

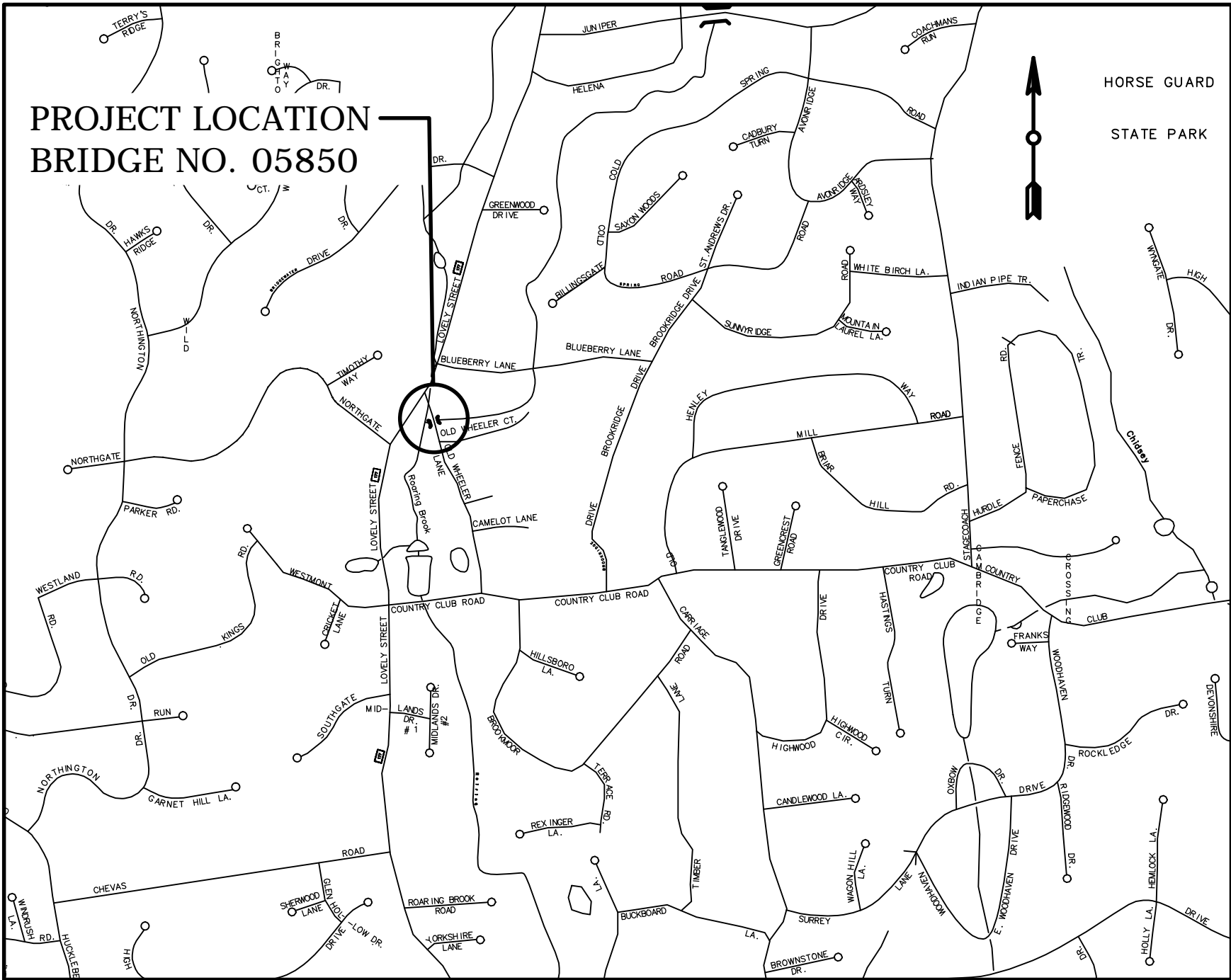
REHABILITATION OF BRIDGE NO. 05850

OLD WHEELER LANE OVER

ROARING BROOK

PREPARED FOR

TOWN OF AVON



LOCATION MAP

NOT TO SCALE

December 2015

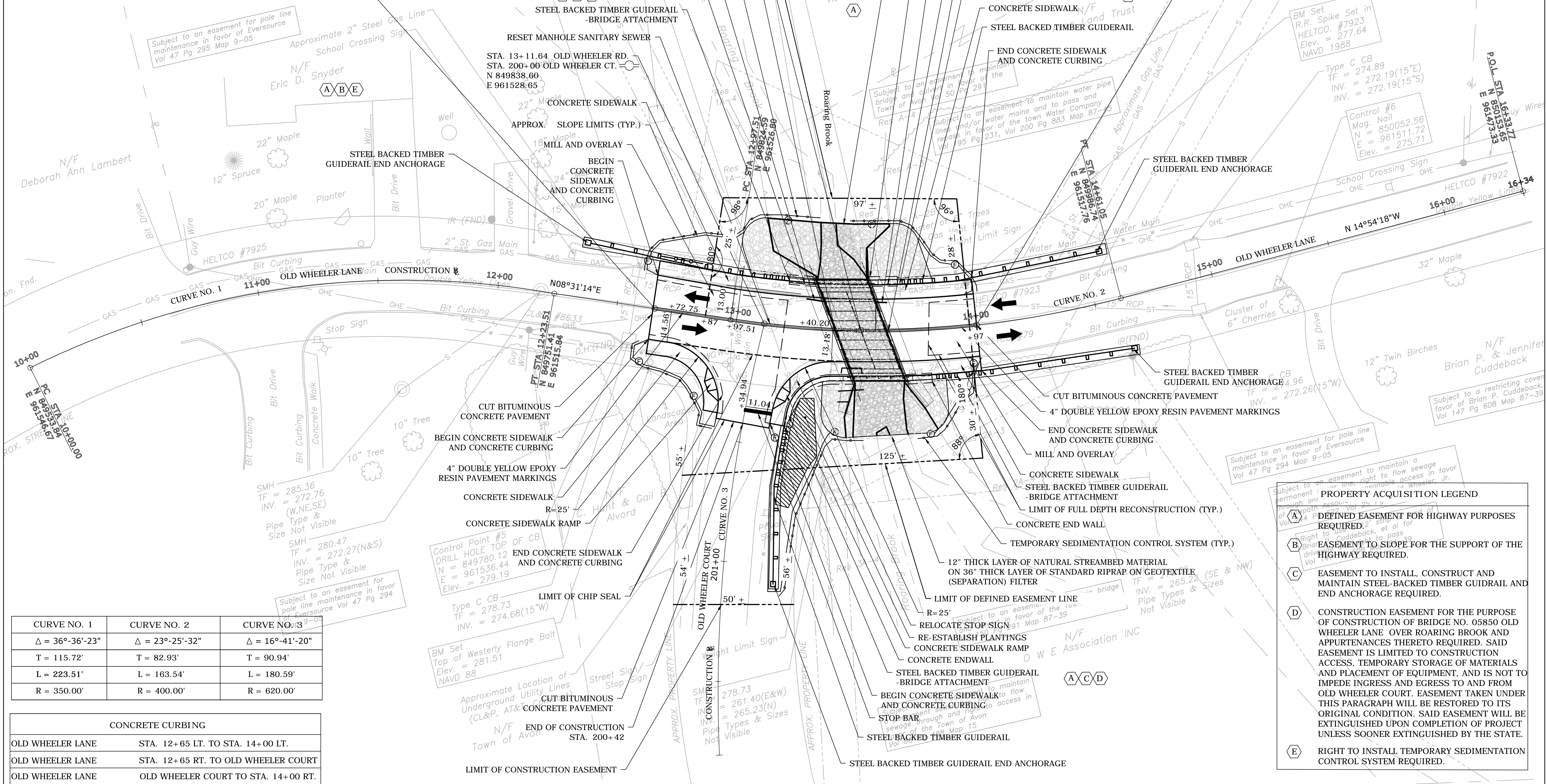


919 MIDDLE STREET
MIDDLETOWN, CT 06457

SHEET NO.	DESCRIPTION
-	TITLE SHEET
EST- 1	DETAILED ESTIMATE
TIE- 1	SURVEY AND TIE PLAN
TYP- 1	TYPICAL SECTIONS
MDS- 1	MISCELLANEOUS DETAILS
MDS- 2	SIDEWALK RAMP DETAILS
MDS- 3 TO MDS- 6	TIMBER GUIDERAIL DETAILS
MDS- 7	E&S NOTES DETAILS
HWY- 1	ROADWAY PLAN
PRO- 1	ROADWAY PROFILE
XSC- 1	CROSS SECTIONS
S- 01	GENERAL PLAN, ELEVATION AND SECTION
S- 02	BORING LOGS- 1
S- 03	BORING LOGS- 2
S- 04	WATER HANDLING PLAN
S- 05	ENDWALL DETAILS
S- 06	FRAMING PLAN
S- 07	PRESTRESSED BEAM DETAILS
S- 08	SIDEWALK AND RAILING PLAN
S- 09	MISCELLANEOUS DETAILS
S- 10	BRIDGE RAIL DETAILS
S- 11	TIMBER RAIL ATTACHMENT
MPT- 1	DETOUR PLAN
(SEE SUBSET INDEX)	CTDOT STANDARD HIGHWAY SHEETS
(SEE SUBSET INDEX)	CTDOT STANDARD TRAFFIC SHEETS
(SEE SUBSET INDEX)	CTDOT TRAFFIC GUIDE SHEETS

BEGIN STATE PROJECT NO. 004-131
STA. 12+65 OLD WHEELER LANE
N 849793.10
E 961522.08
MATCH EXISTING

END STATE PROJECT NO. 004-131
STA. 14+00 OLD WHEELER LANE
N 849926.77
E 961528.90
MATCH EXISTING



CURVE NO. 1	CURVE NO. 2	CURVE NO. 3
$\Delta = 36^{\circ}-36'-23"$	$\Delta = 23^{\circ}-25'-32"$	$\Delta = 16^{\circ}-41'-20"$
$T = 115.72'$	$T = 82.93'$	$T = 90.94'$
$L = 223.51'$	$L = 163.54'$	$L = 180.59'$
$R = 350.00'$	$R = 400.00'$	$R = 620.00'$

CONCRETE CURBING	
OLD WHEELER LANE	STA. 12+65 LT. TO STA. 14+00 LT.
OLD WHEELER LANE	STA. 12+65 RT. TO OLD WHEELER COURT
OLD WHEELER LANE	OLD WHEELER COURT TO STA. 14+00 RT.

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
02	12-28-2015	STAFF COMMENTS	
01	11-23-2015	STAFF COMMENTS	
REV.	DATE	REVISION DESCRIPTION	SHEET NO.

PLOTTED DATE: 12/18/2015 4:19 PM

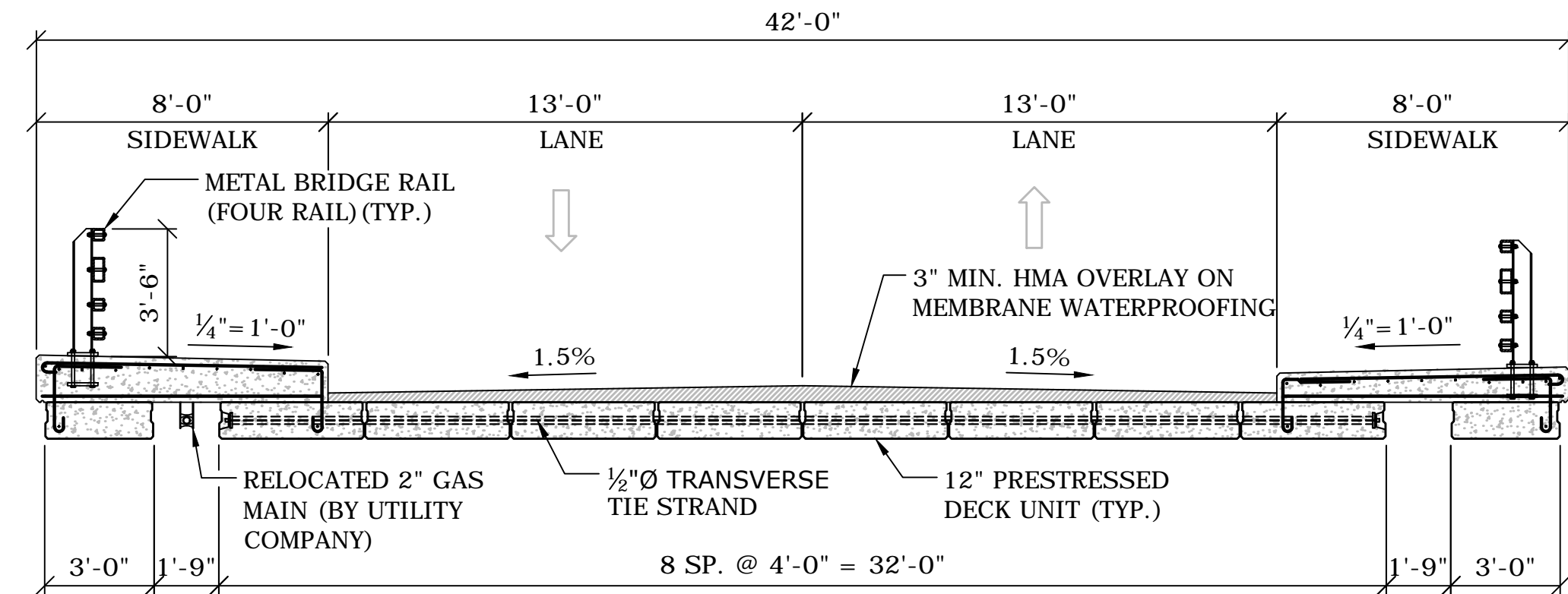
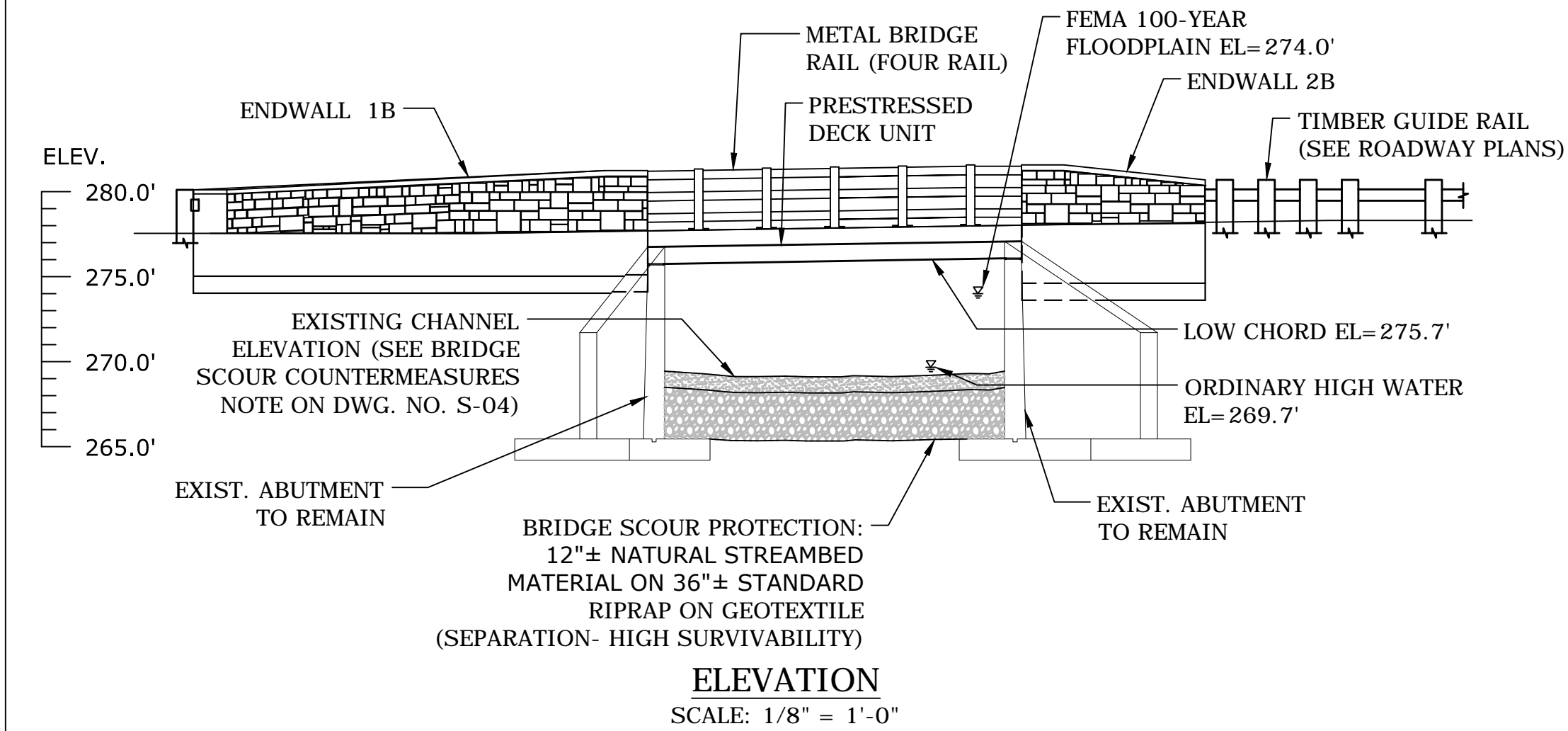
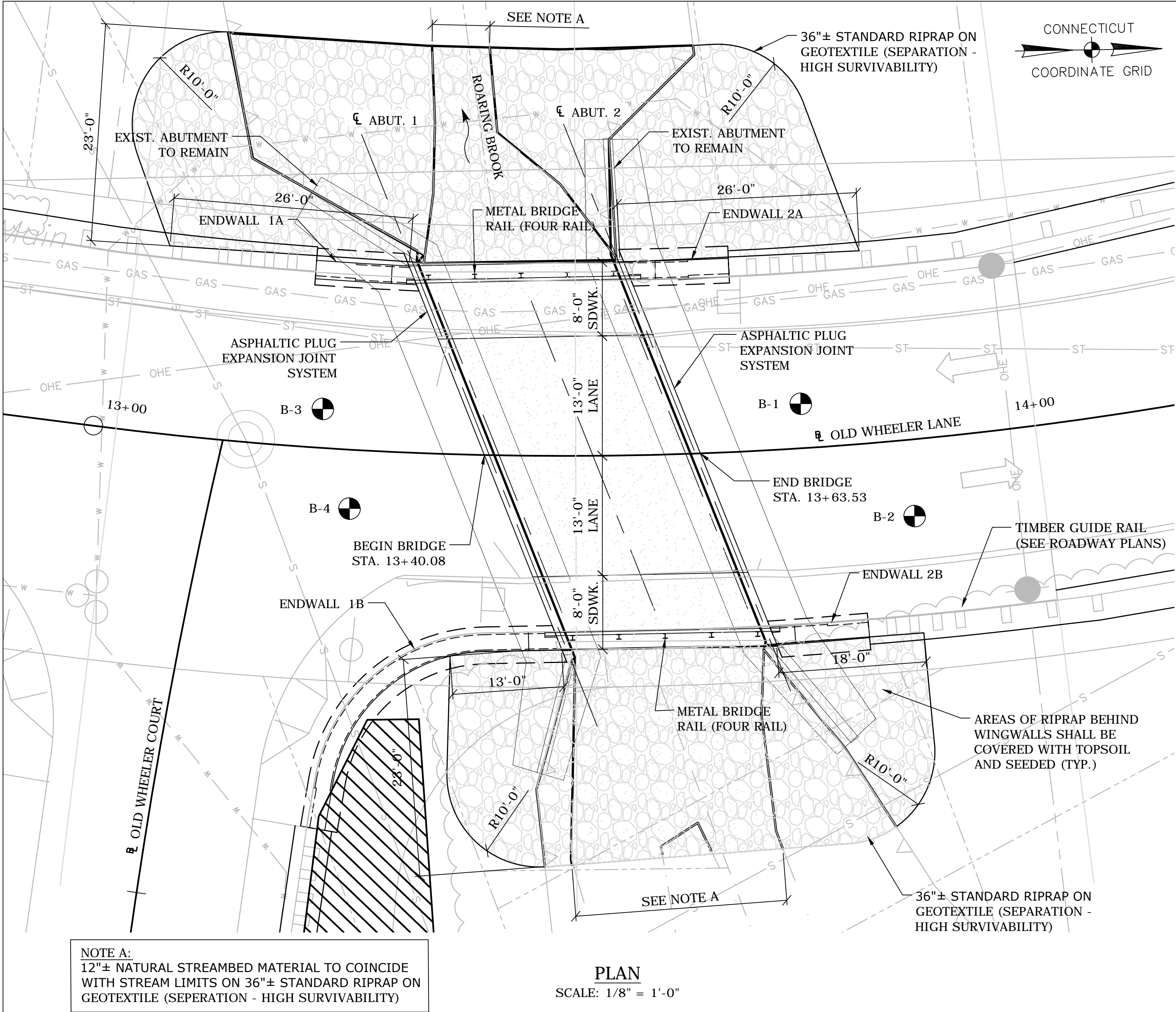
DESIGNER/DRAFTER:	MR/SK
CHECKED BY:	SG
SCALE IN FEET	
SCALE 1" = 20'	

ENGINEER:	AI Engineers, Inc.
919 MIDDLE STREET MIDDLETOWN, CT 06457	
FILENAME: HWY-1 ROADWAY PLAN.DWG	

SIGNATURE/ BLOCK:	
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PROJECT TITLE:	REHABILITATION OF BRIDGE NO. 05850 OLD WHEELER LANE OVER ROARING BROOK
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TOWN:	AVON	PROJECT NO.	004-0131
DRAWING NO.		DRAWING TITLE:	ROADWAY PLAN
SHEET NO.			



BRIDGE QUANTITIES		
ITEM NAME	UNIT	QUANTITY
STRUCTURE EXCAVATION - EARTH (COMPLETE)	CY	143
HANDLING WATER	LS	LS
LIGHTWEIGHT FILL	CY	44
PERVIOUS STRUCTURE BACKFILL	CY	42
HMA S0.5	TON	25
HMA S0.25	TON	4
REMOVAL OF SUPERSTRUCTURE	LS	LS
POLYVINYL CHLORIDE PLASTIC PIPE WEEPHOLES	EA	2
PRESTRESSED DECK UNITS (3'-0" X 1'-0")	LF	47
PRESTRESSED DECK UNITS (4'-0" X 1'-0")	LF	187
ASPHALTIC PLUG EXPANSION JOINT SYSTEM	CF	47
ELASTOMERIC BEARING PADS	CI	2,880
CLASS "A" CONCRETE	CY	45
CONCRETE FORM LINERS	SF	277
CLASS "F" CONCRETE	CY	15
DEFORMED STEEL BARS	LB	3,097
DEFORMED STEEL BARS - EPOXY COATED	LB	4,615
DRILLING HOLES AND GROUTING DOWELS	EA	40
MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC)	SY	75
METAL BRIDGE RAIL - FOUR RAIL	LF	49
TEMPORARY SUPPORT OF UTILITIES	LS	LS

HYDRAULIC SUMMARY DATA	
DRAINAGE AREA	3.98 SQ. MI.
DESIGN FREQUENCY	100-YEAR
DESIGN DISCHARGE	970 CFS
AVERAGE DAILY FLOW ELEVATION	269.7 FEET (EST)
UPSTREAM DESIGN WATER SURFACE ELEVATION	277 FEET (NAVD 88)
DOWNSTREAM DESIGN WATER SURFACE ELEVATION	273.5 FEET (NAVD 88)
MAXIMUM SCOUR DEPTH	14.8 FEET
FREQUENCY	100-YEAR
DISCHARGE	970 CFS
WORST CASE SCOUR SUB-STRUCTURE UNIT	NORTH ABUTMENT

GENERAL NOTES

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 816 (2004), SUPPLEMENTAL SPECIFICATIONS DATED JULY 2015 AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7TH EDITION, WITH THE INTERIM SPECIFICATIONS UP TO AND INCLUDING THE YEAR 2014, AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003).

ALLOWABLE DESIGN STRESSES:
CLASS "A" CONCRETEBASED ON $f_c = 3000$ psi
CLASS "F" CONCRETEBASED ON $f_c = 4000$ psi
PRECAST PRESTRESSED CONCRETE.....BASED ON $f_c = 6000$ psi

THE SPECIFIED CONCRETE STRENGTHS USED IN DESIGN, f_c , OF THE CONCRETE COMPONENTS ARE NOTED ABOVE. THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF "SECTION 6.01 CONCRETE FOR STRUCTURES."

REINFORCEMENT (ASTM A615, GRADE 60) $f_y = 60,000$ psi

LIVE LOAD: AASHTO HL-93

FUTURE PAVING ALLOWANCE: NONE

BITUMINOUS CONCRETE OVERLAY: THIS SHALL CONSIST OF TWO COURSES. THE BOTTOM COURSE SHALL BE HOT MIX ASPHALT (1" HMA S0.25) AND THE TOP COURSE SHALL BE HOT MIX ASPHALT (2" MINIMUM HMA S0.5).

DIMENSIONS: ALL DIMENSIONS SHOWN ON THE PLANS ARE IN FEET AND INCHES EXCEPT IF NOTED OTHERWISE. WHEN ELEVATIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS ARE ASSUMED TO BE ZEROS.

EXISTING DIMENSIONS: DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE ORIGINAL 1964 DESIGN DRAWING, AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, THE FIELD MEASUREMENTS SHALL BE INCLUDED FOR REFERENCE.

CLASS "A" CONCRETE: CLASS "A" CONCRETE SHALL BE USED FOR THE ENTIRE SUBSTRUCTURE.

CLASS "F" CONCRETE: CLASS "F" CONCRETE SHALL BE USED FOR SIDEWALKS.

JOINT SEAL: SEE SPECIAL PROVISIONS.

EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1" X 1" UNLESS DIMENSIONED OTHERWISE.

CONCRETE COVER: ALL REINFORCEMENT SHALL HAVE 2" COVER UNLESS DIMENSIONED OTHERWISE.

REINFORCEMENT: ALL REINFORCING SHALL BE ASTM A615 GRADE 60.

EPOXY COATED REINFORCING BARS: ALL REINFORCEMENT IN THE SUPERSTRUCTURE, INCLUDING THE SIDEWALK, SHALL BE EPOXY COATED UNLESS OTHERWISE NOTED. BARS IN THE SIDEWALK SHALL BE INCLUDED IN THE PAY ITEM FOR "DEFORMED STEEL BARS (EPOXY COATED)" AND BARS IN THE PRECAST SLABS SHALL BE INCLUDED IN THE PAY ITEM "PRESTRESSED DECK UNITS."

PREFORMED EXPANSION JOINT FILLER: THE COST OF FURNISHING AND INSTALLING PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED IN THE COST OF THE ITEM "CLASS "A" CONCRETE."

CONSTRUCTION JOINTS: CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.

NOTICE TO BRIDGE INSPECTORS	
THE DEPARTMENT'S BRIDGE SAFETY PROCEDURES REQUIRE THIS BRIDGE TO BE INSPECTED FOR, BUT NOT LIMITED TO, ALL APPROPRIATE COMPONENTS INDICATED IN THE GOVERNING MANUALS FOR BRIDGE INSPECTION. ATTENTION MUST BE GIVEN TO INSPECTING THE FOLLOWING SPECIAL COMPONENTS AND DETAILS. (THE LISTING FOR COMPONENTS FOR SPECIFIC ATTENTION SHALL NOT BE CONSTRUED TO REDUCE THE IMPORTANCE OF INSPECTION OF ANY OTHER COMPONENT OF THE STRUCTURE.) THE FREQUENCY OF INSPECTION OF THIS STRUCTURE SHALL BE IN ACCORDANCE WITH THE GOVERNING MANUALS FOR BRIDGE INSPECTION, UNLESS OTHERWISE DIRECTED BY THE MANAGER OF BRIDGE SAFETY AND EVALUATION.	
COMPONENT OR DETAIL	STRUCTURE SHEET REFERENCE
NONE	NONE

ESTIMATED CONCRETE SLAB UNIT SHIPPING ENVELOPE AND WEIGHT			
LENGTH (FT)	HEIGHT (FT)	WIDTH (FT)	WEIGHT (LBS)
23'-5"	1'-0"	4'-0"	13,700
23'-5"	1'-0"	3'-0"	10,500

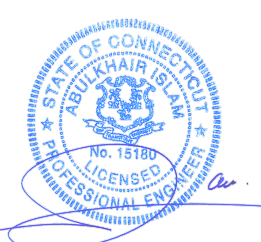
C.I.P. CONCRETE DISTRIBUTION		
SUBSTRUCTURE:	CY	45
*SUPERSTRUCTURE:	CY	15
TOTAL:	CY	60

*NOTE: SUPERSTRUCTURE INCLUDES CONCRETE SIDEWALKS.

02	12-28-2015	STAFF COMMENTS		
01	11-23-2015	STAFF COMMENTS		
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	PLOTTED DATE: 12/28/2015 12:39 PM

DESIGNER/DRAFTER:	KA
CHECKED BY:	AG
SCALE AS NOTED	

ENGINEER:	 Engineers, Inc. 919 MIDDLE STREET MIDDLETOWN, CT 06457
FILENAME:	01 GENERAL PLAN AND ELEV.DWG

SIGNATURE/ BLOCK:	
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PROJECT TITLE:	REHABILITATION OF BRIDGE NO. 05850 OLD WHEELER LANE OVER ROARING BROOK
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TOWN:	AVON	PROJECT NO.	004-0131
DRAWING TITLE:	GENERAL PLAN, ELEVATION AND SECTION	DRAWING NO.	S-01
		SHEET NO.	

LEGEND

80-9077

80-9806 **

80-9707

80-9928

51-2685

80-9707

80-9928

51-2626

80-9707

80-9928

51-2626(L)

80-9708

80-9081

80-9080 *

31-0552 *

DETOUR ROUTE

CONSTRUCTION BARRICADE TYPE III WITH HIGH INTENSITY BARRICADE WARNING LIGHTS

SINGLE POST
MOUNTED SIGN

DOUBLE POST
MOUNTED SIGN

Ⓐ

SIGN

*

SIGNS TO BE MOUNTED ON CONSTRUCTION BARRICADE

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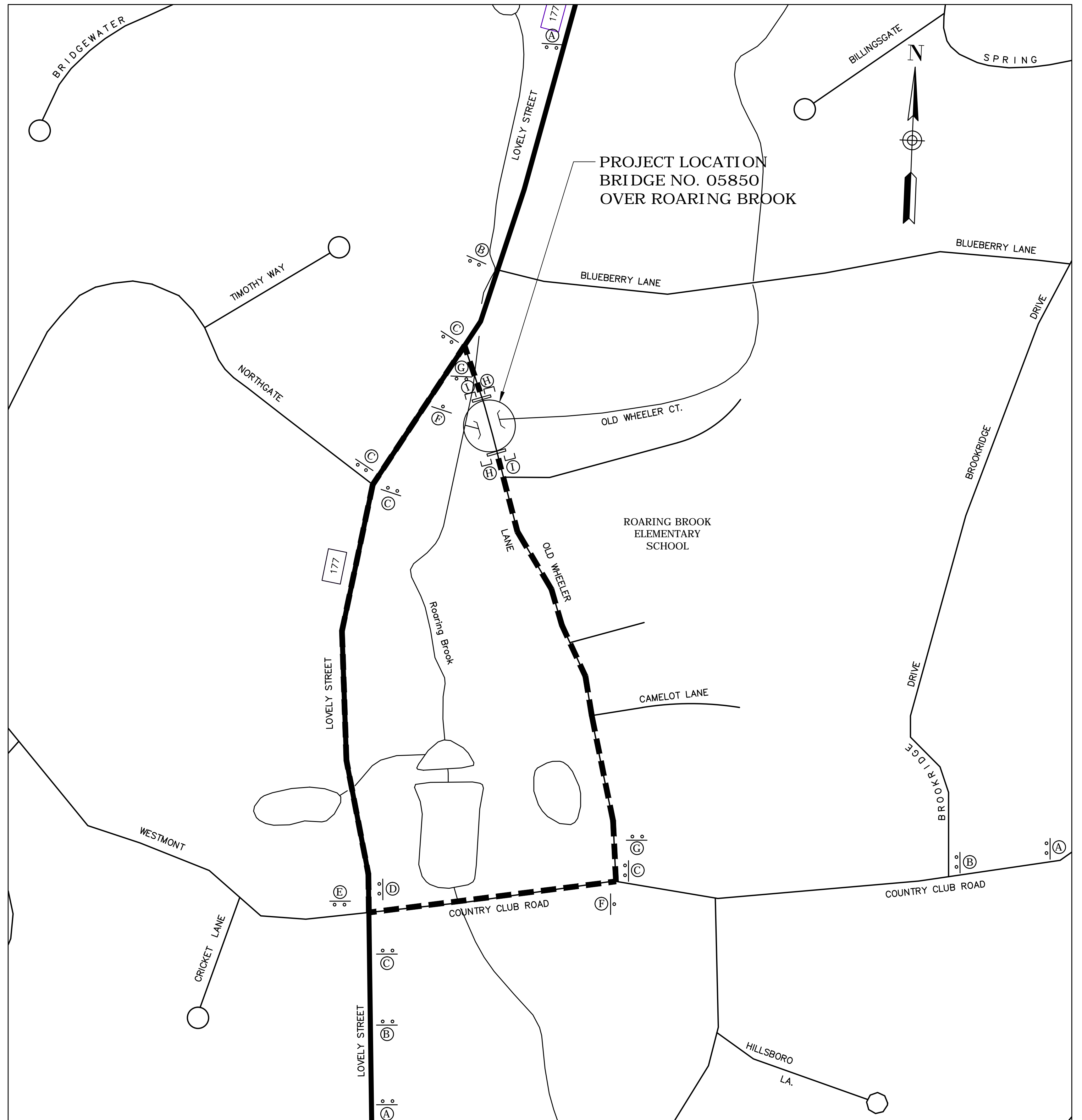
SIGNS TO HAVE BARRICADE
WARNING LIGHTS - HIGH INTENSITY

11

TEMPORARY PRECAST CONCRETE BARRIER CURB

1. ALL CONFLICTING SIGNS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS IN EFFECT. UPON COMPLETION OF THE DETOUR, ALL SIGNS SHALL BE UNCOVERED OR REINSTALLED IN THEIR ORIGINAL LOCATIONS. THIS WORK PAYABLE UNDER ITEM "MAINTENANCE AND PROTECTION OF TRAFFIC."
2. ALL SIGNS USED FOR CONSTRUCTION ACTIVITIES SHALL BE PAID FOR UNDER ITEM "CONSTRUCTION SIGNS (BRIGHT FLUORESCENT SHEETING).
3. ALL DETOUR SIGNS ARE TO BE POST MOUNTED WHEN FEASIBLE.
4. EXISTING SIGNS IN CONFLICT WITH TEMPORARY SIGNS SHALL BE COVERED, REMOVED OR REVISED TO MEET FIELD CONDITIONS.
5. THE LOCATIONS OF TEMPORARY SIGNS SHOWN ON THE PLAN ARE APPROXIMATE AND SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET FIELD CONDITIONS.
6. SIGNS D AND E SHALL BE INSTALLED A MINIMUM OF 200 FEET BEFORE THE SIGNED TURN IS TO BE MADE.
7. THE CONTRACTOR SHALL NOTIFY THE TOWN OF AVON EMERGENCY SERVICES TWO WEEKS PRIOR TO INITIATING DETOUR. INSTALL STATIC SIGN NO. 80-9079 ON LOVELY STREET AND COUNTRY CLUB ROAD IN BOTH DIRECTIONS IN VICINITY OF BRIDGE TWO WEEKS PRIOR TO INITIATING DETOUR. THESE SIGNS SHALL BE REMOVED ONCE THE DETOUR IS IN EFFECT.

80-9079



SCALE: 1" = 200'

					DESIGNER/DRAFTER: EW/SK	ENGINEER: <div>AI Engineers, Inc. 919 MIDDLE STREET MIDDLETOWN, CT 06457</div>	SIGNATURE/ BLOCK:	PROJECT TITLE: REHABILITATION OF BRIDGE NO. 05850 OLD WHEELER LANE OVER ROARING BROOK	TOWN: AVON	PROJECT NO. 004-0131
					CHECKED BY: SG				DRAWING NO. MPT-1	
02	12-28-2015	STAFF COMMENTS			SCALE AS NOTED				DRAWING TITLE: DETOUR PLAN	SHEET NO.
01	11-23-2015	STAFF COMMENTS								
REV.	DATE	REVISION DESCRIPTION		SHEET NO.		PLOTTED DATE: 12/28/2015 12:41 PM	FILENAME: MPT-1 DETOUR PLAN.DWG			