No PID
C No. 580079

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

ASD-1-3.52

MONTGOMERY TOWNSHIP
ASHLAND COUNTY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-1105(31)	

1/394

ACI-1105(31)

ASHLAND COUNTY
ASD-1-3.52

Federal Project No. I-1105(31) appearing throughout these plans shall be considered to read ACI-1105(31)

LIMITED ACCESS

This improvement is especially designed for through traffic and has been declared a limited access highway or freeway by action of the Director of Highways in accordance with the provisions of Section 5511.02 of the Revised Code of Ohio.

CONVENTIONAL SIGNS

State Line
County Line
Township Line
Section Line
Center Line
Corporation Line
Fence Line
Guard Rail (Existing)
Guard Rail (Proposed)
Steam Railroad
Power Poles
Telephone Poles
Trees (Existing)

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Montgomery Township 56	145-153
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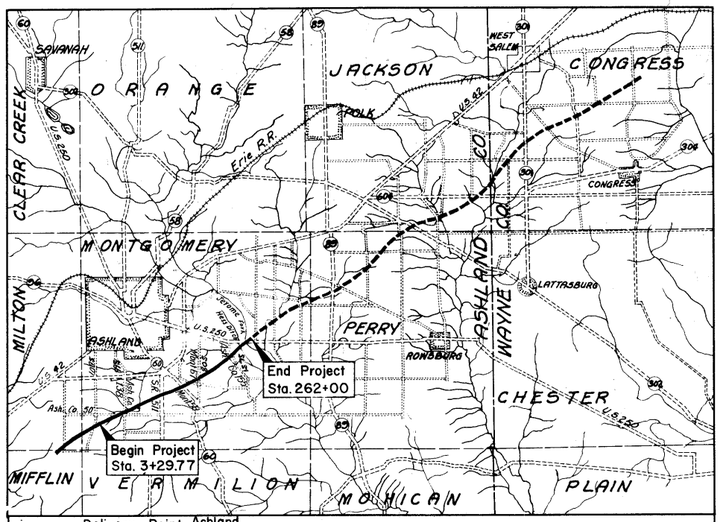
Force Account Work (Utility)	374-377 Incl., 388-391 Incl.

LINE DATA

Begin Project	Sta. 3+29.77	
End Project	Sta. 262+00	
Gross Length of Project	25870.23	Lin. Ft.
Add for Equation	113.91	Lin. Ft.
Net Length of Project	25984.14	Lin. Ft. or 4.921 Miles
Begin Work	Sta. 2+82	Lin. Ft.
End Work	Sta. 262+35	Lin. Ft.
Gross Length of Work	25,953.00	Lin. Ft.
Add for Equation	113.91	Lin. Ft.
Net Length of Work	26,066.91	Lin. Ft. or 4.937 Miles
Add for Approaches (See Sheet No. 12)	18,562.42	Lin. Ft.
Total Length of Work	44,629.33	Lin. Ft. or 8.453 Miles

Approved H. E. Eckhardt
Date 11-4-57 Engineer of Traffic



Delivery Point Ashland
Average haul from siding 2.5 Miles

LOCATION MAP

SCALE OF MILES

0 1 2 3 4 5

Portion to be improved
Portion Under Separate Contract
State Roads
Other Roads

SCALE

Plan 1" = 100'
Profile: Horizontal 1" = 100'
Profile: Vertical 1" = 10'

The standard specifications of the State of Ohio, Department of Highways, including changes and supplemental specifications listed in the proposal shall govern this improvement.

The right of way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing of the highway to traffic and that provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

Approved R. J. Johnson
Date 4-3-58 Chief Engineer, Interstate Projects

Approved C. H. Mahaffey
Date 4-10-58 Deputy Director, Planning & Programming

Approved P. E. Machetta
Date 4/7/58 Deputy Director, Design & Construction

Approved _____
Date _____ First Assistant Director

Approved Clarence J. Mormon
Date 4/10/58 Acting Director of Highways

Sheet No. 15 Revised 6-5-58

Sheets 237, 239 and 325 revised July 11, 1958.
Sheets 347 and 348 revised to show ... May ...
Sheets 314 and 341 superseded by sheets ...
Sheets 237, 239 and 325 revised Oct. 1, 1958.

JUN 5 1961
GROUND PHOTOLAB

STATE OF OHIO
MICHAEL BAKER, JR.
NO. [illegible]
REGISTERED PROFESSIONAL ENGINEER

Supplemental Prints of Standard Construction Drawings									
BT-50-70-71E NO.1	10-1-47	I-8 I NO.2	12-1-54	L-3-A		4-1-50	AS-1-54		12-1-54
BT-71R	3-2-53	I-8 M.H. NO.1	5-1-52	LJ NO.1		7-1-55	CSB-2-56	Sheet 2	12-3-56
DR-1	1-3-55	I-12	7-1-54	RI-1		1-3-55	CSB-2-56	Sheet 3	12-3-56
F-1	4-1-57	I-14 G	1-22-52	HW-A&B		7-15-57	RB. 1-55		3-1-55
G-7.07	6-1-56	I-15 NO. 1	8-1-55	HW.-C		7-15-57	AR 1-57		9-57
I-1,2,3,4 &5	2-20-45	I-15 NO. 2A	6-1-57	S-27 P.C. 2		3-15-48	SP-53		7-21-53
I-8 C.B. 2-2-A&B	8-1-56	I-15 NO. 2B	6-1-57	S-27 P.C. 4		1-4 54	I-8 C.B. NO.7		5-1-52
I-8 C.B. NO. 4	6-1-57	I-21-23	8-1-56	S-27 P.C. 3		2-20-45	I-15 NO. 5		12-9-57
I-8 C.B. NO. 5	6-1-57	L-1	4-1-50	T-35		1-2-56	I-15 NO. 6		12-9-57
I-8 C.B. NO. 6	5-1-52	L-3	4-1-30	TJ		5-1-56	I-8 M.H. NO.1-A		1-3-55

Supplemental Specifications	
E-101	1-1-57
B-119	REV. 8-11-57
5	6-8-55
18	REV. 2-6-57
S-114	REV. 8-1-57
1-127	REV. 11-16-57
M-206.6(b)	5-25-56
I-125	REV. 11-6-57
M-206.14	7-15-49

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

DIVISION ENGINEER DATE

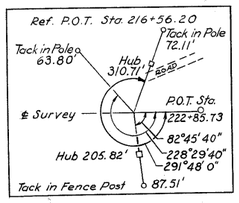
File No. 4(10) 4(11)

ASHLAND COUNTY ASD-1-3.52
Date of Letting _____ 19
Contract No. _____

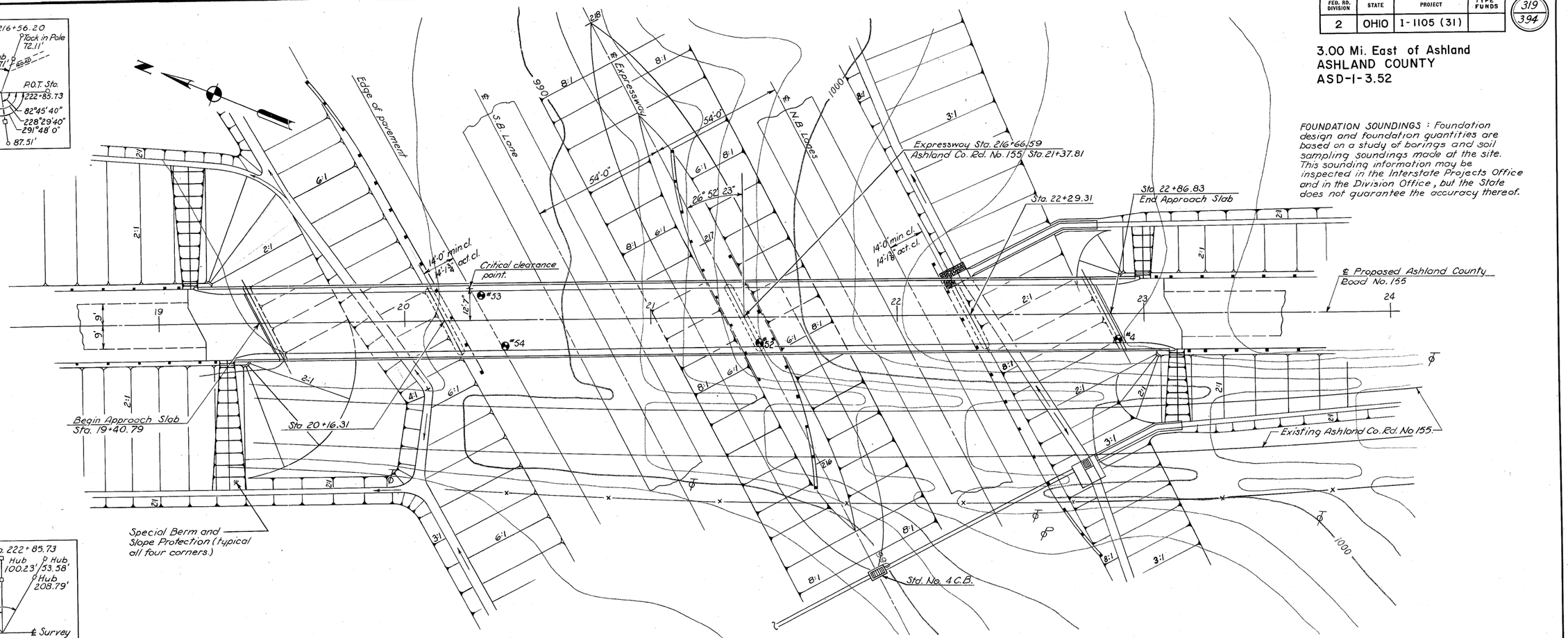
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	I-1105 (31)	

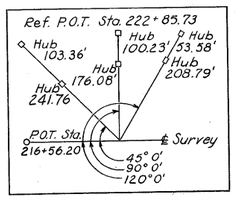
319
394

3.00 Mi. East of Ashland
ASHLAND COUNTY
ASD-I-3.52



FOUNDATION SOUNDINGS : Foundation design and foundation quantities are based on a study of borings and soil sampling soundings made at the site. This sounding information may be inspected in the Interstate Projects Office and in the Division Office, but the State does not guarantee the accuracy thereof.

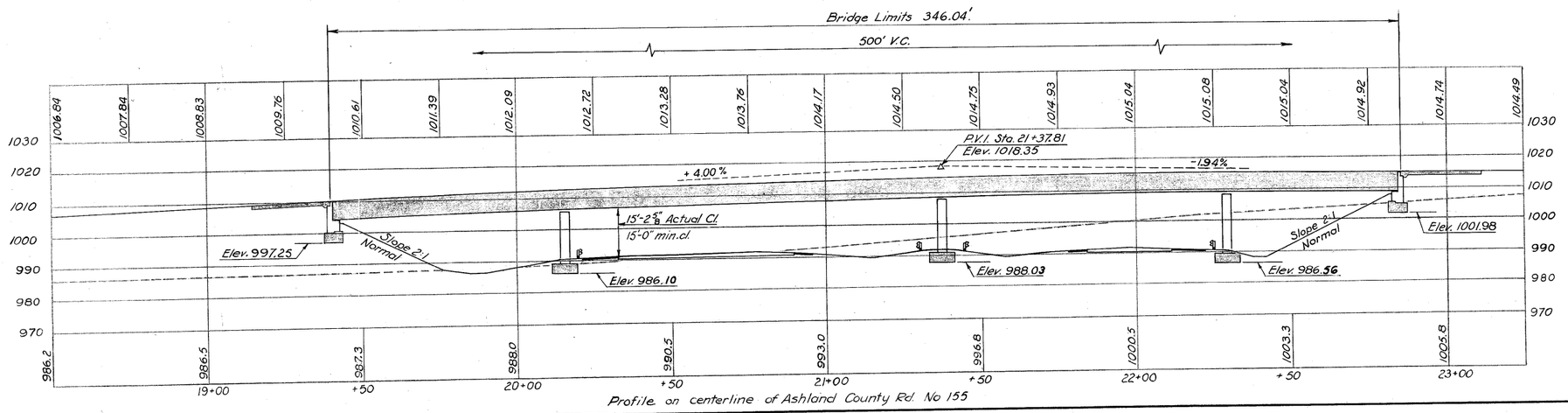




Bench Mark
Lag bolt in O.P.S. Co. pole #79 DN/4
245' Lt. Sta. 218+00
Elev. 985.46

● Denotes boring location

Ashland County Rd. No. 155 A.D.T. 280 (1975)



Profile on centerline of Ashland County Rd. No 155

Preliminary Design 2-20-58

PROPOSED STRUCTURE

TYPE : Continuous steel girder with reinforced concrete deck and substructure.
SPANS : 73'-0", 121'-6", 91'-6", 55'-0" ℄c bearings.
ROADWAY : 24'-0" ℄f, 2'-0" safety curbs
LOAD FREQUENCY : C.F. - 130 (37)
WEARING SURFACE : ¾" mono. concrete.
APPROACH SLAB : Special Design 25' long.
SKEW : 26° 52' 23" R.F.
ALIGNMENT : Tan.
SUPERELEVATION : None.

MICHAEL BAKER, JR., CONSULTING ENGINEERS
ROCHESTER, PENNSYLVANIA

SITE PLAN

BRIDGE NO. ASD-I-0755
UNDER ASHLAND CO. RD. NO. 155
ASHLAND COUNTY

SCALE 1" = 20' STA. 216+66.59

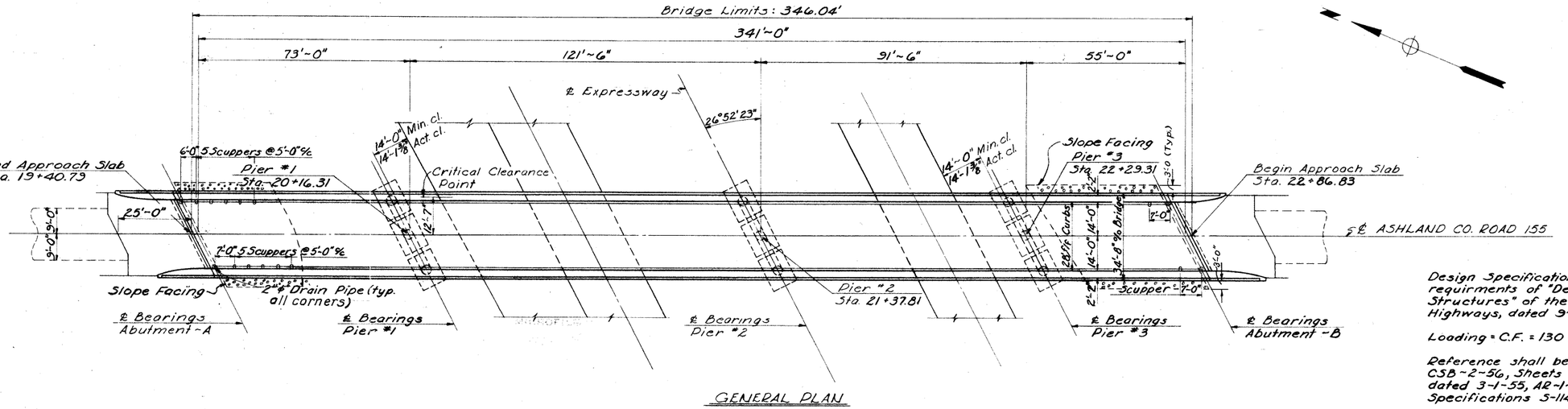
PRESENT TOPOGRAPHY		PROPOSED WORK			
Surveyed	Drawn	Designed	Drawn	Checked	Reviewed
		J.M.	C.W.S.	A.S.J.	E.F.R. 4-2-58

57

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

320
394

ASHLAND COUNTY
ASD-1-3.52



GENERAL PLAN

Design Specification: This structure conforms to the requirments of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57.

Loading = C.F. = 130 (57)

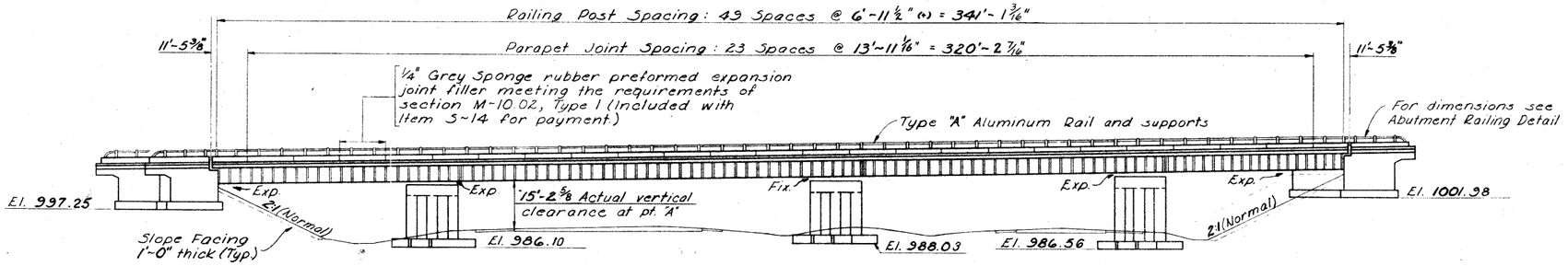
Reference shall be made to Standard Drawings CSB-2-56, Sheets 2 & 3 of 6, dated 12-3-56, RB-1-55 dated 3-1-55, AR-1-57 dated 4-9-57, and to Supplemental Specifications S-114, revised 8-1-57.

Slope Facing one foot thick, as shown on the General Plan, shall be provided at each end of bridge.

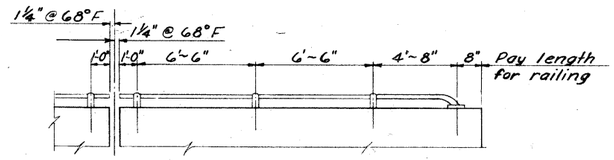
Welding of Structural Steel shall be Class "A" unless otherwise shown (—◁B).

Excavation Quantity includes the removal of fill material between the surface of proposed embankment and bottom of Abutments.

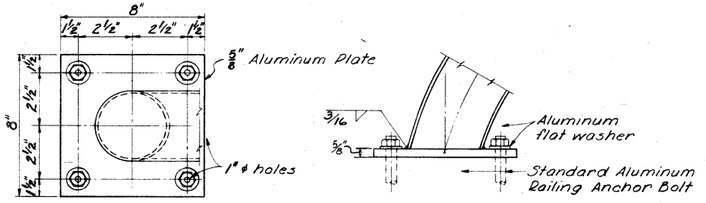
Embankments to be placed to subgrade elevation for a distance of approximately 200 feet beyond the bridge limits as early as practical in the construction proceedure and before work is begun on Abutments or Piers No. 1 and No. 3. Abutments should be placed as late as practical, with a minimum time lapse of 30 days between completion of the embankment and starting work on the Abutments.



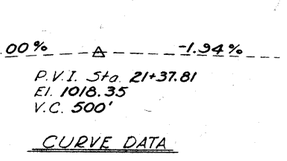
ELEVATION



ABUTMENT RAILING DETAIL



DETAIL OF RAILING ANCHOR PLATE AT END OF PARAPET



CURVE DATA

MICHAEL BAKER JR., CONSULTING ENGINEERS
ROCHESTER, PENNSYLVANIA

GENERAL PLAN & ELEVATION
BRIDGE Nº ASD-1-0755
UNDER ASHLAND CO. RD. NO. 155

ASHLAND COUNTY STA. 216+66.59

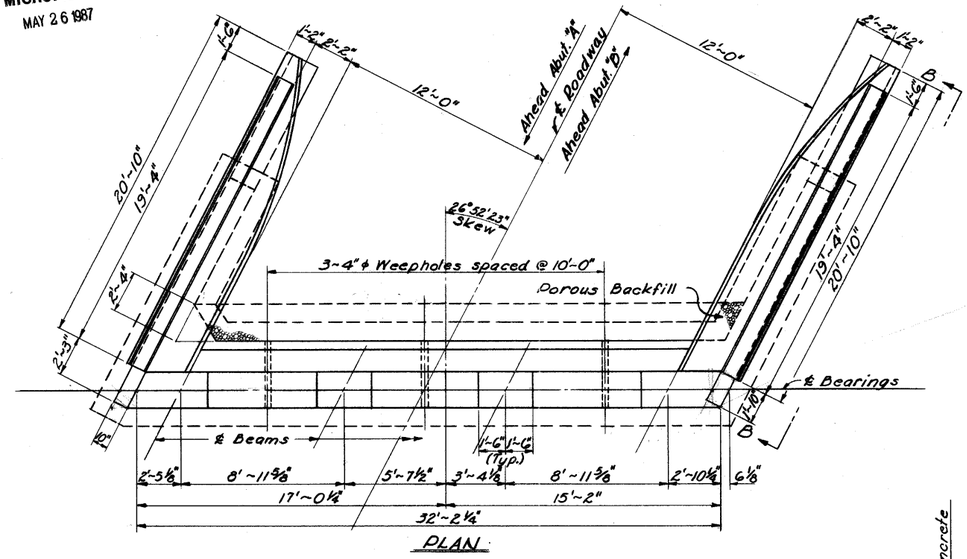
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
A.S.J.			F.A.	E.F.R. 4-2-58	

MICROFILMED
MAY 26 1967

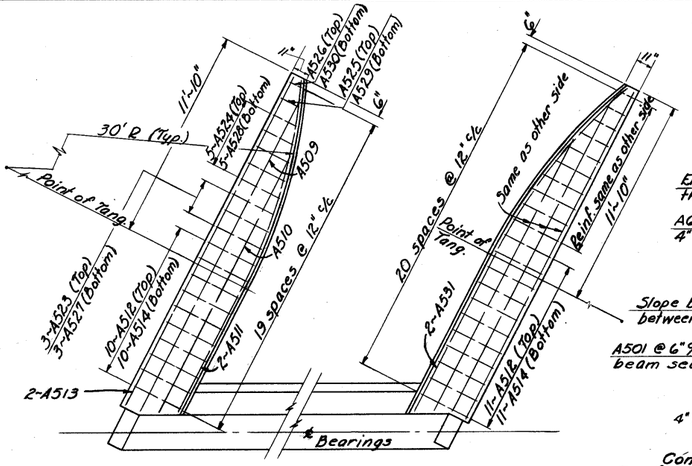
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	I-1105 (31)	

321
394

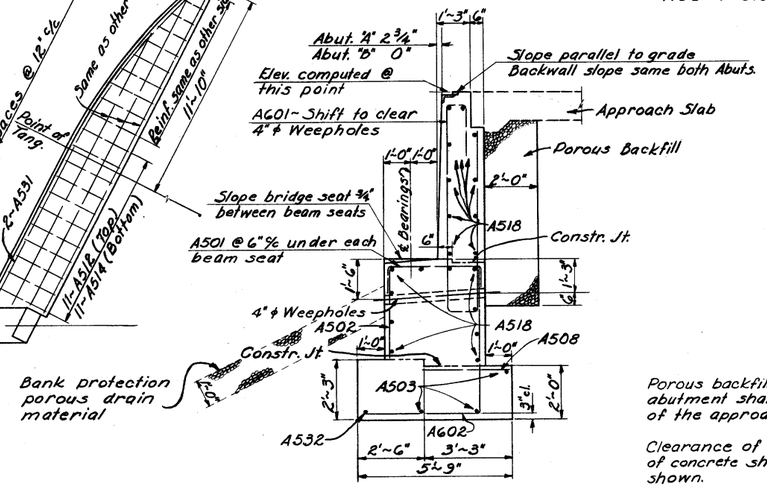
ASHLAND COUNTY
ASD-1-3.52



PLAN



WINGWALL PLAN



SECTION A-A

NOTES

Porous backfill 2 feet thick full length of abutment shall extend up to the underside of the approach slab.

Clearance of reinforcing steel from face of concrete shall be 2" unless otherwise shown.

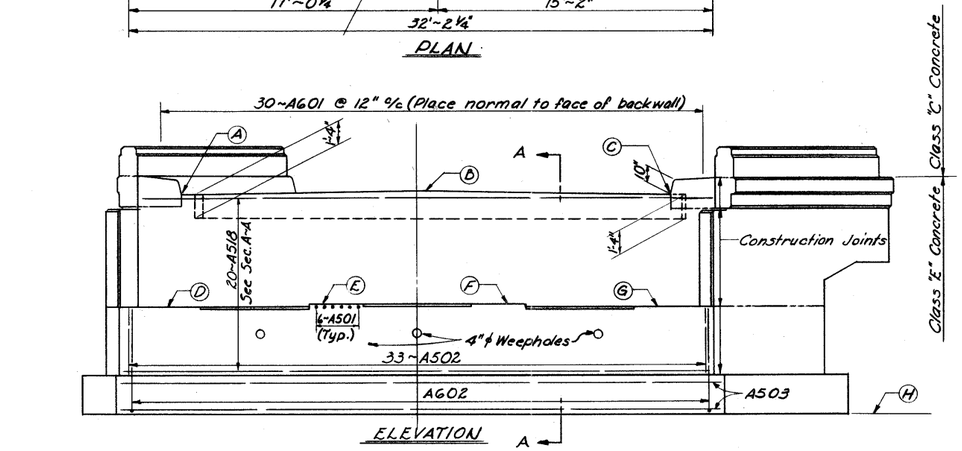
Concrete above bridge seat construction joint shall not be placed until after the steelwork is erected, but before placing the deck slab.

Steel end finish shall be used as a template for the top of the backwall.

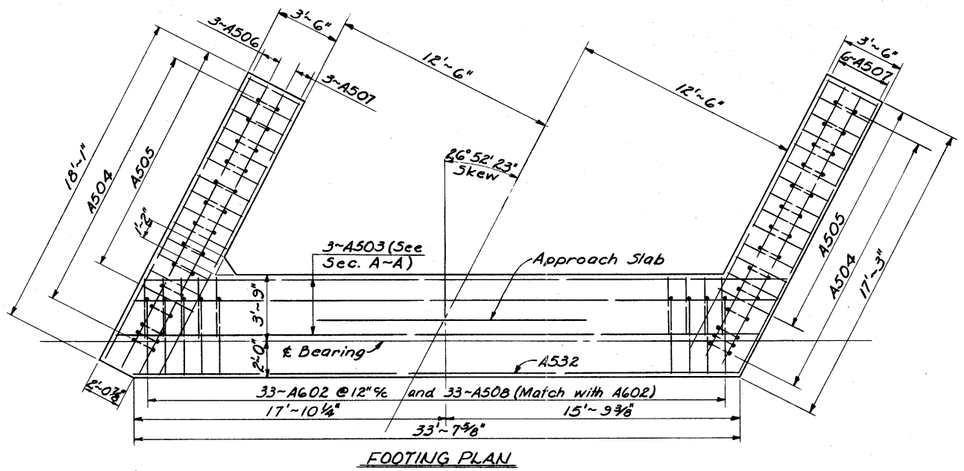
All abutment concrete shall be Class "E" except parapet which shall be Class "C".

Guard rail end connection to be included with railing for payment.

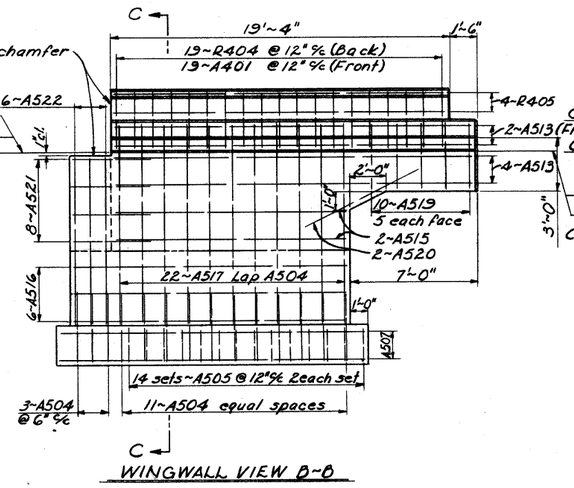
Design Foundation Pressure is 2.5 Tons per sq.ft.



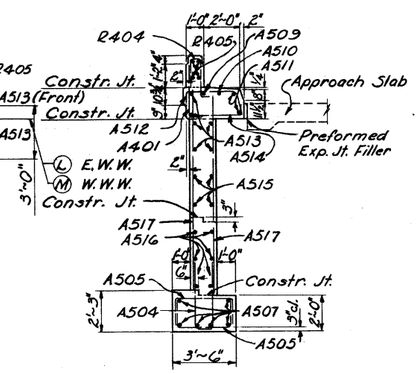
ELEVATION



FOOTING PLAN



WINGWALL VIEW B-B



SECTION C-C

TABLE OF ELEVATIONS

Location	A	B	C	D	E	F	G	H	J	K	L	M
Abut. A	1010.36	1010.39	1009.95	1003.66	1003.65	1003.52	1003.25	997.25	1009.12	1009.61	1008.37	1008.89
Abut. B	1014.72	1014.87	1014.63	1008.07	1008.17	1008.14	1007.98	1001.98	1013.92	1013.82	1013.76	1113.62

MICHAEL BAKER, JR., CONSULTING ENGINEERS
ROCHESTER, PENNSYLVANIA

ABUTMENT DETAILS
BRIDGE Nº ASD-1-0755
UNDER ASHLAND CO. RD. NO. 155

ASHLAND COUNTY — STA. 216+66.59

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
A.S.J.	K.E.A.	J.D.R.	F.A.	F. Roberts	4-2-58	

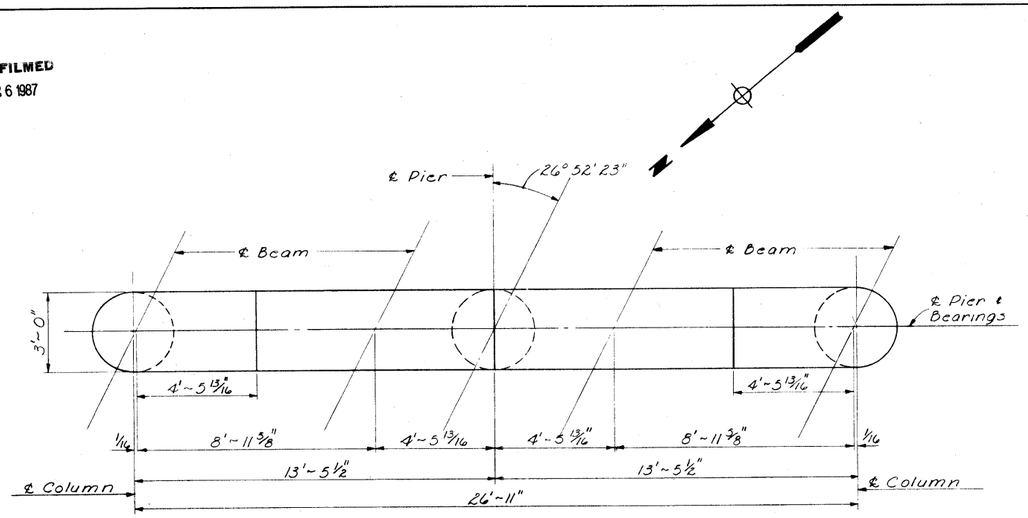
59

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	I-1105 (31)	

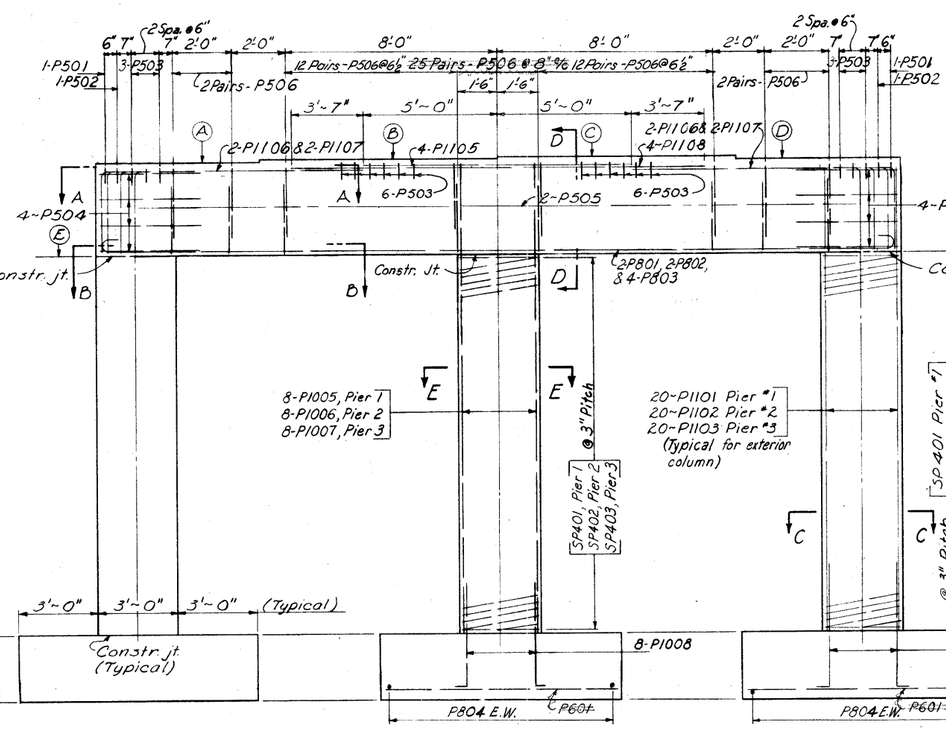
322
394

ASHLAND COUNTY

ASD-1-3.52

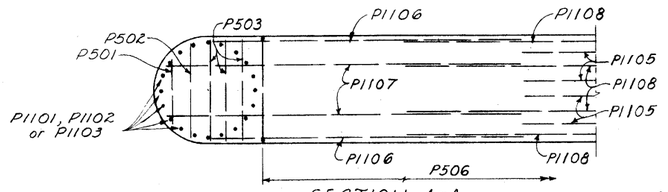


PLAN

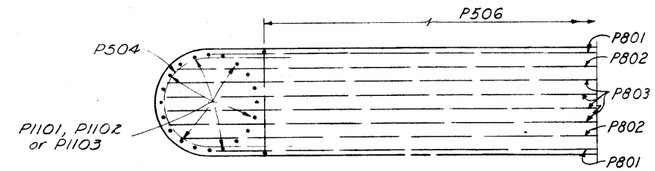


ELEVATION

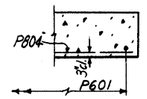
The downward leg of the P1003 & P1004 to be placed in the periphery of the vertical column bars.



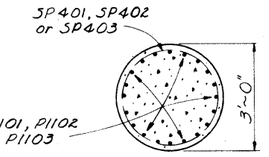
SECTION A-A



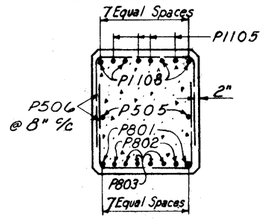
SECTION B-B



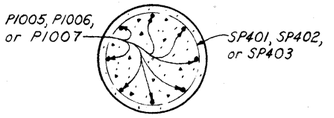
SECTION F-F



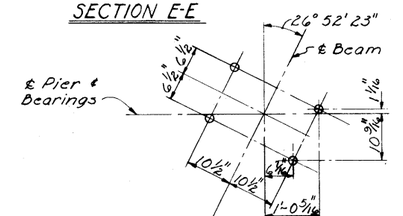
SECTION C-C



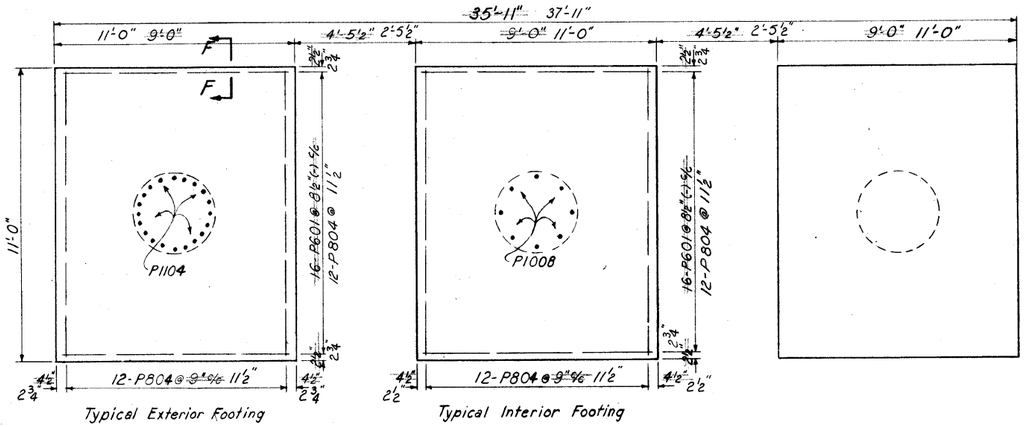
SECTION D-D



SECTION E-E



ANCHOR BOLT LAYOUT
(PIER NO. 2 ONLY)



FOOTING PLAN

TABLE OF ELEVATIONS

LOCATION	A	B	C	D	E	F
Pier #1	1004.84	1005.07	1005.17	1005.15	1001.34	986.10
Pier #2	1007.03	1007.19	1007.24	1007.15	1003.53	988.03
Pier #3	1007.65	1007.77	1007.77	1007.64	1004.14	986.56

NOTES

- Special care shall be taken in placing reinforcing steel in the bridge seat so that it will not intefere with the drilling of anchor bolt holes.
- Clearance of reinforcing steel shall be 2" from face of concrete unless otherwise shown.
- Design foundation pressure of piers is 2.5 tons per sq. ft.

MICHAEL BAKER, JR., CONSULTING ENGINEERS
ROCHESTER, PENNSYLVANIA

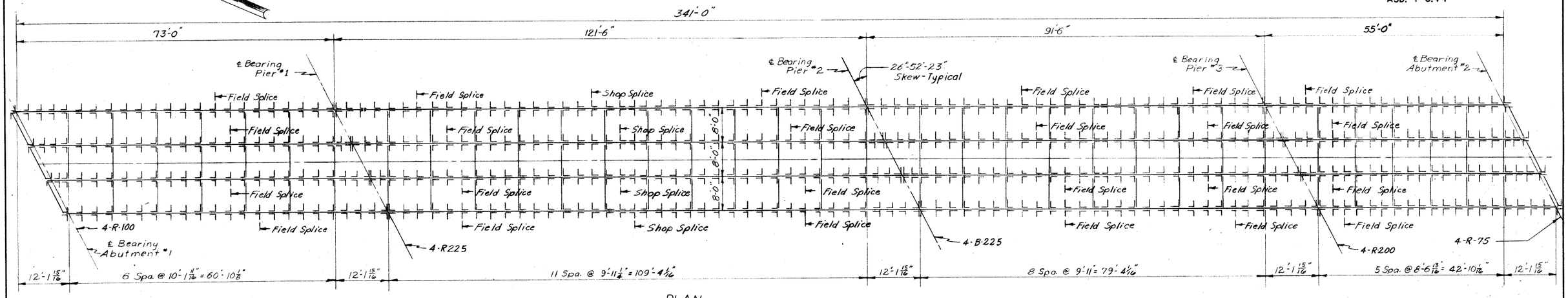
PIERS
BRIDGE NO. ASD-1-0755
UNDER ASHLAND CO. RD. NO. 155
ASHLAND COUNTY STA. 216+66.59

Designed	Drawn	Traced	Checked	Reviewed Date	Revised
J.M.	K.E.A. H.C.H.		A.S.J.	E.Roberts 4-2-58	5-29-58

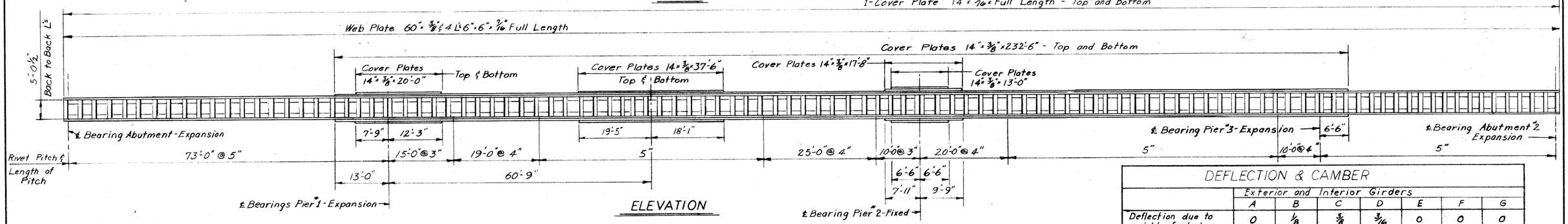
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	I-1105(31)	

323
394

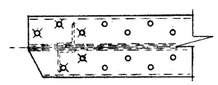
ASHLAND COUNTY
ASD.-I-8.44

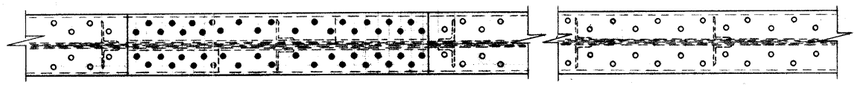


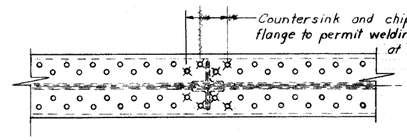
PLAN

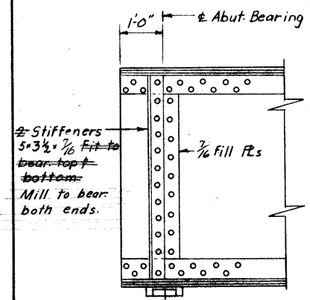


ELEVATION

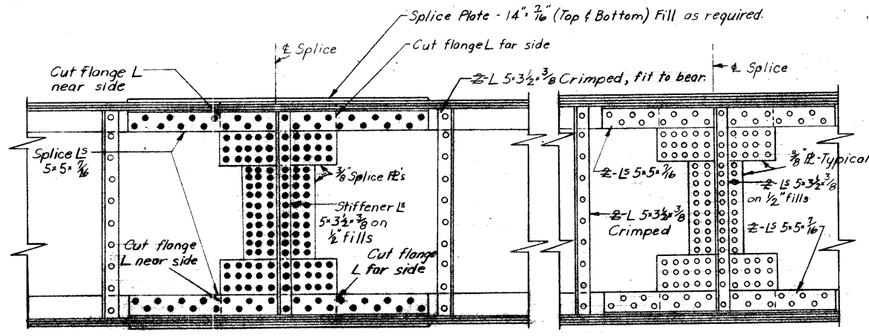






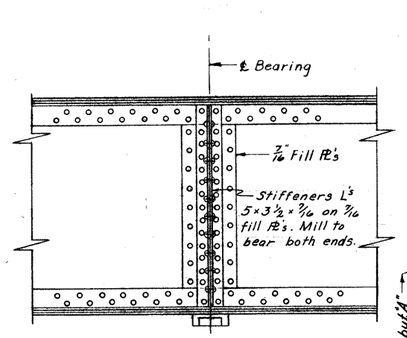


AT ABUTMENT

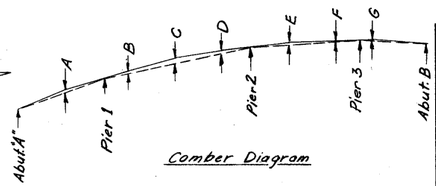


FIELD SPLICE

SHOP WEB SPLICE



AT PIERS



Camber Diagram

DEFLECTION & CAMBER

	Exterior and Interior Girders						
	A	B	C	D	E	F	G
Deflection due to weight of steel	0	1/8	3/8	3/16	0	0	0
Deflection due to remaining dead load	1/16	1/2	1 1/8	5/8	0	1/8	0
Convexity required for vertical curve	1	1 3/8	2 1/16	1 5/8	1 7/16	1 1/8	5/16
Sum of deflection and convexity	1 1/16	2	4 3/16	2 7/16	1 5/16	1 1/4	5/16
Required camber	1 1/16	2	4 3/16	2 3/16	1 5/16	1 1/4	5/16

NOTES:
- Abutment and Pier 3 Bearing stiffeners are L's 5 x 3 1/2 x 7/16 on fill plates.
- Pier "1 and" 2 Bearing stiffeners are L's 5 x 3 1/2 x 7/16 on fill plates.
- All intermediate stiffeners are L's 5 x 3 1/2 x 3/8 crimped.

(cont)
- All dimensions shown are horizontal.
- All rivets are 7/8"
- All intermediate crossframes are L's 3 1/2 x 3 1/2 x 5/16
- All end crossframs are L's 4 x 4 x 5/16
- All stiffeners shall be normal to girders.

MICHAEL BAKER JR., CONSULTING ENGINEERS
ROCHESTER, PENNSYLVANIA

STEEL FRAMING
BRIDGE NO. ASD.-I-0755
UNDER ASHLAND CO. RD. NO. 155

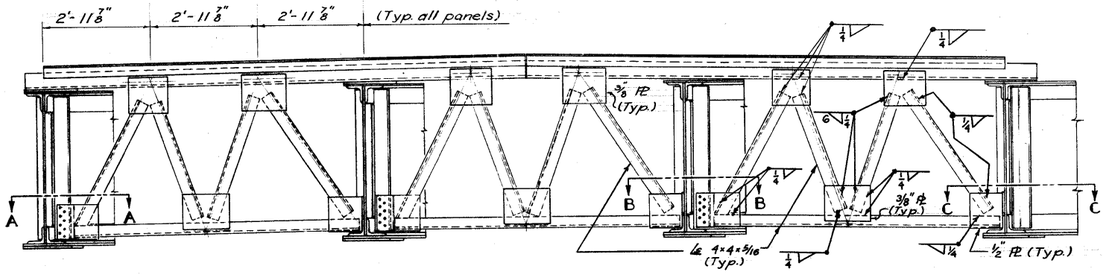
ASHLAND COUNTY STA. 216+66.59

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
A.S.J.	N.R.L.		F.A.	E. Roberts 4-2-58	5-29-58

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	I-1105(31)	

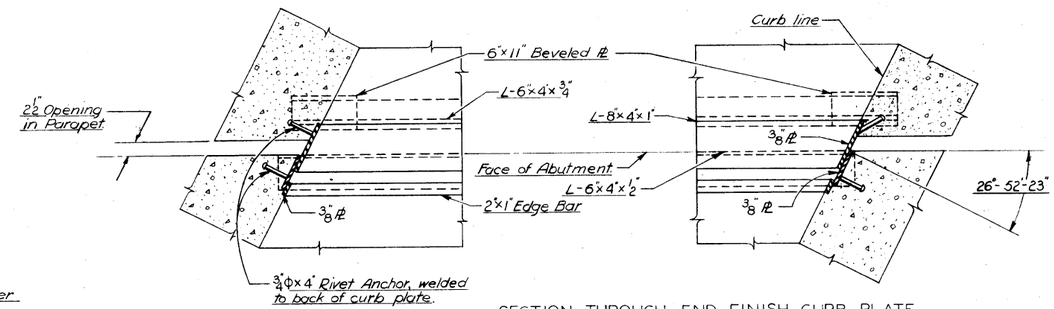
324
394

ASHLAND COUNTY
ASD-1-3.52

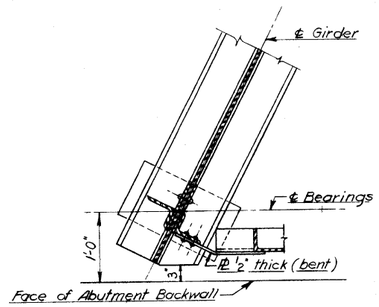


ELEVATION OF END FINISH

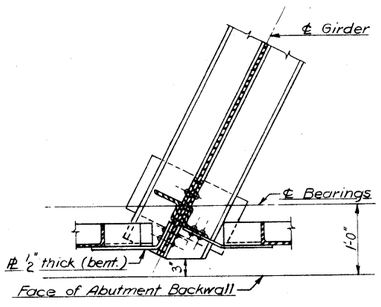
NOTE: For details not shown see Standard Drawing # CBS-2-56 sheet 3 of 6.



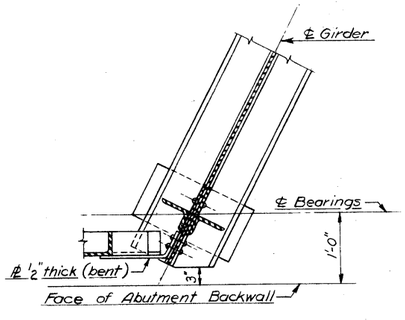
SECTION THROUGH END FINISH CURB PLATE



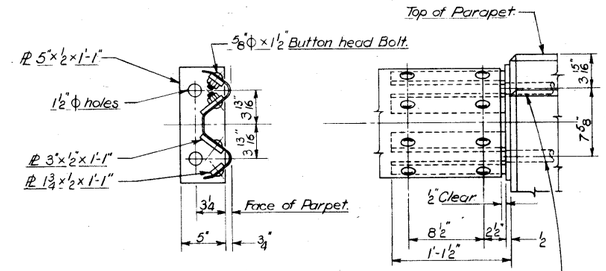
SECTION A-A



SECTION B-B



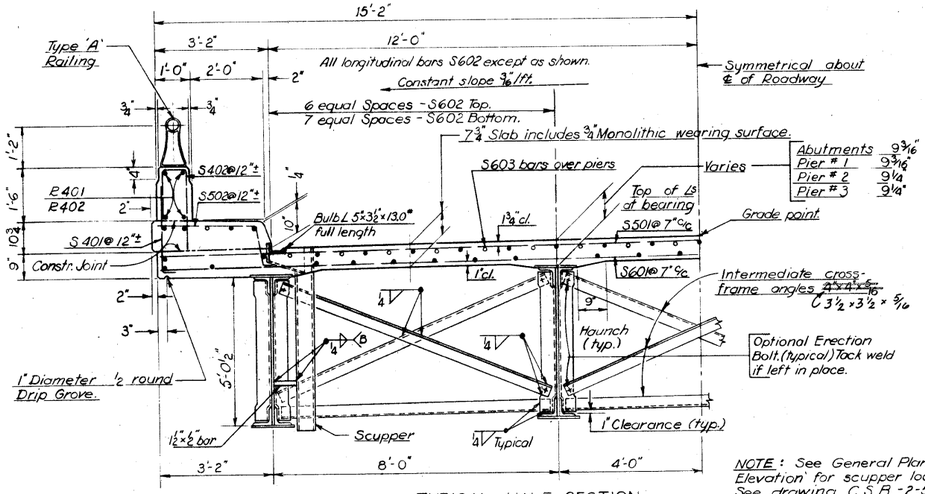
SECTION C-C



GUARD RAIL DETAIL

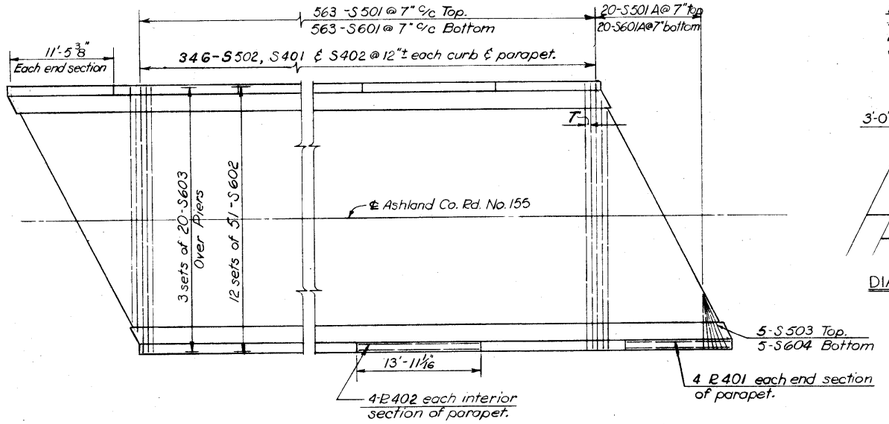
1¼"×20" galvanized machine bolts with square heads and with minimum thread length of 3". Bolts to project 2" from face of concrete.

NOTE: Guard Rail end connection assembly shall be galvanized after welding. Guard Rail end connection to be included in cost of Bridge Railing.



TYPICAL HALF SECTION

NOTE: See General Plan and Elevation for scupper location. See drawing C.S.B.-2-56, sheet 3 of 6 for details.



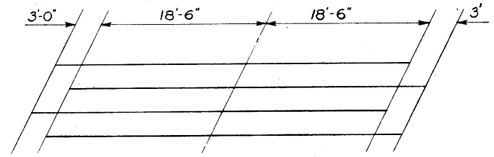


DIAGRAM SHOWING STAGGER OF BARS OVER PIERS

MICHAEL BAKER, JR. CONSULTING ENGINEERS
ROCHESTER, PENNSYLVANIA

SUPERSTRUCTURE DETAIL
BRIDGE NO. ASD-1-0755
UNDER ASHLAND CO. RD. NO. 155

ASHLAND COUNTY STA. 216+66.59

Designed	Drawn	Traced	Checked	Reviewed Date	Revised
A.S.J.	C.W.S.	C.W.S.	F.A.	E.Roberts 4-5-58	5-29-58

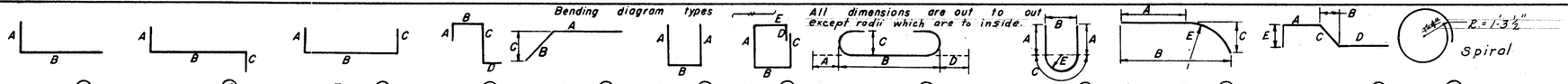
FED. RD. DIVISON	STATE	PROJECT	TYPE FUNDS
2	OHIO	I-1105(31)	

325
394

ASHLAND COUNTY
ASD.-I- 3.52

REINFORCING STEEL BAR SCHEDULE

Bending diagram types — All dimensions are out to out except radii which are to inside.



PIERS

MARK	TOTAL	SIZE	LENGTH	TYPE	A	B	C	D	E	WEIGHT
P501	6	5	2'-1"	6	5"	1'-3"				13
P502	6	5	3'-2"	6	5"	2'-4"				20
P503	~~54 78~~	5	~~3'-5½"~~	6	5"	~~2'-7"~~			1'-4"	~~188 64~~
P504	24	5	~~7'-3½"~~ 9	~~7'-7"~~	~~1'-7"~~	~~4'-1½"~~			~~1'-3½"~~	184
P505	6	5	26'-11"	Str.	1'-10"	2'-4½"	3'-7"			168
P506	168 ~~174~~	5	~~6'-9" 7'-0"~~	6	2'-2"	2'-8"				~~1183 1270~~
~~P507~~	~~174~~	~~6~~	~~8'-8"~~	~~Str.~~						~~1874~~
P801	29'-1" 6	8	~~24'-11"~~	8 Str.	1'-1"	26'-11"	9"	1'-1"		466 ~~431~~
P802	30'-6" 6	8	~~26'-4"~~	8 Str.	1'-1"	28'-4"	9"	1'-1"		489 ~~454~~
P803	31'-5" 12	8	~~27'-3"~~	8 Str.	1'-1"	29'-3"	9"	1'-1"		1007 ~~937~~
P804	216 ~~108~~	8	10'-8"	Str.						6152 ~~3076~~
P1005	8	10	16'-3⅜"	Str.						562
P1006	8	10	16'-4½"	Str.						565
P1007	8	10	18'-5"	Str.						634
P1008	24	10	6'-6"	1	1'-1"	5'-6"				671
P1101	40	11	16'-1"	Str.						3418
P1102	40	11	16'-4"	Str.						3471
P1103	40	11	18'-5"	Str.	1'-2½"	5'-8½"				3914
P1104	120	11	~~6'-6" 7'-2"~~	1	1'-5"	5'-9"				~~4144 4569~~
P1105	12	11	10'-0"	Str.						638
P1106	12	11	11'-8½"	1	8'-5½"	3'-3"				749
P1107	12	11	12'-10½"	1	9'-7½"	3'-3"				824
P1108	12	11	17'-2"	Str.						1094

SPIRAL BARS

MARK	TOTAL	SIZE	LENGTH	PITCH	No. of TURNS	CORE DIA.	WEIGHT
SP401	3	½" ø	12'-9"	3	54	32	892 ~~952~~
SP402	3	½" ø	13'-0"	3	55	32	908 ~~959~~
SP403	3	½" ø	15'-1"	3	64	32	1058 ~~1117~~
						Total Weight	~~30,726~~ ~~31,542~~ 33,412

ABUTMENTS

MARK	TOTAL	SIZE	LENGTH	TYPE	A	B	C	D	E	WEIGHT
A 401	82	4	3'-1"	1	6"	2'-8"				264
A 501	48	5	5'-8"	6	1'-3"	3'-5"				284
A 502	66	5	3'-6"	1		3'-6"				241
A 503	6	5	35'-6"	1		35'-6"				223
A 504	56	5	8'-7"	6	3'-10"	1'-2"				501
A 505	112	5	5'-11"	6	1'-6"	3'-2"				692
A 506	6	5	17'-5"	1		17'-5"				109
A 507	18	5	16'-7"	1		16'-7"				311
A 508	66	5	3'-1"	1		3'-1"				209
A 509	4	5	19'-6"	1		19'-6"				82
A 510	4	5	16'-0"	1		16'-0"				67
A 511	4	5	19'-9"	10	7'-8"	19'-6"	2'-9"		20'-0"	83
A 512	42	5	4'-5"	11	2'-10"		1'-3"			193
A 513	24	5	20'-6"	1		20'-6"				514
A 514	42	5	3'-3"	1	6"	2'-10"				143
A 515	16	5	13'-6"	1		13'-6"				226
A 516	24	5	15'-4"	1		15.4				384
A 517	88	5	11'-7"	1		11'-7"				1063
A 518	40	5	31'-0"	1		31'-0"				1294
A 519	40	5	3'-6"	1		3'-6"				146
A 520	8	5	4'-6"	1		4'-6"				38
A 521	32	5	5'-0"	1		5'-0"				167
A 522	24	5	9'-4"	1		9'-4"				234
A 523	12	5	4'-3" to 4'-5" ↑	11	3'-8" to 2'-6" ↑	2"	1'-3"		6"	55
A 524	20	5	3'-2" to 4'-2" ↑	11	1'-7" to 2'-7" ↑	2"	1'-3"		6"	77
A 525	4	5	2'-7"	11	1'-0"	2"	1'-3"		6"	11
A 526	4	5	2'-3"	11	8"	2"	1'-3"		6"	10
A 527	12	5	2'-11" to 3'-5" ↑	1	6"	2'-6" to 3'-0" ↑				40
A 528	20	5	2'-2" to 3'-2" ↑	1	6"	1'-9" to 2'-7" ↑				61
A 529	4	5	1'-7"	1	6"	1'-2"				7
A 530	4	5	1'-2"	1	6"	10"				5
A 531	4	5	21'-10" *	10	9'-9"	21'-5"	2'-9"		20'-0"	91
A 601	60	6	18'-1"	7	8'-3"	8"	7'-0"	2'-0"	8"	1130
A 602	66	6	10'-0"	1	4'-5"	5'-9"				689
R404	82	4	5'-0" †	4	2'-8"	8"	1'-8"	6"	Included	
R405	16	4	19'-0"	1		19'-0"	with railing for payment			
									Total Weight	9644

★ Varies by 3" inc.
† Varies by 1" inc.

SUPERSTRUCTURE

MARK	TOTAL	SIZE	LENGTH	TYPE	A	B	C	D	E	WEIGHT
S401	692	4	3'-2"	1	6"	2'-8"				1464
S402	692	4	3'-11"	4	1'-3"	6"	2'-2"			1118
S 501A	40	5	26'-1" to 27'-11"	Str.	2 ea. Varies by 1'-1⅜" inc.					710
S501	563	5	30'-0"	Str.						17616
S 502	692	5	4'-7"	11	2'-10"	1"	1'-5"		4"	3308
S 503	10	5	6'-0"	Str.						63
S601A	40	6	27'-1" to 28'-11"	Str.	2 ea. Varies by 1'-1⅜" inc.					1022
S601	563	6	30'-0"	Str.						25369
S602	612	6	30'-6"	Str.						28036
S603	60	6	40'-0"	Str.						3605
S604	10	6	6'-0"	Str.						90
R401	16	4	11'-1"	Str.	Included with railing for payment					
R402	184	4	13'-7"	Str.	Included with railing for payment					
									Total Weight	82,401

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	SUPERSTR.	ABUTS.	PIERS	GENERAL
E2	564 ~~535~~	Cu.Yd.	Unclassified Excavation		360	204 ~~175~~	
S1	338	Cu. Yd.	Class "C" concrete, Superstructure	338			
S1	68	Cu. Yd.	Class "C" concrete, Pier Caps and Columns			68	
S1	116	Cu. Yd.	Class "E" concrete, Abutments above footings		116		
S1	151 ~~133~~	Cu. Yd.	Class "E" concrete, Footings	82,401 ?	50	101 ~~83~~	
S4	~~124560~~	Lbs.	Reinforcing Steel	~~64,188~~	9644	~~30920~~ 33,412	
S7	418000	Lbs.	Structural Steel	418000			
S8	418000	Lbs.	Field painting of structural steel	418000			
S14	762	Lin. Ft.	Railing (Aluminum Rail and Supports and concrete parapet)	687	75		
S29	108	Cu. Yd.	Slope facing (S-29.05 Type)				108
S29	26	Cu. Yd.	Porous Backfill		26		

125,457

SPIRAL NOTES:
The "length" shown in the steel list for the spiral bars, is the distance from the top of the footing to the bottom of the pier cap.
The "No. of Turns" shown in the steel list for the spiral bars, is the "length" divided by the pitch, plus 3 turns (total number of closed coil) expressed as the nearest whole number.
Spiral reinforcing bars shall not have deformations, but shall in other respects conform to item S-4
1½ closed coils shall be provided at ends of each spiral unit.
Four steel channel, tee or angle spacers, weighing approximately 0.68 Lbs. per Lin. Ft. of spacers, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 Lbs. per Lin. Ft. will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

REPLACEMENT BARS

MARK	NO.	SIZE	LENGTH	TYPE	WEIGHT
RE1101	1	11	7'-7"	Str.	
RE1001	1	10	7'-2"	Str.	
RE902	0	9	6'-10"	Str.	
RE803	1	8	6'-6"	Str.	
RE704	0	7	6'-3"	Str.	
RE605	3	6	5'-11"	Str.	
RE506	2	5	5'-7"	Str.	
RE407	1	4	5'-3"	Str.	
RE 401	1	4	5'-3"	12	

REPLACEMENT BARS:
If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Hwy. Testing Laboratory, test sample as provided in section S-402 need not be furnished and replacement bars will not be required.

BAR SIZE:
Bar size is indicated in the barmark. The first digit where three digits are used and the first two where four are used, indicates the bar size number. For example, A401 is a number 4 bar and A1114 is a number 11 size bar.

MICHAEL BAKER JR., CONSULTING ENGINEERS
ROCHESTER, PENNSYLVANIA

REINFORCING STEEL LIST AND ESTIMATED QUANTITIES

BRIDGE NO. ASD-I-0755 UNDER ASHLAND COUNTY RD. NO. 155

ASHLAND COUNTY STA. 216 66.59

Designed	Drawn	Traced	Checked	Reviewed Date	Revised
	N.R.L.		F.A.	E. Roberts 4-2-58	5-29-58 7-11-58