FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

113
210

HAM-71-1.80

MICROFILMED
OCT 15 1982

PLAN

(Measured on ℄ N.B. Expressway)

PROFILE

(Along ℄ N.B. Expressway)

PROPOSED STRUCTURE

Type: Continuous Steel Plate Girders with reinforced Concrete Deck and Substructure.
Spans: Lengths Vary; See tabulation, Sheet No. 115
Roadway: Northbound Varies 50'-0" min. ¼ curbs with 1'-0" curbs
Southbound Varies 50'-0" min. ¼ curbs with 1'-0" safety curb and 6'-0" median.
Loading Frequency: CF = 2000/(57) Adequate for AASHO alternate loading.
Wearing Surface: 1" Monolithic Concrete.
Approach Slabs: AS-1-54 (25'-0" long).
Alignment: Varies, see Plan.
Superelevation: Varies, see Plan.

GENERAL NOTES

South Abutment A, Pier 1W & Pier 1E are Parallel.
South Abutment B, Pier 1B & Pier 2B are Parallel.
For Curve Data and Table of Span Lengths see sheet No. 115.
For Profile of Ramp B see sheet No. 115.
● Symbol denotes drill hole.
For Test Boring Data, see sheets 121 thru 124.
For Bench Marks See sheet 35.

1984 Traffic Count: S.B. Rdwy. ADT = 25,800
DHV = 3,450
N.B. Rdwy. ADT = 31,200
DHV = 3,650

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SITE PLAN

BRIDGE No. HAM-71-0135

OVER EGGLESTON AVE.
and PENNSYLVANIA R.R.

H & E BRIDGE No. 6R & L SHEET 1 of 3

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	WDK	M. DeC.	MAG	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR	
2	OHIO			114 / 210

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SITE PLAN

BRIDGE No. HAM-71-0135
OVER EGGLESTON AVE.
and PENNSYLVANIA R.R.

H & E BRIDGE No. 6R & L SHEET 2 of 3

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	WDK			3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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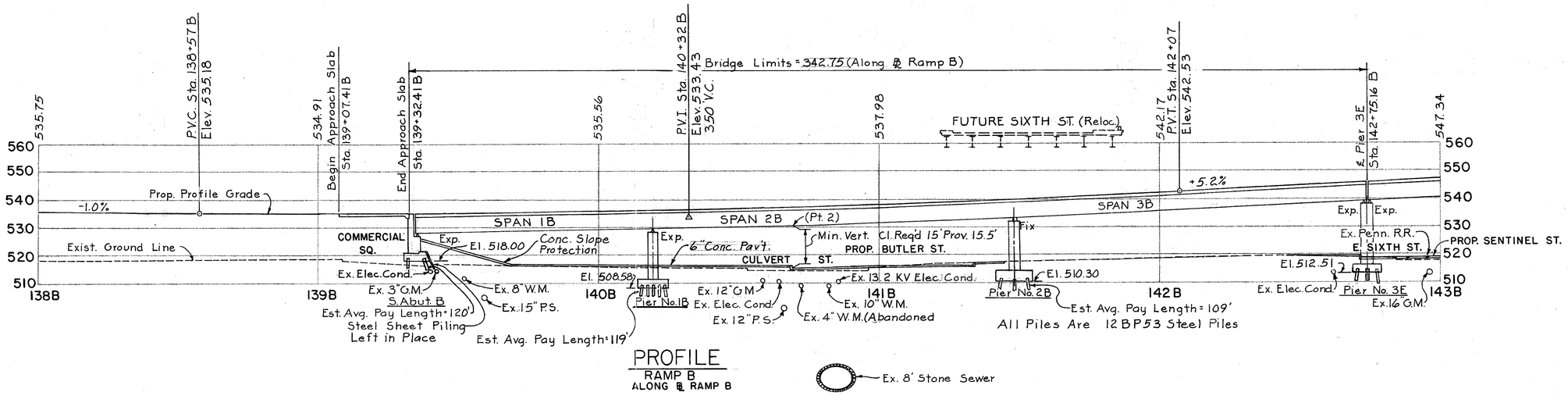
HAM-71-1.30



PROFILE
RAMP B
ALONG ℄ RAMP B

Ex. 8' Stone Sewer

CURVE DATA

Note: Curves 3A (Not Shown) to 3F inclusive are a series of compound circular arcs replacing a 550 ft. spiral to a 4°30' curve at P.C.C. 142+62.72 N.B.
Curves 3H to 3N (Not Shown) inclusive are a series of compound circular arcs replacing a 550 ft. spiral to a 4°30' circular curve at P.C.C. 146+19.94 N.B.
Curves 4E to 4H inclusive are a series of compound circular arcs replacings a 250 ft. spiral between a 2°15' curve at P.C.C. 139+72.27 S.B. and a 4°30' curve at P.C.C. 142+27.27 S.B.

NORTHBOUND EXPRESSWAY

CURVE No. 3B	CURVE No. 3C	CURVE No. 3D	CURVE No. 3E	CURVE No. 3F	CURVE No. 3G
P.I. Sta. = 138+62.72 N.B.	P.I. Sta. = 139+62.72 N.B.	P.I. Sta. = 140+62.73 N.B.	P.I. Sta. = 141+50.23 N.B.	P.I. Sta. = 142+25.23 N.B.	P.I Sta. 144+42.51 N.B.
Δ = 1°21'45"	Δ = 1°54'41"	Δ = 2°59'41"	Δ = 2°36'48"	Δ = 3°13'12"	Δ = 16°04'30"
D = 1°21'45"	D = 1°54'41"	D = 2°59'41"	D = 3°29'04"	D = 4°17'36"	D = 4°30'00"
R = 4,205.20'	R = 2,997.60'	R = 1,913.23'	R = 1,644.33'	R = 1,334.53	R = 1,273.24'
L = 100.00'	L = 100.00'	L = 100.00'	L = 75.00'	L = 75.00'	L = 357.22'
T = 50.00'	T = 50.00'	T = 50.01'	T = 37.51'	T = 37.51'	T = 179.79'

SOUTHBOUND EXPRESSWAY

CURVE No. 4D	CURVE No. 4E	CURVE No. 4F	CURVE No. 4G	CURVE No. 4H
P.I. Sta. 137+99.59 S.B.	P.I. Sta. 140+14.77 S.B.	P.I. Sta. 140+89.78 S.B.	P.I. Sta. 141+52.27 S.B.	P.I. Sta. 142+02.27 S.B.
Δ = 8°00'30"	Δ = 1°51'24"	Δ = 2°31'42"	Δ = 1°52'41"	Δ = 2°10'28"
D = 2°15'00"	D = 2°28'32"	D = 3°22'16"	D = 3°45'22"	D = 4°20'56"
R = 2,546.48'	R = 2,314.46'	R = 1,699.61'	R = 1,525.40'	R = 1,317.48'
L = 355.93'	L = 75.00'	L = 75.00'	L = 50.00'	L = 50.00'
T = 178.25'	T = 37.50'	T = 37.51'	T = 25.00'	T = 25.00'

NORTHBOUND AND SOUTHBOUND EXPRESSWAY

CURVE No. 3H	CURVE No. 3J	CURVE No. 3K	CURVE No. 3L	CURVE No. 3M
P.I. Sta. 146+57.45	P.I. Sta. 147+32.45	P.I. Sta. 148+19.95	P.I. Sta. = 149+19.94	P.I. Sta. 150+19.94
Δ = 3°13'12"	Δ = 2°36'48"	Δ = 2°59'41"	Δ = 1°54'41"	Δ = 1°21'45"
D = 4°17'36"	D = 3°29'04"	D = 2°59'41"	D = 1°54'41"	D = 1°21'45"
R = 1,334.53'	R = 1,644.33'	R = 1,913.23'	R = 2,997.60'	R = 4,205.20'
L = 75.00'	L = 75.00'	L = 100.00'	L = 100.00'	L = 100.00'
T = 37.51'	T = 37.51'	T = 500.01'	T = 50.00'	T = 50.00'

RAMP B

CURVE No. 3BB	CURVE No. 4BB	CURVE No. 5BB	CURVE No. 6BB
P.I Sta. 141+99.17 B	P.I. Sta. 144+79.72 B	P.I. Sta. 148+22.96 B	P.I. Sta. 150+69.88 B
Δ = 13°48'37"	Δ = 19°46'16"	Δ = 8°50'00"	Δ = 1°00'00"
D = 8°30'	D = 5°00'	D = 3°00'	D = 0°30'
R = 674.07'	R = 1145.92'	R = 1909.86'	R = 11,459.16'
L = 162.47'	L = 199.70'	L = 294.44'	L = 200.00'
T = 81.63'		T = 147.52'	T = 100.00'

TABLE OF SPAN LENGTHS

N.B. ROADWAY		S.B. ROADWAY		RAMP B		N.B. & S.B. ROADWAY			
SPAN	LENGTH	SPAN	LENGTH	SPAN	LENGTH	SPAN	LENGTH		
1E	100.4'	1W	122.3'	1B	83'	5E & W	126.3'		
2E	125'	2W	137.5'	2B	128.5'	6E & W	70.'		
3E	86'	3W	91.5'	3B	125.9'	7E & W	108.4'		
4E	108.7'	4W	69.3'			8E	139.1'	8W	141.1'
						9E	95'	9W	93'
						10E & W	75'		

Span lengths are arc lengths measured along Base Line

Work this sheet with sheets 113 & 114

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SITE PLAN

BRIDGE No. HAM-71-0135
OVER EGGLESTON AVE.
and PENNSYLVANIA R.R.

H & E BRIDGE No. 6R & L SHEET 3 of 3

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	WDK	ALT.	N.A.E.	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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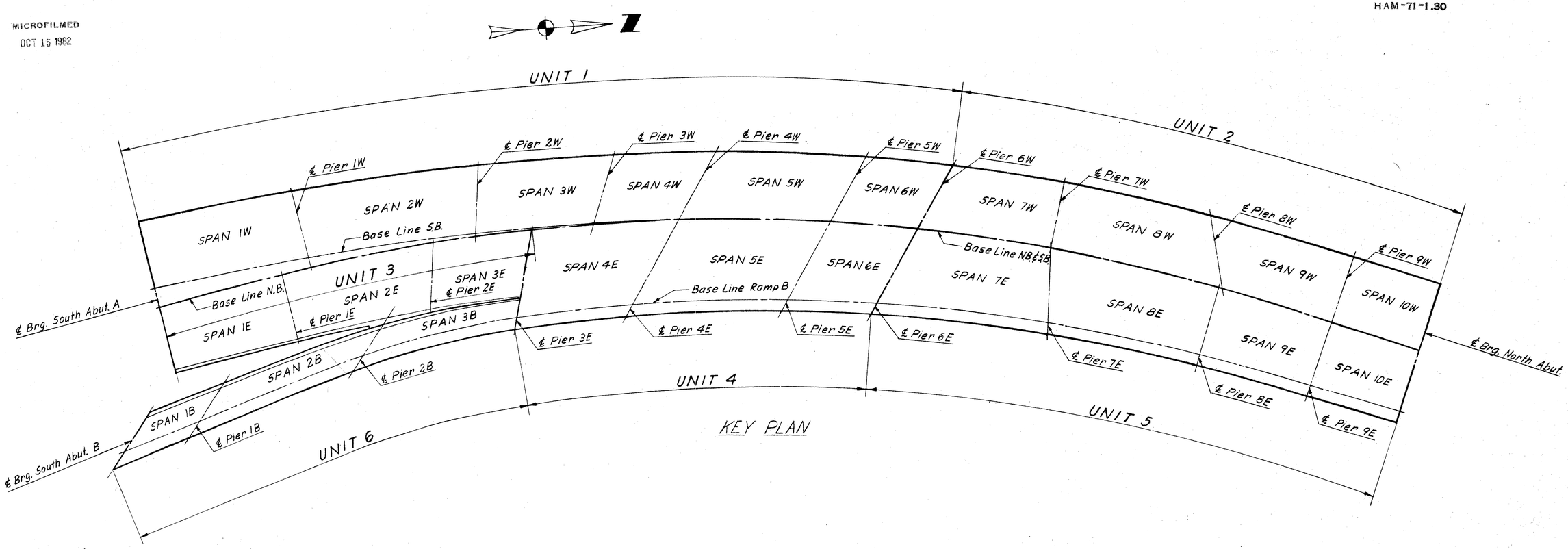

KEY PLAN

HAZELET & ERDAL
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KEY PLAN

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	S.M.H. 8-21-65		CSB 1-30-65	JHO 3/22/65	

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ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER-SRUCT-TURE	SOUTH ABUT. A	SOUTH ABUT. B	NORTH ABUT.	PIERS	GENERAL
E-2	Lump	Sum	Cofferdams, Cribs & Sheeting						
E-2	2622	Cu.Yds.	Unclassified Excavation		20		370	2232	
E-2	852	Cu.Yds.	Rock (or shale) Excavation				600	252	
E-2	1667	Sq. Ft.	Steel Sheet Piling Left in Place (Min. Section Modulus of 7.0 $In.^3$ per Foot of Wall)		1122	545			
S-1	4487	Cu.Yds.	Class "C" Concrete, Superstructure	4487					
S-1	1259	Cu.Yds.	Class "C" Concrete, Piers above Footings					1259	
S-1	487	Cu.Yds.	Class "E" Concrete, Abutments above Footings		195	96	196		
S-1	1360	Cu.Yds.	Class "E" Concrete, Footings		141	60	124	1035	
S-3	111	Lin.Ft.	Waterproofing, Premolded Sealing Strip		44	14	53		
S-4	1,813,137	Lbs.	Reinforcing Steel	1,282,223	20,493	10,705	20,554	479,162	
S-7	5,740,000	Lbs.	Structural Steel	5,740,000					
S-8	5,740,000	Lbs.	Field Painting of Structural Steel	5,740,000					
S-9	95	Sq.Ft.	1" Preformed Expansion Joint Filler (M-10.02, Type I)		40		55		
S-14	2556	Lin.Ft.	Railing Type "A" (Aluminum Rail & Supports, Concrete Parapet)	2491	10	27	28		
S-14	945	Lin.Ft.	Railing (Type I-15.11 Galvanized, Double Faced with Galv. Steel Posts & Bolts)	945					
S-14	102	Lin.Ft.	Railing (Type I-15.11 Galvanized, with Galvanized Steel Posts & Bolts)	102					
S-16	Lump	Sum	First Test Pile						
S-17	Lump	Sum	First Pile Test Load						
S-17	1	Each	Subsequent Pile Test Load						
S-18	42,765	Lin.Ft.	Steel Piles, 12 BP53		6580	2320		33,865	
S-25	* *	Each	Luminaire Type III with Integral 400 Watt Mercury Ballast						
S-25	* *	Each	Mercury Vapor Lamp - 400 Watt (H33-ICD)						
S-25	* *	Each	Fluorescent Luminaire & Lamps, 200 Watt						
S-25	* *	Each	Pole with 10'-0" Bracket Arm, Design No. 7A10B30						
S-25	* *	Lin.Ft.	Conduit - 2" Galvanized Steel - In Bridge or Retaining Wall						
S-25	* *	Lin.Ft.	Conduit - 3" Galvanized Steel - In Bridge or Retaining Wall						
S-25	* *	Lin.Ft.	Primary Cable, No.6 Single Conductor, Plain, FAA L-824, Type B, 5000 V. Insulation						
S-25	* *	Lin.Ft.	Primary Cable, No.6 Single Conductor, Identifiable, FAA L-824, Type B, 5000 V. Insulation						
S-25	* *	Lin.Ft.	Secondary Cable, No.6 Single Conductor, Plain, FAA L-824, Type A						
S-25	* *	Lin.Ft.	Secondary Cable, No.6 Single Conductor, Identifiable, FAA L-824, Type A						
S-25	* *	Lin.Ft.	Pole and Bracket Cable, No.12 Three Conductor						
S-25	* *	Each	Photo Electric Cell and Socket						
S-25	* *	Each	Junction Box, 12" x 8" x 6", Type A						
S-25	* *	Each	Junction Box, 8" x 8" x 6", Type B						
S-25	* *	Each	Junction Box, 18" x 12" x 8", Type C						
S-25	* *	Each	Junction Box, 18" x 6" x 6", Type D						
S-25	* *	Lump Sum	Bridge Structure Grounding System						
S-25	* *	Set, 4	Lamp Standard Anchor Rods for Bridge and Retaining Walls						
S-25	* *	Each	Concrete Inserts for 5/8" Rods						
S-25	* *	Each	" Unfused Connector Kit Type I						
S-25	* *	Each	" Fused "Y" Connector Kit Type II						
S-25	* *	Each	" Unfused "Y" Connector Kit Type III						
S-25	* *	Each	" Unfused "Y" Connector Kit Type IV						
S-29	356	Cu.Yds.	Porous Backfill		152	83	121		
S-29	354	Lin.Ft.	8" Bituminous Coated Helical Perforated Corrugated Metal Pipe Sec.-M-6.4 (h-c) (including Specials and Sand)		136	82	136		
S-29	Lump	Sum	Drain Inlets, Including Supports & Horizontal Collector System						
S-29	740	Lin.Ft.	8" Standard Pipe Downspout, Wrought Iron or Hot-Dipped Galvanized Steel (Including Specials)						740
S-29	12	Lin.Ft.	12" Reinforced Concrete Sewer Pipe Sec. M-4.4 (a)		4	4	4		
S-101	4487	Each	Water-Reducing, Set-Retarding Admixture	4487					
I-10	425	Sq.Yds.	Concrete Slope Protection		425				

Note: Signing Items included in General Summary, sheets 30 & 31.

* * Note: See General Lighting Summary, Sheet No. 83 For Detail Description, Unit and Quantity

Payment will be made for only one First Test Pile (Item S-16) and First Pile Test Load (Item S-17) and each may be used at either Bridge No. HAM-71-0135 or HAM-471-0044.

PIER QUANTITIES

PIER NO.	UNCLASSIFIED EXCAVATION CU. YDS.	ROCK (OR SHALE) EXCAVATION CU. YDS.	CLASS "C" CONCRETE PIERS ABOVE FOOTINGS CU. YDS.	CLASS "E" CONCRETE FOOTINGS CU. YDS.	STEEL PILES 12 BP 53
1W	60		32.2	34.0	2400
2W	157		47.5	75.6	3780
3W	184		67.8	102.5	4410
4W	117		60.0	58.3	2360
5W	145		80.9	45.0	1490
6W	80		78.7	33.4	590
7W	249	49.0	70.4	93.7	
8W	112	88.2	41.7	56.9	
9W		65.6	20.7	37.1	
1E	75		50.7	43.9	3020
2E	115		40.8	68.0	4040
3E	97		93.1	40.0	2720
4E	206		126.7	79.7	3900
5E	133		89.9	40.5	1620
6E	123		82.0	40.0	745
7E	257	30.2	74.4	50.4	
8E		10.0	61.7	44.1	
9E		9.0	52.1	44.2	
1B	68		45.2	25.8	1790
2B	54		42.5	21.9	1000

SUPERSTRUCTURE QUANTITIES

UNIT NO.	CLASS "C" CONC. SUPERSTRUCTURE CU. YDS.	REINFORCING STEEL LBS.	STRUCTURAL STEEL LBS.	RAILING TYPE "A" LIN. FT.
1	1324.0	358,383	1,736,900	657
2	754.8	209,353	905,500	406
3	513.2	150,214	638,800	165
4	654.3	198,941	801,900	288
5	908.5	268,348	1,231,700	430
6	332.2	96,984	425,200	545

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ESTIMATED QUANTITIES

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	TLZ		CSB 3-10-65	JHO 3/22/65	

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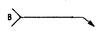
Reference shall be made to Standard Drawings AR-1-57 'Revised 4-2-62', FSB-1-62 'Revised 1-15-63', SD-1-63 dated 11-12-63 Sheet Nos. 2, 3 and 4, Supplemental Specifications No. S-307 dated 10-1-64, Supplemental Specifications No. I-129 'Revised 4-5-61' and Supplemental Specifications No. S-101 dated 7-12-62.

PILES: Since the structures of this project are to be constructed in a metropolitan area where there are numerous areas in which buildings have been dismantled and the existing basements filled with boulders, gravel, bricks and other random debris, the Contractor shall use augering, spudding or whatever means are necessary to permit the piles to be driven without damaging them whenever the above conditions are encountered.

WELDING shall be Class 'A'. Any welds shown as field welds may, at the option of the Contractor, be made in the shop. Class 'B' welds are shown thus:



POROUS BACKFILL: (where called for in the plans) shall be 2 ft. thick and shall extend up to the underside of the approach slab or sidewalk unless otherwise noted.

DECK PLACING PROCEDURE: In placing the deck concrete, construction joints will be permitted parallel to the transverse reinforcing steel and near the middle of any span. Because of the flow of curing water from the surface of previously placed concrete, the sequence of pours shall be upgrade, starting at the lowest point or points in the grade line.

UTILITY LINES: All labor and expense involved in relocating (installing) the affected utility lines shall be borne by the owners. The Contractor and Owners are requested to cooperate by arranging their work in such a manner that inconvenience to either will be held to a minimum.

MACHINE FINISH. At the Contractor's option, the concrete deck may be finished with a finishing machine.

CONSTRUCTION CLEARANCE of 18'-0" vertically above the top of the railroad rails and 8'-0" horizontally from the center of tracks shall be maintained at all times. The horizontal clearance specified is for tangent track. On curved track the clearances shall be increased to provide for the overhang and tilting of the cars.

SHEETING AND BRACING: Before construction is started, eight sets of prints showing details of the sheeting and bracing to be used for excavation adjacent to the railroad tracks shall be submitted to the Director for approval by the Department of Highways and by the Railroad Company.

ALIGNING RAILROAD TRACKS: After the Contractor has completed all excavation and backfill adjacent to the railroad tracks in compliance with Sec. E-2.04 and E-2.09 of the Construction and Material Specifications, subject to the supervision of the Railroad Company, nothing in Sec. E-2.04, E-2.08 or G-8.07 of the Specifications shall be construed to hold the Contractor liable for aligning and resurfacing the railroad tracks.

STEEL PILES: Piles shall be driven with a hammer of not less than 11,000 ft. lbs. per blow to firm contact in shale or limestone. If the length of penetration is approximately equal to the depth of shale or limestone according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-1805 is not less than the following value for a pile hammer of the indicated energy rating:

60 Tons per pile for South Abutment A & B, Piers 1E & 1W through 4E & 4W, 1B & 2B using a 15,000 ft. lb. hammer

65 Tons per pile for South Abutment A & B, Piers 1E & 1 W. through 4E & 4W, 1B & 2B using an 11,000 ft. lb. hammer

55 Tons per pile for Pier 5E using a 15,000 ft. lb. hammer.

60 Tons per pile for Pier 5E using an 11,000 ft. lb. hammer.

50 Tons per pile for Piers 5W, 6E & 6 W using a 15,000 ft. lb. hammer

55 Tons per pile for Piers 5W, 6E & 6W using an 11,000 ft. lb. hammer

If the energy rating of the hammer is between the rating as shown above, the required formula capacity shall be determined by interpolation.

The design load is 50 Tons per pile for South Abutment A & B and Piers 1E & 1W through 4E & 4W, 1B & 2B; 40 Tons per pile for Piers 5W, 6E & 6W; and 45 Tons per pile for Pier 5E. Steel 'H' Piles (12BP53) shall be used.

FOUNDATION BEARING PRESSURE: The following footings are designed for the maximum bearing pressures indicated for D.L. and L.L. and Centrifugal Force:

Pier 7E	3.6 Tons
Pier 7W	3.6 Tons
Pier 8E	3.5 Tons
Pier 8W	4.0 Tons
Pier 9E	2.5 Tons
Pier 9W	4.4 Tons
North Abutment	2.3 Tons

These footings should extend a minimum of 3 inches into undisturbed rock or to the elevation shown on the plans, whichever is lower.

PILE TEST LOAD shall be in accordance with Item S-17 except that the maximum load required shall be 120 Tons for 40 Ton piles, 130 Tons for 45 Ton piles, 150 Tons for 50 Ton piles, and 160 Tons for 55 Ton piles.

FIRST PILE TEST LOAD shall be applied if and where directed by the Engineer.

EXCAVATION QUANTITY for the South Abutment includes removal of fill material required for construction of the abutments.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of 'Design Specifications for Highway Structures' of the State of Ohio, Department of Highways, dated 9-1-57, together with current revisions thereof.

REINFORCING STEEL COVERAGE shall be 3 inches in footings and 2 inches above footings to face of concrete for substructure.

HIGH-STRENGTH STEEL BOLTS: Item S-7.10, paragraph two (2), shall be completely revised and the last sentence of paragraph four (4) revised to read as follows

'In the final assembly of the parts to be bolted, drift pins shall be placed in a sufficient number of holes (not less than 25 percent for field erection) to provide and maintain accurate alignment of holes and parts, and sufficient bolts shall be installed and brought to a snug tight condition to bring the parts into complete contact. Bolts shall then be installed in any remaining open holes and tightened to a snug tight fit, after which all bolts shall be tightened completely by calibrated wrenches or by the turn-of-nut method. Drift pins shall then be replaced with bolts, tightened in the same manner.'

'Bolt lengths determined by the use of Table No. 1 shall be adjusted to the next 1/4" length increment.'

Design Loading	CF 2000 (57)
Concrete Class C	basic unit stress 1,333 psi.
Concrete Class E	basic unit stress, 1,133 psi.
Structural Steel	ASTM A36 - basic unit stress 20,000 psi. (ASTM A7 and A373 steel not permitted except for piling)
Reinforcing Steel	ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 psi.

STEEL SHEET PILING LEFT-IN-PLACE: Used sheet piling, in good shape, may be used subject to the approval of the Engineer, as per Sec. 2.04. Mill test reports are not required.

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CONSULTING ENGINEERS
CINCINNATI, OHIO

GENERAL NOTES

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	WES 3-15-65		GSB 3-18-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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DETAIL A

DETAIL B

DETAIL C

DETAIL "F"

CONTROL LINES

NOTE: Extreme care should be taken in driving batter piles to avoid interference with other piles below the surface.

NOTES:

→ Indicates Pile Batter in direction shown. For exact direction See detail drawings. Batter is 3:12 for Pier footings and 4:12 for Abutments and retaining walls except as noted.
For Pile Bearing Capacity see General Notes, Sht. No. 118
For Bottom of Footing Elevations see Abutment and Pier Details.
For Alignment and Witness Plan see Sheet No. 33
For direction of Pile Flanges see Abutment and Pier Details.

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CINCINNATI, OHIO

STAKE-OUT DIAGRAM

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	W.R.T. 1-29-65		Jag 2-12-65	JHD 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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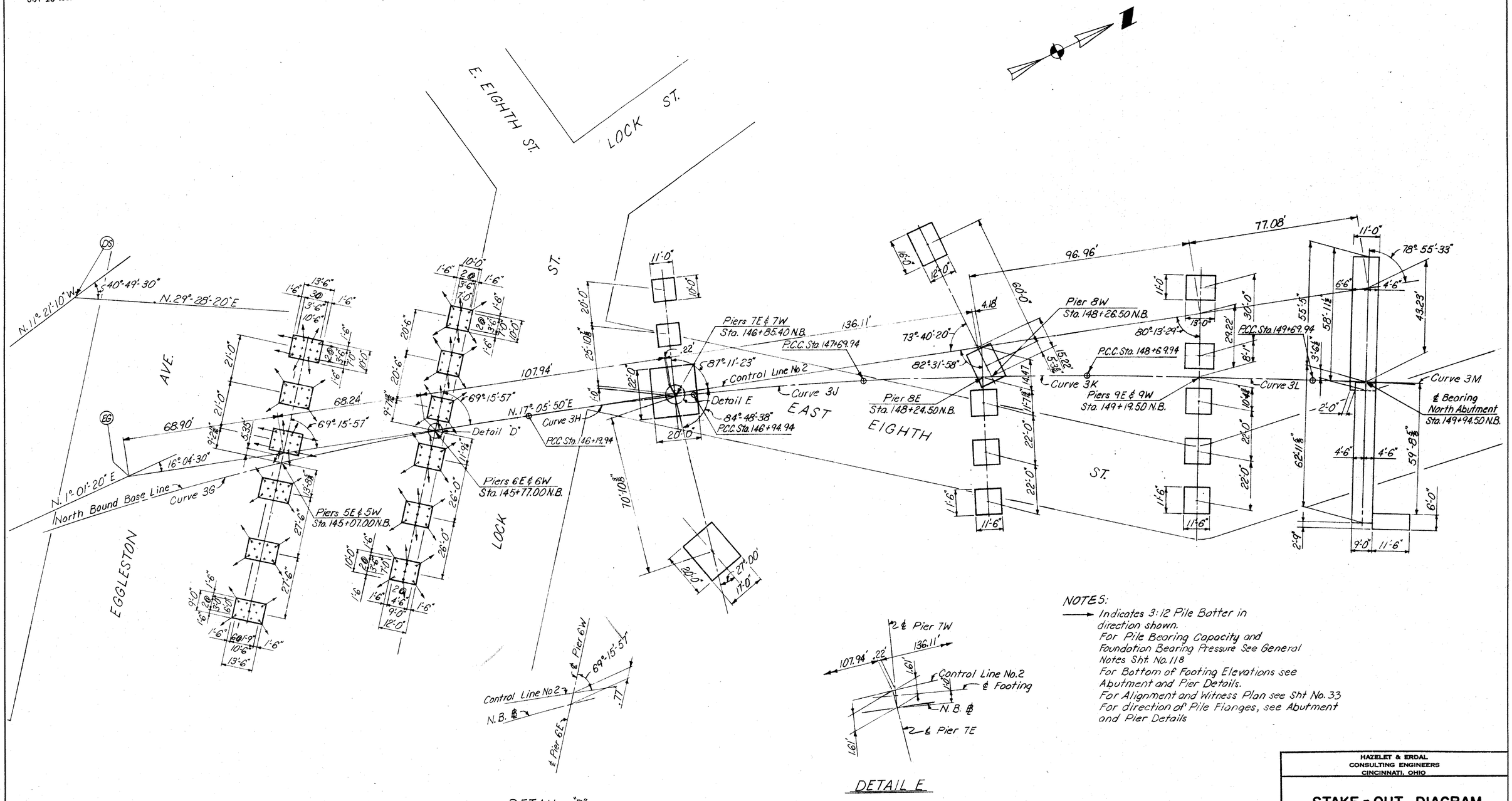

DETAIL "D"

DETAIL E

NOTES:

→ Indicates 3:12 Pile Batter in direction shown.
For Pile Bearing Capacity and Foundation Bearing Pressure See General Notes Sht. No. 118
For Bottom of Footing Elevations see Abutment and Pier Details.
For Alignment and Witness Plan see Sht No. 33
For direction of Pile Flanges, see Abutment and Pier Details

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CINCINNATI, OHIO

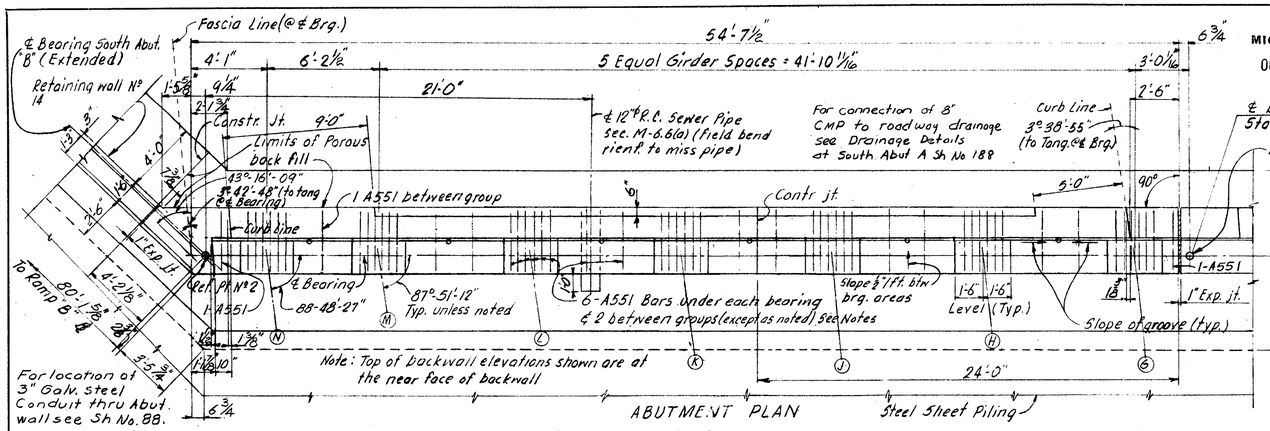
STAKE - OUT DIAGRAM

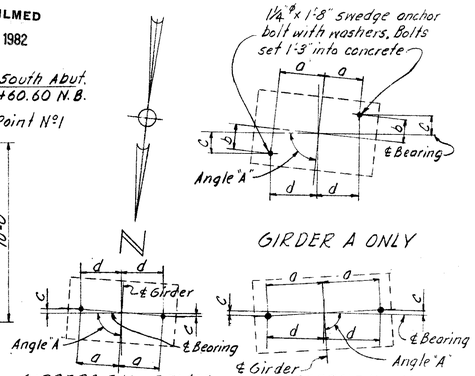
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	W.R.T. 1-8-65		Jag 2-11-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

125/210

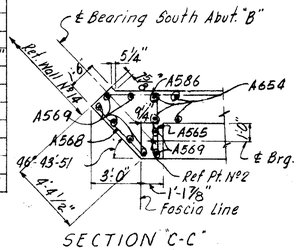
HAM-71-1.80

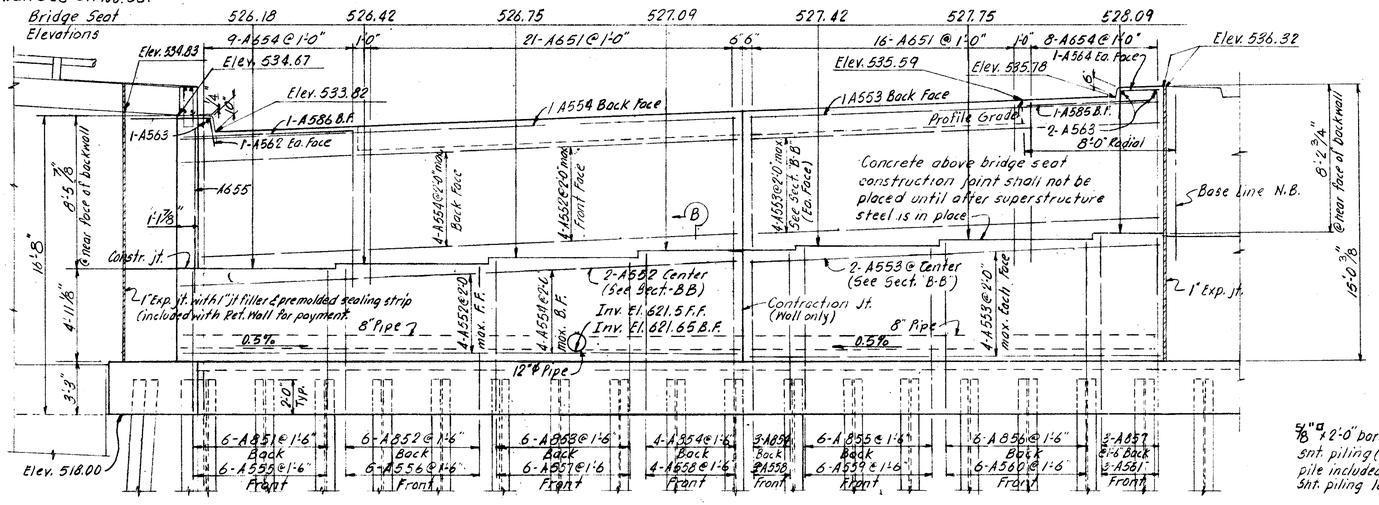




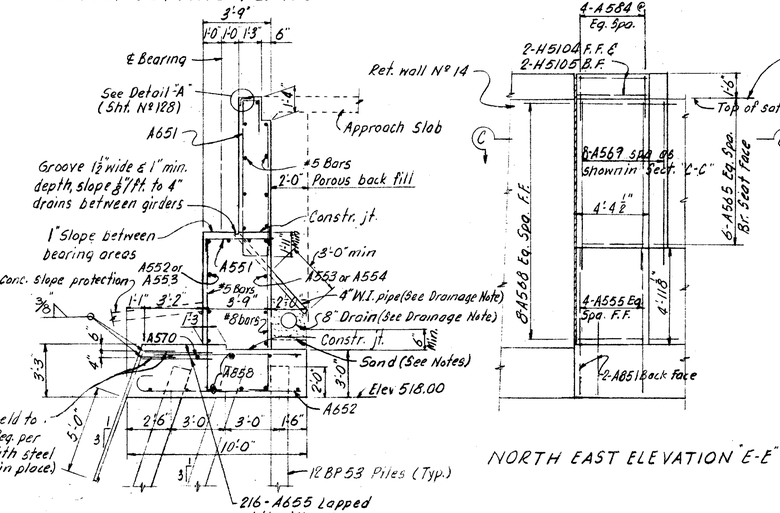
South Abutment A only

Girder	Angle A	a	b	c	d
A	88°38'-46"	9"	6¼"	6 11/16"	9 1/8"
B	88°31'-45"	11½"	—	5/16"	11½"
C	88°24'-43"		—	5/16"	
D	88°17'-42"		—	5/16"	
E	88°10'-40"		—	⅜"	
EA	88°00'-26"		—	⅜"	
EB	89°46'-46"		—	1/16"	
F	88°26'-43"	11½"	—	5/16"	11½"
G	87°51'-12"	11"	—	⅜"	11"
H	87°51'-12"		—		
J	87°51'-12"		—		
K	87°51'-12"		—		
L	87°51'-12"		—		
M	87°51'-12"		—	⅜"	
N	88°48'-27"	11"	—	¼"	11"

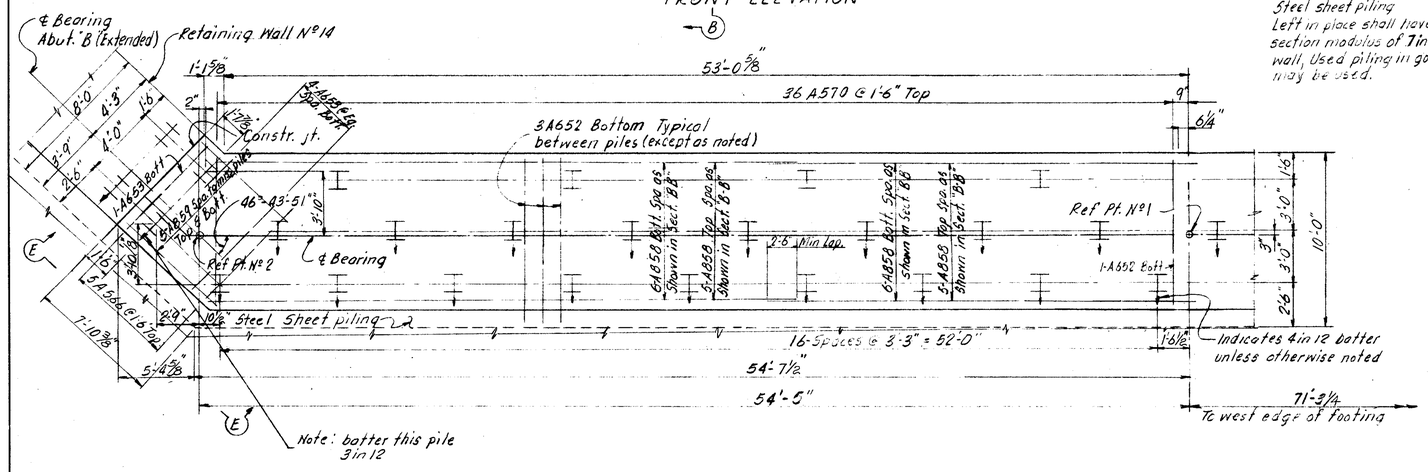




FRONT ELEVATION



NORTH EAST ELEVATION "E-E"



Notes:
For Detail of Contraction joint see sht. Nº 128
For Detail of Expansion joint see sht. Nº 128
F.F. Denotes Front Face B.F. denotes Back Face
Provide 3" clearance to reinforcing steel in footing and 2" clearance to reinforcing steel in wall, minimum.
Special care shall be taken in placing reinforcement in abutment bridge seat so that it will not interfere with masonry plate anchor bolts
For railing details see Ohio Std. Drwg. AR-1-57
For roadway & curb end finish details see sht. Nº 167 & 168
Work Shts. 125 & 126 together

DRAINAGE NOTE

Sand meeting requirements of Sec. M-2.1 Payment included in price bid for 8" drain.
4" W.I. pipe 6'-0" long located between bearing areas as shown in plan. Include with Abut. Conc. for Payment.
8" bituminous coated helical perforated corrugated metal pipe [See M-6.4 (h-c)] connect to roadway drainage.

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CINCINNATI, OHIO

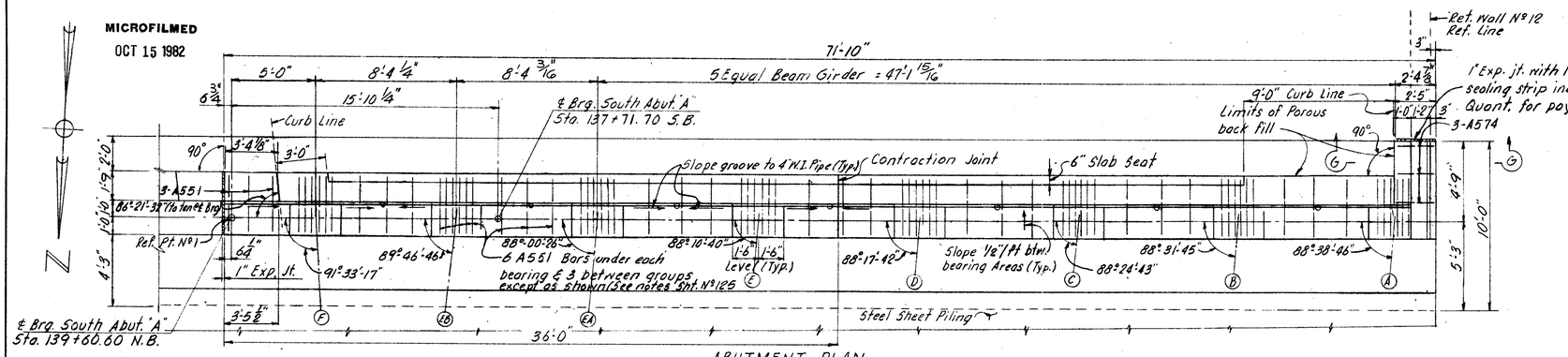
SOUTH ABUTMENT A

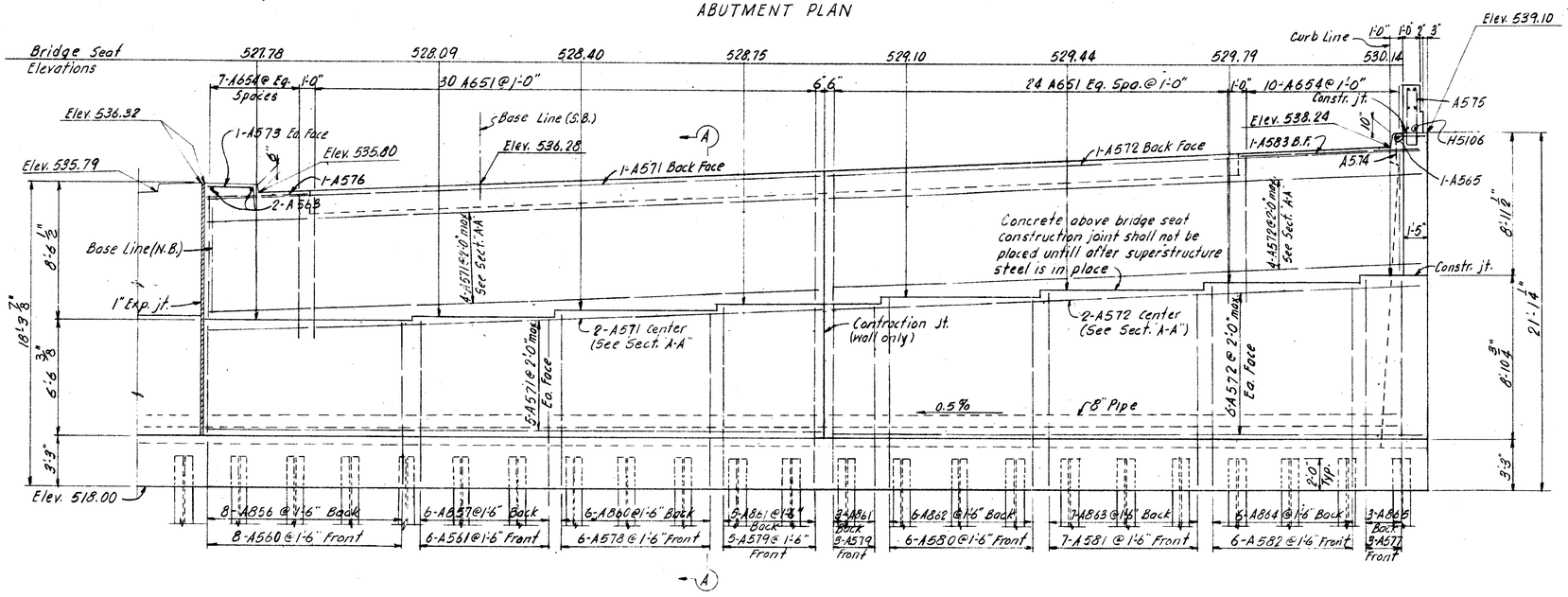
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RAB	R.L.M.F		RSE RLC 3-10-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

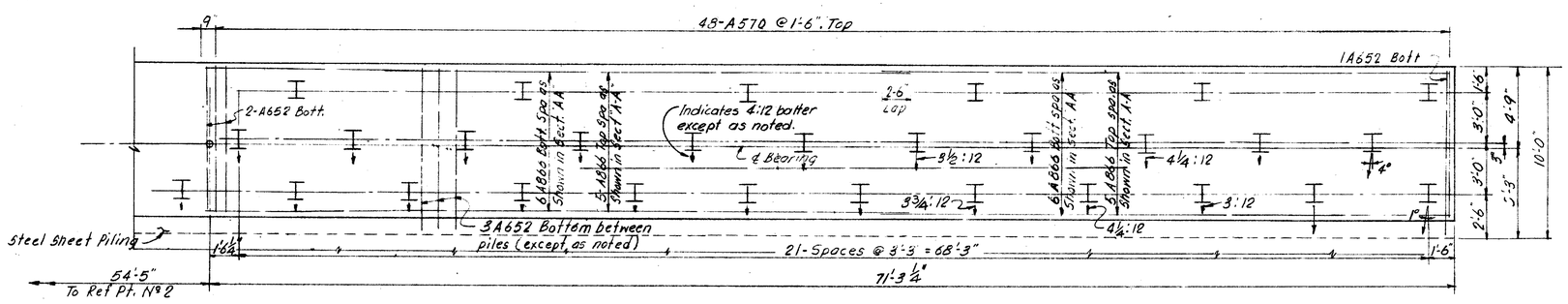
126
210

HAM-71-1.80

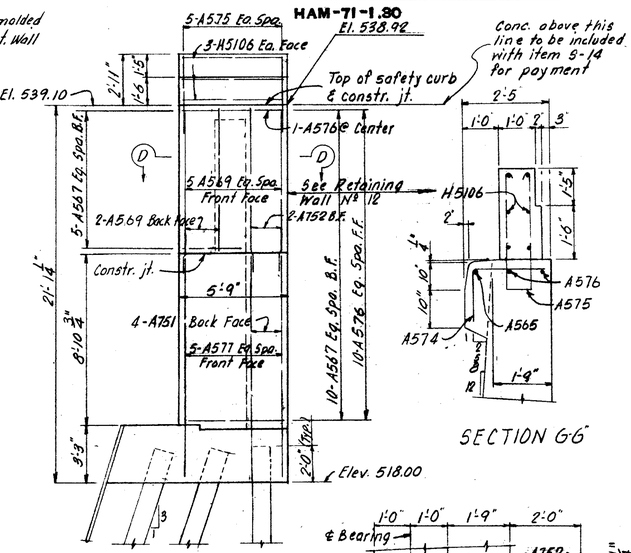


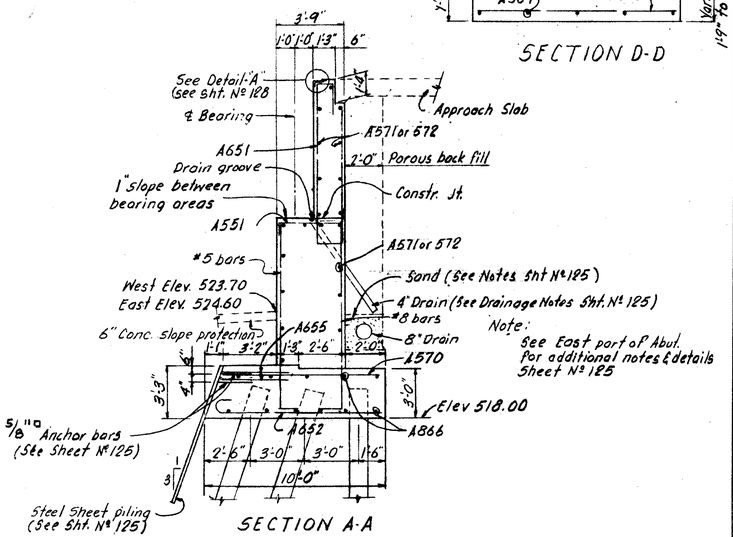


FRONT ELEVATION



FOOTING PLAN





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SOUTH ABUTMENT A

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RAB	R.L. McF		REE RLC 3-10-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

127
210

HAM-71-1.80

MICROFILMED
OCT 15 1982

ABUTMENT PLAN

WING WALL ELEVATION

SECTION "B-B"

ANCHOR BOLT SETTING PLAN

Note - Anchor bolts to be set before structural steel is placed.

FRONT ELEVATION

FOOTING PLAN

SECTION "A-A"

SECTION "C-C"

Notes:

Special care shall be taken in placing steel in abutment bridge seat so that it will not interfere with masonry plate anchor bolts.

Provide 3" clearance to reinforcing steel in footing and 2" clearance to reinforcing steel in wall, minimum.

For detail of contraction joint see sht. No 128

For detail of expansion joint see sht. No 128

For railing details see Ohio Std. Drwg. AR-1-57

For roadway & curb end finish details see sht. No 167 & 168

F.F. denotes front face, B.F. denotes back face.

8" drain to be bituminous coated helical perforated corrugated metal pipe [Sec. M-6.4 (h-c)] connect to roadway drainage.

4" W.I. pipe 6'-0" long located between bearing areas as shown in plan included with Abut. Conc. for Payment.

Send meeting requirements of Sec. M-2.1. Payment included in price bid for 8" drain.

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CINCINNATI, OHIO

SOUTH ABUTMENT B

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	P.L.N.F.		RRK RLC 3-10-65	JHS 3/22/65	

North Abutment only

Girder	Angle A	c	d	Girder	Angle A	c	d
A	89°-23'-46"	5 13/16	7 9/16	H	89°-08'-48"	1/8"	10 1/2
B	89°-23'-46"	1/8	10 1/2	J	89°-04'-55"	3/16	10 1/2
C	89°-23'-46"	1/8"	10 1/2	K	89°-01'-07"	3/16	10 1/2
D	89°-23'-46"	1/8"	10 1/2	L	88°-57'-14"	3/16	10 1/2
E	89°-23'-46"	1/8	10 1/2	M	88°-53'-17"	3/16	10 1/2
F	89°-23'-46"	1/8	10 1/2	N	88°-49'-19"	3/16	10 1/2
G	89°-12'-37"	1/8	10 1/2	P	88°-45'-22"	5 5/16	7 5/8

Notes: Special care shall be taken in placing reinforcement in the Abut. Bridge Seat so that it will not interfere with masonry plate anchor bolts.
For railing details see Ohio Std. Drwg. AR-1-57
Provide 3" clearance to reinforcing steel in footing and 2" clearance to reinforcing steel in wall, minimum.
For roadway and curb end finish details see Sht. Nº 167
Anchor bolts for Girders A & P to be set before Structural Steel is placed as they interfere with Structural Steel

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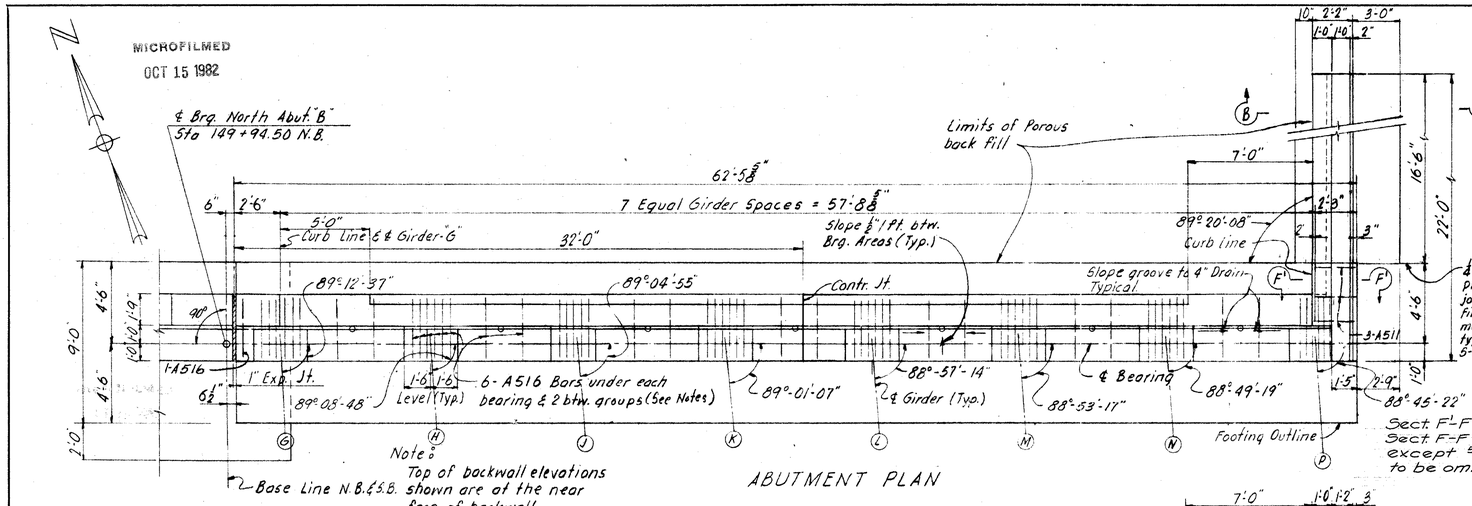
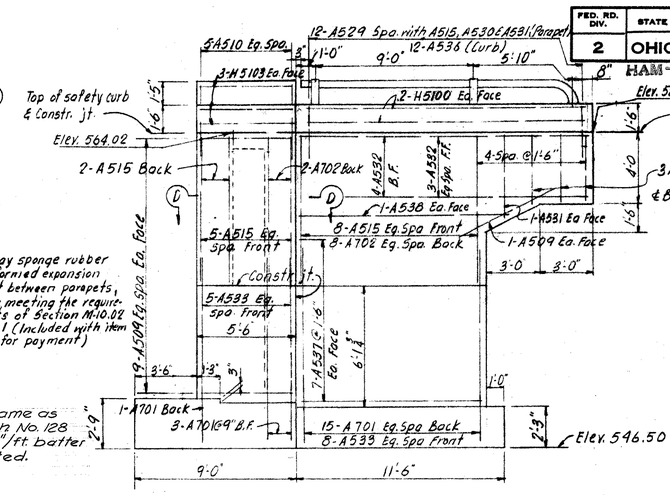
NORTH ABUTMENT

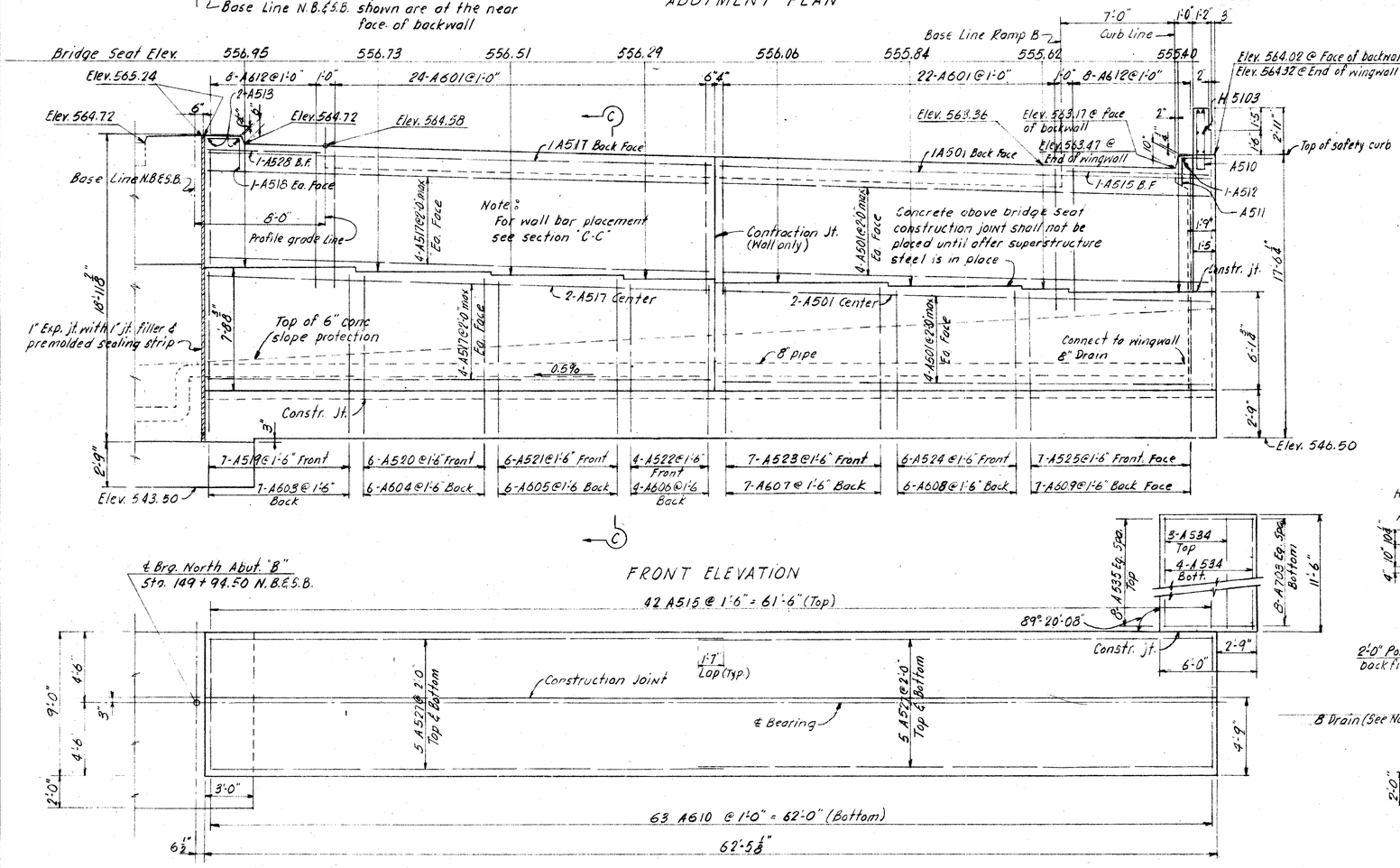
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RDS	R.L. McF 1-15-65		RRK RLC 3-10-65	JHO 3/22/65	

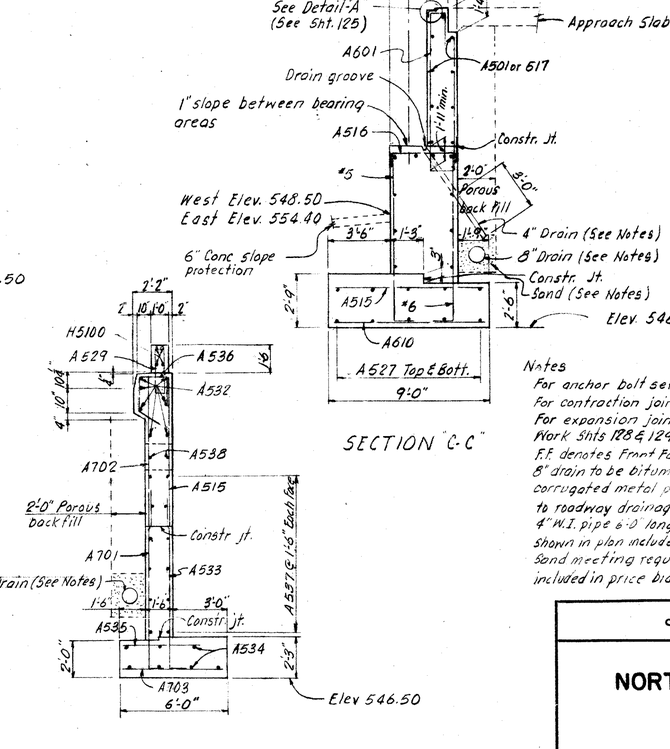
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-71-1.30









Notes
For anchor bolt setting plan see sht. Nº 128
For contraction joint detail see sht Nº 128
For expansion joint detail see Sht Nº 128
Work Shts 128 & 129 together
F.F. denotes Front Face & B.F. denotes Back Face
8" drain to be bituminous coated helical perforated corrugated metal pipe [Sec M-6.4 (h-c)] connect to roadway drainage.
4" W.I. pipe 6'-0" long located between bearing areas as shown in plan included with Abut. Conc. Por. Payment.
Sand meeting requirements of Sec. M-2.1 Payment included in price bid for 8" drain.

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NORTH ABUTMENT

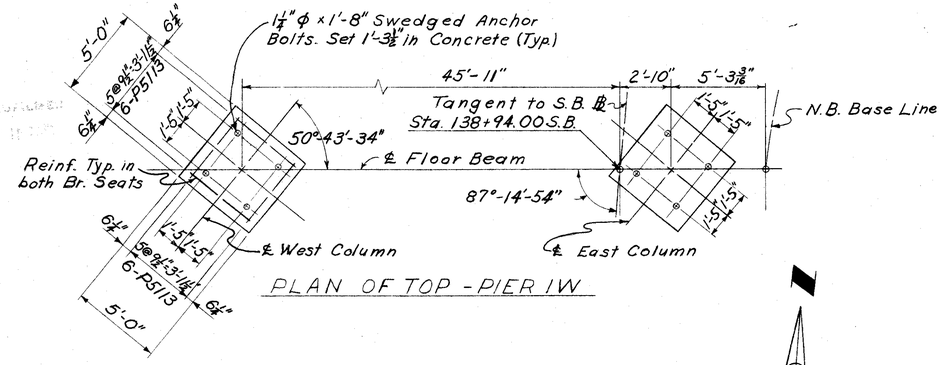
DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
RBS	R.L.M^cF. 1-15-65		R.L.C. R.B.S. 3-10-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

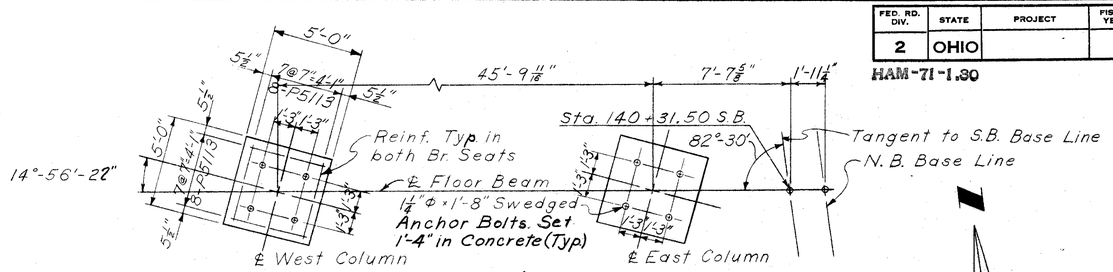
HAM-71-1.30

130
210

MICROFILMED
OCT 15 1982

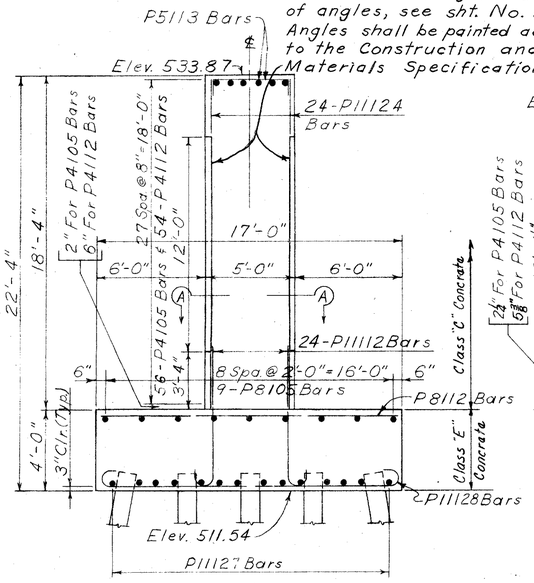


PLAN OF TOP - PIER 1W

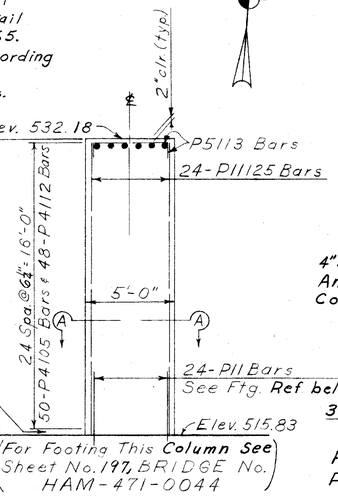


PLAN OF TOP - PIER 2W

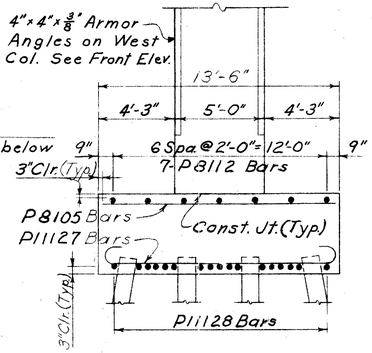
4"x4"x⅜" Armor Angles on all corners of W. Col. only. For detail of angles, see sht. No. 165. Angles shall be painted according to the Construction and Materials Specifications.



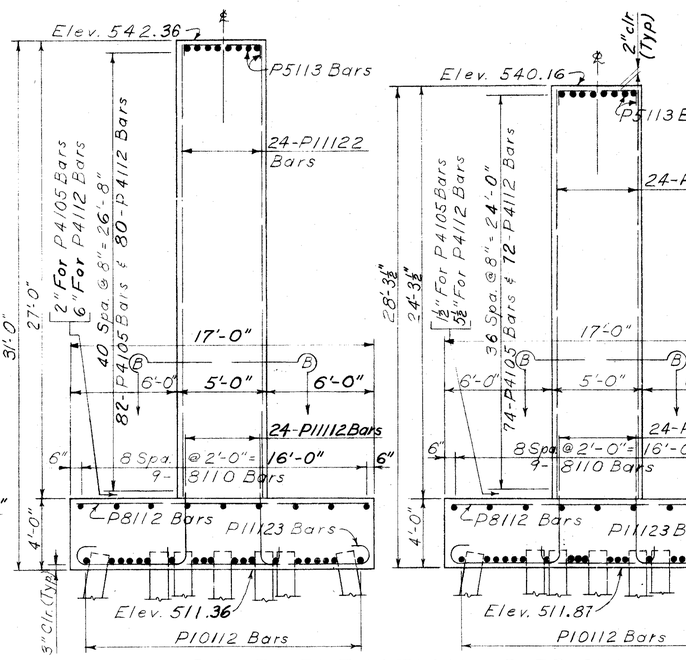
FRONT ELEVATION - PIER 1W



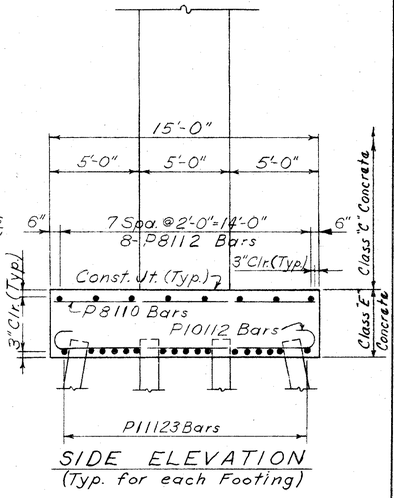
(For Footing This Column See Sheet No. 197, BRIDGE No. HAM-471-0044)



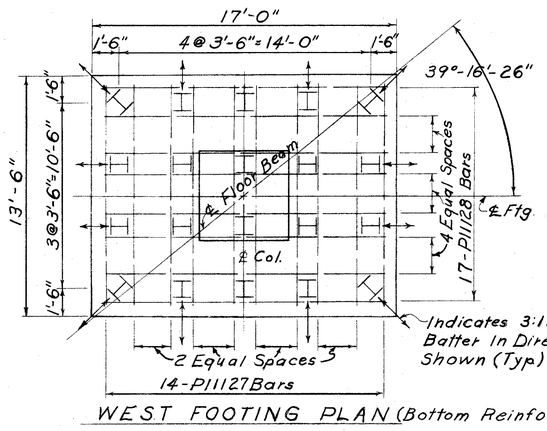
SIDE ELEVATION
(West Column Pier 1W)



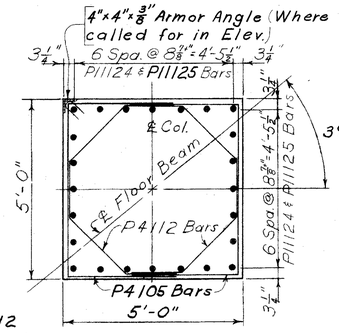
FRONT ELEVATION - PIER 2W



SIDE ELEVATION
(Typ. for each Footing)

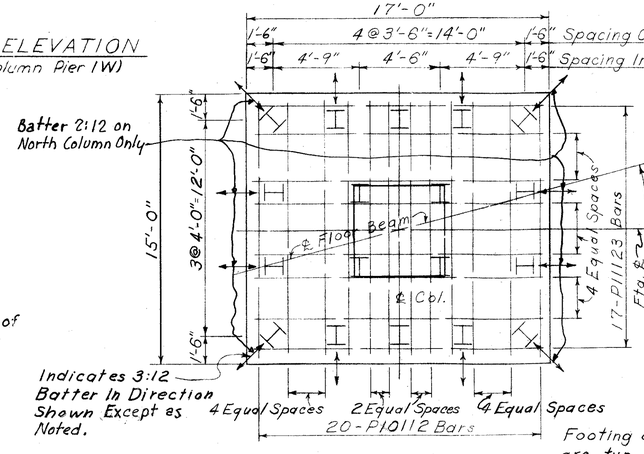


WEST FOOTING PLAN (Bottom Reinforcement Shown)

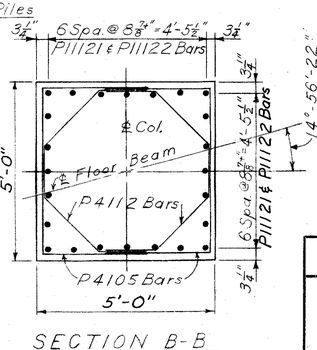


SECTION A-A

Note:
For connection of downspouts see Sht. No. 188



FOOTING PLAN
(Bottom Reinforcement Shown)



SECTION B-B

Footing dimensions and reinf. are typ. for each footing

Notes:
For connection of downspouts see Sht. № 188.
All piles shall be Steel H 12BP53.
Anchor bolts to be set before placing concrete by the use of a template for support.

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PIERS 1W & 2W

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RLC RBS	CKB 1-28-65		RLC 2-3-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-71-1.80

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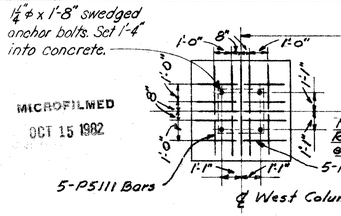
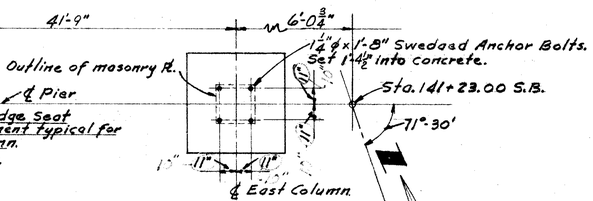
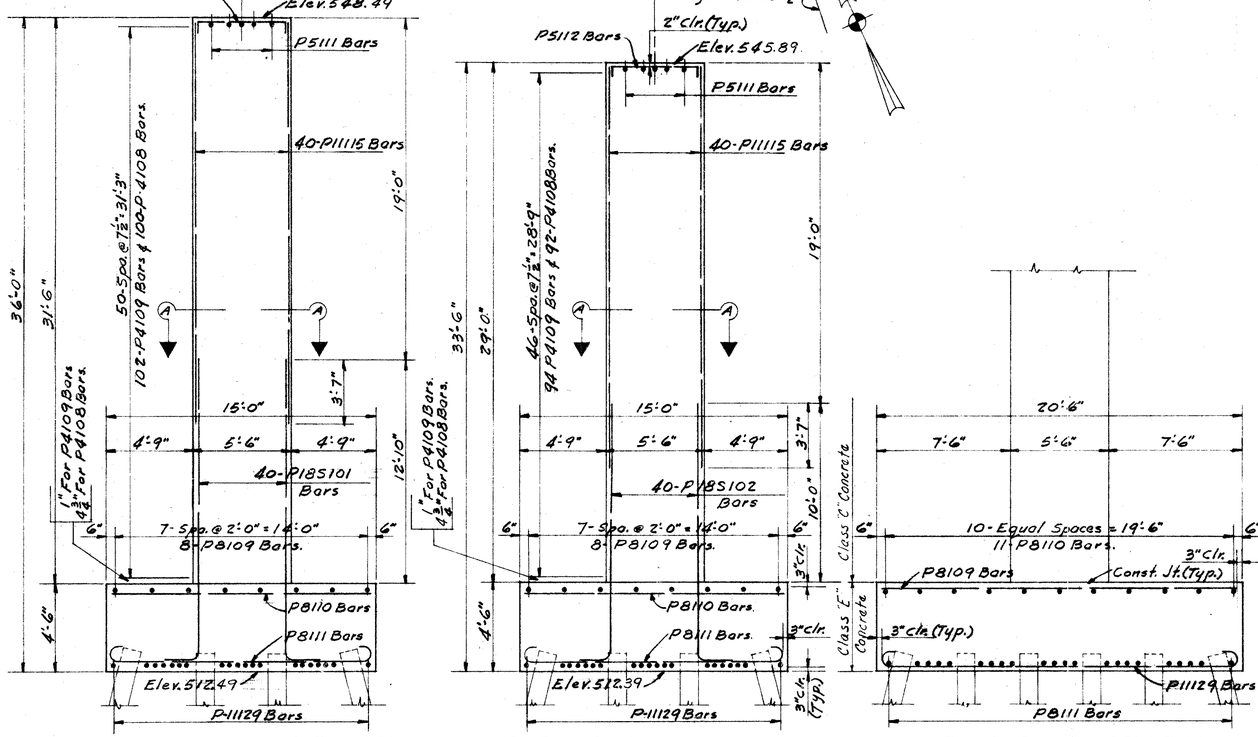
1¼"ϕ x 1'-8" swedged anchor bolts. Set 1'-4" into concrete.



Note:- Bridge Seat Reinforcement typical for each Column.

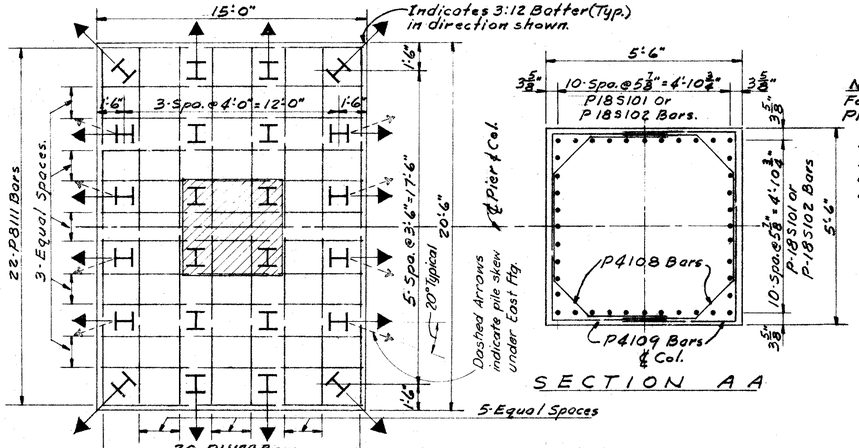


PLAN OF TOP-PIER 3W.



ELEVATION - PIER 3W.

END ELEVATION.
Typical For Each Footing.



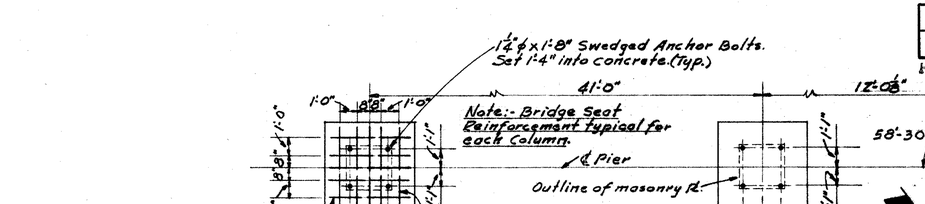
FOOTING PLAN.

Bottom Reinforcement Shown.
Footing dimensions and reinforcement are typical for each footing except as noted.

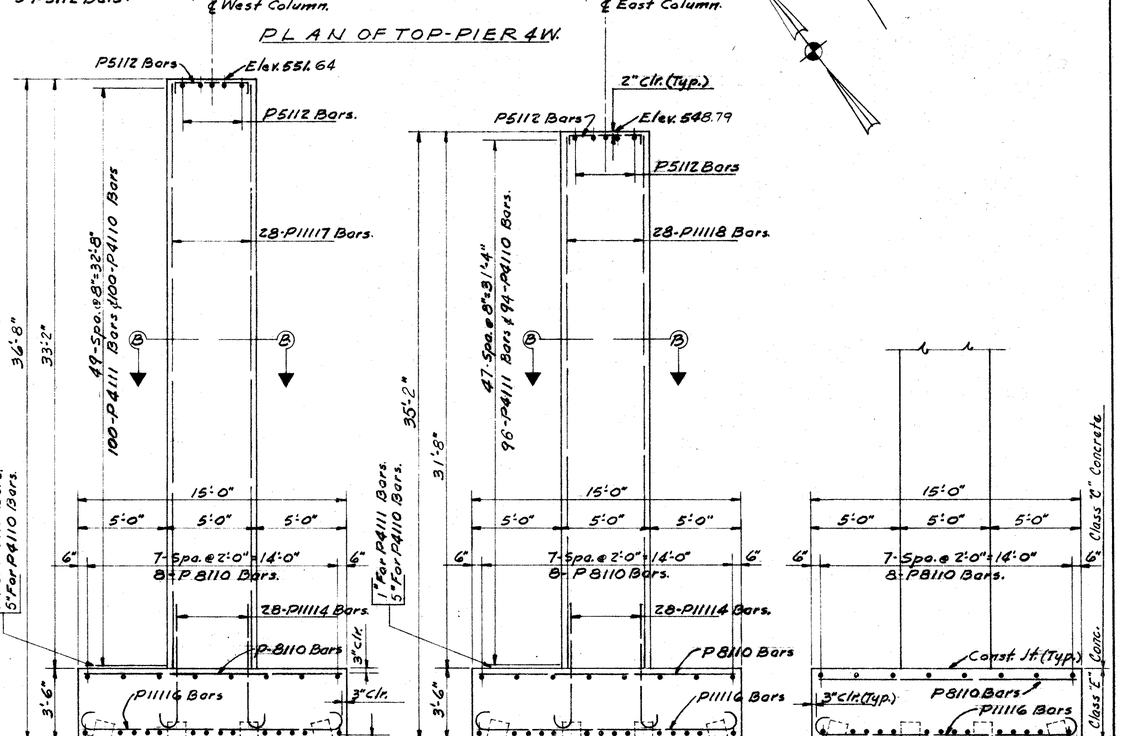
SECTION A A

Note:-
For connection of downspouts to Pier, see sht. no. 188

STRUCTURE GROUNDWIRE in Left footing and column of Pier 3W. See note on sheet 89.

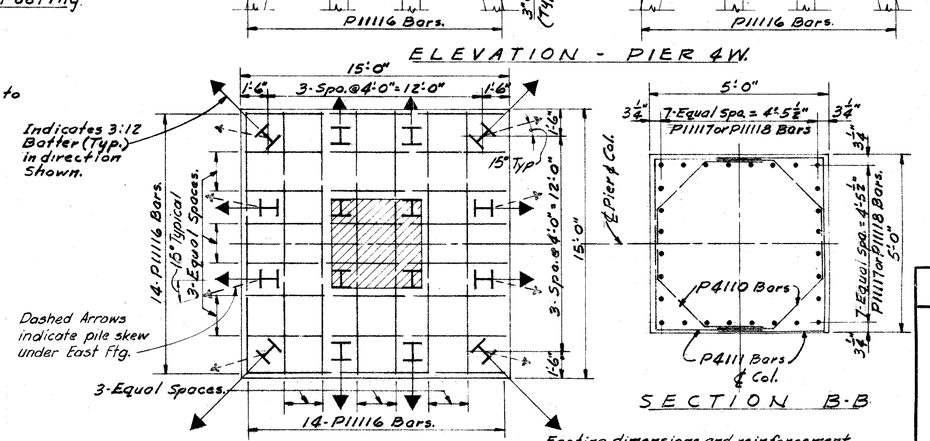


PLAN OF TOP-PIER 4W.



ELEVATION - PIER 4W.

END ELEVATION.
Typical For Each Footing.



FOOTING PLAN.

Bottom Reinforcement Shown
Footing dimensions and reinforcement are typical for each footing except as noted.

SECTION B-B

Note:
All piles shall be steel H 12BP53
For Connection of downspouts to Pier, see sht. No. 188
Anchor bolts to be set before placing concrete by the use of a template for support.

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CINCINNATI, OHIO

PIERS 3W & 4W

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
R.L.C. C.K.B.	L.M.H. 1-22-65		RLC 1-30-65	JHO 3/22/65	5-6-65

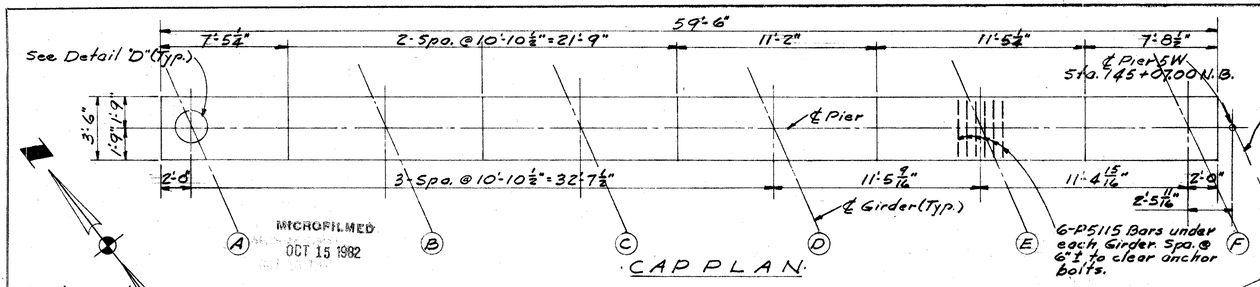
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

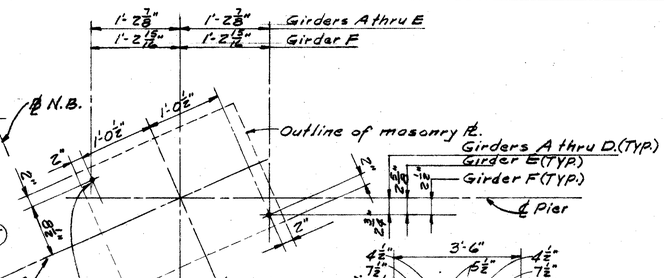
HAM-71-1.80

132/210

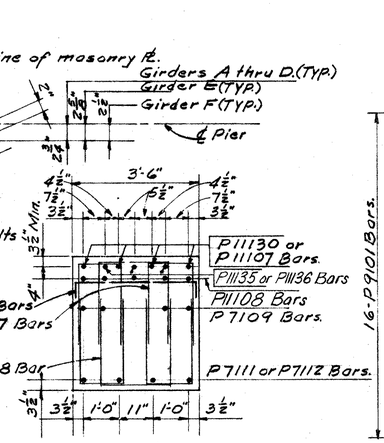
MICROFILMED OCT 15 1982

CAP PLAN

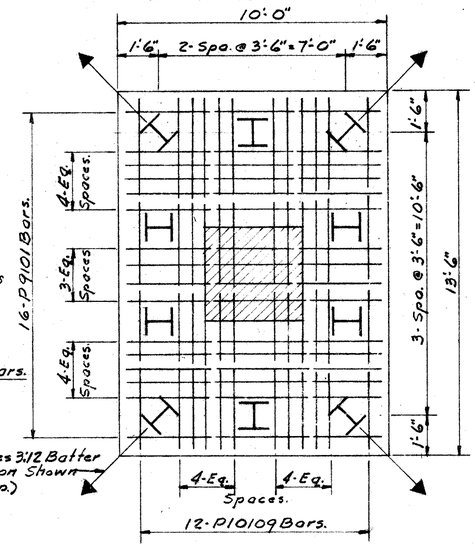




DETAIL "D"



SECTION A-A.

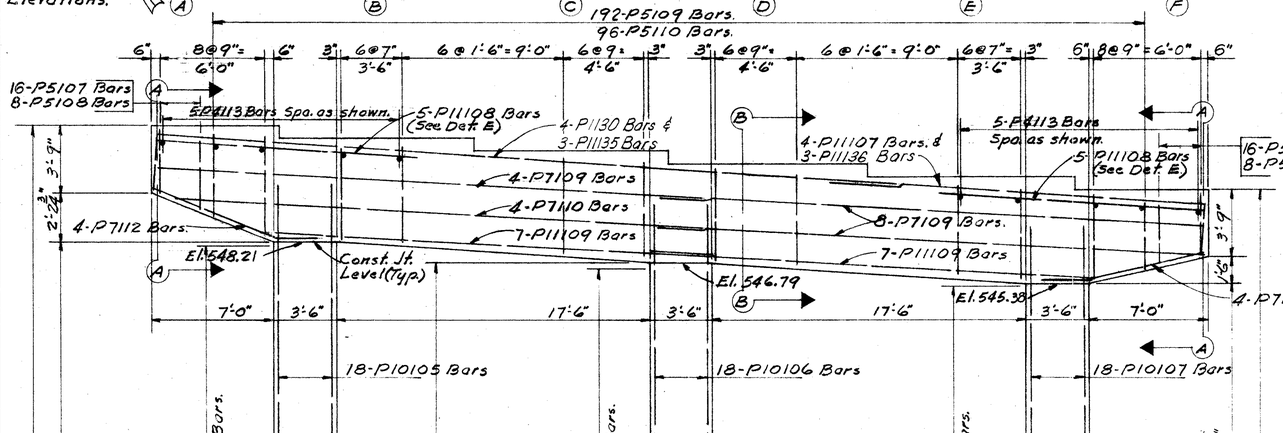


Indicates 3:12 Batter in direction Shown (Typ.)

INTERIOR FOOTING PLAN

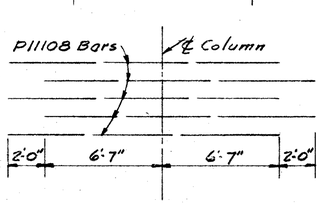
Bottom Reinforcement Shown

Bridge Seat Elevations. 554.19 (A) 553.49 (B) 552.78 (C) 552.07 (D) 551.33 (E) 550.63 (F)

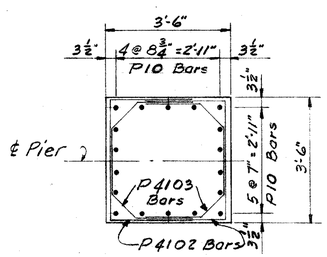


ELEVATION

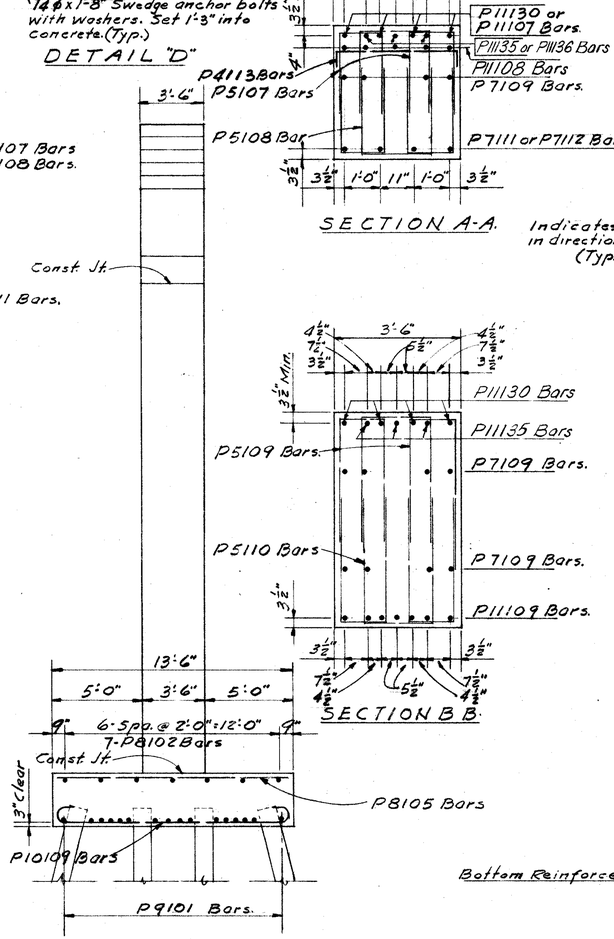
Footing Dimensions and Reinforcement are typical for each footing.



DETAIL E



SECTION C-C



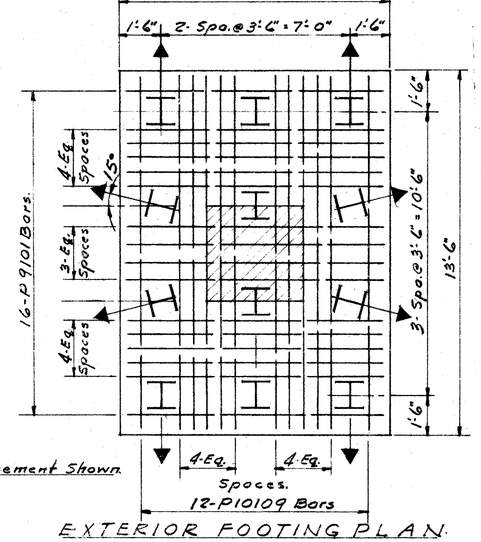
END ELEVATION

Note:

All piles shall be steel H 12BP53

For connection of downspouts to Piers see sht. no. 187

Special care shall be taken in placing steel in the pier cap so that it will not interfere with the drilling of Anchor bolt holes.



Bottom Reinforcement Shown

EXTERIOR FOOTING PLAN

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

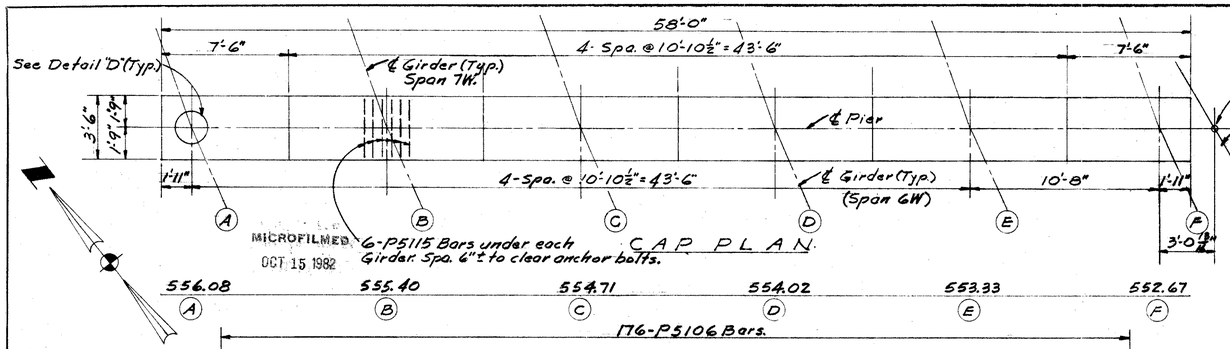
PIER 5W

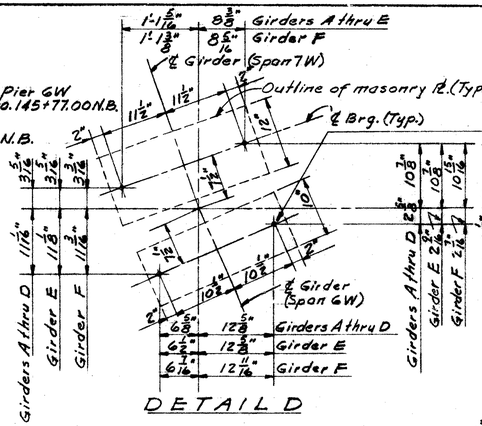
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
CKB	L.M.H. 12-18-64		R.L. 2-8-65	JHO 3/22/65	

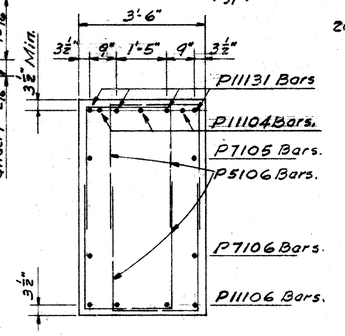
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

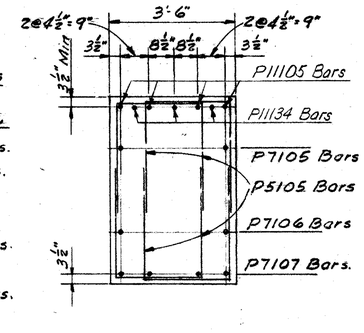
133
210

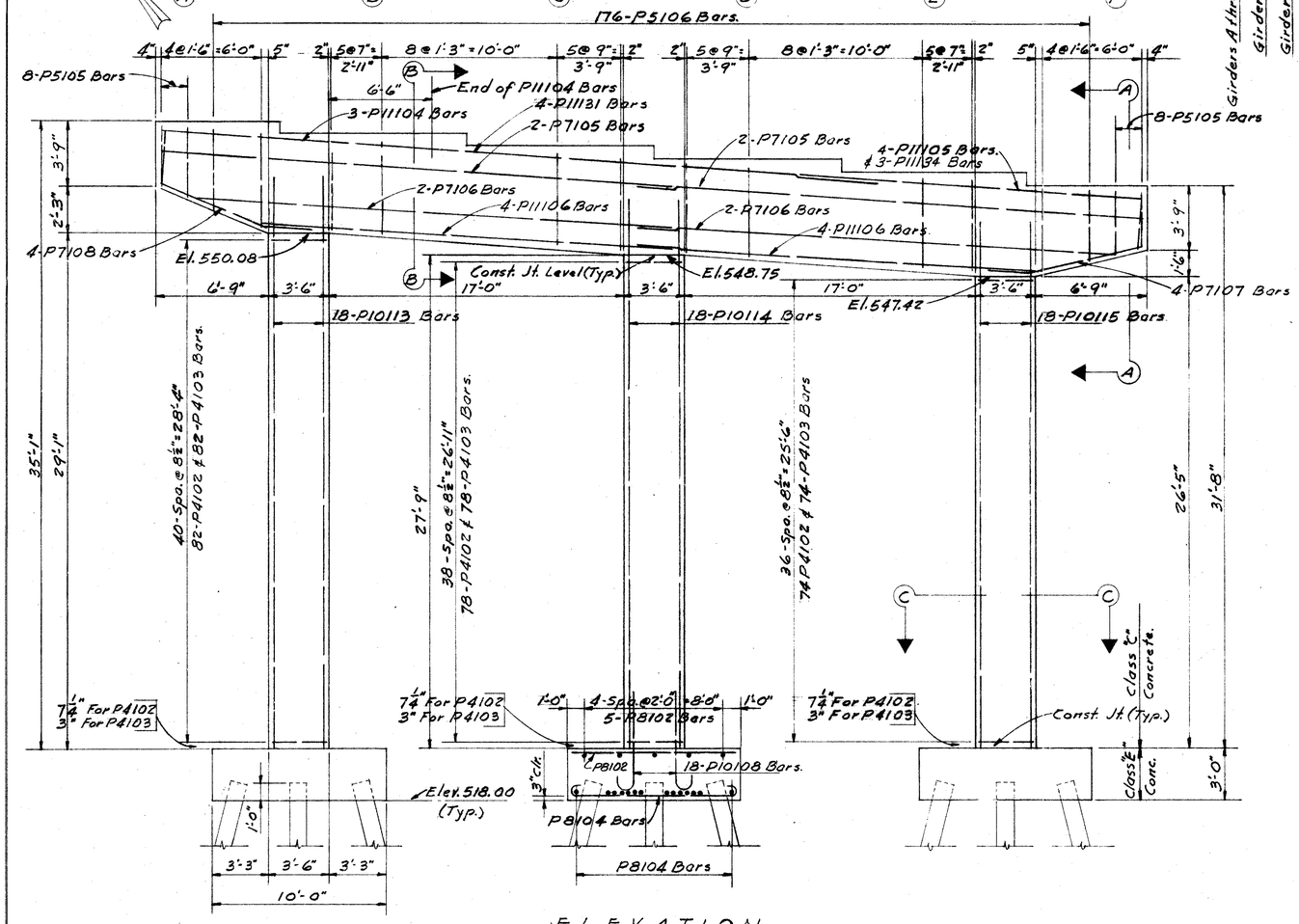
HAM-71-1.80

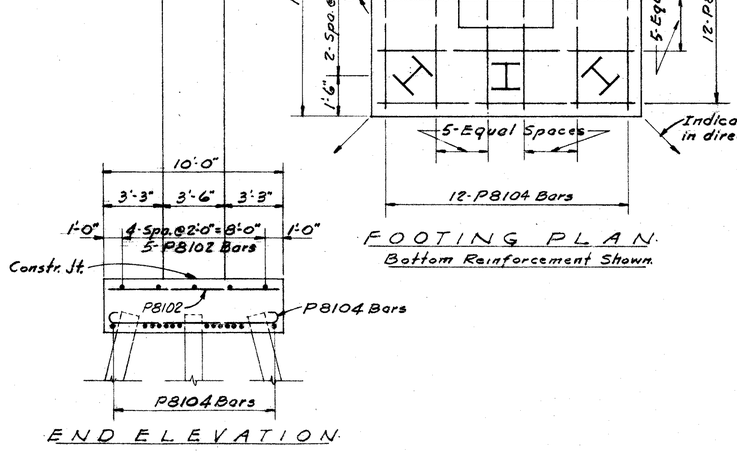


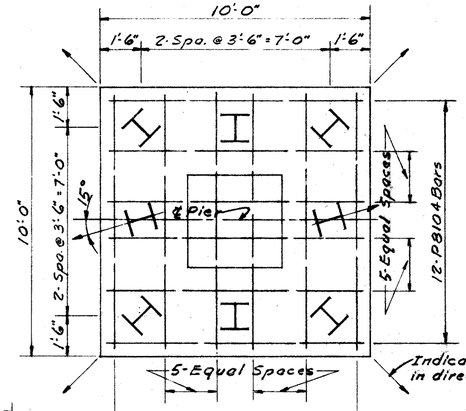


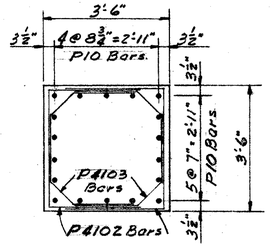












Note:
All piles shall be steel H 12BP53
For connection of downspouts to Piers see sht. no. 187
Special care shall be taken in placing steel in the pier cap so that it will not interfere with the drilling of anchor bolt holes.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER 6W

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DMB	L.M.H. 12-11-64		R.L. 2-4-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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HAM-71-1.30

MICROFILMED OCT 15 1982

CAP PLAN

ELEVATION

FOOTING PLAN

DETAIL "D"

SECTION A-A

FOOTING PLAN
Typical For East Footing.
(Bottom Reinforcement Shown.)

SECTION B-B

ELEVATION
Typical For East Footing.

END ELEVATION
Looking from WEST END.

VIEW E-E

SECTION C-C

Footing Dimensions and Reinforcement are typical for Center & West Footings only.

Bottom Reinforcement Shown.

Note:
Foundation Bearing Pressure:
Pier footings are designed for a maximum bearing pressure of 3.8 tons per sq. ft.

For connection of downspouts to Pier, see sht no. 187

Special care shall be taken in placing steel in the pier cap so that it will not interfere with the drilling of anchor bolt holes.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

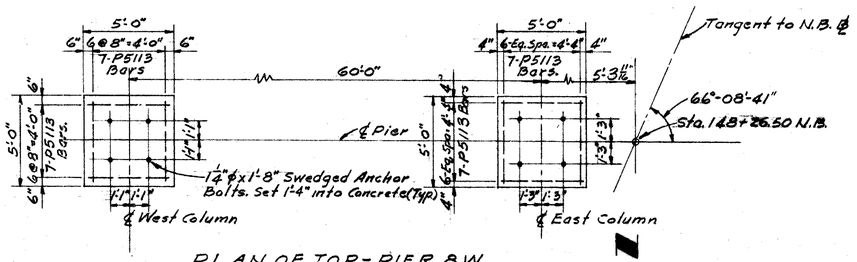
PIER 7W

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
Jag	L.M.H. 1-29-65		R.L. 2-11-65	JHO 3/22/65	

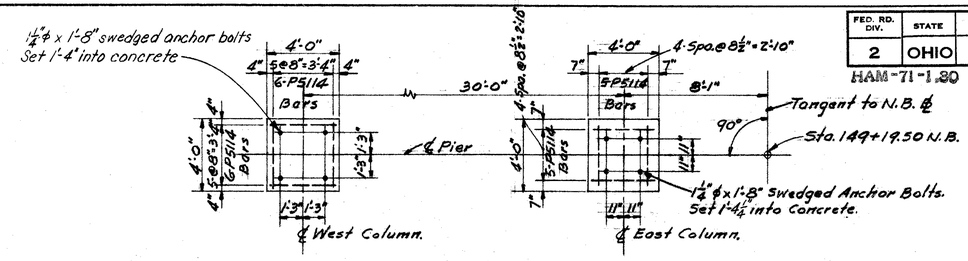
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-71-1.80

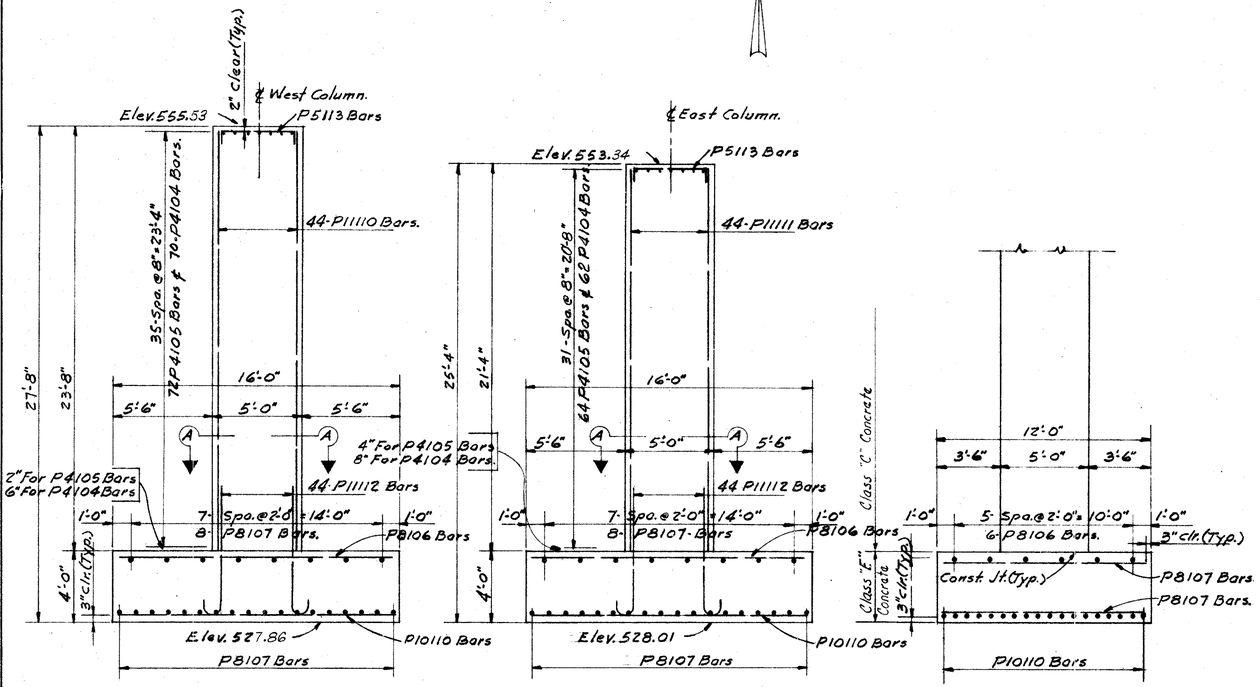
135
210



PLAN OF TOP - PIER 8W

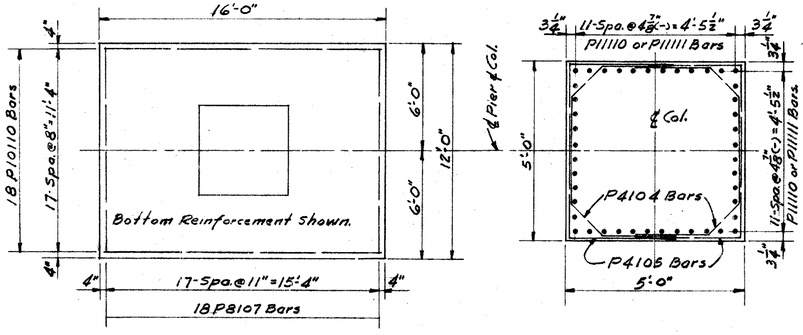


PLAN OF TOP - PIER 9W



ELEVATION - PIER 8W.

END ELEVATION.
Typical for each footing.

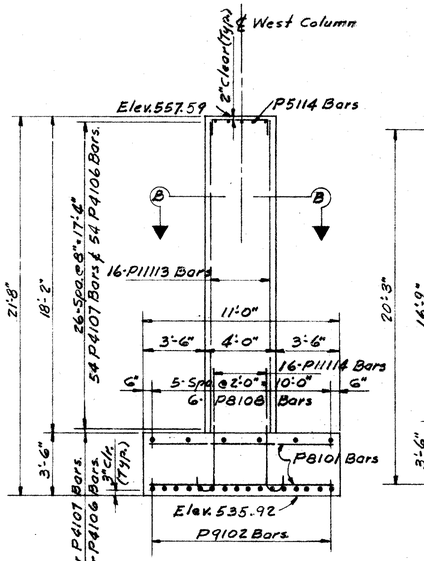


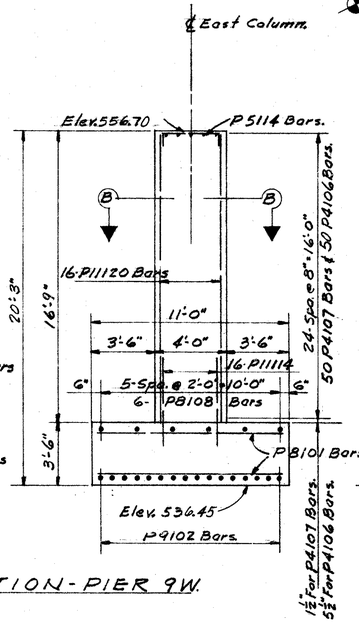
FOOTING PLAN.
Footing Dimensions & Reinforcement are typical for each footing.

SECTION A A

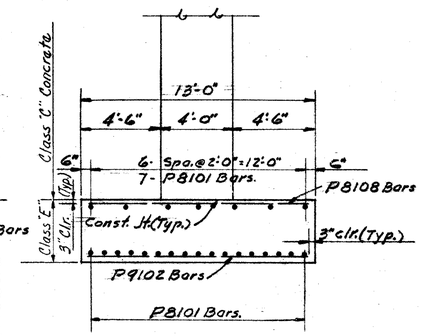
Note:

For connection of downspouts to Pier, see Sheet No. 188
Anchor bolts to be set before placing concrete by the use of a template for support.

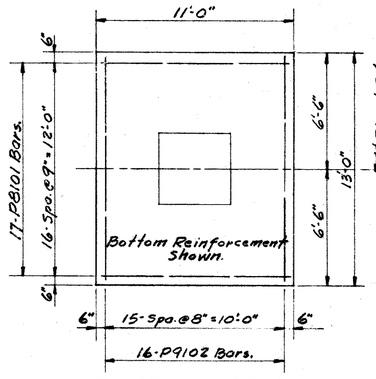




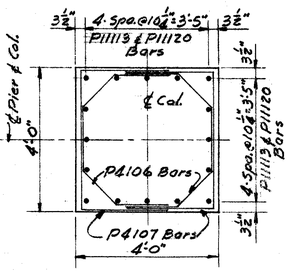
ELEVATION - PIER 9W.



END ELEVATION
Typical for each footing.



FOOTING PLAN.
Footing Dimensions & Reinforcement are typical for each footing.



SECTION B B

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIERS 8W & 9W

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
E.L.W. J.A.G.	L.M.H. 1-28-65		R.L.C. 2-3-65	J.H.O. 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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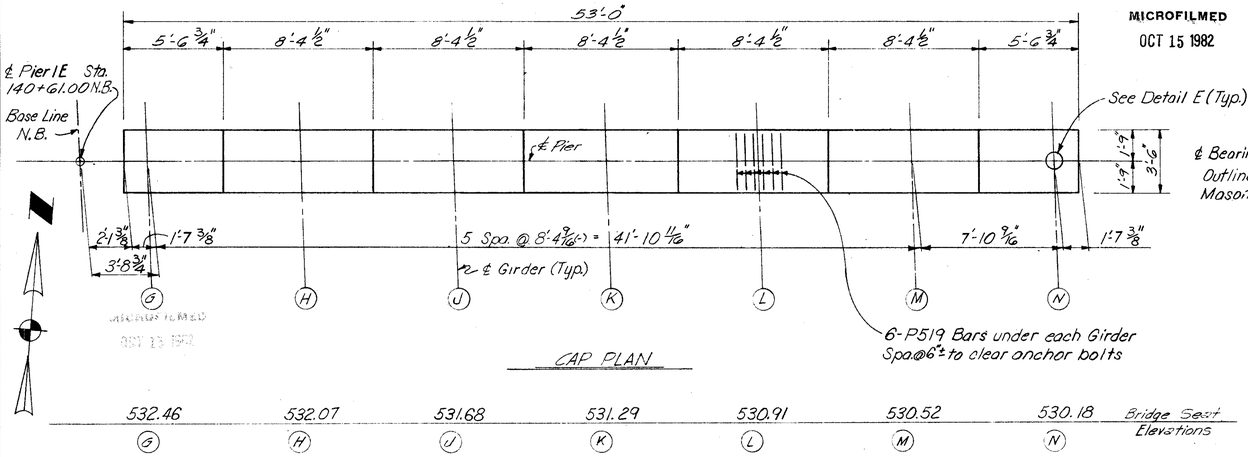
210

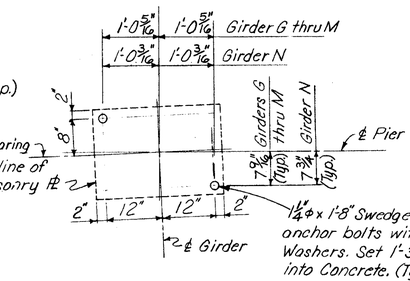
HAM-71-1.80

MICROFILMED
OCT 15 1982

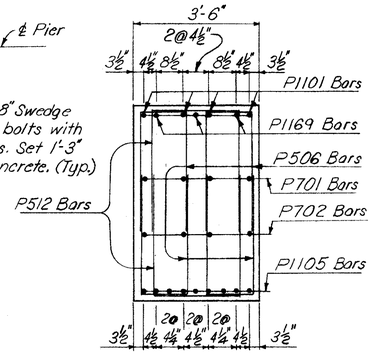


CAP PLAN

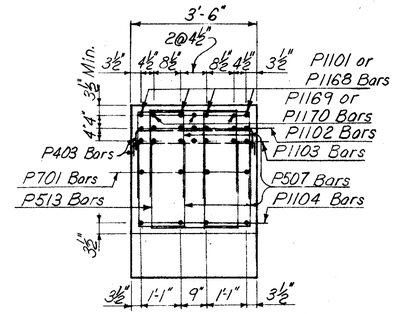
532.46 (G) 532.07 (H) 531.68 (J) 531.29 (K) 530.91 (L) 530.52 (M) 530.18 (N) Bridge Seat Elevations



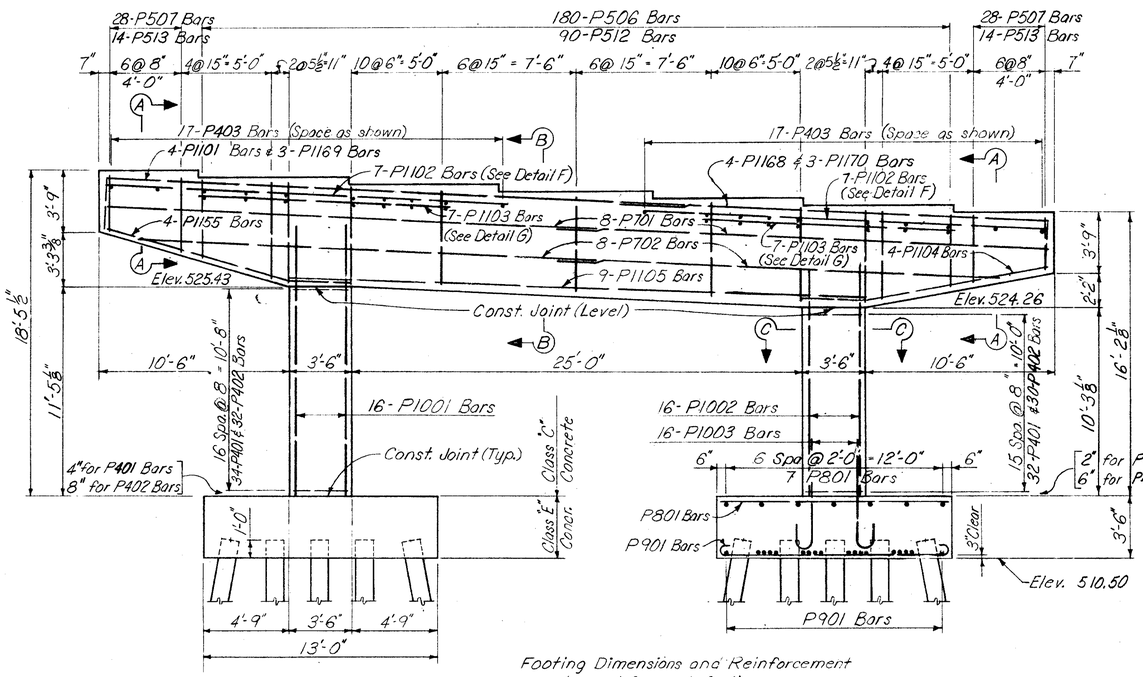
DETAIL E



SECTION B-B

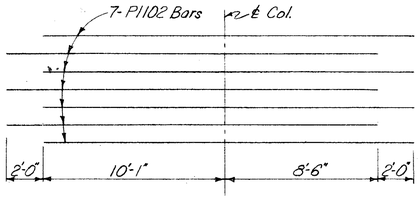


SECTION A-A

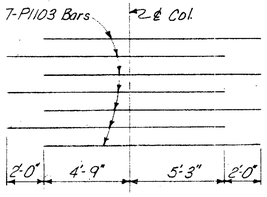


Footing Dimensions and Reinforcement are typical for each footing

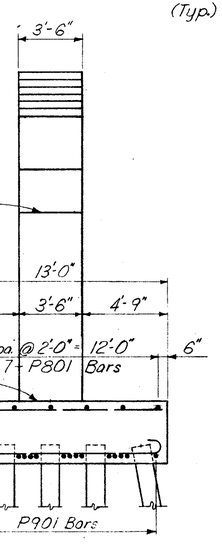
ELEVATION



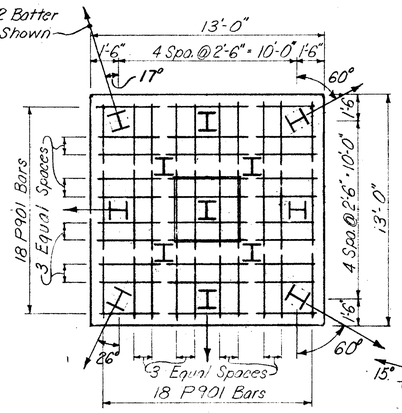
DETAIL F
(Drawn for W. Col., E. Col. opposite hand)



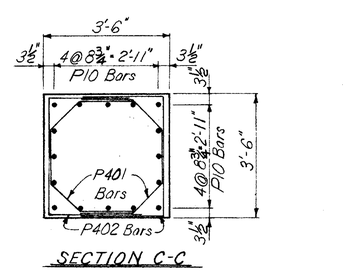
DETAIL G
(Drawn for W. Col., E. Col. opposite hand)



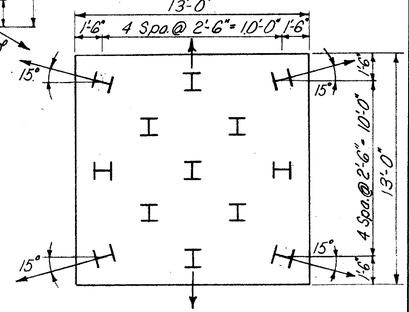
END ELEVATION



WEST FOOTING PLAN
(Bottom Reinforcement Shown)



SECTION C-C



EAST FOOTING PLAN
Reinforcement same as West Footing

Notes:
All piles shall be Steel H 12 BP53

For connection of downspouts to Pier, see sh. No. 187

Special care shall be taken in placing steel in the pier cap so that it will not interfere with the drilling of anchor bolt holes.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER IE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RBS	WRT 1-15-65		E.L. 2-1-65	JJH 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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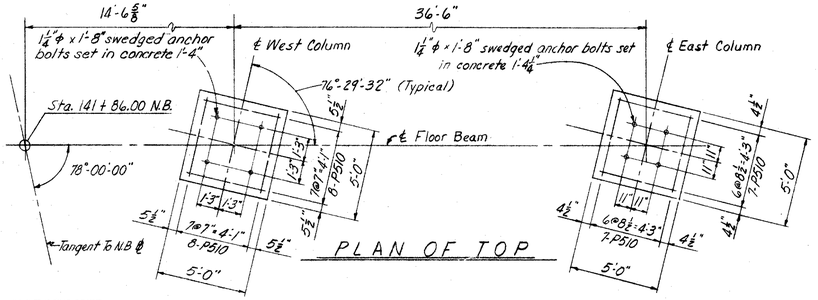
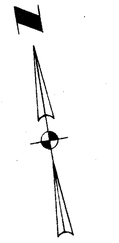
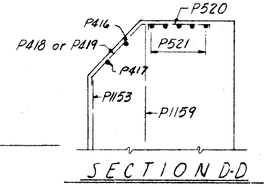
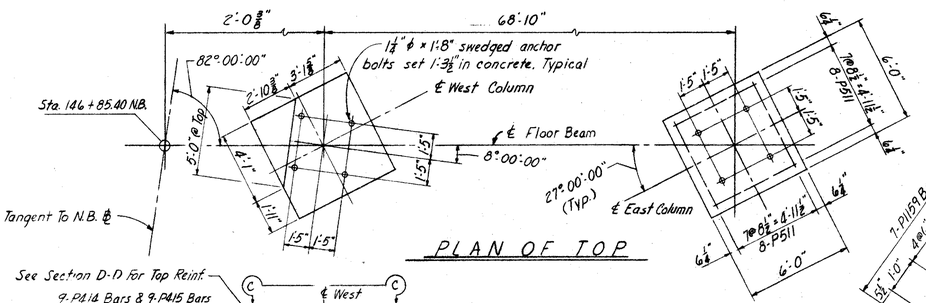
210

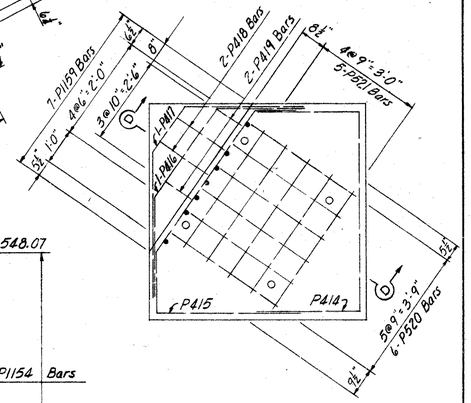
HAM-71-1.30

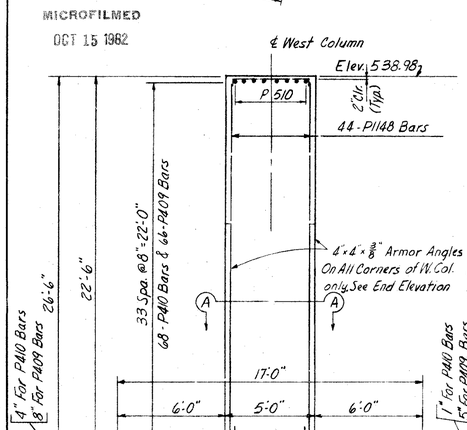


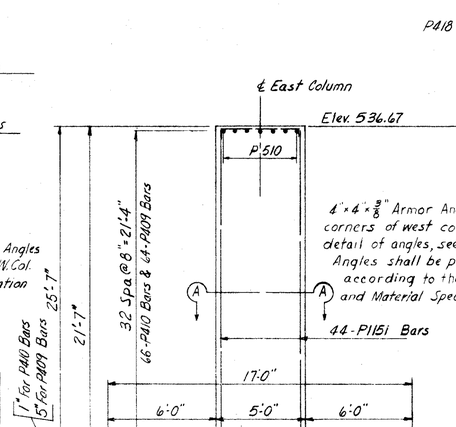


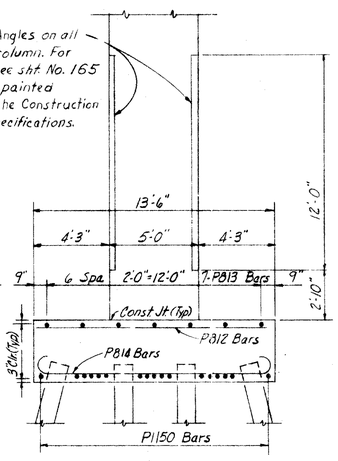


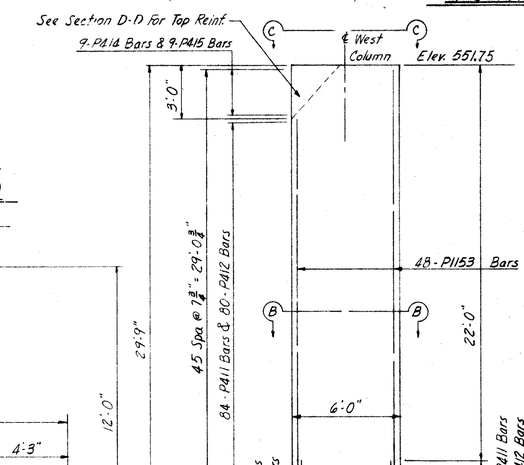


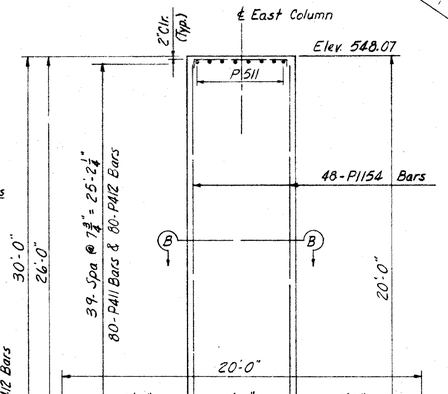


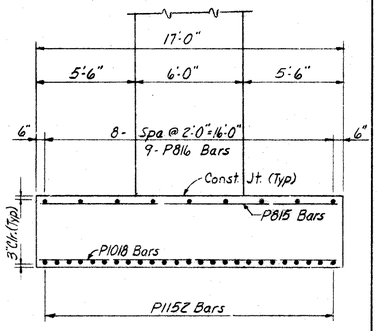


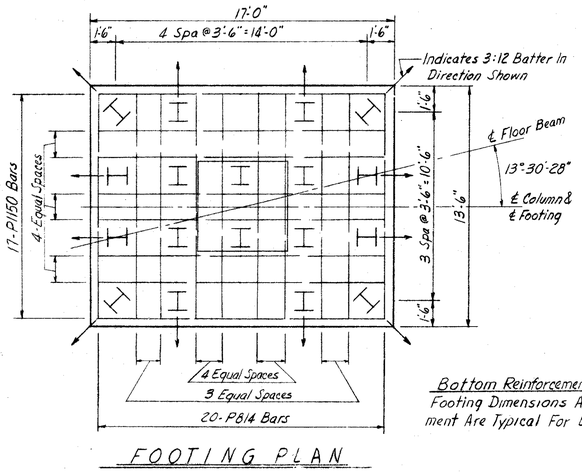




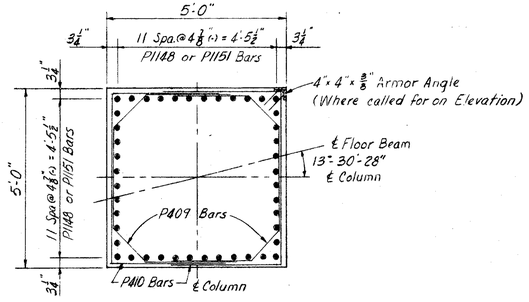




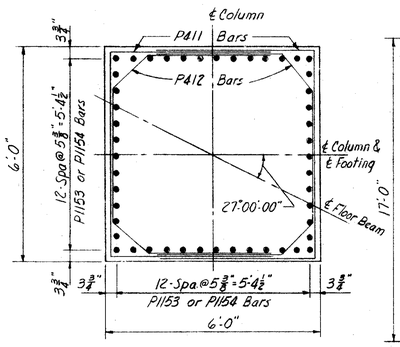


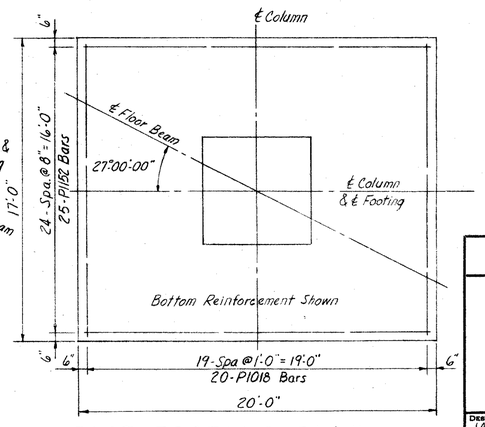


Bottom Reinforcement Shown
Footing Dimensions And Reinforcement Are Typical For Each Footing.



NOTE:
All piles shall be steel H 12BP53
For connection of downspouts see sht No. 188
Anchor bolts to be set before placing concrete by the use of a template for support.





HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIERS 2E & 7E

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
JAG	DMB		RLC	JHO	
RLC	1-27-65		2-3-65	3/22/65	

HAM-71-1.80

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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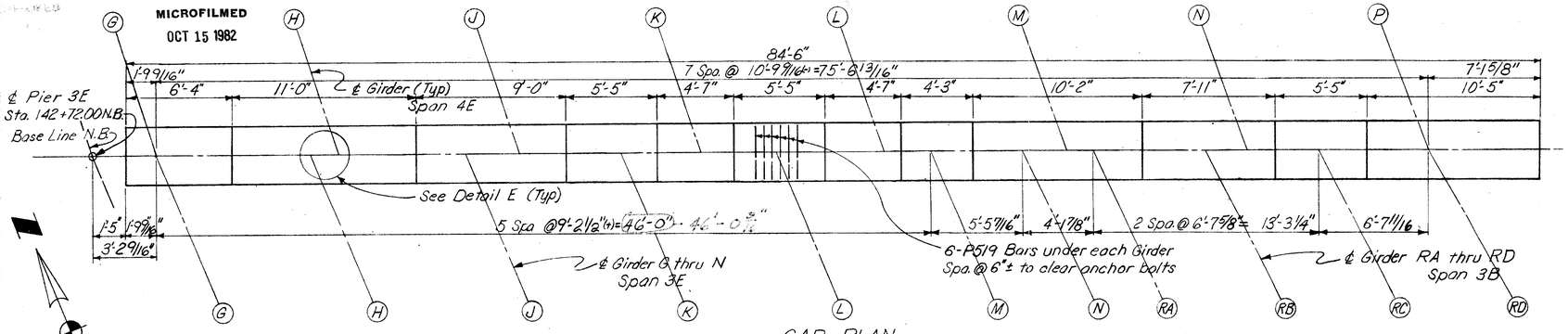
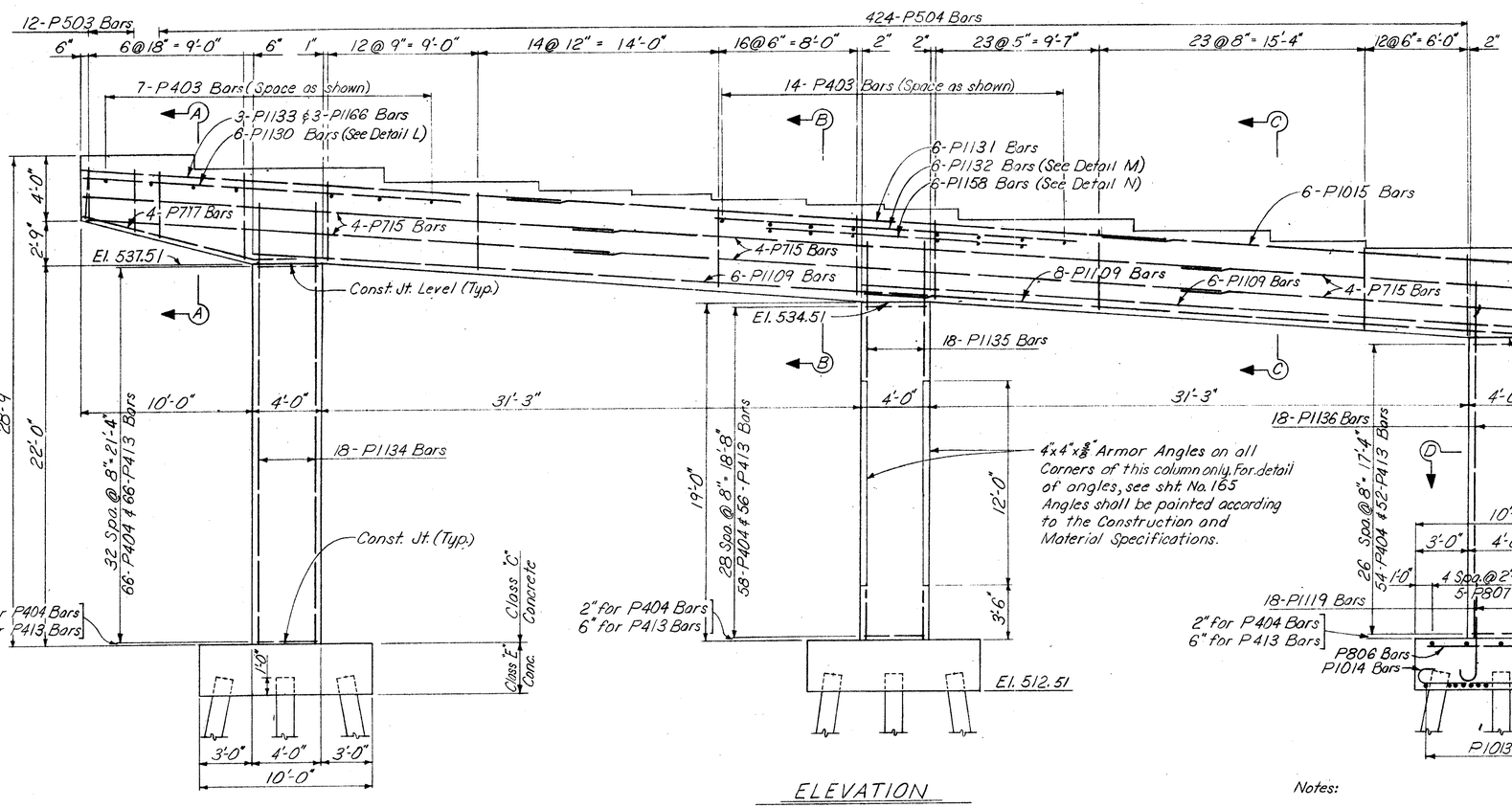


CAP PLAN

544.26	543.54	542.73	542.19	541.92	541.50	541.12	540.81	539.92	539.37	538.82	538.26	Bridge Seat Elevations
G	H	J	K	L	M	N RA	RB	RC	P	Span 4E
G	H	J							RD	Span 3E or 3B



ELEVATION

Notes:

All piles shall be Steel H 12BP53
For connection of downspouts to Pier, see sh. No. 187
Anchor rods to be set before placing concrete by the use of a template for support.

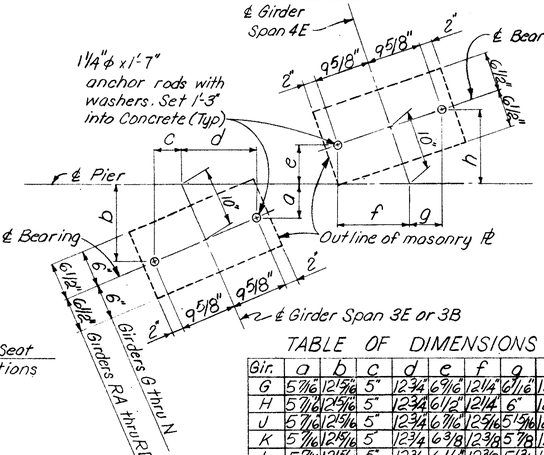
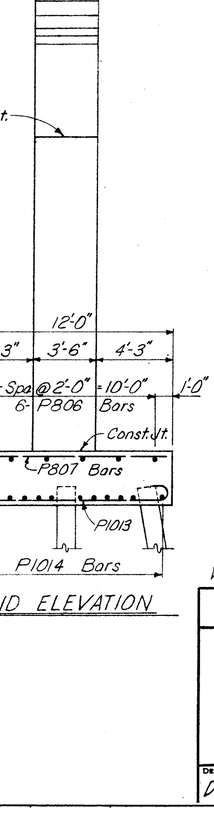


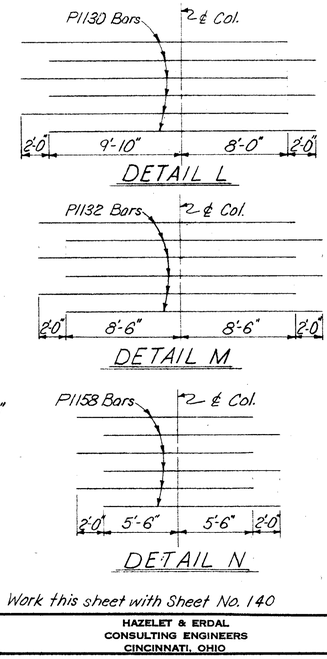
TABLE OF DIMENSIONS

Gir.	a	b	c	d	e	f	g	h
G	5 11/16	12 5/16	5"	12 3/4	6 9/16	12 1/4	6 1/16	12 1/2
H	5 11/16	12 5/16	5"	12 3/4	6 1/2"	12 1/4	6"	12 1/2
J	5 11/16	12 5/16	5"	12 3/4	6 9/16	12 5/16	5 15/16	12 7/16
K	5 11/16	12 5/16	5"	12 3/4	6 3/8	12 3/8	5 7/8	12 7/16
L	5 11/16	12 5/16	5"	12 3/4	6 1/4"	12 3/8	5 13/16	12 5/8
M	5 11/16	12 5/16	5"	12 3/4	6 1/16	12 1/16	5 11/16	12 5/8
N	4 7/8	13 3/16	4 3/8	13"	6 1/8"	12 1/2	5 7/8	12 11/16
P	—	—	—	—	6"	12 1/2	5 1/2	12 3/4
RA	4 15/16	13 1/8	4 7/16	13"	—	—	—	—
RB	4 9/16	13 1/4	4 1/16	13 1/8	—	—	—	—
RC	4 1/4	13 3/8	3 3/4	13 3/16	—	—	—	—
RD	3 15/16	13 7/16	3 7/16	13 5/16	—	—	—	—

DETAIL E



END ELEVATION



Work this sheet with Sheet No. 140

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

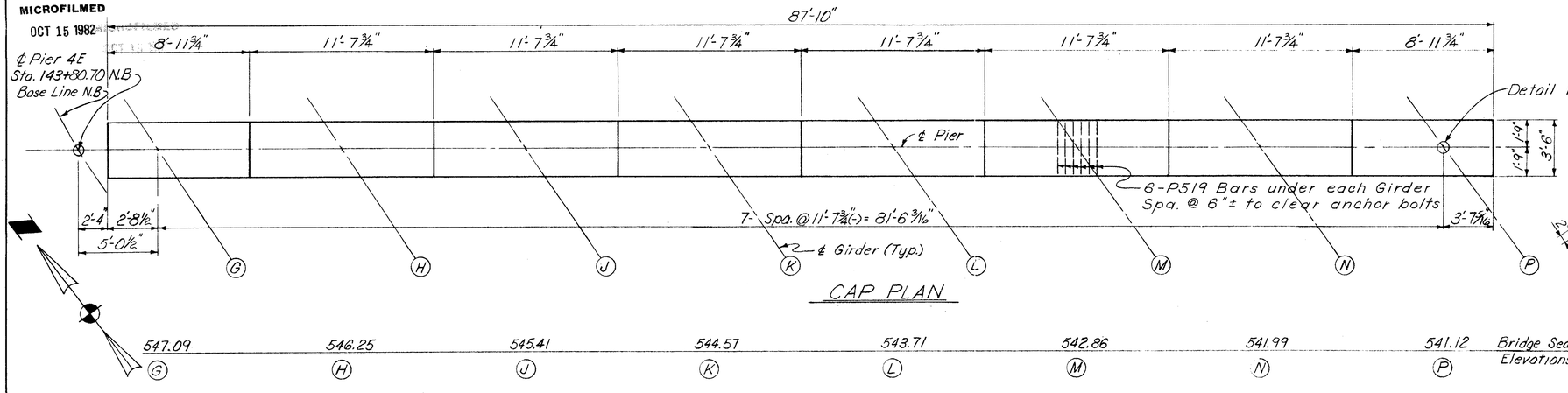
PIER 3E

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DMB	WRT 11-27-64		2-8-65	3/22/65	1-21-72

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

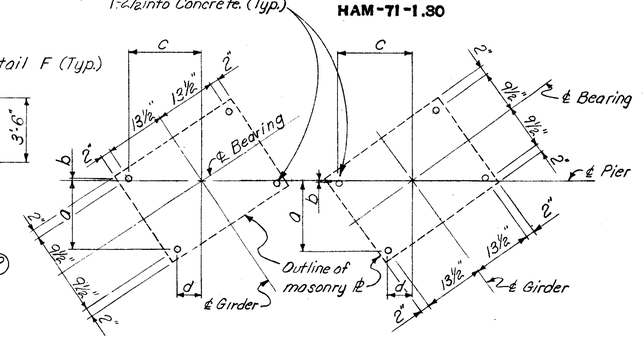
HAM-71-1.80

139
210



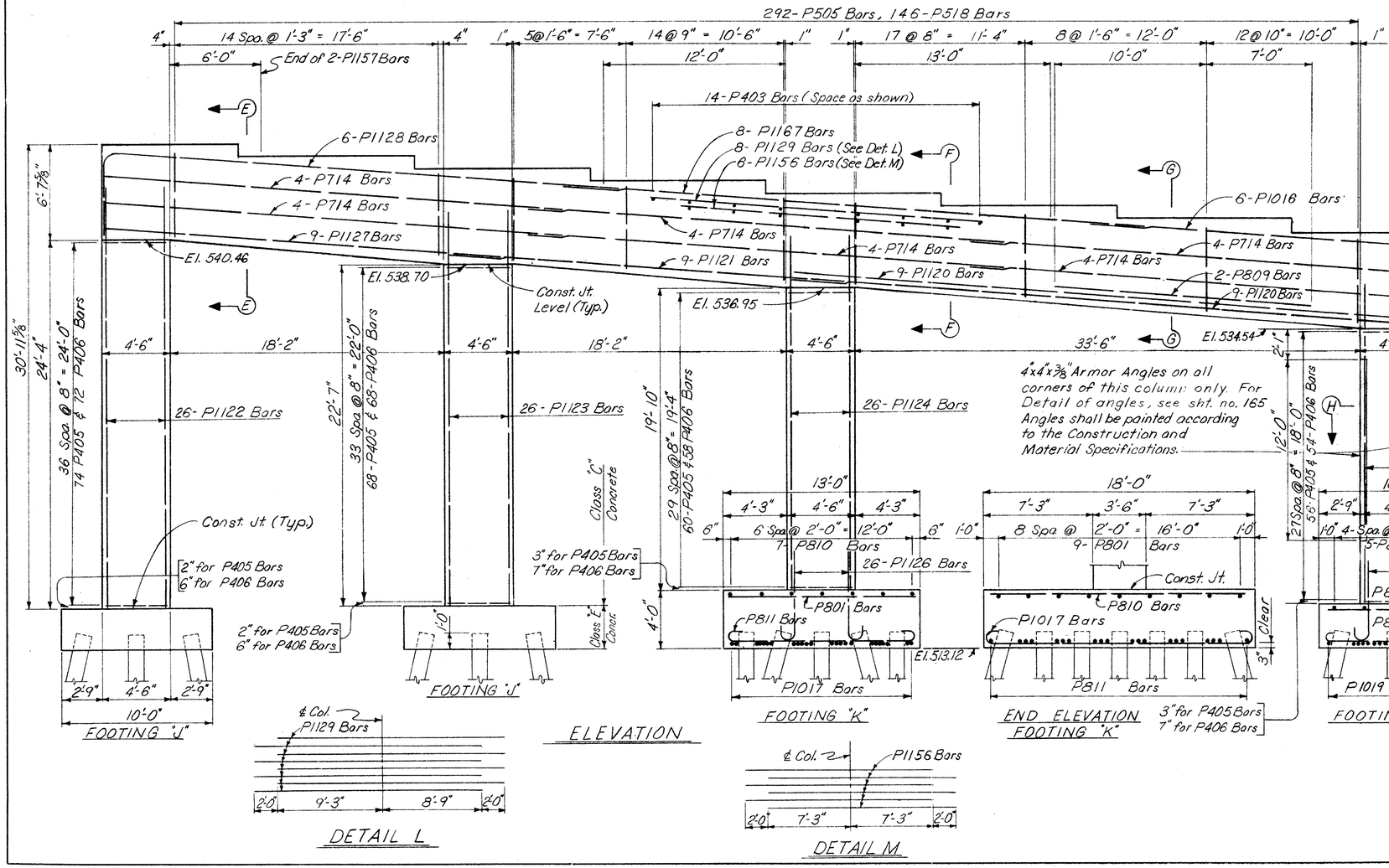
CAP PLAN

G	H	J	K	L	M	N	P	
547.09	546.25	545.41	544.57	543.71	542.86	541.99	541.12	Bridge Seat Elevations



SHOWING GIRDERS G THRU M

SHOWING GIRDERS N & P



DETAIL L

DETAIL M

DETAIL F

TABLE OF DIMENSIONS

Girder	Dimensions			
	a	b	c	d
G	1'-3⅜"	½"	1'-4½"	6 1/16"
H	1'-3⅜"	7/16"	1'-4½"	6"
J	1'-3 7/16"	5/16"	1'-4½"	5 15/16"
K	1'-3 7/16"	¼"	1'-4½"	5 13/16"
L	1'-3½"	⅛"	1'-4½"	5 11/16"
M	1'-3½"	0	1'-4½"	5 5/8"
N	1'-3 9/16"	1/16"	1'-4½"	5½"
P	1'-3⅝"	3/16"	1'-4½"	5 3/8"

Notes:
All piles shall be Steel H 12BP53
For connection of downspouts to Pier, see sh. No. 187
Special care shall be taken in placing steel in the pier cap so that it will not interfere with the drilling of anchor bolt holes.

STRUCTURE GROUND wire in cap, right footing and column, see note on sheet 89.

Work this sheet with sheet No. 140

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

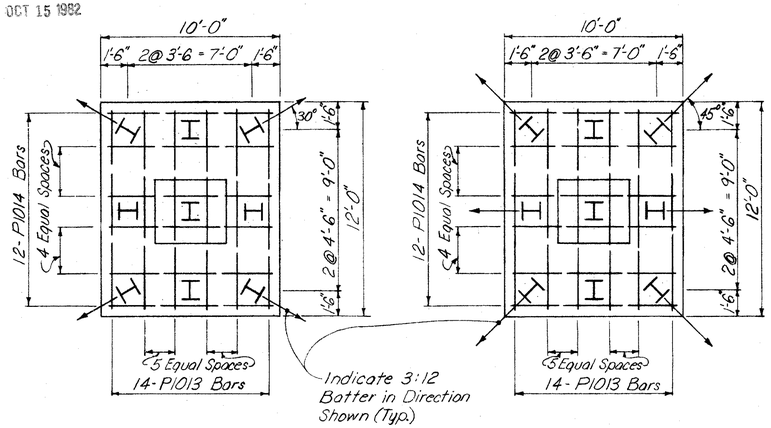
PIER 4E

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DMB CRK	W.R.T. 11-27-64		R.L. 2-8-65	JHo 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-71-1.30

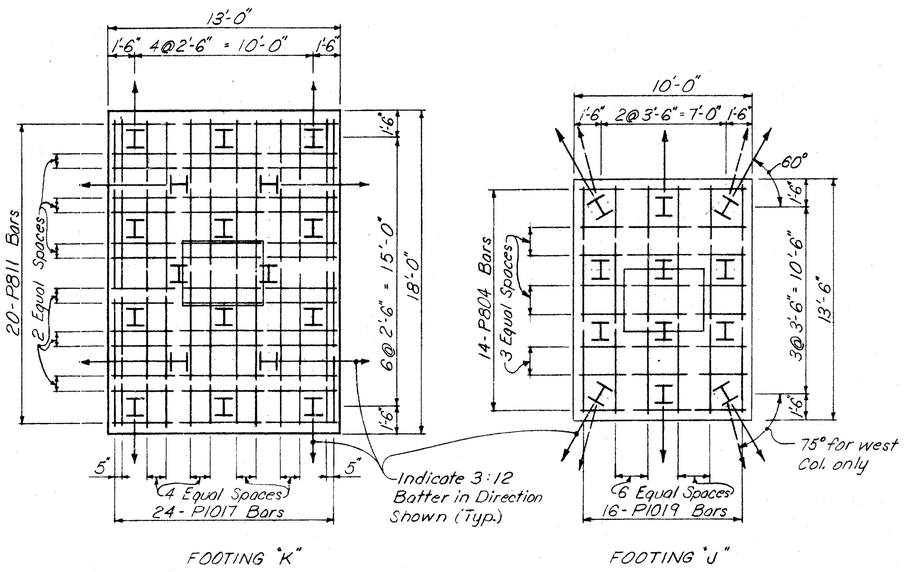
140
210



CENTER FOOTING OUTSIDE FOOTINGS

FOOTING PLAN - PIER 3E

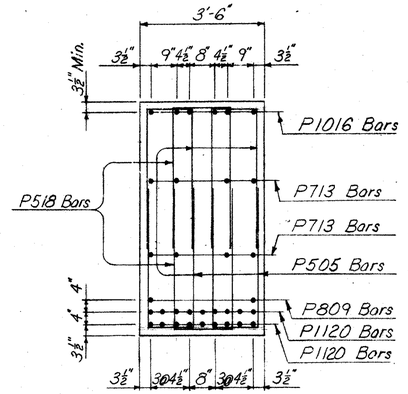
Bottom Reinforcement Shown



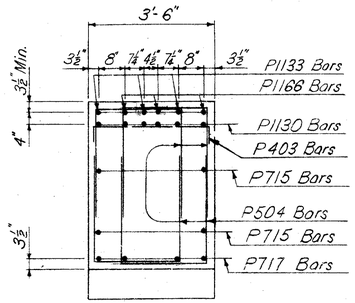
FOOTING "K" FOOTING "J"

FOOTING PLAN - PIER 4E

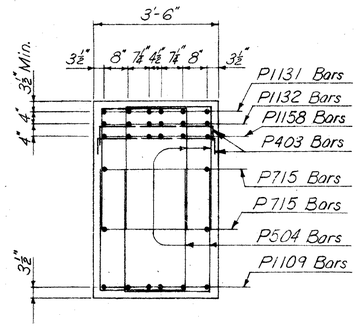
Bottom Reinforcement Shown



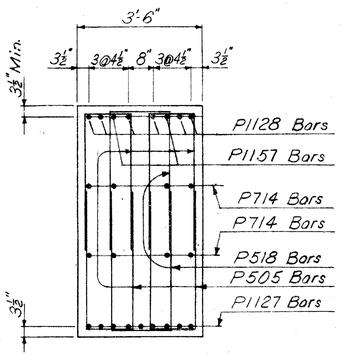
SECTION G-G



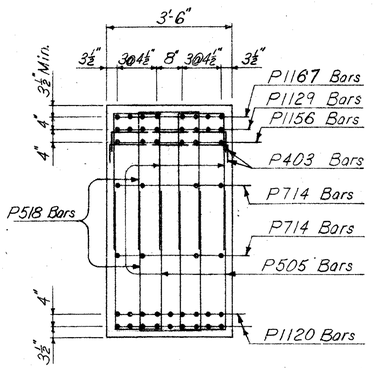
SECTION A-A



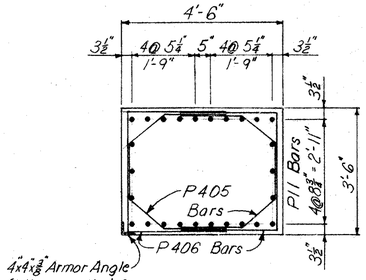
SECTION B-B



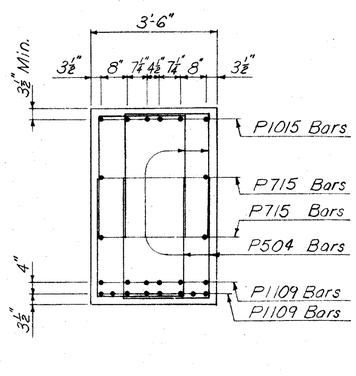
SECTION E-E



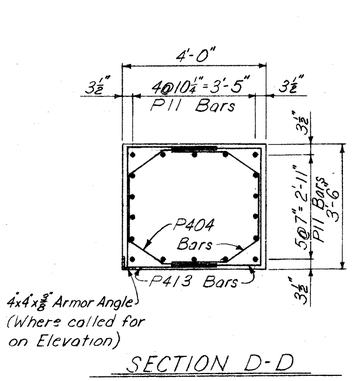
SECTION F-F



SECTION H-H



SECTION C-C



SECTION D-D

Work this sheet with Sheet No. 138 & 139

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

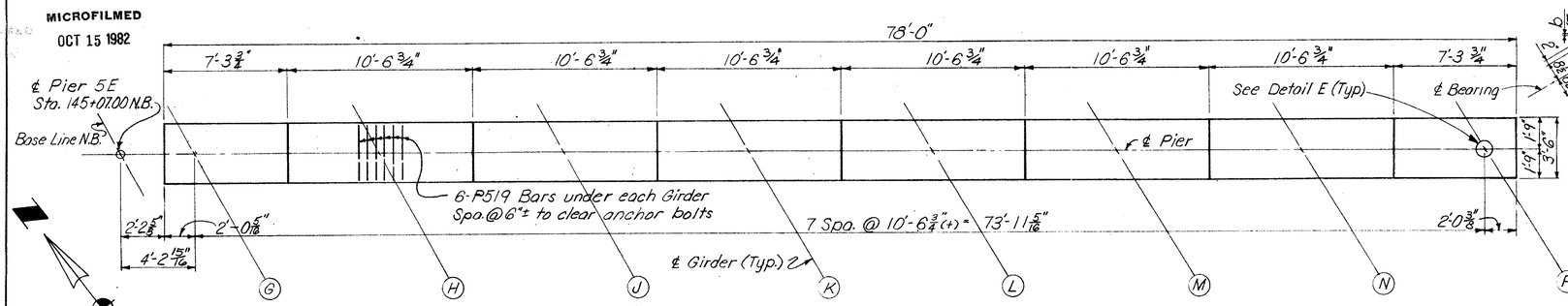
PIER 3E & 4E

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DMB	W.R.T.		RL	JHO	
CRK	12-3-64		2-8-65	3/22/65	

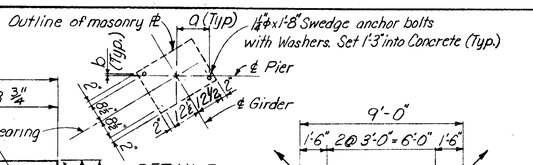
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

141/210

HAM-71-1.80

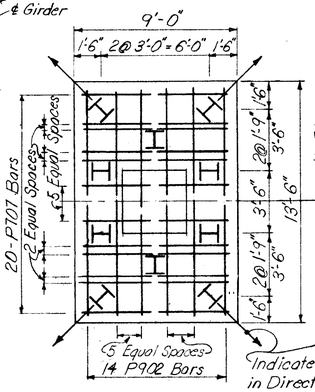


CAP PLAN



DETAIL E

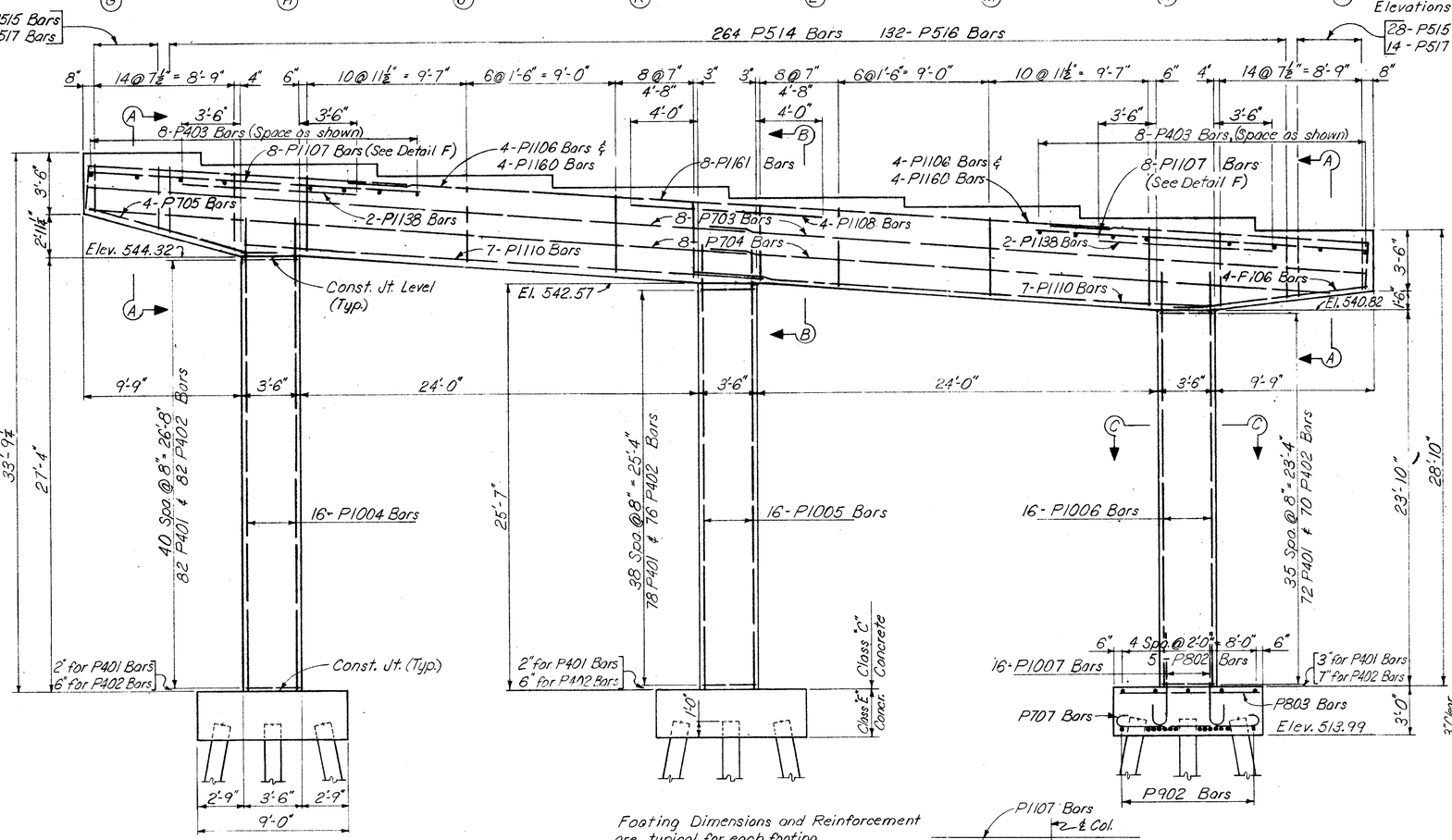
TABLE OF DIMENSIONS		
Gir.	a	b
G	1'-2⅝"	2 7/16"
H	1'-2⅝"	2 5/16"
J	1'-2⅛"	2 7/16"
K	1'-3"	2"
L	1'-3"	1⅞"
M	1'-3"	1¾"
N	1'-3"	1 5/8"
P	1'-3⅛"	1½"



CENTER FOOTING

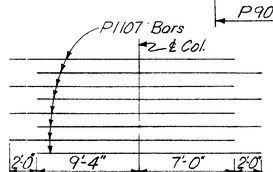
OUTSIDE FOOTINGS

FOOTING PLAN
(Bottom Reinforcement Shown)



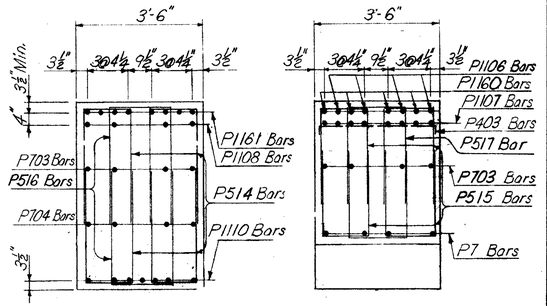
Footing Dimensions and Reinforcement are typical for each footing

ELEVATION



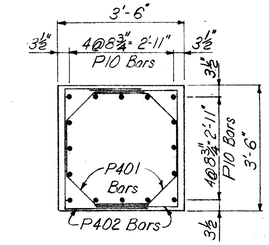
DETAIL F
(Drawn for W. Col., E. Col. opposite hand)

END ELEVATION



SECTION B-B

SECTION A-A



SECTION C-C

Note:
All piles shall be steel H 12BP53
For connection of downspouts to Piers See sht. no. 187
Special care shall be taken in placing steel in the pier cap so that it will not interfere with the drilling of anchor bolt holes.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

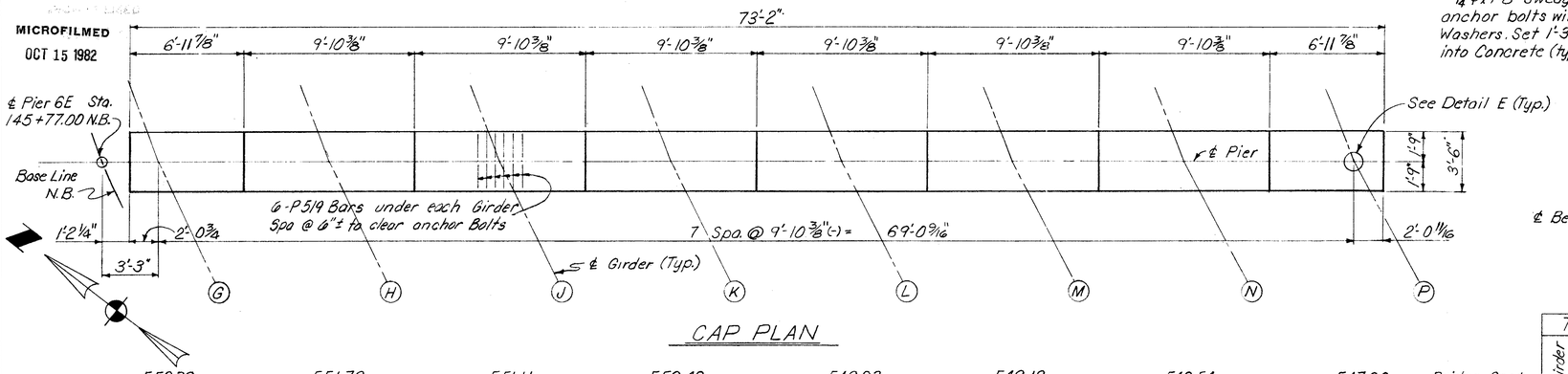
PIER 5E

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
ELW	W.P.T. 11-1-64		R.L. 2-2-65	JLH 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

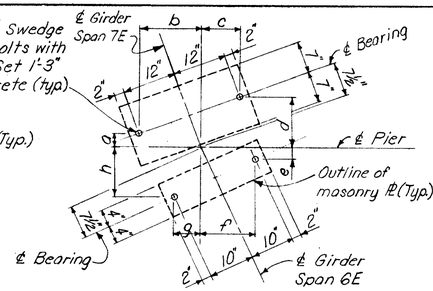
142/210

HAM-71-1.80



CAP PLAN

552.39	551.76	551.11	550.48	549.83	549.19	548.54	547.90	Bridge Seat Elevations
G	H	J	K	L	M	N	P	



DETAIL E

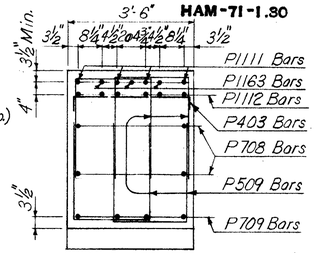
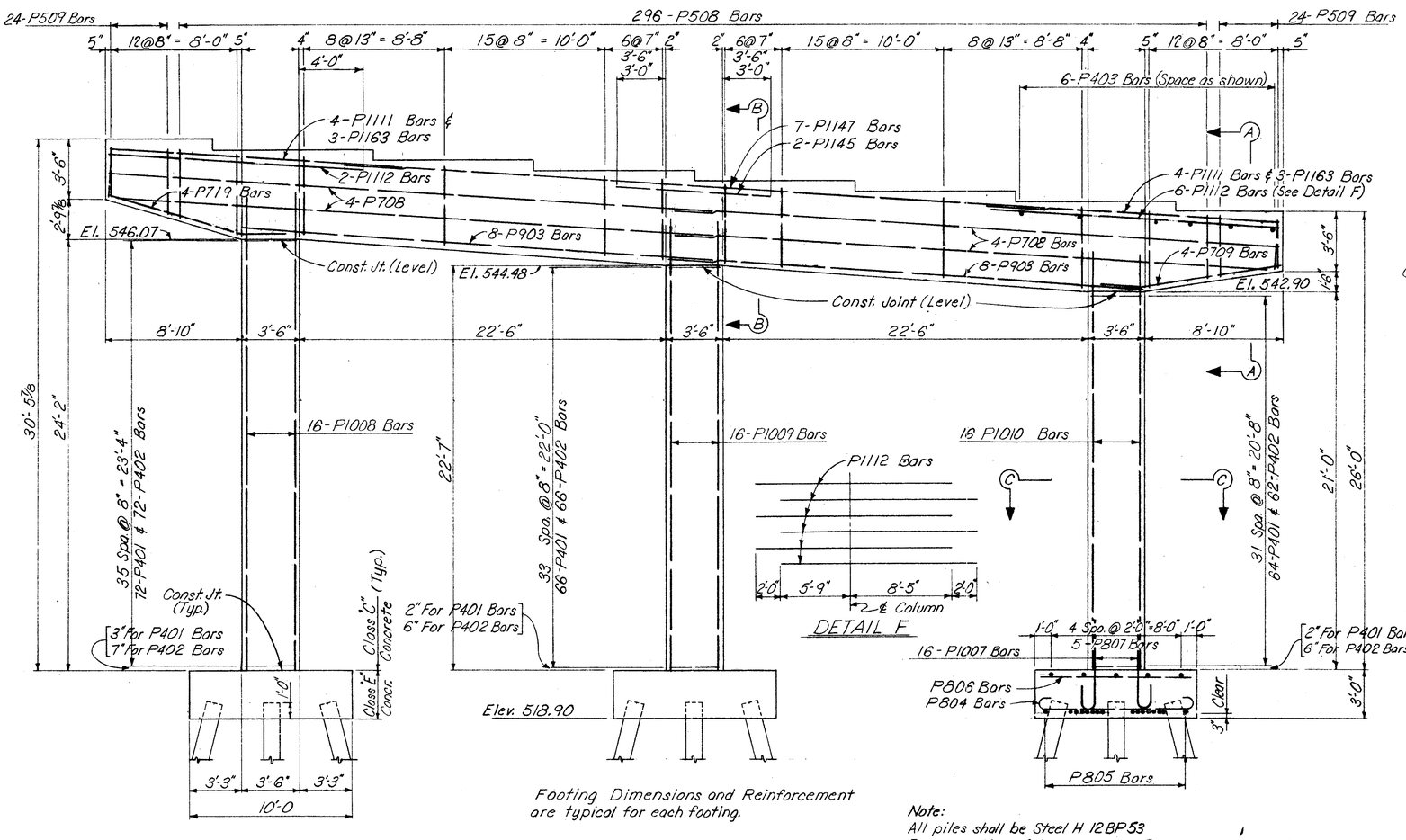


TABLE OF DIMENSIONS

Girder	a	b	c	d	e	f	g	h
G	2 7/8"	1'-1 5/8"	8 5/8"	11 3/16"	2 9/16"	1'-0 1/4"	5 7/8"	11"
H	2 13/16"	1'-1 3/8"	8 5/8"	11 1/4"	2 7/16"	1'-0 1/4"	5 13/16"	11 1/16"
J	2 3/4"	1'-1 3/8"	8 9/16"	11 1/4"	2 3/8"	1'-0 1/8"	5 11/16"	11 1/8"
K	2 3/4"	1'-1 3/8"	8 9/16"	11 5/16"	2 1/4"	1'-0 5/16"	5 5/8"	11 3/16"
L	2 11/16"	1'-1 3/8"	8 1/2"	11 5/16"	2 1/8"	1'-0 5/16"	5 1/2"	11 1/4"
M	2 5/8"	1'-1 3/8"	8 1/2"	11 5/16"	2 1/16"	1'-0 5/16"	5 7/16"	11 1/4"
N	2 5/8"	1'-1 5/16"	8 7/16"	11 3/8"	1 15/16"	1'-0 3/8"	5 5/16"	11 5/16"
P	2 9/16"	1'-1 5/16"	8 7/16"	11 3/8"	1 13/16"	1'-0 3/8"	5 3/16"	11 3/8"

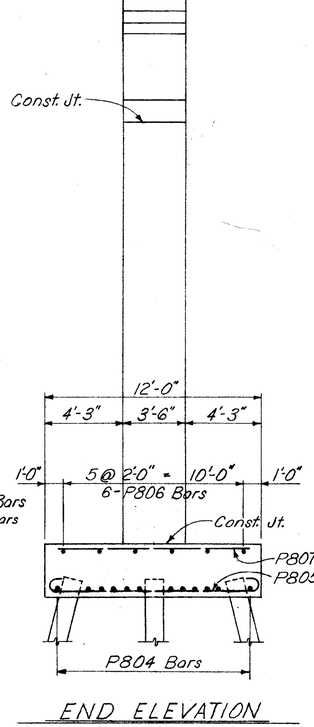
SECTION A-A



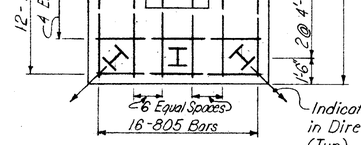
Footing Dimensions and Reinforcement are typical for each footing.

ELEVATION

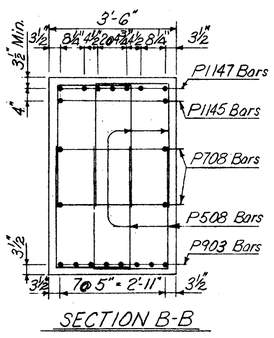
Note:
All piles shall be Steel H 12BP53
For connection of downspouts to Piers, see sht. No. 187
Special care shall be taken in placing steel in the pier cap so that it will not interfere with the drilling of anchor bolt holes.



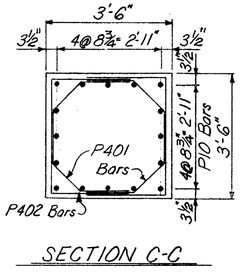
END ELEVATION



FOOTING PLAN
(Bottom Reinforcement Shown)



SECTION B-B



SECTION C-C

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER 6E

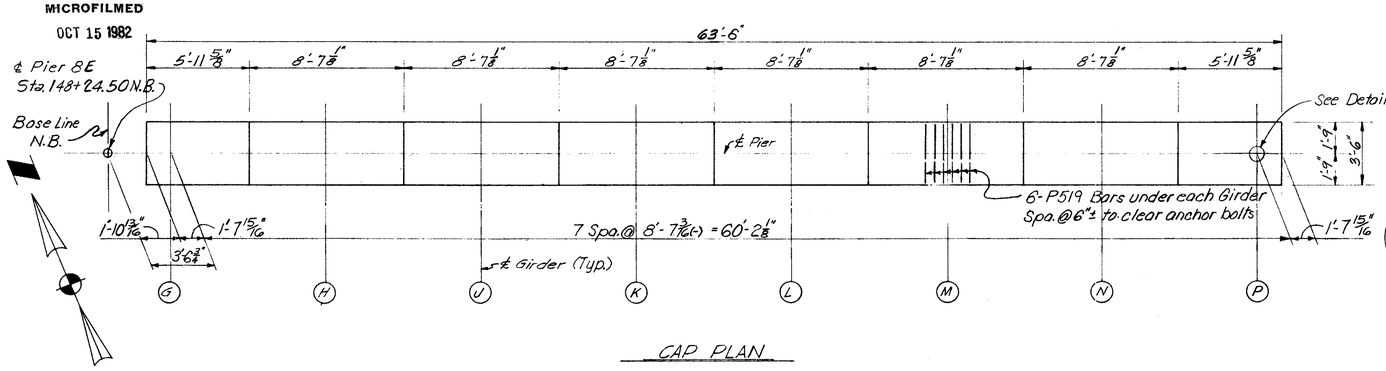
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DMB	W.R.T. 11-10-64		RL 2-1-65	JHO 3/22/65	

MICROFILMED
OCT 15 1982

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

143
210

HAM-71-1.30



CAP PLAN

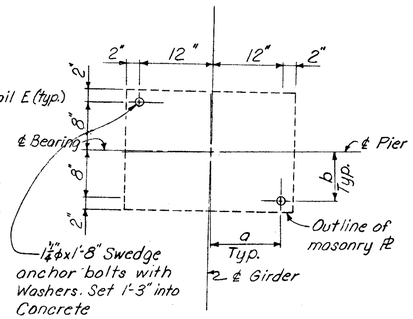
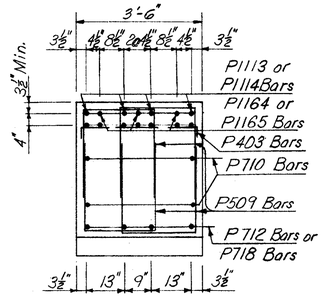
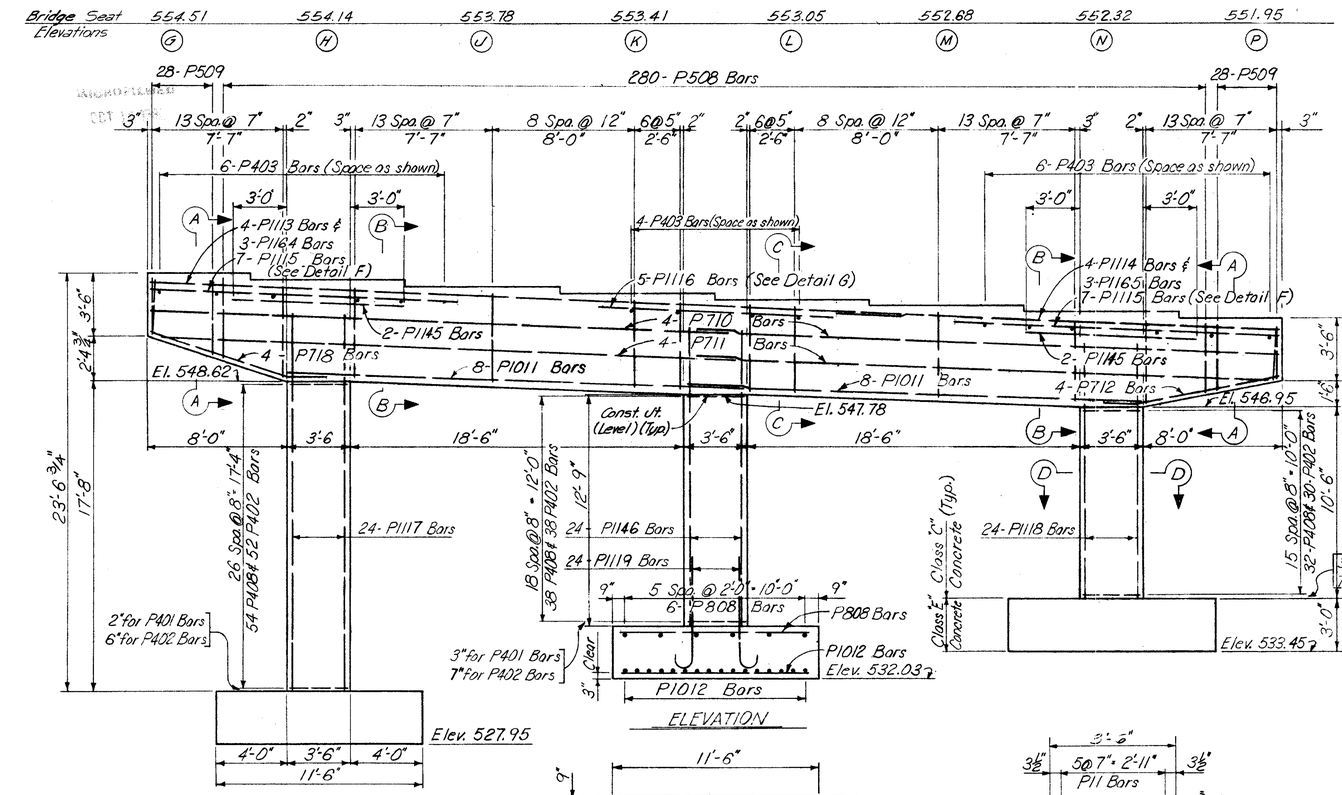


TABLE OF DIMENSIONS

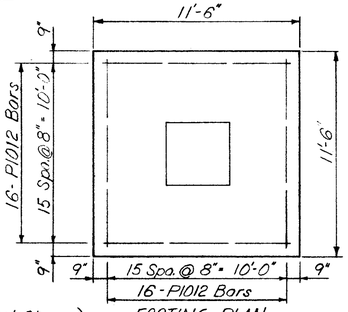
Girder	Dimensions a	Dimensions b
G	11 15/16"	8 1/8"
H	11 15/16"	8 1/16"
J	11 15/16"	8 1/16"
K	12"	8"
L	12"	8"
M	12 1/16"	7 15/16"
N	12 1/16"	7 7/8"
P	12 1/8"	7 7/8"





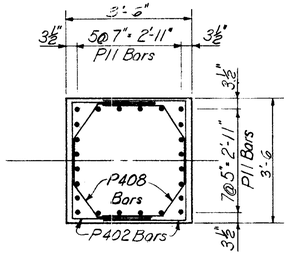
ELEVATION

Footing Dimensions and Reinforcement are typical for each footing.

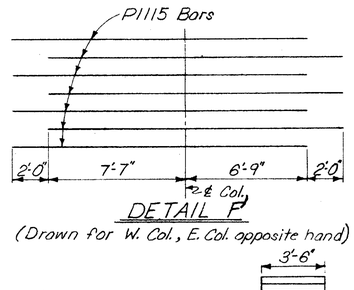


(Bottom Reinforcement Shown)

FOOTING PLAN

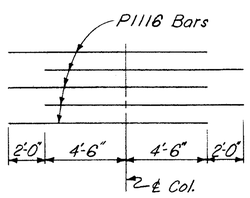


SECTION D-D

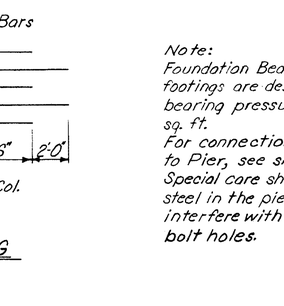


DETAIL F

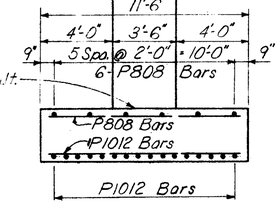
(Drawn for W. Col., E. Col. opposite hand)



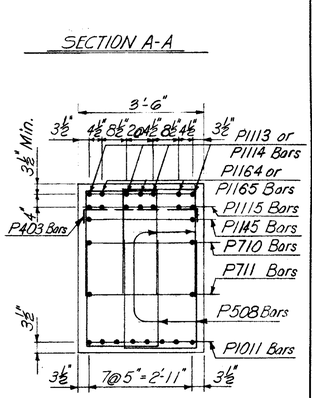
DETAIL G



SECTION C-C



END ELEVATION



SECTION B-B

Note:
Foundation Bearing Pressure: Pier footings are designed for a maximum bearing pressure of 3.5 tons per sq. ft.
For connection of downspouts to Pier, see sht. no. 187
Special care shall be taken in placing steel in the pier cap so that it will not interfere with the drilling of anchor bolt holes.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

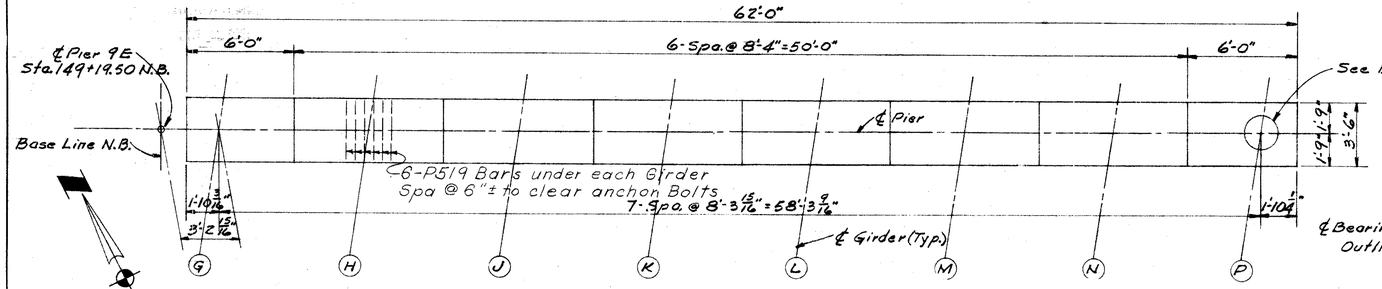
PIER 8E

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DMB	W.R.T. 9-30-64		EL 2-1-65	JHa 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

144
210

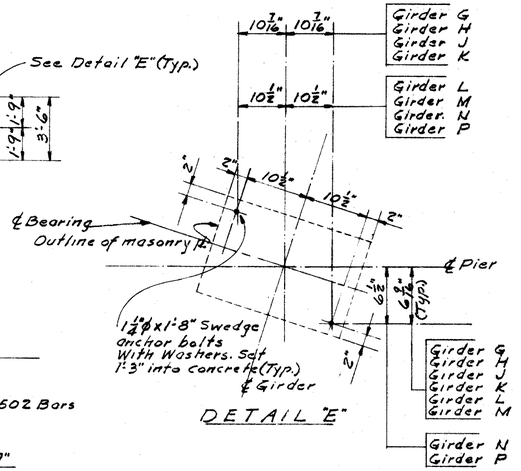
HAM-71-1.80



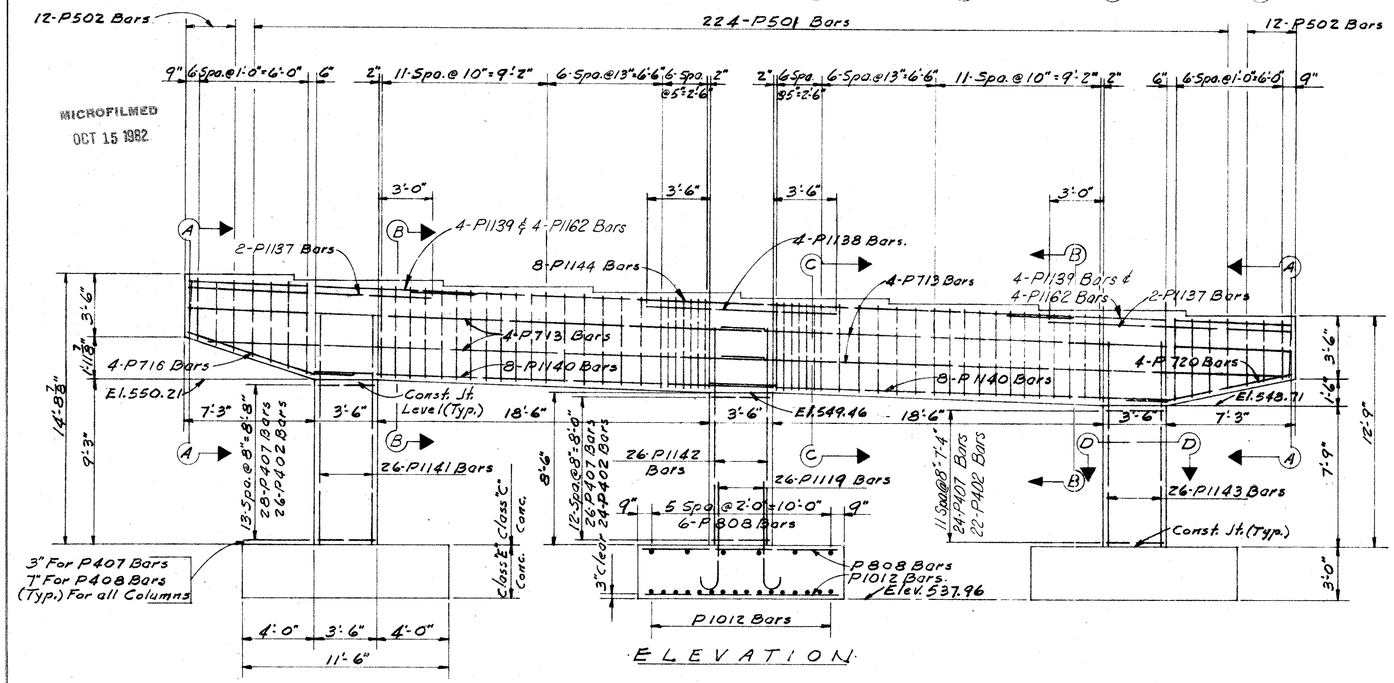
CAP PLAN

Bridge Seat Elevations

G	H	J	K	L	M	N	P
555.70	555.41	555.13	554.84	554.56	554.27	553.99	553.71

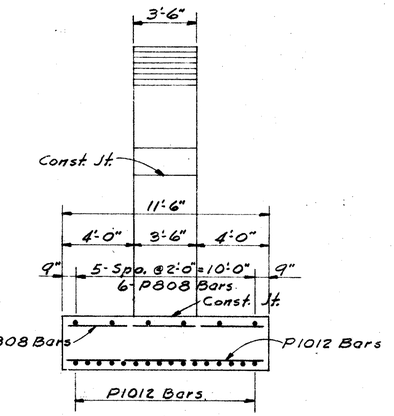


DETAIL "E"

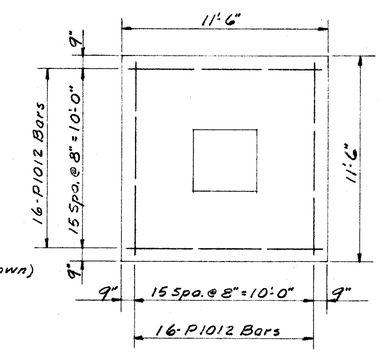


ELEVATION

Footing Dimensions and Reinforcement are typical for each footing.

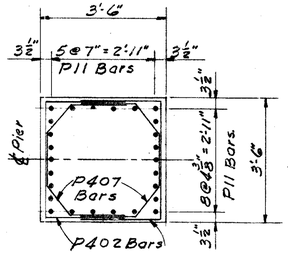


END ELEVATION

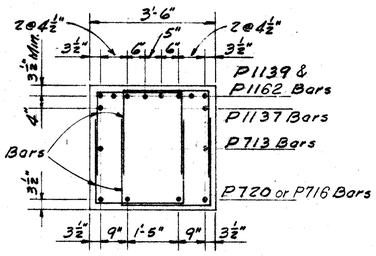


(Bottom Reinforcement Shown)

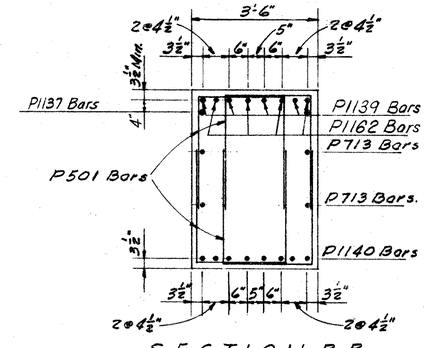
FOOTING PLAN



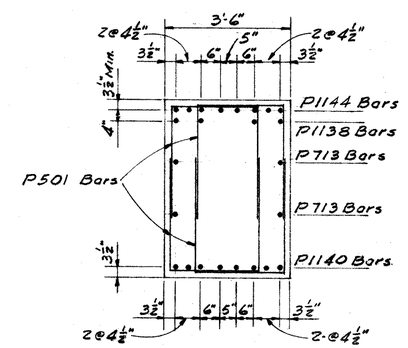
SECTION D-D



SECTION A-A



SECTION B-B



SECTION C-C

Note:-
For connection of downspouts to Pier, see sht. No. 188
Special care shall be taken in placing steel in the pier cap so that it will not interfere with the drilling of anchor bolt holes.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

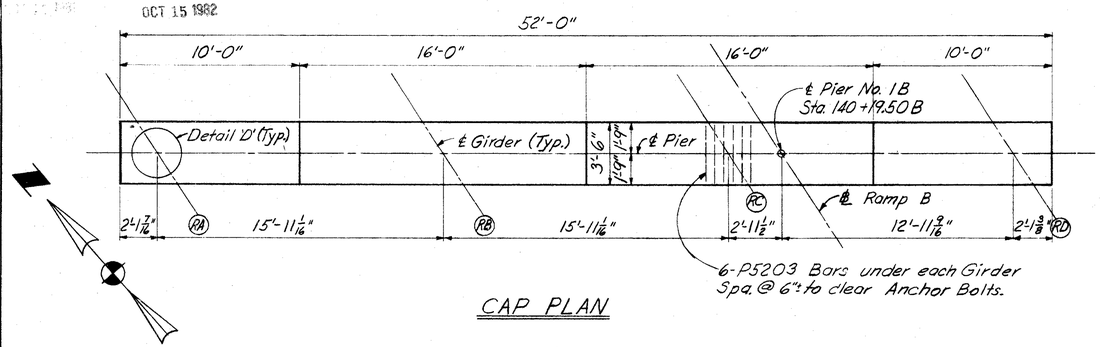
PIER 9E

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DMB	L.M.H. 1-8-65		R.L. 2-5-65	JHO 3/22/65	

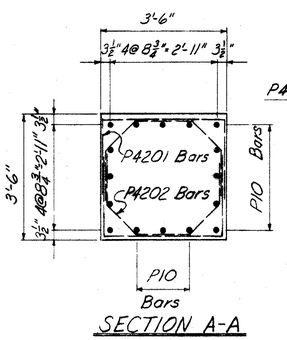
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-71-1.30

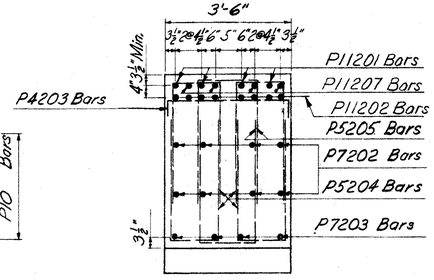
145
210



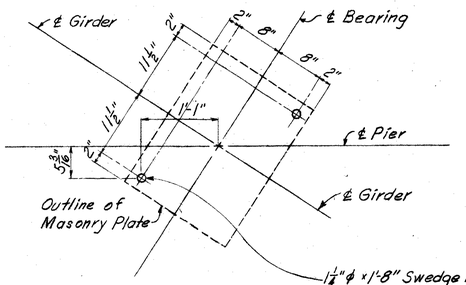
CAP PLAN



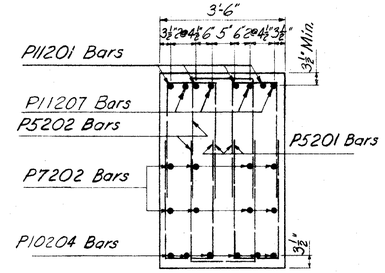
SECTION A-A



SECTION B-B

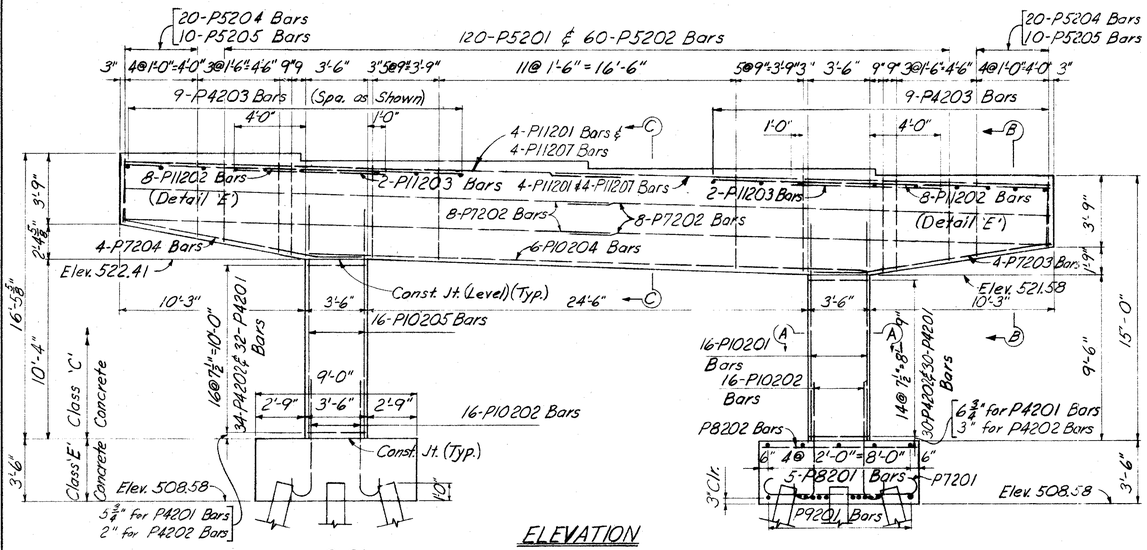


DETAIL 'D'

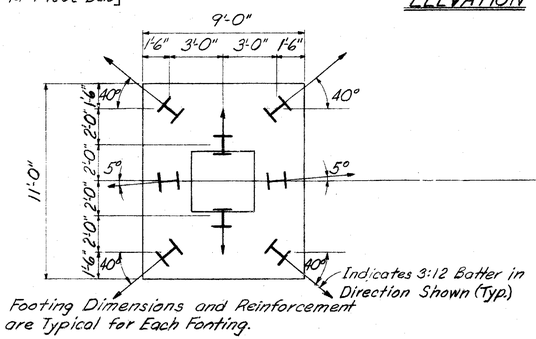


SECTION C-C

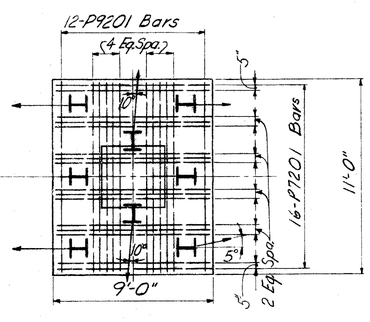
Bridge Seat Elevations: RA 528.55 — RB 527.99 — RC 527.49 — RD 527.08



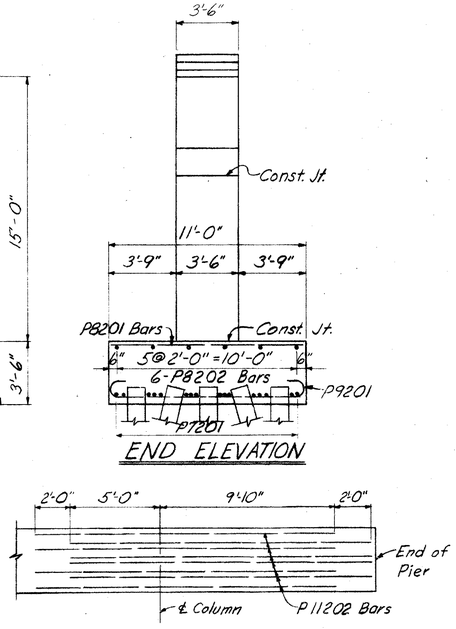
ELEVATION



Footing Dimensions and Reinforcement are Typical for Each Fonting.



FOOTING PLAN



END ELEVATION

DETAIL 'E'
(Drawn for E. Col., W. Col. opposite hand)

Notes:
All piles shall be Steel H 12BP53
For connection of downspout to pier see Sheet No. 187
Special care shall be taken in placing steel in the pier cap so that it will not intertere with the drilling of anchor bolt holes.

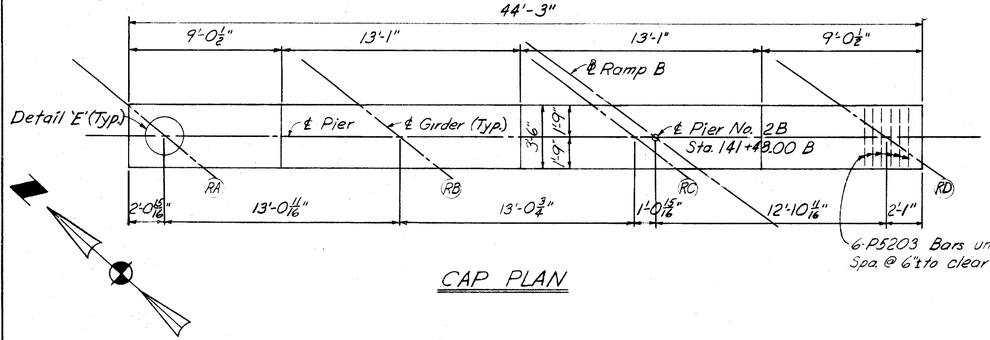
HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER 1B

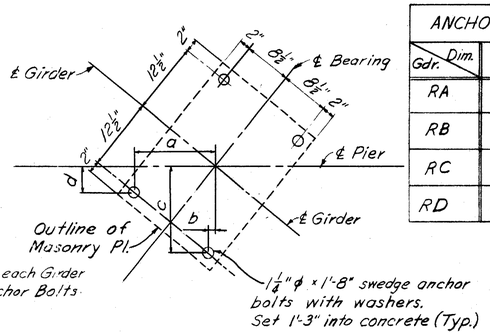
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MDC	C.W.R. 11-19-64		RL 2-3-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-71-1.80

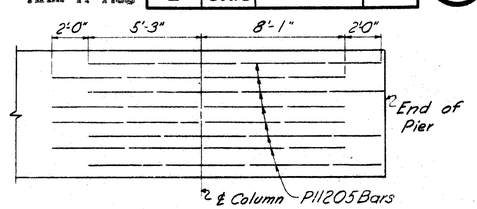


CAP PLAN



DETAIL 'E'

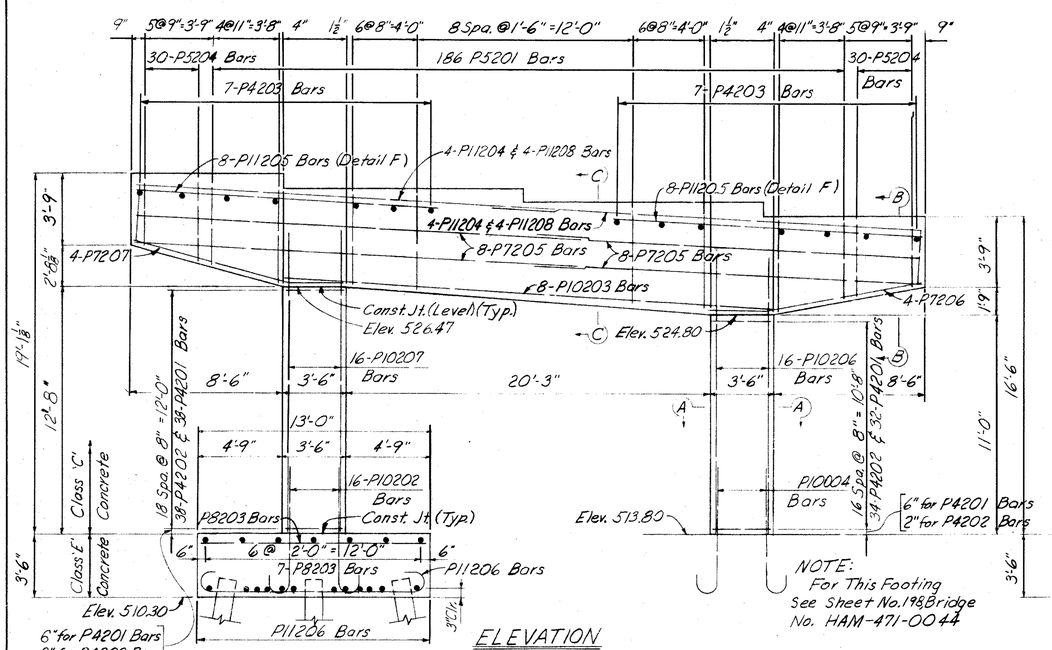
ANCHOR BOLT DIMENSIONS				
Gdr. \ Dim.	a	b	c	d
RA	1'-2½"	0'-1⅞"	1'-3⅛"	0'-4⅝"
RB	1'-2⅜"	0'-1"	1'-3⅛"	0'-4⅝"
RC	1'-2⅝"	0'-0⅝"	1'-3⅛"	0'-4¹⁵⁄₁₆"
RD	1'-2¹⁄₁₆"	0'-0¹⁄₁₆"	1'-3⅛"	0'-5½"



DETAIL 'F'

(Drawn for E.Col., W.Col. Opposite Hand)

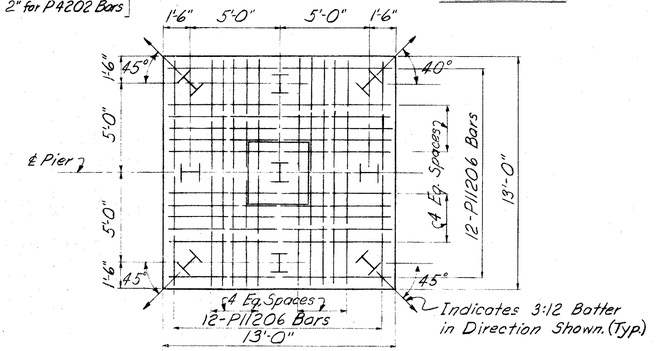
Bridge Seat Elevations: 532.89 (RA) — 531.99 (RB) — 531.13 (RC) — 530.30 (RD)



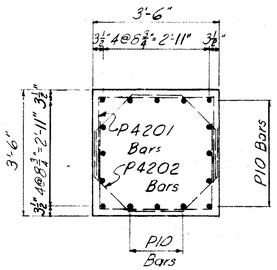
ELEVATION

END ELEVATION

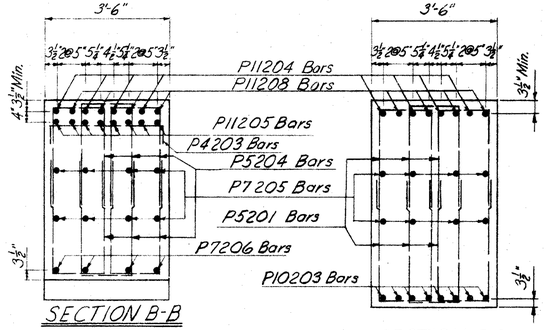
(Showing W. Footing)



FOOTING PLAN



SECTION A-A



SECTION B-B

SECTION C-C

NOTES:
All piles shall be Steel H 12BP53
For connection of downspout to pier see Sheet No. 187
Special care shall be taken in placing steel in the pier cap so that it will not interfere with the drilling of anchor bolt holes.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

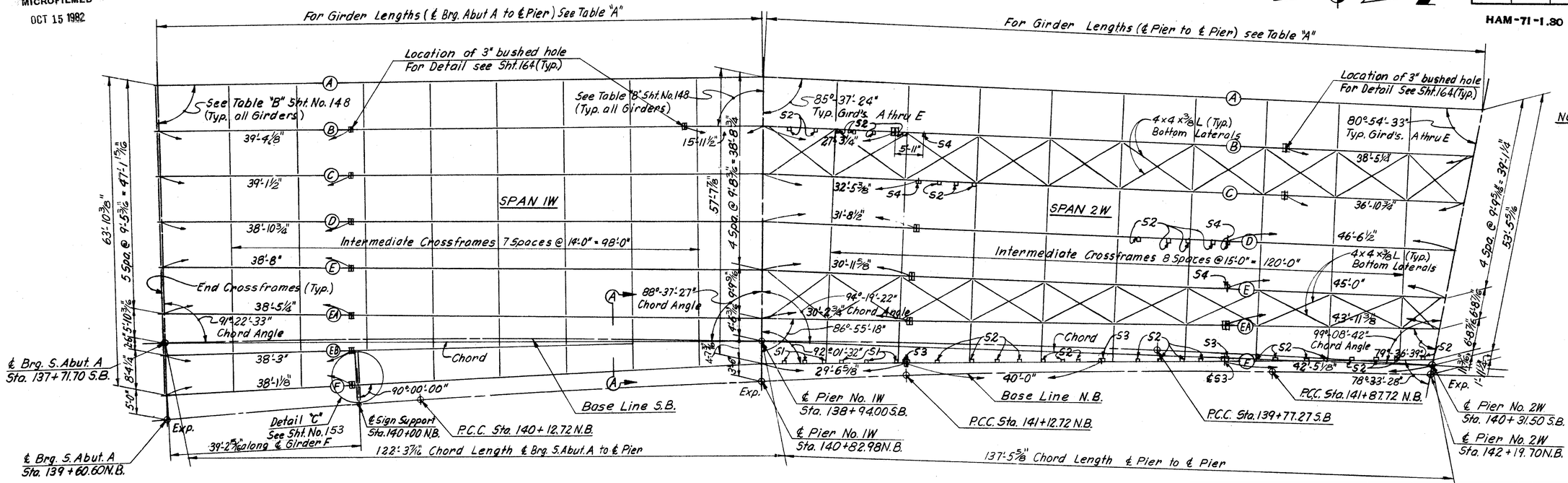
PIER 2B

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
PME	C.W.R. 11-1964		EC 2-5-65	JHO 3/22/65	

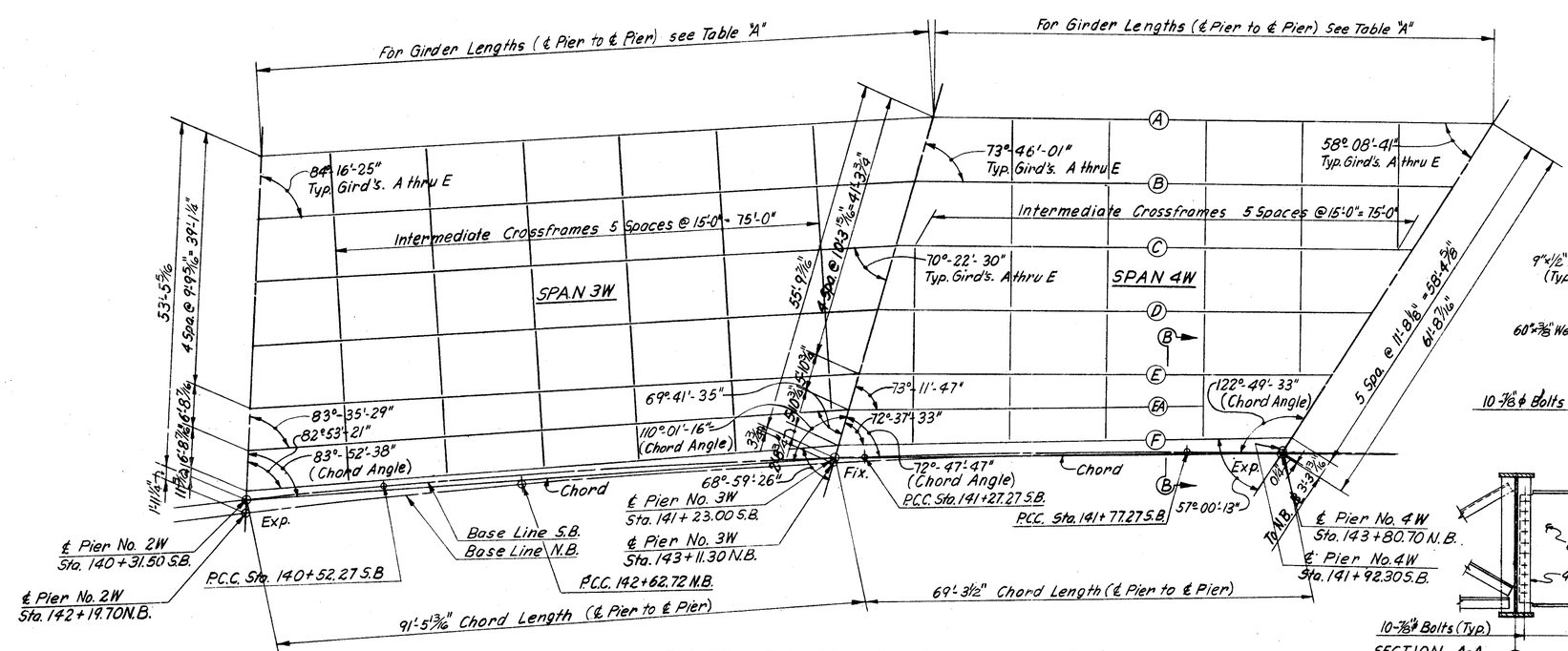
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

147
210

HAM-71-1.80



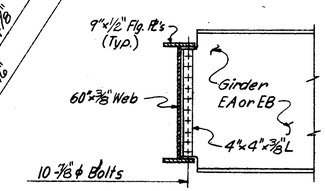
NOTE: For Beam Clamp Details See Sht. No. 99



PART FRAMING PLAN UNIT-1
(Spans 1W thru 4W)

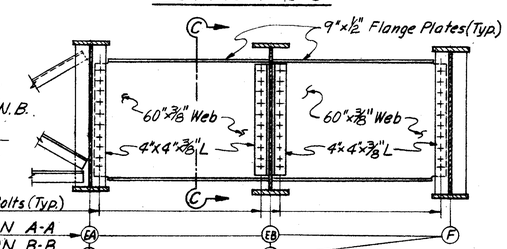
TABLE "A"

Girder	Span 1W	Span 2W	Span 3W	Span 4W	℄ Pier 4W to ℄ Spl.	℄ Spl. to ℄ Pier 5W	Span 6W
A	122'-3 5/16"	149'-11 1/16"	104'-10 11/16"	86'-2 13/16"	102'-8 1/2"	21'-10 1/16"	69'-8 5/16"
B	122'-3 3/8"	147'-8 5/16"	102'-4 13/16"	82'-11 1/2"	103'-1"	21'-10 1/16"	69'-8 5/16"
C	122'-3 7/16"	145'-4 7/8"	99'-10 7/8"	79'-8 3/16"	103'-5 5/8"	21'-10 1/16"	69'-8 5/16"
D	122'-3 5/16"	143'-1 1/2"	97'-4 15/16"	76'-4 7/8"	103'-10 1/4"	21'-10 1/16"	69'-8 5/16"
E	122'-3 5/16"	140'-10 1/8"	94'-11"	73'-1 9/16"	103'-10 7/16"	21'-11"	69'-11 3/16"
EA	122'-3 5/16"	139'-0 7/8"	93'-7 3/8"				
EB							
F	122'-3 5/16"	137'-4 9/16"	92'-3 7/8"	70'-3 3/8"	103'-10 5/8"	22'-0 1/8"	70'-2 7/8"
Girder Lengths							



SECTION C-C

REQUIRED: Conduit Support Type S1 = 6
Conduit Support Type S2 = 32
Junction Box Support Type S3 = 3
Junction Box Support Type S4 = 4
For Details of Conduit and Junction Box Supports see Sht. No. 99
The arrow for the conduit or Junction Box Support, points to the girder side to which they must be fastened.

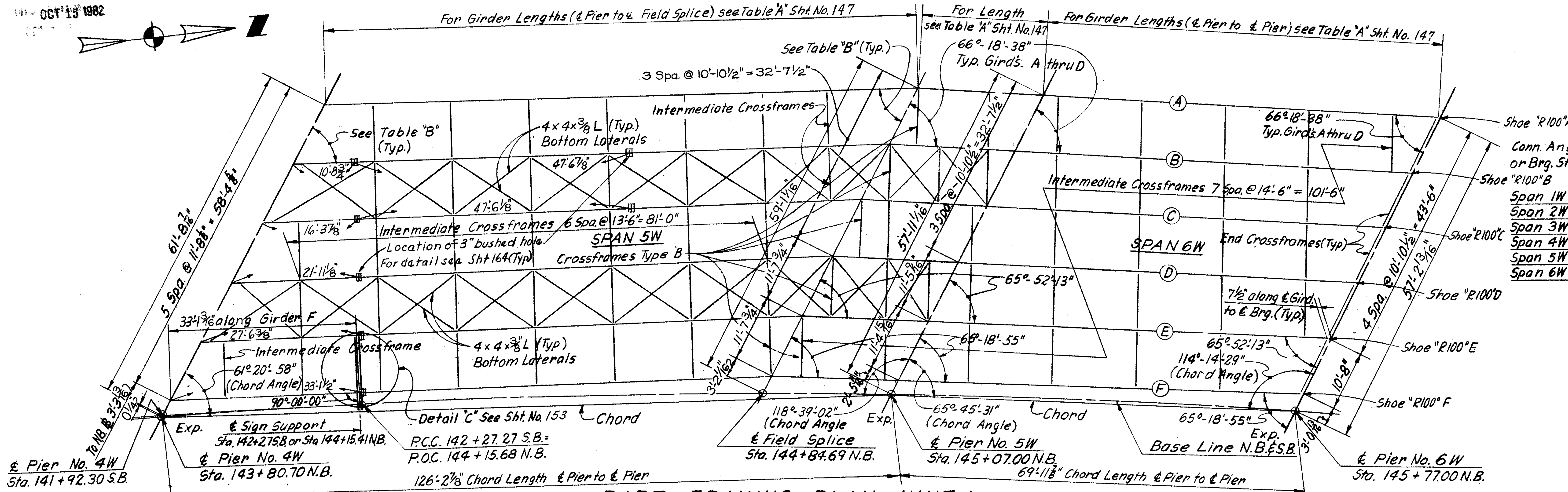


SECTION OF SUPPORT DIAPHRAM
For Girders EA & EB

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

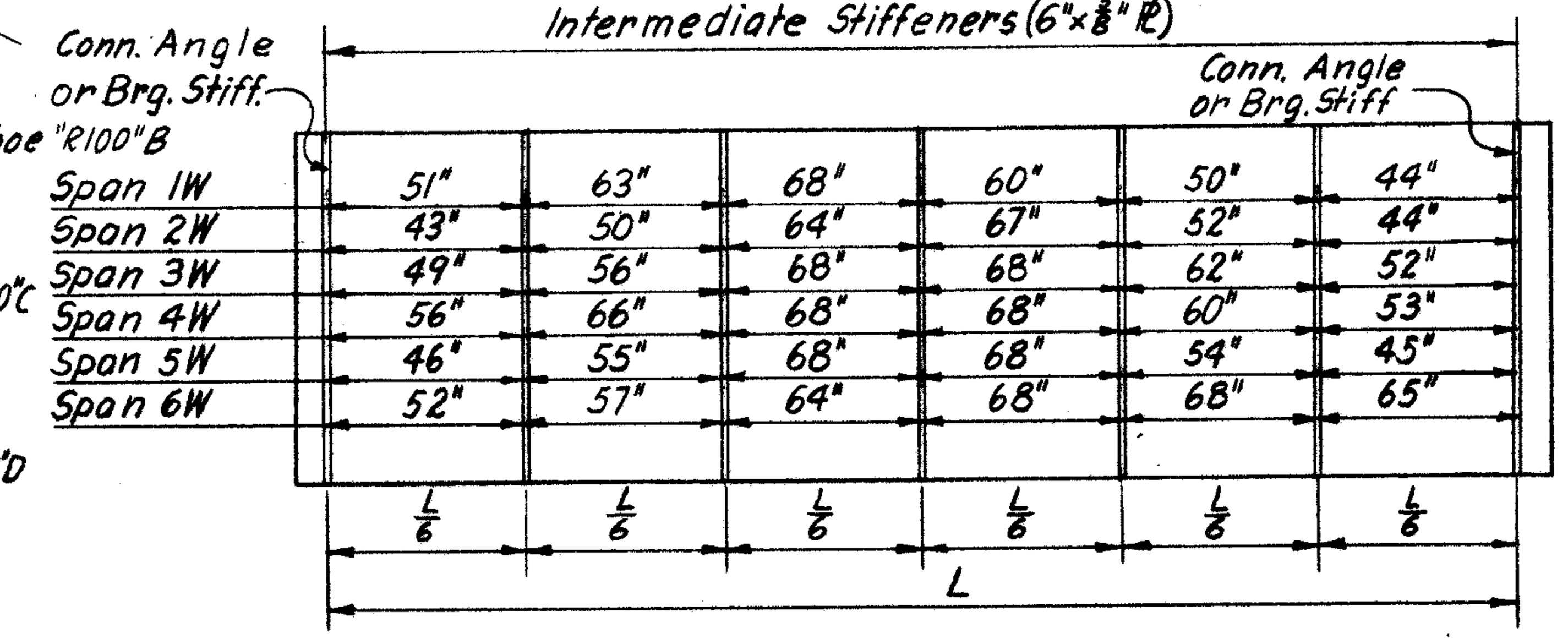
STRUCTURAL STEEL DETAILS
UNIT 1

Designed	Drawn	Traced	Checked	Reviewed Date	Revised
T/G & Jag	HAS 10-1-64		CHH 2-1-65	JHO 3/22/65	



PART FRAMING PLAN UNIT-1

(Spans 5W thru 6W)



MAX. INTERMEDIATE STIFFENER SPACING

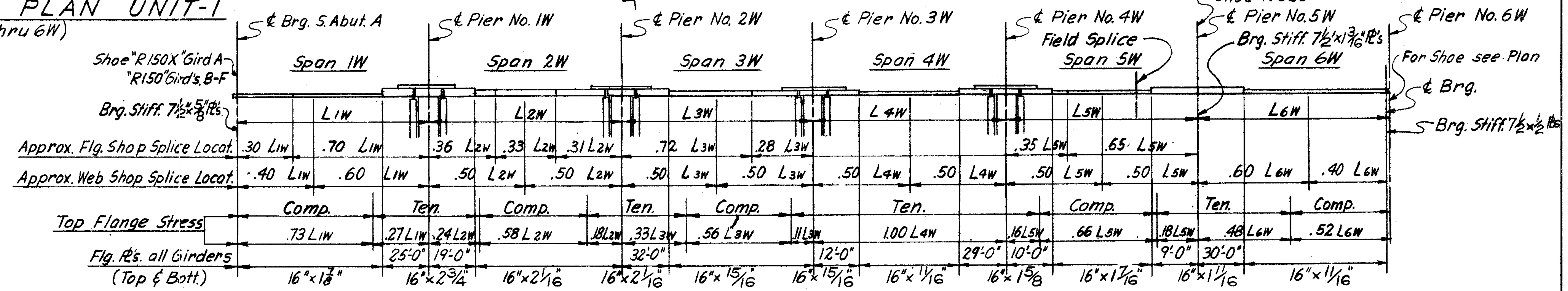


TABLE OF FLANGE PLATES AND SPLICES

GIRDER	A																			
SPAN	1W			2W				3W			4W			5W				6W		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Deflection due to weight of steel	1/2	11/16	1/2	7/8	1 7/16	1 7/16	7/8	5/16	1/2	5/16	3/16	1/4	3/16	3/16	3/16	1/8	0	-1/8	-1/8	-1/16
Deflection due to remaining dead load	13/16	7/8	3/8	1/2	1 1/8	1 3/16	5/8	1/16	5/16	1/4	-1/16	-1/8	3/16	11/16	1 1/4	1 3/16	9/16	-1/8	-1/16	1/16
Convexity (See note below)	-1/4	-5/16	-1/4	-1 3/8	-2 3/8	-2 7/8	-1 11/16	15/16	1 3/16	7/8	1/2	5/8	7/16	1 1/8	1 11/16	1 13/16	1 5/8	1/4	5/16	1/4
Sum of deflection and convexity. (Camber)	1 1/16	1 1/4	5/8	0	3/16	-1/4	-3/16	1 5/16	2	1 7/16	5/8	3/4	7/16	2	3 1/8	3 1/8	2 3/16	0	1/8	1/4

GIRDER	B																			
SPAN	1W			2W				3W			4W			5W				6W		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Deflection due to weight of steel	1/2	11/16	1/2	13/16	1 3/8	1 3/8	13/16	5/16	7/16	5/16	1/8	3/16	1/8	3/16	3/16	1/8	0	-1/8	-1/8	-1/16
Deflection due to remaining dead load	5/8	3/4	5/16	3/8	7/8	15/16	1/2	1/16	1/4	3/16	-1/16	-1/16	-1/8	9/16	1	15/16	7/16	-1/8	-1/16	0
Convexity (See note below)	-1/4	-5/16	-1/4	-1 1/8	-2	-2 7/16	-1 3/8	15/16	1 3/16	7/8	1/2	5/8	7/16	1 5/16	1 7/8	2	1 13/16	1/4	5/16	1/4
Sum of deflection and convexity. (Camber)	7/8	1 1/8	9/16	1/16	1/4	-1/8	-1/16	1 5/16	1 7/8	1 3/8	9/16	3/4	7/16	2 1/16	3 1/16	3 1/16	2 1/4	0	1/8	3/16

Match Line

DEFLECTION AND CAMBER

Match Line

GIRDER	C																			
SPAN	1W			2W				3W			4W			5W				6W		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1/2	11/16	1/2	13/16	1 5/16	1 5/16	13/16	5/16	3/8	5/16	1/8	3/16	1/8	3/16	3/16	1/8	0	-1/8	-1/8	1/16
	11/16	3/4	5/16	5/16	13/16	7/8	7/16	1/16	1/4	3/16	-1/16	-1/8	-1/8	9/16	1	15/16	7/16	-1/8	-1/16	0
	-1/4	-5/16	-1/4	-1	-1 11/16	-2 1/16	-1 3/16	7/8	1 1/8	13/16	3/8	1/2	3/8	1 5/16	1 7/8	2	1 3/4	1/4	5/16	1/4
	15/16	1 1/8	9/16	1/8	7/16	1/8	1/16	1 1/4	1 3/4	1 5/16	7/16	9/16	3/8	2 1/16	3 1/16	3 1/16	2 3/16	0	1/8	5/16

GIRDER	D																			
SPAN	1W			2W				3W			4W			5W				6W		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1/2	11/16	1/2	3/4	1 3/16	1 3/16	3/4	5/16	3/8	5/16	1/8	3/16	1/8	3/16	3/16	1/8	0	-1/8	-1/8	-1/16
	11/16	13/16	3/8	1/4	11/16	3/4	7/16	1/16	3/16	3/16	-1/16	-1/8	-3/16	9/16	1	1	7/16	-1/8	-1/16	0
	-1/4	-5/16	-1/4	-13/16	-1 3/8	-1 5/8	-1	13/16	1 1/16	13/16	3/8	1/2	3/8	1 5/16	1 13/16	2 1/16	1 13/16	3/16	5/16	5/16
	15/16	1 3/16	5/8	3/16	1/2	5/16	3/16	1 3/16	1 5/8	1 5/16	7/16	9/16	5/16	2 1/16	3	3 3/16	2 1/4	-1/16	1/8	1/4

GIRDER	E																			
SPAN	1W			2W				3W			4W			5W				6W		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1/2	11/16	1/2	11/16	1 1/8	1 1/8	11/16	1/4	5/16	1/4	1/16	1/8	1/16	3/16	3/16	1/8	0	-1/8	-1/8	-1/16
	3/4	7/8	3/8	3/16	9/16	11/16	3/8	1/16	3/16	3/16	-1/8	-3/16	-3/16	9/16	1	1	7/16	-1/8	-1/16	0
	-1/4	-5/16	-1/4	-11/16	-1 1/16	-1 1/4	-3/4	3/4	1	3/4	3/8	1/2	3/8	1 3/8	1 7/8	2 1/8	1 15/16	3/16	5/16	5/16
	1	1 1/4	5/8	3/16	5/8	9/16	5/16	1 1/16	1 1/2	1 3/16	5/16	7/16	1/4	2 1/8	3 1/16	3 1/4	2 3/8	-1/16	-1/8	1/4

GIRDER	EA												
SPAN	1W			2W				3W			4W		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13
	1/2	11/16	1/2	3/4	1 1/4	1 1/4	3/4	1/4	5/16	1/4	0	0	0
	5/8	3/4	3/8	3/16	9/16	5/8	5/16	1/16	3/16	3/16	-1/8	-3/16	-3/16
	-1/4	-5/16	-1/4	-9/16	-7/8	-15/16	-5/8	11/16	15/16	11/16	5/16	7/16	5/16
	7/8	1 1/8	5/8	3/8	15/16	15/16	7/16	1	1 7/16	1 1/8	3/16	1/4	1/8

GIRDER	EB						
SPAN	1W			2W			
LOCATION	1	2	3	4	5	6	7
	1/2	11/16	1/2				
	11/16	13/16	3/8				
	-3/16	-1/4	-3/16				
	1	1 1/4	11/16				

GIRDER	F																			
SPAN	1W			2W				3W			4W			5W				6W		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1/2	11/16	1/2	11/16	1 1/8	1 1/8	11/16	1/4	5/16	1/4	1/16	1/8	1/16	3/16	3/16	1/8	0	-1/8	-1/8	-1/16
	13/16	7/8	7/16	3/16	5/8	3/4	3/8	1/16	3/16	1/4	-1/8	-3/16	-1/4	11/16	1 1/4	1 3/16	9/16	-1/8	-1/16	0
	-3/16	-1/4	-3/16	-7/16	-11/16	-5/8	-1/2	11/16	15/16	11/16	5/16	7/16	5/16	1 3/8	1 7/8	2 1/8	1 15/16	3/16	5/16	5/16
	1 1/8	1 5/16	3/4	7/16	1 1/16	1 1/4	9/16	1	1 7/16	1 3/16	1/4	3/8	1/8	2 1/4	3 5/16	3 7/16	2 1/2	-1/16	1/8	1/4

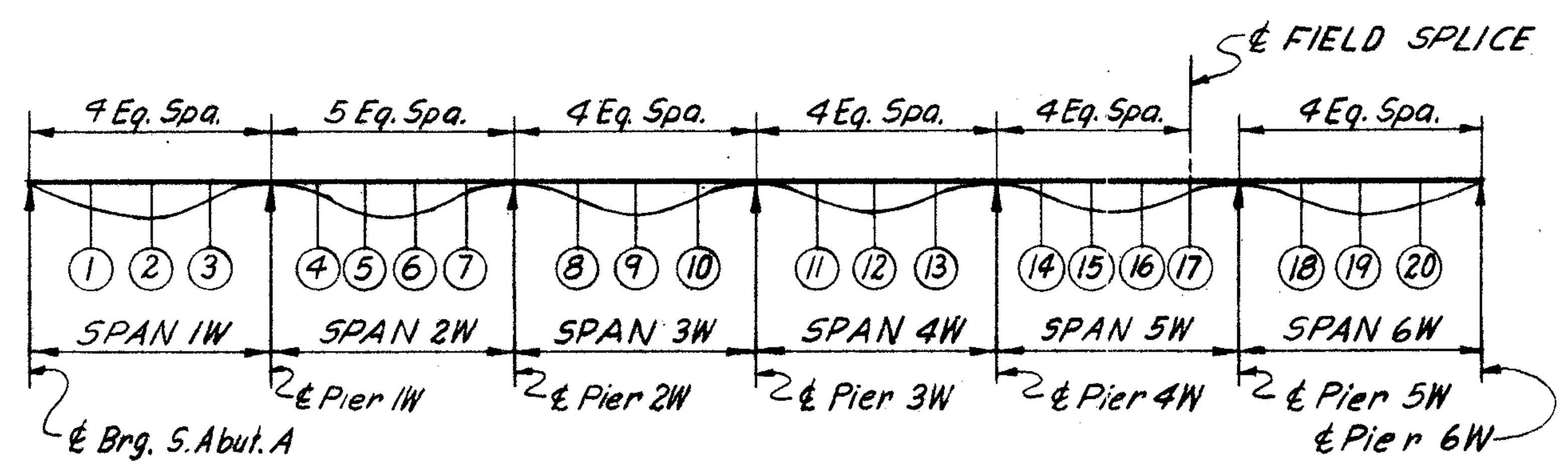
NOTES:

Web Plate is 68"×7/16"
All Girders in Spans 1 & 5 are flared.
All Girders in Spans 2, 3 & 4 except Girders EA & F are Parallel.
All Girders in Span 6, except Girders E & F are Parallel.
The Field Splice, Piers 4, 5 & 6 are Parallel.
For Bearing Details see Sht's. No. 165 & 166
For Field Splice see Sht. No. 165
For Inlet Framing see Sht's. No. 187 & 188
For Typical Girder Elevation and Details see Sht. No. 164
For End Cross frame and End Dam Details at S. Abut. A see Ohio Standard Drawing SD-1-63 Sht. 2.
For End Crossframes and End Dam Details at Pier 6W see Sht. No. 168
For Intermediate Cross Frame Details see Sht. No. 164
For Type B Crossframes Details see Sht. No. 165
For Bottom Lateral Bracing Details see Sht. No. 164

TABLE "B"

GIRDER	℄ BRG. S. ABUT. A (Span 1W)	℄ PIER 1W (Span 1W)	℄ PIER 4W (Span 5W)	℄ FIELD SPLICE (Span 5W South)
A	88°-38'-46"	88°-38'-46"	62°-06'-47"	62°-06'-47"
B	88°-31'-45"	88°-31'-45"	61°-43'-09"	61°-43'-09"
C	88°-24'-43"	88°-24'-43"	61°-19'-41"	61°-19'-41"
D	88°-17'-42"	88°-17'-42"	60°-56'-23"	60°-56'-23"
E	88°-10'-40"	88°-10'-40"	60°-55'-29"	60°-55'-29"
EA	88°-00'-26"	88°-00'-26"	———	———
EB	89°-46'-46"	———	———	———
F	91°-33'-17"	91°-33'-17"	60°-54'-34"	60°-54'-34"

Angles from ℄ Girders to ℄ Piers or ℄ Brg. or ℄ Field Splice (See Plans)



DEFLECTION DIAGRAM

NOTES: Camber required for Spans 1W, 3W, 4W & 5W and Span 2W Girders EA & F
No Camber required for Span 6W and Span 2W Girders A thru E
Convexity includes variations due to super elevation, horizontal and vertical curvature.

DEFLECTIONS OF FLOOR BEAMS

GIRDER		A	B	C	D	E	EA	F
FLOOR BEAM 1W	Steel Weight	0	0	1/16	1/16	1/16	0	0
	Remain. D.L.	-1/16	0	1/8	3/16	3/16	1/8	-1/16
FLOOR BEAM 2W	Steel Weight	0	1/16	1/16	1/16	0	0	0
	Remain. D.L.	0	1/8	3/16	3/16	1/16	0	-1/16
FLOOR BEAM 3W	Steel Weight	0	0	0	0	0	0	0
	Remain. D.L.	-1/16	0	1/8	1/8	1/16	0	-1/16
FLOOR BEAM 4W	Steel Weight	0	0	0	0	0	0	0
	Remain D.L.	-1/16	0	1/8	1/8	0		-1/16

NOTE: All Zero's indicate a negligible amount of deflection

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

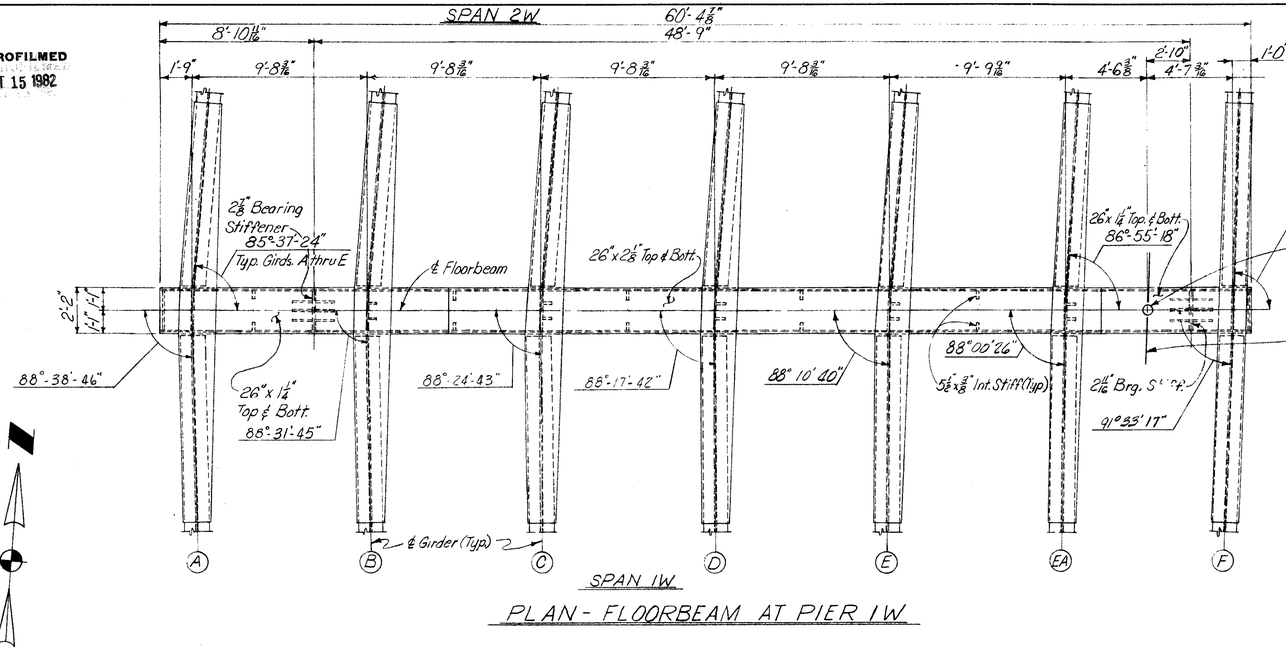
STRUCTURAL STEEL DETAILS
UNIT I

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
TIG & Jag	HAS 10-1-64		GHH 2-1-65	JHO 3/22/65	

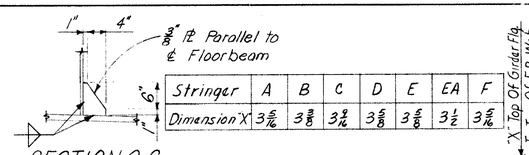
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

149/210

HAM-71-1.80

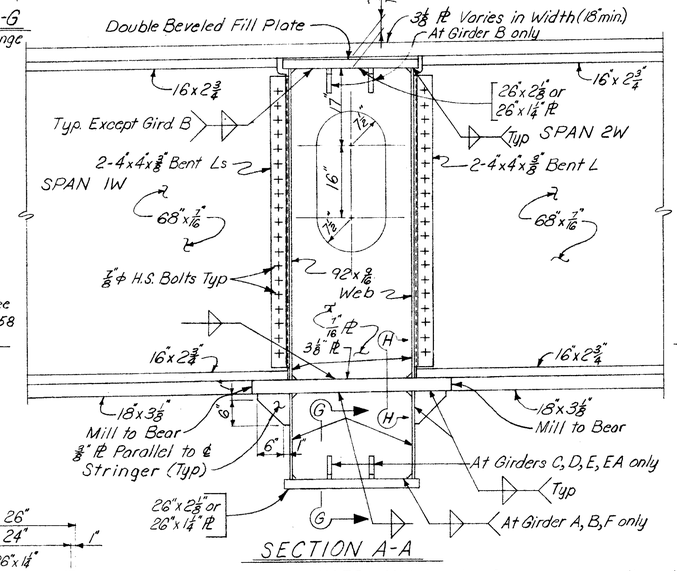


PLAN - FLOORBEAM AT PIER 1W

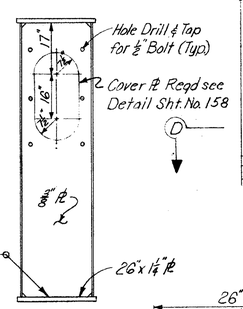


Stringer	A	B	C	D	E	EA	F
Dimension X	3 5/16	3 3/8	3 1/16	3 5/8	3 5/8	3 1/2	3 5/16

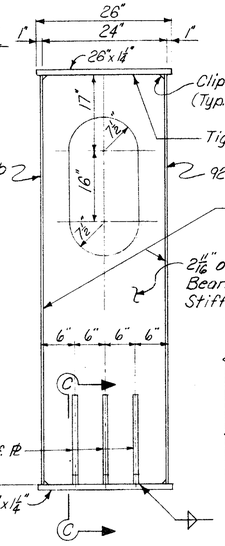
SECTION G-G
Typ - Top or Bott. Flange



SECTION A-A

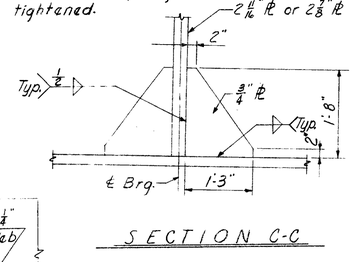


SECTION E-E
Typ. @ Ends of Floorbeam

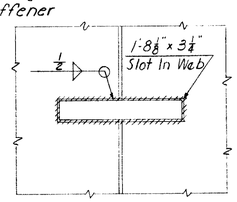


SECTION B-B

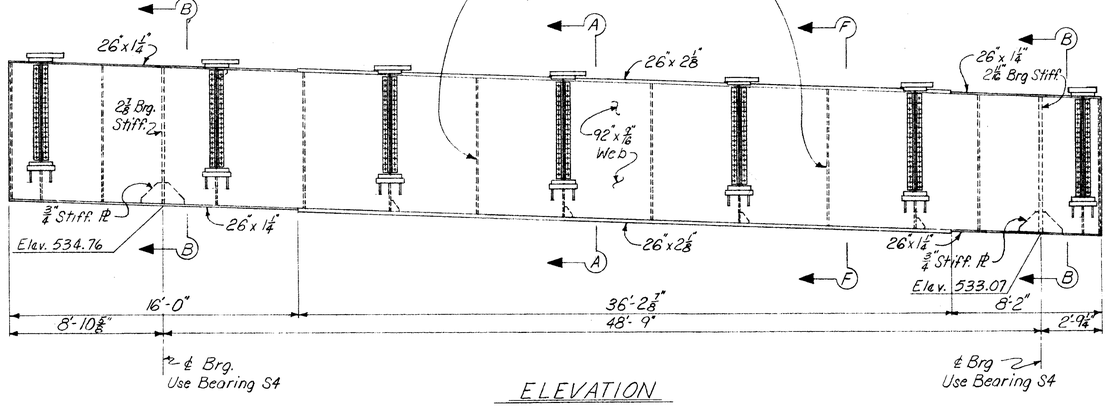
NOTE: Milled ends of compression splice plates on bottom flanges of girders shall be brought to full bearing against milled ends of pier girder brackets before bolts are tightened.



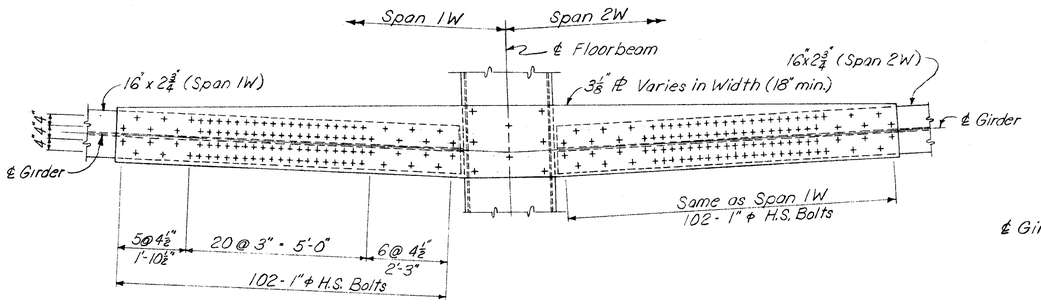
SECTION C-C



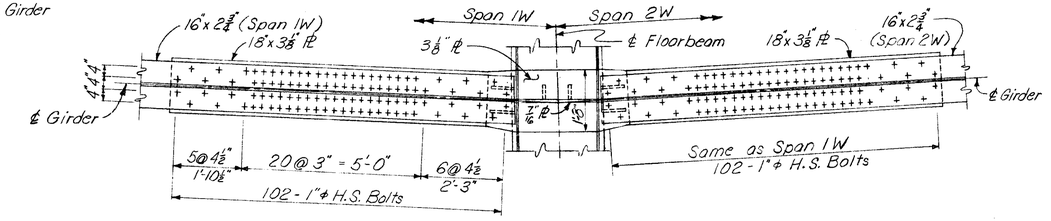
SECTION H-H



ELEVATION



PLAN OF TOP SPLICE PLATE



SECTION D-D

Note: For Cover Plate Details and Section F-F See Floorbeam 2E, Sht. No. 158
For fillet weld sizes not shown, see "TABLE OF FILLET WELD SIZES" Sht. No. 164
For Bearing Details see sht No. 165

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DMB	W.R.T. 1-8-65		1-20-65 2-8-65	JHO 3/22/65	

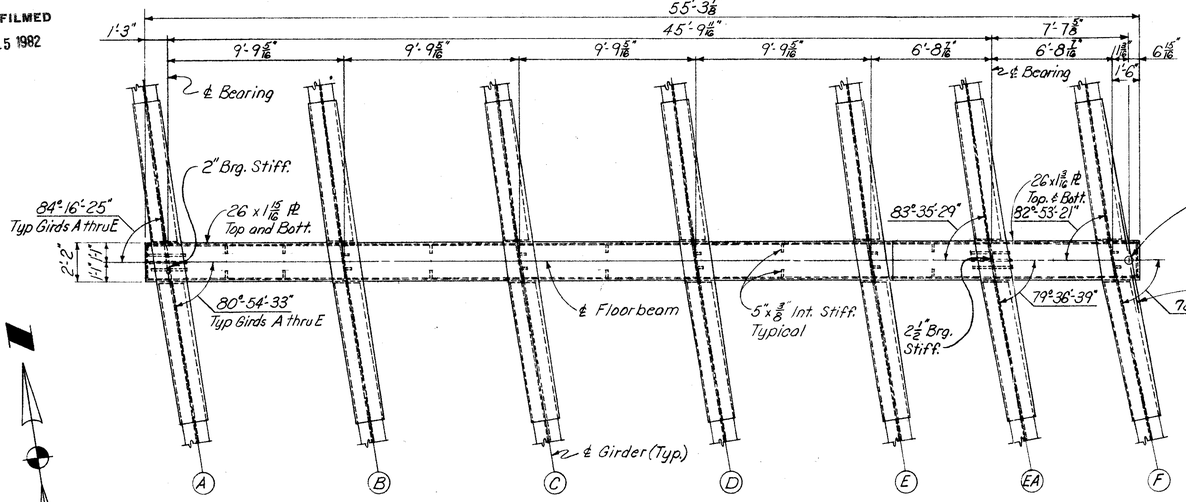
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

150
210

HAM-71-1.30

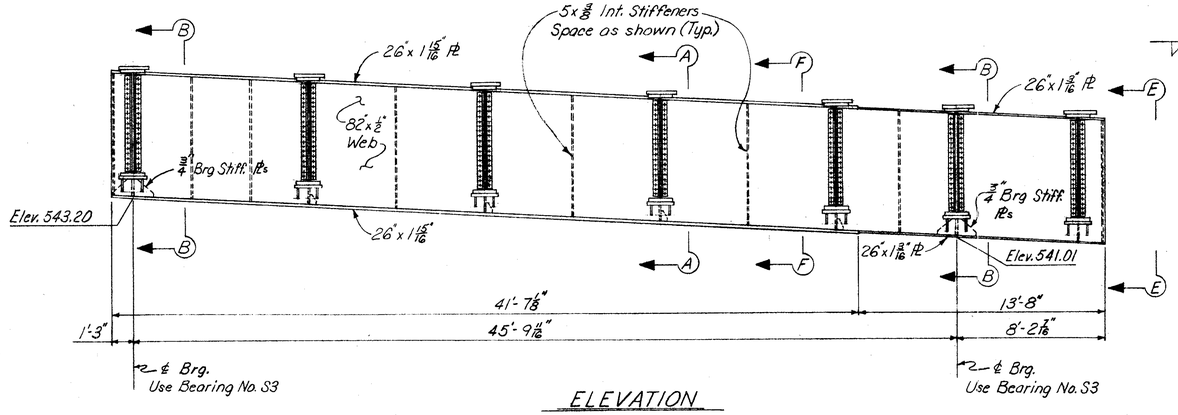
STRINGER	A	B	C	D	E	EA	F
DIMENSION X	3 3/16	3 5/16	3 3/8	3 3/8	3 3/16	3 3/16	3 5/8

SPAN 3W

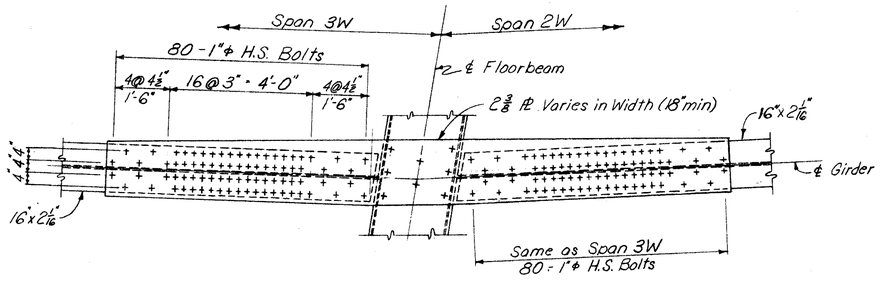


SPAN 2W

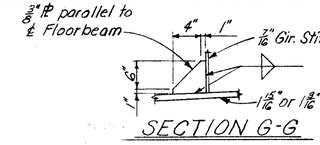
PLAN - FLOORBEAM AT PIER 2W



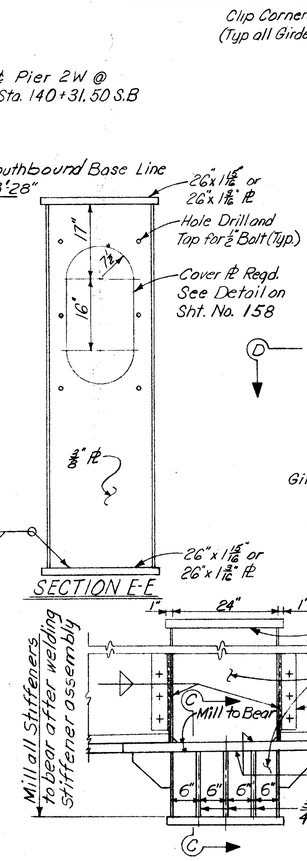
ELEVATION



PLAN OF TOP SPLICE PLATE



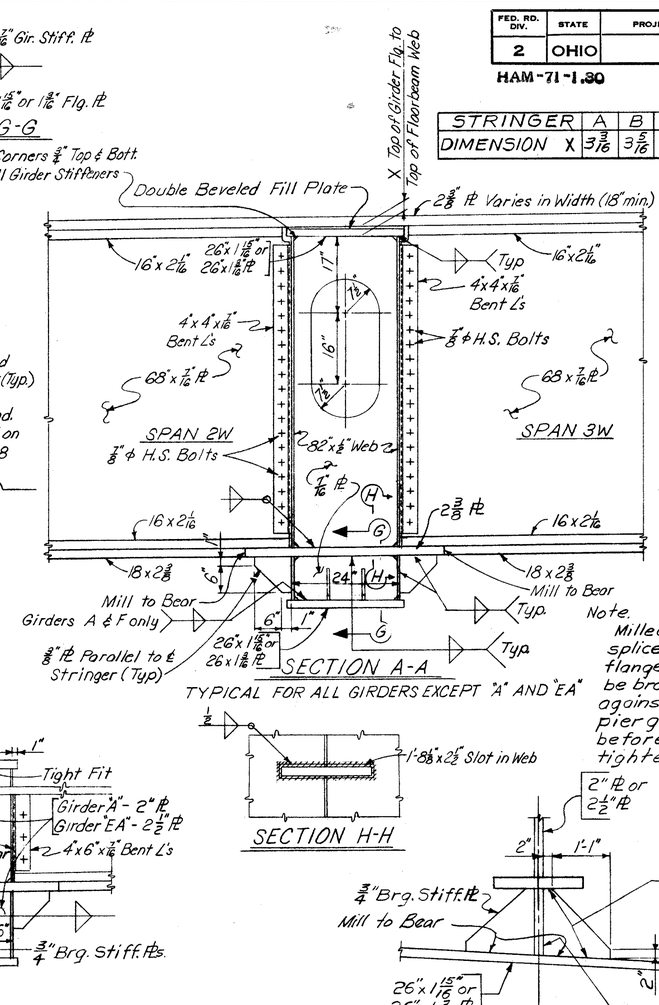
SECTION G-G



SECTION E-E

SECTION B-B

(For Details Not Shown See Section A-A)



SECTION A-A

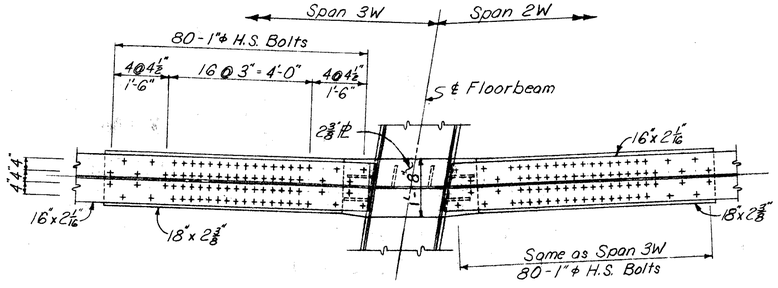
TYPICAL FOR ALL GIRDERS EXCEPT "A" AND "EA"

Note.
Milled ends of compression splice plates on bottom flanges of girders shall be brought to full bearing against milled ends of pier girder brackets before bolts are tightened.

SECTION H-H

SECTION C-C

Note:
For Cover Plate Details and Section F-F See Floorbeam 2E, Sht. No. 158
For fillet weld sizes not shown see "TABLE OF FILLET WELD SIZES" Sht. No. 164
For Bearing Details see Sht. No. 165



SECTION D-D

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
D.M.B.	W.R.T. 1-11-65		JGG 2-2-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-71-1.30

151/210

306 Red
151-210
Plan and profile

SPAN 4 W
56'-1½"
9'-5 11/16" | 41'-9" | 6'-0¾"
1'-6" | 10'-3 15/16" | 10'-3 15/16" | 10'-3 15/16" | 10'-3 15/16" | 5'-10⅜" | 5'-10⅜" | 2'-1 3/16"
1'-6" 1'-2 3/16"
℄ Bearing ℄ Bearing
73°46'01" | 73°46'01" | 73°46'01" | 73°46'01" | 73°46'01" | 73°11'47" | 72°37'33"
26"x 11/16" ℔ Top & Bott.
26 x 1 7/16" ℔ Top & Bott.
2'-2"
5"x⅜" Int. Stiff. Typical
℄ Floorbeam
26x 11/16" ℔ Top & Bott.
℄ Pier 3W @ Sta. 141+23.00 S.B.
Southbound Base Line
70°22'30" | 70°22'30" | 70°22'30" | 70°22'30" | 70°22'30" | 69°41'35" | 68°59'26"
℄ Girder (Typ.)
A B C D E EA F
SPAN 3W

PLAN - FLOORBEAM AT PIER 3W

4" 1"
6"
1"
⅜" ℔ Parallel to ℄ Floorbeam

SECTION D-D
Typ - Top or Bottom Flange

Min. Top of Girder Flange to Top of Floorbeam Web.
2 7/16 Strs. A,B,EA,F
2 5/8 Strs. C,D,E.
Double Beveled Fill ℔ Top ℄ Bottom
1 3/16 ℔ Varies in Width (18" min.) Girders A,C,D,E ℄ F only
℔ 26"x 11/16" or 26"x 1 7/16"
16"x 15/16" ℔ Typ)
Typ. @ Girders B ℄ EA only
16"x 15/16" ℔
7/16" Bent ℔
7/16" Bent ℔
68°x 7/16"
68°x 7/16"
Span 3W
Span 4W
7/8"ϕ H.S. Bolts
7/8"ϕ H.S. Bolts
7/16" ℔
64"x 7/16" Web
Typ. @ Girders C,D ℄ E only
Girders A,B,EA ℄ F only
16"x 15/16" ℔
16"x 15/16" ℔
℔ 26"x 11/16" or 26"x 1 7/16"
1 3/16 ℔ Varies in Width (18" min.)

SECTION A-A

5"x ⅜" Int. Stiffners Space as Shown
26x 11/16 ℔
26x 1 7/16 ℔
9" 1 11/16 Brg. Stiff. 2
¾" Stiff. ℔s 2
64x 7/16 Web
7/16" Bent ℔ (Typ)
1 11/16 Brg. Stiff.
¾" Stiff. ℔s
26x 11/16 ℔
Elev. 549.31
Elev. 546.67
15'-10"
9'-5 11/16"
30'-10½"
41'-9"
9'-5"
4'-10 9/16"
℄ Brg. Use Bearing No. S2
℄ Brg. Use Bearing No. S5

ELEVATION

Span 4W | Span 3W
44-1"ϕ H.S. Bolts
2@4½" 9@3"=2'-3" 2@4½" 2"
9" 9"
℄ Floorbeam
1 3/16" ℔ Varies in Width (18" min.)
℄ Girder
4"x 4"
16"x 15/16"
Same as Span 4W 44-1"ϕ H.S. Bolts

SPLICE PLATE DETAIL

Clip Corners ¾" Top & Bottom (Typ. all Girder Stiffeners)
26"x 11/16" ℔
Hole - Drill and Tap for ½" Bolt (Typ)
Cover ℔ Req'd. See Detail on Sheet No. 158
64"x 7/16" Web
¾" Stiff. ℔s
64"x 7/16" Web
¾" ℔
26"x 11/16" ℔

SECTION E-E
(Typ. @ Ends of Floor Beam)

26"x 11/16" ℔
Tight Fit
64"x 7/16" Web
64"x 7/16" Web
¾" Stiff. ℔s
6" 6" 6" 6"
1 5/16" or 1 9/16" Brg. Stiff.
26"x 11/16" ℔
Mill Stiffeners to Bear after Welding Stiffener assembly.

SECTION B-B

1 5/16" or 1 9/16" Brg. Stiff.
2"
10"
¾" Stiff. ℔s
½" Typ.
Typ
10"
26"x 11/16"
Mill to Bear
℄ Brg.

SECTION C-C

Note:
For Cover Plate Details and Section F-F See Floorbeam 2E Sht. No. 158
For Fillet Weld Sizes not shown, See "TABLE OF FILLET WELD SIZES" Sht No. 164
For Bearing Details see sht. No. 165

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

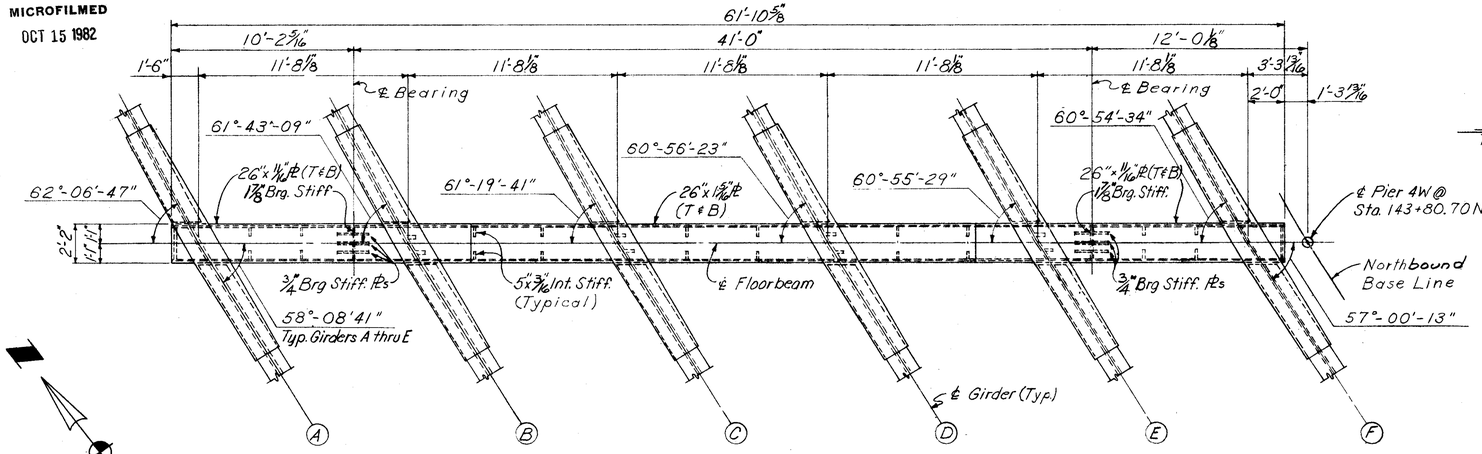
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
C.W.R.	W.R.T. 1-18-65		Jgg 2-22-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-71-1.80

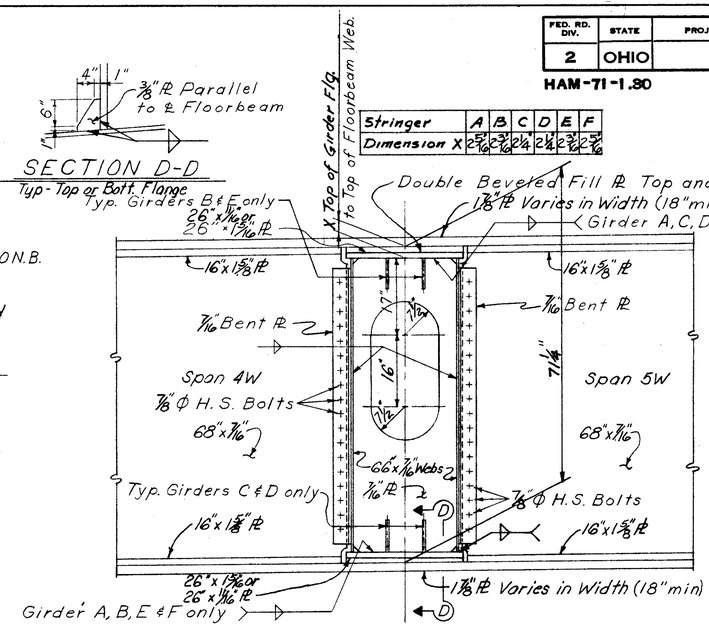
152
210

SPAN 5W

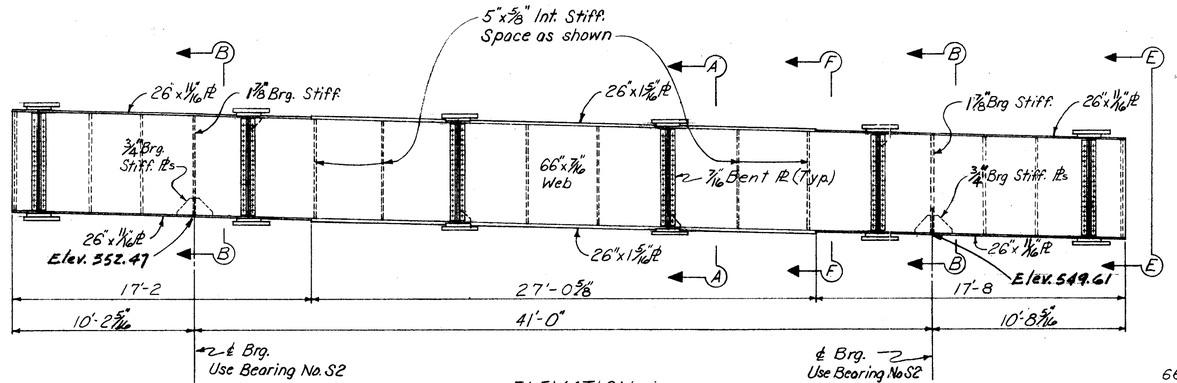


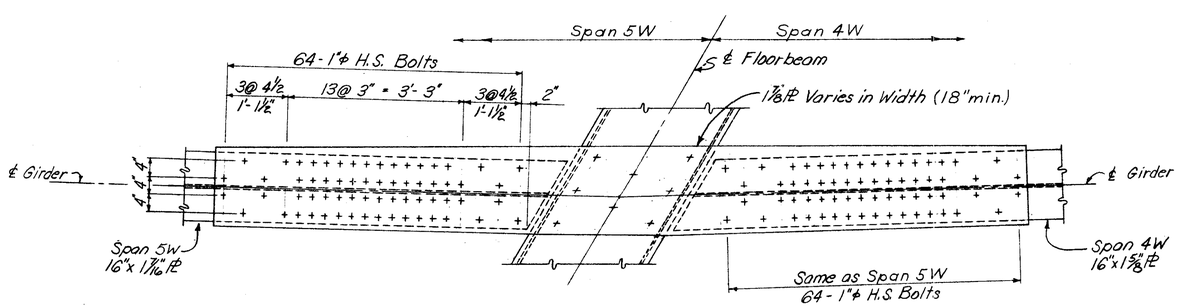
SPAN 4W

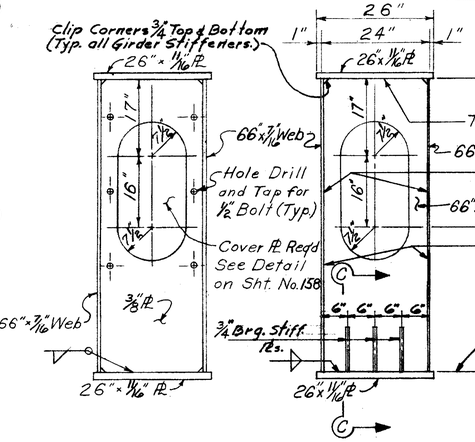
PLAN - FLOORBEAM AT PIER 4W

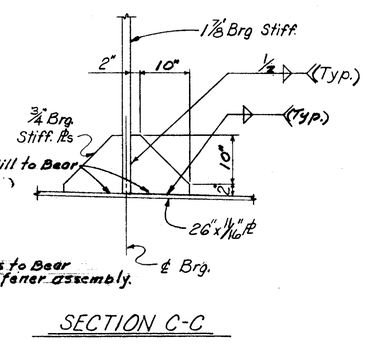


Stringer	A	B	C	D	E	F
Dimension X	2⅝16	2⅜16	2¼	2¼	2⅜16	2⅝16









Note:
For Cover Plate Details and Section FF See Floor Beam 2E Sht. No. 158
For fillet Weld Sizes not shown, See TABLE OF FILLET WELD SIZES" Sht. No. 164
For Bearing Details see sht. no. 165

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

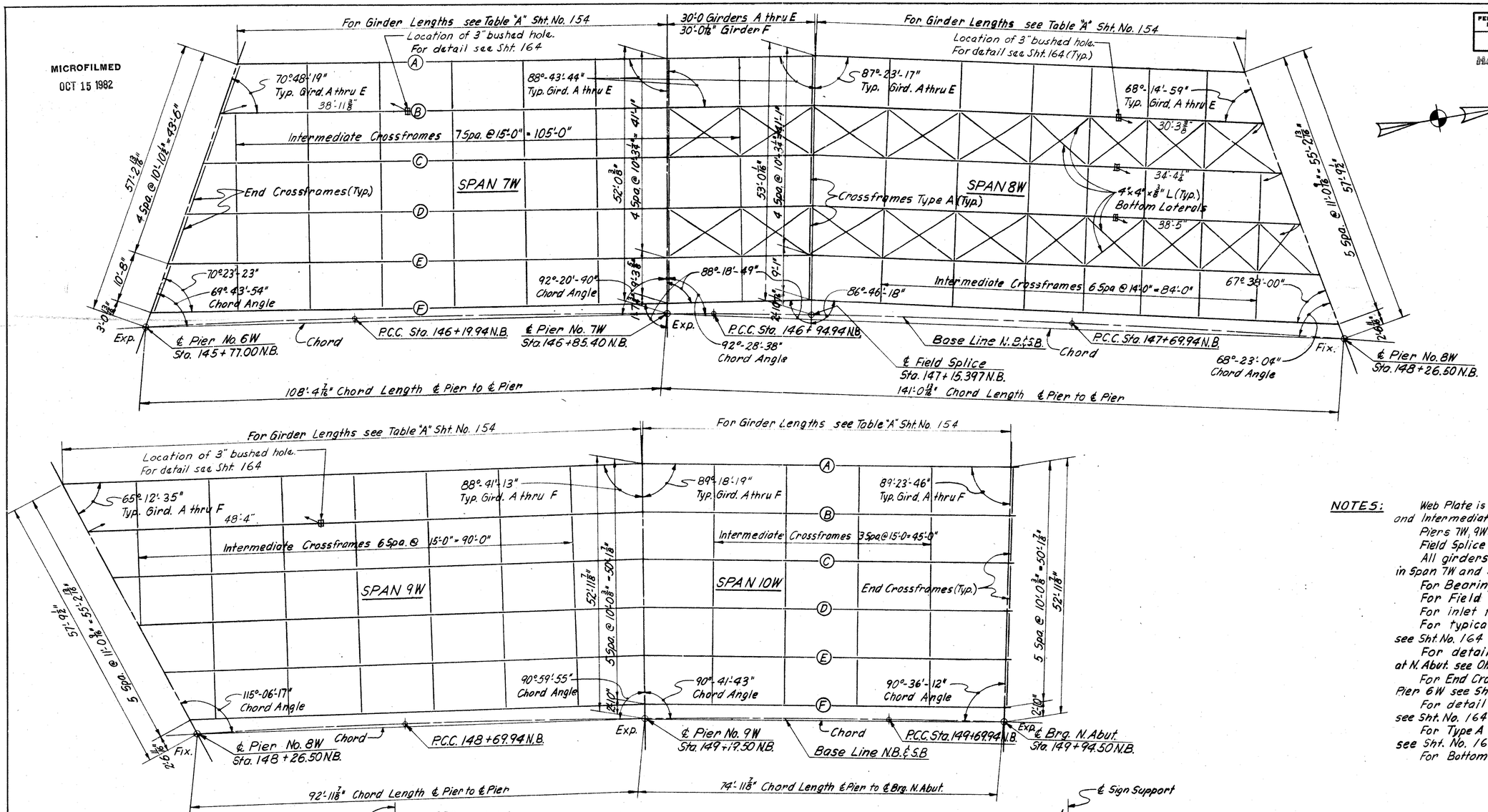
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
D.M.B	W.R.T. 1-25-65		JHO 2-22-65	JHO 3/22/65	

MICROFILMED
OCT 15 1982

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

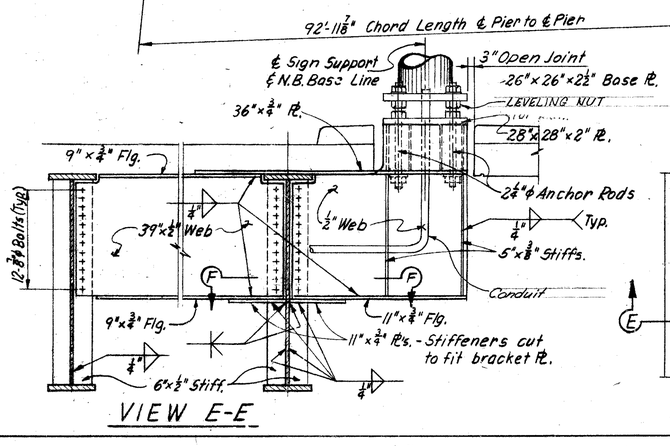
HAM-71-1.30

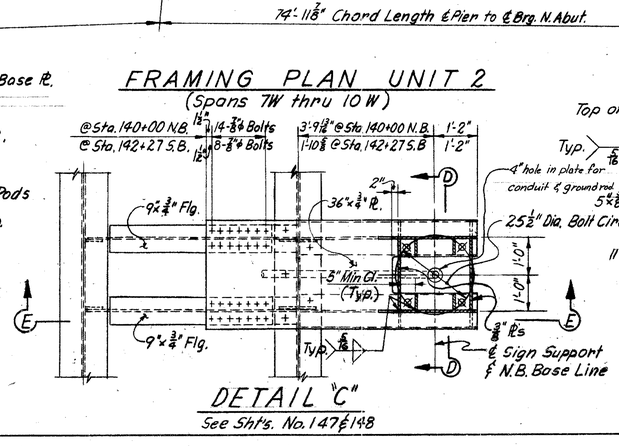
153
210

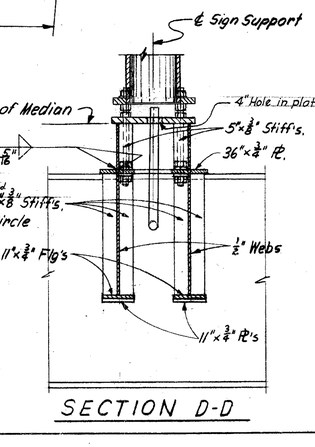


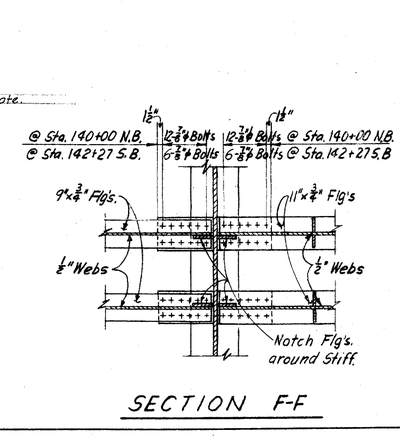
NOTES:

Web Plate is 68"x 13/16", for Flange Plate, Bearing Stiffener and Intermediate Stiffeners see Sht. No. 154
Piers 7W, 9W and ℄ Brg. N. Abut. are Radial
Field Splice and Pier 7W are Parallel
All girders Unit 2 parallel, except girder F in Span 7W and Span 8W.
For Bearing details see Sht's. No. 165 & 166
For Field splice details see Sht. No. 165
For inlet framing see Sht's. No. 187 & 188
For typical girder elevations and details see Sht. No. 164
For detail of end crossframes and End Dam at N. Abut. see Ohio Standard Drawing No. S.D.-1-63 Sht. 2
For End Crossframes and End Dam details at Pier 6W see Sht No. 168
For detail of Intermediate Crossframes see Sht. No. 164
For Type A Crossframe details see Sht. No. 164
For Bottom Lateral Bracing see Sht. No. 164









HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS
UNIT 2

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MDC	HAS 11-5-64		CHH 2-1-65	JHO 3/22/65	

DEFLECTION AND CAMBER

GIRDER	A												
SPAN	7W			8W				9W			10W		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13
Deflection due to weight of steel	1/16	1/16	0	1/16	1/8	1/8	1/16	1/16	1/16	1/16	0	1/16	0
Deflection due to remaining dead load	3/8	3/8	1/8	3/8	11/16	5/8	5/16	3/16	7/16	1/4	1/16	3/16	3/16
Convexity (See Note below)	13/16	3/8	0	7/16	1/16	-1/8	-1/8	-1/4	-5/16	-3/16	-1/16	-1/16	-1/16
Sum of deflection and convexity (Camber)	1 1/4	15/16	1/8	7/8	7/8	5/8	1/4	0	3/16	1/8	0	3/16	1/8

GIRDER	B												
SPAN	7W			8W				9W			10W		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13
Deflection due to weight of steel	1/16	1/16	0	1/16	1/8	1/8	1/16	1/16	1/16	1/16	0	1/16	0
Deflection due to remaining dead load	3/8	3/8	1/8	3/8	11/16	5/8	5/16	3/16	7/16	1/4	1/16	3/16	3/16
Convexity (See Note below)	3/4	5/16	0	7/16	1/16	-1/8	-1/8	-1/4	-5/16	-3/16	-1/16	-1/16	-1/16
Sum of deflection and convexity (Camber)	1 3/16	3/4	1/8	7/8	7/8	5/8	1/4	0	3/16	1/8	0	3/16	1/8

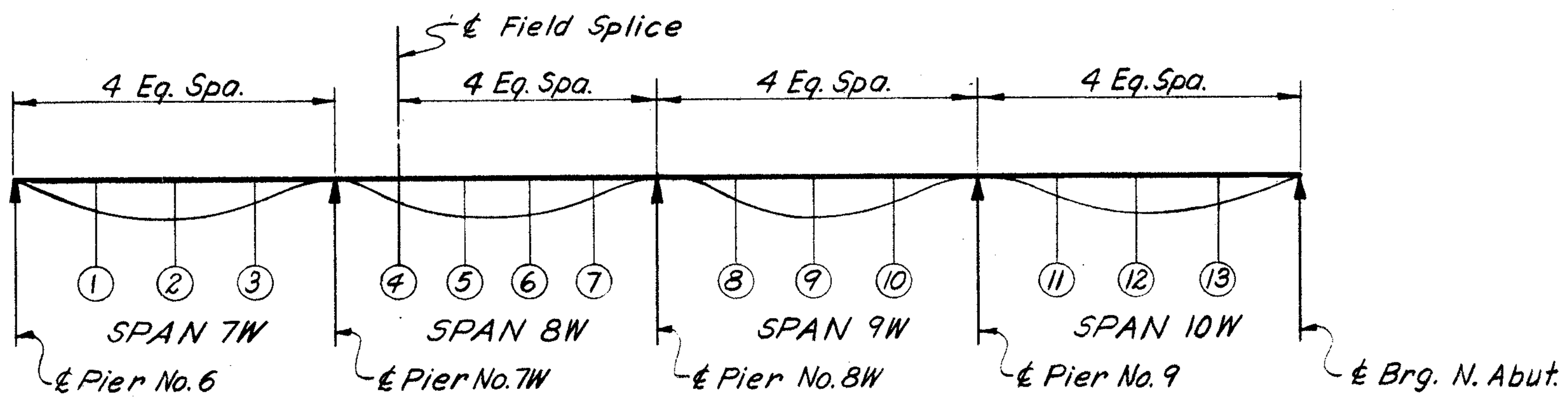
GIRDER	C												
SPAN	7W			8W				9W			10W		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13
Deflection due to weight of steel	1/16	1/16	0	1/16	3/16	3/16	1/16	1/16	1/16	1/16	0	1/16	0
Deflection due to remaining dead load	3/8	3/8	1/8	7/16	13/16	13/16	3/8	1/8	5/16	3/16	1/16	1/4	3/16
Convexity (See Note below)	5/8	3/16	0	7/16	1/16	-1/8	-1/8	-1/4	-5/16	-3/16	-1/16	-1/16	-1/16
Sum of deflection and convexity (Camber)	1 1/16	5/8	1/8	15/16	1 1/16	7/8	5/16	1/16	1/16	1/16	0	1/4	1/8

GIRDER	D												
SPAN	7W			8W				9W			10W		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13
Deflection due to weight of steel	1/16	1/16	0	1/8	3/16	3/16	1/8	0	0	0	0	1/16	1/16
Deflection due to remaining dead load	7/16	7/16	1/8	7/16	7/8	15/16	1/2	0	3/16	1/8	1/8	1/4	1/4
Convexity (See Note below)	7/16	1/8	-1/16	7/16	0	-3/16	-3/16	-3/16	-1/4	-1/8	-1/16	-1/16	-1/16
Sum of deflection and convexity (Camber)	15/16	5/8	1/16	1	1 1/16	15/16	7/16	-3/16	-1/16	0	1/16	1/4	1/4

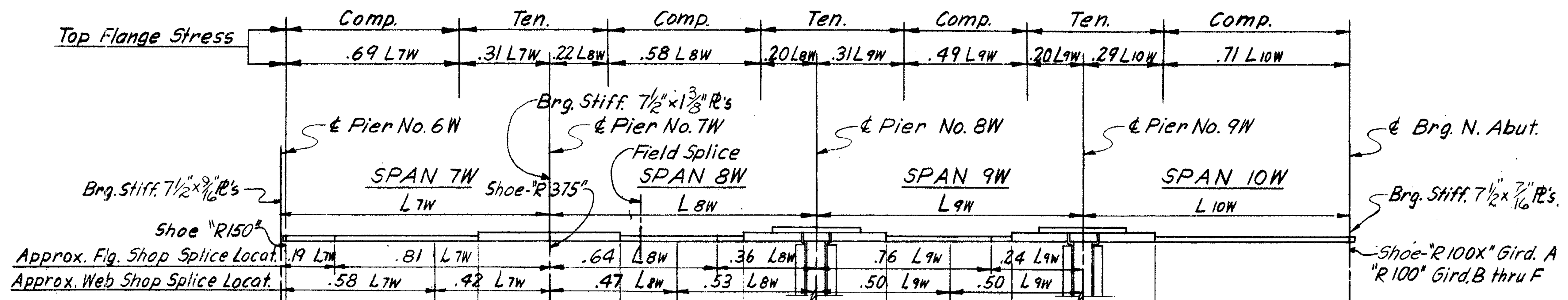
GIRDER	E												
SPAN	7W			8W				9W			10W		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13
Deflection due to weight of steel	1/16	1/16	0	1/8	1/4	1/4	1/8	0	0	0	0	1/16	1/16
Deflection due to remaining dead load	7/16	7/16	1/8	1/2	1	1 1/16	9/16	-1/8	1/16	1/16	3/16	5/16	1/4
Convexity (See Note below)	5/16	1/16	-1/8	7/16	0	-3/16	-3/16	-3/16	-1/4	-1/8	-1/16	-1/16	-1/16
Sum of deflection and convexity (Camber)	13/16	9/16	0	1 1/16	1 1/4	1 1/8	1/2	-5/16	-3/16	-1/16	1/8	5/16	1/4

GIRDER	F												
SPAN	7W			8W				9W			10W		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13
Deflection due to weight of steel	1/16	1/16	0	1/8	1/4	1/4	1/8	0	0	0	0	1/16	1/16
Deflection due to remaining dead load	3/8	3/8	1/8	7/16	7/8	15/16	1/2	-1/16	1/16	1/16	1/8	5/16	1/4
Convexity (See Note below)	1/4	1/16	-3/16	+7/16	0	-3/16	-3/16	-3/16	-1/4	-1/8	-1/16	-1/16	-1/16
Sum of deflection and convexity (Camber)	11/16	1/2	-1/16	1	1 1/8	1	7/16	-1/4	-3/16	-1/16	1/16	5/16	1/4

NOTE: Camber required for Spans 7W and 8W, Girders A thru F.
No Camber required for Spans 9W and 10W.
Convexity includes variations due to superelevation horizontal and vertical Curvature.



DEFLECTION DIAGRAM



Flg. Pl's (Top & Bott.)

Girder	Span 7W	Pier No. 7W	Lengths at Pier No. 7W	Span 8W	Pier No. 8W	Lengths at Pier No. 8W	Span 9W	Pier No. 9W	Lengths at Pier No. 9W	Span 10W
Girder A	16"×1 1/16"	16"×2 1/8"	28'-0" / 19'-0"	16"×1 1/4"	16"×1 7/8"	22'-0" / 30'-0"	16"×15/16"	16"×1 3/8"	15'-0" / 34'-0"	16"×11/16"
Girder B	16"×1 1/16"	16"×2 1/8"	28'-0" / 19'-0"	16"×1 1/4"	16"×1 7/8"	20'-0" / 30'-0"	16"×15/16"	16"×1 3/8"	15'-0" / 29'-0"	16"×11/16"
Girder C	16"×1 1/8"	16"×2 3/8"	28'-0" / 19'-0"	16"×1 3/8"	16"×1 7/8"	18'-0" / 32'-0"	16"×7/8"	16"×1 3/8"	15'-0" / 25'-0"	16"×11/16"
Girder D	16"×1 3/16"	16"×2 1/2"	28'-0" / 19'-0"	16"×1 1/2"	16"×1 7/8"	16'-0" / 33'-0"	16"×3/4"	16"×1 3/8"	15'-0" / 20'-0"	16"×3/4"
Girder E	16"×1 1/4"	16"×2 9/16"	28'-0" / 19'-0"	16"×1 5/8"	16"×1 7/8"	14'-0" / 34'-0"	16"×11/16"	16"×1 3/8"	15'-0" / 15'-0"	16"×3/4"
Girder F	16"×1 1/4"	16"×2 9/16"	28'-0" / 19'-0"	16"×1 5/8"	16"×1 7/8"	14'-0" / 34'-0"	16"×11/16"	16"×1 3/8"	15'-0" / 15'-0"	16"×3/4"

TABLE OF FLANGE PLATES AND SPLICES

Intermediate Stiffeners (6"×3/8" Pl)

Conn. Angle or Brg. Stiff. (each end)

Span	L/6	L/6	L/6	L/6	L/6	L/6
Span 7W	54"	68"	68"	59"	50"	45"
Span 8W	43"	50"	63"	68"	53"	45"
Span 9W	47"	54"	68"	68"	57"	48"
Span 10W	51"	57"	68"	68"	68"	59"

L

MAX. INTERMEDIATE STIFFENER SPACING

DEFLECTIONS OF FLOOR BEAMS							
GIRDER		A	B	C	D	E	F
FLOOR BEAM 8W	Steel Weight	1/16	1/8	1/8	1/8	1/16	0
	Remain. D.L.	1/8	1/4	5/16	5/16	1/8	0
FLOOR BEAM 9W	Steel Weight	0	0	0	0	0	0
	Remain. D.L.	1/4	1/16	0	0	0	0

NOTE: All Zero's indicate a negligible amount of deflection.

TABLE "A"

Girder	Pier 6W to Pier 7W	¢ Splice to ¢ Pier 8W	¢ Pier 8W to ¢ Pier 9	¢ Pier 9 to ¢ Brg. N. Abut.
A	90'-8 1/4"	92'-1 1/16"	118'-5 1/4"	76'-2 5/16"
B	94'-0 7/16"	95'-8 9/16"	113'-6 7/8"	75'-11 9/16"
C	97'-4 5/8"	99'-4 1/16"	108'-8 9/16"	75'-8 13/16"
D	100'-8 3/4"	102'-11 9/16"	103'-10 3/16"	75'-6 1/8"
E	104'-0 15/16"	106'-7 1/16"	98'-11 7/8"	75'-3 3/8"
F	107'-4 9/16"	110'-3 5/16"	94'-1 1/2"	75'-0 5/8"
Girder Length				

HAZELET & ERDAL
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STRUCTURAL STEEL DETAILS UNIT 2

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MOC	HAS 11-5-64		CHH 2-1-65	JHo 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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SPAN 9W

66'-1"

1'-6" | 60'-0" | 5'-3 11/16"

9'-0 3/16" | 11'-0 9/16" | 11'-0 9/16" | 11'-0 9/16" | 11'-0 9/16" | 11'-0 9/16" | 2'-6 11/16"

1'-10" | 8 11/16"

℄ Bearing ... ℄ Bearing

1⅛" Brg. Stiff. | 65°-12'-35" Typical | 36"x1½" Pl (Top & Bott.) | 36"x2" Pl (Top & Bott.) | ℄ Floorbeam | 36"x1½" Pl (Top & Bott.) | 1⅛" Brg. Stiff.

3'-0" | 1'-6" | 1'-6"

8"x½" Int. Stiff. (Typical)

℄ Pier 8W @ Sta. 148+26.50 N.B.

Base Line N.B. & S.B.

68°-14'-59" Typ. Girders A thru E

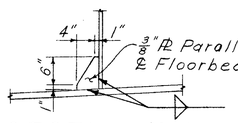
67°-38'-00"

A B C D E F

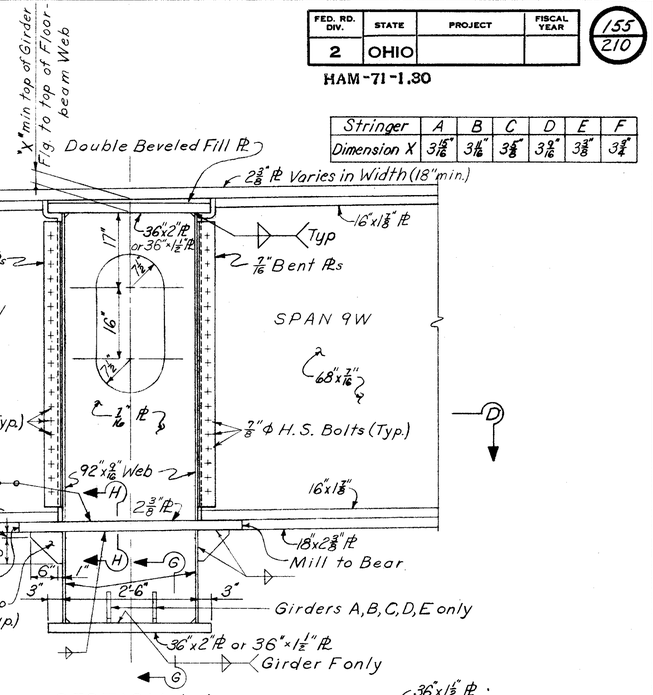
℄ Girder (Typ.)

SPAN 8W

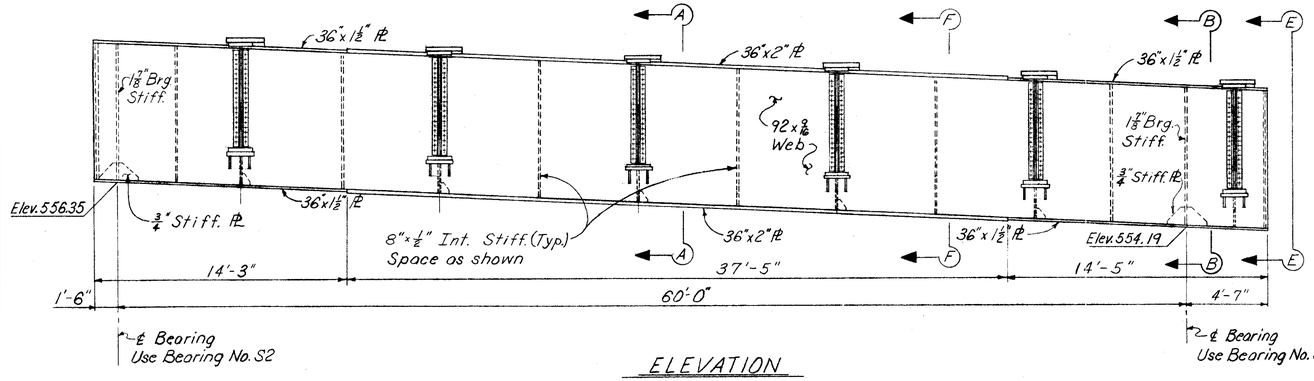
PLAN - FLOORBEAM AT PIER 8W



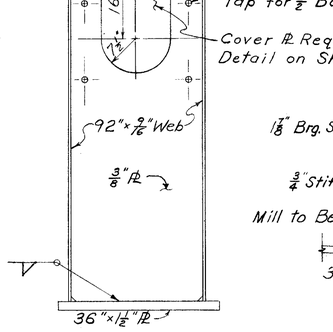
SECTION G-G



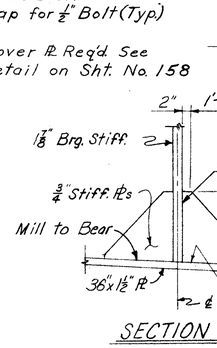
Stringer	A	B	C	D	E	F
Dimension X	3 15/16"	3 1/16"	3 5/8"	3 9/16"	3 3/8"	3 3/4"



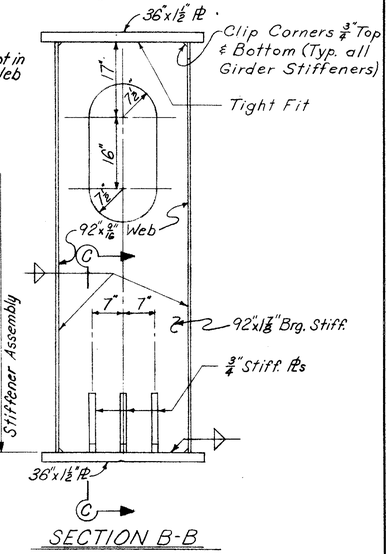
ELEVATION

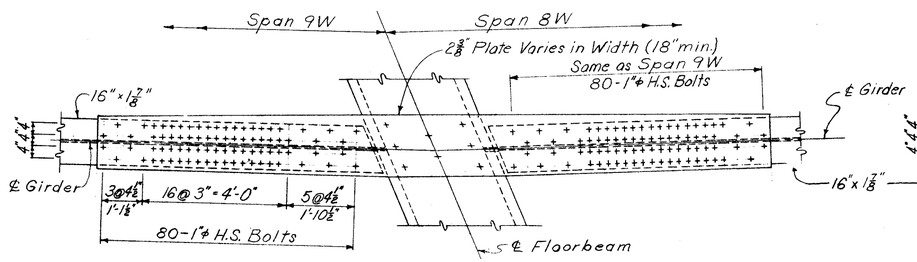


SECTION E-E
(Typ. @ Ends of Floorbeam)

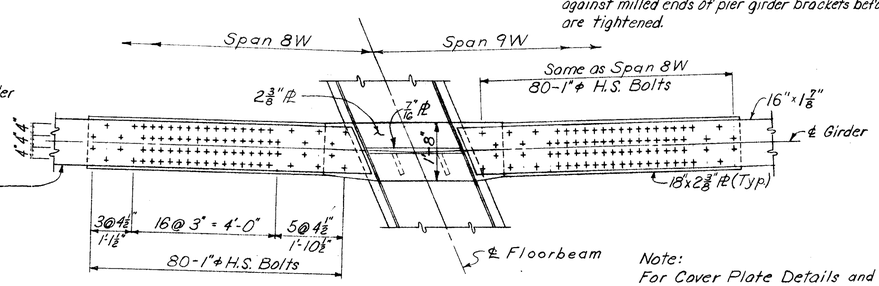


Note: Milled ends of compression splice plates on bottom flanges of girders shall be brought to full bearing against milled ends of pier girder brackets before bolts are tightened.





PLAN OF TOP SPLICE PLATE



SECTION D-D

Note:
For Cover Plate Details and Section FF See Floorbeam 2E Sht. No. 158
For fillet Weld Sizes not shown see "TABLE OF FILLET WELD SIZES" Sht. No. 164
For Bearing Details see sht. 165

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
Jag	W.R.T. 12-18-64		JAG 2-23-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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210

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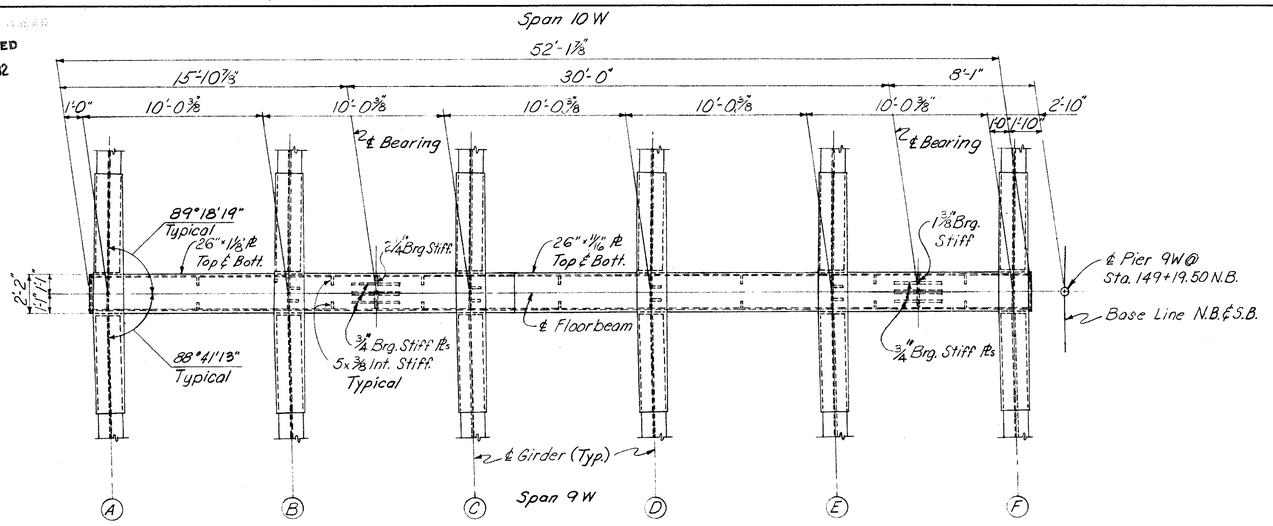
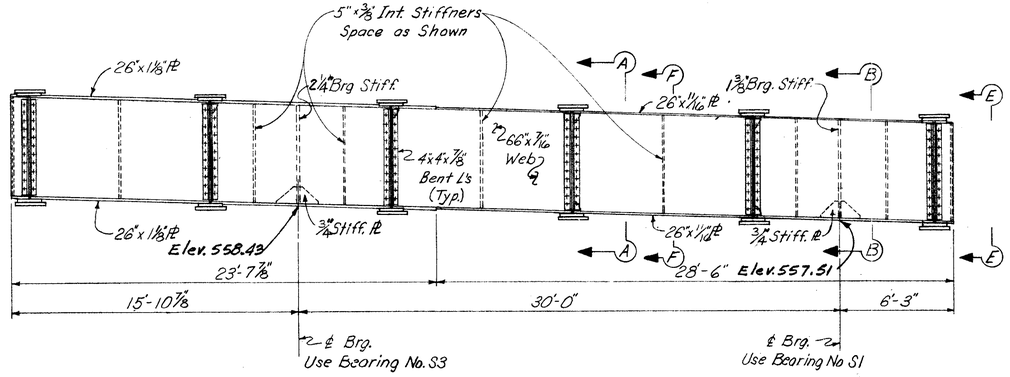
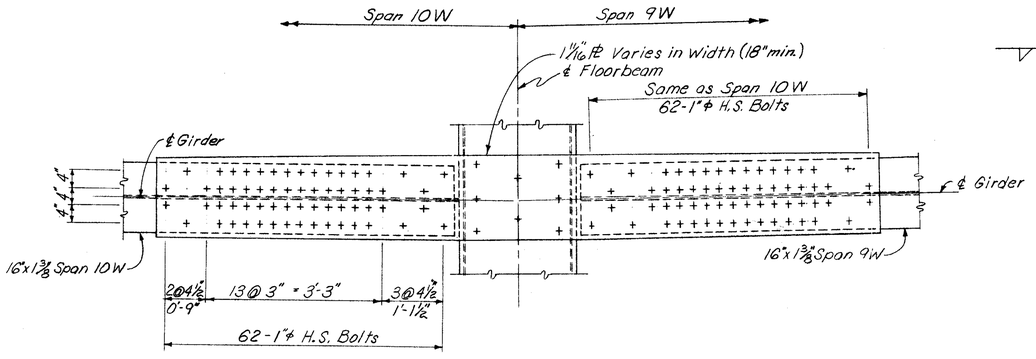


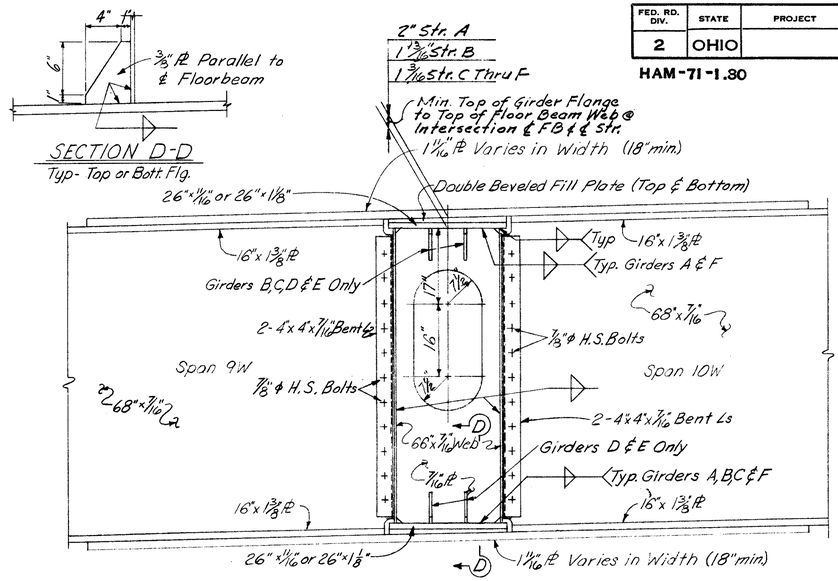
PLAN - FLOORBEAM AT PIER 9W



ELEVATION

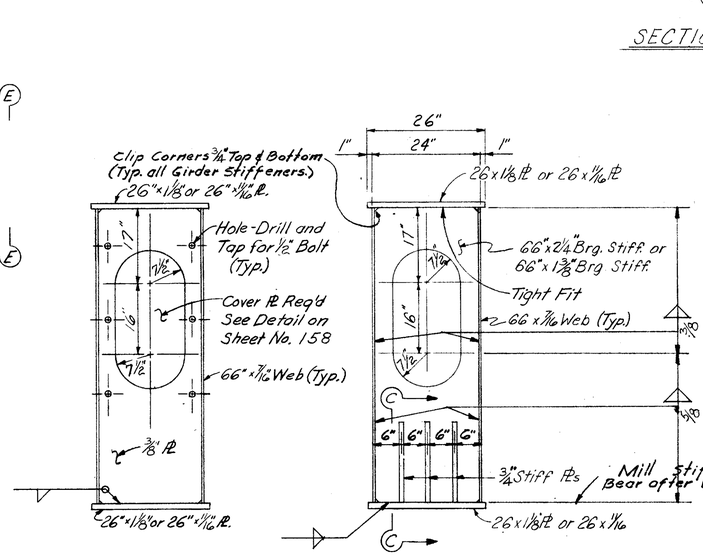


SPLICE PLATE DETAIL



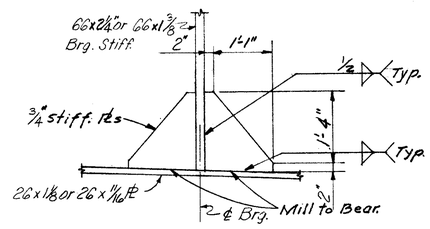
SECTION D-D
Typ- Top or Bott. Flg.

SECTION A-A



SECTION E-E

SECTION B-B



SECTION C-C

Mill stiffeners to bear after welding stiffener assembly.

Note:
For Cover Plate Details and Section F-F see Floorbeam 2E Sht. No. 158
For Fillet Weld Sizes not shown, See "TABLE OF FILLET WELD SIZES" Sht. No. 164
For Bearing Details see sht. No. 165

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
E.L.W.	W.R.T. 12-11-64		J.g.g. 2-8-65	J.H.b. 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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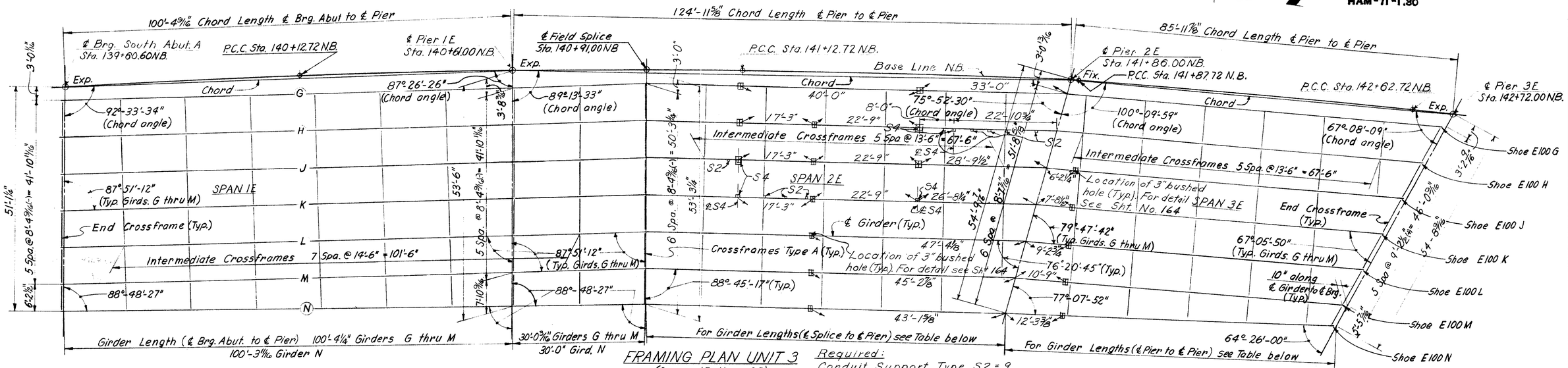


FRAMING PLAN UNIT 3
(Spans 1E thru 3E)

Required:
Conduit Support Type S2 = 9
Junction Box Support Type S4 = 5
For details of Conduit and Junction Box Supports see Sht. No.
The arrow for the Conduit or Junction Box Support, points to the Girder side to which they must be fastened.

NOTES:
For Bearing details see Sht's No. 165 & 166
For Field Splice details see Sht. No. 165
For inlet framing see Shts. No. 187 & 188
For typical girder elevations and details see Sht. No. 164
For detail of end crossframes at S. Abut. A see Ohio Standard Drwg. No. S.D.-1-63. Sht. 2
For detail of end crossframe at Pier 3E see Sht. No. 168
For detail of intermediate crossframes see Sht. No. 164
For Type A crossframes see Sht. No. 165
All girders in Unit 3 are parallel, except girder N from S. Abut. A to Field Splice and from Pier 2E to Pier 3E.
South Abutment A, Pier 1E and ℄ Field Splice are parallel.
Web Plate is 68" x 7/16"
For Flange PL's, Bearing Stiff. and intermediate Stiffeners see details this Sht.

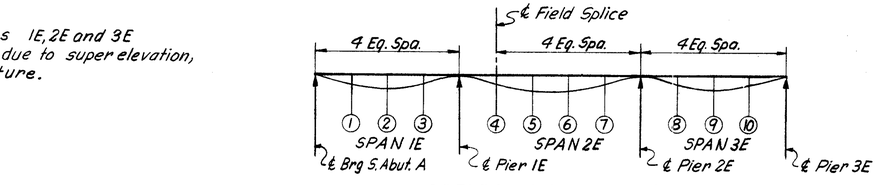
DEFLECTION AND CAMBER

Girder	G										H										J										K										L										M										N									
Span	1E			2E			3E				1E			2E			3E				1E			2E			3E				1E			2E			3E				1E			2E			3E				1E			2E			3E				1E			2E			3E			
Location	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
Deflection due to weight of steel.	1/8	1/8	1/16	1/16	1/8	1/8	1/16	0	1/16	1/16	1/8	1/8	1/16	1/16	1/8	1/8	1/16	0	1/16	1/16	1/8	1/8	1/16	1/16	1/8	1/8	1/16	0	1/16	1/16	1/8	1/8	1/16	1/16	1/16	1/16	1/16	0	1/16	1/16	1/8	1/8	1/16	1/16	1/16	1/16	1/16	0	1/16	1/16	1/8	1/8	1/16	1/16	1/16	1/16	1/16	0	1/16	1/16	1/8	1/8	1/16	1/16	1/16	1/16	0	1/16	1/16
Deflection due to remaining dead load.	7/16	1/2	1/4	1/4	9/16	9/16	1/4	1/16	1/4	1/4	7/16	1/2	3/16	1/4	1/2	1/2	1/4	1/16	1/4	1/4	7/16	1/2	3/16	1/4	1/2	1/2	1/4	1/16	1/4	1/4	7/16	1/2	1/4	3/16	7/16	7/16	3/16	1/16	3/16	3/16	7/16	1/2	1/4	3/16	7/16	7/16	3/16	1/16	1/8	1/8	3/8	1/2	1/4	3/16	3/8	3/8	3/16	1/16	1/8	1/8	1/4	1/2	1/4	3/16	7/16	7/16	3/16	1/16	1/8	1/8
Convexity (See note below)	-3/16	-1/4	-1/4	5/16	-1/16	-5/16	-1/4	-1/16	1/8	1/4	-3/16	-5/16	-1/4	5/16	-1/16	-5/16	-1/4	-1/16	1/16	3/16	-3/16	-5/16	-1/4	5/16	-1/16	-1/4	-1/4	-1/8	0	1/8	-3/16	-5/16	-1/4	5/16	-1/16	-1/4	-1/4	-1/8	-1/16	1/8	-3/16	-3/8	-1/4	1/4	-1/16	-3/16	-1/8	0	-1/4	-1/2	-5/16	-1/16	-1/8	-3/16	-5/16	-3/8	-1/8	0	-1/4	-1/2	-5/16	-1/16	-1/8	-3/16	-1/8	0
Sum of deflection and convexity	3/8	3/8	1/16	5/8	5/8	3/8	1/16	0	7/16	9/16	3/8	5/16	0	5/8	9/16	5/16	1/16	0	3/8	1/2	3/8	5/16	0	5/8	9/16	3/8	1/16	-1/16	5/16	7/16	3/8	5/16	1/16	9/16	7/16	1/4	0	-1/16	3/16	3/8	3/4	1/16	1/2	7/16	5/16	1/16	-1/16	1/8	5/16	5/16	5/16	0	1/2	7/16	5/16	1/16	-1/8	1/16	3/16	1/4	1/8	0	1/16	5/16	1/16	1/4	1/16	-1/4	-3/16	1/16

NOTE: No Camber required for Spans 1E, 2E and 3E
Convexity includes variations due to super elevation, horizontal and vertical curvature.

GIRDER LENGTHS

Girder	℄ Splice to ℄ Pier 2E	Span 3E
G	94'-2 7/8"	85'-3 3/8"
H	91'-11 3/4"	83'-2 3/4"
J	89'-9 1/8"	81'-2 1/16"
K	87'-6 9/16"	79'-1 3/8"
L	85'-3 1/16"	77'-0 11/16"
M	83'-1 5/16"	75'-0"
N	80'-10 3/4"	74'-5 13/16"



DEFLECTION DIAGRAM

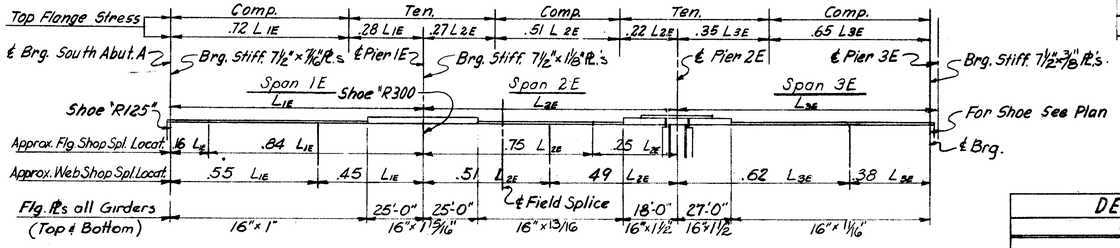
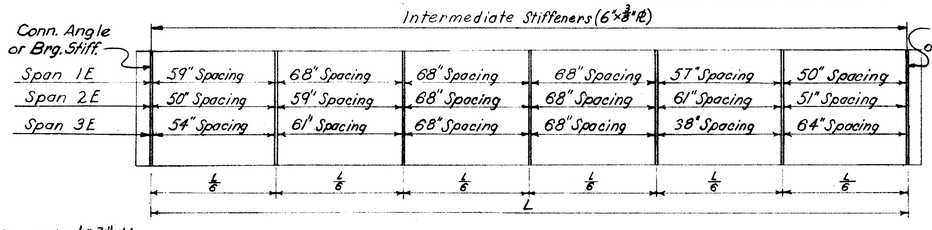


TABLE OF FLANGE PLATES AND SPLICES



MAX. INTERMEDIATE STIFFENER SPACING

DEFLECTION OF FLOOR BEAM

GIRDER		G	H	J	K	L	M	N
FLOOR BEAM 2E	Steel Weight	0	0	0	0	0	0	0
	Remain. D.L.	1/16	0	0	1/16	1/16	0	0

NOTE: All Zero's indicate a negligible amount of deflection

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STRUCTURAL STEEL DETAILS
UNIT 3

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MDC	SMH 11-26-64		CHH 2-1-65	JHO 3/22/65	

Stringer	G	H	J	K	L	M	N
Dimension X	3 3/16"	3"	2 7/8"	2 7/8"	2 13/16"	2 3/4"	3 1/8"

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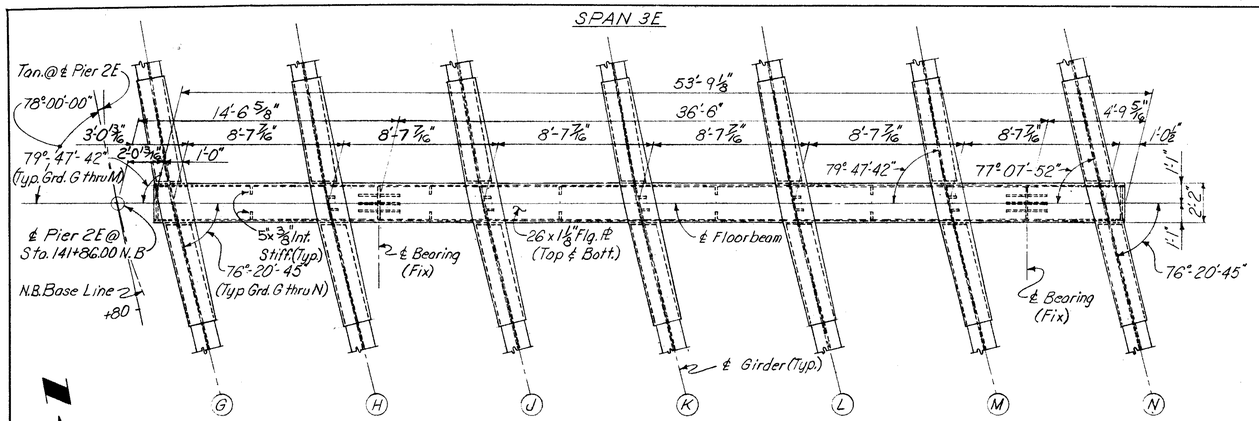
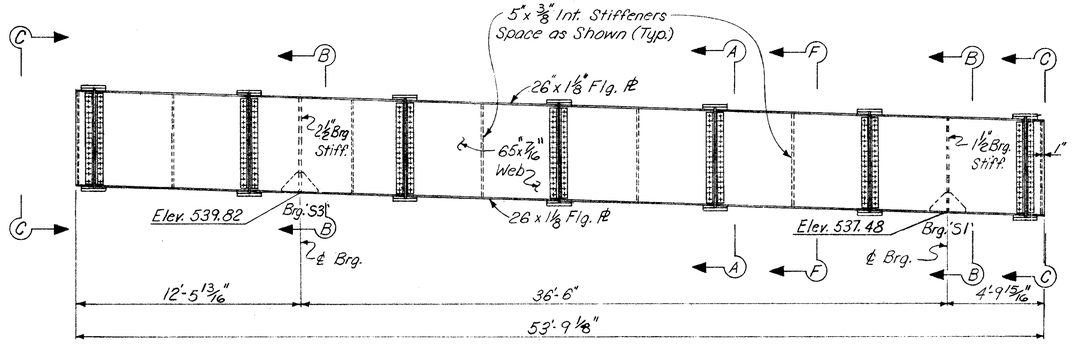
SPAN 3E



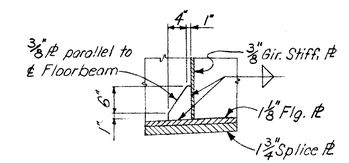
SPAN 2E

PLAN - FLOORBEAM AT PIER 2E

MICROFILMED
OCT 15 1982

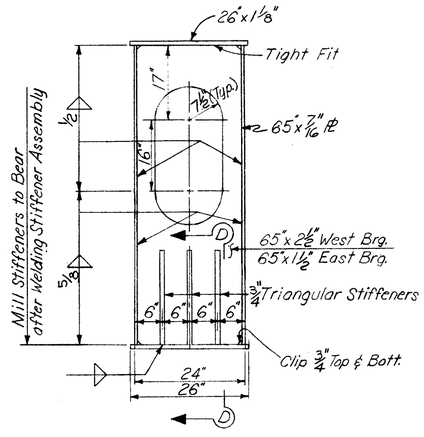


ELEVATION



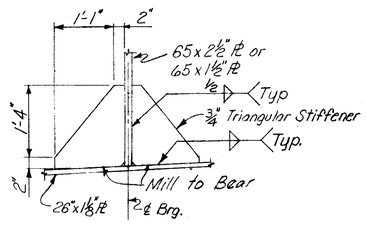
SECTION E-E

(Typ. Top and Bottom)

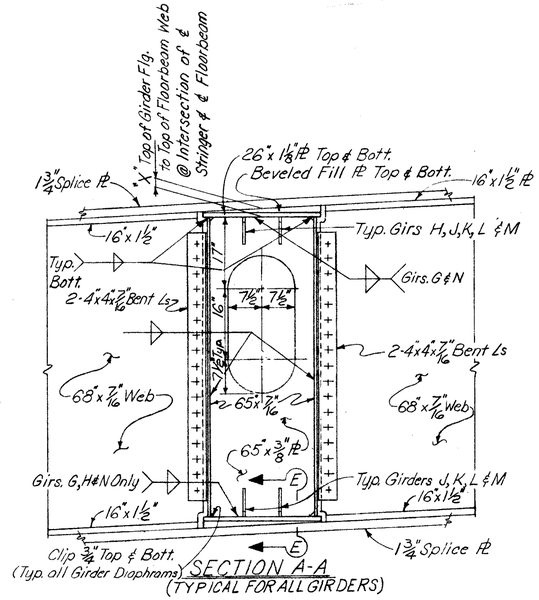


SECTION B-B

SHOWING BEARING STIFFENER

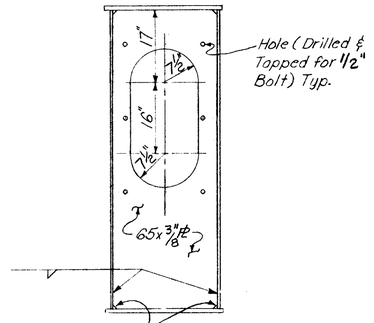


SECTION D-D



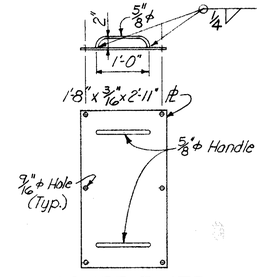
SECTION A-A

(TYPICAL FOR ALL GIRDERS)



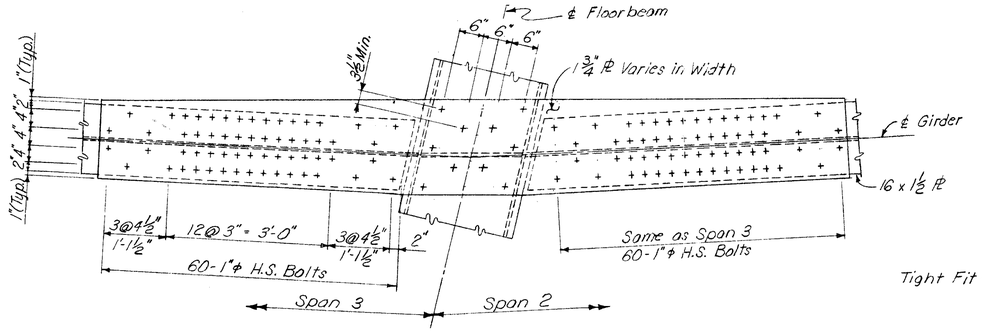
Clip 1 1/2" Top and Bott.

SECTION C-C



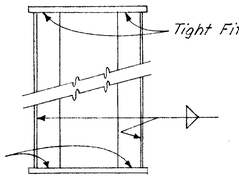
COVER PLATE

(For Access Hole)



SPLICE PLATE DETAIL

SHOWING TOP SPLICE
(Typ. Bottom)



SECTION F-F

TYP. ALL INTERMEDIATE STIFFENERS

NOTE:
For fillet weld sizes not shown see "TABLE OF FILLET WELD SIZES" sht no. 164

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STRUCTURAL STEEL DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
PME	W.R.T. 10-4-64		CHH 2-8-65	JHD 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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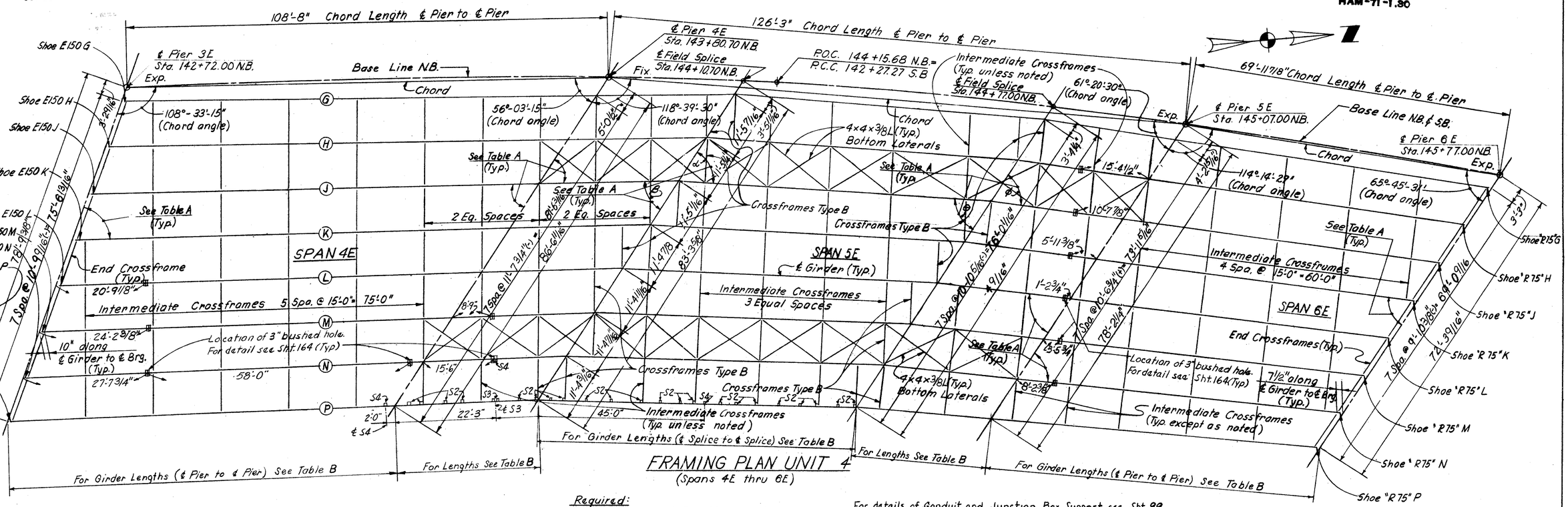


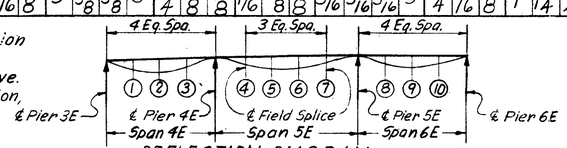
Required:
Conduit Support Type S2 = 22
Junction Box Support Type S3 = 1
Junction Box Support Type S4 = 3

For details of Conduit and Junction Box Support see Sht. 99
The arrow for the conduit or junction box support, points to the girder side to which they must be fastened.

DEFLECTION AND CAMBER

Girder	G									H										J										K										L										M										N										P									
Span	4E			5E				6E		4E			5E				6E			4E			5E				6E			4E			5E				6E			4E			5E				6E			4E			5E				6E			4E			5E				6E			4E			5E				6E		
Location	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
Deflection due to weight of steel.	1/8	1/8	1/16	1/16	1/8	1/8		0	0	0	1/8	1/8	1/16	1/16	1/8	1/8		0	0	0	1/8	1/8	1/16	1/16	1/8	1/8		0	0	0	1/8	1/8	1/16	1/16	1/8	1/8		0	0	0	1/16	1/16	0	1/8	3/16	1/8		0	0	0	1/16	1/16	0	1/8	1/4	1/4	1/8	0	0	0	1/16	1/16	0	1/8	5/16	5/16	1/8	0	0	0
Deflection due to remaining dead load.	7/16	1/2	3/16	3/8	11/16	3/4	7/16	-1/16	0	1/16	7/16	1/2	3/16	5/16	5/8	11/16	7/16	-1/16	0	1/16	3/8	7/16	1/8	3/16	11/16	3/4	7/16	-1/16	0	1/16	3/8	3/8	1/8	3/8	3/4	3/4	1/2	-1/16	0	1/16	5/16	5/16	1/16	7/16	13/16	13/16	1/2	-1/16	0	1/16	1/4	1/4	0	7/16	13/16	7/8	1/2	-1/16	0	1/16	3/16	3/16	0	1/2	7/8	7/8	1/2	-1/16	0	1/16	1/4	3/16	0	9/16	1	1	9/16	0	0	1/16
Convexity (See note below)	5/8	7/8	5/8	2 11/16	2 7/8	2 13/16	2 7/16	5/16	3/8	5/16	5/8	13/16	5/8	2 5/8	2 7/8	2 13/16	2 7/16	5/16	3/8	5/16	9/16	13/16	5/8	2 5/8	2 7/8	2 13/16	2 7/16	5/16	7/16	5/16	1/2	3/4	9/16	2 5/8	2 15/16	2 7/8	2 1/2	5/16	7/16	5/16	5/16	3/8	5/16	3/16	3/4	3/16	3 3/4	3/8	1/2	5/16	7/16	5/16	1/2	11/16	1/2	2 11/16	2 15/16	2 7/8	2 7/16	5/16	7/16	5/16	1/2	11/16	1/2	2 11/16	2 15/16	2 7/8	2 7/16	5/16	7/16	5/16	1/2	2 3/4	3	2 15/16	2 7/16	3/8	1/2	3/8	7/16	5/8	1/2	2 13/16	3 1/16	3	2 7/16	3/8	1/2	3/8
Sum of deflection and convexity (Camber)	1 3/16	1 1/2	7/8	3 1/8	3 5/8	3 11/16	3	1/4	3/8	3/8	1 3/16	1 7/16	7/8	3	3 5/8	3 5/8	3	1/4	3/8	3/8	1 1/16	3/8	3/8	3 1/16	3 11/16	3 11/16	3	1/4	7/16	3/8	1	1 1/4	3/4	3 3/16	3 13/16	3 3/4	3 1/8	1/4	7/16	3/8	1	1 1/4	3/4	3 1/16	3 15/16	3 7/8	3 1/16	1/4	7/16	3/8	1 3/16	1	1/2	3 1/4	4	4	3 1/16	1/4	7/16	3/8	1 1/16	7/8	1/2	3 3/8	4 1/16	4 1/8	3 1/16	5/16	1/2	7/16	3/4	7/8	1/2	3 1/2	4 3/8	4 5/16	3 1/8	3/8	1/2	7/16

NOTE: Camber shall be equal to the sum of deflection and convexity ordinates shown above. Camber Girders by cutting webs to a smooth curve. Convexity includes variations due to superelevation, horizontal and vertical Curvature.



DEFLECTION DIAGRAM

TABLE-A

Girder	Pier 3E Span 4E	Pier 4E Span 4E	Pier 4E Span 5E	Splice ℘	Splice ∝	Splice θ	Splice Ø	Pier 5E Span 5E	Pier 5E Span 6E	Pier 6E Span 6E
G	72°-03'-19"	56°-39'-50"	Same as shown for Span 4E @ Pier 4E.	Same as shown for Span 4E @ Pier 4E.	61°-16'-04"	Same as shown for Angle ∝ @ Splice.	65°-01'-14"	Same as shown for Angle Ø @ Splice.	Same as shown for Angle Ø @ Splice.	Same as shown for Angle Ø @ Splice
H	71°-45'-25"	56°-21'-56"			60°-49'-10"		64°-30'-23"			
J	71°-26'-25"	56°-02'-56"			60°-23'-06"		63°-59'-48"			
K	71°-06'-13"	55°-42'-44"			59°-57'-55"		63°-29'-29"			
L	70°-44'-43"	55°-21'-14"			59°-33'-38"		62°-59'-2"			
M	70°-21'-47"	54°-58'-18"			59°-10'-22"		62°-29'-3"			
N	69°-57'-16"	54°-33'-46"			58°-48'-09"		62°-00'-4"			
P	69°-30'-59"	54°-07'-30"			58°-27'-05"		61°-30'-5"			

Angles from ℄ Girder to ℄ Pier or ℄ Brg. or ℄ Field Splice (See Plan)

TABLE-B

Girder	Span 4E	℄ Pier 4E to ℄ plice	℄ Splice to ℄ Splice	℄ Splice to ℄ Pier 5E	Span 6E
G	106'-10 9/16"	30'-10"	66'-4 1/16"	29'-7 7/16"	70'-4 7/8"
H	103'-9 1/16"	30'-11 5/16"	66'-7 1/2"	29'-8 5/16"	70'-8 7/16"
J	100'-8 7/8"	31'-0 1/16"	66'-10 5/16"	29'-10 1/2"	71'-0 1/16"
K	97'-8 1/16"	31'-2 1/8"	67'-2 5/16"	30'-0 1/16"	71'-3 13/16"
L	94'-7 5/16"	31'-3 3/4"	67'-5 1/16"	30'-1 5/8"	71'-7 1/16"
M	91'-6 6/8"	31'-5 1/2"	67'-8 15/16"	30'-3 1/4"	71'-11 7/16"
N	88'-5 1/16"	31'-7 1/16"	68'-0 1/16"	30'-4 7/8"	72'-3 3/8"
P	85'-5 3/8"	31'-9 1/2"	68'-3 1/8"	30'-6 9/16"	72'-7 5/16"

Girder Lengths

NOTES:
For Notes see Sht. No. 160 (Unit 5)
All girders in Unit 4 are flared.
Piers 4E, 5E, 6E & ℄ Splices are all parallel.
For Flange Pl, Brg Stiff. and Inter. Stiff. See Sht. No. 161
For End crossframes at Piers 3E and 6E see Sht. No. 168
Web Pl is 68" x 7/16".

HAZELET & ERDAL
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CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS UNIT 4

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
MDC	SM HE HAS 12-3-64		QHH 2-1-65	JHD 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
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160
210

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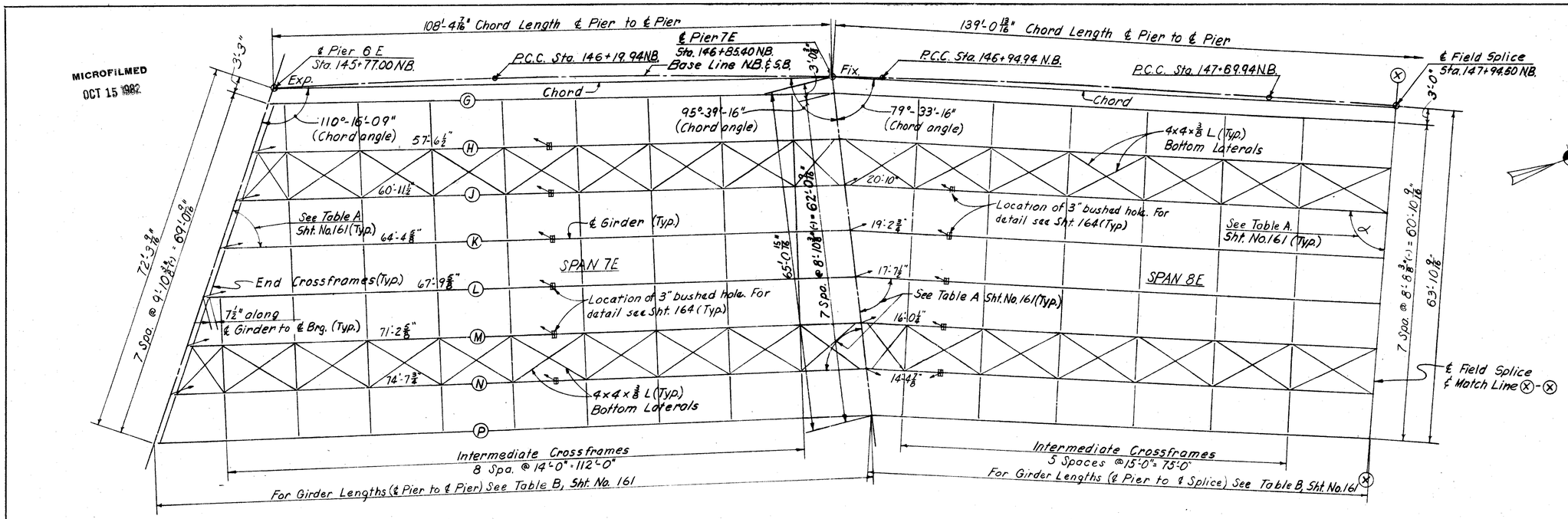

FRAMING PLAN UNIT 5
(Spans 7E thru 10E)

NOTES: The ℄'s of Piers 8E and 9E, Brg. N. Abut and Field Splice are Radial.
For Bearing details see Sht's. No. 165 & 166
For beam splice details see Sht. No. 165
For inlet framing see Sht's. No. 187 & 188
For typical girder elevations and details see Sht. No. 164
For detail of end crossframes at N. Abut. see Ohio Standard Drawing No. SD-1-63 Sht. 2
For detail of end crossframe at Pier 6E see see Sht. No. 168
For details of intermediate crossframes see Sht. No. 164
For Type A & Type B crossfromes see Sht. No. 165
For Bottom Lateral Bracing see Sht. No. 164
Web Plate is 68" x 7/16"
For Flange Pl's, Bearing Stiff's, & intermediate Stiffeners see Sht. No. 161
All Girders in Unit 5 are flared.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS UNIT 5

DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
DME	GMH & HAS 12-10-64		CHH 2-1-65	JHO 3/22/65	

MICROFILMED
OCT 15 1982

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DEFLECTION AND CAMBER (Unit 5)

Girder	G													
Span	7E			8E				9E				10E		
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Deflection due to weight of Steel	1/8	3/16	1/16	1/16	3/16	3/16	1/8	0	0	0	0	0	1/16	1/16
Deflection due to remaining dead load	9/16	11/16	1/4	1/4	11/16	13/16	7/16	-1/16	0	1/16	0	3/16	5/16	1/4
Convexity (See note below)	1/4	0	-3/16	-3/8	-7/16	-1/8	1/4	1/16	5/16	5/16	3/16	-1/16	-1/16	-1/16
Sum of deflection and convexity (Camber)	15/16	7/8	1/8	-1/16	7/16	7/8	13/16	0	5/16	3/8	3/16	1/8	5/16	1/4

Girder	H													
Span	7E			8E				9E				10E		
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Deflection due to weight of Steel	1/8	3/16	1/16	1/16	3/16	3/16	1/8	0	0	0	0	0	1/16	1/16
Deflection due to remaining dead load	9/16	5/8	1/4	1/4	5/8	3/4	7/16	-1/16	0	1/16	0	1/8	1/4	3/16
Convexity (See note below)	1/8	-3/16	-1/4	-5/16	-7/16	-1/8	3/16	0	1/4	1/4	3/16	-1/16	-1/16	-1/16
Sum of deflection and convexity (Camber)	13/16	5/8	1/16	0	3/8	13/16	3/4	-1/16	1/4	5/16	3/16	1/16	1/4	3/16

Girder	J													
Span	7E			8E				9E				10E		
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Deflection due to weight of Steel	3/16	1/4	1/8	1/16	1/8	3/16	1/8	0	0	0	0	0	1/16	1/16
Deflection due to remaining dead load	5/8	3/4	3/8	3/16	9/16	11/16	3/8	-1/16	1/16	1/8	0	1/8	1/4	3/16
Convexity (See note below)	0	-3/8	-3/8	-5/16	-7/16	-1/8	3/16	0	1/8	3/16	1/4	-1/16	-1/16	-1/16
Sum of deflection and convexity (Camber)	13/16	5/8	1/8	-1/16	1/4	3/4	11/16	-1/16	3/16	5/16	1/4	1/16	1/4	3/16

Girder	K													
Span	7E			8E				9E				10E		
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Deflection due to weight of Steel	1/4	1/4	1/8	1/16	1/8	3/16	1/8	0	0	0	0	0	1/16	1/16
Deflection due to remaining dead load	3/4	7/8	7/16	1/8	1/2	5/8	3/8	0	1/16	1/8	1/16	1/8	1/4	3/16
Convexity (See note below)	-1/8	-5/8	-9/16	-1/4	-3/8	-1/8	1/8	-1/16	0	1/16	1/4	-1/16	-1/16	-1/16
Sum of deflection and convexity (Camber)	7/8	1/2	0	-1/16	1/4	11/16	5/8	-1/16	1/16	3/16	5/16	1/16	1/4	3/16

Girder	L													
Span	7E			8E				9E				10E		
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Deflection due to weight of Steel	1/4	5/16	3/16	0	1/8	1/8	1/16	0	0	0	0	0	1/16	1/16
Deflection due to remaining dead load	7/8	1"	1/2	1/16	3/8	1/2	5/16	0	1/8	1/8	1/16	1/8	1/4	3/16
Convexity (See note below)	-1/4	-15/16	-11/16	-1/4	-3/8	-1/8	1/8	-1/16	-1/16	0	1/4	-1/16	-1/16	-1/16
Sum of deflection and convexity (Camber)	7/8	3/8	0	-3/16	1/8	1/2	1/2	-1/16	1/16	1/8	5/16	1/16	1/4	3/16

Girder	M													
Span	7E			8E				9E				10E		
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Deflection due to weight of Steel	5/16	3/8	3/16	0	1/16	1/8	1/16	0	0	0	0	0	1/16	1/16
Deflection due to remaining dead load	15/16	1 3/16	5/8	0	5/16	7/16	5/16	0	1/8	1/8	1/16	1/8	1/4	3/16
Convexity (See note below)	-3/8	-1 1/4	-7/8	-1/4	-3/8	-3/16	1/8	-1/16	-3/16	-1/16	1/4	-1/16	-1/16	0
Sum of deflection and convexity (Camber)	7/8	5/16	-1/16	-1/4	0	3/8	1/2	-1/16	-1/16	1/16	5/16	1/16	1/4	1/4

Girder	N													
Span	7E			8E				9E				10E		
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Deflection due to weight of Steel	3/8	7/16	1/4	0	1/16	1/16	1/16	0	0	1/16	0	0	1/16	1/16
Deflection due to remaining dead load	1 1/16	1 5/16	11/16	-1/16	3/16	3/8	1/4	0	1/8	3/16	1/16	1/8	1/4	3/16
Convexity (See note below)	-1/2	-1 9/16	-1 1/16	-3/16	-5/16	-3/16	1/16	-1/8	-5/16	-3/16	1/4	-1/16	-1/16	0
Sum of deflection and convexity (Camber)	15/16	3/16	-1/8	-1/4	-1/16	1/4	3/8	-1/8	-3/16	1/16	5/16	1/16	3/8	1/4

Girder	P													
Span	7E			8E				9E				10E		
Location	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Deflection due to weight of Steel	3/8	7/16	1/4	0	1/16	1/16	1/16	0	0	1/16	0	0	1/16	1/16
Deflection due to remaining dead load	1 3/16	1 7/16	3/4	-1/16	1/4	7/16	5/16	1/16	3/16	3/16	1/16	1/8	1/4	1/4
Convexity (See note below)	-5/8	-1 15/16	-1 1/4	-3/16	-5/16	-3/16	1/16	-1/8	-3/8	1/4	5/16	-1/16	-1/16	0
Sum of deflection and convexity (Camber)	15/16	-1/16	-1/4	-1/4	0	5/16	7/16	-1/16	-3/16	1/2	3/8	1/16	1/4	5/16

NOTE: Camber required for Span 7E Girder G thru P
& Span 8E Girder G thru K.
No Camber required for Spans 9E and 10E.
Convexity includes variations due to superelevation, horizontal and vertical Curvature.

TABLE A (UNIT 5)

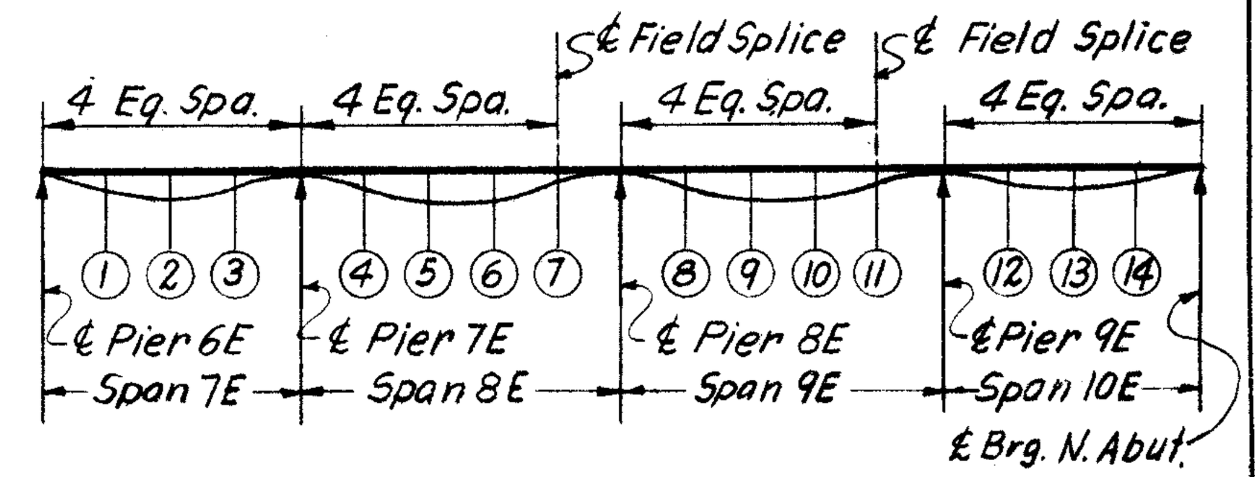
	Pier 6E	Pier 7E		Splice		Pier 8E		Splice		Pier 9E		N. Abut.
Girder	Span 7E	Span 7E	Span 8E	α	β	Span 8E	Span 9E	Θ	Ø	Span 9E	Span 10E	Span 10E
G	69°42'49"	84°21'45"	80°01'51"	88°12'39"	88°28'20"	89°22'14"	89°22'14"	88°42'13"	89°06'32"	89°29'28"	89°29'28"	89°12'37"
H	69°29'51"	84°34'43"	80°03'01"	88°11'28"	88°39'48"	89°33'42"	89°33'42"	88°30'45"	89°10'21"	89°33'17"	89°33'17"	89°08'48"
J	69°17'44"	84°46'50"	80°04'13"	88°10'16"	88°51'14"	89°45'08"	89°45'08"	88°19'19"	89°14'14"	89°37'10"	89°37'10"	89°04'55"
K	69°06'32"	84°58'02"	80°05'30"	88°08'59"	89°02'49"	89°56'43"	89°56'43"	88°07'44"	89°18'02"	89°40'58"	89°40'58"	89°01'07"
L	68°56'07"	85°08'27"	80°06'49"	88°07'40"	89°14'27"	90°08'21"	90°08'21"	87°56'06"	89°21'55"	89°44'51"	89°44'51"	88°57'14"
M	68°46'20"	85°18'14"	80°08'11"	88°06'19"	89°26'10"	90°20'04"	90°20'04"	87°44'23"	89°25'52"	89°48'48"	89°48'48"	88°53'17"
N	68°37'11"	85°27'23"	80°09'40"	88°04'50"	89°37'58"	90°31'52"	90°31'52"	87°32'35"	89°29'50"	89°52'46"	89°52'46"	88°49'19"
P	68°28'39"	85°35'55"	80°11'11"	88°03'19"	89°49'54"	90°43'48"	90°43'48"	87°20'39"	89°33'47"	89°56'43"	89°56'43"	88°45'22"

Angles from ℄ Girders to ℄ Piers or ℄ Brgs. or ℄ Field Splices (See Plan Sht. No. 160)

TABLE B (UNIT 5)

Girder	Span 7E	℄ Pier 7E to ℄ Splice	℄ Splice to ℄ Pier 8E	℄ Pier 8E to ℄ Splice	℄ Splice to ℄ Pier 9E	Span 10E
G	109'-9 1/2"	108'-5 5/8"	29'-11 7/16"	74'-10 5/8"	19'-11 3/4"	74'-11"
H	114'-1"	106'-7 15/16"	29'-9 13/16"	74'-7 3/16"	19'-11 1/16	74'-8 3/4"
J	118'-4 9/16"	104'-10 5/16"	29'-8 3/16"	74'-3 13/16"	19'-10 7/16	74'-6 1/2
K	122'-8 1/16"	103'-0 5/8"	29'-6 1/2"	74'-0 7/16"	19'-9 3/4"	74'-4 1/4"
L	126'-11 5/8"	101'-2 15/16"	29'-4 7/8"	73'-9 1/16"	19'-9 1/16"	74'-2"
M	131'-3 3/16"	99'-5 1/4"	29'-3 1/4"	73'-5 3/4"	19'-8 3/8"	73'-11 3/4"
N	135'-6 3/4"	97'-7 9/16"	29'-1 5/8"	73'-2 3/8"	19'-7 3/4"	73'-9 1/2"
P	139'-10 5/16"	95'-9 15/16"	29'-0"	72'-11 1/16"	19'-7 1/16"	73'-7 5/16"

Girder Lengths (See Plan Sht No. 160)



DEFLECTION DIAGRAM
(UNIT 5)

DEFLECTION OF FLOOR BEAM 7E								
GIRDER	G	H	J	K	L	M	N	P
Steel Weight	0	1/16	1/8	3/16	3/16	3/16	1/8	1/16
Remaining D.L.	0	3/16	5/16	7/16	7/16	7/16	5/16	1/8

NOTE: All Zero's indicate a negligible amount of deflection

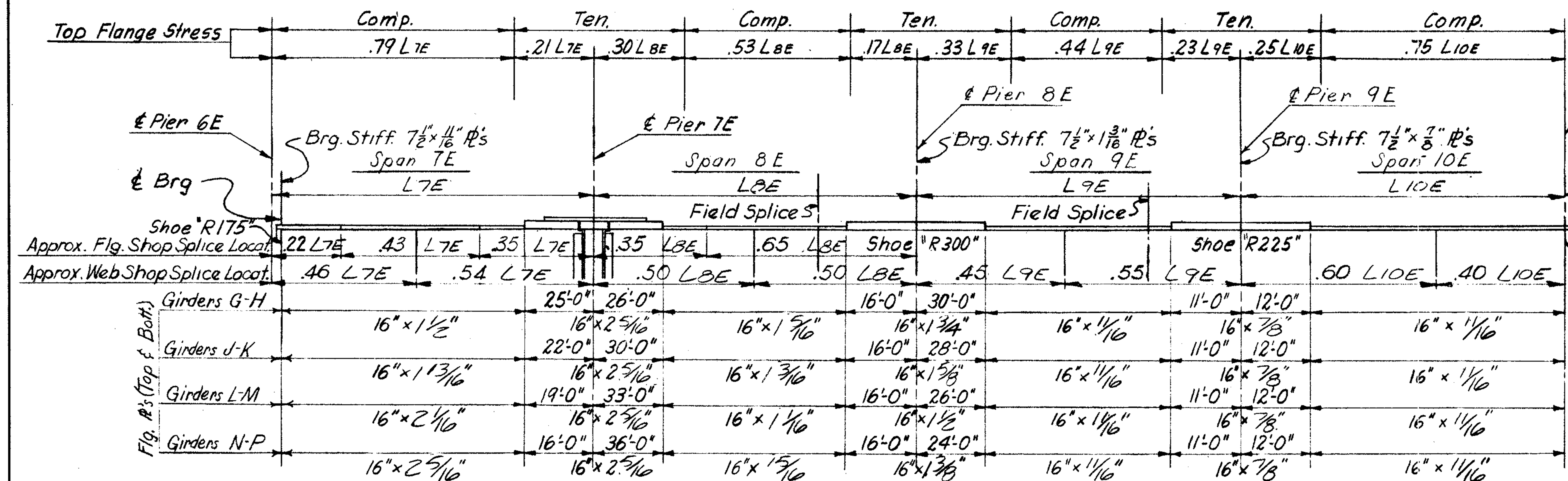


TABLE OF FLANGE PLATES AND SPLICES
UNIT 5
(See Plan Sht. № 160)

Intermediate Stiffeners (6"×3/8" Pl)

Conn Angle or Brg. Stiff.

Span 7E	50" Spacing	62" Spacing	68" Spacing	57" Spacing	49" Spacing	43" Spacing
Span 8E	46" Spacing	54" Spacing	65" Spacing	68" Spacing	57" Spacing	48" Spacing
Span 9E	51" Spacing	60" Spacing	68" Spacing	68" Spacing	65" Spacing	56" Spacing
Span 10E	57" Spacing	64" Spacing	68" Spacing	68" Spacing	68" Spacing	66" Spacing
	L/6	L/6	L/6	L/6	L/6	L/6

L

MAX. INTERMEDIATE STIFFENER SPACING
UNIT 5
(See Plan Sht. № 160)

Intermediate Stiffeners (6"×3/8" Pl)

Brg. Stiff. — Brg. Stiff.

Span 4E	55" Spacing	66" Spacing	68" Spacing	62" Spacing	52" Spacing	46" Spacing
Span 5E	45" Spacing	54" Spacing	68" Spacing	68" Spacing	55" Spacing	47" Spacing
Span 6E	52" Spacing	57" Spacing	66" Spacing	68" Spacing	68" Spacing	64" Spacing
	L/6	L/6	L/6	L/6	L/6	L/6

L

MAX. INTERMEDIATE STIFFENER SPACING
UNIT 4
(See Plan Sht. № 159)

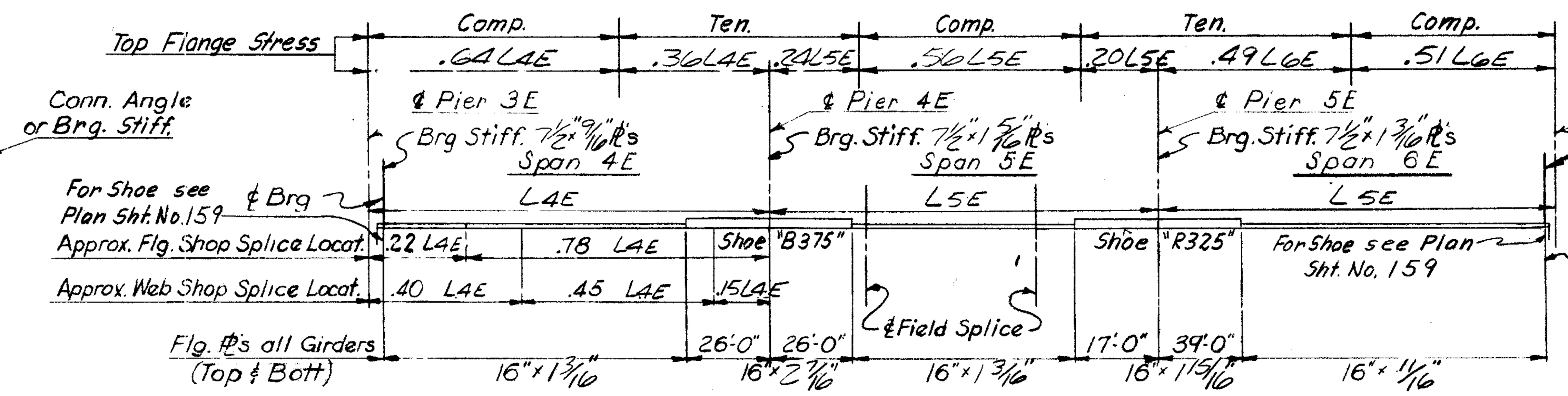


TABLE OF FLANGE PLATES AND SPLICES
UNIT 4
(See Plan Sht. № 159)

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS
UNITS 4 & 5

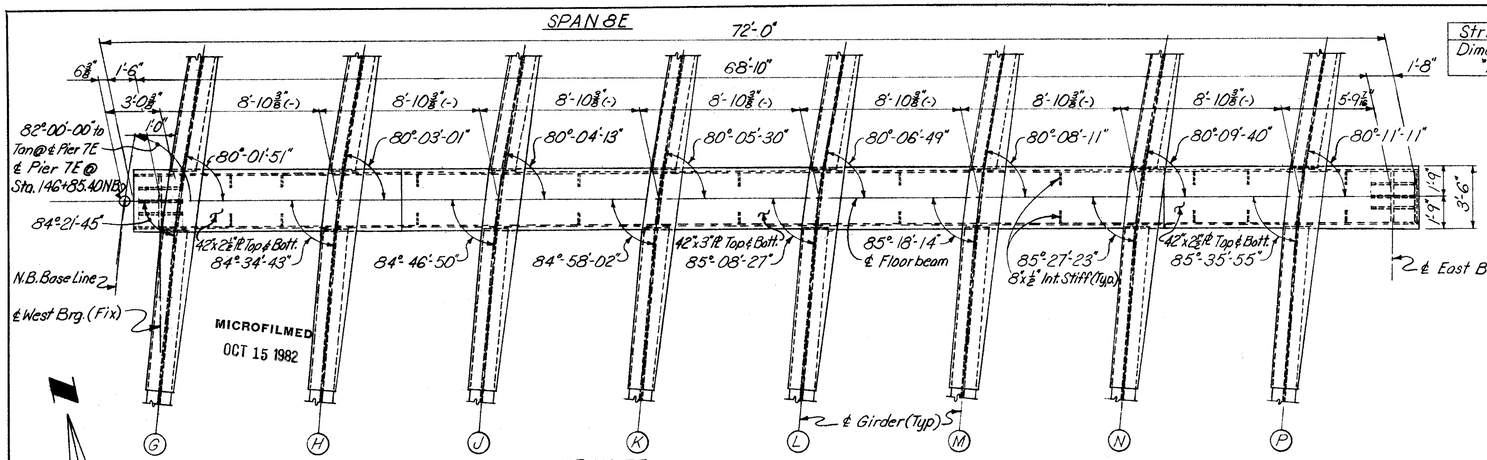
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
M/C & PME	SMM/HAS 12-18-64		CHH 2-1-65	JHB 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

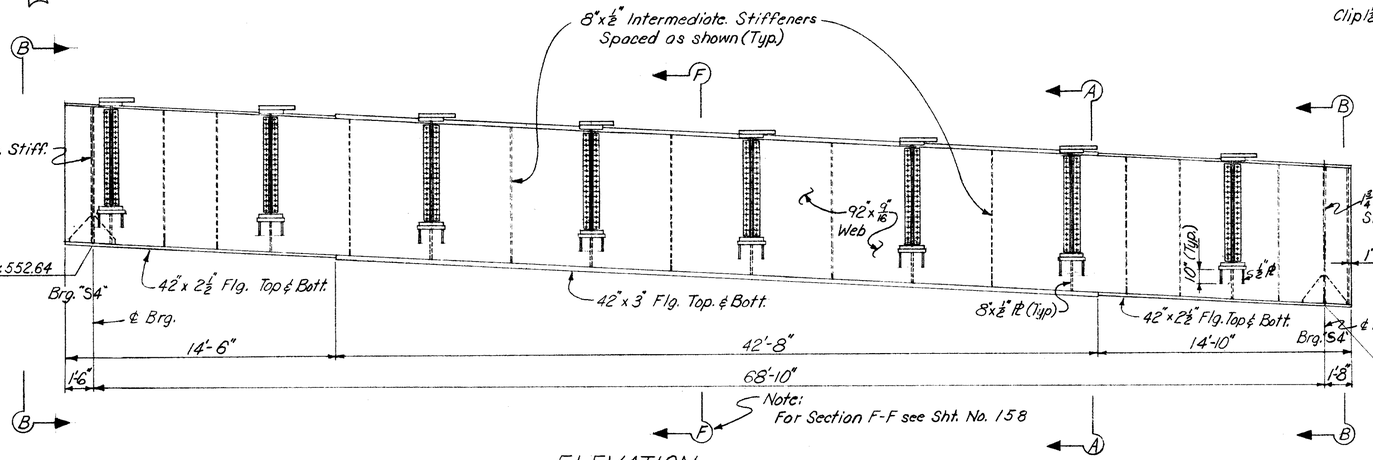
HAM-71-1.30

162
210

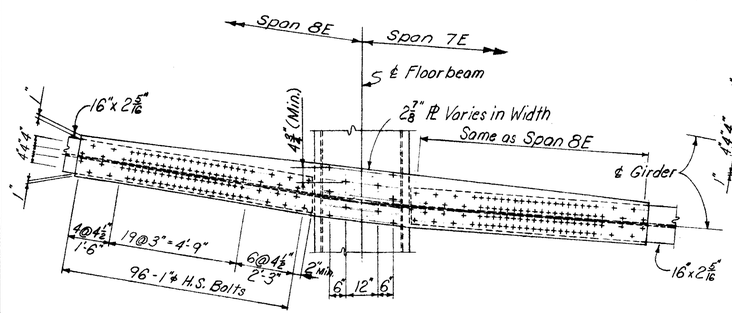
Stringer Dimension "X"	G	H	J	K	L	M	N	P
	4 7/16"	4 3/16"	4 3/4"	4 5/8"	4 7/8"	4 5/8"	4 3/4"	4 5/8"



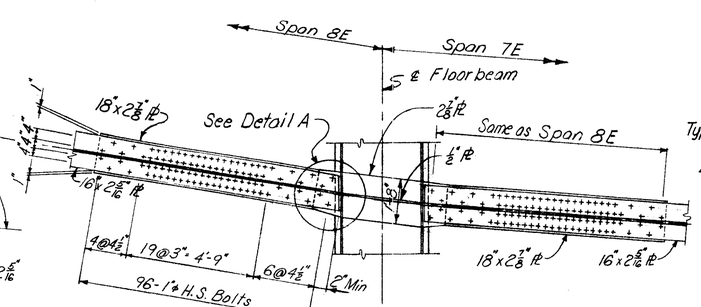
PLAN - FLOORBEAM AT PIER 7E



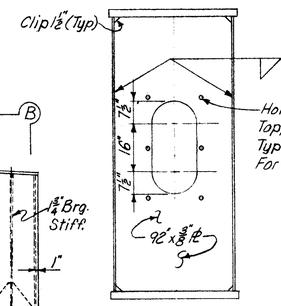
ELEVATION



PLAN OF TOP SPLICE PLATE

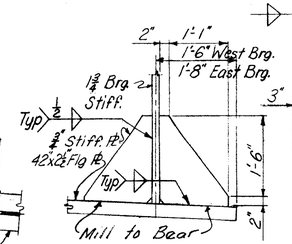


SECTION D-D



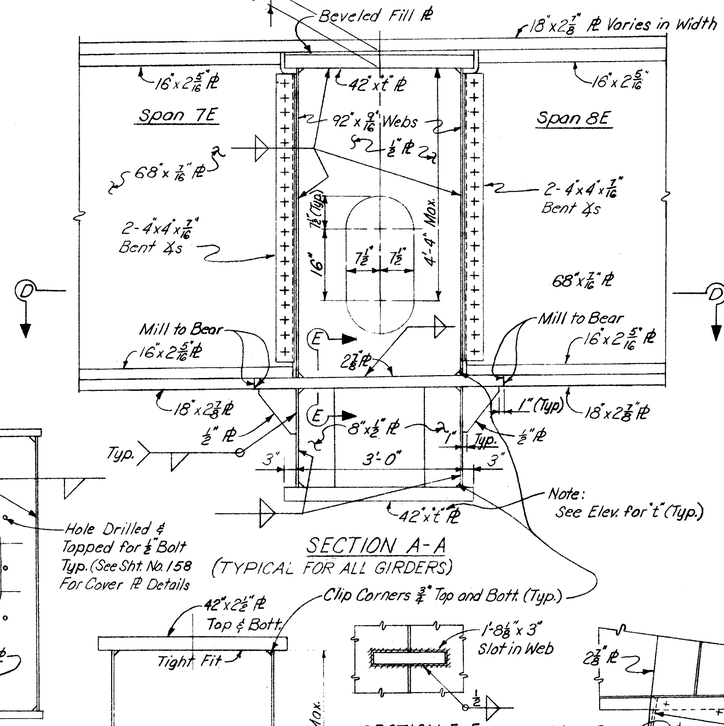
EAST END ELEVATION

Elev. 548.96



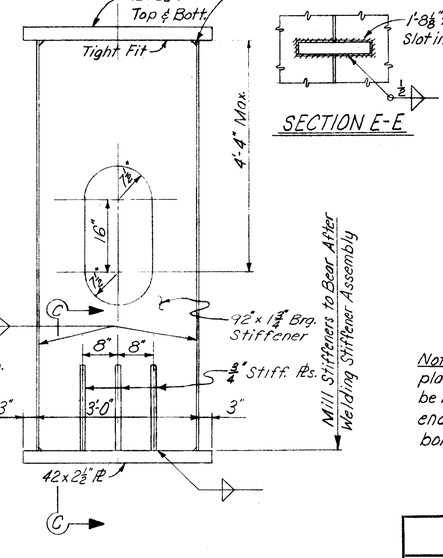
SECTION C-C

East Bearing Shown
(West Bearing Identical Except 42"x2 5/8" Flange Plate Slope Opposite)



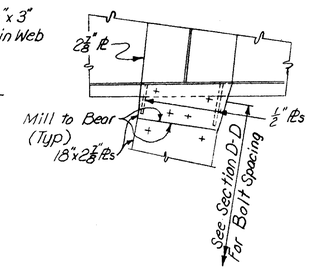
SECTION A-A

(TYPICAL FOR ALL GIRDERS)



SECTION B-B

SECTION E-E



DETAIL A

With Bott. Flg. of Girder Removed

Note: Milled ends of compression splice plates on bottom flanges of girders shall be brought to full bearing against milled ends of pier girder brackets before bolts are tightened.

Note:
For Cover Plate Details and Section F-F See Floorbeam 2E, Sht. No. 158
For fillet weld sizes not shown, see "TABLE OF FILLET WELD SIZES, Sht. No. 164
For Bearing Details see Sht. No. 165

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

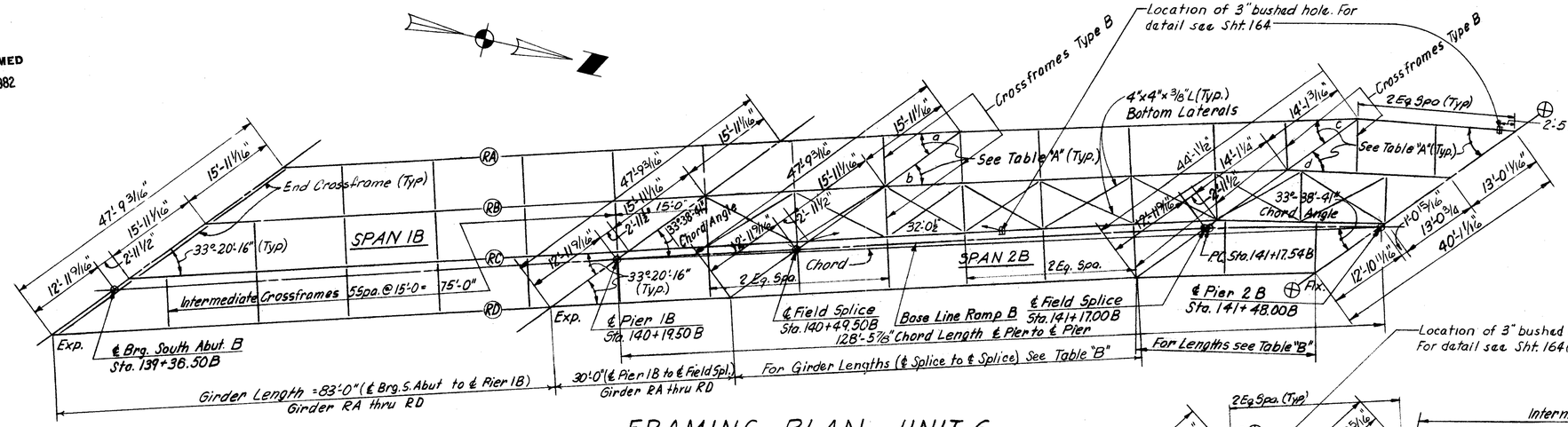
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
TIG	WRT 10-11-65		CHH 2-9-65	JHO 3/22/65	

MICROFILMED
OCT 15 1982

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

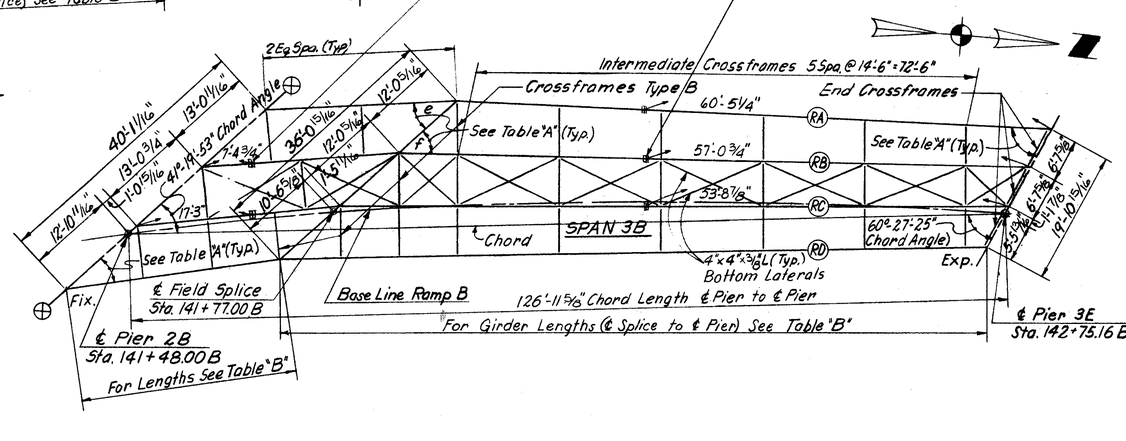
163/210

HAM-71-1.80



NOTE: All Crossframes are Intermediate Crossframes except those noted otherwise
Maximum Crossframe Spacing = 15'-0"

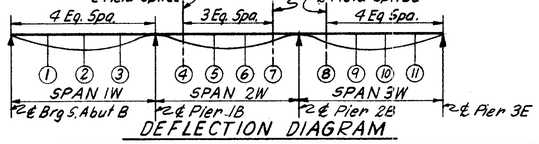
FRAMING PLAN UNIT 6
(Spans 1B thru 3B)



DEFLECTION AND CAMBER

GIRDER	RA											RB										RC										RD									
SPAN	1B			2B				3B				1B			2B				3B			1B			2B				3B			1B			2B				3B		
LOCATION	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
Deflection due to weight of steel.	1/16	1/16	0	1/16	1/8	1/8	1/16	1/8	5/16	5/16	1/4	1/16	1/16	0	1/16	1/8	1/8	1/16	1/8	5/16	5/16	1/4	1/16	1/16	0	1/16	1/8	1/8	1/16	1/8	5/16	5/16	1/4	1/16	1/16	0	1/16	1/8	1/8	1/16	1/8	5/16	5/16	1/4
Deflection due to remaining dead load	3/16	3/16	1/16	3/16	7/16	3/8	3/8	3/8	13/16	15/16	5/8	1/4	1/4	1/16	5/16	1/2	7/16	3/16	7/16	15/16	11/16	1/2	1/4	1/4	1/16	5/16	1/2	7/16	3/16	7/16	15/16	11/16	1/2	3/16	1/16	5/16	7/16	3/8	1/8	7/16	15/16	11/16	3/4
Convexity (See Note below)	-1 1/2	-2 1/16	3/16	-2 5/16	-3 1/16	-2 15/16	-2	1/16	-3/16	-5/8	-5/8	-1 7/8	-1 3/8	-1 1/2	-2 11/16	-3 1/2	-3 3/8	-2 5/16	-2 7/8	-1 7/16	-1 7/16	-1	-1 3/8	-1 3/16	-1 3/8	-2 5/16	-3 1/16	-3 3/8	-2 5/16	-2 7/8	-1 7/16	-1 7/16	-1	-1 3/8	-1 3/16	-1 3/8	-2 5/16	-3 1/16	-3 3/8	-2 5/16	-2 7/8	-1 7/16	-1 7/16	-1
Sum of deflection and convexity.	-1 1/4	-1 1/16	-1 1/2	-1 15/16	-2 1/2	-2 7/16	-1 13/16	3/16	1/16	5/16	1/4	-1 1/8	-1 3/16	-1 7/16	-2 5/16	-2 7/8	-2 13/16	-2 1/16	-2 5/16	-1 5/16	-1/16	-1/16	-1 1/16	-1 1/2	-1 15/16	-2 1/16	-2 13/16	-3 3/16	-3 1/16	-2 5/16	-2 5/16	-1 5/16	-1/16	-1/16	-1 1/2	-1 15/16	-2 1/16	-2 13/16	-3 3/16	-3 1/16	-2 5/16	-2 5/16	-1 5/16	-1/16

NOTE: No Camber required in Spans 1B, 2B and 3B
Convexity includes variations due to superelevation, horizontal and vertical curvature.



DEFLECTION DIAGRAM

TABLE 'B'

Girder	℄ Splice to ℄ Splice	℄ Splice to ℄ Pier 2B	℄ Pier 2B to ℄ Splice	℄ Splice to Pier 3B
RA	64'-5 7/8"	27'-9 15/16"	27'-8 3/16"	86'-2 13/16"
RB	65'-11 7/8"	28'-7 11/16"	28'-5 7/8"	91'-10 1/4"
RC	67'-6"	29'-5 5/8"	29'-3 3/4"	97'-6 7/16"
RD	67'-6"	31'-0 1/16"	30'-10 3/4"	103'-3 1/4"

GIRDER LENGTHS

TABLE 'A'

GIRDER	FIELD SPLICE		FIELD SPLICE		PIER 2B		FIELD SPLICE		PIER 3E
	a	b	c	d	Span 2B	Span 3B	e	f	Span 3B
RA	33°-20'-16"	35°-06'-57"	35°-06'-57"	39°-14'-59"	39°-14'-59"	39°-14'-59"	39°-14'-59"	45°-35'-50"	64°-43'-53"
RB	33°-20'-16"	34°-12'-19"	34°-12'-19"	37°-56'-04"	37°-56'-04"	37°-56'-04"	37°-56'-04"	43°-58'-50"	63°-06'-53"
RC	33°-20'-16"	33°-20'-16"	33°-20'-16"	36°-41'-21"	36°-41'-21"	36°-41'-21"	36°-41'-21"	42°-33'-09"	61°-41'-07"
RD	33°-20'-16"	33°-20'-16"	33°-20'-16"	34°-32'-10"	34°-32'-10"	34°-32'-10"	34°-32'-10"	41°-16'-58"	60°-25'-00"

Angles from ℄ Girders to ℄ Piers, ℄ Brgs. or ℄ Field Splices (See Plan)

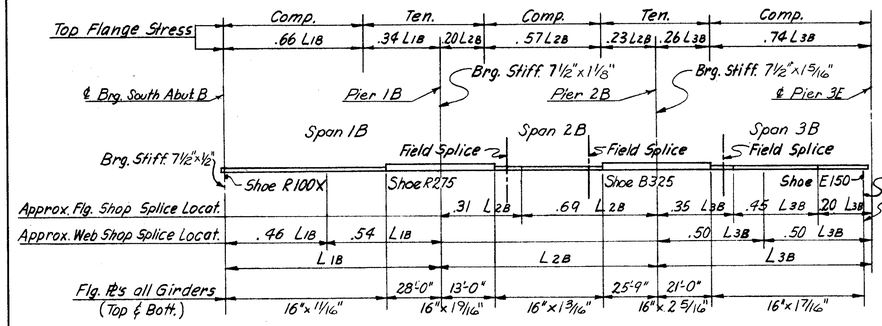
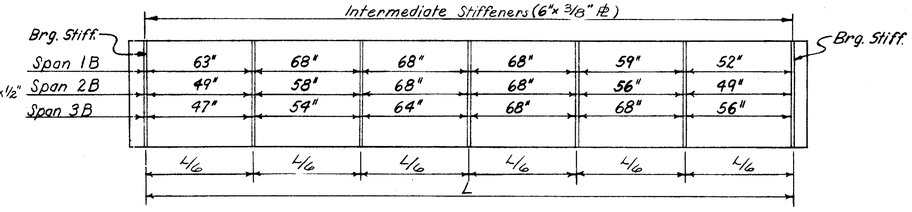


TABLE OF FLANGE PLATES AND SPLICES



MAX. INTERMEDIATE STIFFENER SPACING

NOTE: Adjust intermediate Stiffener spacing to conform to intermediate Crossframe spacing.

NOTES:
Web Plate is 68"x 7/16"
For Details of Bottom Laterals see Sht. No. 164
For Bearing details, see Sht. No. 166
For beam splice details, see Sht. No. 165
For inlet framing, see Sht. No. 187 & 188
For typical girder elevation and details see Sht. No. 164
For detail of end crossframes at S. Abut. B see Sht. No 167
For detail of intermediate crossframes see Sht. No. 164
For Detail at End Crossframes at Pier 3E see Sht. No. 167 & 168
For Type B Crossframes see Sht. No. 165
South Abutment B, Pier 1B and Pier 2B and all Field Splices are parallel.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS UNIT 6

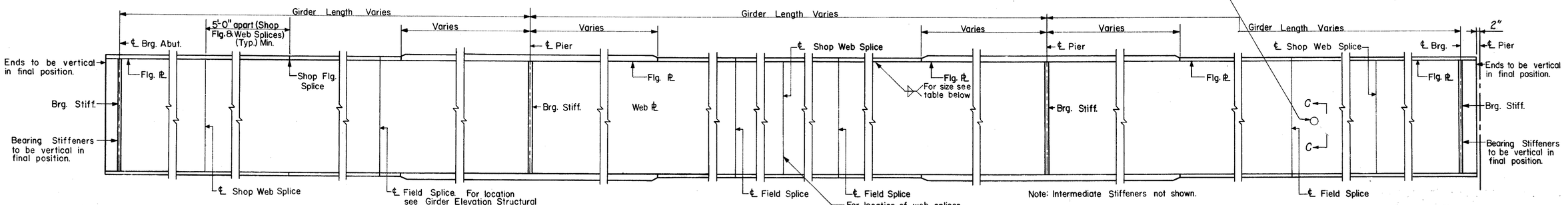
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
P.M.E	S.M.H & H.A.S 10-16-64		J.A.G 2-1-65	J.H.D 3/22/65	

MICROFILMED
OCT 15 1982

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-71-1.30

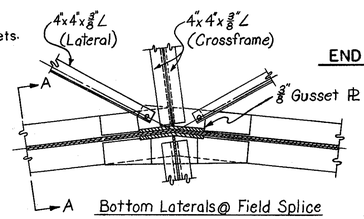
164
210



END SPAN BETWEEN ABUT. & PIER

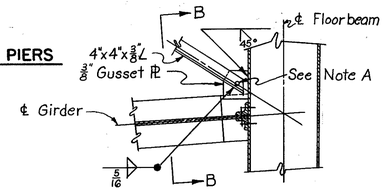
INTERIOR SPAN

TYPICAL PLATE GIRDER ELEVATIONS

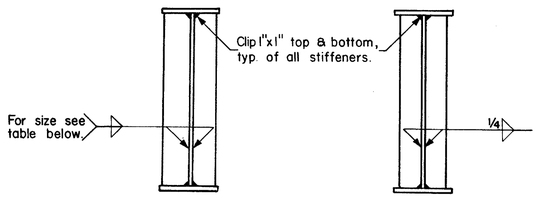


Bottom Laterals @ Field Splice

END SPAN BETWEEN PIERS

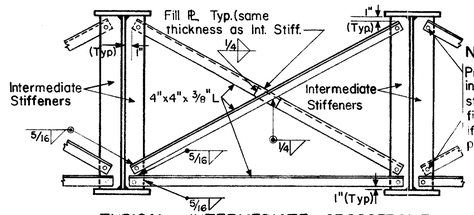


Bottom Laterals @ Floorbeam



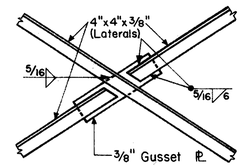
BEARING STIFFENERS
(See Table of Flange Plates & Splices)

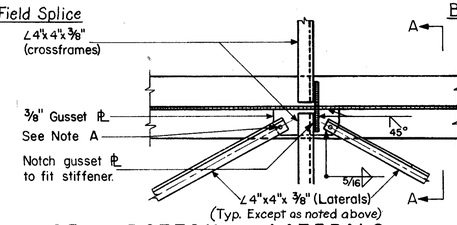
INTERMEDIATE STIFFENERS
(6"x ⅜" PL)



TYPICAL INTERMEDIATE CROSSFRAME
(Unless otherwise noted)

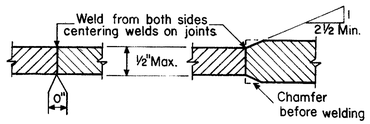
NOTE A:
Provide 15/16" ϕ holes for 7/8" ϕ bolts in crossframe angles and stiffener plates, which are to be field connected before welding. If 7/8" ϕ bolts are to be left in place, they shall be tack welded.

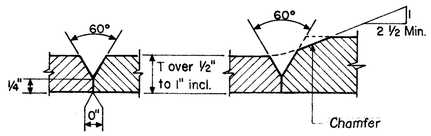


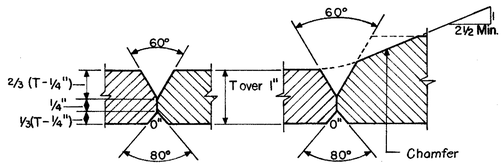


For location of bottom laterals see Framing Plan Structural Steel Detail Sheets.

DETAILS OF BOTTOM LATERALS



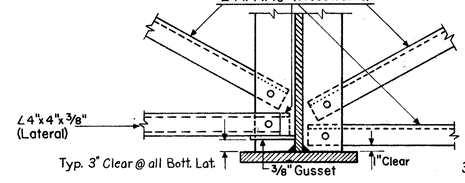




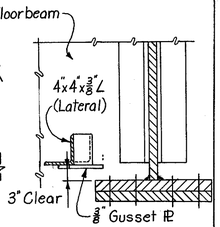
JOINT PREPARATION FOR SUBMERGED ARC WELDMENTS

All of the above full penetration welds shall be back-gouged and welded after welding far side.

Butt welds on beam and girder flange plates shall be ground flush, the finish grinding being parallel to the direction of stress.



SECTION A-A



SECTION B-B

TABLE OF FILLET WELD SIZES	
Plate Thickness	Fillet Weld Size
Up to 3/4"	1/4"
Over 3/4" to 1 1/2"	5/16"
Over 1 1/2" to 2 1/4"	3/8"
Over 2 1/4" to 6"	1/2"

Plate Thickness refers to the thickness of the thicker part joined.

NOTES:

Bearing Stiffeners over abutments and piers shall be grooved and fully butt-welded to the lower flange and fitted in close contact without welding to the upper flange.

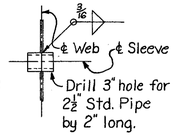
Intermediate Stiffeners shall have contact bearing with the compression flange, but may have a clearance of not more than 1/8" from the tension flange. In shop painting care shall be taken to make certain that paint is forced through from one side to the other of the 1/8" opening.

For examination of welds for all plate girder spans see Supplemental Specification No. S-307

The contractor shall submit to the Director, for approval, 3 prints showing erection procedure for the plate girders.

Structural Steel - ASTM A36 - basic unit stress 20,000psi

For hole locations See Shts. 147, 148, 153, 157, 159, 160, & 163



SECTION C-C

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

TYPICAL STRUCTURAL STEEL DETAILS

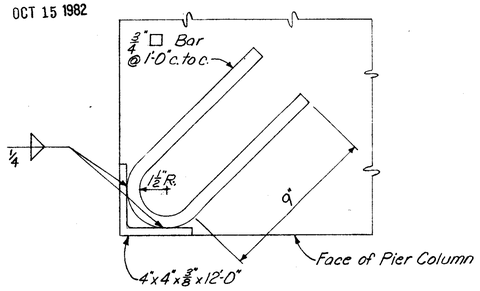
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	M.J.E.		J.H.O.	JHO 3/22/65	

MICROFILMED
OCT 15 1982

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

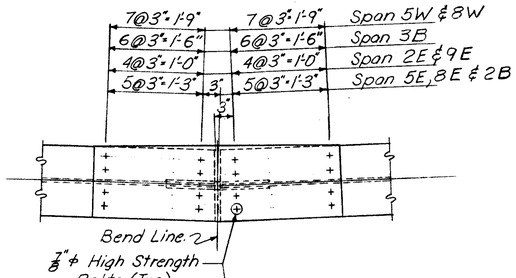
165/210

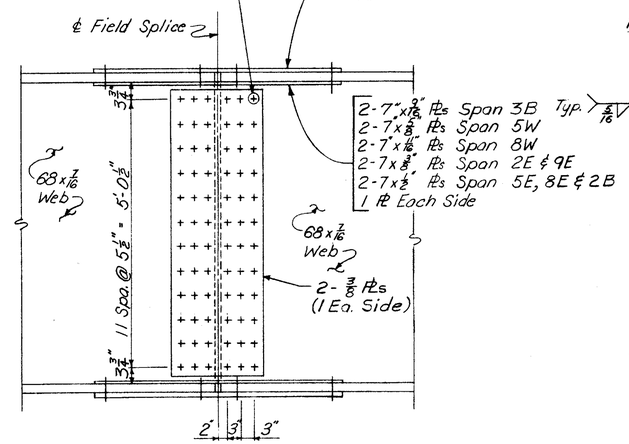
HAM-71-1.30



DETAIL OF ARMOR ANGLES FOR PIER COLUMNS

Included with Item S-7 for payment

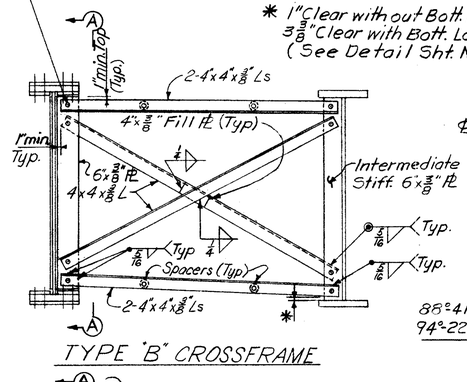




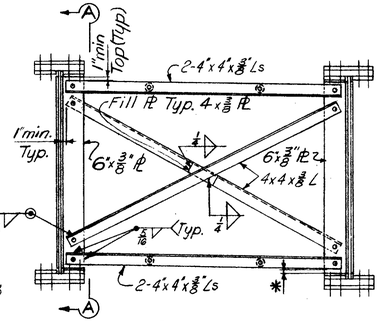
FIELD SPLICE DETAIL

Note: Bottom Flange Splice Material same as Top Flange Splice Material

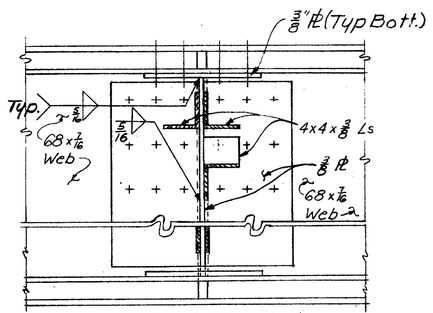
Note: Provide 15/16"ϕ holes for ⅞"ϕ bolts in crossframe angles, connector and stiffener plates, which are to be field connected before welding. If bolts are to be left in place, they shall be tack welded. (Typ. all crossframes.)



TYPE "B" CROSSFRAME



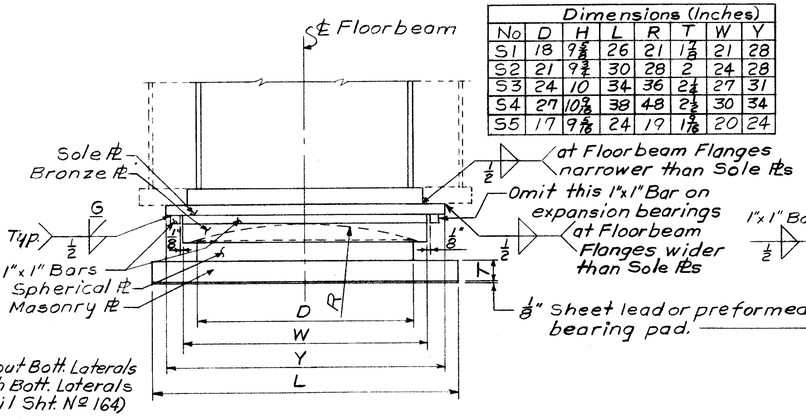
TYPE "A" CROSSFRAME

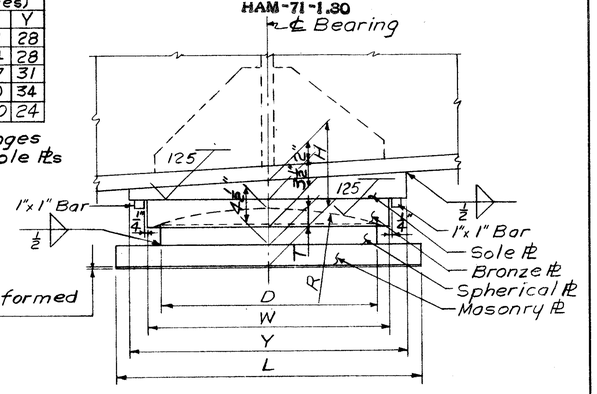


SECTION A-A

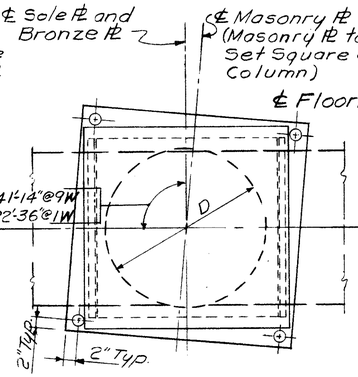
* 1" Clear with out Bott. Laterals
3⅜" Clear with Bott. Laterals
(See Detail Sht. No 164)

Dimensions (Inches)							
No	D	H	L	R	T	W	Y
S1	18	9⅜	26	21	1⅞	21	28
S2	21	9⅜	30	28	2	24	28
S3	24	10	34	36	2¼	27	31
S4	27	10⅜	38	48	2½	30	34
S5	17	9⅜	24	19	1⅞	20	24

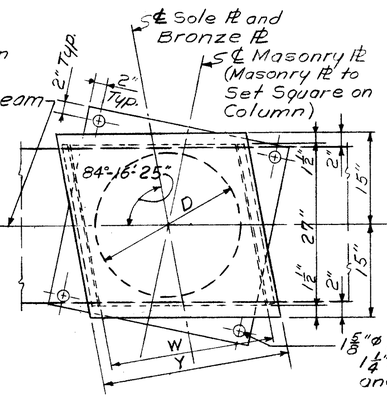




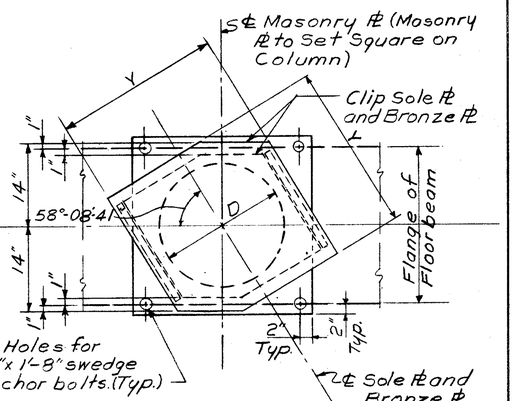
SPHERICAL BEARING DETAILS



AT PIER 1W AND 9W

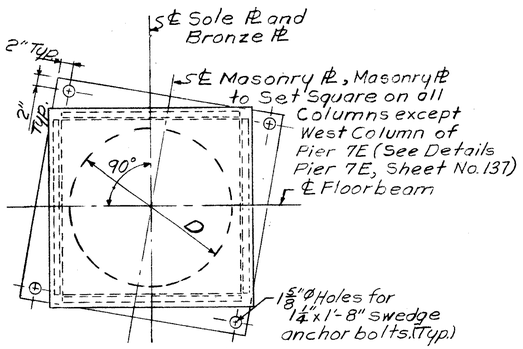


AT PIER 2W



AT PIER 4W

EXPANSION BEARING PLANS



FIXED BEARING PLAN

Notes: For Specification for Self-Lubricating Bronze Bearing Plates see Standard Drawing FSB-1-62

For Spherical Bearing No. to be used, See Floorbeam Detail Sheets.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

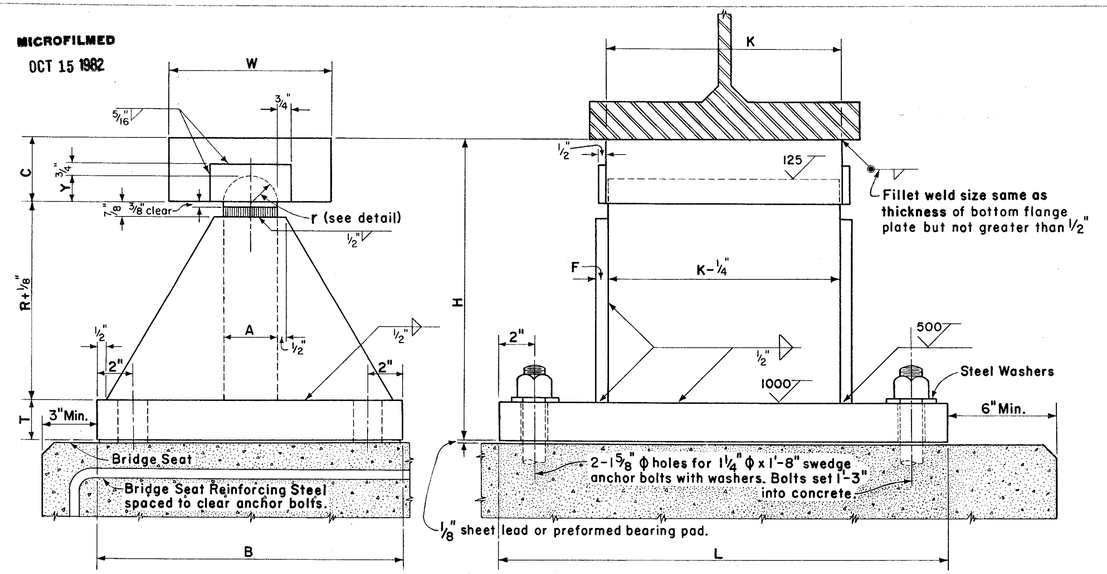
MISCELLANEOUS STRUCTURAL STEEL DETAILS

Designed	Drawn	Traced	Checked	Reviewed Date	Revised
RBS	W.R.T.		Jag CHH	JHo 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

166
210

HAM-71-1.30



STRUCTURAL STEEL BOLSTER

See Table below for additional dimensions.

BOLSTER NO.	ROCKER NO.	A	B	C	D	F	G	H	K	L	M	R	T	W	Y
	R 75	2 1/2	8	2 1/2	1 3/4	1/2	7	9 5/8	9	24	16	5 1/2	1 1/2	9	1 3/16
	R 100	2 1/2	10	2 1/2	2	1/2	7 1/2	10 5/8	9	25	17	6 1/2	1 1/2	9	1 3/16
	R 100X	2 1/2	15 1/2	2 1/2	2	1/2	7 1/2	10 5/8	9	19	17	6 1/2	1 1/2	9	1 3/16
	R 125	3	11	3	2	1/2	8	12 1/8	10 1/2	26	18	7 1/2	1 1/2	9	1 7/16
	R 150	3	12	3	2 1/4	1/2	8 1/2	13 3/8	11 1/2	27	19	8 1/2	1 3/4	9	1 7/16
	R 150X	3	16 1/2	3	2 1/4	1/2	8 1/2	13 3/8	11 1/2	22	19	8 1/2	1 3/4	9	1 7/16
	R 175	3	14	3 1/2	2 1/2	1/2	9	15 1/8	12	28	20	9 1/2	2	9	1 7/16
	R 225	3	17	3 1/2	2 3/4	5/8	9	16 1/8	13	25	22	11	2 1/4	9	1 7/16
	R 250	3 1/2	18	3 1/2	2 3/4	3/4	10	17 5/8	13	26	23	11 1/2	2 1/2	9	1 11/16
	R 275	3 1/2	20	3 1/2	3 1/4	3/4	12	18 3/8	14	27	24	12	2 3/4	9	1 11/16
	R 300	3 1/2	20	3 1/2	3 1/4	3/4	12	19 1/8	14	28	25	12 1/2	3	9	1 11/16
	R 325	4	21	4	3 1/2	3/4	13	20 3/8	15	29	26	13	3 1/4	9	1 15/16
	R 375	4	23	4 1/2	3 3/4	7/8	14	22 3/8	17	31	28	14	3 3/4	9	(2 3/16 - 1/16)
B 325		4	21	4		3/4		20 3/8	15	29		13	3 1/4	9	1 15/16
B 375		4	23	4 1/2		7/8		20 3/8	17	31		12	3 3/4	9	(2 3/16 - 1/16)

ROCKER NO.	R	H
R100 A	7 13/16	11 15/16
R100 B	7 13/16	11 15/16
R100 C	7 7/8	12
R100 D	7 15/16	12 1/16
R100 E	8	12 1/8
R100 F	7 15/16	12 1/16

Dimensions not shown above are the same as R100

ROCKER NO.	R	H
R 75 G	14 1/16	18 3/16
R 75 H	14 1/16	18 3/16
R 75 J	14 3/8	18 1/2
R 75 K	14 3/8	18 1/2
R 75 L	14 5/8	18 3/4
R 75 M	14 5/8	18 3/4
R 75 N	14 7/8	19
R 75 P	14 13/16	18 15/16

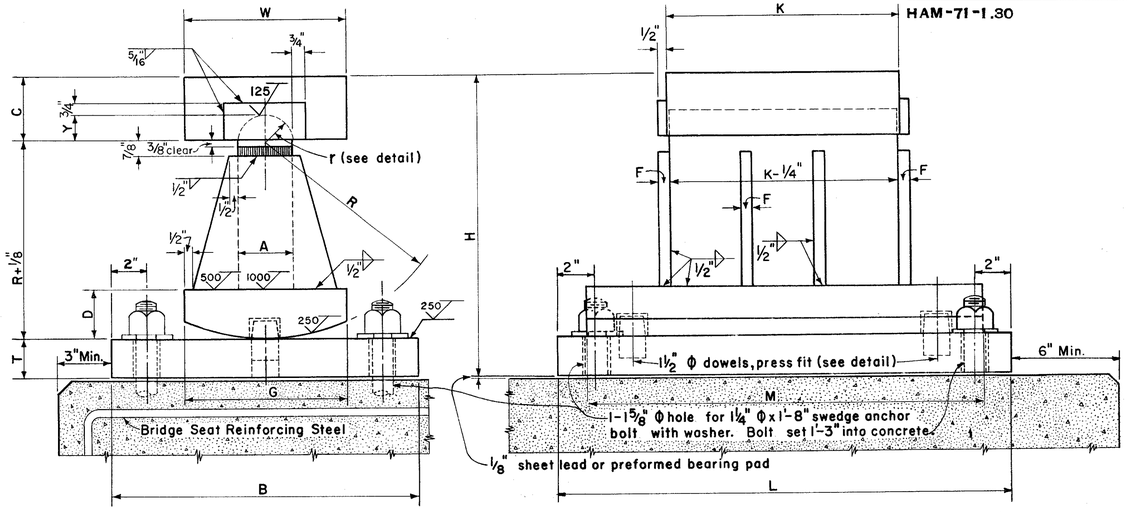
Dimensions not shown above are the same as R 75

BEARING NO.	V	Y
E 150 G	3 1/8	5 1/2
E 150 H	2	4 3/8
E 150 J	2	4 3/8
E 150 K	2	4 3/8
E 150 L	2	4 3/8
E 150 M	6 5/16	8 11/16
E 150 N	2 15/16	5 5/16
E 150 P	6 1/4	8 5/8

Dimensions not shown above are the same as E150,
See standard drawing No. FSB-1-62

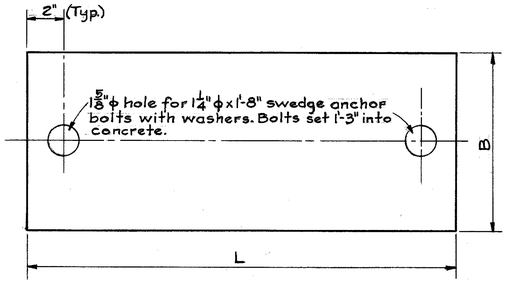
BEARING NO.	V	Y
E 100 G	2	4 3/8
E 100 H	2 5/16	4 11/16
E 100 J	3 3/4	6 1/8
E 100 K	2	4 3/8
E 100 L	2	4 3/8
E 100 M	2	4 3/8
E 100 N	7 15/16	10 5/16

Dimensions not shown above are the same as E100



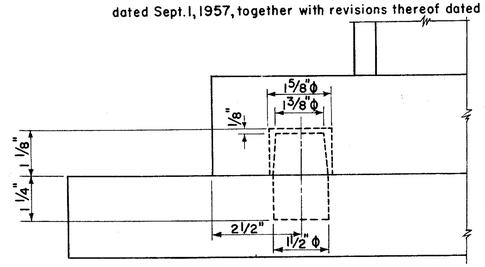
STRUCTURAL STEEL ROCKER

See Table below for additional dimensions.

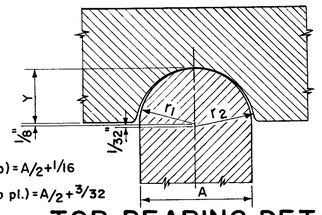


SPECIAL MASONRY PLATE FOR STRUCTURAL STEEL ROCKERS
(Use for Rockers R75, R100, R125, R150, R150A thru R150F and R175 G thru R175 P)

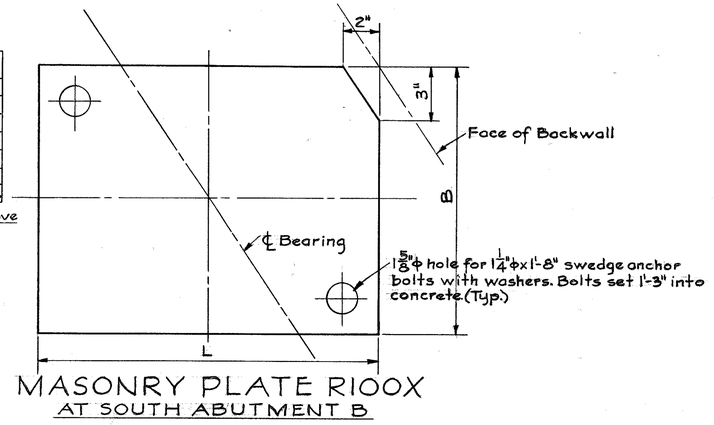
Design Specifications: This drawing conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated Sept. 1, 1957, together with revisions thereof dated Feb. 21, 1958.



DOWEL DETAIL



TOP BEARING DETAIL



MASONRY PLATE R100X
AT SOUTH ABUTMENT B

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

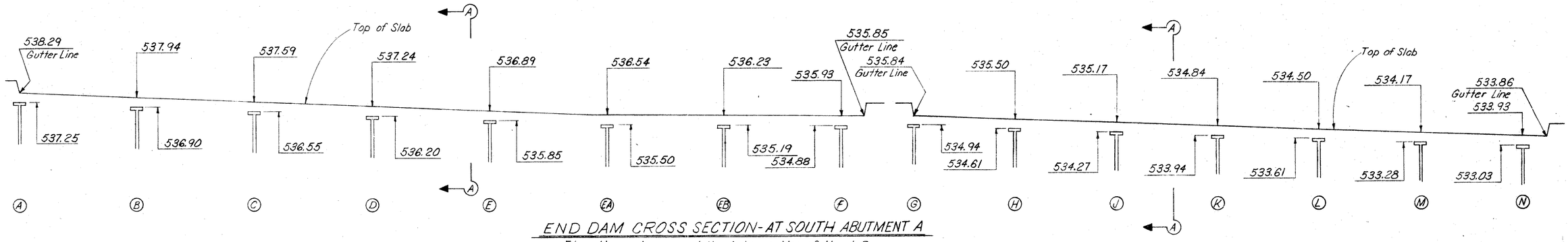
ROCKERS AND BOLSTERS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	LMH		DSB 8-1065	JHO 3/22/65	10-18-65

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

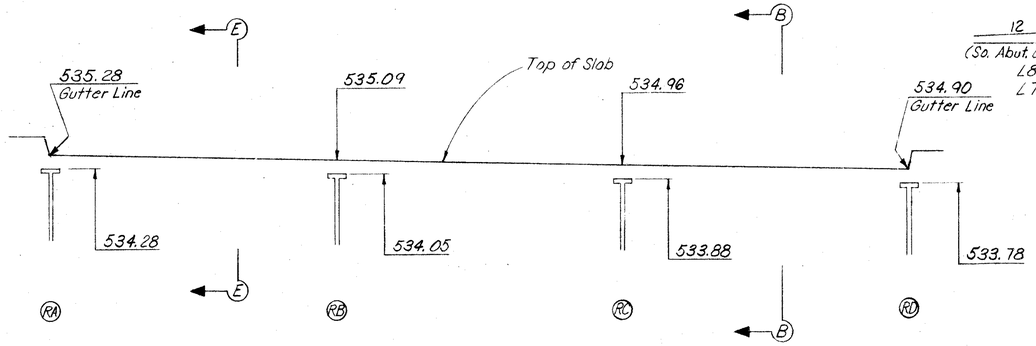
HAM-71-1.80

167
210



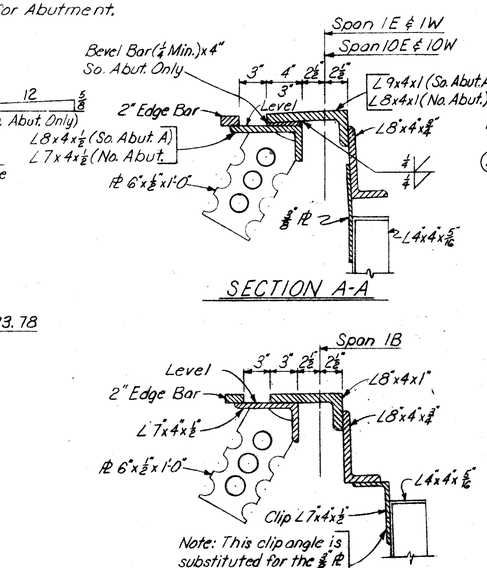
END DAM CROSS SECTION-AT SOUTH ABUTMENT A

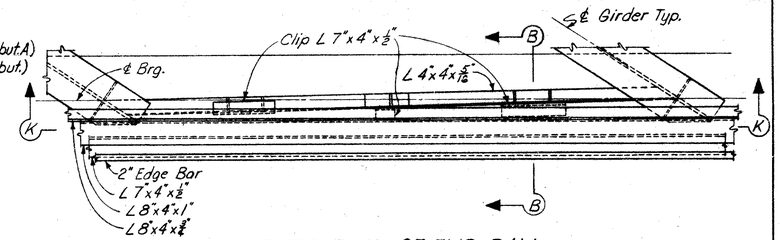
Elevations given are at the intersection of the ℄ Beam or Gutter Line and ℄ Bearing for Abutment.



END DAM CROSS SECTION - AT SOUTH ABUTMENT B

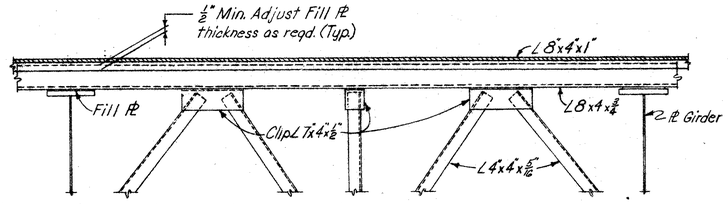
Elevations given are at the intersection of the ℄ Beam or Gutter Line and ℄ Bearing for Abutment.





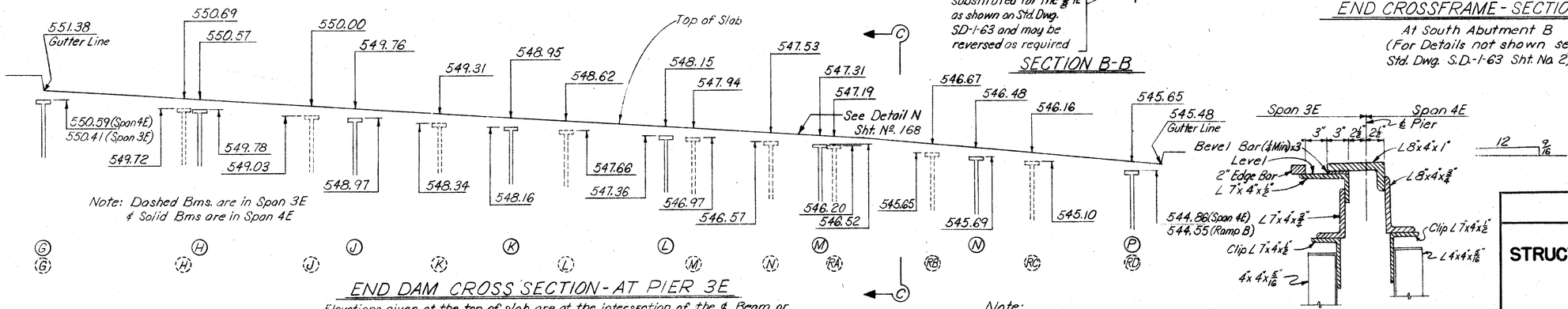
PART PLAN OF END DAM

At South Abutment B



END CROSSFRAME - SECTION K-K

At South Abutment B
(For Details not shown see Std. Dwg. S.D.-1-63 Sht. No. 2)



Note: Dashed Bms. are in Span 3E & Solid Bms are in Span 4E

END DAM CROSS SECTION - AT PIER 3E

Elevations given at the top of slab are at the intersection of the ℄ Beam or Gutter Line and ℄ Pier (Typ. for Piers)
Elevations given at top of Beam are at the intersection of the ℄ Beam and ℄ Bearing (Typ. for Piers)

SECTION C-C

Note:
For additional details not shown see Std. Dwg. SD-1-63 Sht. No. 2
For Section E-E see Sht. No. 168

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

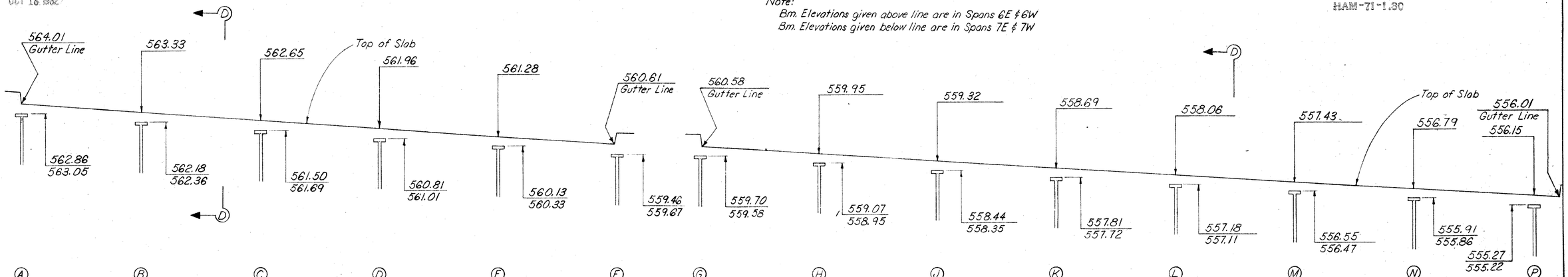
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	W.R.T. 12-28-64		2-3-65	JHO 3/22/65	

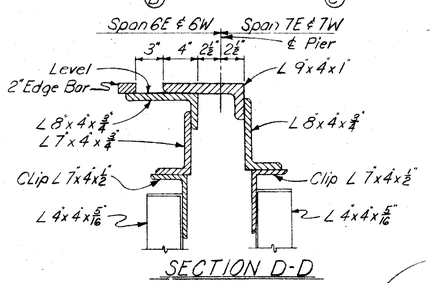
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

168/210

HAM-71-1.30

Note:
Bm. Elevations given above line are in Spans 6E & 6W
Bm. Elevations given below line are in Spans 7E & 7W

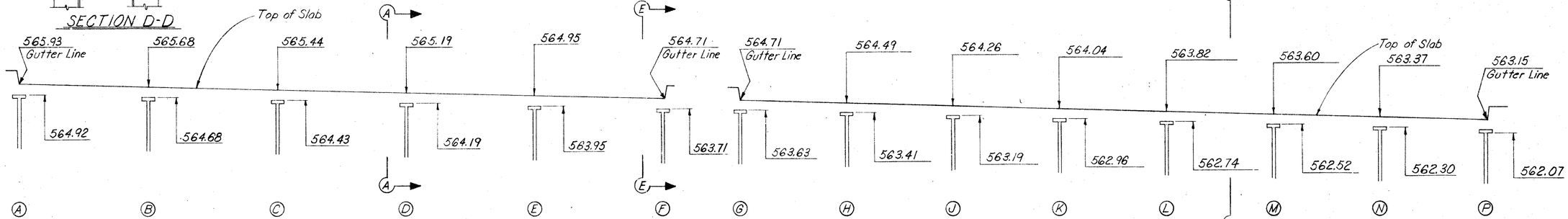


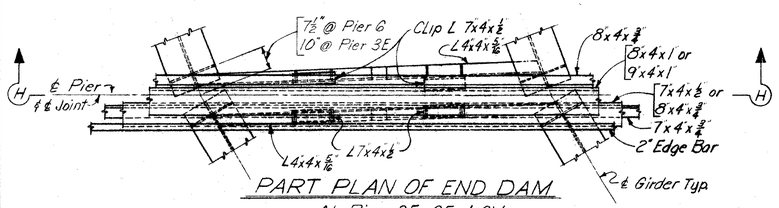


SECTION D-D

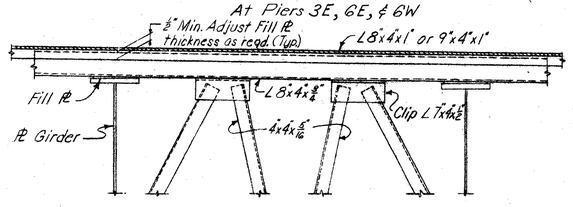
END DAM CROSS SECTION - AT PIER 6E AND 6W

Elevations given at top of slab are at the intersection of the ℄ Beam or Gutter Line and ℄ Pier (Typ. for Piers)
Elevations given at top of Beam are at the intersection of the ℄ Beam and ℄ Bearing (Typ. for Piers)





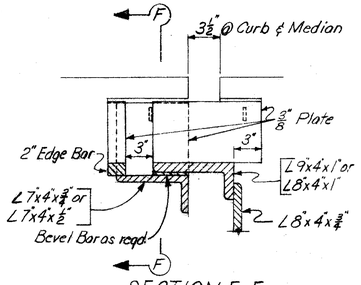
PART PLAN OF END DAM
At Piers 3E, 6E, ℄ 6W



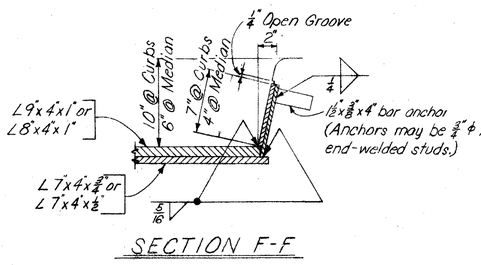
END CROSSFRAME - SECTION H-H
At Piers 3E, 6E, ℄ 6W
For Details not shown see Std. Dwg. SD-1-63 Sht. No. 2

END DAM CROSS SECTION - AT NORTH ABUTMENT

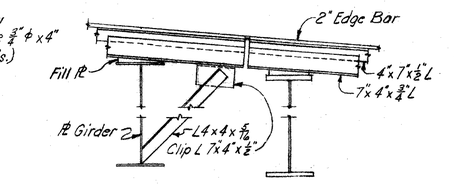
Elevations given are at the intersection of the ℄ Beam or Gutter Line and ℄ Bearing for Abutment.



SECTION E-E
Typical Detail at Gutters
For Details not shown See Std. Dwg. SD-1-63 Sht. No. 4



SECTION F-F



DETAIL N

Note:
For Section A-A See Sht. No. 167
For Additional Details not shown see Std. Dwg. SD-1-63 Sht. No. 2.

SECTION P-P

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

STRUCTURAL STEEL DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	W.R.T. 12-28-64		R.L.C. 2-9-65	3/22/65 JHO	

MICROFILMED
OCT 18 1982

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

169
210

HAM-71-1.30

139 Spa. @ 1'-6" = 208'-6" Along West Edge of Slab = 140-S5101 & 140-S5102 Bars in Safety Curb.

℄ Lamp Std. (For Location See Sht. No. 184)

2 Rows of 2 = 4-S6143 Bars Staggered over Pier (Top of Safety Curb)

6 Rows of 3 = 18-S6134 Bars (Top of Safety Curb)

West Edge of Slab

Fascia Line

Curb Line

See Detail "F" Sht. No. 179

See Detail "K" Sht. No. 185

The long. axis of fluorescent luminaire shall be parallel to Sentinel St. For detail see Sht. #89.

955 Spa. @ 8" = 636'-8" along West Edge of Slab (to ℄ Pier 6W) (See Sht. No. 171)

Concrete insert For 5/8" ϕ rod.

Concrete insert For 5/8" ϕ rod.

51-S6101 Bars (Top) 51-S7101 Bars (Bott.)

50-S6104 Bars (Top) 50-S7104 Bars (Bott.)

50-S6105 Bars (Top) 50-S7105 Bars (Bott.)

60-S6106 Bars (Top) 60-S7106 Bars (Bott.)

54-S6108 Bars (Top) 54-S7108 Bars (Bott.)

51-S6109 Bars (Top) 51-S7109 Bars (Bott.)

Edge of Slab

53'-0"

71'-6¼"

℄ Bearing South Abut. A Sta. 137+71.70 S.B.

Sta. 138+76 S.B. 38' Left

Sta. 138+79 S.B. 38' Left

53'-0¾"

Sta. 139+18 S.B. 39' Left

Sta. 139+24 S.B. 39' Left

SPAN 1W

SPAN 2W

6-S6101 Bars (Top) 6-S7101 Bars (Bott.)

33-S6101 Bars (Top) 33-S7101 Bars (Bott.)

8-S6103 Bars (Top) 8-S7103 Bars (Bott.)

4-S6101 Bars (Top) 4-S7101 Bars (Bott.) 8-S6102 Bars (Top) 8-S7102 Bars (Bott.)

6 Rows of 37 = 222-S6134 Bars (Top) 6 Rows of 53 = 318-S6134 Bars (Bott.)

3 Rows of 17 = 51 S6134 Bars (Top) 3 Rows of 23 = 69 S6134 Bars (Bott.)

℄ Pier 1W 138+94.00 S.B.

3 Rows of 10 = 30 - S6134 Bars (Top) 3 Rows of 13 = 39 - S6134 Bars (Bott.)

℄ Column 21'-9" (measured along ℄ Pier)

℄ Column 21'-9"

42-S6107 Bars (Top) 42-S7107 Bars (Bott.)

4-S6108 Bars (Top) 4-S7108 Bars (Bott.)

42-S6108 Bars (Top) 42-S7108 Bars (Bott.)

51-S6109 Bars (Top) 51-S7109 Bars (Bott.)

2 Rows of 42 = 84 - S6143 Bars (Top) Staggered over Pier. Spaced as shown in Transverse Sect.

Drain Inlets, Type C

8-S6102 Bars (Top) 8-S7102 Bars (Bott.)

Base Line S.B.

Curb Line

Match Line

P.C.C. 139+77.27 S.B.

Drain Inlets, Type E

4 Eq. Spa. = 5-S5105 Bars (Typ. @ Ea. Col. Opening.)

R=2546.48'

Sta. 140+00.00 N.B.

Sta. 140+26.88 N.B.

Sta. 140+48.63 N.B.

Sta. 140+70.38 N.B.

℄ Pier 7D (Future 6th Street)

R=1913.23'

2 Rows of 3 = 6-S6143 Bars Staggered over Pier (Top of Median Curb)

P.C.C. 141+12.72 N.B.

Base Line N.B. & ℄ Beam Guard Rail

℄ 2" Open Joint

R=1644.33'

℄ Brg. South Abut. A 139+60.60 N.B.

R=2997.60'

See Detail "G" Sht. No. 171 ℄ Sign Support

Edge of Concrete

6 Rows of 4 = 24 - S6134 Bars (Top of Median Curb)

P.C.C. 140+12.72 N.B.

139 Spa. @ 1'-6" = 205'-6" Along Edge of Concrete = 138-S5103 & 138-S5104 Bars in Median Curb

N.B. Base Line

Face of Col. Pier 7D (Future 6th Street)

Const. Jt. (Level)

6"

1"

Varies

2"

2" Cl.

℄ 2" Open Jt.

F

SECTION A-A

NOTE:
Transverse Reinforcing bars are to be placed radially and spaced at 8" measured along West edge of Slab.

NOTE:
Transverse & Longitudinal Reinforcement in Slab & Median Curb to be placed, bent or cut to miss openings for Columns of Pier No. 7D for future 6th Street.

NOTES:
Field bend or cut longitudinal bars where necessary to miss inlets.
For end finish details see Sheets No. 167 & 168
For drainage details see Sheet No. 187 & 188
For lighting details see Sheet No. 84 & 88
For railing details and spacing of bars in parapet see Sheets No. 184, 185 & 186
For Barrier Guard Rail details see Sheet No. 184, 185 & 186

℄ Brg. South Abut. A

℄ Pier or ℄ Brg. So. Abut. A

X

Fascia Line

℄ Pier

90°

℄ Girder A

PART PLAN UNIT 1
(Parapet not shown)

℄ Pier or ℄ Brg. So. Abut. A

℄ Pier

℄ Girder F

90°

X

℄ 2" Open Jt.

1'-11" (Min. Lap)

℄ Pier 2W

3'-0" (Typ.)

27'-0"

30'-0"

DIAGRAM SHOWING STAGGER & SPLICES OF S6144 BARS OVER PIER 2W

1'-11" (Min. Lap)

℄ Pier 1W

3'-0" (Typ.)

29'-6"

32'-6"

DIAGRAM SHOWING STAGGER & SPLICES OF S6143 BARS OVER PIER 1W

FASCIA & ℄ 2" OPEN JOINT OFFSETS

SPAN 1W				SPAN 2W				SPAN 3W				SPAN 4W				SPAN 5W				SPAN 6W			
℄ 2" Open Jt.		Fascia Line		℄ 2" Open Jt.		Fascia Line		℄ 2" Open Jt.		Fascia Line		℄ 2" Open Jt.		Fascia Line		℄ 2" Open Jt.		Fascia Line		℄ 2" Open Jt.		Fascia Line	
Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y
0	5-5⅛	0	2'-1⅞	9'-6"	3'-7¼	9'-5"	2'-5⅛	11'-6"	2'-11¾	14'-3"	2'-6⅜	8'-9"	3'-1 ½	10'-9"	2'-5¼	8'-8"	3'-0"	8'-7"	2'-5⅝	8'-8"	2'-7⅛	8'-8"	2'-10⅜
10'-2	5-1⅝	10'-2"	2'-4½	19'-0"	2'-2⅞	18'-9"	2'-7⅛	23'-1"	2'-8¾	26'-3"	2'-9"	17'-7"	2'-11⅝	21'-7"	2'-7⅝	17'-4"	2'-8¾	17'-2"	2'-8⅝	17'-5"	2'-6⅛	17'-3"	2'-11¼
20'-4"	4'-9⅞	20'-5"	2'-6¾	28'-6"	2'-11¼	28'-2"	2'-10⅛	34'-7"	2'-6⅞	39'-4"	2'-10¾	26'-4"	2'-10½	32'-4"	2'-9⅛	26'-0"	2'-6⅜	25'-8"	2'-11"	26'-1"	2'-6"	25'-11"	2'-11½
30'-6"	4'-6½	30'-7"	2'-8⅜	38'-0"	2'-8½	37'-6"	3'-0"	46'-2"	2'-6½	52'-5"	2'-11⅜	35'-2"	2'-10⅛	43'-1"	2'-9¾	34'-8"	2'-4⅝	34'-3"	3'-0⅝	34'-10"	2'-6½	34'-6"	2'-11"
40'-8	4'-3½	40'-9"	2'-9⅝	47'-6"	2'-5⅝	46'-10"	3'-1½	57'-8"	2'-6¾	65'-7"	2'-10⅞	43'-11"	2'-10½	53'-11"	2'-9¼	43'-4"	2'-3⅜	42'-10"	3'-1⅝	43'-6"	2'-7¾	43'-2"	2'-9⅞
50'-10"	4'-0⅞	51'-0"	2'-10¾	57'-0"	2'-3⅛	56'-3"	3'-2½	69'-3"	2'-8⅝	78'-8"	2'-9⅛	52'-9"	2'-11⅝	64'-8"	2'-7⅞	51'-11"	2'-3¼	51'-5"	3'-1⅞	52'-2"	2'-9¾	51'-10"	2'-8"
61'-0"	3'-10¾	61'-2"	2'-10⅝	66'-5"	2'-2¾	65'-7"	3'-3¼	80'-9"	2'-11⅝	91'-7"	2'-6¾	61'-6"	3'-1⅜	75'-6"	2'-5½	60'-7"	2'-3⅝	59'-11"	3'-1⅝	60'-11"	3'-0⅝	60'-5"	2'-5½
71'-4"	3'-9⅞	71'-4"	2'-10⅜	76'-0"	2'-2¼	75'-0"	3'-3½	92'-3⅞	3'-4"	104'-10⅛	2'-2"	70'-3⅜	3'-4"	86'-2 13/16	2'-2"	69'-3"	2'-4¾	68'-6"	3'-0⅜	70'-2⅝	3'-3¾	69'-8⅝	2'-2"
81'-4"	3'-8⅜	81'-6"	2'-9⅞	85'-6"	2'-2½	84'-5"	3'-3¼									77'-11"	2'-6½	77'-4"	2'-11"				
91'-6"	3'-8½	91'-9"	2'-8½	95'-0"	2'-3⅜	93'-9"	3'-2¾									86'-7"	2'-8⅛	85'-7"	2'-8⅝				
101'-8"	3'-9"	101'-11"	2'-6¾	104'-6"	2'-4⅛	103'-7"	3'-1¾									95'-3"	3'-0⅛	94'-2"	2'-5⅝				
111'-10"	3'-10⅛	112'-1"	2'-4⅝	114'-0"	2'-7"	112'-6"	3'-0¼									103'-10⅞	3'-4"	102'-8½	2'-2"				
122'-3⅞	4'-0"	122'-3⅝	2'-2"	123'-6"	2'-10⅛	121'-10"	2'-10⅜									108'-6"	3'-2⅛	107'-4"	2'-3⅛				
				137'-4⅝	3'-4"	137'-3"	2'-8⅛									117'-2"	2'-4"	115'-11"	2'-6¾				
						140'-7"	2'-5¼									125'-10¾	2'-8¾	124'-6⅝	2'-8⅛				
						149'-11⅞	2'-2⅛																

SLAB THICKNESS (Unit 1)

* POINT	GIRDER							
	A	B	C	D	E	EA	EB	F
℄ Brg. South Abut. A	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"
(1)	14 3/8"	14 3/8"	14 3/8"	14 3/4"	14 3/8"	14 3/8"	—	14 3/8"
(2)	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	14 3/8"
(3)	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	14 3/8"
℄ Brg. Pier 1W	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	—	14 3/8"
(4)	14 3/8"	14 3/8"	14 1/2"	14 5/8"	14 5/8"	14 3/8"	—	14 3/8"
(5)	14 1/2"	14 5/8"	14 7/8"	14 7/8"	15"	14 3/8"	—	14 3/8"
(6)	14 7/8"	14 7/8"	14 1/2"	14 3/4"	14 7/8"	14 3/8"	—	14 3/8"
(7)	14 1/4"	14 3/8"	14 3/8"	14 1/2"	14 5/8"	14 3/8"	—	14 3/8"
℄ Brg. Pier 2W	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	14 3/8"
(8)	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	14 3/8"
(9)	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	14 3/8"
(10)	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	14 3/8"
℄ Brg. Pier 3W	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	14 3/8"
(11)	14 3/8"	14 3/8"	14 7/8"	14 7/8"	14 3/4"	14 5/8"	—	14 5/8"
(12)	14 3/8"	14 3/8"	15"	15"	14 7/8"	14 3/8"	—	14 3/4"
(13)	14 3/8"	14 3/8"	14 3/4"	14 3/4"	14 5/8"	14 1/2"	—	14 1/2"
℄ Brg. Pier 4W	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	—	14 3/8"
(14)	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	—	14 3/8"
(15)	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	—	14 3/8"
(16)	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	—	14 3/8"
(17)	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	—	14 3/8"
℄ Brg. Pier 5W	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	—	14 3/8"
(18)	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	—	14 3/8"
(19)	14 1/2"	14 1/2"	14 1/2"	14 1/2"	14 1/2"	—	—	14 1/2"
(20)	14 5/8"	14 5/8"	14 5/8"	14 5/8"	14 5/8"	—	—	14 5/8"
℄ Brg. Pier 6W	14 3/8"	14 3/8"	14 3/8"	14 3/8"	14 3/8"	—	—	14 3/8"

* For location of Points see Girder Defl. Diagram Sheet No. 148
For Slab Thickness Note see Sheet No. 170

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

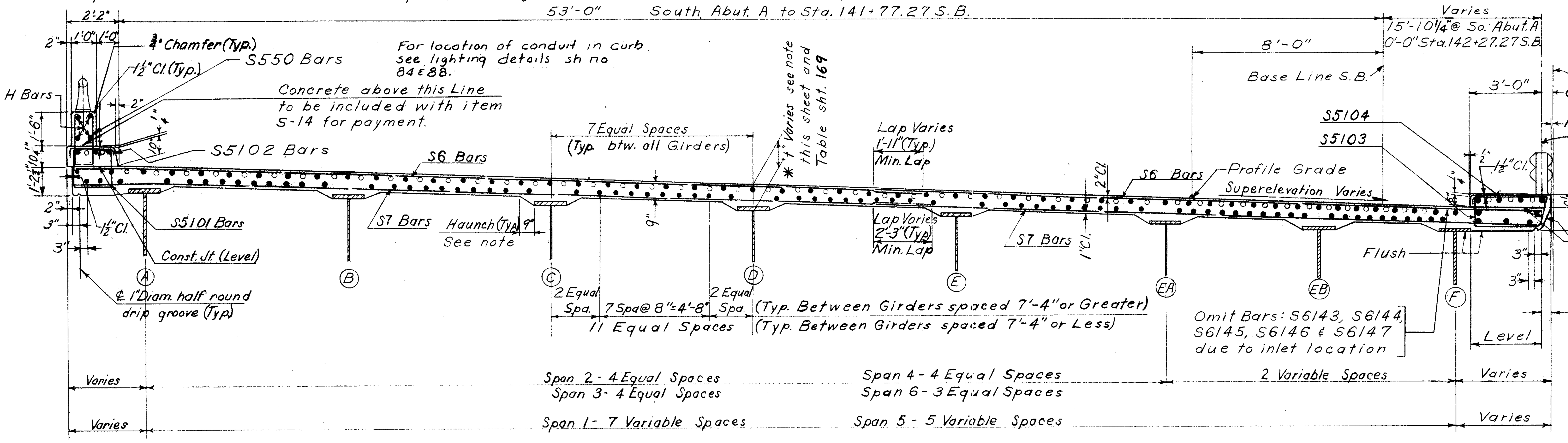
SUPERSTRUCTURE DETAILS UNIT 1

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	SHH/CKB 10-2-64		ERK 2-5-65	JHO 3122165	


136 Spa. @ 1'-6" = 204'-0" along West Edge of Slab = 137-S5101 & 137-S5102 Bars in Safety Curb
1'-6"
℄ Lamp Std. (For Location see Sht. No. 184 Typ)
6 Rows of 3 = 18-S6134 Bars (Top of Safety Curb)
2 Rows of 2 = 4-S6144 Bars Staggered over Pier (Top of Safety Curb)
Fascia Line
West edge of slab
℄ Lamp Std.
2 Rows of 2 = 4-S6145 Bars Staggered over Pier (Top of Safety Curb)
6 1/4"
See Detail "K" Sht. No. 185 Typ.
Curb Line
The long axis of flourescent luminaire shall be parallel to existing Culvert St. For detail see Sht. No. 89.
98-S6110 Bars (Top)
98-S7110 Bars (Bott.)
SPAN 2 W
Concrete insert for 5/8"φ rod
144-S6111 Bars (Top)
144-S7111 Bars (Bott.)
SPAN 3 W
67-S6114 Bars (Top)
67-S7114 Bars (Bott.)
SPAN 4 W
53'-0"
Match Line
4-S6112 Bars (Top)
4-S7112 Bars (Bott)
4-S6113 Bars (Top)
4-S7113 Bars (Bott)
96-S6110 Bars (Top)
96-S7110 Bars (Bott.)
140-S6111 Bars (Top) & 140-S7111 Bars (Bott.)
65-S6114 Bars (Top)
65-S7114 Bars (Bott)
6 Rows of 47 = 282-S6134 Bars (Top)
6 Rows of 66 = 396-S6134 Bars (Bott.)
2 Rows of 42 = 84-S6144 Bars (Top) Staggered over Pier. Spaced as shown in Trans. Sect.
2 Rows of 42 = 84-S6145 Bars (Top) Staggered over Pier. Spaced as shown in Trans. Sect.
Drain Inlet, Type G
4-S6102 Bars (Top)
4-S7102 Bars (Bott)
P.C.C. 139+77.27 S.B.
6 Rows of 4 = 24-S6134 Bars (Top of Median Curb)
Curb Line
10'-0"
℄ Pier 2W Sta. 140+31.50 S.B.
Edge of Concrete
℄ 2" Open Joint
Base Line S.B.
Base Line N.B. & ℄ Beam Guard Rail
P.C.C. 142+62.72 N.B.
11'-3"
℄ Pier 3W Sta. 141+23.00 S.B.
2 Rows of 3 = 6-S6145 Bars Staggered over Pier (Top of Median Curb)
P.C.C. 141+77.27 S.B.
2 Rows of 3 = 6-S6144 Bars Staggered over Pier (Top of Median Curb)
132 Spaces @ 1'-6" = 198'-0" along Edge of Concrete = 133-S5103 & 133-S5104 Bars in Median Curb
R=2314.46'
P.C.C. 141+87.72 N.B.
R=1334.53'
P.C.C. 140+52.27 S.B.
R=1699.61'
R=1273.24'
P.C.C. 141+27.27 S.B.
R=1525.40'
4 1/4"
5"
1'-6"

PART PLAN UNIT I
(Parapet not shown)

NOTE:
DECK SLAB HAUNCH : The haunch in the superelevated deck slab adjacent to the top of steel beams (girders), which is shown as 9" wide, may vary from this dimension between the limits of 6" and 12" on the low side and between 9" and 12" on the high side. Except on the high side, the maximum slope shall not exceed 3 inches per foot. Payment for deck slab concrete shall be based on the 9" width.


53'-0" South Abut. A to Sta. 141+77.27 S.B.
Varies
15'-10 1/4" @ So. Abut. A
0'-0" Sta. 142+27.27 S.B.
2'-2"
3/4" Chamfer (Typ.)
1 1/2" Cl. (Typ.)
S550 Bars
For location of conduit in curb see lighting details sh no 84 & 88.
H Bars
Concrete above this Line to be included with item S-14 for payment.
S5102 Bars
7 Equal Spaces (Typ. btw. all Girders)
S6 Bars
"t" Varies see note this sheet and Table sht. 169
Lap Varies 1'-11" (Typ.) Min. Lap
8'-0"
Base Line S.B.
3'-0"
℄ 2" Open Joint
S5104
S5103
Base Line N.B. & ℄ Beam Guard Rail
S6 Bars
Profile Grade
Superelevation Varies
S5101 Bars
Const. Jt (Level)
S7 Bars
Haunch (Typ) 9"
See note
Lap Varies 2'-3" (Typ) Min. Lap
S7 Bars
Flush
Varies
Const. Jt. (Level)
1/2" Cl.
℄ 1" Diam. half round drip groove (Typ)
A B C D E EA EB F
2 Equal Spa. 7 Spa @ 8" = 4'-8" 2 Equal Spa (Typ. Between Girders spaced 7'-4" or Greater)
11 Equal Spaces (Typ. Between Girders spaced 7'-4" or Less)
Omit Bars: S6143, S6144, S6145, S6146 & S6147 due to inlet location
Level
5"
Varies
Span 2 - 4 Equal Spaces
Span 3 - 4 Equal Spaces
Span 4 - 4 Equal Spaces
Span 6 - 3 Equal Spaces
2 Variable Spaces
Span 1 - 7 Variable Spaces
Span 5 - 5 Variable Spaces

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. S1.25 of the Construction and Material Specifications. Slab thickness "t" is measured from top of Slab to bottom of flange.

• Indicates bars in Section
○ Indicates bars over Piers

NOTE:
Slab thickness shown includes 1" Monolithic Wearing Surface

TRANSVERSE SECTION
(Drawn from Abut A to End of Girder EB)
(See Part. Trans. Sects. Sheet No. 171)

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS
UNIT I

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	SKH & CKB 10-2-64		RKK 2-5-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

171
210

HAM-71-1.80

MICROFILMED
OCT 18 1982

161 Spa. @ 1'-6" = 241'-6" Along West Edge of Slab = 162-S5101 & 162-S5102 Bars in Safety Curb

West edge of Slab

℄ Lamp Std. (For Location See Sht. No. 185 Typ)

Fascia Line

Curb Line

6 Rows of 3=18-S6134 Bars (Top of Safety Curb)

2 Rows of 2=4-S6146 Bars Staggered over Pier (Top of Safety Curb)

2 Rows of 2=4-S6147 Bars. Staggered over Pier (Top of Safety Curb)

Fan 2-S6133 Bars (Top) & 2-S7133 Bars (Bott.)

15 Bars S6118 thru S6132 (Top)
15 Bars S7118 thru S7132 (Bott.)

2 Rows of 3=6-S6135 Bars (Top of Safety Curb)

2 Rows of 5=10-S6135 Bars (Top)
2 Rows of 7=14-S6135 Bars (Bott.)
2 Rows of 5=10-S6136 Bars (Top)
2 Rows of 6=12-S6136 Bars (Bott.)

955 Spaces @ 8" = 636'-8" along West Edge of Slab (to South Abut. A) (See Sht. No. 169)

3-S6134 Bars (Top) & 5-S6134 Bars (Bott.)

4-S6137 Bars (Top)
5-S6137 Bars (Bott.)

SPAN 6W

78-S6114 Bars (Top)
78-S7114 Bars (Bott.)

See Detail "K" Sht. No. 185 (Typ)

269-S6116 Bars (Top)
269-S7116 Bars (Bott.)

The long. axis of flouresent luminaire shall be parallel to Pier 5W. For detail see Sheet No 89.

SPAN 5W

Concrete insert for 5/8" ϕ rod

4-S6117 Bars (Top)
4-S7117 Bars (Bott.)

149-S6116 Bar (Top) & 149-S7116 Bars (Bott.)

40-S6114 Bars (Top)
40-S7114 Bars (Bott.)

Spaced as shown in Trans. Sect.

6 Rows of 40=240-S6134 Bars (Top)
6 Rows of 56=336-S6134 Bars (Bott.)

4-S6115 Bars (Top)
4-S7115 Bars (Bott.)
34-S6114 Bars (Top)
34-S7114 Bars (Bott.)

4-S6102 Bars (Top)
4-S7102 Bars (Bott.)

Drain Inlet Type G

6 Rows of 4=24-S6134 Bars (Top of Median Curb)

2 Rows of 35=70-S6146 Bars (Top) Staggered over Pier. Spaced as shown in Trans. Sect.

2 Rows of 3=6-S6147 Bars Staggered over Pier (Top of Median Curb)

Sta. 144+54 29' Left

Sta. 144+63 31' Left

Sta. 144+94 29' Lt.

4-S8102 Bars (Top)
4-S7102 Bars (Bott.)

2 Rows of 35=70-S6147 Bars (Top) Staggered over Pier. Spaced as shown in Trans. Sect.

Drain Inlet Type B

P.C.C. 141+77+27 S.B.

Match Line

See Detail "B"

℄ 2" Open Jt.

S.B. & N.B. Base Line and ℄ Beam Guard Rail

℄ Sign Support Sta. 142+27.00 S.B.
P.C.C. 142+27.27 S.B. =
P.C.C. 144+15.68 N.B.

℄ Pier 4W
Sta. 143+80.70 N.B.

℄ Pier 5W
Sta. 145+07.00 N.B.

℄ Pier 6W
Sta. 145+77.00 N.B.

2 Rows of 3=6-S6146 Bars Staggered over Pier (Top of Median Curb)

N.B. Base Line

R=1317.48'

R=1273.24'

Edge of Concrete

140 Spaces @ 1'-6" = 210'-0" Along Edge of Concrete
=141-S5103 & 141-S5104 Bars in Median Curb

3-S6138 Bars (Top) & 5-S6138 Bars (Bott.)
4-S6139 Bars " ℄ 5-S6139 " "
3-S6140 Bars " ℄ 5-S6140 " "
4-S6141 Bars " ℄ 5-S6141 " "
5-S6142 Bars " ℄ 8-S6142 " "

PART PLAN UNIT I
(Parapet not shown)

1'-11" (Min. Lap) — ℄ Pier 5W — 3'-0" (Typ.) — 20'-6" — 23'-6"

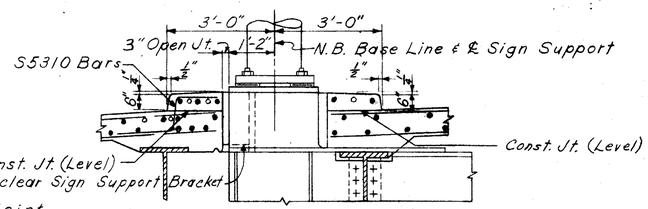
DIAGRAM SHOWING STAGGER & SPLICES OF S6147 BARS OVER PIER 5W

1'-11" (Min. Lap) — ℄ Pier 4W — 3'-0" (Typ.) — 22'-0" — 25'-0"

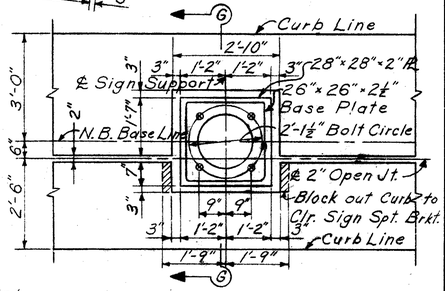
DIAGRAM SHOWING STAGGER & SPLICES OF S6146 BARS OVER PIER 4W

1'-11" (Min. Lap) — ℄ Pier 3W — 3'-0 (Typ.) — 20'-0" — 23'-0"

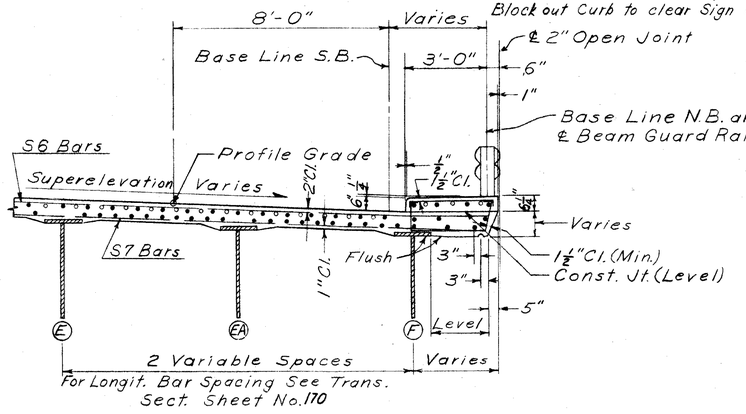
DIAGRAM SHOWING STAGGER & SPLICES OF S6145 BARS OVER PIER 3W



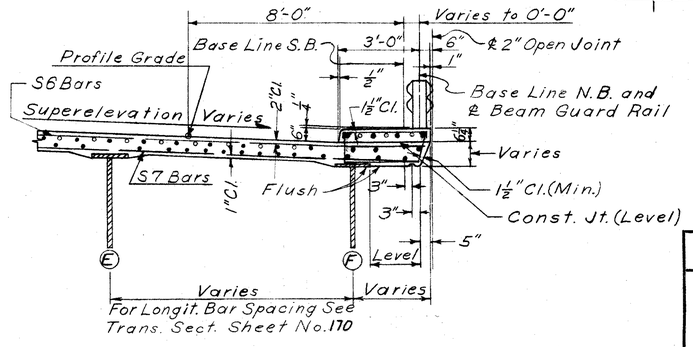
SECTION G-G



DETAIL "G"



PART TRANSVERSE SECTION
(Drawn from end of Girder EB to end of Girder EA)



PART TRANSVERSE SECTION
(Drawn from end of Girder EA to Pier 6W)

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS UNIT I

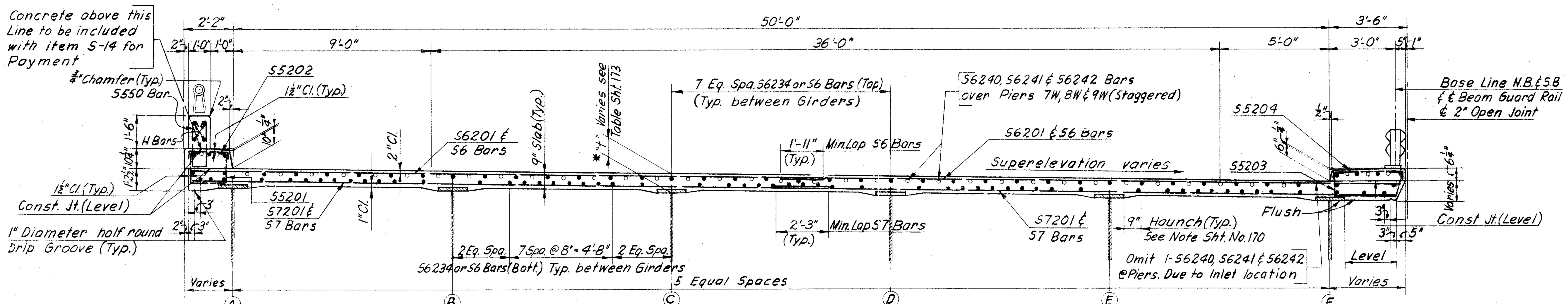
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	S.M.M.&C.K.R. 10-2-64		R.R.K. 2-5-65	J.H.O. 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR	
2	OHIO			172 / 210

HAM-71-1.80


159 Spa. @ 1'-6" = 238'-6" along West Edge of Slab = 160-S5201 ¢ 160-S5202 Bars in Safety Curb
3 Bars-S6239 (Top of Safety Curb)
2 Rows of 2 = 4-S6240 Bars in Safety Curb over Pier
West Edge of Slab
Fascia Line
Curb Line
Detail "K" see Sht. No. 185
℄ Lamp Std. For Location see Sht. No. 185
2 Rows of 2 = 4-S6241 Bars in Safety Curb over Pier
7 Rows of 3 = 21-S6234 Bars (Top of Safety Curb)
The long. axis of fluoresent Luminaire shall be parallel to Pier GW. For detail see Sh. No. 89
The long. axis of future fluoresent luminaire shall be parallel to future Ramp K base line. For detail see sheet No. 89.
Concrete insert for future 5/8"φ rods
Concrete insert for 5/8"φ rods
358 Spa. @ 8" = 238'-8" along West Edge of Slab = 359-S6201 Bars (Top) ¢ 359-S7201 Bars (Bott.)
13 Spa. @ 8" = 8'-8"
14 Bars S6204 thru
14 Bars S7204 thru
SPAN 7W
SPAN 8W
4-S6201 Bars (Top)
4-S7201 Bars (Bott.)
154-S6201 Bars (Top) ¢ 154-S7201 Bars (Bott.)
208-S6201 Bars (Top) ¢ 208-S7201 Bars (Bott.)
8-S6202 Bars (Top) ¢ 8-S7202 Bars (Bott.)
Drain Inlet Type A'
8-S6203 Bars (Top)
8-S7203 Bars (Bott.)
9 Bars-S6218 thru-S6226 (Top)
9 Bars-S7218 thru-S7226 (Bott.)
2 Rows of 3 = 6-S6240 Bars in Median Curb over Pier
8 Rows of 4 = 32-S6234 Bars (Top of Median Curb)
4-S6203 Bars (Top)
4-S7203 Bars (Bott.)
7 Rows of 38 = 266-S6234 Bars (Top)
7 Rows of 56 = 392-S6234 Bars (Bott.)
S6217 (Top)
S7217 (Bott.)
2 Rows of 34 = 68-S6240 Bars Staggered over Pier Spaced as shown in transverse Section
2 Rows of 34 = 68-S6241 Bars staggered over Pier Spaced as shown in transverse Section
The long. axis of future fluoresent luminaire shall be parallel to future S.B. Expwy. br. conn. base line. For detail see Sht. No. 89.
Radial Dimensions
2 Rows of 3 = 6-S6241 Bars in Median Curb over Pier
Curb Line
Edge of Concrete
Sta. 147+76 17' Lt.
Sta. 147+79 19' Lt.
Sta. 146+56 37' Lt.
Sta. 146+28 38' Lt.
Sta. 146+32 39' Lt.
Sta. 148+22 38' Lt.
Concrete insert for future 5/8"φ rods
Match Line
Sta. 148+30.00 N.B.
Exp. Joint
Drain Inlet Type B
℄ Pier No. 6W Sta. 145+77.00 N.B.
℄ Pier No. 7W Sta. 146+85.40 N.B.
℄ Pier No. 8W Sta. 148+26.50 N.B.
Base Line N.B. ¢ S.B. ¢ ℄ Beam Guard Rail
℄ 2" Open Joint
168 Spa. @ 1'-6" = 252'-0" along Edge of Concrete = 169-S5203 ¢ 169-S5204 Bars in Median Curb
9 Bars-S6234 (Top) ¢ 13 Bars-S6234 (Bott.)
Fan 2-S6232 (Top) ¢ 2-S7232 (Bott.)
1-S6231 Bar (Top) ¢ 1-S7231 Bar (Bott.)
4 Bars S6227 thru S6230 (Top)
4 Bars S7227 thru S7230 (Bott.)
R=1273.24'
R=1334.53'
R=1644.33'
R=1913.23'
P.C.C. Sta. 146+19.94
P.C.C. Sta. 146+49.94
P.C.C. Sta. 147+69.94
NOTE: Transverse Reinforcing bars are to be placed radially and spaced at 8" measured along West Edge of Slab

PART PLAN UNIT 2
Parapet not shown


Concrete above this Line to be included with item S-14 for Payment
3/4" Chamfer (Typ.)
S550 Bar
H Bars
S5202
1 1/2" Cl. (Typ.)
50'-0"
36'-0"
9'-0"
5'-0"
3'-6"
7 Eq. Spa. S6234 or S6 Bars (Top) (Typ. between Girders)
S6240, S6241 ¢ S6242 Bars over Piers 7W, 8W ¢ 9W (Staggered)
S6201 ¢ S6 Bars
9" Slab (Typ.)
* "t" Varies see Table Sht. 173
1'-11" (Typ.) Min. Lap S6 Bars
S6201 ¢ S6 Bars
Superelevation varies
S5204
S5203
Base Line N.B. ¢ S.B. ¢ ℄ Beam Guard Rail ℄ 2" Open Joint
1 1/2" Cl. (Typ.)
Const. Jt. (Level)
1" Diameter half round Drip Groove (Typ.)
S5201
S7201 ¢ S7 Bars
2'-3" (Typ.) Min. Lap S7 Bars
S7201 ¢ S7 Bars
9" Haunch (Typ.) See Note Sht. No. 170
Flush
Const. Jt. (Level)
Level
Omit 1-S6240, S6241 ¢ S6242 @ Piers. Due to Inlet location
2 Eq. Spa. 7 Spa. @ 8" = 4'-8" 2 Eq. Spa.
S6234 or S6 Bars (Bott.) Typ. between Girders
5 Equal Spaces
Varies
A B C D E F

TRANSVERSE SECTION UNIT 2

NOTE: Slab Thicknes shown includes 1" Monolithic Wearing Surface

• Indicates bars in Section
○ Indicates bars over Piers

NOTES
Field bend or cut longitudinal Reinforcing bars where necessary to miss inlets.
For end finish details see Sht. No. 167 ¢ 168
For drainage details see Sht. No. 187 ¢ 188
For lighting details see Sht. No. 84 ¢ 88
For railing details and spacing of bars in parapet see Sht. No. 189, 185 ¢ 186

*This is the nominal dimension. The quantity of deck concrete to be paid for shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. S-1.25 of the Construction and Material Specifications.
Slab thickness "t" is measured from top of Slab to bottom of Flange.

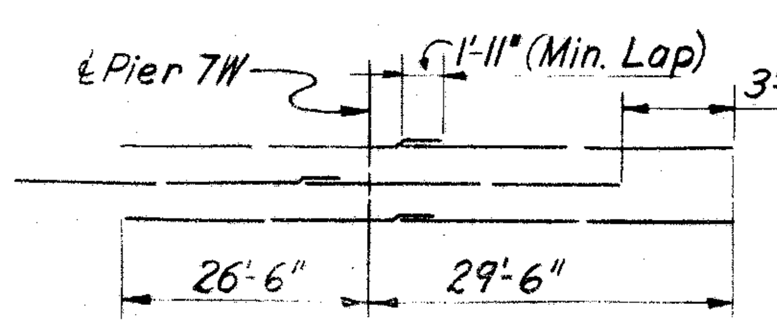


DIAGRAM SHOWING STAGGER ¢ SPLICES OF S6240 BARS OVER PIER 7W

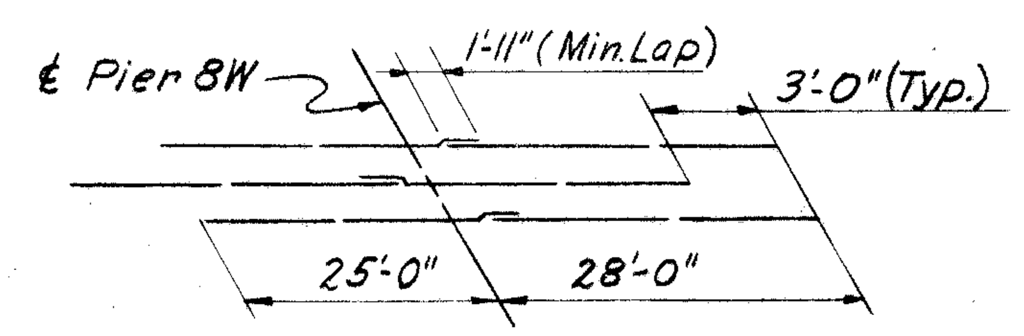


DIAGRAM SHOWING STAGGER ¢ SPLICES OF S6241 BARS OVER PIER 8W

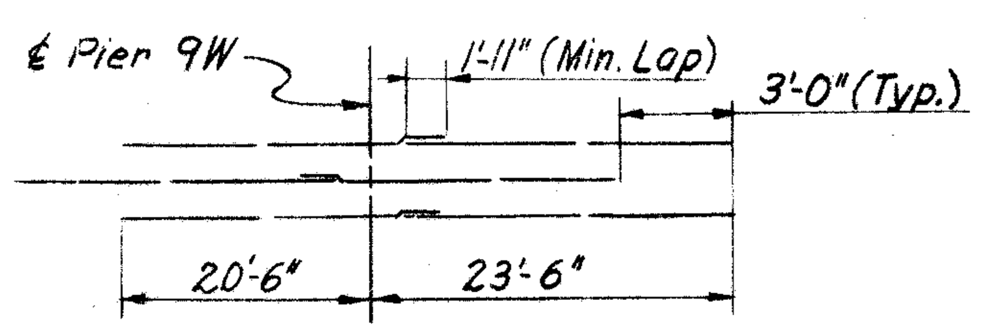


DIAGRAM SHOWING STAGGER ¢ SPLICES OF S6242 BARS OVER PIER 9W

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

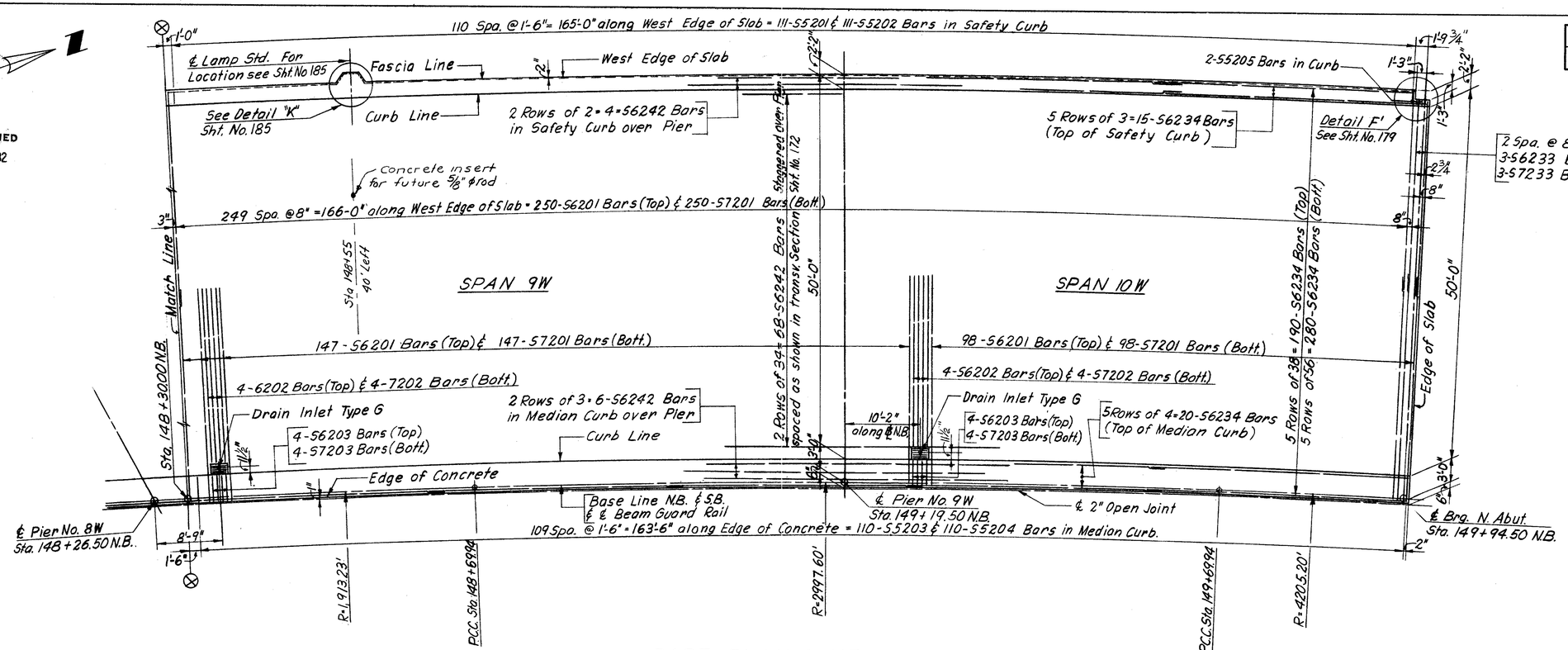
SUPERSTRUCTURE DETAILS
UNIT 2

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	HAS 10-16-64		RRK 2-5-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

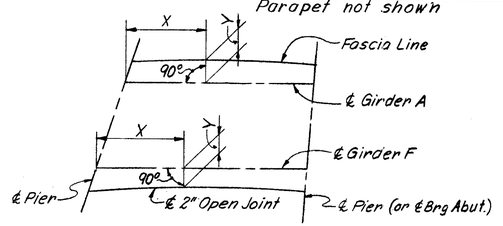
HAM-71-1.80

173
210



PART PLAN UNIT 2

Parapet not shown



SLAB THICKNESS (Unit 2)

* POINT	GIRDER A	B	C	D	E	F
℄ Brg. Pier 6W	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"
①	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"
②	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"
③	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"
℄ Brg. Pier 7W	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"
④	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"
⑤	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"
⑥	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"
⑦	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"	12 3/4"
℄ Brg. Pier 8W	12 3/4	12 5/8"	12 3/4	12 3/4	12 3/4"	12 3/4"
⑧	12 3/4"	12 3/4"	12 3/4 - 2 3/4	12 3/4 - 2 5/8	12 3/4 - 12"	12 3/4 - 2"
⑨	12 7/8	12 7/8	13 - 12 3/4	13 - 12 3/4	13 - 12 7/8	13 - 2 7/8
⑩	12 7/8	12 7/8	13 - 2 3/4	13 - 2 3/4	13 - 12 7/8	13 - 2 7/8
℄ Brg. Pier 9W	12 3/4	12 3/4	13 - 12 3/4	13 - 2 3/4	13 - 12 3/4	13 - 2 3/4
⑪	12 3/4"	12 3/4"	13 - 2 3/4	13 - 2 3/4	13 - 12 7/8	13 - 2 3/4
⑫	12 7/8	12 7/8	13 - 13"	13 - 13"	13 - 13"	13 - 13"
⑬	12 7/8	12 7/8	13 - 12 7/8	13 - 13"	13 - 13"	13 - 13"
℄ Brg. North Abut.	12 3/4"	12 3/4"	12 3/4	12 3/4"	12 3/4	12 3/4"

NOTE: * For location of points see Girder Deflection Diagram Sht. No. 154
For Slab Thickness note see Sht. No. 172

FASCIA AND ℄ 2" OPEN JOINT OFFSETS

SPAN 7W				SPAN 8W				SPAN 9W				SPAN 10W			
℄ 2" Open Jt.		Fascia Line		℄ 2" Open Jt.		Fascia Line		℄ 2" Open Jt.		Fascia Line		℄ 2" Open Jt.		Fascia Line	
Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y
9'-6"	2'-10 1/2"	11'-11"	2'-7 3/4"	10'-0"	2'-5 3/4"	10'-0"	2'-10 1/2"	11'-9"	2'-8 1/8"	9'-10"	2'-5 1/2"	9'-5"	3'-2 1/8"	9'-6"	2'-3 7/8"
18'-5"	2'-6"	23'-2"	2'-11 7/8"	20'-0"	2'-10 1/2"	20'-0"	2'-6 7/8"	23'-6"	2'-7"	19'-9"	2'-1 7/8"	18'-9"	3'-1 1/2"	28'-7"	2'-4 3/8"
27'-4"	2'-2 3/8"	34'-5"	3'-2 7/8"	30'-0"	3'-4 1/8"	30'-0"	2'-2 1/8"	35'-4"	2'-6 7/8"	29'-7"	2'-9 3/8"	28'-2"	3'-1 1/2"	28'-7"	2'-4 3/8"
36'-3"	1'-11 3/8"	45'-8"	3'-4 7/8"	39'-2"	3'-0 1/4"	41'-6"	2'-5 1/4"	47'-1"	2'-7 1/2"	39'-6"	2'-10 3/8"	37'-6"	3'-1 3/4"	38'-1"	2'-4 3/4"
45'-1"	1'-9 1/8"	56'-11"	3'-5 3/8"	48'-5"	2'-9 1/8"	53'-0"	2'-7 1/8"	58'-10"	2'-8 3/4"	49'-4"	2'-11 3/8"	46'-11"	3'-1 5/8"	47'-8"	2'-4 5/8"
54'-0"	1'-7 3/4"	68'-2"	3'-5 3/4"	57'-7"	2'-6 3/8"	64'-6"	2'-8 7/8"	70'-7"	2'-10 5/8"	59'-3"	2'-11 3/8"	56'-4"	3'-2 1/8"	57'-2"	2'-4"
62'-11"	1'-6 1/8"	79'-5"	3'-4 1/8"	66'-9"	2'-4 3/4"	76'-0"	2'-9 7/8"	82'-4"	3'-1"	69'-1"	2'-10 1/8"	65'-8"	3'-3"	66'-8"	2'-3 1/4"
71'-10"	1'-6 7/8"	90'-8 1/4"	3'-1 5/8"	75'-11"	2'-3 1/2"	87'-7"	2'-8 3/4"	94'-1 1/2"	3'-4"	78'-11"	2'-9 7/8"	75'-10 3/8"	3'-4"	76'-2 5/16"	2'-2 1/8"
80'-8"	1'-7 1/2"	—	—	85'-2"	2'-2 3/4"	99'-0"	2'-7 3/8"	—	—	88'-10"	2'-8 1/2"	—	—	—	—
89'-7"	1'-8 1/8"	—	—	94'-4"	2'-2 7/8"	110'-7"	2'-5 1/8"	—	—	98'-8"	2'-6 1/4"	—	—	—	—
98'-6"	1'-11"	—	—	103'-6"	2'-3 1/8"	122'-1 1/16"	2'-2 1/8"	—	—	108'-7"	2'-4 5/8"	—	—	—	—
107'-4 3/16"	2'-1 3/4"	—	—	112'-8"	2'-4"	—	—	—	—	118'-5 1/4"	2'-2 1/8"	—	—	—	—
				121'-11"	2'-5 1/2"	—	—								
				131'-1"	2'-7 1/2"	—	—								
				140'-3 3/8"	2'-10 1/8"	—	—								

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SUPERSTRUCTURE DETAILS UNIT 2

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	HAS 10-16-64		RRK 2-5-65	JHO 3/22/65	1-20-66

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-71-1.30

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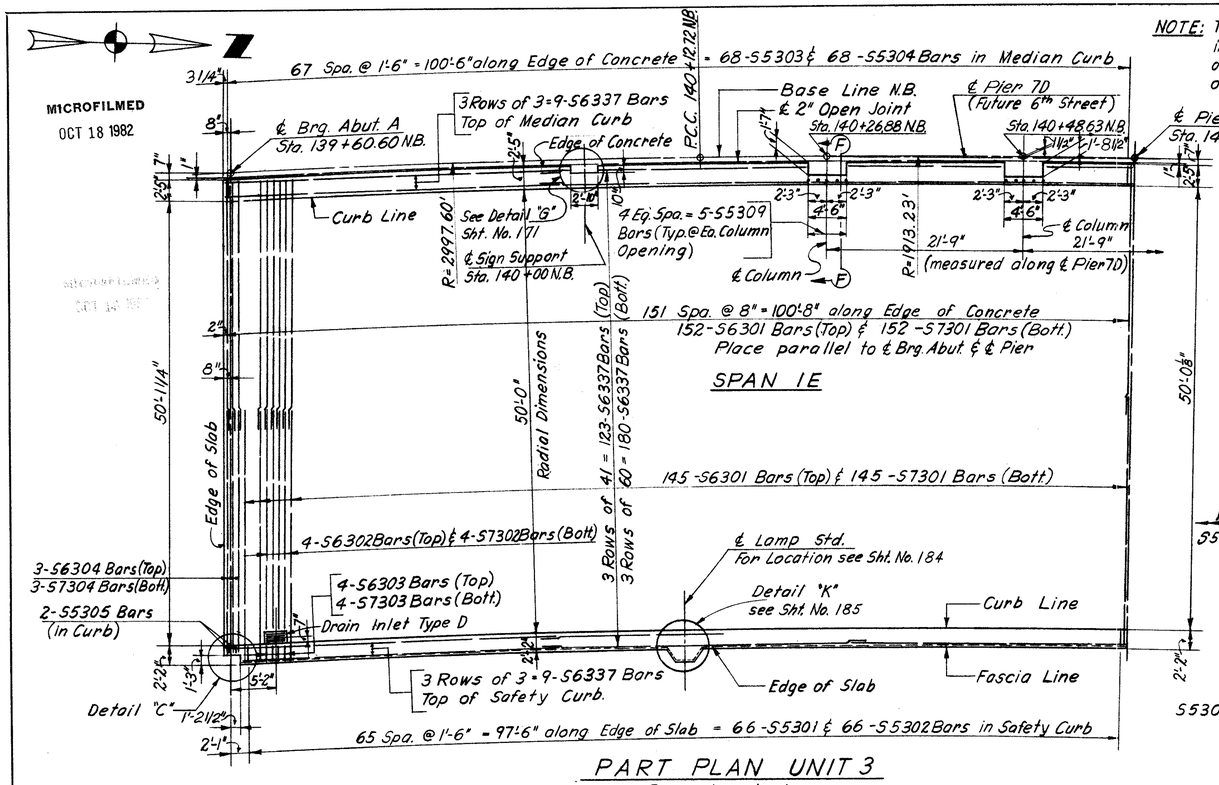
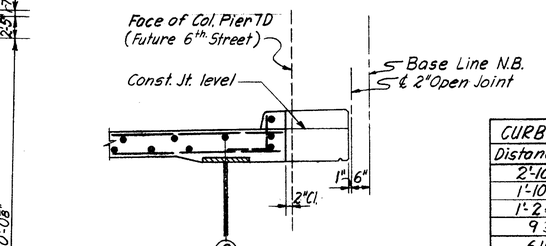
NOTE: Transverse & Longitudinal Reinforcement in Slab & Median Curb to be placed, bent or cut to miss openings for Columns of Pier No. 7D for future 6th Street.

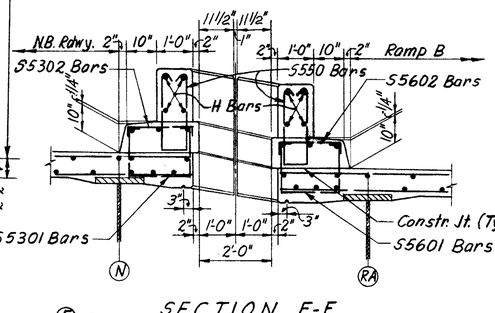


PART PLAN UNIT 3

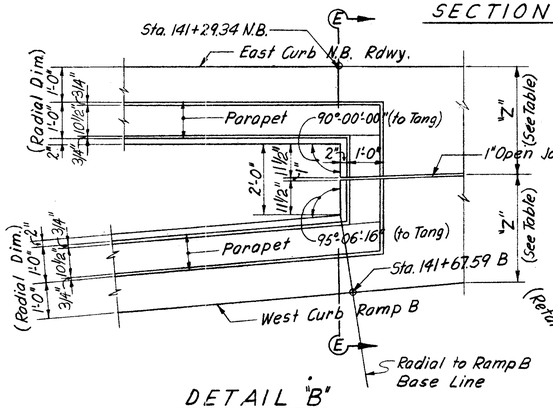
Parapet not shown



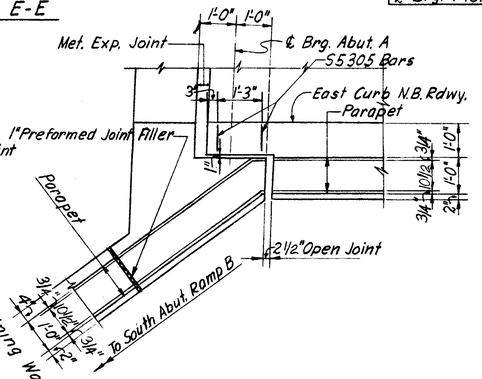
SECTION F-F



SECTION E-E



DETAIL "B"



DETAIL "C"

CURB OFFSETS (Unit 3)

SPAN 1E		SPAN 2E		SPAN 3E	
Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y
0	8'-2 1/4"	10'-0"	7'-7"	10'-9"	7'-6 1/8"
10'-0	7'-11 3/8"	20'-0"	7'-9 7/8"	21'-5"	7'-2 3/4"
20'-1"	7'-8 5/8"	30'-0 3/16"	8'-1 3/8"	32'-2"	7'-0 3/8"
30'-1"	7'-6 3/8"	40'-5"	7'-10 3/8"	42'-10"	6'-11 1/8"
40'-2"	7'-4 5/8"	50'-10"	7'-8"	53'-7"	6'-10 7/8"
50'-2"	7'-3 1/8"	61'-2"	7'-6 3/8"	64'-3"	6'-11 3/4"
60'-3"	7'-2 1/4"	71'-7"	7'-5 5/8"	75'-0"	7'-1 3/4"
70'-3"	7'-1 7/8"	82'-0"	7'-5 5/8"	—	—
80'-3"	7'-2 1/8"	92'-4"	7'-6 3/8"	—	—
90'-4"	7'-3 1/8"	102'-9"	7'-8 1/8"	—	—
100'-4 1/4"	7'-4 3/4"	113'-1 1/2"	7'-10 1/2"	—	—
—	—	—	—	—	—

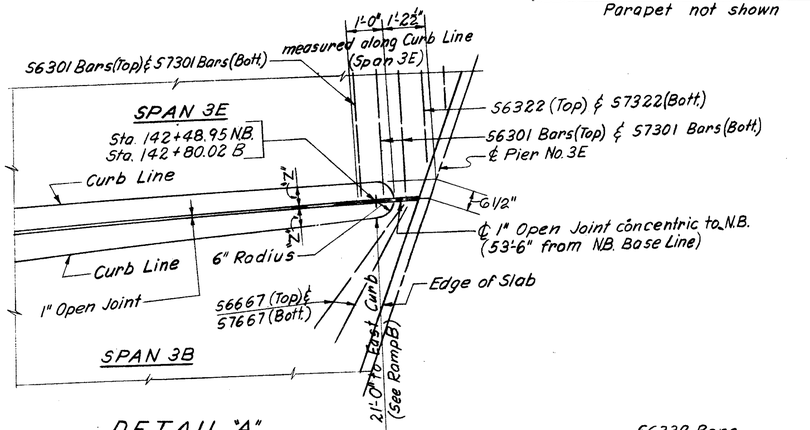
CURB LINE TO ℄ 1" OPEN JT.	
Distance "Z"	Station
2'-10"	Sta. 141+75.00 B
1'-10 3/4"	Sta. 142+00.00 B
1'-2 5/8"	Sta. 142+25.00 B
9 3/8"	Sta. 142+50.00 B
6 1/4"	Sta. 142+75.00 B

Distance "Z" is measured radial to N.B. Base Line and shown at Ramp B Stations.

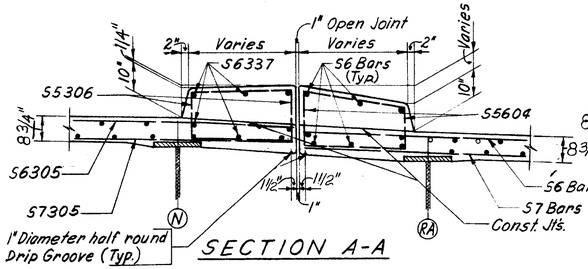
SLAB THICKNESS (unit 3)

* POINT	GIRDER						
	G	H	J	K	L	M	N
℄ Brg. South Abut. A	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"
①	12 1/8"	12 1/8"	12 1/8"	12 1/8	12 1/8"	12 "	12 "
②	12 1/8"	12 1/8"	12 "	12 "	12	12 "	11 7/8"
③	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"
℄ Brg. Pier 1E	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"
④	12 3/8"	12 3/8"	12 3/8"	12 1/4"	12 1/4"	12 1/4"	11 7/8"
⑤	12 3/8"	12 1/4"	12 1/4"	12 1/8"	12 1/8"	12 1/8"	12 "
⑥	12 1/8"	12 "	12 1/8"	12 "	12 "	12 "	12 "
⑦	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"
℄ Brg. Pier 2E	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"
⑧	11 3/4"	11 3/4"	11 5/8"	11 5/8"	11 5/8"	11 5/8"	11 1/2"
⑨	12 1/8"	12 1/8	12 "	11 7/8"	11 7/8"	11 3/4"	11 5/8"
⑩	12 1/4"	12 1/4"	12 1/8"	12 1/8"	12 "	11 7/8"	11 3/4"
℄ Brg. Pier 3E	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"	11 3/4"

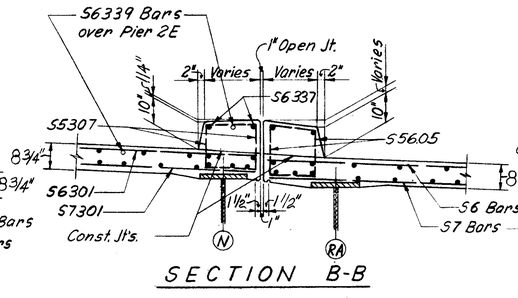
NOTE: * For location of points see Girder Deflection Diagram Sht. No. 157.
For Slab Thickness note see Sht. No. 175



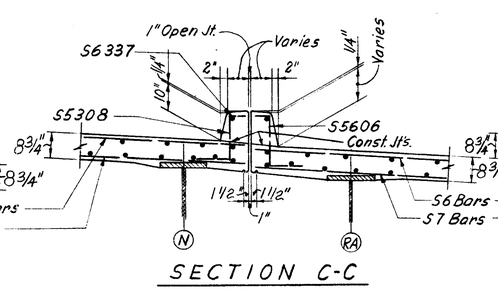
DETAIL "A"



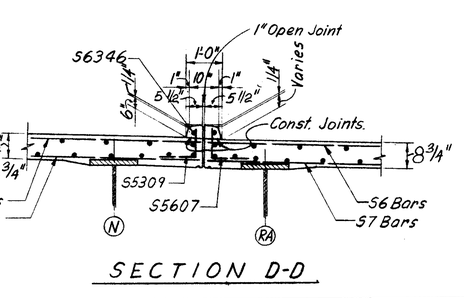
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

NOTES

Field bend or cut longitudinal Reinforcing bars where necessary to miss inlets.
For end finish details see Sht. No. 167 & 168
For drainage details see Sht. No. 187 & 188
For lighting details see Sht. No. 84 & 88
For railing details and spacing of bars in parapet see Sht. No. 184, 185 & 186
For Preformed Joint Filler see Abut. Details Sht. No. 129

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SUPERSTRUCTURE DETAILS UNIT 3

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	HAS 10-23-64		RRK 2-5-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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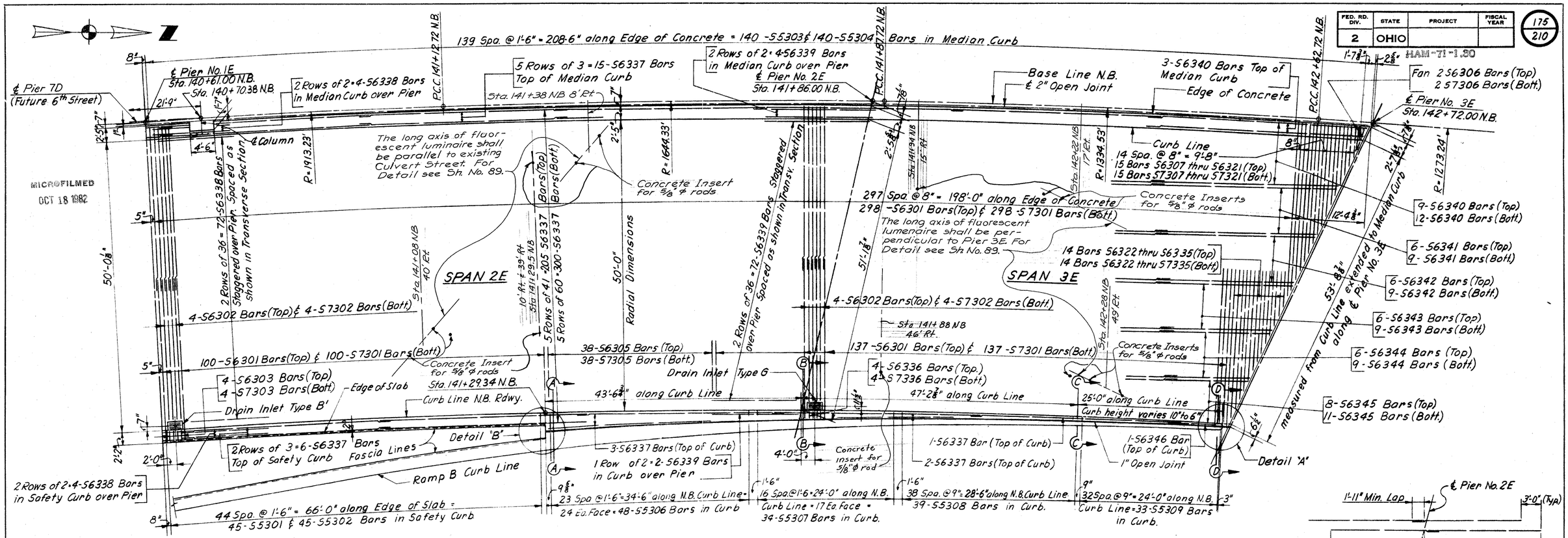
HAM-71-1.80

MICROFILMED
OCT 18 1982



NOTE: Transverse Reinforcing bars are to be placed radially and spaced at 8" measured along Fascia Line

PART PLAN UNIT 3

Parapet not shown

NOTE: East Curb Reinforcing shown for N.B. Rdwy. only. For Ramp Curb Reinforcing see Sht. No. 181

DIAGRAM SHOWING STAGGER & SPLICES OF S6339 BARS OVER PIER NO. 2E

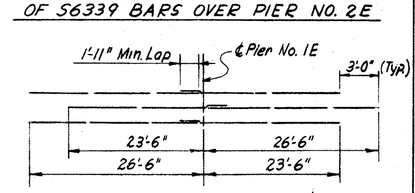
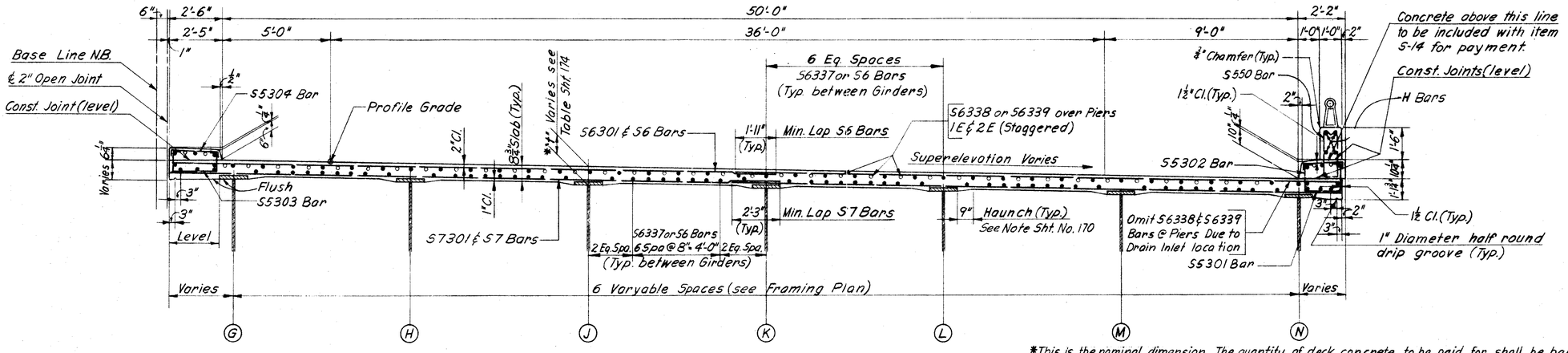


DIAGRAM SHOWING STAGGER & SPLICES OF S6338 BARS OVER PIER NO. 1E



- Indicates bars in Section
- ○ Indicates bars over Piers No. 1E & 2E

NOTE: Slab thickness shown includes 1" Monolithic Wearing Surface.

TRANSVERSE SECTION UNIT 3

East Curb shown from Abut. A to Sta. 141+29.34. For East Curb Sta. 141+29.34 to Sta. 142+48.95 See Sections A-A thru D-D

*This is the nominal dimension. The quantity of deck concrete to be paid for shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. S-1.25 of the Construction and Material Specifications.
Slab thickness "t" is measured from top of Slab to bottom of flange.

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CINCINNATI, OHIO

SUPERSTRUCTURE DETAILS UNIT 3

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	HAS 10-23-64		RRE 2-5-65	JHO 3/22/65	

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MICROFILMED OCT 18 1982
125 Spa. @ 1'-6" = 187'-6" along Edge of Concrete = 126-S5403 & 126-S5404 Bars in Median Curb
℄ Pier 3E Sta. 142+72.00 N.B.
9 Rows of 3 = 27-S6480 Bars (Top of Median Curb)
Base Line N.B.
℄ Pier 4E Sta. 143+80.70 N.B.
2 Rows of 2 = 4-S6481 Bars Staggered in Median Curb over Pier
Curb Line
℄ Sign Support Sta. 142+27 S.B.
See Detail "G" Sht. No. 171
℄ 2" Open Jt.
Edge of Concrete
Sta. 144+33 NB 10' Rt.
Concrete Inserts for 5/8" ⌀ rods
22 Bars S6425 thru S6446 (Top)
22 Bars S7425 thru S7446 (Bott.)
121 Spa. @ 8" = 80'-8" along Edge of Conc. = 122-S6423 Bars (Top) & 122-S7423 Bars (Bott.)
Sta. 142+78 NB 39' Rt
121 Spa. @ 8" = 80'-8" along Edge of Concrete = 122-S6447 Bars (Top) & 122-S7447 Bars (Bott.)
S6448 Bars (Top) S7448 Bars (Bott.)
The long axis of fluorescent luminaire shall be perpendicular to Pier 3E. For Detail see Sh. No. 89.
The long axis of fluorescent luminaire shall be parallel to Pier 4E. For Detail see Sh. No. 89.
SPAN 4E
SPAN 5E
10-S6474 & 13-S6474 Bars (Top)
7-S6475 & 10-S6475
7-S6476 & 10-S6476
7-S6477 & 10-S6477
7-S6478 & 10-S6478
7-S6479 & 10-S6479
9-S6480 & 13-S6480 Bars (Bott.)
70'-1"
Exp. Joint
8 Rows of 54 = 432-S6480 Bars (Top)
8 Rows of 76 = 608-S6480 Bars (Bott.)
Sta. 143+24 NB 57' Rt
Sta. 143+36 NB 57' Rt
R = 1273.24'
74'-3 3/8"
2 Rows of 50 = 100-S6481 Bars (Staggered Top of Slab over Pier) Spaced as shown in Transverse Sect.
9 Bars S6414 thru S6422 (Top)
9 Bars S7414 thru S7422 (Bott.)
118-S6423 Bars (Top) & 118-S7423 Bars (Bott.)
Sta. 144+06 NB 58' Rt.
Sta. 144+49 56' Rt.
Match Line Sta. 144+60.00 N.B.
122-S6447 Bars (Top) & 122-S7447 Bars (Bott.)
4 Bars S6410 thru S6413 (Top)
4 Bars S7410 thru S7413 (Bott.)
15-S6423 Bars (Top)
15-S7423 Bars (Bott.)
Concrete Inserts for 5/8" ⌀ rods.
8-S6473 Bars (Top) & 8-S7473 Bars (Bott.)
4-S6423 Bars (Top) & 4-S7423 Bars (Bott.)
4 Bars S6406 thru S6409 (Top)
4 Bars S7406 thru S7409 (Bott.)
Sta. 142+75.16 (B)
4 Bars S6402 thru S6405 (Top)
4 Bars S7402 thru S7405 (Bott.)
8 Rows of 3 = 24-S6480 Bars (Top of Safety Curb)
8-S6424 Bars (Top)
8-S7424 Bars (Bott.)
Base Line Ramp B
R = 674.07'
3-S6474 Bars (Top of Safety Curb)
8-S6424 Bars (Top)
8-S7424 Bars (Bott.)
Fan 3-S6401 Bars (Top) & 3-S7401 Bars (Bott.)
℄ Lamp Standard For Location see Sht. No. 184
Drain Inlet Type A'
Detail "K" see Sht. No. 185
2 Rows of 2 = 4-S6481 Bars Staggered in Safety Curb over Pier
Curb Line
Fascia Line
Edge of Slab
R = 1145.92'
191 Spa. @ 1'-6" = 286'-6" along Edge of Slab = 192-S5401 & 192-S5402 Bars in Safety Curb
Drain Inlet Type A
P.C.C. 142+80.02 Ramp B
PART PLAN UNIT 4
(Parapet not shown)
Varies
2'-6" | 2'-5" | 5'-0" | 36'-0" | Varies | 7'-0" | 2'-2"
℄ 2" Open Jt.
Base Line N.B.
S5404 Bars
Const. Jt. (level)
Profile Grade
Flush S5403 Bars
Level
9" Slab (Typ.)
"t" Varies see Table Sht. 177
7 Equal Spaces S6480 or S6 Bars (Typ. between Girders)
S6481 & S6482 over Piers 4E & 5E (Staggered)
1'-11" (Typ.) Min. Lap S6 Bars
2'-3" (Typ.) Min. Lap S7 Bars
S6423, S6447, S6448, S6449 & S6 Bars
Base Line Ramp B
Superelevation 3/4"/Ft.
S6480 & S6 Bars
9" Haunch (Typ.) See Note Sht. No. 170
S7423, S7447, S7448, S7449 & S7 Bars
Omit S6481 & S6482 Bars @ Piers. Due to Drain Inlet location.
S6480 or S6 Bars 2 Equal Spa. 7 Spa. @ 8" = 4'-8" 2 Equal Spa. (Typ. between Girders)
7 Equal Varying Spaces (See Framing Plan)
3/4" Chamfer (Typ.)
S550 Bar
S5402 Bars
S5401 Bars
H Bars
Concrete above this Line to be included with item S-14 for payment.
Const. Jts. (level)
For location of conduit in curb see lighting details see sh no. 84 & 88.
1" Diameter half round drip groove (Typ.)
G H J K L M N P
TRANSVERSE SECTION UNIT 4

Note: Transverse Reinforcing bars are to be placed radially and spaced at 8" measured along Edge of Concrete.

• Indicates Bars in Section
○ Indicates Bars over Piers

NOTE: Slab thicknes shown includes 1" Monolithic Wearing Surface

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. S-1.25 of the Construction and Material Specifications.
Slab thickness "t" is measured from top of Slab to bottom of flange.

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SUPERSTRUCTURE DETAILS UNIT 4

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	SMH / H.A.S 11-6-64		RRK 2-5-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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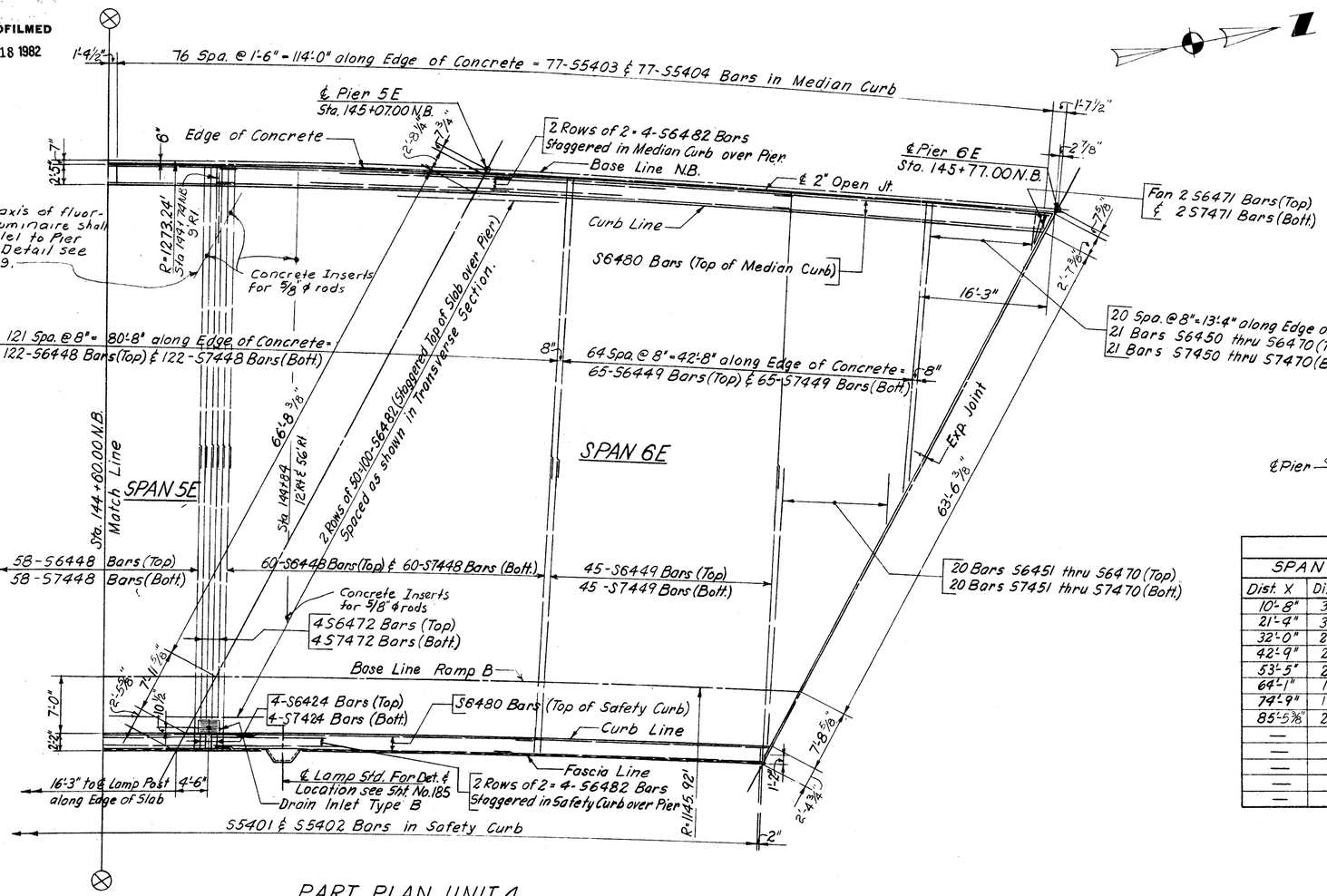

PART PLAN UNIT 4
(Parapet not shown)

SLAB THICKNESS (Unit 4)	
* POINT	GIRDER G thru P
℄ Brg. Pier 3E	11 1/8"
①	11 1/8"
②	11 1/8"
③	11 1/8"
℄ Brg. Pier 4E	11 1/8"
④	11 1/8"
⑤	11 1/8"
⑥	11 1/8"
⑦	11 1/8"
℄ Brg. Pier 5E	11 1/8"
⑧	11 1/8"
⑨	11 1/8"
⑩	11 1/8"
℄ Brg. Pier 6E	11 1/8"

NOTE: * For location of points see Girder Camber Diagram Sht. No. 159
For Slab Thickness note see Sht. No. 176

FASCIA OFFSETS (Unit 4)					
SPAN 4E		SPAN 5E		SPAN 6E	
Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y
10'-8"	3'-6 1/2"	10'-7"	2'-2 1/8"	10'-4"	2'-0 1/4"
21'-4"	3'-0 1/8"	21'-2"	2'-5 1/2"	20'-9"	2'-1 3/4"
32'-0"	2'-7 1/8"	31'-9 1/2"	2'-10"	31'-1"	2'-4 3/8"
42'-9"	2'-3 1/4"	43'-2"	2'-5 1/8"	41'-6"	2'-8 1/8"
53'-5"	2'-0 5/8"	54'-7"	2'-3 1/8"	51'-10"	3'-1"
64'-1"	1'-11 1/4"	65'-11"	2'-1 3/4"	62'-3"	3'-7"
74'-9"	1'-11"	77'-4"	2'-1 5/8"	72'-7 5/16"	4'-2"
85'-5 3/8"	2'-0"	88'-8"	2'-3"	—	—
—	—	100'-0 5/8"	2'-5 5/8"	—	—
—	—	110'-3"	2'-2 5/8"	—	—
—	—	120'-5"	2'-0 3/4"	—	—
—	—	130'-7 3/16"	2'-0"	—	—
—	—	—	—	—	—

NOTES:
Field bend or cut longitudinal bars where necessary to miss inlets.
For end finish details see Sht. No. 167 & 168
For drainage details see Sht. No. 187 & 188
For lighting details see Sht. No. 84 & 88
For railing details and spacing of bars in parapet see Sht. No. 184, 185 & 186

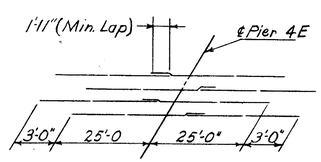

DIAGRAM SHOWING STAGGER & SPLICES OF S6481 BARS OVER PIER 4E

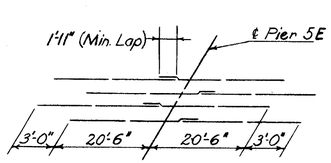

DIAGRAM SHOWING STAGGER & SPLICES OF S6482 BARS OVER PIER 5E

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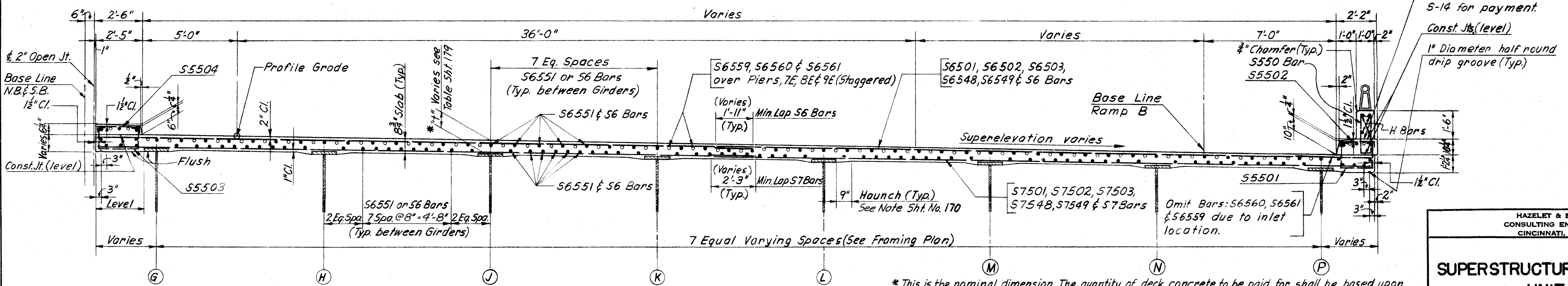
SUPERSTRUCTURE DETAILS UNIT 4

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	S.M.H. 11-6-64		RRK 2-5-65	JHD 3/22/65	


164 Spa. @ 1'-6" = 246'-0" along Edge of Concrete = 165-S5503 ¢ 165-S5504 Bars in Median Curb
3-S6558 Bars (Top of Median Curb)
7 Rows of 3 = 21-S6551 Bars (Top of Median Curb)
2 Rows of 2 = 4-S6560 Bars in Median Curb over Pier
¢ Pier No. 6E Sta. 145+77.00 N.B.
¢ Pier No. 7E Sta. 146+85.40 N.B.
¢ Pier No. 8E Sta. 148+24.50 N.B.
Base Line N.B. & S.B.
¢ 2" Open Joint
2 Rows of 2 = 4-S6561 Bars in Median Curb over Pier
Edge of Concrete
Curb Line
176 Spa. @ 8" = 117'-4" along Edge of Concrete = 177-S6501 Bars (Top) ¢ 177 S7501 Bars (Bott.)
112 Spa. @ 8" = 74'-8" along Edge of Concrete = 113-S6502 (Top) ¢ 113-S7502 (Bott.)
81 Spa. @ 8" = 54'-0" along Edge of Concrete = 82-S6503 (Top) ¢ 82-S7503 (Bott.)
Concrete Inserts for 5/8"φ rods
20 Bars S6506 thru S6525 (Top)
20 Bars S7506 thru S7525 (Bott.)
1'-11" Min. Lap (Typ.)
SPAN 7E
SPAN 8E
8 Bars S6527 thru S6534 (Top)
8 Bars S7527 thru S7534 (Bott.)
199-S6501 Bars (Top) ¢ 199-S7501 Bars (Bott.)
105-S6502 Bars (Top)
105-S7502 Bars (Bott.)
82-S6503 Bars (Top) ¢ 82-S7503 Bars (Bott.)
4 Bars S6535 thru S6538 (Top)
4 Bars S7535 thru S7538 (Bott.)
Drain Inlet Type A'
8-S6505 Bars (Top)
8-S7505 Bars (Bott.)
8-S6504 Bars (Top)
8-S7504 Bars (Bott.)
2 Rows of 2 = 4-S6560 Bars in Safety Curb over Pier
Base Line Ramp B
Edge of Slab
Drain Inlet Type C
Curb Line
Fascia Line
See Detail "K" Sht. No. 185 (Typ.)
2 Rows of 2 = 4-S6561 Bars in Safety Curb over Pier
4 Bars S6539 thru S6542 (Top)
4 Bars S7539 thru S7542 (Bott.)
4 Bars S6543 thru S6546 (Top)
4 Bars S7543 thru S7546 (Bott.)
8 Rows of 3 = 24-S6551 Bars (Top of Safety Curb)
¢ Lamp Std. For Location ¢ Details See Sh. 185
176 Spa. @ 1'-6 = 264'-0" along Edge of Slab = 177-S5501 ¢ 177-S5502 Bars in Safety Curb
¢ Lamp Standard For Location see Sht. No. 185
Fan 3-S6526 Bars (Top) ¢ 3-S7526 Bars (Bott.)
NOTE: Transverse Reinforcing bars are to be placed radially and spaced at 8" measured along Edge of Concrete.

PART PLAN UNIT 5
Parapet not shown


Varies
2'-6"
2'-5"
5'-0"
36'-0"
Varies
7'-0"
2'-2"
¢ 2" Open Jt.
Base Line N.B. & S.B.
S5504
Profile Grade
7 Eq. Spaces S6551 or S6 Bars (Typ. between Girders)
S6559, S6560 ¢ S6561 over Piers, 7E, 8E ¢ 9E (Staggered)
S6501, S6502, S6503, S6548, S6549 ¢ S6 Bars
Base Line Ramp B
Superelevation varies
Concrete above this Line to be included with item S-14 for payment.
Const. Jts. (level)
1" Diameter half round drip groove (Typ.)
S550 Bar
S5502
H Bars
S6551 ¢ S6 Bars
1'-11" Min. Lap S6 Bars
2'-3" Min. Lap S7 Bars
Const. Jt. (level)
Flush
S5503
Haunch (Typ.) See Note Sht. No. 170
S7501, S7502, S7503, S7548, S7549 ¢ S7 Bars
S5501
Omit Bars: S6560, S6561 ¢ S6559 due to inlet location.
S6551 or S6 Bars
2 Eq. Spa. 7 Spa. @ 8" = 4'-8" 2 Eq. Spa. (Typ. between Girders)
7 Equal Varying Spaces (See Framing Plan)
G
H
J
K
L
M
N
P

TRANSVERSE SECTION UNIT 5

- Indicates Bars in Section
- ○ Indicates Bars over Piers

NOTE:
Slab thickness shown includes 1" Monolithic Wearing Surface.

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. S-1.25 of the Construction and Material Specifications.
Slab thickness "t" shown is measured from top of slab to bottom of flange.

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CINCINNATI, OHIO

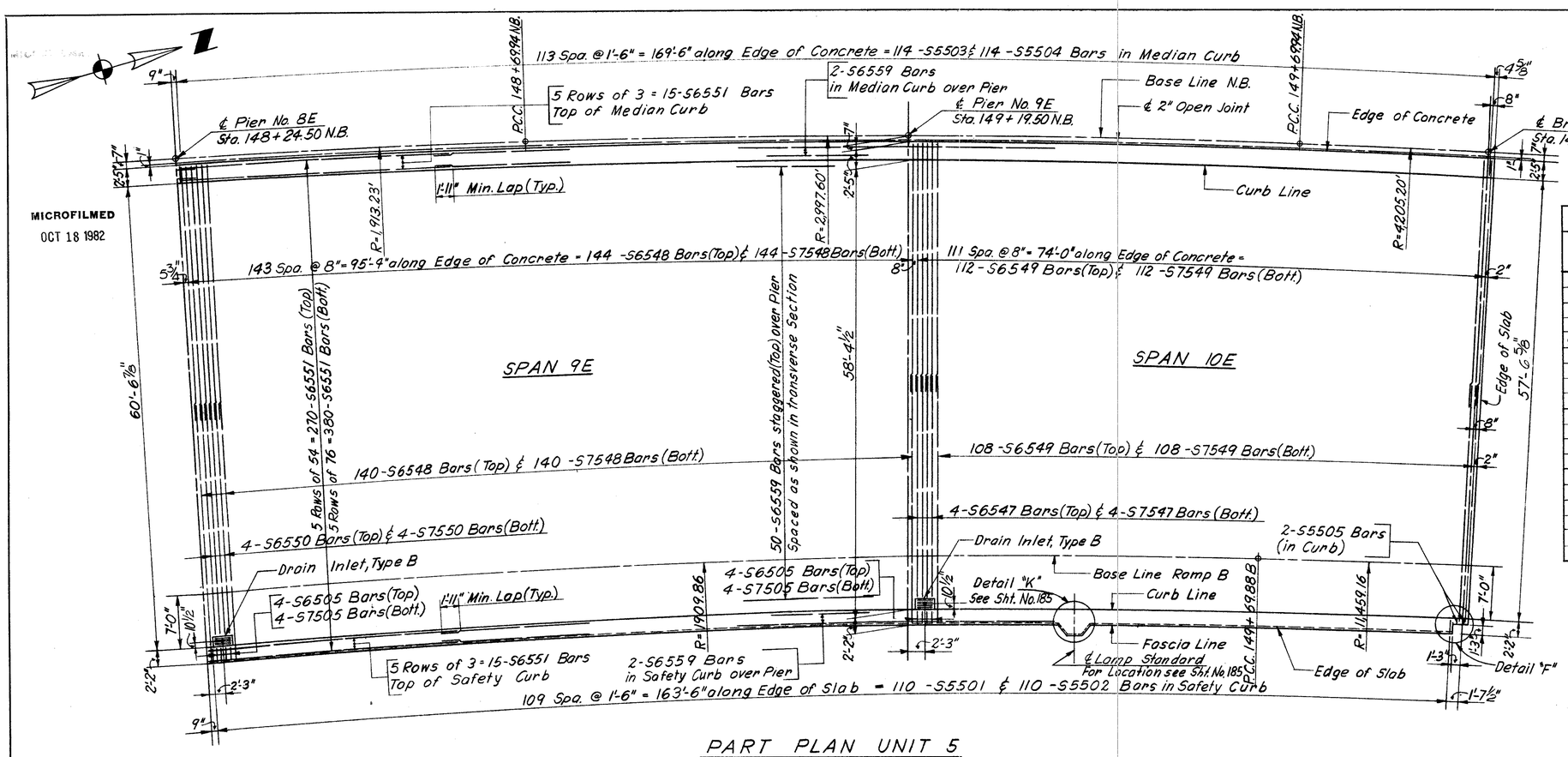
SUPERSTRUCTURE DETAILS UNIT 5

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	HAS 11-20-64		RRK 2-5-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

179 / 210

HAM-71-1.30



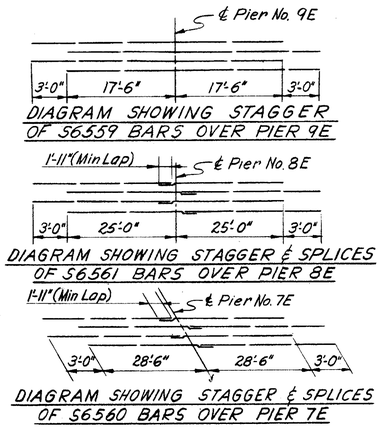
PART PLAN UNIT 5

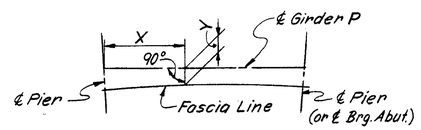
Parapet not shown

SLAB THICKNESS (Unit 5)

*POINT	GIRDER G	H	J	K	L	M	N	P
℄ Brg. Pier 6E	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅜"
①	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅜"
②	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅜"	13⅜"
③	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅜"	13⅜"
℄ Brg. Pier 7E	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅜"	13⅜"
④	13⅝"	13⅝"	13⅝"	13⅝"	13½"	13⅜"	13⅜"	13⅜"
⑤	13⅝"	13⅝"	13⅝"	13⅝"	13¾"	13⅝"	13⅝"	13⅜"
⑥	13⅝"	13⅝"	13⅝"	13⅝"	14⅛"	14"	13⅞"	13⅞"
⑦	13⅝"	13⅝"	13⅝"	13⅝"	14⅛"	14⅛"	14"	14"
℄ Brg. Pier 8E	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅜"
⑧	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13½"	13⅜"
⑨	13⅞"	13⅞"	13¾"	13⅝"	13⅝"	13⅝"	13½"	13½"
⑩	14"	13⅞"	13⅞"	13¾"	13¾"	13⅝"	13⅜"	14⅛"
⑪	13¾"	13¾"	13⅞"	13⅞"	13⅞"	13⅞"	13⅞"	14"
℄ Brg. Pier 9E	13⅝"	13⅝"	13⅞"	13⅜"	13⅜"	13⅜"	13⅜"	13⅜"
⑫	13¾"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅜"	13⅜"
⑬	13⅞"	13⅛"	13⅞"	13⅞"	13⅞"	13⅞"	14"	13⅞"
⑭	13⅞"	13¾"	13¾"	13¾"	13¾"	13⅞"	13⅞"	13⅞"
℄ Brg. North Abut.	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"	13⅝"

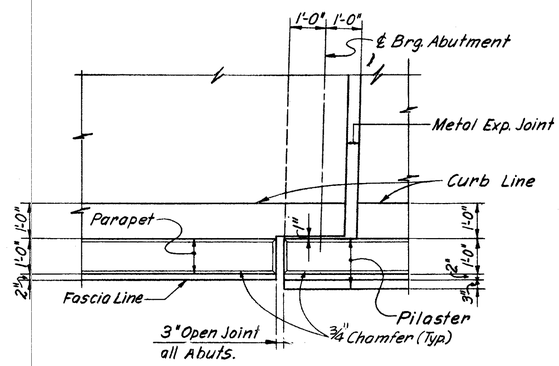
NOTE: * For location of points see Girder Deflection Diagram Sht. No. 161
For Slab Thickness note see Sht. No. 178





FASCIA OFFSETS (Unit 5)

SPAN 7E		SPAN 8E		SPAN 9E		SPAN 10E	
Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y
10'-9"	3'-6⅛"	10'-8"	3'-9"	10'-5"	1'-10¾"	10'-6"	1'-10"
21'-6"	3'-1"	21'-3"	3'-4¾"	20'-10"	1'-10⅛"	21'-0"	1'-8¾"
32'-3"	2'-8¼"	31'-11"	3'-1¼"	31'-3"	1'-10⅛"	31'-6"	1'-8¼"
43'-0"	2'-4⅝"	42'-7"	2'-10½"	41'-8"	1'-11"	42'-1"	1'-8⅜"
53'-9"	2'-2½"	53'-3"	2'-8⅜"	52'-1"	2'-0½"	52'-7"	1'-9⅞"
64'-7"	2'-1½"	63'-11"	2'-7"	62'-6"	2'-2⅝"	63'-1"	1'-10⅞"
75'-4"	2'-1⅜"	74'-6"	2'-6¼"	72'-11⅛"	2'-5½"	73'-7⅝"	2'-0"
86'-1"	2'-3⅛"	85'-2"	2'-6⅜"	82'-9"	2'-2½"	—	—
96'-10"	2'-5¾"	95'-9⅝"	2'-7⅛"	92'-6⅛"	2'-0"	—	—
107'-7"	2'-9⅜"	105'-6"	2'-4⅛"	—	—	—	—
118'-4"	3'-1⅛"	115'-2"	2'-1⅜"	—	—	—	—
129'-1"	3'-7⅝"	124'-9⅝"	2'-0"	—	—	—	—
139'-10⅝"	4'-2"	—	—	—	—	—	—
—	—	—	—	—	—	—	—



DETAIL "F"

(Detail F' opposite Hand)

NOTES

Field bend or cut longitudinal Reinforcing bars where necessary to miss inlets.
For end finish details see Sht. No. 167 & 168
For drainage details see Sht. No. 187 & 188
For lighting details see Sht. No. 84 & 88
For railing details and spacing of bars in parapet see Sht. No. 189, 185 & 186

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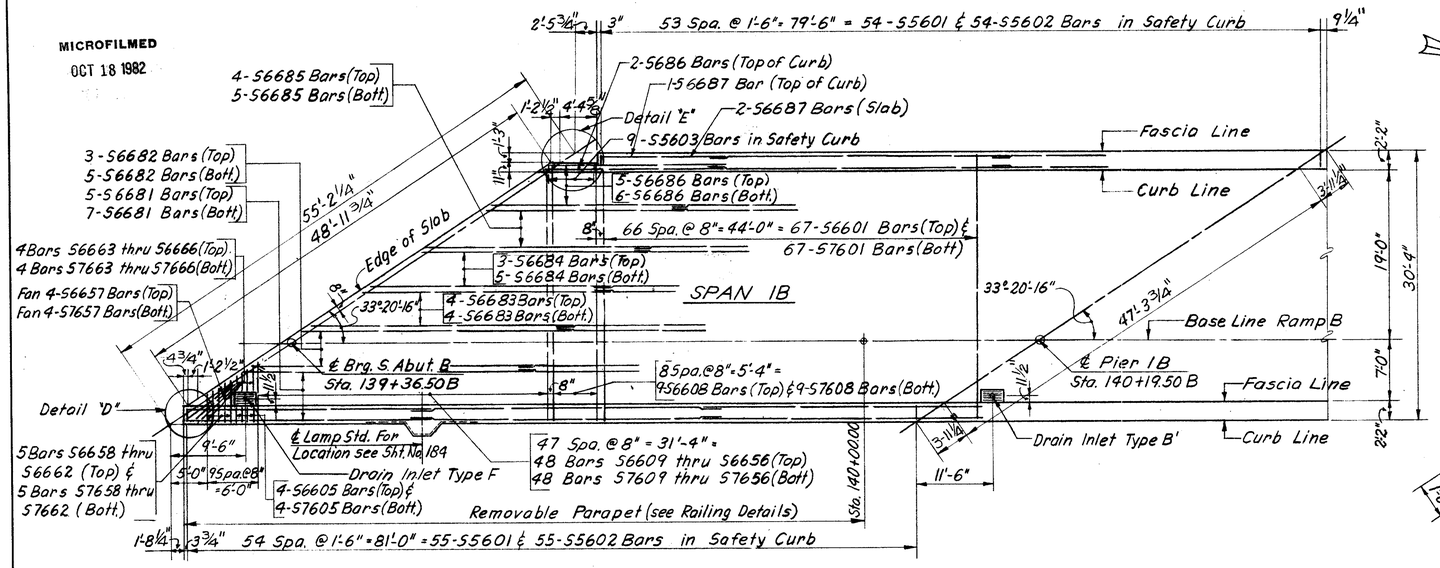
SUPERSTRUCTURE DETAILS UNIT 5

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	HAS 11-20-64		RRK 2-5-65	JHo 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

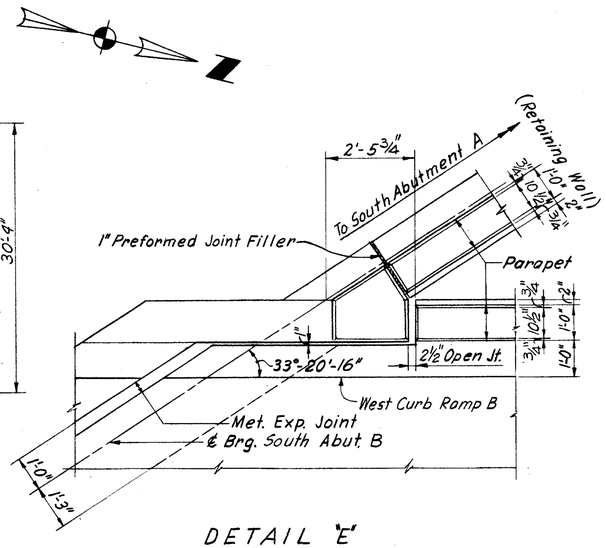
180
210

HAM-71-1.80

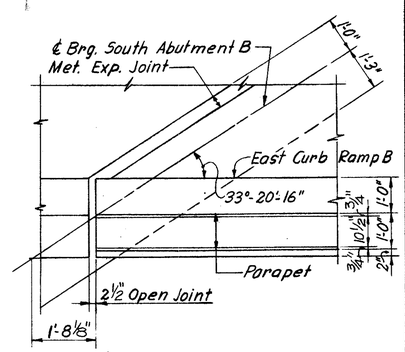


PART PLAN UNIT 6

Parapet not shown

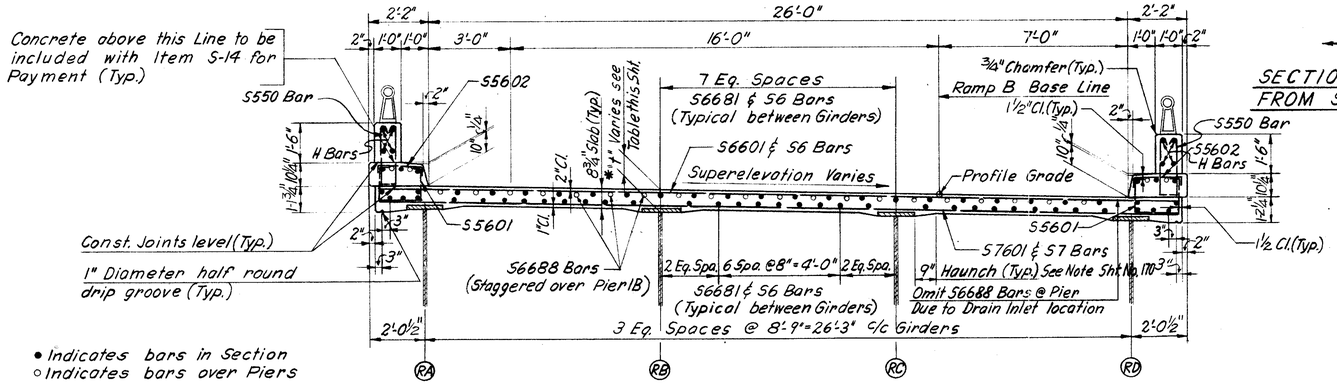


DETAIL "E"



DETAIL "D"

NOTE:
Transverse Reinforcing Bars from South Abut. B to Sta. 141+17.54 B to be placed at right angles to Ramp B Baseline.



- Indicates bars in Section
○ Indicates bars over Piers

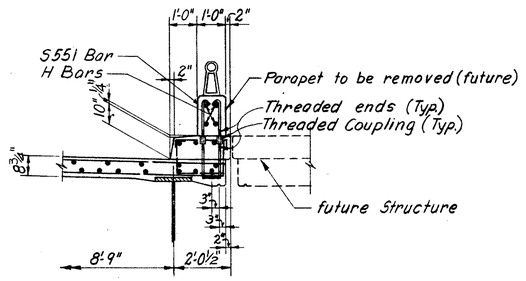
TRANSVERSE SECTION UNIT 6

Typical from Sta. 139+36.50 B to Sta. 140+57.94 B

NOTE: Slab thickness shown includes 1" Monolithic Wearing Surface.

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. 5-1.25 of the Construction and Material Specifications.
Slab thickness "t" shown is measured from top of Slab to bottom flange.

For location of conduit in curb see lighting details see Sh No 84 & 88.



SECTION THRU REMOVABLE PARAPET FROM SOUTH ABUTMENT B TO STA. 140+00.00

(East Side only)

SLAB THICKNESS (Unit 6)

**POINT	GIRDER RA	GIRDER RB	GIRDER RC	GIRDER RD
℄ Brg. South. Abut. B	12 3¼"	13 1/8"	13 5/8"	14 1/8"
①	11 ½"	12"	12 ½"	13"
②	11"	11 ½"	12 1/8"	12 ½"
③	11 ½"	11 5/8"	12 ¼"	12 3/4"
℄ Brg. Pier 1B	12 3/4"	13 1/8"	13 5/8"	14 1/8"
④	10 3/4"	10 3/4"	11"	11 3/8"
⑤	10 1/4"	10 1/4"	10 1/4"	10 3/8"
⑥	10 1/4"	10 1/4"	10 3/8"	10 1/4"
⑦	10 7/8"	11"	11 1/4"	11"
℄ Brg. Pier 2B	12 3/4"	13 1/8"	13 5/8"	14 1/8"
⑧	13 3/8"	12 3/4"	12 3/8"	12"
⑨	13 3/4"	12 7/8"	12"	11 ½"
⑩	13 3/8"	13"	12 3/8"	12 1/8"
⑪	13"	13"	13"	12 3/4"
℄ Brg. Pier 3E	12 3/4"	13 1/8"	13 5/8"	14 1/8"

NOTE: ** For location of points see Girder Deflection Diagram Sht. No. 163
See Slab thickness note this Sheet.

NOTES

Field bend or cut longitudinal Reinforcing bars where necessary to miss inlets.
For end finish details see Sht. No. 167 & 168
For drainage details see Sht. No. 187 & 188
For lighting details see Sht. No. 84 & 88
For railing details and spacing of bars in parapet see Sht. No. 184, 185 & 186

This sheet is superseded by sheet number 180A. 10-18-65

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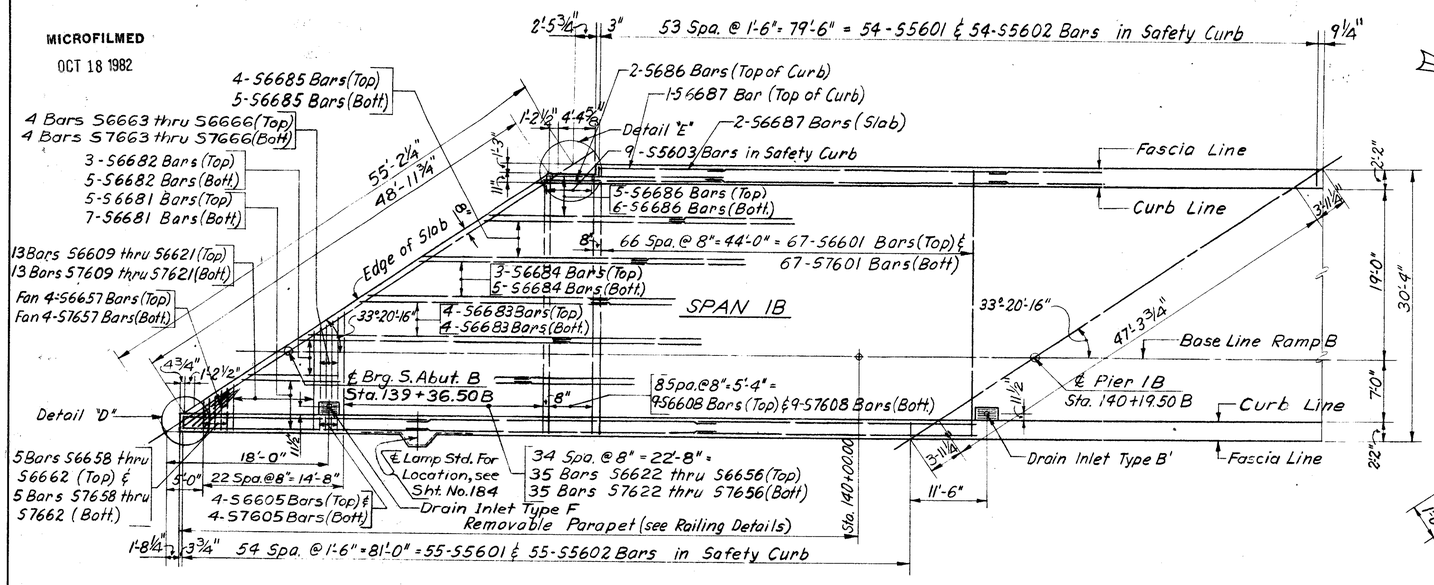
SUPERSTRUCTURE DETAILS UNIT 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	HAS 12-4-64		RDK 2-5-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

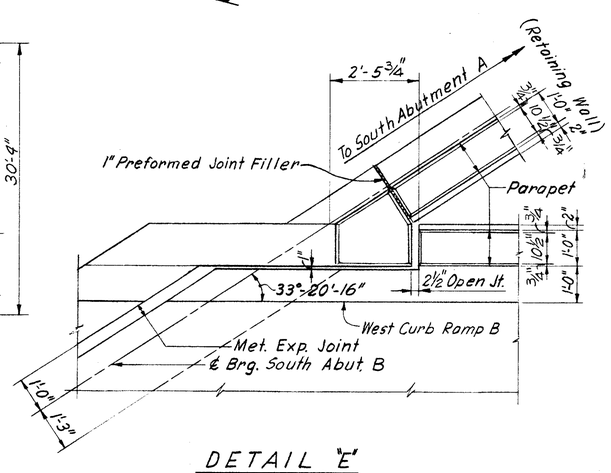
180A
210

HAM-71-1.80

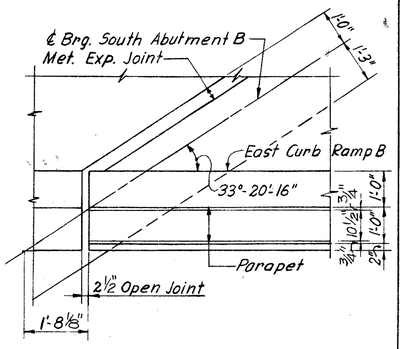


PART PLAN UNIT 6
Parapet not shown

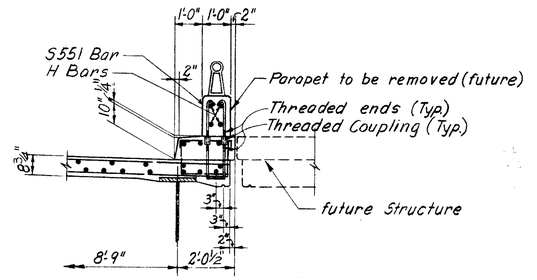
NOTE:
Transverse Reinforcing Bars from South Abut. B to Sta. 141+17.54 B to be placed at right angles to Ramp B Baseline.



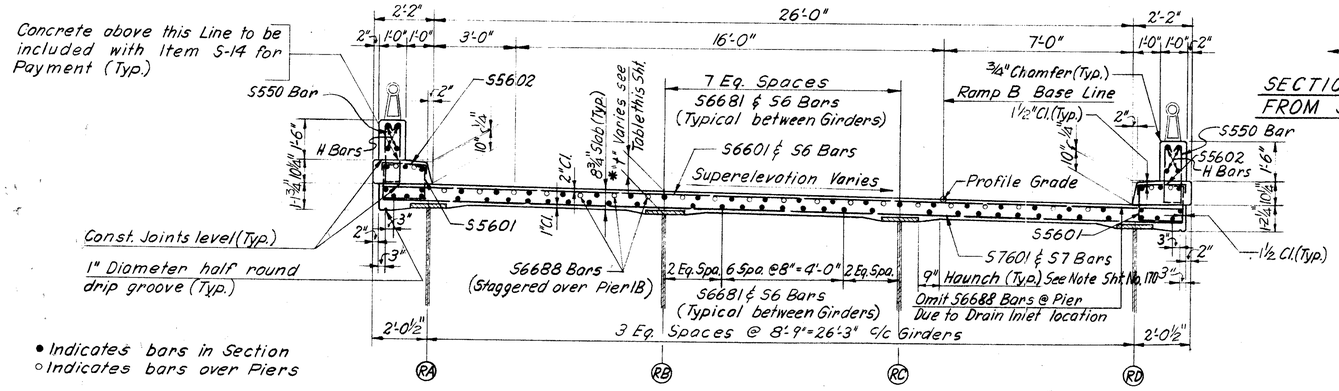
DETAIL "E"



DETAIL "D"



SECTION THRU REMOVABLE PARAPET FROM SOUTH ABUTMENT B TO STA. 140+00.00
(East Side only)



TRANSVERSE SECTION UNIT 6
Typical from Sta. 139+36.50 B to Sta. 140+57.94 B

• Indicates bars in Section
○ Indicates bars over Piers

NOTE: Slab thickness shown includes 1" Monolithic Wearing Surface.

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. 5-1.25 of the Construction and Material Specifications.
Slab thickness "t" shown is measured from top of Slab to bottom flange.

For location of conduit in curb see lighting details see Sh No 84 & 88.

SLAB THICKNESS (Unit 6)

**POINT	GIRDER RA	GIRDER RB	GIRDER RC	GIRDER RD
℄ Brg. South Abut. B	12 3/4"	13 1/8"	13 5/8"	14 1/8"
(1)	11 1/2"	12"	12 1/2"	13"
(2)	11"	11 1/2"	12 1/8"	12 1/2"
(3)	11 1/2"	11 5/8"	12 1/4"	12 3/4"
℄ Brg. Pier 1B	12 3/4"	13 1/8"	13 5/8"	14 1/8"
(4)	10 3/4"	10 3/4"	11"	11 3/8"
(5)	10 1/4"	10 1/4"	10 1/4"	10 3/8"
(6)	10 1/4"	10 1/4"	10 3/8"	10 1/4"
(7)	10 7/8"	11"	11 1/4"	11"
℄ Brg. Pier 2B	12 3/4"	13 1/8"	13 5/8"	14 1/8"
(8)	13 3/8"	12 3/4"	12 3/8"	12"
(9)	13 3/4"	12 7/8"	12"	11 1/2"
(10)	13 3/8"	13"	12 3/8"	12 1/8"
(11)	13"	13"	13"	12 3/4"
℄ Brg. Pier 3E	12 3/4"	13 1/8"	13 5/8"	14 1/8"

NOTE: ** For location of points see Girder Deflection Diagram Sht. No. 163
See Slab thickness note this Sheet.

NOTES
Field bend or cut longitudinal Reinforcing bars where necessary to miss inlets.
For end finish details see Sht. No. 167 & 168
For drainage details see Sht. No. 187 & 188
For lighting details see Sht. No. 84 & 88
For railing details and spacing of bars in parapet see Sht. No. 184, 185 & 186

This sheet supersedes sheet number 180. 10-18-65

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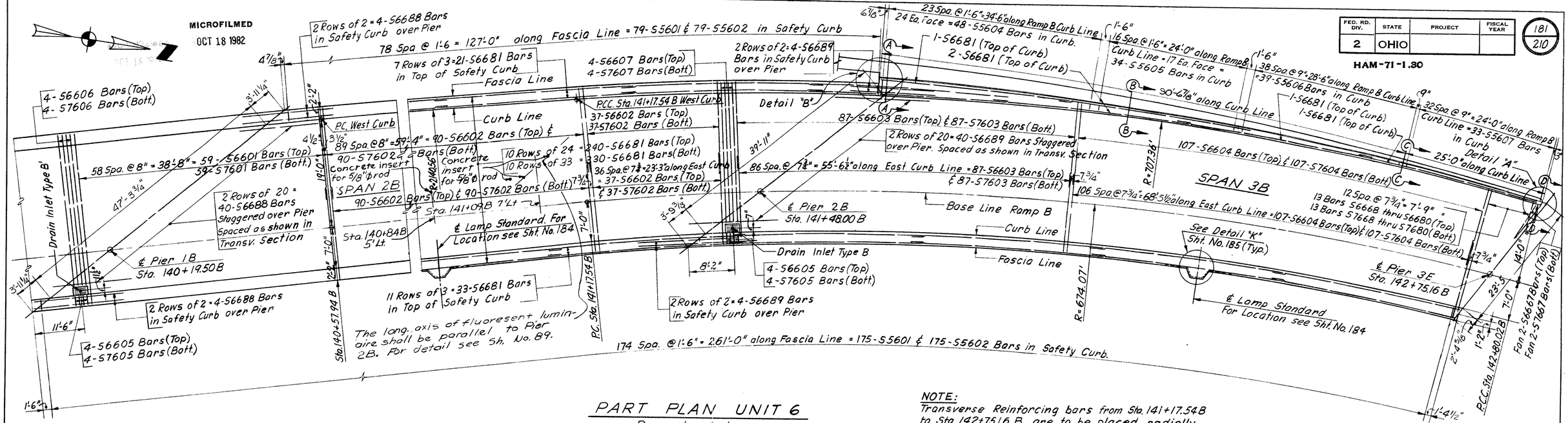
SUPERSTRUCTURE DETAILS UNIT 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	HAS 12-4-64		RJK 2-5-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

181
210

HAM-71-1.80

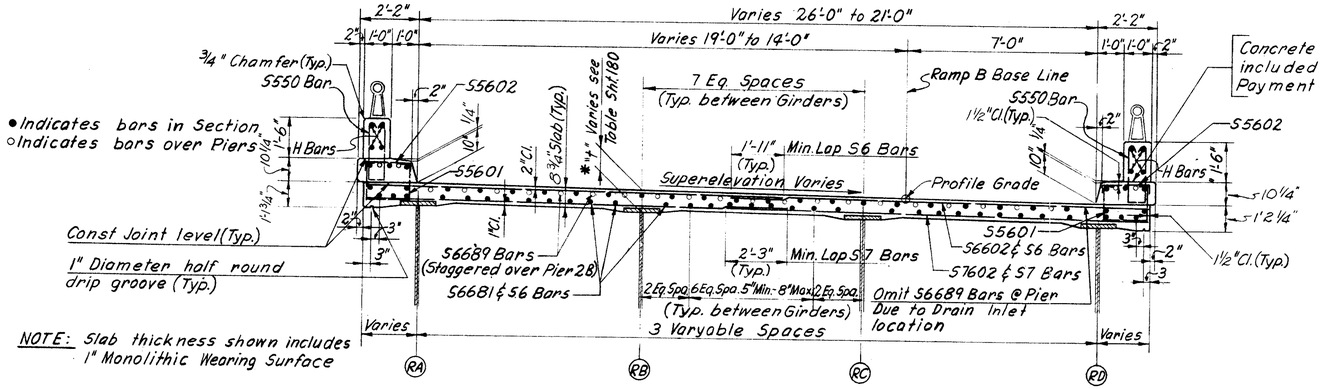


PART PLAN UNIT 6

Parapet not shown

NOTE:
Transverse Reinforcing bars from Sta. 141+17.54B to Sta. 142+75.16 B are to be placed radially and spaced at 7¾" measured along East Curb Line.

NOTE:
West Curb Reinforcing shown for Ramp B only. For Details A & B, Section A-A thru D-D and N.B. Rdwy. Reinforcing see Sht. No. 174 & 175



NOTE: Slab thickness shown includes 1" Monolithic Wearing Surface

TRANSVERSE SECTION UNIT 6

Typical from Sta. 140+57.94 B to Sta. 142+75.16 B
West Curb as shown from Sta. 140+57.94 to Sta. 141+67.59
For West Curb from 141+67.59 to Sta. 142+75.16 see Section A-A thru D-D Sheet No. 174

For location of conduits in curb see lighting details sh. no 84 & 88

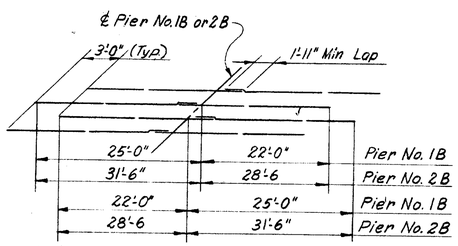
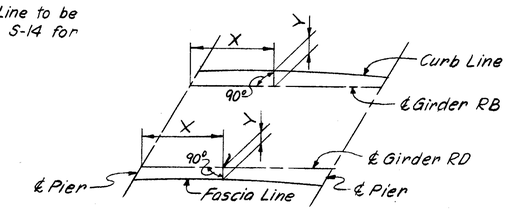


DIAGRAM SHOWING STAGGER & SPLICES OF S6688 BARS OVER PIER NO. 1B
OF S6689 BARS OVER PIER NO. 2B



CURB AND FASCIA OFFSETS

SPAN 2B				SPAN 3B			
Fascia Line		Curb Line		Fascia Line		Curb Line	
Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y	Dist. X	Dist. Y
0	2'-0½"	0	8'-7½"	10'-4"	1'-10¼"	9'-6"	8'-5⅝"
10'-0"	2'-0½"	10'-0"	8'-7½"	20'-7"	2'-2⅛"	19'-0"	8'-2⅜"
20'-0"	2'-0½"	20'-0"	8'-7½"	30'-10¾"	2'-8"	28'-5⅞"	7'-9½"
30'-0"	2'-0½"	30'-0"	8'-7⅜"	43'-9"	1'-11¾"	40'-0	8'-4⅛"
41'-3"	2'-0½"	39'-5"	8'-8⅜"	56'-7"	1'-6½"	51'-6"	8'-8⅜"
52'-6"	2'-0½"	48'-10"	8'-9"	69'-5"	1'-4¼"	63'-0"	8'-10⅝"
63'-9"	2'-0½"	58'-3"	8'-9"	82'-3"	1'-5"	74'-5"	8'-10⅜"
75'-0"	2'-0½"	67'-9"	8'-8⅝"	95'-0"	1'-8⅝"	85'-11"	8'-7⅞"
86'-3"	2'-0½"	77'-2"	8'-7¾"	107'-10"	2'-3¼"	97'-5"	8'-3¼"
97'-6"	2'-0½"	86'-7"	8'-6⅛"	120'-8"	3'-0⅞"	108'-11"	7'-8⅜"
108'-10½"	1'-9⅝"	95'-11⅞"	8'-3¼"	134'-2"	4'-1½"	120'-4⅛"	6'-9⅝"
118'-9"	1'-8⅛"	105'-7"	8'-6⅛"				
128'-6⅛"	1'-8¼"	115'-1"	8'-7½"				
		124'-7⅝"	8'-7½"				

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

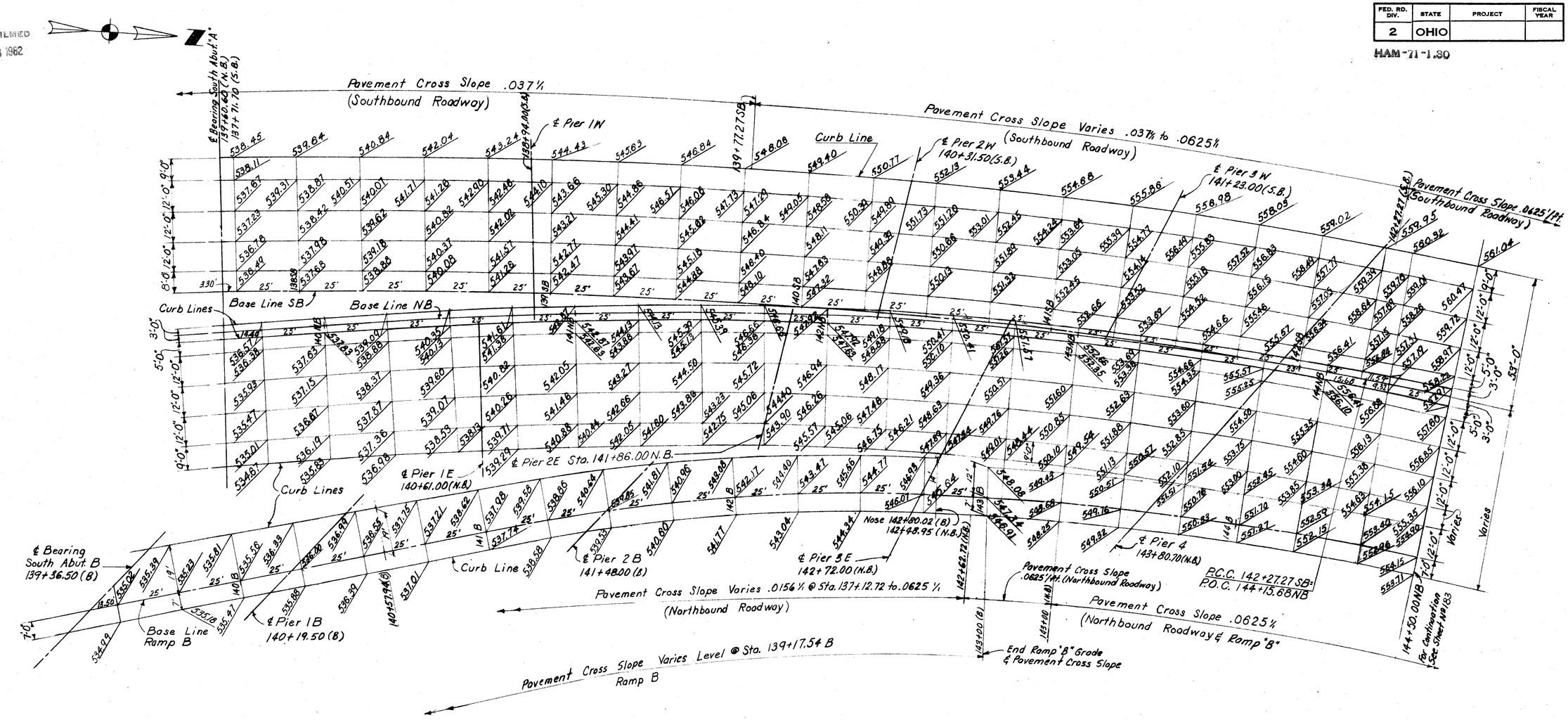
SUPERSTRUCTURE DETAILS UNIT 6

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	HAS 12-4-64		RRK 2-5-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

182
210

HAM-71-1.80



HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

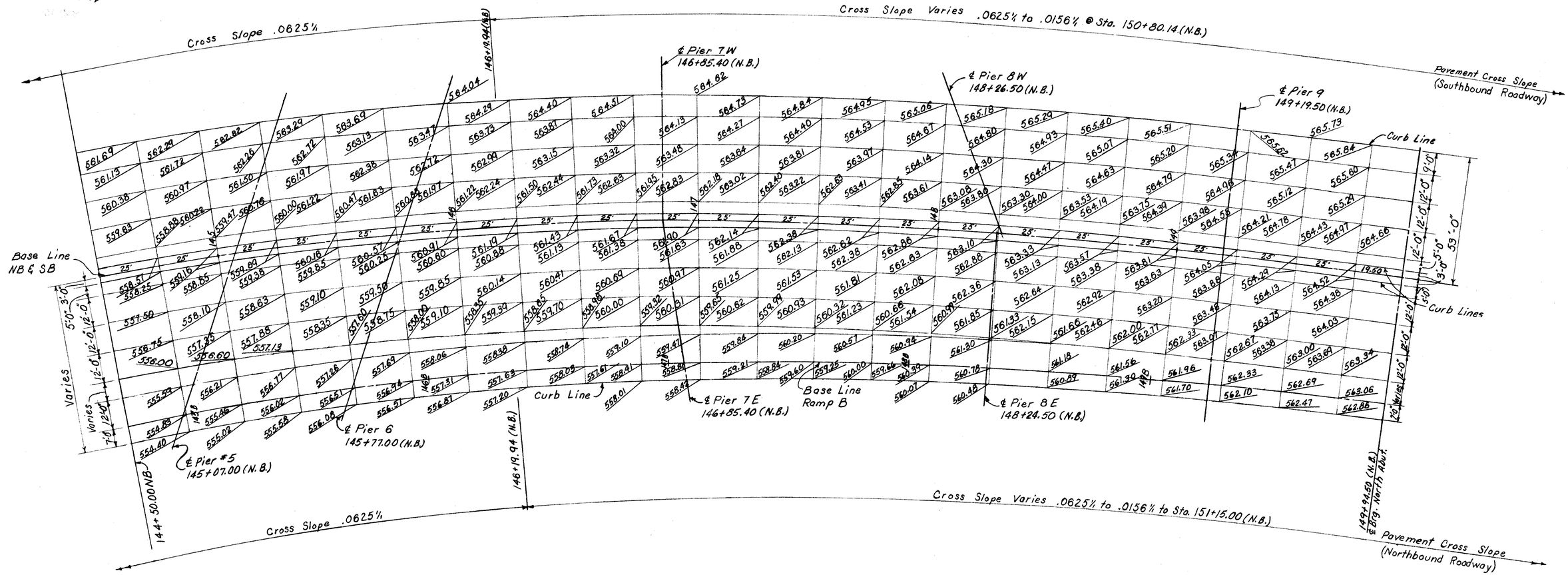
ROADWAY ELEVATIONS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	S.M.H. 9-4-64		E.R.K. 10-1664	J.H.D. 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

183/210

HAM-71-1.30



HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

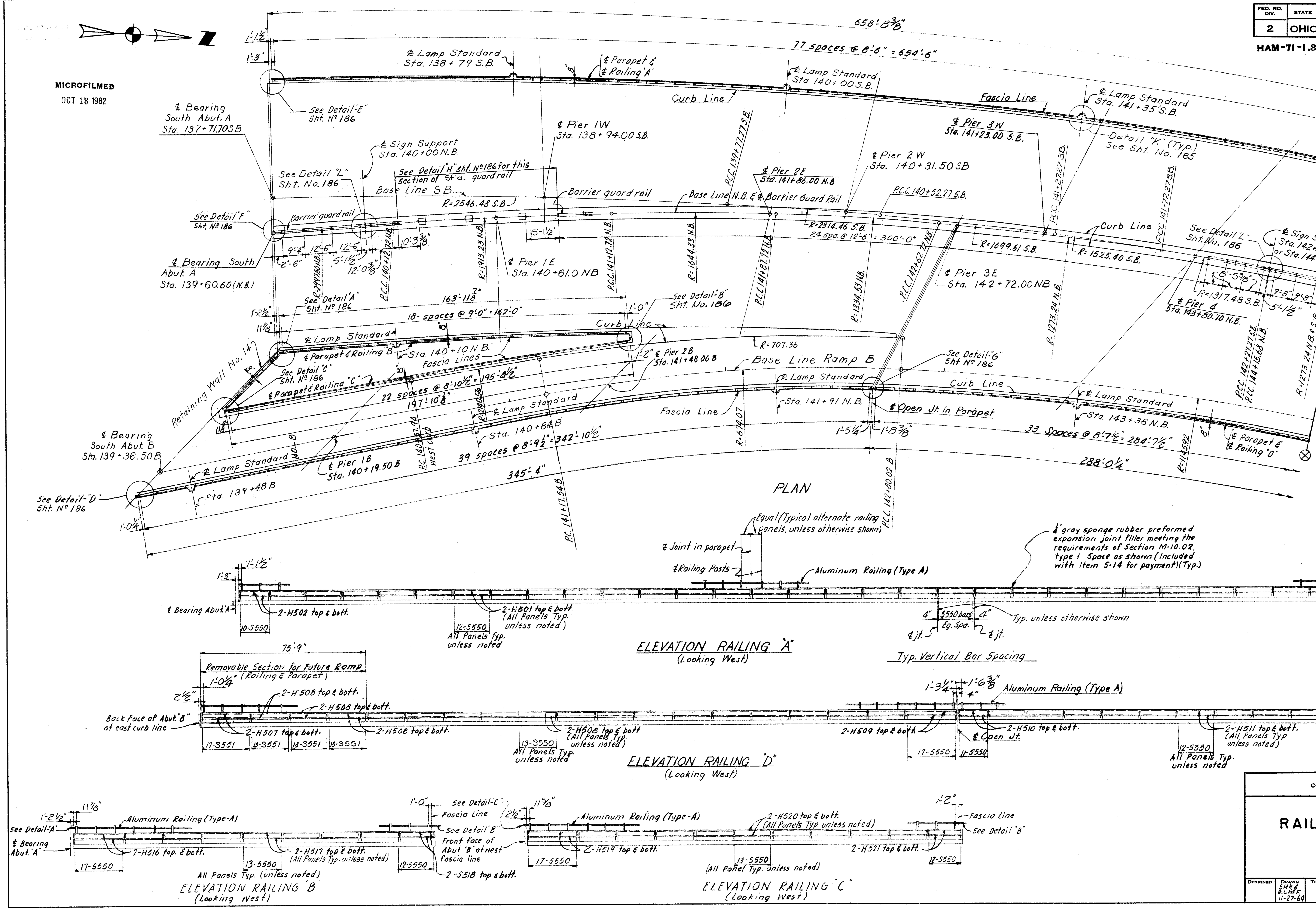
ROADWAY ELEVATIONS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	SMH. 8-28-64		RRK 10-64	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

184
210

HAM-71-1.30



Notes:
The location of reinforcing steel and railing posts are measured along the ℄ of parapet.
See Retaining Wall No. 14 for parapet reinf. and railing.
For typical railing details see standard drwg. AR-1-57
For typical lighting details see standard drwg. Nº 88
For Details see Sht. Nº 186
Work this drawing with Lighting Plan Sheet No 84, which shows locations of conduits, lamp standards & signs.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

RAILING DETAILS

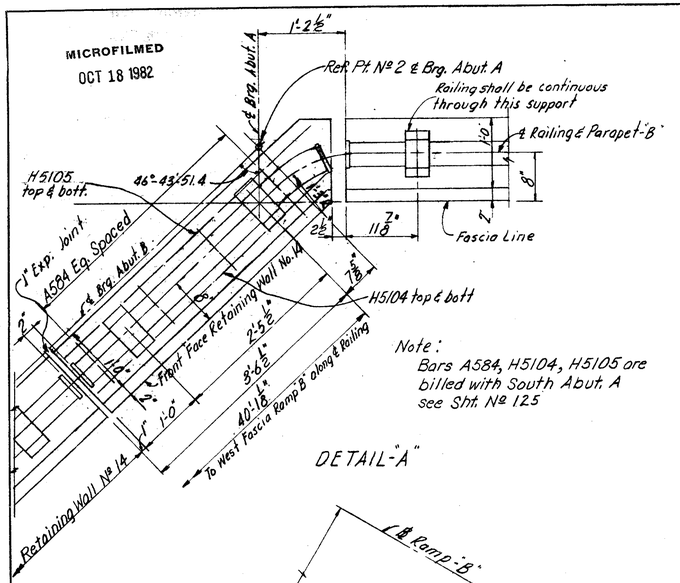
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	SMH & R.L.H & F. 11-27-64		HAS 1-15-65	JHO 3/22/65	

MICROFILMED
OCT 18 1982
FED. RD. DIV. 2
STATE OHIO
PROJECT
FISCAL YEAR
185/210
HAM-71-1.80
PLAN
407'-4 3/4"
47 spaces @ 8'-7" = 403'-5"
658'-8 3/4"
77 spaces @ 8'-6" = 654'-6"
℄ Open jt. in parapet
℄ Parapet & ℄ Railing "F"
℄ Lamp Standard Sta. 147+20 N.B.
℄ Lamp Standard Sta. 145+85 N.B.
℄ Lamp Standard Sta. 144+63 N.B.
℄ Lamp Standard Sta. 148+55 N.B.
See Detail "G" Sht. Nº 186
Curb Line
Fascia Line
See Detail "EE" Sht. Nº 186
℄ Pier 7W Sta. 146+85.40 N.B.
℄ Pier 8W Sta. 148+26.50 N.B.
℄ Pier 6 Sta. 145+77.00 N.B.
℄ Pier 5 Sta. 145+07.00 N.B.
Base Line N.B., S.B. & ℄ Barrier Guard Rail
℄ Bearing North Abut. Sta. 149+94.50 N.B.
See Detail "F" Sht. Nº 186
Barrier Guard Rail
Curb Lines
33 spa. @ 12'-6" = 412'-6"
P.C.C. 147+69.94 N.B.
11 spa. @ 12'-6" = 137'-6"
℄ Pier 7E Sta. 146+85.40 N.B.
℄ Pier 8E Sta. 148+24.50 N.B.
℄ Pier 9 Sta. 149+19.50 N.B.
144+50.00 (N.B.)
Match Line
Base Line Ramp B
Curb Line
Fascia Line
See Detail "K" (Typ.)
℄ Lamp Standard Sta. 149+42 N.B.
℄ Lamp Standard Sta. 144+84 N.B.
See Detail "G" Sht. Nº 186
P.C.C. 146+75.44 B
℄ Lamp Standard Sta. 147+85 N.B.
℄ Parapet & ℄ Railing "G"
℄ Open Jt. in Parapet
℄ Lamp Standard Sta. 146+30 N.B.
49 Spa. @ 8'-8 3/4" = 427'-8 3/4"
P.C.C. 149+69.88 B
See Detail "E" Sht. Nº 186
33 Spa. @ 8'-7 1/2" = 284'-7 1/2"
431'-6 3/4"
288'-0 1/4"
Aluminum Railing (Type A)
2-H501 top & bott. (All Panels Typ. unless noted)
12-S550 All Panels Typ. unless noted
2-H503 top & bott.
℄ Open Jt.
2-H504 top & bott.
4" S550 bars Eq. Spa. 4"
℄ jt. ℄ jt.
Typ. unless otherwise shown
Typ. Vertical Bar Spacing
2-H505 top & bott. (All Panels Typ. unless noted)
13-S550 All Panels Typ. unless noted
2-H506 top & bott.
℄ Bearing North Abut.
ELEVATION RAILING "F"
(Looking West)
1/4" gray sponge rubber preformed expansion joint filler meeting the requirements of Section M-10.02, Type I. Space as shown. (Included with Item S-14 for payment.) (Typical)
Aluminum Railing (Type A)
2-H511 top & bott. (All Panels Typ. unless noted)
2-H512 top & bott.
2-H513 top & bott.
℄ Open Jt.
12-S550 All Panels Typ. unless noted
Equal (Typical alternate railing panels unless otherwise shown)
℄ Joint Parapet
℄ Railing Posts
Aluminum Railing (Type A)
2-H514 top & bott. (All Panels Typ. unless noted)
13-S550 All Panels Typ. unless noted
2-H515 top & bott.
℄ Bearing North Abut.
ELEVATION RAILING "G"
(Looking West)
℄ Lamp Std.
℄ Parapet
1 1/2" Clr. (Typ.)
S552
S702
S552
H523
Curb Line
S703
Parapet
DETAIL "K"
℄ Lamp Std.
℄ Parapet
2-S552 Bars
2-H523 Bars
1/2" Clr. (Typ.)
1-S703 Bar
2-S701 Bars
2-S702 Bars
1-S703 Bar
SECTION A-A
HAZELET & ERDAL CONSULTING ENGINEERS CINCINNATI, OHIO
RAILING DETAILS
DESIGNED
DRAWN
TRACED
CHECKED
REVIEWED DATE JHO 3/22/65
REVISED

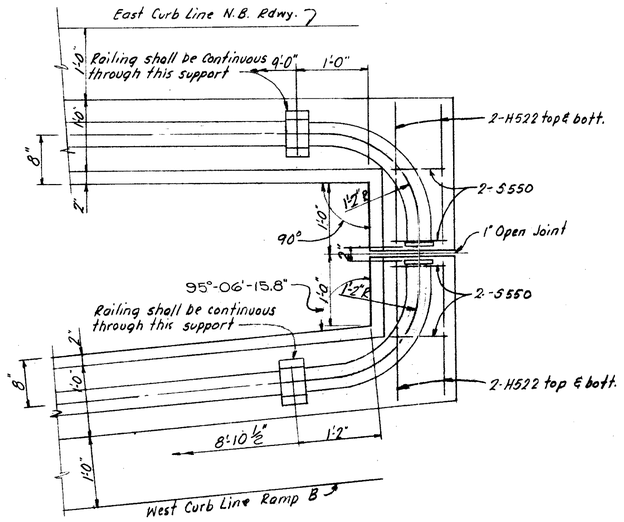
FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

186/210

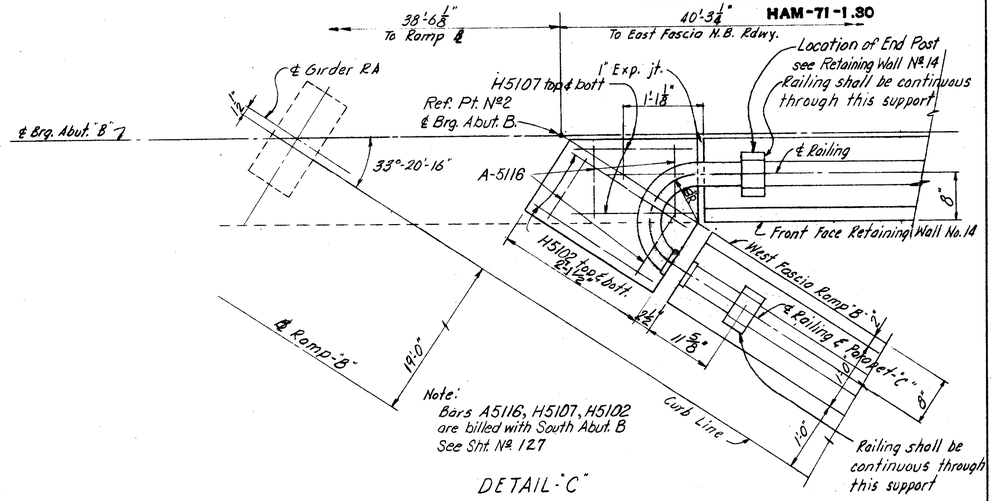
HAM-71-1.30



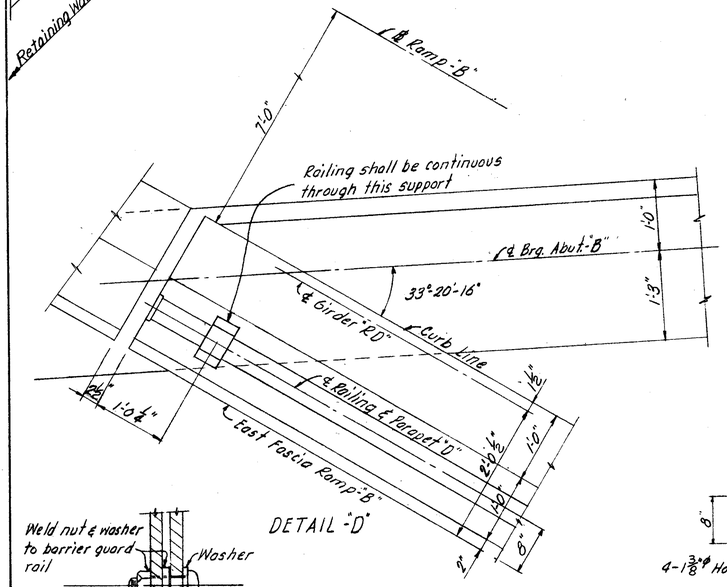
DETAIL "A"



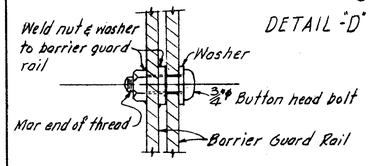
DETAIL "B"



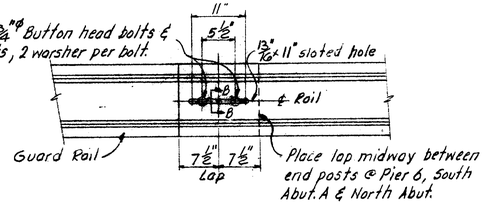
DETAIL "C"



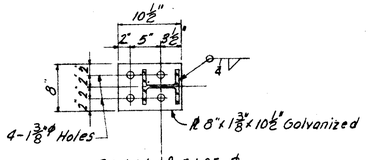
DETAIL "D"



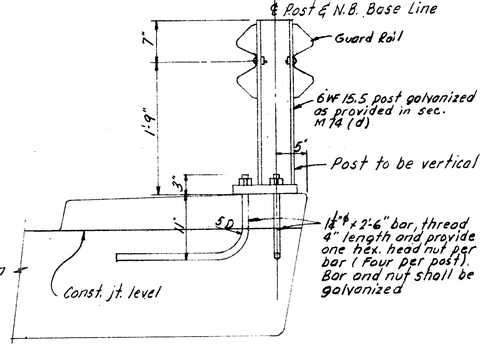
SECTION "BB"



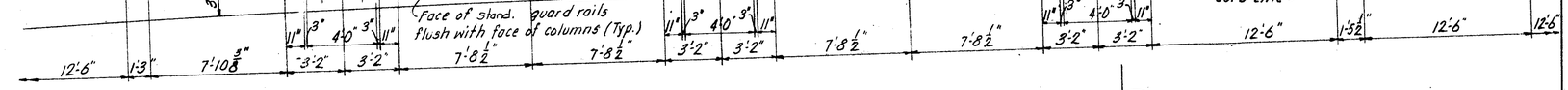
DETAIL "F"
Barrier Guard Rail Exp. Joint



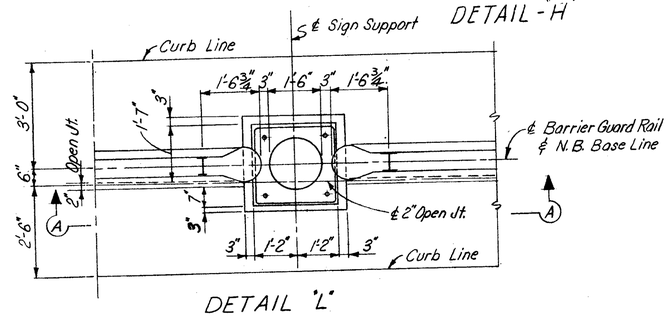
PLAN of BASE ℄



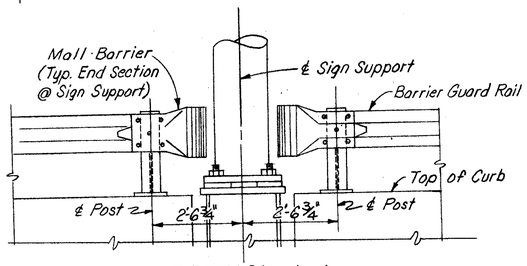
BARRIER GUARD RAIL & POST DETAIL



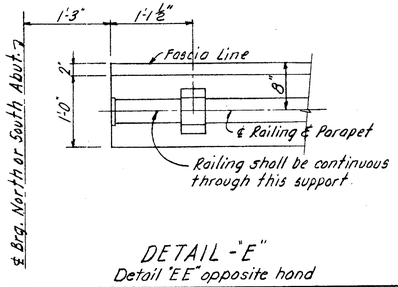
DETAIL "H"



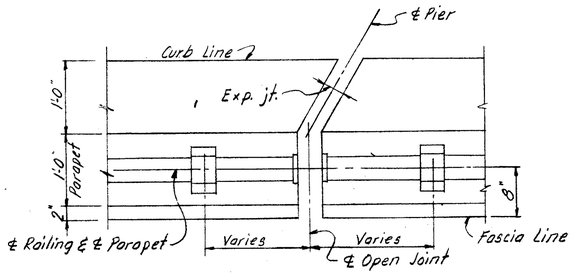
DETAIL "L"



SECTION A-A



DETAIL "E"
Detail "EE" opposite hand



DETAIL "G"

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

RAILING DETAILS

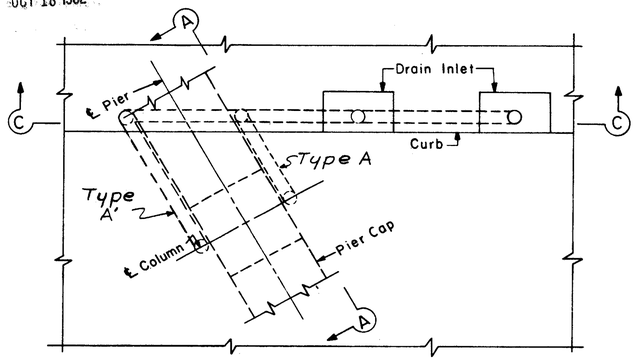
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	PLMF 11-27-64		HAS 1-15-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

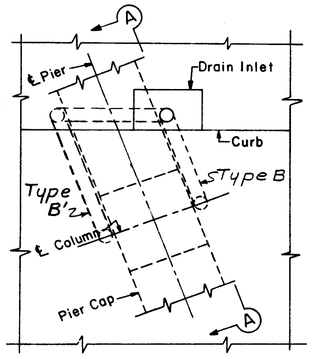
187/210

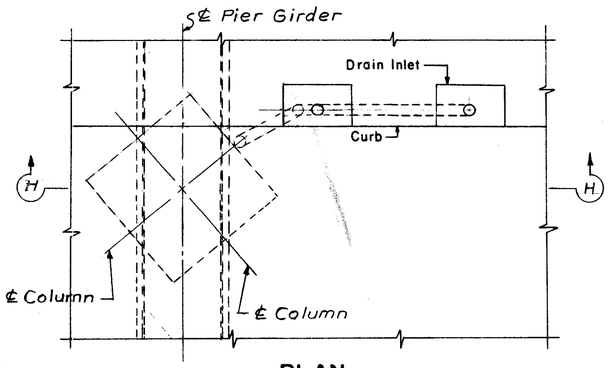
HAM-71-1.30

For location of drain inlets, see superstructure details.



PLAN
For Type A or A'

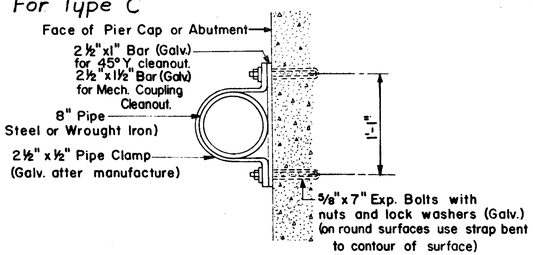




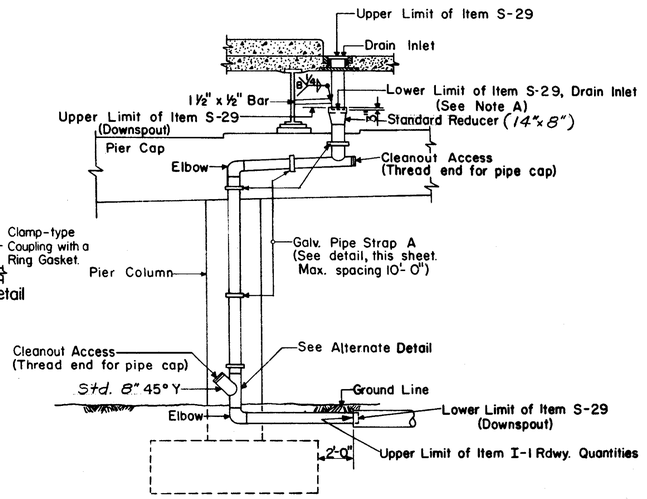
PLAN For Type B or B'

Note: Type of Plan to be used depends upon location of inlet with respect to pier.

PLAN
For Type C

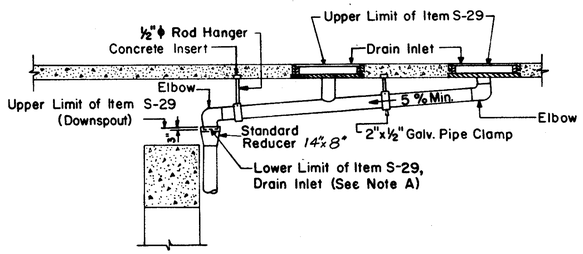


STRAP DETAIL "A"
For mounting on flat surface.



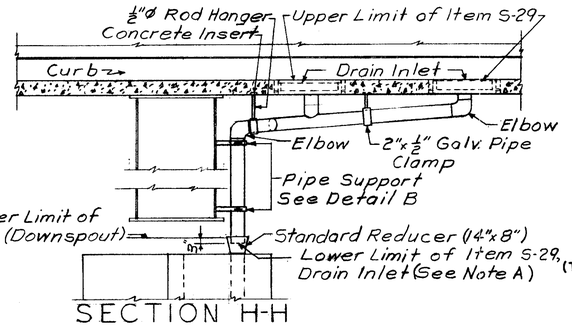
SECTION A-A

NOTE A:
"Drain inlet including Supports and Horizontal Collector System" shall include inlet grating, inlet frame, lugs, concrete insert, ½" ϕ rod hanger, 2"x½" galvanized pipe clamp, and standard wrought iron or galvanized steel pipe for payment Item S-29.

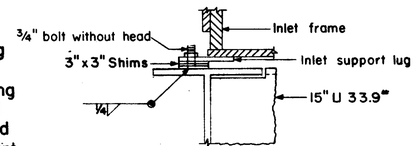


SECTION C-C

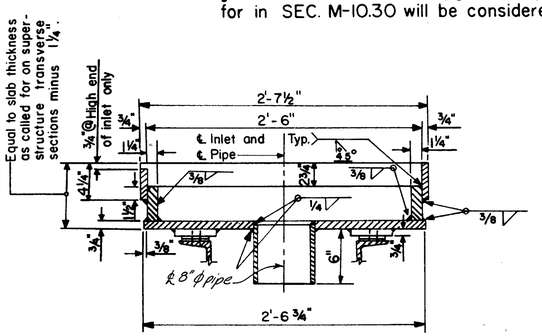
NOTE: Downspouts shall be 8" standard wrought iron pipe or hot-dipped galvanized steel pipe. Joints shall be made by welding or by the use of a clamp type coupling with a ring gasket. All welding shall be done before galvanizing. Straps or clamps for attaching downspouts shall be wrought iron or hot-dipped galvanized steel. On bolts, galvanizing as called for in SEC. M-10.30 will be considered sufficient.



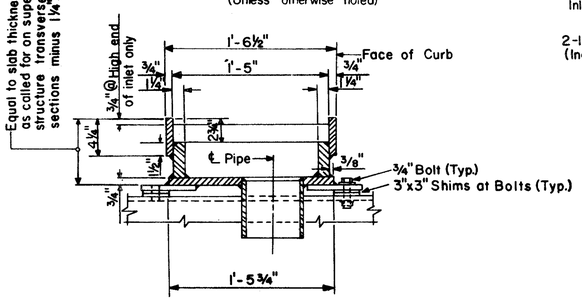
SECTION H-H



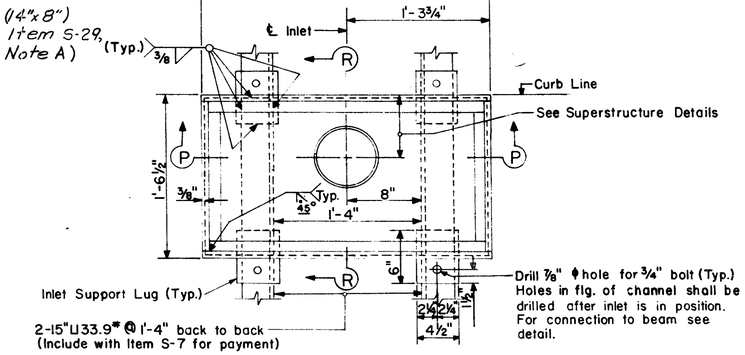
Connection of Inlet Frame to Beam
(Unless otherwise noted)



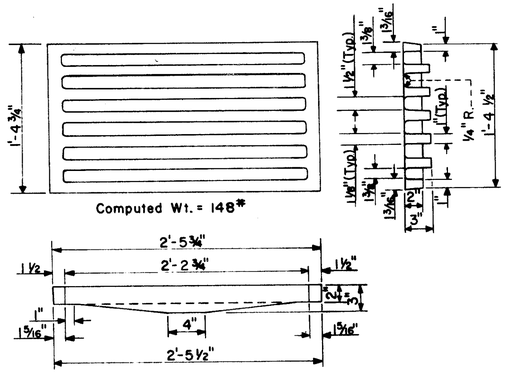
SECTION P-P



SECTION R-R



INLET FRAME



INLET GRATING
(City of Cincinnati Acc. No. 49012)

NOTES:-

For location of inlets, see superstructure details.

Inlet grating castings shall meet the requirements of Sec. M-7.8 of the Material Specifications of the State of Ohio.

Gratings and Inlets shall be fitted to each other without rattling by grinding grating casting as necessary.

Inlet frame to be welded structural steel plates and standard steel pipe, galvanized after fabrication

Weld channels to beam with 5/16" continuous fillet weld. Weld to beam webs only.

Space lugs on inlets to permit bolting to supporting channels and beams.

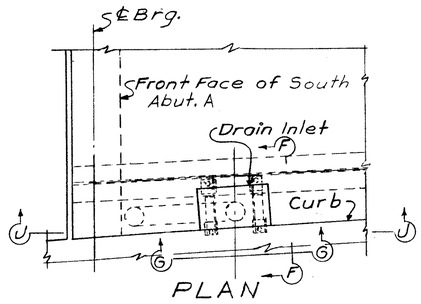
Where drain inlet is located adjacent to beams without cover plates, cope channels so top of channel is flush with top of beams.

Where drain inlet is located adjacent to beams with cover plates, cope channels so that the distance top of channel to top of slab is equal to the minimum slab thickness as called for on the superstructure transverse sections.

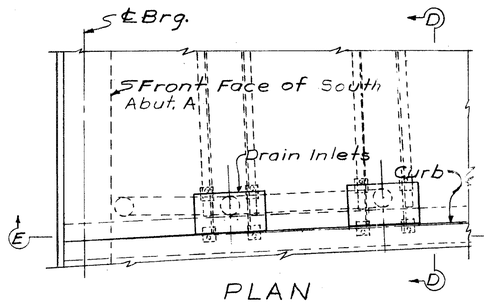
HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

DRAINAGE DETAILS

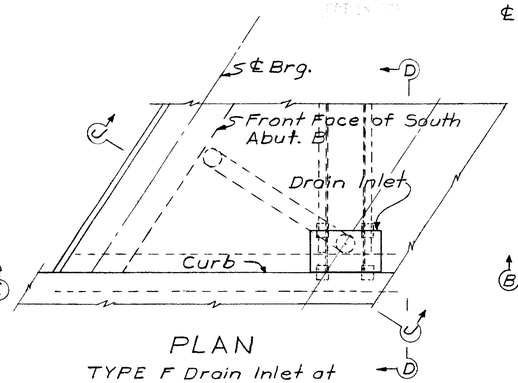
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
		M.J.E. M.D.C.	J.H.O.	JHO 3/22/65	



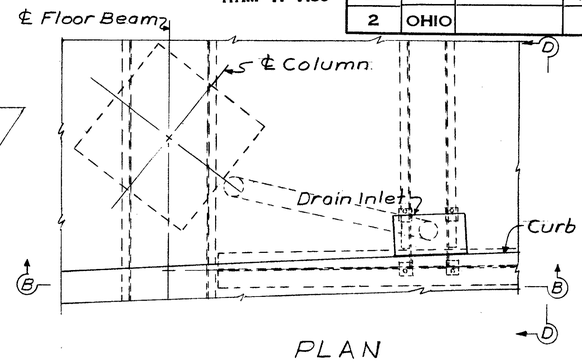
TYPE D Drain Inlet at South Abutment A (N.B.)



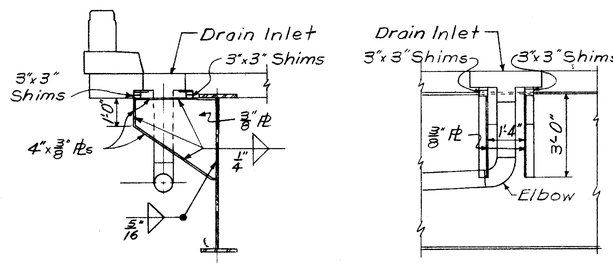
TYPE E Drain Inlet at South Abutment A (S.B.)



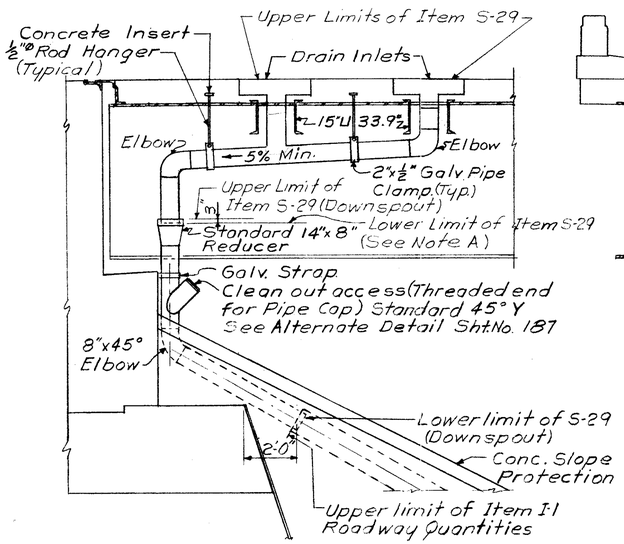
TYPE F Drain Inlet at South Abutment B



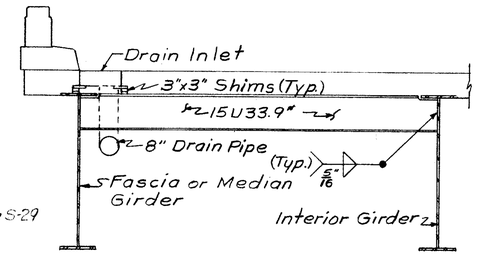
TYPE G Drain Inlet at Floor Beams



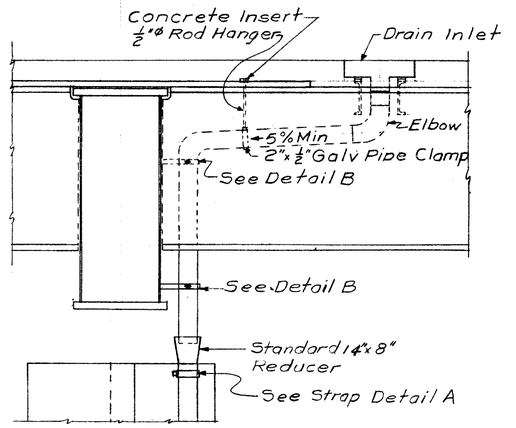
SECTION F-F SECTION G-G
Typical For Drain Inlets outside of Fascia Girder (At South Abutment Northbound Lane, Pier 3E, Pier 6E and Pier 7E)



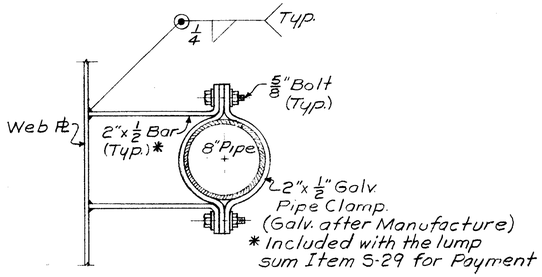
SECTION E-E
(Section J-J similar except use one Inlet)



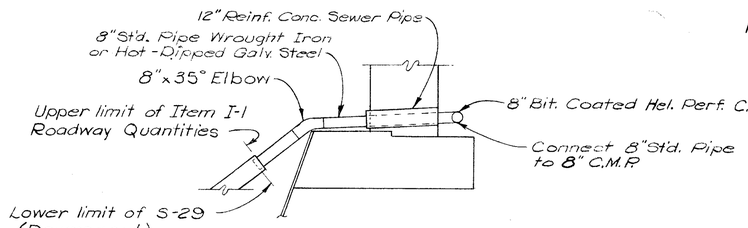
SECTION D-D
(Typical for all Drain Inlets located between Girders)



SECTION B-B



DETAIL B
(Typical pipe support at Floor Beams.)



DRAINAGE DETAIL
SOUTH ABUTMENT A & B

Note:
Work this drawing with sheet No 187. Drainage Details to be worked with Sewer Data shown on Sheet No. 52

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

DRAINAGE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	MDC 12-7-64		RBK 12-7-64	JHO 3/22/65	

SUBSTRUCTURE

MICROFILMED
OCT 18 1982

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO	HAM-71-1.30	

189
210

PIERS 1W THRU 9W

MARK	LENGTH	TYPE	NUMBER 1W	2W	3W	4W	5W	6W	7W	8W	9W	TOTAL	WEIGHT
P4101	6'-8"	26							264			264	1176
P4102	7'-6"	1					258	234	262			754	3778
P4103	6'-8"	26					258	234				492	2191
P4104	9'-6"	26								132		132	838
P4105	10'-6"	1	106	156						136		398	2792
P4106	7'-3"	26									104	104	504
P4107	8'-4"	1									104	104	579
P4108	10'-2"	26			192							192	1304
P4109	11'-5"	1			196							196	1495
P4110	8'-11"	26				194						194	1156
P4111	10'-6"	1				196						196	1375
P4112	8'-8"	26	102	152								254	1470
P4113	4'-0"	1					10					10	27
P5101	6'-7"	1							20			20	137
P5102	6'-6"	1							10			10	68
P5103	7'-3"	1							202			202	1527
P5104	7'-2"	1							101			101	755
P5105	7'-10"	1						16				16	131
P5106	8'-8"	1						176				176	1591
P5107	6'-8"	1					32					32	223
P5108	7'-4"	1					16					16	122
P5109	7'-6"	1					192					192	1502
P5110	8'-2"	1					96					96	818
P5111	5'-10"	1			20							20	122
P5112	5'-4"	1				20						20	111
P5113	5'-4"	1	24	32						28		84	467
P5114	4'-5"	1									22	22	101
P5115	4'-11"	1					36	36	36			108	554
P5116	6'-3"	1							6			6	39
P5117	5'-7"	1							6			6	35
P5118	4'-11"	1							6			6	31
P5119	4'-3"	1							6			6	27
P7101	27'-9"	Str.							8			8	454
P7102	9'-6"	Str.							22			22	427
P7103	8'-6"	20							4			4	69
P7104	7'-7"	20							4			4	62
P7105	30'-0"	Str.						4				4	245
P7106	28'-6"	Str.						4				4	233
P7107	9'-0"	20						4				4	74
P7108	9'-3"	20						4				4	76
P7109	30'-9"	Str.					12					12	754
P7110	29'-4"	Str.					4					4	240
P7111	9'-3"	20					4					4	76
P7112	9'-5"	20					4					4	77
P8101	10'-6"	Str.							34		48	82	2299
P8102	9'-6"	Str.					21	30	12			63	1598
P8103	19'-6"	Str.							11			11	573
P8104	11'-8"	43						72				72	2243
P8105	13'-0"	Str.	9				15					24	833
P8106	15'-6"	Str.								12		12	497
P8107	11'-6"	Str.								52		52	1597
P8108	12'-6"	Str.									12	12	401
P8109	20'-0"	Str.			16							16	854
P8110	14'-6"	Str.		18	22	32						72	2787
P8111	16'-8"	43			44							44	1958
P8112	16'-6"	Str.	7	16								23	1013
P8113	21'-6"	Str.							44			44	2526
P9101	12'-0"	43					48					48	1958
P9102	12'-6"	Str.									32	32	1360

PIERS 1W THRU 9W

MARK	LENGTH	TYPE	NUMBER 1W	2W	3W	4W	5W	6W	7W	8W	9W	TOTAL	WEIGHT
P10101	32'-1"	Str.							16			16	2209
P10102	31'-0"	Str.							16			16	2134
P10103	29'-6"	Str.							16			16	2031
P10104	7'-11"	44							32			32	1090
P10105	33'-5"	Str.						18				18	2588
P10106	32'-0"	Str.						18				18	2479
P10107	30'-7"	Str.						18				18	2369
P10108	7'-5"	44						54	54			108	3447
P10109	15'-10"	43						36				36	2453
P10110	15'-6"	Str.								36		36	2401
P10111	8'-5"	44							16			16	579
P10112	17'-4"	43		40								40	2983
P10113	32'-4"	Str.						18				18	2504
P10114	31'-0"	Str.						18				18	2401
P10115	29'-8"	Str.						18				18	2298
P11101	18'-8"	Str.							4			4	397
P11102	43'-6"	Str.							8			8	1849
P11103	13'-4"	Str.							4			4	283
P11104	19'-3"	18						3				3	307
P11105	20'-0"	Str.						4				4	425
P11106	24'-0"	Str.						8				8	1020
P11107	20'-10"	Str.					4					4	443
P11108	15'-2"	Str.					10					10	806
P11109	24'-5"	Str.					14					14	1816
P11110	23'-6"	Str.								44		44	5494
P11111	21'-2"	Str.								44		44	4948
P11112	8'-11"	44	24	48						88		160	7580
P11113	18'-0"	Str.									16	16	1530
P11114	8'-5"	44					56				32	88	3935
P11115	22'-6"	Str.			80							80	9563
P11116	17'-8"	43					56					56	5256
P11117	33'-0"	Str.					28					28	4909
P11118	30'-3"	Str.					28					28	4500
P11119	38'-8"	Str.								4		4	822
P11120	16'-7"	Str.									16	16	1410
P11121	24'-1"	Str.		24								24	3071
P11122	26'-10"	Str.		24								24	3422
P11123	19'-8"	43		34								34	3553
P11124	18'-2"	Str.	24									24	2316
P11125	16'-2"	Str.	24									24	2061
P11126	40'-3"	44							4			4	855
P11127	16'-2"	43	14									14	1203
P11128	19'-8"	43	17									17	1776
P11129	23'-2"	43			40							40	4923
P11130	42'-1"	Str.						4				4	894
P11131	41'-7"	Str.							4			4	884
P11132	19'-6"	Str.								40		40	4144
P11133	21'-3"	18								4		4	452
P11134	22'-10"	18							3			3	364
P11135	44'-7"	18						3				3	711
P11136	23'-8"	18						3				3	377
P185101	19'-11"	33			40							40	10835
P185102	17'-1"	33			40							40	9,293

TOTAL WEIGHT (PIER 1W THRU 9W) 194,723

PIERS 1B AND 2B

MARK	LENGTH	TYPE	NUMBER 1B	2B	TOTAL	WEIGHT
P4201	7'-6"	1	62	70	132	661
P4202	6'-8"	26	64	72	136	606
P4203	4'-0"	1	18	14	32	86
P5201	8'-1"	1	120	186	306	2580
P5202	8'-3"	1	60		60	516
P5203	4'-11"	1	24	24	48	246
P5204	7'-3"	1	40	60	100	756
P5205	7'-5"	1	20		20	155
P7201	10'-2"	43	32		32	665
P7202	29'-0"	Str.	16		16	883
P7203	12'-6"	20	4		4	102
P7204	12'-7"	20	4		4	104
P7205	23'-0"	Str.		16	16	752
P7206	10'-9"	20		4	4	88
P7207	10'-11"	20		4	4	89
P8201	10'-6"	Str.	10		10	280
P8202	8'-6"	Str.	12		12	272
P8203	12'-6"	Str.		14	14	467
P9201	13'-0"	43	24		24	1061
P10201	12'-9"	Str.	16		16	878
P10202	7'-11"	44	32	16	48	1635
P10203	27'-3"	Str.		8	8	938
P10204	31'-6"	Str.	6		6	813
P10205	13'-7"	Str.	16		16	935
P10206	14'-3"	Str.		16	16	981
P10207	15'-11"	Str.		16	16	1096
P11201	27'-6"	Str.	8		8	1169
P11202	16'-10"	Str.	16		16	1431
P11203	8'-6"	Str.	4		4	181
P11204	23'-8"	Str.		8	8	1006
P11205	15'-4"	Str.		16	16	1303
P11206	15'-8"	43		24	24	1998
P11207	30'-4	18	8		8	1289
P11208	26'-6"	18		8	8	1126

TOTAL WEIGHT 27,148

ABUTMENT RAILINGS

MARK	LENGTH	TYPE	NUMBER NO.	SO. A	SO. B	TOTAL	WEIGHT
H5100	16'-2"	Str.	4	-	-	4	**
H5101	25'-8"	Str.	-	-	4	4	**
H5102	1'-10"	Str.	-	-	4	4	**
H5103	5'-2"	Str.	12	-	-	12	**
H5104	4'-0"	Str.	-	2	-	2	**
H5105	4'-10"	20	-	2	-	2	**
H5106	5'-5"	Str.	-	6	-	6	**
H5107	1'-8"	Str.	-	-	4	4	**

** NOTE:
Bars marked "H" are included in Item 5-14 (Railing) for payment.

NORTH ABUTMENT

MARK	LENGTH	TYPE	TOTAL	WEIGHT
A501	30'-1"	Str.	43	1349
A502	27'-6"	Str.	23	660
A503	27'-8"	Str.	23	664
A504	15'-1"	18	14	220
A505	14'-10"	18	7	108
A506	14'-7"	18	7	106
A507	14'-4"	18	7	105
A508	14'-1"	18	8	118
A509	5'-2"	Str.	31	167
A510	9'-7"	14	9	90
A511	3'-4"	18	6	21
A512	3'-2"	Str.	2	7
A513	1'-5"	Str.	4	6
A514	4'-11"	18	2	10
A515	8'-6	Str.	58	514
A516	5'-8"	1	115	680
A517	31'-8"	Str.	19	628
A518	3'-11"	18	2	8
A519	11'-1"	18	7	81
A520	10'-10"	18	6	68
A521	10'-7"	18	6	66
A522	10'-4"	18	4	43
A523	10'-2"	18	7	74
A524	9'-11"	18	6	62
A525	9'-6"	18	7	69
A526	8'-2"	Str.	1	9
A527	31'-10"	Str.	20	664
A528	7'-2"	Str.	1	7
A529	5'-7"	14	12	70
A530	3'-8"	Str.	22	84
A531	4'-8"	Str.	2	10
A532	16'-2"	Str.	7	118
A533	11'-6"	18	13	156
A534	11'-2"	Str.	8	93
A535	4'-6"	Str.	8	38
A536	5'-11"	15	12	74
A537	10'-2"	Str.	14	148
A538	11'-6"	Str.	2	24
A539	10'-6"	Str.	7	77
A601	22'-5"	7	82	2761
A602	10'-6"	Str.	59	930
A603	11'-1"	18	7	117
A604	10'-10"	18	6	98
A605	10'-7"	18	6	95
A606	10'-4"	18	4	62
A607	10'-2"	18	7	107
A608	9'-11"	18	6	89
A609	9'-6"	18	7	100
A610	8'-6"	Str.	63	804
A611	5'-6"	20	55	468
A612	23'-8"	4	35	1244
A701	12'-2"	18	19	473
A702	8'-6"	Str.	10	174
A703	5'-6"	Str.	8	90
A901	10'-6"	Str.	59	2,104
A902	10'-3"	18	53	1,150
A903	15'-1"	18	9	462
A904	14'-10"	18	7	353
A905	14'-7"	18	7	347
A906	14'-4"	18	7	341
A907	14'-1"	18	8	383
A908	15'-4"	19	3	156
A909	10'-8"	19	2	70
A910	11'-5"	Str.	2	78

TOTAL WEIGHT 20,554

SOUTH ABUTMENT A

MARK	LENGTH	TYPE	TOTAL	WEIGHT
A551	5'-8"	1	127	751
A552	30'-4"	Str.	10	316
A553	23'-8"	Str.	19	469
A554	32'-4"	Str.	9	304
A555	8'-9"	18	10	91
A556	9'-0"	18	6	56
A557	9'-4"	18	6	58
A558	9'-8"	18	6	60
A559	10'-0"	18	6	63
A560	10'-4"	18	14	151
A561	10'-8"	18	9	100
A562	5'-4"	18	2	11
A563	1'-5"	Str.	5	7
A564	3'-7"	18	2	8
A565	3'-5"	Str.	7	25
A566	6'-9"	Str.	5	35
A567	3'-10"	Str.	15	60
A568	4'-0"	Str.	8	33
A569	10'-7"	Str.	15	166
A570	8'-9"	Str.	84	767
A571	35'-8"	Str.	21	781
A572	35'-6"	Str.	23	852
A573	4'-7"	18	2	10
A574	3'-4"	18	3	10
A575	9'-7"	14	5	50
A576	5'-5"	Str.	12	68
A577	12'-9"	18	8	106
A578	11'-0"	18	6	69
A579	11'-4"	18	8	95
A580	11'-8"	18	6	73
A581	12'-0"	18	7	88
A582	12'-5"	18	6	78
A583	10'-0"	Str.	1	10
A584	5'-7"	14	4	23
A585	7'-2"	Str.	1	8
A586	11'-6"	Str.	1	12
A651	23'-3"	7	91	3178
A652	10'-0"	44	115	1727
A653	8'-0"	44	5	60
A654	24'-6"	4	34	1251
A655	5'-2"	Str.	216	1676
A7101	23'-2"	1	25	1,184
A751	12'-9"	19	4	104
A752	11'-3"	Str.	2	46
A851	8'-9"	18	8	187
A852	9'-0"	18	6	144
A853	9'-4"	18	6	150
A854	9'-8"	18	6	155
A855	10'-0"	18	6	160
A856	10'-4"	18	14	386
A857	10'-8"	18	9	256
A858	28'-3"	Str.	22	1659
A859	7'-0"	Str.	10	187
A860	11'-0"	18	6	176
A861	11'-4"	18	8	242
A862	11'-8"	18	6	187
A863	12'-0"	18	7	224
A864	12'-5"	18	6	199
A865	12'-9"	18	3	102
A866	37'-0"	Str.	22	2,173

TOTAL WEIGHT 20,493

SOUTH ABUTMENT B

MARK	LENGTH	TYPE	TOTAL	WEIGHT
A5101	6'-3"	1	42	274
A5102	5'-2"	1	3	16
A5103	10'-0"	18	20	209
A5104	9'-8"	18	23	232
A5105	31'-8"	Str.	14	462
A5106	22'-4"	Str.	11	256
A5107	28'-4"	Str.	9	266
A5108	7'-0"	Str.	14	102
A5109	24'-6"	Str.	4	102
A5110	5'-3"	18	2	11
A5111	2'-3"	Str.	1	2
A5112	11'-5"	35	14	167
A5113	3'-8"	Str.	12	46
A5114	6'-7"	Str.	44	302
A5115	17'-8"	Str.	10	184
A5116	7'-9"	14	4	32
A5117	4'-0"	Str.	2	8
A5118	4'-5"	Str.	2	9
A5119	4'-9"	Str.	2	10
A5120	5'-2"	Str.	2	11
A5121	5'-6"	Str.	5	29
A5122	14'-0"	Str.	1	15
A5123	5'-7"	66	18	105
A5124	25'-8"	Str.	8	214
A5125	3'-9"	1	28	110
A5126	3'-0"	Str.	9	28
A6101	21'-11"	7	30	988
A6102	9'-8"	18	23	334
A6103	10'-0"	18	22	330
A6104	24'-8"	4	4	148
A6105	8'-5"	Str.	54	708
A6106	8'-0"	44	46	553
A6107	10'-8"	Str.	2	32
A6108	23'-2"	4	21	731
A6109	4'-0"	Str.	104	625

MARK	LENGTH	TYPE	TOTAL	WEIGHT
A8101	33'-5"	Str.	18	1,606
A8102	16'-6"	Str.	6	264

TOTAL WEIGHT 10,705

For Bar Bending Dimensions and Diagrams see Shts. Nº 192 & 193

For Replacement Bars see Sht. Nº 190.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

REINFORCING STEEL LIST

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	M.D.C. 2-3-65		GSB 3-18-65	JHO 3/22/65	

SUBSTRUCTURE

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

190
210

HAM-71-1.80

PIERS 1E THRU 9E

MARK	LENGTH	TYPE	NUMBER 1E	2E	3E	4E	5E	6E	7E	8E	9E	TOTAL	WEIGHT
P401	6'-8"	26	66				232	202				500	2,227
P402	7'-6"	1	62				228	200		120	72	682	3,417
P403	4'-0"	1	34		21	14	16	6		16		107	286
P404	7'-1"	26			178							178	842
P405	7'-5"	26				258						258	1,278
P406	8'-6"	1				252						252	1,431
P407	6'-7"	26									78	78	343
P408	6'-7"	26								124		124	545
P409	9'-2"	26		130								130	796
P410	10'-4"	1		134								134	925
P411	12'-6"	1							164			164	1,369
P412	11'-4"	26							160			160	1,211
P413	8'-0"	1			174							174	930
P414	11'-10"	8							9			9	71
P415	11'-5"	54							9			9	69
P416	8'-0"	56							1			1	5
P417	8'-8"	56							1			1	6
P418	4'-7"	56							2			2	6
P419	3'-6"	56							2			2	5
P501	8'-6"	1									224	224	1,986
P502	7'-0"	1									24	24	175
P503	7'-9"	1			12							12	97
P504	9'-1"	1			424							424	4,017
P505	8'-8"	1				292						292	2,639
P506	8'-7"	1	180									180	1,611
P507	6'-5"	1	56									56	375
P508	8'-4"	1					292			280		572	4,972
P509	7'-4"	1					48			56		104	795
P510	5'-4"	1		30								30	167
P511	6'-4"	1							16			16	106
P512	9'-8"	1	90									90	907
P513	7'-6"	1	28									28	219
P514	7'-7"	1					244					244	2088
P515	6'-1"	1					56					56	355
P516	8'-0"	1					132					132	1,101
P517	6'-6"	1					28					28	190
P518	8'-11"	1				146						146	1,358
P519	4'-11"	1	42		102	48	48	48		48	48	384	1,969
P520	4'-5"	1							6			6	28
P521	5'-0"	1							5			5	26
P701	27'-6"	Str.	8									8	450
P702	25'-1"	"	8									8	410
P703	39'-8"	"					8					8	649
P704	38'-9"	"					8					8	634
P705	12'-3"	20					4					4	100
P706	11'-11"	20					4					4	97
P707	10'-2"	43					60					60	1,247
P708	37'-6"	Str.						8				8	613
P709	11'-1"	20						4				4	91
P710	32'-8"	Str.							4			4	267
P711	31'-10"	"							4			4	260
P712	10'-3"	20							4			4	84
P713	32'-0"	Str.									8	8	523
P714	30'-0"	"				24						24	1,472
P715	30'-4"	"			12							12	744
P716	9'-7"	20									4	4	78
P717	12'-6"	20			4							4	102
P718	10'-6"	20							4			4	86
P719	11'-5"	20						4				4	93
P720	9'-6"	20									4	4	78

PIERS 1E THRU 9E

MARK	LENGTH	TYPE	NUMBER 1E	2E	3E	4E	5E	6E	7E	8E	9E	TOTAL	WEIGHT
P801	12'-6"	Str.	28			9						37	1,235
P802	13'-0"	"				15	15					30	1,041
P803	8'-6"	"					21					21	477
P804	11'-8"	43				42		36				78	2,430
P805	13'-8"	43						48				48	1,752
P806	9'-6"	Str.			18	21		18				57	1,446
P807	11'-6"	"			15			15				30	921
P808	11'-0"	"								36	36	72	2,115
P809	17'-0"	"				2						2	91
P810	17'-6"	"				7						7	327
P811	14'-8"	43				20						20	783
P812	13'-0"	Str.		18								18	625
P813	16'-6"	"		14								14	617
P814	15'-2"	43		40								40	1,620
P815	16'-6"	Str.							10			10	441
P816	19'-6"	"							9			9	469
P901	15'-0"	43	72									72	3,612
P902	15'-6"	43					42					42	2,213
P903	29'-2"	Str.						16				16	1,587
P1001	14'-8"	Str.	16									16	1,010
P1002	13'-6"	"	16									16	929
P1003	7'-11"	44	32									32	1,090
P1004	30'-7"	Str.					16					16	2,106
P1005	28'-10"	"					16					16	1,985
P1006	27'-1"	"					16					16	1,865
P1007	7'-5"	44					48	48				96	3,064
P1008	27'-5"	Str.						16				16	1,888
P1009	25'-10"	"						16				16	1,779
P1010	24'-3"	"						16				16	1,670
P1011	25'-5"	"								16		16	1,750
P1012	11'-0"	"								96	96	192	9,088
P1013	14'-4"	43			42							42	2,590
P1014	12'-4"	43			36							36	1,911
P1015	28'-5"	67			6							6	734
P1016	28'-11"	67				6						6	747
P1017	20'-4	43				24						24	2,100
P1018	16'-6	Str.							20			20	1,420
P1019	15'-10	43				48						48	3,270
P1101	32'-3"	Str.	4									4	685
P1102	20'-7"	"	14									14	1,531
P1103	12'-0"	"	14									14	893
P1104	14'-2"	20	4									4	301
P1105	32'-0"	Str.	9									9	1,530
P1106	19'-6"	"					8					8	829
P1107	18'-4"	"					16					16	1,558
P1108	11'-6"	"					4					4	244
P1109	39'-3"	"			20							20	4,171
P1110	31'-0"	"					14					14	2,306
P1111	18'-6"	"						8				8	786
P1112	16'-2"	"						8				8	687
P1113	41'-10"	"								4		4	889
P1114	24'-9"	"								4		4	526
P1115	16'-4"	"								14		14	1,215

PIERS 1E THRU 9E

MARK	LENGTH	TYPE	NUMBER 1E	2E	3E	4E	5E	6E	7E	8E	9E	TOTAL	WEIGHT
P1116	11'-0"	Str.								5		5	292
P1117	21'-3"	"								24		24	2,710
P1118	14'-1"	"								24		24	1,796
P1119	7'-11"	44			54	78				72	78	282	11,861
P1120	41'-11"	Str.				18						18	4,009
P1121	26'-3"	"				9						9	1,255
P1122	27'-11"	"				26						26	3,856
P1123	26'-2"	"				26						26	3,615
P1124	23'-5"	"				26						26	3,235
P1125	22'-0"	"				26						26	3,039
P1126	8'-11"	44				26						26	1,232
P1127	26'-7"	Str.				9						9	1,271
P1128	41'-0"	34				6						6	1,307
P1129	20'-0"	Str.				8						8	850
P1130	19'-10"	"			6							6	633
P1131	38'-0"	"			6							6	1,211
P1132	19'-0"	"			6							6	606
P1133	27'-9"	"			3							3	442
P1134	25'-7"	"			18							18	2,447
P1135	22'-7"	"			18							18	2,160
P1136	21'-4"	"			18							18	2,061
P1137	13'-7"	"								4		4	289
P1138	10'-6"	"					4			4		8	446
P1139	15'-9"	"								8		8	669
P1140	25'-7"	"								16		16	2,175
P1141	12'-10"	"								26		26	1,773
P1142	12'-1"	"								26		26	1,669
P1143	11'-4"	"								26		26	1,566
P1144	37'-0"	"								8		8	1,573
P1145	9'-6"	"						2		4		6	303
P1146	16'-4"	"								24		24	2,083
P1147	43'-1"	"						7				7	1,602
P1148	22'-5"	"		44								44	5,240
P1149	8'-11"	44		88								88	4,169
P1150	19'-8"	43		34								34	3,553
P1151	21'-5"	Str.		44								44	5,007
P1152	19'-6"	"						25				25	2590
P1153	25'-6"	"						48				48	6,503
P1154	23'-6"	"						48				48	5,993
P1155	14'-5"	20	4									4	306
P1156	16'-6"	Str.				6						6	526
P1157	15'-7"	34				2						2	168
P1158	13'-0"	Str.			6							6	414
P1159	6'-8"	"						7				7	248
P1160	21'-11"	18					8					8	932
P1161	45'-10"	Str.					8					8	1,948
P1162	18'-4"	18								8		8	779
P1163	21'-1"	18						6				6	672
P1164	44'-5"	18								3		3	708
P1165	27'-4"	18								3		3	436
P1166	30'-9"	18			3							3	490
P1167	38'-7"	Str.				8						8	1,640
P1168	28'-0"	"	4									4	510
P1169	35'-1"	18	3									3	559
P1170	26'-10"	18	3									3	428
P1850I	12'-6"	33								48		48	8,160
P1850Z	14'-2"	33								48		48	9,248
TOTAL WEIGHT (PIERS 1E THRU 9E)													257,291

REPLACEMENT BARS			
MARK	LENGTH	SHAPE	NO.
RE401	5'-3"	Str.	2
RE501	5'-7"	Str.	5
RE601	5'-11"	Str.	42
RE701	6'-3"	Str.	23
RE801	6'-6"	Str.	3
RE901	6'-10"	Str.	1
RE1001	7'-3"	Str.	5
RE1101	7'-7"	Str.	12
RE1850I	12'-6"*	Str.	2

* Test and replace 1850I Bar full length.

For Bar Bending Dimensions and Diagrams see Shts. Nº 192 and 193

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

REINFORCING STEEL LIST

DESIGNED	DRAWN	TRACED	CHECKED	REVISED TO FF	REVISED
	L.M.H. 2-3-65		CSB 2-18-65	JHO 3/22/65	

MICROFILMED

OCT 18 1982

HAM-71-1.30

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

191 / 210

SUPERSTRUCTURE

UNIT 1

MARK	LENGTH	TYPE	NO.	WEIGHT
S5101	4'-8"	61	439	2,137
S5102	2'-7"	1	439	1,183
S5103	5'-3"	21	412	2256
S5104	3'-7"	1	412	1,540
S5105	1'-11"	18	15	30
S6101	36'-6"	Str.	94	5,153
S6102	3'-0"		32	144
S6103	31'-7"		8	380
S6104	35'-6"		100	5,332
S6105	34'-6"		100	5,182
S6106	33'-6"		120	6,038
S6107	27'-9"		8	333
S6108	32'-6"		100	4,882
S6109	31'-6"		102	4,826
S6110	30'-6"		194	8887
S6111	30'-0"		284	12,797
S6112	25'-0"		4	150
S6113	24'-3"		4	146
S6114	29'-3"		284	12,477
S6115	24'-0"		4	144
S6116	28'-6"		518	22,174
S6117	23'-7"		4	142
S6118	26'-8"		2	80
S6119	25'-1"		2	75
S6120	23'-6"		2	71
S6121	21'-11"		2	66
S6122	20'-4"		2	81
S6123	18'-9"		2	56
S6124	17'-2"		2	52
S6125	15'-7"		2	47
S6126	14'-0"		2	42
S6127	12'-5"		2	38
S6128	10'-10"		2	33
S6129	9'-3"		2	28
S6130	7'-8"		2	23
S6131	6'-1"		2	18
S6132	4'-6"		2	14
S6133	4'-0"		2	12
S6134	36'-0"		2117	114,470
S6135	23'-9"		30	1070
S6136	21'-6"		22	710
S6137	31'-9"		9	429
S6138	27'-3"		8	327
S6139	23'-6"		9	318
S6140	19'-0"		8	228
S6141	15'-0"		9	203
S6142	10'-9"		13	210
S6143	32'-0"		94	4,518
S6144	29'-6"		94	4,165
S6145	22'-6"		94	3,177
S6146	24'-6"		80	2,944
S6147	23'-0"		80	2,764
S7101	36'-6"	Str.	94	7,013
S7102	2'-9"		32	180
S7103	31'-9"		8	519
S7104	35'-6"		100	7,256
S7105	34'-6"		100	7,052
S7106	33'-6"		120	8,217
S7107	28'-0"		8	458
S7108	32'-6"		100	6,643
S7109	31'-6"		102	6,568
S7110	30'-6"		194	12,094
S7111	30'-0"		284	17,415
S7112	25'-2"		4	206
S7113	24'-5"		4	200
S7114	29'-3"		284	16,980
S7115	24'-2"		4	198
S7116	28'-6"		518	30,176
S7117	23'-9"		4	194
S7118	26'-8"		2	109
S7119	25'-1"		2	103
S7120	23'-6"		2	96

UNIT 1

MARK	LENGTH	TYPE	NO.	WEIGHT
S7121	21'-11"	Str.	2	90
S7122	20'-4"		2	83
S7123	18'-9"		2	77
S7124	17'-2"		2	70
S7125	15'-7"		2	64
S7126	14'-0"		2	57
S7127	12'-5"		2	51
S7128	10'-10"		2	44
S7129	9'-3"		2	38
S7130	7'-8"		2	31
S7131	6'-1"		2	25
S7132	4'-6"		2	18
S7133	4'-0"		2	16

UNIT 2

MARK	LENGTH	TYPE	NO.	WEIGHT
S5201	4'-8"	61	271	1,319
S5202	2'-7"	1	271	730
S5203	5'-3"	21	279	1,528
S5204	3'-7"	1	279	1,040
S5205	2'-2"	1	2	5
S6201	28'-6"	Str.	1220	52,225
S6202	23'-9"		16	571
S6203	3'-1"		20	93
S6204	4'-6"		1	7
S6205	6'-2"		1	9
S6206	7'-10"		1	12
S6207	9'-6"		1	14
S6208	11'-2"		1	17
S6209	12'-10"		1	19
S6210	14'-6"		1	22
S6211	16'-2"		1	24
S6212	17'-10"		1	27
S6213	19'-6"		1	29
S6214	21'-2"		1	32
S6215	22'-10"		1	34
S6216	24'-6"		1	37
S6217	26'-2"		1	39
S6218	14'-3"		1	21
S6219	15'-11"		1	24
S6220	17'-7"		1	26
S6221	19'-2"		1	29
S6222	20'-10"		1	31
S6223	22'-6"		1	34
S6224	24'-2"		1	36
S6225	25'-10"		1	39
S6226	27'-6"		1	41
S6227	3'-0"		1	4
S6228	4'-8"		1	7
S6229	6'-4"		1	10
S6230	8'-0"		1	12
S6231	6'-0"		1	9
S6232	4'-6"		2	14
S6233	27'-5"		3	124
S6234	33'-11"		1238	63,067
S6235	31'-10"		17	813
S6236	29'-9"		17	760
S6237	27'-9"		17	709
S6238	25'-7"		21	807
S6239	23'-6"		3	106
S6240	29'-0"		78	3,398
S6241	27'-6"		78	3,222
S6242	23'-0"		78	2,695
S7201	28'-8"	Str.	1220	71,485
S7202	23'-11"		16	782
S7203	3'-1"		20	126
S7204	4'-8"		1	10

UNIT 2

MARK	LENGTH	TYPE	NO.	WEIGHT
S7205	6'-4"	Str.	1	13
S7206	8'-0"		1	16
S7207	9'-8"		1	20
S7208	11'-4"		1	23
S7209	13'-0"		1	27
S7210	14'-8"		1	30
S7211	16'-4"		1	33
S7212	18'-0"		1	37
S7213	19'-8"		1	40
S7214	21'-4"		1	44
S7215	23'-0"		1	47
S7216	24'-8"		1	50
S7217	26'-4"		1	54
S7218	14'-3"		1	29
S7219	15'-11"		1	33
S7220	17'-7"		1	36
S7221	19'-2"		1	39
S7222	20'-10"		1	43
S7223	22'-6"		1	46
S7224	24'-2"		1	49
S7225	25'-10"		1	53
S7226	27'-6"		1	56
S7227	3'-0"		1	6
S7228	4'-8"		1	10
S7229	6'-4"		1	13
S7230	8'-0"		1	16
S7231	6'-0"		1	12
S7232	4'-6"		2	18
S7233	27'-7"		3	169

UNIT 3

MARK	LENGTH	TYPE	NO.	WEIGHT
S5301	4'-8"	61	111	540
S5302	2'-7"	1	111	299
S5303	4'-6"	61	208	976
S5304	2'-7"	1	208	560
S5305	2'-2"	1	2	5
S5306	3'-11"	1	48	196
S5307	2'-10"	1	34	100
S5308	2'-6"	65	39	102
S5309	1'-11"	18	48	96
S6301	28'-1"	Str.	832	35,095
S6302	24'-6"		12	442
S6303	1'-9"		8	21
S6304	26'-11"		3	121
S6305	29'-2"		38	1,665
S6306	4'-0"		2	12
S6307	26'-5"		1	40
S6308	24'-10"		1	37
S6309	23'-3"		1	35
S6310	21'-8"		1	33
S6311	20'-1"		1	30
S6312	18'-6"		1	28
S6313	16'-11"		1	25
S6314	15'-4"		1	23
S6315	13'-9"		1	21
S6316	12'-2"		1	18
S6317	10'-7"		1	16
S6318	9'-0"		1	14
S6319	7'-5"		1	11
S6320	5'-10"		1	9
S6321	4'-3"		1	6
S6322	27'-3"		1	41
S6323	25'-6"		1	38
S6324	23'-9"		1	36
S6325	22'-0"		1	33
S6326	20'-3"		1	30
S6327	18'-6"		1	28
S6328	16'-9"		1	25
S6329	15'-0"		1	23
S6330	13'-3"		1	20

UNIT 3

MARK	LENGTH	TYPE	NO.	WEIGHT
S6331	11'-6"	Str.	1	17
S6332	9'-9"		1	15
S6333	8'-0"		1	12
S6334	6'-3"		1	9
S6335	4'-6"		1	7
S6336	1'-3"		4	8
S6337	36'-0"		853	46,123
S6338	26'-0"		80	3,124
S6339	24'-9"		78	2,899
S6340	38'-11"		24	1,403
S6341	34'-2"		15	770
S6342	29'-4"		15	661
S6343	24'-7"		15	554
S6344	19'-9"		15	445
S6345	15'-0"		19	428
S6346	10'-0"		1	15
S7301	28'-3"	Str.	832	48,042
S7302	24'-8"		12	605
S7303	1'-9"		8	29
S7304	27'-1"		3	166
S7305	29'-4"		38	2,278
S7306	4'-0"		2	16
S7307	26'-5"		1	54
S7308	24'-10"		1	51
S7309	23'-3"		1	48
S7310	21'-8"		1	44
S7311	20'-1"		1	41
S7312	18'-6"		1	38
S7313	16'-11"		1	35
S7314	15'-4"		1	31
S7315	13'-9"		1	28
S7316	12'-2"		1	25
S7317	10'-7"		1	21
S7318	9'-0"		1	18
S7319	7'-5"		1	15
S7320	5'-10"		1	12
S7321	4'-3"		1	9
S7322	27'-5"		1	56
S7323	25'-8"		1	52
S7324	23'-11"		1	49
S7325	22'-2"		1	45
S7326	20'-5"		1	42
S7327	18'-8"		1	38
S7328	16'-11"		1	35
S7329	15'-2"		1	31
S7330	13'-5"		1	27
S7331	11'-8"		1	24
S7332	9'-11"		1	20
S7333	8'-2"		1	17
S7334	6'-5"		1	13
S7335	4'-8"		1	10
S7336	1'-3"		4	10

UNIT 4

MARK	LENGTH	TYPE	NO.	WEIGHT
S5401	4'-8"	61	192	935
S5402	2'-7"	1	192	517
S5403	4'-6"	61	203	953
S5404	2'-7"	1	203	547
S6401	4'-6"	Str.	3	20
S6402	2'-7"		1	4
S6403	4'-2"		1	6
S6404	5'-9"		1	9
S6405	7'-4"		1	11
S6406	12'-6"		1	19
S6407	14'-0"		1	21
S6408	15'-7"		1	23

UNIT 4

MARK	LENGTH	TYPE	NO.	WEIGHT
S6409	17'-2"	Str.	1	26
S6410	15'-3"		1	23
S6411	16'-10"		1	25
S6412	18'-5"		1	28
S6413	20'-0"		1	30
S6414	25'-1"		1	38
S6415	26'-8"		1	40
S6416	28'-3"		1	42
S6417	29'-10"		1	45
S6418	31'-5"		1	47
S6419	33'-0"		1	50
S6420	34'-7"		1	52
S6421	36'-2"		1	54
S6422	37'-8"		1	57
S6423	38'-8"		259	15,042
S6424	1'-9"		20	53
S6425	4'-6"		1	7
S6426	6'-1"		1	9
S6427	7'-8"		1	12
S6428	9'-3"		1	14
S6429	10'-11"		1	16
S6430	12'-5"		1	19
S6431	14'-1"		1	21
S6432	15'-8"		1	24
S6433	17'-3"		1	26
S6434	18'-10"		1	28
S6435	20'-6"		1	31
S6436	22'-1"		1	33
S6437	23'-8"		1	36
S6438	25'-3"		1	38
S6439	26'-10"		1	40
S6440	28'-5"		1	43
S6441	30'-0"		1	45
S6442	31'-7"		1	48
S6443	33'-2"		1	50
S6444	34'-10"		1	52
S6445	36'-5"		1	55
S6446	38'-0"		1	57
S6447	37'-11"		244	13,896
S6448	37'-3"		240	13,428
S6449	36'-5"		110	6,017
S6450	35'-6"		1	53
S6451	33'-11"		2	102
S6452	32'-4"		2	97
S6453	30'-9"		2	92
S6454	29'-2"		2	87
S6455	27'-7"		2	83
S6456	26'-1"		2	78
S6457	24'-6"		2	74
S6458	23'-0"		2	69
S6459	21'-5"		2	64
S6460	19'-11"		2	60
S6461	18'-4"		2	55
S6462	16'-10"		2	51
S6463	15'-3"		2	46
S6464	13'-9"		2	41
S6465	12'-2"		2	37
S6466	10'-8"		2	32
S6467	9'-1"		2	27
S6468	7'-7"		2	23
S6469	6'-0"		2	18
S6470	4'-6"		2	14
S6471	4'-0"		2	12
S6472	33'-9"		4	203
S6473	35'-2"		8	423
S6474	20'-7"		26	804
S6475	23'-1"		17	589
S6476	25'-7"		17	653
S6477	28'-1"		17	717
S6478	30'-7"		17	781
S6479	33'-1"		17	845
S6480	35'-7"		1113	59,486
S6481	27'-6"		108	4,461
S6482	23'-0"		108	3,731

UNIT 4

MARK	LENGTH	TYPE	NO.	WEIGHT
S7401	4'-6"	Str.	3	28
S7402	2'-7"		1	5
S7403	4'-2"		1	9
S7404	5'-9"		1	12
S7405	7'-4"		1	15
S7406	12'-6"		1	26
S7407	14'-0"		1	29
S7408	15'-7"		1	32
S7409	17'-2"		1	35
S7410	15'-3"		1	31
S7411	16'-10"		1	34
S7412	18'-5"		1	38
S7413	20'-0"		1	41
S7414	25'-1"		1	51
S7415	26'-8"		1	55
S7416	28'-3"		1	58
S7417	29'-10"		1	61
S7418	31'-5"		1	64
S7419	33'-0"		1	68
S7420	34'-7"		1	71
S7421	36'-2"		1	74
S7422	37'-8"		1	77
S7423	38'-10"		259	20,558
S7424	1'-9"		20	72
S7425	4'-8"		1	10
S7426	6'-3"		1	13
S7427	7'-10"		1	16
S7428	9'-5"		1	19
S7429	11'-1"		1	23
S7430	12'-7"		1	26
S7431	14'-3"		1	29
S7432	15'-10"		1	32
S7433	17'-5"		1	36
S7434	19'-0"		1	39
S7435	20'-8"		1	42
S7436	22'-3"		1	46
S7437	23'-10"		1	49
S7438	25'-5"		1	52
S7439	27'-0"		1	55
S7440	28'-7"		1	59
S7441	30'-2"		1	62
S7442	31'-9"		1	65
S7443	33'-4"		1	68
S7444	35'-0"		1	72
S7445	36'-7"		1	75
S7446	38'-2"		1	78
S7447	38'-1"		244	18,994
S7448	37'-5"		240	18,355
S7449	37'-7"		110	8,450
S7450	35'-6"		1	73
S7451	33'-11"		2	139
S7452	32'-4"		2	132
S7453	30'-9"		2	126
S7454	29'-2"		2	119
S7455	27'-7"		2	113
S7456	26'-1"		2	107
S7457	24'-6"		2	100
S7458	23'-0"		2	94
S7459	21'-5"		2	87
S7460	19'-11"		2	41
S7461	18'-4"		2	75
S7462	16'-10"		2	69
S7463	15'-3"		2	63
S7464	13'-9"		2	56
S7465	12'-2"		2	50
S7466	10'-8"		2	44
S7467	9'-1"		2	37
S7468	7'-7"		2	31
S7469	6'-0"		2	25
S7470	4'-6"		2	18
S7471	4'-0"		2	16
S7472	33'-9"		4	276
S7473	35'-2"		8	575

UNIT 5

MARK	LENGTH	TYPE	NO.	WEIGHT
S5501	4'-8"	61	287	1,397
S5502	2'-7"	1	287	773
S5503	4'-6"	61	279	1,309
S5504	2'-7"	1	279	752
S5505	2'-2"	1	2	5
S6501	35'-6"	Str.	376	20,049
S6502	34'-7"		218	11,324
S6503	33'-10"		164	8,334
S6504	31'-1"		8	374
S6505	1'-9"		24	63
S6506	5'-0"		1	8
S6507	6'-6"		1	10
S6508	8'-0"		1	12
S6509	9'-6"		1	14
S6510	10'-11"		1	16
S6511	12'-5"		1	19
S6512	13'-10"		1	21
S6513	15'-5"		1	23
S6514	16'-10"		1	25
S6515	18'-4"		1	28
S6516	19'-10"		1	30
S6517	21'-4"		1	32
S6518	22'-9"		1	34
S6519	24'-3"		1	36
S6520	25'-9"		1	39
S6521	27'-3"		1	41
S6522	28'-8"		1	43
S6523	30'-2"		1	45
S6524	31'-8"		1	48
S6525	33'-2"		1	50
S6526	4'-8"		3	21
S6527	23'-8"		1	36
S6528	25'-1"		1	38
S6529	26'-7"		1	40
S6530	28'-0"		1	42
S6531	29'-6"		1	44
S6532	30'-11"		1	46
S6533	32'-5"		1	49
S6534	33'-10"		1	51
S6535	14'-4"		1	22
S6536	15'-9"		1	24
S6537	17'-3"		1	26
S6538	18'-8"		1	28
S6539	12'-0"		1	18
S6540	13'-5"		1	20
S6541	14'-11"		1	22
S6542	16'-4"		1	25
S6543	2'-8"		1	4
S6544	4'-1"		1	6
S6545	5'-7"		1	8
S6546	7'-0"		1	11
S6547	28'-11"		4	174
S6548	33'-4"		284	14,219
S6549	32'-5"		220	10,712
S6550	29'-10"		4	179
S6551	35'-0"		1657	87,108
S6552	33'-0"		17	843
S6553	30'-11"		17	789
S6554	28'-11"		17	738
S6555	26'-10"		17	685
S6556	24'-10"		17	634
S6557	22'-9"		23	786
S6558	21'-0"		3	95
S6559	38'-0"		54	3,082
S6560	31'-0"		108	5,029
S6561	27'-6"		108	4,461
S7501	35'-8"	Str.	376	27,411
S7502	34'-9"		218	15,484
S7503	34'-0"		164	11,397
S7504	31'-3"		8	511
S7505	1'-9"		24	86

UNIT 5

MARK	LENGTH	TYPE	NO.	WEIGHT
S7506	5'-2"		1	11
S7507	6'-8"		1	14
S7508	8'-2"		1	17
S7509	9'-8"		1	20
S7510	11'-1"		1	23
S7511	12'-7"		1	26
S7512	14'-0"		1	29
S7513	15'-7"		1	32
S7514	17'-0"		1	35
S7515	18'-6"		1	38
S7516	20'-0"		1	41
S7517	21'-6"		1	44
S7518	22'-11"		1	47
S7519	24'-5"		1	50
S7520	25'-11"		1	53
S7521	27'-5"		1	56
S7522	28'-10"		1	59
S7523	30'-4"		1	62
S7524	31'-10"		1	65
S7525	33'-4"		1	68
S7526	4'-8"		3	29
S7527	23'-8"		1	48
S7528	25'-1"		1	51
S7529	26'-7"		1	54
S7530	28'-0"		1	57
S7531	29'-6"		1	60
S7532	30'-11"		1	63
S7533	32'-5"		1	66
S7534	33'-10"		1	69
S7535	14'-4"		1	29
S7536	15'-9"		1	32
S7537	17'-3"		1	35
S7538	18'-8"		1	38
S7539	12'-0"		1	25
S7540	13'-5"		1	27
S7541	14'-11"		1	31
S7542	16'-4"		1	33
S7543	2'-8"		1	5
S7544	4'-1"		1	8
S7545	5'-7"		1	12
S7546	7'-0"		1	14
S7547	29'-1"		4	238
S7548	33'-6"		284	19,447
S7549	32'-7"		220	14,652
S7550	30'-0"		4	245

UNIT 6

MARK	LENGTH	TYPE	NO.	WEIGHT
S5601	4'-8"	61	363	1,767
S5602	2'-7"	1	363	978
S5603	2'-2"	1	9	20
S5604	4'-1"	1	48	204
S5605	3'-0"	1	34	106
S5606	2'-6"	65	39	102
S5607	1'-11"	18	33	66
S6601	29'-9"	Str.	126	5,630
S6602	15'-10"		254	6,041
S6603	15'-1"		174	3,942
S6604	14'-4"		214	4,607
S6605	1'-9"		12	32
S6606	26'-2"		4	157
S6607	24'-7"		4	148
S6608	28'-8"		9	388
S6609	7'-6" (5'-8")		1	9-11
S6610	7'-11" (6'-1")		1	9-12
S6611	8'-4" (6'-7")		1	10-13
S6612	8'-9" (7'-0")		1	11-13
S6613	9'-3" (7'-6")		1	11-14
S6614	9'-8" (7'-11")		1	12-15
S6615	10'-1" (8'-4")		1	13-15
S6616	10'-7" (8'-9")		1	13-16

UNIT 6 (9'-3")

MARK	LENGTH	TYPE	NO.	WEIGHT
S6617	11'-0"	Str.	1	14-17
S6618	11'-5" (9'-8")		1	15-17
S6619	11'-10" (10'-1")		1	15-18
S6620	12'-4" (10'-7")		1	16-19
S6621	12'-9" (11'-0")		1	16-19
S6622	13'-2"		1	20
S6623	13'-8"		1	21
S6624	14'-1"		1	21
S6625	14'-6"		1	22
S6626	14'-11"		1	22
S6627	15'-4"		1	23
S6628	15'-9"		1	24
S6629	16'-2"		1	24
S6630	16'-8"		1	25
S6631	17'-1"		1	26
S6632	17'-6"		1	26
S6633	17'-11"		1	27
S6634	18'-5"		1	28
S6635	18'-10"		1	28
S6636	19'-3"		1	29
S6637	19'-9"		1	30
S6638	20'-2"		1	30
S6639	20'-7"		1	31
S6640	21'-0"		1	32
S6641	21'-6"		1	32
S6642	21'-11"		1	33
S6643	22'-4"		1	34
S6644	22'-10"		1	34
S6645	23'-3"		1	35
S6646	23'-8"		1	36
S6647	24'-2"		1	36
S6648	24'-7"		1	37
S6649	25'-0"		1	38
S6650	25'-6"		1	38
S6651	25'-11"		1	39
S6652	26'-4"		1	40
S6653	26'-9"		1	40
S6654	27'-2"		1	41
S6655	27'-7"		1	41
S6656	28'-0"		1	42
S6657	5'-0"		4-1	30
S6658	3'-6"		1	5
S6659	4'-0"		1	6
S6660	4'-5"		1	7
S6661	4'-11"		1	7
S6662	5'-4"		1	8
S6663	2'-2" (7'-10")		1	12-3
S6664	2'-8" (8'-3")		1	12-4
S6665	3'-1" (8'-9")		1	13-5
S6666	3'-6" (9'-2")		1	14-5
S6667	4'-6"		2	7
S6668	21'-5"		1	32
S6669	20'-0"		1	30
S6670	18'-6"		1	28
S6671	17'-1"		1	26
S6672	15'-7"		1	23
S6673	14'-2"		1	21
S6674	12'-8"		1	19
S6675	11'-2"		1	17
S6676	9'-8"		1	15
S6677	8'-3"		1	12
S6678	6'-9"		1	10
S6679	5'-3"		1	8
S6680	3'-9"		1	6
S6681	33'-0"		641	31,772
S6682	30'-4"		8	364
S6683	27'-8"		8	332
S6684	25'-0"		8	300
S6685	22'-4"		9	302
S6686	19'-8"		13	384
S6687	12'-3"		3	55
S6688	24'-6"		48	1,766
S6689	31'-0"		48	2,235
S7601	29'-9"	Str.	126	7,662
S7602	16'-0"		254	8,307

UNIT 6

MARK	LENGTH	TYPE	NO.	WEIGHT
S7603	15'-3"	Str.	174	5424
S7604	14'-6"		214	6343
S7605	1'-9"		12	43
S7606	26'-2"		4	214
S7607	24'-7"		4	201
S7608	28'-8"		9	527
S7609	7'-6" (5'-8")		1	12-15
S7610	7'-11" (6'-1")		1	12-16
S7611	8'-4" (6'-7")		1	13-17
S7612	8'-9" (7'-0")		1	14-18
S7613	9'-3" (7'-6")		1	15-19
S7614	9'-8" (7'-11")		1	16-20
S7615	10'-1" (8'-4")		1	17-21
S7616	10'-7" (8'-9")		1	18-22
S7617	11'-0" (9'-3")		1	19-22
S7618	11'-5" (9'-8")		1	20-23
S7619	11'-10" (10'-1")		1	21-24
S7620	12'-4" (10'-7")		1	22-25
S7621	12'-9" (11'-0")		1	22-26
S7622	13'-2"		1	27
S7623	13'-8"		1	28
S7624	14'-1"		1	29
S7625	14'-6"		1	30
S7626	14'-11"		1	30
S7627	15'-4"		1	31
S7628	15'-9"		1	32
S7629	16'-2"		1	33
S7630	16'-8"		1	34
S7631	17'-1"		1	35
S7632	17'-6"		1	36
S7633	17'-11"		1	37
S7634	18'-5"		1	38
S7635	18'-10"		1	38
S7636	19'-3"		1	39
S7637	19'-9"		1	40
S7638	20'-2"		1	41
S7639	20'-7"		1	42
S7640	21'-0"		1	43
S7641	21'-6"		1	44
S7642	21'-11"		1	45
S7643	22'-4"		1	46
S7644	22'-10"		1	47
S7645	23'-3"		1	48
S7646	23'-8"		1	48
S7647	24'-2"		1	49
S7648	24'-7"		1	50
S7649	25'-0"		1	51
S7650	25'-6"		1	52
S7651	25'-11"		1	53
S7652	26'-4"		1	54
S7653	26'-9"		1	55
S7654	27'-2"		1	56
S7655	27'-7"		1	56
S7656	28'-0"		1	57
S7657	5'-0"		4	41
S7658	3'-6"		1	7
S7659	4'-0"		1	8
S7660	4'-5"		1	9
S7661	4'-11"		1	10
S7662	5'-4"		1	11

UNIT 6 (7'-10")

MARK	LENGTH	TYPE	NO.	WEIGHT
S7663	2'-2"	Str.	1	16-4
S7664	2'-8" (8'-3")		1	17-5
S7665	3'-1" (8'-9")		1	18-6
S7666	3'-6" (9'-2")		1	19-7
S7667	4'-6"		2	18
S7668	21'-5"		1	44
S7669	20'-0"		1	41
S7670	18'-6"		1	38
S7671	17'-1"		1	35
S7672	15'-7"		1	32
S7673	14'-2"		1	29
S7674	12'-8"		1	26
S7675	11'-2"		1	23
S7676	9'-8"		1	20
S7677	8'-3"		1	17
S7678	6'-9"		1	14
S7679	5'-3"		1	11
S7680	3'-9"		1	8

PARAPET

S550	5'-7"	14	1752	10,659
S551	5'-7"	66	56	341

MARK	LENGTH	NUMBER	TYPE
H501	16'-9"	148	Str.
H502	13'-7"	4	
H503	14'-2"	4	
H504	14'-1"	4	
H505	16'-11"	88	
H506	13'-9"	4	
H507	22'-9"	4	
H508	17'-4"	68	
H509	23'-0"	4	
H510	14'-2"	4	
H511	17'-0"	60	
H512	14'-2"	4	
H513	14'-1"	4	
H514	17'-3"	88	
H515	14'-0"	4	
H516	23'-3"	4	
H517	17'-9"	28	
H518	15'-2"	4	
H519	22'-11"	4	
H520	17'-6"	36	
H521	15'-4"	4	
H522	1'-9"	4	
H523	8'-1"	32	58

LAMP STD. SUPPORT

MARK	LENGTH	TYPE	NO.	WEIGHT
S701	5'-11"	61	32	387
S702	6'-2"	49	32	403
S703	10'-4"	58	32	676
S552	9'-8"	4	32	323

"H" Bars are included in Item S-14 (Railing) for payment.

TOTAL WEIGHT SUPERSTRUCTURE REINFORCEMENT 1,282,223

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

REINFORCING STEEL LIST

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	L.M.H. 1-18-65		LSB 3-18-65	JHO 3/22/65	10-18-65

MICROFILMED
OCT 18 1982

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

192/210

HAM-71-1.80

SUPERSTRUCTURE

TYPE 1

MARK	a	b
S5102	1'-9"	6"
S5104	3'-1"	4"
S5202	1'-9"	6"
S5204	3'-1"	4"
S5205	1'-5"	6"
S5302	1'-9"	6"
S5304	2'-1"	4"
S5305	1'-5"	6"
S5306	1'-4"	1'-4 1/8"
S5307	1'-4"	1'-0"
S5402	1'-9"	6"
S5404	2'-1"	4"
S5502	1'-9"	6"
S5504	2'-1"	4"
S5505	1'-4"	6"
S5602	1'-9"	6"
S5603	1'-4"	6"
S5604	1'-6"	1'-4 1/2"
S5605	1'-6"	10"

TYPE 61

MARK	a	b	c		
S5101	5"	1'-4"	1'-7"		
S5201	5"	1'-4"	1'-7"		
S5301	5"	1'-4"	1'-7"		
S5303	5"	1'-0"	2'-1"		
S5401	5"	1'-4"	1'-7"		
S5403	5"	1'-0"	2'-1"		
S5501	5"	1'-4"	1'-7"		
S5503	5"	1'-0"	2'-1"		
S5601	5"	1'-4"	1'-7"		
S9701	5"	1'-4"	2'-11"		

TYPE 18

MARK	a	b
S5105	1'-0"	1'-0"
S5309	1'-0"	1'-0"
S5607	1'-0"	1'-0"

TYPE 21

MARK	a	b	c	d	e	f
S5103	1'-0"	1'-1"	5"	1'-0"	2'-9"	5"
S5203	1'-0"	1'-1"	5"	1'-0"	2'-9"	5"

TYPE 65

MARK	a	b	c
S5308	1'-0"	1'-4"	4"
S5606	1'-0"	1'-4"	4"

TYPE 14

MARK	a	b
S550	8"	2'-2"

TYPE 66

MARK	a	b	c
S551	8"	10"	1'-4"

TYPE 49

MARK	a	b	c	d	e	f
S702	2'-5"	1'-10 1/2"	1'-9"	1'-4"	6"	

TYPE 4

MARK	a	b	c	d	e
S552	2'-2"	1'-10"	1'-10"	2'-2"	2'-1"

TYPE 58

MARK	a	b	c	d	e	f	g	h	j
S708	1'-8"	2'-6"	3'-9"	9"	2'-9"	2'-9"	9"	3'-9"	2'-6"
H523	1'-8"	1'-9 1/2"	2'-7 1/2"	9"	1'-11"	1'-11"	9"	2'-7 1/2"	1'-9 1/2"

PIERS IW THRU 9W

TYPE 1

MARK	a	b
P4102	3'-2"	2'-3"
P4105	4'-8"	3'-0"
P4107	3'-7 1/2"	2'-5 1/2"
P4109	5'-2"	3'-2 1/2"
P4111	4'-8"	3'-0"
P4113	3'-2"	6"
P5101	1'-6"	2'-8"
P5102	1'-5"	2'-8"
P5103	1'-6"	3'-0"
P5104	1'-5"	3'-0"
P5105	2'-5"	2'-10"
P5106	2'-5"	3'-3"
P5107	1'-3"	2'-10"
P5108	1'-11"	2'-10"
P5109	1'-3"	3'-3"
P5110	1'-11"	3'-3"
P5111	5'-1"	6"
P5112	4'-7"	6"
P5113	4'-7"	6"
P5114	3'-8"	6"
P5115	3'-2"	1'-0"
P5116	1'-6"	2'-6"
P5117	1'-6"	2'-2"
P5118	1'-6"	1'-10"
P5119	1'-6"	1'-6"

TYPE 20

MARK	a	b	c	d	e
P7103	1'-6"	8'-5"	6'-4"	6'-2"	2'-3"
P7104	1'-10"	7'-4"	5'-5"	5'-1"	2'-3"
P7107	1'-6"	8'-10"	6'-9"	6'-7"	2'-3"
P7108	2'-3"	8'-10"	7'-0"	6'-7"	2'-3"
P7111	1'-6"	9'-1"	7'-0"	6'-10"	2'-3"
P7112	2'-3"	9'-1"	7'-2"	6'-10"	2'-3"

TYPE 33 Rad.= 11 1/4"

MARK	a	b	c	d
P18S101	2'-3"	17'-1"	16'-0"	1'-7 1/2"
P18S102	2'-3"	14'-3"	13'-2"	1'-7 1/2"

TYPE 43

MARK	a
P8104	9'-6"
P8111	14'-6"
P9101	9'-6"
P10109	13'-0"
P10112	14'-6"
P11116	14'-6"
P11123	16'-6"
P11127	13'-0"
P11128	16'-6"
P11129	20'-0"

TYPE 44

MARK	a
P10104	6'-6"
P10108	6'-0"
P10111	7'-0"
P11112	7'-4"
P11114	6'-10"
P11126	38'-8"

TYPE 26

MARK	a	b	c	d	e	f	g	h	j
P4101	9 1/2"	1'-7"	9 1/2"	1'-1 1/2"	9 1/2"	1'-6"	1'-1 1/2"	9 1/2"	1'-6"
P4103	7 1/2"	1'-10"	7 1/2"	1'-0"	9 1/2"	1'-6"	1'-0"	9 1/2"	1'-6"
P4104	10 1/2"	2'-11"	0 1/2"	1'-3"	10 1/2"	2'-1 1/2"	1'-3"	10 1/2"	2'-1 1/2"
P4106	11"	1'-8 1/2"	11"	1'-3 1/2"	11"	1'-6 1/2"	1'-3 1/2"	11"	1'-6 1/2"
P4108	1'-1"	3'-0 1/2"	1'-1"	1'-6"	1'-1"	2'-2"	1'-6"	1'-1"	2'-2"
P4110	1'-4"	2'-0"	1'-4"	1'-10 1/2"	1'-4"	1'-8"	1'-10 1/2"	1'-4"	1'-8"
P4112	1'-6 1/2"	1'-7"	1'-6 1/2"	2'-2"	1'-6 1/2"	1'-5 1/2"	2'-2"	1'-6 1/2"	1'-5 1/2"

TYPE 18

MARK	a	b
P1104	3'-2"	16'-5"
P1133	2'-11"	18'-8"
P1134	3'-2"	20'-0"
P1135	3'-2"	41'-9"
P1136	3'-2"	20'-10"

TYPE 18

MARK	a	b
P1160	2'-11"	19'-4"
P1162	2'-11"	15'-9"
P1163	2'-11"	18'-6"
P1164	2'-11"	41'-10"
P1165	2'-11"	24'-9"
P1166	3'-4"	27'-9"
P1169	3'-2"	32'-3"
P1170	3'-2"	24'-0"

PIERS IE THRU 9E

TYPE 1

MARK	a	b
P402	3'-2"	2'-3"
P403	3'-2"	6"
P406	3'-2"	2'-9"
P410	4'-8"	2'-11"
P411	5'-8"	3'-6"
P413	3'-2"	2'-6"
P501	2'-5"	3'-2"
P502	2'-5"	2'-5"
P503	2'-6"	2'-9"
P504	2'-6"	3'-5"
P505	1'-4 1/2"	3'-9"
P506	1'-4"	3'-9"
P507	1'-4"	2'-8"
P508	2'-1"	3'-3"
P509	2'-1"	2'-9"
P510	4'-7"	6"
P511	5'-7"	6"
P512	2'-5"	3'-9"
P513	2'-5"	2'-8"
P514	1'-4"	3'-3"
P515	1'-4"	2'-6"
P516	1'-9"	3'-3"
P517	1'-9"	2'-6"
P518	1'-8"	3'-9"
P519	3'-2"	1'-0"
P520	3'-8"	6"
P521	4'-3"	6"

TYPE 20

MARK	a	b	c	d	e
P705	2'-11"	11'-10"	10'-0"	9'-7"	2'-3"
P706	1'-6"	11'-10"	9'-8"	9'-7"	2'-3"
P709	1'-6"	10'-11"	8'-10"	8'-8"	2'-3"
P712	1'-6"	10'-1"	8'-0"	7'-10"	2'-3"
P716	2'-0"	9'-8"	7'-8"	7'-1"	2'-3"
P717	2'-9"	12'-1"	10'-3"	9'-10"	2'-3"
P718	2'-5"	10'-1"	8'-3"	7'-10"	2'-3"
P719	2'-10"	10'-11"	9'-2"	8'-8"	2'-3"
P720	1'-6"	9'-4"	7'-4"	7'-1"	2'-3"
P1104	2'-2"	13'-11"	10'-7"	10'-4"	3'-7"
P1155	3'-3"	13'-11"	10'-10"	10'-4"	3'-7"

TYPE 33 Rad.= 1'-6"

MARK	a	b	c	d	RAD.
P18S01	2'-3"	9'-9"	8'-7 1/2"	1'-7 1/2"	11 1/4"
P18S02	2'-3"	11'-5"	10'-3 1/2"	1'-7 1/2"	11 1/4"

TYPE 8

MARK	a	b	c
P414	2'-9"	5'-8"	3'-6"

TYPE 43

MARK	a
P707	8'-6"
P804	9'-6"
P805	11'-6"
P811	12'-6"
P814	13'-0"
P901	12'-6"
P902	13'-0"
P1013	11'-6"
P1014	9'-6"
P1017	17'-6"
P1019	13'-0"
P1150	16'-6"

TYPE 34 Rad.= 1'-6"

MARK	a	b	c	d	e	f
P1128	4'-5"	1'-6"	2'-5"	33-11"	32'-6"	2'-5"
P1157	4'-5"	1'-6"	2'-5"	10'-8"	8'-9"	8"

TYPE 44

MARK	a
P1003	6'-6"
P1007	6'-0"
P1119	6'-4"
P1126	7'-4"
P1149	7'-4"

TYPE 26

MARK	a	b	c	d	e	f	g	h	j
P401	9 1/2"	1'-7"	9 1/2"	1'-1 1/2"	9 1/2"	1'-6"	1'-1 1/2"	9 1/2"	1'-6"
P404	7 1/2"	1'-11"	7 1/2"	1'-2 1/2"	11"	1'-7"	1'-4 1/2"	11"	1'-7"
P405	9 1/2"	1'-7"	9 1/2"	1'-2 1/2"	11"	1'-10"	1'-2 1/2"	11"	1'-10"
P407	9 1/2"	1'-7"	9 1/2"	1'-0"	7 1/2"	1'-7"	1'-0"	7 1/2"	1'-7"
P408	10 1/2"	1'-5"	10 1/2"	1'-1"	7 1/2"	1'-7"	1'-1"	7 1/2"	1'-7"
P409	9 1/2"	2'-10 1/2"	9 1/2"	1'-0 1/2"	9 1/2"	2'-1"	1'-0 1/2"	9 1/2"	2'-1"
P412	1'-0"	3'-8"	1'-0"	1'-5"	1'-0"	2'-6"	1'-5"	1'-0"	2'-6"

TYPE 56

MARK	a	b	c	d	e
P416	2'-3"	3'-0"	2'-9"	1'-8"	2'-4"
P417	1'-0"	4'-3"	1'-3"	9"	3'-3"
P418	1'-4 1/2"	1'-3"	2'-3"	1-9 1/4"	1'-3"
P419	8 1/2"	1'-3"	1'-2"	11"	1'-3"

TYPE 67 Rad.= 1'-6"

MARK	a	b	c	d	e	f
P1015	2'-2"	1'-7 1/2"	2'-5"	25'-3"	23'-10"	2'-1"
P1016	4'-0"	1'-9"	2'-5"	24'-3"	22'-6"	8"

TYPE 54

MARK	a	b	c	d	e	f
P415	1-8 1/2"	4'-10"	3'-11 1/2"	2'-9 1/2"	1'-7"	3'-6"

SOUTH ABUTMENT A

TYPE 1

MARK	a	b
A551	3'-5"	1'-3"

TYPE 7

MARK	a	b	c	d	e
A651	11"	10'-2"	2'-6"	1'-5"	8'-10"

TYPE 14

MARK	a	b
A575	8"	4'-2"
A584	8"	2'-2"

TYPE 44

MARK	a
A652	9'-4"
A653	7'-4"

TYPE 4

MARK	a	b	c	d	e
A654	1'-5"	9'-7"	2'-6"	1'-5"	10'-2"

TYPE 18

MARK	a	b	MARK	a	b	MARK	a	b
A555	1'-1 1/2"	7'-9"	A577	1'-1 1/2"	11'-9"	A856	1'-2 1/2"	9'-4"
A556	1'-1 1/2"	8'-0"	A578	1'-1 1/2"	10'-0"	A857	1'-2 1/2"	9'-8"
A557	1'-1 1/2"	8'-4"	A579	1'-1 1/2"	10'-4"	A860	1'-2 1/2"	10'-0"
A558	1'-1 1/2"	8'-8"	A580	1'-1 1/2"	10'-8"	A861	1'-2 1/2"	10'-4"
A559	1'-1 1/2"	9'-0"	A581	1'-1 1/2"	11'-0"	A862	1'-2 1/2"	10'-8"
A560	1'-1 1/2"	9'-4"	A582	1'-1 1/2"	11'-5"	A863	1'-2 1/2"	11'-0"
A561	1'-1 1/2"	9'-8"	A861	1'-2 1/2"	7'-9"	A864	1'-2 1/2"	11'-5"
A562	3'-0 1/2"	1'-8"	A852	1'-2 1/2"	8'-0"	A865	1'-2 1/2"	11'-9"
A564	2'-0 1/2"	1'-8"	A853	1'-2 1/2"	8'-4"			
A573	3'-0 1/2"	1'-8"	A354	1'-2 1/2"	8'-8"			
A574	1'-11"	1'-6 1/2"	A855	1'-2 1/2"	9'-0"			

TYPE 19

MARK	a	b	c	d
A751	11'-9"	11'-9"	7 3/8"	1'-2"

SOUTH ABUTMENT B

TYPE 1

MARK	a	b
A5101	3'-8"	1'-5"
A5102	2'-7"	1'-5"
A5125	1'-8"	1'-2"
A7101	1'-2"	11'-2"

TYPE 7

MARK	a	b	c	d	e
AG101	11"	9'-6"	2'-6"	1'-5"	8'-2"

TYPE 18

MARK	a	b
A5103	1'-1 1/2"	9'-0"
A5104	1'-1 1/2"	8'-8"
A5110	3'-4 1/2"	2'-0"
A6102	1'-2"	8'-8"
A6103	1'-2"	9'-0"

TYPE 35

MARK	a	b
A5112	3'-0"	2'-6"

TYPE 44

MARK	a
A6106	7'-4"

TYPE 66

MARK	a	b	c
A5123	8"	10"	1'-4"

TYPE 4

MARK	a	b	c	d	e
A6104	10"	10'-3"	2'-6"	10"	10'-10"
A6108	1'-5"	8'-11"	2'-6"	1'-5"	9'-6"

TYPE 14

MARK	a	b
A5116	10"	3'-2"

NORTH ABUTMENT

TYPE 18

MARK	a	b	MARK	a	b
A504	1'-1 1/2"	14'-1"	A533	1'-1 1/2"	10'-6"
A505	1'-1 1/2"	13'-10"	A603	1'-2"	10'-1"
A506	1'-1 1/2"	13'-7"	A604	1'-2"	9'-10"
A507	1'-1 1/2"	13'-4"	A605	1'-2"	9'-7"
A508	1'-1 1/2"	13'-1"	A606	1'-2"	9'-4"
A511	1'-11"	1'-6"	A607	1'-2"	9'-2"
A514	3'-0"	2'-0"	A608	1'-2"	8'-11"
A518	2'-0"	2'-0"	A609	1'-2"	8'-6"
A519	1'-1 1/2"	10'-1"	A701	1'-2"	11'-2"
A520	1'-1 1/2"	9'-10"	A902	1'-3"	9'-3"
A521	1'-1 1/2"	9'-7"	A903	1'-3"	14'-1"
A522	1'-1 1/2"	9'-4"	A904	1'-3"	13'-10"
A523	1'-1 1/2"	9'-2"	A905	1'-3"	13'-7"
A524	1'-1 1/2"	8'-11"	A906	1'-3"	13'-4"
A525	1'-1 1/2"	8'-6"	A907	1'-3"	13'-1"

TYPE 1

MARK	a	b
A516	3'-5"	1'-3"

TYPE 14

MARK	a	b
A510	8"	4'-2"
A529	8"	2'-2"

TYPE 19

MARK	a	b	c	d
A908	14'-4"	14'-4"	9"	1'-3"
A909	9'-3"	9'-3"	5 3/4"	1'-3"

TYPE 7

MARK	a	b	c	d	e
AG01	11"	9'-9"	2'-6"	1'-5"	8'-5"

TYPE 15

MARK	a	b	c	d	e	f
A536	1'-4"	1'-6"	1'-6"	8"	1'-8"	1'-6"

TYPE 20

MARK	a	b	c	d	e
A611	2'-8"	4'-7"	3'-9"	2'-8"	1'-11"

TYPE 4

MARK	a	b	c	d	e
AG12	1'-5"	9'-2"	2'-6"	1'-5"	9'-9"

PIERS 1B & 2B

TYPE 26

MARK	a	b	c	d	e	f	g	h	j
P4202	9 1/2"	1'-7"	9 1/2"	1'-1 1/2"	9 1/2"	1'-6"	1'-1 1/2"	9 1/2"	1'-6"

TYPE 44

MARK	a
P10202	6'-6"

TYPE 20

MARK	a	b	c	d	e
P7203	1'-9"	12'-4"	10'-3"	10'-1"	2'-3"
P7204	2'-5"	12'-4"	10'-4"	10'-1"	2'-3"
P7206	1'-9"	10'-7"	8'-6"	8'-4"	2'-3"
P7207	2'-6"	10'-7"	8'-8"	8'-4"	2'-3"

TYPE 43

MARK	a
P7201	8'-6"
P9201	10'-6"
P11206	12'-6"

TYPE 1

MARK	a	b
P4201	3'-2"	2'-3"
P4203	3'-2"	6"
P5201	1'-6"	3'-5"
P5202	1'-8"	3'-5"
P5203	3'-2"	1'-0"
P5204	1'-6"	3'-0"
P5205	1'-8"	3'-0"

TYPE 18

MARK	a	b
P11207	3'-2"	27'-6"
P11208	3'-2"	23'-8"

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

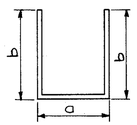
REINFORCING STEEL LIST

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	L.M.H. 2-2-65		RLF RLC 5-10-65	JHO 3/22/65	7-30-65

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAM-71-1.30

193
210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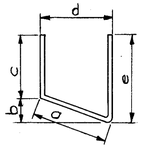
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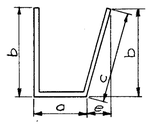
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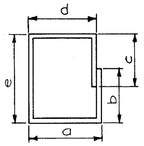
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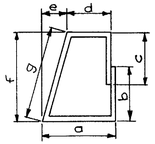
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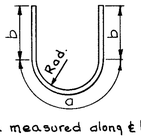
a measured along ℄ bar
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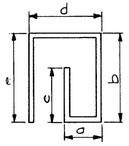
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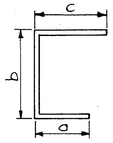
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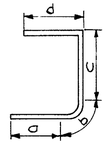
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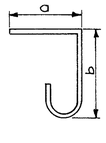
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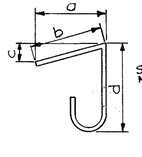
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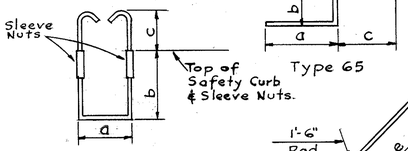
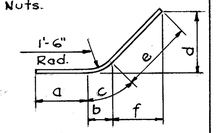


Type 66

Type 65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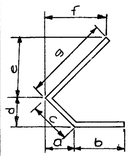
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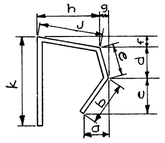
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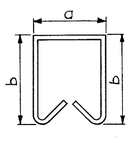
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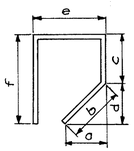
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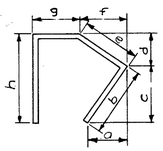
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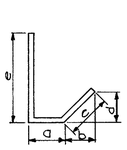
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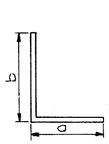
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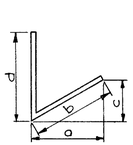
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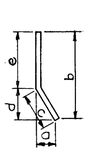
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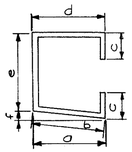
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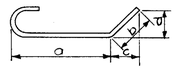
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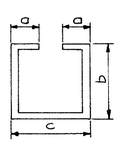
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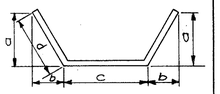
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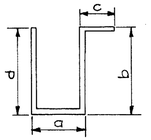
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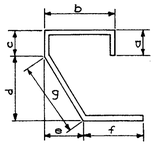
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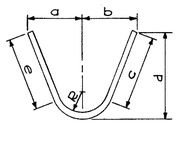
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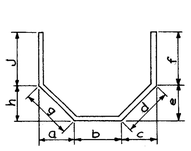
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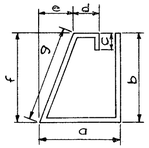
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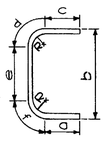
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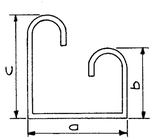
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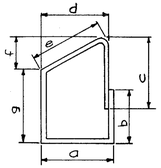
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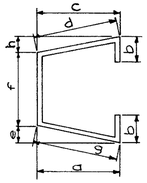
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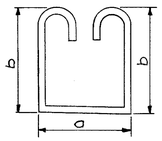
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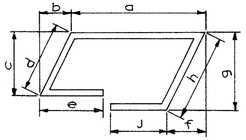
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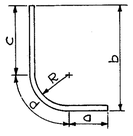
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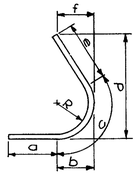
Type 34

Type 35

Type 36

Type 37

Type 38

Type 39

Type 40

Type 41

Type 42

Type 43

Type 44

Type 45

Type 46

Type 47

Type 48

Type 49

Type 50

Type 51

Type 52

Type 53

Type 54

Type 55

Type 56

Type 57

Type 58

Type 59

Type 60

NOTES

Bars shall be carefully shaped to the pertinent dimensions shown in table I Standard Bends Sheet 212 of the State of Ohio Construction and Material Specifications, unless otherwise indicated above.

Bar size is indicated in the bar mark. The first digit in bar mark beginning with numbers 4 thru 9 indicate the bar size. The first two digits in bar marks beginning with numbers 10 or 11 indicate the bar size.

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CINCINNATI, OHIO

BAR BENDING SCHEDULE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	M.C.P		JHO 2/3/65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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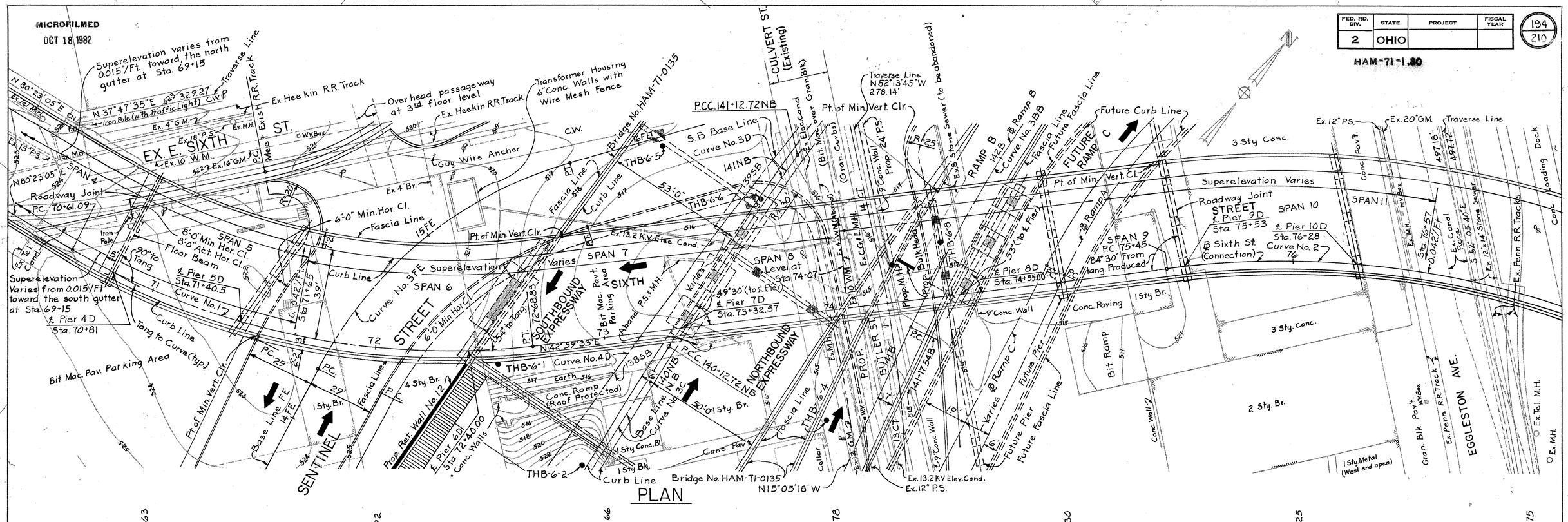
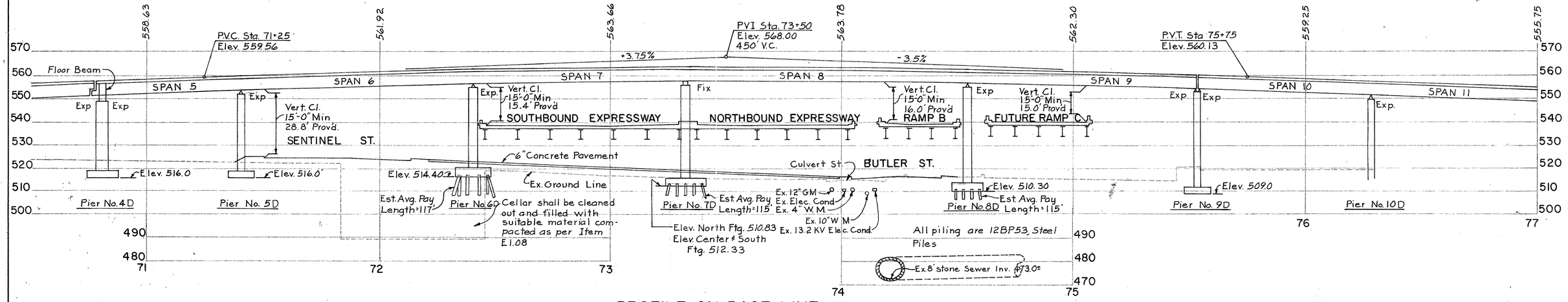
PLAN





PROFILE ON BASE LINE

DESIGN SPECIFICATIONS

This structure conforms to the requirements of "Design Specifications for Highway Structures," of the State of Ohio, Department of Highways, dated 9-1-57 together with revisions thereof.

NOTES

Piers 6, 7, and 8 shall be constructed under this contract. The remaining portions of the bridge will be constructed under a future contract.
Piers 5 and 6 are parallel.
Piers 9 and 10 are parallel.
• Symbol denotes drill hole.
For Test Boring Data, see sheet 121 Thru 124
For Bench Marks, see sheet 35

CURVE DATA

CURVE NO. 1
P.I. Sta. 71+68.81 R=318.31'
Δ=37°23'32" L=207.74'
D=18°00' T=107.72'

CURVE NO. 2
P.I. Sta. R=381.97'
Δ= L=
D=15°00' T=

FUTURE STRUCTURE

TYPE: Continuous Welded Plate Girder with reinforced concrete deck and substructure.
SPANS: 595', 100.0', 92.5', 122.0', 109.0' (Span 5 through Span 9) ℄ Brg. measured along base line.
ROADWAY: 42'-0" ℄ Curbs with a 1'-0" Curb on the South Side and a 6'-0" Sidewalk on the North Side.
LOAD FREQUENCY: CF=2000(57) Adequate for AASHO alternate loading.
SKEW: Varies, see plan
WEARING SURFACE: 1" Monolithic Concrete
ALIGNMENT: Varies, see plan
SUPERELEVATION: Varies, see plan

1984 Traffic Count ATD = 18,400 DHV = 1,920

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SITE PLAN
BRIDGE No. HAM-471-0044
SIXTH STREET CONNECTION OVER SOUTHBOUND I-471

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	A.L.T.	A.L.T.	M.A.Z.	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	PIER 6D	PIER 7D	PIER 8D	
E-2	496	Cu. Yds.	Unclassified Excavation	180	160	156	
S-1	370	Cu. Yds.	Class 'C' Concrete, Piers above Footings	158.0	106	106	
S-1	257	Cu. Yds.	Class 'E' Concrete, Footings	69.0	122	66	
S-4	167,421	Lbs.	Reinforcing Steel	46,457	84,740	36,224	
S-18	14,930	Lin..Ft.	Steel Piles, 12BP53	3840	6,570	4,520	

GENERAL NOTES

PILES: Since the structures of this project are to be constructed in a metropolitan area where there are numerous areas in which buildings have been dismantled and the existing basements filled with boulders, gravel, bricks and other random debris, the Contractor shall use augering, spudding or whatever means are necessary to permit the piles to be driven without damaging them whenever the above conditions are encountered.

REINFORCING STEEL COVERAGE shall be 3 inches in footings and 2 inches above footings to face of concrete for substructure

STEEL PILES. Piles shall be driven with a hammer of not less than 11,000 ft. lbs per blow to firm contact in shale or limestone. If the length of penetration is approximately equal to the depth of shale or limestone according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-1805 is not less than the following value for a pile hammer of the indicated energy rating:

60 Tons per pile using a 15,000 ft. lb hammer
65 Tons per pile using an 11,000 ft. lb hammer

If the energy rating of the hammer is between the rating as-shown above, the required formula capacity shall be determined by interpolation.

The design load is 50 Tons per pile. Steel 'H' Piles (12BP53) shall be used.

Item S-16, First Test Pile and Item S-17, First Pile Test Load: See note on Sheet No. 117.

Design Loading	CF 2000 (57)
Concrete Class C	Basic unit stress 1,333 psi.
Concrete Class E	Basic unit stress 1,133 psi.
Reinforcing Steel	ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 psi.

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ESTIMATED QUANTITIES & GENERAL NOTES

BRIDGE NO. HAM-471-0044

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	WES 3-1965		CSB 3-1965	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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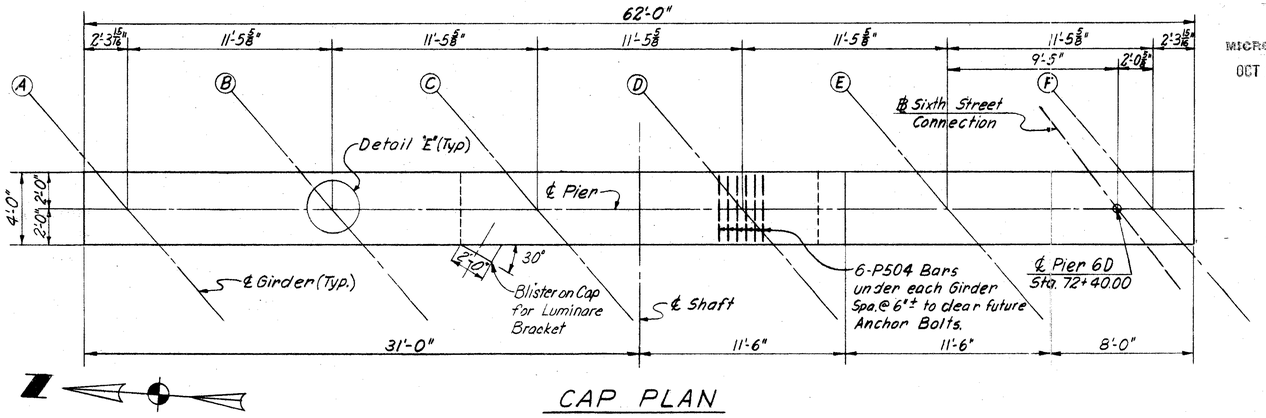
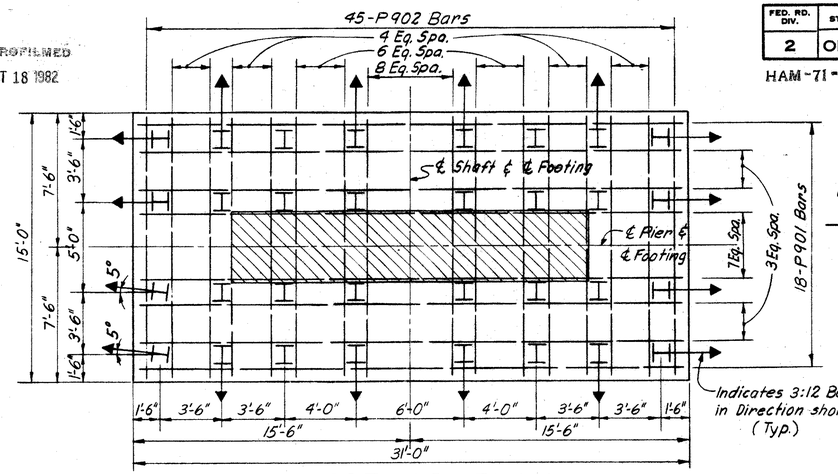
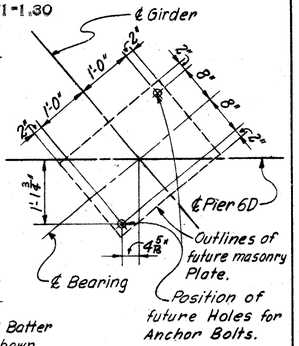


CAP PLAN

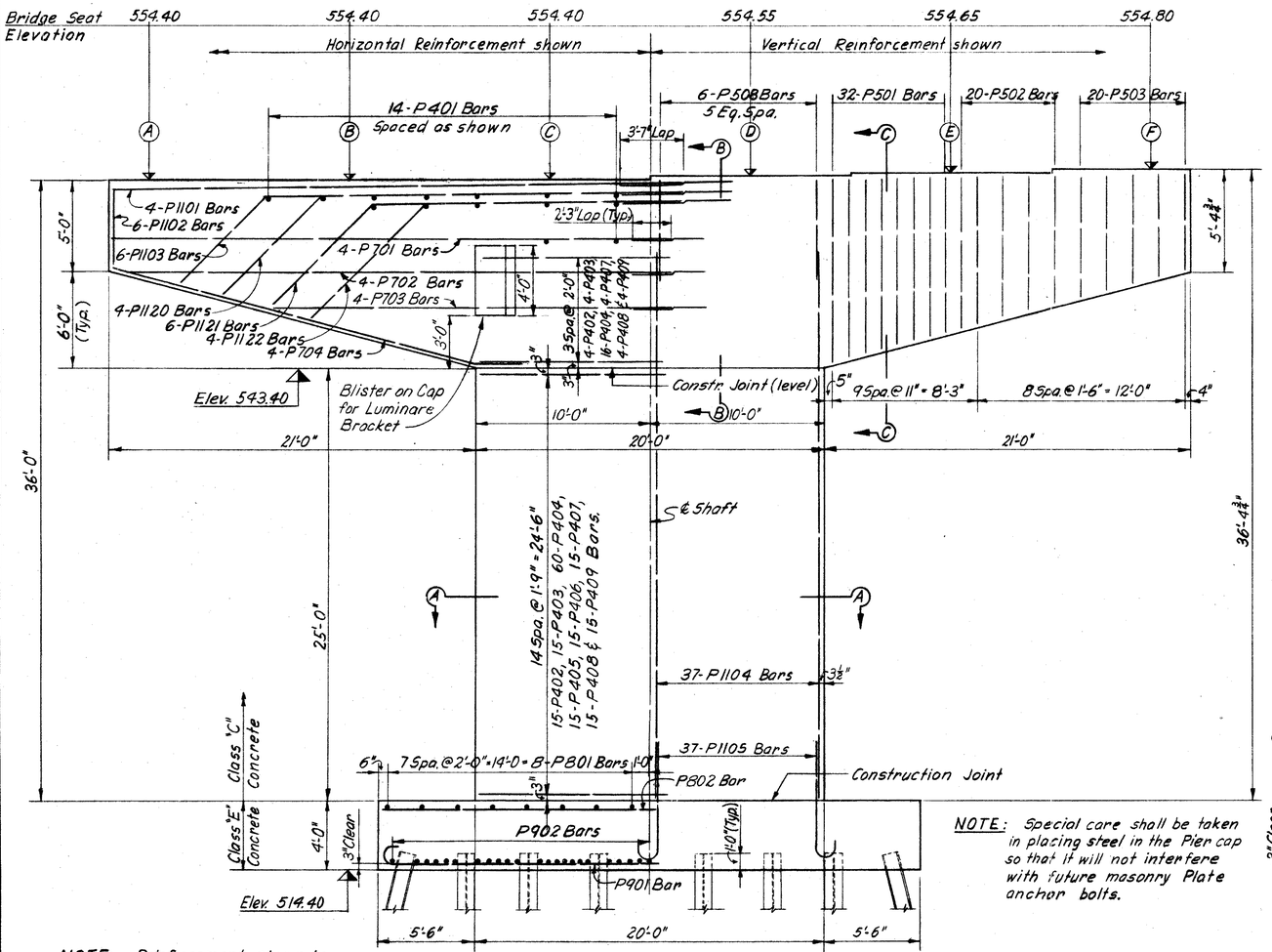


FOOTING PLAN

Bottom Reinforcement shown



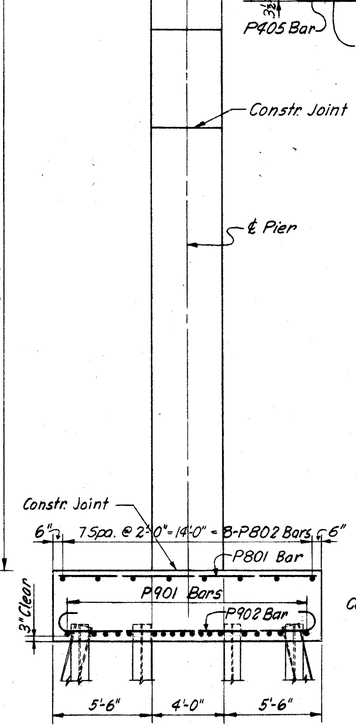
DETAIL "E"



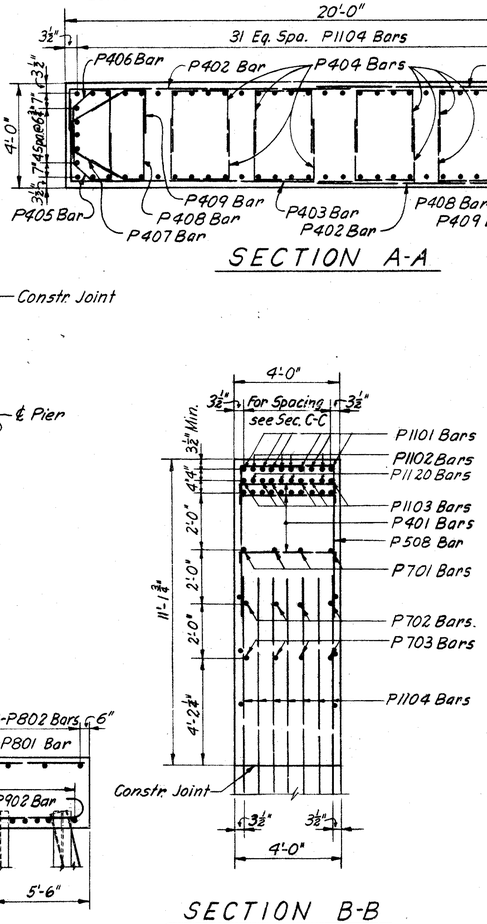
ELEVATION

NOTE: Reinforcement shown in Elevation is for half the Pier the other half is identical.

NOTE: Special care shall be taken in placing steel in the Pier cap so that it will not interfere with future masonry Plate anchor bolts.

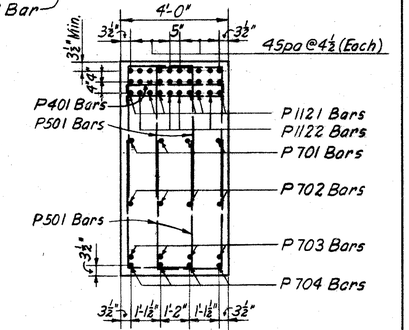


END ELEVATION



SECTION A-A

SECTION B-B



SECTION C-C

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CINCINNATI, OHIO

PIER 6D

BRIDGE NO. HAM-471-0044

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DMB	HAS 2-15-65		RL 2-18-65	JHH 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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MICROFILMED
OCT 18 1982

62'-0"
31'-0"
22'-11¼"
8'-0¾"
See Detail E (Typ.)
4'-0"
2'-0"
2'-0"
℄ Pier
℄ Sixth Street Connection
℄ Girder (Typ.)
2'-3⅛"
4 Spa. @ 11'-5⅝" = 45'-10½"
℄ Pier 7D Sta. 73+32.57
℄ Sixth Street Connection 9'-8"
1'-9⅛"
2'-3⅛"
A B C D E F
6-P504 Bars under each Girder. Spa. @ 6" ± to clear anchor bolts.

CAP PLAN

End of Cap
P1114 Bars
℄ Col.
2'-0" 4'-7" 5'-2" 2'-0"

DETAIL F
(Drawn for North Col., South Col. opposite hand)

Bridge Seat Elevations
A 555.35 B (Girders A to C) C 555.45 D (Girders D & E) E 555.60 F

372-P507 Bars
5" 11@7"=6'-5" 5" 3" 5@6½"=2'-6" 9@1'-3"=11'-3" 4@10½"=3'-6" 3" 3" 4@10½"=3'-6" 9@1'-3"=11'-3" 5@6½"=2'-6" 3" 5" 11@7"=6'-5" 5"
10-P401 Bars Spa. as shown
End of P1113 Bars (Typ)
8'-4"
9-P1113 Bars
5-P1114 Bars (See Detail F)
5-P1112 & 4-P1123 Bars
9-P1112 Bars
8-P708 Bars
5-P1115 Bars
4-P707 Bars
Const. Jt. (Typ.)
Level-El 550.35
3'-6" 1'-6" 3'-9" 1'-6"
7'-3" 4'-0" 17'-9" 4'-0" 17'-9" 4'-0" 7'-3"
39'-6½" 34'-6½"
5'-0"

Position of Future Holes for Anchor Bolts
2" 9½" 9½" 2" 2½"
49°-43'-23"
℄ Pier
℄ Brg.
Outline of future masonry pl.
1'-1½" 1'-1½"
2"
℄ Girder
For welding specifications see note on Sht. No. 199

DETAIL E

East Col. Pier 1W
23'-10"
17'-5" 4'-0" 2'-5"
11" 11 Spa. @ 2'-0" = 22'-0" 11"
12-P809 Bars
24-P1118 Bars
28-P18S03 Bars
P810 Bars
P1116 Bars
El. 510.83
5'-0"
51-P1117 Bars

4'-0"
3¾" 7@5¾"=3'-4½" 3¾"
P18S Bars
4'-0"
P412 Bars
P411 Bars
SECTION C-C

13'-6"
4'-9" 4'-0" 4'-9"
Const. Jt. (Typ.)
Class "C" Concrete
Class "E" Conc.
1'-0"
El. 512.33
4" For P412 Bars
6" For P411 Bars
54 Spa. @ 7½"=33'-9"
110-P412 Bars & 108-P411 Bars (Typ. all Cols.)
9" 6 Spa. @ 2'-0"=12'-0" 9"
7-P808 Bars
28-P18S02 Bars (Typ. Center & South Col.)
P808 Bars
P811 Bars
3"Clr.
3'-6"
16-P1003 Bars

28-P18S01 Bars (Typ.)
Welded splice (Typ.) See note on Sht No 199
34'-6½"
39'-9½"

ELEVATION
(Footing Dimensions and Reinforcement are Typical For Center & South Footing)

Indicates 3:12 Batter in Direction Shown (Typ)
23'-10"
1'-6" 5 Spa. @ 4'-2"=20'-10" 1'-6"
10° (Typ)
℄ Footing
6'-6⅞" 5'-2¾" 7'-6" 4'-5"
4 Eq Spa.
℄ Pier 7D
3'-0"
5'-3¼"
℄ Footing
49°-09'-10"
℄ East Col.
℄ Pier 1W
4@3'-6"=14'-0"
17'-0"
1'-6"
P1116 Bars
8 Eq Spa
P1117 Bars

NORTH FOOTING PLAN
(Bottom Reinforcement Shown)

13'-6"
1'-6" 6 Spa. @ 1'-9"=10'-6" 1'-6"
℄ Col.
10°
2 Eq Spa. 3'-6"
2 Eq Spa. 1'-9"
℄ Pier 7D
P811 Bars
3°
15°
45° (Typ. for South Ftg.)
P1003 Bars

FOOTING PLAN
(Typical for Center & South Col.)
(Bottom Reinforcement Shown)
(Solid Arrow shows direction of batter for Center Ftg. & Dotted Line for South Ftg.)

4'-0"
Const. Jt.

4'-0"
3½" 7" 6@4½"=2'-3" 7" 3½"
3½" Min.
P1112 Bars
P507 Bars
P708 Bars
P1115 Bars
SECTION B-B

4'-0"
3½" 7" 6@4½"=2'-3" 7" 3½"
3½" Min.
P1112 Bars
P1123 Bars
P1113 Bars
P1114 Bars
P401 Bars
P707 Bars
SECTION A-A

17'-0"
9'-6" 4'-0" 3'-6"
6"
8 Spa. @ 2'-0"=16'-0"
9-P810 Bars
P-809 Bars
P-1117 Bars
24-P1116 Bars
SECTION D-D

13'-6"
4'-9" 4'-0" 4'-9"
9" 6 Spa. @ 2'-0"=12'-0" 9"
7-P808 Bars
Const. Jt.
P808 Bars
P1003 Bars
12-P811 Bars

END ELEVATION
(Typ. for Center & South Col.)

NOTES:
Special care shall be taken in placing steel in the pier cap so that it will not interfere with the masonry plate anchor bolts.
All piles shall be Steel H12BP53.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER 7D

BRIDGE NO. HAM-471-0044

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DMB	CKB 2-16-65		Jag 2-18-65	JHo 3/22/65	

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FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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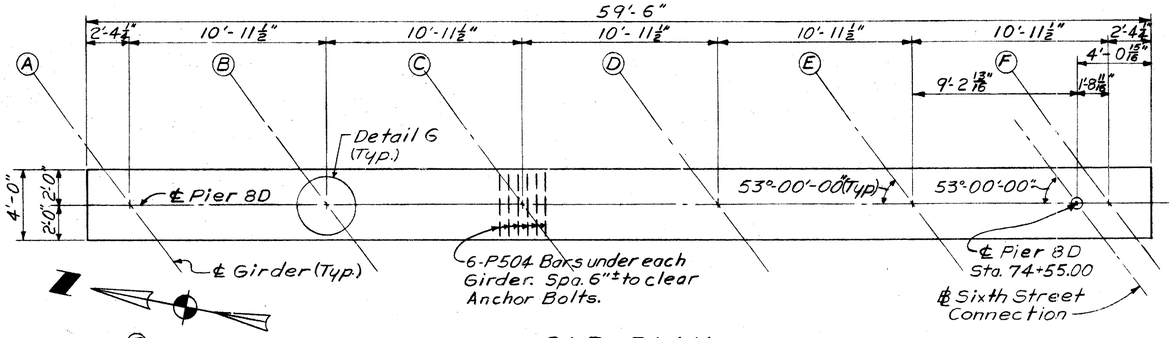
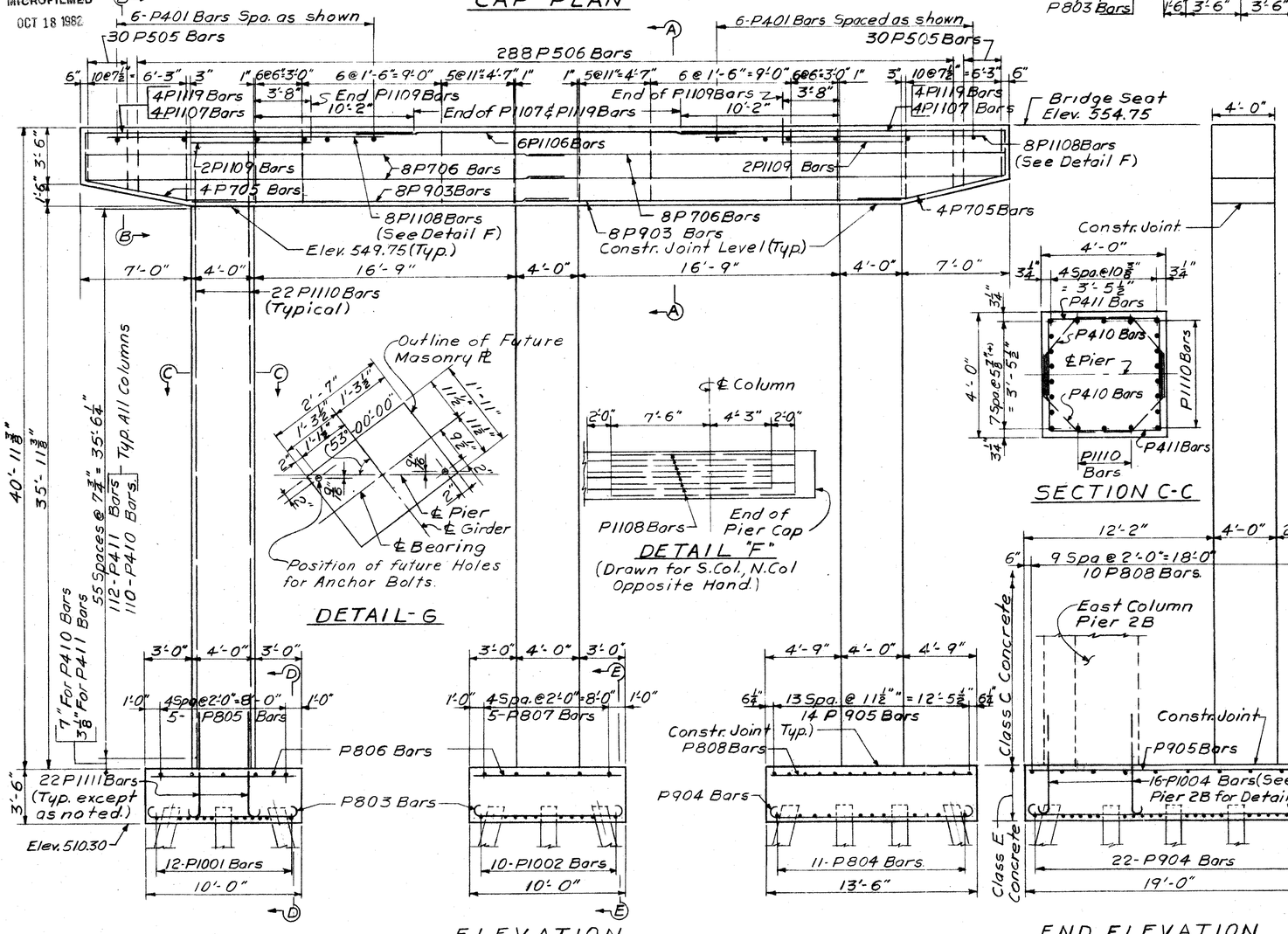


CAP PLAN



DETAIL-G

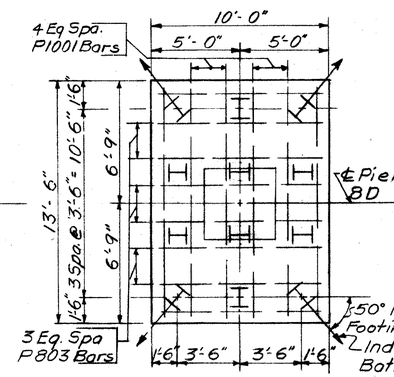
ELEVATION

DETAIL "F"

(Drawn for S.Col., N.Col Opposite Hand.)

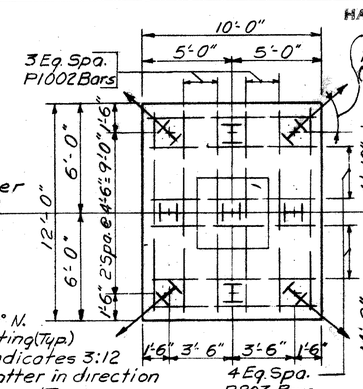
END ELEVATION

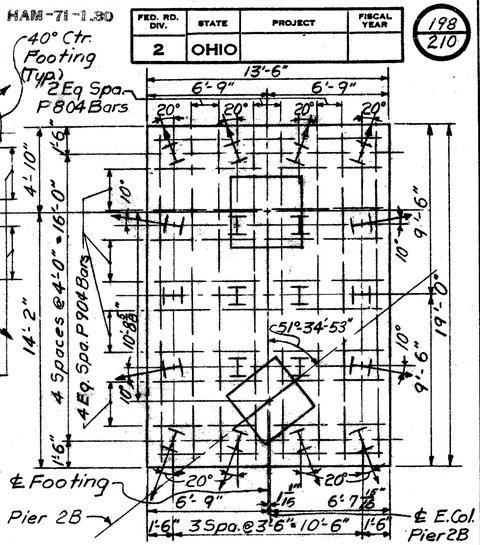
(Showing South Footing)

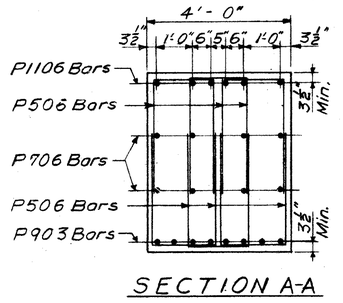


PLAN OF FOOTINGS

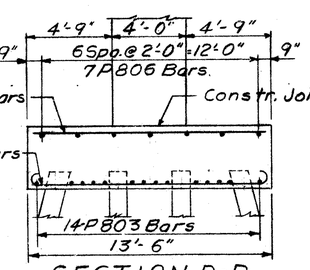
(Bottom Reinforcement Shown.)



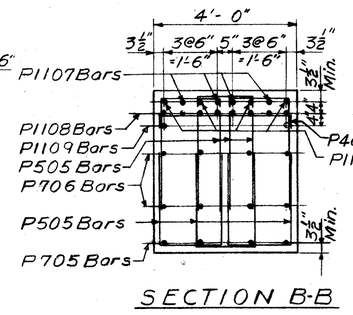




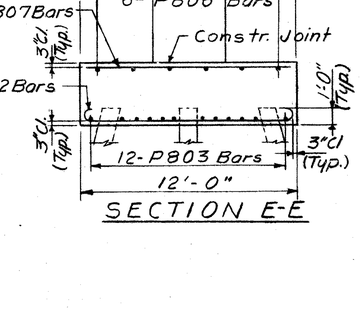
SECTION A-A



SECTION D-D



SECTION B-B



SECTION E-E

NOTES.

All piles shall be Steel H12BP53

Special care shall be taken in placing steel in the pier cap so that it will not interfere with the masonry plate anchor bolts.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

PIER 8D

BRIDGE NO. HAM-471-0044

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RLC	MDC 2-16-65		RLC 2-18-65	JHO 3/22/65	

FED. RD. DIV.	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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HAM-71-1.80

MARK	LENGTH	TYPE	NUMBER 6D	7D	8D	TOTAL	WEIGHT
P401	4'-5"	1	28	20	12	60	177
P402	12'-8"	18	38			38	322
P403	14'-2"	18	38			38	360
P404	7'-0"	1	152			152	711
P405	5'-1"	54	30			30	102
P406	6'-7"	54	30			30	132
P407	4'-10"	62	38			38	123
P408	5'-8"	17	38			38	144
P409	4'-2"	17	38			38	106
P410	7'-4"	26			330	330	1,617
P411	8'-5"	1		324	336	660	3,711
P412	7'-6"	26		330		330	1,653
P501	14'-8"	1	64			64	9,790
P502	12'-10"	1	40			40	535
P503	11'-0"	1	40			40	459
P504	5'-5"	1	36	36	36	108	610
P505	6'-9"	1			60	60	422
P506	7'-8"	1			288	288	2,303
P507	7'-7"	1		372		372	2,942
P508	15'-5"	1	12			12	193
P701	32'-0"	Str.	8			8	523
P702	31'-0"	Str.	8			8	507
P703	23'-0"	Str.	8			8	376
P704	24'-3"	20	8			8	397
P705	9'-2"	20			8	8	150
P706	30'-8"	Str.			16	16	1,003
P707	9'-5"	20		8		8	154
P708	31'-10"	Str.		16		16	1,041
P801	14'-6"	Str.	16			16	619
P802	30'-6"	Str.	8			8	651
P803	11'-8"	43			26	26	810
P804	20'-8"	43			11	11	607
P805	13'-0"	Str.			5	5	174
P806	9'-6"	Str.			13	13	330
P807	11'-6"	Str.			5	5	154
P808	13'-0"	Str.		28	10	38	1,319
P809	16'-6"	Str.		12		12	529
P810	23'-4"	Str.		9		9	561
P811	15'-2"	43		24		24	972
P901	33'-0"	43	18			18	2020
P902	17'-0"	43	45			45	2601
P903	24'-2"	Str.			16	16	1,315
P904	15'-6"	43			22	22	1,159
P905	18'-6"	Str.			14	14	881
P1001	15'-10"	43			12	12	818
P1002	14'-4"	43			10	10	617
P1003	15'-10"	43		32		32	2,180
P1004	7'-11"	44			16	16	545

MARK	LENGTH	TYPE	NUMBER 6D	7D	8D	TOTAL	WEIGHT
P1101	32'-8"	Str.	8			8	1,388
P1102	37'-1"	18	12			12	2,364
P1103	30'-10"	20	12			12	1,966
P1104	31'-6"	Str.	74			74	12,385
P1105	8'-11"	44	74			74	3,506
P1106	24'-4"	Str.			6	6	776
P1107	21'-0"	Str.			8	8	893
P1108	13'-9"	Str.			16	16	1,169
P1109	7'-8"	Str.			4	4	163
P1110	39'-7"	Str.			66	66	13,880
P1111	8'-5"	44			66	66	2,951
P1112	22'-11"	Str.		19		19	2,313
P1113	19'-3"	Str.		18		18	1,841
P1114	11'-9"	Str.		10		10	624
P1115	25'-7"	Str.		10		10	1,359
P1116	26'-6"	43		24		24	3,379
P1117	18'-8"	43		51		51	5058
P1118	9'-9"	44		24		24	1,243
P1119	23'-10"	18			8	8	1,013
P1120	28'-7"	20	8			8	1,215
P1121	26'-1"	20	12			12	1,663
P1122	23'-10"	20	8			8	1,013
P1123	25'-9"	18		8		8	1,094
P18S01	22'-0"	Str.		84		84	25,133
P18S02	24'-11"	33		28		28	9,488
P18S03	26'-5"	33		56		56	20,199
Pier Total Wts.			46,457	84,740	36,224		
Total Weight Steel Reinforcement							167,421

	MARK	a	b	c	d	R
TYPE 33	P18S02	2'-6"	20'-9"	19'-6 3/8"	1'-7 1/2"	11 1/2"
	P18S03	2'-6"	22'-3"	21'-0 3/8"	1'-7 1/2"	11 1/2"

	MARK	a	b	c	d	e	f
TYPE 1	P401	3'-7 1/2"	0'-6"				
	P404	2'-1 1/2"	2'-6"				
	P411	3'-8"	2'-5 1/2"				
	P501	2'-7"	6'-0"				
	P502	2'-7"	5'-3"				
	P503	2'-7"	4'-4"				
	P504	3'-8"	1'-0"				
	P505	1'-8 1/8"	2'-8"				
	P506	1'-8 1/8"	3'-1 1/8"				
	P507	1'-8"	3'-1 1/8"				
	P508	3'-8"	6'-0"				
TYPE 17	P408	9 1/8"	1'-6 1/8"	1'-10"	1'-0"	3'-3"	
	P409	9 1/8"	1'-6 1/8"	1'-10"	1'-0"	1'-9"	
TYPE 18	P402	11'-0"	1'-9"				
	P403	11'-0"	3'-3"				
	P1102	32'-8"	4'-9"				
	P1119	3'-2"	21'-0"				
	P1123	3'-2"	22'-11"				
TYPE 20	P704	6'-0"	23'-4"	21'-9"	20'-10"	2'-6"	
	P705	1'-6"	9'-0"	6'-11"	6'-9"	2'-3"	
	P707	1'-6"	9'-3"	7'-2"	7'-0"	2'-3"	
	P1103	4'-11 1/8"	28'-9 3/8"	7'-0"	4'-11 3/8"	23'-10"	
	P1120	5'-6"	26'-4"	7'-9"	5'-6"	20'-10"	
	P1121	5'-10"	23'-8"	8'-3"	5'-10"	17'-10"	
	P1122	6'-4 1/2"	21'-2 5/8"	9'-0"	6'-4 1/2"	14'-10"	
TYPE 26	P410	11"	1'-10"	11"	1'-4"	1 1/2"	1'-6"
	P412	1'-0"	1'-8"	1'-0"	1'-5"	1'-0"	1'-6"
TYPE 43	P803	9'-6"					
	P804	18'-6"					
	P811	13'-0"					
	P901	30'-6"					
	P902	14'-6"					
	P904	13'-0"					
	P1001	13'-0"					
	P1002	11'-6"					
	P1003	13'-0"					
	P1116	23'-4"					
	P1117	16'-6"					

	MARK	a	b	c	d	e	f
TYPE 44	P1004	6'-6"					
	P1105	7'-4"					
	P1111	6'-10"					
	P1118	8'-2"					
TYPE 54	P405	9 1/8"	11"	8"	7 1/8"	1'-10"	1'-9"
	P406	9 1/8"	11"	8"	7 1/8"	1'-10"	3'-3"
TYPE 62	P407	1'-6 1/2"	1'-0"	1'-4"	1'-10"		

For bent bar types see "BAR BENDING SCHEDULE" Sht. No. 193 of Bridge No. HAM-71-0135

REPLACEMENT BARS			
MARK	LENGTH	TYPE	TOTAL
RE401	5'-3"	Str.	1
RE501	5'-7"	Str.	1
RE701	6'-3"	Str.	1
RE801	6'-6"	Str.	1
RE901	6'-10"	Str.	1
RE1001	7'-3"	Str.	1
RE1101	7'-7"	Str.	4
RE18S01	11'-6"	Str.	3

Note:
18S Bars in Pier 7D are to be spliced by welding in the shop or field. The Contractor shall submit his proposed welding procedure to the Engineer for approval. The proposed welding procedure shall include the typical chemical analysis for the reinforcing steel, end preparation of the bars, welding electrode specification and size, welding current, preheat or postheat, and any other characteristics to fully prescribe the welding procedure. The welding procedure shall be qualified by tests substantially in accordance with Appendix D, Part I of the AWS 1963 Specifications for Welded Highway and Railway Bridges. The qualification test shall demonstrate that the ultimate strength of the welded joint is not less than that of the base metal of the reinforcing bars.

HAZELET & ERDAL
CONSULTING ENGINEERS
CINCINNATI, OHIO

REINFORCING STEEL LIST

BRIDGE NO. HAM-471-0044

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	W.R.T. 2-16-65		M.D.C. 3-17-65	JHo 3/22/65	