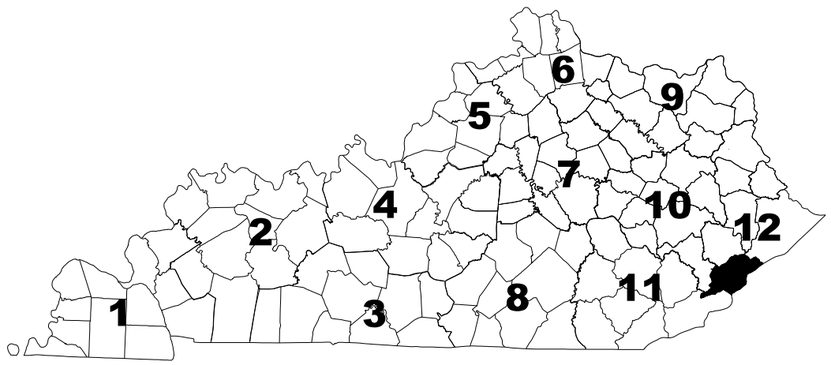
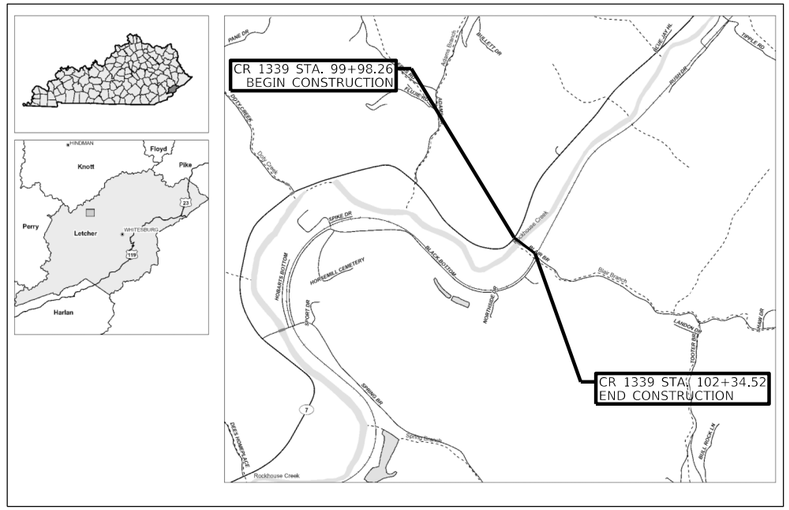
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

TEAM KENTUCKY
TRANSPORTATION CABINET

PLANS OF
PROPOSED PROJECT

CR 1339 / Blair Branch Over Rockhouse Creek
Letcher County, Kentucky
Bridge Replacement





LAYOUT MAP

DESIGN CRITERIA

CLASS OF HIGHWAY	RURAL LOCAL
TYPE OF TERRAIN	MOUNTAINOUS
DESIGN SPEED	N/A
REQUIRED NPSD	N/A
REQUIRED PSD	N/A
LEVEL OF SERVICE	N/A
ADT PRESENT (2019)	667
ADT FUTURE (N/A)	N/A
DHV	N/A
D %	N/A
T %	N/A

GEOGRAPHIC COORDINATES

LATITUDE 37 DEGREES 10 MINUTES 22 SECONDS NORTH
LONGITUDE 82 DEGREES 55 MINUTES 11 SECONDS WEST

DESIGNED

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

INDEX OF SHEETS

R001	LAYOUT SHEET
R002	TYPICAL SECTIONS
R003	GENERAL SUMMARY
R004	GENERAL NOTES AND SPECIAL NOTES
R005	LEGEND AND UTILITY OWNER SHEET
R006 - R008	ROADWAY PLAN AND PROFILE SHEETS
R009	MOT NOTES AND PHASING NOTES
R010 - R011	DIVERSION PLAN AND PROFILE SHEETS
R012 - R013	PHASING SHEETS
R014	EROSION CONTROL NOTES
R015	EROSION CONTROL PLAN SHEET
R016	COORDINATE CONTROL SHEET
R017	RIGHT OF WAY SUMMARY SHEET
R018	PIPE PROFILE SHEET
R019 - R022	SEPIAS
X001 - X005	CROSS SECTION SHEETS
X006 - X010	DIVERSION CROSS SECTION SHEETS

STANDARD DRAWINGS

BHS-011	RBR-015-06	RDI-021-01	RGX-001-06	SEPIA 017
RBE-100-11	RBR-055-01	RDI-025-06	RGX-005-06	SEPIA 021
RBI-001-12	RBR-060	RDI-026-01	RGX-100-07	SEPIA 022
RBI-002-07	RDB-100-05	RDM-105-03	RGX-105-09	SEPIA 023
RBM -020-09	RDB-150-02	RDX-005-03	RGX-200-01	
RBM-115-10	RDB-160-02	RDX-210-03	RPM-110-07	
RBR-001-13	RDD-040-05	RDX-215-01	TTC-100-05	
RBR-005-11	RDI-001-10	RDX-220-05	TTC-110-04	
RBR-010-06	RDI-020-10	RDX-225-01	TTC-150-04	

CR 1339

LENGTH 221 LIN. FT. 0.042 MILES	LENGTH X LIN. FT. X MILES	LENGTH X LIN. FT. X MILES	LENGTH X LIN. FT. X MILES
ADDED / DEDUCTED FOR EQUALITIES X LIN. FT.	ADDED / DEDUCTED FOR EQUALITIES X LIN. FT.	ADDED / DEDUCTED FOR EQUALITIES X LIN. FT.	ADDED / DEDUCTED FOR EQUALITIES X LIN. FT.
NOT INCLUDED	NOT INCLUDED	NOT INCLUDED	NOT INCLUDED
RAILROAD CROSSINGS NO. X LIN. FT.	RAILROAD CROSSINGS NO. X LIN. FT.	RAILROAD CROSSINGS NO. X LIN. FT.	RAILROAD CROSSINGS NO. X LIN. FT.
BRIDGES 91 LIN. FT.	BRIDGES X LIN. FT.	BRIDGES X LIN. FT.	BRIDGES X LIN. FT.
X	X	X	X
X	X	X	X

PROJECT NUMBER:

PROJECT DESCRIPTION: BRIDGE REPLACEMENT, CR 1339 OVER ROCKHOUSE CREEK. ID #067C00038N

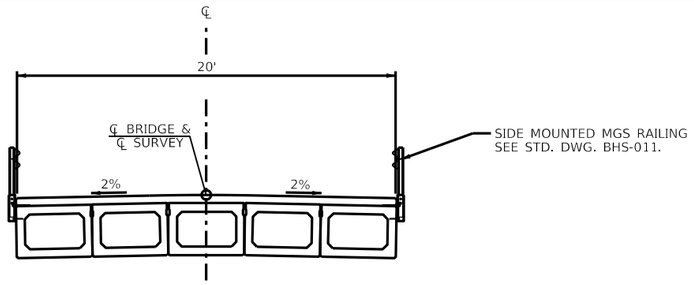
RECOMMENDED BY: Carl Van Zee 07/14/2023
PROJECT MANAGER DATE:

PLAN APPROVED BY: _____
STATE HIGHWAY ENGINEER DATE:

Michael Baker INTERNATIONAL

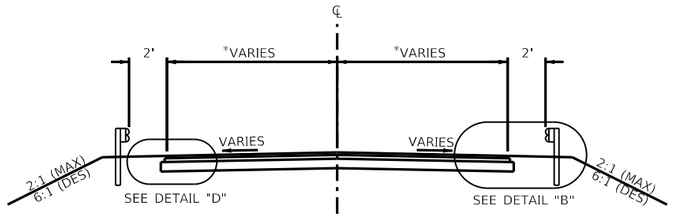
STATE OF KENTUCKY
PATRICK DALE OSBORNE 23933
LICENSED PROFESSIONAL ENGINEER
Patrick D. Osborne
Patrick D. Osborne
Email: posborne@mbakerintl.com, CN=Patrick D. Osborne
2024.02.13 08:50:20-05'00'

LETTING DATE: 03/21/2024
ITEM NO. 12-10145 COUNTY OF LETCHER
SHEET NO. R001



CR 1339 / BLAIR BRANCH

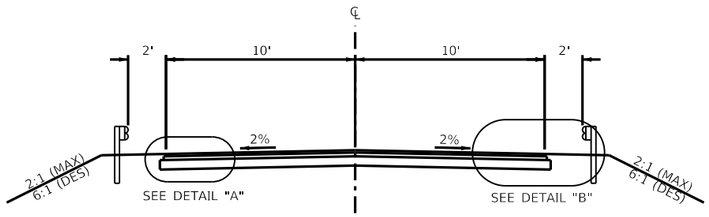
STA 100+25.83 TO STA 101+17.33



CR 1339 / BLAIR BRANCH

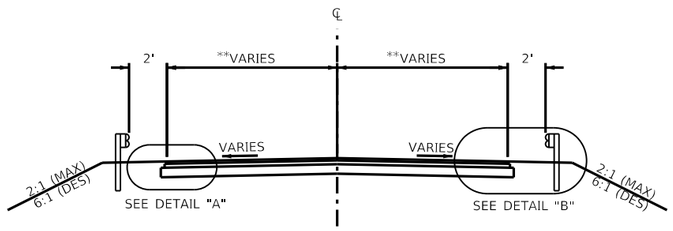
STA 100+00.00 TO STA 100+25.83

*PAVEMENT WIDTH MATCHES
EXISTING AT STA 100+00



CR 1339 / BLAIR BRANCH

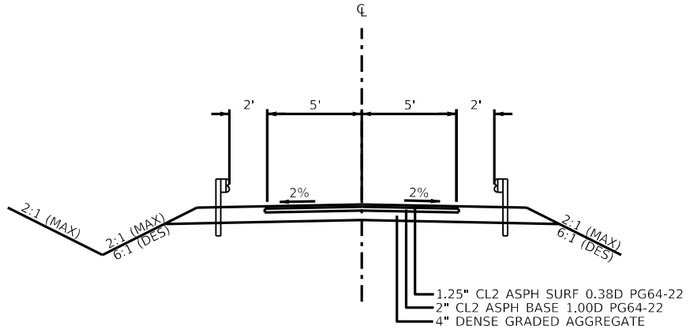
STA 101+17.33 TO STA 101+77.41



CR 1339 / BLAIR BRANCH

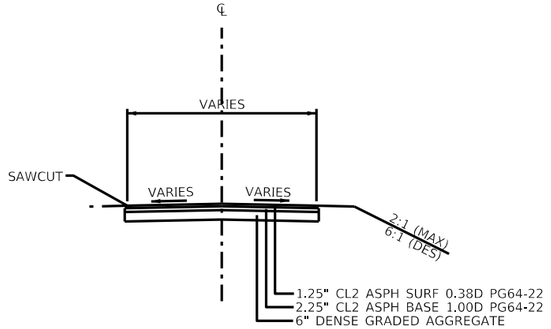
STA 101+77.41 TO STA 102+21.00

**PAVEMENT WIDTH MATCHES
EXISTING AT STA 102+21



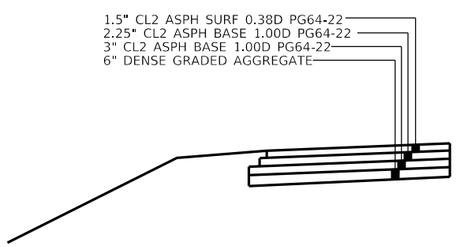
DIVERSION

STA 200+00.00 TO STA 201+50.44
STA 202+06.08 TO STA 202+46.71 (SEE SEQUENCING PLAN SHEET)

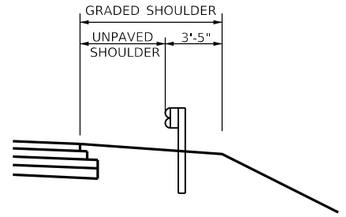


PARKING LOT / ENTRANCE

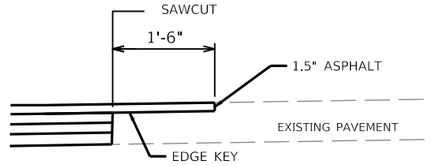
STA 300+12.00 TO STA 300+30.00 (SEE PLAN SHEET)
DIVERSION STA 201+50.44 TO STA 202+06.08 (SEE SEQUENCING PLAN SHEET)



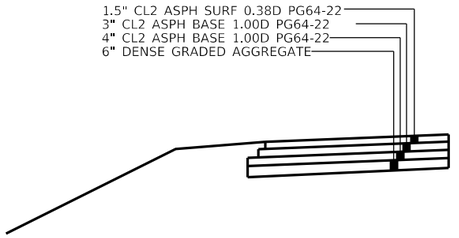
DETAIL "A" - CR 1339 / BLAIR BRANCH PAVEMENT DESIGN



DETAIL "B" - GUARDRAIL INSTALLATION



DETAIL "C" - EDGE KEY



DETAIL "D" - KY 7 PAVEMENT DESIGN

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

DRAWING TITLE: TYPICAL SECTIONS

ITEM NO. 12-10145
COUNTY OF LETCHER
SHEET NO. R002

GENERAL SUMMARY

ITEM CODE	ITEM DESCRIPTION	NOTES NO.	UNIT	CR 1339	TOTAL PROJECT
00462	CULVERT PIPE-18 IN		LF	111	111
01370	METAL END SECTION TY 1-18 IN		EACH	1	1
01444	SLOPED AND PARALLEL HEADWALL-18 IN		EACH	1	1
01987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE		EACH	9	9
02159	TEMP DITCH	4	LF	242	242
02160	CLEAN TEMP DITCH	4	LF	121	121
02200	ROADWAY EXCAVATION	5	CY	155	155
02242	WATER	4	MGAL	92	92
02351	GUARDRAIL-STEEL W BEAM-S FACE		LF	250	250
02360	GUARDRAIL TERMINAL SECTION NO. 1		EACH	4	4
02397	TEMP GUARDRAIL		LF	264	264
02484	CHANNEL LINING CLASS III		TON	9	9
02545	CLEARING AND GRUBBING	6	LS	1	1
02569	DEMOBILIZATION		LS	1	1
02585	EDGE KEY		LF	86	86
02602	FABRIC-GEOTEXTILE CLASS 1		SQYD	15	15
02650	MAINTAIN & CONTROL TRAFFIC		LS	1	1
02651	DIVERSIONS (BY-PASS DETOURS)	7	LS	1	1
02653	LANE CLOSURE		EACH	1	1
02671	PORTABLE CHANGEABLE MESSAGE SIGN		EACH	2	2
02701	TEMP SILT FENCE	4	LF	242	242
02703	SILT TRAP TYPE A	4	EACH	1	1
02704	SILT TRAP TYPE B	4	EACH	1	1
02706	CLEAN SILT TRAP TYPE A	4	EACH	1	1
02707	CLEAN SILT TRAP TYPE B	4	EACH	1	1
02726	STAKING		LS	1	1
02731	REMOVE STRUCTURE		LS	1	1
03171	CONCRETE BARRIER WALL TYPE 9T		LF	80	80
04935	TEMP SIGNAL		LS	1	1
05950	EROSION CONTROL BLANKET	4	SQYD	124	124
05952	TEMP MULCH	4	SQYD	1562	1,562
05953	TEMP SEEDING AND PROTECTION	4	SQYD	1165	1,165
05963	INITIAL FERTILIZER	4	TON	0.1	0.1
05964	MAINTENANCE FERTILIZER	4	TON	0.1	0.1
05985	SEEDING AND PROTECTION	4	SQYD	1681	1,681
05992	AGRICULTURAL LIMESTONE	4	TON	1.1	1.1
06515	PAVE STRIPING-PERM PAINT-6 IN		LF	682	682
06550	PAVE STRIPING-TEMP REM TAPE-W		LF	743	743
06551	PAVE STRIPING-TEMP REM TAPE-Y		LF	90	90
08901	CRASH CUSHION TY VI CLASS BT TL2		EACH	1	1
08903	CRASH CUSHION TY VI CLASS BT TL3		EACH	1	1
20550ND	SAWCUT PAVEMENT		LF	63	63
22664EN	WATER BLASTING EXISTING STRIPE		LF	721	721
23010EN	PAVE MARK TEMP PAINT STOP BAR-24 IN		LF	31	31
23952EC	DRAINAGE JUNCTION BOX TY B		EACH	1	1

PAVING SUMMARY

ITEM CODE	ITEM DESCRIPTION	NOTES NO.	UNIT	CR 1339 / BLAIR BRANCH	TOTAL PROJECT
00001	DGA BASE	1	TON	322	322
00212	CL2 ASPH BASE 1.00D PG64-22	3	TON	150	150
00301	CL2 ASPH SURF 0.38D PG64-22	3	TON	54	54
00356	ASPHALT MATERIAL FOR TACK	2	TON	0.4	0.4

EARTHWORK VOLUMES

	NOTES NO.	EXC.	EMB.
CR 1339 / BLAIR BRANCH ROAD	8	155	130
DIVERSION	8 & 9	172	842

PAVING AREAS

ITEM CODE	ITEM DESCRIPTION	NOTES NO.	UNIT	KY 7	CR 1339 / BLAIR BRANCH	ENTRANCE / PARKING LOT	DIVERSION / TEMPORARY PAVEMENT	TOTAL
00001	DGA BASE	1	SY	91	248	158	853	1,350
00212	2" CL2 ASPH BASE 1.00D PG64-22	3	SY	0	0	0	235	235
00212	2.25" CL2 ASPH BASE 1.00D PG64-22	3	SY	0	237	157	0	394
00212	3" CL2 ASPH BASE 1.00D PG64-22	3	SY	86	243	0	0	329
00212	4" CL2 ASPH BASE 1.00D PG64-22	3	SY	89	0	0	0	89
00301	1.25" CL2 ASPH SURF 0.38D PG64-22	3	SY	0	0	156	229	385
00301	1.5" CL2 ASPH SURF 0.38D PG64-22	3	SY	84	233	0	0	317
00356	ASPHALT MATERIAL FOR TACK	2	SY	175	480	157	235	1,047

1 *ESTIMATED AT 115 LBS. PER SQ. YD. PER INCH OF DEPTH.*

2 *ESTIMATED AT 0.84 LBS. PER SQ YD.*

3 *ESTIMATED AT 110 LBS. PER SQ. YD. PER INCH OF DEPTH.*

4 *TO BE USED AT THE ENGINEER'S DISCRETION FOR EROSION CONTROL.*

5 *EXCLUDES QUANTITIES NEEDED TO CONSTRUCT DIVERSION.*

6 *APPROXIMATELY 0.2 ACRES MORE OR LESS.*

7 *INCLUDES ALL MATERIALS AND LABOR REQUIRED TO COMPLETE THE CONSTRUCTION OF THE DIVERSION, INCLUDING BUT NOT LIMITED TO ROCK, EARTHWORK, GRAVEL, AND PIPES. THE ASPHALT SURFACE, ASPHALT BASE, AND 8" DGA BASE FOR DRIVING SURFACE ARE THE ONLY SEPARATE PAY ITEMS.*

8 *EARTHWORK VOLUMES SHOWN ARE FOR INFORMATION ONLY. ASSUMPTIONS FOR SHRINKAGE AND SWELL FACTORS ARE THE CONTRACTOR'S RESPONSIBILITY.*

9 *DIVERSION EARTHWORK QUANTITY INCLUDED FOR INFORMATION ONLY. COST SHALL BE INCLUDED IN THE BID ITEM "DIVERSION (BY-PASS DETOURS)"*

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

DRAWING TITLE: GENERAL SUMMARY

ITEM NO. 12-10145
COUNTY OF LETCHER
SHEET NO. R003

GENERAL NOTES

DIVISION 100 -- GENERAL PROVISIONS

165 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.

DIVISION 400 -- ASPHALT PAVEMENTS

448 COMPACTION OF ASPHALT MIXTURES

WILL ACCEPT THE COMPACTION OF ASPHALT MIXTURES FURNISHED ON THIS PROJECT BY OPTION B ACCORDING TO SUBSECTIONS 402.03.02 AND 403.03.10 OF THE STANDARD SPECIFICATIONS.

448 EDGE KEY

THIS WORK INCLUDES CUTTING OUT THE EXISTING ASPHALT SURFACE TO A MINIMUM DEPTH AND WIDTH AS DETAILED IN THE PLANS SO THAT THE NEW SURFACE MAY HEEL INTO THE EXISTING SURFACE. THE CONTRACT UNIT PRICE BID LINEAR FOOT FOR "EDGE KEY" INCLUDES ALL NECESSARY MATERIALS, LABOR AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND DISPOSE OF THE REMOVED ASPHALT MATERIAL.

DIVISION 600 -- STRUCTURES AND CONCRETE

650 STANDARD DRAWINGS

STANDARD DRAWINGS ARE NOT ATTACHED TO THESE PLANS. A STANDARD DRAWING BOOK AND THE HEADWALL SUPPLEMENTAL BOOK MAY BE OBTAINED FROM THE POLICY SUPPORT BRANCH OF THE DEPARTMENT OF ADMINSTRATIVE SERVICES IN FRANKFORT, KY. AT (502)564-4610.

SPECIAL NOTES

CLEAR AND GRUB ONLY THAT RIPARIAN AREA THAT IS NECESSARY FOR STAGING AND CONSTRUCTION. IF VEGETATION DOES NOT CONFLICT WITH CONSTRUCTION ACTIVITIES, IT SHOULD REMAIN UNDISTURBED.

SPECIAL NOTE FOR BARCODES ON PERMANENT SIGNS 2019 SHALL APPLY.

Corporate Limits
County Line
Easement
Fence COA
Mineral Parcel
Property Line
Right of Way Line
All Overhead Utility Lines
Cable Underground Electric With Quality Levels
Duct Underground Electric With Quality Levels
Cable Underground Fiber With Quality Levels
Cable Underground Telephone With Quality Levels
Duct Underground Telephone With Quality Levels
Cable Underground TV With Quality Levels
Main Gas With Quality Levels
Main Water With Quality Levels
Main Water Greater Than 12 With Quality Levels
Sewer Sanitary With Quality Levels
Sewer Sanitary Force Main With Quality Levels
Sewer Storm WIth Quality Levels
Multi Utility Bank Quality Levels
Oil Line Quality Levels
Steam Line Quality Levels
Cable Underground Electric Marker
Duct Underground Electric Marker
Cable Underground Fiber Marker
Cable Underground Telephone Marker
Duct Underground Telephone Marker
Cable Underground TV Marker
Main Gas Marker

Main Water Marker
Main Water Greater Than 12 Marker
Sewer Sanitary Marker
Sewer Sanitary Force Main Marker
Sewer Storm Marker
Multi Utility Bank Marker
Oil Line Marker
Steam Line Marker
Cable Guardrail
Ditch
Edge of Water
Fence Hedge
Fence
Flow Line/Thalweg/ Int. Stream or Ditch
Guardrail
Railroad
Shrub Line
Sink Hole
Tree Line
Wall (WSM or DSM)
Blue Line Stream
Lakes and Ponds
Regulated Floodway
RDZ Line
ADA Ramp
Anchor Pole
Benchmark
Bike Lane Symbol
Bollard
Centerline
Centerline Stationing
Control Monument
Control Point
Core Hole
Crash Cushion TY 6 D
Crash Cushion TY 6 A
Crash Cushion TY 9A

Crash Cushion TY 9
Cross Notch
Curb Box Inlet
Curb Notch
Combination Pole
Delineator Post
Drop Box
Existing Spring
Electric Manhole
Electric Meter
Electric Pedestal
Electric Pole
Electric Junction Box
Fire Hydrant
Flag Pole
Force Main Sewer Valve
Fuel Tank Inlet
Fuel Tank Vent
Gas Meter
Gas Monitoring Well
Gas Valve
Gas Vent
Gas Well
Guidewires & Anchors
Headstone
Interstate Shield
Iron Pin
Light Pole
Low Wire
Mag Nail
Mailbox
Manhole
Mile Marker Post
Mineral Parcel
Misc Location Point
Monitoring Well
Parking Meter
Pedestrian Signal
Pins/Pipes
PK Nail

Point (Misc)
Pole
Pole (Light)
Post
Power Pole
Quarry
Random (Ground Shot)
Railroad Mile Marker
Railroad Spike
Right of Way Marker
Right of Way Monument
RR Traffic Signal Pole
RW Parcel
Sanitary Cleanout
Sanitary Manhole
Satelite Dish
Septic Tank Cleanout
Service Pole
Sewer Air Release Valve
Shrub
Sign
Sign Post (Single)
Sign with 2 posts
Sign group (4)
Station Stamp
Storm Manhole
Stub Power
Stub Telephone
Survey Cross Notch
Survey Curb Notch
Survey Nail
Survey Spike
Survey Stone Marker
Swamp
Telephone Booth
Telephone Junction Box
Telephone Line Overhead
Telephone Manhole

Telephone Pedestal
Telephone Pole
Temporary Benchmark
Traffic Light
Traffic Signal Control Box
Traffic Signal Junction Box
Traffic Signal Pole
Traverse Point
Tree
TV Junction Box
Utility Pole
Underground Storage Tank
Utility Test Hole
Water Line Marker
Water Meter
Water Spigot
Water Valve
Water Well
Yard Light
Yard Sprinkler
Yard Sprinkler Water Valve

Utility Owners

AT&T KY
Prestonsburg, KY
Contact; Jack Salyers
Phone 606-424-9328

Thacker & Grigsby Telephone
Hindman, KY
Contact: Freddy Williams
Phone – 606-785-9500

TV Services
Hindman, KY
Contact: Freddy Williams
Phone – 606-785-9500

Letcher County Water & Sewer District
Whitesburg, KY
Contact: Mark Lewis
Phone – 606-633-8550

KY Power Company
Hindman, KY.
Contact: Robert Pigman
Phone – 606-436-1222

Basin Energy
Prestonsburg, KY
Contact: Byron Amburgey
Phone – 606-791-7798

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

DRAWING TITLE: LEGEND AND UTILITY OWNERS

ITEM NO. 12-10145
COUNTY OF LETCHER
SHEET NO. R005

CONSTRUCT BRIDGE FROM STA 100+25.83 TO STA 101+17.33. SEE STRUCTURE PLANS FOR DETAILS.

THE BID ITEM "REMOVE STRUCTURE" WILL CONSIST OF THE COST TO REMOVE EXISTING 3 SPAN STRUCTURE MEASURING 84 FEET IN LENGTH AND 15 FEET WIDTH OUT TO OUT.

PERMANENT PAVEMENT MARKING - 6"	
LOCATION	LENGTH (LF)
ALONG KY 7	682

CONSTRUCT EDGE KEY	
STA.	LF
100+00	67
102+21	19

SAWCUT PAVEMENT					
STA.	OFFSET	TO	STA.	OFFSET	LENGTH (LF)
101+45	55' LT		102+08	22' LT	63

GUARDRAIL STEEL "W" BEAM					
SIDE	STA.	TO	STA.	SINGLE FACE (LF)	TERMINAL SECT NO. 1 (EACH)
LT	100+00		100+26	50.0	1
RT	100+02		100+26	62.5	1
LT	101+17		101+67	56.3	1
RT	101+17		101+67	50.0	1

N 3599305.965
E 5745826.583

N 3599174.582
E 5745745.481

N 3599049.403
E 5745660.477

N 3598973.644
E 5746020.785

N 3599925.747
E 5745978.044

N 3598941.428
E 5746009.854

N 3598835.154
E 5745971.159

KY-7 TO JEREMIAH
KY-7 TO ISOM

EXIST R/W

ENVIRONMENTALLY CLEARED AREA

WHITE LINE

DOUBLE YELLOW LINE

COMMONWEALTH OF KENTUCKY STATE HIGHWAY COMMISSION

P 001
LARRY TOLLIVER

P 003
BLAIR BRANCH REGULAR BAPTIST CHURCH

CSX TRANSPORTATION (F.K.A. LOUISVILLE & NASHVILLE RAILROAD COMPANY)

CSX MAIN LINE

POINT OF FROG

RR CALL BOX

RR SWITCH STAND

POINT OF SWITCH

CR-1339
BLAIR BR.

BLAIR BRANCH CREEK

BLACK BOTTOM RD.

ROCKHOUSE CREEK

AREA OF POSSIBLE SEPTIC LEACH FIELD - CONFIRM WITH PROPERTY OWNER

TEMPORARY EASEMENT FOR CONSTRUCTION AND MAINTENANCE OF SLOPES.

BEGIN PAVING
STA. 100+00.00

BEGIN CONST.
STA. 99+98.26

END PAVING
STA. 102+21.00

END CONST.
STA. 102+34.52

DO NOT DISTURB EXISTING WATER MAIN

PAVEMENT REMOVAL CONSIDERED INCIDENTAL

SAWCUT

SEE DIVERSION PLAN SHEET FOR TAPER

LIMITS OF RIPRAP (TYP)

ASPHALT PAVING LIP

PROP R/W

HESTER SLONE

MOSE ADAMS HEIRS

ENVIRONMENTALAY CLEARED AREA

APPROXIMATE LOCATION 2" GAS MAIN

EXPOSED 2" GAS MAIN TEE

1" STEEL GAS ABOVE GROUND

2" BALL VALVE REDUCED TO 1" STL

DRIP

PLASTIC

CP-3 MAG NAIL

CP-2 5/8"IPC

POB 99+87.89

POE 102+60.00

S51°13'01.2"E 97.56'

S40°00'36.0"E 93.58'

S56°47'34.8"E 30.07'

S32°50'34.8"E 15.98'

S58°44'E

ARC=33.32', R = 642.91'
CHORD = N55°33'54.0"E, 34.31'

S54°33'36.0"W 33.99'

N69°41'56.4"W 50.03'

N54°57'10.8"W 2.20'

N54°57'10.8"W 34.35'

N52°08'03.6"W 83.53'

N52°58'44.4"W 29.45'

N54°29'45.6"W 32.97'

100+09.25
-114.00'

100+55.16
-112.00'

101+15.00
-98.00'

101+24.61
-85.00'

101+60.00
-80.00'

101+66.83, -31.60'
ELEV = 1075.88'

101+87.59
-16.63'

101+94.53, -30.89'
ELEV = 1076.16'

102+05.27, -21.89'
ELEV = 1076.50'

102+05.00
-21.00'

102+07.99, -22.12'
ELEV = 1076.58'

102+35.00
-23.00'

102+50.00
-17.50'

102+20.55
-17.50'

101+44.92, -55.08'
ELEV = 1075.89'

101+35.90, -24.48'
ELEV = 1075.77'

101+13.81
-42.00'

100+16.30
-45.00'

100+13.98
-70.25'

101+22.97
-70.99'

101+37.90
-10.77'

100+17.85
-10.72'

LOW WIRE=1092.52'

LOW WIRE=1091.79'

LOW WIRE=1091.82'

LOW WIRE=1106.18'

LOW WIRE=1108.66'

LOW WIRE=1102.19'

LOW WIRE=1108.65'

LOW WIRE=1110.57'

LOW WIRE=1103.17'

LOW WIRE=1089.08'

T.E.=1073.64'

T.O.P.=1076.66'

BURIED RMP

2" ANGLE IRON

1" STEEL PED

GRAVEL

ASSUMING WATER LINE CROSSES ROAD TO OTHER MAIN AND CHURCH

18" CMP

25' R

10' R

3' R

5' R

18.82' R

+30.00

+67.05

+18.24

100+00

101+00

102+00

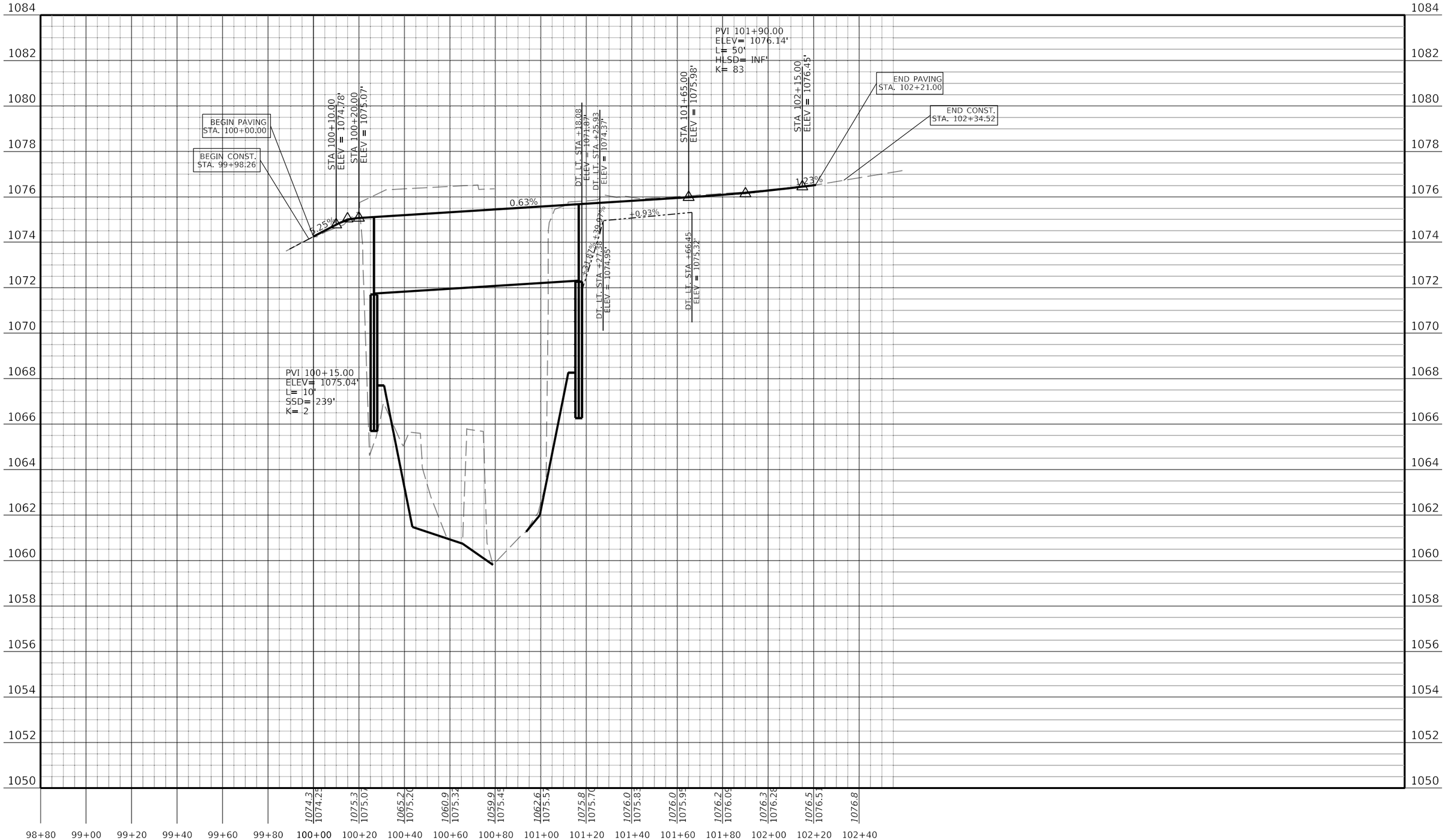
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

DRAWING TITLE: CR 1339 / BLAIR BRANCH PLAN SHEET

HORIZONTAL SCALE
SCALE: 1"=20'

STA 99+98.26 TO 102+34.52

ITEM NO. 12-10145
COUNTY OF LETCHER
SHEET NO. R006



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

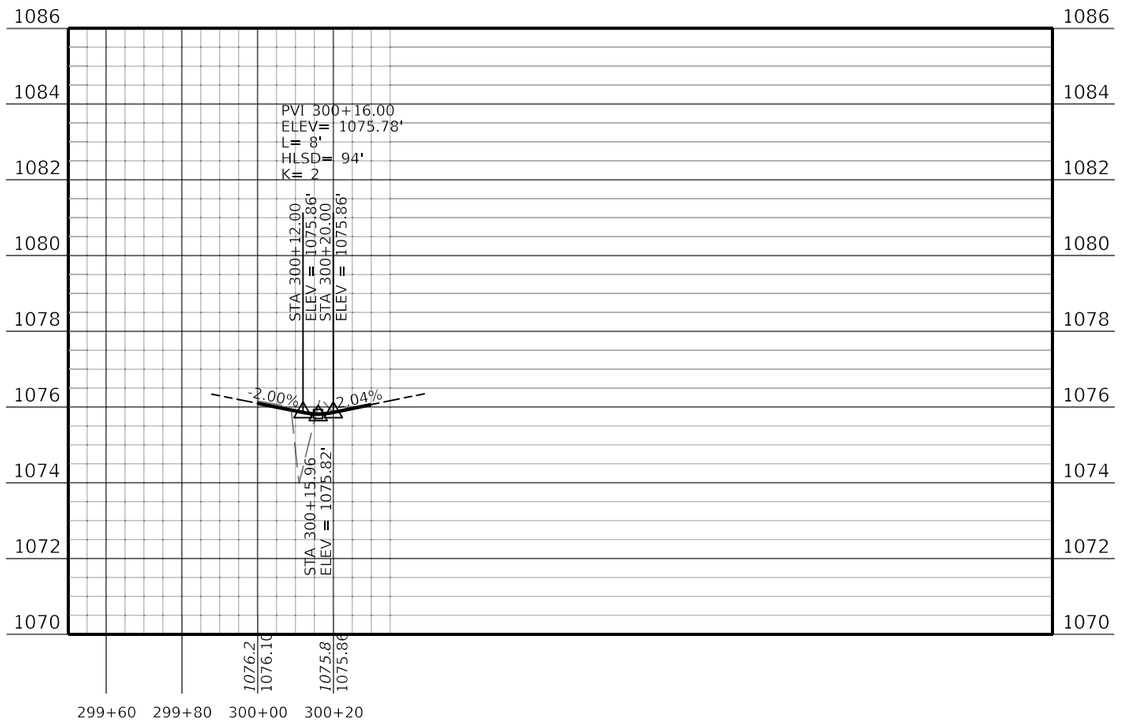
DRAWING TITLE: CR 1339 / BLAIR BRANCH
PROFILE SHEET

0' 20' 40' 80'
HORIZONTAL SCALE: 1"=20'

0' 2' 4' 8'
VERTICAL SCALE: 1"=2'

STA 99+98.26 TO 102+34.52

ITEM NO. 12-10145
COUNTY OF LETCHER
SHEET NO. R007



ENTRANCE - STA 101+63.53 LT

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

TEAM KENTUCKY TRANSPORTATION CABINET

DRAWING TITLE: ENTRANCE PROFILE

0' 20' 40' 80'
HORIZONTAL SCALE: 1"=20'

0' 2' 4' 8'
VERTICAL SCALE: 1"=2'

ITEM NO. 12-10145
COUNTY OF LETCHER

SHEET NO. R008

GENERAL NOTES

1. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE STANDARD DRAWINGS, CURRENT EDITIONS.

2. EXCEPT FOR THE ROADWAY AND TRAFFIC CONTROL BID ITEMS LISTED, ALL ITEMS OF WORK NECESSARY TO MAINTAIN AND CONTROL TRAFFIC WILL BE PAID AT THE LUMP SUM BID PRICE TO "MAINTAIN AND CONTROL TRAFFIC" AS SET FORTH IN THE CURRENT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION UNLESS OTHERWISE PROVIDED FOR IN THESE NOTES. THE LUMP SUM BID TO "MAINTAIN AND CONTROL TRAFFIC" SHALL ALSO INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING ITEMS AND OPERATIONS:

A. ALL GRADING AND NECESSARY DRAINAGE FOR THE TEMPORARY ROADWAY AND REMOVAL THEREOF, WHEN IT IS NO LONGER NEEDED.

B. ALL LABOR AND MATERIALS NECESSARY FOR CONSTRUCTION AND MAINTENANCE OF TRAFFIC CONTROL DEVICES AND MARKINGS.

C. ALL FLAGPERSONS AND TRAFFIC CONTROL DEVICES SUCH AS, BUT NOT LIMITED TO, FLASHERS, SIGNS, BARRICADES AND VERTICAL PANELS, PLASTIC DRUMS (STEEL DRUMS WILL NOT BE PERMITTED) AND CONES NECESSARY FOR THE CONTROL AND PROTECTION OF VEHICULAR AND PEDESTRIAN TRAFFIC AS SPECIFIED IN THESE NOTES, THE PLANS, THE MUTCD OR THE ENGINEER.

3. ANY TEMPORARY TRAFFIC CONTROL ITEMS, DEVICES, MATERIALS AND INCIDENTALS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR WHEN NO LONGER NEEDED.

4. THE CONTRACTOR SHALL UTILIZE A TEMPORARY SIGNAL FOR THE DIVERSION. THE TEMPORARY SIGNAL SHALL BE PHASED APPROPRIATELY TO ACCOMODATE BOTH KY 7 AND CR 1339

5. THE CONTRACTOR SHALL COMPLETELY COVER ANY SIGNS, EITHER EXISTING, PERMANENT OR TEMPORARY, WHICH DO NOT PROPERLY APPLY TO THE CURRENT TRAFFIC PHASING, AND SHALL MAINTAIN THE COVERING UNTIL THE SIGNS ARE APPLICABLE OR ARE REMOVED.

6. IN GENERAL, ALL TRAFFIC CONTROL DEVICES SHALL BE PLACED STARTING AND PROCEEDING IN THE DIRECTION OF THE FLOW OF TRAFFIC AND REMOVED STARTING AND PROCEEDING IN THE DIRECTION OPPOSITE THE FLOW OF TRAFFIC.

7. THE ENGINEER AND THE CONTRACTOR, OR THEIR AUTHORIZED REPRESENTATIVES, SHALL REVIEW THE SIGNING BEFORE TRAFFIC IS ALLOWED TO USE ANY LANE CLOSURES, CROSSOVERS OR DETOURS. ALL SIGNING SHALL BE APPROVED BY THE ENGINEER BEFORE WORK CAN BE STARTED BY THE CONTRACTOR.

8. IF THE CONTRACTOR DESIRES TO DEVIATE FROM THE TRAFFIC CONTROL SCHEME AND CONSTRUCTION SCHEDULE OUTLINED IN THESE PLANS AND THIS PROPOSAL, THE CONTRACTOR SHALL PREPARE AN ALTERNATE PLAN AND PRESENT IT IN WRITING TO THE ENGINEER. THIS ALTERNATE PLAN CAN BE USED ONLY AFTER REVIEW AND APPROVAL OF THE DIVISIONS OF TRAFFIC, DESIGN AND CONSTRUCTION, AND THE FEDERAL HIGHWAY ADMINISTRATION, WHERE APPLICABLE.

9. IF TRAFFIC SHOULD BE STOPPED DUE TO CONSTRUCTION OPERATIONS AND AN EMERGENCY VEHICLE ON AN OFFICIAL EMERGENCY RUN ARRIVES AT THE SCENE, THE CONTRACTOR SHALL MAKE THE PROVISIONS FOR THE PASSAGE OF THAT VEHICLE AS QUICKLY AS POSSIBLE.

10. REASONABLE MEANS OF INGRESS AND EGRESS SHALL BE MAINTAINED TO ALL PROPERTIES WITHIN THE PROJECT LIMITS.

PAVEMENT DROP-OFF

A PAVEMENT EDGE THAT TRAFFIC IS NOT EXPECTED TO CROSS, EXCEPT ACCIDENTALLY, SHOULD BE TREATED AS FOLLOWS:

*LESS THAN TWO INCHES - NO PROTECTION REQUIRED. WARNING SIGNS SHOULD BE PLACED IN ADVANCE AND THROUGHOUT THE DROP-OFF AREA.

*TWO TO FOUR INCHES - PLASTIC DRUMS, VERTICAL PANELS OR BARRICADES 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 FOR CURVES, DEVICES SHOULD BE PLACED EVERY 50 FEET. SPACING OF DEVICES ON TAPERED SECTIONS SHOULD BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.

*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, PANEL, OR POSITIVE SEPARATION IS STRONGLY ENCOURAGED. IF CONCRETE BARRIERS ARE USED, SPECIAL REFLECTIVE DEVICES OR STEADY BURN LIGHTS SHOULD BE USED FOR OVERNIGHT INSTALLATIONS.

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.

LESSER TREATMENTS THAN THOSE DESCRIBED ABOVE MAY BE CONSIDERED FOR LOW-VOLUME LOCAL STREETS.

PAYMENT WILL BE ALLOWED FOR DGA MATERIAL USED FOR WEDGING.

CONSTRUCTION PHASING NOTES

PHASE 1

CONSTRUCTION:

PROVIDE CHANNELIZING DEVICES WITHIN THE CHURCH PARKING LOT TO PREVENT PATRONS FROM ENTERING INTO THE CONSTRUCTION AREA OF THE DIVERSION. CONSTRUCT DIVERSION AND NEW DRAINAGE PIPE. FOR CONNECTING TO KY 7 AND CR-1339, UTILIZE FLAGGERS TO MAINTAIN ONE-LANE OF TRAFFIC.

TRAFFIC:

TRAFFIC SHALL BE MAINTAINED ON THE EXISTING ROADWAYS OF KY 7 AND CR-1339.

PHASE 2

CONSTRUCTION:

INSTALL TEMPORARY CONCRETE BARRIER WALL AND CRASH CUSHIONS ALONG KY 7 AND OFFSET A MINIMUM OF ONE FOOT FROM THE CENTERLINE OF ROAD IN ORDER TO MAINTAIN THE EXISTING TRAFFIC LANE AND HAVE A MINIMUM OF ONE FOOT OF SHOULDER. INSTALL TEMPORARY TRAFFIC SIGNALS ALONG BOTH KY 7 AND CR-1339.

CONSTRUCT NEW BRIDGE.

CONSTRUCT PAVEMENT FROM STATION 99+98 TO STATION 100+26 AND FROM STATION 101+17 TO STATION 101+77.

TRAFFIC:

TRAFFIC SHALL BE MAINTAINED ON KY 7 AND THE DIVERSION UTILIZING THE TEMPORARY TRAFFIC SIGNALS.

PHASE 3A

CONSTRUCTION:

REMOVE TEMPORARY CONCRETE BARRIER WALL, CRASH CUSHIONS AND TRAFFIC SIGNALS. REMOVE DIVERSION BUT LEAVE IN PLACE THE TEMPORARY PAVEMENT FROM APPROXIMATELY STATION 101+77 TO STATION 102+21 LEFT FOR MAINTAINING TRAFFIC THIS PHASE. PROVIDE 6" DGA BASE ALONG CR-1339 FROM APPROXIMATELY STATION 101+50 TO STATION 101+66 LEFT IN ORDER TO MAINTAIN A MINIMUM LANE WIDTH OF 8 FEET. UTILIZING FLAGGERS, CONSTRUCT THE EASTBOUND LANE OF CR-1339 FROM STATION 101+77 TO STATION 102+21. THE NEW ENTRANCE TO THE CHURCH PARKING LOT SHALL BE CLOSED.

TRAFFIC:

TRAFFIC SHALL BE MAINTAINED ON THE EXISTING ROADWAYS OF KY 7 AND CR-1339.

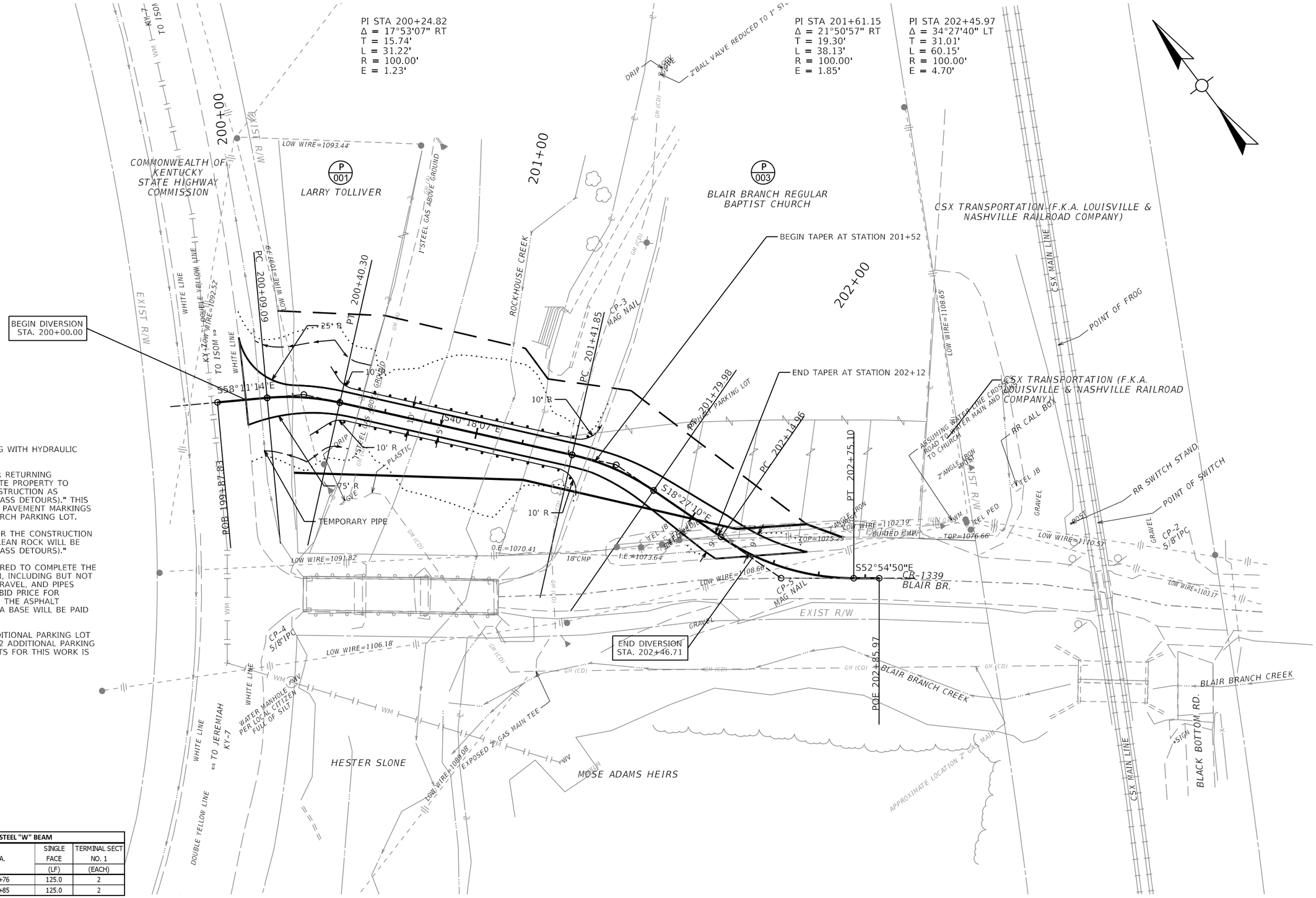
PHASE 3B

CONSTRUCTION:

THE NEW ENTRANCE TO THE CHURCH PARKING LOT SHALL REMAIN CLOSED. UTILIZING FLAGGERS, CONSTRUCT THE WESTBOUND LANE OF CR-1339 FROM STATION 101+77 TO STATION 102+21. REMOVE THE TEMPORARY PAVEMENT FROM APPROXIMATELY STATION 101+91 TO STATION 102+40 LEFT AND REGRADE TO PROVIDE POSITIVE DRAINAGE TO THE NEW STORM SEWER PIPE.

TRAFFIC:

TRAFFIC SHALL BE MAINTAINED ON THE EXISTING ROADWAYS OF KY 7 AND CR-1339.



CONSTRUCT TEMPORARY CROSSING WITH HYDRAULIC OPENING OF 301.59 SQ FT.

CONTRACTOR IS RESPONSIBLE FOR RETURNING TEMPORARY CROSSING AND PRIVATE PROPERTY TO EXISTING CONDITIONS AFTER CONSTRUCTION AS INCIDENTAL TO "DIVERSIONS (BY-PASS DETOURS)." THIS INCLUDES BUT IS NOT LIMITED TO PAVEMENT MARKINGS THAT ARE DISTURBED IN THE CHURCH PARKING LOT.

CLEAN ROCK SHOULD BE USED FOR THE CONSTRUCTION OF THE TEMPORARY CROSSING. CLEAN ROCK WILL BE INCIDENTAL TO "DIVERSIONS (BY-PASS DETOURS)."

ALL MATERIALS AND LABOR REQUIRED TO COMPLETE THE CONSTRUCTION OF THE DIVERSION, INCLUDING BUT NOT LIMITED TO ROCK, EARTHWORK, GRAVEL, AND PIPES SHALL BE INCLUDED IN THE UNIT BID PRICE FOR "DIVERSIONS (BY-PASS DETOURS)." THE ASPHALT SURFACE, ASPHALT BASE, AND DGA BASE WILL BE PAID PER APPROPRIATE BID ITEM.

CONTRACTOR SHALL PROVIDE ADDITIONAL PARKING LOT PAVEMENT MARKINGS FOR UP TO 2 ADDITIONAL PARKING SPACES TO MATCH EXISTING. COSTS FOR THIS WORK IS CONSIDERED INCIDENTAL.

TEMPORARY GUARDRAIL STEEL "W" BEAM

SIDE	STA.	TO	STA.	SINGLE FACE (LF)	TERMINAL SECT NO. 1 (EACH)
LT	200+45		201+76	125.0	2
RT	200+43		201+85	125.0	2

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

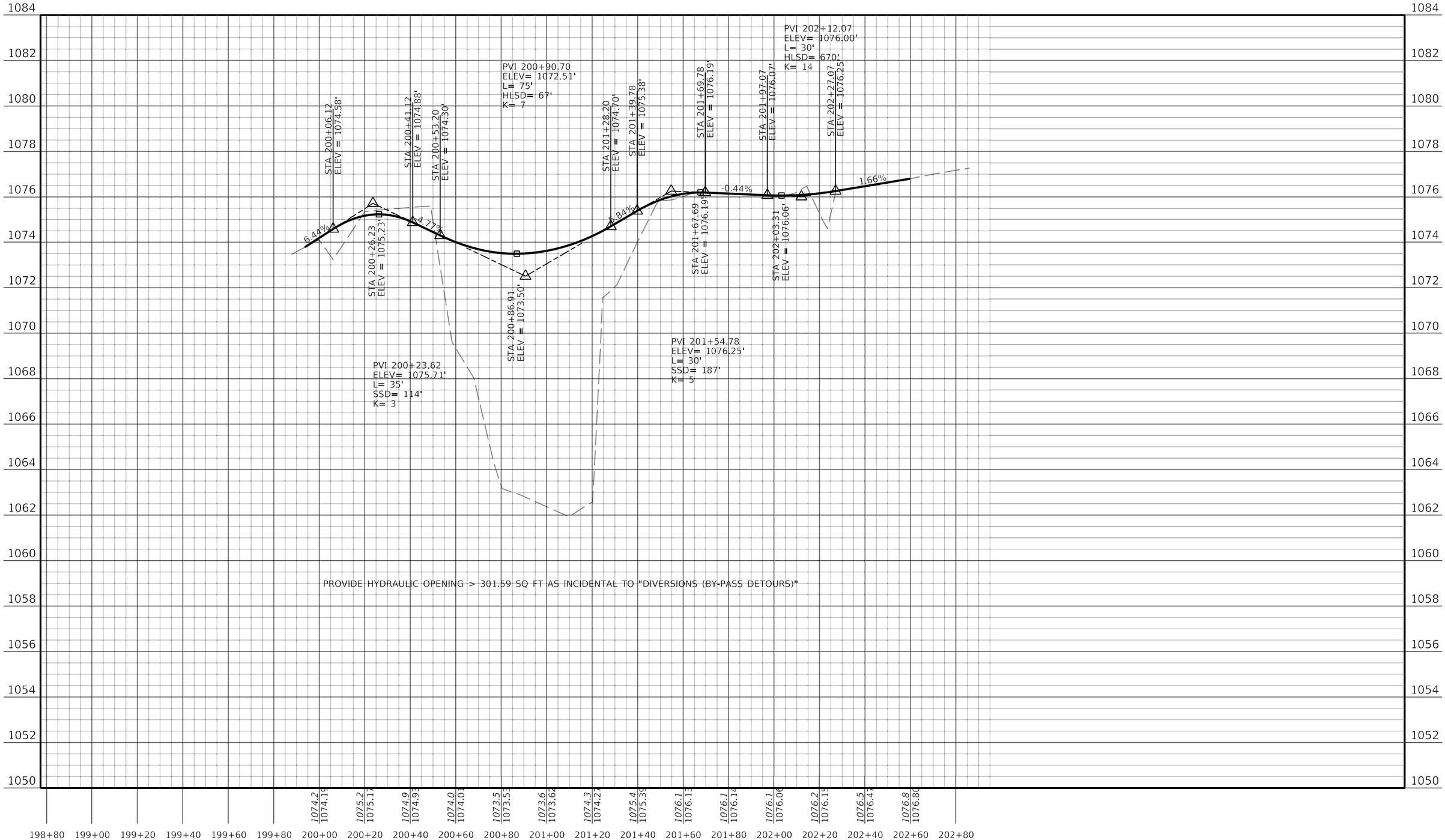
DRAWING TITLE: CR 1339 / BLAIR BRANCH DIVERSION SHEET

HORIZONTAL SCALE
SCALE: 1"=20'

0' 20' 40' 80'

STA 200+00.00 TO 202+46.71

ITEM NO. 12-10145
COUNTY OF LETCHER
SHEET NO. R010



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

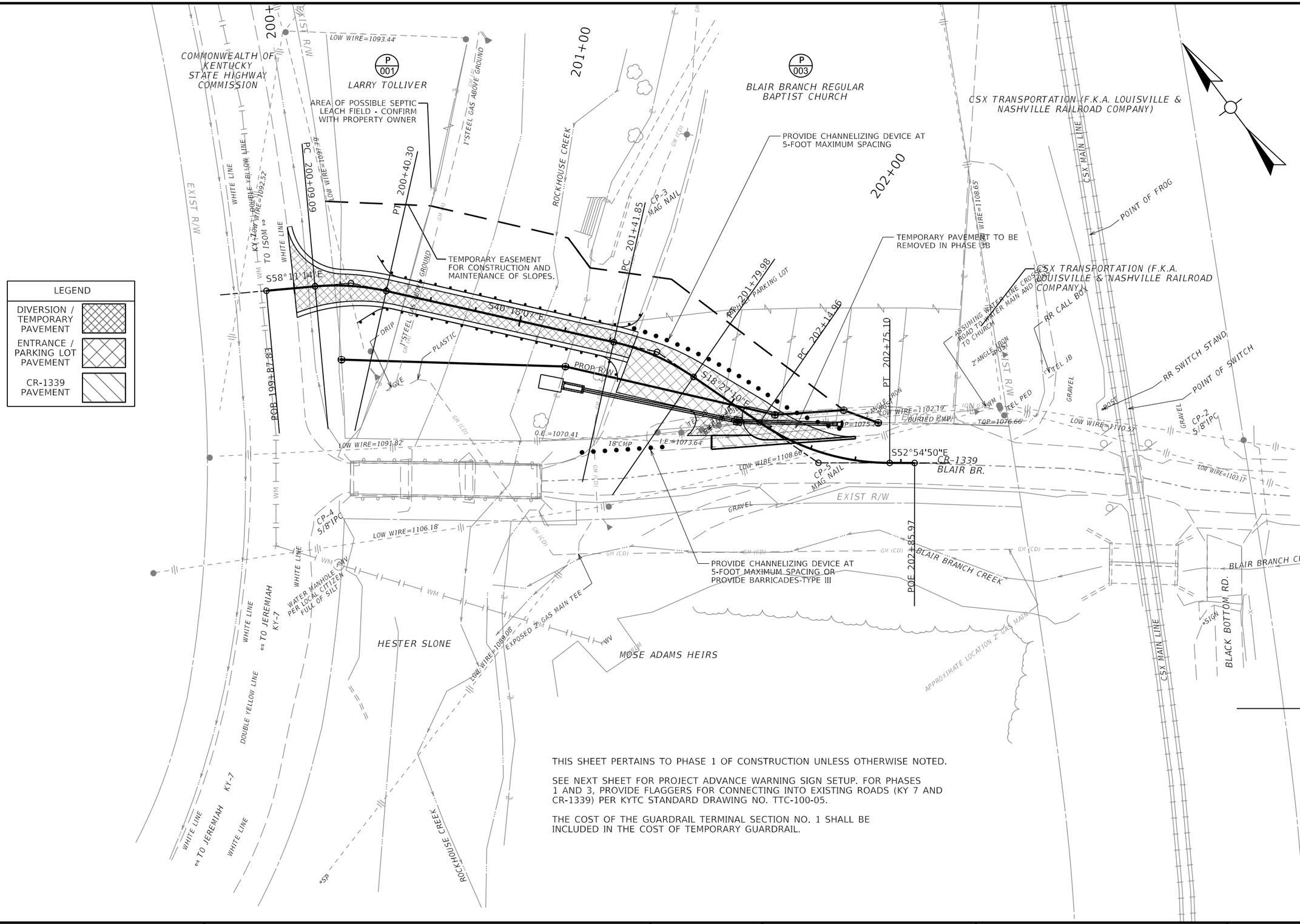
DRAWING TITLE: CR 1339 / BLAIR BRANCH DIVERSION PROFILE SHEET

0′ 20′ 40′ 80′
HORIZONTAL SCALE: 1"=20'

0′ 2′ 4′ 8′
VERTICAL SCALE: 1"=2'

STA 200+00.00 TO 202+46.71

ITEM NO. 12-10145
COUNTY OF LETCHER
SHEET NO. R011



THIS SHEET PERTAINS TO PHASE 1 OF CONSTRUCTION UNLESS OTHERWISE NOTED.

SEE NEXT SHEET FOR PROJECT ADVANCE WARNING SIGN SETUP. FOR PHASES 1 AND 3, PROVIDE FLAGGERS FOR CONNECTING INTO EXISTING ROADS (KY 7 AND CR-1339) PER KYTC STANDARD DRAWING NO. TTC-100-05.

THE COST OF THE GUARDRAIL TERMINAL SECTION NO. 1 SHALL BE INCLUDED IN THE COST OF TEMPORARY GUARDRAIL.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: CR 1339 / BLAIR BRANCH PHASING SHEET

HORIZONTAL SCALE
SCALE: 1"=20'

0' 20' 40' 80'

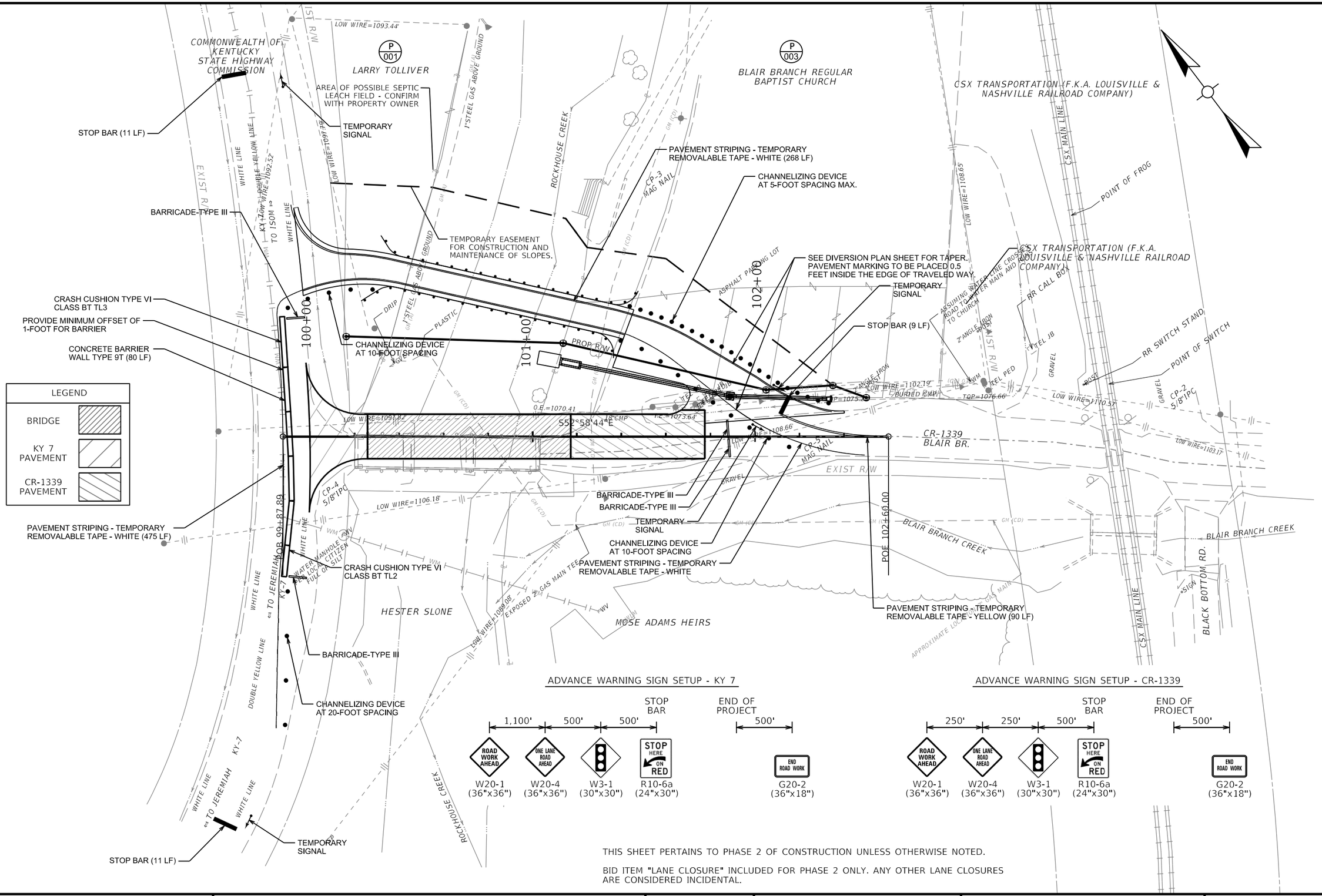
PHASE 1

ITEM NO. 12-10145
COUNTY OF LETCHER
SHEET NO. R012

OpenRoads Designer v10.16.2.267

USER: Nicholas.Allen

FILE NAME: C:\USERS\NICHOLAS.ALLEN\APPDATA\LOCAL\BENTLEY\PROJECTWISE\WORKINGDIR\MB-US-PW.BENTLEY.COM_MB-US-PW-03\NICHOLAS.ALLEN@MBAKERINTL.COM\D0125193\R012-R015-SHEET_PHASING.DGN



ADVANCE WARNING SIGN SETUP - KY 7

1,100'	500'	500'	STOP BAR	END OF PROJECT 500'
ROAD WORK AHEAD W20-1 (36"x36")	ONE LANE ROAD AHEAD W20-4 (36"x36")	W3-1 (30"x30")	STOP HERE ON RED R10-6a (24"x30")	END ROAD WORK G20-2 (36"x18")

ADVANCE WARNING SIGN SETUP - CR-1339

250'	250'	500'	STOP BAR	END OF PROJECT 500'
ROAD WORK AHEAD W20-1 (36"x36")	ONE LANE ROAD AHEAD W20-4 (36"x36")	W3-1 (30"x30")	STOP HERE ON RED R10-6a (24"x30")	END ROAD WORK G20-2 (36"x18")

THIS SHEET PERTAINS TO PHASE 2 OF CONSTRUCTION UNLESS OTHERWISE NOTED.

BID ITEM "LANE CLOSURE" INCLUDED FOR PHASE 2 ONLY. ANY OTHER LANE CLOSURES ARE CONSIDERED INCIDENTAL.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

DRAWING TITLE: CR 1339 / BLAIR BRANCH PHASING SHEET

HORIZONTAL SCALE
SCALE: 1"=20'
0' 20' 40' 80'

PHASE 2

ITEM NO. 12-10145
COUNTY OF LETCHER
SHEET NO. R013

EROSION CONTROL NOTES

ALL SILT CONTROL DEVICES SHALL BE SIZED TO RETAIN A VOLUME OF 3,600 CUBIC FEET PER DISTURBED CONTRIBUTING ACRE.

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED GROUND DURING EACH PHASE OF CONSTRUCTION. THE CONTRACTOR SHALL COMPUTE THE VOLUME NECESSARY TO CONTROL SEDIMENT DURING EACH PHASE OF CONSTRUCTION. AS WORK PROCEEDS, SILT TRAPS MAY BE ADDED OR REMOVED IN ORDER TO ACHIEVE THE BEST MANAGEMENT PLAN. THE REQUIRED VOLUME AT EACH ADDED SILT TRAP SHALL BE COMPUTED AS UP GRADIENT CONTRIBUTING AREAS ARE DISTURBED OR ARE STABILIZED TO THE SATISFACTION OF THE ENGINEER. THE REQUIRED VOLUME CALCULATION FOR EACH SILT TRAP SHALL BE DETERMINED BY THE CONTRACTOR AND VERIFIED BY THE ENGINEER. THE REQUIRED VOLUME AT EACH SILT TRAP MAY BE REDUCED BY THE FOLLOWING AMOUNTS:

- UP GRADIENT AREAS NOT DISTURBED (ACRES).
- UP GRADIENT AREAS THAT HAVE BEEN RECLAIMED AND PROTECTED BY EROSION CONTROL BLANKET OR OTHER GROUND PROTECTION MATERIAL SUCH AS TEMPORARY MULCH.(ACRES).
- THE USE OF TEMPORARY MULCH IS ENCOURAGED.
- UP GRADIENT AREAS THAT HAVE BEEN PROTECTED BY SILT FENCE (ACRES). AREAS PROTECTED BY SILT FENCE SHALL BE COMPUTED AT A MAXIMUM RATE OF 100 SQUARE FOOT PER LINEAR FOOT OF SILT FENCE.
- UP GRADIENT AREAS THAT HAVE BEEN PROTECTED BY SILT TRAPS (ACRES).

THE EROSION CONTROL PLAN SHALL BE ANNOTATED AS THE WORK PROCEEDS BY THE CONTRACTOR TO DETAIL THE SELECTION OF EACH EROSION CONTROL DEVICE USED AND THE VOLUME PROVIDED BY EACH SILT TRAP IN ACCORDANCE WITH THE DOCUMENTATION PROCEDURES ESTABLISHED BY THE DIVISION OF CONSTRUCTION.

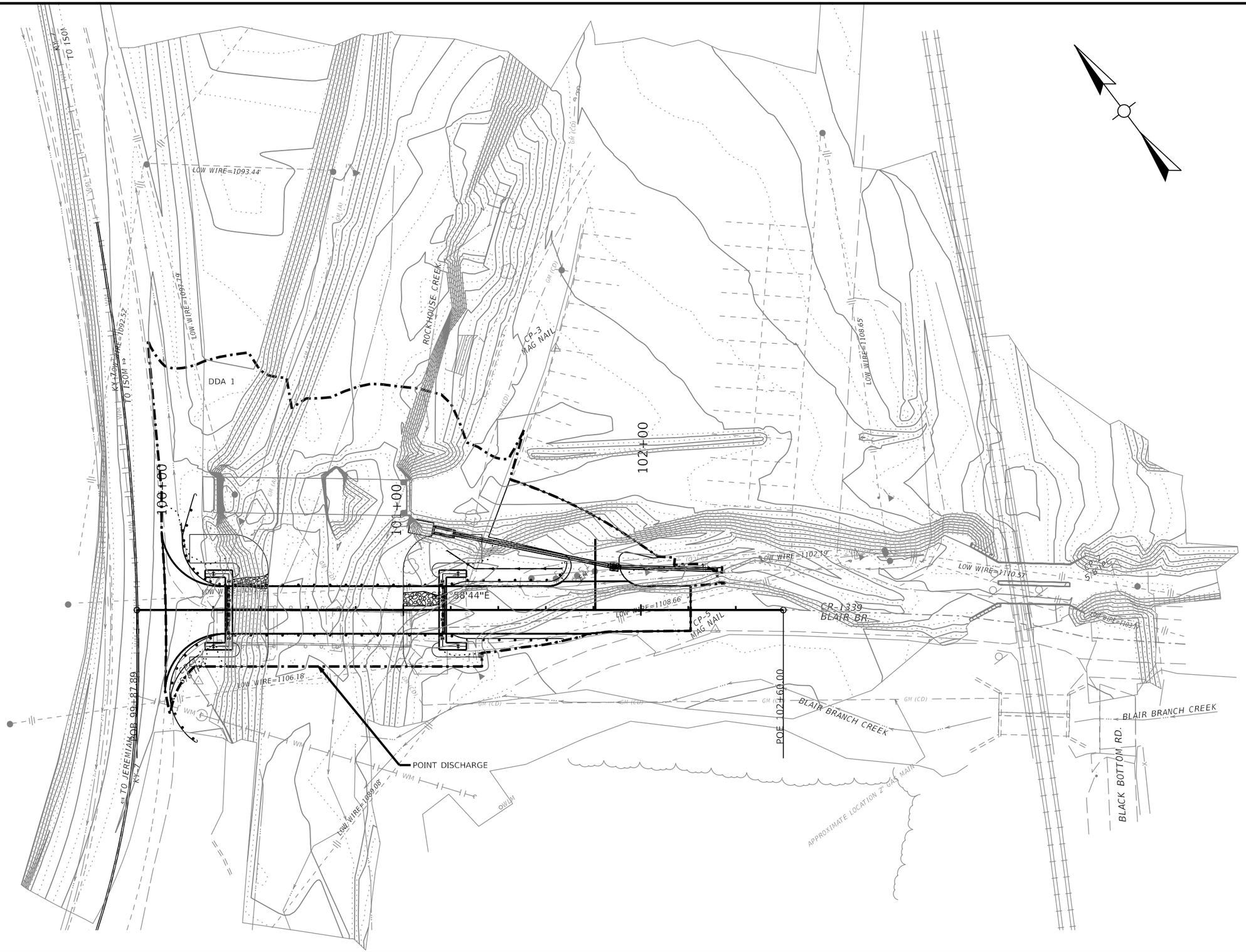
IF A SILT BASIN IS NOT USED THEN ONE SILT TRAP TYPE A, ALTERNATE NUMBER 2 OR SILT TRAP TYPE B SHALL ALWAYS BE PLACED AT THE MOST REMOTE DOWNSTREAM COLLECTION POINT PRIOR TO DISCHARGING INTO A BLUE LINE STREAM OR ONTO AN ADJACENT PROPERTY OWNER. WHERE OVERLAND FLOW EXIST, A SILT FENCE OR OTHER FILTER DEVICES MAY BE USED OR THE OVERLAND FLOW MAY BE DIVERTED TO ONE OF THE AFOREMENTED SILT BASIN OR TRAPS.

THE EROSION CONTROL PLANS DO NOT CONSTITUTE A BMP BY THEMSELVES. THEY PROVIDE A STARTING POINT FOR THE CONTRACTOR AND SECTION ENGINEER TO DEVELOP THE BMP ACCORDING TO SECTION 213.03.01 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE SUPPLEMENTAL SPECS EFFECTIVE WITH THE OCTOBER, 2004 LETTING.

EROSION CONTROL MEASURES SHALL BE IN PLACE AND FUNCTIONING PRIOR TO ANY EXCAVATION OR DISTURBANCE WITHIN A DRAINAGE AREA.

THE CONTRACTOR SHALL BE REQUIRED TO CLEAN OUT (REMOVE SEDIMENT FROM) SILT TRAPS AND SILT FENCES WHENEVER THEY BECOME ONE- HALF FULL AND PROPERLY DISPOSE OF THE MATERIAL AT SITES APPROVED BY THE SECTION ENGINEER.

EROSION CONTROL MEASURES EMPLOYED BY THE CONTRACTOR WILL BE UNIQUE TO THE PROJECT AND WORK CONDITIONS AND SHALL BE APPROVED BY THE SECTION ENGINEER. THE DEVELOPMENT AND UTILIZATION OF THESE MEASURES WILL BE RECORDED AS PART OF THE BMP, KEPT ON SITE, AND AVAILABLE FOR PUBLIC INSPECTION.



EROSION CONTROL LEGEND

- SILT TRAP TYPE A ALTERNATE 1 — A
- SILT TRAP TYPE A ALTERNATE 2
- SILT TRAP TYPE B
- SILT TRAP TYPE C
- SILT FENCE — SF
- TEMPORARY SILT DITCH
- DISTURBED DRAINAGE AREA
- OVERLAND SHEET FLOW
- PROPOSED R/W
- PROPOSED EASEMENT

DISTURBED DRAINAGE AREAS

SECTION	DISTURBED AREA (ACRES)	MAXIMUM SEDIMENT VOLUME (CU FT)
DDA 1	0.4805	1730

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY Transportation Cabinet

DRAWING TITLE: CR 1339 / BLAIR BRANCH EROSION CONTROL PLAN SHEET

HORIZONTAL SCALE
SCALE: 1"=20'

0' 20' 40' 80'

STA 99+98.26 TO 102+34.52

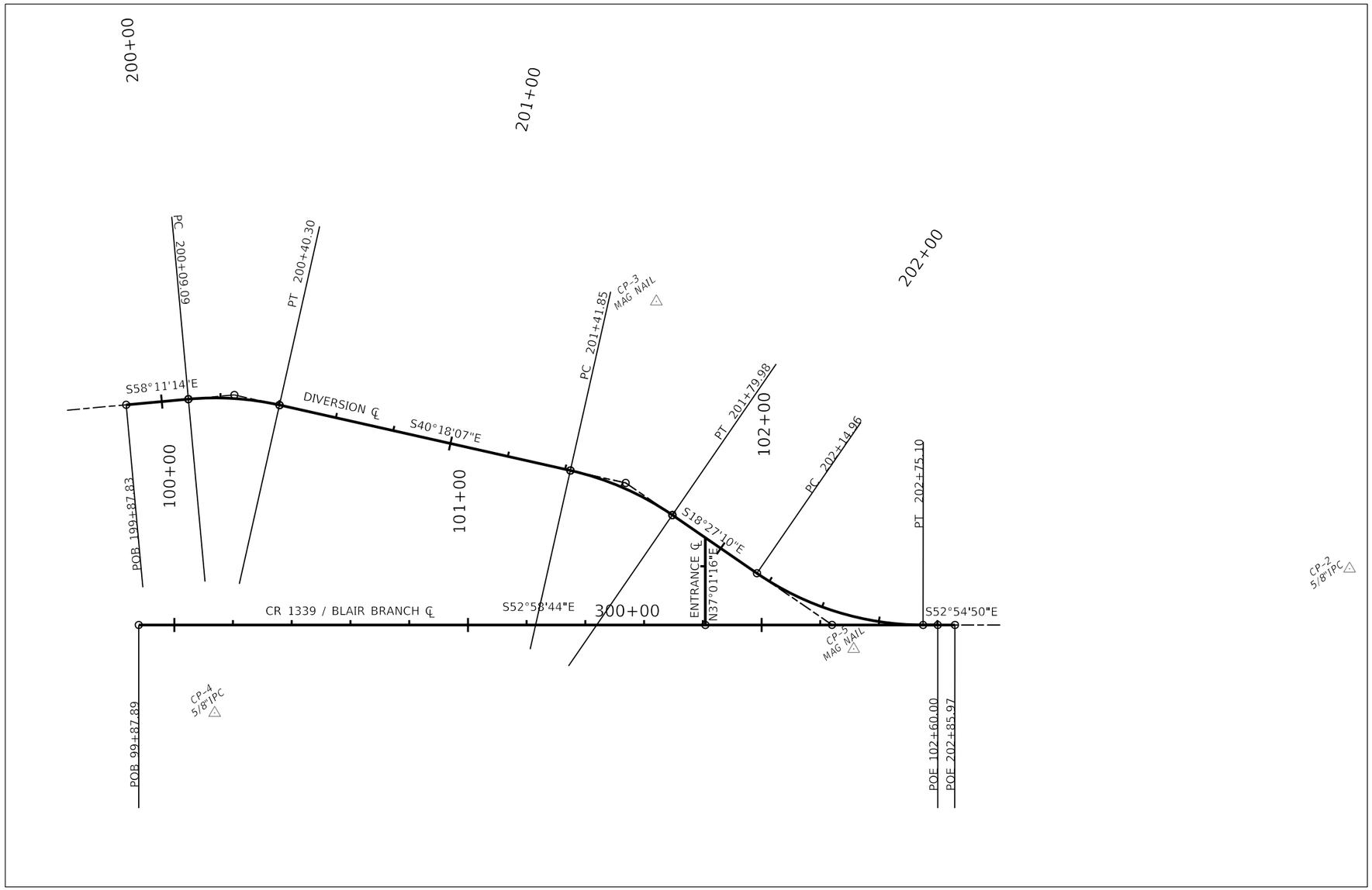
ITEM NO. 12-10145
COUNTY OF LETCHER
SHEET NO. R015

COORDINATE CONTROL POINTS						
CP NUMBER	TYPE	Northing (Y)	Easting (X)	Elevation (Z)	Station	Offset
1	5/8" IPC	3,598,595.878	5,745,916.264	1,077.174	NA	NA
2	5/8" IPC	3,598,853.382	5,746,081.775	1,078.847	NA	NA
3	MAG NAIL	3,599,068.210	5,745,948.092	1,077.030	101+64.17	110.18' LT
4	5/8" IPC	3,599,046.899	5,745,743.597	1,074.130	100+13.73	29.97' RT
5	MAG NAIL	3,598,933.235	5,745,930.501	1,076.689	102+31.39	8.18' RT

PI STA 200+24.82
Δ = 17°53'07" RT
T = 15.74'
L = 31.22'
R = 100.00'
E = 1.23'

PI STA 201+61.15
Δ = 21°50'57" RT
T = 19.30'
L = 38.13'
R = 100.00'
E = 1.85'

PI STA 202+45.97
Δ = 34°27'40" LT
T = 31.01'
L = 60.15'
R = 100.00'
E = 4.70'



R/W MONUMENT POINTS				
STATION	OFFSET	TYPE	PROJECT COORDINATES	
			NORTHING (Y)	EASTING (X)
100+16.30	45.00' LT	1	3599105.2047	5745790.7885
101+13.81	42.00' LT	1	3599044.0963	5745866.8375
102+05.00	21.00' LT	1	3598972.4232	5745927.0007
102+35.00	23.00' LT	1	3598955.9567	5745952.1573
102+50.00	17.50' LT	1	3598942.5338	5745960.8219

CR 1339 / BLAIR BRANCH			
NAME	Station	Northing (Y)	Easting (X)
BEGIN	99+87.89	3,599,086.378	5,745,741.016
END	102+60.00	3,598,922.541	5,745,958.269

DIVERSION			
NAME	Station	Northing (Y)	Easting (X)
BEGIN	199+87.83	3,599,148.829	5,745,782.773
PC	200+09.09	3,599,137.624	574,800.837
PI	200+24.82	3,599,129.329	5,745,814.209
PT	200+40.30	3,599,117.328	5,745,824.387
PC	201+41.85	3,599,039.886	5,745,890.067
PI	201+61.15	3,599,025.166	5,745,902.551
PT	201+79.98	3,599,006.857	5,745,908.661
PC	202+14.96	3,598,973.678	5,745,919.732
PI	202+45.97	3,598,944.260	5,745,929.548
PT	202+75.10	3,598,925.558	5,745,954.289
END	202+85.97	3,598,919.006	5,745,962.956

ENTRANCE			
NAME	Station	Northing (Y)	Easting (X)
BEGIN	300+00.00	3,598,970.189	5,745,895.086
END	300+30.00	3,598,994.141	5,745,913.149

BASIS OF ELEVATIONS

Elevations were derived from GPS methods and are adjusted to the NAVD88 Vertical Datum. Geoid model used was Geoid18.

COORDINATE SYSTEM

Coordinates for horizontal control were obtained from GPS methods and adjusted to the National NAD83/FBN System.

Coordinates are based on State Plane Coordinate System Single Zone in U.S. Survey Feet.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

DRAWING TITLE: COORDINATE CONTROL

HORIZONTAL SCALE
SCALE: 0′ 20′ 40′ 80′

ITEM NO. 12-10145
COUNTY OF LETCHER
SHEET NO. R016

RIGHT OF WAY SUMMARY

PARCEL NO.	OWNER(S)	TOTAL AREA OF TRACT		PERMANENT R/W ACQUIRED		EASEMENTS		AREA SEVERED				PORTION REMAINING		SOURCE OF TITLE	REMARKS
						PERMANENT	TEMPORARY	LEFT		RIGHT					
		ACRES	SQ. FT.	ACRES	SQ. FT.	SQ. FT.	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.		
1	LARRY TOLLIVER	9.840		0.070			6885.59					9.770		DB263 PG485 TRACT 2	TOTAL AREA OF TRACT FROM PVA PLUS AREA OF TRACT FORMERLY OWNED BY TILDA MAGGARD
3	BLAIR BRANCH REGULAR BAPTIST CHURCH	1.150		0.046			3895.05					1.104		DB153 PG105	INCLUDES LOT 1 (DB148 PG217), LOT 2 (DB155 PG225), LOT 3 (DB162 PG25), LOT 4 (DB160 PG49), LOTS 5-7 (DB160 PG 15), AND LOT 8 (DB153 PG105). LOTS 2-8 WILL BE IMPACTED

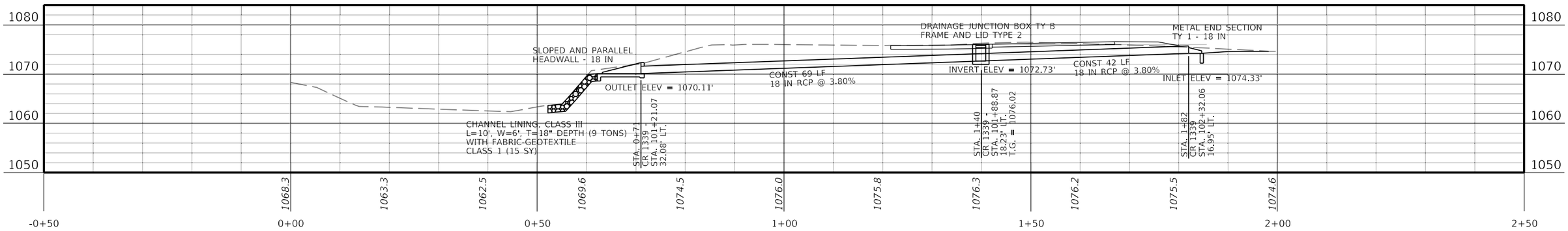
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

TEAM KENTUCKY TRANSPORTATION CABINET

DRAWING TITLE: RIGHT OF WAY SUMMARY

ITEM NO. 12-10145 COUNTY OF LETCHER

SHEET NO. R017



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

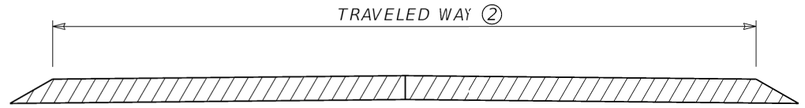
TEAM KENTUCKY
TRANSPORTATION CABINET

DRAWING TITLE: PIPE PROFILE

0' 10' 20' 40'
HORIZONTAL SCALE: 1"=10'

0' 1' 2' 4'
VERTICAL SCALE: 1"=1'

ITEM NO. 12-10145
COUNTY OF LETCHER
SHEET NO. R018



TWO LANE ROADWAY
PAVEMENT CROSS-SECTION

TRAVELED WAY (2)	TYPE OF PAVEMENT STRIPING	NON-STATE PRIMARY ROUTES				STATE PRIMARY ROUTES	
		< 1000 ADT		>= 1000 ADT		ANY ADT	
		WIDTH	MATERIAL	WIDTH	MATERIAL	WIDTH	MATERIAL*
< 16' (4)	EDGELINE STRIPES ONLY	4"	PAINT	4"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)
16' TO < 20'	EDGELINE STRIPES ONLY OR CENTERLINE STRIPE ONLY	4"	PAINT	4"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)
>=20' (3)	CENTERLINE AND EDGELINE STRIPES	4" (5)	PAINT	6"	PAINT	6"	THERMO (ASHPALT) TYPE I TAPE (CONCRETE)

*OTHER DURABLE NON-WATERBORNE MARKINGS MAY BE USED WITH APPROVAL FROM THE DIVISION OF TRAFFIC OPERATIONS.

~ NOTES ~

1. INSTALL PAVEMENT STRIPING ON TWO LANE, TWO WAY ROADWAYS AS DETAILED IN THE ABOVE TABLE AND IN ACCORDANCE WITH THE PAVEMENT MARKINGS AND DELINEATION CHAPTER OF THE TRAFFIC OPERATIONS GUIDANCE MANUAL. CONTACT THE DIVISION OF TRAFFIC OPERATIONS FOR ADDITIONAL GUIDANCE IF NECESSARY.

(2) THE TRAVELED WAY IS THE PORTION OF ROADWAY FOR THE MOVEMENT OF VEHICLES, EXCLUSIVE OF THE SHOULDERS.

(3) ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 20 FT OR GREATER, BUT LESS THAN 22 FT, EDGELINE RUMBLE STRIPS ARE NOT A STANDARD APPLICATION, BUT THEY MAY BE INSTALLED. THE DIVISION OF TRAFFIC OPERATIONS IS AVAILABLE TO ASSIST WITH THE DETERMINATION OF WHETHER OR NOT TO INSTALL EDGELINE RUMBLE STRIPS ON PAVEMENT WIDTHS LESS THAN 22 FT, AS WELL AS THE DIMENSION AND PLACEMENT DETAILS OF THE RUMBLE STRIPS AND PAVEMENT STRIPING.

ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 22 FT OR GREATER, BUT LESS THAN 34 FT, INSTALL PAVEMENT STRIPING AS DETAILED IN THE ABOVE TABLE AND IN CONJUNCTION WITH CENTERLINE AND EDGELINE RUMBLE STRIPS AS DETAILED ON TPR-120 .

ON TWO LANE, TWO WAY ROADWAYS THAT HAVE A TOTAL PAVEMENT WIDTH (W) THAT IS 34 FT OR GREATER, INSTALL PAVEMENT STRIPING AS DETAILED IN THE ABOVE TABLE AND IN CONJUCTION WITH CENTERLINE AND SHOULDER RUMBLE STRIPS AS DETAILED ON TPR-125.

(4) EDGELINES MAY BE OMITTED FROM ROADWAYS WITH A TRAVELED WAY WIDTH LESS THAN 16 FEET WITH THE APPROVAL OF THE DIVISION OF TRAFFIC OPERATIONS.

(5) EDGELINES MAY BE OMITTED ON NON-STATE PRIMARY ROUTES WITH A TRAVELED WAY WIDTH GREATER THAN OR EQUAL TO 20 FEET AND AN ADT LESS THAN 1,000.

6. EDGELINES MAY BE OMITTED, BASED ON ENGINEERING JUDGMENT, IN AREAS WHERE THE PAVEMENT EDGE IS DELINEATED BY PHYSICAL OBJECTS SUCH AS CURBS, PARKING SPACES, OR OTHER MARKINGS. EDGELINES SHOULD BE INSTALLED ON ROADWAYS WITH CURB AND GUTTER IF THE POSTED SPEED LIMIT IS 45 MPH OR GREATER.

DRAWING NOT TO SCALE

USE WITH CUR. STD. DWGS. TPR-120 & TPR-125

SUBMITTED _____ DIVISION DIRECTOR 06-09-21 DATE

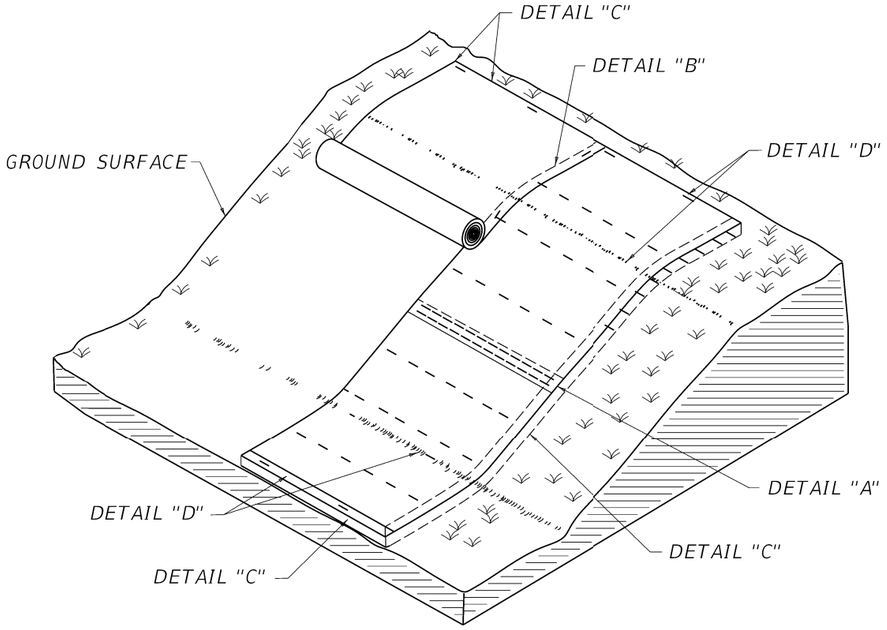
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

KENTUCKY TRANSPORTATION CABINET

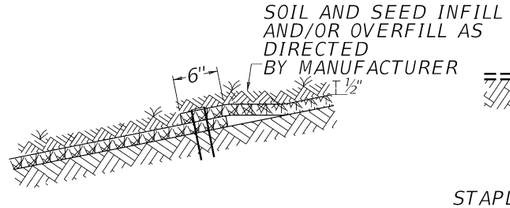
DRAWING TITLE: SEPIA 017 - PAVEMENT STRIPING DETAILS FOR TWO LANE TWO WAY ROADWAYS

ITEM NO. COUNTY OF

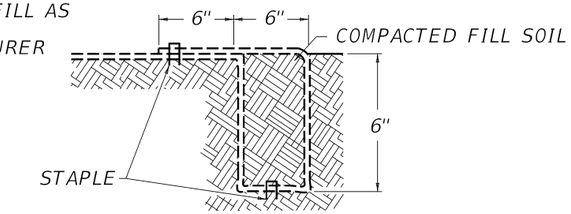
SHEET NO.



TURF MAT
SLOPE INSTALLATION

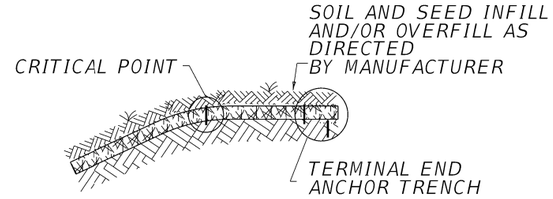


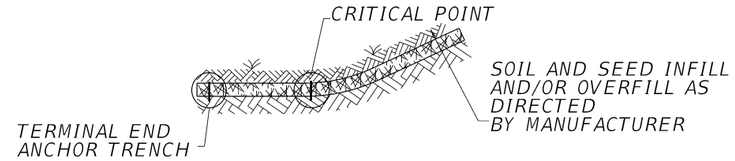
TRANSVERSE OVERLAP
DETAIL "A"



ANCHOR TRENCH
DETAIL "C"

LONGITUDINAL OVERLAP
DETAIL "B"





CRITICAL POINTS
DETAIL "D"

~ NOTES ~

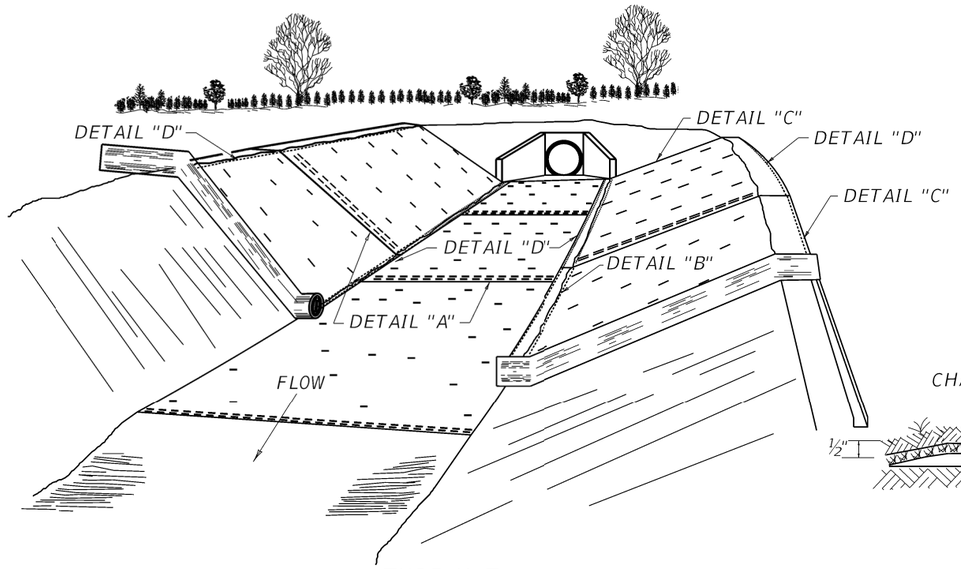
1. CONSTRUCT A 6" X 6" ANCHOR TRENCH AT THE BEGINNING OF THE SLOPE. LINE THE ANCHOR TRENCH WITH TURF REINFORCING MAT LEAVING 12" EXTENDING PAST THE ANCHOR TRENCH. FASTEN THE MAT MATERIAL INTO THE ANCHOR TRENCH ON 12" CENTERS BACKFILL THE TRENCH WITH TOPSOIL AND COMPACT. COVER THE AREA WITH THE REMAINING 12" OF THE MAT'S TERMINAL END LEAVING 6" TO OVERLAP THE TURF REINFORCING MAT. SECURE THE 6" OVERLAP WITH STAPLES ON 12" CENTERS.
2. UNROLL THE MAT DOWN THE SLOPE AND PLACE IN DIRECT CONTACT WITH THE SOIL SURFACE. INSURE THAT THE SOIL SURFACE IS GRADED SMOOTHLY AND DOES NOT CONTAIN IRREGULARITIES.
3. SECURELY FASTEN THE MAT TO THE SOIL BY INSTALLING STAPLES AT A MINIMUM RATE OF 1.5 PER SQ. YD. ANCHORS SHALL BE SELECTED SO THAT THEY HAVE SUFFICIENT GROUND PENETRATION TO RESIST PULLOUT. INCREASE ANCHORING FREQUENCY FOR SITE CONDITIONS (LOOSE, SANDY, OR WET SOILS) AS DIRECTED BY THE ENGINEER AND MANUFACTURER'S REPRESENTATIVE.
4. OVERLAP EDGES OF MATS ACCORDING TO THE LONGITUDINAL AND TRANSVERSE OVERLAP DETAILS. STAPLE LONGITUDINAL OVERLAPS WITH 2 ROWS OF STAPLES STAGGERED AT 4". STAPLE TRANSVERSE OVERLAPS WITH 1 ROW OF STAPLES SPACED AT 12'.
5. CONSTRUCT A 6"X 12" ANCHOR TRENCH AT THE TOE OF THE SLOPE FOLLOWING SIMILAR PROCEDURE DENOTED FOR THE TOP OF THE SLOPE ANCHOR TRENCH.
6. ENSURE THAT THE MAT IS IN DIRECT CONTACT WITH THE SOIL SURFACE WITH NO PROJECTIONS OR PROTRUSIONS.
7. INFILL AND OVERFILL THE MAT WITH A MINIMUM OF ½" TOPSOIL. APPLY SEEDING AND PROTETION AS DIRECTED BY THE MANUFACTURER. USE SEED MIX TYPE 1 AS DEFINED IN SECTION 212.03.03. TOPSOIL IS THE SOIL PROFILE DEFINED TECHNICALLY AS "A" HORIZON BY THE SOIL SCIENCE SOCIETY OF AMERICA. USE LOOSE, FRIABLE TOPSOIL THAT IS FREE OF STONES 1" OR GREATER IN OVERALL DIMENSIONS, ADMIXTURE OF SUBSOIL, REFUSE, STUMPS, ROOTS, BRUSH, WEEDS AND OTHER MATERIALS THAT PREVENT THE FORMATION OF A SUITABLE SEED BED. DO NOT USE TOPSOIL FROM SITES HAVING JOHNSON GRASS, CANADA THISTLE, QUACK GRASS, NODDING THISTLE OR EXCESSIVE AMOUNTS OF WEEDS OR THEIR RHIZOMES.

SUBMITTED W. J. Layson 01-24-2023
DIVISION DIRECTOR DATE

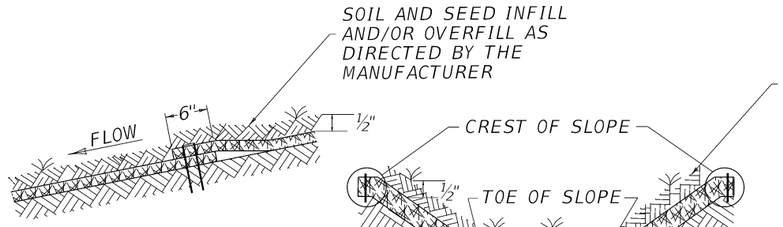
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

DRAWING TITLE: SEPIA 22 - TURF MAT SLOPE INSTALLATION

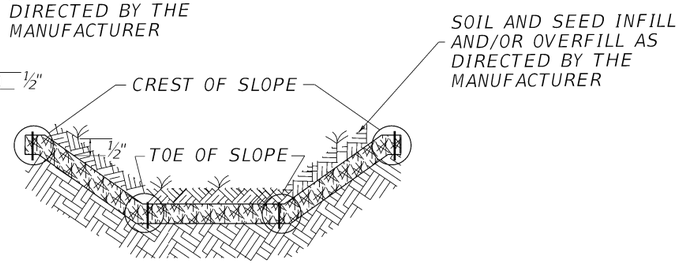
ITEM NO. COUNTY OF
SHEET NO.



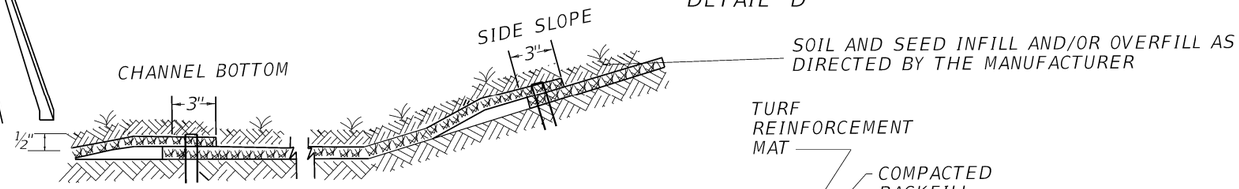
TURF MAT
CHANNEL INSTALLATION



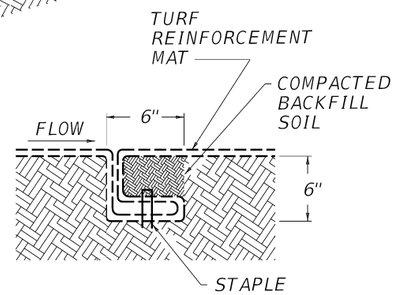
TRANSVERSE OVERLAP
DETAIL "A"



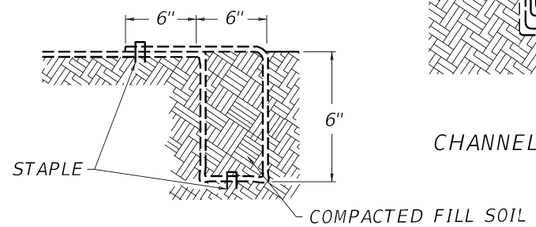
CRITICAL POINTS
DETAIL "D"



LONGITUDINAL OVERLAP
DETAIL "B"



CHANNEL CHECK SLOT ③



ANCHOR TRENCH
DETAIL "C"

~ NOTES ~

1. CONSTRUCT A 6" X 6" ANCHOR TRENCH AT THE UPSTREAM END OF THE CHANNEL. LINE THE ANCHOR TRENCH WITH TURF REINFORCIG MAT LEAVING 12" EXTENDING PAST THE ANCHOR TRENCH. FASTEN THE MAT MATERIAL INTO THE ANCHOR TRENCH ON 12" CENTERS BACKFILL THE TRENCH WITH TOPSOIL AND COMPACT. COVER THE AREA WITH THE REMAINING 12" OF THE MAT'S TERMINAL END LEAVING 6" TO OVERLAP THE TURF REINFORCING MAT. SECURE THE 6" OVERLAP WITH STAPLES ON 12" CENTERS.
2. UNROLL THE MAT PARALLEL TO THE PRIMARY DIRECTION OF WATER FLOW AND PLACE IN DIRECT CONTACT WITH THE SOIL SURFACE. INSURE THAT THE SOIL SURFACE GRADED SMOOTHLY AND DOES NOT CONTAIN IRREGULARITIES.
3. EXCAVATE 6" X 6" CHECK SLOTS EVERY 25' ALONG THE LENGTH OF THE CHANNEL. LINE THE SIDE AND BOTTOM OF THE SLOT WITH THE MAT AND THEN PULL BACK OVER. FASTEN WITH STAPLES ON 12" CENTERS. FILL THE CHECK SLOT WITH TOPSOIL, COMPACT, AND CONTINUE UNROLLING MAT DOWN THE CHANNEL.
4. CONTINUE UNROLLING THE MAT DOWNSTREAM OVER THE COMPACTED SLOT TO THE NEXT CHECK SLOT OR TERMINAL ANCHOR TRENCH. IF MORE THAN ONE SECTION OF MAT, AS SHOWN IN THE TRANSVERSE OVERLAP DETAIL, IS USED OVERLAP UPSTREAM MATS OVER TOP OF THE DOWNSTREAM MAT 6" AND SECURE. IF MATS ARE PLACED PARALLEL TO EACH OTHER ALONG THE CHANNEL, PLACE CHANNEL SECTIONS FIRST, THEN OVERLAP SIDE SLOPE SECTIONS 3" OVER THE CHANNEL SECTIONS AS SHOWN IN THE LONGITUDINAL OVERLAP DETAIL, AND SECURE WITH STAPLES ON 12" CENTERS. PROCEED UP THE SIDE SLOPES IN THE SAME MANNER UNTIL THE TOP OF CHANNEL IS REACHED.
5. SECURE MATS WHILE UNROLLING ON SIDESLOPES AND CHANNEL BOTTOMS WITH STAPLES AT A FREQUENCY THE TABLE INDICATES. USE STAPLES HAVING SUFFICIENT GROUND PENETRATION TO RESIST PULLOUT. INCREASE ANCHORING FREQUENCY AS DIRECTED BY THE ENGINEER AND MANUFACTURER'S REPRESENTATIVE.
6. INFILL AND OVERFILL THE MAT WITH A MINIMUM OF ½" TOPSOIL. APPLY SEEDING AND PROTECTION AS DIRECTED BY THE MANUFACTURER. USE SEED MIX TYPE 1 AS DEFINED IN SECTION 212.03.03. TOPSOIL IS THE SOIL PROFILE DEFINED TECHNICALLY AS "A" HORIZON BY THE SOIL SCIENCE SOCIETY OF AMERICA. USE LOOSE, FRIABLE TOPSOIL THAT IS FREE OF STONES 1" OR GREATER IN OVERALL DIMENSIONS, ADMIXTURE OF SUBSOIL, REFUSE, STUMPS, ROOTS, BRUSH, WEEDS AND OTHER MATERIALS THAT PREVENT THE FORMATION OF A SUITABLE SEED BED. DO NOT USE TOPSOIL FROM SITES HAVING JOHNSON GRASS, CANADA THISTLE, QUACK GRASS, NODDING THISTLE OR EXCESSIVE AMOUNTS OF WEEDS OR THEIR RHIZOMES.

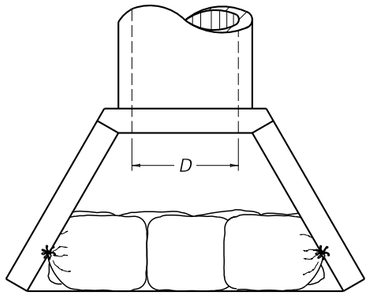
SLOPE GRADE	ANCHORING FREQUENCY
UP TO 2H:1V	1.5 ANCHORS/SQYD
2H:1V TO 1H:1V	2.0 ANCHORS/SQYD
STEEPER THAN 1H:1V AND CHANNEL BOTTOMS	3.0 ANCHORS/SQYD

SUBMITTED W. T. Sexton — DIVISION DIRECTOR — 01-24-2023 — DATE

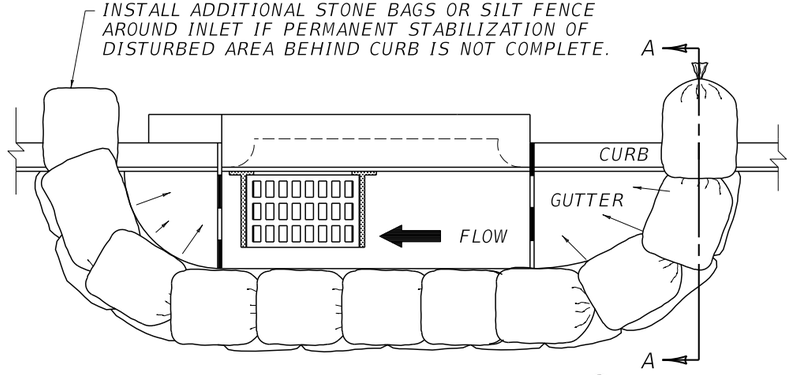
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

DRAWING TITLE: SEPIA 23 - TURF MAT CHANNEL INSTALLATION

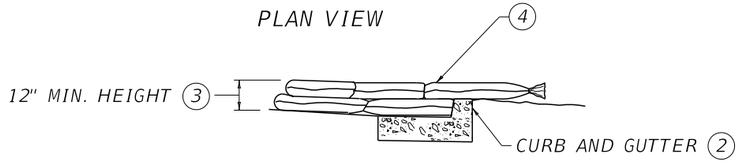
ITEM NO. COUNTY OF
SHEET NO.



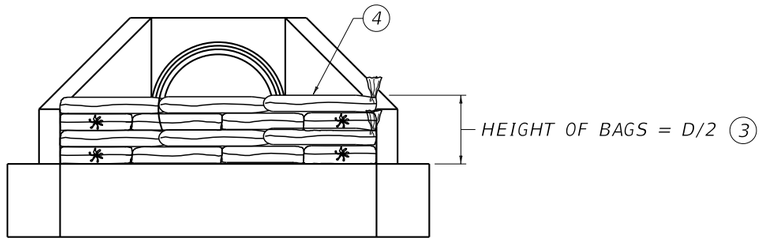
PLAN VIEW



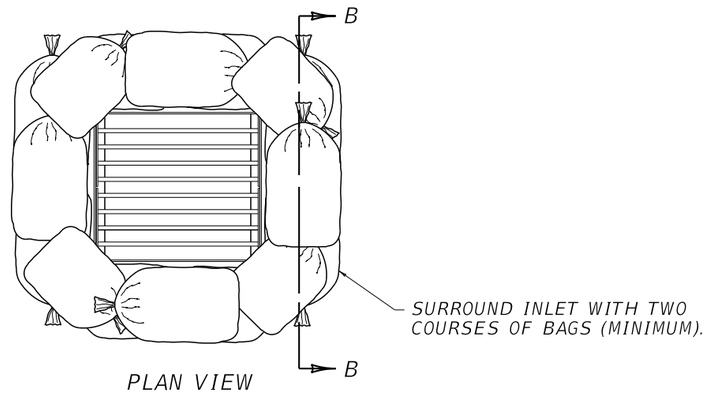
PLAN VIEW



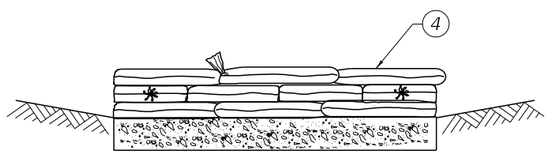
SECTION A~A



FRONT ELEVATION



PLAN VIEW



SECTION B~B

~ NOTES ~

BID ITEMS AND UNIT TO BID:

SILT TRAP TYPE C	EACH
CLEAN SILT TRAP TYPE C	EACH

1. SILT TRAP TYPE C SHALL INCLUDE GEOTEXTILE FABRIC BAGS, NO. 57 STONE, LABOR AND ALL INCIDENTALS NECESSARY FOR ONE COMPLETE INSTALLATION.
2. INLET PROTECTION IS SUITABLE FOR USE IN BOTH PAVED AND UNPAVED AREAS.
3. THE HEIGHT REQUIREMENT IS WAIVED IN CASES WHERE IT WILL CREATE AN UNACCEPTABLE PONDING SITUTATION ON THE PAVEMENT OR ON AN ADJACENT PROPERTY.
4. INTERWEAVE BAG ENDS TO FILL GAPS BETWEEN BAGS.
5. CONSTRUCT 18" X 30" BAGS OF NON-WOVEN CLASS 1 OR 2 GEOTEXTILE FABRIC CONFORMING TO SECTION 843 OF THE STANDARD SPECIFICATIONS. DOUBLE STITCH BAG SEAMS WITH 1 LB. POLYESTER THREAD. ATTACH ONE (1) TIE STRING TO EACH BAG. BAG OPENING SHALL BE ON 18" SIDE.
6. FILL BAGS WITH NO. 57 STONE BETWEEN ½ TO ⅔ FULL (50 LB TO 60 LB).
7. SILT TRAP TYPE C SHALL NOT BE USED IN BLUE LINE STREAMS.

SUBMITTED W. T. Lawson 05-08-2023
DIVISION DIRECTOR DATE

LETTING DATE

CONSTRUCTION PROJECT NO.

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

LETCHER COUNTY
BLAIR BRANCH ROAD
CR 1339 OVER ROCKHOUSE CREEK
STA. 100+71.58

ESTIMATE OF QUANTITIES

BID ITEM CODE		08100	08104	08003	08151	08019	02231	23378EC	08665	08051	08033	08039	25017ED	03299
BID ITEM		Concrete Class "A"	Concrete Class "AA"	Foundation Preparation	Steel Reinforcement, Epoxy Coated	Cyclopean Stone Rip Rap	Structure Granular Backfill	Concrete Sealing	PPC Box Beam CB33	Piles - Steel HP 14 x 89	Test Piles	Predrilling For Piles	Rail System Side Mounted MGS	Armored Edge for Concrete
UNIT		C.Y.	C.Y.	L.S.	LBS.	Tons	C.Y.	S.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.
Substructure	End Bent #1	33.9	12.7		3959	140	127	423		75	18	60		
	End Bent #2	33.9	12.7		3959	140	127	423		101	24	91		
Superstructure			31.3		3846			2427	457.5				168.8	40
BRIDGE TOTALS		67.8	56.7	1	11764	280	254	3273	457.5	176	42	151	168.8	40

INDEX OF SHEETS

Sheet No.	Description
S1	Title Sheet
S2	General Notes
S3	Layout
S4	Subsurface Data
S5	Foundation Layout
S6-S7	End Bent #1
S8-S9	End Bent #2
S10	Box Beam General Notes
S11	Box Beam CB33 Details
S12	Superstructure
S13	Construction Elevations

SPECIAL NOTES

Special Note for Concrete Sealing

SPECIAL PROVISIONS

69 Embankment at Bridge End Bent Structures

STANDARD DRAWINGS

BBP-003-02	Elastomeric Bearing Pads for Box Beams
BGX-006-10	Stencils for Structures
BGX-012-02	Geotechnical Legend
BGX-022	Joint Waterproofing
BJE-001-14	Armored Edges
BPS-011-04	HP14x89 Steel Pile
BHS-011	Railing System Side Mounted MGS Details
BDP-001-06	See Sheet S10 for details
BDP-002-03	Box Beam Bearing Details
BDP-003-03	Box Beam Miscellaneous Details
BDP-004-04	Box Beam Tension Rod Details
BDP-010-04	See Sheet S11 for Details

SPECIFICATIONS

2019 Standard Specifications for Road and Bridge Construction.

2020 AASHTO LRFD Bridge Design Specifications

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

TEAM KENTUCKY

REVISION	DATE

PREPARED BY
Division of Structural Design

DATE: July 2023	CHECKED BY
DESIGNED BY: J. Van Zee	N. Cordtz
DETAILED BY: E. Downey	J. Van Zee

TITLE SHEET

CROSSING: Rockhouse Creek

ROUTE	ITEM NO.	COUNTY OF
CR 1339	12-10145	LETCHER
	SHEET NO.	DRAWING NUMBER
	S1	28801

GENERAL NOTES

SPECIFICATIONS: All references to the 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 Specifications are to the current edition of the AASHTO LRFD Bridge Design Specs, with interims.

DESIGN LOAD: This bridge is designed for a KYHL-93 live load. The KYHL-93 live load is arrived at by increasing the standard HL-93 truck and lane loads as specified in the AASHTO Specifications by 25%.

FUTURE WEARING SURFACE: This structure is designed for a 15 PSF future wearing surface load.

DESIGN STRESSES:

Concrete Class "A"	~	f'c = 3500 psi
Concrete Class "AA"	~	f'c = 4000 psi
Steel Reinforcement	~	Fy = 60,000 psi
Structural Steel Yield Strength	~	Fy = 50,000 psi

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

WIND LOAD: This bridge is designed for a wind load based on a wind velocity of 100 mph.

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 reinforcement bars designed be 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: Bevel all exposed edges $\frac{3}{4}$" unless otherwise noted.

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.

SHOP DRAWINGS: Submit shop drawings that are required by the plans and specifications directly to the Division of Structural Design. Is any changes in the design plans are proposed by a fabricator or supplier, submit those changes to the Department through the Contractor.

FOUNDATION DATA: See Foundation Layout Sheet.

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

SUPERSTRUCTURE SLAB: Ensure the entire superstructure slab is poured continuously, out to out, before allowing any concrete to set.

PILE POINTS: Provide pile points for all point bearing piles. Ensure pile points are in accordance with Section 604 of the Specifications and of the type as shown on the Foundation Layout Sheet.

SLOPE PROTECTION: Use dry cyclopean stone slope protection in accordance with the plans and Specifications. Geotextile Fabric is to be incidental to this item.

MASONRY COATING: Contrary to the Specifications, do not apply Masonry Coating. Apply Concrete Sealing in place of Masonry Coating as noted in CONCRETE SEALER note.

CONCRETE SEALER: All areas detailed in the specifications as requiring masonry coating shall be sealed in accordance with the special note for concrete sealing. The superstructure deck, barriers and overhangs shall also be sealed as shown herein these plans. Concrete surfaces (except the deck) shall receive the ordinary surface finish as described in section 601.03.18(A) prior to being sealed.

CORK/BEARING PADS: The costs for cork and bearing pads under the beams and up the wings shall be incidental to the unit bid price bid per linear foot for the CB33 box beams.

The following abbreviations may have been used in the preparation of these plans:

bet.	between
b.f.	Back Face
BOF	Bottom of Footing
BOS	Bottom of Slab
bot.	Bottom
Brg.	Bearing
C to C	Center to Center
c.e.	Current Edition
C.Y.	Cubic Yards
Chd.	Chord
CL	Center Line
Clr.	Clear
Conc.	Concrete
Cubic	Cu.
Drawing	Dwg.
e.f.	Each Face
El.	Elevation
eq.	Equal
Est.	Estimate
Exterior	Ext.
F to F	Face to Face
f.f.	Front Face
f.s.	Far Side
fr.	Front
ft.	Feet
I.D.	Inside Diameter
in.	Inch
Int.	Interior
L	Left
LBS	Low Bridge Seat
LBS.	Pounds
M	Meter
MPH	Miles Per Hour
n.s.	Near Side
O.D.	Outside Diameter
Opp.	Opposite
PC	Point of Curvature
Perp.	Perpendicular
PI	Point of Intersection
PPC	Precast Prestressed Concrete
PPCDU	Precast Prestressed Deck Unit
PSI	Pounds per Square Inch
PT	Point of Tangency
R	Radius
R	Right
RCBC	Reinforced Concrete Box Culvert
RCDG	Reinforced Concrete Deck Girder
Req'd	Required
RR	Railroad
Shld.	Shoulder
spa.	Spaces
Sta.	Station
Std.	Standard
Str.	Straight
Tan	Tangent
Thru	Through
TOF	Top of Footing
TOS	Top of Slab
Tot.	Total
Typ.	Typical
Vert.	Vertical
W.P.	Working Point
Yd.	Yard

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

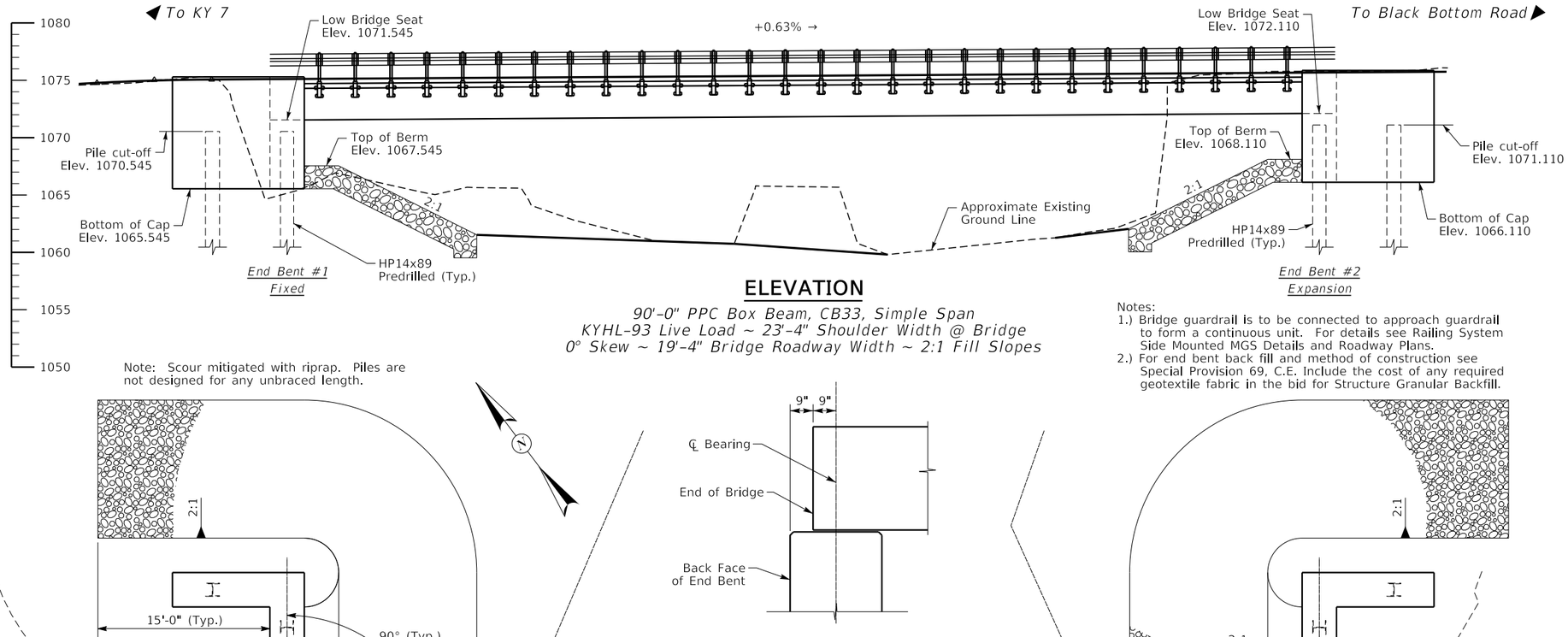
REVISION	DATE

PREPARED BY
Division of Structural Design

DATE: July 2023	CHECKED BY
DESIGNED BY: J. Van Zee	N. Cordtz
DETAILED BY: E. Downey	J. Van Zee

GENERAL NOTES
CROSSING: Rockhouse Creek

ROUTE	ITEM NO.	COUNTY OF
CR 1339	12-10145	LETCHER
	SHEET NO. S2	DRAWING NUMBER 28801

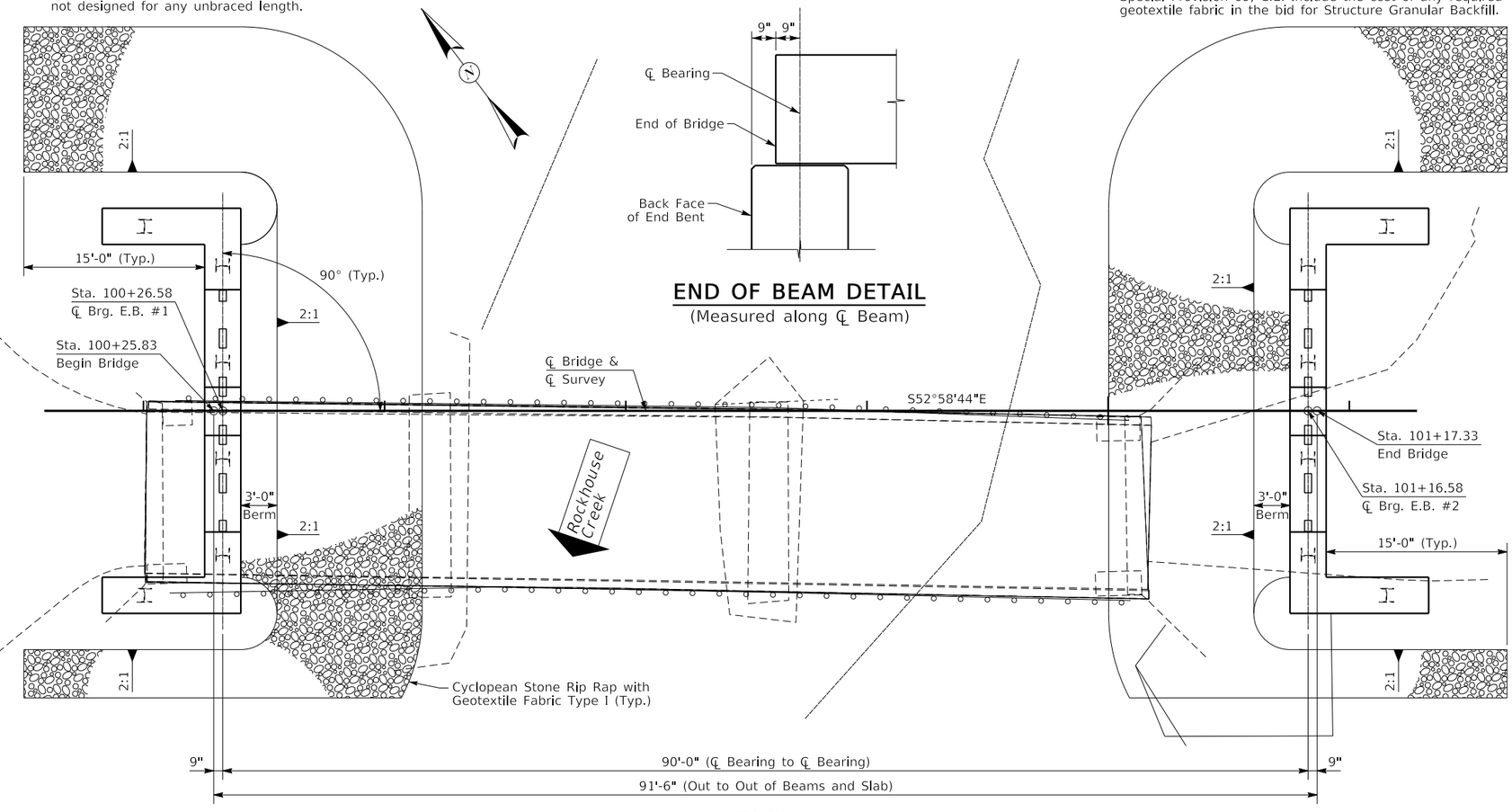


ELEVATION

90'-0" PPC Box Beam, CB33, Simple Span
KYHL-93 Live Load ~ 23'-4" Shoulder Width @ Bridge
0° Skew ~ 19'-4" Bridge Roadway Width ~ 2:1 Fill Slopes

Notes:
1.) Bridge guardrail is to be connected to approach guardrail to form a continuous unit. For details see Railing System Side Mounted MGS Details and Roadway Plans.
2.) For end bent back fill and method of construction see Special Provision 69, C.E. Include the cost of any required geotextile fabric in the bid for Structure Granular Backfill.

Note: Scour mitigated with riprap. Piles are not designed for any unbraced length.

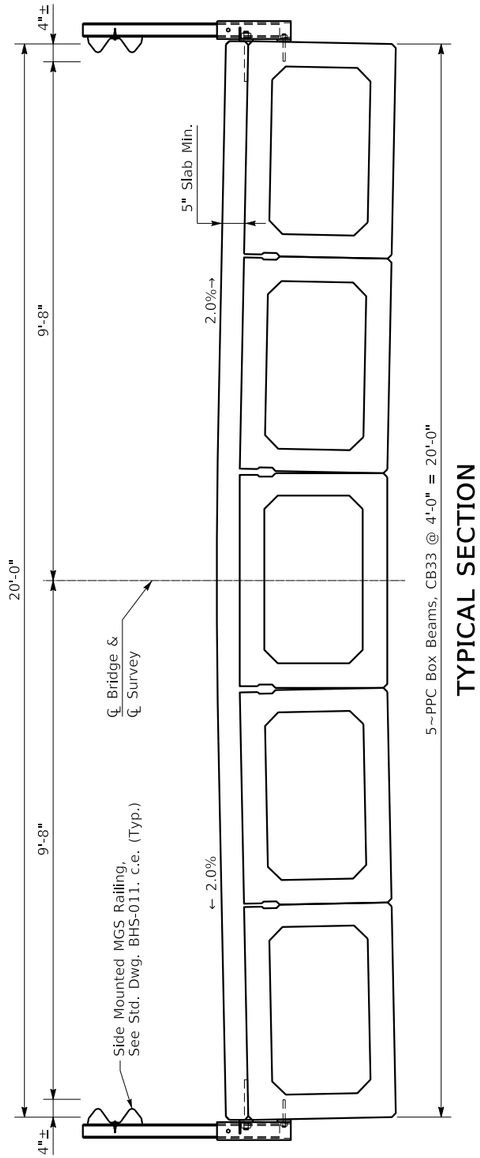


PLAN

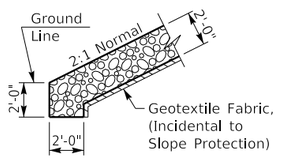
~Superstructure not shown~

END OF BEAM DETAIL

(Measured along ℄ Beam)



TYPICAL SECTION



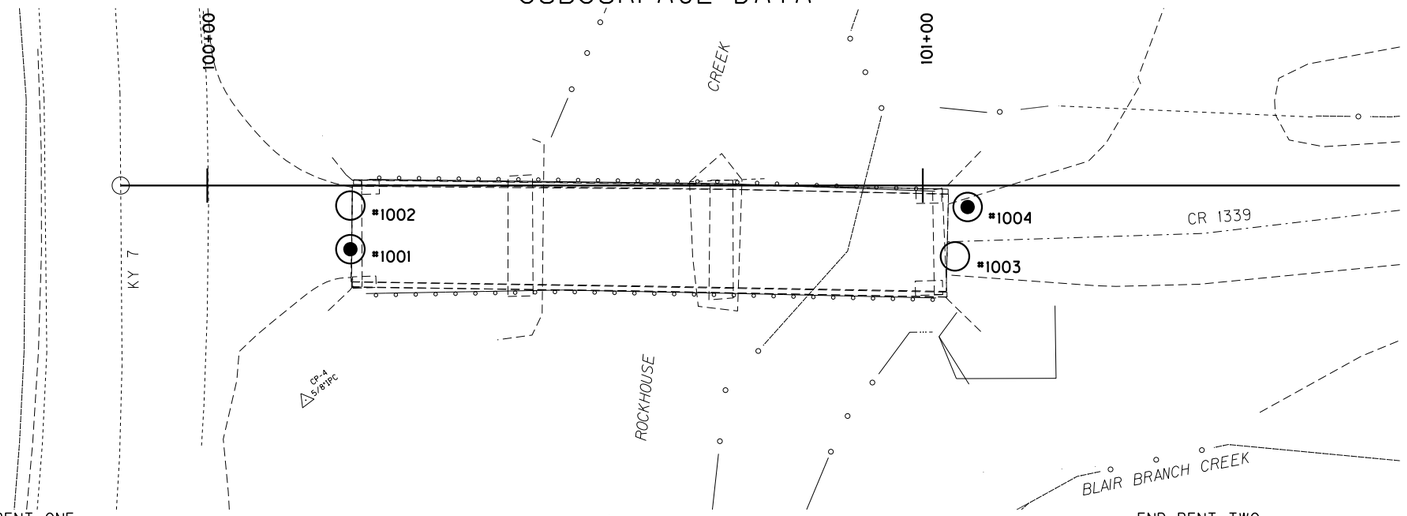
TOE OF SLOPE DETAIL

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	REVISION	DATE	PREPARED BY Division of Structural Design	DATE: July 2023	CHECKED BY	LAYOUT	ROUTE	ITEM NO.	COUNTY OF
				DESIGNED BY: J. Van Zee	N. Cordtz	CROSSING Rockhouse Creek	CR 1339	12-10145	LETCHER
				DETAILED BY: E. Downey	J. Van Zee			SHEET NO. S3	DRAWING NUMBER 28801

MicroStation v10.17.02.61 USER: Brian.Miller DATE PLOTTED: 12-OCT-2023 FILE NAME: J:\District12\12-10145 Letcher 067C00038N Blair Branch Bridge\28801 Letcher Blair Branch Bridge\28801.dgn

SUBSURFACE DATA

Plan Scale 1" = 10'



Profile Scale:
Vertical 1" = 10'
Horizontal not to scale

END BENT ONE
APPROXIMATE ROADWAY GRADE ELEV. = 000.00

END BENT TWO
APPROXIMATE ROADWAY GRADE ELEV. = 000.00

Hole No.	1002	1001	1004	1003
Station	100+20.00	100+20.00	101+06.27	101+04.50
Offset	2.80 ft. Rt.	8.90 ft. Rt.	3.00 ft. Rt.	9.90 ft. Rt.
Elev. (NAVD 88 datum)	1075.30	1073.00	1075.50	1074.80

1080 1070 1060 1050 1040 1030 1020

R
(1064.30)

D_{50} (mm)	w%	LI		
0.336	16	-0.63		N=7, A-2-4(0), SC-SM, S+C=30(26+4)
0.337	16	-0.63		N=5, A-2-4(0), SC-SM, S+C=30(26+4)
KYRQD	REC.			Cored Overburden
16	100			Sandstone: gray, medium to coarse grain, w/shale laminations & partings, coal stringers, durable
22	49			
79	100			

Top of rock elev.= 1061.50
Base of weathered rock elev.= 1060.00

D_{50} (mm)	w%	LI		
			N=7	
0.327	9		N=5	A-2-4(0), SM, S+C=19(17+2)
			N=9	
KYRQD	REC.			Cored Overburden
23	96			Sandstone: gray, fine to coarse grain, w/shale partings & laminations, coal stringers, durable
				Shale: extremely weathered shale (shale was lost during drilling)
98	100			Sandstone: gray, fine to coarse grain, w/shale partings & laminations, coal stringers, durable

Top of rock elev.= 1059.00
No weathered rock

R
(1060.30)

Datum

S-029-2023

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
KENTUCKY TRANSPORTATION CABINET

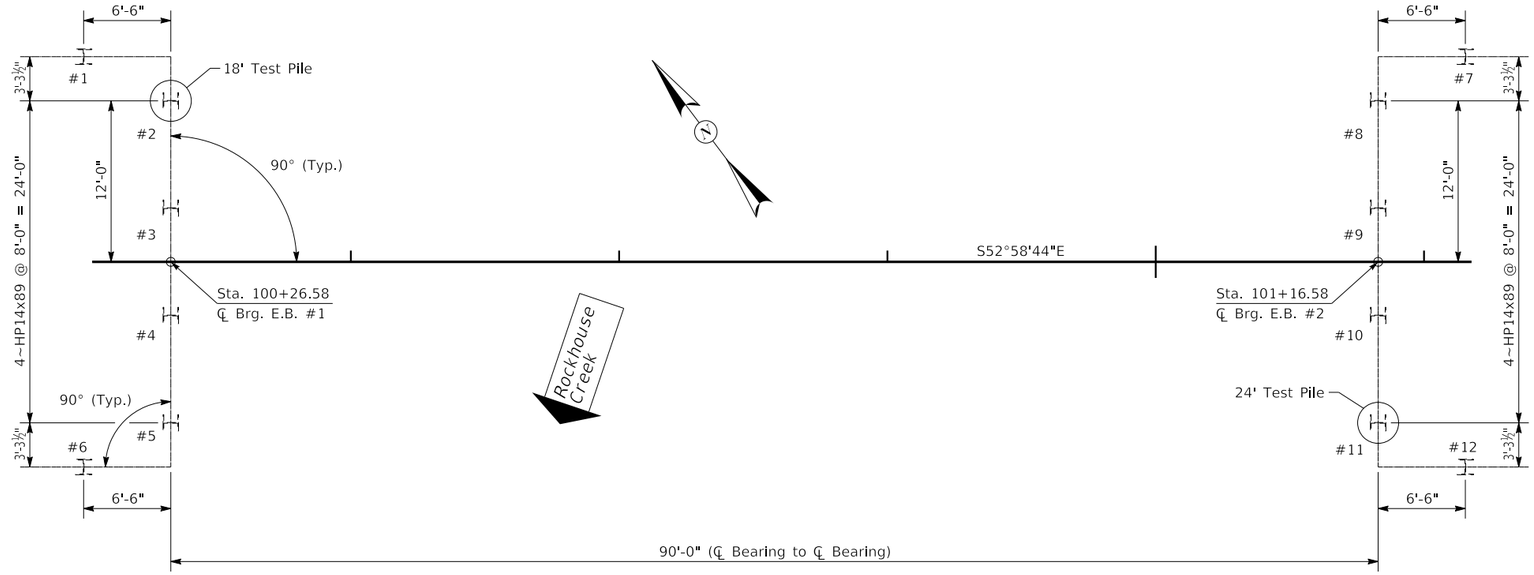
REVISION	DATE

PREPARED BY
Division of Structural Design
Geotechnical Branch

DATE: 25-JULY-2023	CHECKED BY
DESIGNED BY:	
DETAILED BY: E. BAILEY	K. PAULEY

SUBSURFACE DATA
CROSSING: Bridge over Rockhouse Creek

ROUTE	ITEM NO.	COUNTY OF
CR 1339	12-10145.00	LETCHER
	SHEET NO. S4	DRAWING NUMBER 28801



End Bent #1

FOUNDATION LAYOUT

End Bent #2

PILE RECORD FOR POINT BEARING PILES				
Pile No.	Pile Cut-off Elevation	Pile Length In Place	Point of Pile Elevation As Driven	Design Axial Load
	FEET	FEET	FEET	TONS
End Bent #1				
1	1070.545			85
2	1070.545			85
3	1070.545			85
4	1070.545			85
5	1070.545			85
6	1070.545			85
End Bent #2				
7	1071.110			85
8	1071.110			85
9	1071.110			85
10	1071.110			85
11	1071.110			85
12	1071.110			85

Pile Strike Alternate

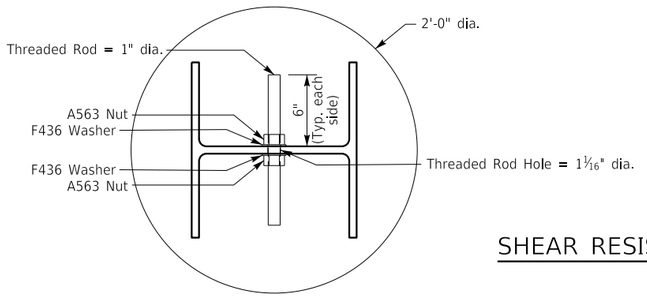
As an alternative to striking the pile once placed inside the pre-drilled hole, the contractor may include shear resisting devices on the pile. Place pile in hole and use an excavator to apply full hydraulic load to top of pile before filling hole with concrete. Use ASTM F1554 Grade 36 threaded rods with a minimum tensile strength of 58 ksi. The cost of all materials needed is incidental to Pre-drilling For Piles.

This alternative was designed to withstand 125% of the pile's design axial load shown on the pile record.

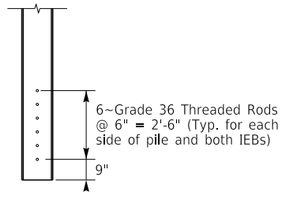
Note:
Contractor is to ensure hole is cleaned during and after excavation. The portion of the predrilled bore hole above the rock socket shall be excavated using casing to prevent excavated walls from collapsing. The rock socket shall be visually inspected. The bottom of hole shall be visible to the inspector by normal means from the surface elevation. If not adequately cleared of debris or water the contractor may be required to clean out the holes using vacuum excavator and/or a pump. Remove the casing as the hole above the rock socket is backfilled.

Note:
Measure final excavation depths with a weighted tape or other approved methods after final cleaning. Ensure the base of excavation has less than ½ inch of sediment at the time of pile and concrete placement. Do not allow the depth of water to exceed 3 inches during concrete placement.

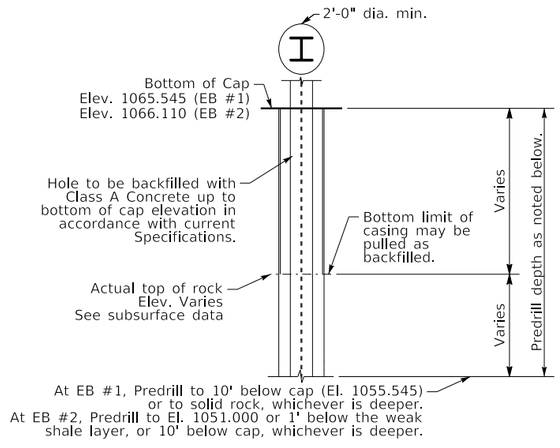
Note:
Provide an excavator with sufficient capacity and reach to lift and place piles without contacting the ground or sides of the boring and to pull casing as the hole is being backfilled.



PLAN VIEW OF PILE WITH THREADED ROD DETAIL



SHEAR RESISTANT DEVICE DETAIL



PRE-DRILLING DETAIL

PRE-DRILLING END BENT PILES: Use 24-inch diameter holes drilled as noted above. Backfill the holes with Class A concrete up to bottom of cap. A temporary casing may be required to prevent collapse of the hole. If used, remove the casing as the hole is being backfilled. Drive piles to refusal before backfilling holes with concrete. Care must be taken that the piling is located correctly since the piling is an integral part of the structure and protrudes up into the cap. The cost of all materials, labor, and equipment required to pre-drill, backfill the holes with concrete, and drive the piles shall be included in the price per linear foot for Pre-Drilling Piles.

Definitions of Terms

PILE CUT-OFF ELEVATION: Elevation of the top of pile in the finished structure.

PILE LENGTH IN PLACE: Actual pile length below the Pile Cut-Off Elevation in the finished structure.

PILE TIP ELEVATION AS DRIVEN: Actual point of pile elevation in the finished structure.

DESIGN AXIAL LOAD: Load carried by each pile as estimated from structural design calculations for Factored LRFD Loadings.

CALCULATED FIELD BEARING: Contrary to Section 604.03.07 of the Standard Specifications, in place bearing values are not required for piles bearing on rock when driven to practical refusal.

Driving Criteria

DRIVING CRITERIA: Drive point bearing piles to practical refusal.

PRACTICAL REFUSAL (Case 1): For this project minimum blow requirements are reached after total penetration becomes 1/4" or less for 5 consecutive blows, practical refusal is obtained after the pile is struck an additional 5 blows with total penetration of 1/4" or less. Advance the production piling to the driving resistances specifed above and to depths determined by test pile(s) and subsurface data sheet(s). Immediately cease driving operations if the pile visibly yields or becomes damaged during driving. If hard driving is encountered because of dense strata or an obstruction, such as a boulder before the pile is advanced to the depth anticipated, the Engineer will determine if more blows than the average driving resistance specified for practical refusal is required to further advance the pile. Drive additional production and test piles if directed by the Engineer.

HAMMER CRITERIA: A hammer with a rated energy of between 20 and 34 kip-ft will be required to drive the H-piles to practical refusal without encountering excessive blow counts or damaging the pile. The contractor shall submit the proposed pile driving system to the Department for approval prior to the installation of the first pile. Approval of the pile driving system by the Engineer will be subject to satisfactory field performance of the pile driving procedures.

Field Data

For each pile, the Project Engineer shall record the following on this sheet: Pile Length in Place and Point of Pile Elevations as Driven.

Submit this record to:

Kentucky Transportation Cabinet
Division of Structural Design
3rd. Floor East
200 Mero Street
Frankfort, KY 40622

This pile record does not replace other pile records the Project Engineer is required to keep and submit.

Use HP 14x89 in accordance with BPS-011, c.e.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

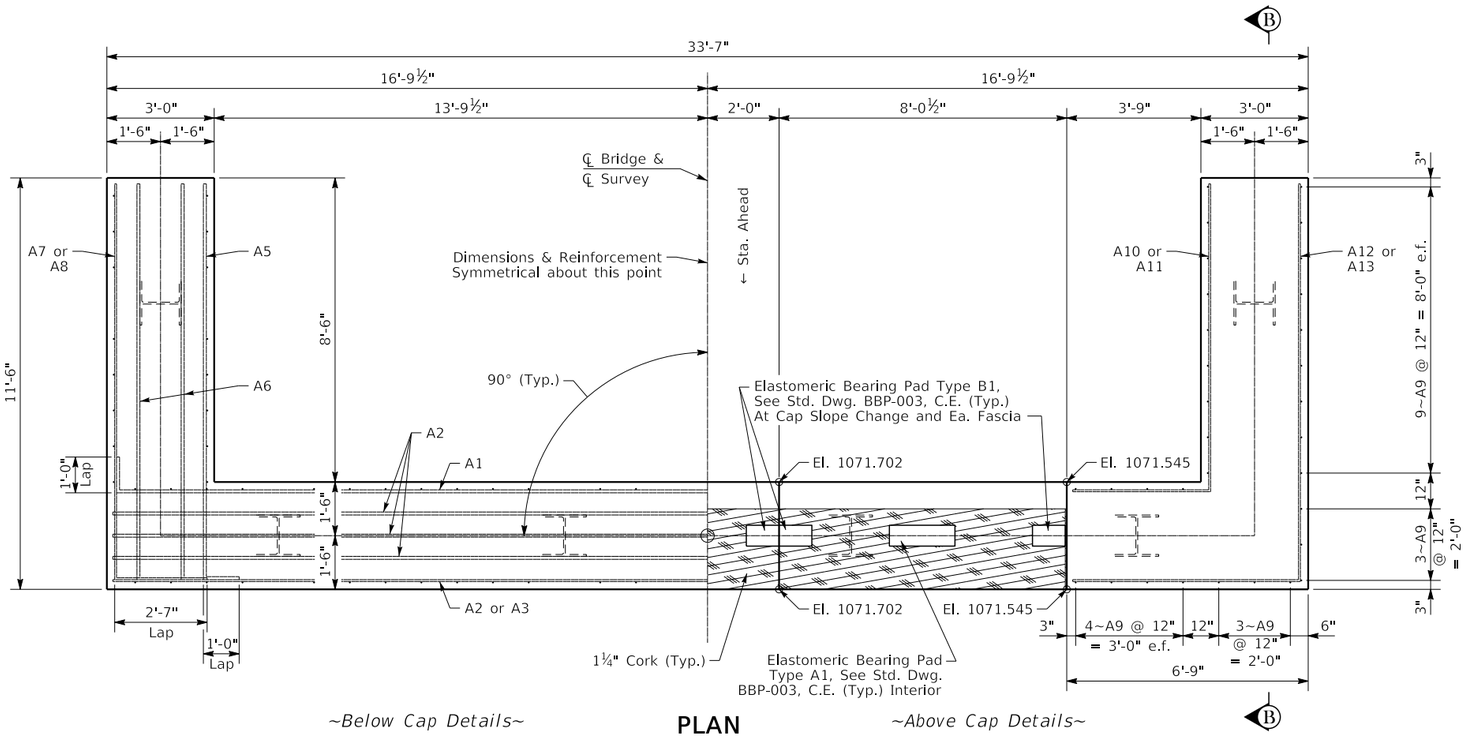
REVISION	DATE

PREPARED BY
Division of Structural Design

DATE: July 2023	CHECKED BY
DESIGNED BY: J. Van Zee	N. Cordtz
DETAILED BY: E. Downey	J. Van Zee

FOUNDATION LAYOUT
CROSSING: Rockhouse Creek

ROUTE	ITEM NO.	COUNTY OF
CR 1339	12-10145	LETCHER
	SHEET NO. S5	DRAWING NUMBER 28801



~Below Cap Details~ **PLAN** *~Above Cap Details~*

(End Bent Symmetrical about ℄ Bridge)

NOTES:

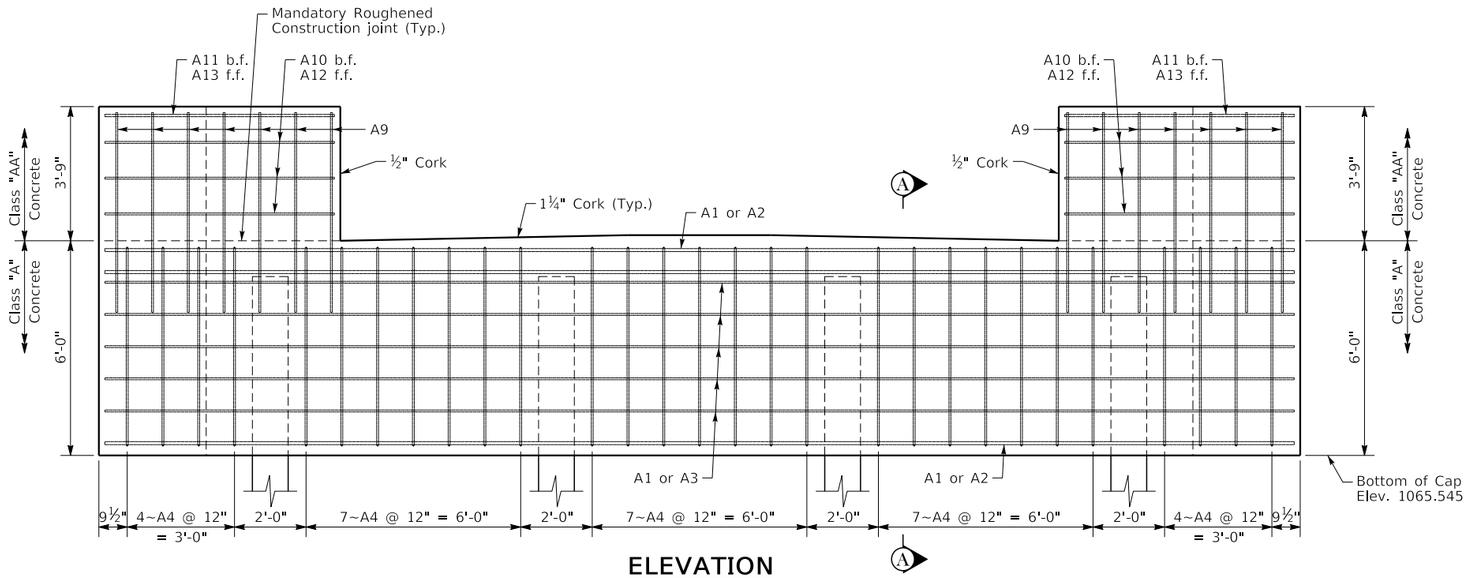
For pile location see Foundation Layout Sheet.

Beam elevations are given at the top of concrete.

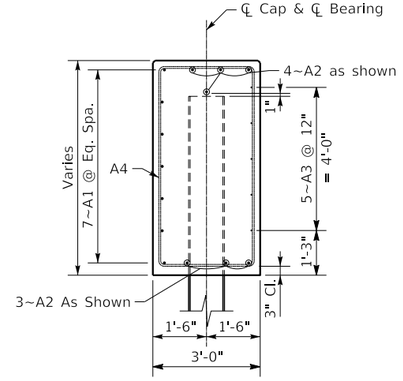
Dowel box beams in accordance with Std. Dwg. BDP-002, C.E.

Do not backfill wall until beams are placed, doweled, and grouted.

Mandatory Construction Sequence
1) Pour Class "A" Concrete.
2) Erect Beams and Tension Lateral Rods.
3) Pour Wings With ½" Cork Between Face of the Beams and Wings.

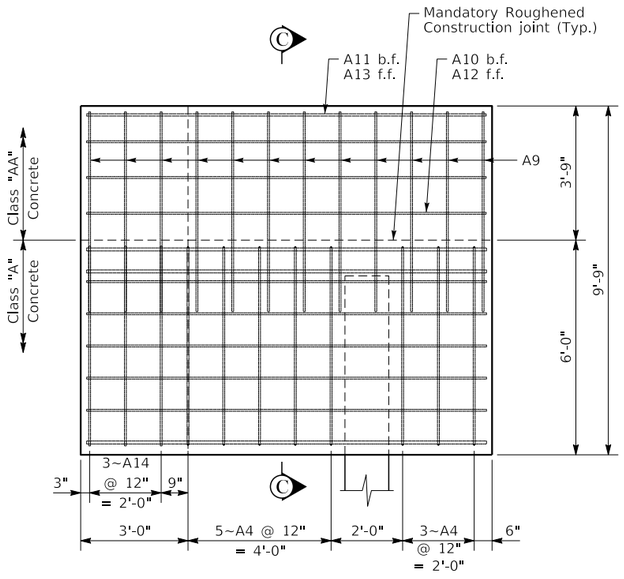


ELEVATION

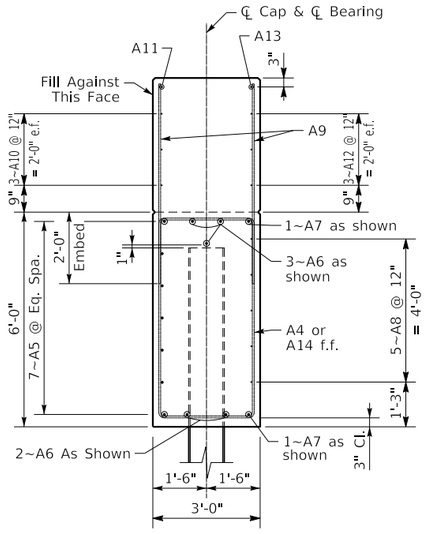


SECTION A-A

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	REVISION / DATE	PREPARED BY Division of Structural Design	DATE: July 2023	CHECKED BY	*END BENT #1*	ROUTE CR 1339	ITEM NO. 12-10145	COUNTY OF LETCHER
			DESIGNED BY: J. Van Zee	N. Cordtz	CROSSING Rockhouse Creek		SHEET NO. S6	DRAWING NUMBER 28801
			DETAILED BY: E. Downey	J. Van Zee				



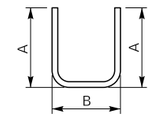
SECTION B-B



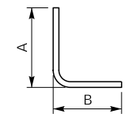
SECTION C-C

BILL OF REINFORCEMENT

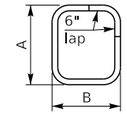
MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B
A1e	2s	7	8	34- 9	Cap	1- 0	33- 1 3/4
A2e	Str.	7	8	33- 3	Cap		
A3e	Str.	5	5	33- 3	Cap F.F.		
A4e	14s	45	5	17- 0	Cap Stirrup	5- 7	2- 8
A5e	5s	14	8	11-11	Wings B.F.	11- 1 3/8	1- 0
A6e	Str.	10	8	11- 2	Wings		
A7e	5s	4	8	13- 6	Wings F.F.	11- 1 3/8	2- 7
A8e	5s	10	5	13- 7	Wings F.F.	11- 1 3/8	2- 7
A9e	Str.	64	5	5- 7	Wings		
A10e	5s	6	5	12- 4	Wings B.F.	8- 7 1/4	3-10 1/4
A11e	5s	2	6	12- 4	Top of Wings B.F.	8- 7 1/4	3-10 1/4
A12e	5s	6	5	17- 4	Wings F.F.	11- 1 3/8	6- 4 3/8
A13e	5s	2	6	17- 4	Top of Wings F.F.	11- 1 3/8	6- 4 3/8
A14e	Str.	6	5	5- 7	Wings Vertical		



TYPE 2



TYPE 5



TYPE 14

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

PREPARED BY
Division of
Structural Design

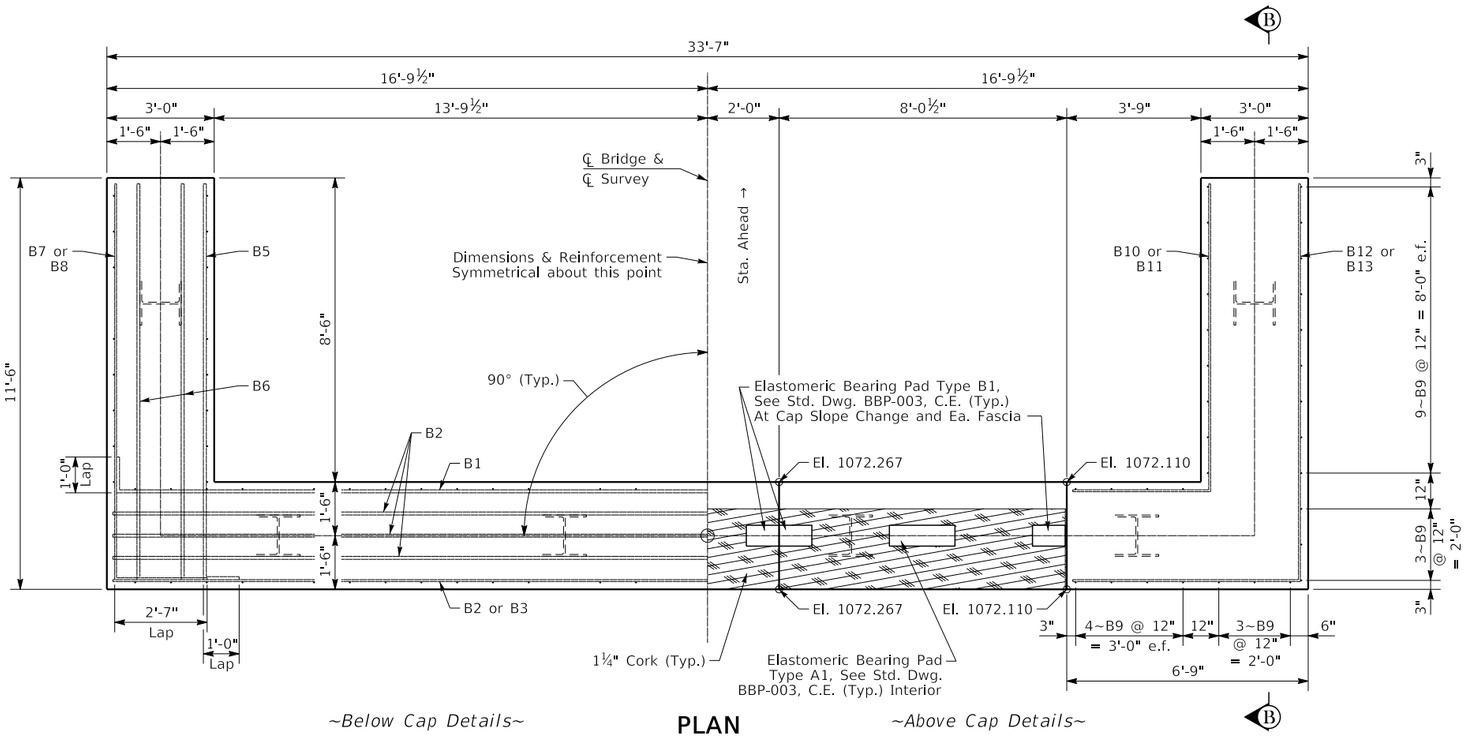
DATE: July 2023	CHECKED BY
DESIGNED BY: J. Van Zee	N. Cordtz
DETAILED BY: E. Downey	J. Van Zee

END BENT #1

CROSSING
Rockhouse Creek

ROUTE	ITEM NO.	COUNTY OF
CR 1339	12-10145	LETCHER
	SHEET NO. S7	DRAWING NUMBER 28801

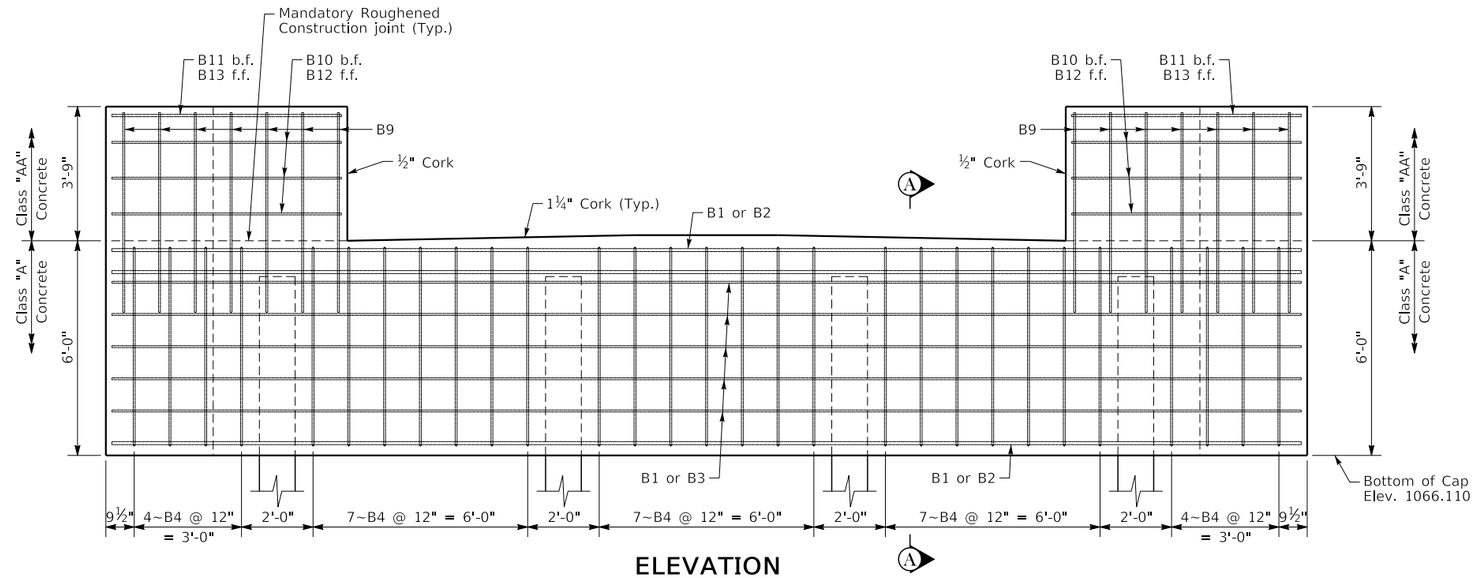
MicroStation v10.17.02.61 USER: Brian.Miller DATE PLOTTED: 12-OCT-2023
FILE NAME: J:\District12\12-10145 Letcher 067C00038N Blair Branch Bridge\28801 Letcher Blair Branch Bridge\28801.dgn



~Below Cap Details~ *~Above Cap Details~*

PLAN

(End Bent Symmetrical about ℄ Bridge)



ELEVATION

NOTES:

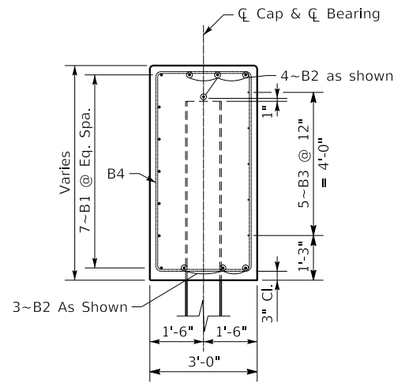
For pile location see Foundation Layout Sheet.

Beam elevations are given at the top of concrete.

Dowel box beams in accordance with Std. Dwg. BDP-002, C.E.

Do not backfill wall until beams are placed, doweled, and grouted.

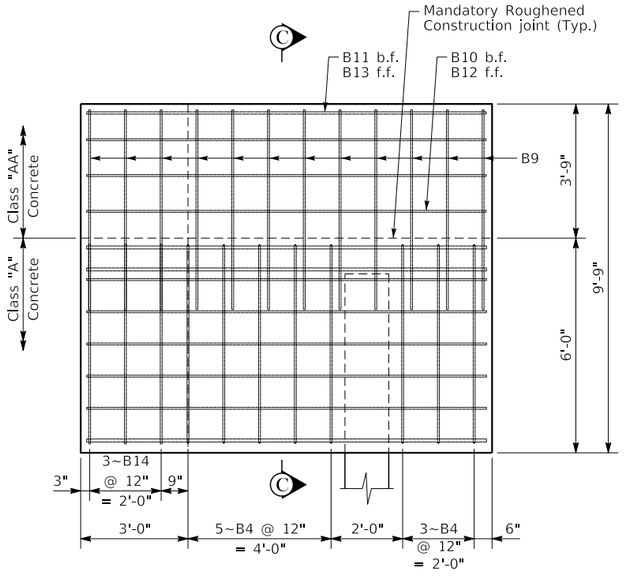
Mandatory Construction Sequence
1) Pour Class "A" Concrete.
2) Erect Beams and Tension Lateral Rods.
3) Pour Wings With ½" Cork Between Face of the Beams and Wings.



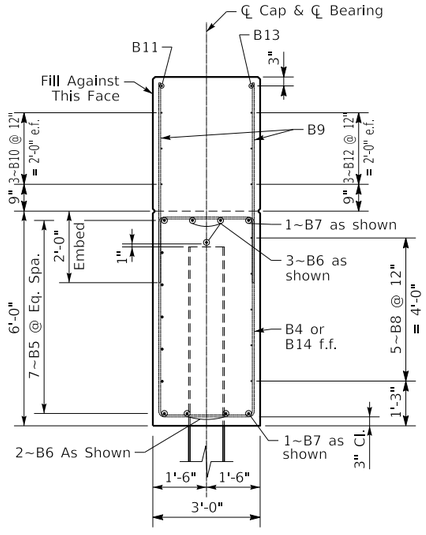
SECTION A-A

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS	REVISION / DATE	PREPARED BY Division of Structural Design	DATE: July 2023	CHECKED BY	*END BENT #2*	ROUTE CR 1339	ITEM NO. 12-10145
			DESIGNED BY: J. Van Zee	N. Cordtz	CROSSING Rockhouse Creek		SHEET NO. S8
			DETAILED BY: E. Downey	J. Van Zee			DRAWING NUMBER 28801

COUNTY OF: LETCHER



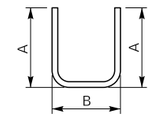
SECTION B-B



SECTION C-C

BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B
B1e	2s	7	8	34- 9	Cap	1- 0	33- 1 3/4
B2e	Str.	7	8	33- 3	Cap		
B3e	Str.	5	5	33- 3	Cap F.F.		
B4e	14s	45	5	17- 0	Cap Stirrup	5- 7	2- 8
B5e	5s	14	8	11-11	Wings B.F.	11- 1 1/8	1- 0
B6e	Str.	10	8	11- 2	Wings		
B7e	5s	4	8	13- 6	Wings F.F.	11- 1 3/8	2- 7
B8e	5s	10	5	13- 7	Wings F.F.	11- 1 3/8	2- 7
B9e	Str.	64	5	5- 7	Wings		
B10e	5s	6	5	12- 4	Wings B.F.	8- 7 1/4	3-10 1/4
B11e	5s	2	6	12- 4	Top of Wings B.F.	8- 7 1/4	3-10 1/4
B12e	5s	6	5	17- 4	Wings F.F.	11- 1 3/8	6- 4 3/8
B13e	5s	2	6	17- 4	Top of Wings F.F.	11- 1 3/8	6- 4 3/8
B14e	Str.	6	5	5- 7	Wings Vertical		



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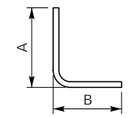

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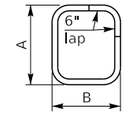


TYPE 14

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

REVISION	DATE

PREPARED BY
Division of
Structural Design

DATE: July 2023	CHECKED BY
DESIGNED BY: J. Van Zee	N. Cordtz
DETAILED BY: E. Downey	J. Van Zee

END BENT #2

CROSSING
Rockhouse Creek

ROUTE	ITEM NO.	COUNTY OF
CR 1339	12-10145	LETCHER
	SHEET NO. S9	DRAWING NUMBER 28801

PRECAST PRESTRESSED BOX BEAMS

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 Specifications are to the current edition of the AASHTO LRFD Bridge Design Specifications, with interims.*

DESIGN LOADS: *Beam sections are designed for 1.25*HL93 (KYHL93) Live Load.*

DESIGN LOAD DISTRIBUTION: *Contrary to AASHTO LRFD Bridge Design Specifications, the design moment and shear distribution for all beams is 0.5 lanes.*

FUTURE WEARING SURFACE: *These beams are designed for a 15 PSF future wearing surface load.*

SUBSTRUCTURE DESIGN LOADS: *Unfactored design reaction forces per beam end.*
DC (kips): Beam, Slab (if applicable), and Type II railing dead loads.
DW (kips): Future wearing surface.
LL (kips): Beam Live Load reaction per lane x Design load distribution.
LL+I (kips): LL with Dynamic load allowance.

DESIGN DEFLECTIONS:
Δd (in.): Sum of the downwards deflections caused by the design 5" deck, railing, and future wearing surface. (Positive Downwards)
Δc (in.): Upwards midspan camber of the beam caused by prestressing minus the downward deflection of the beam due to self weight. (Positive Upwards)

MATERIAL DESIGN SPECIFICATIONS:

for Steel Reinforcement	FY =	60000 PSI	
for Prestressed Girder Concrete (Typ. U.N.O.)	F'C =	~~7000 PSI~~	7,500 PSI
	F'CI =	~~5500 PSI~~	6,000 PSI
for Class "AA" Concrete	F'C =	4000 PSI	
for Prestressing Steel	F'S =	270000 PSI	

DESIGN LENGTH: *Beam lengths shown in the Standards represent total beam length. Use the next greater designed section for non-Standard lengths.*

CONSTRUCTION METHOD: *Transferring bond stress to the concrete will not be allowed, nor releasing of end anchors until the concrete has attained a minimum compressive strength of F'CI as shown by standard cylinders made and cured identically with the girders; attain F'C at or prior to 28 days. Apply an initial prestress force of 33817 lbs. per low relaxation strand. Beams with honeycomb of such extent as to affect the strength of resistance to deterioration will not be accepted. The allowance of .0005L (length) is made for shortening of beams due to shrinkage and elastic change. Furnish shop plans showing a detensioning plan by numbering, in sequence, the strand pattern.*

PRESTRESSING STRANDS: *Ensure prestressing strands to be ½" oversize (0.167 sq. in.) uncoated seven-wire stress relieved, low-relaxation strands conforming to AASHTO M 203, Grade 270. If an alternate strand arrangement or strand type is preferred by the Contractor, the designer that developed the original plans will provide the design and also revise the original plans to reflect the changes. These design and plan modifications will be done at the Contractor's expense.*

CORROSION INHIBITOR: *Provide a corrosion inhibitor for B-type (non-composite) beams from the list of approved materials.*

BEVELED EDGES: *Bevel all exposed edges ¾".*

BEAM SEALER: *For composite box beams (CB Beams), seal the full length of the exterior face of all exterior beams with the extent from the top of the beam to 1'-0" underneath the beam. For non-composite box beams (B beams), seal all faces of all beams, except take care to ensure the grout pockets are not sealed. Use an approved silane sealer as specified by the Division of Structural Design.*

REINFORCEMENT: *Dimensions shown from the face of concrete to reinforcement are clear distances. Spacing of reinforcement is from center to center of reinforcement. All steel reinforcement is to be epoxy coated in accordance with Section 811.10 of the Specifications. Consider bars marked "C" to be a stirrup for purposes of bend diameters. Non-epoxy reinforcement may be used for fabrication purposes, only, provided that the steel is not used in the top 5½" of the beam and the location of the steel is indicated on the shop drawings.*

FABRICATION: *Beams shall not be fabricated more than 120 days before the deck is to be poured.*

GROUT: *Provide non-shrink grout for anchor dowels, shear keys, and tensioning rod block-outs conforming with Section 601.03.03 of the Specifications. When side by side superstructure is utilized, grouting will be completed after lateral tension rods have been fully tightened and before leveling devices have been removed. Include the cost of furnishing and placing grout in the price of beam.*

RAILING SYSTEM TYPE II: *Furnish this material per these specifications.*

ITEM	DESCRIPTION	MATERIAL SPECIFICATION	COATING SPECIFICATION
Post	W6x25	ASTM A36 or A572	A123
Channel	C7x9.8	ASTM A36 or A572	A123
Plate	½"x 7"	ASTM A36 or A572	A123
Tubing	8x4x0.1875	ASTM A500 or A501	A123
Bolts	⅝"	ASTM A307	A153
Nuts	for ⅝"	ASTM A563, Grade A or better	A153
Washers	for ⅝"	ASTM A563, Grade A or better	A153
Stud	1¼"	ASTM A108 (1045 C.D. Bar)	B633, Type II, Class 25
Ferrule	2½"x 5"	ASTM A108 (11L17 Steel)	B633, Type II, Class 25
Wire	⅜"	ASTM A510 (1018 Steel)	B633, Type II, Class 25
Nut	for 1¼" Bolt	ASTM A108 (12L14 Steel)	B633, Type II, Class 25
Nut	for 1¼" Stud	ASTM A325M	B633, Type II, Class 25
Washers	for 1¼" Stud	ASTM A325M	B633, Type II, Class 25

RAILING SYSTEM SIDE MOUNTED MGS: *Is to be used on this structure, see Std. Dwg. BHS-011, c.e.*

Use the current edition of the references listed below with these standards.

STANDARD DRAWINGS

BBP-003 Elastomeric Bearing Pads
~~BHS-007 Railing System Type II~~
BJE-001 Armored Edge & Neoprene Joints
RBR-001 Steel Beam Guardrail
RBR-005 Guardrail Components

SPECIAL NOTES

for Corrosion Inhibitors

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

REVISION	DATE

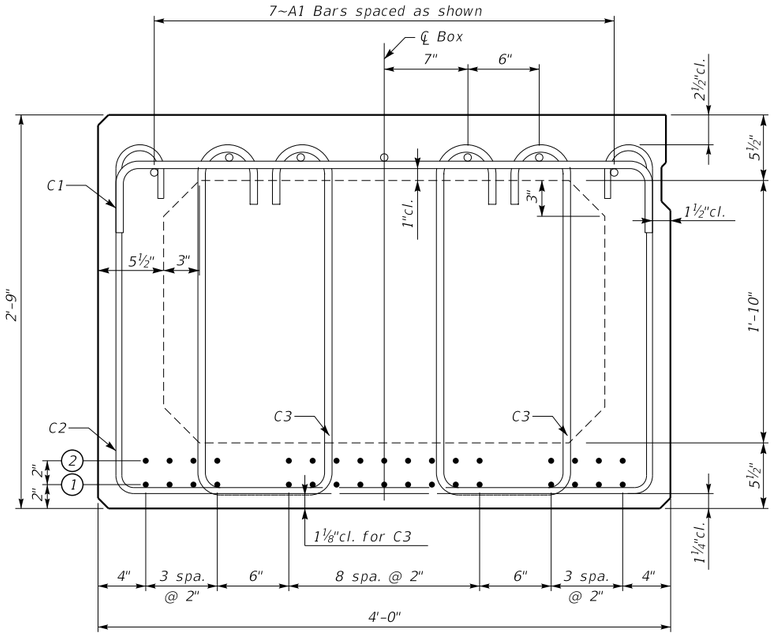
PREPARED BY
Division of Structural Design

DATE: July 2023	CHECKED BY
DESIGNED BY: J. Van Zee	N. Cordtz
DETAILED BY: E. Downey	J. Van Zee

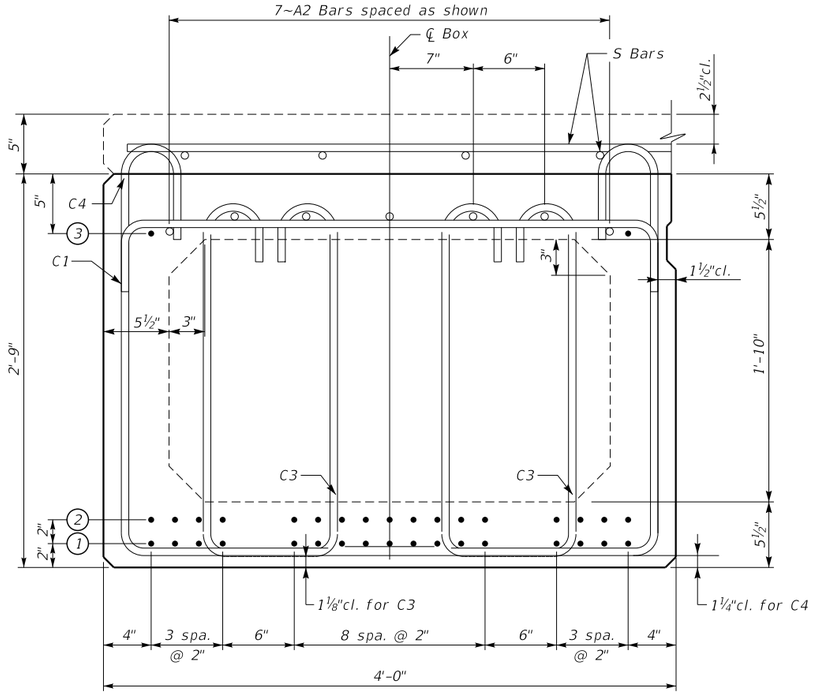
BOX BEAM GENERAL NOTES

CROSSING: Rockhouse Creek

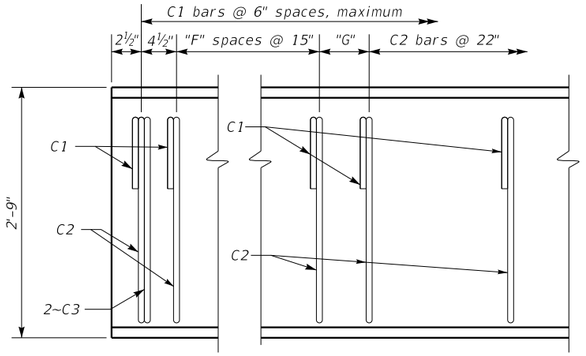
ROUTE	ITEM NO.	COUNTY OF
CR 1339	12-10145	LETCHER
	SHEET NO.	DRAWING NUMBER
	S10	28801



B33 BEAM

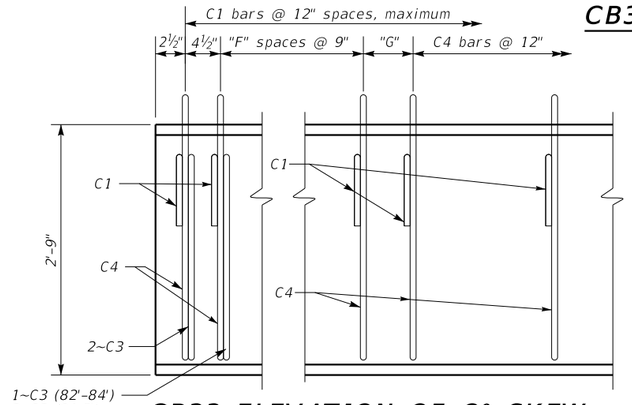


CB33 BEAM



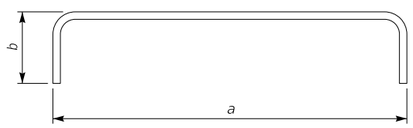
B33 ELEVATION OF 0° SKEW

(Refer to BDP-003,c.e. for skewed details)

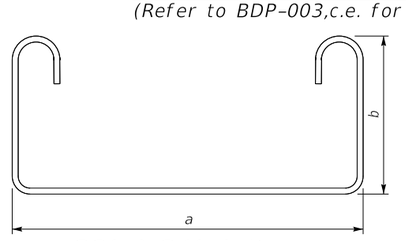


CB33 ELEVATION OF 0° SKEW

(Refer to BDP-003,c.e. for skewed details)



C1(e) Bar



C2(e)-C4(e) Bars

TABLE OF STRAND DATA

Beam Type	Beam Length (feet)	Number of Strands Required Row ①	Row ②	Row ③	Conc. Strength F'CI (PSI)	F'C (PSI)
B33	66	17	5			
	68	17	6			
	70	17	7			
	72	17	8			
	74	17	10			
	76	17	11			
	78	17	12			
CB33	72	17	7			
	74	17	9			
	76	17	10			
	78	17	11			
	80	17	13			
	82	17	14	2		
	84	17	15	2		
→	91.5	19	19	2	6000	7500

TABLE OF DIMENSION DATA

Beam Type	Beam Length (feet)	"F"	"G"
B33	66	5	17"
	68	5	18"
	70	6	15"
	72	6	16"
	74	6	17"
	76	6	18"
	78	6	19"
CB33	72	7	17"
	74	7	17"
	76	8	17"
	78	8	17"
	80	8	17"
	82	8	17"
	84	8	17"
→	91.5	12	8"

BAR QUANTITIES TABLE / DESIGN DATA

Beam Type	Beam Length (feet)	C1	C2	C3	C4	DC kips	DW kips	LL kips	LL+I kips	Δd (in.)	Δc (in.)
B33	66	133	42	4		28.8	1.8	51.6	64.3		
	68	137	43	4		29.3	1.9	52.2	65.0		
	70	141	45	4		30.2	2.0	53.8	66.6		
	72	145	46	4		31.0	2.0	53.3	66.2		
	74	149	47	4		31.9	2.1	53.9	66.8		
	76	153	48	4		32.7	2.2	54.4	67.5		
	78	157	49	4		33.6	2.2	55.0	68.0		
CB33	72	73		4	46	40.8	2.0	53.3	66.2	0.4	1.1
	74	75		4	47	41.1	2.1	53.9	66.8	0.4	1.2
	76	77		4	49	42.2	2.2	54.4	67.5	0.5	1.3
	78	79		4	50	43.3	2.2	55.0	68.0	0.5	1.4
	80	81		4	51	44.4	2.3	55.5	68.6	0.6	1.5
	82	83		6	52	45.5	2.3	56.1	69.2	0.6	1.4
	84	85		6	53	46.6	2.4	56.6	69.8	0.7	1.5
→	91.5	92		8	72	50.7	2.7	58.4	70.5	0.8	1.9

Note: Contrary to Std. Dwg. BDP-001, c.e., use the concrete strengths shown on this sheet for the 91.5' beam.

Straight Reinforcement

Mark	Size	Length
A1(E)	#5	Beam Length Minus 3"
A2(E)	#4	Beam Length Minus 3"
D(E)	#8	2'-0"

NOTE: A1 and A2 bars are to be lapped 2'-2" when necessary.

Bent Reinforcement

Mark	Size	a	b	
C1(e)	#5	3'-9"	6"	
C2(e)	#4	3'-9"	2'-5¼"	
C3(e)	#5	11⅜"	2'-5⅜"	
C4(e)	#4	3'-9"	2'-10¼"	

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

REVISION	DATE

PREPARED BY
Division of Structural Design

DATE: July 2023 — CHECKED BY
DESIGNED BY: J. Van Zee — N. Cordtz
DETAILED BY: E. Downey — J. Van Zee

CB33 BOX BEAM DETAILS

CROSSING: Rockhouse Creek

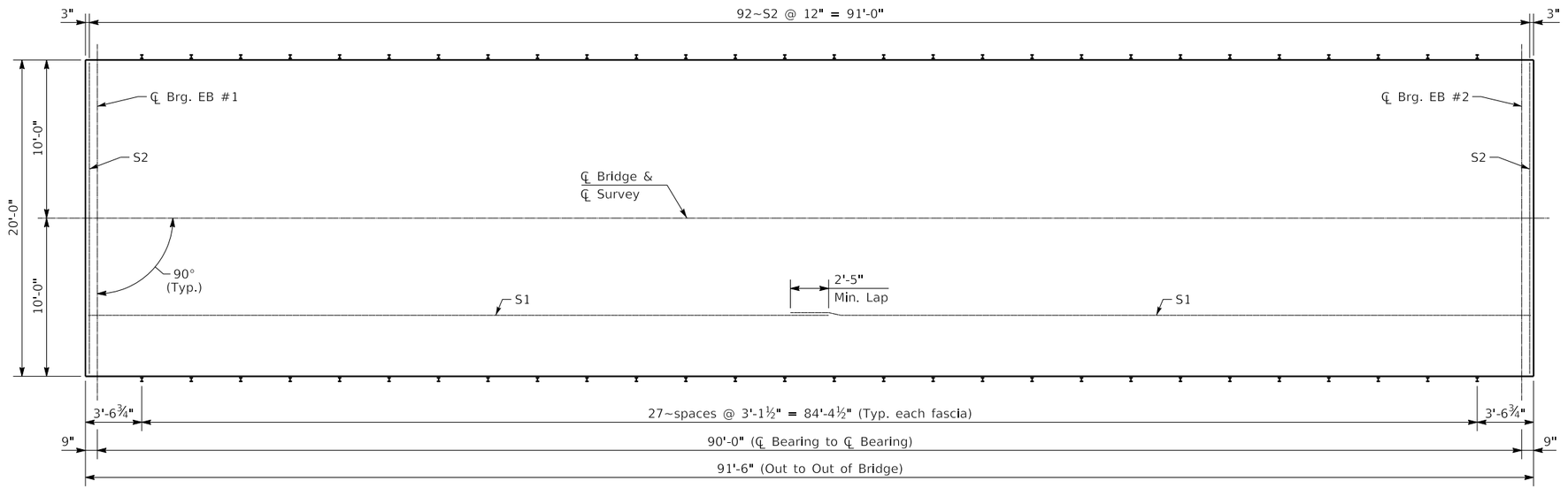
ROUTE: CR 1339
ITEM NO.: 12-10145
SHEET NO.: S11
COUNTY OF: LETCHER
DRAWING NUMBER: 28801

NOTE: Guardrail inserts in beam will need to be varied vertically to maintain proper clearance to top of slab.

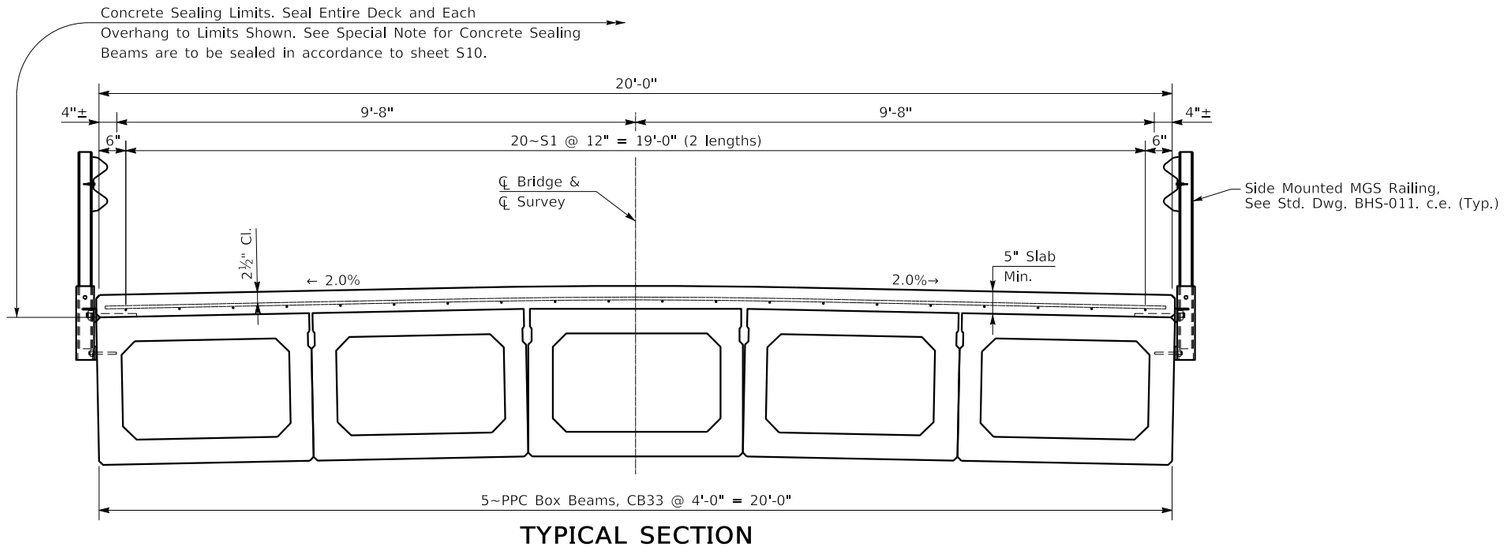
NOTE: Contrary to the Standard Drawings (5" slab thickness), the construction elevations will cause the slab to be approximately 6.1" thick at each end and go to approximately 5" thick at the center of the span. No additional concrete shall be paid for to maintain the maximum and minimum allowable slab depths as shown on the construction elevations.

BILL OF REINFORCEMENT

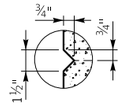
MARK	TYPE	NO.	SIZE	LENGTH	LOCATION
S1e	Str.	40	5	46-10	Slab
S2e	Str.	92	5	19- 8	Slab



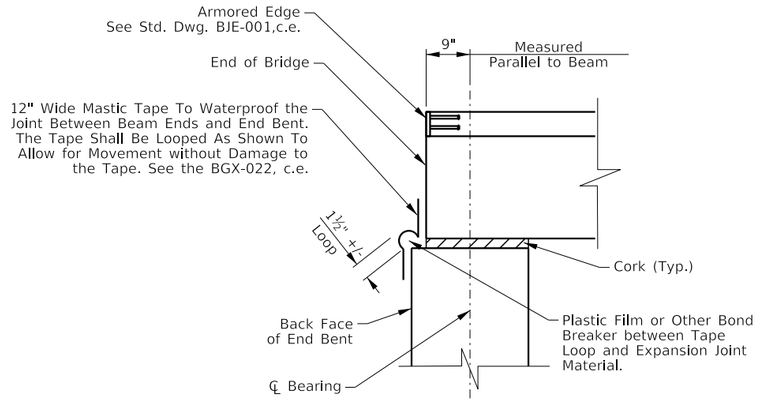
PLAN OF SLAB



TYPICAL SECTION



"V-Groove"
Rustication



JOINT WATERPROOFING DETAIL

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY

REVISION	DATE

PREPARED BY
Division of
Structural Design

DATE: July 2023	CHECKED BY
DESIGNED BY: J. Van Zee	N. Cordtz
DETAILED BY: E. Downey	J. Van Zee

SUPERSTRUCTURE
CROSSING
Rockhouse Creek

ROUTE	ITEM NO.	COUNTY OF
CR 1339	12-10145	LETCHER
	SHEET NO.	DRAWING NUMBER
	S12	28801

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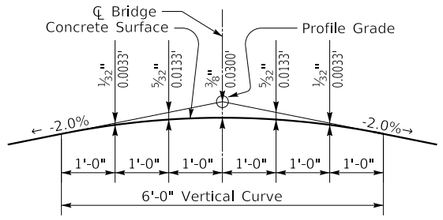
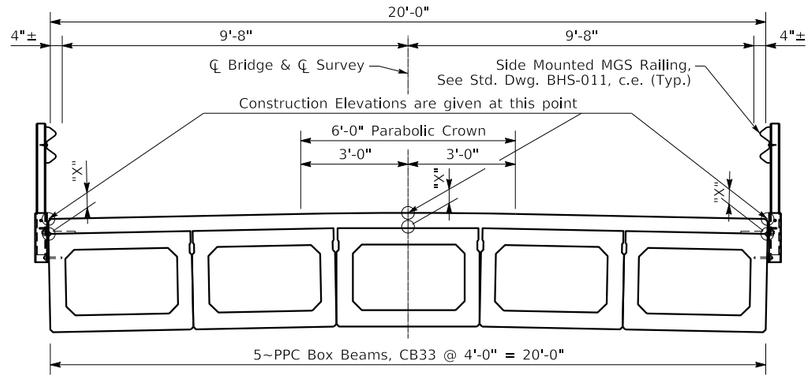
CONSTRUCTION ELEVATIONS

LOCATION	LEFT FASCIA			℄			RIGHT FASCIA		
	CONSTR. ELEV.	TOP OF BEAM	DIM. "X"	CONSTR. ELEV.	TOP OF BEAM	DIM. "X"	CONSTR. ELEV.	TOP OF BEAM	DIM. "X"
SKEW LN AA	1074.907			1075.077			1074.907		
SKEW LN BB	1074.911			1075.081			1074.911		
SKEW LN CC	1075.476			1075.646			1075.476		
SKEW LN DD	1075.481			1075.651			1075.481		
GRID LN 01	1074.920			1075.090			1074.920		
GRID LN 02	1074.989			1075.159			1074.989		
GRID LN 03	1075.056			1075.226			1075.056		
GRID LN 04	1075.120			1075.290			1075.120		
GRID LN 05	1075.179			1075.349			1075.179		
GRID LN 06	1075.235			1075.405			1075.235		
GRID LN 07	1075.285			1075.455			1075.285		
GRID LN 08	1075.330			1075.500			1075.330		
GRID LN 09	1075.371			1075.541			1075.371		
GRID LN 10	1075.407			1075.577			1075.407		
GRID LN 11	1075.441			1075.611			1075.441		
GRID LN 12	1075.472			1075.642			1075.472		



PARABOLIC CROWN



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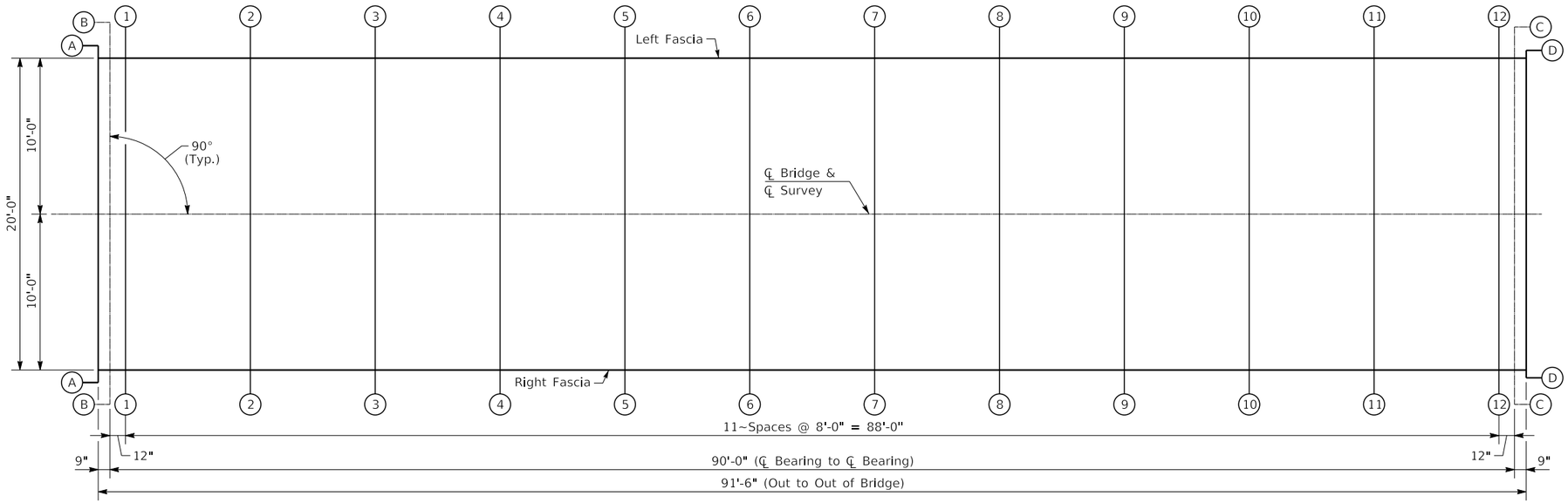

GRID LAYOUT

NOTES FOR ELEVATIONS TAKEN ON PRESTRESSED CONCRETE BOX BEAMS

Take elevations on top of beam at points indicated after the beams have been laterally tensioned and grouted. The beam elevations are to be read to three decimal places and entered in tables under "Top of Beam" elevations.

Compute dimension "X" as follows: "Construction Elevation" minus "Top of Beam" elevation equals dimension "X". Construction Elevations include camber due to weight of the concrete slab and barrier. Measuring of dimension "X" gives the final check on beam tolerances for camber, beam damage, and errors in erection that produce reverse cambers, sags, andunsightly fascia beams.

For setting templates, measure dimension "X" above top of beams for top of template. Do not set template by elevations.

Temporary supports or shoring will not be permitted under the girders when pouring the concrete floor slab or when taking "Top of Beam" elevations.

Note to Resident: The "Maximum Allowable Camber" shown on the beam sheet is the amount of camber, measured prior to casting the deck, above which the beam will begin to encroach into the slab.

The minimum allowable dimension "X" or slab thickness is 4¾" (0.395'). If any computed dimension "X" is less than that, adjustmants will need to be made to the "X" dimensions on some or all grid lines. Adjustmants must meet approval of the Engineer.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

REVISION	DATE

PREPARED BY
Division of
Structural Design

DATE: July 2023	CHECKED BY
DESIGNED BY: J. Van Zee	N. Cordtz
DETAILED BY: E. Downey	J. Van Zee

CONSTRUCTION ELEVATIONS
CROSSING: Rockhouse Creek

ROUTE	ITEM NO.	COUNTY OF
CR 1339	12-10145	LETCHER
	SHEET NO. S13	DRAWING NUMBER 28801