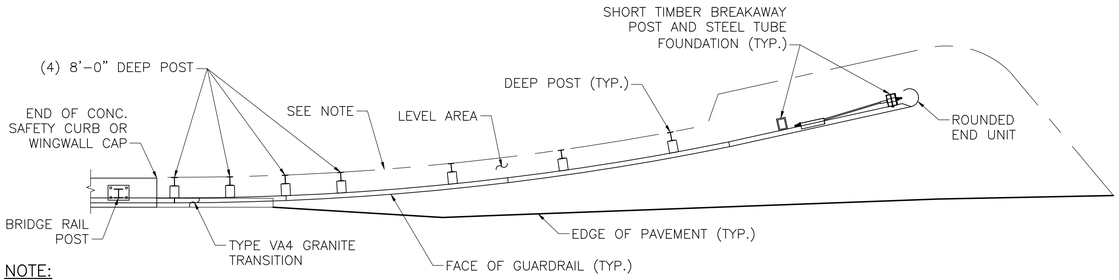
TOWN OF CHARLEMONT

DECK REPLACEMENT FOR CHARLEMONT
C–05–027 (0ET)
SOUTH RIVER ROAD OVER ALBEE BROOK

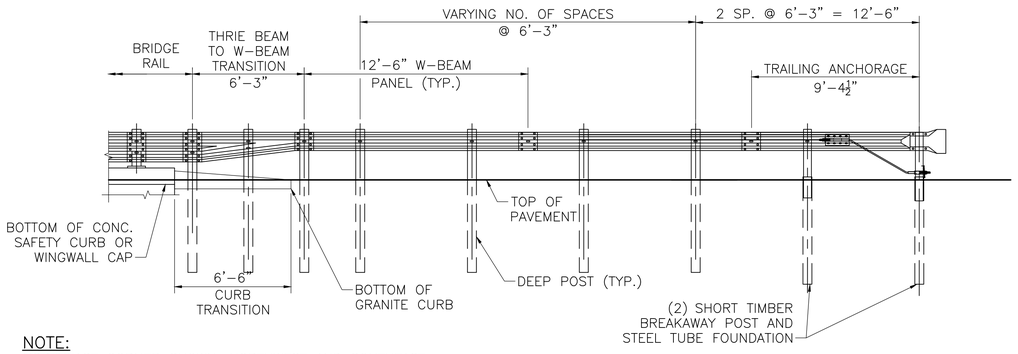
BACKWALL & WINGWALL DETAILS

SHEET 7 OF 10

Backwall Details.dwg — Plotted on 15-Apr-2025 2:58 PM

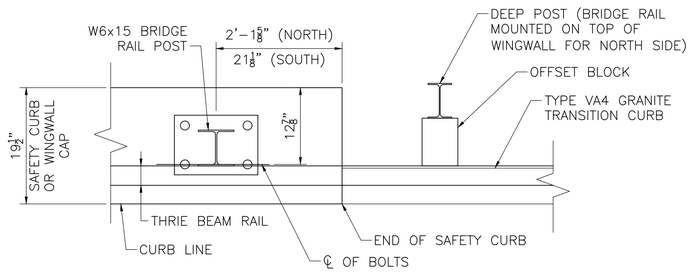


NOTE:
LEVEL BENCH NOT REQUIRED FOR DEEP POSTS. TAPER FROM BACK OF GUARDRAIL POST TO NECESSARY GRADE.

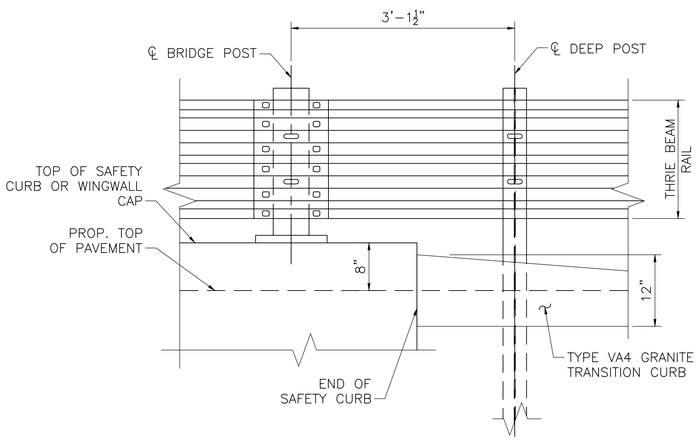


NOTE:
NORTHEAST CORNER SHOWN, NORTHWEST AND SOUTHEAST CORNERS SIMILAR. SEE SHEET 9 FOR SOUTHWEST GUARDRAIL GEOMETRY.

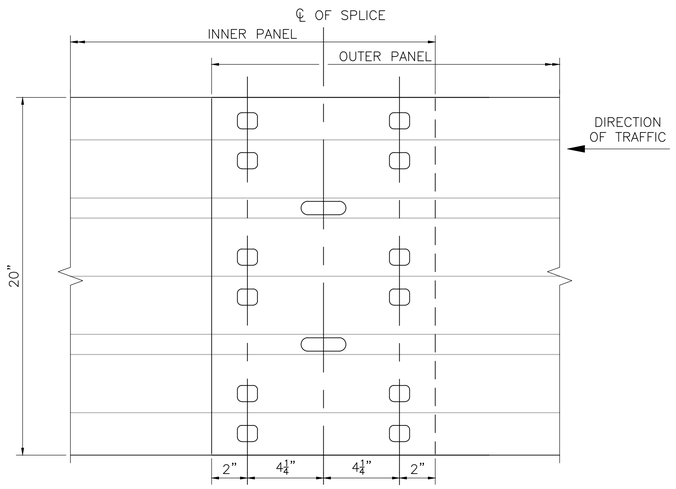
GUARD RAIL APPROACH TRANSITION
SCALE: ¼" = 1'–0"



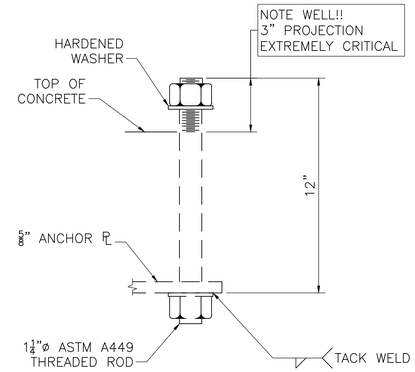
TYPICAL DETAIL END OF SAFETY CURB
SCALE: 1" = 1'–0"



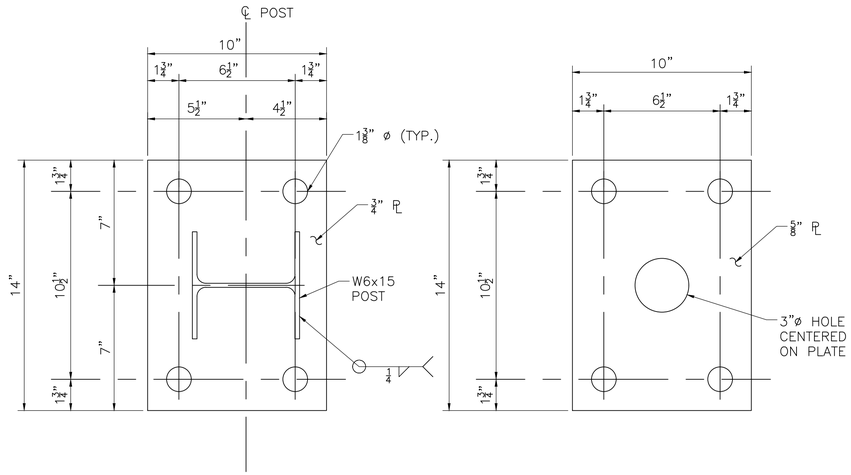
TYPICAL SAFETY CURB DETAIL
SCALE: 1" = 1'–0"



THRIE BEAM RAIL SPLICE ELEVATION
SCALE: 3" = 1'–0"

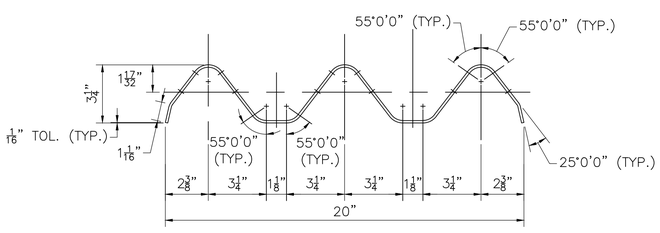


ANCHOR BOLT DETAIL
SCALE: 3" = 1'–0"



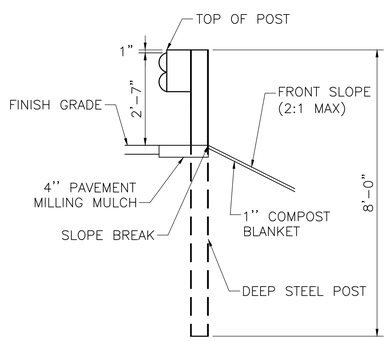
THRIE BEAM POST BASE PLATE DETAIL
SCALE: 3" = 1'–0"

ANCHOR PLATE DETAIL
SCALE: 3" = 1'–0"



NOTE:
DOUBLE NESTED 12 GAUGE GUARDRAIL MAY BE USED INSTEAD.

STEEL THRIE BEAM 10 GAUGE BRIDGE GUARDRAIL SECTION
SCALE: 3" = 1'–0"



DEEP STEEL POST
SCALE: ½" = 1'–0"

MATERIALS

1. RAIL POST, BASE PLATES, AND ANCHOR PLATES SHALL BE AASHTO M270 GRADE 50 GALVANIZED.
2. THRIE BEAM BRIDGE RAIL SHALL BE AASHTO M180, CLASS B (10 GAUGE OR DOUBLE NESTED 12 GAUGE), AND GALVANIZED.
3. ALL BOLTS SHALL BE MECHANICALLY GALVANIZED WITH COMPATIBLE NUTS AND WASHERS UNLESS OTHERWISE NOTED.

GENERAL NOTES:

1. SET POSTS PERPENDICULAR TO TOP OF BRIDGE DECK.
2. ANCHOR BOLTS SHALL BE SET WITH TEMPLATES. THE NUT SECURING THE POST BAST PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ⅛ TURN AFTER STEEL IS IN PLACE.
3. WELDING SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AASHTO/AWS D.1.5.
4. PLACE A REFLECTORIZED WASHER IN THE UPPER VALLEY OF EVERY THRIE BEAM POST.

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Bridge Railing Details.dwg Plotted on 15-Apr-2025 2:59 PM

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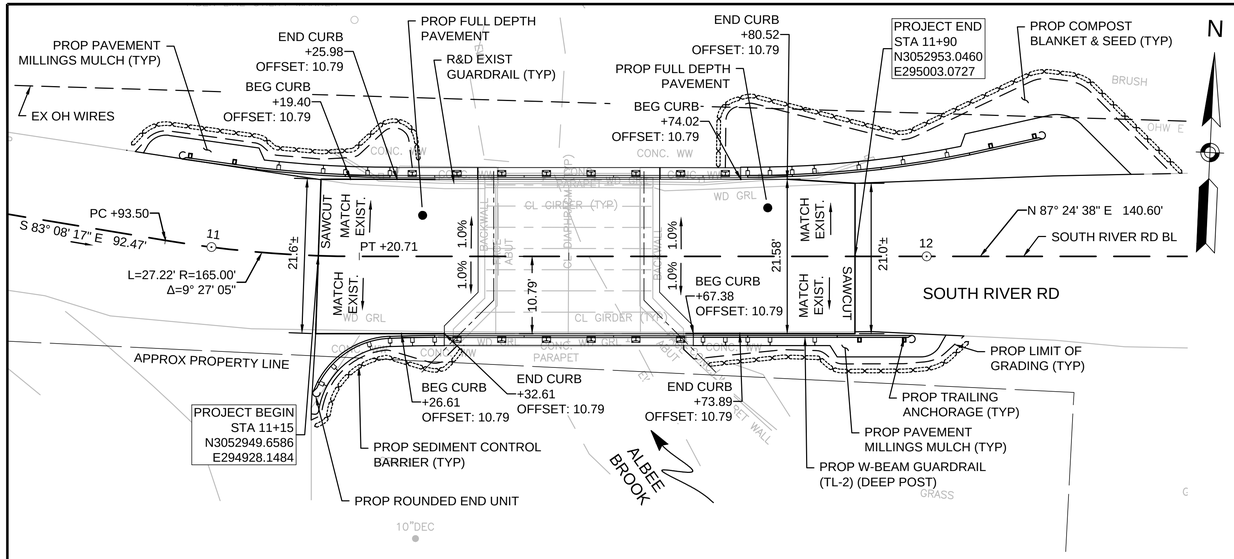
TOWN OF CHARLEMONT
DECK REPLACEMENT FOR CHARLEMONT C–05–027 (OET)
SOUTH RIVER ROAD OVER ALBEE BROOK

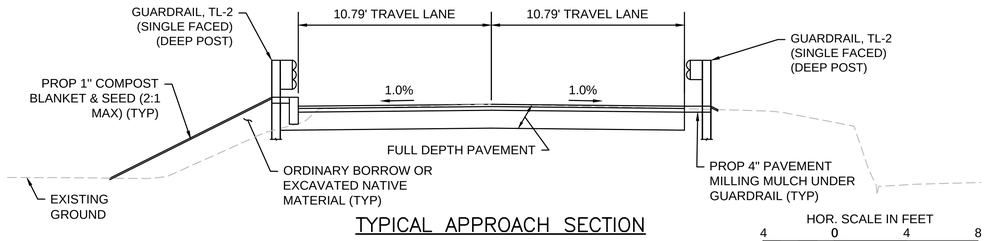
BRIDGE RAILING DETAILS

SHEET 8 OF 10



ROADWAY PLAN

SCALE: 1" = 10'



TYPICAL APPROACH SECTION

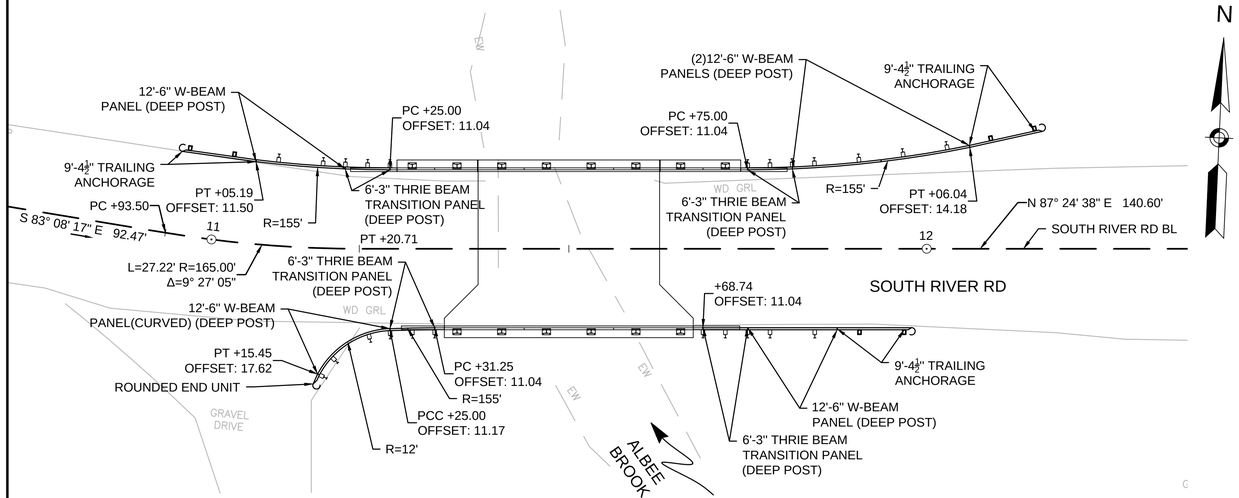
SCALE: 1" = 4'

PAVEMENT NOTES:

PROPOSED FULL DEPTH PAVEMENT

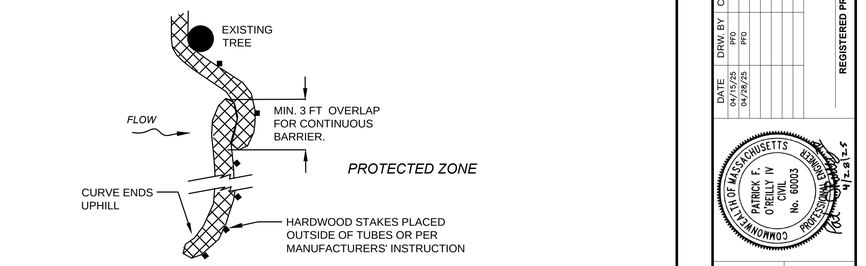
SURFACE COURSE: 1.5" HOT MIX ASPHALT - SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5) OVER ASPHALT EMULSION FOR TACK COAT OVER 2.5" HOT MIX ASPHALT - SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC-12.5)

BASE: 12" GRAVEL BORROW, TYPE B (EXISTING BASE MATERIAL MAY REMAIN IF SUITABLE AS DETERMINED BY THE ENGINEER)



GUARDRAIL PLAN VIEW

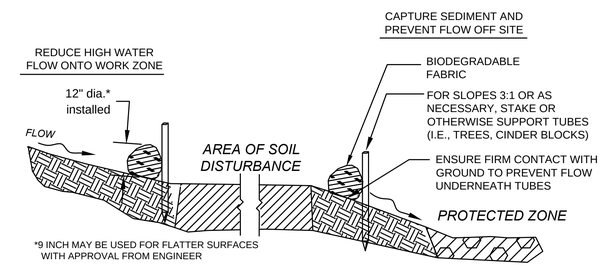
SCALE: 1" = 10'



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



*9 INCH MAY BE USED FOR FLATTER SURFACES WITH APPROVAL FROM ENGINEER

SECTION

SEDIMENT BARRIER – COMPOST FILTER TUBE

NOT TO SCALE

63 KENDRICK STREET
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GILL ENGINEERING

C05027 HD.dwg Plotted on 28-Apr-2025 1:31 PM

DATE	DRW. BY	CALC. BY	APPRV. BY	DESCRIPTION	DATE
04/15/25	PFO	PFO	PFO	RESUBMITTED FOR CHAPTER 85 REVIEW	
04/28/25	PFO	PFO	SBC	CHAPTER 85 APPROVED PLANS	

REGISTERED PROFESSIONAL ENGINEER

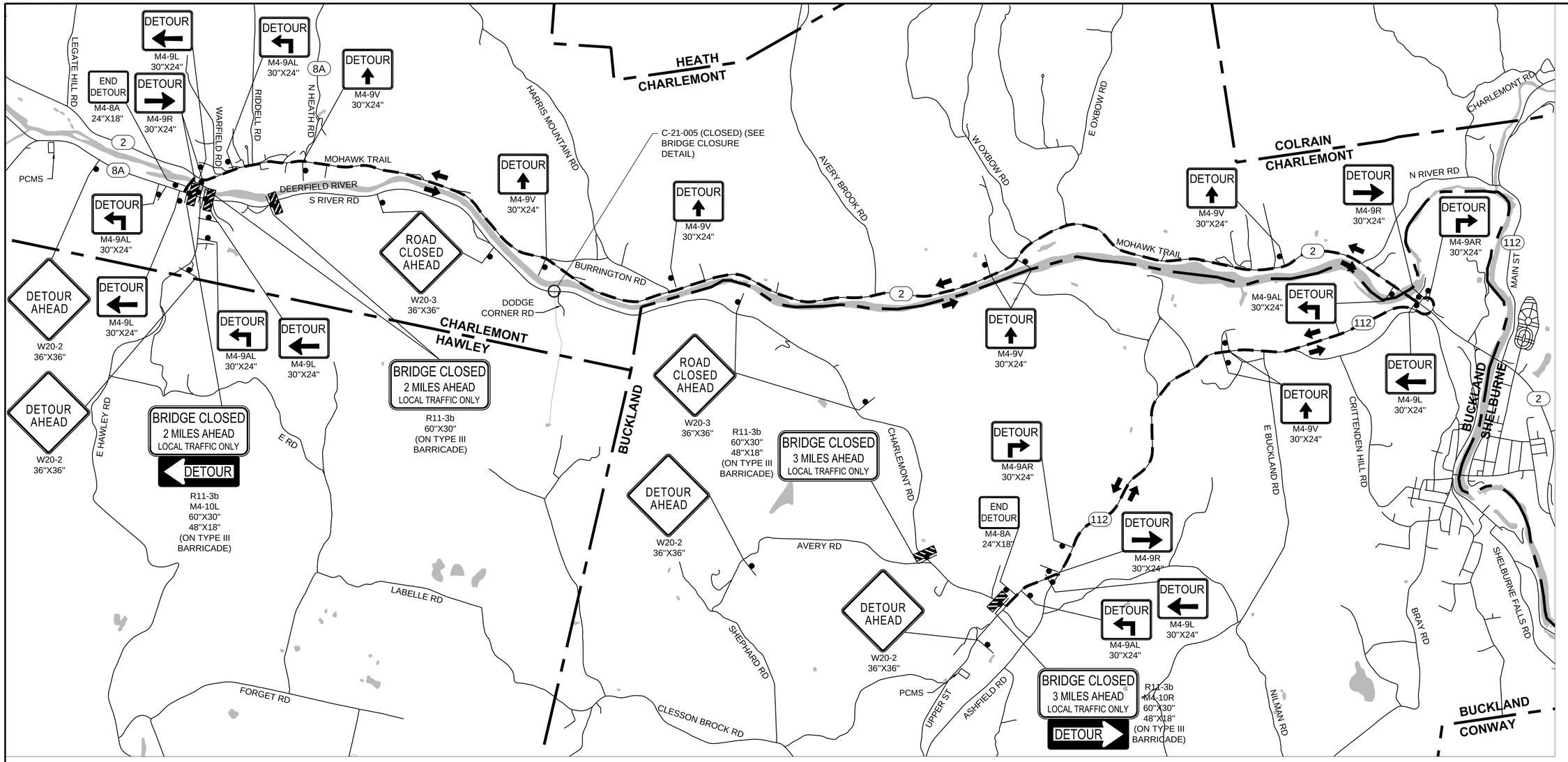
COMMONWEALTH OF MASSACHUSETTS PATRICK F. O'REILLY IV CIVIL No. 60003 REGISTERED PROFESSIONAL ENGINEER 4-28-25

PROPOSED DECK REPLACEMENT

TOWN OF CHARLEMONT

DECK REPLACEMENT FOR CHARLEMONT
C-05-027 (OET)
SOUTH RIVER ROAD OVER ALBEE BROOK

ROADWAY PLAN AND TYPICAL SECTION



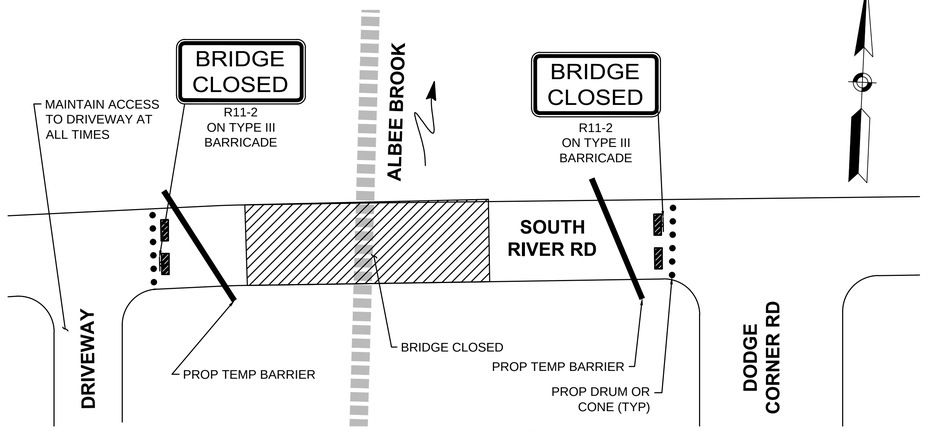
DETOUR
NOT TO SCALE

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. 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.
6. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
7. MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
8. MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS.
9. ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.

LEGEND

- TYPE III BARRICADE
- DIRECTION OF TRAFFIC
- WORK ZONE
- SIGN
- DETOUR ROUTE
- TEMPORARY BARRIER
- REFLECTORIZED DRUM OR CONE
- PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)



BRIDGE CLOSURE DETAIL
NOT TO SCALE

NOTE: CONTRACTOR SHALL SECURE THE WORK SITE WITH TEMPORARY FENCE (W/ "DANGER AREA CLOSED TO VEHICLE, BICYCLE, AND PEDESTRIAN TRAFFIC" SIGN)

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GILL ENGINEERING

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REGISTERED PROFESSIONAL ENGINEER — DATE

COMMONWEALTH OF MASSACHUSETTS
PATRICK F. O'REILLY IV
CIVIL
No. 60003
REGISTERED PROFESSIONAL ENGINEER
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TEMPORARY TRAFFIC CONTROL PLAN