

KENTUCKY DEPARTMENT OF HIGHWAYS

JEFFERSON COUNTY

LOUISVILLE - COVINGTON

BRIDGE CARRYING I71 OVER FISCHER SPUR

HAZELET & ERDAL
CONSULTING ENGINEERS
FILE NO. 877-D

DESIGNED BY: DATE: 1/2
CHECKED BY: DATE: 1/2
APPROVED BY: DATE: 1/2

DESIGNED BY: DATE: 1/2
CHECKED BY: DATE: 1/2
APPROVED BY: DATE: 1/2

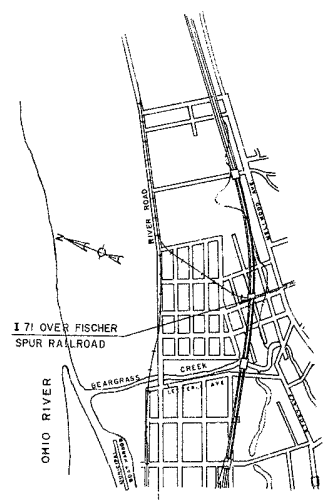
ESTIMATED QUANTITIES

SHEET DESIGNATION	SHEET NUMBER	CONCRETE CLASS "A" (CU. YDS.)	STEEL REINFORCEMENT (LBS.)	STRUCTURAL STEEL (LUMP SUM)	STRUCTURE EXCAVATION COMMON (CU. YDS.)	END BENT BACKFILL (CU. YDS.)	METAL HANDRAIL ALTERNATE G (LIN. FT.)	METAL HANDRAIL ALTERNATE H (LIN. FT.)	PROTECTIVE COATING (SQ. YDS.)	CONCRETE PILING (LIN. FT.)											
										(See General Notes for Description of Alternates)											
										ALTERNATE A		ALTERNATE B		ALTERNATE C		ALTERNATE D		ALTERNATE E		ALTERNATE F	
TITLE SHEET	1									FURNISHING	DRIVING	FURNISHING	DRIVING	FURNISHING	DRIVING	FURNISHING	DRIVING	FURNISHING	DRIVING	FURNISHING	DRIVING
GENERAL NOTES	2																				
LAYOUT SHEETS	3-4																				
SOUNDINGS	5																				
WESTBOUND BRIDGE																					
END BENTS	6	165	340		200	500				1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
PIERS	7	165	340		200	500				1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
SUPERSTRUCTURE	8-10	165	340		200	500				1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
CONSTRUCTION ELEVATIONS	11																				
PILE RECORD	13																				
END BENT BACKFILL	15																				
TOTALS WESTBOUND BRIDGE		165	340		200	500				1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
EASTBOUND BRIDGE																					
END BENTS	6	165	340		200	500				1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
PIERS	7	165	340		200	500				1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
SUPERSTRUCTURE	8-10	165	340		200	500				1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
CONSTRUCTION ELEVATIONS	12																				
PILE RECORD	14																				
END BENT BACKFILL	15																				
TOTALS EASTBOUND BRIDGE		165	340		200	500				1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650
TOTALS		165	340		200	500				1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650

METAL HANDRAIL: The Contractor shall bid on both alternate types and use Alternate designated in the Contract throughout.
Alternate G-Aluminum Handrail
Alternate H-Galvanized Steel Handrail

NOTE: APPROXIMATELY 200 LBS. OF STRUCTURAL STEEL AND 120 LBS. OF BRONZE BEARING PLATES INCLUDED IN LUMP SUM BID FOR STRUCTURAL STEEL (NORTH BRIDGE OR SOUTH BRIDGE)

* 1650 Lin. Ft. of one of the alternate types A,B,C or E shall be used in the End Bents and paid for at the unit prices bid for furnishing and driving respectively for alternate D or F.



NOTE:
For General Notes, Standard Plans, Special Provision, and Bill of Incident Material See Sheet 102

BRIDGE CARRYING I71 OVER FISCHER SPUR R.R. SHEET 1 OF 2
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
I 71 - OHIO STREET TO ZORN AVENUE
LOUISVILLE - COVINGTON

STATION 355+33.19 PROJECT NO. 171-1000
BRIDGE NUMBER 15936
ROAD SP56-313-L2
DATE 15936

TITLE SHEET

BRIDGE

GENERAL NOTES

SPECIFICATIONS: Kentucky Department of Highways, Current Standard with Amendments.

DESIGN LOAD: Bridge designed for HS20-44 loading as specified in 1961 AASHTO Specifications or alternate loading of two 24 kip axles spaced 14 feet apart, whichever produces the greater stress.

DESIGN STRESS: For reinforced concrete:
 $f_c = 3,000$ psi. $u = 300$ psi. (for E.)
 $f_s = 1,800$ psi. $f_c = 1,000$ psi.
 $u = 700$ psi. $n = 10$
for embedded

PILE ALLOWABLE LOAD: Piles are designed for a maximum load of 50 tons per pile. These maximums are for Group 1 loads with increases allowed for other loading groups.

PIILING: Piling shall be driven to refusal or to sustain a minimum load of 75 tons per pile in accordance with the Specifications. Test piles shall be driven where designated on the plans to determine the length required. All test piles shall be accurately located so that they may be used in the finished structure.

ALTERNATE TYPES OF PILES: The Contractor shall use one of the following Alternate Types A through F throughout except that Types D and F will not be permitted in and below:

- Alternate A - 12" Precast Concrete Piles, Standard Drawing No. 12.
- Alternate B - 12" Cast-in-place Seamless or Welded Steel Shell Concrete Piles, Standard Drawing No. 120.
- Alternate C - 12" Central Butt Diameter Cast-in-place Steel Concrete Piles, Standard Drawing No. 121.
- Alternate D - 12" Minimum Nominal Butt Diameter Cast-in-place Steel Step-tapered Shell Concrete Piles, Standard Drawing No. 122.
- Alternate E - 12" Precast Prestressed Concrete Piles, Standard Drawing No. 123.
- Alternate F - 12" Minimum Nominal Butt Diameter Cast-in-place Steel Step-uniform Shell Concrete Piles, Standard Drawing No. 124.

DRIVING PILES: Cored pilot holes through the enhancement will be required for starting piles. The cost of this work is to be included in the unit price bid for driving piles.

CONCRETE: Class "A" concrete is to be used throughout, except in piles. Class "B" concrete is to be used in piles.

REINFORCEMENT: Intermediate or hard grade reinforcement shall be used in accordance with AISC A13.8 for fillet steel or A13.9 for rail steel.

Dimensions shown from face of concrete to bars are clear distances. Spacing of bars is from center to center of bars.

BEVELED EDGES: All exposed edges shall be beveled 7/8" unless otherwise shown.

BAR ENCASED IN JOINT MATERIAL, PRECASTED PILES, PRECASTED PILES AND TAR PAPER: The cost of these items is to be included in the unit price bid for Class "A" concrete.

STRUCTURAL STEEL: "Lump Sum Bid" for structural steel shall be full payment for all structural steel, bolts, washers, welding and welding materials, paint, and all labor and materials necessary to erect the steel in accordance with the plans and specifications.

PLACING PILES: CRUSHED SHALL BE PLACED IN ACCORDANCE WITH OTHER SPECIFICATIONS OF THE BIDDING.

PAINT: Surfaces of armor edge, not accessible after erection, shall be given two field coats of aluminum paint before erection. Shop paint shall not be applied to steel surfaces in contact with concrete.

TAR PAPER: Tar paper is to be commercial grade tar paper or roofing felt approximately 1/16" thick.

CLEARANCE:

All falsework, bracing or forms shall have a minimum vertical clearance of 15 feet above the top of highest rail, and a minimum horizontal clearance of 8'-0" measured at right angles to the centerline of the nearest track.

CONSTRUCTION NOTE:

The Contractor shall arrange the work so as not to interfere with the operation of the Fischer Packing Company at any time, unless the Contractor has made arrangements with the Fischer Packing Company. The Contractor shall arrange with the Fischer Packing Company to provide fire protection at the Contractor's expense as specified in the special provisions. Plans for the erection of the structure shall be submitted for approval to the Department of Highways and the Fischer Packing Company.

CONCRETE FINISH:

Exterior face of exterior piers, abutments, soffit overhangs and wingwalls shall receive a rubbed surface finish. Piers shall receive an ordinary surface finish.

LUMBERED OIL PROTECTIVE PAINTING:

Protective coating shall be applied in accordance with the Special Provisions.

WIND LOADS:

This structure is designed using wind loads based on a wind velocity of 80 M.P.H.

BILL OF INCIDENTAL MATERIAL			
1/2" X 1 1/2" Preformed Joint Seal	1" Preformed Expansion Joint Material	1/2" Preformed Expansion Joint Material	Tar Paper or Roofing Felt
Lin. Ft.	Sq. Ft.	Sq. Ft.	Sq. Ft.
100	100	100	100

NOTE: The "Bill of Incidental Material" is approximate only and the Contractor is responsible for furnishing enough material to complete the work in accordance with the Plans and Specifications.

SPECIAL PROVISIONS

STANDARD DRAWING NO. 12-11 (12-11-12)
LUMBERED OIL PROTECTIVE PAINTING (12-11-12)

STANDARD DRAWING

- AS-1 Standard Armor Edge for Concrete
- AS-103 Preformed Joint Seal Details
- AS-104 Preformed Cork Expansion Joint Material
- AS-112 Standard Aluminum Handrail - 1 Pipe
- AS-113 Standard Steel Handrail - 1 Pipe
- AS-12 12" Precast Concrete Pile
- AS-20 12" Cast-in-place Concrete Pile
- AS-21 12" Cast-in-place Concrete Pile, Fluted Shell
- AS-22 12" Cast-in-place Pile, Corrugated Step-Taper Shell
- AS-23 12" Prestressed Precast Pile
- AS-24 12" Cast-in-place Pile, Corrugated Step-uniform Shell

BRIDGE CARRYING 171 OVER FISCHER SPUR R.R. SHEET 2 OF 10

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
171 - OHIO STREET TO ZORN AVENUE
LOUISVILLE - COVINGTON

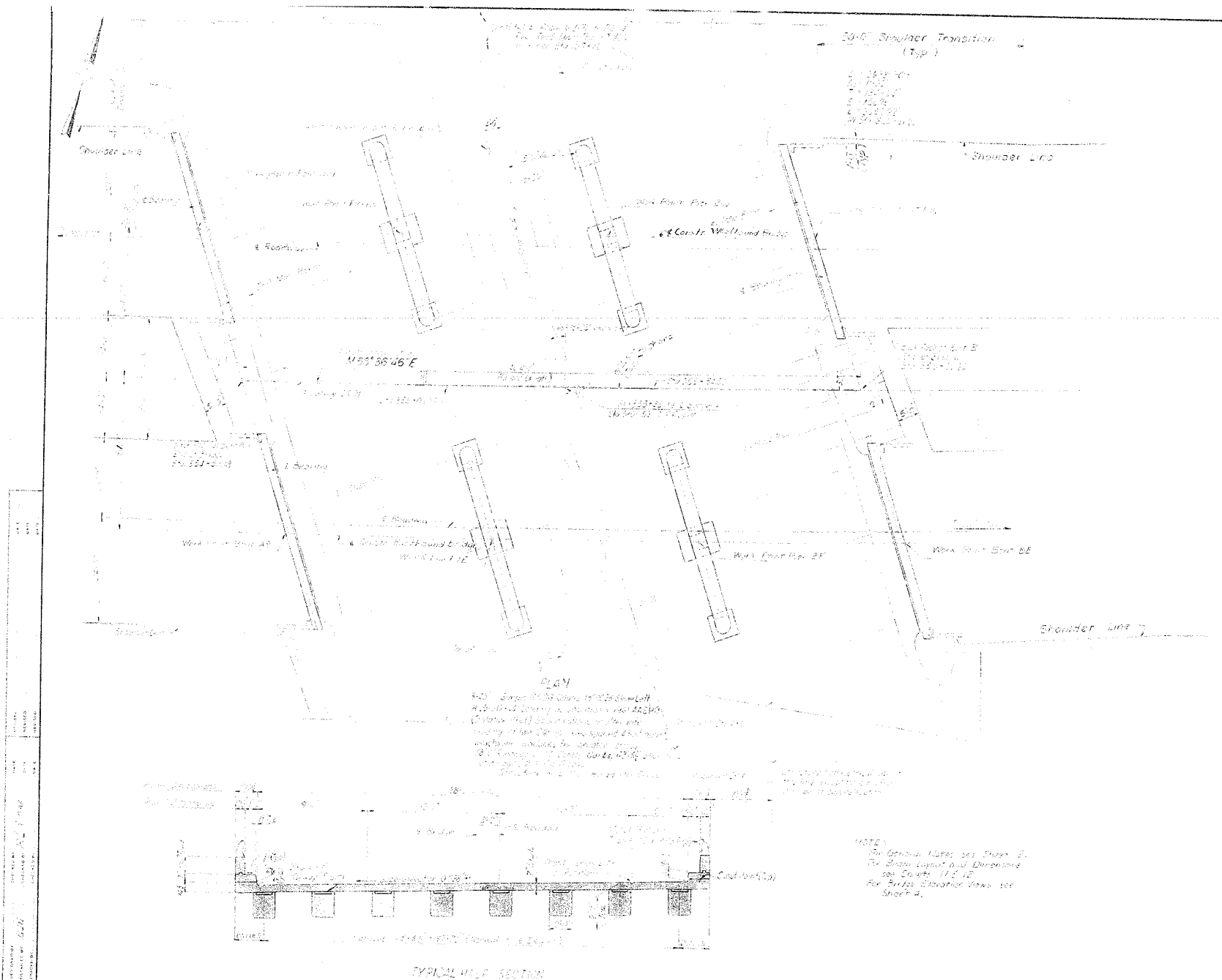
ROAD
STATION 355+33.19
PROJECT NO. 171

DESIGNED BY **15936**
CHECKED BY
APPROVED BY

GENERAL NOTES

BRIDGE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----



BRIDGE OVER FISCHER RAILROAD SPUR SHEET 1 OF 3

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
JEFFERSON
 I 71 - OHIO STREET to ZORN AVENUE
 LOUISVILLE - COVINGTON
 ROAD

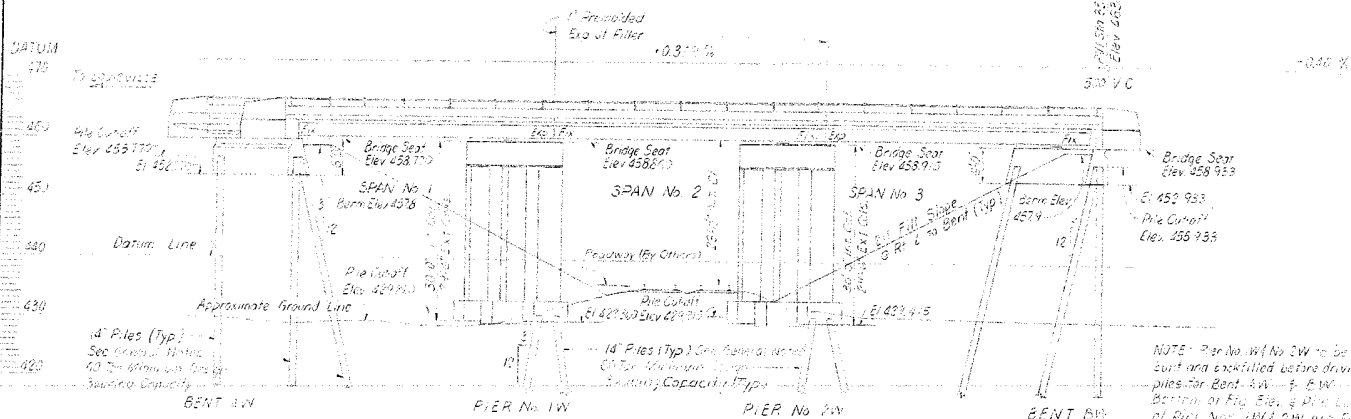
STATION 355 - 33/9 PROJECT NO. I 71

BRIDGE NUMBER SUMMER

15136

LAYOUT

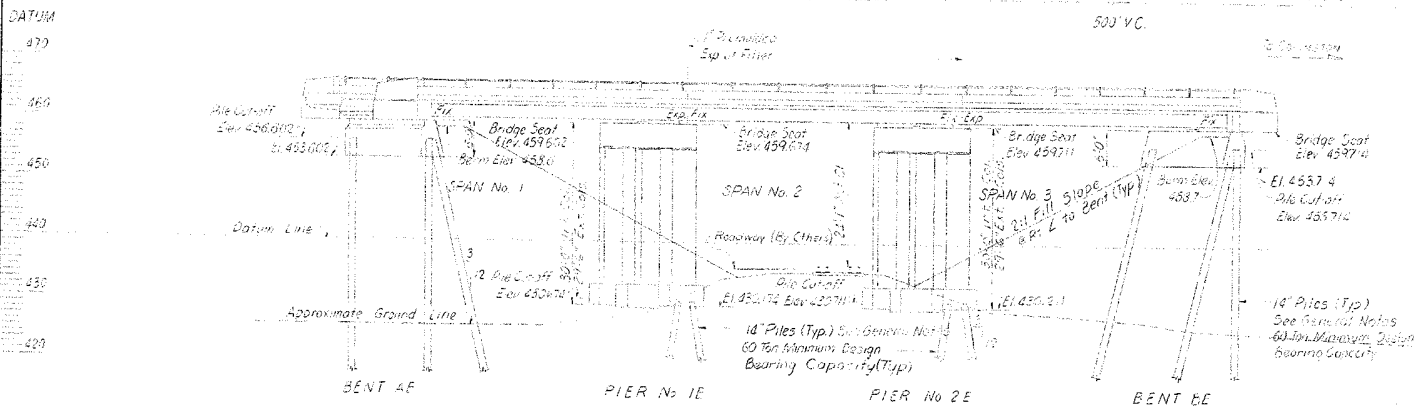
BRIDGE



ELEVATION WESTBOUND BRIDGE

3 x 5' Simple RC G. Spans 13'10" Skew Left
 H20-S16-44 Loading as specified in 1961 AASHTO (Tentative 1951)
 Specifications or alternate loading at two 24-kip
 wheels spaced 4 feet apart, whichever produces
 the greater stress.
 32'0" Highway 2'0" Safety Curbs, 43'4" Shoulders
 at Bridge 2:1 Fill Slope
 Structure on 1.5% Horizontal Curve

NOTE: Piers No. 1W & No. 2W to be
 built and backfilled before driving
 piles for Bent 1W & 2W.
 Bottom of Fig. 316 & Pile Cutoff Elev.
 of Pier Nos. 1W & 2W are For Ext. Cols.
 Only. Elev's. For Int. Cols. Are
 0.500' Lower.



ELEVATION EASTBOUND BRIDGE

For description see Elevation North Bridge

NOTE: Piers No. 1E & No. 2E to be
 built and backfilled before driving
 piles for Bents 1E & 2E.
 Bottom of Fig. 316 & Pile Cutoff Elev.
 of Pier Nos. 1E & 2E are For Ext. Cols.
 Only. Elev's. For Int. Cols. Are
 0.500' Lower.

NOTES:
 For General Notes see Sheet 2.
 For Bridge Plan view see Sheet 3.

BRIDGE OVER FISCHER RAILROAD SPUR SHEET 4 OF 16

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
 JEFFERSON
 I 71 - OHIO STREET TO ZORN AVENUE
 LOUISVILLE - COVINGTON
 ROAD

STATION 355 + 33.18 PROJECT NO. 171

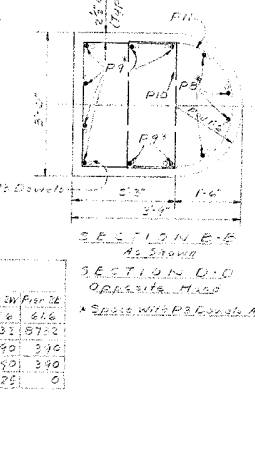
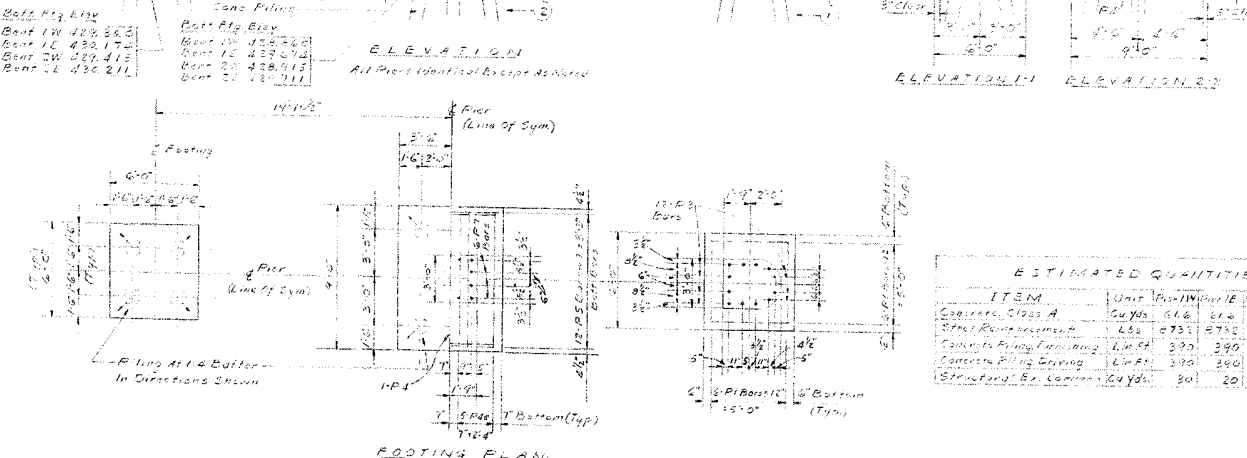
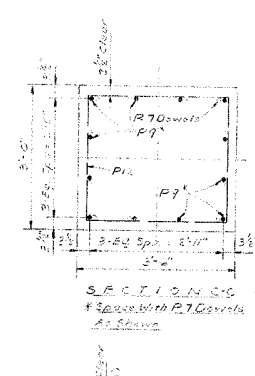
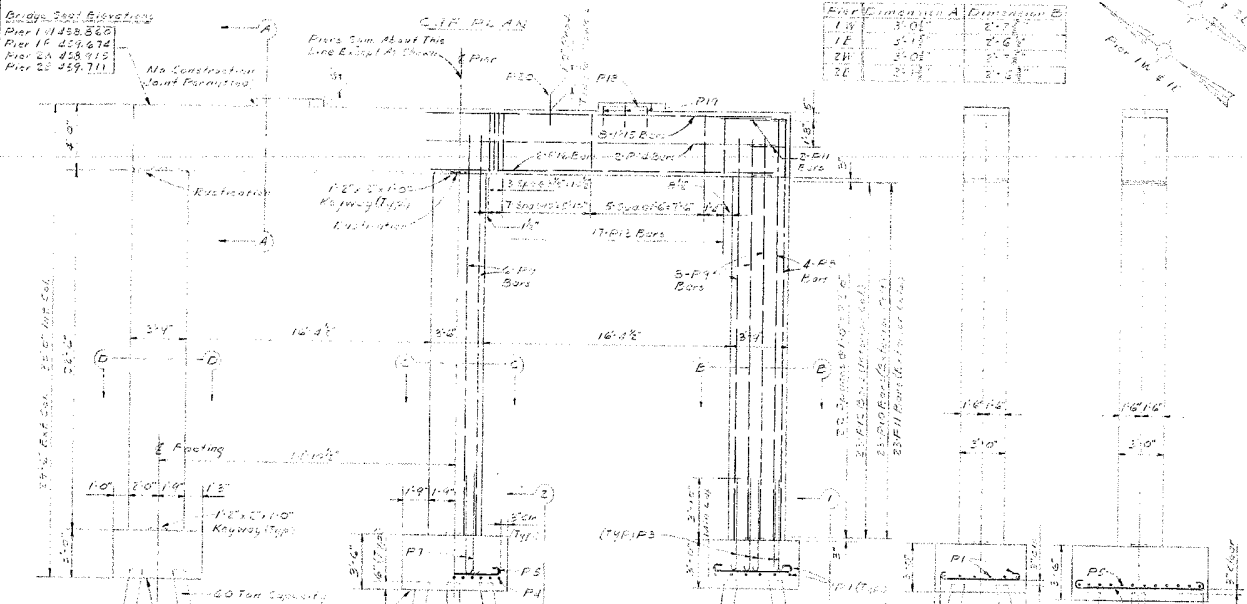
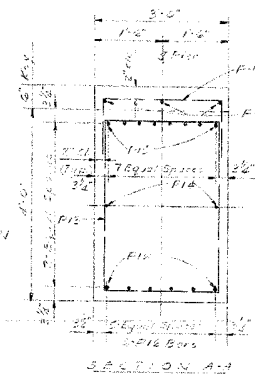
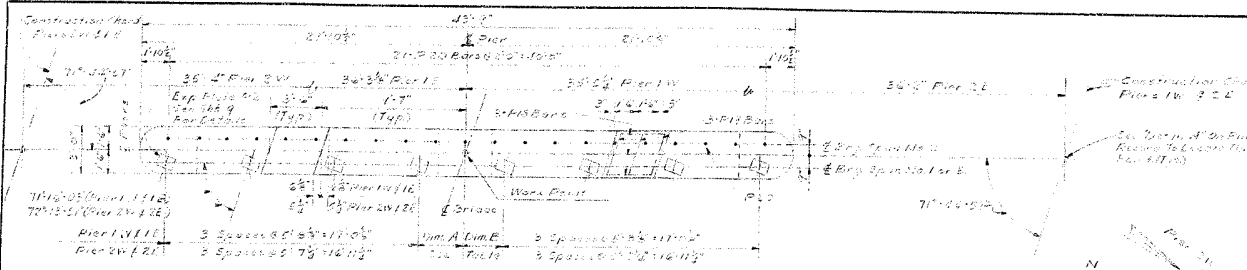
BRIDGE NUMBER 15936

LAYOUT

BRIDGE

NO.	DATE	BY	CHKD.	APP'D.	REV.
7	KY.				

PIER REINFORCEMENT - PIER 1									
Bar No.	Size	Length	Location	Feet	Feet	Feet	Feet	Feet	Feet
P-1	2	5	24	6	Feeling				
P-2	1	9	24	7	Feeling				
P-3	2	7	11	12	Feeling				
P-4	2	7	12	8	Feeling				
P-5	1	9	12	8	Feeling				
P-6	3	9	0	30	1	Ext. Cols.			
P-7	4	4	50	9	10	Ext. Cols.			
P-8	5	4	53	12	4	Int. Cols.			
P-9	5	4	54	13	4	Int. Cols.			
P-10	5	4	54	13	4	Int. Cols.			
P-11	5	4	54	13	4	Int. Cols.			
P-12	5	4	54	13	4	Int. Cols.			
P-13	5	4	54	13	4	Int. Cols.			
P-14	5	4	54	13	4	Int. Cols.			
P-15	5	4	54	13	4	Int. Cols.			
P-16	5	4	54	13	4	Int. Cols.			
P-17	5	4	54	13	4	Int. Cols.			
P-18	5	4	54	13	4	Int. Cols.			
P-19	5	4	54	13	4	Int. Cols.			
P-20	5	4	54	13	4	Int. Cols.			
P-21	5	4	54	13	4	Int. Cols.			
P-22	5	4	54	13	4	Int. Cols.			
P-23	5	4	54	13	4	Int. Cols.			
P-24	5	4	54	13	4	Int. Cols.			
P-25	5	4	54	13	4	Int. Cols.			
P-26	5	4	54	13	4	Int. Cols.			
P-27	5	4	54	13	4	Int. Cols.			
P-28	5	4	54	13	4	Int. Cols.			
P-29	5	4	54	13	4	Int. Cols.			
P-30	5	4	54	13	4	Int. Cols.			
P-31	5	4	54	13	4	Int. Cols.			
P-32	5	4	54	13	4	Int. Cols.			
P-33	5	4	54	13	4	Int. Cols.			
P-34	5	4	54	13	4	Int. Cols.			
P-35	5	4	54	13	4	Int. Cols.			
P-36	5	4	54	13	4	Int. Cols.			
P-37	5	4	54	13	4	Int. Cols.			
P-38	5	4	54	13	4	Int. Cols.			
P-39	5	4	54	13	4	Int. Cols.			
P-40	5	4	54	13	4	Int. Cols.			
P-41	5	4	54	13	4	Int. Cols.			
P-42	5	4	54	13	4	Int. Cols.			
P-43	5	4	54	13	4	Int. Cols.			
P-44	5	4	54	13	4	Int. Cols.			
P-45	5	4	54	13	4	Int. Cols.			
P-46	5	4	54	13	4	Int. Cols.			
P-47	5	4	54	13	4	Int. Cols.			
P-48	5	4	54	13	4	Int. Cols.			
P-49	5	4	54	13	4	Int. Cols.			
P-50	5	4	54	13	4	Int. Cols.			
P-51	5	4	54	13	4	Int. Cols.			
P-52	5	4	54	13	4	Int. Cols.			
P-53	5	4	54	13	4	Int. Cols.			
P-54	5	4	54	13	4	Int. Cols.			
P-55	5	4	54	13	4	Int. Cols.			
P-56	5	4	54	13	4	Int. Cols.			
P-57	5	4	54	13	4	Int. Cols.			
P-58	5	4	54	13	4	Int. Cols.			
P-59	5	4	54	13	4	Int. Cols.			
P-60	5	4	54	13	4	Int. Cols.			
P-61	5	4	54	13	4	Int. Cols.			
P-62	5	4	54	13	4	Int. Cols.			
P-63	5	4	54	13	4	Int. Cols.			
P-64	5	4	54	13	4	Int. Cols.			
P-65	5	4	54	13	4	Int. Cols.			
P-66	5	4	54	13	4	Int. Cols.			
P-67	5	4	54	13	4	Int. Cols.			
P-68	5	4	54	13	4	Int. Cols.			
P-69	5	4	54	13	4	Int. Cols.			
P-70	5	4	54	13	4	Int. Cols.			
P-71	5	4	54	13	4	Int. Cols.			
P-72	5	4	54	13	4	Int. Cols.			
P-73	5	4	54	13	4	Int. Cols.			
P-74	5	4	54	13	4	Int. Cols.			
P-75	5	4	54	13	4	Int. Cols.			
P-76	5	4	54	13	4	Int. Cols.			
P-77	5	4	54	13	4	Int. Cols.			
P-78	5	4	54	13	4	Int. Cols.			
P-79	5	4	54	13	4	Int. Cols.			
P-80	5	4	54	13	4	Int. Cols.			
P-81	5	4	54	13	4	Int. Cols.			
P-82	5	4	54	13	4	Int. Cols.			
P-83	5	4	54	13	4	Int. Cols.			
P-84	5	4	54	13	4	Int. Cols.			
P-85	5	4	54	13	4	Int. Cols.			
P-86	5	4	54	13	4	Int. Cols.			
P-87	5	4	54	13	4	Int. Cols.			
P-88	5	4	54	13	4	Int. Cols.			
P-89	5	4	54	13	4	Int. Cols.			
P-90	5	4	54	13	4	Int. Cols.			
P-91	5	4	54	13	4	Int. Cols.			
P-92	5	4	54	13	4	Int. Cols.			
P-93	5	4	54	13	4	Int. Cols.			
P-94	5	4	54	13	4	Int. Cols.			
P-95	5	4	54	13	4	Int. Cols.			
P-96	5	4	54	13	4	Int. Cols.			
P-97	5	4	54	13	4	Int. Cols.			
P-98	5	4	54	13	4	Int. Cols.			
P-99	5	4	54	13	4	Int. Cols.			
P-100	5	4	54	13	4	Int. Cols.			



ESTIMATED QUANTITIES				
ITEM	Unit	Quantity	Price	Total
Concrete Class A	Cu Yds.	616	616	616
Steel Reinforcement	Lbs.	8731	8731	8731
Concrete Piling (including Lin. Ft.)	L.Ft.	390	390	390
Concrete Piling Driving	L.Ft.	390	390	390
Steel Piling (including Lin. Ft.)	L.Ft.	30	30	30

PIER DETAILS

BRIDGE OVER FISCHER RAILROAD SPUR SHEET 7 OF 12

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
JEFFERSON
 1711 OHIO STREET TO ZORN AVENUE
 LOUISVILLE - COVINGTON
 ROAD

STATION 355+33.19 PROJECT NO. I 71

BRIDGE NUMBER DRAWING INDEX

NO. 15426

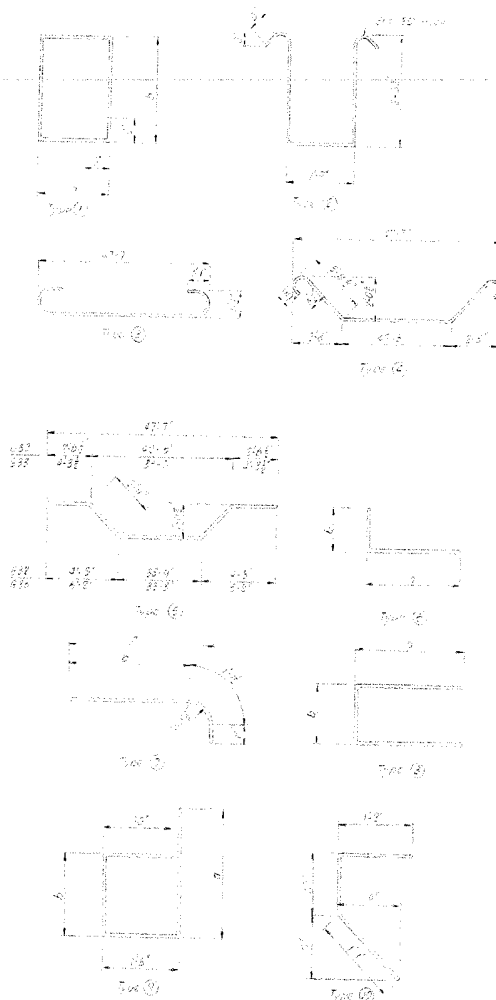
BRIDGE

BRIDGE

BILL OF REINFORCEMENT

ESTIMATE OF QUANTITIES

* "I have a feeling that I am not alone in this world."

[illegible]

1765.
 1765. 1765. 1765. 1765. 1765.

BRIDGE CARRYING 171 OVER FISCHER SPUR R.R. SHEET 10 OF 11

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
I 71 - OHIO STREET TO ZORN AVENUE
LOUISVILLE-COVINGTON.

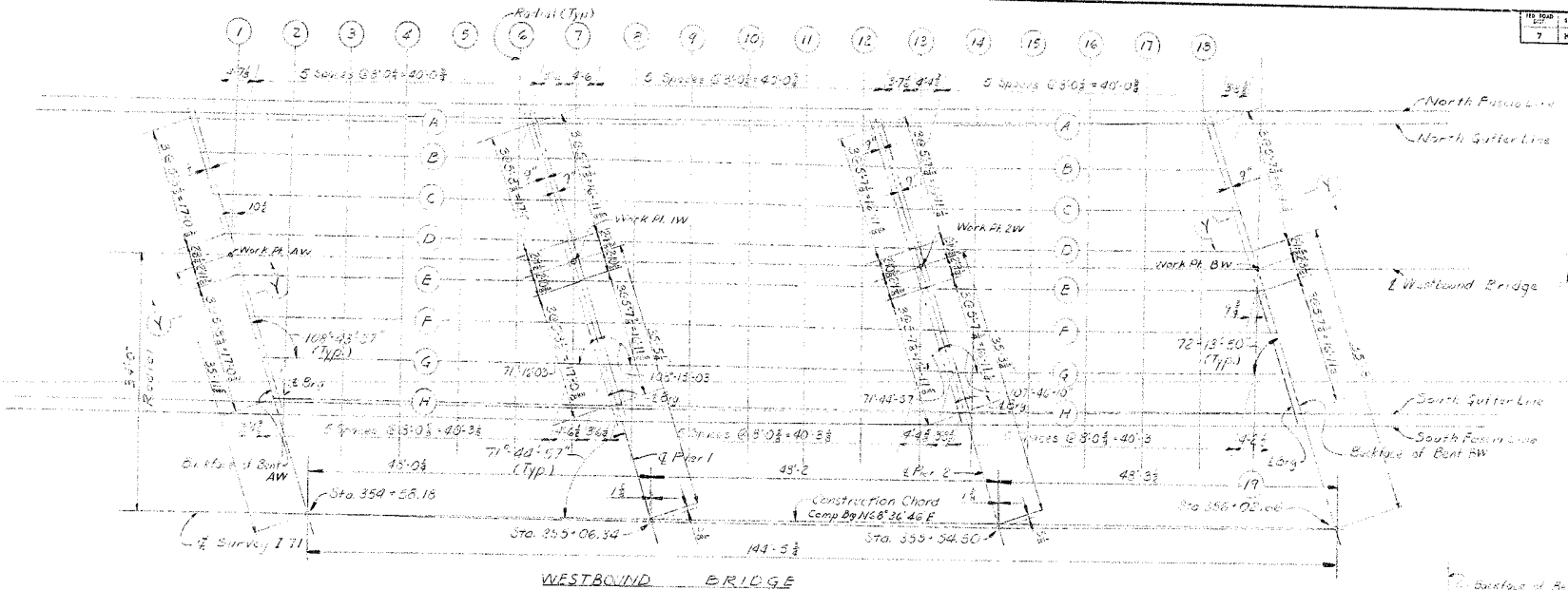
STATION 355 + 33.19 PROJECT NO. 17

BRIDGE	DRAWING	INDEX
NUMBER	15936	

SUPERSTRUCTURE

BRIDGE

Survey
 Station 355+33.19
 L = 22' 30" 00"
 D = 1' 00"
 T = 134.925
 E = 156.73
 L = 2650.15
 F1310 360+3170



FASCIA OFFSETS

Station	Offset	Station	Offset
1	0.00	11	0.00
2	0.00	12	0.00
3	0.00	13	0.00
4	0.00	14	0.00
5	0.00	15	0.00
6	0.00	16	0.00
7	0.00	17	0.00
8	0.00	18	0.00
9	0.00	19	0.00
10	0.00	20	0.00
11	0.00	21	0.00
12	0.00	22	0.00
13	0.00	23	0.00
14	0.00	24	0.00
15	0.00	25	0.00
16	0.00	26	0.00
17	0.00	27	0.00
18	0.00	28	0.00
19	0.00	29	0.00
20	0.00	30	0.00

* Distance measured along Survey Lines

TABLE OF ELEVATIONS

ELEVATION 'X'

LOCATION	W GUTTER	BEAM B	BEAM C	BEAM D	BEAM E	BEAM F	BEAM G	S GUTTER
Backface Bent AW	462.080	462.185	462.337	462.494	462.647	462.800	462.953	463.106
Pier 1 W Span 1	462.110	462.215	462.367	462.524	462.677	462.830	462.983	463.136
Pier 1 W Span 2	462.140	462.245	462.397	462.554	462.707	462.860	463.013	463.166
Pier 2 W Span 1	462.170	462.275	462.427	462.584	462.737	462.890	463.043	463.196
Pier 2 W Span 2	462.200	462.305	462.457	462.614	462.767	462.920	463.073	463.226
Backface Bent BW	462.230	462.335	462.487	462.644	462.797	462.950	463.103	463.256

TABLE OF ELEVATIONS

ELEVATION 'X'

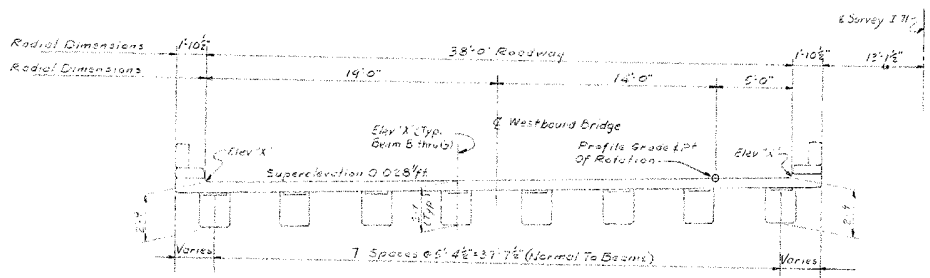
SECTION	W GUTTER	BEAM B	BEAM C	BEAM D	BEAM E	BEAM F	BEAM G	S GUTTER
1	462.050	462.155	462.307	462.464	462.617	462.770	462.923	463.076
2	462.080	462.185	462.337	462.494	462.647	462.800	462.953	463.106
3	462.110	462.215	462.367	462.524	462.677	462.830	462.983	463.136
4	462.140	462.245	462.397	462.554	462.707	462.860	463.013	463.166
5	462.170	462.275	462.427	462.584	462.737	462.890	463.043	463.196
6	462.200	462.305	462.457	462.614	462.767	462.920	463.073	463.226
7	462.230	462.335	462.487	462.644	462.797	462.950	463.103	463.256
8	462.260	462.365	462.517	462.674	462.827	462.980	463.133	463.286
9	462.290	462.395	462.547	462.704	462.857	463.010	463.163	463.316
10	462.320	462.425	462.577	462.734	462.887	463.040	463.193	463.346
11	462.350	462.455	462.607	462.764	462.917	463.070	463.223	463.376
12	462.380	462.485	462.637	462.794	462.947	463.100	463.253	463.406
13	462.410	462.515	462.667	462.824	462.977	463.130	463.283	463.436
14	462.440	462.545	462.697	462.854	463.007	463.160	463.313	463.466
15	462.470	462.575	462.727	462.884	463.037	463.190	463.343	463.496
16	462.500	462.605	462.757	462.914	463.067	463.220	463.373	463.526
17	462.530	462.635	462.787	462.944	463.097	463.250	463.403	463.556
18	462.560	462.665	462.817	462.974	463.127	463.280	463.433	463.586
19	462.590	462.695	462.847	463.004	463.157	463.310	463.463	463.616



SECTION Y-Y

GUTTER LINE OFFSETS

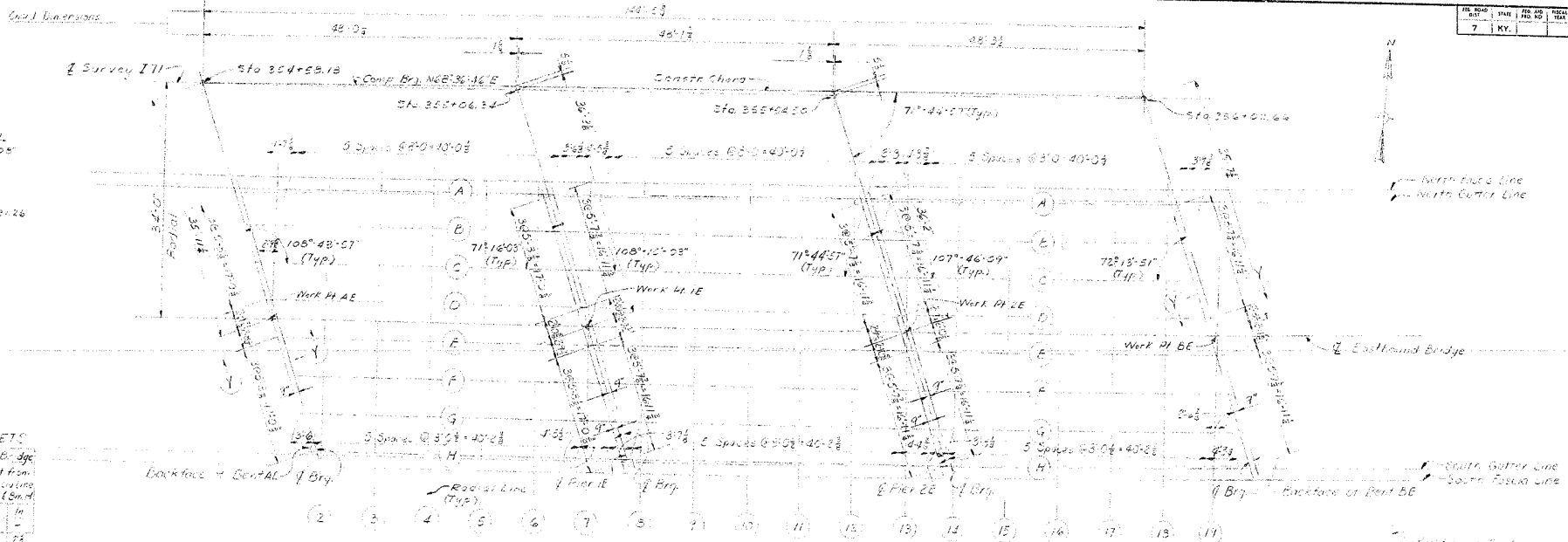
Offset Line	Gutter A	Gutter B
Backface Bent AW	4.5	4.5
Pier 1 W Span 1	4.5	4.5
Pier 1 W Span 2	4.5	4.5
Pier 2 W Span 1	4.5	4.5
Pier 2 W Span 2	4.5	4.5
Backface Bent BW	4.5	4.5



TYPICAL SECTION

NOTE:
 Construction Elevations show elevations at top of sub. These elevations include the deflections due to dead load and are to be maintained while falsework is in place

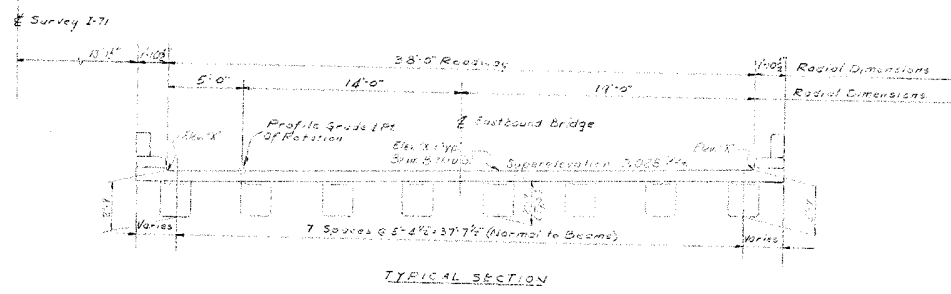
WESTBOUND BRIDGE
 CONSTRUCTION ELEVATIONS



FASCIA OFFSETS

Station	Eastbound Bridge	Dist. from East Face Line to Fascia Line	Dist. from East Face Line to Gutter Line
1	1	11	11
2	1	108	2
3	1	108	2
4	1	11	2
5	1	118	2
6	1	118	2
7	2	0	2
8	2	0	2
9	2	0	2
10	2	0	2
11	2	0	2
12	2	0	2
13	2	13	2
14	2	13	2
15	2	13	2
16	2	13	2
17	2	13	2
18	2	13	2
19	2	13	2

* Distance measured along Street Line



TYPICAL SECTION

EASTBOUND BRIDGE

LOCATION	N GUTTER BEAM	BEAM C	BEAM D	BEAM E	BEAM F	BEAM G	SGUTTER
Backface Bent AE	402.002	402.037	402.101	402.145	402.188	402.230	402.254
1st Pier IE Spn 1	402.040	402.080	402.120	402.160	402.200	402.240	402.260
2nd Pier IE Spn 2	402.119	402.159	402.199	402.239	402.279	402.319	402.339
3rd Pier IE Spn 3	402.161	402.201	402.241	402.281	402.321	402.361	402.381
4th Pier IE Spn 4	402.189	402.229	402.269	402.309	402.349	402.389	402.409
Backface Bent BE	402.268	402.308	402.348	402.388	402.428	402.468	402.488

SECTION	N GUTTER BEAM	BEAM C	BEAM D	BEAM E	BEAM F	BEAM G	SGUTTER
1	402.002	402.037	402.101	402.145	402.188	402.230	402.254
2	402.040	402.080	402.120	402.160	402.200	402.240	402.260
3	402.119	402.159	402.199	402.239	402.279	402.319	402.339
4	402.161	402.201	402.241	402.281	402.321	402.361	402.381
5	402.189	402.229	402.269	402.309	402.349	402.389	402.409
6	402.268	402.308	402.348	402.388	402.428	402.468	402.488
7	402.308	402.348	402.388	402.428	402.468	402.508	402.528
8	402.348	402.388	402.428	402.468	402.508	402.548	402.568
9	402.388	402.428	402.468	402.508	402.548	402.588	402.608
10	402.428	402.468	402.508	402.548	402.588	402.628	402.648
11	402.468	402.508	402.548	402.588	402.628	402.668	402.688
12	402.508	402.548	402.588	402.628	402.668	402.708	402.728
13	402.548	402.588	402.628	402.668	402.708	402.748	402.768
14	402.588	402.628	402.668	402.708	402.748	402.788	402.808
15	402.628	402.668	402.708	402.748	402.788	402.828	402.848
16	402.668	402.708	402.748	402.788	402.828	402.868	402.888
17	402.708	402.748	402.788	402.828	402.868	402.908	402.928
18	402.748	402.788	402.828	402.868	402.908	402.948	402.968
19	402.788	402.828	402.868	402.908	402.948	402.988	403.008

SECTION Y-Y

Offset Line	Grade A	Grade B
Backface Bent AE	402.002	402.002
1st Pier IE Spn 1	402.040	402.040
2nd Pier IE Spn 2	402.119	402.119
3rd Pier IE Spn 3	402.161	402.161
4th Pier IE Spn 4	402.189	402.189
Backface Bent BE	402.268	402.268

NOTE: Construction Elevations show elevations at top of slab. These elevations include the deflections due to load and are to be maintained while in-service.

EASTBOUND BRIDGE CONSTRUCTION ELEVATIONS

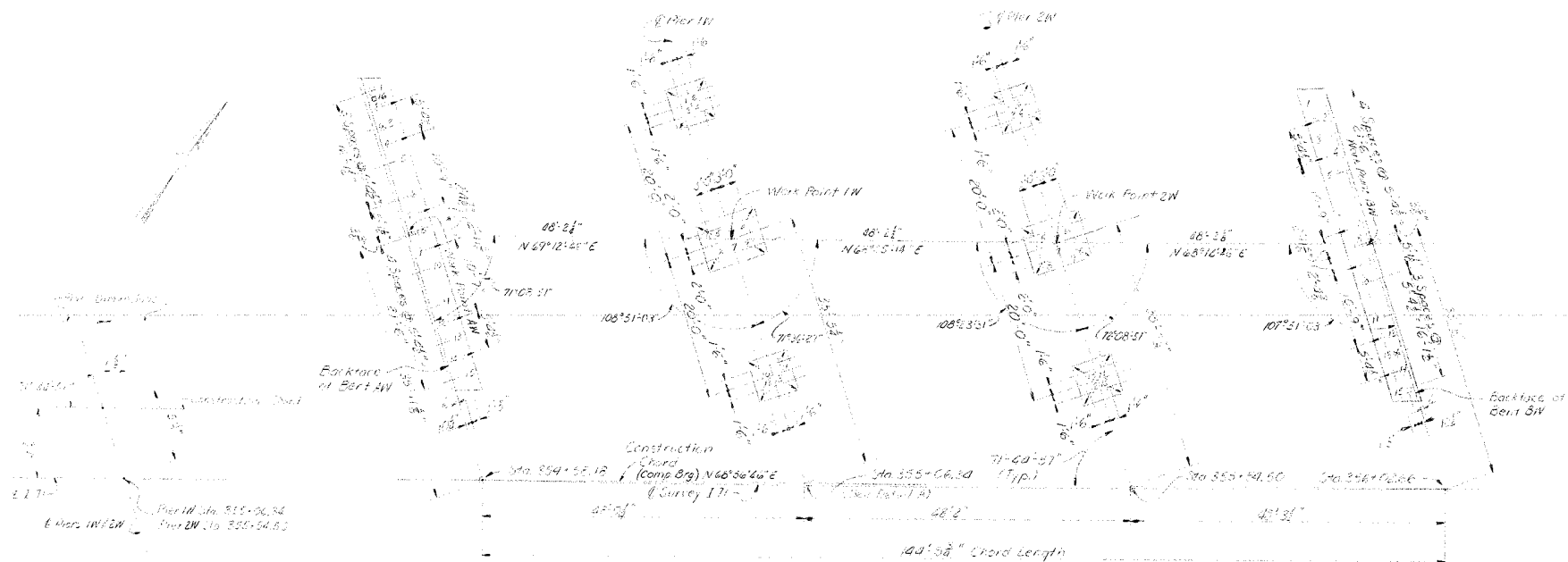
BRIDGE OVER FISHER RAILROAD SPUR SHEET 12 OF 13

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
I 71 - OHIO STREET TO ZORN AVENUE
LOUISVILLE - COVINGTON
ROAD

STATION 355+33.19 PROJECT NO. I 71

BRIDGE NUMBER 12533C

BRIDGE



PIILING PLAN - WESTBOUND BRIDGE

DETAIL A

Notes:
This pile record does not replace other records of piles required to be kept and submitted by the Resident Engineer. After all piles have been driven, the Resident Engineer shall record the tip of pile elevation, as driven, the length of pile in place, and the calculated bearing capacity of each pile. He shall return one blueprint of this sheet to the Director of Bridges, so that the data may be recorded on the original plans. Lengths of piles in place shown hereon are the actual lengths of piles in the finished structure below the cut-off elevation and are not necessarily pay items.

END BENT 1W				
Pile No.	Cutoff Elevation	Tip of Pile Elevation	Length of Pile in Place	Calculated Bearing Capacity, Tons
1	455.770	Bottom out (L.V.)		
25		400.55	54.98	70
37		375.66	55.58	90
46		409.12	52.65	85
5V		398.70	52.50	85
6V		409.00	51.75	90
7H		408.86	49.42	85
8V		378.02	51.75	90
9H		397.82	51.61	85
10V		407.79	49.83	90
11V		408.20	47.71	85
12V		406.05	51.25	85
13V		407.62	48.25	85
14H		406.86	53.92	85
15V	455.770	408.190	47.58	90
16H	455.770	398.33	49.83	85

PIER 1W				
Pile No.	Cutoff Elevation	Tip of Pile Elevation	Length of Pile in Place	Calculated Bearing Capacity, Tons
15	429.850	395.23	34.62	75
25		395.56	34.42	80
35		397.12	32.73	85
45	429.860	394.81	35.05	85
55	429.860	394.81	34.80	85
65		394.66	34.71	85
75		394.76	34.80	85
85		394.94	33.59	85
95	429.860	406.00	27.96	85
105	429.860	405.26	27.96	85
115		392.16	27.83	85
125		391.53	38.67	85
135	429.860	391.71	37.95	85

PIER 2W				
Pile No.	Cutoff Elevation	Tip of Pile Elevation	Length of Pile in Place	Calculated Bearing Capacity, Tons
16	429.915	397.16	32.75	85
26		398.51	31.56	85
36		398.06	38.60	85
46	429.915	398.61	31.30	85
56	429.915	397.90	32.02	85
66		398.04	38.81	85
77		396.82	32.96	107
88		395.59	32.33	85
96	429.915	396.76	33.15	85
106	429.915	397.14	31.83	85
116		396.29	31.53	85
126		392.84	34.05	85
136	429.915	396.29	33.62	85

END BENT 3W				
Pile No.	Cutoff Elevation	Tip of Pile Elevation	Length of Pile in Place	Calculated Bearing Capacity, Tons
1V	455.933	410.82	45.11	90
2B		410.82	46.00	90
3V		409.00	46.84	90
4B		408.81	47.59	90
5V		408.75	47.12	85
6V		408.13	47.80	92
7B		408.44	48.95	112
8V		406.19	49.74	92
9B		406.36	48.42	95
10V		406.70	47.03	85
11V		408.38	47.55	90
12B		408.82	46.56	90
13V		408.36	47.57	94
14B		408.23	48.19	95
15V	455.933	408.47	46.76	90

- Indicates direction of "A" batter
* Indicates test pile for length
(Estimated length: 35' @ Piers & 60' @ End Bents)

WESTBOUND BRIDGE
PILE RECORD

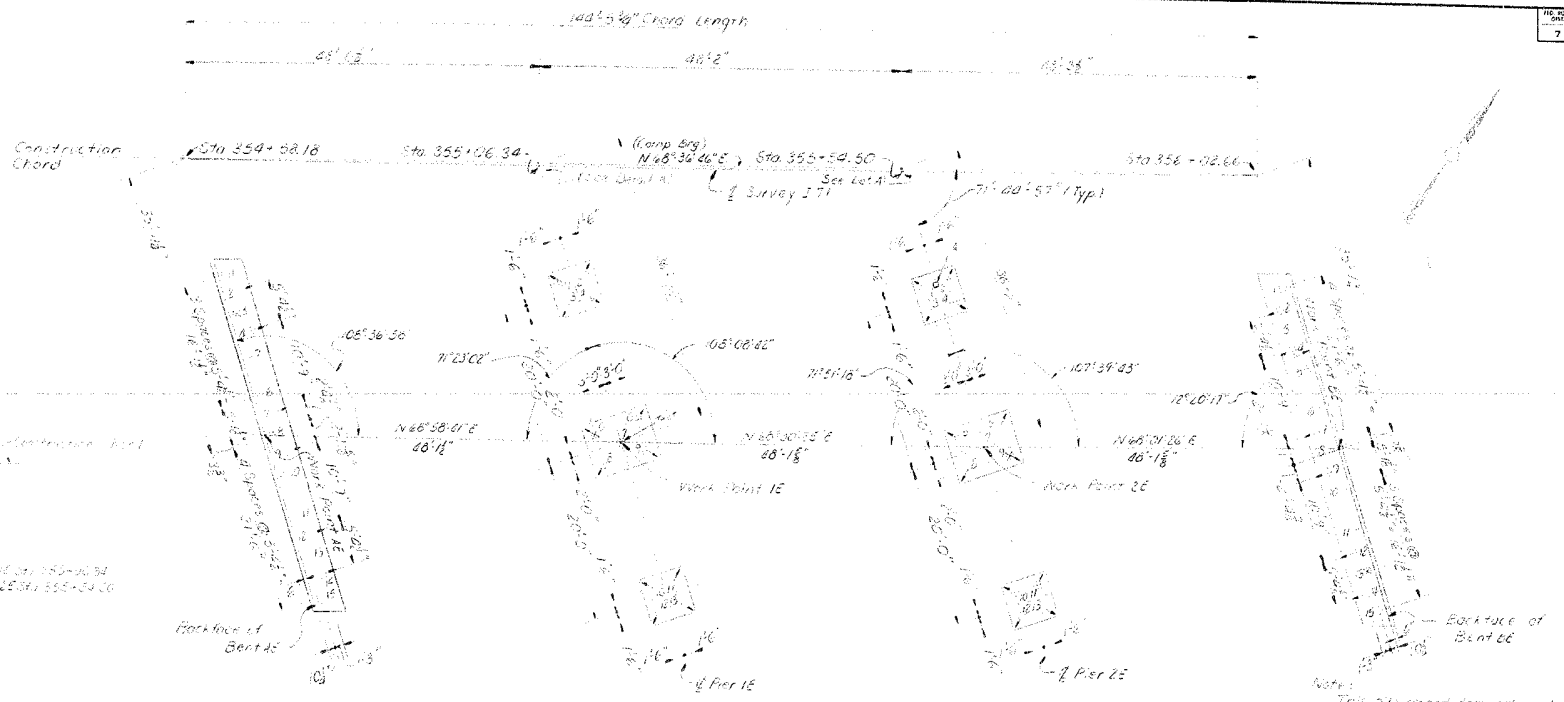
BRIDGE OVER FISCHER RAILROAD SPUR SHEET 13 OF 15

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
171 - OHIO STREET TO ZORN AVENUE
LOUISVILLE - COVINGTON
ROAD

STATION 355+33.19 PROJECT NO. 171

BRIDGE NUMBER 15936

BRIDGE



FILING PLAN - EASTBOUND BRIDGE

Note: This pile record does not replace other records of piles required to be kept and submitted by the Resident Engineer. After all piles have been driven, the Resident Engineer shall record the tip of pile, elevation, as driven, the length of pile in place, and the calculated bearing capacity of each pile. He shall return the blueprint of this sheet to the Director at Bridges, so that the data may be recorded on the original plans. Lengths of piles in place shown hereof are the actual lengths of piles in the finished structure below the cut-off elevation and are not necessarily pay items.

END BENT 1E				
Pile No.	Cut-off Elevation	Tip of Pile as Driven	Length of Pile in Place	Calculated Bearing Capacity Tons
1	456.602	389.432	77.17	85
25		402.577	56.03	85
27		402.192	56.41	85
28		402.417	56.19	85
3		402.022	56.58	85
5		404.07	52.53	85
7		406.112	50.49	85
9		405.852	50.75	85
11		405.076	51.52	85
13		407.102	49.50	85
15		407.922	48.68	85
17		407.048	50.56	85
19		405.10	51.50	85
21		407.417	50.19	85
23		456.502	40.18	85

PIER 1E				
Pile No.	Cut-off Elevation	Tip of Pile as Driven	Length of Pile in Place	Calculated Bearing Capacity Tons
1E	430.674	389.432	41.25	85
2E		389.156	41.52	85
3E		397.148	33.52	85
4E	430.674	396.499	34.18	85
5E	430.172	391.471	38.70	85
6E		397.111	33.56	85
7E		399.594	31.08	85
8E		390.472	40.20	85
9E	430.774	396.492	34.28	85
10E	430.674	396.223	34.45	85
11E		407.247	23.43	85
12E		392.151	38.52	85
13E	430.674	393.168	37.51	85

PIER 2E				
Pile No.	Cut-off Elevation	Tip of Pile as Driven	Length of Pile in Place	Calculated Bearing Capacity Tons
1E	430.711	Bottom Cut		
2E		391.533	50.00	100
3E		391.342	50.36	100
4E	430.711	395.112	35.60	100
5E	430.711	395.112	35.60	100
6E		397.552	33.16	100
7E		398.341	32.37	100
8E		398.194	32.52	100
9E	430.711	395.525	35.19	100
10E	430.711	397.127	33.59	100
11E		397.126	33.59	100
12E		398.421	32.29	100
13E	430.711	396.810	33.90	100
14E	430.711	397.171	33.54	100

END BENT 2E				
Pile No.	Cut-off Elevation	Tip of Pile as Driven	Length of Pile in Place	Calculated Bearing Capacity Tons
1E	456.714	409.48	47.23	85
2E		406.47	50.24	85
3E		408.29	48.42	85
4E		408.61	48.10	85
5E		408.44	48.27	85
6E		408.28	48.43	85
7E		405.22	51.49	85
8E		408.42	48.29	85
9E		406.44	50.27	85
10E		404.88	51.83	85
11E		404.19	52.52	85
12E		405.37	51.34	85
13E		406.29	50.42	85
14E		408.28	48.43	85
15E	456.714	407.11	49.60	85

→ indicates direction of batter
 * indicates Test Pile for length
 (Estimated length: 35' @ Piers & 60' @ End Bents)

EASTBOUND BRIDGE
PILE RECORD

BRIDGE OVER FISCHER RAILROAD SPUR SHEET 14 OF 15

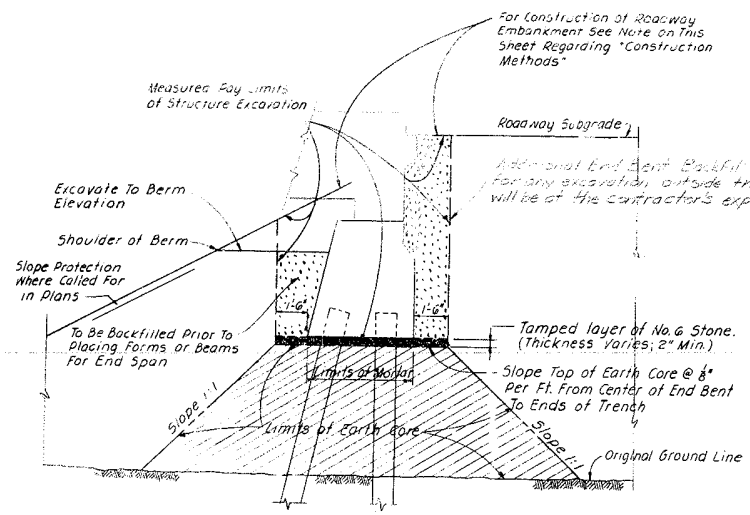
COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
JEFFERSON
 171 - OHIO STREET TO ZORN AVENUE
 LOUISVILLE-COVINGTON
 ROAD

STATION 355+33.19 PROJECT NO. 171

BRIDGE NUMBER	15936	NO.	15936
DATE		NO.	

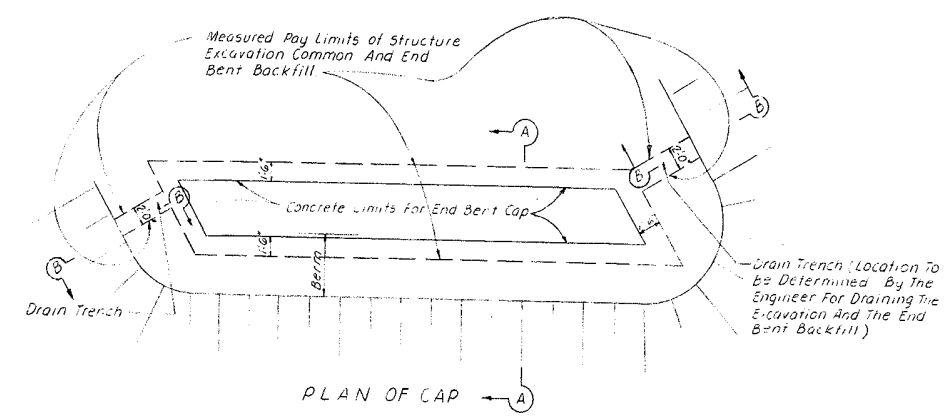
BRIDGE

HAZELT & ERDAL
CONSULTING ENGINEERS
FILE NO. 871-E

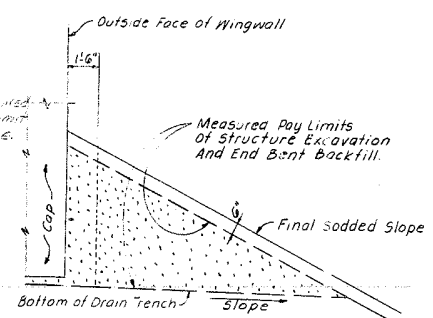


SECTION A-A

Legend: [Pattern] Pay limits for End Bent Backfill.



PLAN OF CAP



SECTION B-B
(Thru Trench)

NOTES

MATERIALS: EARTH CORE-In Addition To Meeting Requirements For Embankment Materials in Accordance With The Specifications, The Earth Core Shall Be Free of Boulders or Any Other Obstructions Which Would Interfere With The Driving of Piles.

END BENT BACKFILL: End Bent Backfill Material Shall Consist of Not More Than 10% Sand or Concrete Sand or Dense Graded Aggregate Meeting Requirements of The Specifications; or Sand, Crushed or Uncrushed Gravel, Crushed Limestone, Crushed Sandstone, Crushed Slag or a Combination Thereof, Meeting The Following Requirements:

GRADATION	SIEVE SIZE	Percent Passing
	3/8 Inch	100
	1/2 Inch	50-90
	3/4 Inch	20-40

SOUNDNESS: Percentage Loss After Subjection To Five Alternations of The Sodium Sulfate Soundness Test, not More Than 20.

WEAR SHALE: Percent, Not More Than 5.

DIRT: Percent, Not More Than 5.

CONSTRUCTION METHODS: Prior To Driving Piles, The Roadway Embankment At The Location For Pile End Bent Shall Be Constructed To The Roadway Subgrade Elevation. At Full Embankment Section For Front And Side Slopes in Accordance With The Specifications For "Extra Compaction". After The Embankment Has Been Constructed, Excavate To The Bottom of Bent Cap Elevation Within The Limits Indicated Before Driving Piles. After Piles Are Driven (See General Notes) Slope Bottom of Excavation Toward Ends of Trench As Noted For Drainage. Place # 6 Crushed Stone in Trench To Bottom of End Bent Elevation, Tamped Well. Place 1:2 Cement Mortar To Bottom of Cap Elevation, Side Form For End Bent May Be Placed As Soon As Mortar Has Set Sufficient To Support Workmen And Forms Without Being Disturbed. After Concrete Cap Has Been Placed The Excavation Shall Be Filled With "End Bent Backfill" Material Noted Above To Level of The Berm Prior To Placing Beams For The Bridge. After Concrete Backwall Has Been Placed The "End Bent Backfill" Shall Be Placed Up To Subgrade Elevation. If The Original Excavation Has Been Enlarged Beyond The Limits Shown, The Entire Excavation, Regardless of The Limits Shall Be Backfilled With The End Bent Backfill Material.

End Bent Backfill Shall Be Placed in Drainage Trenches At Ends of Excavation To Embankment Side Slopes, As Shown in Section B-B. The Backfill Shall Be Tamped By Hand Tampers, Pneumatic Tampers or Other Means Approved By The Engineer. Care Shall Be Exercised To Thoroughly Compact The Backfill Under The Haunches of The Structure To Insure That The Backfill is in Intimate Contact With The Sides of The Structure. The Density of The Backfill Shall Be At Least Equal To That Required For The Adjacent Embankment.

MEASUREMENT AND PAYMENT: Excavation For The Pile End Bent Shall Be Measured As Shown in "Plan" And "Section" And Will Be Paid For As "Structure Excavation Common" in Accordance With The Specifications. Pay Limits For Structure Excavation Shall Serve As Limits For Determining Quantity For Payment For "End Bent Backfill" Which Quantity Shall Be Paid For At The Unit Price Per Cubic Yard Bid For End Bent Backfill, except that the volume of concrete cap-bent excavation shall be deducted from the measurement for "Structure Excavation" to establish the quantity for payment for "End Bent Backfill". Crushed stone and mortar placed under the end bent will not be paid for separately and shall be incidental to and included in the "Unit Price Bid for Class "A" concrete.

BRIDGE LARSEN 171 OVER FISHES SPRING R.R. SHEET 15 OF 15

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
171 - OHIO STREET TO ZORN AVENUE
LOUISVILLE - COVINGTON
ROAD

STATION 155+3.19
BRIDGE NUMBER 15036
PROJECT NO. SP56-33-L2
171-16100

END BENT BACKFILL

BRIDGE