

STANDARD DRAWINGS	
RBR-001-13	STEEL BEAM GUARDRAIL "W" BEAM
RBR-005-11	GUARDRAIL COMPONENTS
RBR-010-06	GUARDRAIL TERMINAL SECTIONS
RBR-015-06	STEEL GUARDRAIL POSTS
RBR-051-01	GUARDRAIL END TREATMENT TYPE ALTERNATE ANCHOR
RBR-055-01	DELINEATORS FOR GUARDRAIL
RBI-001-12	TYPICAL GUARDRAIL INSTALLATIONS
RDI-040-01	EROSION CONTROL BLANKET SLOPE INSTALLATION
RBM-020-09	DELINEATORS FOR CONCRETE BARRIERS
RBM-115-10	CONCRETE BARRIER WALL TYPE 9T (TEMPORARY)
RBM-120-02	BOX BEAM STIFFENING OF TEMPORARY CONCRETE BARRIER
RDX-210-03	TEMPORARY SILT FENCE
RDX-220-05	SILT TRAP TYPE A
RDX-225-01	SILT TRAP TYPE B
RDX-230-01	SILT TRAP TYPE C
RGX-001-06	MISCELLANEOUS STANDARDS
RGX-200-01	ONE POINT PROCTOR FAMILY OF CURVES
TTC-100-05	LANE CLOSURE TWO-LANE HIGHWAY
TTC-110-04	LANE CLOSURE USING TRAFFIC SIGNALS
TTC-135-03	SHOULDER CLOSURE
TTC-150-04	ROAD CLOSURE WITH DIVERSION

ACTIVE SEPIAS	
SEPIA 32	PAVEMENT STRIPING DETAILS FOR TWO LANE TWO WAY ROADWAYS
SEPIA 34	GUARDRAIL END TREATMENT TYPE 1

DESIGN CRITERIA	
CLASS OF HIGHWAY	RURAL LOCAL ROAD
TYPE OF TERRAIN	ROLLING
DESIGN SPEED	
REQUIRED NPSD	
REQUIRED PSD	
LEVEL OF SERVICE	
ADT PRESENT (2023)	1,420
ADT FUTURE ()	
DH/V	
D %	
T %	7.7

GEOGRAPHIC COORDINATES	
LATITUDE	37 DEGREES 11 MINUTES 10 SECONDS NORTH
LONGITUDE	82 DEGREES 41 MINUTES 49 SECONDS WEST

DESIGNED	
% RESTRICTED SD	
LEVEL OF SERVICE	
MAX. DISTANCE W/O PASSING	

FILE NAME: \$DONSPEC\$

USER: \$USER\$ DATE PLOTTED: \$DATE\$ \$TIME\$

E-SHEET NAME:

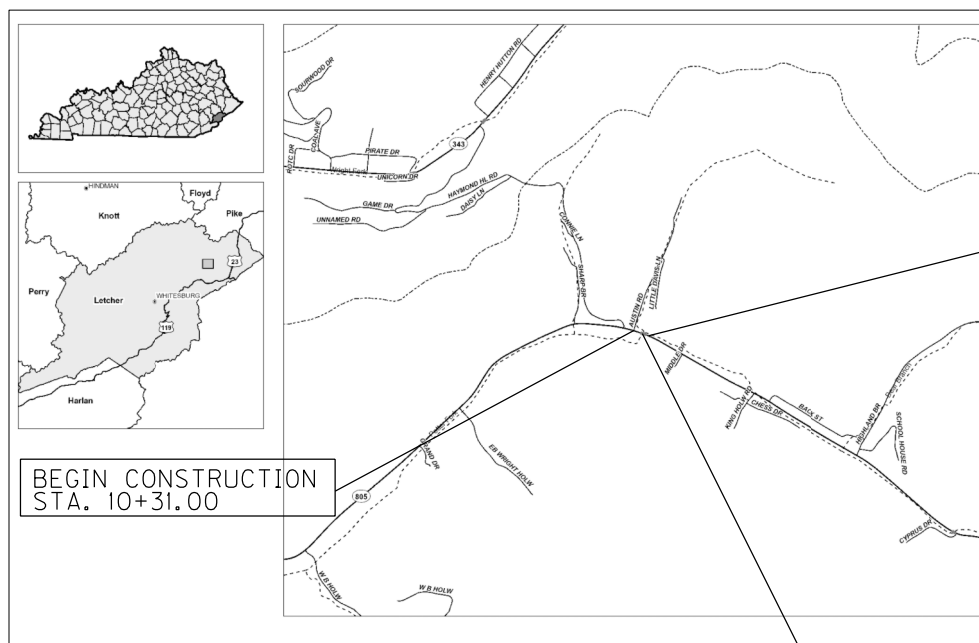
MicroStation v8.11.9.919

TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

LETCHER COUNTY KY-805 OVER POTTER CREEK STA. 11+07.40

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-10117	RI

INDEX OF SHEETS	
Sheet No.	Description
R1	LAYOUT SHEET
R2	TYPICAL SECTION, GENERAL SUMMARY, LEGEND AND COORDINATE CONTROL SHEET
R3	PLAN AND PROFILE SHEET
R3A	RIGHT OF WAY SUMMARY SHEET
R4	MOT NOTES
R5	MOT PLAN SHEET
R6	ENVIRONMENTALLY CLEARED AREA SHEET
XI-X2	ROADWAY CROSS SECTIONS SHEETS
S1	TITLE SHEET
S2	LAYOUT
S3	PROPOSED PHASES
S4-S5	BARREL DETAILS
S6	WINGS 1 & 3
S7	WING 2
S8	WING 4
S9	BILL OF REINFORCEMENT



END CONSTRUCTION
STA. 11+92.29

BEGIN CONSTRUCTION
STA. 10+31.00

STA. 11+07.40 CONSTRUCT
SINGLE 24'-0" X 6'-0" X 46'-0"
R.C.B.C @ 35° SKEW RT

LOCATION MAP

SCALE: 1"=NTS

BEFORE YOU DIG

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

REV. NO.	SHEETS REVISED	DATE

EXISTING BRIDGE ID # 067B00023N



PREPARED BY
HDR ENGINEERING, INC.
2517 SIR BARTON WAY
LEXINGTON, KY 40509
859-629-4800



10-11-2024
Jared McCammon,
PE #28688

ROADWAY P.E. STAMP

SPECIAL NOTES

EROSION CONTROL
STRUCTURE REMOVAL AND RENOVATIONS
SEASONAL TREE CLEARING RESTRICTION
ADDITIONAL ENVIRONMENTAL COMMITMENTS

SPECIAL PROVISIONS

SPECIFICATIONS

2019, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

REVISION	DATE
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Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY OF
LETCHER

ITEM NO. 12-10117
DRAWING NO. _____
PROJECT NUMBER: _____
LETTING DATE: _____

RECOMMENDED BY: _____ PROJECT MANAGER DATE: _____

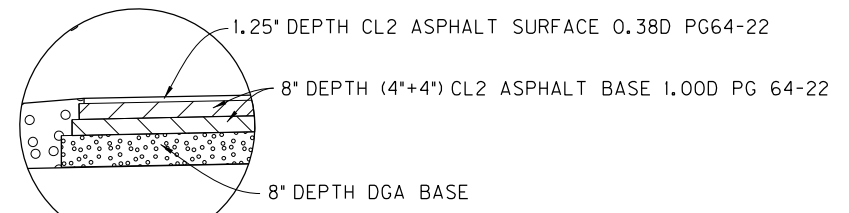
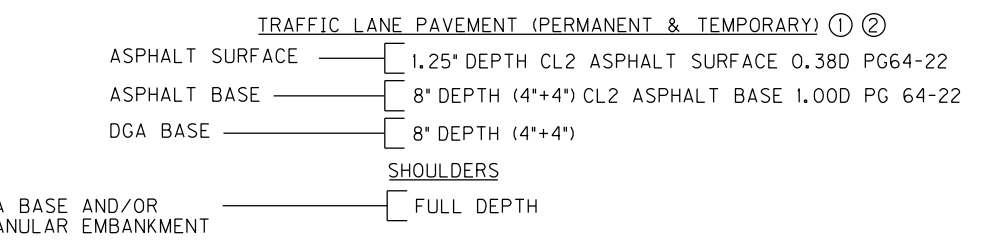
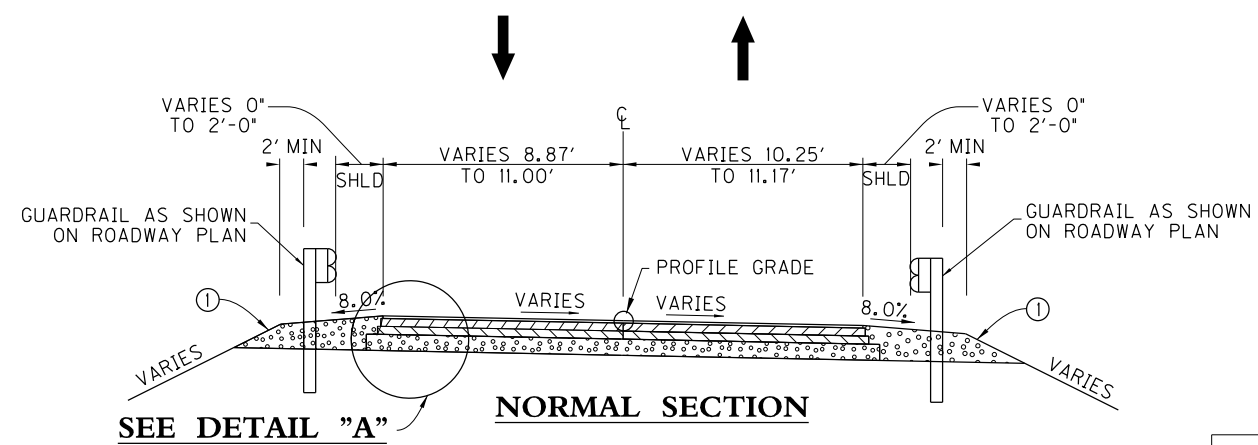
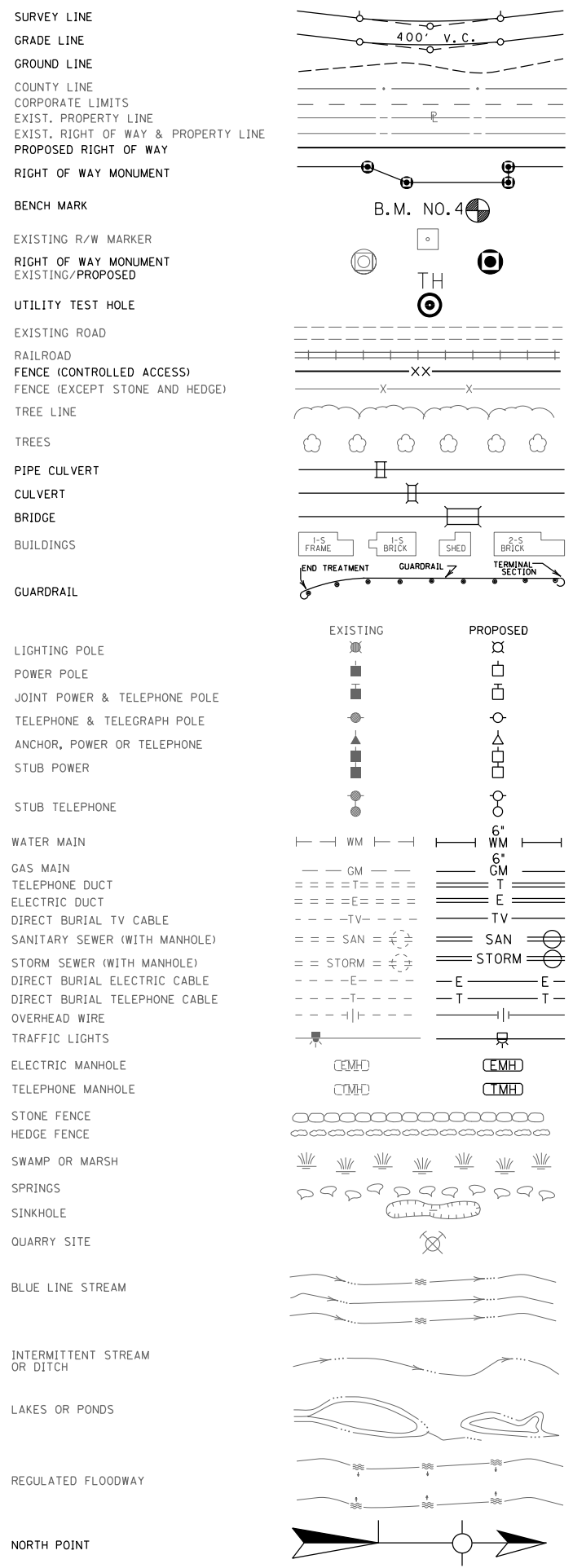
PLAN APPROVED BY: _____ STATE HIGHWAY ENGINEER DATE: _____

**KY-805
LETCHER COUNTY
EXISTING BRIDGE ID #67B00023N**

PROJECT COORDINATES
COORDINATES FOR HORIZONTAL CONTROL WERE OBTAINED BY GPS OBSERVATIONS ON JANUARY 3, 2023 AND WERE ADJUSTED TO NGS OPUS SOLUTION BASED ON THE NAD83 KENTUCKY STATE PLANE COORDINATE SYSTEM, KY SINGLE ZONE, US SURVEY FEET. COORDINATES SHOWN ARE STATE PLANE COORDINATES, US SURVEY FEET. NO PROJECT DATUM FACTOR WAS CALCULATED OR USED FOR THIS PROJECT.

BASIS OF ELEVATIONS
ELEVATIONS WERE ESTABLISHED BY GPS OBSERVATIONS ON JANUARY 3, 2023 ON THE NAVD88 VERTICAL DATUM, GEOID12B UTILIZING NGS OPUS SOLUTION AND WERE ADJUSTED BY CLOSED DIFFERENTIAL LEVEL LOOP BASED ON THE ELEVATION OF CP#1 = 1327.288'.

CONVENTIONAL SIGNS



DETAIL "A"
SEE BRIDGE LAYOUT SHEET FOR BRIDGE TYPICAL SECTION

BRIDGE SECTION

ITEM	DESCRIPTION	UNIT	TOTAL
00001	DGA BASE ⑥	TON	197
00212	CL2 ASPHALT BASE 1.00D PG 64-22 ⑥	TON	243
00301	CL2 ASPHALT SURFACE 0.38D PG64-22 ⑥	TON	39
01987	DELINEATOR FOR GUARDRAIL B/W	EACH	8
02273	FENCE-4 FT CHAIN LINK	LF	93
02351	GUARDRAIL-STEEL W BEAM-S FACE	LF	212.5
02360	GUARDRAIL TERMINAL SECTION NO 1	EACH	3
02371	GUARDRAIL END TREATMENT TYPE 1	EACH	1
02483	CHANNEL LINING CLASS II	TON	146
02562	TEMPORARY SIGNS ③	SOFT	200
02569	DEMOBILIZATION	LS	1
02585	EDGE KEY	LF	40
02650	MAINTAIN AND CONTROL TRAFFIC ④	LS	1
02726	STAKING	LS	1
02731	REMOVE STRUCTURE	LS	1
23823EC	SEGMENTAL RETAINING WALL	SOFT	50
21415ND	EROSION CONTROL ⑤	LS	1
20418ED	REMOVE AND RELOCATE SIGNS	EACH	2

- NOTES:**
- ③ THIS ITEM INCLUDES ALL TEMPORARY SIGNS USED FOR MOT PHASES AS SHOWN, FOLLOWING MUTCD AND KYTC STD DWGS.
 - ④ ALL TEMPORARY TRAFFIC CONTROL DEVICES EXCEPT TEMPORARY SIGNAGE ARE CONSIDERED INCIDENTAL TO THIS BID ITEM, INCLUDING TEMP GUARDRAIL AND CONCRETE BARRIERS WALLS TYPE 9T.
 - ⑤ SEE SPECIAL NOTE. INCLUDES ALL CLEARING, TEMPORARY EROSION CONTROL BMPS AND PERMANENT SEEDING.
 - ⑥ INCLUDES TEMPORARY PAVEMENT WIDENING FOR MAINTENANCE OF TRAFFIC.

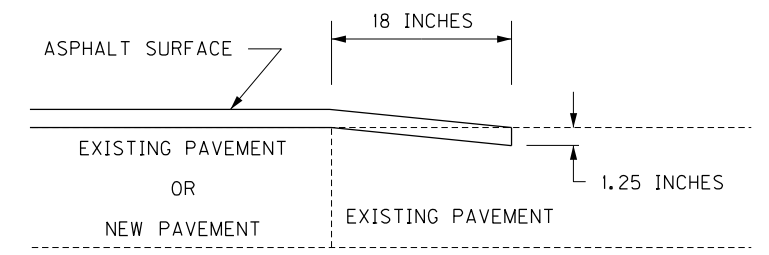
COORDINATE CONTROL POINTS

POINT	DESCRIPTION	STATE PLANE SINGLE ZONE COORDINATES			STATION	OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)		
CP1	1/2" REBAR & CAP	3605948.3600	5810422.0990	1327.288	10+47.68	13.87 RT.
CP2	1/2" REBAR & CAP	3605864.5480	5810677.4620	1325.614	13+15.58	12.93 LT.

- NOTES:**
- ① FULL-DEPTH PAVEMENT CONSTRUCTION WILL BE USED FOR THE ENTIRE PAVING LIMITS. FOR THE DRIVEWAY TIE-INS REDUCE THE ASPHALT BASE TO 4" AND THE DGA BASE TO 4".
 - ② THE PAVEMENT DEPTH WILL VARY ACROSS THE BOX CULVERT. BUILD UP THE PAVEMENT PER THE PAVEMENT DESIGN UNTIL THE FULL SECTION IS ACHIEVED. ADDITIONAL FILL OVER THE CULVERT, IF NEEDED, IS TO BE PER KYTC SPECIFICATIONS.

CENTERLINE COORDINATE DATA

POINT	STATION	STATE PLANE SINGLE ZONE COORDINATES	
		NORTH (Y)	EAST (X)
P.O.T.	10+00.00	3605977.5583	5810381.9388
P.C.	11+59.70	3605923.4533	5810532.1954
P.I.	12+01.45	3605909.3102	5810571.4724
P.T.	12+43.00	3605888.8498	5810607.8603
P.O.T.	13+52.89	3605834.9880	5810703.6510



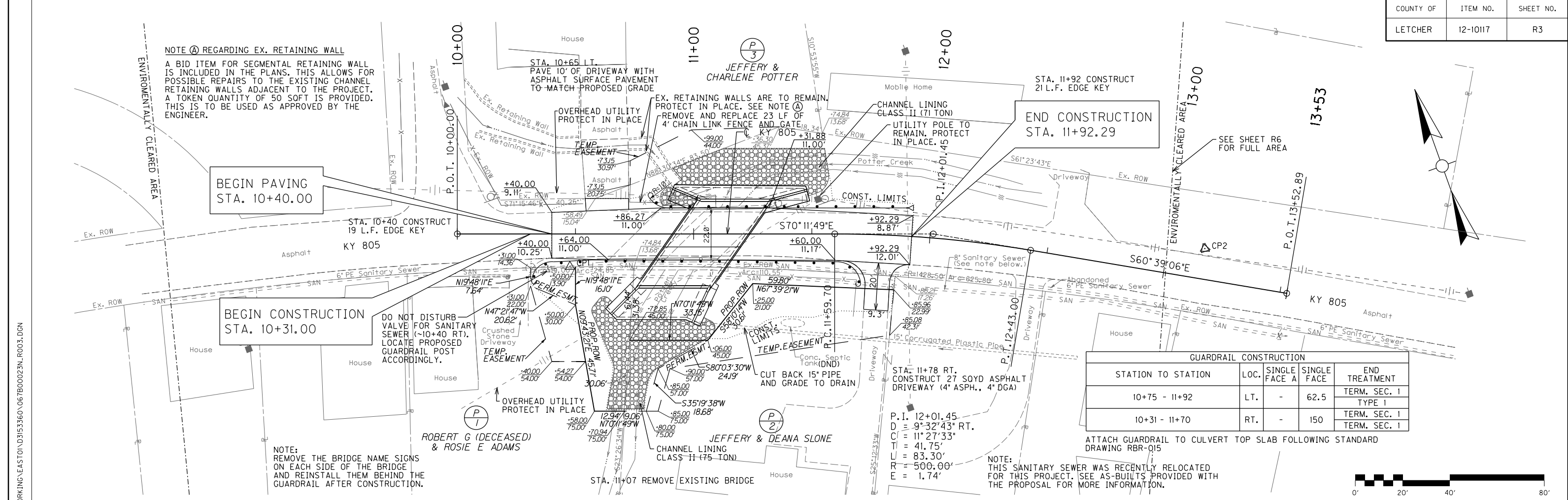
EDGE KEY DETAIL

WORK UNDER THIS ITEM SHALL INCLUDE CUTTING OUT THE EXISTING BITUMINOUS SURFACE TO A MINIMUM DEPTH AND WIDTH AS SHOWN, SO THE NEW SURFACE MAY HEEL INTO THE EXISTING SURFACE.

SCALE: 1"=NTS

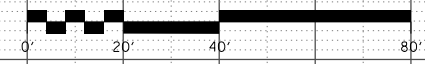
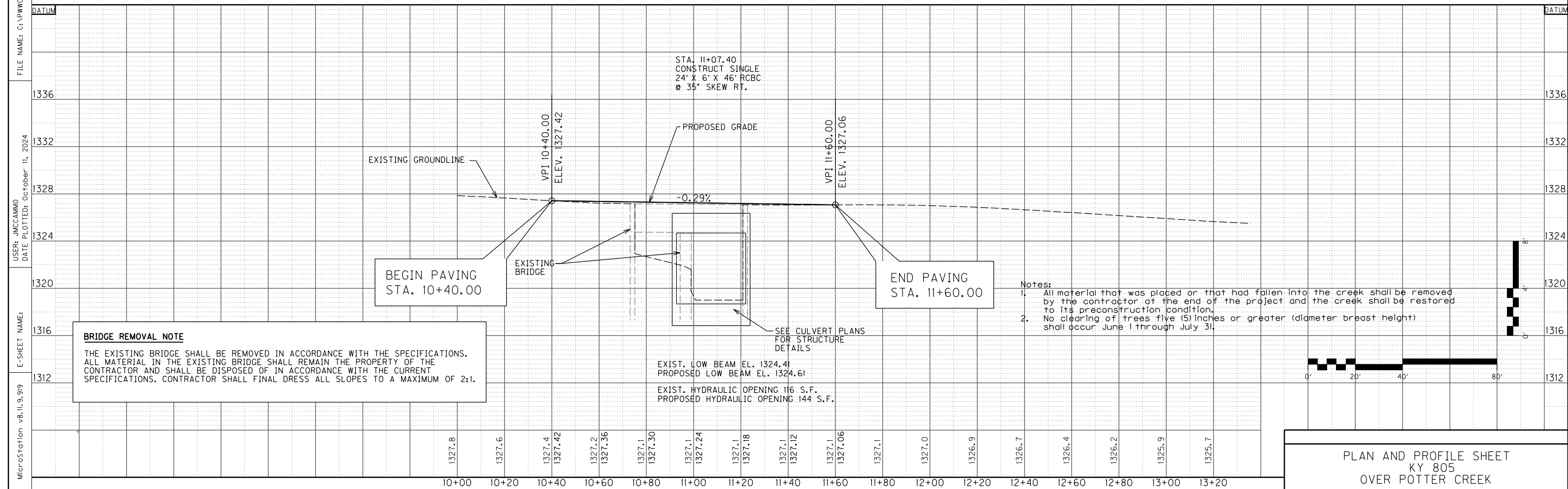
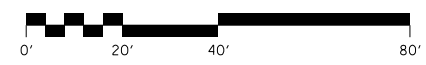
TYPICAL SECTION, GENERAL SUMMARY
LEGEND AND COORD. CONTROL SHEET
KY 805 OVER POTTER CREEK

FILE NAME: C:\P\WORKING\EA\ST01\035336\067B00023N.R002.DGN
USER: JMCAMMO
DATE PLOTTED: October 11, 2024
E-SHEET NAME:
MicroStation v8.11.9.919



GUARDRAIL CONSTRUCTION				
STATION TO STATION	LOC.	SINGLE FACE A	SINGLE FACE	END TREATMENT
10+75 - 11+92	LT.	-	62.5	TERM. SEC. 1 TYPE I
10+31 - 11+70	RT.	-	150	TERM. SEC. 1 TERM. SEC. 1

ATTACH GUARDRAIL TO CULVERT TOP SLAB FOLLOWING STANDARD DRAWING RBR-015



PLAN AND PROFILE SHEET
KY 805
OVER POTTER CREEK

FILE NAME: C:\PWORKING\EA5T01\03153336\067B00023\N_R003.DGN
 USER: JMCAMMO
 DATE PLOTTED: October 11, 2024
 E-SHEET NAME:
 MicroStation v8.11.9.919

RIGHT OF WAY SUMMARY

PARCEL NO.	OWNER(S)	TOTAL AREA OF TRACT		PERMANENT R/W ACQUIRED		EASEMENTS		AREA SEVERED				EXCESS PURCHASED		PORTION REMAINING		SEWER SYSTEM TYPE	SEWER SYSTEM AFFECTED BY PROJECT		BUILDINGS ACQUIRED NUMBER					SOURCE OF TITLE	REMARKS*
		ACRES	SQ. FT.	ACRES	SQ. FT.	PERMANENT SQ. FT.	TEMPORARY SQ. FT.	LEFT		RIGHT		ACRES	SQ. FT.	ACRES	SQ. FT.		YES	NO	C	R	F	S			
								ACRES	SQ. FT.	ACRES	SQ. FT.														
1	ROBERT G (DECEASED) & ROSIE E ADAMS		12448		1222	226	439					11226				11226	I	X	-	-	-	-	DB 314 PG 333		
2	JEFFERY & DEANA SLONE		15726		1738	474	2045					13988				13988	I	X	-	-	-	-	DB 348 PG 588		
3	JEFFERY & CHARLENE POTTER		22645		0	0	548			22645						22645	I	X	-	-	-	-	DB 314 PG 115		

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NOTE: PERMANENT R/W ACQUIRED + AREA SEVERED = TOTAL AREA OF TRACT.

TYPE SEWER SYSTEM
 1. PRIVATE - INDIVIDUAL
 2. PRIVATE - MULTI PARTY
 3. PUBLIC
 4. NONE
 5. NOT APPLICABLE

BUILDINGS ACQUIRED CODE
 C - COMMERCIAL
 R - RESIDENTIAL
 F - FARM
 S - STORAGE

*INCLUDES HAZARDOUS WASTE (UST - UNDERGROUND STORAGE TANKS)

RIGHT OF WAY SUMMARY SHEET
 KY 805
 OVER POTTER CREEK

MAINTENANCE OF TRAFFIC NOTES:

1. CONTRACTOR SHALL INVENTORY, REMOVE AND REPLACE EXISTING SIGNS, WITH NEW SIGNS IMPACTED BY THE PROPOSED CONSTRUCTION. OFFSITE SIGNS CONFLICTING WITH THE PROPOSED IMPROVEMENTS SHALL BE REMOVED AND REPLACED AT THE DIRECTION OF KYTC.
2. CONTRACTOR SHALL COORDINATE WITH LOCAL RESIDENTS AND OFFICIALS PRIOR TO CONSTRUCTION AND ANY TEMPORARY CLOSURES.
3. INGRESS AND EGRESS SHALL BE MAINTAINED TO ALL DWELLINGS AFFECTED BY THE PROJECT.
4. CLOSURE SIGNS, DETOUR SIGNS AND BI-DIRECTIONAL LANE CLOSURE SIGNS SHOULD BE PLACED NO SOONER THAN TWO WEEKS PRIOR TO THE CLOSING OF THE BRIDGE (WHEN APPLICABLE) OR PLACING LANE CLOSURES.
5. TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE 2019 KYTC STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE KYTC STANDARD DRAWINGS.
6. CONTRARY TO SECTION 106.01, TRAFFIC CONTROL DEVICES USED ON THIS PROJECT MAY BE NEW OR USED IN NEW CONDITION, AT THE BEGINNING OF THE WORK AND MAINTAINED IN LIKE NEW CONDITION UNTIL COMPLETION OF WORK.
7. TRAFFIC CONTROL DEVICES SHALL BE PLACED AND MAINTAINED IN THE WORK ZONE IN A MANNER THAT ENSURES THERE IS NO RESTRICTION TO THE VISIBILITY OF APPROACHING TRAFFIC.
8. SIGNS NOT APPLICABLE TO CURRENT PHASE OF CONSTRUCTION SHALL BE REMOVED OR COVERED IF LEFT IN PLACE.
9. TEMPORARY CLOSURES AND FLAGGERS SHALL BE UTILIZED AS NECESSARY.
10. BRIDGE SHALL BE PARTIALLY CLOSED AND TRAFFIC DIVERTED AND MAINTAINED ON A SINGLE LANE MINIMUM 10-FT WIDE DIVERSION AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS.
11. TEMPORARY SIGNALS WILL BE UTILIZED IN ACCORDANCE WITH KYTC STANDARD DRAWING TTC-110-03 FOR THE TWO-WAY ONE-LANE TEMPORARY DIVERSION.
12. BARRICADES SHALL BE TYPE III BARRICADES IN CONFORMANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). SECTION 6F.68 ADDRESSES TEMPORARY BARRICADES. MINIMUM LENGTH OF TYPE III BARRICADE WILL BE 48', UTILIZE ENOUGH DEVICES OF SUFFICIENT LENGTH TO ADEQUATELY BLOCK ROAD USERS FROM EDGE OF ROAD TO EDGE OF ROAD OR CURB TO CURB. IF PROVISIONS HAVE BEEN MADE FOR ACCESS OF AUTHORIZED EQUIPMENT AND VEHICLES THE DBT PROJECT TRAFFIC COORDINATOR, OR DESIGNATED REPRESENTATIVE, SHALL ENSURE THAT PROPER CLOSURE OF THE ROADWAY IS OBTAINED AT THE END OF EACH WORKDAY. CONTRARY TO THE STANDARD SPECIFICATIONS, NO DIRECT PAYMENT WILL BE MADE FOR BARRICADES, BUT THEY WILL BE INCLUDED IN THE LUMP SUM PRICE FOR THE INDIVIDUAL BRIDGE AS SHOWN IN THE SCHEDULE OF VALUES.
13. ROADWAY SHALL REMAIN OPEN DURING CONSTRUCTION AND ALL TRAFFIC SHALL BE PROVIDED ACCESS TO THE DIVERSION DURING CONSTRUCTION.
14. ENSURE THAT UP TO FOUR (4) PORTABLE CHANGEABLE MESSAGE SIGNS ARE PLACED AT LOCATIONS SHOWN ON THE RELEASED FOR CONSTRUCTION PLANS AND TRAFFIC CONTROL PLANS OR AT LOCATIONS DETERMINED BY THE ENGINEER. THESE MESSAGE BOARDS ARE EXPECTED TO BE IN PLACE ONE WEEK PRIOR TO THE LANE CLOSURE OF THE ROADWAY AND REMAIN IN PLACE FOR THE DURATION OF THE CLOSURE. CONTRARY TO THE STANDARD SPECIFICATION, NO DIRECT PAYMENT WILL BE MADE FOR PORTABLE CHANGEABLE MESSAGE SIGNS AS THE COST SHALL BE INCLUDED IN THE LUMP SUM BID FOR THE PROJECT.
15. PAVEMENT DROP-OFF SHALL ADHERE TO THE FOLLOWING:
 - A. LESS THAN TWO INCHES - NO PROTECTION REQUIRED. WARNING SIGNS SHOULD BE PLACED IN ADVANCE AND THROUGHOUT THE DROP-OFF AREA.
 - B. TWO TO FOUR INCHES - PLASTIC DRUMS, VERTICAL PANELS OR BARRICADES PLACED EVERY 100 FEET ON TANGENT SECTIONS FOR SPEEDS OF 50 MPH OR GREATER. CONES MAY BE USED IN PLACE OF PLASTIC DRUMS, PANELS AND BARRICADES DURING DAYLIGHT HOURS. FOR TANGENT SECTIONS WITH SPEEDS LESS THAN 50 MPH AND CURVES, DEVICES SHOULD BE PLACED EVERY 50 FEET. PLACEMENT OF DEVICES ON TAPERED SECTIONS SHOULD BE IN ACCORDANCE WITH THE MUTCD, CURRENT EDITION.
 - C. GREATER THAN FOUR INCHES - POSITIVE SEPARATION OR WEDGE WITH 3:1 OR FLATTER SLOPE NEEDED. IF THERE IS FIVE FEET OR MORE DISTANCE BETWEEN THE EDGE OF THE PAVEMENT AND THE DROP-OFF, THEN DRUMS, PANELS, OR BARRICADES MAY BE USED. IF THE DROP-OFF IS GREATER THAN 12 INCHES, POSITIVE SEPARATION IS STRONGLY ENCOURAGED. IF CONCRETE BARRIERS ARE USED, SPECIAL REFLECTIVE DEVICES OR STEADY BURN LIGHTS SHOULD BE USED FOR OVERNIGHT INSTALLATIONS.
 - D. FOR TEMPORARY CONDITIONS, DROP-OFFS GREATER THAN FOUR INCHES MAY BE PROTECTED WITH PLASTIC DRUMS, VERTICAL PANELS OR BARRICADES FOR SHORT DISTANCES DURING DAYLIGHT HOURS WHILE WORK IS BEING DONE IN THE DROP-OFF AREA.

MAINTENANCE OF TRAFFIC PHASING:

WHERE TEMPORARY BARRIERS ARE INDICATED, THEY SHALL BE CONCRETE BARRIER WALL TYPE 9T IN ACCORDANCE WITH STANDARD DRAWING RBM-115-10. THE BARRIERS SHALL BE STIFFENED IN ACCORDANCE WITH STANDARD DRAWING RBM-120-02 ALONG THE ENTIRE LENGTH OF THE RCBC INCLUDING ALONG SHORING LIMITS FOR THE RCBC CONSTRUCTION.

CONSTRUCTION OF THIS RCBC AND REMOVAL OF THE EXISTING BRIDGE IS TO BE ACCOMPLISHED IN PHASES IN ACCORDANCE WITH THESE PLANS AND THE ROADWAY MAINTENANCE OF TRAFFIC PLANS.

PHASE 1:

1. INSTALL AND MAINTAIN TEMPORARY TRAFFIC CONTROL SIGNS AND DEVICES PER KYTC STANDARD DRAWING TTC-100-05 AND TTC-110-04 ALONG KY 805.
2. DIRECT TRAFFIC TO EXISTING KY 805. THREE-PHASE TEMPORARY SIGNALS SHALL BE INSTALLED AS PER THE MOT PLAN AS SHOWN ON MOT PLAN SHEET R5.
3. INSTALL TEMPORARY BARRIER AND REMOVE SOUTH SIDE OF EXISTING BRIDGE AS SHOWN ON SHEET S3.
4. CONSTRUCT PHASE 1 OF NEW RCBC AND PROPOSED TEMPORARY WIDENING AND GUARDRAIL AS SHOWN ON SHEET S3 AND SHEET R5.

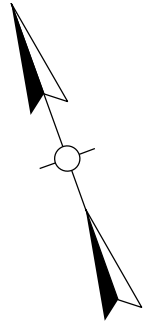
PHASE 2:

1. INSTALL ALL REMAINING APPLICABLE SIGNS AND DEVICES PER KYTC STANDARD DRAWING TTC-150-04 AND TTC-110-04.
2. INSTALL TEMPORARY BARRIER AND DIRECT TRAFFIC TO PORTION OF RCBC CONSTRUCTED IN PHASE 1.
4. REMOVE REMAINING PORTION OF EXISTING KY 805 BRIDGE AND ROADWAY.
5. CONSTRUCT REMAINING PORTION OF KY 805 RCBC AND ROADWAY AS SHOWN ON SHEET S3 AND SHEET R5.

PHASE 3:

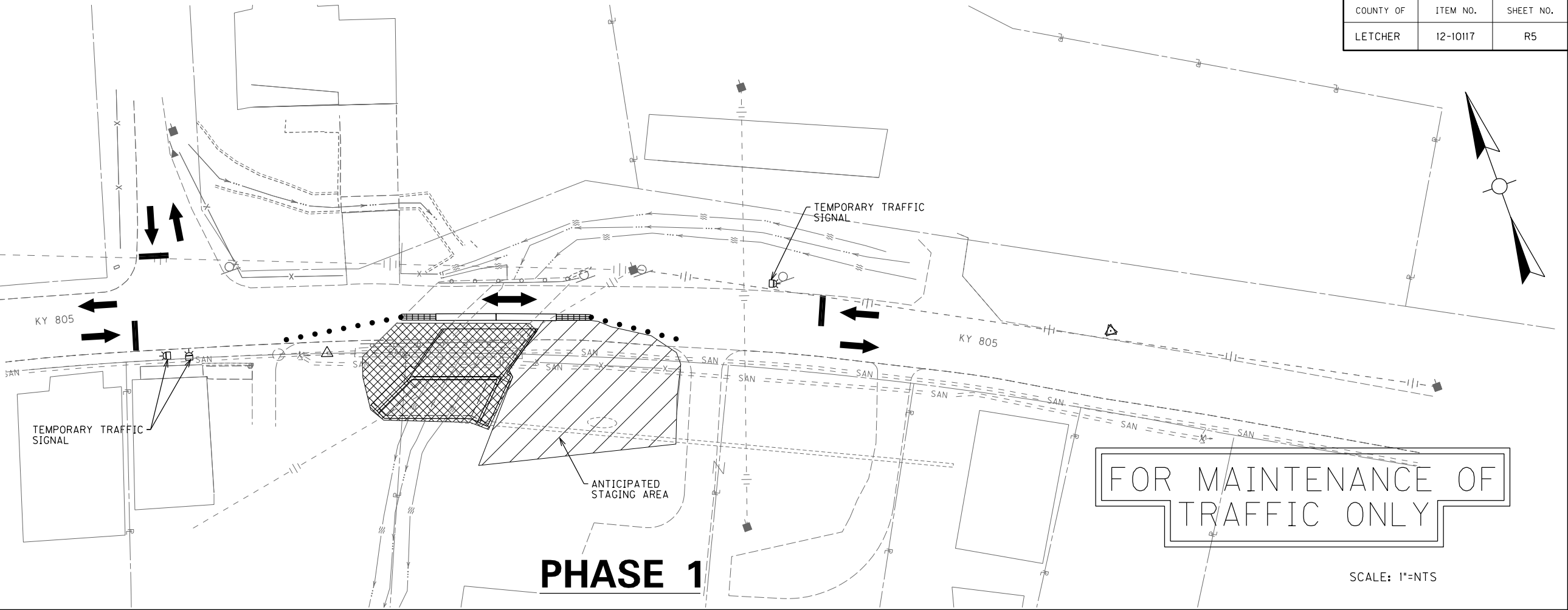
1. INSTALL PERMANENT SIGNS ALONG NEW ROADWAY AND REQUIRED PAVEMENT MARKINGS.
2. REMOVE TEMPORARY BARRIER. CONSTRUCT PERMANENT GUARDRAIL AND REMOVE TEMPORARY PAVEMENT.
3. DIRECT TRAFFIC TO PROPOSED KY 805 RCBC AND ROADWAY.

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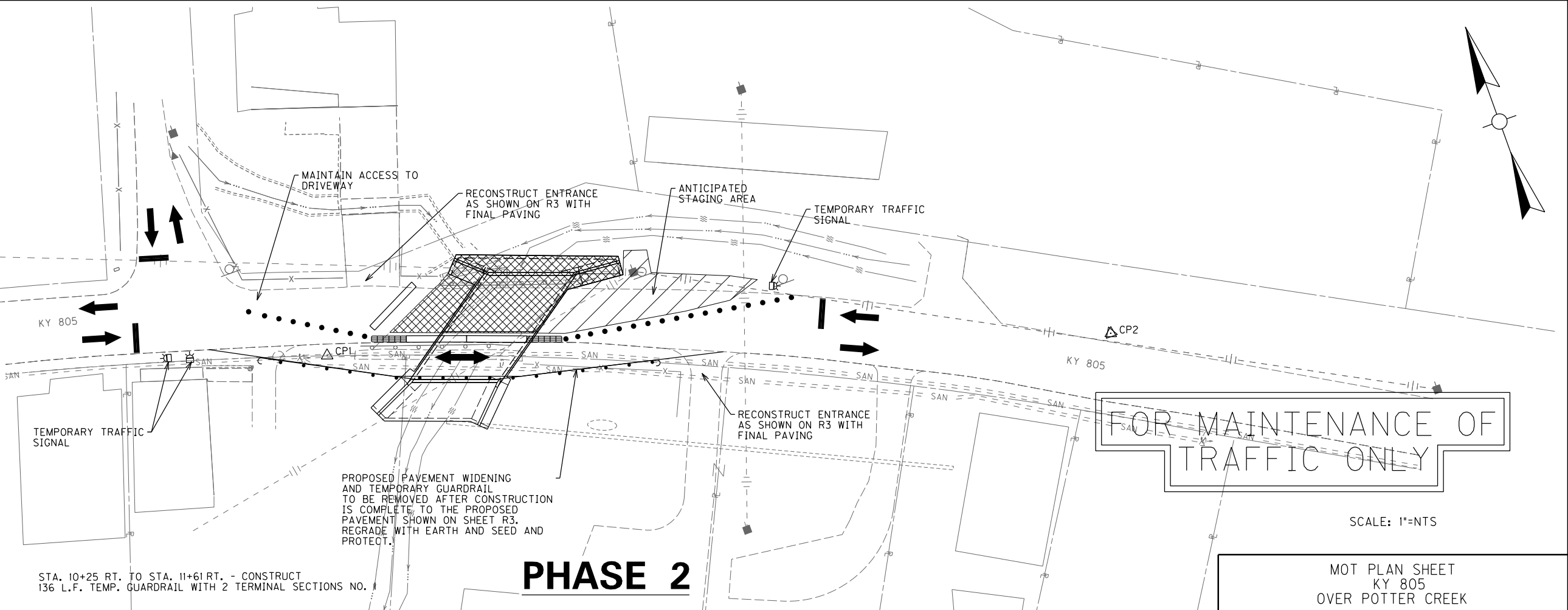
LEGEND

- STRUCTURE CONSTRUCTION
- TEMPORARY TRAFFIC BARRIER
- CHANNELIZING DEVICE
- CRASH CUSHION
- ONE-LANE TRAFFIC THIS PHASE
- TEMPORARY 24" STOP BAR
- TEMPORARY TRAFFIC SIGNAL
- ANTICIPATED STAGING AREA



LEGEND

- STRUCTURE CONSTRUCTION
- TEMPORARY TRAFFIC BARRIER
- CHANNELIZING DEVICE
- CRASH CUSHION
- ONE-LANE TRAFFIC THIS PHASE
- TEMPORARY 24" STOP BAR
- TEMPORARY TRAFFIC SIGNAL
- ANTICIPATED STAGING AREA



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COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-10117	R6



SCALE: 1"=NTS

ENVIRONMENTALLY CLEARED AREA SHEET
 KY 805
 OVER POTTER CREEK

FILE NAME: C:\PWORKING\EAST01\0353360\067B00023\N_R006_ECA.DGN

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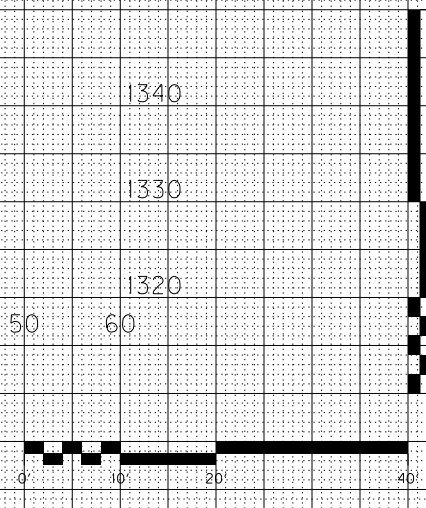
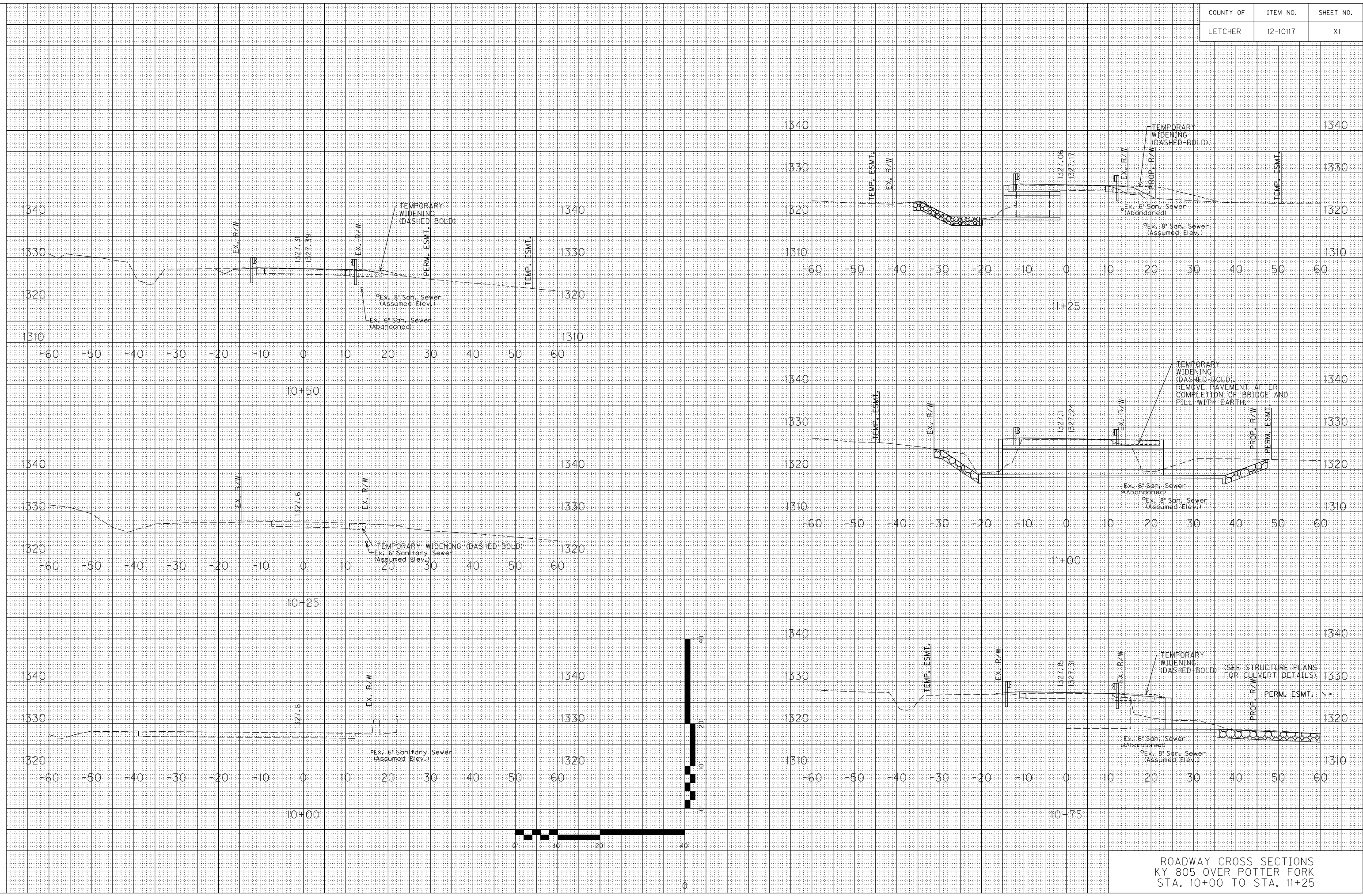
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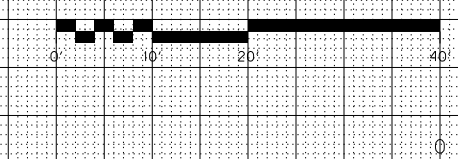
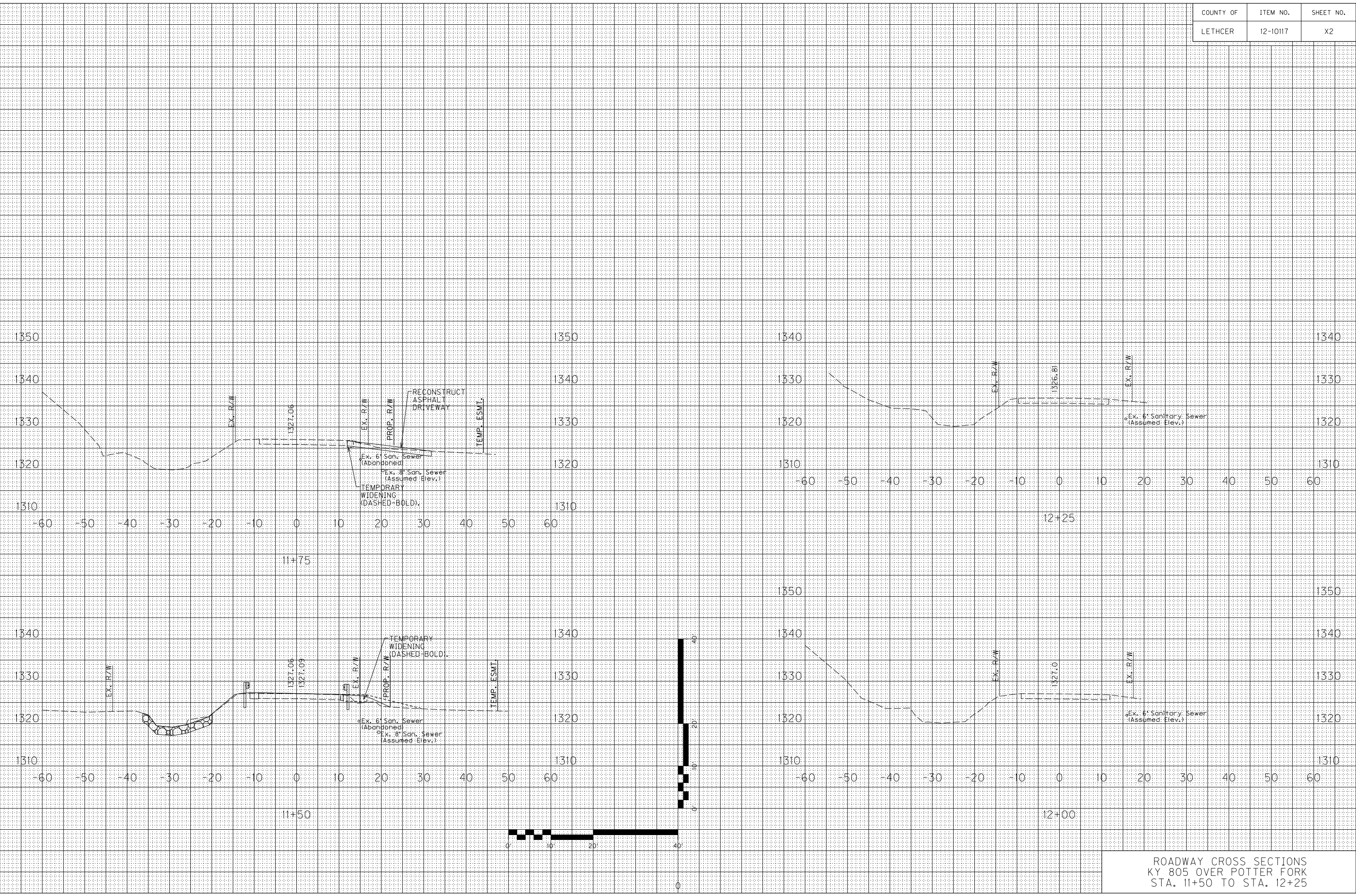
ROADWAY CROSS SECTIONS
KY 805 OVER POTTER FORK
STA. 10+00 TO STA. 11+25

FILE NAME: C:\PWORKING\EAST01\03153360\067B0002N.XS.DGN

USER: JMCCAMMO
DATE PLOTTED: October 11, 2024

E-SHEET NAME:

MicroStation v8.11.9.919



ROADWAY CROSS SECTIONS
KY 805 OVER POTTER FORK
STA. 11+50 TO STA. 12+25

TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

LETCHER COUNTY

KY 805

KY 805 OVER POTTER CREEK

Station 11+07.40

INDEX OF SHEETS

Sheet No.	Description
1	Title
2	Layout
3	Proposed Phases
4 & 5	Barrel Details
6	Wing 1
7	Wing 2
8	Wings 3 & 4
9	Bill of Reinforcement

SPECIAL NOTES

Special Note for One Step Membrane

SPECIAL PROVISIONS

STANDARD DRAWINGS

BGX-006-10	Stencils for Structures
BGX-012-02	Geotechnical Legend
RBM-115-10	Concrete Barrier Wall Type 9T (Temporary)
RBM-120-02	Box Beam Stiffening of Temp. Concrete Barrier
RBR-015-04	Guardrail Posts

SPECIFICATIONS

2019 Standard Specifications for Road and Bridge Construction.
2020 AASHTO LRFD Bridge Design Specifications, 9th Ed.

GENERAL NOTES

SPECIFICATIONS: All references to the standard Specifications are to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction with current Supplemental Specifications. All references to the AASHTO are to the current edition of the AASHTO LRFD Bridge Design Specifications, with interims.

DESIGN LOAD: This structure is designed for HL-93 live load increased by 25%. The 25% increase is arrived by increasing the design truck or tandem and the design lane load by 25%.

DESIGN METHOD: All reinforced concrete members are designed by the load and resistance factor method as specified in the current AASHTO Specifications.

MASONRY COATING: Masonry coating will not be required for this structure.

COMPLETION OF THE STRUCTURE: The Contractor is required to complete the structure in accordance with the plans and specifications. Material, labor or construction operations, not otherwise specified, are to be included in the bid item most appropriate to the work involved. This may include cofferdams, shoring, excavations, backfilling, removal of all or parts of existing structures, phase construction, incidental materials, labor, or anything else required to complete the structure.

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Clear distance to face of concrete is 2" unless otherwise noted. Any reinforcing bars designated by suffix (e) in the Plans shall be epoxy coated in accordance with section 811.10 of the Standard Specifications. Any reinforcing bars designated by suffix (s) in a Bill of Reinforcement shall be considered a stirrup for purposes of bend diameters.

BEVELED EDGES: All exposed edges shall be beveled 3/4" unless otherwise shown.

DIMENSIONS: Dimensions are for a normal temperature of 60 degrees Fahrenheit. Layout dimensions are horizontal measurements.

WEIGHT OF FILL MATERIAL: The assumed weight of fill material is 120 lbs per cubic foot.

CONCRETE: Class "A" concrete shall be used throughout.

CONSTRUCTION JOINTS: Vertical construction joints shall be located in the field, except that no construction joint shall be located in the barrel within six feet of the ends of the culvert.

FOOTING PRESSURE: Foundation materials for wing footings required to resist a maximum bearing pressure of 1999 PSF.

FLOWLINE REINFORCEMENT: Reinforcement in the 6 in thick slab shall be Size 4 bars at 18 in centers in each direction or an equivalent area of welded deformed steel fabric. The bars shall extend a minimum of 12 in into wing footings and/or the bottom slab. The cost of this reinforcement shall be incidental to the unit price bid for Concrete, Class "A".

CONSTRUCTION NOTES: Temporary sheeting, shoring, cofferdams, and/ or dewatering methods may be necessary for construction of the culvert. Include all costs in the price bid for Foundation Preparation.

YIELDING FOUNDATION: Rock and boulders within 2 ft of the design flowline must be excavated and backfilled with properly compacted soil to the base of the slab. Payment for this work shall be included in the lump sum bid for Foundation Preparation.

ESTIMATE OF QUANTITIES

BID CODE	ITEM	QUANTITY	UNIT
8100	Class "A" Concrete	238.8	C.Y.
8150	Reinforcement	18333	Lb
8151	Epoxy Coated Steel Reinforcement	20507	Lb
3250	Waterproofing Membrane	135	S.Y.
8003	Foundation Preparation	1	L.S.



REVISION

DATE

PREPARED BY

Division of
Structural Design

DATE: MARCH 2023

CHECKED BY

DESIGNED BY: J. VAN ZEE

S.T. ANDARDS

DETAILED BY: M. BAWITHAWNG

J. VAN ZEE

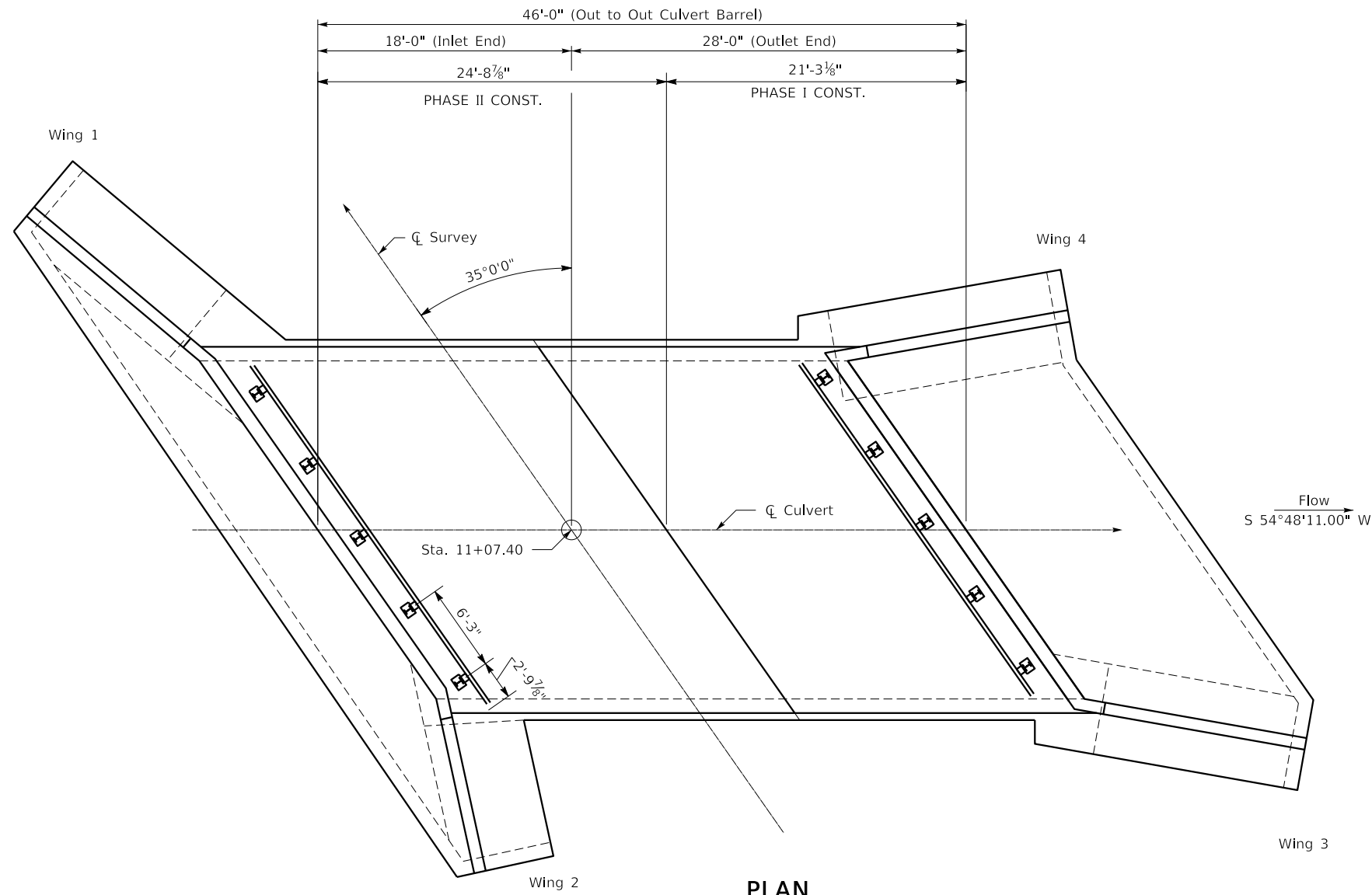
SINGLE 24.0 X 6.0 CULVERT

CROSSING
POTTER CREEK

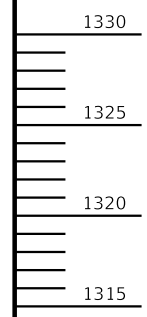
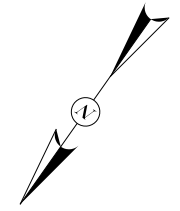
ROUTE
KY 805

ITEM NO.
12-10117
SHEET NO.
S1

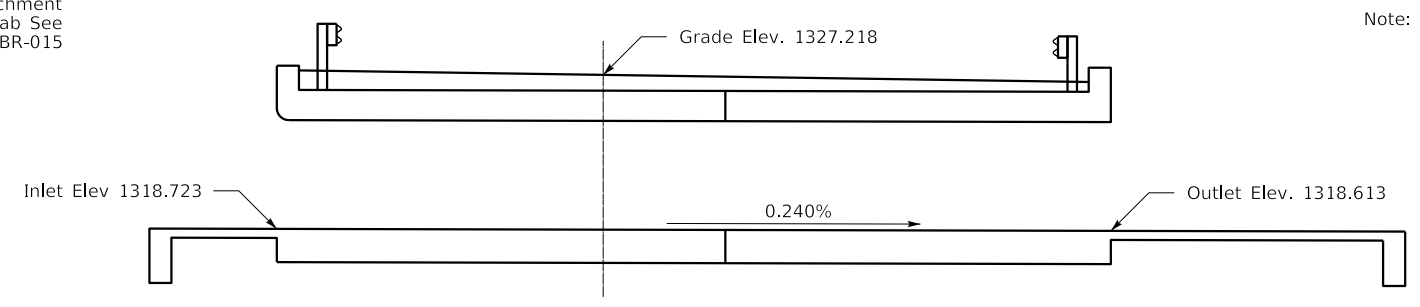
COUNTY OF
LETCHER
DRAWING NUMBER
28695



PLAN
SCALE = 1:60



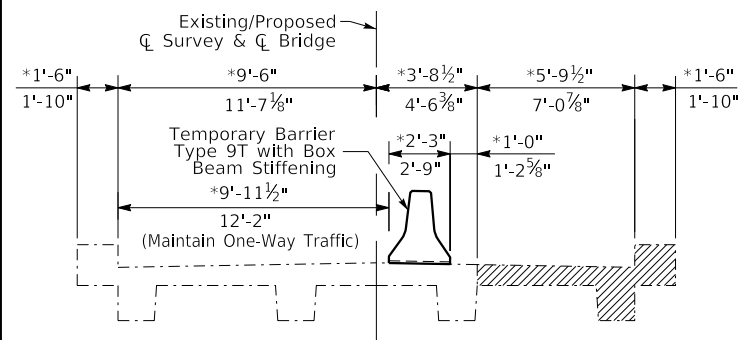
For Guardrail Attachment
to Culvert Top Slab See
Standard Drawing RBR-015



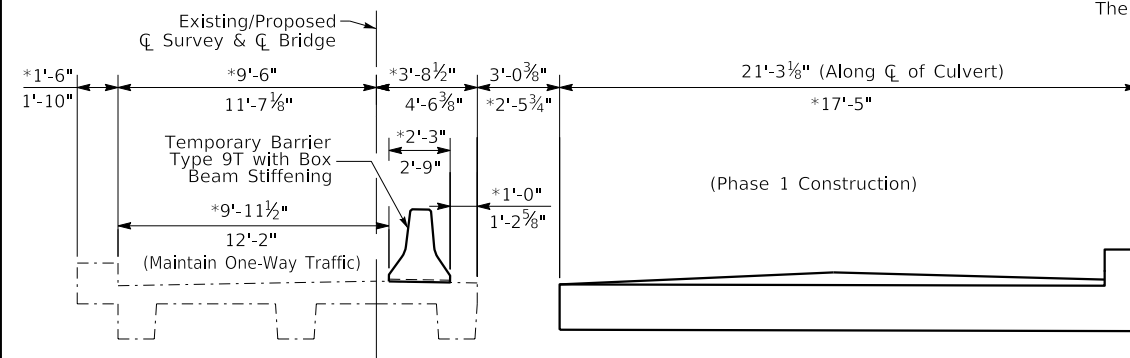
Note: For Guardrail location, see roadway plans.

SECTION ON Q
Single 24'-0" x 6'-0" x 46'-0" R.C.B.C.
18'-0" Inlet End and 28'-0" Outlet End
35° Rt. Skew ~ KYHL-93 Loading ~ 1:2 Fill Slope
Yielding Foundation

	REVISION	DATE	PREPARED BY	DATE: MARCH 2023	CHECKED BY	LAYOUT CROSSING POTTER CREEK	ROUTE	ITEM NO.	COUNTY OF
			Division of Structural Design	DESIGNED BY: J. VAN ZEE	S.T. ANDARDS		KY 805	12-10117	LETCHER
				DATE PLOTTED: 4-DEC-2023	J. VAN ZEE			SHEET NO.	DRAWING NUMBER
				FILE NAME: J:\District12\12-10117 067B00023N\28695\Culvert Design\28695 New.dgn				S2	28695



PHASE 1 REMOVAL



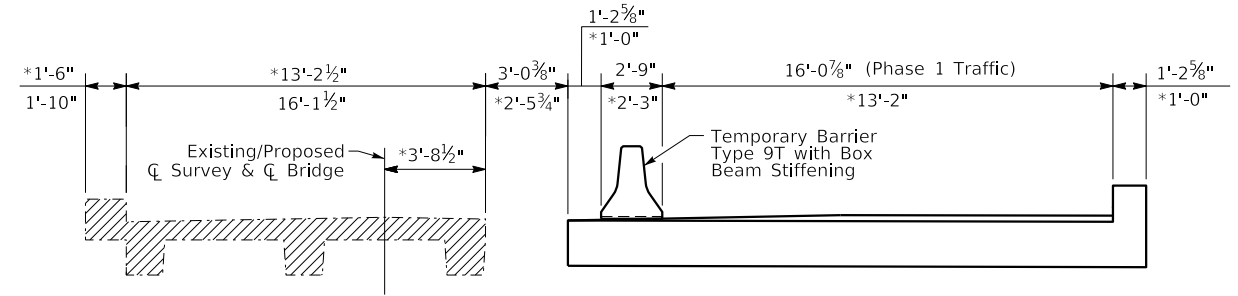
PHASE 1 CONSTRUCTION

SUGGESTED CONSTRUCTION PHASING SEQUENCE

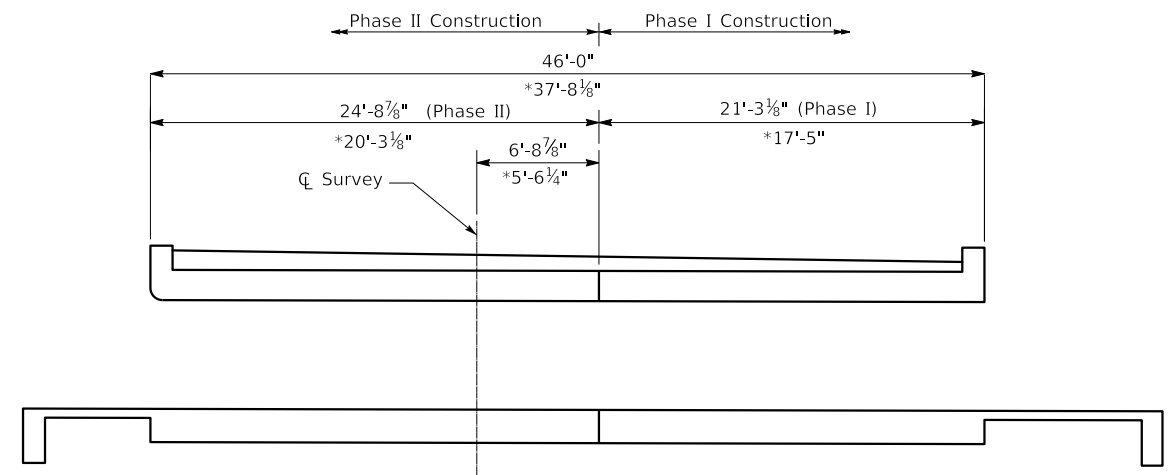
Phase 1.) Maintain traffic on existing roadway and portions of existing bridge during phase 1 culvert construction. Portions of existing bridge shall be removed to facilitate phased construction. Use sheeting or shoring as necessary to maintain existing roadway. Include all costs of sheeting, shoring, dewatering, etc. in price bid for foundation preparation. Construct phase 1 of culvert.

Phase 2.) Move barrier onto new structure and install box beam stiffening. Backfill new structure and apply fill to top to provide a smooth riding surface. Shift traffic to new structure. Remove the rest of existing structure. Use sheeting or shoring as necessary to maintain roadway. Complete proposed structure construction. Complete backfill of new structure. Remove temporary concrete barrier. Complete paving operations.

Adjust sequence as necessary and in accordance with the Engineers recommendations.



PHASE 2 REMOVAL

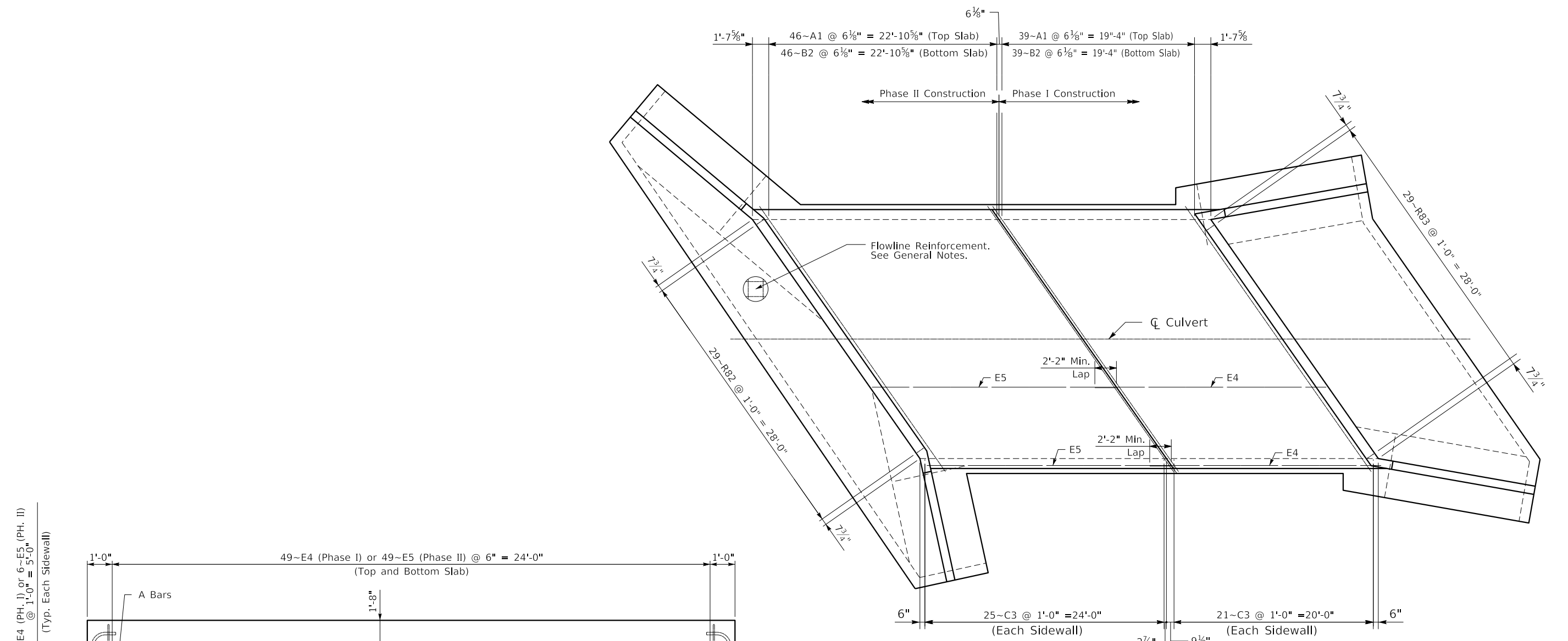


PHASE 2 CONSTRUCTION

Barrier Note: Provide Temporary Barrier Type 9T (Std. Dwg. RBM-115, c.e., Barrier Quantities are included in Roadway Quantities) and Box Beam Stiffening (Std. Dwg. RBM-120, c.e., Include all costs in the price bid for Temporary Barrier)

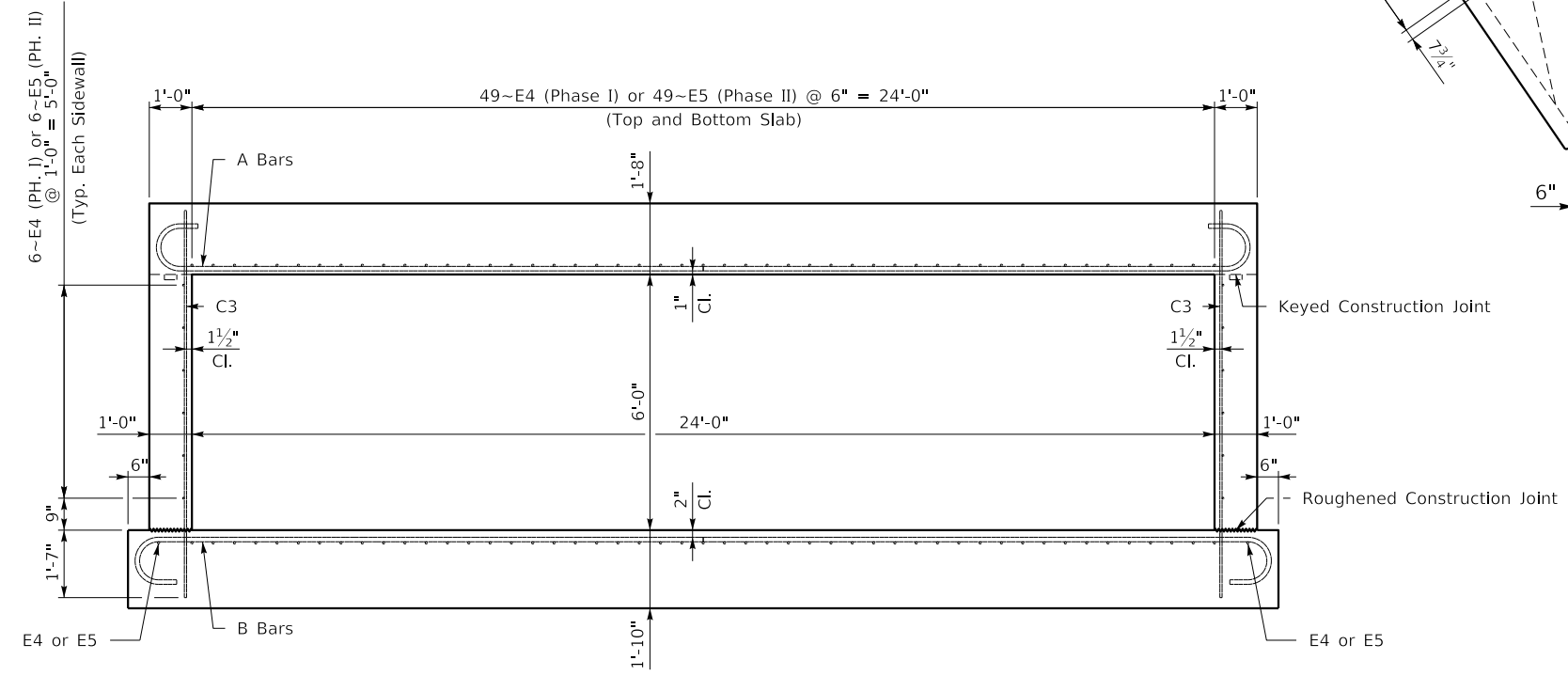
Note: Contractor to field verify all dimensions prior to submitting bid. No claims for changed site conditions shall be allowed.

Note: All dimensions with (*) denotation given on this sheet are perpendicular to C Survey. The rest of dimensions given are along the C of culvert.



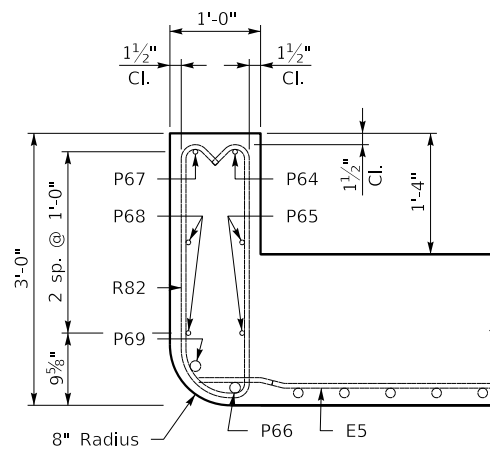
PLAN

Note: Minimum Lap Distance 26 in (E4 to E5)

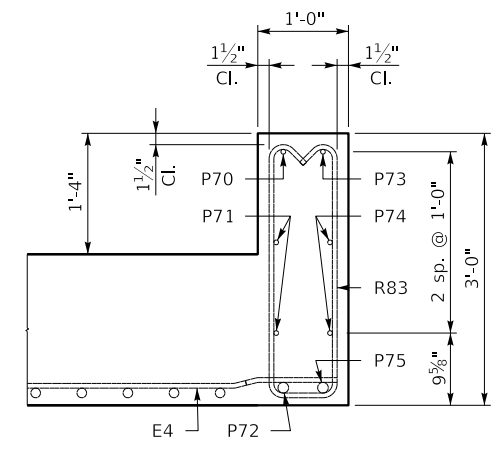
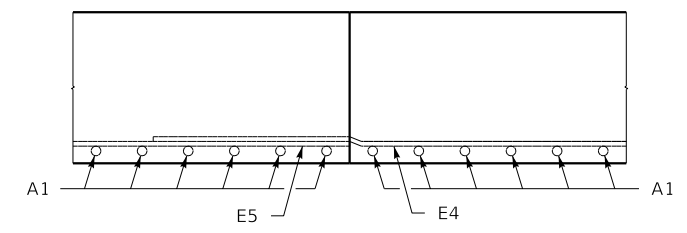


TYPICAL BARREL SECTION
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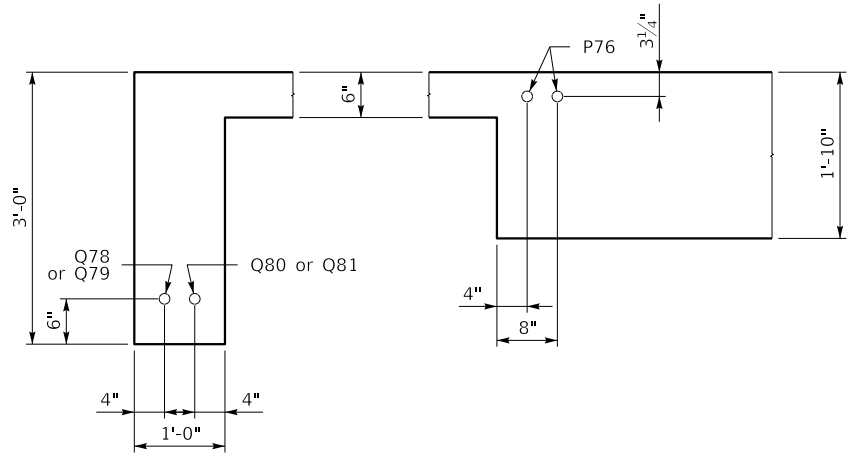
		REVISION	DATE	PREPARED BY	DATE: MARCH 2023	CHECKED BY	BARREL CROSSING POTTER CREEK	ROUTE	ITEM NO.	COUNTY OF
				Division of Structural Design	DESIGNED BY: J. VAN ZEE	S.T. ANDARDS		KY 805	12-10117	LETCHER
OpenRoads Designer v10.16.2.267	USER: Joseph.vanzee		DATE PLOTTED: 4-DEC-2023		DETAILED BY: M. BAWITHAWNG	J. VAN ZEE			SHEET NO. S4	DRAWING NUMBER 28695



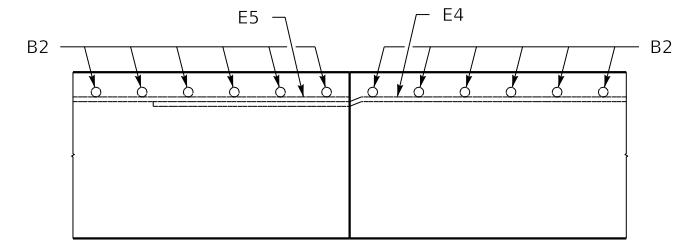
LEFT PARAPET
SCALE = 1:12
(Perpendicular to Parapet)



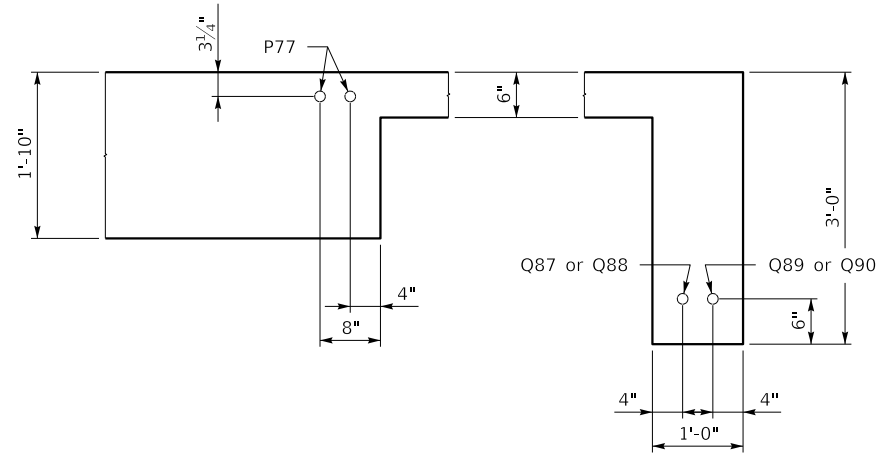
RIGHT PARAPET
SCALE = 1:12
(Perpendicular to Parapet)



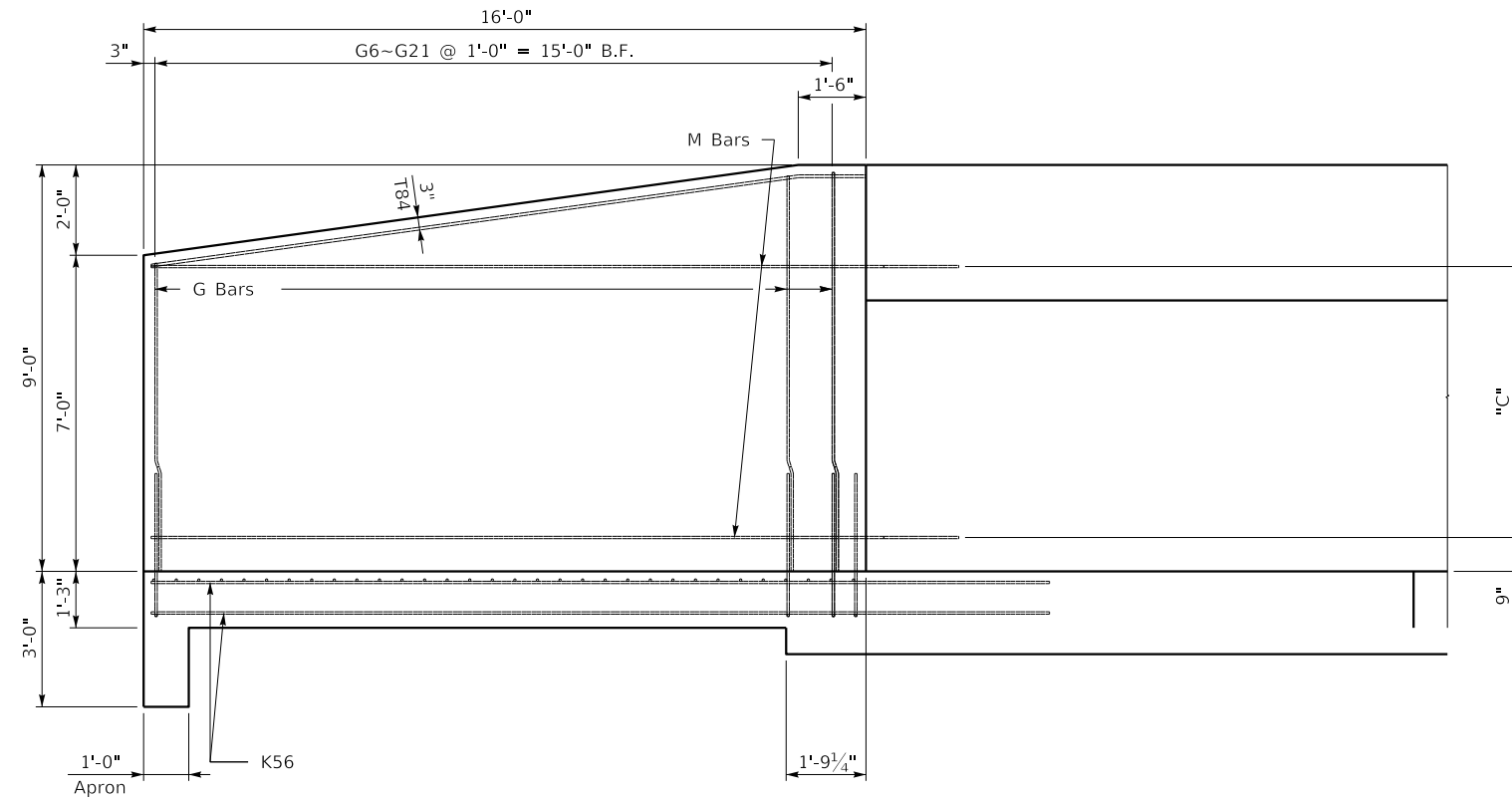
LEFT END
SCALE = 1:12
(Perpendicular to Apron)



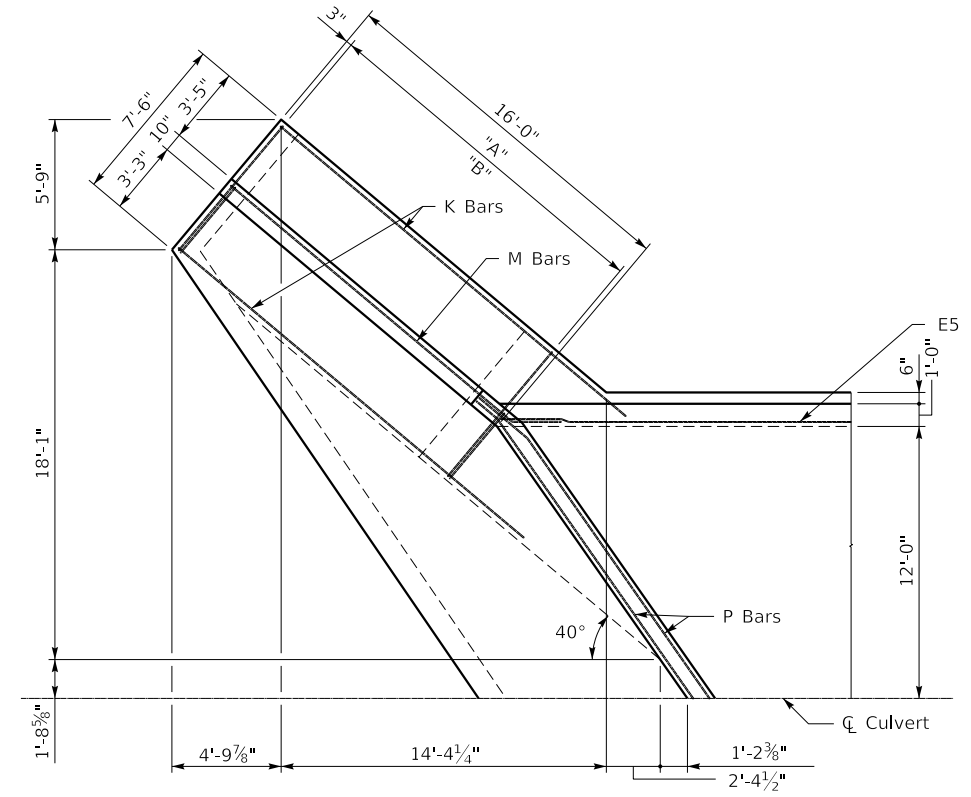
SECTION ON Q
SCALE = 1:12



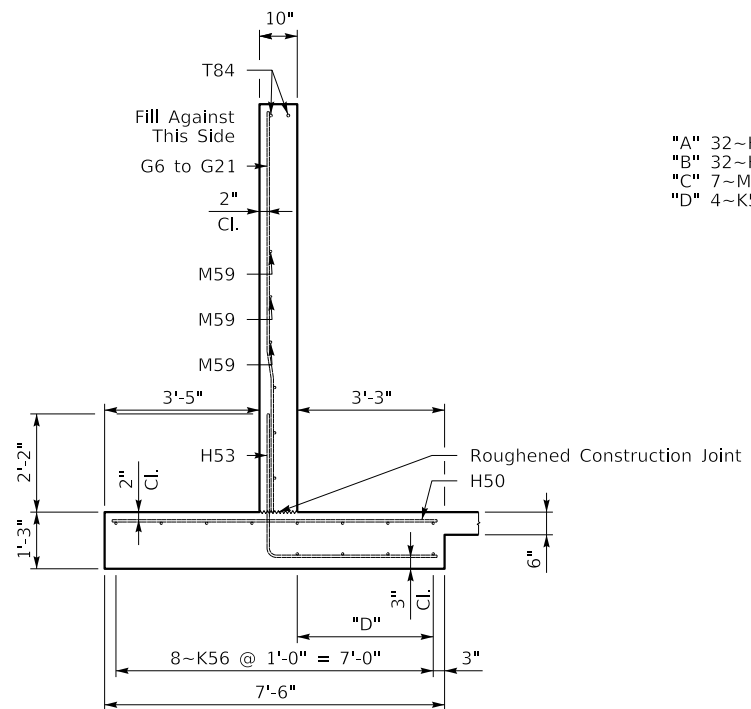
RIGHT END
SCALE = 1:12
(Perpendicular to Apron)



WING ELEVATION
SCALE = 1:24



PLAN
SCALE = 1:48
 "A" 32-H50 @ 6" = 15'-6" Top of Ftg.
 "B" 32-H53 @ 6" = 15'-6" Bot of Ftg to B.F. Wall
 "C" 7-M59 @ 1'-0" = 6'-0" B.F.
 "D" 4-K56 @ 1'-0" = 3'-0" Bot of Ftg.

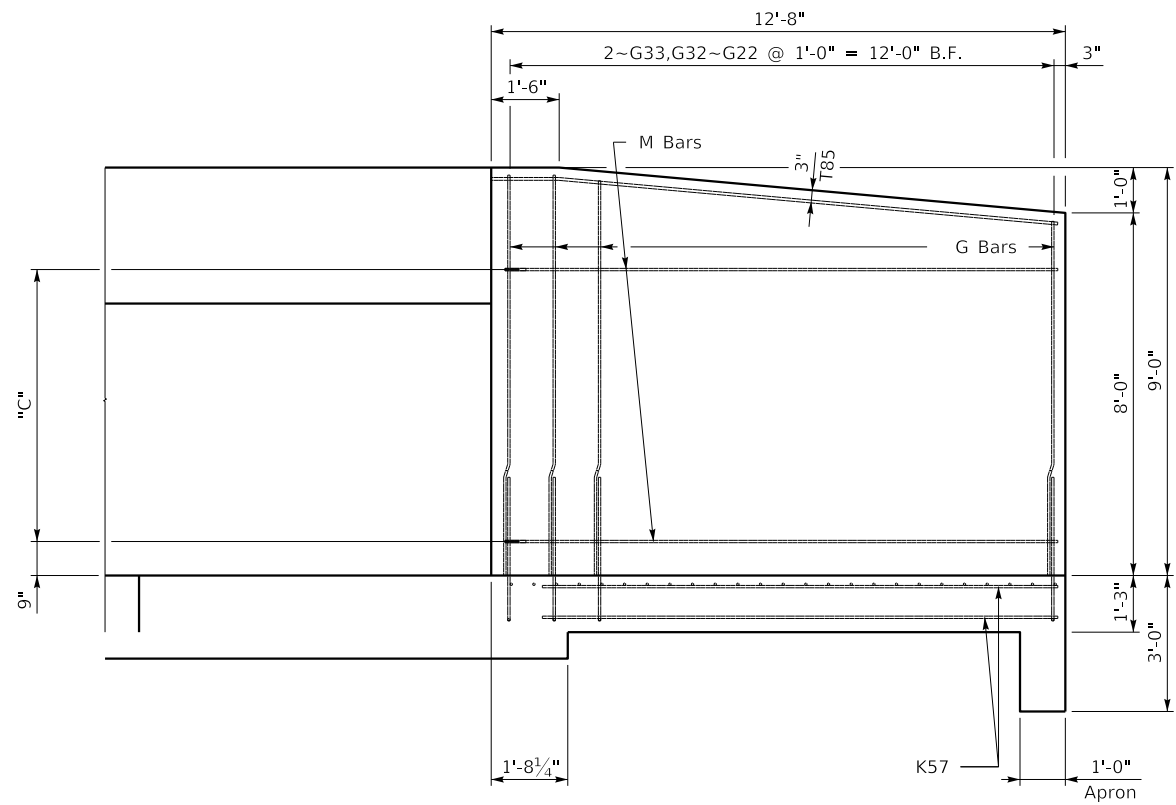


WING SECTION
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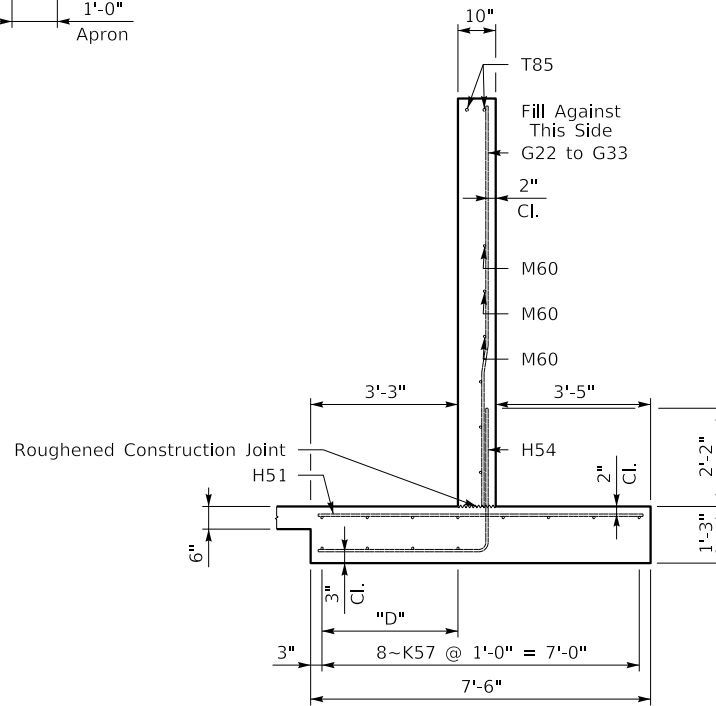
REVISION	DATE

DATE: MARCH 2023	CHECKED BY: S.T. ANDARDS
DESIGNED BY: J. VAN ZEE	J. VAN ZEE
DETAILED BY: M. BAWITHAWNG	

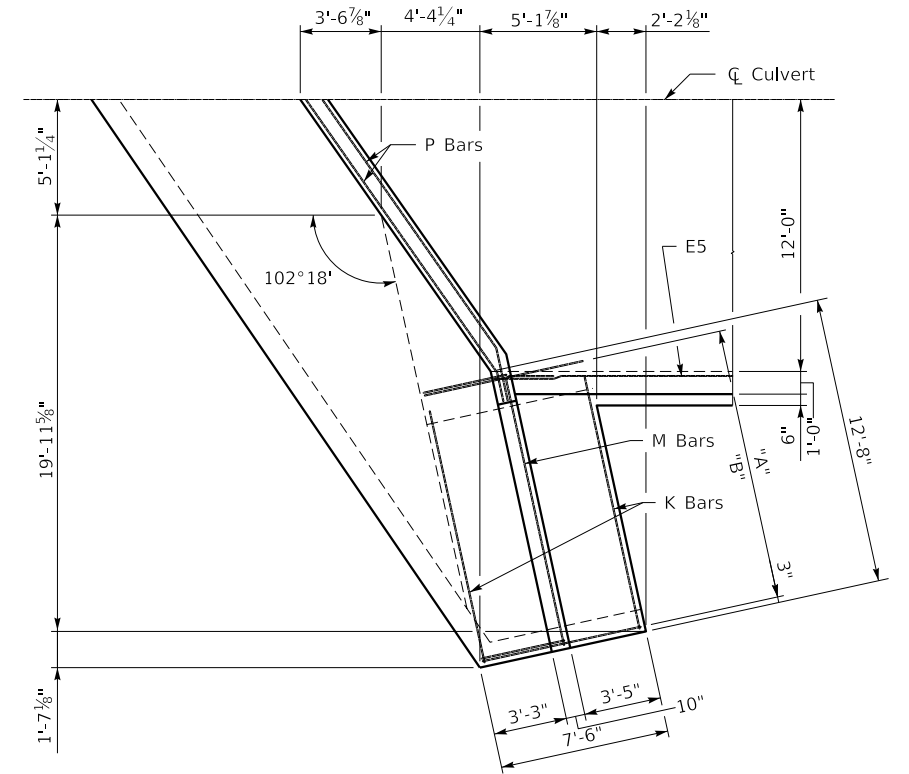
ROUTE KY 805	ITEM NO. 12-10117	COUNTY OF LETCHER
	SHEET NO. S6	DRAWING NUMBER 28695



WING ELEVATION
SCALE = 1:24

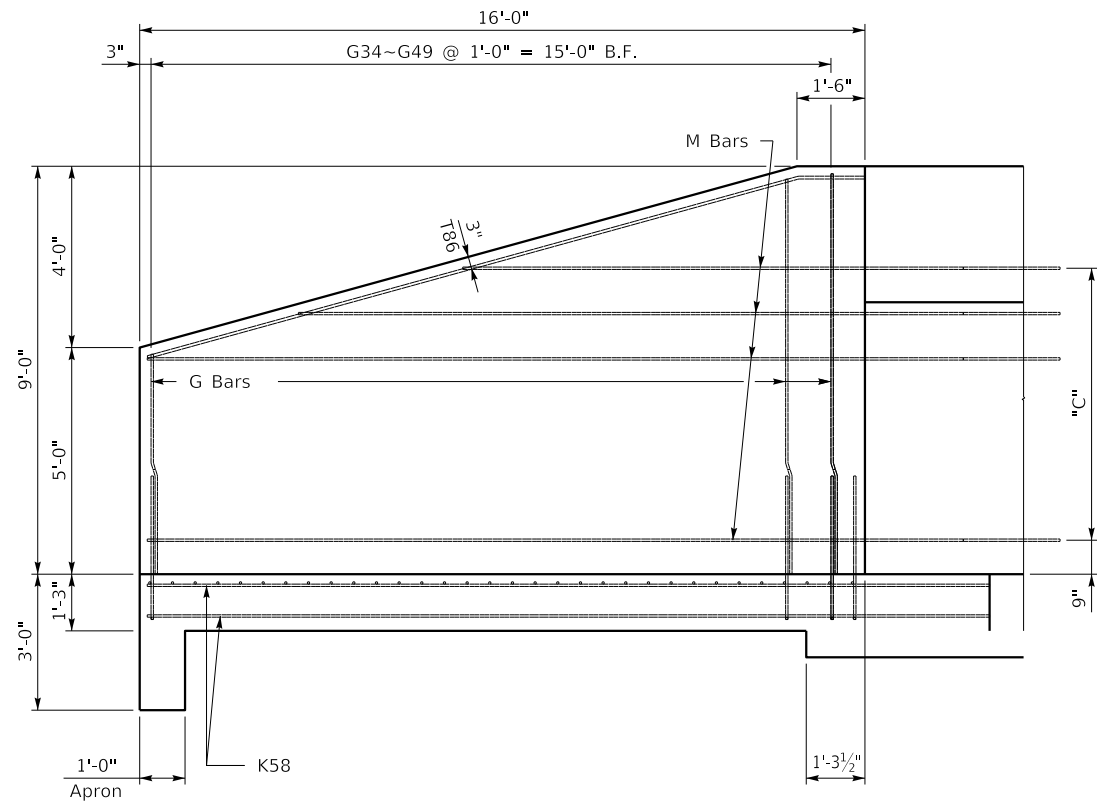


WING SECTION
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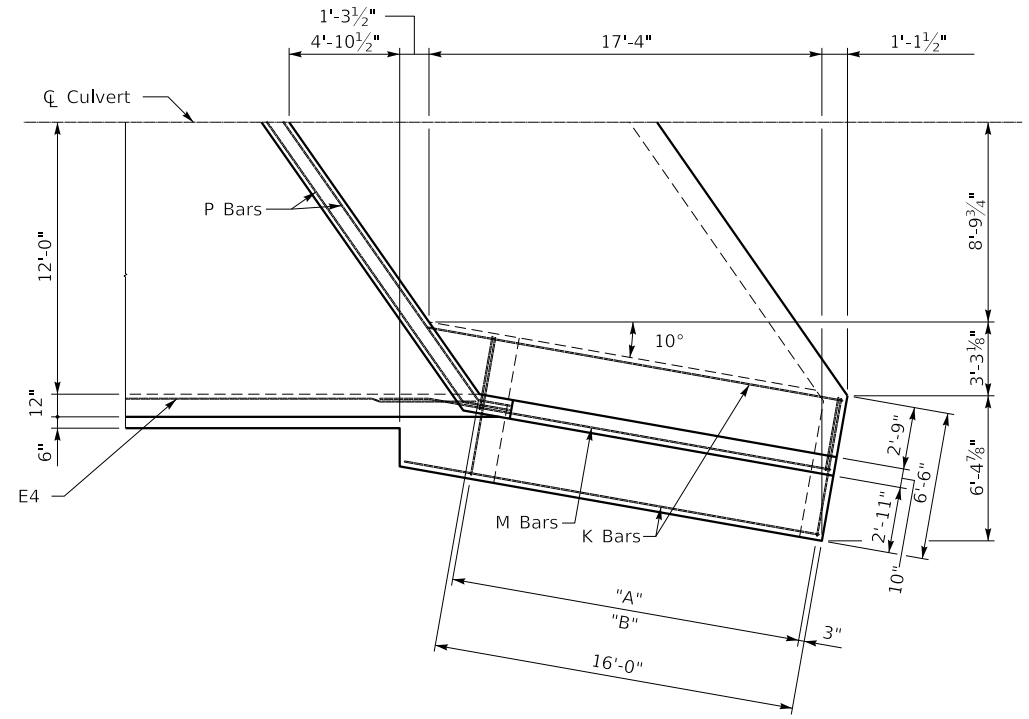


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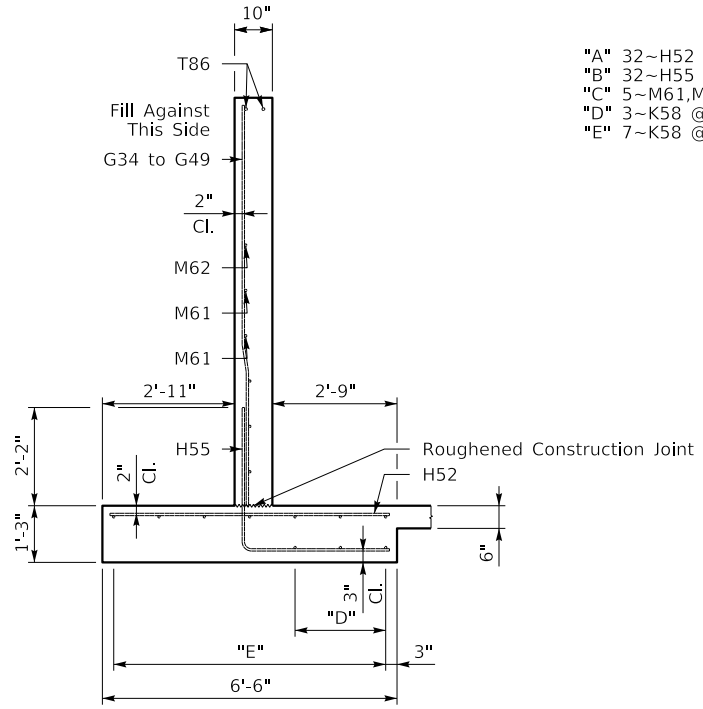
- "A" 25-H51 @ 6" = 12'-0" Top of Ftg.
- "B" 25-H54 @ 6" = 12'-0" Bot of Ftg to B.F. Wall
- "C" 7-M60 @ 1'-0" = 6'-0" B.F.
- "D" 4-K57 @ 1'-0" = 3'-0" Bot of Ftg.



WING ELEVATION
SCALE = 1:24



PLAN
SCALE = 1:48



WING SECTION
SCALE = 1:24

- "A" 32~H52 @ 6" = 15'-6" Top of Ftg.
- "B" 32~H55 @ 6" = 15'-6" Bot of Ftg to B.F. Wall
- "C" 5~M61, M62~M63 @ 1'-0" = 6'-0" B.F.
- "D" 3~K58 @ 1'-0" = 2'-0" Bot of Ftg.
- "E" 7~K58 @ 1'-0" = 6'-0"

BILL OF REINFORCEMENT

BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A/E	B/F	C/G	D/H
A1e	I	85	10	34- 7	Top Slab	30- 2 3/4	2- 2	1- 1 1/4	31- 4
B2	I	85	10	35- 9	Bottom Slab	31- 5 3/8	2- 2	1- 1 1/4	32- 6 5/8
C3e	Str.	92	5	9- 1	Sidewalls				
E4e	Str.	112	5	23- 3	Sidewalls, Top & Bot. Slabs (Phase I)				
E5e	Str.	112	5	24- 6	Sidewalls, Top & Bot. Slabs (Phase II)				
G6	Str.	I	5	6- 10	B.F Wing I				
G7	Str.	I	5	7- 0	B.F Wing I				
G8	Str.	I	5	7- 1	B.F Wing I				
G9	Str.	I	5	7- 3	B.F Wing I				
G10	Str.	I	5	7- 5	B.F Wing I				
G11	Str.	I	5	7- 6	B.F Wing I				
G12	Str.	I	5	7- 8	B.F Wing I				
G13	Str.	I	5	7- 9	B.F Wing I				
G14	Str.	I	5	7- 11	B.F Wing I				
G15	Str.	I	5	8- 1	B.F Wing I				
G16	Str.	I	5	8- 2	B.F Wing I				
G17	Str.	I	5	8- 4	B.F Wing I				
G18	Str.	I	5	8- 6	B.F Wing I				
G19	Str.	I	5	8- 7	B.F Wing I				
G20	Str.	I	5	8- 9	B.F Wing I				
G21	Str.	I	5	8- 10	B.F Wing I				
G22	Str.	I	5	7- 10	B.F Wing 2				
G23	Str.	I	5	7- 11	B.F Wing 2				
G24	Str.	I	5	8- 0	B.F Wing 2				
G25	Str.	I	5	8- 1	B.F Wing 2				
G26	Str.	I	5	8- 2	B.F Wing 2				
G27	Str.	I	5	8- 3	B.F Wing 2				
G28	Str.	I	5	8- 4	B.F Wing 2				
G29	Str.	I	5	8- 5	B.F Wing 2				
G30	Str.	I	5	8- 6	B.F Wing 2				
G31	Str.	I	5	8- 7	B.F Wing 2				
G32	Str.	I	5	8- 9	B.F Wing 2				
G33	Str.	2	5	8- 10	B.F Wing 2				
G34	Str.	2	5	4- 10	B.F Wings 3 & 4				
G35	Str.	2	5	5- 2	B.F Wings 3 & 4				
G36	Str.	2	5	5- 5	B.F Wings 3 & 4				
G37	Str.	2	5	5- 8	B.F Wings 3 & 4				
G38	Str.	2	5	5- 11	B.F Wings 3 & 4				
G39	Str.	2	5	6- 3	B.F Wings 3 & 4				
G40	Str.	2	5	6- 6	B.F Wings 3 & 4				
G41	Str.	2	5	6- 9	B.F Wings 3 & 4				
G42	Str.	2	5	7- 1	B.F Wings 3 & 4				

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A/E	B/F	C/G	D/H
G43	Str.	2	5	7- 4	B.F Wings 3 & 4				
G44	Str.	2	5	7- 7	B.F Wings 3 & 4				
G45	Str.	2	5	7- 11	B.F Wings 3 & 4				
G46	Str.	2	5	8- 2	B.F Wings 3 & 4				
G47	Str.	2	5	8- 5	B.F Wings 3 & 4				
G48	Str.	2	5	8- 9	B.F Wings 3 & 4				
G49	Str.	2	5	8- 10	B.F Wings 3 & 4				
H50	Str.	32	5	7- 2	Top Ftq Wing I				
H51	Str.	25	5	7- 2	Top Ftq Wing 2				
H52	Str.	64	5	6- 2	Top Ftq Wings 3 & 4				
H53	5	32	5	6- 9	Bot Ftq Wing I	3- 2	3- 9		
H54	5	25	5	6- 9	Bot Ftq Wing 2	3- 2	3- 9		
H55	5	64	5	6- 3	Bot Ftq Wings 3 & 4	3- 2	3- 3		
K56	Str.	12	5	19- 11	Ftq Wing I				
K57	Str.	12	5	11- 4	Ftq Wing 2				
K58	Str.	20	5	18- 7	Ftq Wings 3 & 4				
M59	8	7	5	18- 4	B.F. Wing I	16- 2 3/4	2- 2	1- 4 3/4	1- 7 1/8
M60	25	7	5	14- 2	B.F. Wing 2	12- 2 3/8	2- 2	2- 1 3/8	0- 5 1/2
M61	8	10	5	20- 2	B.F. Wings 3 & 4	18- 0	2- 2	0- 4 1/2	2- 1 5/8
M62	8	2	5	16- 10	B.F. Wings 3 & 4	14- 8	2- 2	0- 4 1/2	2- 1 5/8
M63	8	2	5	13- 2	B.F. Wings 3 & 4	11- 0 1/2	2- 2	0- 4 1/2	2- 1 5/8
P64e	7	1	5	32- 9	B.F. Parapet Lt. End	28- 8 1/2	2- 0 7/8	1- 11 3/8	0- 6 3/8
						2- 0	0- 9	1- 9 5/8	
P65e	7	2	5	32- 9	B.F. Parapet Lt. End	28- 2 3/4	2- 4 1/2	2- 1 7/8	0- 7 3/8
						2- 3 1/2	0- 10	1- 11 1/8	
P66e	7	1	10	32- 8	B.F. Parapet Lt. End	28- 6 1/8	2- 2 3/8	2- 0 1/2	0- 6 1/8
						2- 1 1/2	0- 9 3/8	1- 10 1/2	
P67e	7	1	5	32- 5	F.F. Parapet Lt. End	28- 10	1- 10 1/4	1- 9 7/8	0- 5 3/4
						1- 9 1/2	0- 8 1/8	1- 7 1/2	
P68e	7	2	5	32- 5	F.F. Parapet Lt. End	29- 3 3/4	1- 6 3/8	1- 6 3/4	0- 4 1/8
						1- 6	0- 7 1/4	1- 5 1/4	
P69e	7	1	10	32- 5	F.F. Parapet Lt. End	29- 0 5/8	1- 8 1/8	1- 8 3/8	0- 5 3/8
						1- 8 1/8	0- 7 7/8	1- 6 3/4	
P70e	31	1	5	34- 9	B.F. Parapet Rt. End	30- 4 5/8	1- 10 1/4	2- 5 3/4	1- 3 3/4
						1- 3 3/4	2- 3	1- 0 5/8	
P71e	31	2	5	34- 11	B.F. Parapet Rt. End	30- 4 1/8	1- 11 1/2	2- 6 7/8	1- 4 5/8
						1- 4 5/8	2- 3 3/8	1- 1	
P72e	31	1	10	34- 9	B.F. Parapet Rt. End	30- 4 5/8	1- 10 1/4	2- 5 3/4	1- 3 3/4
						1- 3 3/4	2- 3	1- 0 5/8	
P73e	31	1	5	33- 2	F.F. Parapet Rt. End	29- 9 3/8	1- 6 3/4	1- 10 1/8	1- 1 1/4
						1- 1 1/4	1- 8	0- 9 3/8	
P74e	31	2	5	33- 0	F.F. Parapet Rt. End	29- 9 7/8	1- 5 1/2	1- 9 7/8	1- 0 3/8
						1- 0 3/8	1- 7 1/8	0- 8 7/8	
P75e	31	1	10	33- 3	F.F. Parapet Rt. End	29- 10 1/2	1- 6 3/4	1- 10 1/8	1- 1 1/4
						1- 1 1/4	1- 8	0- 9 3/8	
P76	Str.	2	10	32- 7	Bottom Slab Lt. End				
P77	Str.	2	10	32- 7	Bottom Slab Rt. End				
Q78	8	1	10	36- 1	Apron Lt. End	30- 2	6- 1	5- 10 3/8	1- 7 1/2
Q79	8	1	10	36- 7	Apron Lt. End	30- 2	6- 7	6- 1 1/4	2- 5 5/8
Q80	8	1	10	35- 6	Apron Lt. End	29- 11	5- 9	5- 6 1/2	1- 6 1/2
Q81	8	1	10	36- 1	Apron Lt. End	29- 11	6- 4	5- 10 1/2	2- 4 1/2
R82e	IIs	29	5	6- 11	Parapet Wall (Left End)	2- 9 1/2	0- 9	0- 2 1/2	2- 3
						0- 6 1/2	0- 9 3/4		
R83e	I2s	29	5	7- 1	Parapet Wall (Right End)	2- 9 1/2	0- 9		
T84	8	2	6	16- 0	Top of Wing I	14- 5 3/4	1- 5 7/8	0- 2 3/8	1- 5 5/8
T85	8	2	6	12- 6	Top of Wing 2	11- 0 5/8	1- 5 7/8	0- 1 5/8	1- 5 3/4
T86	8	4	6	16- 4	Top of Wings 3 & 4	14- 10 3/4	1- 5 7/8	0- 4 3/4	1- 5
Q87	8	1	10	23- 8	Apron Rt. End	17- 2 3/4	6- 5 3/4	2- 8 5/8	5- 10 1/2
Q88	8	1	10	23- 3	Apron Rt. End	17- 2 3/4	6- 0 3/4	4- 3 1/4	4- 3 3/8
Q89	8	1	10	23- 11	Apron Rt. End	17- 3 1/8	6- 4 1/8	5- 9 3/4	2- 8 1/4
Q90	8	1	10	23- 5	Apron Rt. End	17- 3 1/8	6- 2 3/8	4- 4 1/2	4- 4 3/4

