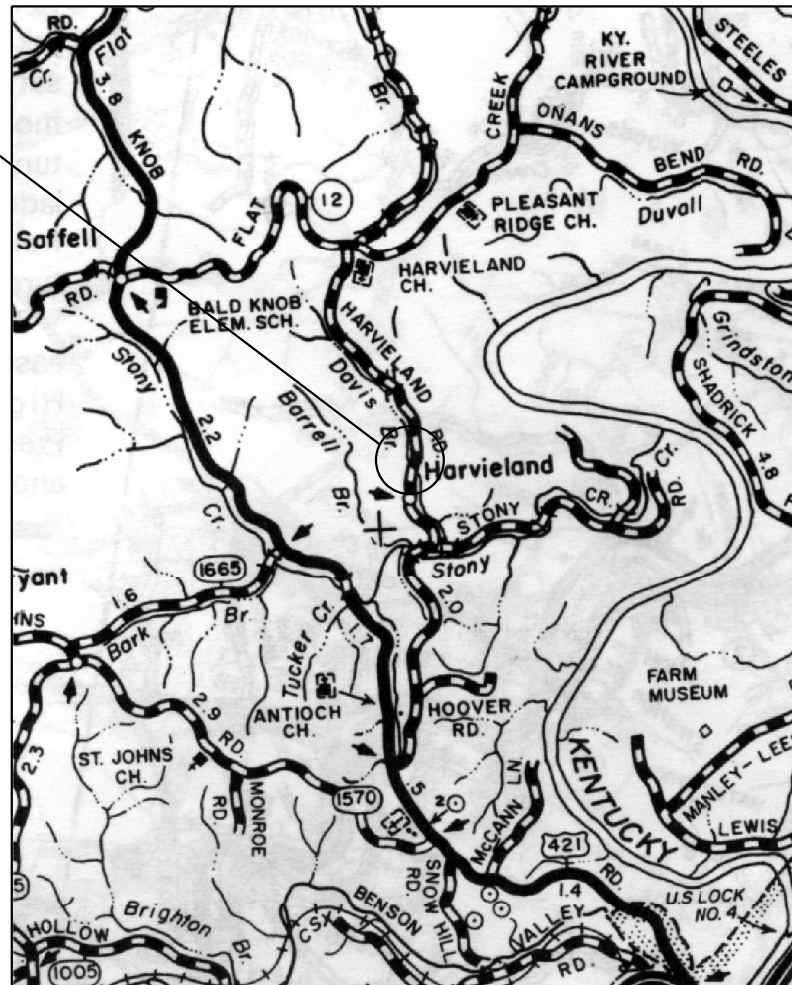


FRANKLIN COUNTY HARVIELAND ROAD over DAVIS BRANCH BRIDGE REPLACEMENT

Prepared For:
FRANKLIN COUNTY FISCAL COURT

PROJECT
LOCATION



LOCATION MAP

FRANKLIN COUNTY FISCAL COURT

HUSTON WELLS	JUDGE/EXECUTIVE
JENNIFER WILSON	DEPUTY JUDGE/EXECUTIVE
MICHAEL TURNER	MAGISTRATE, DISTRICT 1
FRED GOINS	MAGISTRATE, DISTRICT 2
DON STURGEON	MAGISTRATE, DISTRICT 3
SCOTTY TRACY	MAGISTRATE, DISTRICT 4
MARTI BOOTH	MAGISTRATE, DISTRICT 5
LAMBERT MOORE	MAGISTRATE, DISTRICT 6

INDEX OF SHEETS

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2	GENERAL NOTES
3	PLAN AND PROFILE
4	HORIZONTAL CONTROL
5	END BENT 1 DETAILS
6	END BENT 2 DETAILS
7	BILL OF REINFORCEMENT

NO.	DATE	DESCRIPTION	BY



201 BRIGHTON PARK BLVD.
FRANKFORT, KENTUCKY 40601
(502) 695-2300

HARVIELAND ROAD
over DAVIS BRANCH
BRIDGE REPLACEMENT
FRANKLIN COUNTY, KENTUCKY

COVER SHEET

DRAWN BY: MSC	DATE: JULY 2016
CHECKED BY: LNB	SCALE: N.T.S.
JOB NO.: 1231-0044-90	SHEET: 1 of 7

GENERAL NOTES

SPECIFICATIONS:

ALL REFERENCES TO THE STANDARD SPECIFICATIONS ARE TO THE 2012 EDITION OF THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION WITH CURRENT SUPPLEMENTAL SPECIFICATIONS. ALL REFERENCES TO THE AASHTO SPECIFICATIONS ARE TO THE SEVENTH EDITION, 2014, OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, WITH INTERIMS.

DESIGN LOAD:

THIS BRIDGE IS DESIGNED FOR KY HL93 LIVE LOAD CONSISTING OF A COMBINATION OF THE DESIGN TRUCK OR DESIGN TANDEM, AND A DESIGN LANE LOAD. THE KY HL93 LIVE LOAD IS DETERMINED BY INCREASING THE HL93 LIVE LOAD BY 25%. THIS BRIDGE IS DESIGNED FOR A WIND LOAD BASED ON A WIND VELOCITY OF 100 MPH.

DESIGN METHOD:

ALL REINFORCED CONCRETE MEMBERS ARE DESIGNED BY THE LOAD AND RESISTANCE FACTOR METHOD AS SPECIFIED IN THE CURRENT AASHTO SPECIFICATIONS.

MATERIALS DESIGN SPECIFICATIONS:

FOR CLASS "A" REINFORCED CONCRETE F'C = 3,500 PSI
 FOR CLASS "B" CONCRETE F'C = 2,500 PSI
 FOR STEEL REINFORCEMENT FY = 60,000 PSI
 FOR STRUCTURAL STEEL (PILES) FY = 50,000 PSI

FOUNDATION DATA:

SEE FOUNDATION LAYOUT SHEET

FOUNDATION PRESSURE:

PILES IN END BENTS ARE DESIGNED FOR A MAXIMUM LOAD OF 69 TONS PER PILE.

CONCRETE:

CLASS "A" CONCRETE IS TO BE USED THROUGHOUT THE SUBSTRUCTURE. PRESTRESSED GIRDER CONCRETE SHALL BE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

THE CONTRACTOR SHALL COMPLY WITH SECTIONS 601.03.09(D), 601.03.14, AND 601.03.15 IN THE STANDARD SPECIFICATIONS IN REGARDS TO CONCRETE CONSTRUCTION.

FOUNDATION CONSTRUCTION:

CONTRACTOR SHALL NOTIFY THE ENGINEER 24 HOURS PRIOR TO POURING CONCRETE FOR THE FOUNDATION.

EXCAVATION, CONCRETE FORMING AND REBAR PLACEMENT SHALL BE COMPLETED PRIOR TO ENGINEER INSPECTION.

ENGINEER INSPECTION SHALL BE PERFORMED PRIOR TO POURING OF CONCRETE FOR THE FOUNDATION. IF THE CONCRETE IS POURED PRIOR TO THE ENGINEER INSPECTION, THE CONTRACTOR SHALL BE REQUIRED TO REMOVE THE CONCRETE AT HIS/HER OWN EXPENSE.

REINFORCEMENT:

DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE CLEAR DISTANCES UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS. CLEAR DISTANCE TO FACE OF CONCRETE IS 2" UNLESS OTHERWISE NOTED.

BEVELED EDGES:

ALL EXPOSED EDGES SHALL BE BEVELED 3/4" UNLESS OTHERWISE SHOWN.

BILL OF INCIDENTAL MATERIAL:

THE QUANTITIES SHOWN IN THE BILL OF INCIDENTAL MATERIALS ARE APPROXIMATE ONLY AND THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ENOUGH MATERIAL TO COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE COST OF THESE ITEMS IS TO BE INCLUDED IN THE LUMP SUM BID FOR THIS PROJECT.

BENCH MARKS:

ELEVATIONS OF BENCH MARKS ARE ASSUMED ELEVATIONS.

REMOVAL OF EXISTING STRUCTURE:

EXISTING STRUCTURE IS TO BE REMOVED BY THE COUNTY.

PRESTRESSED CONCRETE BOX BEAMS:

PRECAST CONCRETE BOX BEAMS TO BE PAID FOR BY THE COUNTY.

CONTRACTOR IS RESPONSIBLE FOR PROVIDING ACCESS TO THE JOB SITE FOR DELIVERY AND SETTING OF THE BOX BEAMS. CONTRACTOR IS ALSO RESPONSIBLE FOR COORDINATING WITH THE FABRICATOR AND SETTING OF THE BOX BEAMS.

CONSTRUCTION IN STREAM:

CONTRACTOR IS RESPONSIBLE FOR MAINTAINING FLOW OF STREAM DURING CONSTRUCTION AND IS ALSO RESPONSIBLE FOR MAINTAINING A DRY EXCAVATION DURING POURING OF CONCRETE FOR THE FOUNDATION INCLUDING ANY NECESSARY PUMPING, DIKES OR OTHER METHODS REQUIRED TO PROVIDE DRY EXCAVATION.

SHOP DRAWINGS:

WHEN ANY CHANGES IN THE DESIGN PLANS ARE PROPOSED BY THE FABRICATOR OR SUPPLIER, THE SHOP DRAWINGS REFLECTING THESE CHANGES SHALL BE SUBMITTED TO THE DEPARTMENT/DESIGN ENGINEER THROUGH THE CONTRACTOR.

DIMENSIONS:

DIMENSIONS ARE FOR A NORMAL TEMPERATURE OF 60 DEGREES FARENHEIT. LAYOUT DIMENSIONS ARE HORIZONTAL MEASUREMENTS.

ON-SITE INSPECTION:

EACH CONTRACTOR SUBMITTING A BID FOR THIS WORK SHALL MAKE A THOROUGH INSPECTION OF THE PROJECT SITE PRIOR TO SUBMITTING A BID AND SHALL BE THOROUGHLY FAMILIARIZED WITH EXISTING CONDITIONS SO THAT WORK CAN BE EXPEDITIOUSLY PERFORMED AFTER A CONTRACT IS AWARDED. SUBMISSION OF A BID WILL BE CONSIDERED EVIDENCE OF THIS INSPECTION HAVING BEEN MADE. ANY CLAIMS RESULTING FROM SITE CONDITIONS WILL NOT BE HONORED BY THE DEPARTMENT OF HIGHWAYS.

PRE-DRILLING PILES:

PRE-DRILLED HOLES FOR PILES SHALL EXTEND TO ELEVATION 604.00 OR A MINIMUM ONE (1) FOOT EMBEDMENT INTO BEDROCK AND PROVIDE A MINIMUM PILE LENGTH OF 10'-0". THE HOLE SHALL BE BACKFILLED TO THE TOP OF ROCK ELEVATION USING CLASS "B" CONCRETE. TEMPORARY CASING MAY BE REQUIRED TO PREVENT THE COLLAPSE OF THE HOLE. IF CASING IS USED, THEN IT SHALL BE REMOVED AS THE HOLE IS BEING BACKFILLED. THE COST OF ALL MATERIALS, LABOR, AND EQUIPMENT NEEDED TO PRE-DRILL AND BACKFILL THE HOLES SHALL BE INCLUDED IN THE PRICE PER LINEAR FOOT FOR "PRE-DRILLING FOR PILES".

GUARDRAIL

CONTRACTOR RESPONSIBLE FOR GUARDRAIL ON BRIDGE ONLY. THE COUNTY WILL PROVIDE AND INSTALL ROADWAY GUARDRAIL.

STANDARD DRAWINGS

STANDARD DRAWINGS LISTED BELOW ARE THE CURRENT EDITION AND ARE TO BE USED WITH THESE PLANS.

BBP - 003 - 02	ELASTOMERIC BEARING PADS FOR BOX BEAMS
BDP - 001 - 05	BOX BEAM GENERAL NOTES & REFERENCES
BDP - 002 - 03	BOX BEAM BEARING DETAILS
BDP - 003 - 03	BOX BEAM MISCELLANEOUS DETAILS
BDP - 004 - 03	BOX BEAM TENSION ROD DETAILS
BDP - 005 - 05	RAILING SYSTEM TYPE II
BDP - 009 - 04	BOX BEAM B27 & CB27 DETAILS
BHS - 007 - 07	RAILING SYSTEM, TYPE II, GUARDRAIL TREATMENT
BPS - 003 - 09	HP 12X53 STEEL PILE
RGX - 100 - 06	TREATMENT OF EMBANKMENTS AT END BENTS
RGX - 105 - 08	TREATMENT OF EMBANKMENTS AT END BENTS

SPECIAL NOTES

PRE-DRILLING FOR PILES (SOIL)
 PRE-DRILLING FOR PILES (ROCK)
 PILE STEEL, HP 12X53

ESTIMATE OF QUANTITIES		
ITEM	QUANT.	UNIT
CONCRETE, CLASS "A"	47.7	CU YD
REINFORCING STEEL	3592	LB
STRUCTURE EXCAVATION, COMMON	51	CU YD
CYCLOPEAN RIPRAP	97	TONS
HP 12X53 STEEL PILE	180	LF
PRE-DRILLING FOR PILES (SOIL)	110	LF
PRE-DRILLING FOR PILES (ROCK)	55	LF
STRUCTURE GRANULAR BACKFILL	106	CU YD
GEOTEXTILE FABRIC, TYPE IV	285	SQ YD

NOTE: QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY

BILL OF INCIDENTAL MATERIALS

MATERIAL	LOCATION	NO.	SIZE
1/2" CORK EXP. JT. MAT'L.	ABUTMENTS	4	2'-5" x 3'-8"
1/2" CORK	ABUTMENTS	2	3'-0" x 32'-0"
BEARING PAD TYPE BI	ABUTMENTS	24	--
4" DIA. PERFORATED PIPE	ABUTMENTS	--	110 LF
4" DIA. NON-PERFORATED PIPE	ABUTMENTS	--	17 LF

NOTE: BILL OF INCIDENTAL MATERIALS ARE FOR INFORMATIONAL PURPOSES ONLY

NO.	DATE	DESCRIPTION	BY

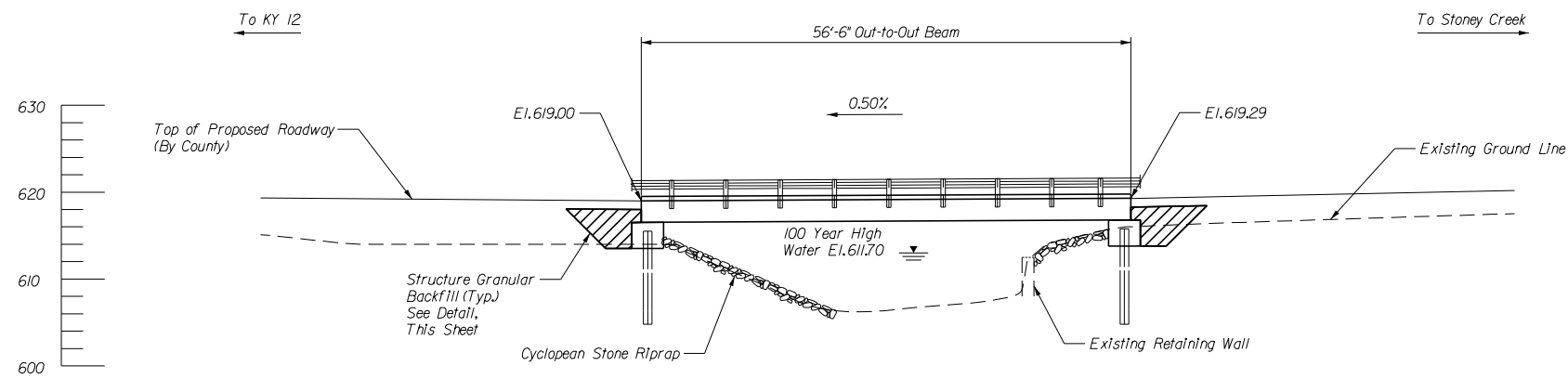


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HARVIELAND ROAD
 over DAVIS BRANCH
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 FRANKLIN COUNTY, KENTUCKY

GENERAL NOTES

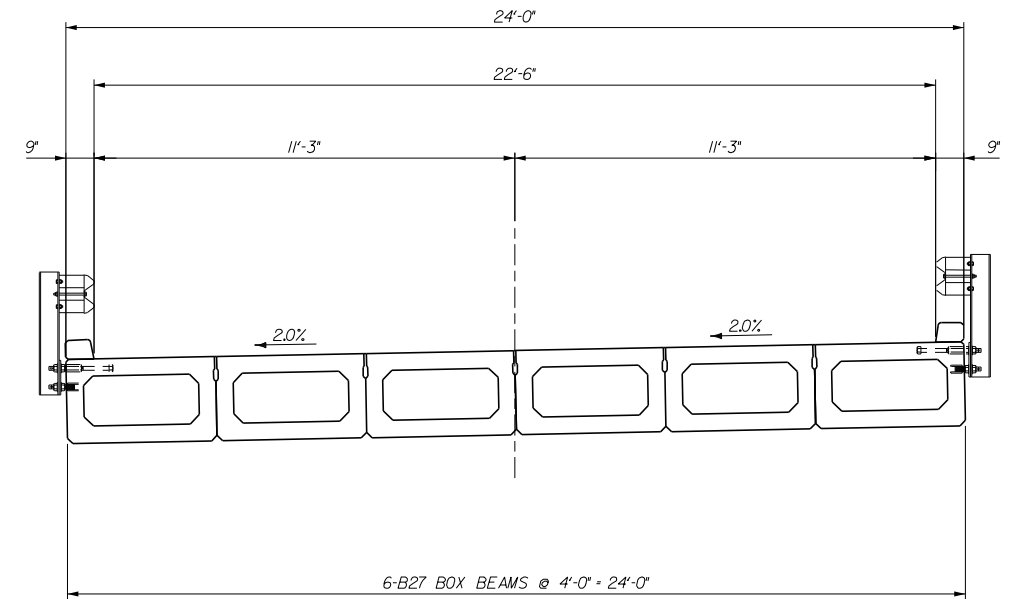
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JOB NO.: 1231-0044-90	SHEET: 2 of 7



Note: Treatment of Embankments at End Bents
See Standard Drawing RGX-100-05

ELEVATION

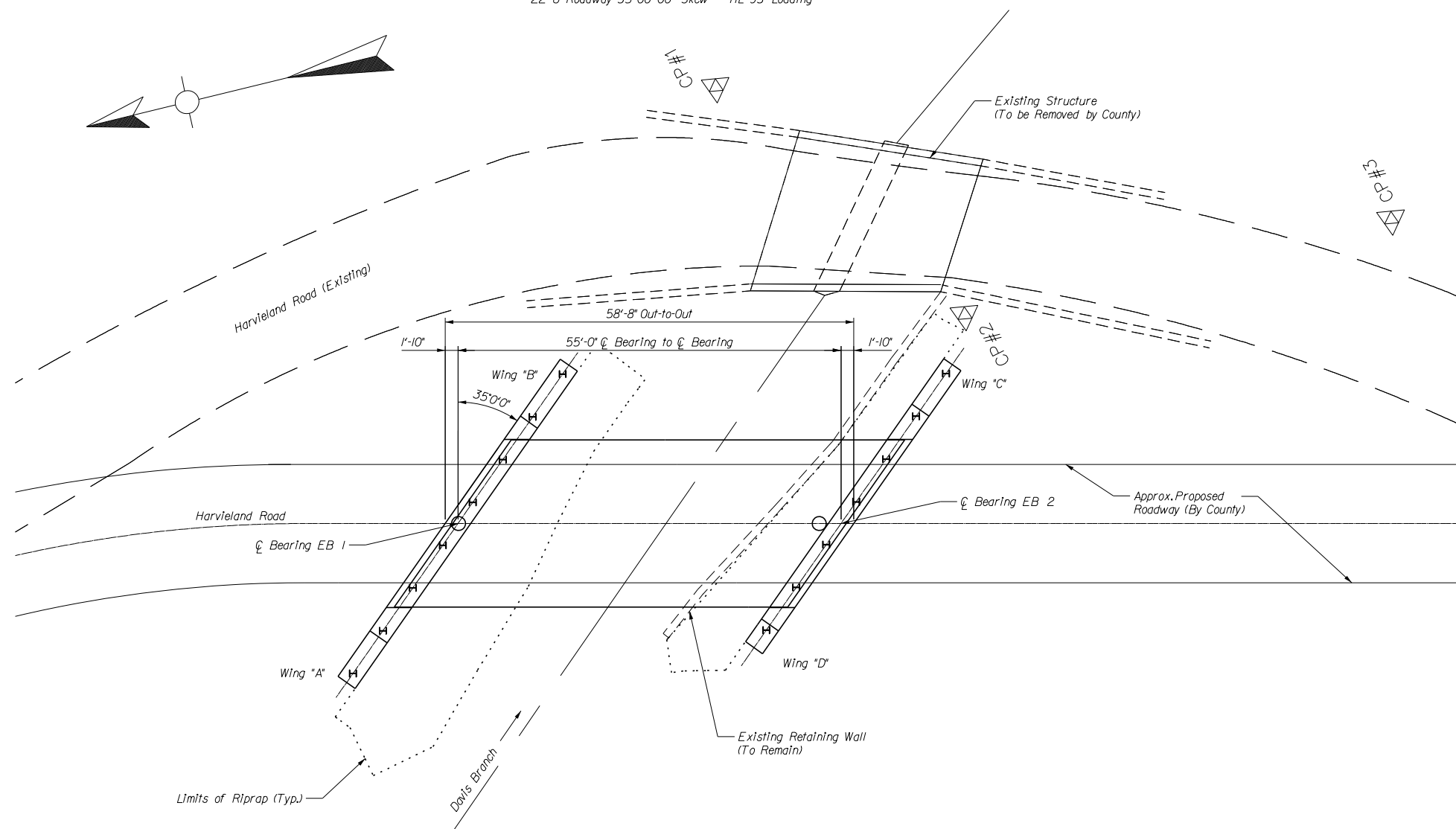
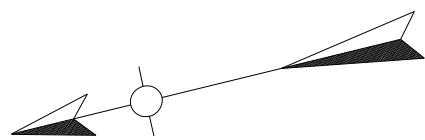
Type B27 Box Beam Structure
~22'-6" Roadway 35° 00' 00" Skew ~ HL 93 Loading



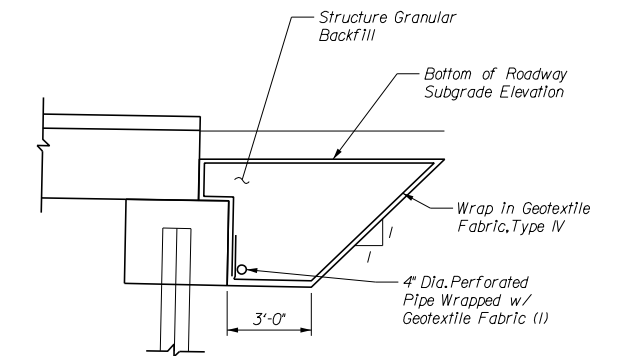
TYPICAL SECTION

(Looking Ahead)

Note: Curb and Guardrail System II
See Standard Drawing BDP - 005 - 04



PLAN



Structure Granular Backfill Detail

(1) Connect to 4" Dia. Non-Perforated Pipe and Provide Positive Drainage

NO.	DATE	DESCRIPTION	BY



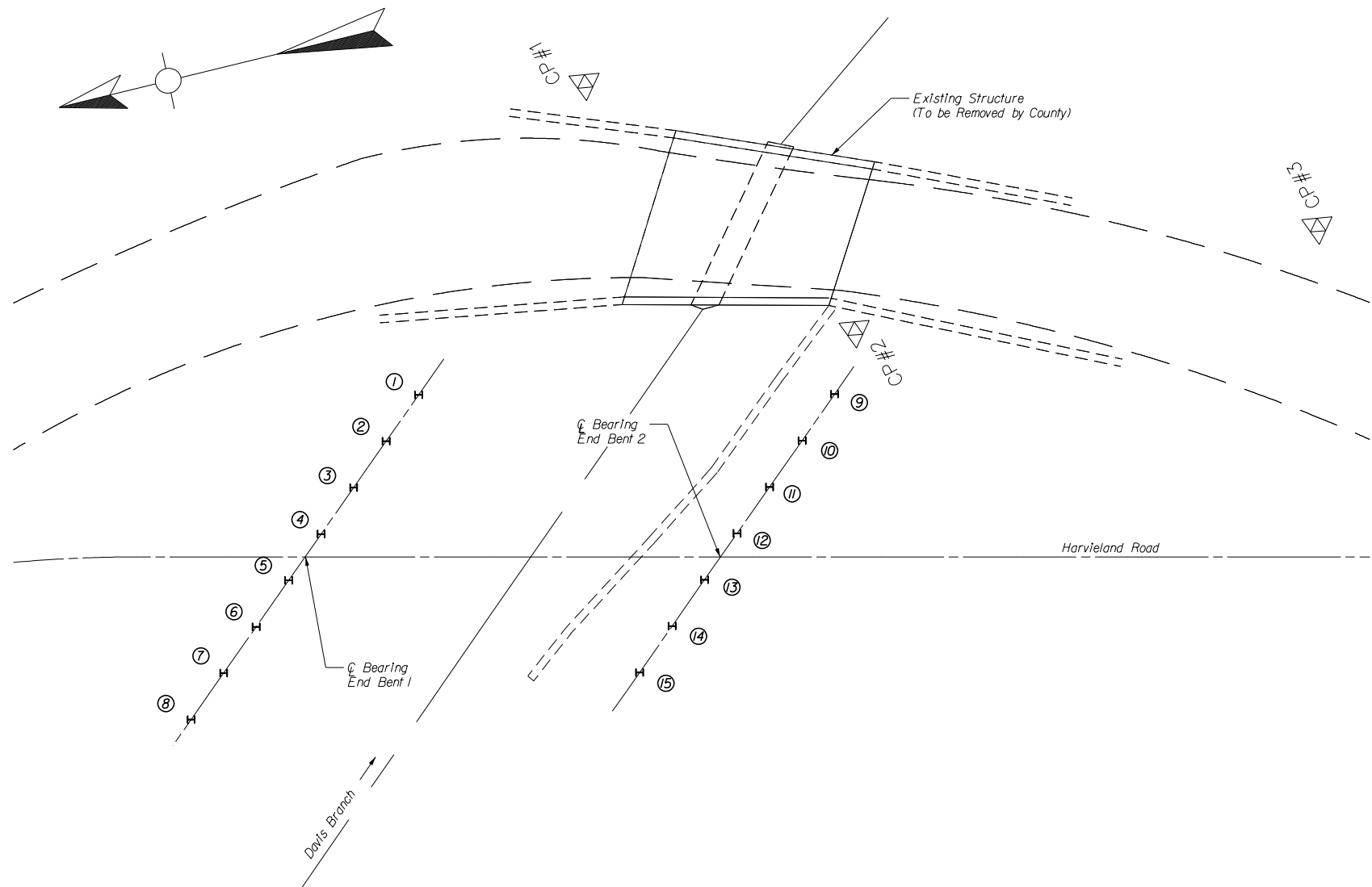
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**HARVIELAND ROAD
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FRANKLIN COUNTY, KENTUCKY**

PLAN AND PROFILE

DRAWN BY: MSC	DATE: JULY 2016
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JOB NO.: 1231-0044-90	SHEET: 3 of 7

PILE RECORD						
Pile No.	Top of Pile Elevation	Top of Rock Elevation	As-Built Pile Tip Elevation	Estimated Pile Tip Elevation	Estimated Embedment in Rock	Pile Length in Place
	FEET	FEET	FEET	FEET	FEET	FEET
1	615.37			604.00	4.70	
2	615.37			604.00	4.70	
3	615.37			604.00	4.70	
4	615.37			604.00	4.70	
5	615.37			604.00	4.70	
6	615.37			604.00	4.70	
7	615.37			604.00	4.70	
8	615.37			604.00	4.70	
9	615.64			604.00	1.80	
10	615.64			604.00	1.80	
11	615.64			604.00	1.80	
12	615.64			604.00	1.80	
13	615.64			604.00	1.80	
14	615.64			604.00	1.80	
15	615.64			604.00	1.80	



COORDINATES			
POINT NO.	EAST	NORTH	ELEVATION
CP #1	2000.000	2000.000	616.12'
CP #2	1954.467	1983.427	615.94'
CP #3	1938.395	1922.707	615.43'
1	1973.458	2038.578	
2	1969.983	2045.224	
3	1966.508	2051.871	
4	1963.033	2058.517	
5	1959.558	2065.163	
6	1956.083	2071.810	
7	1952.608	2078.456	
8	1949.132	2085.102	
9	1948.197	1989.657	
10	1944.722	1996.304	
11	1941.247	2002.950	
12	1937.772	2009.596	
13	1934.297	2016.243	
14	1930.821	2022.889	
15	1927.346	2029.535	

NO.	DATE	DESCRIPTION	BY

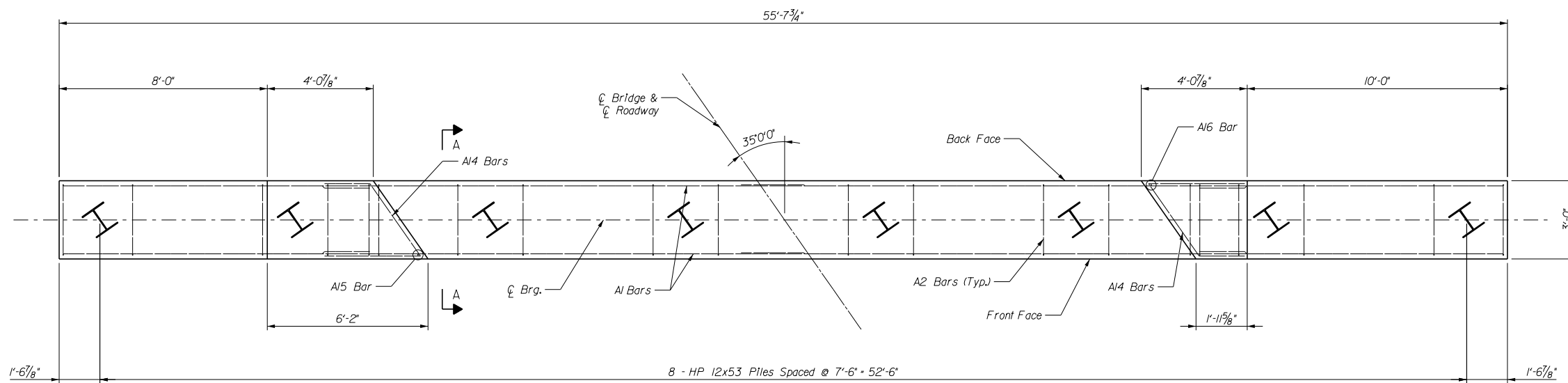
DLZ
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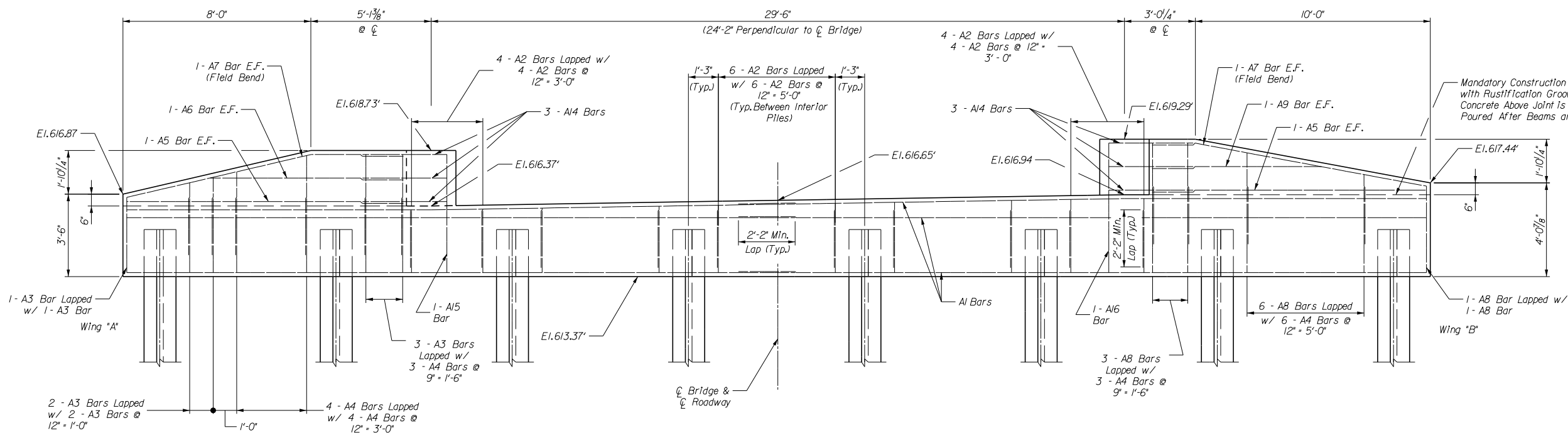
HARVIELAND ROAD
over DAVIS BRANCH
BRIDGE REPLACEMENT
FRANKLIN COUNTY, KENTUCKY

HORIZONTAL CONTROL

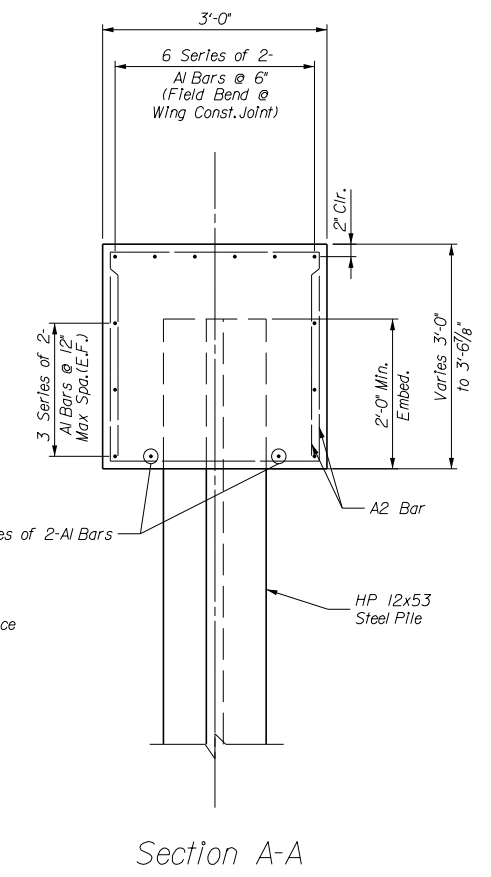
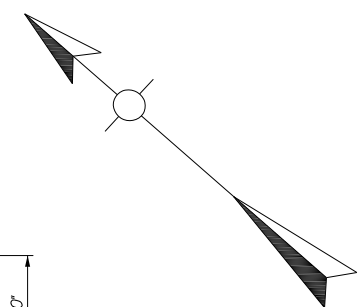
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PLAN



ELEVATION
(Looking Back)



Section A-A

NO.	DATE	DESCRIPTION	BY

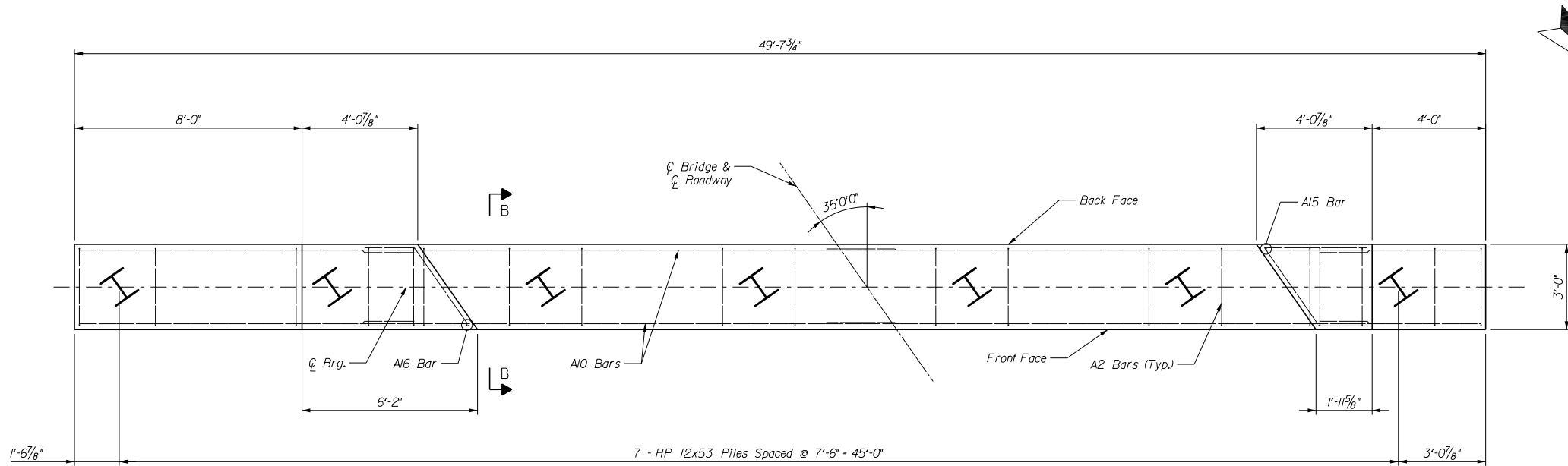
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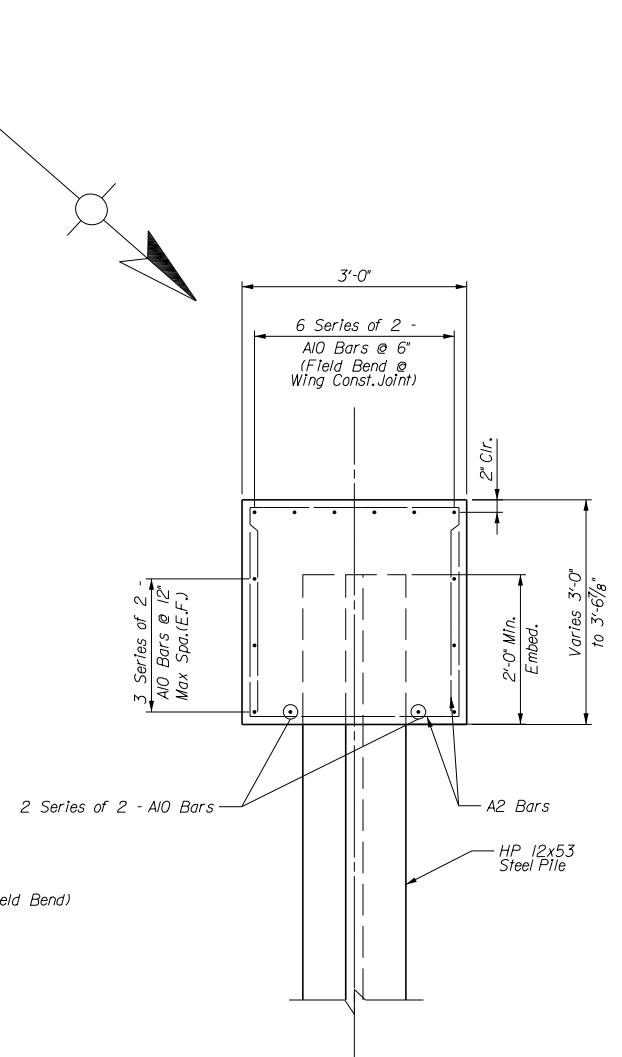
HARVIELAND ROAD
over DAVIS BRANCH
BRIDGE REPLACEMENT
FRANKLIN COUNTY, KENTUCKY

END BENT 1

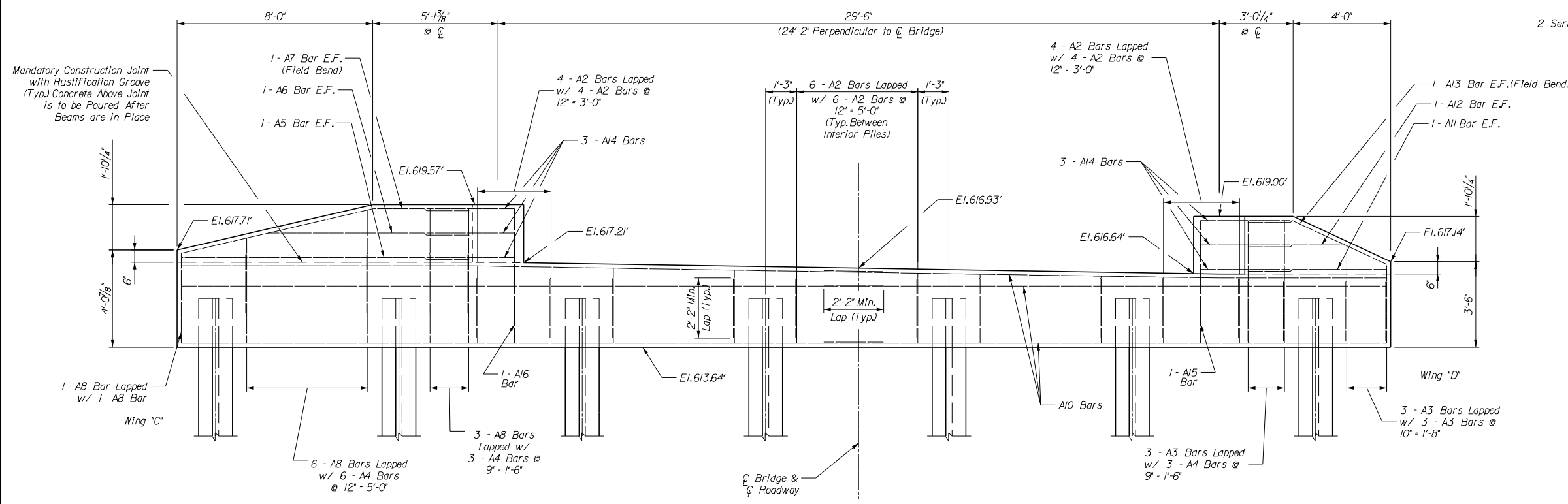
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JOB NO.: 1231-0044-90	SHEET: 5 of 7



PLAN



Section B-B



ELEVATION
(Looking Ahead)

NO.	DATE	DESCRIPTION	BY



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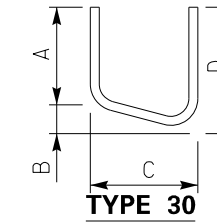
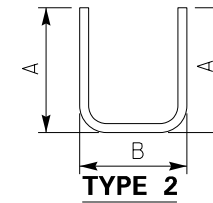
HARVIELAND ROAD
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BRIDGE REPLACEMENT
FRANKLIN COUNTY, KENTUCKY

END BENT 2

DRAWN BY: MSC	DATE: JULY 2016
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JOB NO.: 1231-0044-90	SHEET: 6 of 7

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NUMBER			LENGTH		LOCATION	A	B	C	D
			EB 1	EB 2	TOTAL	FT.	IN.					
A1	STR	5	28		28	28	9					
A2	(2)	5	52	52	104	8	2	2	9	2	8	
A3	(2)	5	13	9	22	9	0	3	2	2	8	
A4	(2)	5	16	12	28	10	10	4	1	2	8	
A5	STR	5	4	2	6	11	8					
A6	STR	5	2	2	4	8	2					
A7	STR	5	4	2	6	11	10					
A8	(2)	5	11	11	22	10	2	3	9	2	8	
A9	STR	5	2		2	7	2					
A10	STR	5		28	28	25	9					
A11	STR	5		2	2	5	8					
A12	STR	5		2	2	3	11					
A13	STR	5		2	2	6	1					
A14	(3)	5	6	6	12	8	6	1	8	1	10	2
A15	STR	5	1	1	2	5	0					
A16	STR	5	1	1	2	5	7					



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BILL OF REINFORCEMENT

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JOB NO.: 1231-0044-90	SHEET: 7 of 7