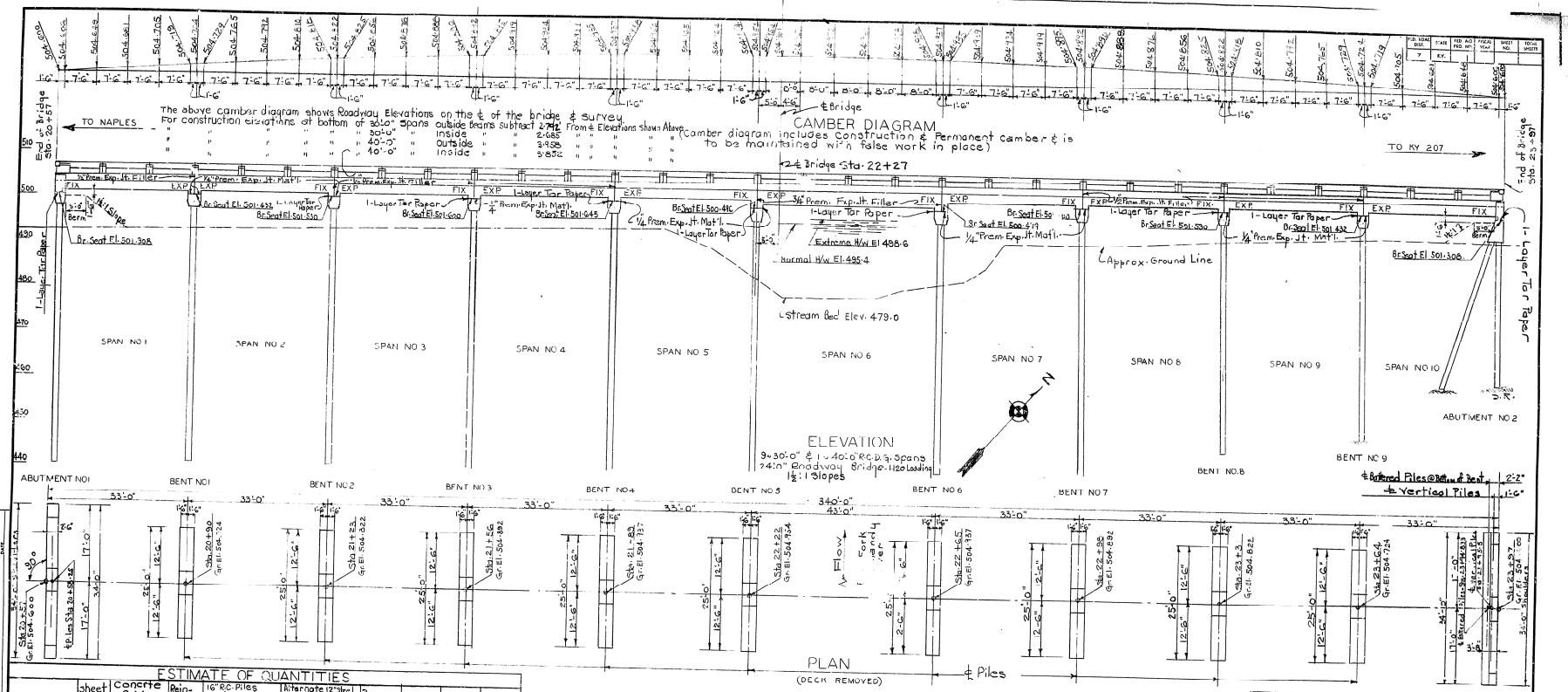


ESTIMATE OF QUANTITIES

Item	Sheet No	Concrete C.Y. Class "A"	Concrete C.Y. Class "D"	Reinforcement Lbs.	16" RC-Piles Lin. Ft. Furnishing	16" RC-Piles Lin. Ft. Driving	Alternate Piles 5 5# Lin. Ft. Furnishing	Alternate Piles 5 5# Lin. Ft. Driving	Bronze Plates Lbs
Layout	1								
Abutment #1	2	9.4		1010	208	200	200	200	
Bent No 1	2	6.9		688	260	250	250	250	
" 2	2	6.9		688	260	250	250	250	
" 3	2	6.9		688	260	250	250	250	
" 4	2	6.9		688	260	250	250	250	
" 5	"	6.9		640	364	350	350	350	
" 6	"	6.9		640	364	350	350	350	
" 7	2	6.9		688	260	250	250	250	
" 8	2	6.9		688	260	250	250	250	
" 9	2	6.9		688	260	250	250	250	
Abutment #2	4	19.7		1565	195	181	195	195	
Span #1	3 & 4	44.3		11050					
" 2	"	43.3		10990					
" 3	"	43.3		10990					
" 4	"	43.3		10990					
" 5	3 & 3	44.8		11082					
" 6	"	60.3		14200					304
" 7	"	44.8		11082					
" 8	3 & 4	43.3		10990					
" 9	"	43.3		10990					
" 10	"	44.3		11050					
Handrail	H72 & H74		16.9	5655					
Soundings	5 & 6								
16" RC. Piles	P3								
Batter Piles	P15								
Pile Encasement	7								
Totals		553.4	16.9	127740	2951	2831	2845	2845	304

GENERAL NOTE

Specifications: Kentucky Department of Highways (1945 Standard with amendments.

Design Load: Bridge designed for H20-44 loading as specified in A.A.S.H.O. 1953 specifications.

Concrete: Class "A" concrete to be used throughout except handrails & piles, where Class "D" shall be used.

Reinforcement: Dimensions from face of concrete to bars are clear distances except as otherwise shown. Dimensions for bar spacing are distances center to center of bars. The deformations in all reinforcing steel shall conform to A.S.T.M. specifications A-305-49.

Drains, Expansion Joint Mat'l, Tar Paper & Copper Strip: The cost of these items to be included in the unit price bid for Class "A" concrete. The quantities shown in the Bill of Incidental Material on this sheet are approximate only & the contractor shall be responsible for furnishing enough material to complete the work in accordance with Plans & Specifications.

Beveled Edges: All exposed edges shall be beveled 7/8" unless otherwise noted.

Tar Paper: Tar paper to be commercial grade roofing felt, approximately 1/16" thick.

Piling: All piles to be driven to at least 20 feet below stream bed elevation at Bents No 5 & 6. All piles to be driven to sustain a load of 50 tons per pile. Piles may be jetted in place in accordance with the specifications in order to obtain the required penetration. The cost of jetting is to be included in the unit price bid for driving piles.

Test Piles: Test piles shall be driven at the location shown on sheet No 7. Test piles shall be accurately located so as to be used in the finished structure.

Air Entrained Concrete: Class "A" & Class "D" Concrete on the bridge superstructure, above construction joint of beams with underside of floor slab, shall be made with normal Portland cement, to which has been added at the mixer, an approved air entraining admixture, as specified by amendment 6-R, Article 4.1.9.

Alternate Piles: Bids will be taken on one of the two alternate types of piles shown. Payment for piles shall be made at the rate of the unit price bid for furnishing & driving per lineal foot of piles, in accordance with the plans & specifications with no additional allowance for welding, or other incidental work. G524A(2sh.) G351 P15 P3 H72 H74

Pile Encasement: If 12" steel piles @ 55# are used on this bridge all intermediate Bents to have Concrete encasement as per standard Dwg. P15. Any excavation for this encasement to be included in bridge bid per lineal foot of steel pile.

LAYOUT

BILL OF INCIDENTAL MATERIALS

Item	No of Pieces	Size & Description	Location
Prem. Exp. Jt. Mat'l.	7	1/2 x 3'-4" x 23'-9"	Between 30'-0" Spans
" " " "	14	1/2" x 2'-3" x 1'-5"	"
" " " "	2	3/4" x 4'-6" x 23'-9"	Between 30' Spans
" " " "	7	3/4" x 2'-3" x 1'-5"	" "
" " " "	8	1/2" x 1'-6" x 2'-9"	Top Bents
" " " "	1	1/2" x 5'-0" x 2'-9"	Top Bent No 1
" " " "	2	1/2" x 3'-11" x 1'-8"	Abut. No 2
" " " "	2	1/2" x 3'-11" x 1'-6"	" " 1
Floor Drains	"	42	See Dwg. S524A	All Spans
Copper Strip	2	1/16" x 2'-10" Long (See Sheet G351)	Between Spans 5 & 6 and 6 & 7
" "	7	1/16" x 2'-10" Long (See Dwg. G351)	Between Spans

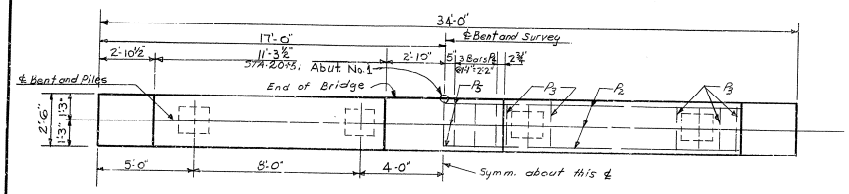
Bridge over East Fork Little Sandy R. sheet 1 of 7

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
KY 207 — NAPLES
ROAD
STATION 22 + 27 PROJECT NO. S 560 (1)

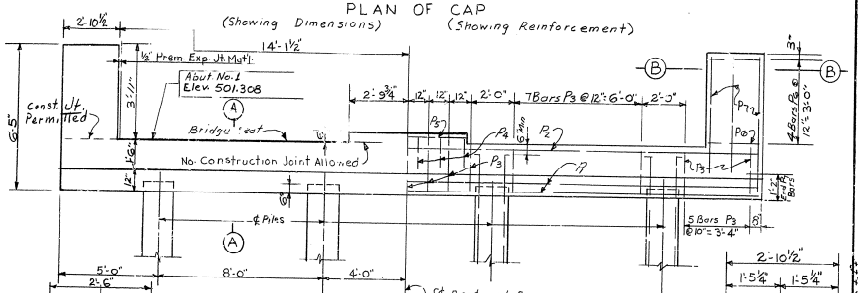
BRIDGE NUMBER | DRAWING no. 12133 | INDEX

AUG 19 1963

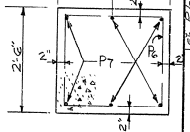
FOR NORM. 1:11	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



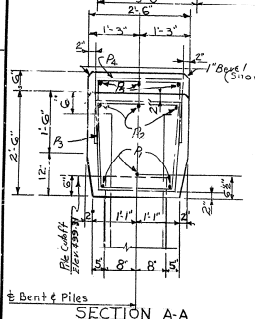
PLAN OF CAP
(Showing Dimensions) (Showing Reinforcement)



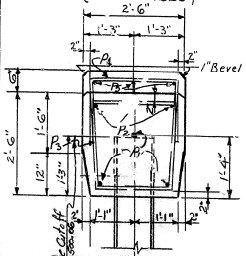
FRONT ELEVATION
(Showing Dimensions) (Showing Reinforcement)



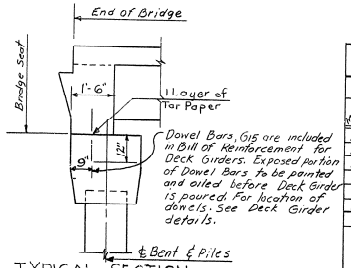
SECTION B-B



SECTION A-A
(16" R.C. PILES)

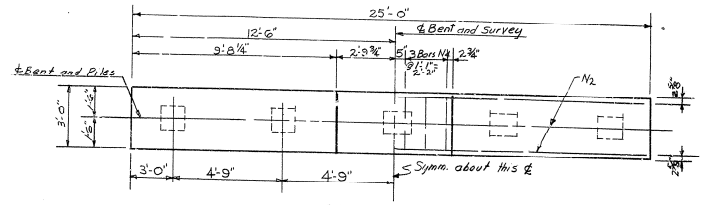


SECTION A-A
12" Steel Pile @ 53#

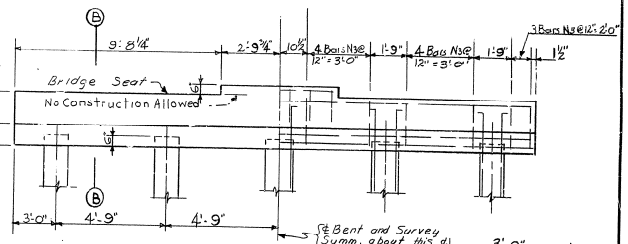


TYPICAL SECTION

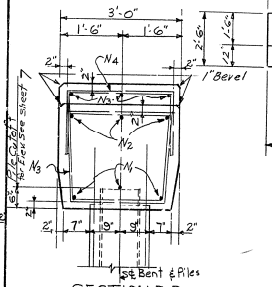
Dowel Bars, G15 are included in Bill of Reinforcement for Deck Girders. Exposed portion of Dowel Bars to be painted and oiled before Deck Girder is poured. For location of dowels. See Deck Girder details.



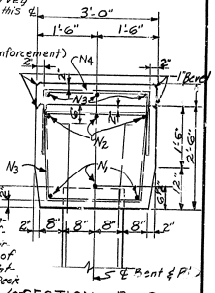
PLAN OF CAP
(Showing Dimensions) (Showing Reinforcement)



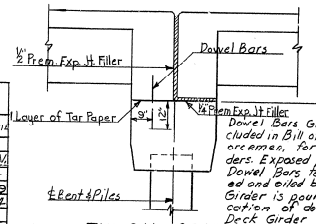
FRONT ELEVATION
(Showing Dimensions) (Showing Reinforcement)



SECTION B-B
(12" Steel Pile @ 53#
Encased in Concrete)

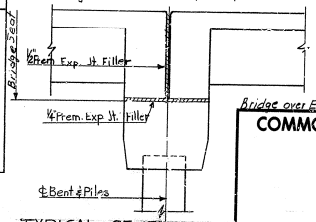


SECTION B-B
(16" R.C. PILE)



TYPICAL SECTION
(Showing a fixed & expansion Condition)

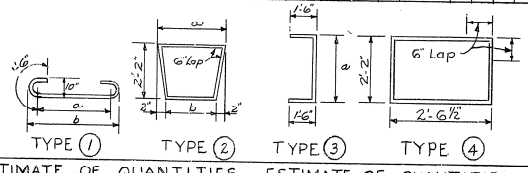
Dowel Bars G15 are included in Bill of Reinforcement for Deck Girders. Exposed portion of Dowel Bars to be painted and oiled before Deck Girder is poured. For location of dowels, see Deck Girder details.



TYPICAL SECTION
(AT STA. 20+90)

BILL OF REINFORCEMENT

ABUT. NO. 1											INTERMEDIATE BENT (FOR ONE INTERMEDIATE BENT)									
MARK	TYPE	NO.	Bar Size New No.	LENGTH FT.	LENGTH IN.	LOCATION	a FT.	a IN.	b FT.	b IN.	MARK	TYPE	NO.	Bar Size New No.	LENGTH FT.	LENGTH IN.	LOCATION	a FT.	a IN.	b FT.	b IN.
P1	Str.	3	8	33	9	Cap	–	–	–	–	N1	Str.	3	8	24	9	Cap	–	–	–	–
P2	(1)	3	"	35	11	"	32	11	33	9	N2	(1)	3	"	26	11	"	23	11	24	9
P3	(2)	31	5	9	0	"	2	2	1	10	N3	(2)	22	5	10	0	"	2	8	2	4
P4	(3)	6	"	5	0	Key	2	2	–	–	N4	(3)	6	"	5	6	Key	2	8	–	–
P5	Str.	3	4	5	4	"	–	–	–	–	N5	Str.	3	4	5	4	"	–	–	–	–
P6	(4)	8	"	10	2	Wings															
P7	Str.	12	5	5	2	"															



ESTIMATE OF QUANTITIES
FOR ABUT. NO. 1

CONCRETE (Class "A")	9.9 CU. YDS.
REINFORCEMENT	1010 LBS.

ESTIMATE OF QUANTITIES
FOR ONE INTERMEDIATE BENT

CONCRETE (Class "A")	6.9 CU. YDS.
REINFORCEMENT	688 LBS.

ABUT. NO. 1

DETAILS OF BENT CAPS
FOR 30'-0" SPANS @ BENTS 1-2-3-4-7-8-9

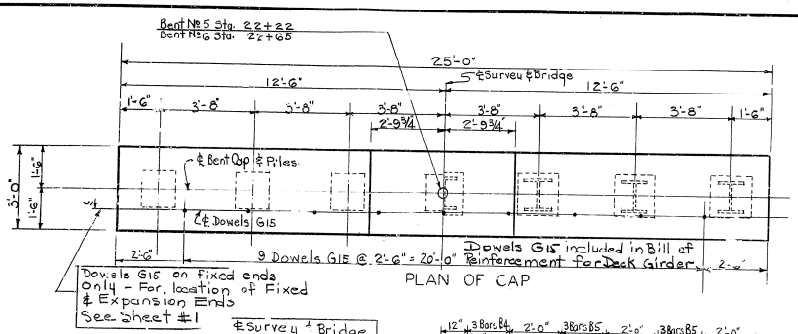
Sheet 2

Bridge over East Fork of Little Sandy River

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF GREENUP
KY 207 – NAPLES
ROAD
STATION 22+27 PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 12133
INDEX

DESIGNED BY L.C. BOGART DATE 12-23-4
DETAILED BY L.C. BOGART DATE
TRACED BY DATE
CHECKED BY DATE
CHECKED BY DATE
REVISED DATE
REVISED DATE
REVISED DATE

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

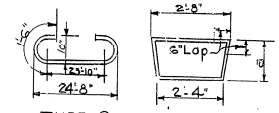


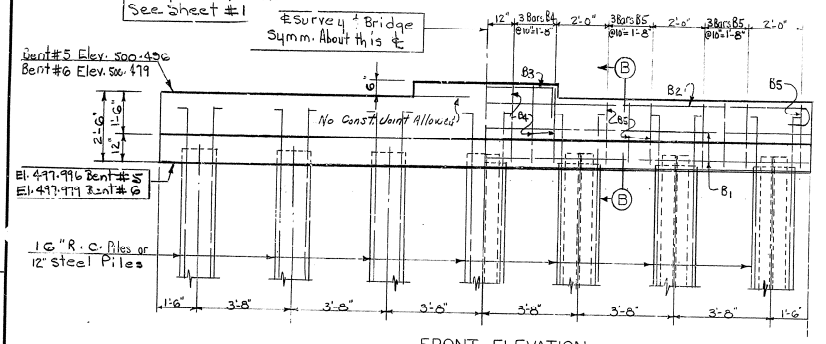
PLAN OF CAP

ESTIMATE OF QUANTITIES		
Item	Concrete Class "A" Cu. Yds	Reinforcement Lbs
Bent Cap № 5	6.9	640
" " " 6	6.9	640

BILL OF REINFORCEMENT FOR BENTS NO. 5 & 6

Mark	Type	No. Bent # 5	No. Bent # 6	Bar Size & Numbers	Length Ft.	Length In.	Location	a" Ft	a" In	b Ft	b In
B1	Str.	3	3	8	24	8	Bottom of Cap				
B2	①	3	3	8	26	10	Top of Cap				
B3	Str.	3	3	4	5	4	" " Ledge				
B4	②	6	6	5	11	1	Top Hoops	2	8		
B5	"	14	14	5	10	1	" "	2	2		

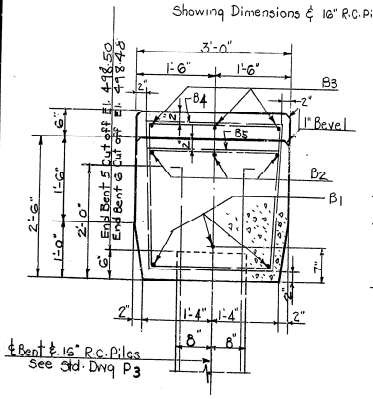




FRONT ELEVATION

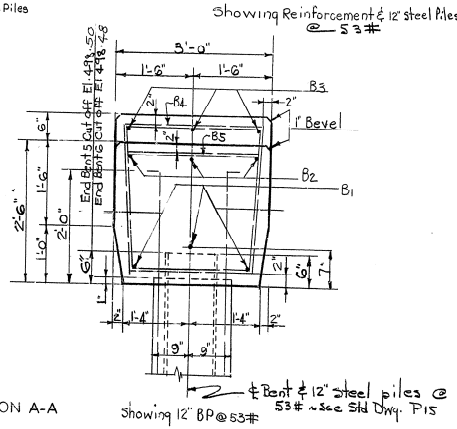
Showing Dimensions & 16" R.C. Piles

Showing Reinforcement & 12" steel Piles @ 53#



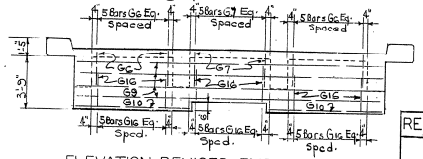
Showing 16" R.C. Piles

SECTION A-A



Showing 12" BP @ 53#

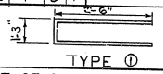
DETAILS REVISED DECK GIRDER SPANS NO. 5 & 7



ELEVATION REVISED END WALL OVER BENTS NO. 5 & 6

ADDITIONAL BILL OF REINFORCEMENT

Mark	Type	No. Span 5	No. Span 7	Size & No. Bars	Length Ft.	Length In.	Location
G9	Str	2	2	4	23	5	End wall
G16	①	15	15	4	6	1	" "

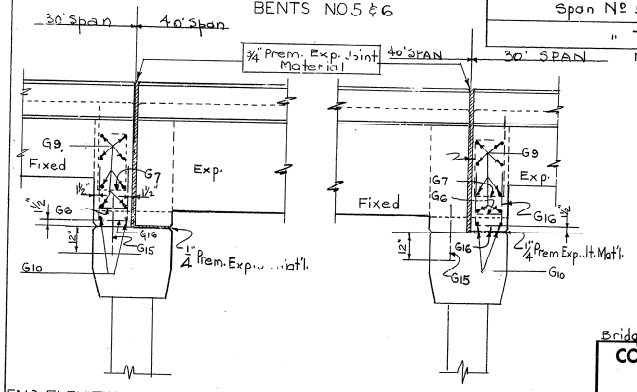


TYPE ①

REVISED ESTIMATE OF QUANTITIES SPANS NO. 5 & 7

Span №	Class "A" Concrete C.Y.	Reinforcement Lbs.
Span № 5	44.8	11082
" 7	44.8	11082

Note: Ignore quantities shown on Dwg G524A for Spans № 5 & 7



END ELEVATION BENT NO. 5

END ELEVATION BENT NO. 6

(Showing extension or revision to endwall on 30'-0" R.C.D.G. Spans at junction of 40'-0" R.C.D. Girder Span over Bents № 5 & Bent № 6)

BENTS NO. 5 & 6

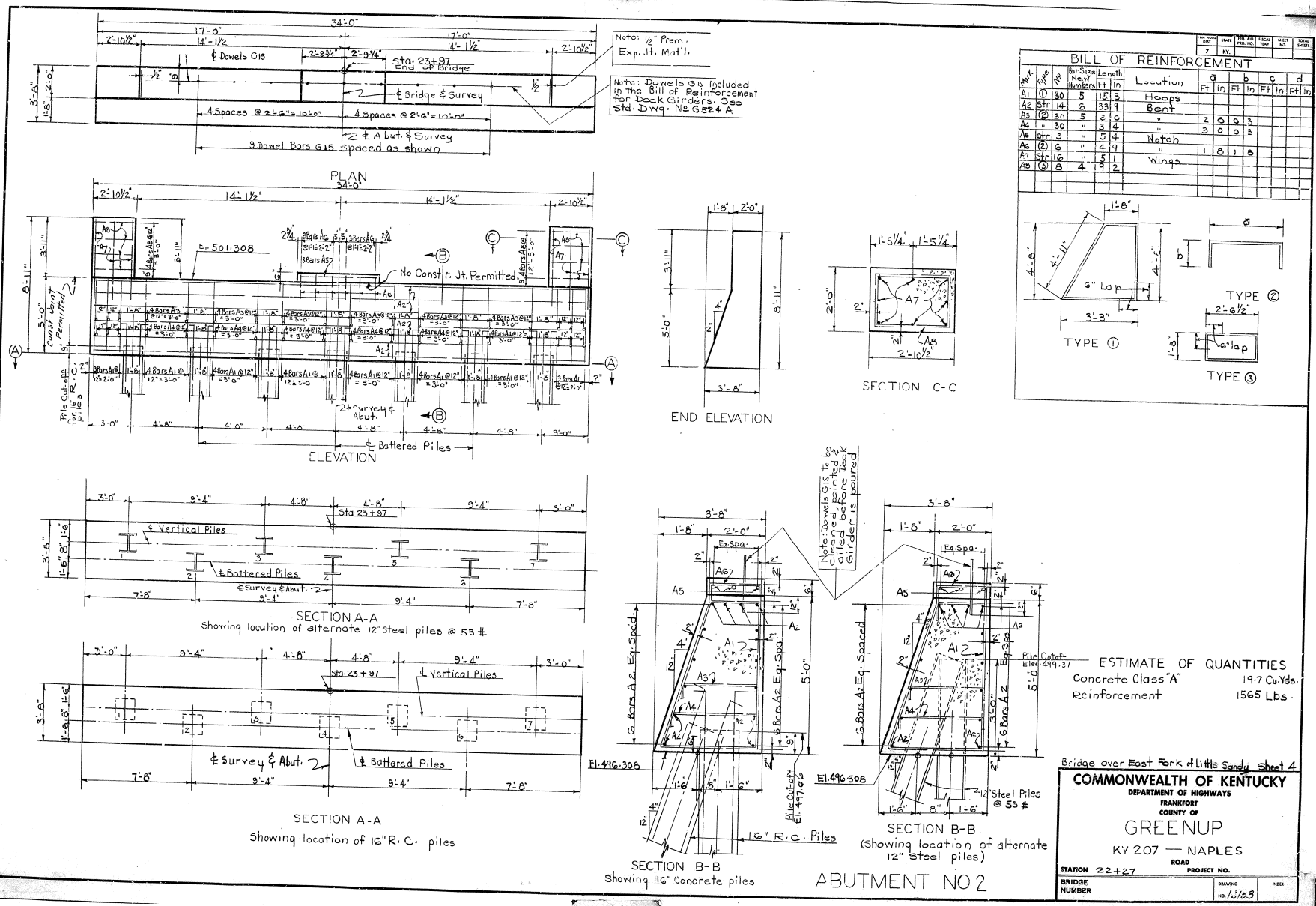
Sheet 3

Bridge over East Fork of Little Sandy River

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
KY 207 — NAPLES
ROAD
STATION 22+27
PROJECT NO.

BRIDGE NUMBER	DRAWING NO. 12193	BRIDGE

REVISED BY K. GREENE
DESIGNED BY K. GREENE
TRACED BY
CHECKED BY C. BOND
DATE 3/1/74



BILL OF REINFORCEMENT

Mark	Type	No	Bar Size No. Numbers	Length Ft	Length In	Location	a Ft	a In	b Ft	b In	c Ft	c In	d Ft	d In
A1	①	30	5	15	3	Hoops								
A2	Str	14	6	33	9	Bent								
A3	②	30	5	3	6	"	2	0	0	3				
A4	"	30	"	3	4	"	3	0	0	3				
A5	Str	3	"	5	4	Notch								
A6	②	6	"	4	9	"	1	8	1	8				
A7	Str	16	"	5	1	Wings								
A8	②	8	4	9	2	"								

FED. HIGHWAY DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

ESTIMATE OF QUANTITIES

Concrete Class "A"	19.7 Cu. Yds.
Reinforcement	1565 Lbs.

Bridge over East Fork of Little Sandy Sheet 4

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
KY 207 — NAPLES
ROAD
PROJECT NO.

STATION 22+27

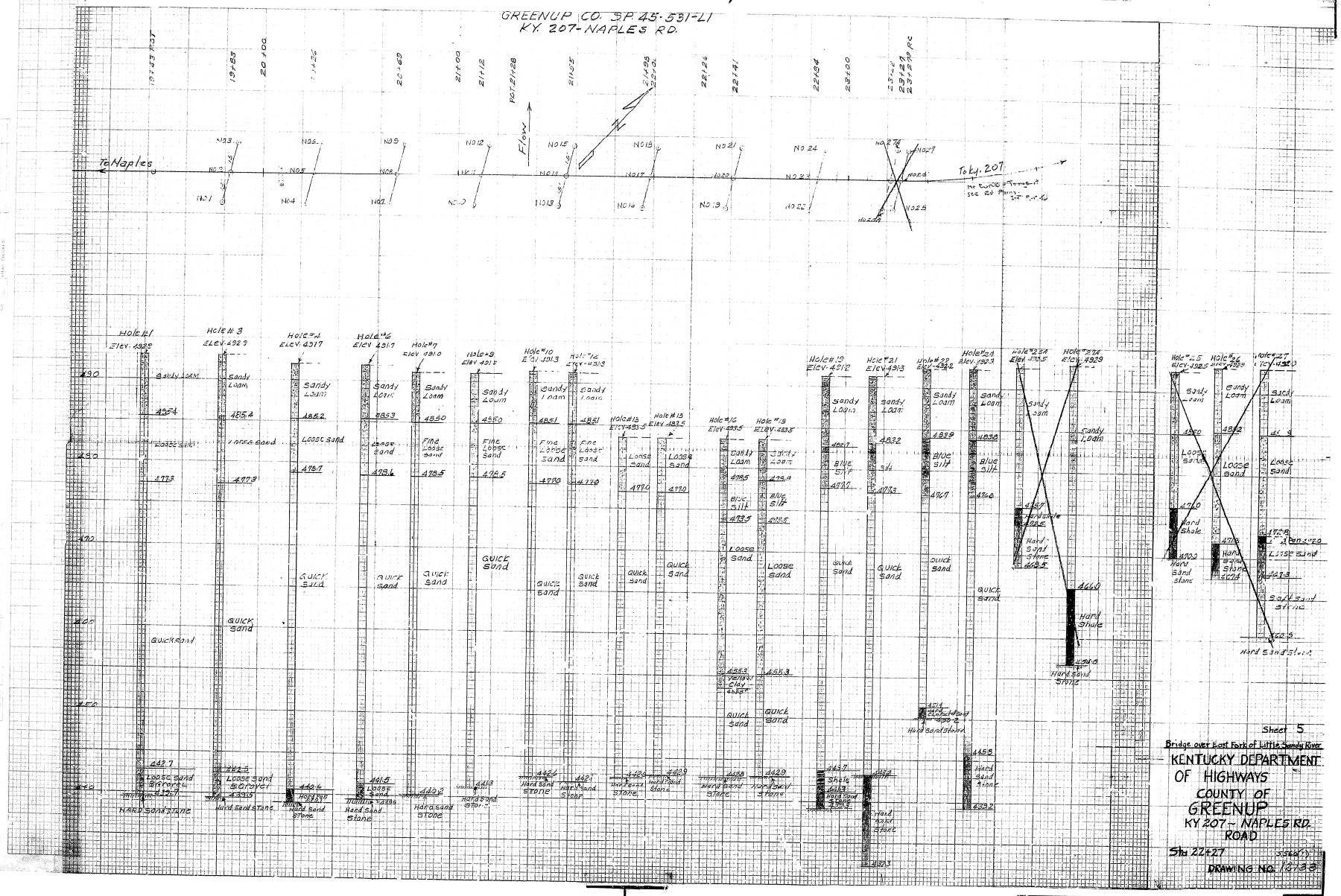
BRIDGE NUMBER

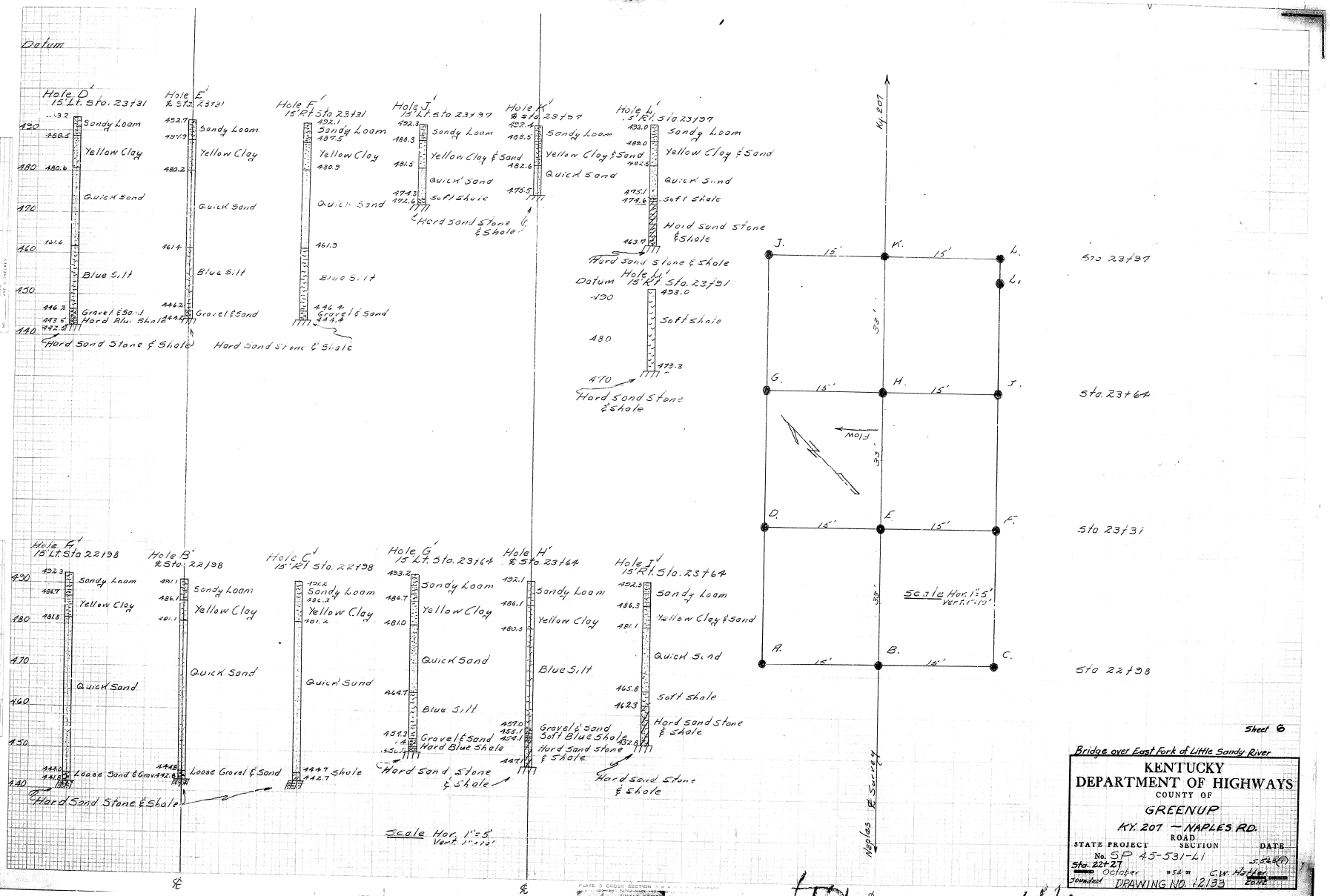
DRAWING NO. 1.1.1.3.3

INDEX

DESIGNED BY R.T.C. TILL — CHECKED BY — CHECKED BY — CHECKED BY
DETAILED BY R.T.C. TILL — CHECKED BY — CHECKED BY — CHECKED BY
TRACED BY C. BRUNS — DATE 2-1-62
REVISED — DATE — REVISED — DATE — REVISED — DATE

GREENUP CO. SP 45-531-L1
KY. 207-NAPLES RD.




Datum
Hole D' 15' Lt. Sta. 23+31
Sandy Loam
Yellow Clay
Quick Sand
Blue Silt
Gravel & Sand
Hard Blue Shale
Hard Sand Stone & Shale
Hole E' & Sta. 23+31
Hole F' 15' Rt. Sta. 23+31
Hole J' 15' Lt. Sta. 23+97
Yellow Clay & Sand
Soft Shale
Hole K' & Sta. 23+97
Hole L' 15' Rt. Sta. 23+97
Hole L' 15' Rt. Sta. 23+91
Hole A' 15' Lt. Sta. 22+98
Hole B' & Sta. 22+98
Loose Sand & Gravel
Loose Gravel & Sand
Hole C' 15' Rt. Sta. 22+98
Hole G' 15' Lt. Sta. 23+64
Hole H' & Sta. 23+64
Hole I' 15' Rt. Sta. 23+64
Hard Blue Shale
Soft Blue Shale
Hard Sand Stone & Shale
Scale Hor. 1"=5' Vert. 1"=10'
Ky. 207
Naples & Survey
Sta. 23+97
Sta. 23+64
Sta. 23+31
Sta. 22+98
Flow
Scale Hor. 1"=5' Vert. 1"=10'
Sheet 6
Bridge over East Fork of Little Sandy River
KENTUCKY
DEPARTMENT OF HIGHWAYS
COUNTY OF
GREENUP
KY. 207 — NAPLES RD.
ROAD
STATE PROJECT SECTION DATE
No. SP 45-531-L1
Sta. 22+27
October
C.W. Hatter
DRAWING NO. 12133

FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				

PILE RECORD ~ BENT NO. 1

PILE NUMBER	PILE CUTOFF ELEVATION AS CALCULATED 16" R.C. PILES	PILE CUTOFF ELEVATION AS CALCULATED 12" STEEL @ 53#	TIP OF PILE ELEVATION AS DRIVEN	LENGTH OF PILE IN PLACE-Lin. ft.	CALC. BEAR. CAPACITY TONS
1	499.43	499.43			
2	499.43	499.43			
3	499.43	499.43			
4	499.43	499.43			
5	499.43	499.43			

PILE RECORD ~ BENT NO. 2

PILE NUMBER	PILE CUTOFF ELEVATION AS CALCULATED 16" R.C. PILES	PILE CUTOFF ELEVATION AS CALCULATED 12" STEEL @ 53#	TIP OF PILE ELEVATION AS DRIVEN	LENGTH OF PILE IN PLACE-Lin. ft.	CALC. BEAR. CAPACITY TONS
1	499.53	499.53			
2	499.53	499.53			
3	499.53	499.53			
4	499.53	499.53			
5	499.53	499.53			

PILE RECORD ~ BENT NO. 3

PILE NUMBER	PILE CUTOFF ELEVATION AS CALCULATED 16" R.C. PILES	PILE CUTOFF ELEVATION AS CALCULATED 12" STEEL @ 53#	TIP OF PILE ELEVATION AS DRIVEN	LENGTH OF PILE IN PLACE-Lin. ft.	CALC. BEAR. CAPACITY TONS
1	499.60	499.60			
2	499.60	499.60			
3	499.60	499.60			
4	499.60	499.60			
5	499.60	499.60			

PILE RECORD ~ BENT NO. 4

PILE NUMBER	PILE CUTOFF ELEVATION AS CALCULATED 16" R.C. PILES	PILE CUTOFF ELEVATION AS CALCULATED 12" STEEL @ 53#	TIP OF PILE ELEVATION AS DRIVEN	LENGTH OF PILE IN PLACE-Lin. ft.	CALC. BEAR. CAPACITY TONS
1	499.65	499.65			
2	499.65	499.65			
3	499.65	499.65			
4	499.65	499.65			
5	499.65	499.65			

PILE RECORD ~ BENT NO. 5

	PILE NUMBER	PILE CUTOFF ELEVATION AS SHOWN ON PLANS 16" R.C. PILES	PILE CUTOFF ELEVATION AS SHOWN ON PLANS 12" STEEL @ 53#	TIP OF PILE ELEVATION AS DRIVEN	LENGTH OF PILE IN PLACE-Lin. ft.	CALC. BEAR. CAPACITY TONS
	1	498.50	498.50			
	2	498.50	498.50			
	3	498.50	498.50			
	4	498.50	498.50			
	5	498.50	498.50			
	6	498.50	498.50			
Test Pile	7	498.50	498.50			

PILE RECORD ~ BENT NO. 6

PILE NUMBER	PILE CUTOFF ELEVATION AS SHOWN ON PLANS 16" R.C. PILES	PILE CUTOFF ELEVATION AS SHOWN ON PLANS 12" STEEL @ 53#	TIP OF PILE ELEVATION AS DRIVEN	LENGTH OF PILE IN PLACE-Lin. ft.	CALC. BEAR. CAPACITY TONS
1	498.48	498.48			
2	498.48	498.48			
3	498.48	498.48			
4	498.48	498.48			
5	498.48	498.48			
6	498.48	498.48			
7	498.48	498.48			

PILE RECORD ~ BENT NO. 7

PILE NUMBER	PILE CUTOFF ELEVATION AS CALCULATED 16" R.C. PILES	PILE CUTOFF ELEVATION AS CALCULATED 12" STEEL @ 53#	TIP OF PILE ELEVATION AS DRIVEN	LENGTH OF PILE IN PLACE-Lin. ft.	CALC. BEAR. CAPACITY TONS
1	499.60	499.60			
2	499.60	499.60			
3	499.60	499.60			
4	499.60	499.60			
5	499.60	499.60			

PILE RECORD ~ BENT NO. 8

	PILE NUMBER	PILE CUTOFF ELEVATION AS CALCULATED 16" R.C. PILES	PILE CUTOFF ELEVATION AS CALCULATED 12" STEEL @ 53#	TIP OF PILE ELEVATION AS DRIVEN	LENGTH OF PILE IN PLACE-Lin. ft.	CALC. BEAR. CAPACITY TONS
	1	499.53	499.53			
	2	499.53	499.53			
	3	499.53	499.53			
	4	499.53	499.53			
Test Pile	5	499.53	499.53			

Note: This sheet does not replace other records on piles required to be kept & submitted by the Resident Engineer. After all piles have been driven the Resident Engineer shall record the tip of pile elevation as driven, length of pile in place & calculated bearing capacity of each pile & return one blue print copy of this sheet with this information to the Bridge Engineer so that the record can be placed on the original plans. Length of pile in place shown hereon is the actual length of pile in the finished structure below cut off elevation & is not necessarily the pay item.

PILE RECORD ~ BENT NO. 9

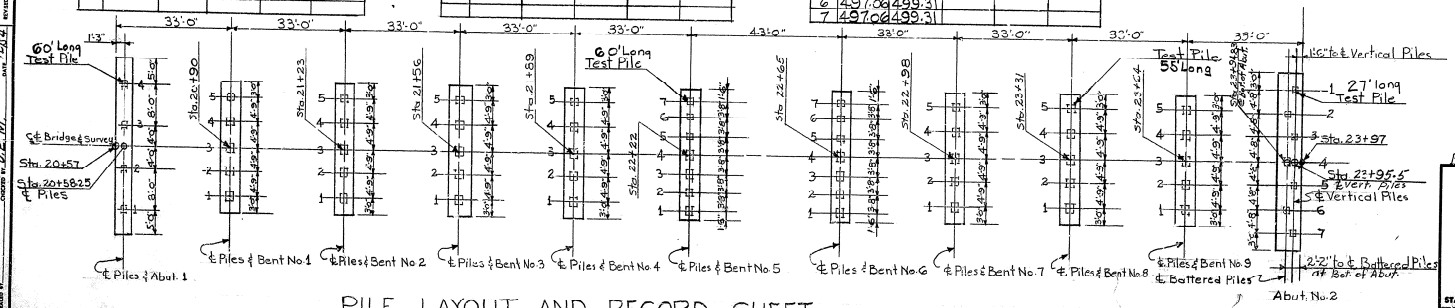
PILE NUMBER	PILE CUTOFF ELEVATION AS CALCULATED 16" R.C. PILES	PILE CUTOFF ELEVATION AS CALCULATED 12" STEEL @ 53#	TIP OF PILE ELEVATION AS DRIVEN	LENGTH OF PILE IN PLACE-Lin. ft.	CALC. BEAR. CAPACITY TONS
1	499.43	499.43			
2	499.43	499.43			
3	499.43	499.43			
4	499.43	499.43			
5	499.43	499.43			

PILE RECORD ~ ABUT. NO. 1

	PILE NUMBER	PILE CUTOFF ELEVATION AS SHOWN ON PLANS 16" R.C. PILES	PILE CUTOFF ELEVATION AS SHOWN ON PLANS 12" STEEL @ 53#	TIP OF PILE ELEVATION AS DRIVEN	LENGTH OF PILE IN PLACE-Lin. ft.	CALC. BEAR. CAPACITY TONS
	1	499.31	500.06			
	2	499.31	500.06			
	3	499.31	500.06			
Test Pile	4	499.31	500.06			

PILE RECORD ~ ABUT. NO. 2

	PILE NUMBER	PILE CUTOFF ELEVATION AS SHOWN ON PLANS 16" R.C. PILES	PILE CUTOFF ELEVATION AS SHOWN ON PLANS 12" STEEL @ 53#	TIP OF PILE ELEVATION AS DRIVEN	LENGTH OF PILE IN PLACE-Lin. ft.	CALC. BEAR. CAPACITY TONS
Test Pile	1	497.06	499.31			
	2	497.06	499.31			
	3	497.06	499.31			
	4	497.06	499.31			
	5	497.06	499.31			
	6	497.06	499.31			
	7	497.06	499.31			



PILE LAYOUT AND RECORD SHEET

Sheet 7

Bridge over East Fork of Little Sandy River

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
GREENUP
KY. 207 ~ NAPLES
ROAD
STATION 22+27 PROJECT NO.

BRIDGE NUMBER | DRAWING No. 12/83 | INDEX

DESIGNED BY: | CHECKED BY: | DATE: | REVISED: | DATE:
DETAILED BY: C. Brown | CHECKED BY: | DATE: | REVISED: | DATE:
TRACED BY: | CHECKED BY: H.E.M. | DATE: 1/1/83 | REVISED: | DATE: