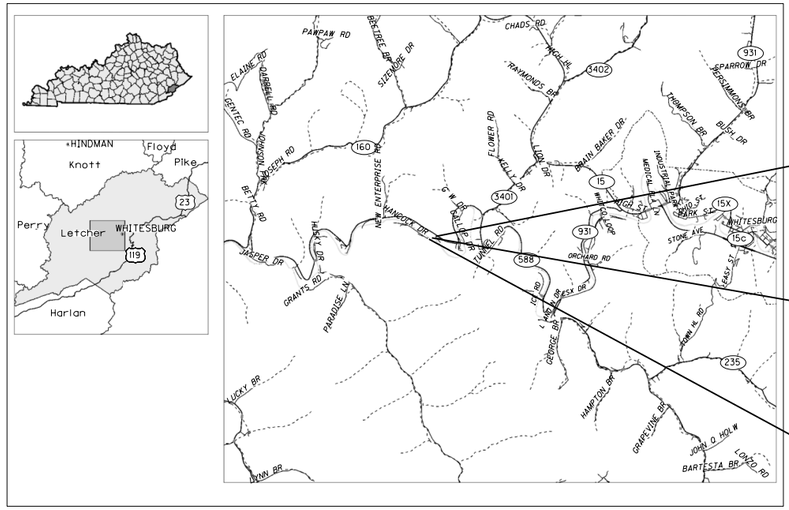
COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-10116	R1

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

LETCHER COUNTY
HANCOCK DRIVE OVER NORTH FORK KENTUCKY RIVER
STA. 49+97.00



END CONSTRUCTION
STA. 51+47

STA.49+97.00 CONST.
3-SPAN (38',48',38')
CB17X48
BOX BEAM BRIDGE
@ 15° SKEW LT.

BEGIN CONSTRUCTION
STA. 48+05

LOCATION MAP

GRAPHIC SCALE

0' 5000' 10000' 20000'

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.

STANDARD DRAWINGS

BDP-001-06	BOX BEAM GENERAL NOTES AND REFERENCES
BDP-002-03	BOX BEAM BEARING DETAILS
BDP-003-03	BOX BEAM MISCELLANEOUS DETAILS
BDP-004-04	BOX BEAM TENSION ROD DETAILS
BDP-007-05	BOX BEAM B17 AND CB17 DETAILS
BGX-006-10	STENCILS FOR STRUCTURES
BHS-011	RAILING SYSTEM SIDE MOUNTED MGS DETAILS
BJE-001-14	ARMORED EDGES
BPS-003-09	HP12x53 STEEL PILE
RBI-001-12	TYPICAL GUARDRAIL INSTALLATIONS
RBI-002-07	TYPICAL GUARDRAIL INSTALLATIONS
RBR-001-13	STEEL BEAM GUARDRAIL ('W' BEAM)
RBR-005-11	GUARDRAIL COMPONENTS
RBR-010-06	GUARDRAIL TERMINAL SECTIONS
RBR-015-06	STEEL GUARDRAIL POSTS
RBR-016-05	TIMBER GUARDRAIL POSTS
RBR-050-08	GUARDRAIL END TREATMENT TYPE 7
RBR-051-01	GUARDRAIL END TREATMENT TYPE 7 ALTERNATE
RBR-055-01	DELINEATORS FOR GUARDRAIL
RDI-040-01	EROSION CONTROL BLANKET SLOPE INSTALLATION
RDX-210-03	TEMPORARY SILT FENCE
RDX-220-05	SILT TRAP TYPE A
RDX-225-01	SILT TRAP TYPE B
RDX-230-1	SILT TRAP TYPE C
RGX-001-06	MISCELLANEOUS STANDARDS
RGX-100-07	TREATMENT OF EMBANKMENTS AT END-BENTS
RGX-105-09	TREATMENT OF EMBANKMENTS AT END-BENTS - DETAILS
RGX-200-01	ONE POINT PROCTOR FAMILY OF CURVES

ACTIVE SEPIAS

DESIGN CRITERIA

CLASS OF HIGHWAY: RURAL LOCAL
TYPE OF TERRAIN: ROLLING
DESIGN SPEED:
REQUIRED NPSD:
REQUIRED PSD:
LEVEL OF SERVICE:
ADT PRESENT (2019):
ADT FUTURE ( ):
DHV:
D %:
T %:

GEOGRAPHIC COORDINATES

LATITUDE 37 DEGREES 07 MINUTES 07 SECONDS NORTH
LONGITUDE 82 DEGREES 53 MINUTES 05 SECONDS WEST

DESIGNED

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

INDEX OF SHEETS

SPECIAL NOTES

TRAFFIC CONTROL ON BRIDGE REPAIR CONTRACTS
EROSION PREVENTION AND SEDIMENT CONTROL
CONTRACT COMPLETION DATE & LIQUIDATED DAMAGES ON BRIDGE REPAIR CONTRACTS
CONCRETE SEALING
STRUCTURES WITH OVER THE SIDE DRAINAGE
ADDITIONAL ENVIRONMENTAL COMMITMENTS
BRIDGING KENTUCKY PROJECT STENCIL

SPECIAL PROVISIONS

69 EMBANKMENT FOR BRIDGE END BENT STRUCTURES

SPECIFICATIONS

Standard Specifications for Road and Bridge Construction, Current Edition

2017 AASHTO LRFD Bridge Design Specifications with Current Interims.

REVISION	DATE

REV. NO.	SHEETS REVISED	DATE

TABLE OF REVISIONS

EX BRIDGE ID 067C00091N

PREPARED BY
JMC J.M. Crawford & Associates Consulting Engineers

BRIDGING KENTUCKY
Restore | Renew | Replace

STATE OF KENTUCKY
JOSEPH H. HODSKINS
12279
LICENSED PROFESSIONAL ENGINEER

Joseph H. Hodskins
Digitally signed by Joseph H. Hodskins
DN: c=US, st=Kentucky, l=Lexington, o=J.M. Crawford & Associates, cn=Joseph H. Hodskins, email=jhodskins@jmcaa.com
Date: 2020.06.26 11:45:51 -04'00'

STATE OF KENTUCKY
LEE A. CARLISLE
25709
LICENSED PROFESSIONAL ENGINEER

Lee A. Carlisle
Digitally signed by Lee A. Carlisle
DN: c=US, st=Kentucky, l=Lexington, o=J.M. Crawford & Associates, cn=Lee A. Carlisle, email=lacarlisle@jmcaa.com
Date: 2020.06.26 11:44:25 -04'00'

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY OF

LETCHER

HANCOCK DRIVE over NORTH FORK KENTUCKY RIVER
ITEM NO. 12-10116
DRAWING NO. 28158
PROJECT NUMBER:
LETTING DATE: August 21, 2020

RECOMMENDED BY: _____ PROJECT MANAGER DATE:
PLAN APPROVED BY: _____ STATE HIGHWAY ENGINEER DATE:

FILE NAME: ...\Plan Set\067C00091N_LLS.dgn
USER: gacrank
DATE PLOTTED: 6/26/2020 1:39:29 AM
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-10116	R2

TYPICAL SECTIONS

CONVENTIONAL SIGNS

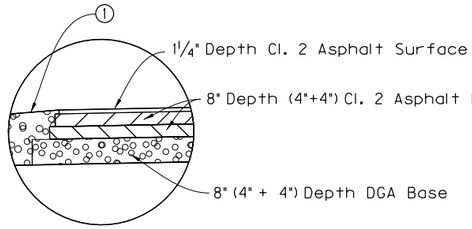
SURVEY LINE
GRADE LINE — 400' V.C.
GROUND LINE
COUNTY LINE
CORPORATE LIMITS
EXIST. PROPERTY LINE
EXIST. RIGHT OF WAY & PROPERTY LINE
PROPOSED RIGHT OF WAY
RIGHT OF WAY MONUMENT
BENCH MARK — B.M. NO.4
EXISTING R/W MARKER
RIGHT OF WAY MONUMENT EXISTING/PROPOSED
UTILITY TEST HOLE — TH
EXISTING ROAD
RAILROAD
FENCE (CONTROLLED ACCESS) — XX
FENCE (EXCEPT STONE AND HEDGE) — X — X
TREE LINE
TREES
PIPE CULVERT
CULVERT
BRIDGE
BUILDINGS — 1-S FRAME; 1-S BRICK; SHED; 2-S BRICK
GUARDRAIL — END TREATMENT; GUARDRAIL; TERMINAL SECTION

	EXISTING	PROPOSED
LIGHTING POLE		
POWER POLE		
JOINT POWER & TELEPHONE POLE		
TELEPHONE & TELEGRAPH POLE		
ANCHOR, POWER OR TELEPHONE		
STUB POWER		
STUB TELEPHONE		
WATER MAIN	WM	6" WM 6"
GAS MAIN	GM	GM
TELEPHONE DUCT	T	T
ELECTRIC DUCT	E	E
DIRECT BURIAL TV CABLE	TV	TV
SANITARY SEWER (WITH MANHOLE)	SAN	SAN
STORM SEWER (WITH MANHOLE)	STORM	STORM
DIRECT BURIAL ELECTRIC CABLE	E	E
DIRECT BURIAL TELEPHONE CABLE	T	T
OVERHEAD WIRE		
TRAFFIC LIGHTS		
ELECTRIC MANHOLE	EMH	EMH
TELEPHONE MANHOLE	TMH	TMH

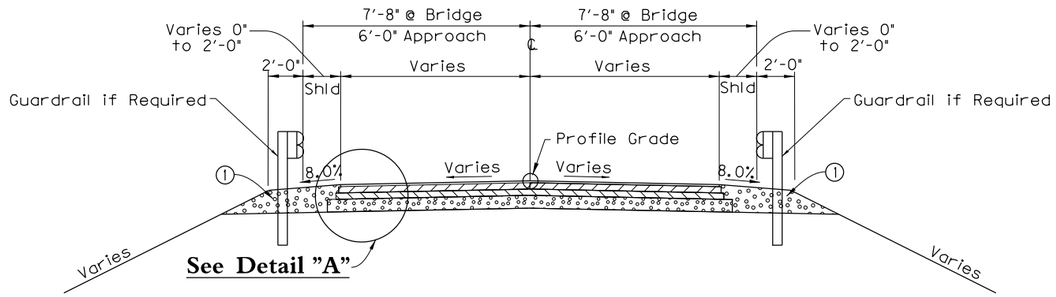
STONE FENCE
HEDGE FENCE
SWAMP OR MARSH
SPRINGS
SINKHOLE
QUARRY SITE
BLUE LINE STREAM
INTERMITTENT STREAM OR DITCH
LAKES OR PONDS
REGULATED FLOODWAY
NORTH POINT

NOTES:

① DGA Base or other granular material approved by the Engineer needed for shoulders outside of paved area will be measured and paid as GRANULAR EMBANKMENT in accordance with the *Special Note for Bridge Overlay Approach Pavement*



Detail "A"



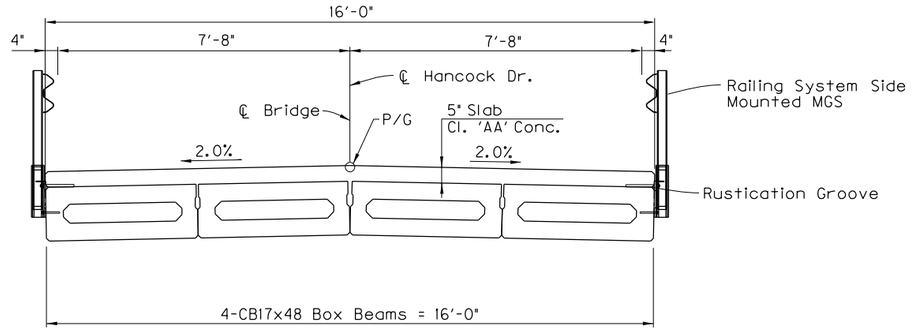
NORMAL SECTION

Traffic Lane Pavement

Asphalt Surface — 1¼" Depth Cl. 2 Asphalt Surface 0.38D PG64-22
Asphalt Base — 8" Depth (4"+4") Cl. 2 Asphalt Base 1.00D PG 64-22
DGA Base — 8" Depth (4"+4")

Shoulders

Granular Enbankment — Full Depth



TYPICAL DECK SECTION

RIGHT OF WAY SUMMARY

PARCEL NO.	OWNER(S)	TOTAL AREA OF TRACT		PERMANENT R/W ACQUIRED		EASEMENTS		PORTION REMAINING		SEWER SYSTEM TYPE	SEWER SYSTEM AFFECTED BY PROJECT		BUILDINGS ACQUIRED NUMBER				SOURCE OF TITLE	REMARKS*
						PERMANENT	TEMPORARY											
		ACRES	SQ. FT.	ACRES	SQ. FT.	SQ. FT.	SQ. FT.	ACRES	SQ. FT.		YES	NO	C	R	F	S		
P-10	WENDALL WAYNE CAUDILL,SR.	0.50			2843			0.435		1		X					DB 417 PG 450	AREA FROM PVA
P-11	PAUL RANDALL COLLINS,JR		19820		3862		1526		15958	1		X					DB 444 PG 732	AREA FROM DEED
P-12	KENTUCKY RIVER PROPERTIES,LLC	481.5			9023			481.293		1		X					DB PG	AREA FROM PVA

SCALE: 1"=AS NOTED

PREPARED BY J.M. Crawford & Associates Consulting Engineers

BRIDGING KENTUCKY — Restore | Renew | Replace

TYPICAL SECTIONS, LEGEND & RIGHT OF WAY SUMMARY- HANCOCK DRIVE OVER NORTH FORK KENTUCKY RIVER

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-10116	R3

LT. STA. 48+82 CONST 16' ENTRANCE WITH 52 LF 15" ENTRANCE PIPE (79 SY ASPH)

CONST. SPL "V" DIT RT. STA. 48+20 TO STA. 48+60 WITH ECB 30 SY

LT. STA. 48+91 TO STA. 49+40 CONST. 75 L.F. GUARDRAIL-STEEL W BEAM-S FACE WITH I-TERMINAL SECTION NO I CONNECT TO BRIDGE RAILING SYSTEM SIDE MOUNTED MGS

CONST. SPL "V" DIT RT. STA. 49+11 TO STA. 49+68 WITH ECB 53 SY

LT. STA. 50+47 TO STA. 50+58 CONST. 75 L.F. GUARDRAIL-STEEL W BEAM-S FACE WITH I-TERMINAL SECTION NO I CONNECT TO BRIDGE RAILING SYSTEM SIDE MOUNTED MGS

LT. STA. 50+69 CONST 12' ENTRANCE (30 SY ASPH)

BEGIN PAVEMENT AND CONSTRUCTION
STA. 48+05.00
N=3579426.777
E=5756444.117

HANCOCK DRIVE CURVE DATA

C# 1	C# 2	C# 3
P.I. Sta= 48+20.25	P.I. Sta= 50+82.16	P.I. Sta= 51+55.16
N =3579411.225	N =3579585.798	N =3579538.927
E =5756453.785	E =5756666.062	E =5756730.263
Delta= 72°16'52.13" Left	Delta= 75°33'53.52" Right	Delta= 19°35'16.66" Left
Ts= 47.47'	Ts= 21.71'	Ts= 40.57'
Lc = 82.00'	Lc = 36.93'	Lc = 80.34'
R= 65.00'	R= 28.00'	R= 235.00'
E= 15.49'	E= 7.43'	E= 3.48'
e=NC	e=NC	e=NC

PARCEL 10
Arc = 45.93'
(A) Chord=44.61' N51°27'43"E
Radius = 55.00'
Arc = 81.83'
(B) Chord=81.76' N35°44'05"E
Radius = 581.00'
(C) N38°30'06"E, 24.12'
(D) S56°04'45"E, 30.35'
(E) S51°55'33"W, 30.02'
(F) S40°47'14"W, 40.00'
(G) S43°08'16"W, 35.66'
(H) S49°08'55"W, 45.54'
(I) N59°10'02"W, 16.59'

PARCEL 11
(J) N49°08'55"E, 45.54'
(K) N43°08'16"E, 35.66'
(L) N40°47'14"E, 40.00'
(M) N51°55'33"E, 30.02'
(N) S56°04'45"E, 5.19'
(O) S48°35'39"E, 33.32'
(P) S66°18'51"E, 3.66'
(Q) S45°53'30"W, 13.43'
(R) S55°23'44"W, 19.92'
(S) S71°23'29"W, 21.40'

PARCEL 12
(T) N38°30'06"E, 94.17'
Arc = 16.69'
(U) Chord=16.00' S82°05'26"E
Radius = 16.70'
(V) S54°01'56"E, 22.06'
Arc = 65.39'
(W) Chord=65.34' S53°21'55"E
Radius = 509.20'
(X) S51°10'21"W, 104.28'
(Y) N66°18'51"W, 9.89'
(Z) N48°35'39"W, 33.32'
(AA) N56°04'45"W, 35.53'

Hancock Drive
Letcher COUNTY
Exist. Bridge ID # 067C00091N

Project Coordinates:
Coordinates for horizontal control were obtained by GPS observations using Trimble R10 GNSS receivers on the NAD83 Kentucky State Plane Coordinate System, KY Single Zone, US Survey Feet utilizing the KYTC CORS VRS. Coordinates shown are State Plane Coordinates, US Survey Feet. No project datum factor was calculated or used for this project.

Basis of Elevations:
Elevations were established by GPS observations on the NAVD88 vertical datum, GEOID12A utilizing the KYTC CORS VRS Network.

COORDINATE CONTROL POINTS

POINT	DESCRIPTION	State Plane Coordinates			STATION	OFFSET
		NORTH (Y)	EAST (X)	ELEV. (Z)		
CP 100	BRIDGING KY IP&CAP	3579407.368	5756450.412	1090.480	STA. 48+11.01	19.22' RT.
CP 101	BRIDGING KY IP&CAP	3579653.114	5756627.288	1084.900	STA. 50+69.37	82.17' LT.

RT. STA. 48+27 TO STA. 49+43 CONST. 125 L.F. GUARDRAIL-STEEL W BEAM-S FACE WITH I-TERMINAL SECTION NO I CONNECT TO BRIDGE RAILING SYSTEM SIDE MOUNTED MGS

RT. STA. 48+22 CONST 9' ENTRANCE (20 SY ASPH)

CONST. 4' FB DIT RT. STA. 48+33 TO STA. 49+83 WITH CLASS III CHANNEL LINING 331 TON

RT. STA. 50+61 TO STA. 51+47 CONST. 25 L.F. GUARDRAIL-STEEL W BEAM-S FACE WITH I-GUARDRAIL END TREATMENT TYPE 7 CONNECT TO BRIDGE RAILING SYSTEM SIDE MOUNTED MGS

END PAVEMENT
STA. 51+10.00
N=3579565.557
E=5756693.786

END CONSTRUCTION
STA. 51+47.00

ENVIRONMENTALLY CLEARED AREA

ENVIRONMENTALLY CLEARED AREA

ENVIRONMENTALLY CLEARED AREA

BRIDGE REMOVAL NOTE
The existing 122' x 12' - 3 Span Steel Beam Concrete Bridge shall be removed in accordance with the Current Specifications. All material in the existing Bridge shall remain the property of the Contractor and shall be disposed of in accordance with the Current Specifications. The existing structure consists of three (3)-45'-38'-40' Steel Beam Spans, two (2) steel pipe piers, two (2) abutments. Lump Sum payment in full shall include the complete removal of concrete deck, and piers. The two abutments shall be removed to two feet below existing grade. Contractor shall final dress all slopes to maximum of 2:1.

PREPARED BY
JMC J.M. Crawford & Associates Consulting Engineers

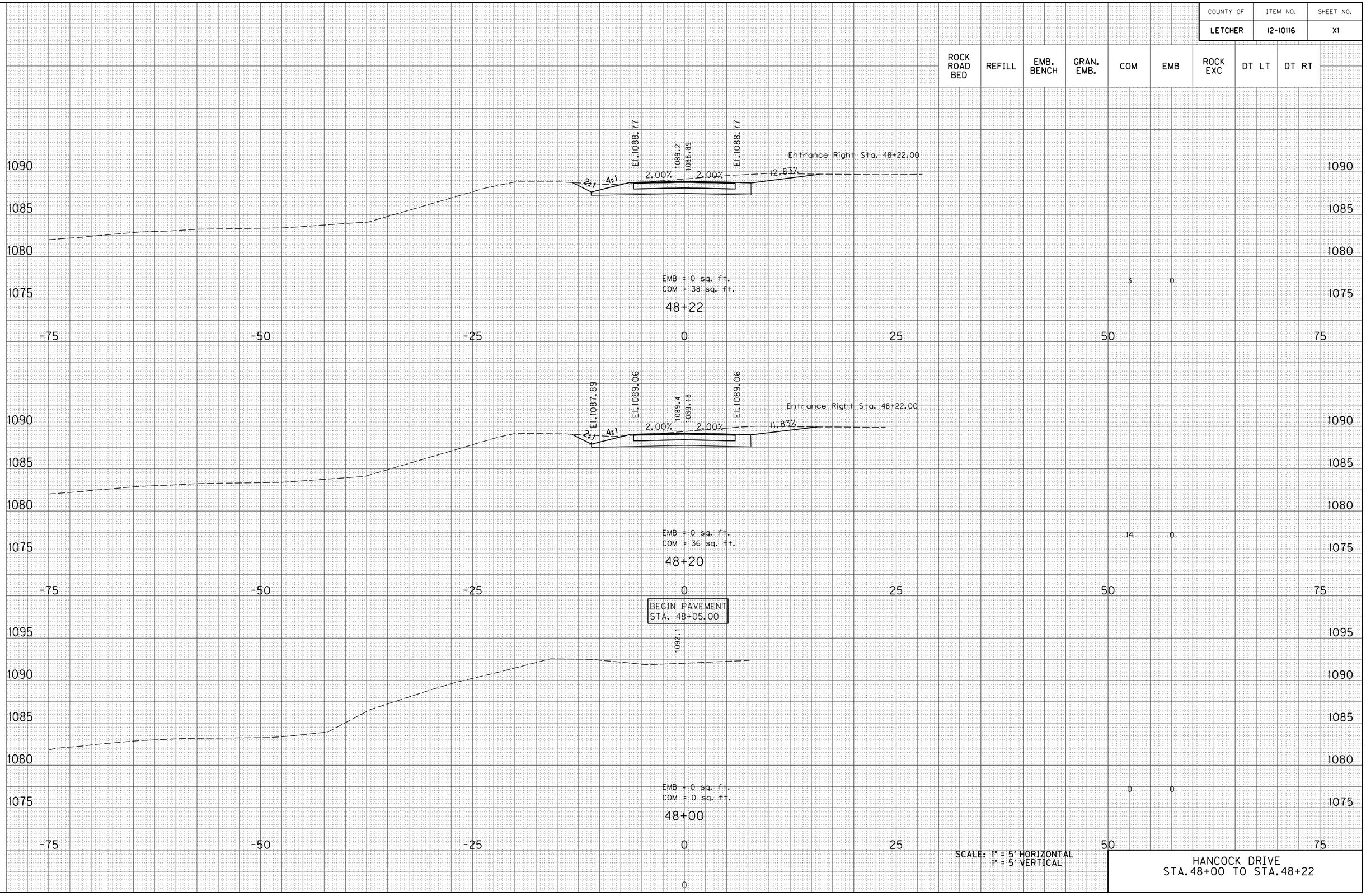
BRIDGING KENTUCKY Restore | Renew | Replace

PLAN AND PROFILE
HANCOCK DRIVE
OVER NORTH FORK KENTUCKY RIVER

FILE NAME: ...\067C00091N_PLAN_PROFILE.dgn
USER: gacrank
DATE PLOTTED: 6/26/2020 1:39:32 AM
E-SHEET NAME:
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-10116	X1

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT
				3	0			
				14	0			
				0	0			

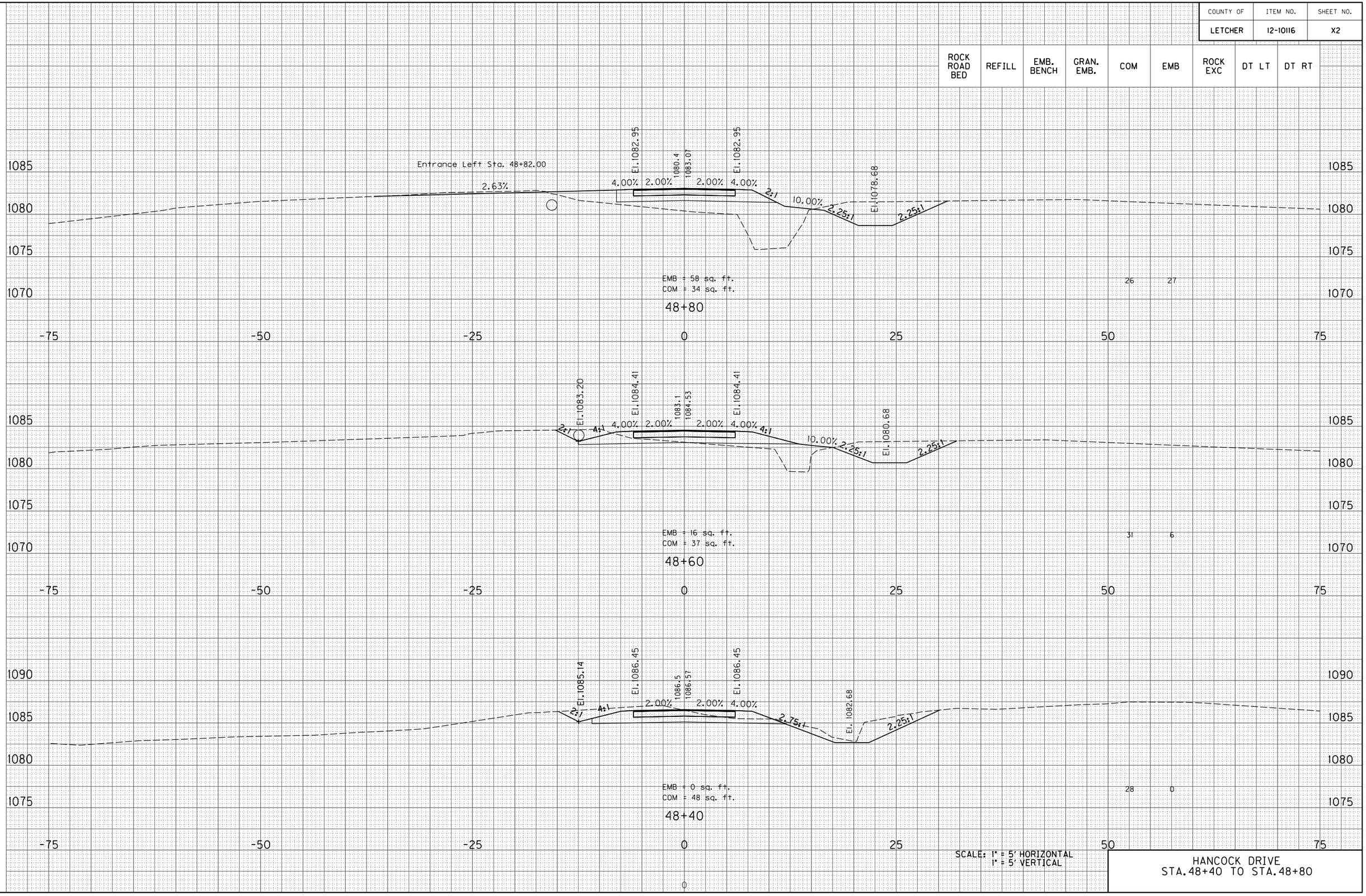


SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HANCOCK DRIVE
STA.48+00 TO STA.48+22

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-10116	X2

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT
				26	27			
				31	6			
				28	0			

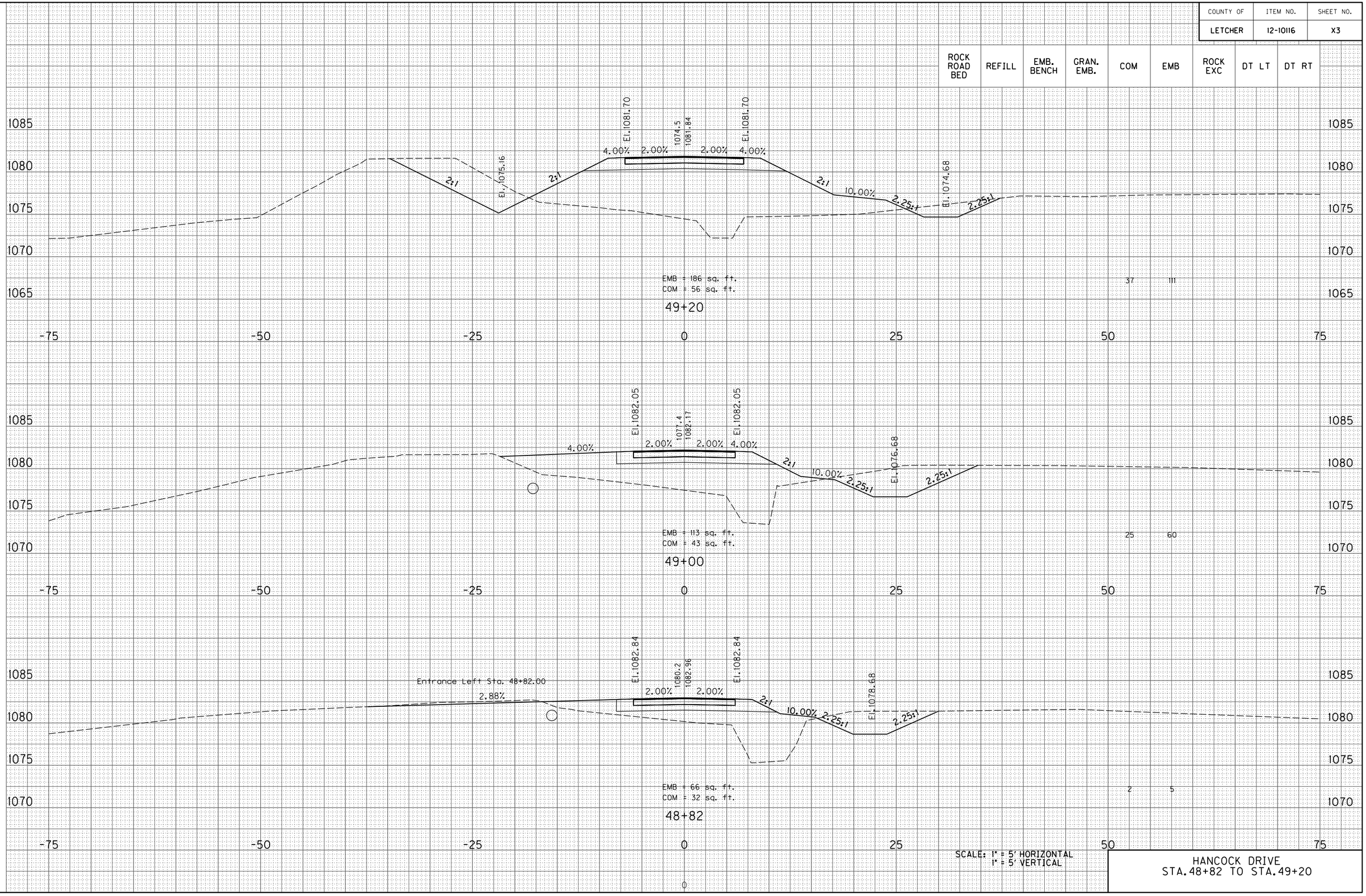


SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HANCOCK DRIVE
STA. 48+40 TO STA. 48+80

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-10116	X3

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT
				37	111			
				25	60			
				2	5			

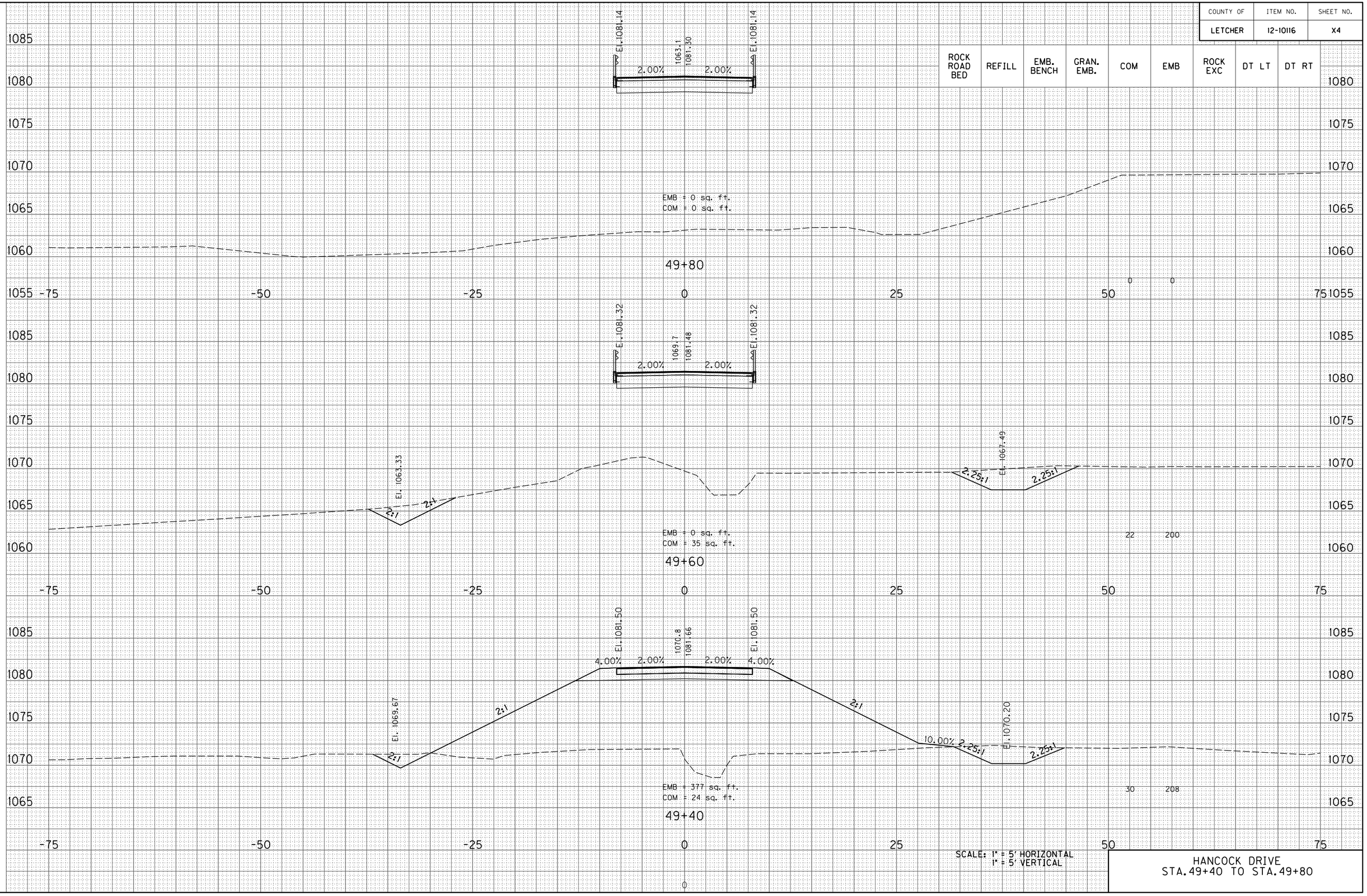


SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HANCOCK DRIVE
STA.48+82 TO STA.49+20

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-10116	X4

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT

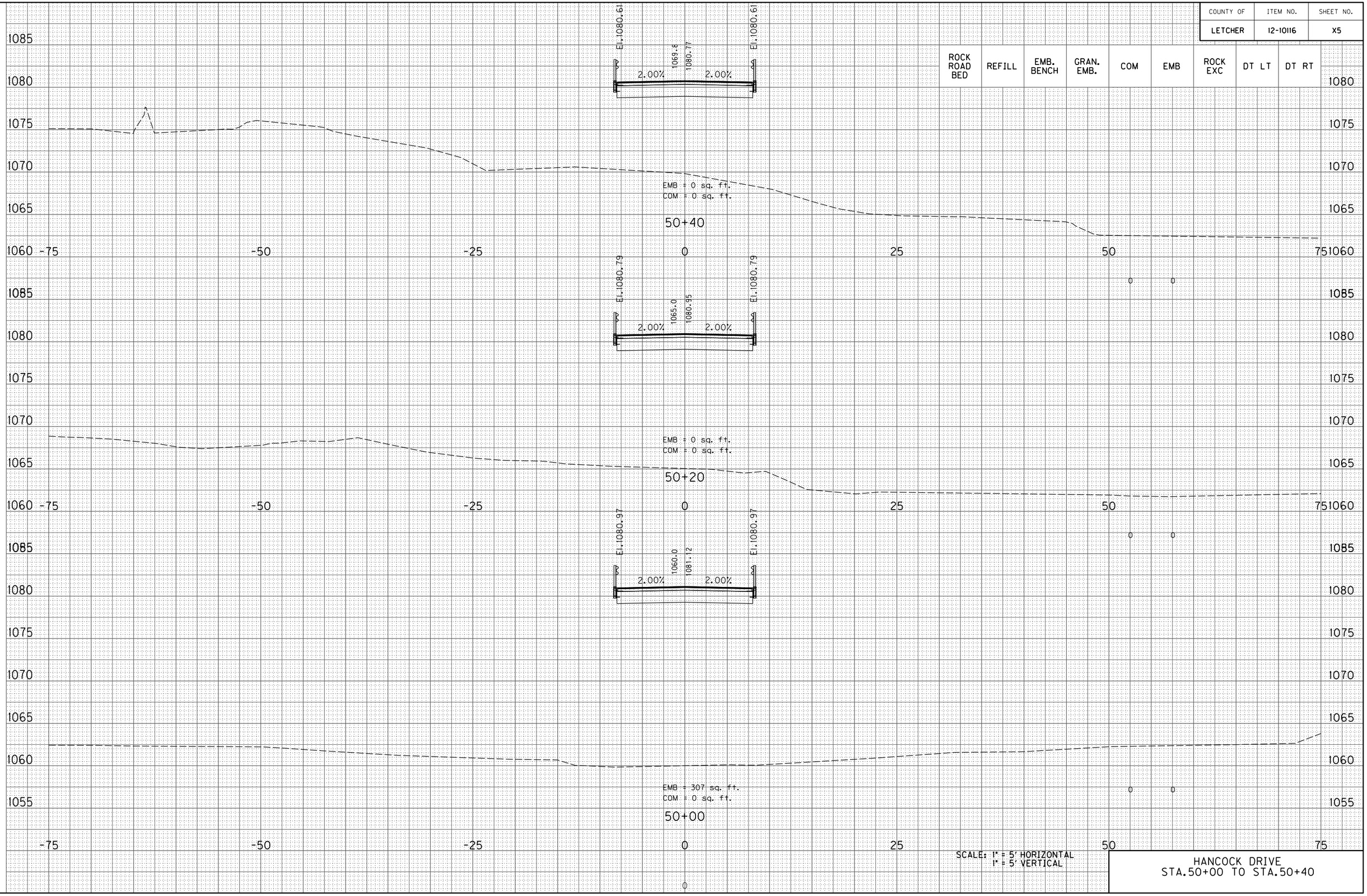


SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HANCOCK DRIVE
STA.49+40 TO STA.49+80

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-10116	X5

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT
0	0							

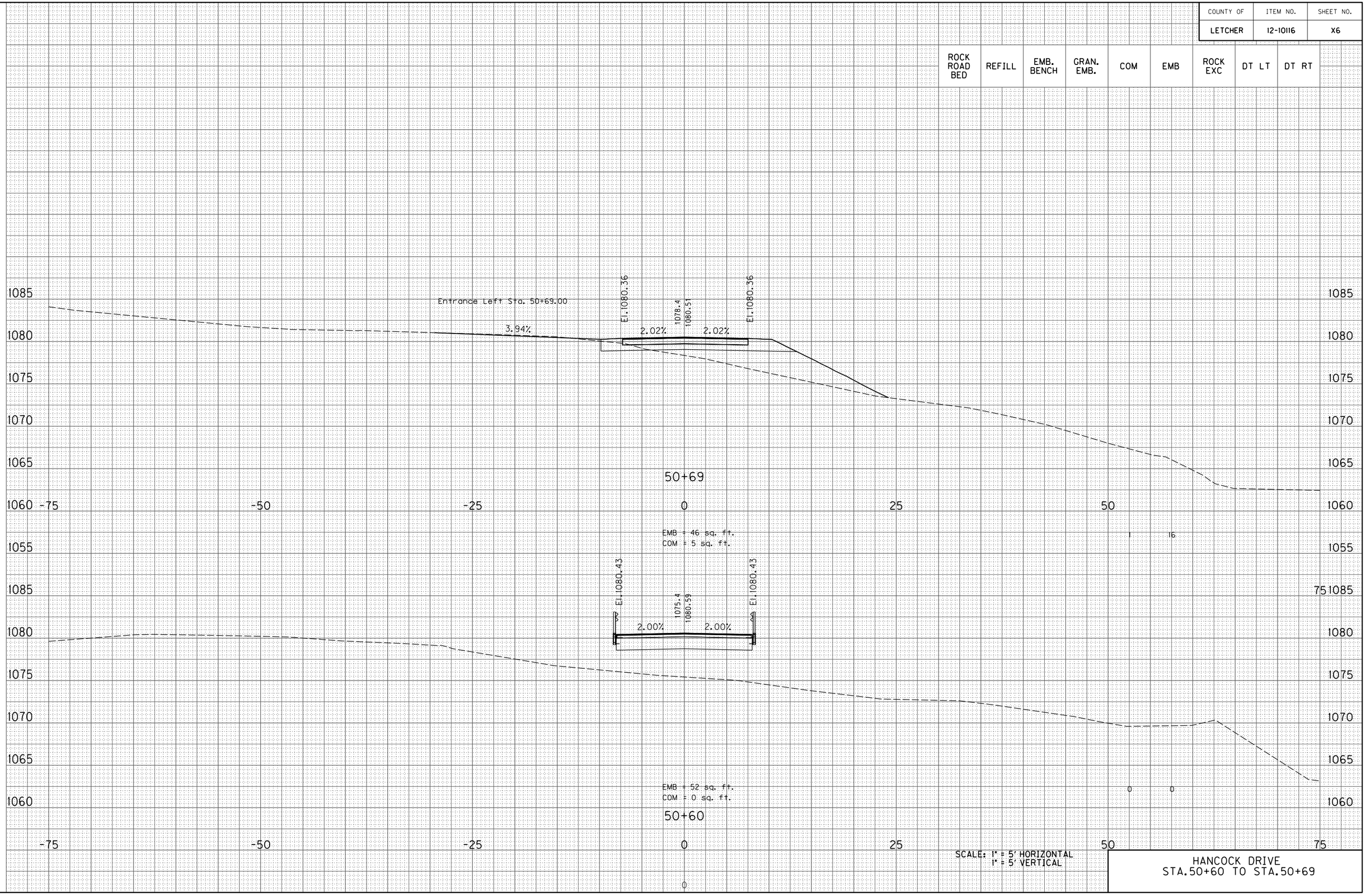


SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HANCOCK DRIVE
STA.50+00 TO STA.50+40

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-10116	X6

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT



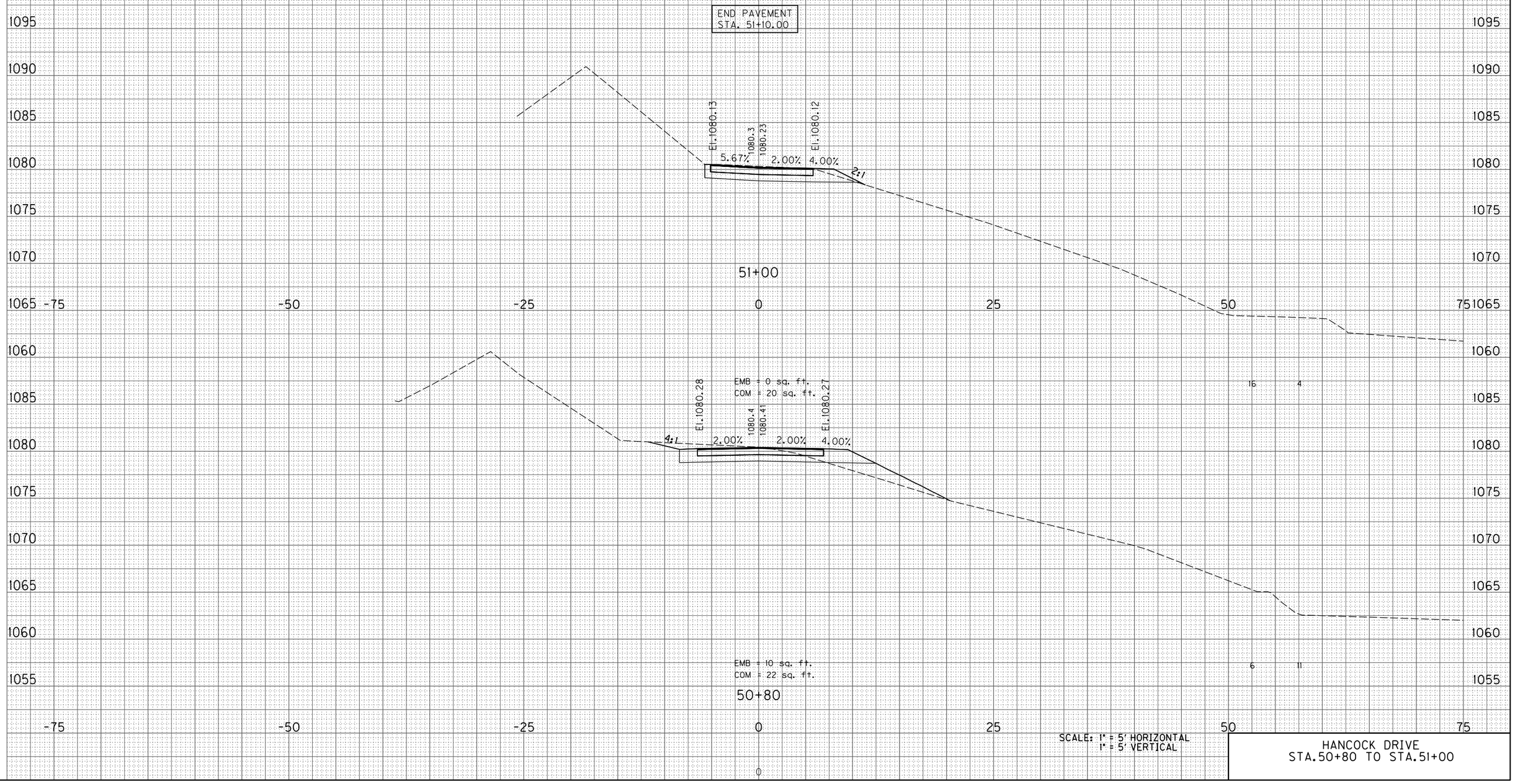
SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HANCOCK DRIVE
STA.50+60 TO STA.50+69

FILE NAME: G:\KY\BKP\JMC PROJECTS\067C0009IN\PLAN SET\067C0009IN_CROSS_SECTIONS.DGN
USER: gacrank
DATE PLOTTED: June 26, 2020
E-SHEET NAME: X0060OXS
Power InRoads v8.11.9.397

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-10116	X7

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT

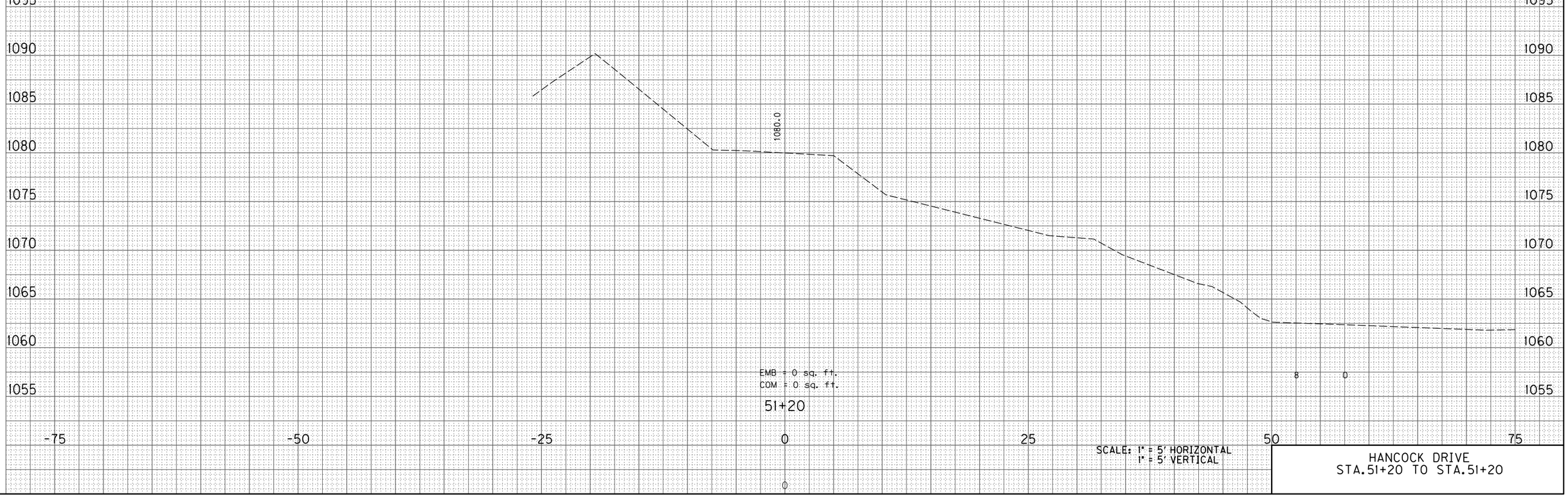


SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HANCOCK DRIVE
STA.50+80 TO STA.51+00

COUNTY OF	ITEM NO.	SHEET NO.
LETCHER	12-10116	X8

ROCK ROAD BED	REFILL	EMB. BENCH	GRAN. EMB.	COM	EMB	ROCK EXC	DT LT	DT RT
PROJECT TOTALS				248	647			



SCALE: 1" = 5' HORIZONTAL
1" = 5' VERTICAL

HANCOCK DRIVE
STA.51+20 TO STA.51+20

General Notes

Specifications: References to the specifications are to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction including any current supplemental specifications. All references to the AASHTO specifications are to the AASHTO LRFD Bridge Design Specifications, 8th edition with interims.

Design Load: This bridge is designed for KYHL-93 live load, (i.e. 1.25xAASHTO HL93 live load). This bridge is designed for a future wearing surface of 15 psf.

Design Method: All reinforced concrete members are designed to be equivalent or greater than the load and resistance factor design method as specified in the current AASHTO Specifications.

Materials Design Specifications:

For Class "A" Reinforced Concrete	f'c = 3500 psi
For Class "AA" Reinforced Concrete	f'c = 4000 psi
For Steel Reinforcement	fy = 60000 psi

Material Specifications: AASHTO Specifications or ASTM, current edition, as designated below shall govern the materials furnished.

AASHTO M153	Premolded Cork Filler, Type II
AASHTO M-31	Deformed and Plain Billet-Steel for Concrete Reinforcement, Grade 60

Preformed Cork Expansion Joint Material: Preformed Cork Expansion Joint Material shall conform to subsection 807.04.02 (Type II) of the Kentucky Department of Highways Standard Specifications.

Concrete: Class "AA" Concrete is to be used throughout the superstructure. Class "A" concrete is to be used in the substructure. Prestressed beam concrete shall be in accordance with the plans and specifications.

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. Any reinforcing bars designated by suffix "e" in the plans shall be epoxy coated in accordance with section 811.10 of the Standard Specifications. Any reinforcing bars designated by suffix "s" in a Bill of Reinforcement shall be considered a stirrup for purposes of bend diameters.

Construction Identification: The names of the Prime Contractor and the Sub-Contractor shall be imprinted in the concrete with 1 inch letters at a location designated by the engineer. The contractor shall furnish all plans, equipment and labor necessary to do the work for which no direct payment will be made.

Beveled Edges: All exposed edges shall be beveled ¾", unless otherwise shown.

Payment for Precast Concrete Beams: The basis of payment for the Prestressed Concrete Beams shall be at the contract unit price per linear foot of beam, in accordance with the specifications.

Slope Protection: Slope Protection at abutments shall be dry cyclopean stone riprap in accordance with the plans and specifications. Geotextile Fabric, Class I shall be placed between the embankment and the slope protection in accordance with Standard Specifications 214 and 843. Payment for Geotextile Fabric, Class I, shall be considered incidental to the unit price bid for Dry Cyclopean Stone Riprap.

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: The fabricator shall submit all required shop plans, by email to SHOP_067C0009IN@docs.e-Builder.net, for review. These submissions shall depict the shop plans in .PDF format, as either 11"x17" or 22"x36" sheets. Designers will make review comments on these electronic submissions as needed and, if required, shall return them to the fabricator for corrections and resubmittal. Upon acceptable reconciliation of all comments, files shall be sent to the Bridging Kentucky Shop Plan Coordinator for distribution. Only plans submitted directly to the Shop Plan Coordinator will be distributed. Additionally, only plans electronically stamped "Distributed by The Bridging Kentucky Program Team" are to be used for fabrication. While this process does not require the submission of paper copies, the Engineer of Record reserves the right to require such copies on a case by case basis.
When any changes to the design plans are proposed, the shop drawings reflecting these changes shall be submitted through the process above.

Note: The designation in the email 067C0009IN refers to the Bridge ID number which is located on the Title Sheet, R1 of the Bridge Plans. Example: SHOP_067C0009IN@docs.e-Builder.net

Utilities: The contractor shall be responsible for locating any and all existing utilities prior to excavation of material or installation of guardrail or other construction activities that may involve utilities (overhead or underground).

Verifying Field Conditions: The contractor shall field verify all dimensions before ordering material. New material that is unsuitable because of variations in the existing structure shall be replaced at the contractor's expense.

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

Superstructure Slab: The superstructure slab shall be poured continuously from end to end of slab before the concrete is allowed to set.

Mastic Tape: Mastic Tape used to seal joints is to meet the requirements of ASTM C-877 Type I, II, or III. The joint is to be covered with 12" wide mastic tape. Prior to application, the joint surface shall be clean and free of dirt, debris, or deleterious material. Primer, if required by the tape manufacturer, shall be applied for a minimum width of 9" on each side of the joint.

Mastic Tape shall be either:

EZ-Wrap Rubber by Press-seal Casket Corporation,
Seal Wrap by Mar Mac Manufacturing Co. Inc.,
Cadilloc by The UP Rubber Co. Inc.
or approved equal.

Mastic Tape shall cover the joint continuously unless otherwise shown in the plans. Mastic Tape shall be spliced by taping a minimum of 6" and in accordance with the manufacturer's recommendations with the overlap running downhill.

The cost of labor, materials, and incidental items for furnishing and installing Mastic Tape shall be considered incidental to the unit price bid for concrete class 'AA' and no separate measurement of payment shall be made.

Temporary Supports: Temporary Supports or shoring will not be permitted under the beams when pouring the concrete deck slab or when taking "top of beam" elevations.

Armored Edge: Fabricate armored edge to match cross slope and parabolic crown at each end of bridge.

Foundation Preparation: Foundation Preparation shall be in accordance with Section 603 of the Specifications.

Foundation excavations should be properly braced/shored to provide adequate safety to persons working in or around excavations. Bracing should be performed in accordance with applicable federal, state and local guidelines.

Temporary shoring, sheeting,cofferdams, and/or dewatering methods may be required to facilitate foundation construction. It should be anticipated that groundwater will be encountered at foundation locations within the flood plain.

Temporary shoring, bracing, sheeting, cofferdams and dewatering shall be included in the Lump Sum Bid for Foundation Preparation.

Structural Granular Backfill: Materials for Structural Granular Backfill shall be in accordance with Section 805 of the Specifications.

Contrary to the Specifications, Structural Granular Backfill will not be measured for payment but shall be included in the Lump Sum Bid for Foundation Preparation.

Concrete Sealer:
Apply concrete sealer in accordance with the Special Note for Concrete Sealing and to the limits as indicated in the plans.

Spread Footing: Based on a review of the existing subsurface conditions and anticipated structural loads, it is recommended that rock bearing foundation system consisting of spread footings be used for all bridge substructure elements. A presumptive bearing resistance of 20 ksf on unweathered bedrock is being recommended.

Excavation for footings at the structure locations should be level and free of loose, water softened material, etc. Additional rock excavation to achieve suitable bearing conditions may be required depending upon topography and bedrock weathering conditions.

Solid rock excavation will be required for installation of the substructure's spread footings. The contractor shall take care during blasting and other excavation methods to avoid over-breakage and damage to the bedrock beneath the footings.

Footing excavations in bedrock shall be cut neatly so that no forming or backfilling is necessary in the construction of the portions of the footings located in rock. Concrete shall be placed directly against the cut rock faces. Mass concrete should be placed in the excavation from the top of the footing to the bedrock surface where the footing does not extend to the bedrock surface.

Bearing elevation of footings may be adjusted at the discretion of the Engineer if competent, unweathered bedrock is found at a higher elevation than specified for the respective substructure element. The top of new spread footings should be fully embedded into unweathered bedrock. At a minimum, two-foot embedment into competent bedrock shall be maintained.

Prior to placement of any concrete or reinforcing steel in a foundation excavation, the excavation bottom should be clean and all soft, wet, or loose materials should be removed. In no case should concrete be placed upon compressible or water-softened materials. Any clay seams or suspect weak materials at or near the bearing elevation will need to be undercut and replaced with mass concrete.

Concrete placement for footings should be placed as soon as practical after completion of the footing excavation. If the bedrock becomes softened at bearing elevation, the softened material should be undercut to unweathered material prior to placement of reinforcing steel and concrete. Seasonal groundwater fluctuations may cause groundwater infiltration into the footing excavation, and a dewatering method may be necessary.

Piling: Piling shall be driven to practical refusal as defined on the pile record sheet.

Test piles shall be driven where designated on the plans to determine the length of pile required.

All test piles shall be accurately located so that they may be used in the finished structure.

Contrary to the standard drawings for steel piling, mill test reports are not required to be notarized.

Pile Points: Provide pile points for all piles. Pile points shall be in accordance with Section 604 of the specifications and of the type shown on the pile record sheet.

REVISION	DATE

DATE: 12/13/19	CHECKED BY
DESIGNED BY: L. Carlisle	S. McIntosh
DETAILED BY: G. Crank	L. Carlisle

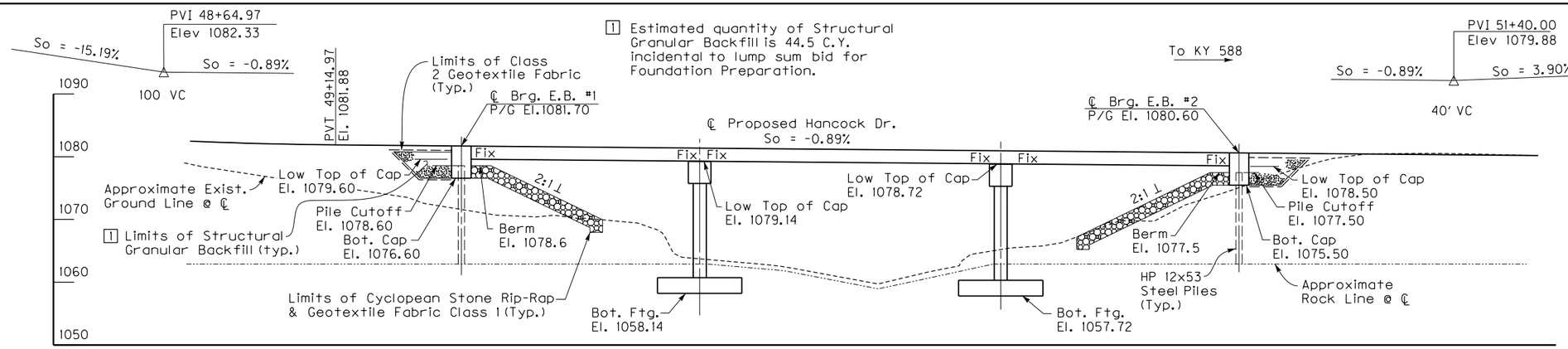
Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
LETCHER

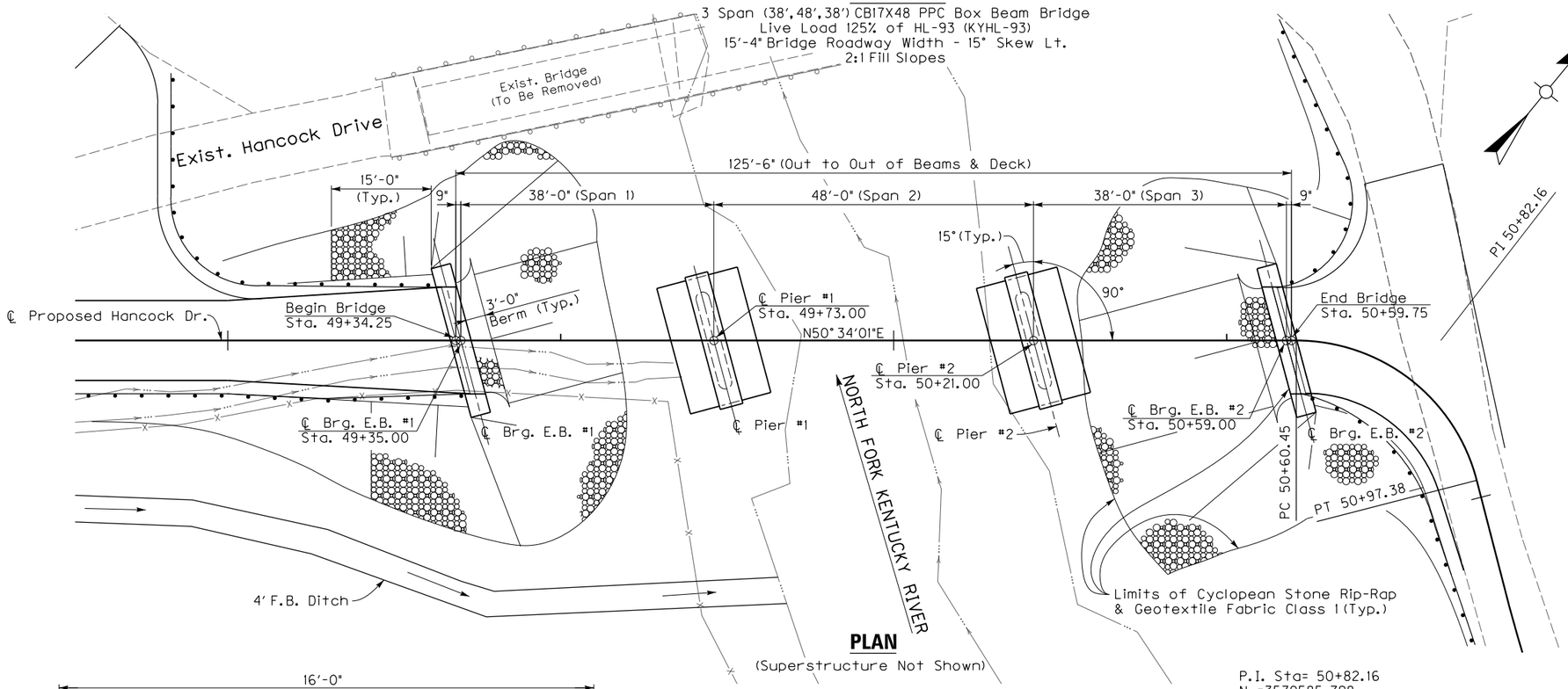
ROUTE	CROSSING
HANCOCK DR.	NORTH FORK KENTUCKY RIVER

GENERAL NOTES

ITEM NUMBER	PREPARED BY		SHEET NO.
12–10116	JMC J.M. Crawford & Associates Consulting Engineers	BRIDGING KENTUCKY Restore | Renew | Replace	S1
			DRAWING NO. 28158



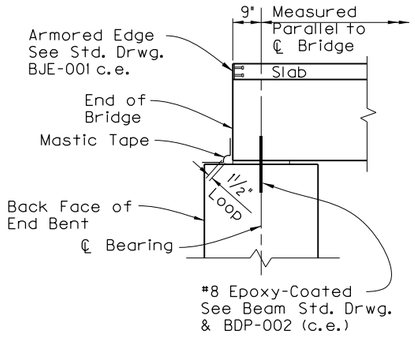
ELEVATION



PLAN

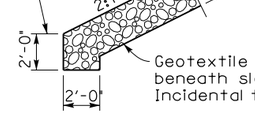
(Superstructure Not Shown)

P.I. Sta= 50+82.16
N =3579585.798
E =5756666.062
Delta= 75° 33' 53.52" Right
T= 21.71'
Lc = 36.93'
R= 28.00'
E= 7.43'
e=NC

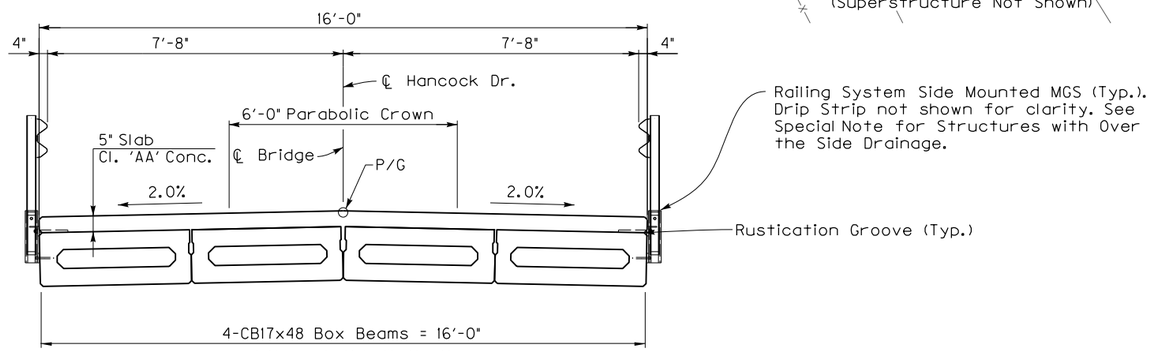


END OF BRIDGE DETAIL

Note: Contractor shall provide 12" wide Mastic Tape to water-proof the joint between the end of beam and End Bents. Tape shall be looped as shown to prevent damage to tape. See the General Note for Mastic Tape.



TOE OF SLOPE DETAIL



TYPICAL DECK SECTION

REVISION	DATE

DATE: 12/13/19	CHECKED BY
DESIGNED BY: L. Carlisle	S. McIntosh
DETAILED BY: G. Crank	L. Carlisle

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **LETCHER**

ROUTE: HANCOCK DR. | CROSSING: NORTH FORK KENTUCKY RIVER

LAYOUT

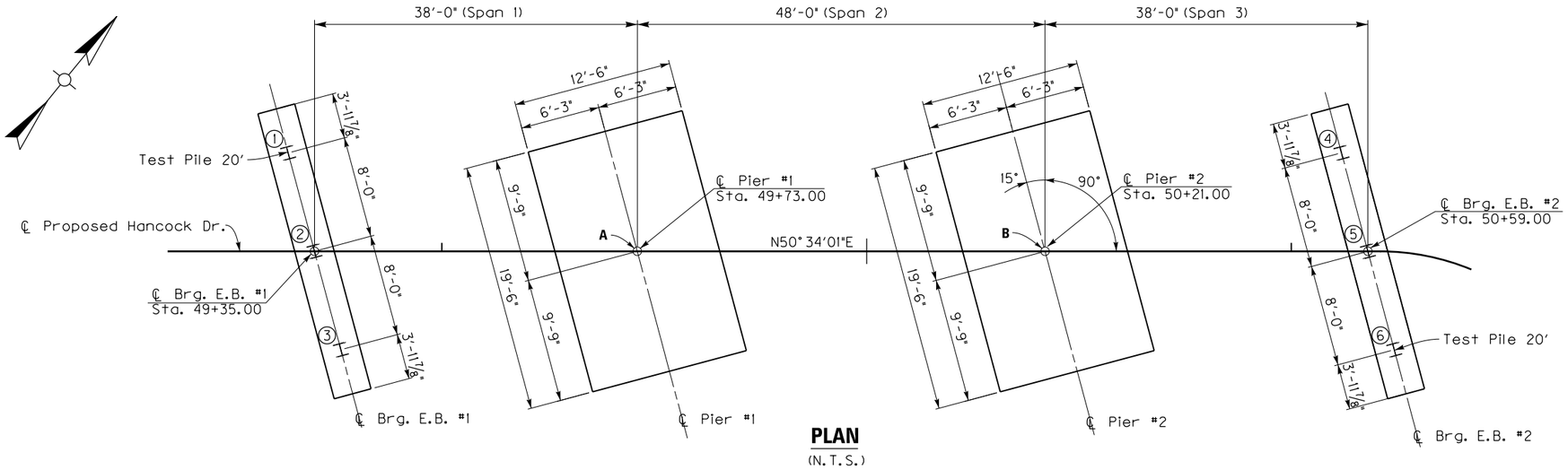
ITEM NUMBER: **12-10116**

PREPARED BY: J.M. Crawford & Associates Consulting Engineers

BRIDGING KENTUCKY — Restore | Renew | Replace

SHEET NO. S2

DRAWING NO. 28158



PLAN
(N. T. S.)

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	1078.60			95
2	1078.60			95
3	1078.60			95
END BENT #2				
4	1077.50			95
5	1077.50			95
6	1077.50			95

SPREAD FOOTING RECORD

POINT	PLAN FOOTING ELEV.	AS-BUILT FTG. ELEV.
PIER #1		
A	1058.14	
PIER #2		
B	1057.72	

Footings are designed for a maximum pressure of 8.0 ksf. (AASHTO Service 1 Limit State)

The Allowable Bearing Pressure is 20 ksf

Note:
After all foundations have been placed, the Project Resident Engineer shall record the bottom of footing elevation "As-Built" and shall submit one copy of this sheet with this data to:

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

Note:
If the spread footing foundation is stepped due to unsuitable material found at the given elevation, the location and elevation of the step shall be shown on this sheet and submitted along with as-built elevations.

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.

POINT OF PILE 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 2): For this project minimum blow requirements are reached after total penetration becomes 1/2" or less for 10 consecutive blows, practical refusal is obtained after the pile is struck an additional 10 blows with total penetration of 1/2" or less. Advance the production piling to the driving resistances specifed above and to depths determined by test pile(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.

At the End Bent locations, a diesel pile driving hammer with a rated energy between 10.5 foot-kips and 20.5 foot-kips will be required to drive 12x53 steel H-piles to practical refusal without encountering excessive blow counts or damaging the piles. The Contractor shall submit the proposed pile driving system to the Engineer 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 Elevation as Driven.

Submit this record to:

Kentucky Transportation Cabinet
Director, 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 12x53 in accordance with BPS-003, c.e.

Additional Pile Notes

The installation of the pile foundations should conform to current AASHTO LRFD Bridge Design Specifications, and Section 604 of the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction.

The Kentucky Transportation Cabinet recommends that protective pile points be used on end bearing piles to allow for embedment into the top of bedrock. Use of reinforced pile points capable of penetrating boulders and hard layers which may be encountered is recommended. Installation of pile points should be in accordance with Section 604 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

See additional pile-related notes on sheet S1.

REVISION	DATE
.	

DATE: 12/13/19	CHECKED BY
DESIGNED BY: L. Carlisle	S. McIntosh
DETAILED BY: G. Crank	L. Carlisle

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
LETCHER

ROUTE
HANCOCK DR.

CROSSING
NORTH FORK KENTUCKY RIVER

FOUNDATION LAYOUT

ITEM NUMBER
12-10116

PREPARED BY
J.M. Crawford & Associates
Consulting Engineers

BRIDGING KENTUCKY
Restore | Renew | Replace

SHEET NO.
S3

DRAWING NO.
28158

SUPERSTRUCTURE HEIGHT	
SDH=Beam Height +pad height +(haunch+slab) [if applicable]	
H1	12" ≤ SDH ≤ 27" SDH (This Bridge) = 1'-11"

CAP BILL OF REINFORCEMENT

16'-0" BRIDGE WIDTH

MARK	TYPE	NO.	SIZE	LENGTH
A1e	14s	22	5	11- 0
A2e	Str.	9	8	23- 7
A3e	Str.	4	5	23- 7

WING BILL OF REINFORCEMENT

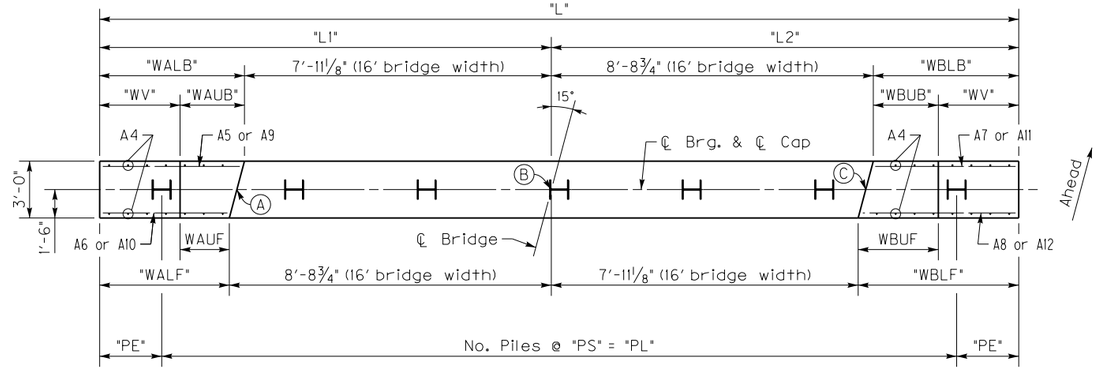
MARK	TYPE	NO.	SIZE	LENGTH	MARK	TYPE	NO.	SIZE	LENGTH	MARK	TYPE	NO.	SIZE	LENGTH
A4e	Str.	14	5	4- 0	A7e	Str.	2	5	3- 4	A10e	Str.	1	6	2- 6
A5e	Str.	2	5	3- 2	A8e	Str.	2	5	4- 1	A11e	Str.	1	6	3- 4
A6e	Str.	2	5	2- 6	A9e	Str.	1	6	3- 2	A12e	Str.	1	6	4- 1

BRIDGE WIDTH	PILE LOAD		PILES				DIMENSIONS									WING A												WING B												QUANTITIES	
							Geometry			Reinforcement						Back Face						Front Face						Back Face						Front Face							
	SIZE	TONS	NO.	PE	PS	PL	L	L1	L2	A	B	C	D	E	F	G	H	WALB	WAUB	WV	WX	J	K	WALF	WAUF	WV	WX	J	K	WBLB	WBUB	WV	WX	J	K	WBLF	WBUF	WV	WX	J	K	CONC. (C.Y.)	STEEL (LBS.)
16	H1	95	3	3'-11⅞"	8'-0"	16'-0"	23'-11¾"	11'-6⅞"	12'-4⅞"	2⅞"	4	11"	2'-9"	7	12"	6'-0"	2	3'-7⅞"	0	0	0	3	2'-0"	2'-10⅛"	0	0	0	3	2'-0"	3'-8⅛"	0	0	0	4	3'-0"	4'-5⅞"	0	0	0	4	3'-0"	10.2	1024

NOTES:
1) Conform to KYTC, Standard Specifications, Current Edition.
2) Concrete to be Class "A", 3500 psi.
3) Rebar to be epoxy coated A615, Grade 60.
4) Maintain 2" clear cover to reinforcement unless otherwise noted.
5) End Bents are designed for the maximum span of the following steel and concrete beams as shown in the current standards: H1 - B12, CB12, B17, CB17, B21 or rolled steel beams up to 16" nominal depth.
6) Piles shall be HP12x53.
7) Piles driven to rock must be driven to Refusal.
8) Pile load given is Factored Strength Load.
9) Piles must be driven 10' into existing ground or to refusal on bedrock. Piles at wet crossings must be driven to 10' below stream bed or to refusal on bedrock. A minimum pile length of 10' is required in all circumstances.
10) Contractor shall provide a hammer capable of driving the piling to refusal or capacity without encountering excessive blow counts or damaging the pile. Contractor shall be responsible for all damaged piling.

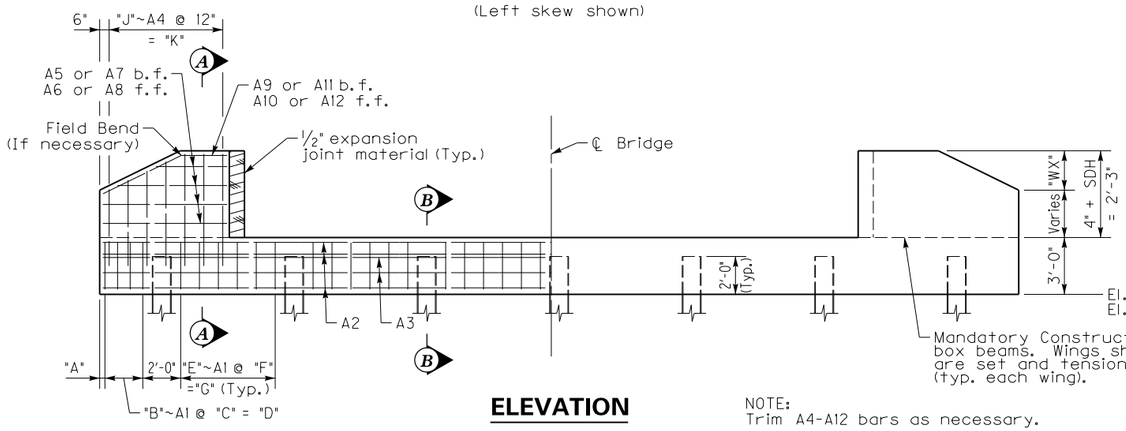
TABLE OF ELEVATIONS		
POINT	E.B. #1	E.B. #2
A	1079.64	1078.54
B	1079.78	1078.68
C	1079.60	1078.50

NOTE:
Slope cap as necessary with side by side box beams to maintain proper roadway slope.
Top of Cap elevations given @ ℄ Brg.



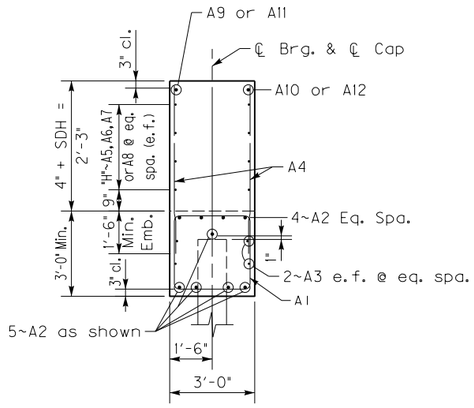
PLAN

(Left skew shown)

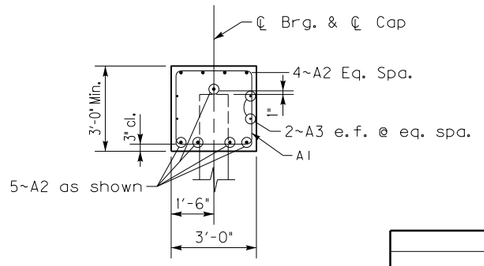


ELEVATION

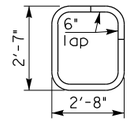
NOTE:
Trim A4-A12 bars as necessary.



SECTION A–A



SECTION B–B



A1 Bar
~Size #5~

REVISION	DATE

DATE: 12/13/19	CHECKED BY
DESIGNED BY: L. Carlisle	S. McIntosh
DETAILED BY: G. Crank	L. Carlisle

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
LETCHER

ROUTE: HANCOCK DR.
CROSSING: NORTH FORK KENTUCKY RIVER

END BENT DETAILS

ITEM NUMBER	PREPARED BY	SHEET NO.
12–10116	J.M. Crawford & Associates Consulting Engineers	S4
	BRIDGING KENTUCKY Restore | Renew | Replace	DRAWING NO. 28158

15° SKEW 16'-0" - 17'-6" BRIDGE WIDTH (No Seismic Load)

Bill of Reinforcement

MARK	P1					P2					P3					P4									P5					P6					P7				P8					P9(e)				P10(e)				P11(e)			
TYPE	Str.					Str.					Str.					Type 4									Type 10					Str.					Type 31				Str.					Str.				Str.				Type 14			
SIZE																																		#4									#8				#5				#5			
H	No.	Size	Length ft.	Length in.	Spacing	No.	Size	Length ft.	Length in.	Spacing	No.	Size	Length ft.	Length in.	Spacing	No.	Size	Length ft.	Length in.	Spacing	A in.	A ft.	B in.	B ft.	C in.	C ft.	D in.	D ft.	No.	Size	Length ft.	Length in.	Spacing	No.	Size	Length ft.	Length in.	Spacing	No.	Length ft.	Length in.	No.	Size	Length ft.	Length in.	Spacing	No.	Length ft.	Length in.	No.	Length ft.	Length in.
10-11	29	8	12	2	8	26	5	19	2	12	29	5	12	2	8	42	8	8	10	8	7	5	1	5	0	8	7	9	10	5	7	5	12	2	6	10	5	13	0	12	35	2	5	42	8	8	0	8	8	20	2	4	20	2	20	13	2
12-13	29	8	12	2	8	26	5	19	2	12	29	5	12	2	8	42	8	8	10	8	7	5	1	5	0	8	7	9	14	5	7	5	12	2	6	14	5	13	0	12	49	2	5	42	8	10	0	8	8	20	2	4	20	2	20	13	2
14-15	29	8	12	2	8	26	5	19	2	12	29	5	12	2	8	42	8	8	10	8	7	5	1	5	0	8	7	9	18	5	7	5	12	2	6	18	5	13	0	12	63	2	5	42	8	12	0	8	8	20	2	4	20	2	20	13	2
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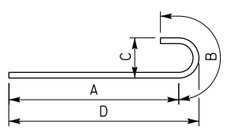
24-25	29	8	12	2	8	26	5	19	2	12	29	5	12	2	8	42	8	8	10	8	7	5	1	5	0	8	7	9	38	5	7	5	12	2	6	38	5	13	0	12	133	2	5	42	8	22	0	8	8	20	2	4	20	2	20	13	2

Reinforcement Details



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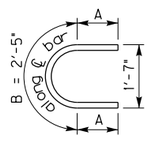
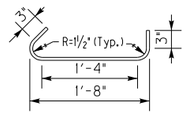


TYPE 10
(#5 bar)



TYPE 31
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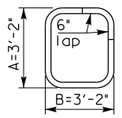


TYPE 14
(#5 bar)

DIMENSIONS TABLE

H	A ft.	A in.	B ft.	B in.	C ft.	C in.	D ft.	D in.
10-11	2	6	2	3	9	9	5	3
12-13	2	6	2	3	9	9	5	3
14-15	2	6	2	3	9	9	5	3
16-17	2	6	2	3	9	9	5	3
18-19	2	6	2	3	9	9	5	3
20-21	2	6	2	3	9	9	5	3
22-23	2	6	2	3	9	9	5	3
24-25	2	6	2	3	9	9	5	3

QUANTITIES

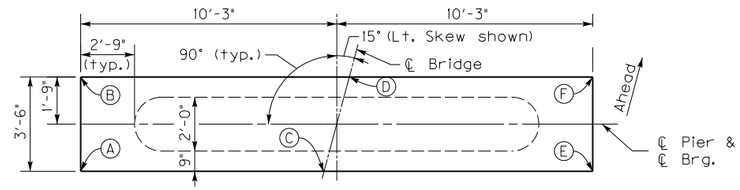
H	CONCRETE CLASS "A" CU. YDS. (1)	STEEL REINFORCEMENT EPOXY COATED LBS.	STEEL REINFORCEMENT LBS.
10-11	37.5	792	3998
12-13	39.7	792	4331
14-15	41.8	792	4665
16-17	44	792	4998
18-19	46.2	792	5331
20-21	(2) 48.3	(2) 792	(2) 5664
22-23	50.5	792	5997
24-25	52.6	792	6330

Note: All bars in cap shall be epoxy coated.

Note: All concrete shall be Class "A"

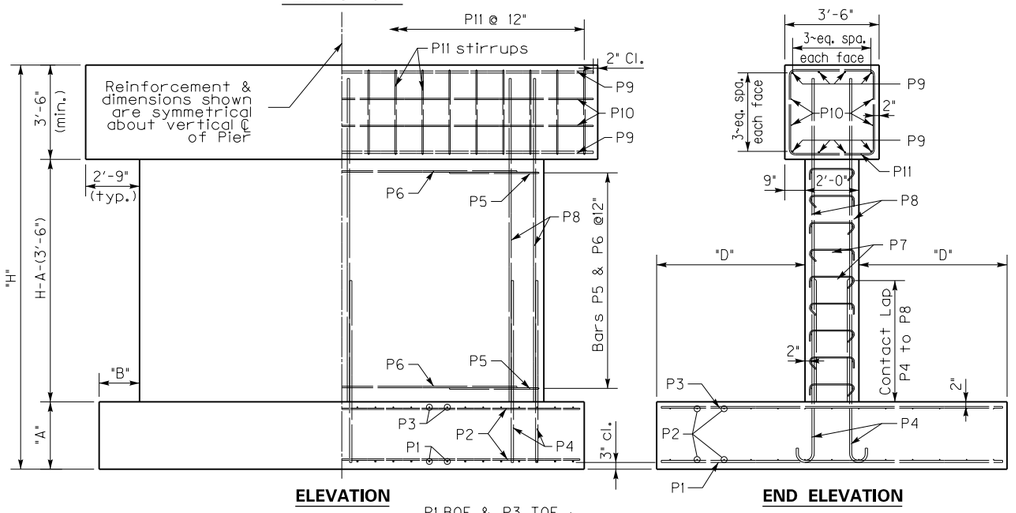
(1) Quantity is based on taller height. Reduce by 1.0 cubic yd. for shorter height.

(2) Bid quantities based on H=21 feet. Use actual height established by footing location in field and adjust reinforcement accordingly based on table shown.



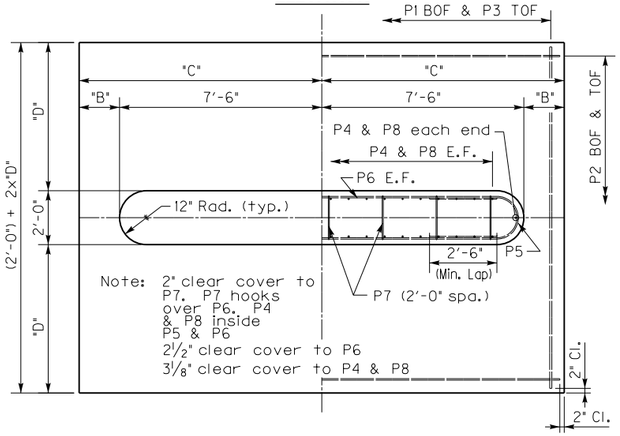
PLAN OF CAP

TABLE OF ELEVATIONS		
POINT	PIER #1	PIER #2
A	1079.22	1078.80
B	1079.17	1078.75
C	1079.38	1078.96
D	1079.35	1078.93
E	1079.15	1078.73
F	1079.14	1078.72

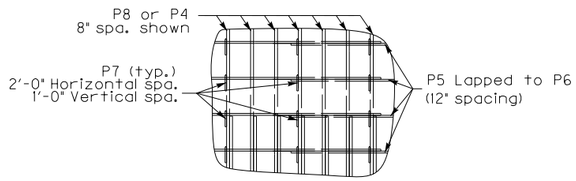


ELEVATION

END ELEVATION



PLAN OF FOOTING



P7 BAR PLACEMENT
(alternate 90° & 135° bar ends)

GENERAL NOTES

SPECIFICATIONS: Construct piers according to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction. Piers are designed for side by side box beams as detailed in Standard Drawings BDP-001 through BDP-012, current edition. They may be slightly modified to allow for 17'-6" rolled steel beam bridge width.

FOUNDATION PRESSURE: Construct pier footings on solid rock bearing material that can support a pressure of 8000 psf service or 10,800 psf strength factored. as recommended by a geotechnical engineer.

DESIGN LOADS: Pier is designed for the CB42 beam superstructure with 3~97 foot spans. Pier is designed to handle a half a 97 foot span for thermal load with expansion bearings under the beams.
Pier is designed for 100 mph wind.
Wind on superstructure is for 1~97' span longitudinal and transverse.
Pier is designed for stream flow of 10 ft./sec. up to the top of the pier. It is not designed for flow acting on the superstructure.
Pier is not designed for earthquake loading.

DESIGN APPLICABILITY: Consult with a structural engineer to determine if these details are applicable for any particular project.

FOOTING ELEVATION: Construct bottom of footing below the anticipated scour elevation. (This typically entails embedding the footings 1'-0" to 2'-0" into rock and pouring concrete directly against cut rock faces. as recommended by geotechnical engineer.)

NOTE: Distances to bars shown are clear dimensions unless otherwise noted.

MATERIAL SPECIFICATIONS:
Concrete, Class "A" = 3500 psi
Steel Reinforcement = Grade 60

REVISION	DATE
DATE: 12/13/19	CHECKED BY
DESIGNED BY: L. Carlisle	G. Crank
DETAILED BY: G. Crank	L. Carlisle

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
LETCHER

ROUTE: HANCOCK DR.
CROSSING: NORTH FORK KENTUCKY RIVER

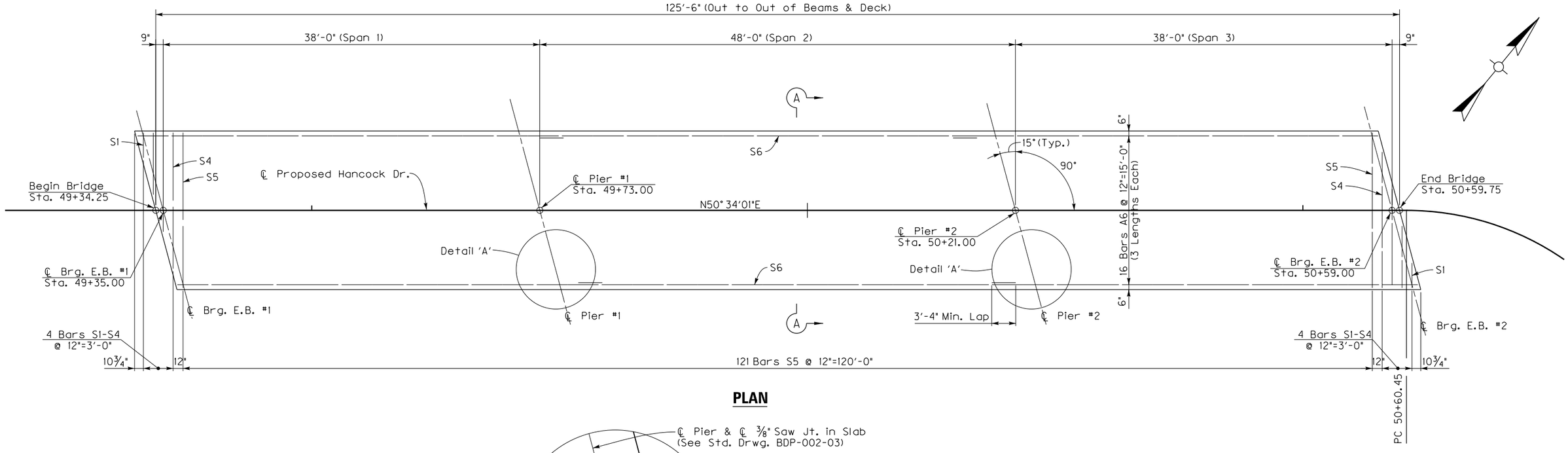
PIER DETAILS

ITEM NUMBER
12-10116

PREPARED BY
JMC J.M. Crawford & Associates Consulting Engineers

BRIDGING KENTUCKY
Restore | Renew | Replace

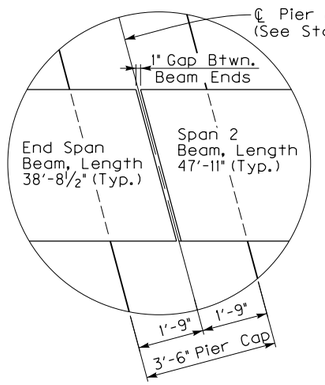
SHEET NO. S5
DRAWING NO. 28158



PLAN

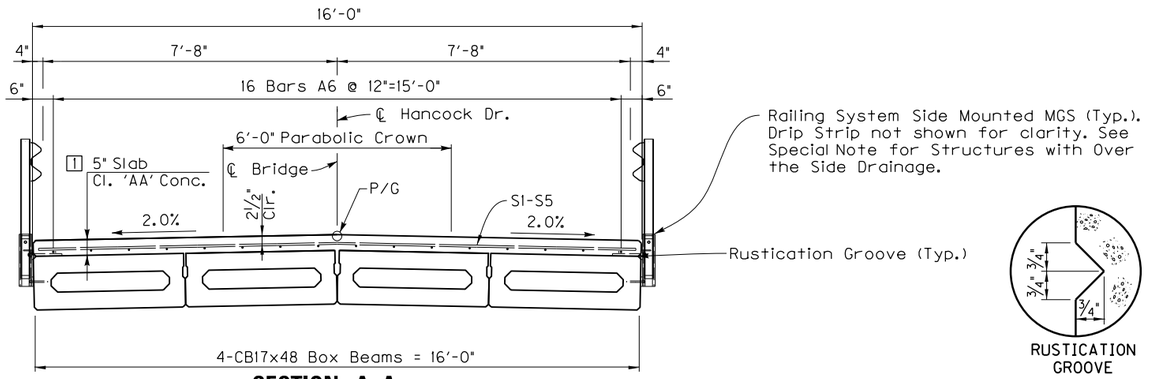
BILL OF REINFORCEMENT						
MARK	TYPE	SIZE	NO.	LENGTH FT.	LENGTH IN.	LOCATION
S1E	Str	#5	2	2	6	SLAB
S2E	Str	#5	2	6	3	
S3E	Str	#5	2	10	0	
S4E	Str	#5	2	13	9	
S5E	Str	#5	121	15	8	
S6E	Str	#5	48	44	0	SLAB

All reinforcement designated with Suffix "E" shall be Epoxy Coated.



DETAIL 'A'

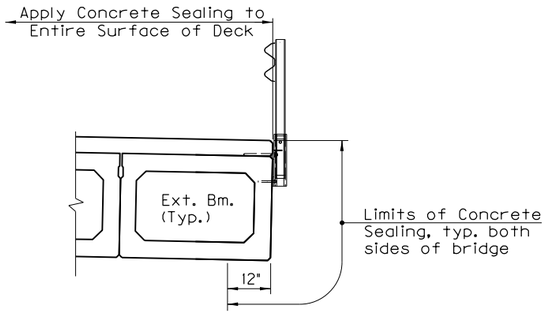
Beam Ends at Pier
(Pier #1 shown)



SECTION A–A

RUSTICATION GROOVE

1 Note: Contrary to the Standard Drawings (5" thickness), the construction elevations will cause the slab to be approximately 5.6" thick at end bents, 6.4" thick at the piers and approximately 5" thick at the center of each span. This is how the quantity of class "AA" concrete was calculated. Any additional concrete required above the plan quantity, due to beam camber being different from the designer's assumptions, is the contractor's responsibility and at no cost to the department.



CONCRETE SEALING DETAIL

Applied in the field. See General Notes.

REVISION	DATE

DATE: 12/13/19	CHECKED BY
DESIGNED BY: L. Carlisle	S. McIntosh
DETAILED BY: G. Crank	L. Carlisle

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **LETCHER**

ROUTE: HANCOCK DR. | CROSSING: NORTH FORK KENTUCKY RIVER

SUPERSTRUCTURE

ITEM NUMBER	PREPARED BY	SHEET NO.
12–10116	J.M. Crawford & Associates Consulting Engineers	S6
	BRIDGING KENTUCKY Restore | Renew | Replace	DRAWING NO. 28158

CONSTRUCTION ELEVATIONS

LOCATION	LEFT FASCIA			CENTER LINE			RIGHT FASCIA		
	CONSTR. ELEV.	TOP OF BEAM	DIM "X"	CONSTR. ELEV.	TOP OF BEAM	DIM "X"	CONSTR. ELEV.	TOP OF BEAM	DIM "X"
SKEW LINE A-A	1081.567			1081.678			1081.529		
SKEW LINE B-B	1081.561			1081.672			1081.523		
SKEW LINE C-C	1081.223			1081.334			1081.184		
SKEW LINE D-D	1080.795			1080.906			1080.757		
SKEW LINE E-E	1080.457			1080.568			1080.419		
SKEW LINE F-F	1080.451			1080.561			1080.412		
GRID LINE 1	1081.513			1081.624			1081.475		
GRID LINE 2	1081.449			1081.560			1081.411		
GRID LINE 3	1081.379			1081.490			1081.340		
GRID LINE 4	1081.300			1081.411			1081.262		
GRID LINE 5	1081.162			1081.273			1081.124		
GRID LINE 6	1081.102			1081.213			1081.064		
GRID LINE 7	1081.042			1081.153			1081.004		
GRID LINE 8	1080.960			1081.071			1080.921		
GRID LINE 9	1080.877			1080.988			1080.839		
GRID LINE 10	1080.731			1080.842			1080.693		
GRID LINE 11	1080.667			1080.778			1080.628		
GRID LINE 12	1080.594			1080.705			1080.556		
GRID LINE 13	1080.516			1080.627			1080.478		

NOTES FOR ELEVATIONS TAKEN ON PRESTRESSED CONCRETE 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.

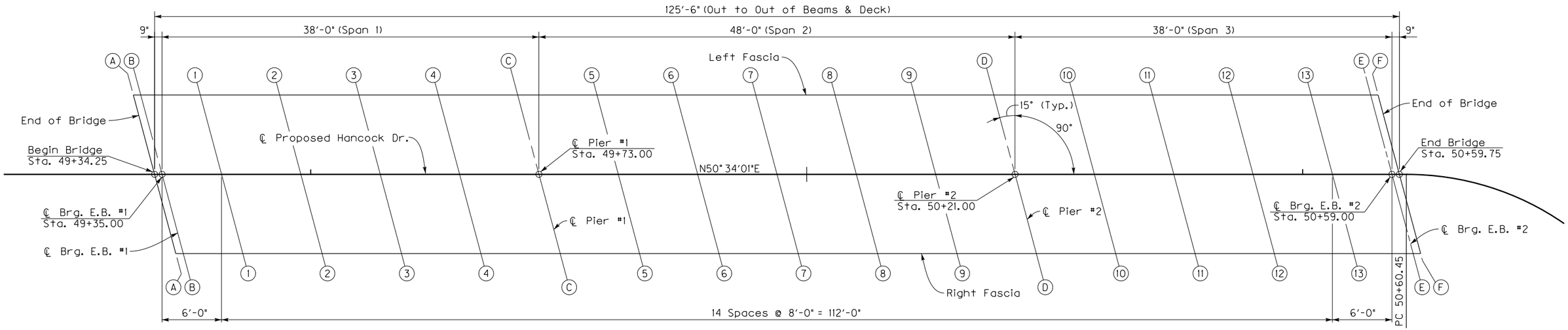
Compute dimension "X" as follows: "Construction Elevation" minus "Top of Beam" elevation equals dimension "X". Construction Elevations include camber due to weight of the concrete slab and railing. Measuring of dimension "X" gives the final check on beam tolerances for camber, beam damage, and errors in erection that produce reverse cambers, sags, and unsightly fascia beams.
The minimum allowable dimension "X" or slab thickness is 4¾" (0.395').
The maximum allowable dimension "X" or slab thickness is 5¾" (0.479') at the end bents and 6½" (0.542') at the piers. If any computed dimension "X" is ouside limits, adjustments need to be made to the dimensions "X" on one or more gridlines at the discretion of the Engineer.

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

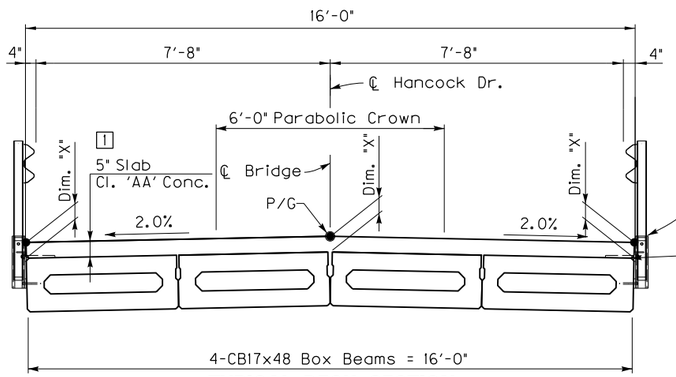
Temporary supports or shoring will not be permitted under the girders when pouring the concrete floor slab or when taking "Top of Beam" elevations.

Note: The Table of Elevations at Center Line include the ⅜" deduction for Parabolic Crown.

[1] See Note 1 on sheet S6



GRID LAYOUT

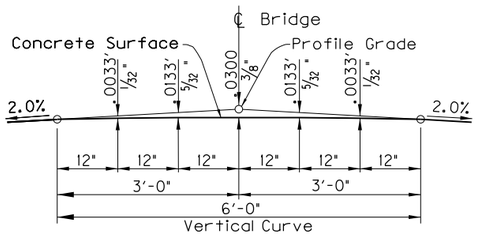


TYPICAL DECK SECTION

● Construction Elevations given at these points.

Railing System Side Mounted MGS (Typ.). Drip Strip not shown for clarity. See Special Note for Structures with Over the Side Drainage.

Rustication Groove (Typ.)



PARABOLIC CROWN DETAIL

REVISION	DATE
DATE: 12/13/19	CHECKED BY
DESIGNED BY: L. Carlisle	G. Crank
DETAILED BY: G. Crank	L. Carlisle

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: LETCHER

ROUTE: HANCOCK DR.

CROSSING: NORTH FORK KENTUCKY RIVER

CONSTRUCTION ELEVATIONS

ITEM NUMBER: 12–10116

PREPARED BY: J.M. Crawford & Associates Consulting Engineers

BRIDGING KENTUCKY — Restore | Renew | Replace

SHEET NO. S7

DRAWING NO. 28158