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

KENTUCKY DEPARTMENT OF HIGHWAYS

I-71 TWIN BRIDGES OVER ZORN AVENUE

LOUISVILLE-COVINGTON ROAD

JEFFERSON COUNTY

BILL OF INCIDENTAL MATERIAL (TOTAL FOR BOTH BRIDGES)		
ITEM	NO	SIZE AND DESCRIPTION
Preformed Joint Seal	2	7 16"X 3 4"X 40'-0". See Std Dwg G353C

REFERENCES AND ESTIMATE OF QUANTITIES

ITEM	SHEET NO.	CONCRETE CLASS "A" CU. YDS.	REINFORCEMENT LBS.	PROTECTIVE COATING SQ. YDS.	SLOPE PROTECTION CRUSHED AGGREGATE SQ. YDS.	STRUCTURE EXCAVATION COMMON CU. YDS.	STRUCTURAL STEEL LUMP SUM	SHEAR CONNECTORS LUMP SUM	HIGH STRENGTH HANDRAIL LIN. FT.	CONCRETE PILING LIN. FT. SEE GENERAL NOTE FOR DESCRIPTION OF ALTERNATE PILES: ALTERNATE "A" FURNISH	ALTERNATE "A" DRIVE	ALTERNATE "B" FURNISH	ALTERNATE "B" DRIVE	ALTERNATE "C" FURNISH	ALTERNATE "C" DRIVE	ALTERNATE "D" FURNISH	ALTERNATE "D" DRIVE	ALTERNATE "E" FURNISH	ALTERNATE "E" DRIVE	ALTERNATE "F" FURNISH	ALTERNATE "F" DRIVE	ELECTRICAL CONDUIT LUMP SUM	END BENT BACKFILL CU. YDS.
TITLE SHEET	1																						
PLAN SHEET	2																						
LAYOUT SHEET	3																						
GENERAL NOTE	4-5																						
SUBSTRUCTURE QUANTITIES (SOUTHBOUND)																							
END BENT NO. 1	6-7-8-9	70.5	4866			140				728	728	728	728	728	728	* 728	* 728	728	728	* 728	* 728		70
PIER NO. 1	10	58.1	13807			110				1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080		
PIER NO. 2	10	58.1	13807			125				1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080		
END BENT NO. 2	11-12-13-14	70.5	4866			140				728	728	728	728	728	728	* 728	* 728	728	728	* 728	* 728		70
PILE RECORD	24-25																						
SOUNDINGS	26																						
ARMORED EDGE	AE 1 & Sht 33																						
ALTERNATE PILE	(See General Note)																						
End Bent Backfill	SF 2a																						
SUBSTRUCTURE TOTAL S. B.		257.2	37346			515				3616	3616	3616	3616	3616	3616	3616	3616	3616	3616	3616	3616		140
SUPERSTRUCTURE QUANTITIES (SOUTHBOUND)																							
SPAN 1-2-3 SLAB DETAILS	34-35-36	297.7	69006						543														
SPAN 1-2-3 STEEL DETAILS	27-28-29-30-31																						
EXPANSION DEVICES	32-33																						
CONSTRUCTION ELEVATIONS	37-38																						
ANCHOR BOLT PLAN	40																						
High Strength Handrail	H115 or H150																						
Preformed Joint Seal	G353C																						
Superstructure Total (S. B.)		297.7	69006	1211					543														
TOTAL FOR S. B. BRIDGE		554.9	106352	1211	740	515	1	3	543	3616	3616	3616	3616	3616	3616	3616	3616	3616	3616	3616	3616		140
SUBSTRUCTURE QUANTITIES (NORTHBOUND)																							
END BENT NO. 1	15-16-17-18	70.5	4866			140				728	728	728	728	728	728	* 728	* 728	728	728	* 728	* 728		70
PIER NO. 1	19	58.1	13807			55				1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080		
PIER NO. 2	19	58.1	13807			180				1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080		
END BENT NO. 2	20-21-22-23	70.5	4866			140				728	728	728	728	728	728	* 728	* 728	728	728	* 728	* 728		70
PILE RECORD	24-25																						
SOUNDINGS	26																						
ARMORED EDGE	AE 1 & Sht 33																						
ALTERNATE PILE	(See General Note)																						
End Bent Backfill	SF 2a																						
SUBSTRUCTURE TOTAL (N. B.)		257.2	37346			515				3616	3616	3616	3616	3616	3616	3616	3616	3616	3616	3616	3616		140
SUPERSTRUCTURE QUANTITIES (NORTHBOUND)																							
SPAN 1-2-3 SLAB DETAILS	34-35-36	297.7	69006						543														
SPAN 1-2-3 STEEL DETAILS	27-28-29-30-31																						
EXPANSION DEVICES	32-33																						
CONSTRUCTION ELEVATIONS	37-39																						
ANCHOR BOLT PLAN	40																						
High Strength Handrail	H115 or H150																						
Preformed Joint Seal	G353C																						
Superstructure Total (N. B.)		297.7	69006	1211																			
Total for N. B. Bridge		554.9	106352	1211	740	515	2	4	543	3616	3616	3616	3616	3616	3616	3616	3616	3616	3616	3616	3616		140
TOTAL FOR BOTH BRIDGES		1109.8	212704	2422	1480	1030	3 One	5 One	1086	7232	7232	7232	7232	7232	7232	7232	7232	7232	7232	7232	7232	7 One	280

SOUTHBOUND BRIDGE

1 Approximate weight of Structural Steel	264550 lbs
3 Option - 1 - Approximate weight	3704 lbs
Option - 2 - Approximate weight	2585 lbs
Option - 3 - Approximate weight	2584 lbs

NORTHBOUND BRIDGE

2 Approximate weight of Structural steel	264550 lbs
4 Option - 1 - Approximate weight	3704 lbs
Option - 2 - Approximate weight	2585 lbs
Option - 3 - Approximate weight	2584 lbs
5 Total approximate weight of Structural Steel	529100 lbs
6 Total approximate weight of Shear Connectors	
Option - 1 - 4" cnannels 5.4	7408 lbs
Option - 2 - 5 8" X 4" studs	5170 lbs
Option - 3 - 5 8" X 4" mean diameter bar spiral	5168 lbs
7 Total approximate quantities, both bridges	
2" Galv. rigid conduit	630 lin. ft
1" Galv. rigid conduit	11 lin. ft
3 4" Galv. rigid conduit (Drip Drains)	6 lin. ft
16"X 6"X 6" Junction boxes (OZ Electrical type YU or approved equal)	6 each
Expansion fittings (CrouseHinds XJ 641 with GC 100 grounding straps)	4 each
2" Galv. conduit caps	4 each
1" Galv. conduit caps	2 each
1" X 2'-9" Anchor bolts, nuts and washers	8 each
Permanent Concrete Markers	4 each

REFERENCES

A.W.S I.b., G353C, H115, H150 AEL P2, P20, P21, P22, P23, P24, SF2a
The Special Provision for Linseed Oil Protective Coating Approved 4-14-64
Special Provision for Joint Sealing Compound Approved 6 27 62
Special Provision for Preformed Joint Sealer Approved 2 11 64
Commonwealth of Kentucky, Department of Highways, Special Provision for Set-Retarding Admixtures for Concrete, Approved April 14, 1964
Special Provision for High Strength Aluminum Bridge Railing Posts, Approved 10 2 64
Special Provision for Curing Concrete Pavements

* Linear feet of one of Alternate types of Piles A, B, C or E shall be used in the End Bents and be paid for at the unit prices bid for furnishing and driving respectively for Alternates D or F.

I-71 OVER ZORN AVENUE

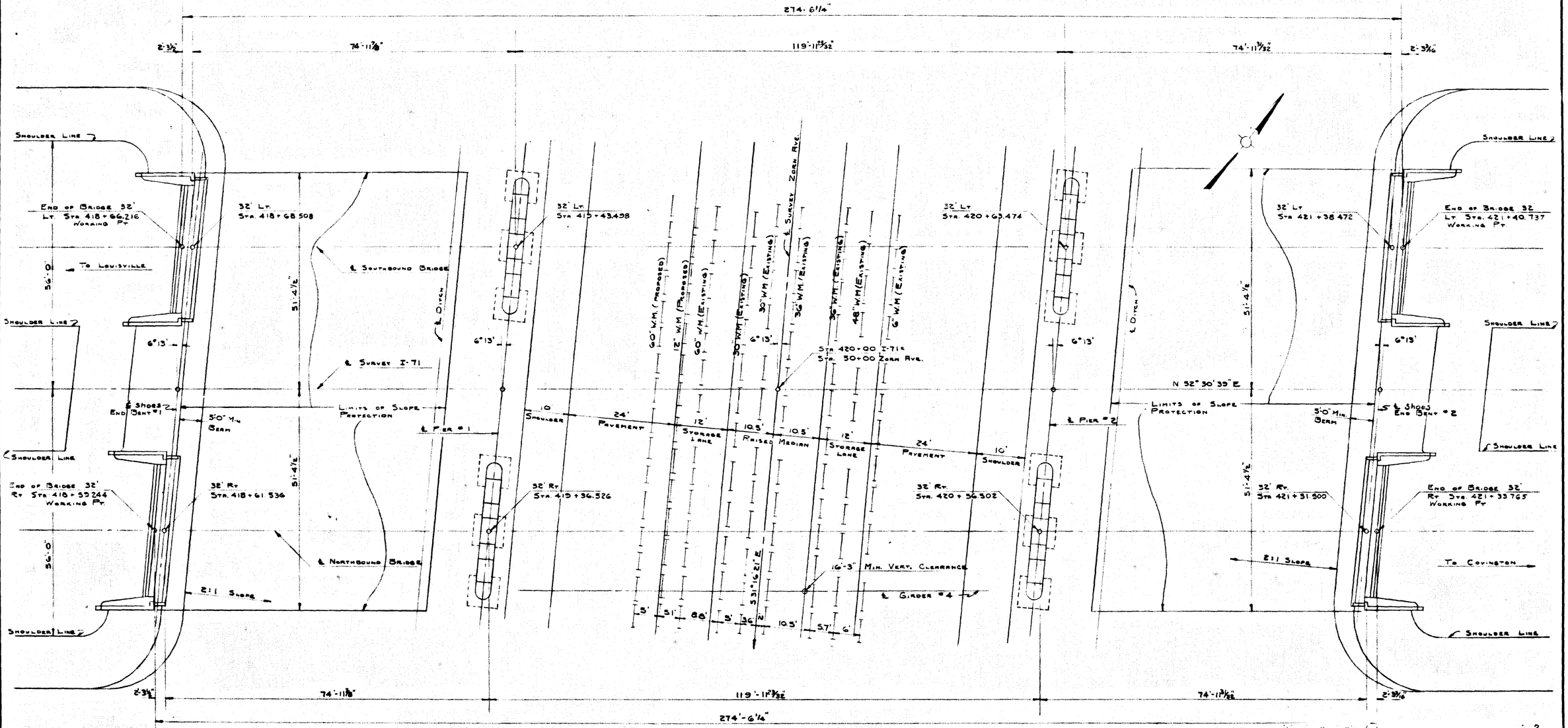
Sheet 1 of 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON
ROAD
STATION 420+00 I 71 / 50+00 Zorn Avenue
PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 16154

(2)

BRIDGE

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



PLAN

(Superstructure Removed)

PLAN

DESIGNED BY	DATE	REVISED	DATE
DETAILED BY	DATE	REVISED	DATE
TRACED BY	DATE	REVISED	DATE
CHECKED BY	DATE	REVISED	DATE
CHECKED BY Stuart J. Ruhl	DATE 9-9-54	REVISED	DATE

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON

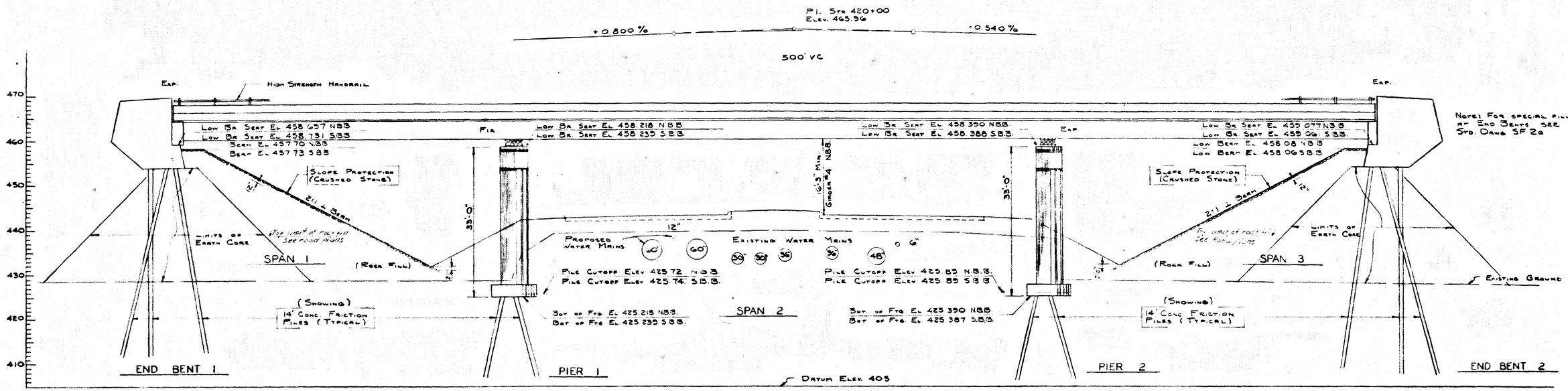
ROAD
STATION 420+00 I-71 = 50+00 ZORN AVE. **PROJECT NO.**

BRIDGE NUMBER

DRAWING NO. 16154

BRIDGE

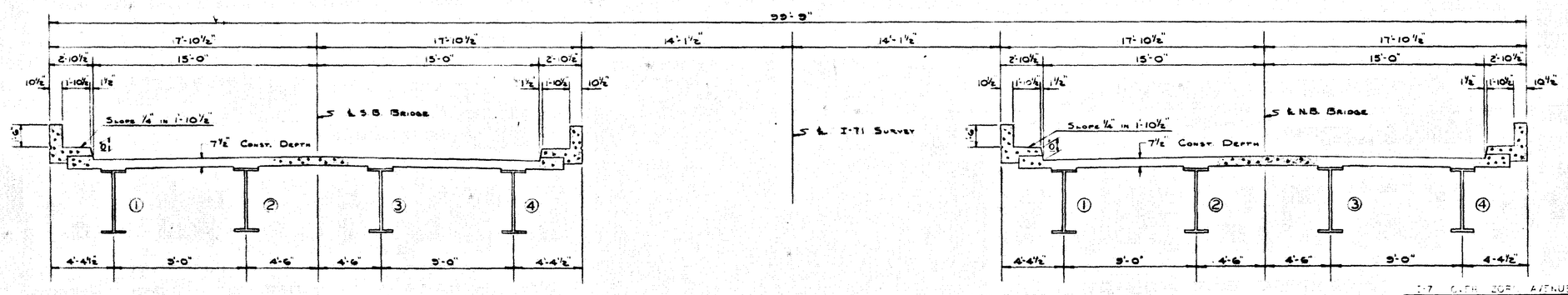
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



ELEVATION

TWIN 75'-120'-75' CONTINOUS PLATE GIRDER (COMPOSITE) 6" 13' SK. RT.
30'-0" ROADWAY . 112'-0" SHOULDERS . 2:1 FILL SLOPES
2-2'-0" SAFETY CURBS , H-S 20-44 OR ALT. MILITARY LOADING

N.B.E.
Approach fills must be built from both ends. No construction has over bridge prior to paving.



SOUTHBOUND BRIDGE

ROADWAY SECTION

NORTHBOUND BRIDGE

LAYOUT

1-7 60TH ZORN AVENUE SHEET 3

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD
STATION 420+00 I-71 - 50+00 ZORN AVE. **PROJECT NO.**
BRIDGE NUMBER
DRAWING NO. 16154

DATE / REVISED / DATE / REVISED / DATE / REVISED
CHECKED BY Stuart J. Roark DATE Jan 7 1966
DETAILED BY R.C.W. CHECKED BY
ISSUED BY DATE

BRIDGE

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

GENERAL NOTE

SPECIFICATIONS: Kentucky Department of Highways Standard Specifications, Current Edition with Supplements, shall apply to this project.

DESIGN LOAD: Bridge designed for HS20-44 loading as specified in A.A.S.H.O. Specifications (1961) or alternate loading of two 24 kip axles spaced 4 feet apart, whichever produces the greater stress.

CONCRETE: Class "A" Concrete to be used throughout except in piles and High Strength Concrete Handrail. Class D" Concrete to be used in alternate piles A-B-C-D-F- and High Strength Concrete Handrail. Class D Modified Concrete to be used in alternate piles E.

REINFORCEMENT: Intermediate or hard grade reinforcement shall be used in accordance with ASTM A15-58T for billet steel, or A16-59T for rail steel, conforming to bending requirements of AASHO Spec. M42. Dimensions shown from face of concrete are clear distances. Spacing of bars is from center to center of bars.

CONSTRUCTION JOINTS: Construction Joints shall be made at locations shown on plans. Provide substantial keys at all construction joints.

ANCHOR BOLT HOLES: Contractor shall exercise care in placing reinforcing steel in top of substructure units to the dimensions shown so as to miss anchor bolt holes.

BEARING AREAS: Bearing areas to receive superstructure shall be finished smooth and level at the elevations shown on the plans.

JOINT SEALING COMPOUND AND PREFORMED JOINT SEALER: The cost of these items to be included in the unit price bid for Class "A" Concrete.

PROTECTIVE COATING: Protective Coating shall be furnished and placed in accordance with the Special Provision for Linseed Oil Protective Coating.

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

BILL OF INCIDENTAL MATERIAL: Quantities shown in Bill of Incidental Materials are approximate only and the Contractor is responsible for furnishing enough material to complete the work in accordance with the Plans and Specifications.

CONCRETE FINISH: Exterior face of plinths and overhanging curbs, each bridge, shall receive a rubbed surface finish in accordance with the Specifications.

WIND LOADS: This structure is designed using wind loads based on a wind velocity of 84 m.p.h.

SLOPE PROTECTION: Slope protection shall be crushed aggregate consisting of size No. 1 or No. 2 crushed limestone or crushed slag, meeting the applicable requirements of the Specifications. The crushed aggregate shall be placed to a depth of 12" measured perpendicular to the slopes. Flush with the embankment slopes under the bridges, shall extend from the face of the end bents across the berm and down the slope to the elevation of rock fill, and shall extend laterally to 1 1/2 feet beyond the outer edges of the superstructure.

The crushed aggregate may be dumped in place. The placing shall be conducted in such a manner as will produce a uniform surface varying not more than 1 1/2 inches in 4 feet from a true plane. Hand placing will not be required other than is necessary to correct irregularities exceeding the specified tolerances.

PLACING FILLS: See Std. Dwg. No. SF2-3

TEMPORARY SUPPORTS: Temporary supports or shoring will not be permitted under the steel girders when pouring the concrete floor slab or when taking "Top of Steel" elevations.

MATERIALS: ASTM Specifications hereinafter designated shall govern the materials furnished.

ASTM DESIGNATION	MATERIAL
A-36-63T	Structural Steel
A325-64	High Strength Bolts, Nuts and Washers
A108-61T (Grade 1016 to 1030 inclusive)	Steel Pins and Pintles
B29-55	Molten Lead
A307-64	Steel Machine Bolts and Nuts
A233-64T	Mild Steel Arc Welding Electrodes

PAYMENT FOR STRUCTURAL STEEL: "Lump Sum Bid" for structural steel shall be full payment for all structural steel, bolts, washers, steel pins, lead plates, molten lead, welding and welding materials, paint and all labor and materials necessary to erect the steel in accordance with the plans and specifications. Payment credits for changes in the steel quantities due to changes in the plans ordered by the Engineer shall be at the unit price derived from the Contract lump sum bid divided by the estimated structural steel weight.

STEEL FINISH: Steel bearing surfaces in contact shall be finished in accordance with the Current Specifications.

CAMBER: Web plates shall be cut to provide for camber as indicated on the plans. Provide for possible warpage due to extra heat in top flange by virtue of shear connectors.

MILL TEST REPORTS: Notarized mill test reports in triplicate shall be furnished the Kentucky Department of Highways showing that all materials furnished conform to the Specifications.

SHOP DETAIL DRAWINGS: The Contractor shall submit shop detail drawings of all structural steel to the Director of Bridges for approval in accordance with the Specifications. A set of linen tracings of approved shop details shall become the property of the Department of Highways when the Contract is completed and before final payment is made. No direct payment shall be made for record drawings but the cost shall be included in "Lump Sum Bid" for structural steel. Any material ordered or work done by the Contractor before the shop drawings, including the welding procedures, are approved, shall be at his risk. Qualification tests of all welding procedures shall be completed by the Contractor and approved by the Engineer prior to the final approval of shop drawings and start of the fabrication.

DIMENSIONS: Dimensions shown on the design drawings are for a normal temperature of 60° Fahrenheit with dead load on the structure.

SHOP ASSEMBLY: General reaming of holes for each field splice shall be required with all parts for each splice completely shop assembled with parts adjusted to lines and camber, fit for drilling and reaming. This applies to field splices in girders only. Girders shall remain assembled for inspection by the Department of Highways inspector and are to be match-marked while assembled. Other field connections shall be drilled or reamed in the shop with connecting parts assembled or shall be drilled or reamed to a metal template without assembly.

OPTIONAL TYPES OF HIGH-STRENGTH HANDRAIL: The Contractor shall provide throughout the project, at his option, either High-Strength Aluminum Handrail in accordance with Standard Drawing H115 or High-Strength Concrete Handrail in accordance with Standard Drawing H150.

FIELD CONNECTIONS: High strength steel bolts shall be used in all field connections in accordance with Current Specifications. All joints are designed as friction-type connections. Installation shall be performed by using the turn-of-nut method. When width of high-strength bolt heads corresponds to that of the heavy semifinished hexagon bolt only one washer per bolt is required.

Open holes shall be 15/16" diameter for 7/8" diameter bolts.

Where field welding is indicated, welding shall be performed in accordance with the Specifications for welding materials and welding. Welding procedures shall be submitted by the erector to the Department of Highways for approval.

SHOP CONNECTIONS: All welded shop splices in flanges and webs of girders shall be located on the shop drawings. No direct payment shall be made for shop splices but the cost thereof shall be included in the lump sum price bid for Structural Steel.

PAINT: All structural steel shall be given one shop coat and one field coat of type 1 red lead paint, and two field coats of aluminum paint. Exposed surfaces of expansion dams, not accessible after erection shall be given two field coats of aluminum paint before erection. Shop paint shall not be applied within 3" of open holes where high strength bolts are to be used for field connections and shall not be applied to steel surfaces in contact with concrete. Cleaning of weld spatter from welding assemblies in accordance with AWS 413 (a) shall be required before assemblies are shop painted. Shop paint shall not be applied where field welding is to be done. Areas not painted in the shop shall be given one coat of red lead paint, type 1, as touch up prior to application of the field coat of red lead paint. Individual field coats shall be tinted to faithfully indicate the progress of painting. All paint shall be applied with brushes except the finish coat of aluminum paint, which may be applied with approved air-less spray. By either method, the coating of paint shall be applied smoothly and uniformly so that no excess paint will collect at any point.

ADDITIONAL FIELD SPLICES: If additional field splices are permitted they shall be at the Contractor's expense and shall be included in the "Lump Sum Bid" for structural steel.

SHEAR CONNECTORS: "Lump Sum Bid" for shear connectors shall be full payment for all shear connectors, welding and welding materials, patent royalties and materials necessary to field weld or shop weld the shear connectors in place in accordance with the plans and specifications.

SHOP AND MILL INSPECTOR: Kentucky Department of Highways.

PILING: Piling shall be driven to refusal or to sustain a load of 50 tons per pile. 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.

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

ALTERNATE TYPES OF PILES: The Contractor shall use one of the following types of piles throughout, except that alternates D and F will not be permitted for the end bents.

Alternate A - 14" Reinforced Concrete Precast Pile, Std. Dwg. P2
Alternate B - 14" Cast in place Concrete Pipe Pile, Std. Dwg. P20
Alternate C - 14" Cast in-place Concrete Pile, Fluted Steel Shell, Std. Dwg. P21
Alternate D - 14" Cast in place Pile, Corrugated Steel Step-Taper Shell, Std. Dwg. P22
Alternate E - 14" Prestressed Precast Concrete Pile, Std. Dwg. P23
Alternate F - 14" Cast in place Concrete Pile, Corrugated Steel Step-Uniform Shell, Std. Dwg. P24

DESIGN STRESSES:

For Reinforced Concrete;

f_s = 20,000 p.s.i.
μ = 200 p.s.i. for embedment
f'_c = 3,000
f_c = 1,200 p.s.i.
μ = 300 p.s.i. for Σ_o
n = 10

For Structural Steel;

f_s = 20,000 p.s.i.

FOUNDATION PRESSURE: Axial Computed pile load is 79 kips. Horizontal computed pile load is 1.0 kip. This is for Group I loading.

WELDING AND WELDING MATERIAL: Welding and Welding Material shall conform to the American Society for Welding Highway and Railway Bridges, Current Specifications and subsequent adopted Amentments with modifications and additions as stated on the plans and Standard Drawing A.W.S.-1E.

GIRDER HAUNCHES: Girders which do not conform to plan camber and grade in the erected position shall be considered as requiring either an adjustment in depth of concrete haunch over the steel supporting members at no additional cost to the State, or a reworking of the girder camber to meet the plan grade and slab thickness at no additional cost to the State.

ADMIXTURES: Commonwealth of Kentucky Department of Highways, Special Provision for Set-Retarding Admixtures for Concrete, Approved April 14, 1964.

ELECTRICAL CONDUIT: "Lump Sum Bid" for electrical conduit shall be full payment for all rigid galvanized conduit, junction boxes, expansion fittings, grounding straps, conduit caps, anchor bolts, nuts, washers, permanent concrete markers, and all all labor and materials necessary to complete the installation in accordance with the plans and specifications.

GENERAL NOTE

DESIGNED BY: [illegible] DATE: CHECKED BY: DATE:
DRAWN BY: [illegible] DATE: 7-8-64 CHECKED BY: [illegible] DATE:
TRACED BY: CHECKED BY: DATE:
REVISED: DATE: REVISED: DATE: REVISED: DATE:

4

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON
ROAD
STATION 420+00 I 71 50+00 ZORN AVE. **PROJECT NO.**
BRIDGE NUMBER DRAWING NO. 16154 SHEET

BRIDGE

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

GENERAL NOTE CONTINUED

SPECIAL PROVISIONS
FOR
REINFORCED CONCRETE BRIDGE FLOOR
FOR TWIN BRIDGES OVER ZORN AVENUE

1. Scope:

a. This Special Provision covers the requirements for construction of reinforced concrete floors on continuous steel girder bridges, and supersedes the requirements specified in Current Specifications.

b. This Special Provision requires that concrete for the bridge floor be placed continuously for the continuous composite girder unit of this Project. It also requires that the Contractor shall place and finish the floor by machines designed and constructed for that purpose so as to assure a smooth riding surface and concrete floor slab free from irregularities, shrinkage cracks, etc. The Contractor is cautioned that once concrete placement is begun in the continuous unit it shall be completed without interruption for any reason. This procedure will require an ample source of material, an adequate number of personnel, and proper equipment with careful supervision and control of each step.

2. Classes of Concrete:

a. The concrete floors shall be constructed of Air-Entrained Class "A" Concrete in accordance with Current Standard Specifications, except that Set Retarding Admixtures may be required to extend the setting time for the concrete. The use of the Set Retarding Admixtures shall be in accordance with the Special Provisions theretor.

b. Mixing brands of cement. The Contractor will not be permitted to mix different brands of cement in the concrete for the continuous unit. Cement from different mills of the same brand also will not be permitted for the continuous unit. (This requirement is necessary because of variations in setting time of cements).

3. Swinging the Spans:

Before concrete floors or forms for concrete floors are placed on the steel, and prior to taking top of steel elevations for setting templates, each continuous girder unit shall be fully assembled, splices bolted, diaphragms in place and all spans of the continuous unit swung free of any temporary supports onto the permanent supports.

4. Placing Reinforcement:

All reinforcement shall be placed in the exact location shown on the Plans, rigidly wired at intersections and supported or blocked from forms by means of premolded concrete chairs or spacers. No concrete shall be deposited until the reinforcement is in place and has been inspected and approved by the Engineer. The placing of any reinforcement during the placing of concrete will not be permitted. Splices, when permitted, shall be as shown on the Plans and as nearly as practicable at points of least tension in steel.

Immediately prior to placing concrete in each span, a metal template of shape of crown and cross section of the floor, supported at the correct screed elevation, shall be passed over the steel reinforcement in place. The vertical clearance from the proposed surface to top layer of reinforcing bars shall be checked and any clearances less than two (2) inches shall be corrected.

5. Placing Concrete:

a. The operation of placing concrete in the floor of the continuous girder unit shall be continuous over the entire length of the unit between the expansion dams and for the width between curbs.

b. The Contractor shall provide adequate equipment and finishing capacity, so as to complete placing and finishing the concrete slab in the continuous unit within ten (10) hours of daylight, or as directed by the Engineer.

c. In placing concrete in the floors, care shall be taken that the reinforcing steel is not displaced.

6. Surface Finish:

a. Before any concrete for the floor is placed, the Contractor shall provide at his own expense metal templates, metal template supports, oscillating or vibrating screed finishing machines, finishing bridges, straight edges, floats, belts or burlap and necessary equipment for completing the bridge floor. All equipment shall be approved by the Engineer.

b. The finishing machine shall be equiped with one vibratory and oscillating screed, or shall be equipped with two oscillating or two vibrating screeds. Either the machine or its screeding unit shall be self-propelled and shall be capable of operating at a controlled forward motion during the finishing operations.

The machine shall be supported by rails or tracks of sufficient section modulus to support the imposed loads with a deflection of not more than $\frac{1}{16}$" between the rail supports. The rails shall be installed outside the limits of the roadway slab, shall be set true to grades paralleling the roadway grade, and shall be maintained during the entire finishing operation.

The screeds may operate either in a longitudinal or transverse direction. If the finishing machine is so designed that the screed will operate in the longitudinal direction, oscillating transversely or vibrating, the screed shall be long enough to finish the concrete from curb to curb. The screed shall be adjustable to the required cross section and shall be of such rigid construction as will insure a finished surface true to the lines, grades and cross-sections indicated on the plans or established by the Engineer.

If the finishing machine is so designed that the screed will operate in the transverse direction, oscillating longitudinally with or without vibration, the screed shall not be less than 10 feet in length and 8 inches in width and shall be suspended from rails spanning the full width of the roadway slab. The rails shall be adjustable to grades paralleling the roadway crown, and shall be of such rigid construction as will insure a surface finished true to the lines, grades and cross-section indicated on the plans or established by the Engineer.

Before any concrete for the floor is placed, the Contractor shall have the rails and the finishing machine installed and adjusted satisfactory to the Engineer, and shall have on hand sufficient straightedges, hand floats, and other tools necessary for the satisfactory completion of the work.

The concrete shall be deposited between the curbs, to the full height of the floor and compacted. Consolidation shall be accomplished by means of internal vibrators and simultaneous supplementary spading along the forms. Spading in addition to vibrating will be required to insure that no honeycomb, voids or air pockets exist against the forms. Vibrators used shall be as required in the Specifications. Consolidation of concrete shall be continued until contact between the reinforcing steel and the concrete is complete, and until mortar flushes to the top surface. Workmen will not be permitted to stand in, or walk in the concrete at any time for any reason.

Following consolidation of the concrete, the surface shall be struck off with a preliminary screed operated from a movable bridge to assure that the forms are filled to a height sufficient to provide a suitable quantity of concrete for the final oscillating or vibrating screed. This is to assure no depressions or low spots for the final screeding operation, and to provide a slight excess of concrete for the screeding machine.

c. Immediately following consolidation of the concrete, the surface shall be struck off to crown and cross-section by the oscillating or vibrating screed. The screed shall be moved always in the direction that the work is progressing and manipulated so that the ends are not raised or lowered from the established template during the striking-off process. A slightly rolling excess of concrete shall be kept in front of the screet at all times so that no low spots are left in the surface. The excess concrete in front of the screed shall not be permitted to flow under the screed nor to tear the surface. Subsequent to the screeding operation, the concrete in place shall not be worked, walked in or disturbed, except as described hereafter.

d. Following the strike-off screeding, the entire surface of the floor shall be checked with a 10-foot straight edge. The straight edge shall be used to remove any irregularities in the surface, smooth off mortar ridges and remove surface water and laitance. The straight edging operation shall be used only for the above purposes and shall not be used to screed or change crown or grade of the surface. The straight edging operation shall not be continued unnecessarily so as to bring an excessive amount of mortar to or leave a film of cement paste on the surface.

e. The final finishing operation shall be dragging with burlap to give a coarse, gritty, skid resistant surface texture to the floor. The burlap drag shall be seamless, of double thickness, not less than 48" wide and at least equal in length to the width of slab placement. The burlap shall be laid on the floor surface and dragged in the direction that the floor is being placed with approximately two feet of its width in contact with the floor surface. The leading edge of the drag shall be supported from a separate bridge. The burlap shall be kept damp, clean and free of hardened concrete. The Engineer may require changes in burlapping to produce the required final surface texture. Dragging shall be timed so that the surface mortar takes the final grooved finish without smoothing and before the surface becomes hard.

f. After the finishing operations described above are completed, the surface of the concrete shall present a uniform appearance; shall conform to required grade and cross-section; and shall be free from surplus water or laitance, rough and porous spots, irregularities, depressions and other objectionable surface features resulting from improper finishing. The surface shall be such as to provide a smooth traveling surface for passenger motor vehicles.

7. Curing:

Prior to placing wet burlap cotton mat or other approved curing material in accordance with current Specifications for curing concrete floor slabs, membrane and curing compound shall be applied to the bridge floor slab immediately after finishing to prevent premature surface drying which will result in shrinkage cracking. The membrane curing compound is to be furnished and applied in accordance with the Special Provision for Curing Concrete Pavements. Cost shall be incidental to and included in the unit price bid for Class "A" Concrete.

8. Surface Variations and Deductions:

As soon as the floor slab has set sufficiently to permit walking on it, and not later than 24 hours after the concrete is placed, the surface will again be thoroughly straight-edged by the Engineer and any variations exceeding $\frac{1}{8}$ inch in ten feet shall be plainly marked. The Contractor shall at once eliminate or reduce such variations by the use of a carborundum brick and water. Rubbing or grinding shall be discontinued as soon as contact is made with the coarse aggregate and in no case shall it be done in such a manner or carried to such extremes that bond or the aggregate in the concrete is broken.

Should it be impossible to remove the irregularities in the above manner, at the discretion of the Engineer, high spots may be removed after curing by an approved surface gringing machine, or the concrete slab in an entire span shall be removed and replaced in accordance with the procedures of these Special Provisions to provide a satisfactory floor surface.

Should additional grinding be required, as deemed necessary by the Engineer to correct surface variations, this grinding may be accomplished with an approved surface grinding machine, with carborundum stone, after the concrete has reached its approximate full strength but not before it is 28 days old. All areas ground shall be sealed with an approved epoxy sealer, which shall be applied in accordance with the manufacturer's recommendation or as directed by the Engineer. For each area where grinding or rubbing extends into the coarse aggregate there shall be deducted from the amount due, or which may become due the Contractor, the sum of $100.00. For each variation greater than $\frac{1}{4}$ of an inch remaining after the above provisions have been complied with, there shall be deducted from the amount due, or which may become due the Contractor, the sum of $100.00. However, only one $100.00 deduction shall be made of any single area. The use of thin layers of mortar or concrete, or the use of a bush hammer or other similar device to remove irregularities after concrete has taken its initial or final set will not be permitted.

9. Sawed Joints:

Approximately 24 hours after placing the concrete, transverse joints to control shrinkage and contraction cracking shall be sawed in the floor at locations designated in the plans. The sawed groove shall not be less than $\frac{1}{4}$ inch nor more than $\frac{5}{16}$ inch wide, and not less than one inch deep. After sawing, the groove shall be thoroughly cleaned out. A preformed cellular polychloroprene sealing strip shall be inserted in the groove in in accordance with Standard Drawing G 353 c. This shall be done immediately following the sawing operation. Sawing the joints and the polychloroprene sealing strips will not be paid for separately, but shall be included in the unit price bid for Class "A" Concrete.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON

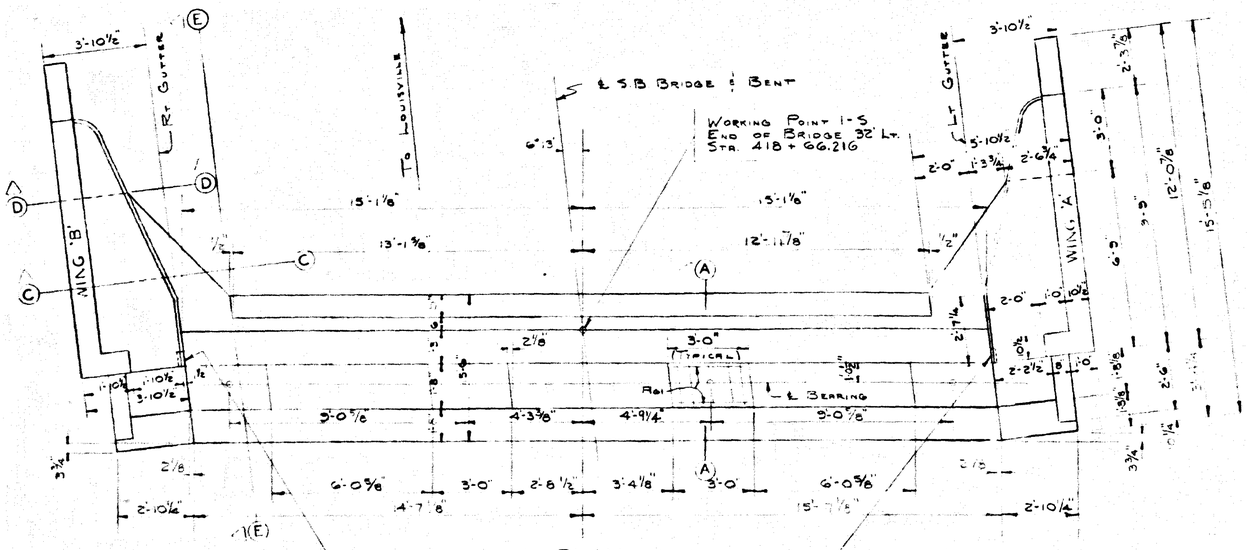
STATION 120+00 I 71 ROAD / 30+00 ZORN A PROJECT NO.

BRIDGE NUMBER | DRAWING NO. 16-1 | SHEET

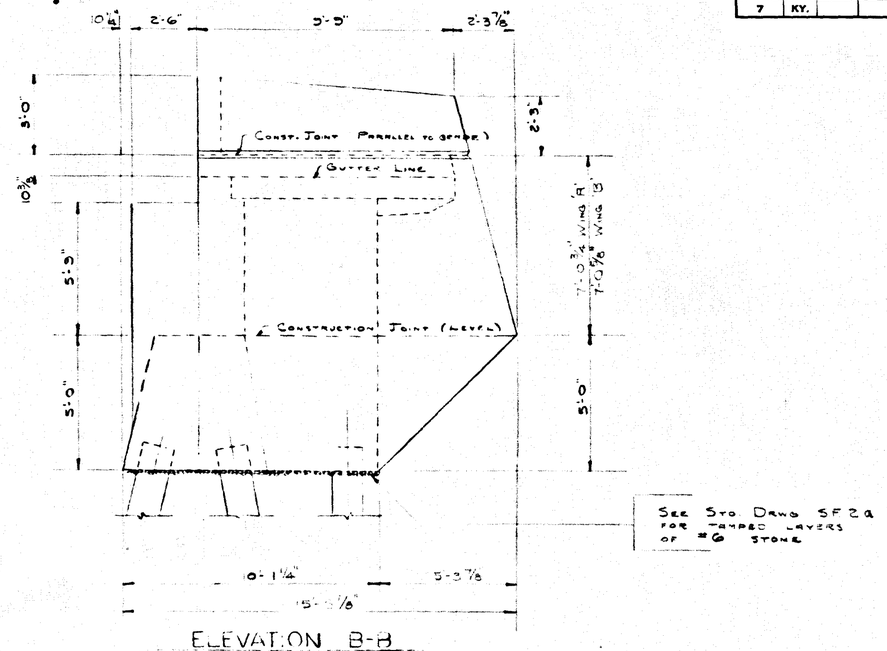
DESIGNED BY Jon Peterson DATE | CHECKED BY DATE | REVISED DATE
DRAWN BY J.R. Berry CHECKED BY Murphy DATE | REVISED DATE
TRACED BY CHECKED BY DATE | REVISED DATE

BRIDGE

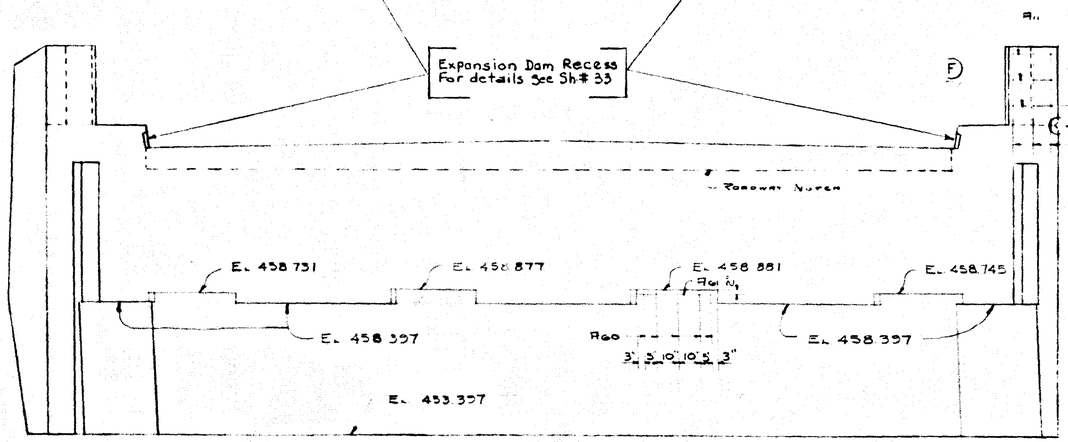
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



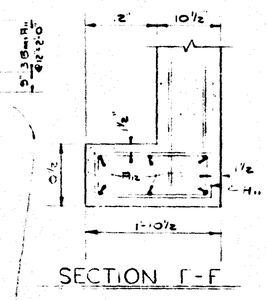
PLAN



ELEVATION B-B

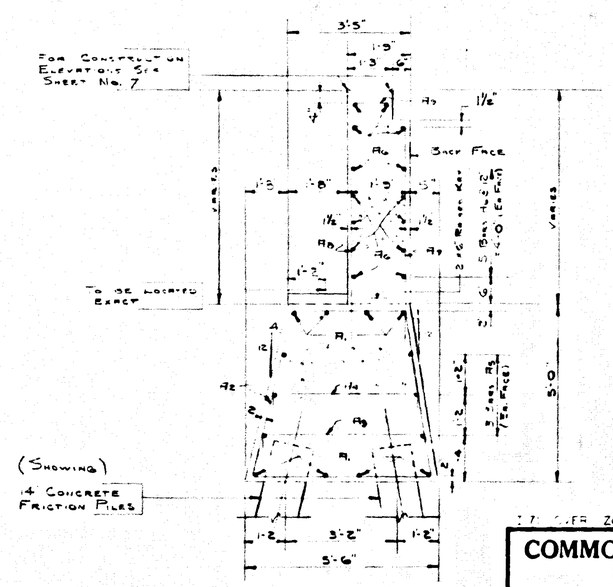


ELEVATION
(PILES OMITTED)



SECTION F-F

RUSTICATION GROOVE



SECTION A-A

END BENT NO. 1
SOUTHBOUND BRIDGE

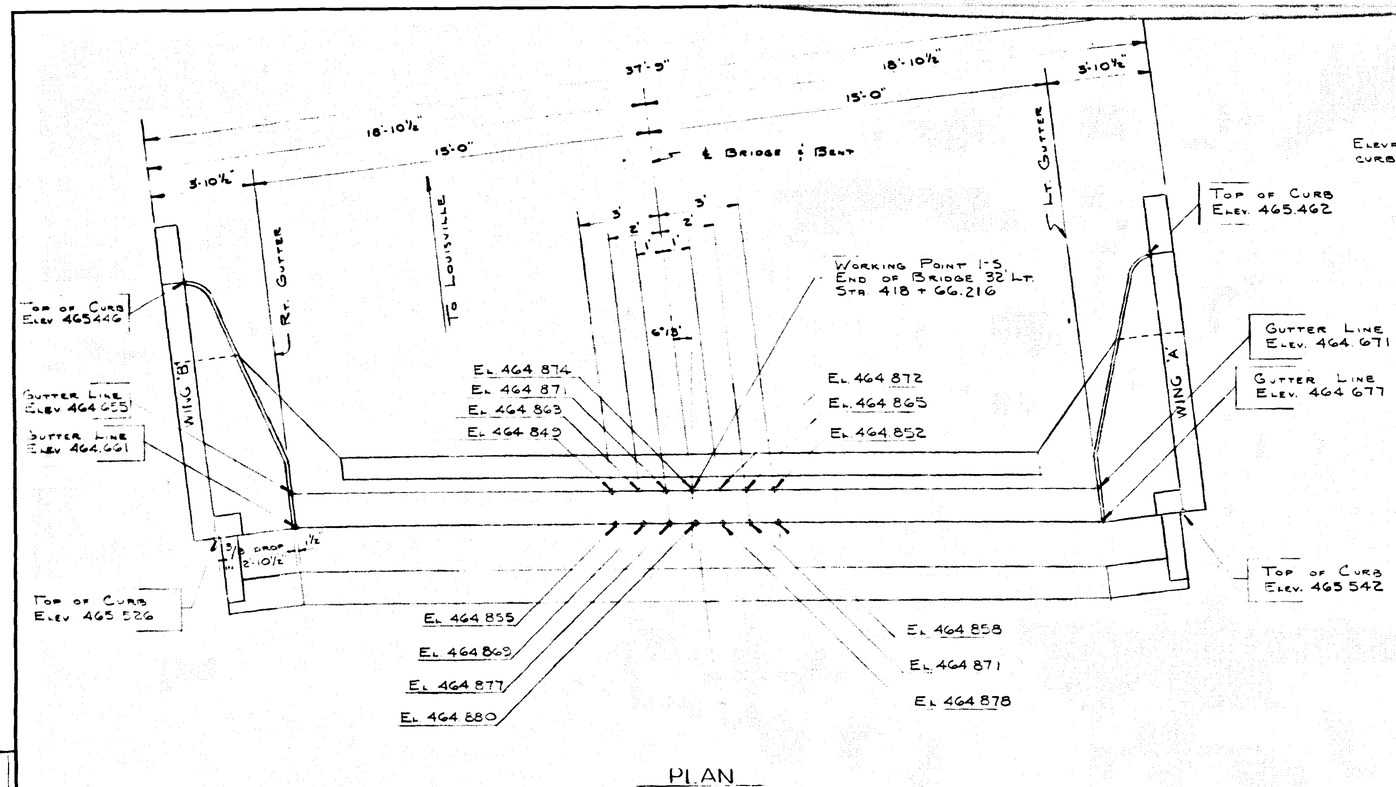
Drawn by R. L. McDaniel
Checked by R. L. McDaniel

Sheet 6

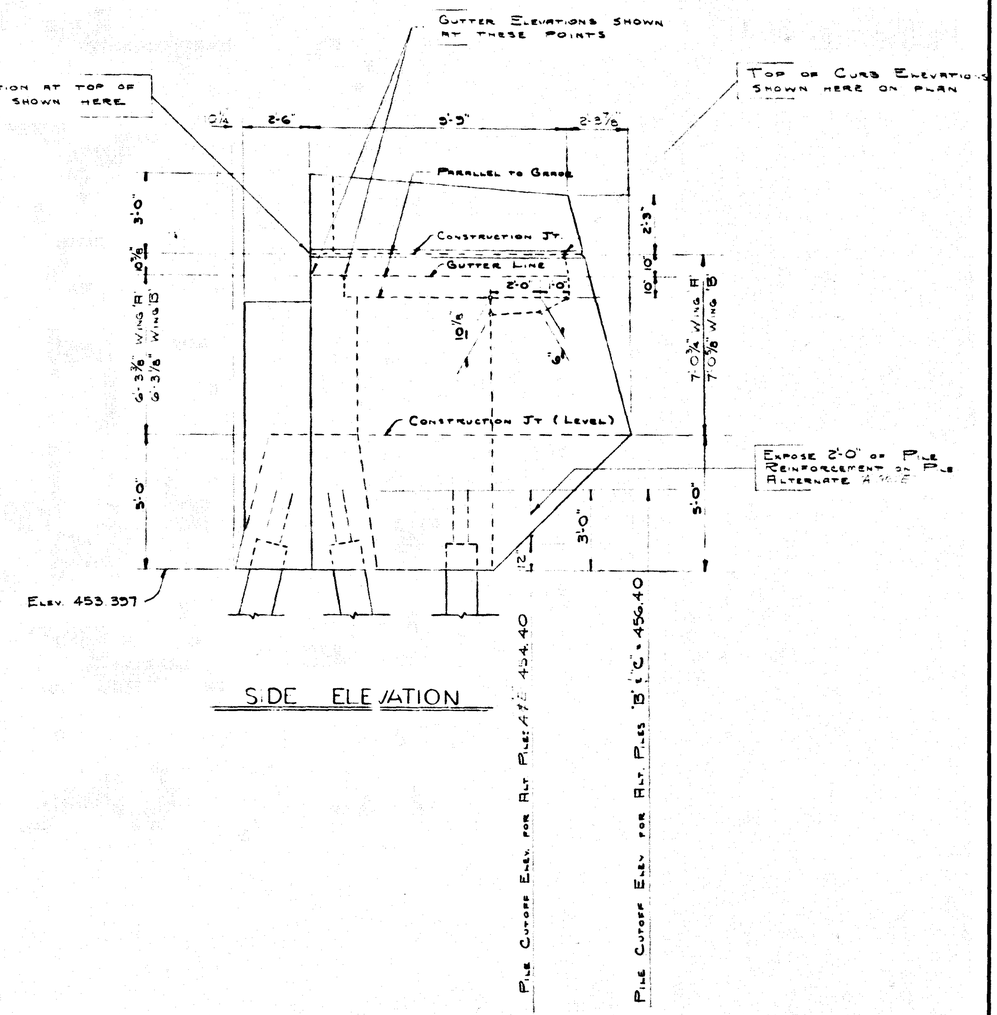
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD
STATION 420+00 I-71 = 50+00 ZORN AVE **PROJECT NO.**
BRIDGE NUMBER
Drawing No. 1184

BRIDGE

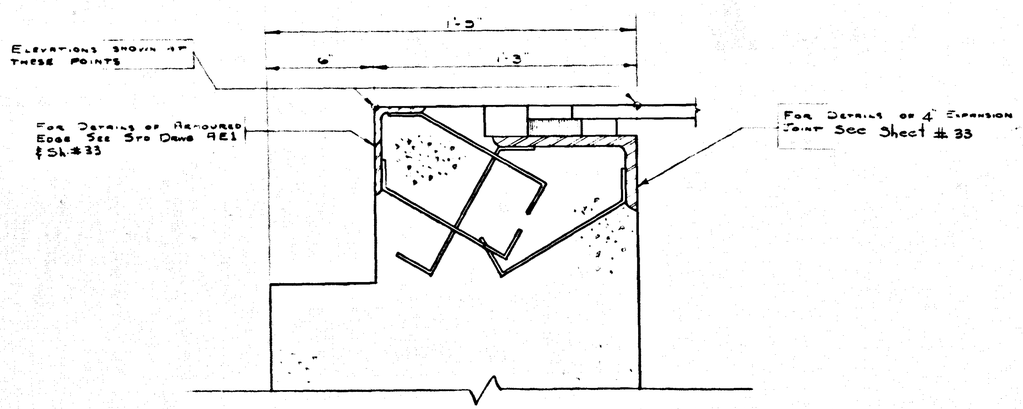
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



PLAN



SIDE ELEVATION



PART SECTION OF PARAPET

END BENT NO. 1
SOUTHBOUND BRIDGE

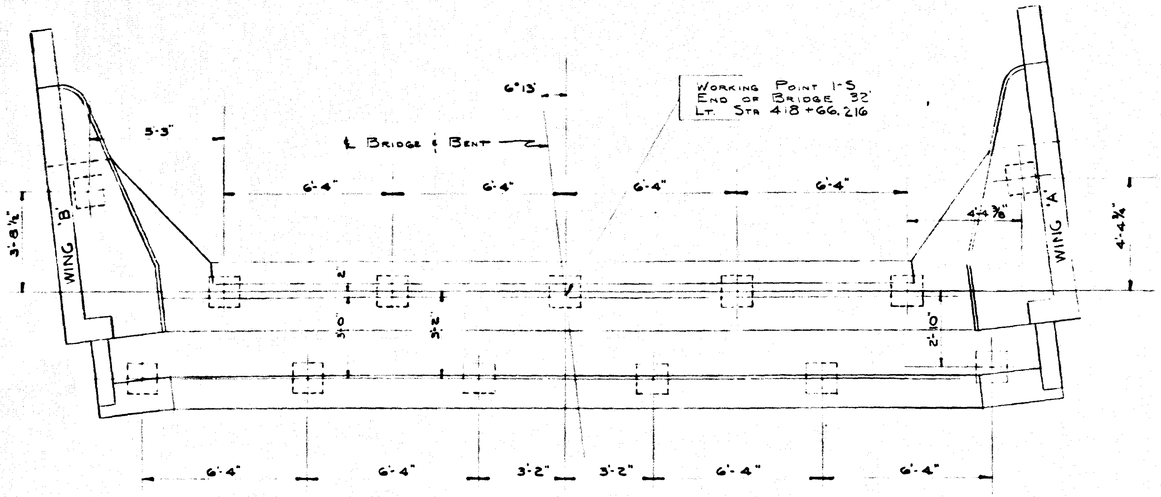
I-71 OVER ZORN AVENUE — SHEET 7

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD
STATION 420+00 I-71 – 50+00 ZORN AVE. **PROJECT NO.**
BRIDGE NUMBER
DRAWING NO. 154
SHEET

Designed by R. L. McDaniel Checked by
Detailed by R. L. McDaniel Checked by
Traced by Checked by
Revised Date
Revised Date
Revised Date

BRIDGE

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



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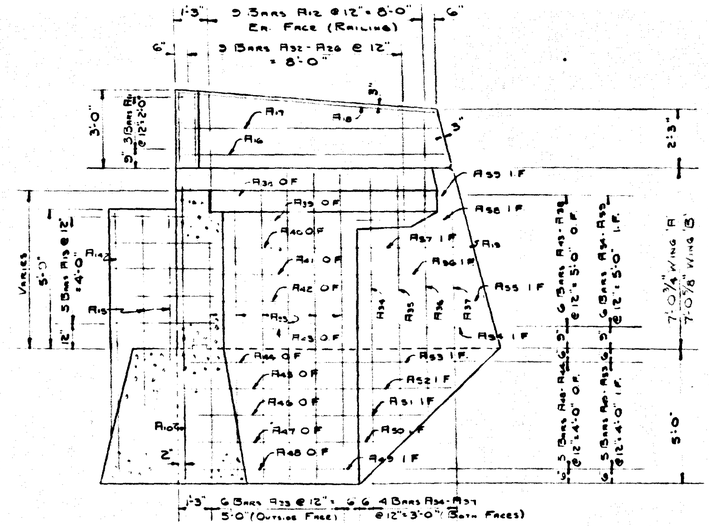
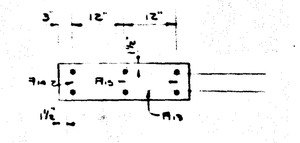
(SHOWING LOCATION OF PILES)



SECTION E-E



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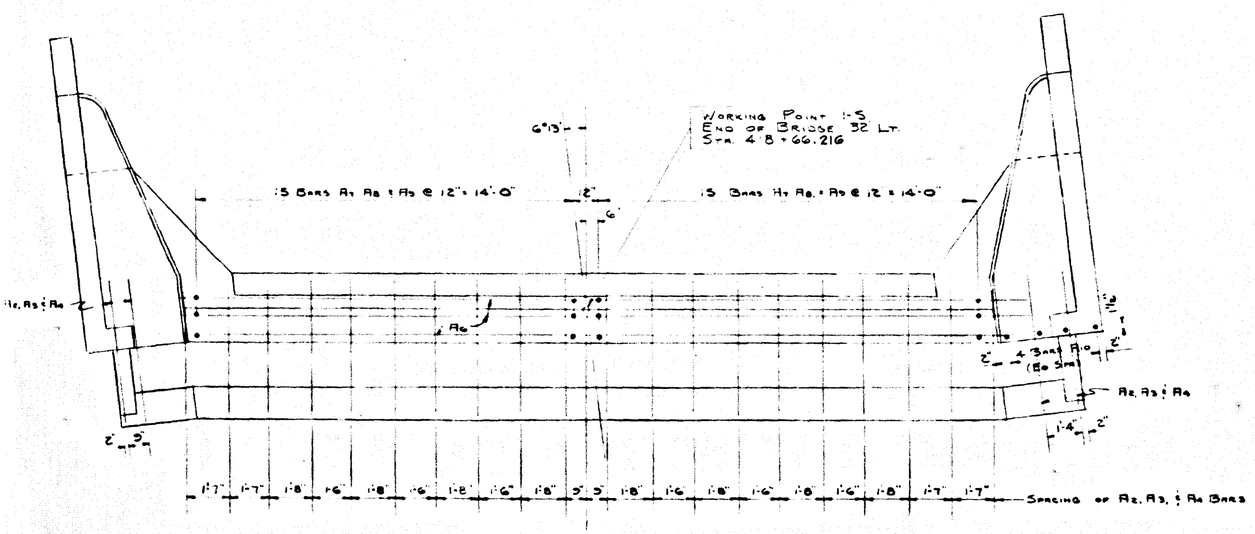

PLAN
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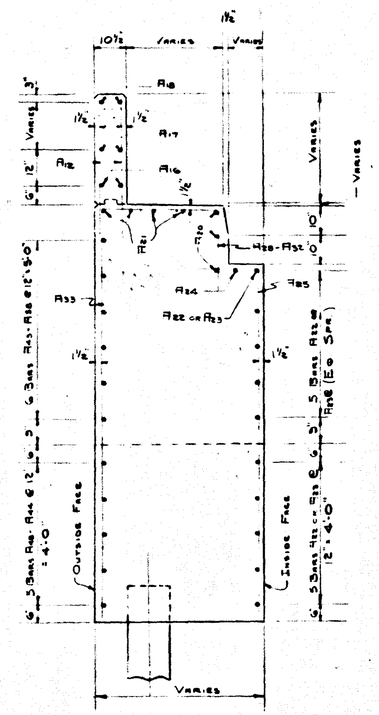
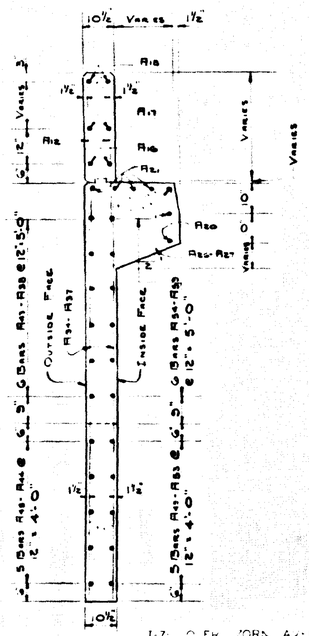


SECTION C-C



SECTION D-D

END BENT NO. 1
SOUTHBOUND BRIDGE

I-71 OVER ZORN AVENUE

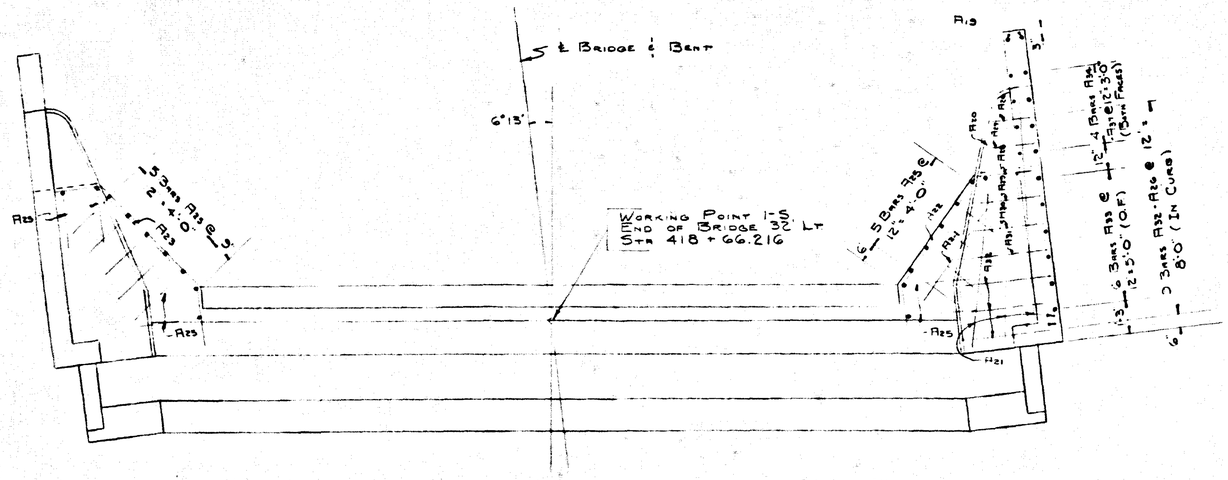
SHEET 8

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON
ROAD
STATION 420+00 I-71 – 50+00 ZORN AVE. **PROJECT NO.**
BRIDGE NUMBER
DRAWING NO. 16154

DESIGNED BY R. L. McDANIEL CHECKED BY
DETAILED BY R. L. McDANIEL CHECKED BY
TRACED BY CHECKED BY
DATE REVISED

BRIDGE

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



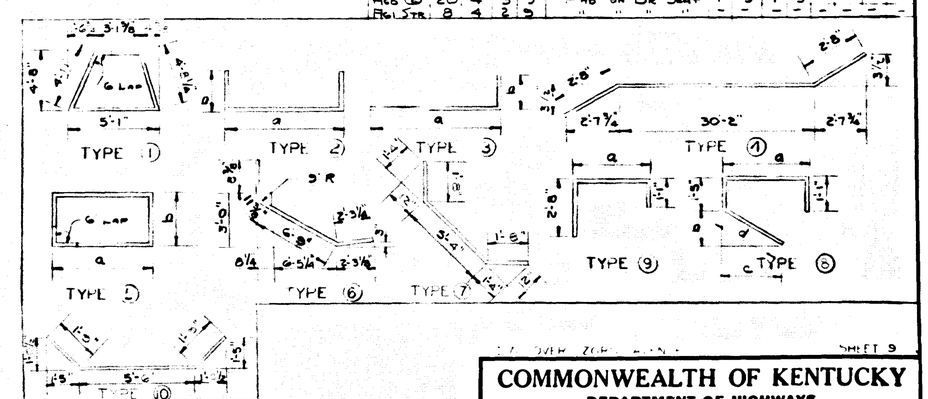
PLAN
(SHOWING REINFORCEMENT)

BILL OF REINFORCEMENT

Mark	Type	No	Size	Length Ft	Length In	Location	a Ft	a In	b Ft	b In	c Ft	c In	d Ft	d In
A1	6	8	8	35	6	Cap	-	-	-	-	-	-	-	-
A2		24	5	18	5		-	-	-	-	-	-	-	-
A3		24	5	4	10		4	6	0	3	-	-	-	-
A4		24	5	4	4		4	0	0	3	-	-	-	-
A5		6	5	35	6		-	-	-	-	-	-	-	-
A6		4	5	35	6	Parapet	-	-	-	-	-	-	-	-
A7		30	5	6	3		6	10	1	6	-	-	-	-
A8	Str.	30	5	6	10		-	-	-	-	-	-	-	-
A9		30	5	5	9	Wing	1	0	2	6	-	-	-	-
A10		8	5	11	9	Handrail End Post	1	7½	0	7½	-	-	-	-
A11	5	6	4	5	3	Handrail	-	-	-	-	-	-	-	-
A12	Str.	48	5	4	2	Stub Wall	0	4	3	6	-	-	-	-
A13		10	4	7	2		0	5	3	0	-	-	-	-
A14		4	4	8	3		0	5	6	8	-	-	-	-
A15		4	4	9	7	Handrail	-	-	-	-	-	-	-	-
A16	Str.	4	5	9	9		-	-	-	-	-	-	-	-
A17	Str.	4	5	9	7		-	-	-	-	-	-	-	-
A18	Str.	4	5	9	5	Wing into Handrail	-	-	-	-	-	-	-	-
A19	Str.	4	5	9	3	Curb	-	-	-	-	-	-	-	-
A20	6	6	5	10	8		-	-	-	-	-	-	-	-
A21	Str.	8	5	9	4	Haunch (Wing 'A')	-	-	-	-	-	-	-	-
A22	11	10	5	8	8	Haunch (Wing 'B')	-	-	-	-	-	-	-	-
A23		10	5	9	0	Top of Haunch	-	-	-	-	-	-	-	-
A24	Str.	2	4	6	0	Haunch	10	1	2	0	-	-	-	-
A25		18	5	12	0	Curb	1	7	0	6	1	0	1	7½
A26		2	4	5	0		1	11	0	7	1	2	1	3½
A27		2	4	5	6		2	3	-	-	-	-	-	-
A28		2	4	5	10		2	6	-	-	-	-	-	-
A29		2	4	6	1		2	10	-	-	-	-	-	-
A30		2	4	6	5		3	2	-	-	-	-	-	-
A31		2	4	6	9		3	6	-	-	-	-	-	-
A32	6	8	4	7	1	Wings	-	-	-	-	-	-	-	-
A33	Str.	2	4	11	0		-	-	-	-	-	-	-	-
A34		4	4	11	3		-	-	-	-	-	-	-	-
A35		4	4	10	3		-	-	-	-	-	-	-	-
A36		4	4	9	3		-	-	-	-	-	-	-	-
A37		4	4	8	3		-	-	-	-	-	-	-	-
A38		2	5	10	2		-	-	-	-	-	-	-	-
A39		2	5	10	5		-	-	-	-	-	-	-	-
A40		2	5	10	8		-	-	-	-	-	-	-	-
A41		2	5	10	11		-	-	-	-	-	-	-	-
A42		2	5	11	2		-	-	-	-	-	-	-	-
A43		2	5	11	5		-	-	-	-	-	-	-	-
A44		2	5	11	0		-	-	-	-	-	-	-	-
A45		2	5	10	0		-	-	-	-	-	-	-	-
A46		2	5	8	11		-	-	-	-	-	-	-	-
A47		2	5	7	11		-	-	-	-	-	-	-	-
A48		2	5	6	10		-	-	-	-	-	-	-	-
A49		2	5	5	7		-	-	-	-	-	-	-	-
A50		2	5	2	8		-	-	-	-	-	-	-	-
A51		2	5	3	8		-	-	-	-	-	-	-	-
A52		2	5	4	9		-	-	-	-	-	-	-	-
A53		2	5	5	9		-	-	-	-	-	-	-	-
A54		2	5	6	10		-	-	-	-	-	-	-	-
A55		2	5	5	10		-	-	-	-	-	-	-	-
A56		2	5	5	7		-	-	-	-	-	-	-	-
A57		2	5	5	4		-	-	-	-	-	-	-	-
A58		2	5	5	10		-	-	-	-	-	-	-	-
A59		2	5	4	10		-	-	-	-	-	-	-	-
A60	2	20	4	3	9	Pad on Br Seat	1	5	1	3	-	-	-	-
A61	Str.	8	4	2	9									

ESTIMATE OF QUANTITIES

CONC. CLASS 'A'	70.5	CU. YDS.
REINFORCEMENT	4866	LBS.



END BENT NO. 1
SOUTHBOUND BRIDGE

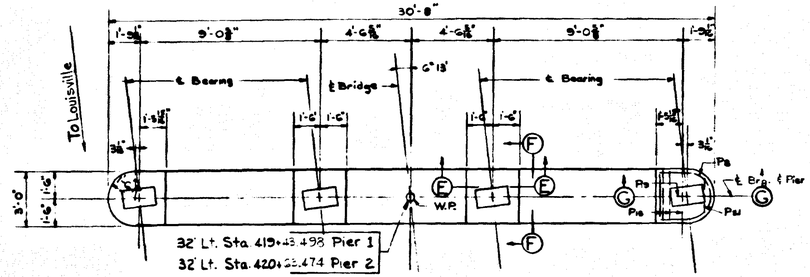
SHEET 9

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD
STATION 420+05 I-71 = 50+00 ZORN AVE. **PROJECT NO.**
BRIDGE NUMBER
DRAWING NO. 76,354

DESIGNED BY R. L. Mc Daniel CHECKED BY
DETAILED BY R. L. Mc Daniel CHECKED BY
TRACED BY CHECKED BY
DATE REVISED DATE REVISED DATE REVISED DATE REVISED

BRIDGE

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



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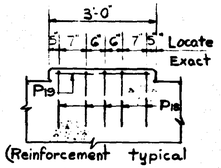
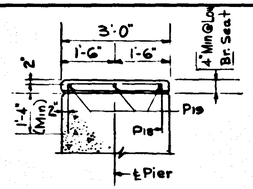


SECTION E-E

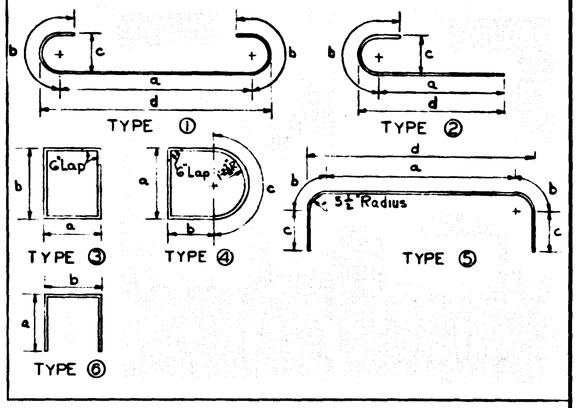


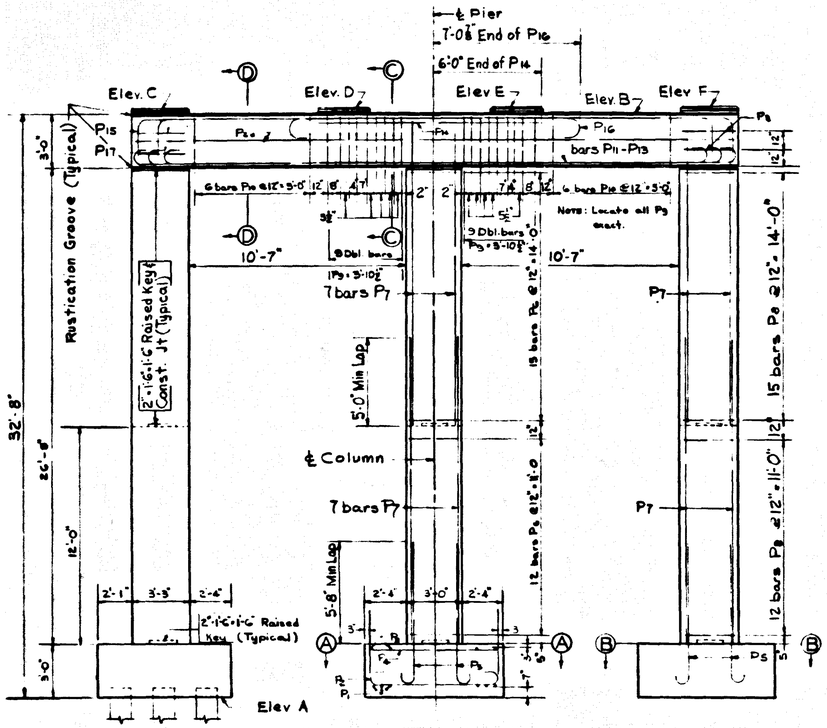
SECTION F-F

ELEV	PIER 1	PIER 2
A	425.239	425.388
B	457.906	458.054
C	458.247	458.397
D	458.385	458.528
E	458.382	458.528
F	458.239	458.388

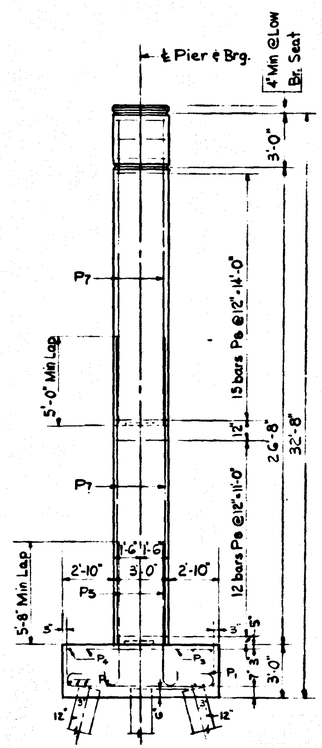
BILL OF REINFORCEMENT

MARK	TYPE	PIER NO 1	PIER NO 2	SIZE	LENGTH FT	LENGTH IN	LOCATION	a FT	a IN	b FT	b IN	c FT	c IN	d FT	d IN
P1	1	48	48	#6	8	8	Footings	7	8	1	0	0	6	8	2
P2	1	54	54	#6	8	8	"	6	8	1	0	0	6	7	2
P3	Str	24	24	#5	8	2	"								
P4	Str	27	27	#5	7	2	"								
P5	2	54	54	#10	9	3	Dowels	7	5	1	10	1	0½	7	11½
P6	3	27	27	#5	11	1	Column Hoops	2	7	2	7				
P7	Str	108	108	#9	17	0	"								
P8	4	60	60	#5	10	6	" Hoops	2	7	1	6½	4	0½		
P9	3	36	36	#6	10	3	Cap "	2	8	2	1				
P10	3	12	12	#5	11	5	" "	2	8	2	8				
P11	1	1	1	#11	32	8	"	28	8	2	0	1	1½	29	9½
P12	1	2	2	#11	32	1	"	28	1	2	0	1	1½	29	2½
P13	1	2	2	#11	30	6	"	26	6	2	0	1	1½	27	7½
P14	Str	5	5	#10	12	0	"								
P15	5	1	1	#11	34	7	"	28	9	0	10½	2	0½	29	10½
P16	1	2	2	#11	17	0	"	12	0	2	0	1	1½	14	1½
P17	5	2	2	#11	32	4	"	26	6	0	10½	2	0½	27	4½
P18	6	16	16	#4	5	8	Bearing Pads	1	7	2	8				
P19	Str	8	8	#4	2	8	" "								
P20	Str	2	2	#5	27	2	Cap								
P21	6	2	2	#4	5	1	Bearing Pads	1	7	2	1				

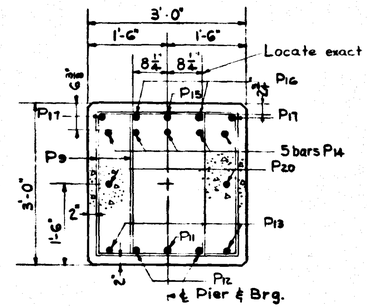




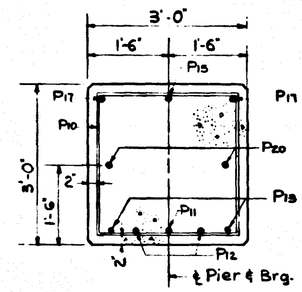
ELEVATION



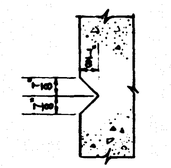
SIDE ELEVATION



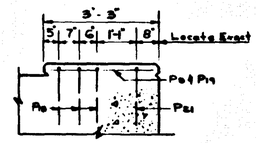
SECTION C-C



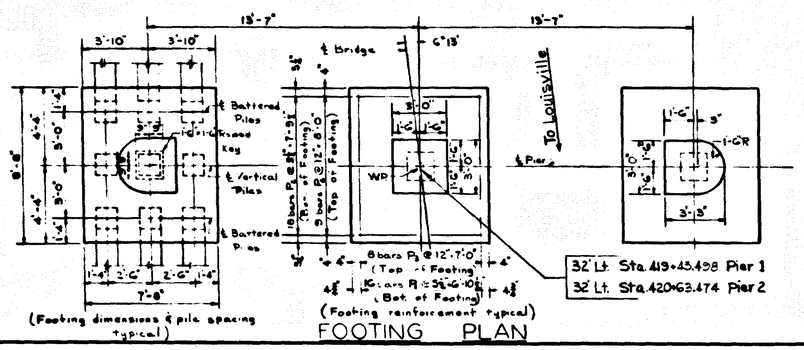
SECTION D-D



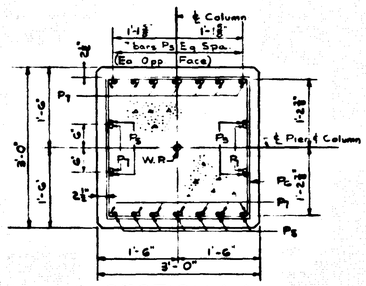
RUSTICATION GROOVE DETAIL



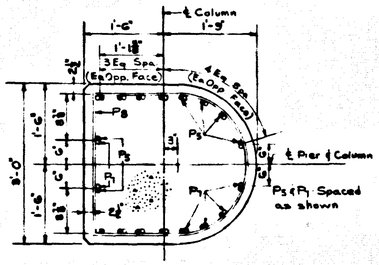
SECTION G-G



FOOTING PLAN



SECTION A-A



SECTION B-B

ESTIMATE OF QUANTITIES

PIER NO. 1

CONCRETE CLASS "A"	58.1 CU. YDS
REINFORCEMENT	13,807 LBS

PIER NO. 2

CONCRETE CLASS "A"	58.1 CU. YDS
REINFORCEMENT	13,807 LBS

PIERS
SOUTHBOUND BRIDGE

I-71 OVER ZORN AVE. SHEET 10

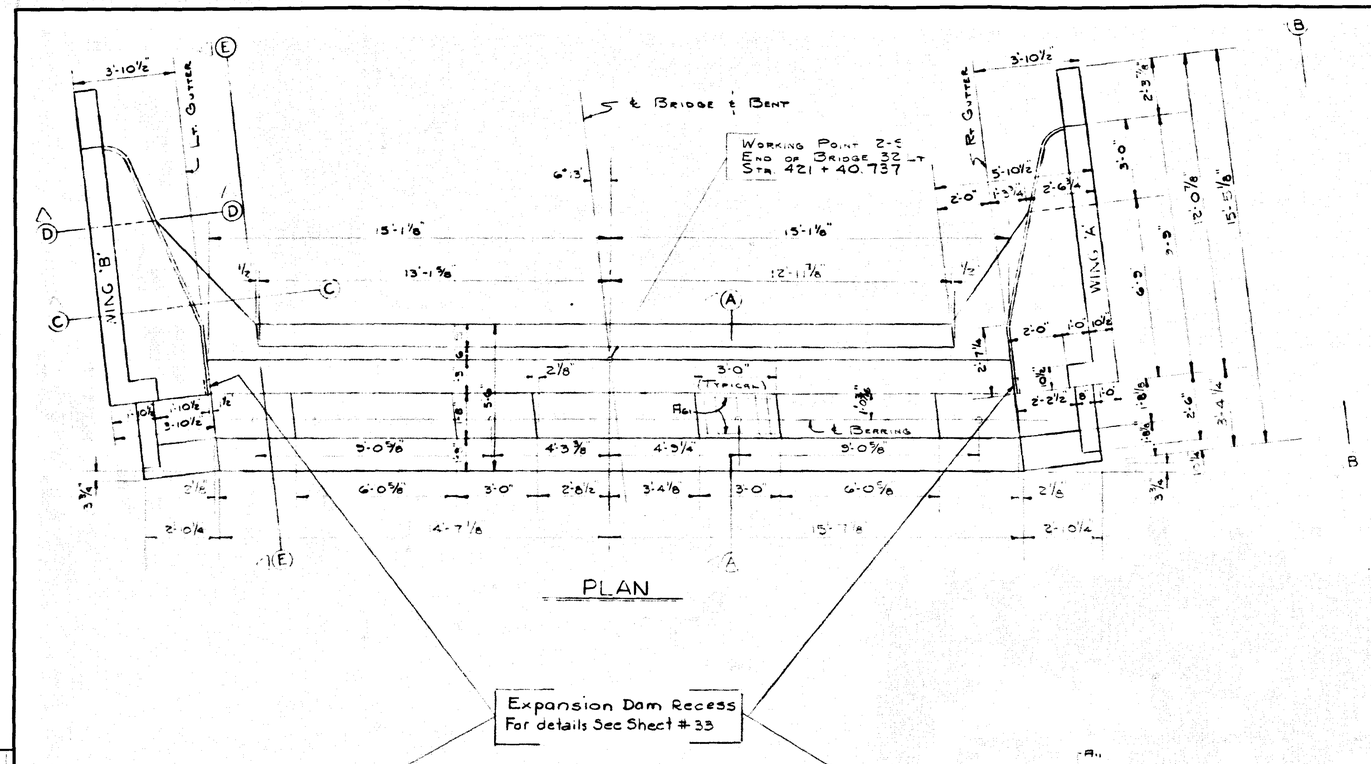
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON ROAD

STATION 420+00 I-71 / 50+00 ZORN AVE. PROJECT NO.

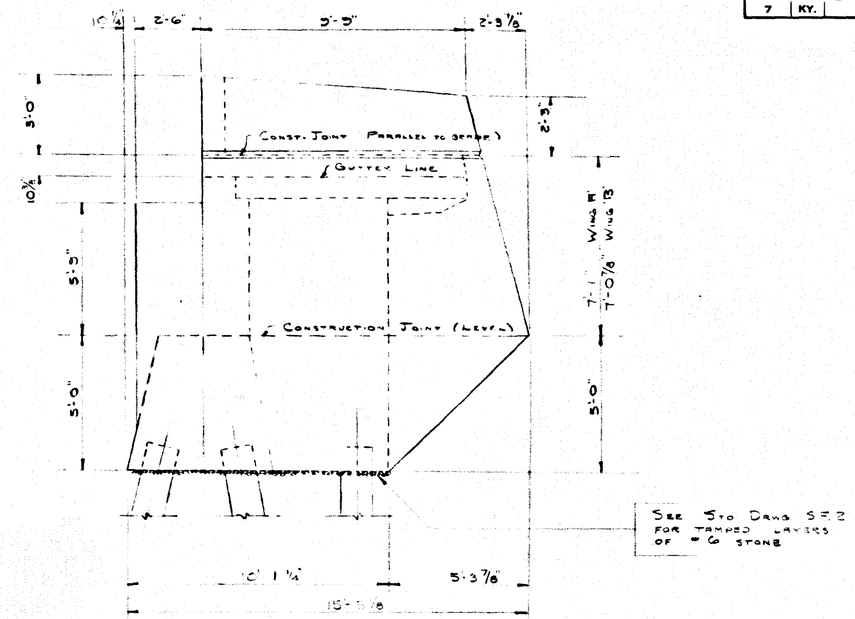
BRIDGE NUMBER | DRAWN | no. 16151 | REVISED

BRIDGE

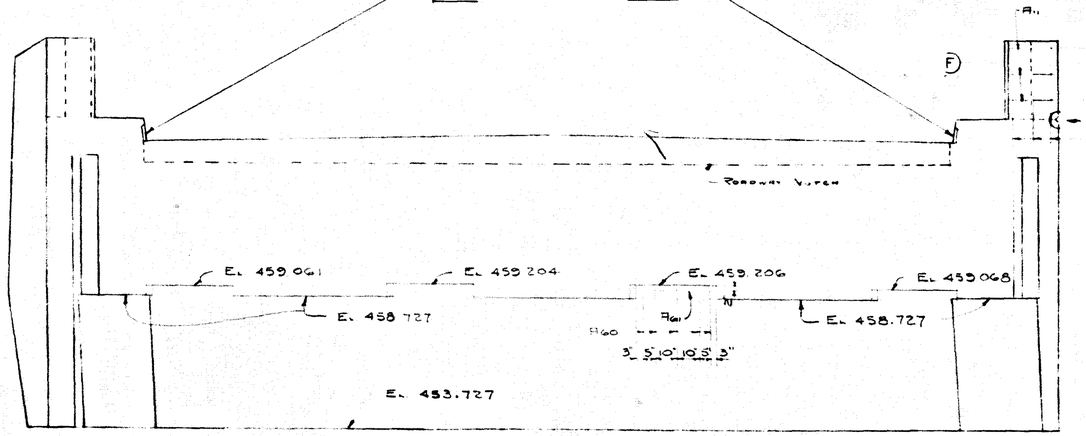
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



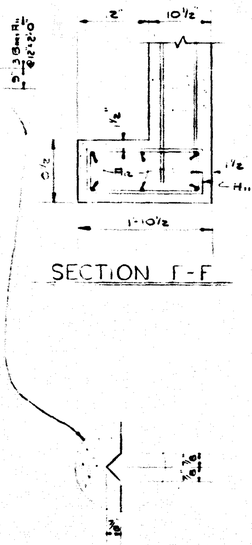
PLAN



ELEVATION B-B

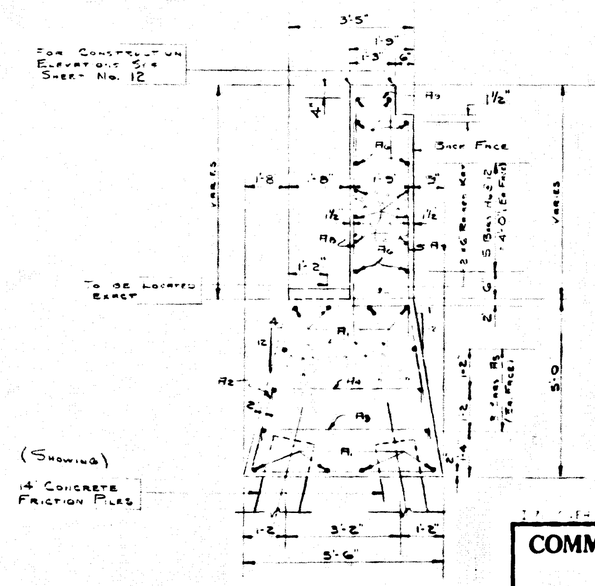


ELEVATION
(PILES OMITTED)



SECTION F-F

RUSTICATION GROOVE



SECTION A-A

END BENT NO. 2
SOUTHBOUND BRIDGE

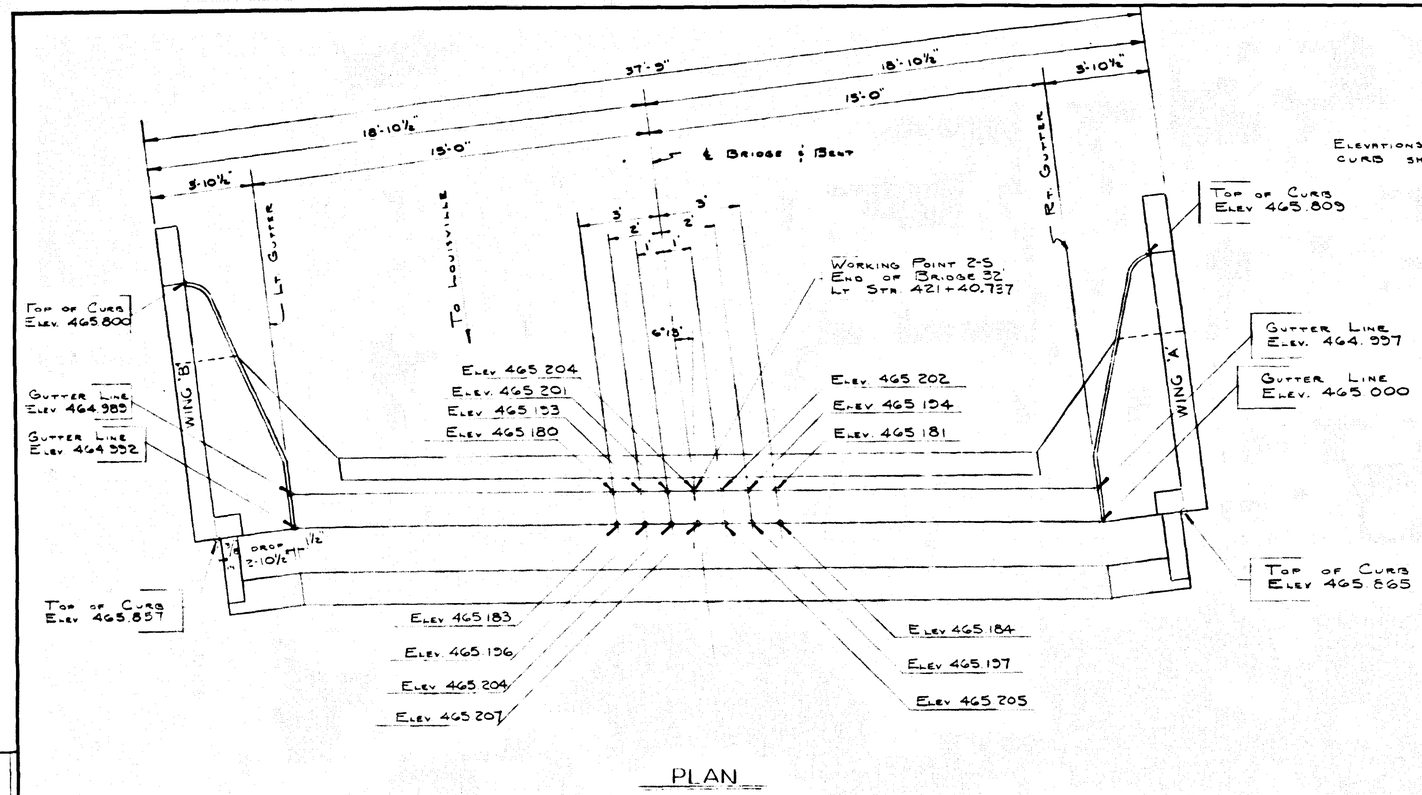
DESIGNED BY R. L. McDaniel	CHECKED BY	REVISED	DATE
DETAILED BY R. L. McDaniel	CHECKED BY	REVISED	DATE
TRACED BY	CHECKED BY	REVISED	DATE

J. J. Zorn Avenue — Sheet 11

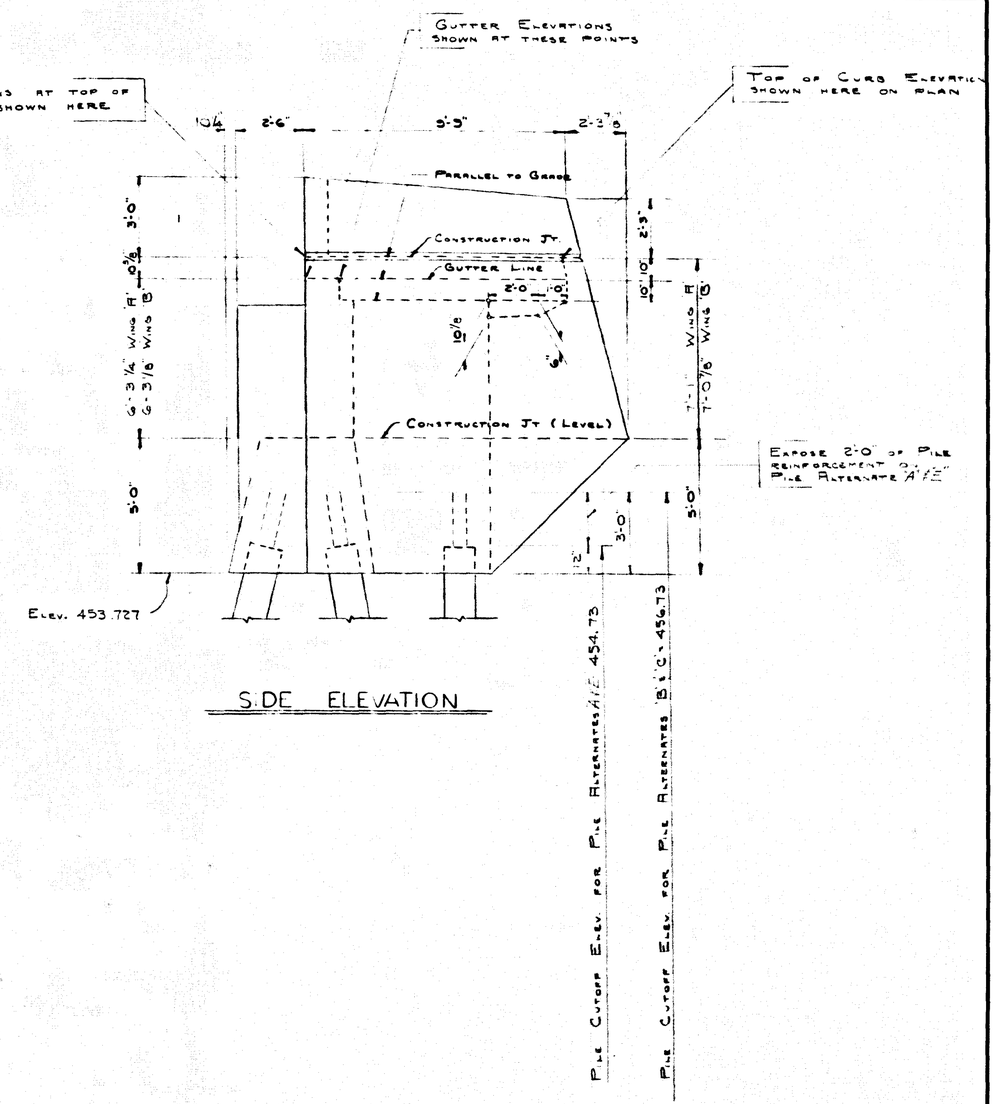
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD
STATION 420+00 I-71 = 50+00 ZORN AVE **PROJECT NO.**
BRIDGE NUMBER
DRAWING NO. 1-134

BRIDGE

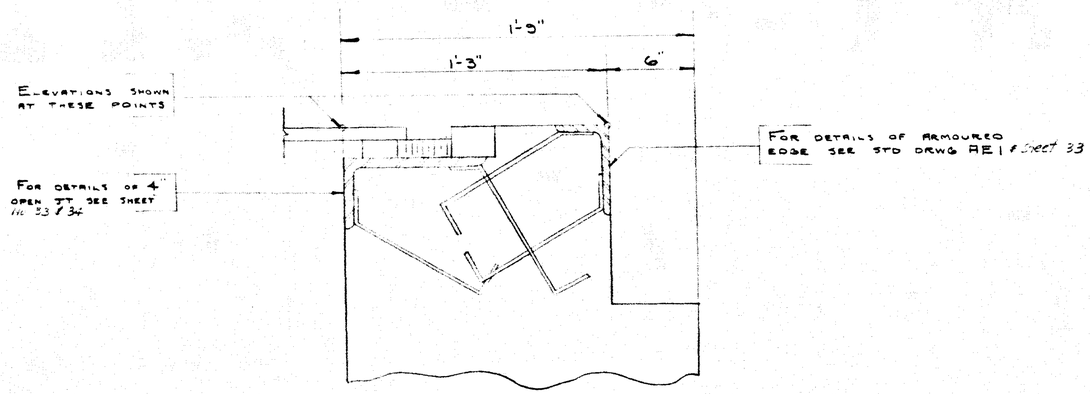
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



PLAN



SIDE ELEVATION



PART SECTION OF PARAPET

END BENT NO. 2
SOUTHBOUND BRIDGE

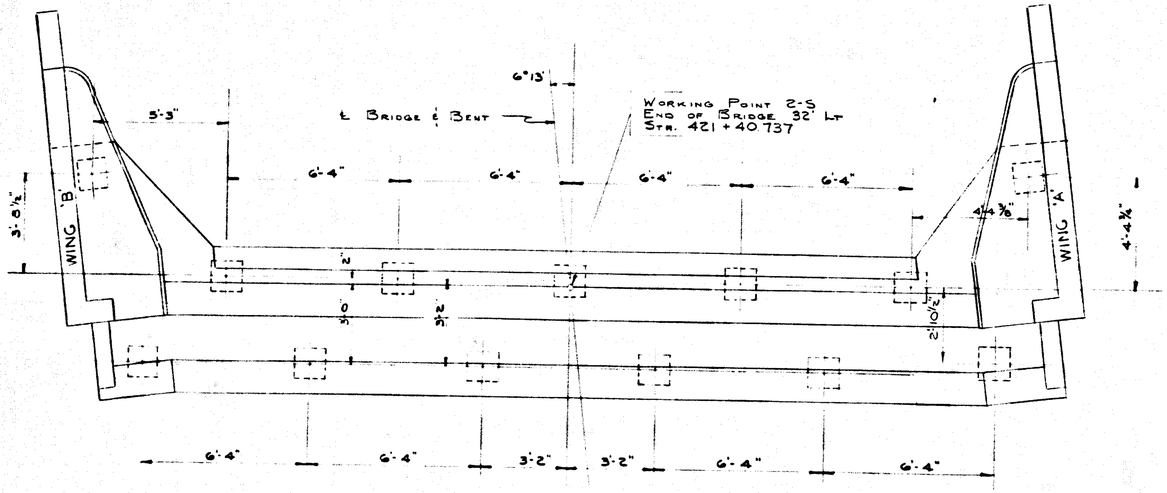
I-71 OVER ZORN AVENUE — SHEET 12

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD
STATION 420+00 I-71 – 50+00 ZORN AVE.
PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 14

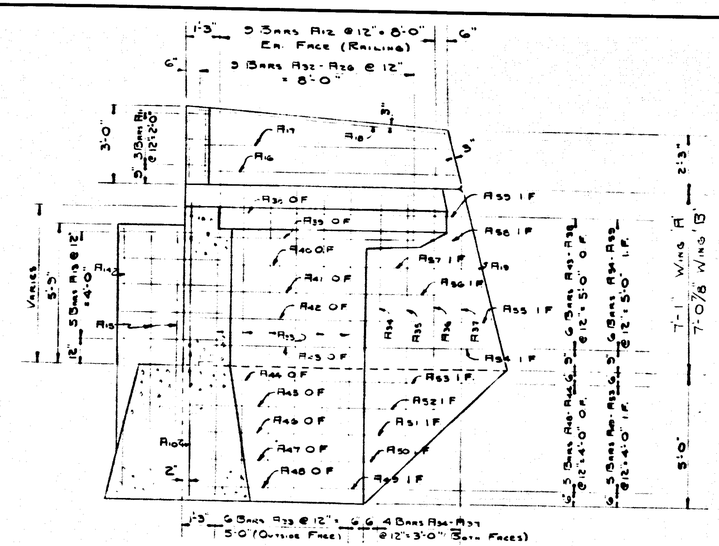
DESIGNED BY R. L. McDANIEL CHECKED BY
DETAILED BY R. L. McDANIEL CHECKED BY
PLACED BY CHECKED BY
REVISED DATE
REVISED DATE
REVISED DATE
REVISED DATE

BRIDGE

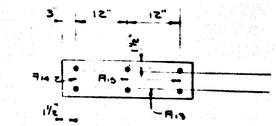
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



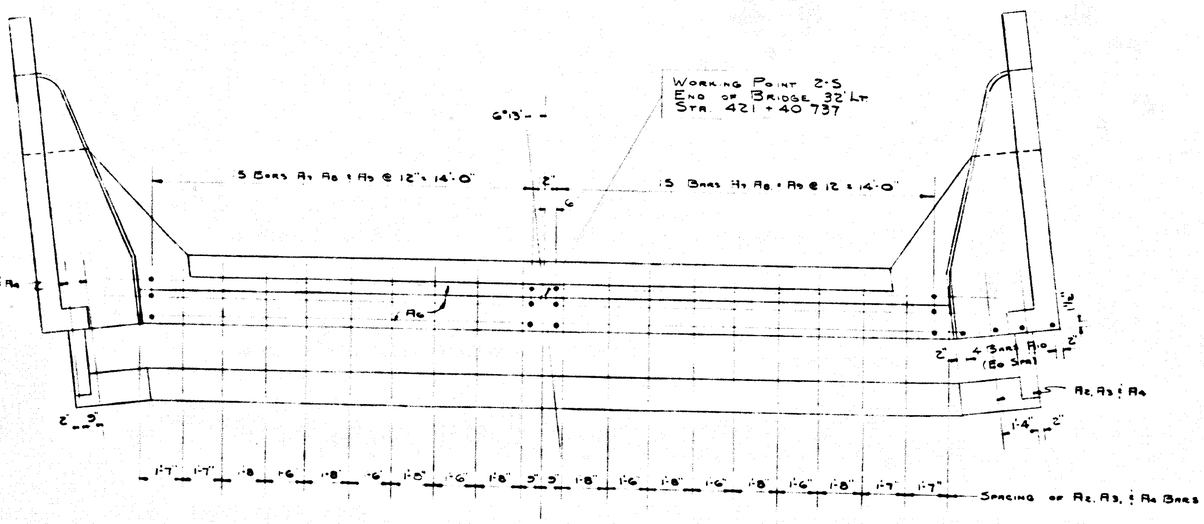
PLAN
(SHOWING LOCATION OF PILES)



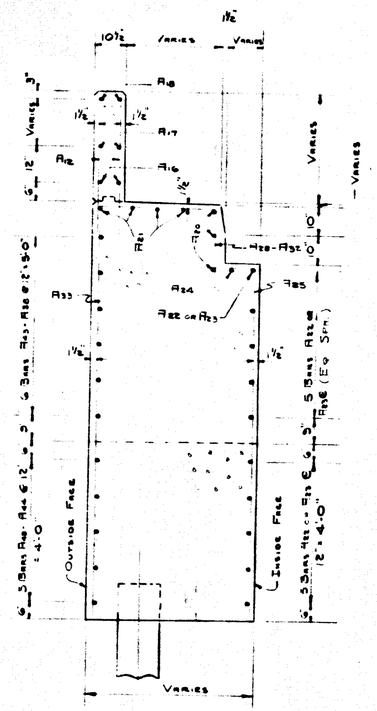
SECT. ON E-E



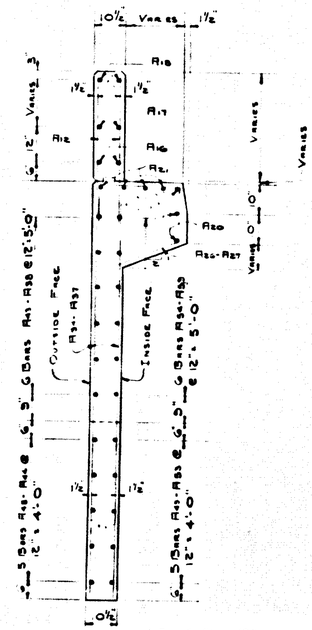
PLAN ~ STUB WALL



PLAN
(SHOWING REINFORCEMENT)



SECTION C-C



SECTION D-D

END BENT NO. 2
SOUTHBOUND BRIDGE

I-71 OVER ZORN AVENUE

SHEET 13

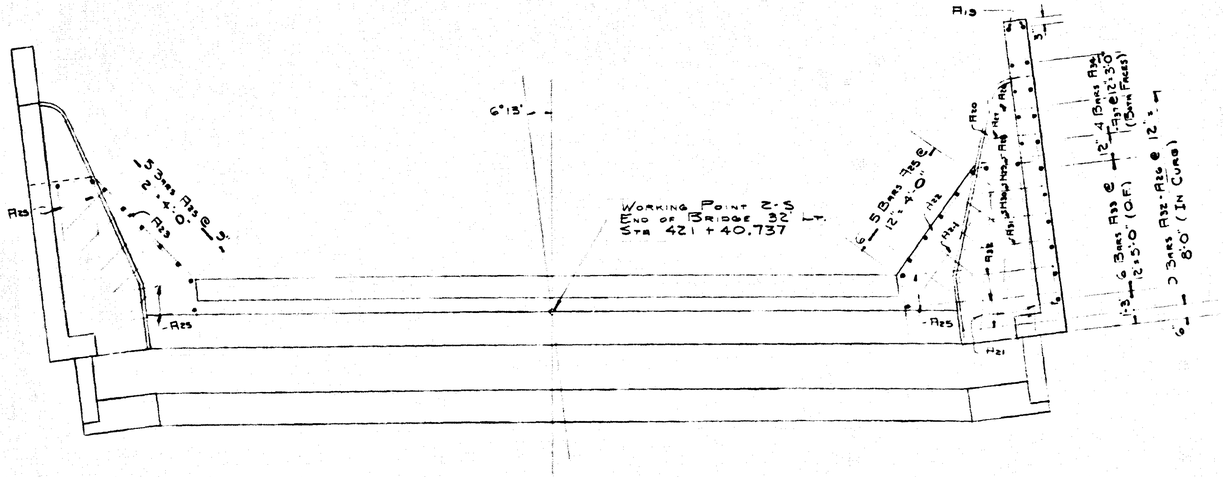
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON
ROAD
STATION 420+00 I-71 — 50+00 ZORN AVE. **PROJECT NO.**

BRIDGE NUMBER | **DRAWING NO.** 54 | **SHEET**

DESIGNED BY R. L. McDANIEL CHECKED BY DATE
DETAILED BY R. L. McDANIEL CHECKED BY DATE
TRACED BY CHECKED BY DATE
REVISED DATE
REVISED DATE
REVISED DATE

BRIDGE

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



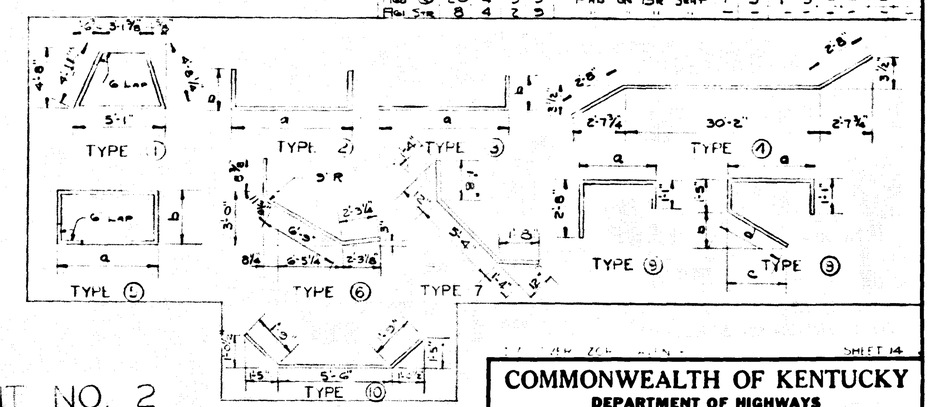
PLAN
(SHOWING REINFORCEMENT)

ESTIMATE OF QUANTITIES

CONC. CLASS 'A'	70.5	CU. YDS.
REINFORCEMENT	4666	LBS.

BILL OF REINFORCEMENT

Mark	Type	No.	Size	Length Ft.	Length In.	Location	a Ft.	a In.	b Ft.	b In.	c Ft.	c In.	d Ft.	d In.
A1	1	8	8	35	6	Cap	-	-	-	-	-	-	-	-
A2	1	24	5	18	5		-	-	-	-	-	-	-	-
A3	1	24	5	4	10		4	0	6	0	3	-	-	-
A4	1	24	5	4	4		4	0	6	0	3	-	-	-
A5	1	6	5	35	6		-	-	-	-	-	-	-	-
A6	1	14	5	35	6	Parapet	-	-	-	-	-	-	-	-
A7	1	30	6	8	3		6	0	1	6	-	-	-	-
A8	1	30	5	6	0		-	-	-	-	-	-	-	-
A9	1	30	6	5	9		-	-	-	-	-	-	-	-
A10	1	8	5	11	3	Wing	1	0	2	6	-	-	-	-
A11	1	6	4	5	3	Handrail End Post	1	7½	0	7½	-	-	-	-
A12	1	40	5	4	2	Handrail	-	-	-	-	-	-	-	-
A13	1	10	4	7	2	Stub Wall	0	4	3	6	-	-	-	-
A14	1	4	4	18	3		0	5	0	0	-	-	-	-
A15	1	4	4	13	7		0	5	6	8	-	-	-	-
A16	Str.	4	5	9	7	Handrail	-	-	-	-	-	-	-	-
A17	Str.	4	5	9	7		-	-	-	-	-	-	-	-
A18	Str.	4	5	9	5		-	-	-	-	-	-	-	-
A19	Str.	4	5	9	3	Wing into Handrail	-	-	-	-	-	-	-	-
A20	1	6	5	10	8	Curb	-	-	-	-	-	-	-	-
A21	Str.	8	5	9	4	"	-	-	-	-	-	-	-	-
A22	1	10	5	8	8	Haunch (Wing 'A')	-	-	-	-	-	-	-	-
A23	1	10	5	9	0	Haunch (Wing 'B')	-	-	-	-	-	-	-	-
A24	Str.	2	4	6	0	Top of Haunch	-	-	-	-	-	-	-	-
A25	1	18	5	12	0	Haunch	0	1	2	0	-	-	-	-
A26	1	2	4	5	0	Curb	1	7	0	6	2	0	3	6
A27	1	2	4	5	6		1	11	0	7	2	0	3	6
A28	1	2	4	5	10		2	3	-	-	-	-	-	-
A29	1	2	4	6	6		2	6	-	-	-	-	-	-
A30	1	2	4	6	9		2	10	-	-	-	-	-	-
A31	1	2	4	6	9		3	2	-	-	-	-	-	-
A32	1	6	4	7	1		3	6	-	-	-	-	-	-
A33	Str.	2	4	11	5	Wings	-	-	-	-	-	-	-	-
A34	1	4	4	11	3		-	-	-	-	-	-	-	-
A35	1	4	4	10	3		-	-	-	-	-	-	-	-
A36	1	4	4	9	3		-	-	-	-	-	-	-	-
A37	1	4	4	8	3		-	-	-	-	-	-	-	-
A38	1	2	5	10	2		-	-	-	-	-	-	-	-
A39	1	2	5	10	5		-	-	-	-	-	-	-	-
A40	1	2	5	10	8		-	-	-	-	-	-	-	-
A41	1	2	5	10	11		-	-	-	-	-	-	-	-
A42	1	2	5	11	2		-	-	-	-	-	-	-	-
A43	1	2	5	11	5		-	-	-	-	-	-	-	-
A44	1	2	5	11	8		-	-	-	-	-	-	-	-
A45	1	2	5	10	0		-	-	-	-	-	-	-	-
A46	1	2	5	8	11		-	-	-	-	-	-	-	-
A47	1	2	5	7	11		-	-	-	-	-	-	-	-
A48	1	2	5	6	10		-	-	-	-	-	-	-	-
A49	1	2	5	6	7		-	-	-	-	-	-	-	-
A50	1	2	5	6	8		-	-	-	-	-	-	-	-
A51	1	2	5	3	8		-	-	-	-	-	-	-	-
A52	1	2	5	4	9		-	-	-	-	-	-	-	-
A53	1	2	5	5	9		-	-	-	-	-	-	-	-
A54	1	2	5	6	10		-	-	-	-	-	-	-	-
A55	1	2	5	5	10		-	-	-	-	-	-	-	-
A56	1	2	5	5	7		-	-	-	-	-	-	-	-
A57	1	2	5	5	4		-	-	-	-	-	-	-	-
A58	1	2	5	5	1		-	-	-	-	-	-	-	-
A59	1	2	5	4	10		-	-	-	-	-	-	-	-
A60	1	20	4	3	9	Pad on Bm Seat	1	5	1	3	-	-	-	-
A61	Str.	8	4	2	9	"	-	-	-	-	-	-	-	-



END BENT NO. 2
SOUTHBOUND BRIDGE

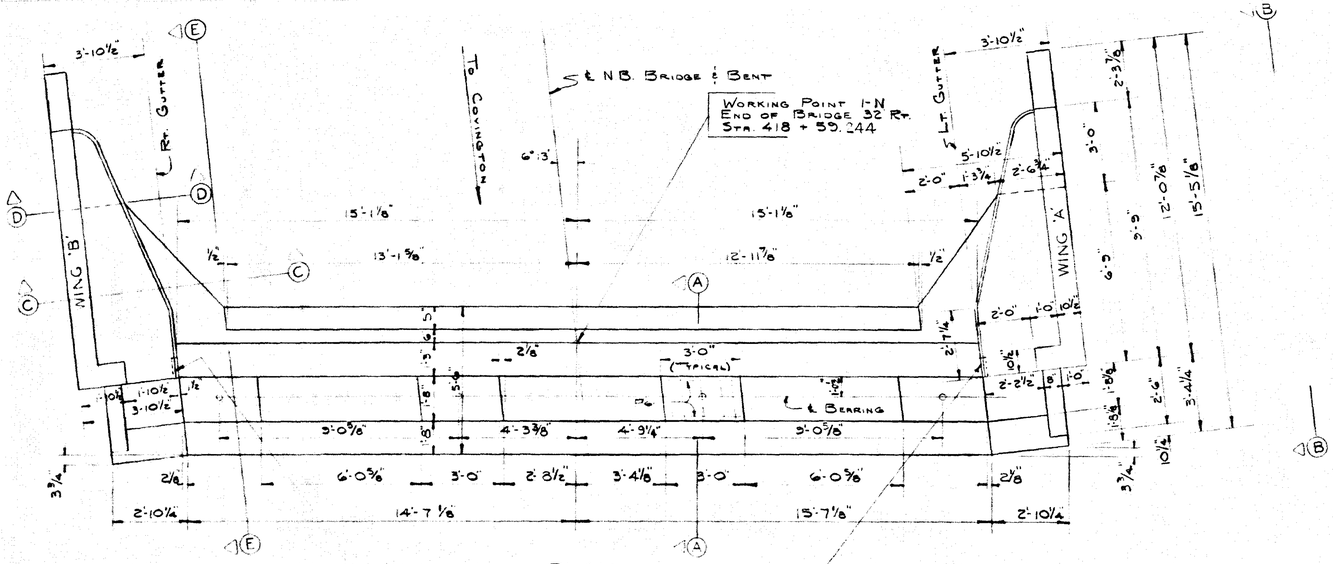
SHEET 14

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD
STATION 420+00 I-71 = 50+00 ZORN AVE. **PROJECT NO.**
BRIDGE NUMBER **DRAWING NO.**

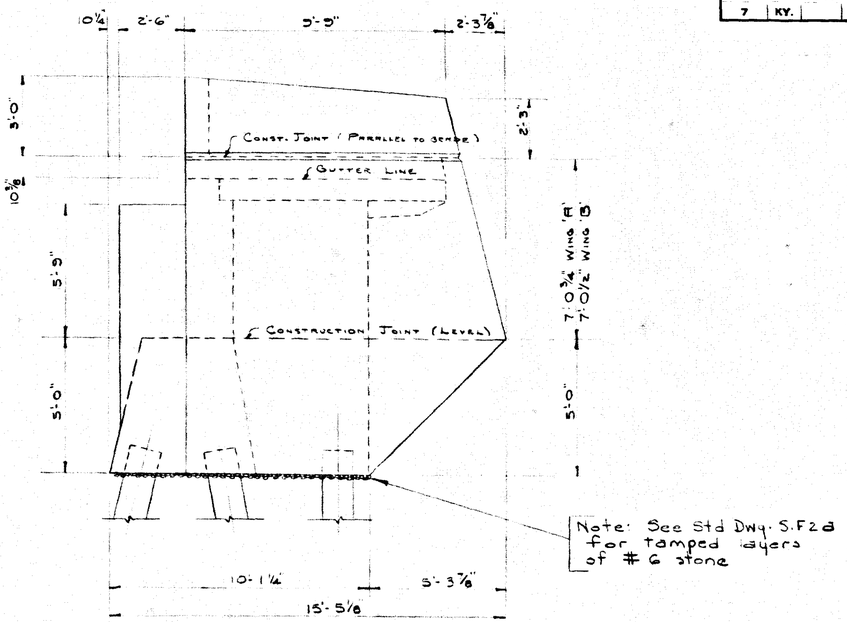
DESIGNED BY R. L. Mc Daniel / SPONSORED BY
DETAILED BY R. L. Mc Daniel / CHECKED BY
TRACED BY / CHECKED BY
DATE / REVISED

BRIDGE

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

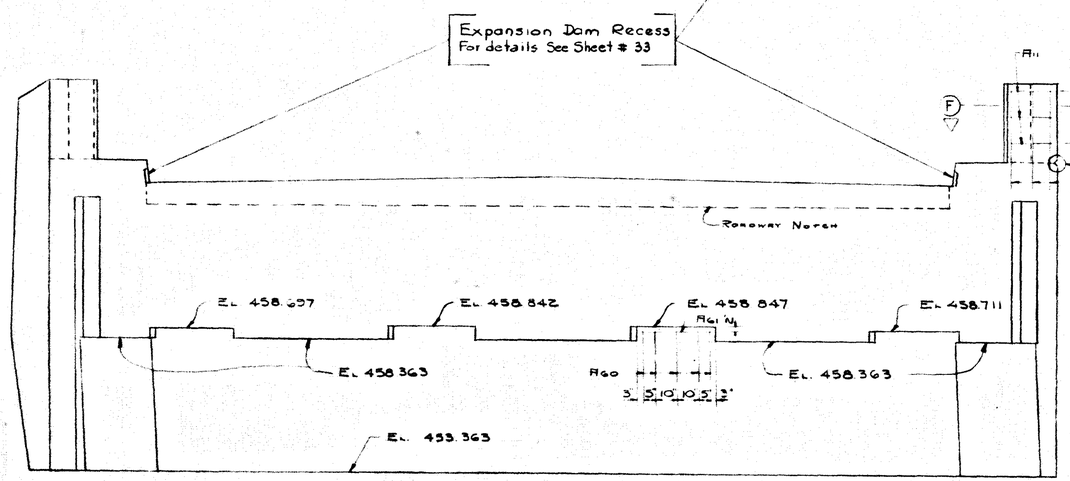


PLAN

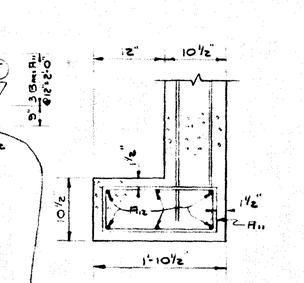


Note: See Std Dwg. S.F.2.8 for tamped layers of #6 stone

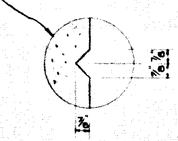
ELEVATION B-B



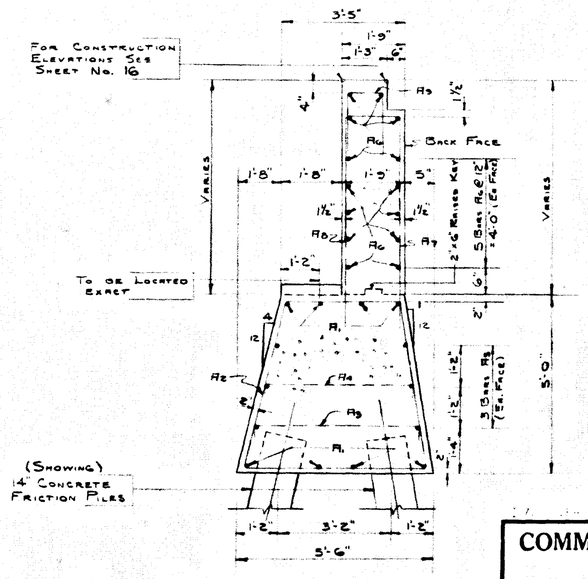
ELEVATION
(PILES OMITTED)



SECTION F-F



RUSTICATION GROOVE



SECTION A-A

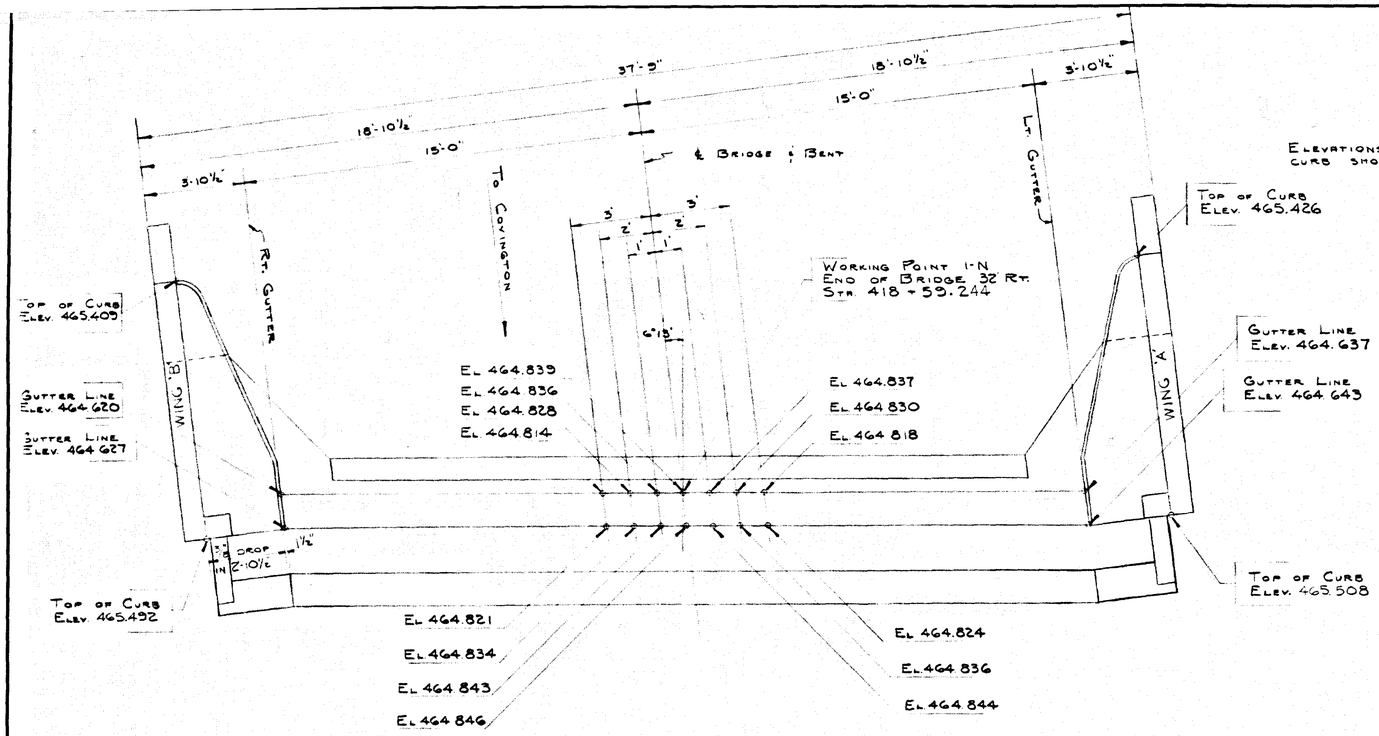
END BENT NO. 1
NORTHBOUND BRIDGE

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD
STATION 420+00 I-71 = 50+00 ZORN
PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 1-154
SHEET

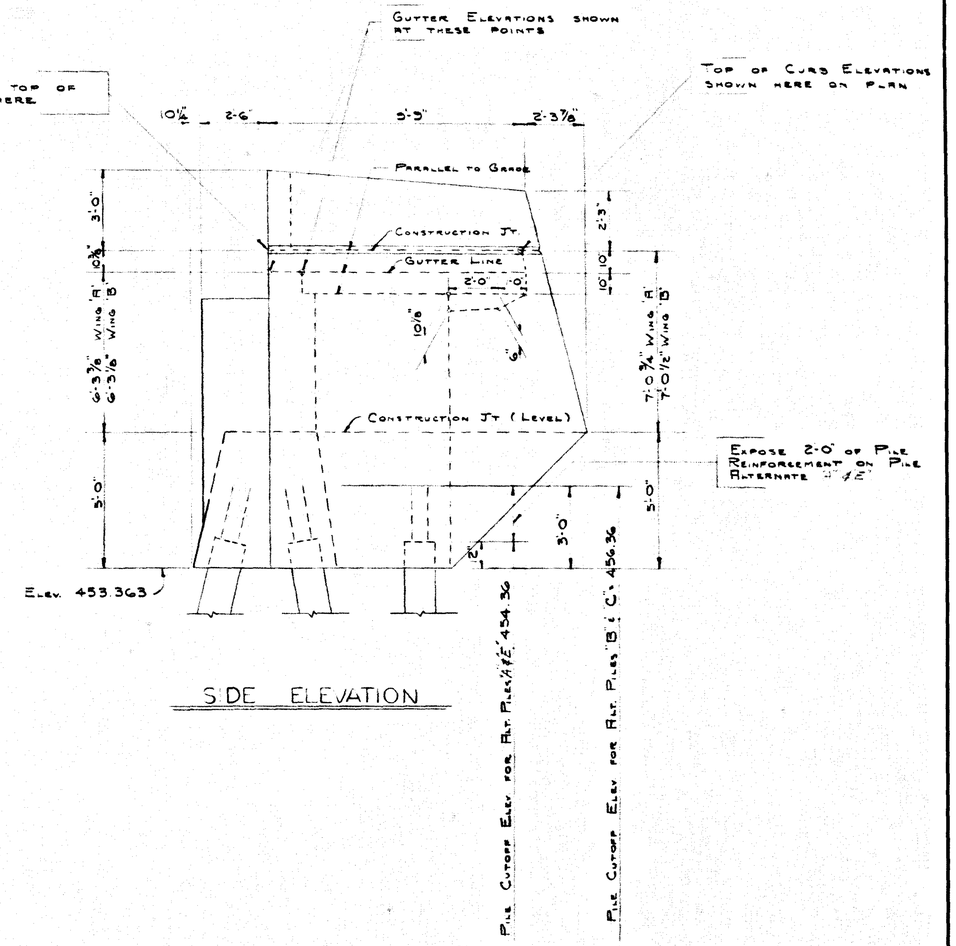
DESIGNED BY R. L. McDaniel CHECKED BY E.L.O. DATE 2-21-64 REVISED DATE
DETAILED BY R. L. McDaniel CHECKED BY DATE REVISED DATE
TRACED BY CHECKED BY DATE REVISED DATE

BRIDGE

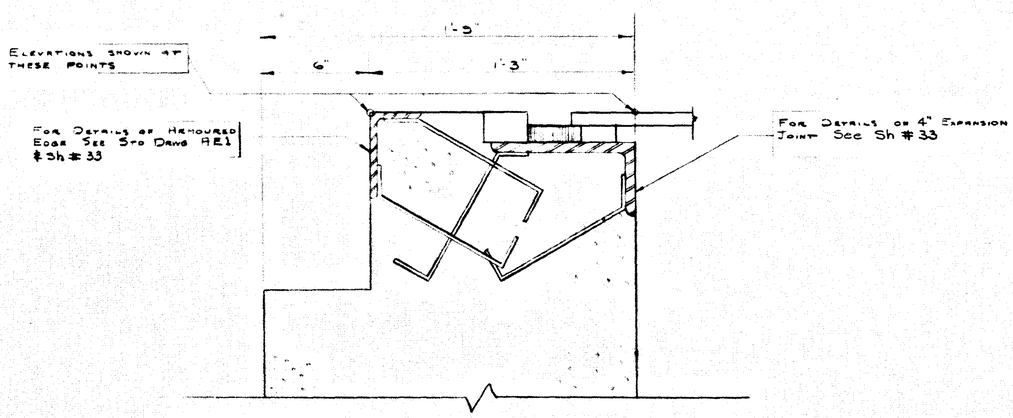
FED ROAD DIST.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



PLAN



SIDE ELEVATION



PART SECTION OF PARAPET

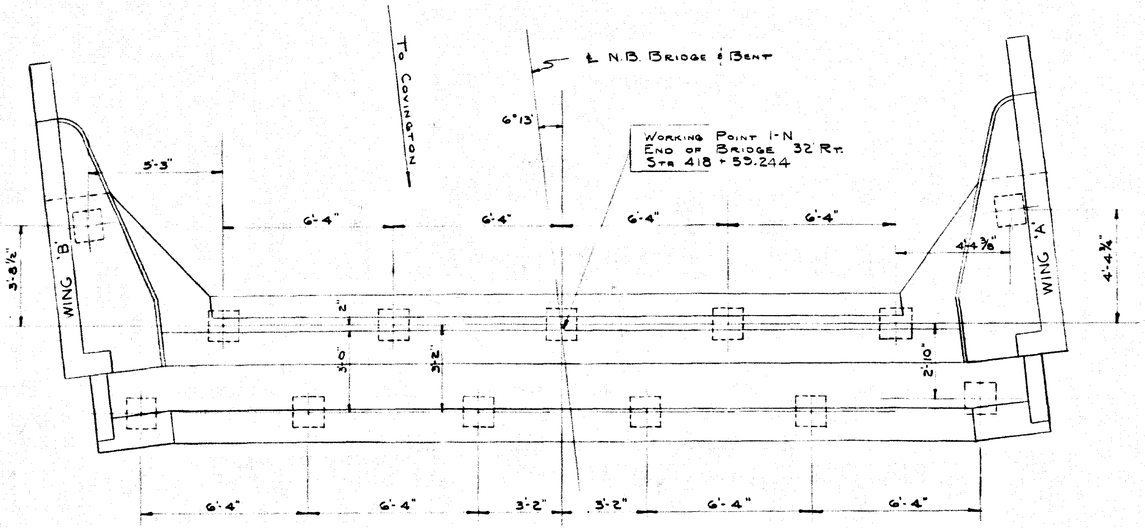
END BENT NO. 1
NORTHBOUND BRIDGE

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
STATION 420+00 I-71 = 50+00 ZORN AVE. ROAD
PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 16154

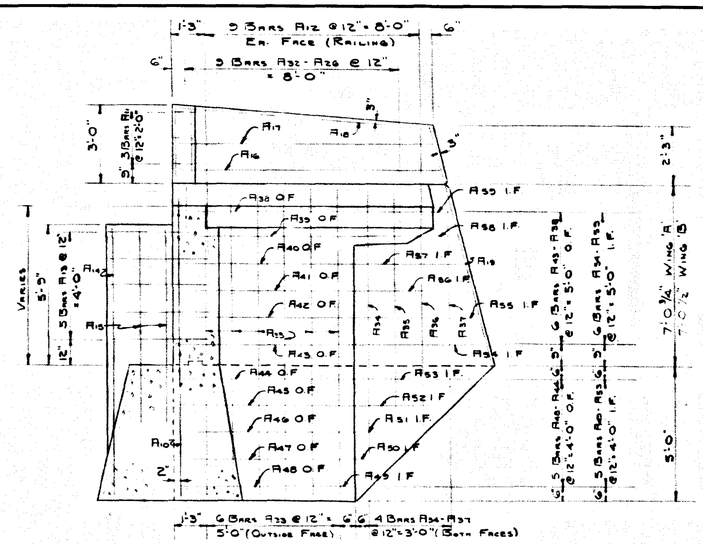
Designed by R. L. Mc. Daniel Checked by
Detailed by R. L. Mc. Daniel Checked by
Traced by Checked by
Date 12-31-65 Revised Date Revised Date Revised Date

BRIDGE

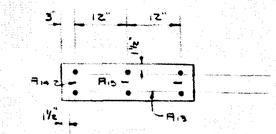
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



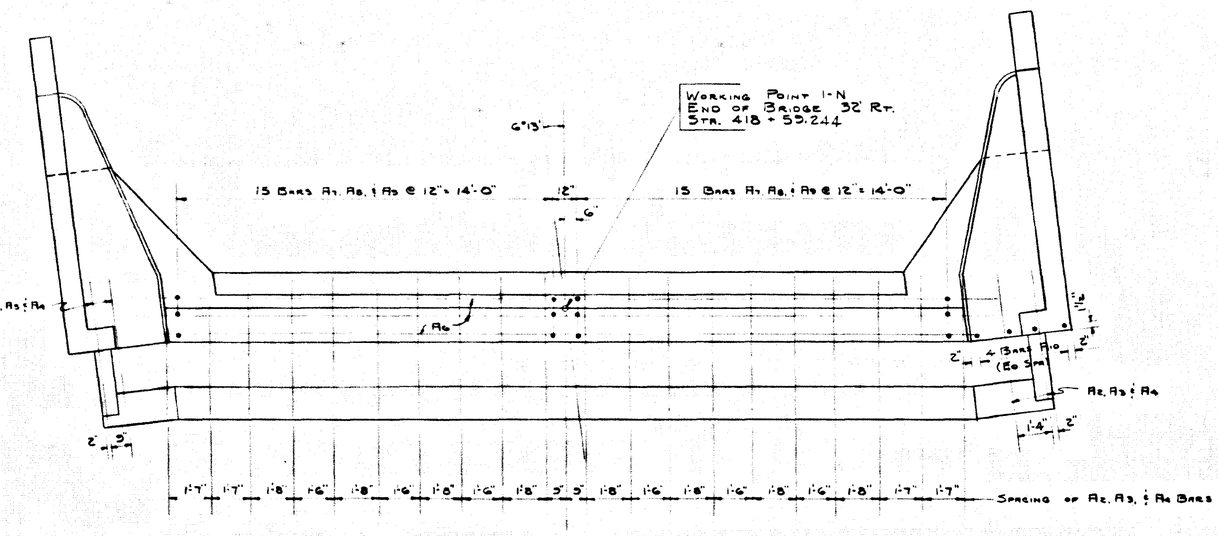
PLAN
(SHOWING LOCATION OF PILES)



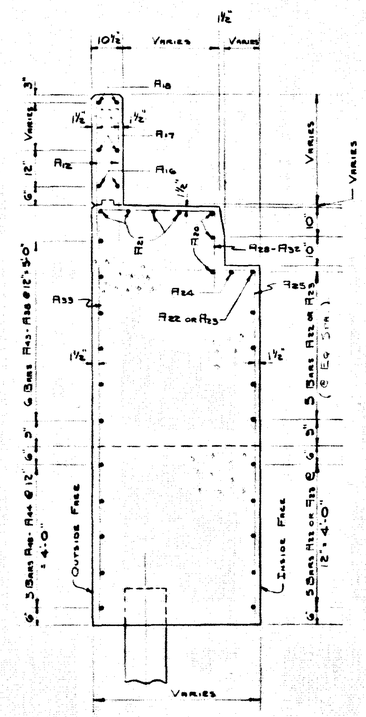
SECTION E-E



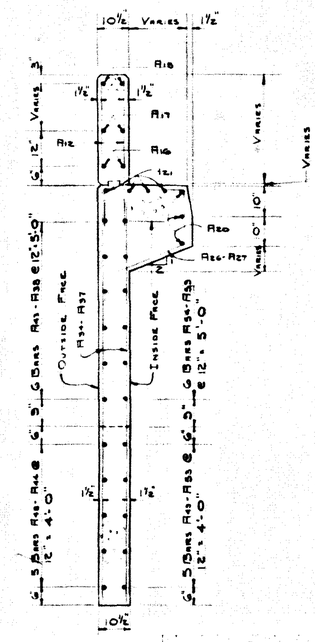
PLAN ~ STUB WALL



PLAN
(SHOWING REINFORCEMENT)



SECTION C-C



SECTION D-D

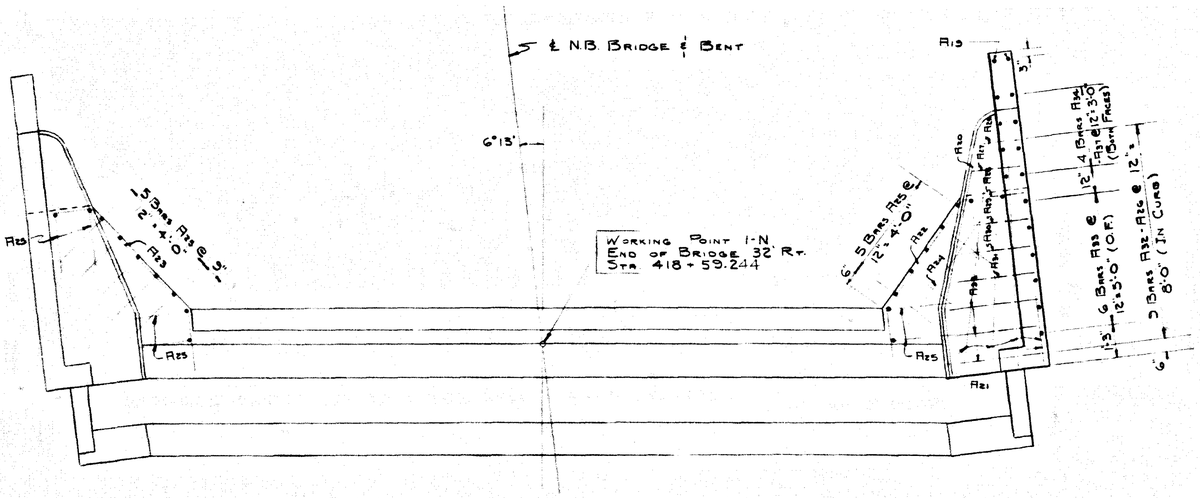
END BENT NO. 1
NORTHBOUND BRIDGE

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON
ROAD
STATION 420+00 I-71 – 50+00 ZORN AVE **PROJECT NO.**
BRIDGE NUMBER
DRAWING NO. 16154

DESIGNED BY R. L. McDaniel CHECKED BY
DETAILED BY R. L. McDaniel CHECKED BY
TRACED BY CHECKED BY
REVISED DATE
REVISED DATE
REVISED DATE
REVISED DATE

BRIDGE

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



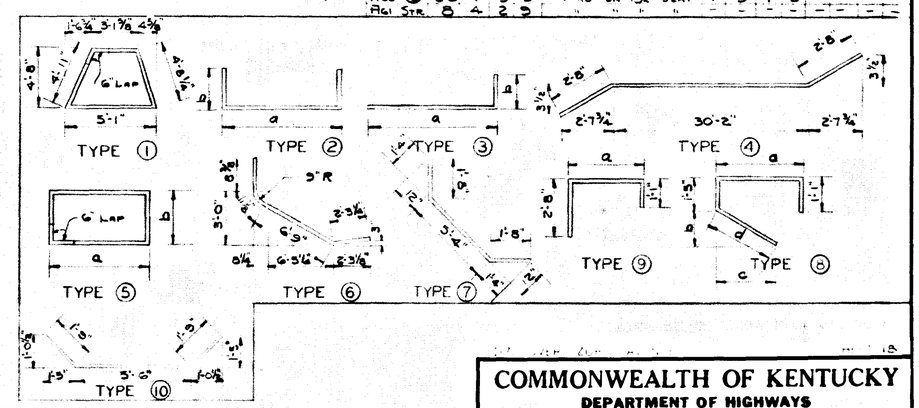
PLAN
(SHOWING REINFORCEMENT)

ESTIMATE OF QUANTITIES

CONC. CLASS 'A'	70.5	CU. YDS.
REINFORCEMENT	4866	LBS.

BILL OF REINFORCEMENT

Mark	Type	No.	Size	Length Ft	Length In	Location	a Ft	a In	b Ft	b In	c Ft	c In	d Ft	d In
A1	9	8	3	35	6	Cap	-	-	-	-	-	-	-	-
A2	9	24	5	18	5		-	-	-	-	-	-	-	-
A3	9	24	5	4	10		4	6	0	3	-	-	-	-
A4	9	24	5	4	4		4	0	0	3	-	-	-	-
A5	9	6	5	35	6		-	-	-	-	-	-	-	-
A6	9	4	5	35	6	Parapet	-	-	-	-	-	-	-	-
A7	9	300	5	6	3		6	10	1	6	-	-	-	-
A8	Str.	300	5	6	10		-	-	-	-	-	-	-	-
A9	9	300	5	5	5		1	0	2	6	-	-	-	-
A10	Str.	8	5	11	5		-	-	-	-	-	-	-	-
A11	9	6	4	5	3	Wing Handrail End Post	1	7½	0	7½	-	-	-	-
A12	Str.	48	4	4	2	Handrail	-	-	-	-	-	-	-	-
A13	9	20	4	7	2	Stub Wall	0	4	3	6	-	-	-	-
A14	9	2	4	8	5		0	3	5	0	-	-	-	-
A15	9	4	4	9	7		0	5	6	8	-	-	-	-
A16	Str.	4	5	9	7	Handrail	-	-	-	-	-	-	-	-
A17	Str.	4	5	9	7		-	-	-	-	-	-	-	-
A18	Str.	4	5	9	5		-	-	-	-	-	-	-	-
A19	Str.	4	5	9	3	Wing into Handrail	-	-	-	-	-	-	-	-
A20	8	6	5	10	8	Curb	-	-	-	-	-	-	-	-
A21	Str.	4	5	9	4	"	-	-	-	-	-	-	-	-
A22	1	100	5	8	8	Haunch (Wing A)	-	-	-	-	-	-	-	-
A23	1	100	5	9	0	Haunch (Wing B)	-	-	-	-	-	-	-	-
A24	Str.	2	4	6	0	Top of Haunch	-	-	-	-	-	-	-	-
A25	9	18	5	12	0	Haunch	10	1	2	0	-	-	-	-
A26	9	2	4	5	0	Curb	-	7	0	6	1	0	1	1½
A27	9	2	4	5	6		1	11	0	7	1	2	1	3½
A28	9	2	4	5	10		2	3	-	-	-	-	-	-
A29	9	2	4	6	1		2	6	-	-	-	-	-	-
A30	9	2	4	6	5		2	10	-	-	-	-	-	-
A31	9	2	4	6	9		3	2	-	-	-	-	-	-
A32	9	26	4	7	1		3	6	-	-	-	-	-	-
A33	Str.	2	4	11	3	Wings	-	-	-	-	-	-	-	-
A34		4	4	11	3		-	-	-	-	-	-	-	-
A35		4	4	10	3		-	-	-	-	-	-	-	-
A36		4	4	9	3		-	-	-	-	-	-	-	-
A37		4	4	8	3		-	-	-	-	-	-	-	-
A38		2	5	10	2		-	-	-	-	-	-	-	-
A39		2	5	10	5		-	-	-	-	-	-	-	-
A40		2	5	10	8		-	-	-	-	-	-	-	-
A41		2	5	10	11		-	-	-	-	-	-	-	-
A42		2	5	11	2		-	-	-	-	-	-	-	-
A43		2	5	11	5		-	-	-	-	-	-	-	-
A44		2	5	11	8		-	-	-	-	-	-	-	-
A45		2	5	10	0		-	-	-	-	-	-	-	-
A46		2	5	8	11		-	-	-	-	-	-	-	-
A47		2	5	7	11		-	-	-	-	-	-	-	-
A48		2	5	6	10		-	-	-	-	-	-	-	-
A49		2	5	1	7		-	-	-	-	-	-	-	-
A50		2	5	2	8		-	-	-	-	-	-	-	-
A51		2	5	3	8		-	-	-	-	-	-	-	-
A52		2	5	4	9		-	-	-	-	-	-	-	-
A53		2	5	5	9		-	-	-	-	-	-	-	-
A54		2	5	6	1		-	-	-	-	-	-	-	-
A55		2	5	5	10		-	-	-	-	-	-	-	-
A56		2	5	5	7		-	-	-	-	-	-	-	-
A57		2	5	5	4		-	-	-	-	-	-	-	-
A58		2	5	5	1		-	-	-	-	-	-	-	-
A59		2	5	4	10		-	-	-	-	-	-	-	-
A60	2	20	4	3	5	Pro on Be Sent	1	5	1	5	-	-	-	-
A61	Str.	8	4	2	5		-	-	-	-	-	-	-	-



END BENT NO. 1
NORTHBOUND BRIDGE

DESIGNED BY R. L. McDANIEL CHECKED BY JPD DATE 12/2/64 REVISED DATE
DETAILED BY R. L. McDANIEL CHECKED BY DATE REVISED DATE
TRACED BY CHECKED BY DATE REVISED DATE

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON

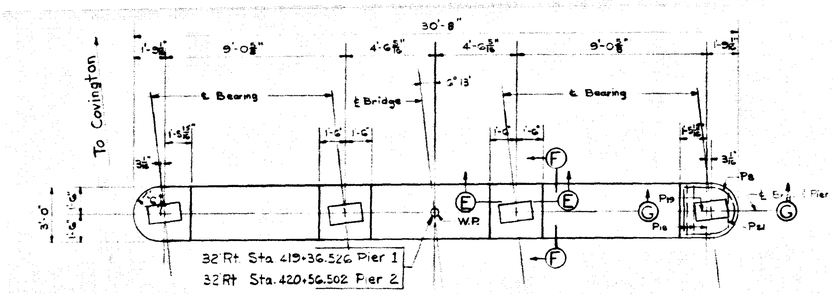
STATION	ROAD	PROJECT NO.
420 + 00 / 50 + 00	I-71 = ZORN AVE.	

BRIDGE NUMBER

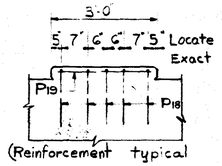
DRAWING NO. 16154

BRIDGE

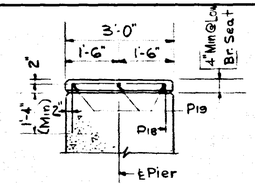
FED ROAD DIST	STATE	FED AID PROJ NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
7	KY.				



PLAN OF CAP



SECTION E-E

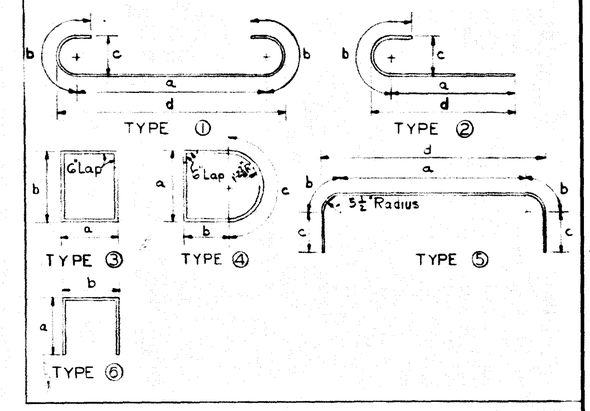


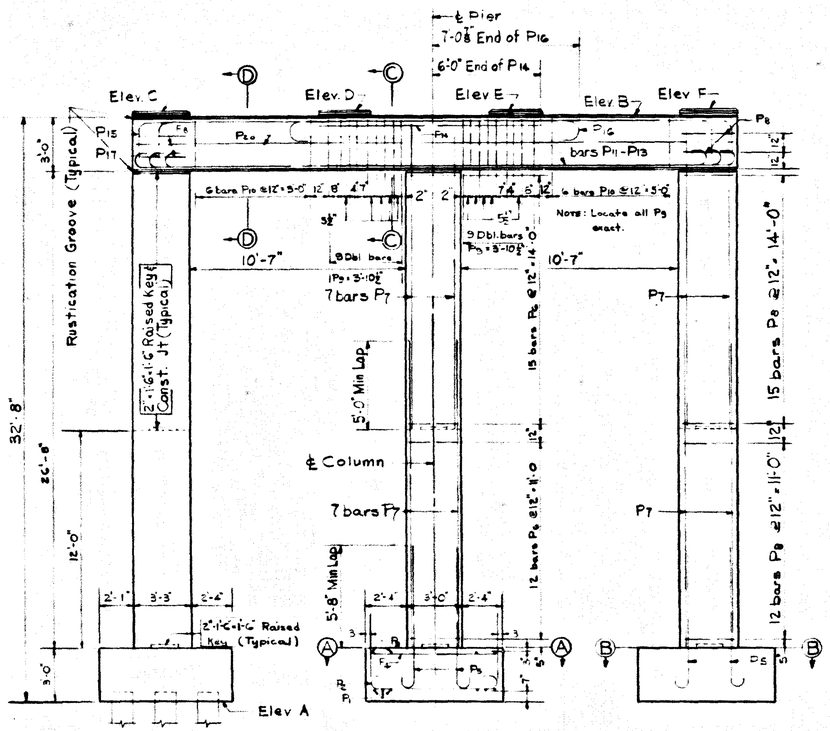
SECTION F-F

ELEV	PIER 1	PIER 2
A	425.218	425.390
B	457.885	458.056
C	458.227	458.389
D	458.365	458.530
E	458.562	458.531
F	458.218	458.390

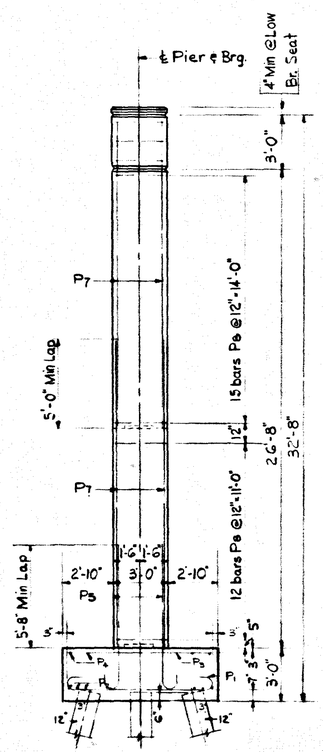
BILL OF REINFORCEMENT

MARK	TYPE	PIER NO 1 NO 2	SIZE	LENGTH FT IN	LOCATION	a FT	a IN	b FT	b IN	c FT	c IN	d FT	d IN
P1	①	48 48	#6	8 8	Footings	7	8	1	0	0	6	8	
P2	①	54 54	#6	8 8	"	6	8	1	0	0	6		
P3	Str	24 24	#5	8 8	"								
P4	Str	27 27	#5	7 7	"								
P5	②	54 54	#10	8 8	Dowels	7	5	1	10	1	0½	7	
P6	②	27 27	#5	11 11	Column Hoops	2	7	2	7				
P7	Str	108 108	#8	7 0	"								
P8	③	60 60	#5	10 6	" Hoops	2	7	1	6½	4	0½		
P9	③	36 36	#6	8 8	Cap "	2	8	2					
P10	③	12 12	#5	11 5	" "	2	8	2	8				
P11	④	1 1	#11	32 8		28	8	2	0	1	1½	29	0
P12	④	2 2	#11	32 1	"	28		2	0	1	1½	29	2
P13	④	2 2	#11	30 6	"	26	6	2	0	1	1½	27	7
P14	Str	5 5	#10	2 0	"								
P15	④	1 1	#11	34 7	"	28	9	0	1½	2	0½	29	10
P16	④	2 2	#	17 0	"	13	0	2	0	1	1½	14	
P17	④	2 2	#	32 4	"	26	6	0	1½	2	0½	27	
P18	⑤	16 16	#4	5 8	Bearing Pads		7	2	8				
P19	Str	8 8	#4	2 8	" "								
P20	Str	2 2	#5	27 2	Cap								
P21	⑤	2 2	#4	5 1	Bearing Pads	1	7	2	1				

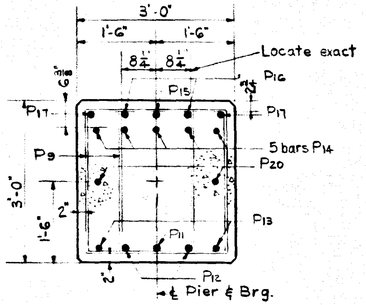




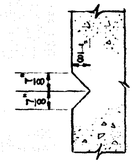
ELEVATION



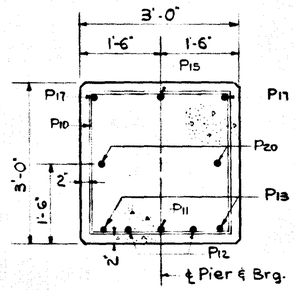
SIDE ELEVATION



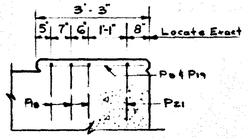
SECTION C-C



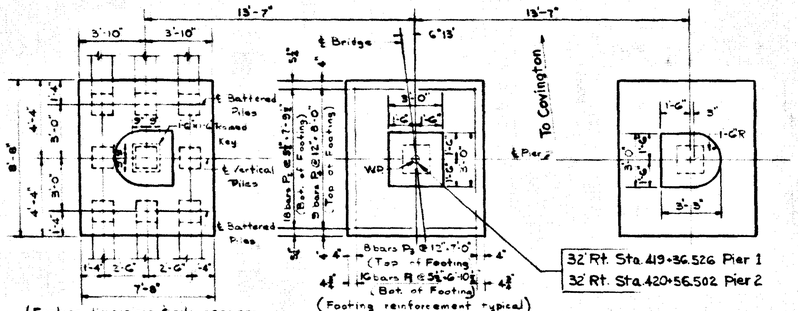
RUSTICATION GROOVE DETAIL



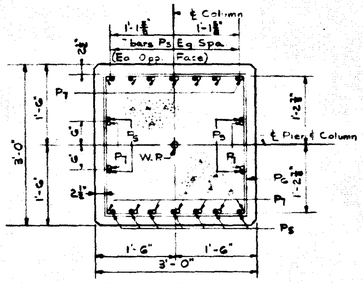
SECTION D-D



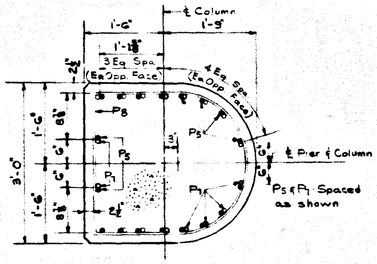
SECTION G-G



FOOTING PLAN



SECTION A-A



SECTION B-B

ESTIMATE OF QUANTITIES

PIER NO. 1

CONCRETE CLASS "A"	58.1 CU. YDS
REINFORCEMENT	13,807 LBS

PIER NO. 2

CONCRETE CLASS "A"	58.1 CU. YDS.
REINFORCEMENT	13,807 LBS

PIERS NORTHBOUND BRIDGE

I-71 OVER ZORN AVE. SHEET 5

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON
ROAD

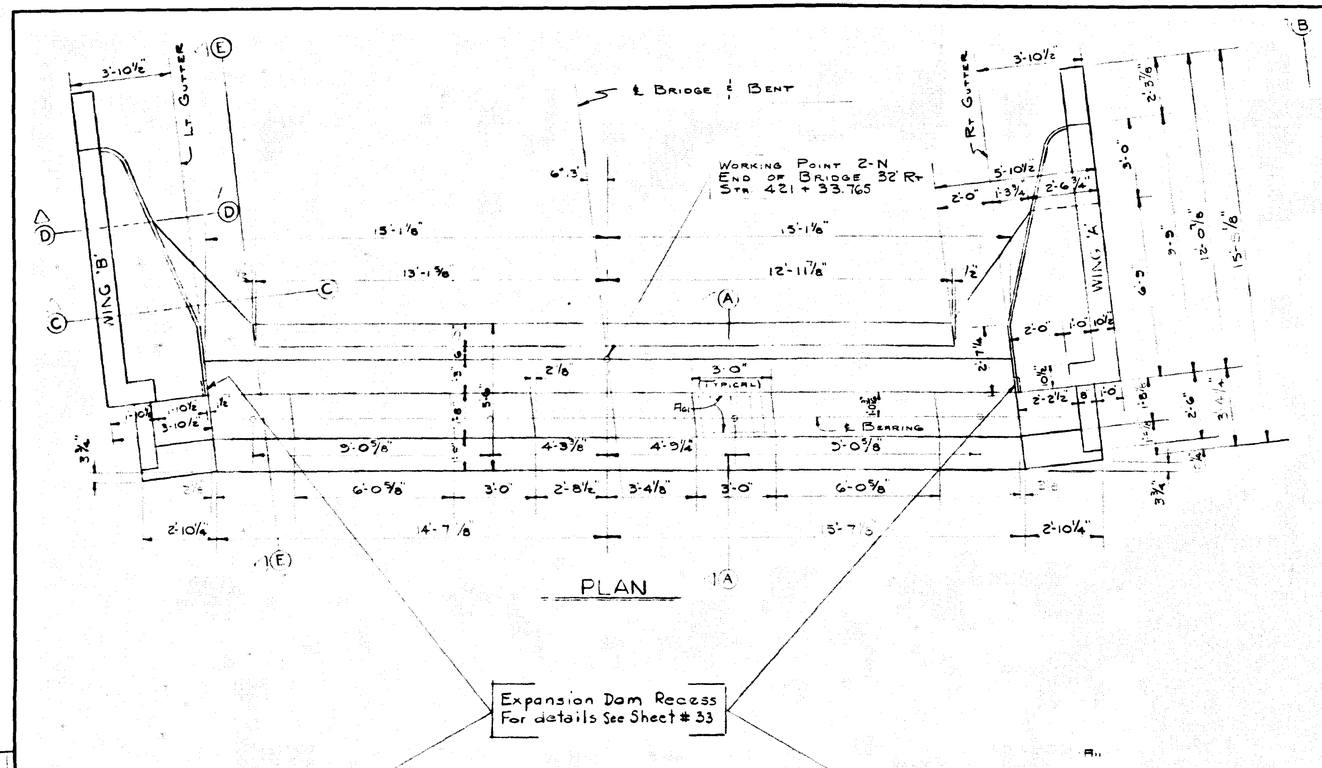
STATION 420+00 I-71 / 10+00 ZORN AVE. PROJECT NO.

BRIDGE NUMBER — DRAWING NO. 6.54

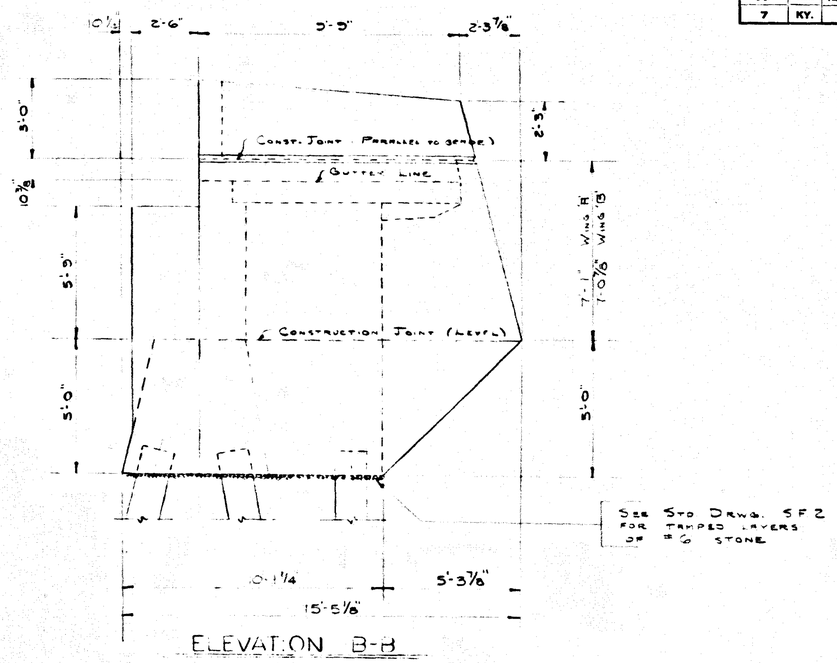
DESIGNED BY — DATE — REVISED
DETAILED BY — DATE — REVISED
TRACED BY — CHECKED BY — DATE

BRIDGE

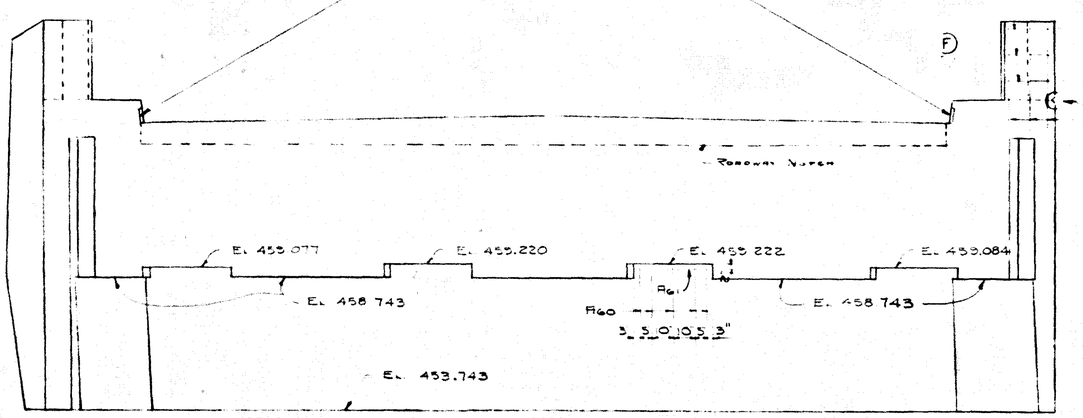
FED. ROAD DIST	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO	TOTAL SHEETS
7	KY.				



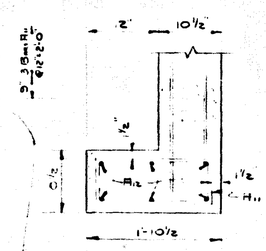
PLAN



ELEVATION B-B

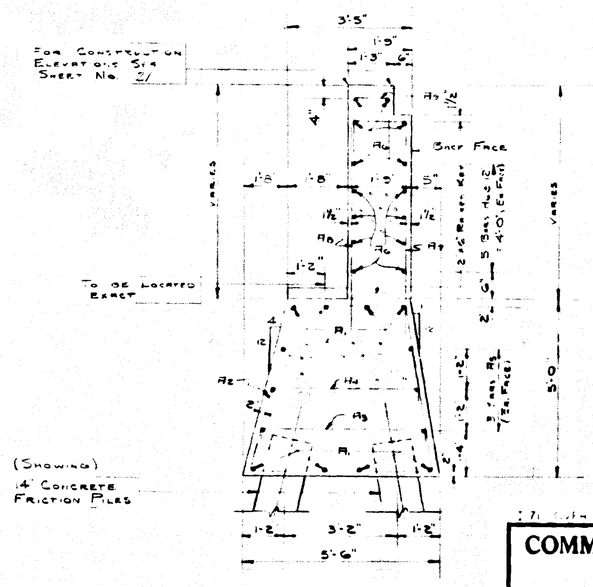


ELEVATION
(PILES OMITTED)



SECTION F-F

RUSTICATION GROOVE



SECTION A-A

END BENT NO 2
NORTHBOUND BRIDGE

ZOR N AVENUE

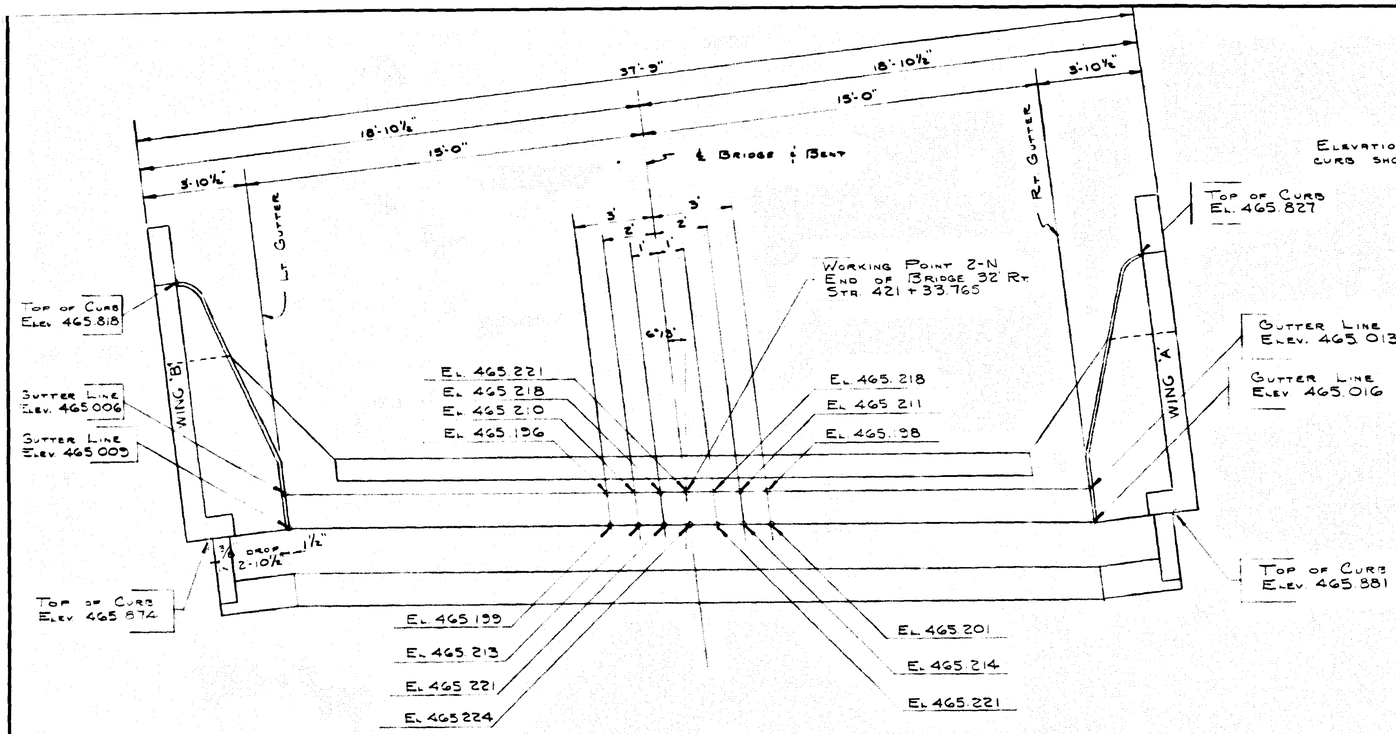
SHEET 20

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD
STATION 420+00 I-71 to 50+00 ZORN AVE. **PROJECT NO.**
BRIDGE NUMBER
DRAWING NO. 5154

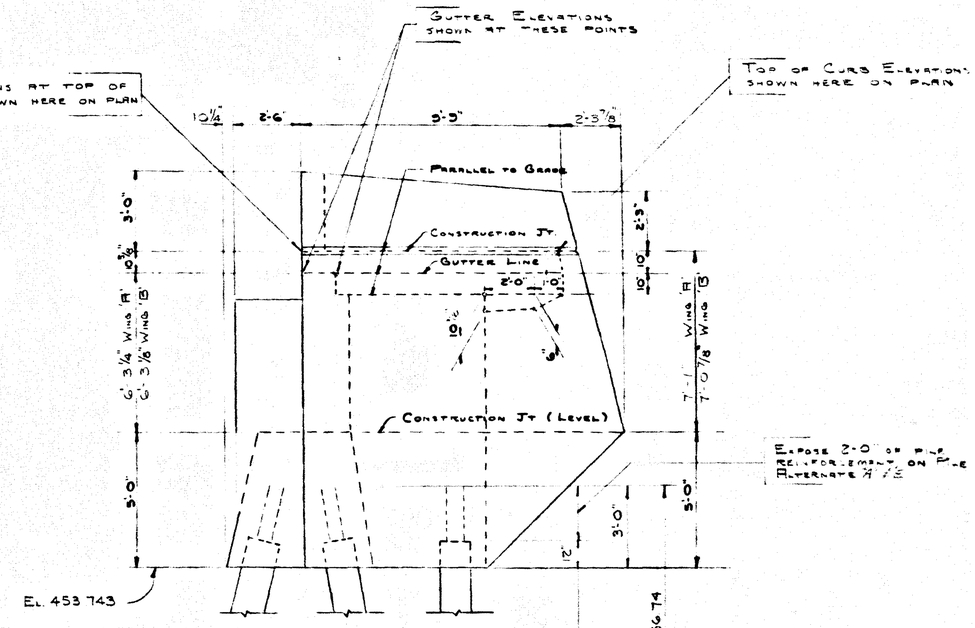
DESIGNED BY R. L. McDaniel CHECKED BY
DETAILED BY R. L. McDaniel CHECKED BY
TRACED BY CHECKED BY
DATE REVISED

BRIDGE

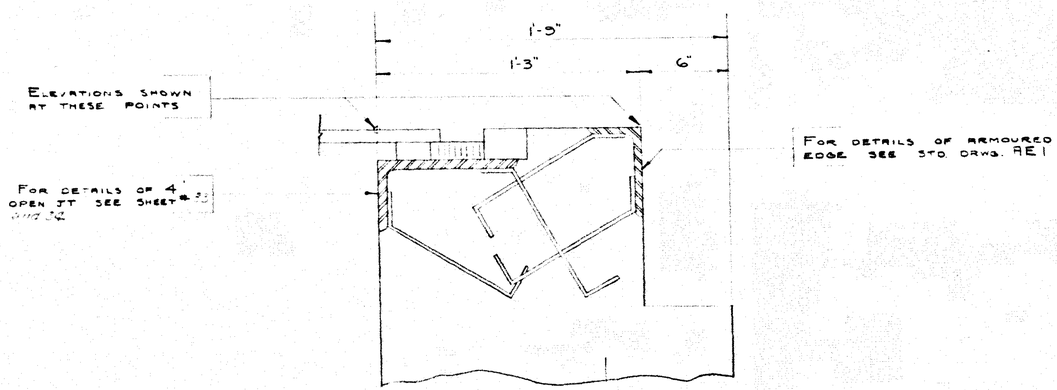
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



PLAN



SIDE ELEVATION



PART SECTION OF PARAPET

Pile Cutoff Elev. for Rt Piles A & E 454.74

Pile Cutoff Elev. for Rt Piles "B" & "C" 456.74

END BENT NO. 2
NORTHBOUND BRIDGE

I-71 OVER ZORN AVENUE — SHEET 21

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON

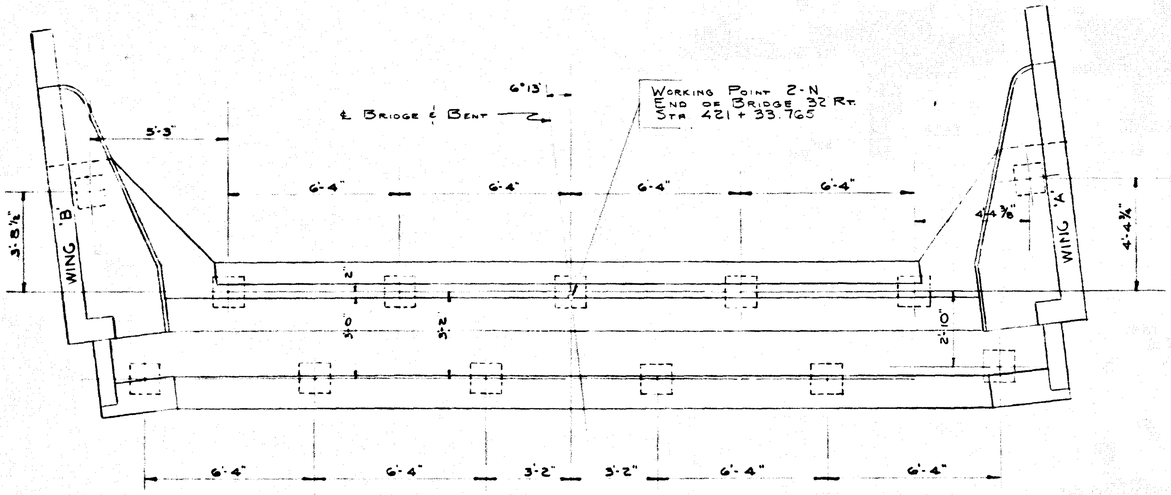
STATION 420+00 I-71 – ROAD
50+00 ZORN AVE. PROJECT NO.

BRIDGE NUMBER

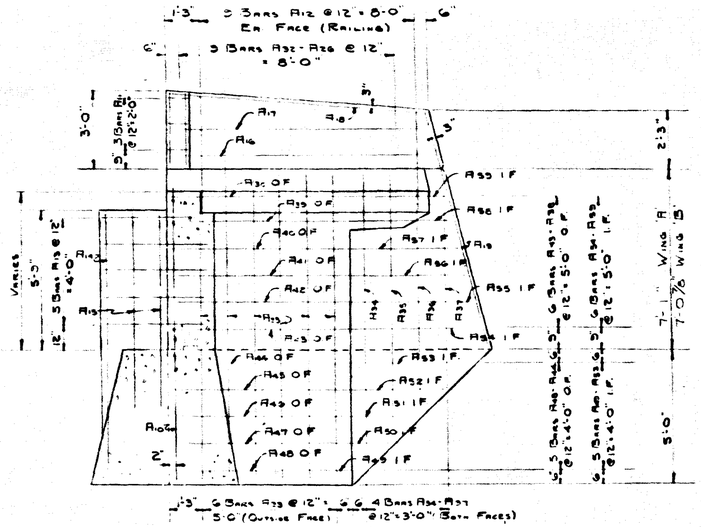
DESIGNED BY R. L. Mc DANIEL CHECKED BY DATE
DETAILED BY R. L. Mc DANIEL CHECKED BY DATE
TRACED BY CHECKED BY DATE

BRIDGE

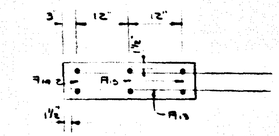
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



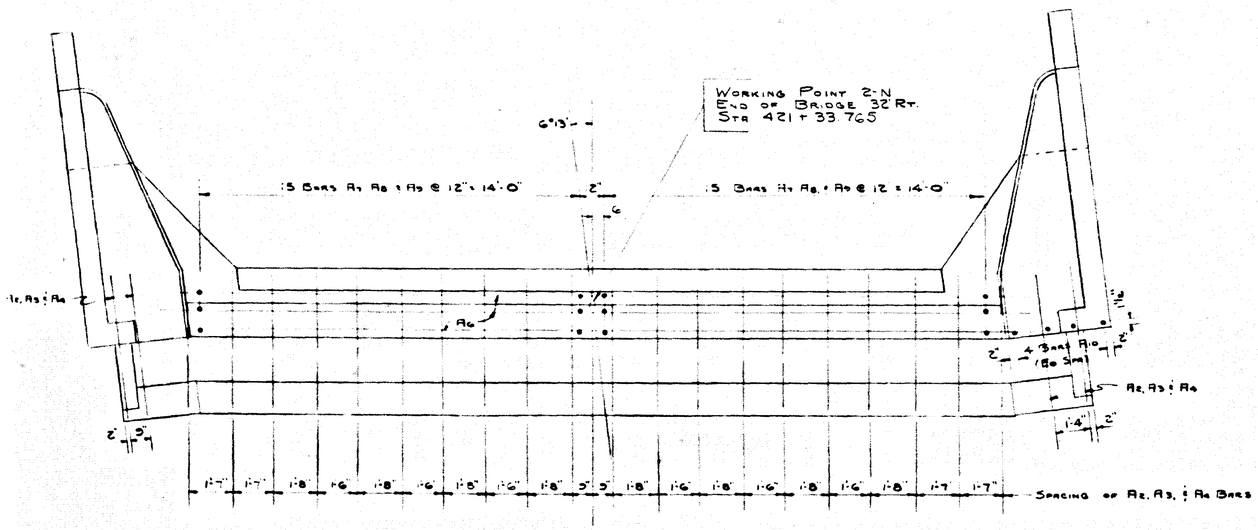
PLAN
(SHOWING LOCATION OF PILES)



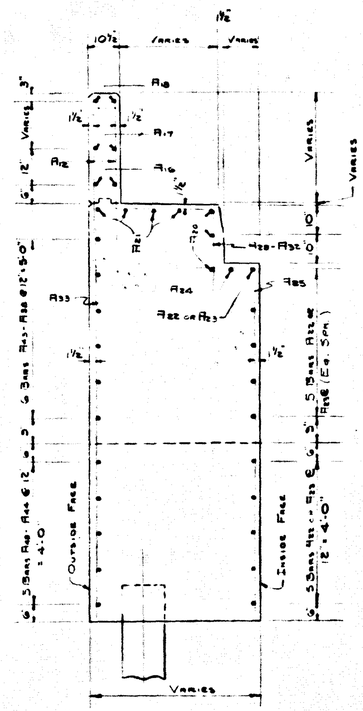
SECTION E-E



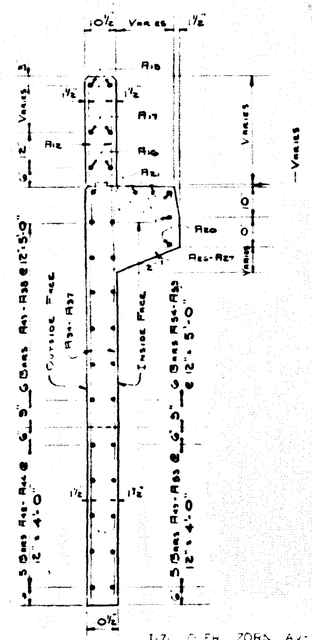
PLAN ~ STUB WALL



PLAN
(SHOWING REINFORCEMENT)



SECTION C-C



SECTION D-D

END BENT NO. 2
NORTHBOUND BRIDGE

I-71 OVER ZORN AVENUE

SHEET 22

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON
ROAD

STATION 420+00 I-71 — 50+00 ZORN AVE **PROJECT NO.**

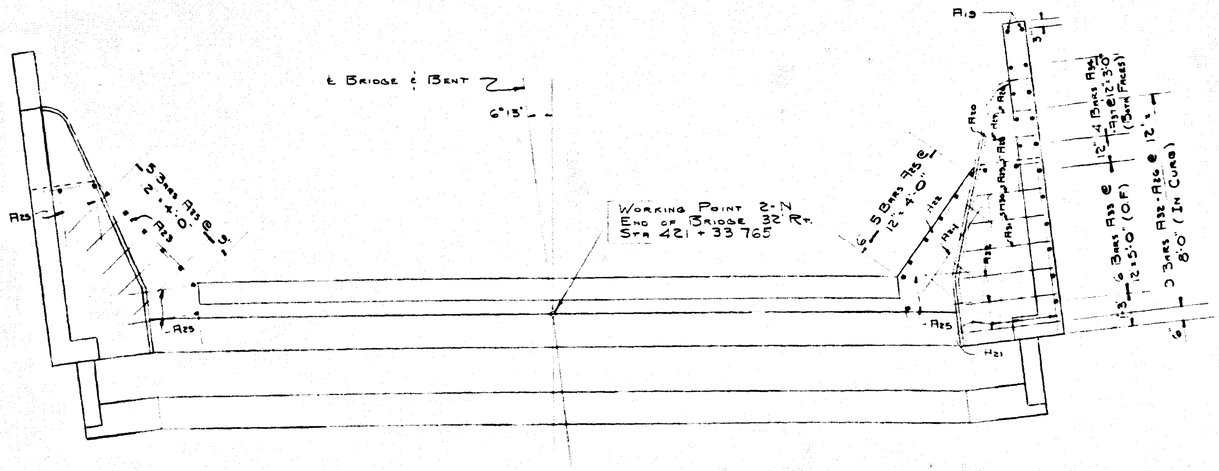
BRIDGE NUMBER

DRAWING NO. 22-4

DESIGNED BY R.L. McDANIEL CHECKED BY
DETAILED BY R.L. McDANIEL CHECKED BY
TRACED BY CHECKED BY
DATE REVISED

BRIDGE

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



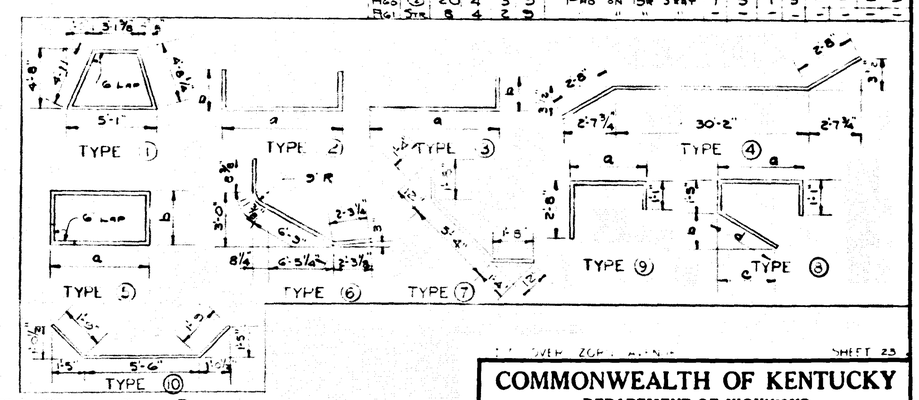
PLAN
(SHOWING REINFORCEMENT)

ESTIMATE OF QUANTITIES

CONC. CLASS 'A'	70.5	CU. YDS.
REINFORCEMENT	4866	LBS.

BILL OF REINFORCEMENT

Mark	Type	No	Size	Length Ft	Length In	Location	a Ft	a In	b Ft	b In	c Ft	c In	d Ft	d In
A1	8	8	3	35	6	Cap	-	-	-	-	-	-	-	-
A2	24	5	18	5			-	-	-	-	-	-	-	-
A3	24	5	4	0			4	6	0	3	-	-	-	-
A4	24	5	4	4			4	0	0	3	-	-	-	-
A5	6	5	35	6			-	-	-	-	-	-	-	-
A6	4	5	35	6			-	-	-	-	-	-	-	-
A7	30	6	8	3		Parapet	6	10	-	-	-	-	-	-
A8	Str. 30	6	8	0			-	-	6	-	-	-	-	-
A9	30	6	5	0			-	-	2	6	-	-	-	-
A10	Str. 8	5	11	3		Wing	-	-	-	-	-	-	-	-
A11	6	4	5	3		Handrail End Post	1	7½	0	7½	-	-	-	-
A12	Str. 48	5	4	2		Handrail	-	-	-	-	-	-	-	-
A13	10	4	7	2		Stub Wall	4	3	6	-	-	-	-	-
A14	2	4	18	3			5	9	0	-	-	-	-	-
A15	4	4	13	7			5	6	8	-	-	-	-	-
A16	Str. 4	5	3	9		Handrail	-	-	-	-	-	-	-	-
A17	Str. 4	5	3	7			-	-	-	-	-	-	-	-
A18	Str. 4	5	3	5			-	-	-	-	-	-	-	-
A19	Str. 4	5	3	3		Wing into Handrail	-	-	-	-	-	-	-	-
A20	6	5	10	8		Curb	-	-	-	-	-	-	-	-
A21	Str. 8	5	3	4		"	-	-	-	-	-	-	-	-
A22	10	5	8	8		Haunch Wing A')	-	-	-	-	-	-	-	-
A23	10	5	3	0		Haunch (Wing B')	-	-	-	-	-	-	-	-
A24	Str. 2	4	6	0		Top of Haunch	-	-	-	-	-	-	-	-
A25	18	5	12	0		Haunch	10	1	2	0	-	-	-	-
A26	2	4	5	0		Curb	1	7	0	6	1	0	1	1½
A27	2	4	5	6			1	11	0	7	1	2	1	2½
A28	2	4	5	10			2	3	-	-	-	-	-	-
A29	2	4	6	1			2	6	-	-	-	-	-	-
A30	2	4	6	5			2	10	-	-	-	-	-	-
A31	2	4	6	9			3	2	-	-	-	-	-	-
A32	2	4	7	1			3	6	-	-	-	-	-	-
A33	Str. 12	4	11	3		Wings	-	-	-	-	-	-	-	-
A34	4	4	11	3			-	-	-	-	-	-	-	-
A35	4	4	10	3			-	-	-	-	-	-	-	-
A36	4	4	9	3			-	-	-	-	-	-	-	-
A37	4	4	8	3			-	-	-	-	-	-	-	-
A38	2	5	10	2			-	-	-	-	-	-	-	-
A39	2	5	10	5			-	-	-	-	-	-	-	-
A40	2	5	10	8			-	-	-	-	-	-	-	-
A41	2	5	10	11			-	-	-	-	-	-	-	-
A42	2	5	11	2			-	-	-	-	-	-	-	-
A43	2	5	11	5			-	-	-	-	-	-	-	-
A44	2	5	11	8			-	-	-	-	-	-	-	-
A45	2	5	10	0			-	-	-	-	-	-	-	-
A46	2	5	8	11			-	-	-	-	-	-	-	-
A47	2	5	7	11			-	-	-	-	-	-	-	-
A48	2	5	6	10			-	-	-	-	-	-	-	-
A49	2	5	1	7			-	-	-	-	-	-	-	-
A50	2	5	2	8			-	-	-	-	-	-	-	-
A51	2	5	3	8			-	-	-	-	-	-	-	-
A52	2	5	4	9			-	-	-	-	-	-	-	-
A53	2	5	5	9			-	-	-	-	-	-	-	-
A54	2	5	6	1			-	-	-	-	-	-	-	-
A55	2	5	8	10			-	-	-	-	-	-	-	-
A56	2	5	8	7			-	-	-	-	-	-	-	-
A57	2	5	8	4			-	-	-	-	-	-	-	-
A58	2	5	3	1			-	-	-	-	-	-	-	-
A59	2	5	4	10			-	-	-	-	-	-	-	-
A60	20	4	3	9		Pro on Br Seat	1	5	1	3	-	-	-	-
A61	Str. 8	4	2	9			-	-	-	-	-	-	-	-



END BENT NO. 2
NORTHBOUND BRIDGE

SHEET 23

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON

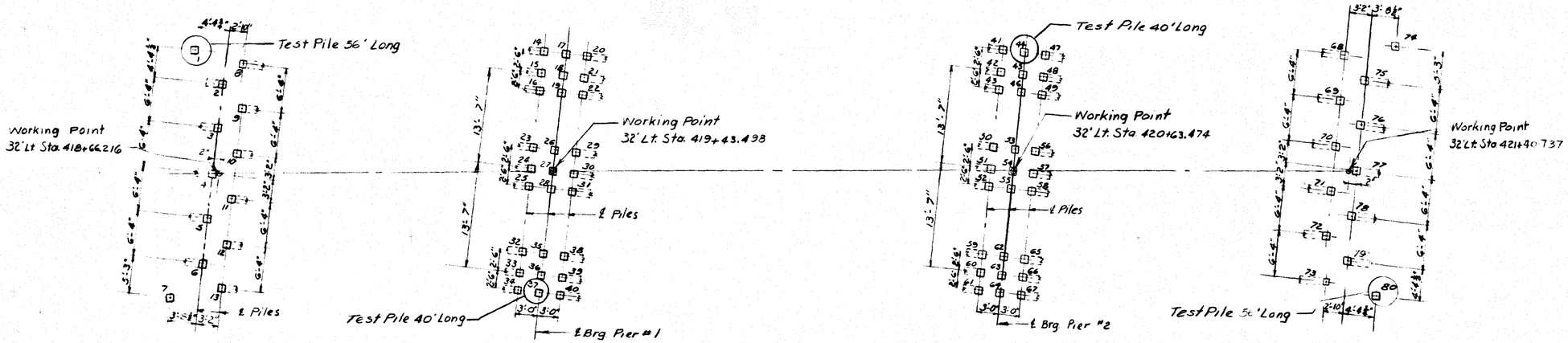
ROAD I-71 =
STATION 420 + 00 50 + 00 ZORN AVE. **PROJECT NO.**

BRIDGE NUMBER

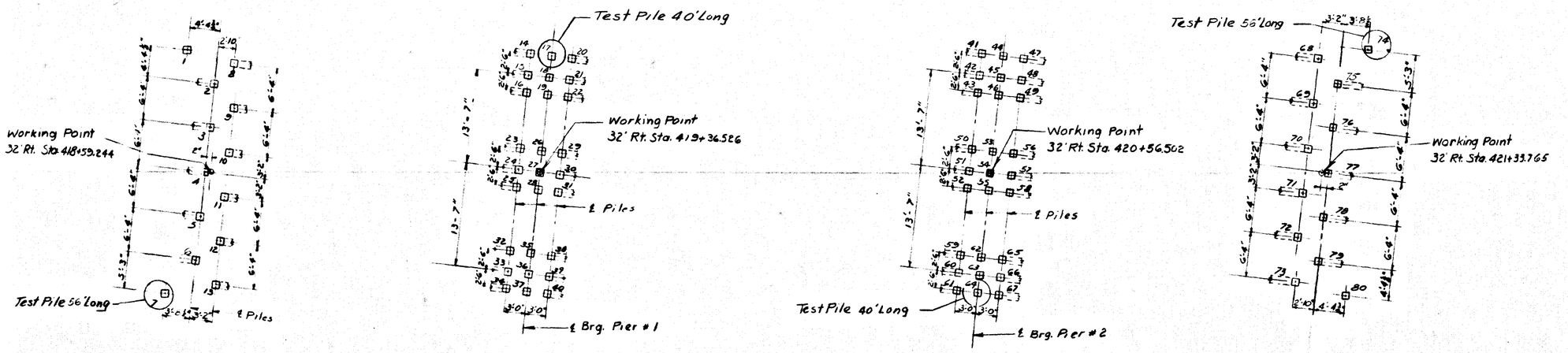
DESIGNED BY R. L. McDaniel CHECKED BY
DETAILED BY R. L. McDaniel CHECKED BY
TRACED BY CHECKED BY
DATE 2-1-61 REVISED DATE REVISED DATE REVISED DATE

BRIDGE

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



PLAN OF PILES
SOUTHBOUND BRIDGE



PLAN OF PILES
NORTHBOUND BRIDGE

Work this Sheet with Sheet 25

DESIGNED BY	DATE	REVISED	DATE
DETAILED BY	DATE	REVISED	DATE
TRACED BY	DATE	REVISED	DATE
CHECKED BY	DATE		
CHECKED BY	DATE		

I-71 OVER ZORN AVE. SHEET 24

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON

LOUISVILLE - COVINGTON
ROAD
STATION 420+00 I-71 = 50+00 ZORN AVE. PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 24

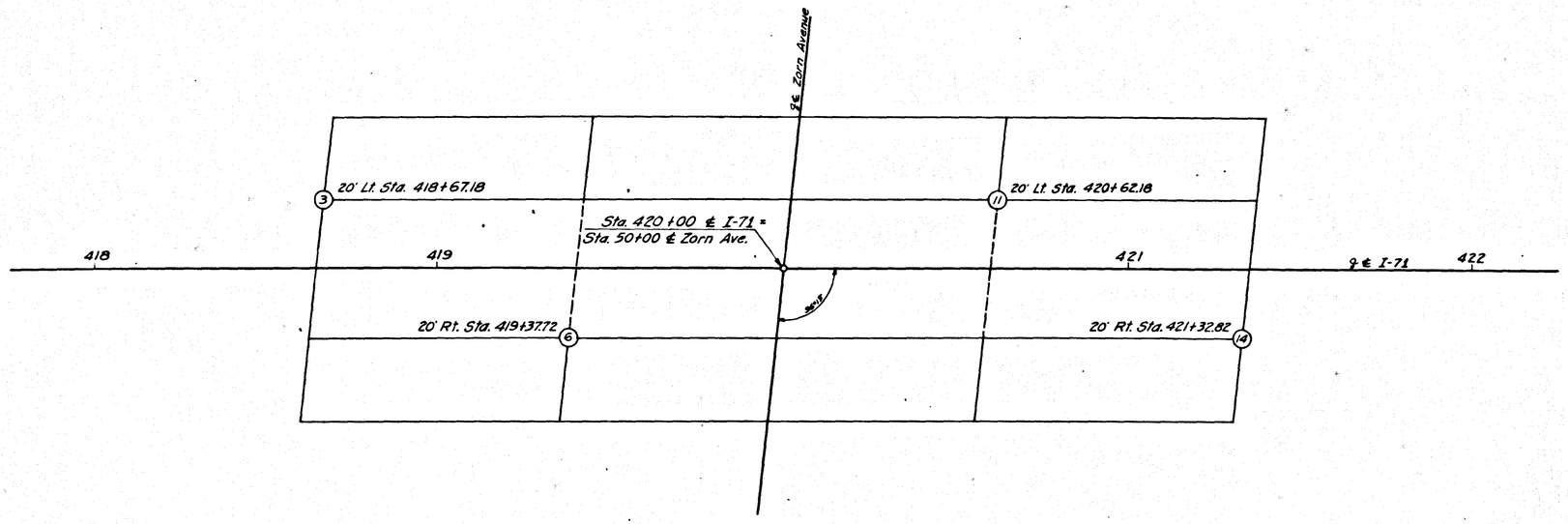
PILE LAYOUT

BRIDGE

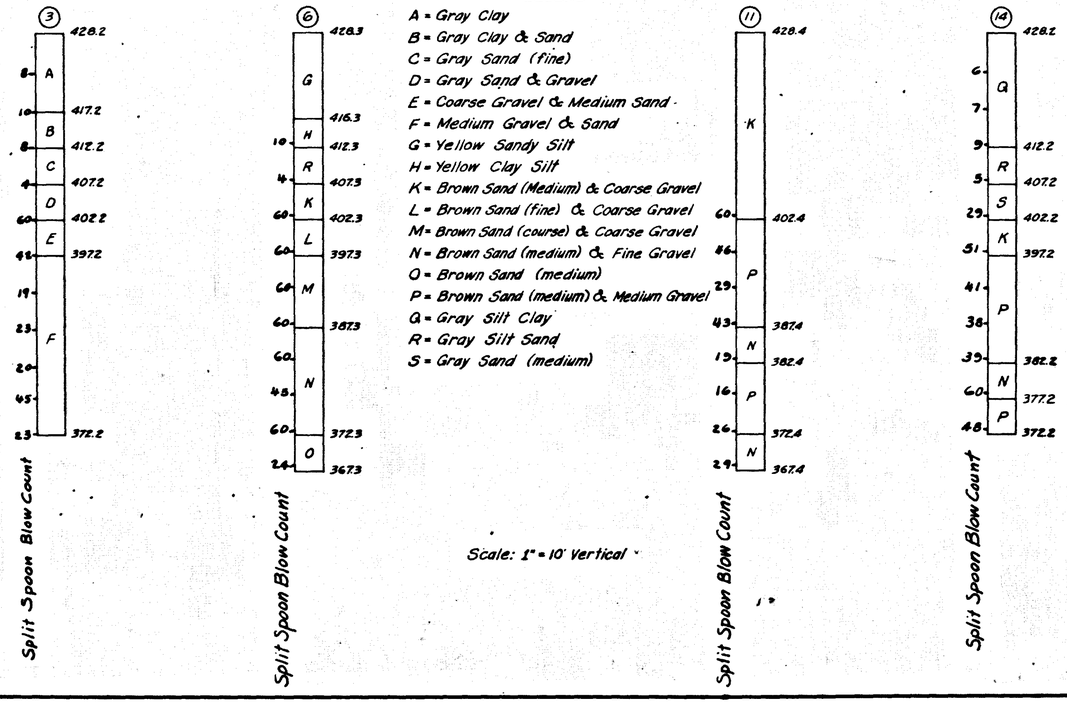
Jefferson Co. I 71-1 (1) L

			FISCAL YEAR	SHEET NO.	TOTAL SHEETS
			19		

SOUNDING LAYOUT



Plan Scale: 1" = 20'



LEGEND

A = Gray Clay
B = Gray Clay & Sand
C = Gray Sand (fine)
D = Gray Sand & Gravel
E = Coarse Gravel & Medium Sand
F = Medium Gravel & Sand
G = Yellow Sandy Silt
H = Yellow Clay Silt
K = Brown Sand (Medium) & Coarse Gravel
L = Brown Sand (fine) & Coarse Gravel
M = Brown Sand (course) & Coarse Gravel
N = Brown Sand (medium) & Fine Gravel
O = Brown Sand (medium)
P = Brown Sand (medium) & Medium Gravel
Q = Gray Silt Clay
R = Gray Silt Sand
S = Gray Sand (medium)

Scale: 1" = 10' Vertical

I-71 OVER ZORN AVENUE — SHEET 26

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON

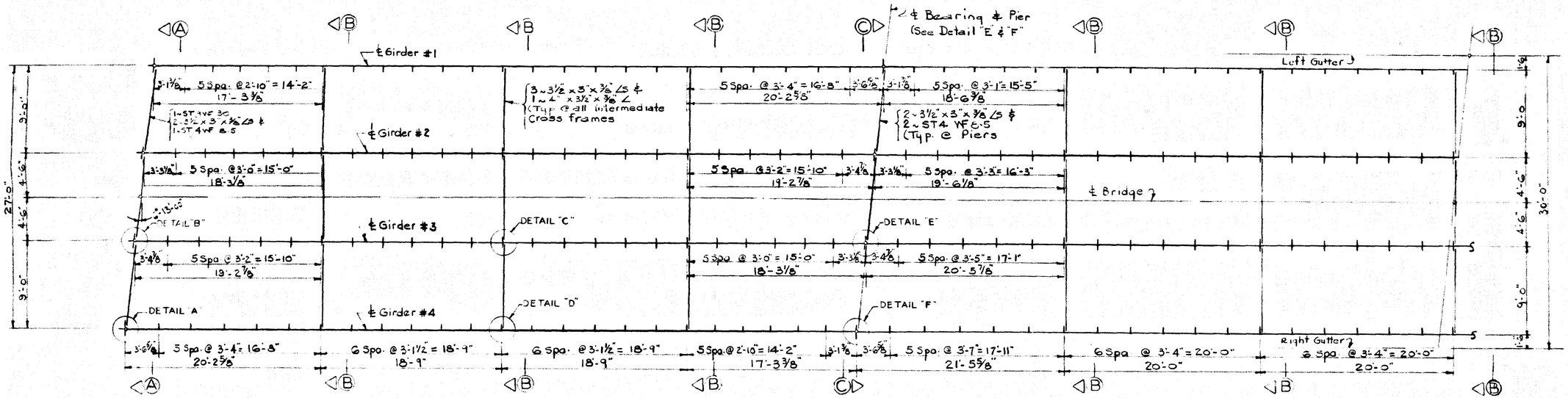
STATION 420+00 I-71 = ROAD
5+00 ZORN AVE. PROJECT NO. 56-313-1

BRIDGE NO. — DRWG. NO. 16-54 — INDEX

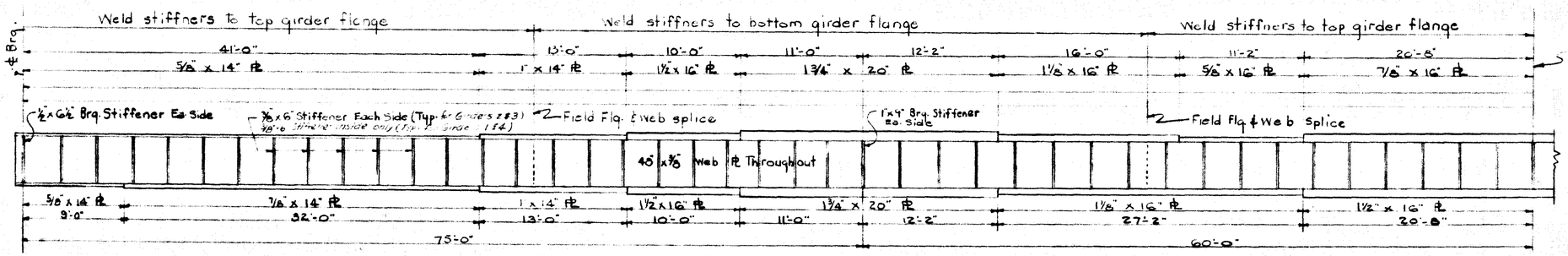
I-71 @ ZORN AVENUE
S.P. 56-313-1

BRIDGE

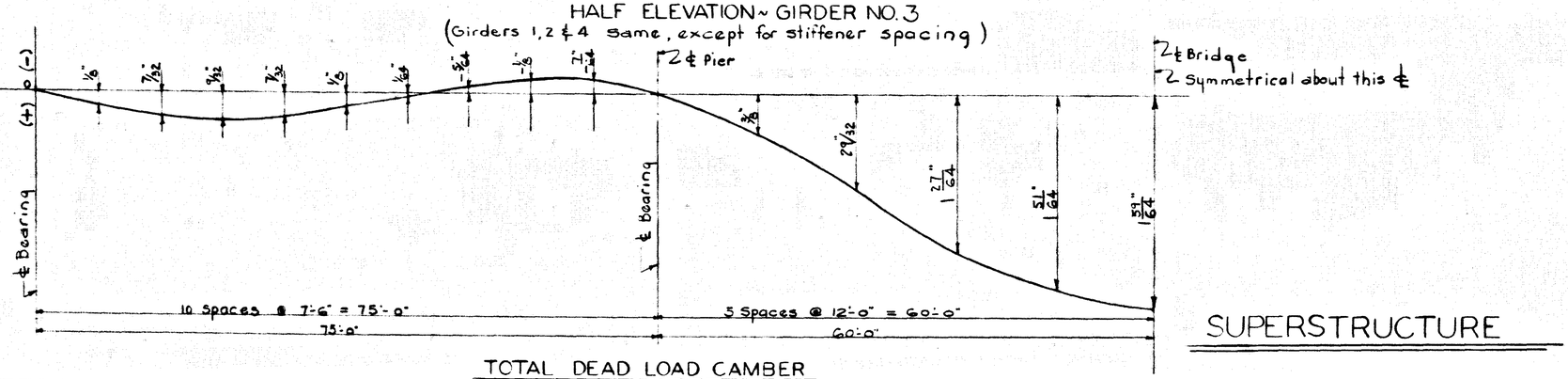
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



FRAMING - HALF PLAN



HALF ELEVATION ~ GIRDER NO. 3
(Girders 1, 2 & 4 same, except for stiffener spacing)



TOTAL DEAD LOAD CAMBER

SUPERSTRUCTURE

I-7 OVER ZORN AVE SHEET 27

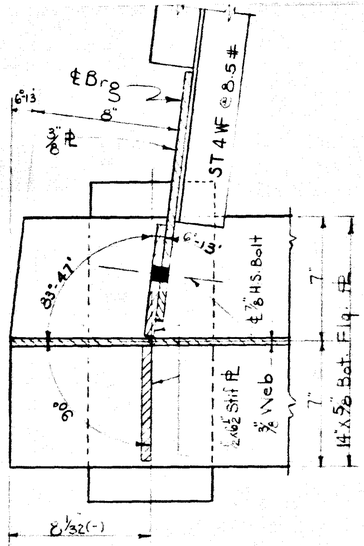
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON

ROAD I-71
STATION 420 + 00 50 + 00 ZORN AVE PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 6154
NOTE

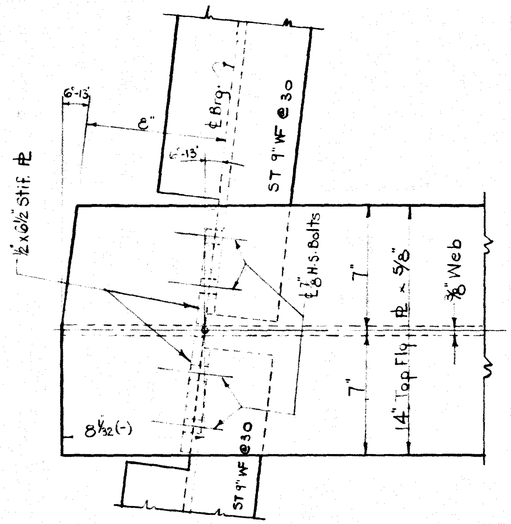
DESIGNED BY J.E.M. CHECKED BY
DETAILED BY CHECKED BY
TRACED BY CHECKED BY
REVISED DATE
REVISED DATE
REVISED DATE

BRIDGE

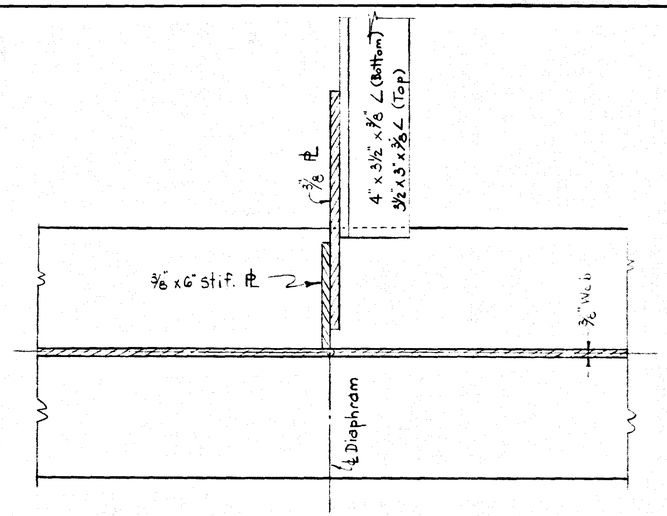
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



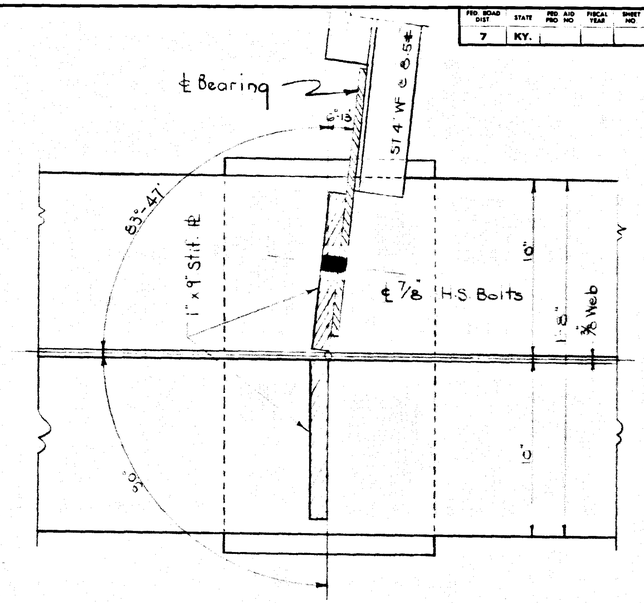
DETAIL "A"
(Showing connections @ bottom of diaphram & outside stiffener



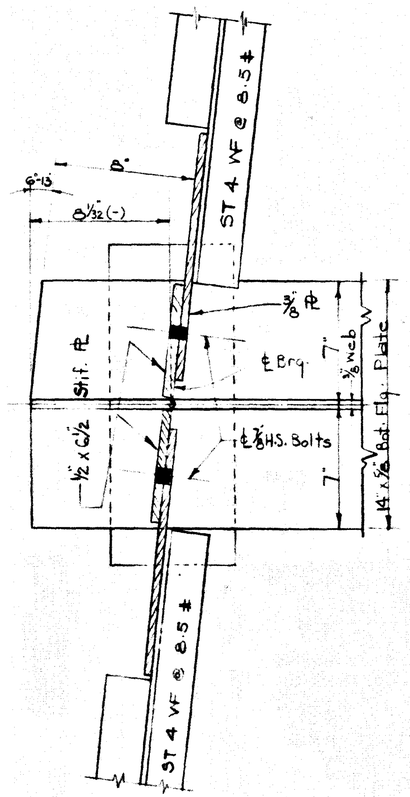
DETAIL B
(Showing connections @ top of diaphram)



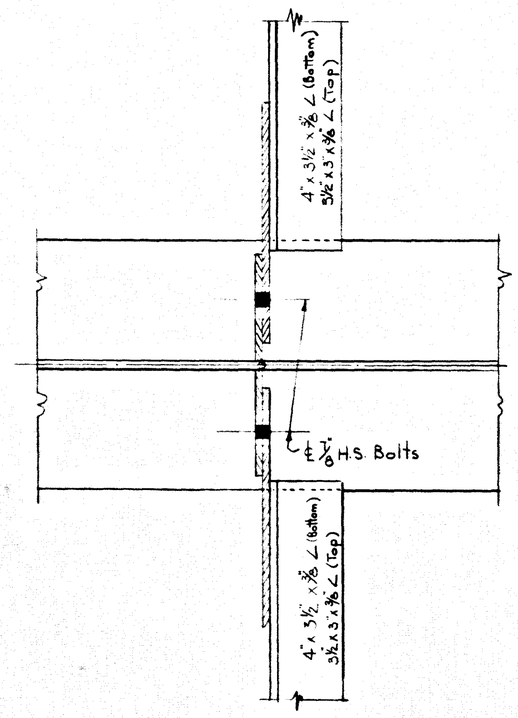
DETAIL "D"
(Showing connection @ bottom of diaphram ~ top diaphram
Connection similar except as noted



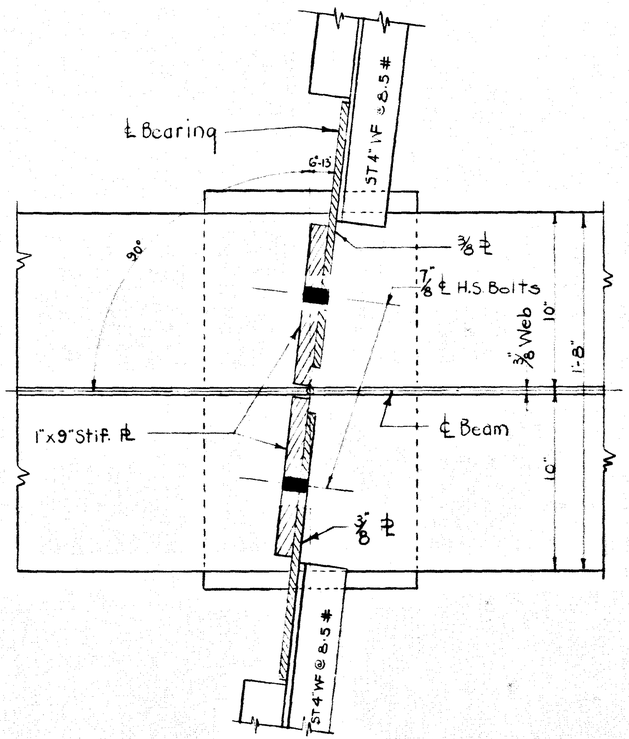
DETAIL "F"
(Showing connections @ bottom of diaphram ~ top diaphram
Connection similar)



DETAIL "B"
(Showing connections @ bottom of diaphram)



DETAIL "C"
(Showing connection at bottom of diaphram)
(Top similar)
(Except as noted)



DETAIL "E"
(Showing connections @ bottom of diaphram ~ top diaphram
connection similar

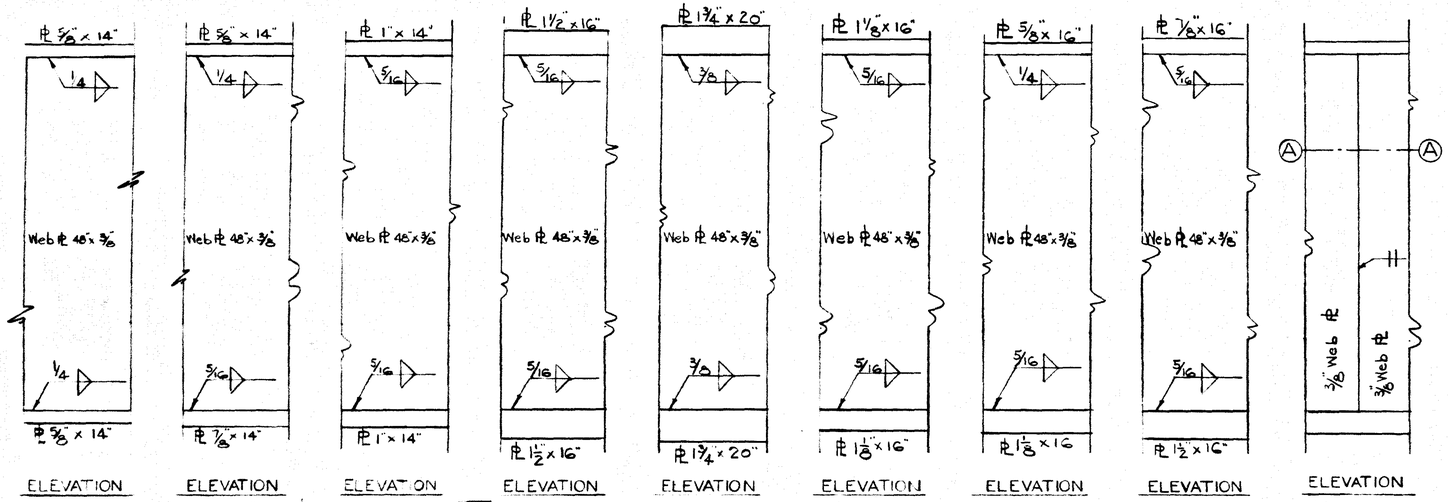
SUPERSTRUCTURE

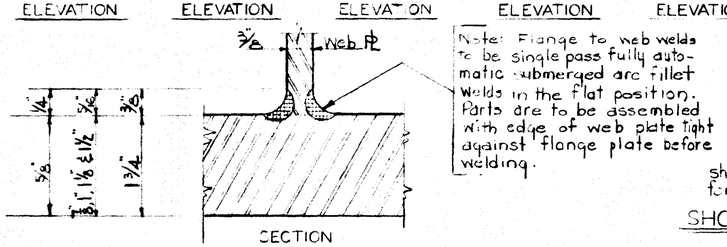
SHEET 28

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE~COVINGTON
420+00 I-71 **ROAD**
STATION 50+00 ZORN AVE **PROJECT NO.**
BRIDGE NUMBER
DRAWING NO. 1E154

BRIDGE

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

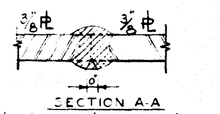




Note: Flange to web welds to be single pass fully automatic submerged arc fillet welds in the flat position. Parts are to be assembled with edge of web plate tight against flange plate before welding.

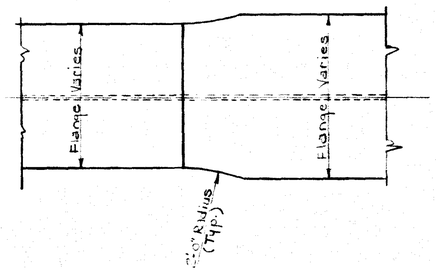
SECTION
(showing joint preparation for submerged arc welding)

GIRDER WEB TO FLANGE

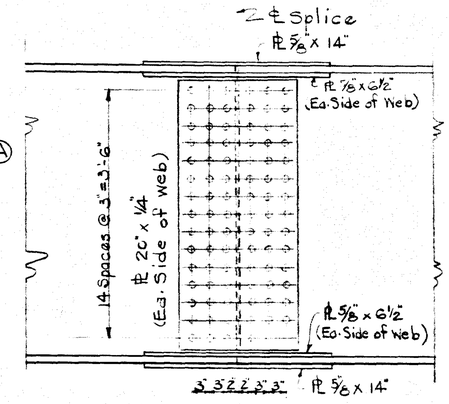


SECTION A-A
showing joint preparation for submerged arc welding

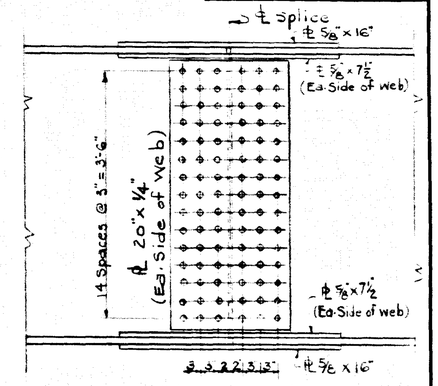
SHOP WEB SPLICE



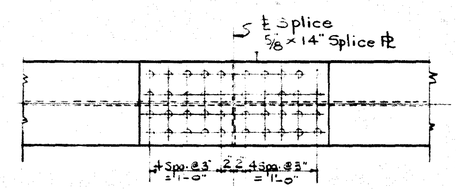
TYPICAL SHOP SPLICE FOR VARIABLE FLANGE PLATES



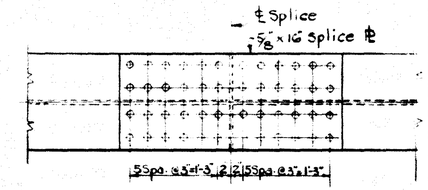
WEB SPLICE ANCHOR SPAN



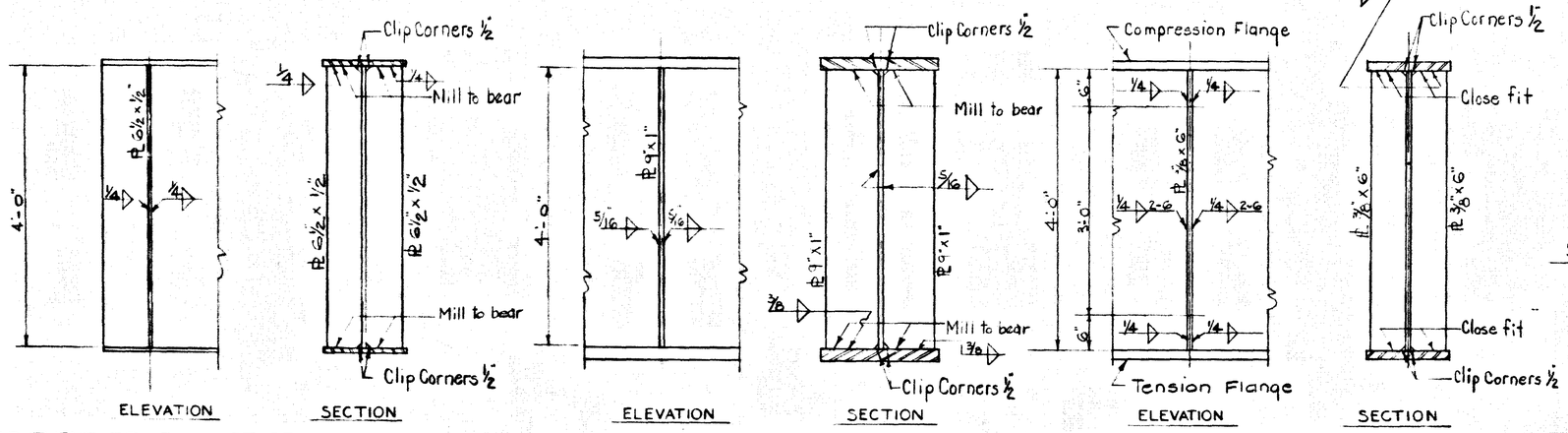
WEB SPLICE CENTER SPAN



FLANGE SPLICE ANCHOR SPAN



FLANGE SPLICE CENTER SPAN



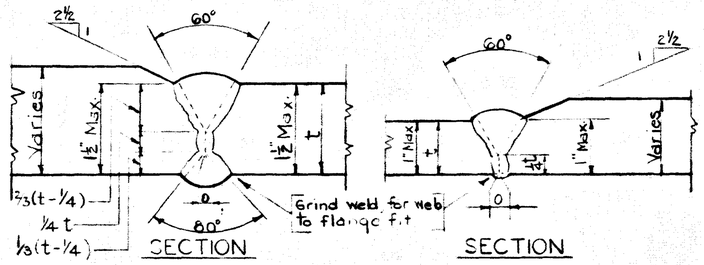
ABUTMENT BEARING STIFFENER DETAIL

PIER BEARING STIFFENER DETAIL

INTERMEDIATE STIFFENER DETAIL

Note: For location of Compression & Tension flange See sheet No. 27

SUPERSTRUCTURE



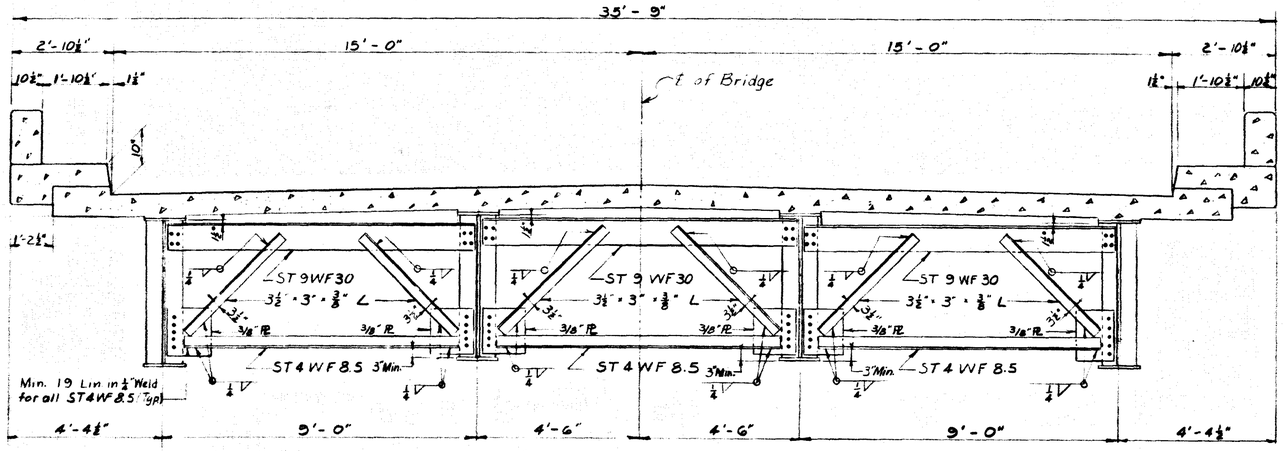
SHOP SPLICE SECTIONS FOR TOP & BOTTOM FLANGE PLATES
(Submerged arc welded joints)

I-71 Zorn Ave Sheet 29

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE~COVINGTON
ROAD I-71
STATION 420+00 30+00 ZORN AVE. **PROJECT NO.**
BRIDGE NUMBER
DRAWING NO. 16172
SHEET

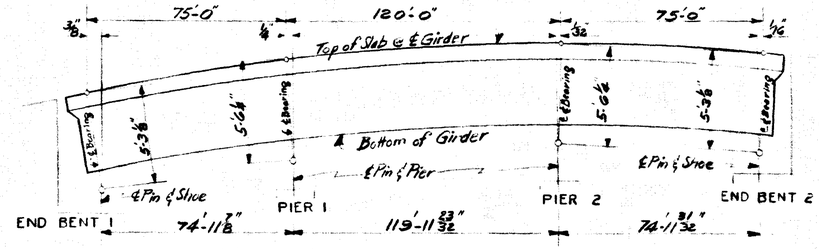
BRIDGE

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

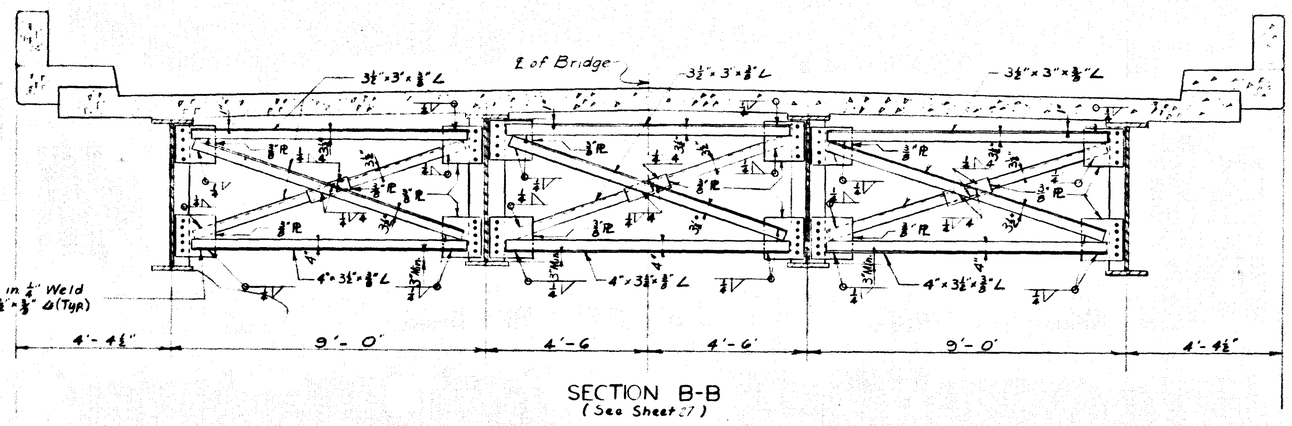


Note: Use ⅞"ϕ H.S. Hex Hd. Bolts for all Sway Bracing.

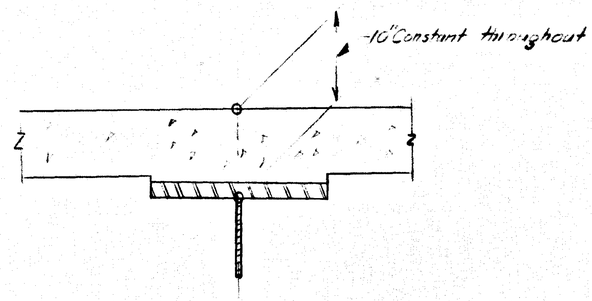
SECTION A-A
(See Sheet 27)



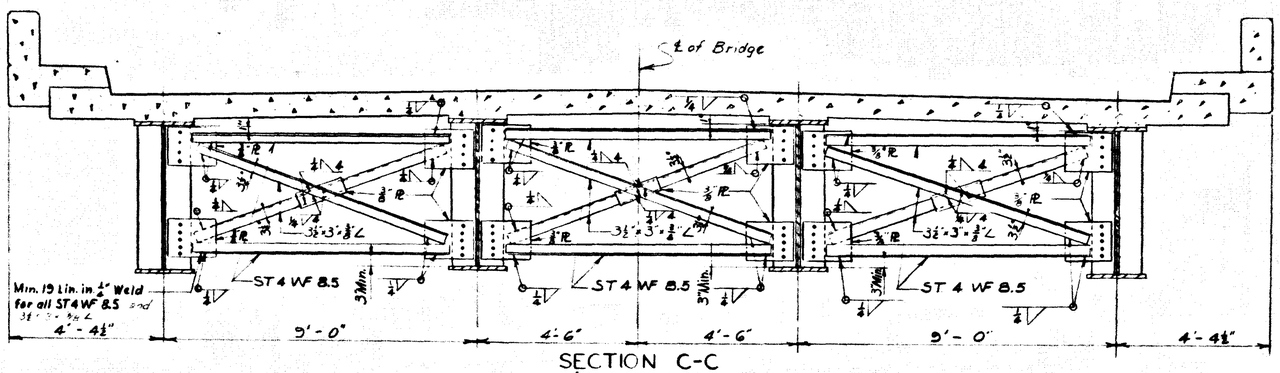
GIRDER DIAGRAM



SECTION B-B
(See Sheet 27)



DETAIL
(Showing relationship of Slab to Girder)



SECTION C-C
(See Sheet 27)

SUPERSTRUCTURE

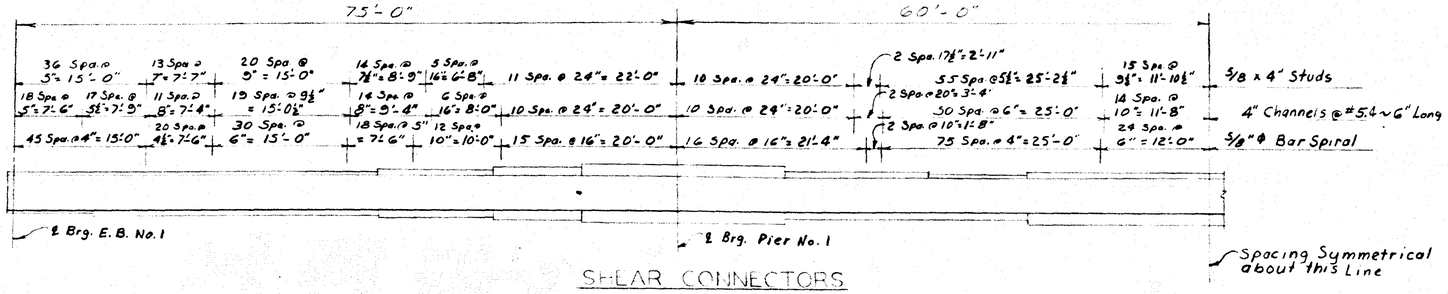
I-71 OVER ZORN AVE. SHEET 30

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE – COVINGTON
ROAD
420-00 I-71
STATION 50-00 ZORN AVE. **PROJECT NO.**
BRIDGE NUMBER DRAWING NO. 16-154 DATE

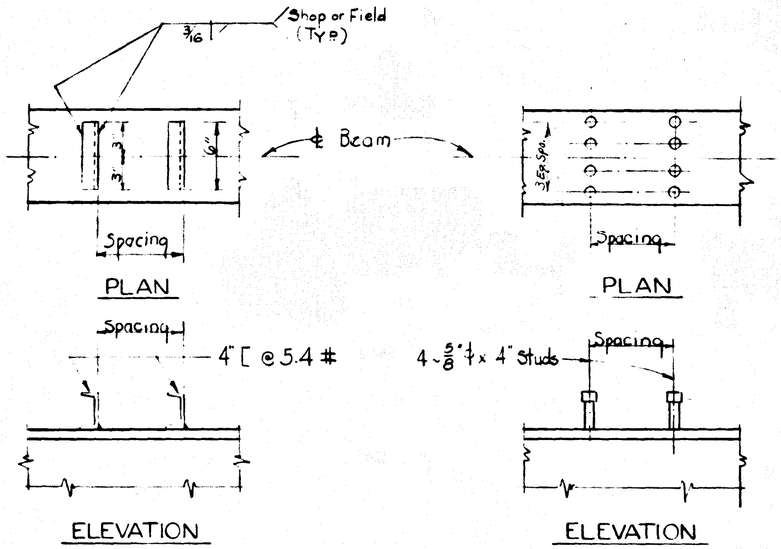
DESIGNED BY DATE REVISED
DETAILED BY DATE REVISED
TRACED BY CHECKED BY DATE REVISED
CHECKED BY DATE

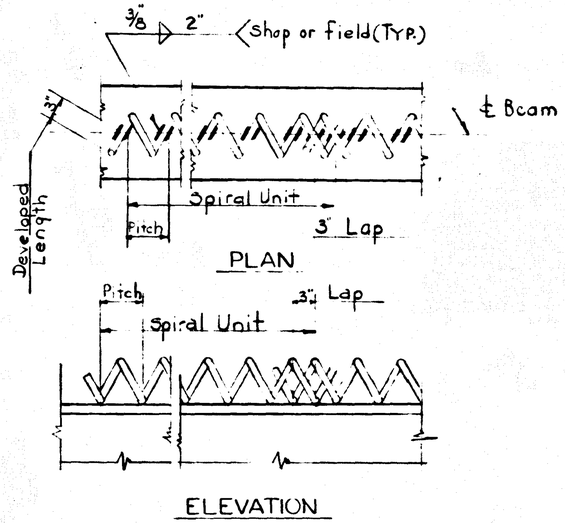
BRIDGE

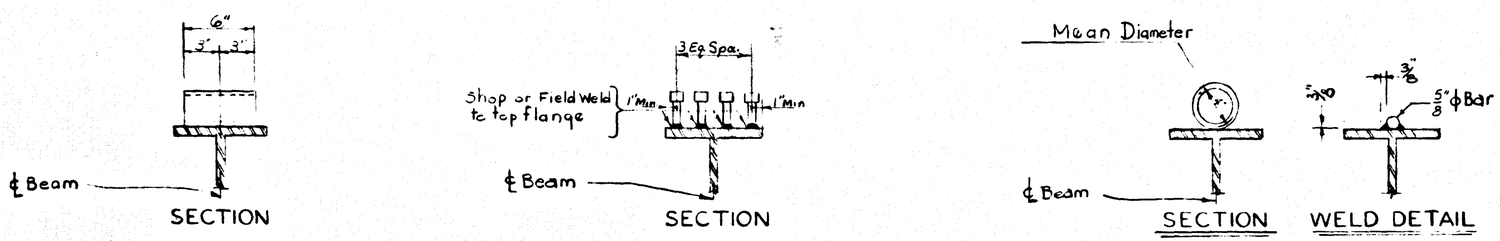
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



SHEAR CONNECTORS







SHEAR CONNECTOR DETAILS

TOTAL ESTIMATE OF QUANTITIES [EACH BRIDGE]

Structural Steel	250,090 Lbs.
Fixed ℄ Expansion shoes	7,630 Lbs.
Expansion Dam	6,830 Lbs.
* Total	264,550 Lbs.

* Does not include shear connectors or weld material.

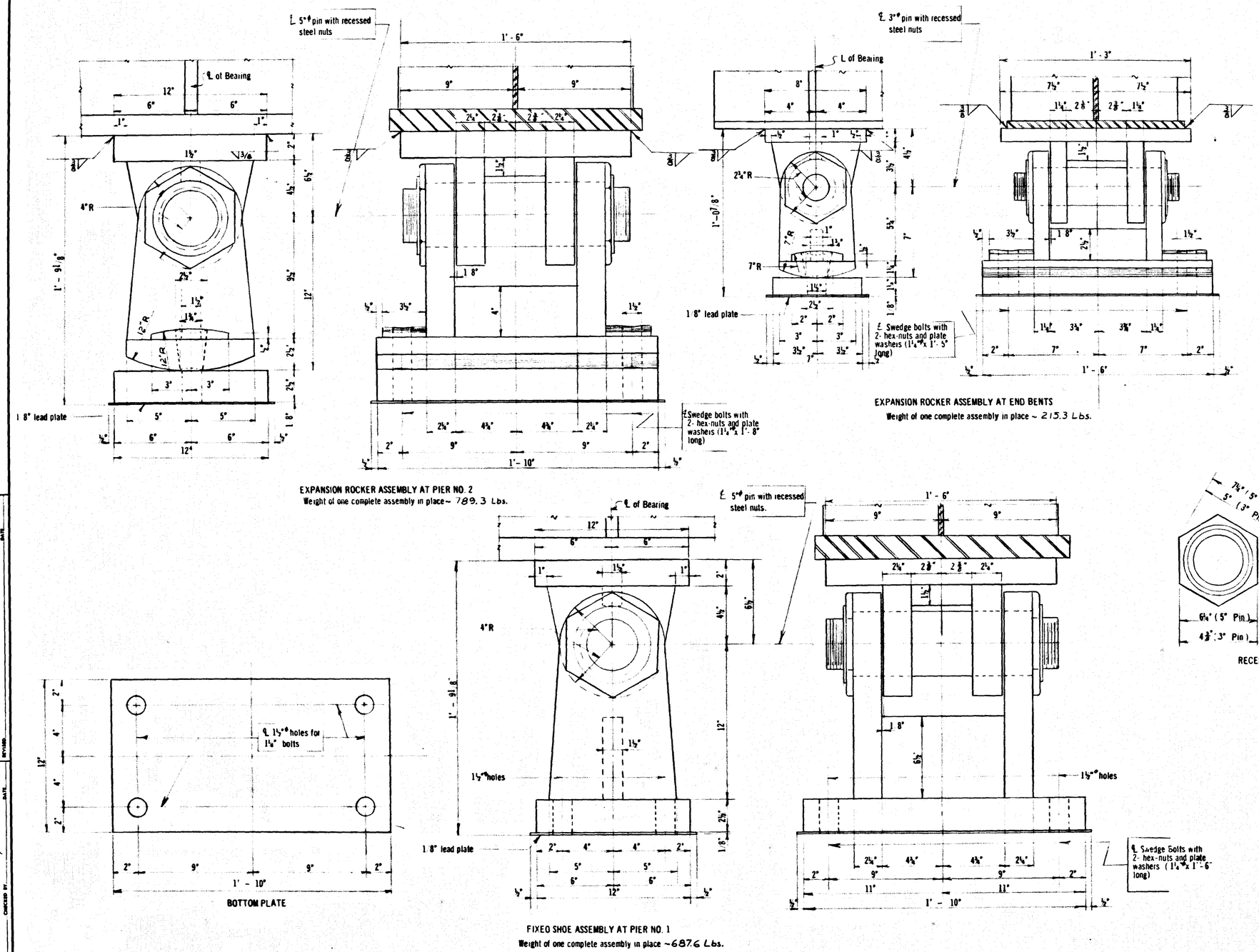
SHEAR CONNECTOR DETAILS

I-71 over Zorn Ave. SHEET 31

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON
ROAD
STATION 420+00 50+00 I 71 ZORN AVE. **PROJECT NO.**
BRIDGE NUMBER DRAWING NO. 4

BRIDGE

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



NOTE

SPECIFICATIONS: Kentucky Department of Highways Current Specifications with *supplements*.

PLATES: Plates must be true and free of warp.

MILL TEST REPORTS: Notarized *Reports* in duplicate shall be furnished the Department of Highways showing that all structural steel furnished meets specifications.

WELDING MATERIAL: Welding material shall conform to the American Society for welding Highway and Railroad Bridges. Current Specification and subsequent adopted Amendments.

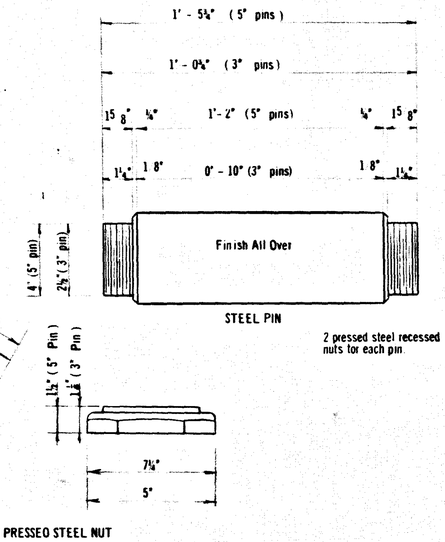
WELDING: The cost of welding material and labor to be included in lump sum bid for structural steel. No direct payment will be made for welding and welding material.

PAINT: All material shown on this sheet except finished surfaces of structural steel pins and pin bearing surfaces shall be given one shop coat and one field coat of type 1 red lead paint according to specifications. All exposed surfaces not in contact with concrete shall be given two field coats of aluminum paint in accordance with specifications.

WHITE LEAD AND TALLOW: Finished surfaces of structural steel pins and pin bearing surfaces in steel shoes shall be coated with white lead and tallow in accordance with current specification and amendments.

ANCHOR BOLTS: The cost of lead required to set anchor bolts and the cost of drilling anchor bolt holes shall be included in the lump sum bid for structural steel. The Contractor shall be responsible for keeping the holes dry in wet and freezing weather. At the time of setting, anchor bolts are to be heated to a blue heat to assure free flow of lead to bottom of hole.

SHOP PLANS: The Contractor shall furnish the Department of Highways with complete shop detail plans for approval.



A. S. T. M. SPECIFICATION

Structural Steel	A36 Current Specifications
Sheet Lead and Lead for Anchor Bolts	B29 Current Specifications
Steel Pins	A108-61T (Grade 1016 to 1030 Incl.)

SURFACE FINISH OF STEEL SPECIFICATIONS

Pin and Pin Holes	A.S.A. 125
Steel Slabs	A.S.A. 2000
Heavy Plates in contact in shoes to be welded	A.S.A. 1000
Milled ends of compression members stiffeners and fillers	A.S.A. 500
Bridge Rollers and Rockers	A.S.A. 250

I 71 OVER ZORN AVE. SHEET 32

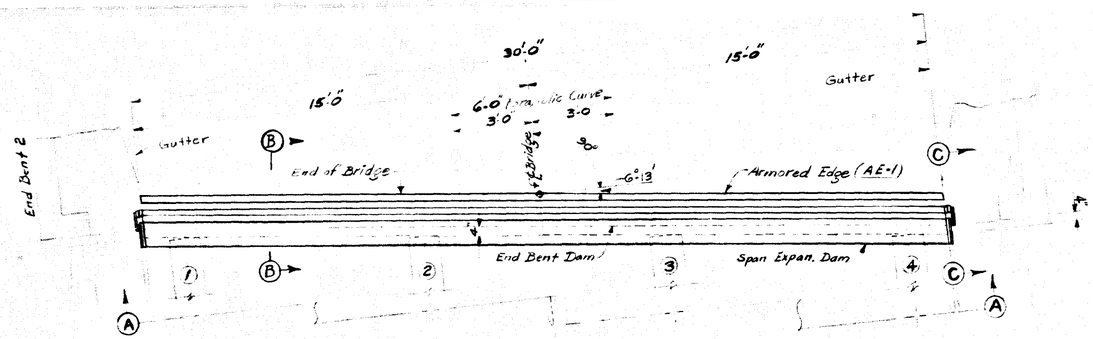
SHOE DETAILS

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON
ROAD
420+00 I-71
STATION 50+00 ZORN AVE. **PROJECT NO.**
BRIDGE NUMBER DRAWING NO. 154

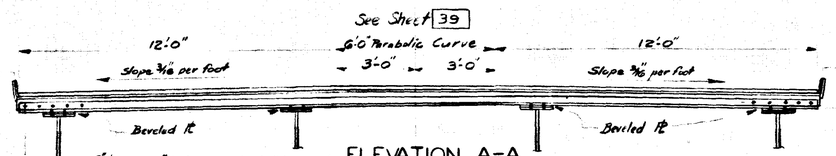
DESIGNED BY: LSU DETAILED BY: CHECKED BY: PLACED BY: CHECKED BY: CHECKED BY: REVISED DATE REVISED DATE REVISED DATE REVISED DATE

BRIDGE

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



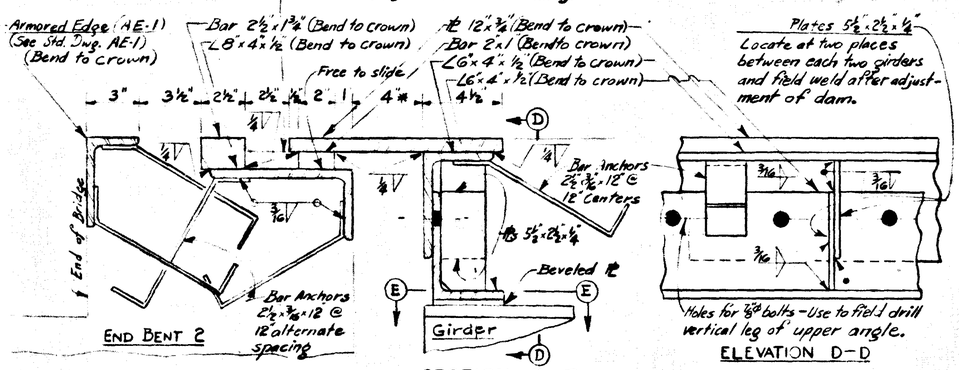
PLAN OF DAM AND ARMORED EDGE
(End Bent 2, shown — End Bent 1, Opposite Hand)

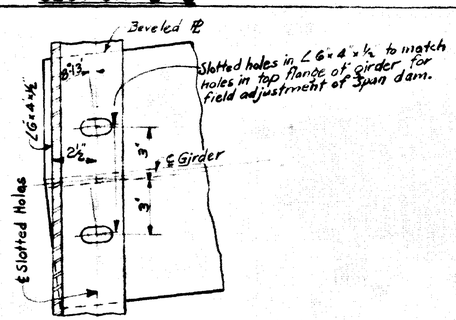


ELEVATION A-A

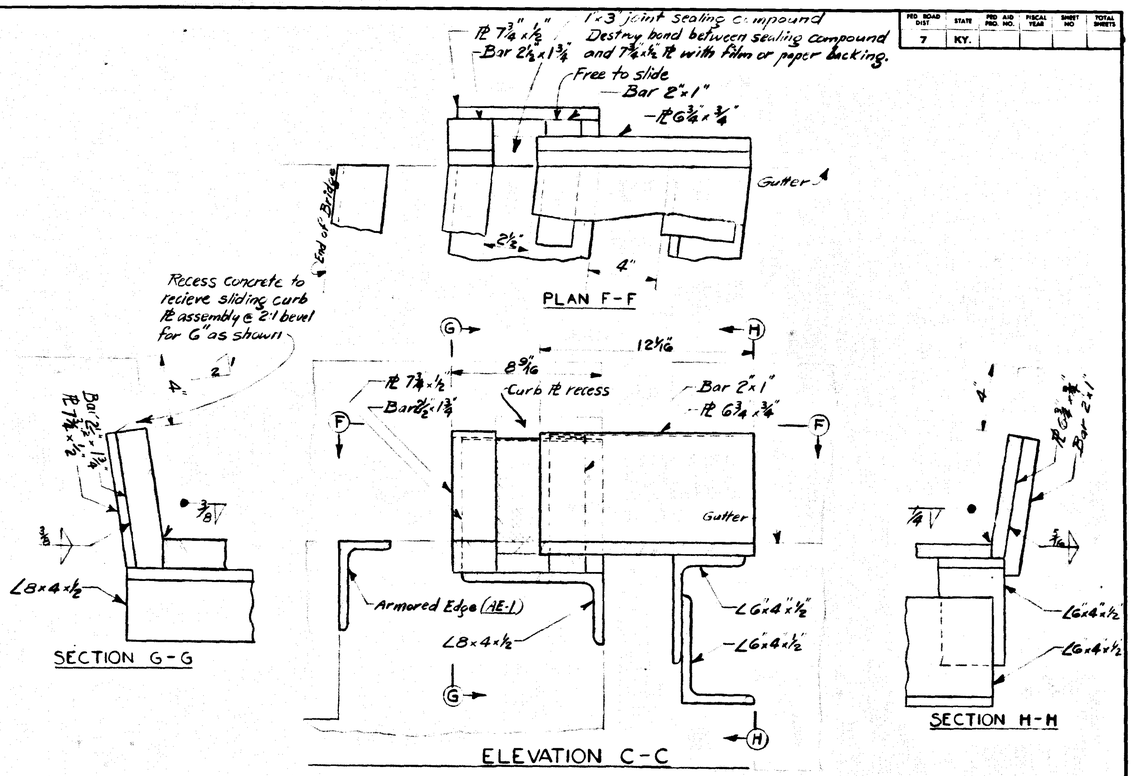
Holes for ⅞" bolts @ 6" in lower angle shall be used to field drill the vertical leg of the upper angle.

* This dimension to be maintained at normal temperature of 60° Fahrenheit: For each 10° above or below 60° decrease or increase respectively by increment of 5/32"





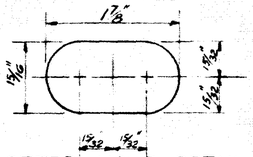
SECTION E-E



ESTIMATE OF QUANTITIES (one bridge)

2 Expansion Dam Assemblies	6830 Lbs. *
2 Armored Edge Assemblies	694 Lbs. *

* Weights include all component parts but do not include weld material.



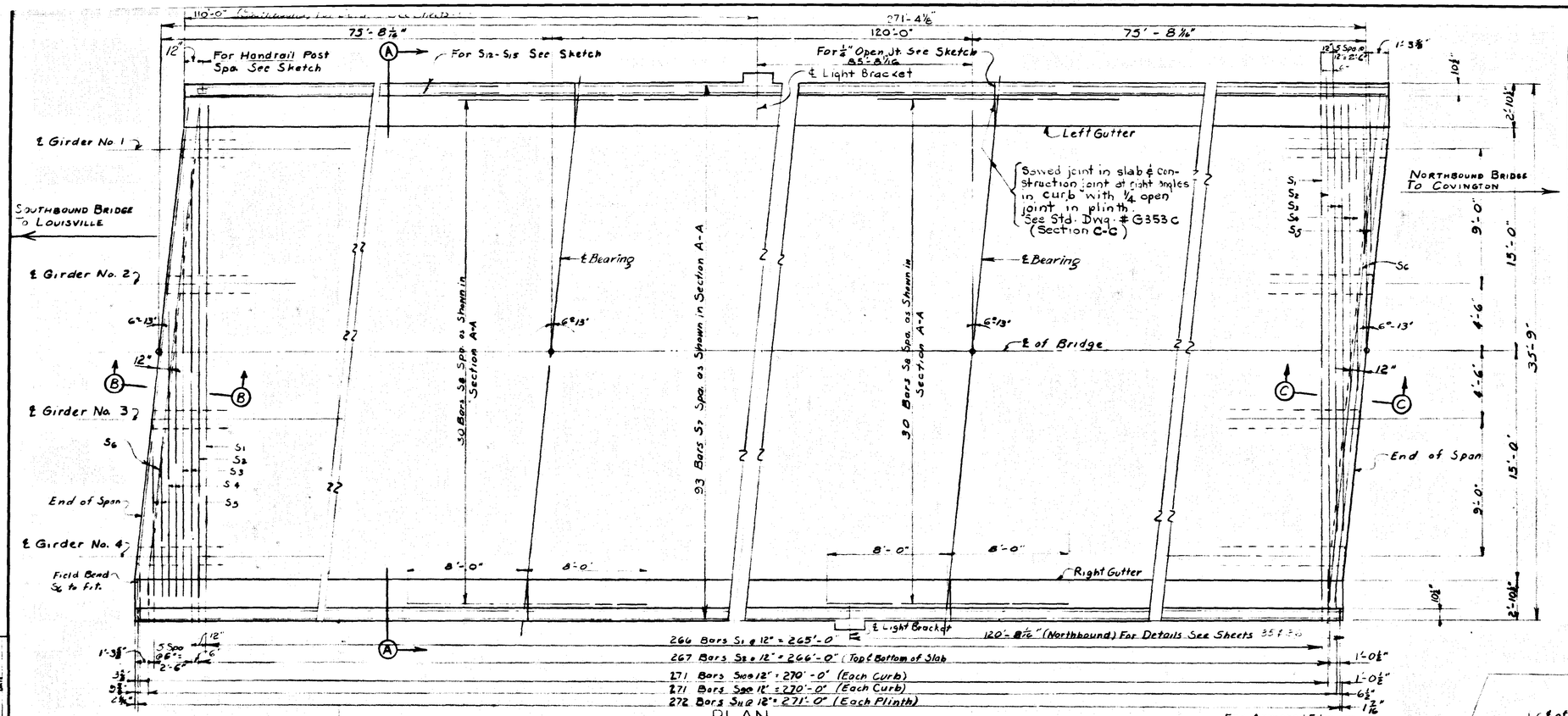
SLOTTED HOLE DETAIL
For field adjustment of expansion dam. Typical for all slotted holes

EXPANSION DAM AND ARMORED EDGE DETAILS

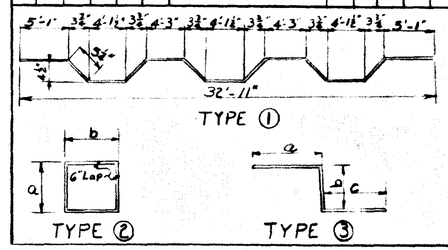
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON
420+00 I-71 = ROAD
STATION 50+00 Zorn Ave. PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 16154

BRIDGE

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

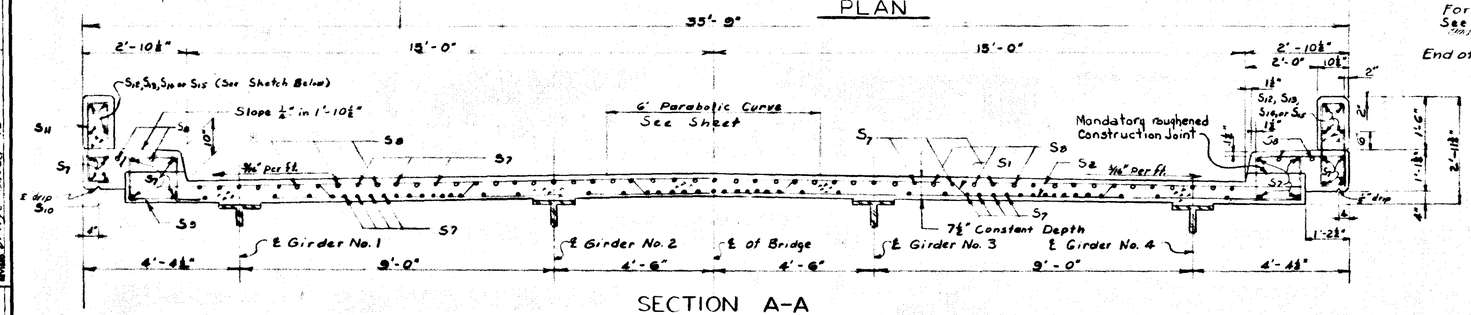


PLAN

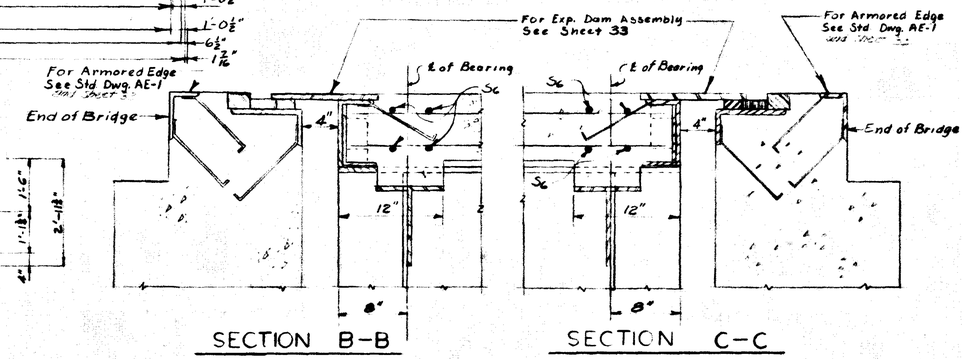


BILL OF REINFORCEMENT (EACH BRIDGE)

MARK	TYPE	NO	SIZE	LENGTH FT.	LENGTH IN.	LOCATION	a FT	a IN	b FT	b IN	c FT	c IN	d FT	d IN
S1	①	266	#6	33	8	Bridge Slab								
S2	Str	534	#6	33	0	" "								
S3		8	#6	22	4	" "								
S4		8	#6	13	2	" "								
S5		8	#6	10	2	" "								
S6		8	#6	33	2	" "								
S7		744	#4	35	4	" "								
S8		6	"	16	0	" "								
S9	②	542	#4	5	9	Curbs	1	2½	1	3½				
S10	③	542	#4	4	7	"	2	6	1	2	1	1		
S11	②	544	#5	6	6	Plinth	2	4	5	6½				
S12	Str	8	#4	25	3	"								
S13	"	32	#4	24	8	"								
S14	"	48	#4	19	8	"								
S15	"	8	#4	25	4	"								
L1	③	6	#8	5	2	Outrigger	3	1	1	2	1	1		
L2	②	6	#5	7	8	"	2	3½	1	2				
L3	Str	4	#4	1	9	"								

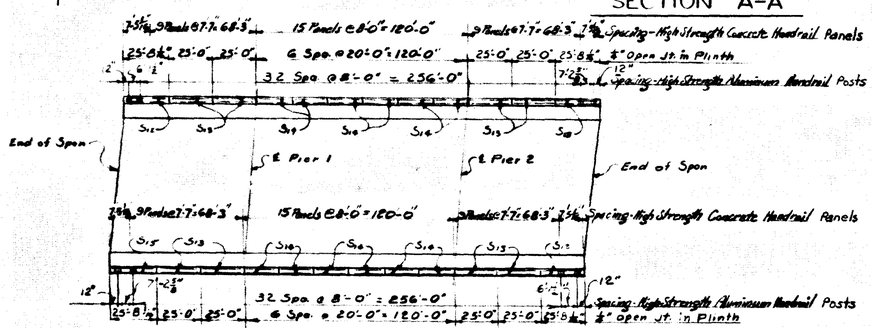


SECTION A-A



SECTION B-B

SECTION C-C



SKETCH SHOWING LOCATION OF HANDRAIL POST & 1/2" OPEN JOINTS

ESTIMATE OF QUANTITIES	
NORTHBOUND	BRIDGE
CONCRETE CLASS "A"	297.7 CU. YDS.
REINFORCEMENT	69006 LBS.
SOUTHBOUND	BRIDGE
CONCRETE CLASS "A"	297.7 CU. YDS.
REINFORCEMENT	69006 LBS.

NOTE: For location of brackets to receive future light standards see Sheet 30

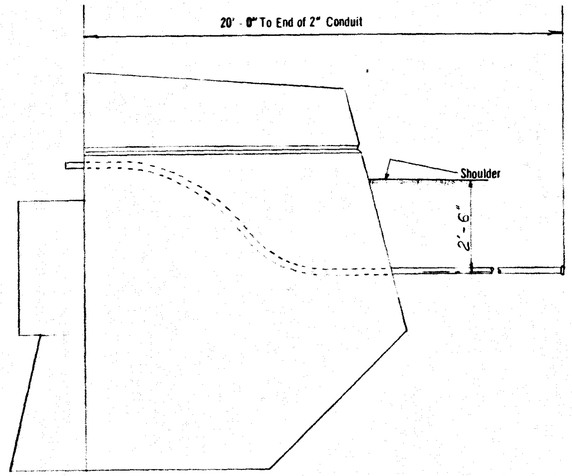
SLAB DETAILS
NORTHBOUND & SOUTHBOUND BRIDGES

I-71 OVER ZORN AVE. SHEET 34

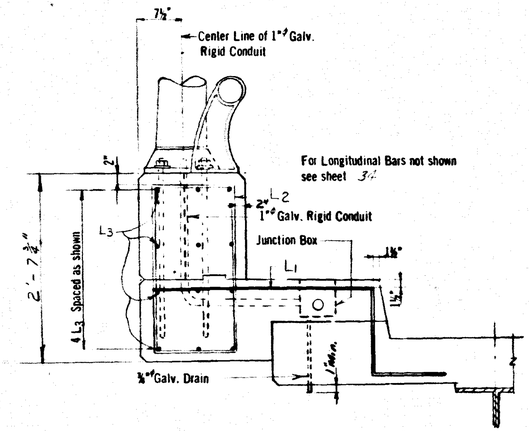
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON ROAD
STATION 420+00 I-71 / 50+00 ZORN AVE. PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 16 Sd

BRIDGE

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



ELEVATION A-A
(TYPICAL)

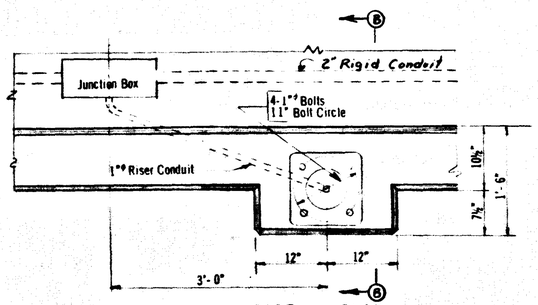


SECTION B-B

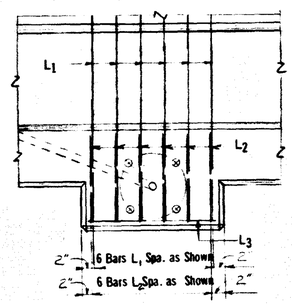
NOTE: Junction boxes and conduit are to be placed so as to interfere with a minimum amount of reinforcement. Bend where necessary.

ESTIMATE OF QUANTITIES (BOTH BRIDGES)

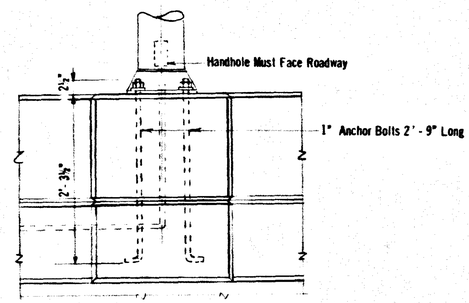
2"ø GALV. RIGID CONDUIT	630 LIN. FT
1"ø GALV. RIGID CONDUIT	11 LIN. FT.
¾"ø GALV. RIGID CONDUIT (Drip Drains)	6 LIN. FT.
16" x 6" x 6" JUNCTION BOXES (OZ Electrical Type YU or approved equal)	6 EACH
EXPANSION FITTING (Crouse-Hinds XJ641 with GC 100 grounding strap)	4 EACH
2" GALV. CONDUIT CAPS	4 EACH
1" GALV. CONDUIT CAPS	2 EACH
1" x 2' 9" ANCHOR BOLTS, NUTS, AND WASHERS	8 EACH
PERMANENT CONCRETE MARKERS	4 EACH



PART PLAN



PART PLAN
Showing Reinforcement in Outrigger



PART ELEVATION

DESIGNED BY: DATE: REVISED:
DETAILED BY: Robert Bolen CHECKED BY: Stuart L. Riehl DATE: 1962 REVISED:
TRACED BY: CHECKED BY: DATE: REVISED:

LIGHT BRACKET DETAILS

I 71 OVER ZORN AVE

SHEET 35

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE COVINGTON

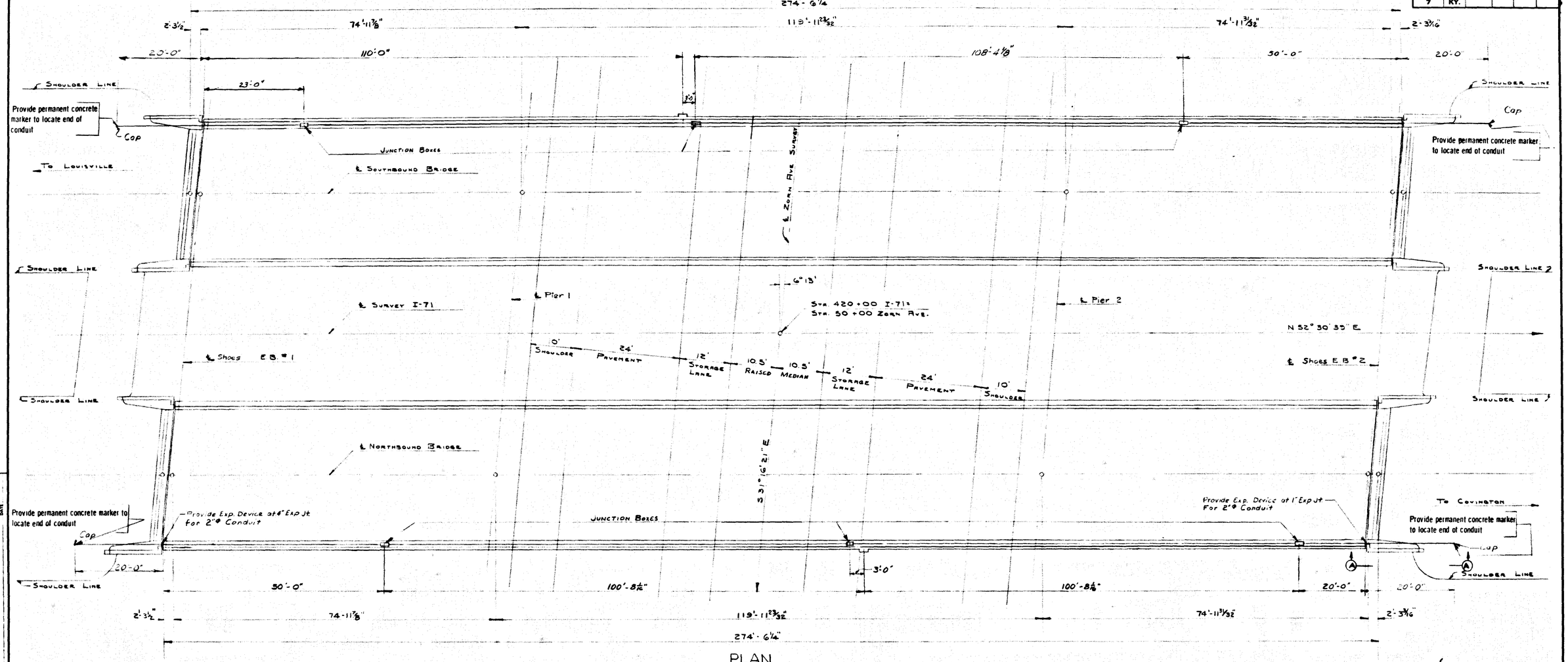
STATION 420 + 00 I-71 / 50 + 00 ZORN AVE. ROAD PROJECT NO.

BRIDGE NUMBER

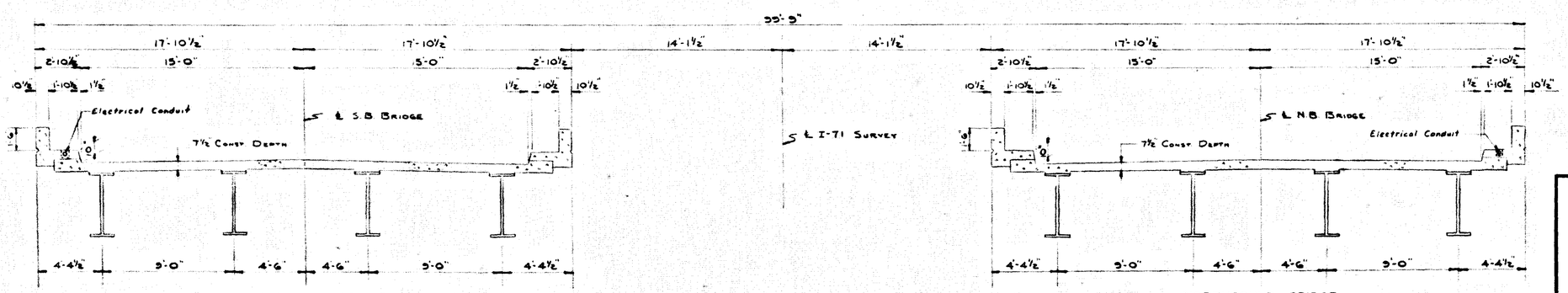
DRAWING NO. 16-5a

BRIDGE

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



PLAN



SOUTHBOUND BRIDGE

ROADWAY SECTION

NORTHBOUND BRIDGE

ELECTRICAL LAYOUT

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE – COVINGTON

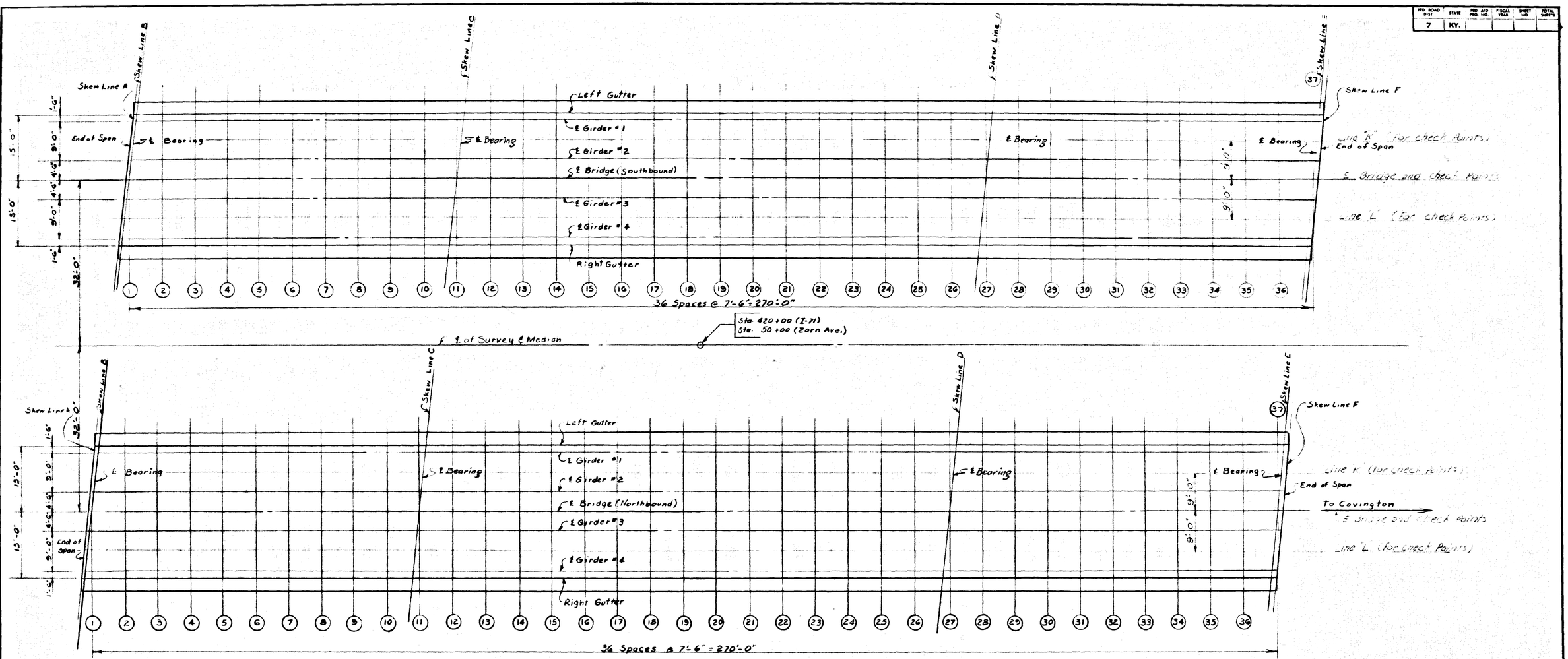
ROAD
STATION 420+00 I-71 / 50+00 ZORN AVE
PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 16152
SHEET

DESIGNED BY		CHECKED BY	DATE
DETAILED BY	EZW	CHECKED BY	Jan/25/66
TRACED BY		CHECKED BY	DATE

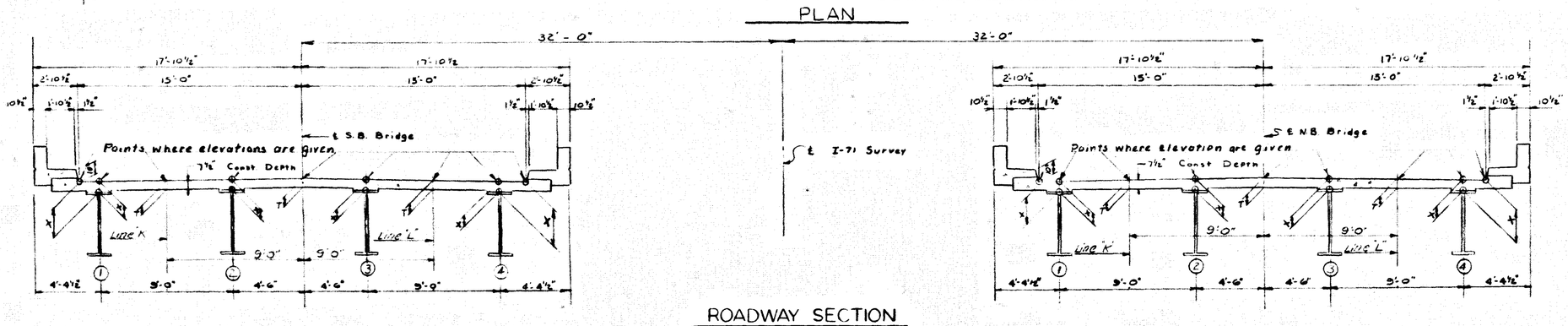
REVISED Revised Junction on Southbound DATE 3-25-66
REVISED Revised Pier 1 Line & E.M. DATE
REVISED DATE
REVISED DATE

BRIDGE

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



PLAN



ROADWAY SECTION

CONSTRUCTION ELEVATION LAYOUT
NORTH AND SOUTHBOUND BRIDGES

Note cont. Sheet 38

I-71 Over Zorn Ave — Sheet 37

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON

LOUISVILLE - COVINGTON
ROAD
STATION 420+00 I-71 / 50+00 ZORN AVE. PROJECT NO.
BRIDGE NUMBER
DRAWING NO. 6151
SHEET

DESIGNED BY
DETAILED BY
TRACED BY
CHECKED BY
CHECKED BY
CHECKED BY
DATE
REVISED

BRIDGE

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

LOCATION	LEFT CURB STEEL ELEV.	LEFT CURB DIM. "X"	LEFT CURB CONSTRUCTION TOP OF ELEV.	CENTER STEEL ELEV.	CENTER DIM. "X"	CENTER CONSTRUCTION TOP ELEV.	RIGHT CURB STEEL ELEV.	RIGHT CURB DIM. "X"	RIGHT CURB CONSTRUCTION TOP ELEV.
SKEW LN A TOP	464.478		464.700	464.831		464.686			464.662
SKEW LN B TOP	464.481		464.703	464.835		464.689			464.665
SKEW LN C TOP	464.964		464.987	465.122		464.979			464.955
SKEW LN D TOP	464.103		465.127	465.268		465.128			465.105
SKEW LN E TOP	464.095		465.019	465.164		465.026			465.003
SKEW LN F TOP	464.095		465.017	465.162		465.024			465.001
GRID LN 01 TOP				464.838		464.697			464.674
GRID LN 02 TOP	464.717		464.741	464.883		464.744			464.720
GRID LN 03 TOP	464.749		464.783	464.924		464.785			464.761
GRID LN 04 TOP	464.795		464.818	464.959		464.818			464.795
GRID LN 05 TOP	464.824		464.847	464.988		464.846			464.823
GRID LN 06 TOP	464.848		464.871	465.010		464.867			464.844
GRID LN 07 TOP	464.865		464.888	465.027		464.885			464.862
GRID LN 08 TOP	464.883		464.907	465.045		464.905			464.881
GRID LN 09 TOP	464.903		464.927	465.067		464.927			464.903
GRID LN 10 TOP	464.929		464.952	465.094		464.954			464.931
GRID LN 11 TOP	464.947		464.981	465.124		464.986			464.962
GRID LN 12 TOP	464.998		465.019	465.164		465.026			465.003
GRID LN 13 TOP	465.035		465.058	465.206		465.068			465.045
GRID LN 14 TOP	465.079		465.102	465.250		465.111			465.088
GRID LN 15 TOP	465.122		465.145	465.293		465.155			465.132
GRID LN 16 TOP	465.164		465.188	465.333		465.195			465.171
GRID LN 17 TOP	465.198		465.221	465.366		465.227			465.204
GRID LN 18 TOP	465.225		465.249	465.392		465.253			465.229
GRID LN 19 TOP	465.241		465.265	465.405		465.265			465.241
GRID LN 20 TOP	465.247		465.271	465.408		465.267			465.243
GRID LN 21 TOP	465.240		465.264	465.400		465.258			465.234
GRID LN 22 TOP	465.225		465.249	465.384		465.242			465.218
GRID LN 23 TOP	465.204		465.228	465.362		465.218			465.194
GRID LN 24 TOP	465.178		465.202	465.337		465.193			465.169
GRID LN 25 TOP	465.153		465.177	465.310		465.167			465.143
GRID LN 26 TOP	465.129		465.153	465.289		465.146			465.122
GRID LN 27 TOP	465.107		465.131	465.267		465.126			465.102
GRID LN 28 TOP	465.093		465.117	465.256		465.115			465.091
GRID LN 29 TOP	465.084		465.108	465.248		465.108			465.084
GRID LN 30 TOP	465.080		465.104	465.246		465.106			465.082
GRID LN 31 TOP	465.079		465.103	465.245		465.106			465.082
GRID LN 32 TOP	465.076		465.099	465.246		465.107			465.083
GRID LN 33 TOP	465.066		465.090	465.230		465.100			465.077
GRID LN 34 TOP	465.051		465.074	465.213		465.090			465.066
GRID LN 35 TOP	465.028		465.052	465.189		465.072			465.049
GRID LN 36 TOP	465.000		465.023	465.164		465.049			465.025

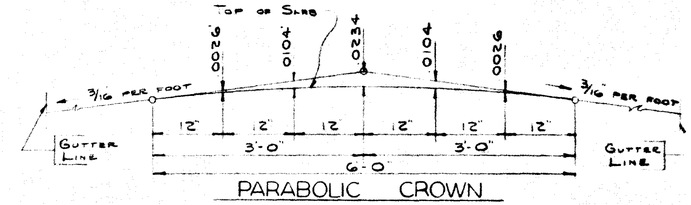
LOCATION	LEFT CURB STEEL ELEV.	LEFT CURB DIM. "X"	LEFT CURB CONSTRUCTION TOP ELEV.	CENTER STEEL ELEV.	CENTER DIM. "X"	CENTER CONSTRUCTION TOP ELEV.	RIGHT CURB STEEL ELEV.	RIGHT CURB DIM. "X"	RIGHT CURB CONSTRUCTION TOP ELEV.
SKEW LN A TOP				464.881		464.836			464.881
SKEW LN B TOP				464.884		464.839			464.884
SKEW LN C TOP				465.170		465.125			465.170
SKEW LN D TOP				465.315		465.268			465.315
SKEW LN E TOP				465.210		465.162			465.210
SKEW LN F TOP				465.208		465.160			465.208
GRID LN 01 TOP				464.884					
GRID LN 02 TOP				464.929		464.881			464.929
GRID LN 03 TOP				464.971		464.923			464.971
GRID LN 04 TOP				465.006		464.959			465.006
GRID LN 05 TOP				465.035		464.988			465.035
GRID LN 06 TOP				465.057		465.011			465.057
GRID LN 07 TOP				465.076		465.028			465.076
GRID LN 08 TOP				465.094		465.047			465.094
GRID LN 09 TOP				465.114		465.067			465.114
GRID LN 10 TOP				465.140		465.093			465.140
GRID LN 11 TOP				465.170		465.122			465.170
GRID LN 12 TOP				465.210		465.162			465.210
GRID LN 13 TOP				465.251		465.202			465.251
GRID LN 14 TOP				465.295		465.246			465.295
GRID LN 15 TOP				465.340		465.290			465.340
GRID LN 16 TOP				465.379		465.330			465.379
GRID LN 17 TOP				465.413		465.364			465.413
GRID LN 18 TOP				465.437		465.390			465.437
GRID LN 19 TOP				465.452		465.405			465.452
GRID LN 20 TOP				465.455		465.410			465.455
GRID LN 21 TOP				465.449		465.402			465.449
GRID LN 22 TOP				465.433		465.387			465.433
GRID LN 23 TOP				465.412		465.365			465.412
GRID LN 24 TOP				465.385		465.341			465.385
GRID LN 25 TOP				465.359		465.314			465.359
GRID LN 26 TOP				465.336		465.291			465.336
GRID LN 27 TOP				465.315		465.269			465.315
GRID LN 28 TOP				465.302		465.257			465.302
GRID LN 29 TOP				465.295		465.248			465.295
GRID LN 30 TOP				465.293		465.244			465.293
GRID LN 31 TOP				465.293		465.244			465.293
GRID LN 32 TOP				465.292		465.245			465.292
GRID LN 33 TOP				465.288		465.241			465.288
GRID LN 34 TOP				465.277		465.230			465.277
GRID LN 35 TOP				465.261		465.214			465.261
GRID LN 36 TOP				465.237		465.191			465.237
GRID LN 37 TOP				465.210		465.164			465.210

DESIGNED BY: [illegible] DATE
DETAILED BY: [illegible] CHECKED BY: [illegible] DATE 12-8-[illegible] REVISED DATE
TRACED BY: CHECKED BY DATE REVISED DATE

* CHECK ELEVATIONS FOR SLAB THICKNESS

LOCATION	LINE K PLAN ELEVATION	LINE K FIELD ELEVATION SLAB FORM BOTTOM OF SLAB	LINE K FIELD COMPUTED SLAB THICKNESS "T"	℄ BRIDGE PLAN ELEVATION	℄ BRIDGE FIELD ELEVATION SLAB FORM BOTTOM OF SLAB	℄ BRIDGE FIELD COMPUTED SLAB THICKNESS "T"	LINE L PLAN ELEVATION	LINE L FIELD ELEVATION SLAB FORM BOTTOM OF SLAB	LINE L FIELD COMPUTED SLAB THICKNESS "T"
GRID LINE 2	464.810						464.814		
" 3				464.971					
" 4	464.888						464.888		
" 5				465.035					
" 7	464.959						464.956		
" 8				465.093					
" 9	464.997								
" 10				465.141			465.023		
" 12	465.090						465.096		
" 13				465.253					
" 15	465.218						465.226		
" 16				465.379					
" 17	465.293						465.299		
" 18				465.438					
" 20	465.340						465.338		
" 21				465.449					
" 23	465.298						465.290		
" 24				465.385					
" 25	465.247						465.239		
" 26				465.336					
" 28	465.186						465.186		
" 29				465.295					
" 30	465.174						465.175		
" 31				465.291					
" 33	465.170						465.171		
" 34				465.277					
" 35	465.144						465.144		
" 36				465.237					

* After the slab forms are erected and before the slab reinforcement is placed, the Resident Engineer shall take field elevations at the slab thickness check points and enter them in the table in the space provided. The slab thickness shall then be computed. If the computed slab thickness varies more than ¼" from the plan thickness, allowing L 360 of the slab span for deflection of the form work, the form shall be adjusted until the computed slab thickness is within the tolerance allowed.



CONSTRUCTION NOTE (FOR NORTH & SOUTHBOUND BRIDGES)

1. Take elevations on top of steel at points indicated after diaphragms are in place and after all falsework has been removed, but before forms for concrete slabs have been put in place. Read elevations to three decimals using a target rod and enter readings in table under steel elevations.
2. Compute dimension "X" as follows; Construction Elevation minus Steel Elevation equals Dimension "X". Construction Elevations include camber due to weight of concrete slab, plinth, curb, handrail and future surfacing.
3. For setting templates, measure Dimension "X" above top of steel for top of template. Do not set template by elevations.
4. Construct handrail plinth to curb grade. Do not add camber to handrail plinth.

Work with sheet No. 37

SOUTHBOUND BRIDGE CONSTRUCTION ELEVATIONS

I-64 OVER 7TH AVENUE — SHEET 38

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE-COVINGTON
ROAD
STATION I-64 AND I-71 TO I-64 AND 7TH AVE. **PROJECT NO.**
BRIDGE NUMBER
DRAWING NO. 10-52
SHEET NO.

BRIDGE

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

DESIGNED BY Tomlinson — CHECKED BY — DATE — REVISED
DETAILED BY — CHECKED BY — DATE — REVISED
TRACED BY — CHECKED BY Bisch — DATE — REVISED

℄ BRIDGE — SHEET NO. 4

LOCATION	CONSTRUCTION ELEV.	STEEL ELEV.	DIM. "y"	CONSTRUCTION ELEV.	STEEL ELEV.	DIM. "y"	CONSTRUCTION ELEV.	STEEL ELEV.	DIM. "y"
SKEW LN A TOP	466.663	466.666		466.802	466.846				
SKEW LN B TOP	466.647	466.649		466.805	466.850				
SKEW LN C TOP	466.946	466.967		465.105	465.150				
SKEW LN D TOP	465.106	465.129		465.270	465.317				
SKEW LN E TOP	465.011	465.039		465.178	465.226				
SKEW LN F TOP	465.010	465.036		465.176	465.224				
GRID LN 01 TOP					466.850				
GRID LN 02 TOP	466.684	466.708		466.869	466.896				
GRID LN 03 TOP	466.728	466.751		466.892	466.940				
GRID LN 04 TOP	466.765	466.788		466.929	466.976				
GRID LN 05 TOP	466.795	466.818		466.959	465.006				
GRID LN 06 TOP	466.821	466.844		466.984	465.030				
GRID LN 07 TOP	466.859	466.863		465.002	465.050				
GRID LN 08 TOP	466.859	466.882		465.023	465.070				
GRID LN 09 TOP	466.880	466.904		465.044	465.091				
GRID LN 10 TOP	466.907	466.930		465.071	465.118				
GRID LN 11 TOP	466.937	466.961		465.102	465.150				
GRID LN 12 TOP	466.977	465.000		465.143	465.191				
GRID LN 13 TOP	465.017	465.041		465.184	465.233				
GRID LN 14 TOP	465.063	465.086		465.230	465.279				
GRID LN 15 TOP	465.107	465.131		465.275	465.325				
GRID LN 16 TOP	465.151	465.174		465.317	465.366				
GRID LN 17 TOP	465.186	465.210		465.352	465.401				
GRID LN 18 TOP	465.215	465.238		465.380	465.427				
GRID LN 19 TOP	465.232	465.255		465.396	465.443				
GRID LN 20 TOP	465.240	465.263		465.403	465.448				
GRID LN 21 TOP	465.274	465.257		465.396	465.443				
GRID LN 22 TOP	465.221	465.244		465.383	465.429				
GRID LN 23 TOP	465.201	465.224		465.362	465.409				
GRID LN 24 TOP	465.176	465.200		465.338	465.383				
GRID LN 25 TOP	465.153	465.176		465.314	465.359				
GRID LN 26 TOP	465.130	465.154		465.291	465.337				
GRID LN 27 TOP	465.109	465.133		465.271	465.317				
GRID LN 28 TOP	465.097	465.120		465.260	465.306				
GRID LN 29 TOP	465.089	465.113		465.253	465.300				
GRID LN 30 TOP	465.087	465.110		465.251	465.300				
GRID LN 31 TOP	465.087	465.110		465.252	465.301				
GRID LN 32 TOP	465.088	465.112		465.255	465.301				
GRID LN 33 TOP	465.087	465.110		465.252	465.299				
GRID LN 34 TOP	465.078	465.102		465.242	465.289				
GRID LN 35 TOP	465.064	465.088		465.227	465.274				
GRID LN 36 TOP	465.043	465.066		465.206	465.252				
GRID LN 37 TOP	465.016	465.039		465.180	465.226				

℄ BRIDGE

LOCATION	CONSTRUCTION ELEV.	STEEL ELEV.	DIM. "y"	CONSTRUCTION ELEV.	STEEL ELEV.	DIM. "y"	CONSTRUCTION ELEV.	STEEL ELEV.	DIM. "y"
SKEW LN A TOP				464.797	464.846		464.651	464.627	
SKEW LN B TOP				464.800	464.850		464.655	464.630	
SKEW LN C TOP				465.102	465.150		464.958	464.934	
SKEW LN D TOP				465.271	465.317		465.130	465.107	
SKEW LN E TOP				465.180	465.226		465.042	465.018	
SKEW LN F TOP				465.179	465.224		465.040	465.017	
GRID LN 01 TOP				464.804	464.850		464.663	464.640	
GRID LN 02 TOP				464.851	464.896		464.711	464.687	
GRID LN 03 TOP				464.893	464.940		464.753	464.730	
GRID LN 04 TOP				464.929	464.976		464.788	464.765	
GRID LN 05 TOP				464.959	465.006		464.817	464.794	
GRID LN 06 TOP				464.983	465.030		464.840	464.817	
GRID LN 07 TOP				465.001	465.050		464.860	464.836	
GRID LN 08 TOP				465.021	465.070		464.880	464.857	
GRID LN 09 TOP				465.044	465.091		464.904	464.880	
GRID LN 10 TOP				465.072	465.118		464.932	464.909	
GRID LN 11 TOP				465.104	465.150		464.966	464.942	
GRID LN 12 TOP				465.145	465.191		465.007	464.984	
GRID LN 13 TOP				465.188	465.233		465.051	465.027	
GRID LN 14 TOP				465.234	465.279		465.095	465.072	
GRID LN 15 TOP				465.278	465.325		465.141	465.117	
GRID LN 16 TOP				465.320	465.366		465.181	465.158	
GRID LN 17 TOP				465.354	465.401		465.216	465.192	
GRID LN 18 TOP				465.382	465.427		465.242	465.219	
GRID LN 19 TOP				465.396	465.443		465.255	465.232	
GRID LN 20 TOP				465.401	465.448		465.259	465.236	
GRID LN 21 TOP				465.394	465.443		465.281	465.228	
GRID LN 22 TOP				465.380	465.429		465.237	465.214	
GRID LN 23 TOP				465.359	465.409		465.214	465.191	
GRID LN 24 TOP				465.334	465.383		465.191	465.167	
GRID LN 25 TOP				465.310	465.359		465.166	465.143	
GRID LN 26 TOP				465.289	465.337		465.147	465.123	
GRID LN 27 TOP				465.269	465.317		465.128	465.104	
GRID LN 28 TOP				465.259	465.306		465.118	465.095	
GRID LN 29 TOP				465.253	465.300		465.113	465.089	
GRID LN 30 TOP				465.253	465.300		465.112	465.089	
GRID LN 31 TOP				465.253	465.301		465.113	465.090	
GRID LN 32 TOP				465.256	465.301		465.116	465.092	
GRID LN 33 TOP				465.252	465.299		465.111	465.088	
GRID LN 34 TOP				465.242	465.289		465.102	465.078	
GRID LN 35 TOP				465.226	465.274		465.086	465.062	
GRID LN 36 TOP				465.204	465.252		465.063	465.040	
GRID LN 37 TOP					465.226				

* CHECK ELEVATIONS FOR SLAB THICKNESS

LOCATION	LINE K PLAN ELEVATION	LINE K FIELD ELEVATION SLAB FORM BOTTOM OF SLAB	LINE K FIELD COMPUTED SLAB THICKNESS "T"	℄ BRIDGE PLAN ELEVATION	℄ BRIDGE FIELD ELEVATION SLAB FORM BOTTOM OF SLAB	℄ BRIDGE FIELD COMPUTED SLAB THICKNESS "T"	LINE L PLAN ELEVATION	LINE L FIELD ELEVATION SLAB FORM BOTTOM OF SLAB	LINE L FIELD COMPUTED SLAB THICKNESS "T"
GRID LINE 2	464.777						464.781		
" 3				464.940					
" 4	464.858						464.858		
" 5				465.006					
" 7	464.933						464.930		
" 8				465.069					
" 9	464.974								
" 10				465.119			465.022		
" 12	465.071						465.033		
" 13				465.235					
" 15	465.203						465.211		
" 16				465.366					
" 17	465.281						465.287		
" 18				465.286					
" 20	465.332						465.330		
" 21				465.443					
" 23	465.295						465.287		
" 24				465.383					
" 25	465.246						465.249		
" 26				465.337					
" 28	465.190						465.190		
" 29				465.300					
" 30	465.181						465.182		
" 31				465.299					
" 33	465.180						465.181		
" 34				465.289					
" 35	465.157						465.157		
" 36				465.252					

* After the slab forms are erected and before the slab reinforcement is placed, the Resident Engineer shall take field elevations at the slab thickness check points and enter them in the table in the space provided. The slab thickness shall then be computed. If the computed slab thickness varies more than ¼" from the plan thickness, allowing 1/360 of the slab span for deflection of form work, the form shall be adjusted until the computed slab thickness is within the tolerance allowed.

CONSTRUCTION NOTE

1. Take elevations on top of steel at points indicated after diaphragms are in place and after all falsework has been removed, but before forms for concrete slabs have been put in place. Read elevations to three decimals using a target rod and enter readings in table under steel elevations.
2. Compute dimension "X" as follows, Construction Elevation minus Steel Elevation equals Dimension "X". Construction Elevations include camber due to weight of concrete slab, plinth, curb, handrail and future surfacing.
3. For setting templates, measure Dimension "X" above top of steel for top of template. Do not set template by elevations.
4. Construct handrail plinth to curb grade. Do not add camber to handrail plinth.

Work with sheet No. 37

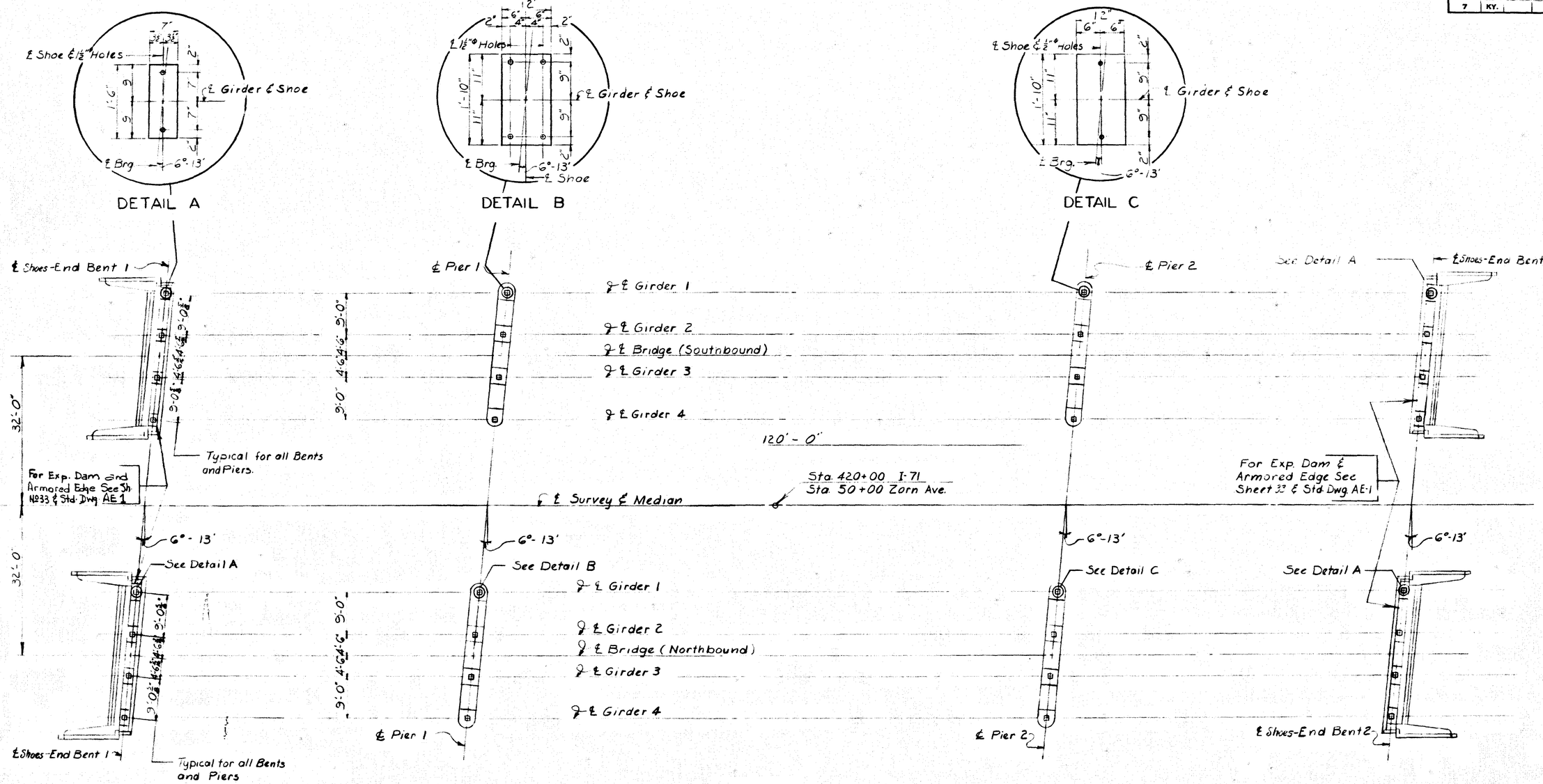
NORTHBOUND BRIDGE CONSTRUCTION ELEVATIONS

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE - COVINGTON

STATION 420+00 I-71 / 50+00 ZORN — ROAD — PROJECT NO.
BRIDGE NUMBER — DRAWING NO. 5-1 — SHEET

BRIDGE

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



PLAN

ANCHOR BOLT PLAN

SHEET 40

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
LOUISVILLE COVINGTON

STATION 420+00 I-71 = 50+00 ZORN AVE. ROAD PROJECT NO.

BRIDGE NUMBER

DRAWING NO. 16154

BRIDGE