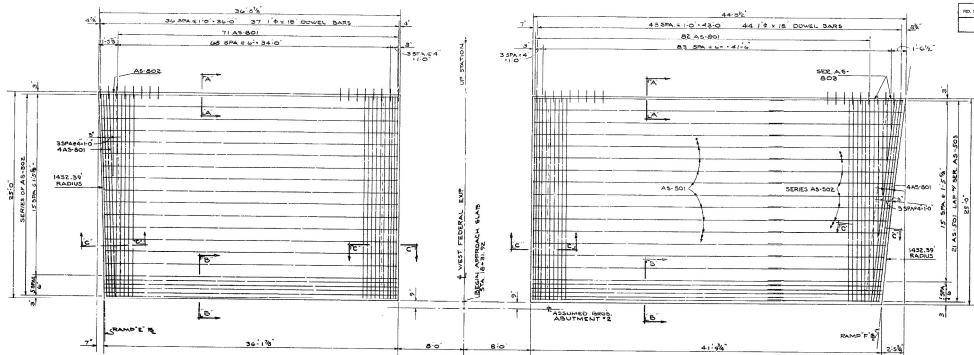


REINFORCING STEEL SCHEDULE

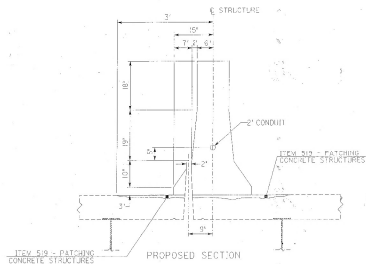
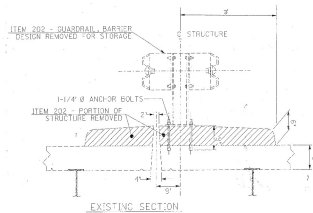
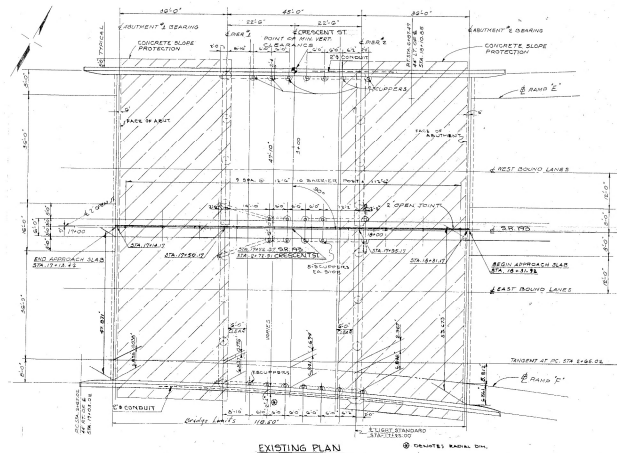
MARK	INFRD	LENGTH	WEIGHT	SHAPE
AS-501	81	50'-0"	827	ST
SERIES OF AS-502	1 SET OF 3453 LBS	VARIES 1/8" MC	790	ST
SERIES OF AS-503	1 SET OF 314 LBS	VARIES 1/8" MC	314	ST
AS-501	161	25'-8"	11033	ST
AS-501	1	12'-0"	37	ST
SERIES OF AS-503	1 SET OF 314 LBS	VARIES 1/8" MC	174	ST
TOTAL				12,995 LBS

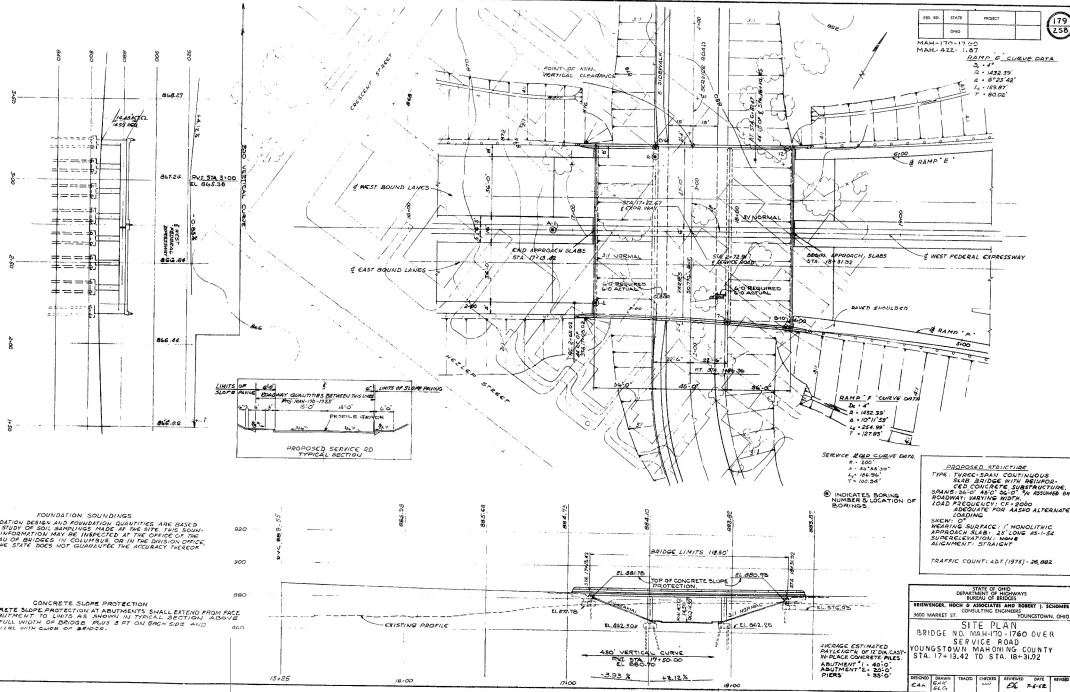
2025-SQ YDS. CLASS C CONCRETE
B1 - 1' x 18' 10" DOWEL BARS - 324 LBS

Note -
BAR SIZE IS INDICATED IN THE BAR MARK.
THE FIRST DIGIT INDICATES THE BAR SIZE, FOR EXAMPLE AS-501 IS A #18 SIZE BAR.
FOR DETAILS & NOTES NOT SHOWN SEE STANDARD DWS A3-1-84

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES	
DESIGNED BY: H. H. HARRIS & ASSOCIATES 1000 MARKET ST. YOUNGSTOWN, OHIO	CONSTRUCTED BY: H. H. HARRIS & ASSOCIATES 1000 MARKET ST. YOUNGSTOWN, OHIO
APPROACH SLABS ABUTMENT NO. 2 BRIDGEN MAH-1760 OVER SERVICE ROAD YOUNGSTOWN, MAHONING COUNTY STA. 17+3.45 TO STA. 18+8.92	
DESIGNED BY: H. H. HARRIS & ASSOCIATES 1000 MARKET ST. YOUNGSTOWN, OHIO	CONSTRUCTED BY: H. H. HARRIS & ASSOCIATES 1000 MARKET ST. YOUNGSTOWN, OHIO

MAH-62/422/193-A.57/87/0.00





GENERAL NOTES

MAH-170-1760
 MAH-422-1.87

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE REQUIREMENTS OF DESIGN SPECIFICATIONS FOR HIGHWAY STRUCTURES OR THE STATE OF OHIO DEPARTMENT OF HIGHWAYS DATED 8-1-55 TOGETHER WITH CURRENT REVISIONS THEREOF.

THE TRANSVERSE CONSTRUCTION JOINT IN BRIDGE SLAB SHALL BE PLACED AT THE CENTERLINE OF THE ROADWAY FOR THE ENTIRE LENGTH OF THE BRIDGE. ONE LONGITUDINAL JOINT ON THE CENTERLINE OF ROADWAY WILL BE PERMITTED.

EXCAVATION SHORES: INCLUDES THE REMOVAL OF FILL MATERIAL REQUIRED FOR CONSTRUCTION OF THE ABUTMENTS.

PILE: PILES SHALL BE DRIVEN TO MINIMUM STRAIN CAPACITY OF 30 TONS PER PILE FOR CLASS 1 PILES. PILES SHALL BE DRIVEN TO A MINIMUM OF 10 FEET BELOW THE FINISHED GRADE. ALL PILES SHALL BE 12" DIA. X 20' LONG MIN. FOR CLASS 1 PILES.

ROADWAY BACKFILL: 1/2 FT. THICK FILL LENGTH OF ABUTMENT BETWEEN WINDMILLS, SHALL EXTEND UP TO THE UNDERSIDE OF THE ASPHALT SLAB, OR TO THE FINISHED GROUND SURFACE.

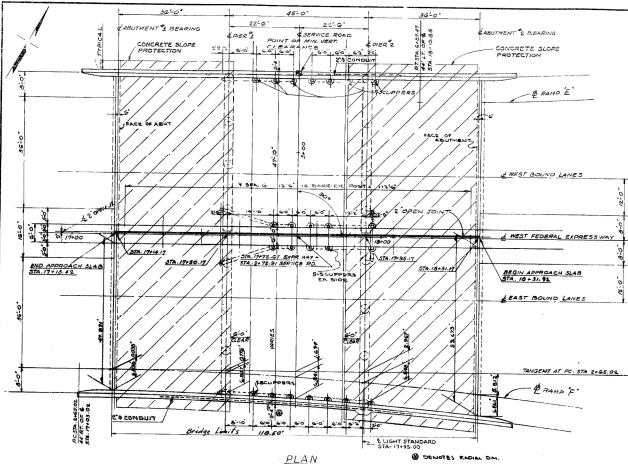
FOR LIGHTING SYSTEM QUANTITIES (THE COST OF WHICH SHALL BE INCLUDED IN THE BRIDGE COST) SEE LIGHTING DETAILS SHEET NO. 165

REMARKS: FINISH THE CONCRETE BRIDGE DECK SHALL BE FINISHED BY THE USE OF A FINISHING MACHINE. FURNISH CURBS OF 15" HIGH DOWNS AND 15" HIGH CURBS SHALL BE PROVIDED UNDER FULL DEAD LOAD. REINFORCE WITH THE VERTICAL CURVE OVER THE BRIDGE.

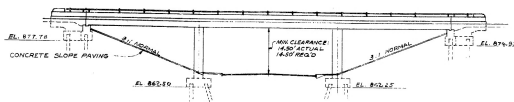
REVISIONS SHALL BE MADE TO STANDARD DRAWINGS.
 8-1-65 SHEET REV. 11-24-65
 CS-2-65 3RD EDITION DATED 8-1-65
 8-1-65 2ND EDITION 9-1-65
 8-1-65 SUPPLEMENTAL SPECIFICATIONS DATED 8-1-65
 8-1-65 SUPPLEMENTAL SPECIFICATIONS DATED 4-22-65

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	SUBTOTAL	ABUT.	PIERS	GEN.
80.5	14.51	SQ. YD.	CONCRETE SURFACE TREATMENT	14.40	11		
80.8	61.9	SQ. YD.	UNCLASSIFIED EXCAVATION	3.17	3.53		
81.1	615	CU. YD.	CLASS 1 CONCRETE SUPERSTRUCTURE	0.5			
81.2	46	CU. YD.	CLASS 1 CONCRETE ABUTMENTS ABOVE FOOTINGS	46			
81.3	134	CU. YD.	CLASS 1 CONCRETE PILES ABOVE FOOTINGS	81	154		
81.4	335	CU. YD.	CLASS 1 CONCRETE PILES AND ABUTMENT FOOTINGS	81	154		
81.5	19	LINEAL	REINFORCED IRON	19			
81.6	250.01	LINEAL	REINFORCED IRON	19.18	14.6	45.19	
81.7	25	SQ. YD.	1" PERFORATED REIN. J.T. PILES, BRIDGE SPILL PILES	25			
81.8	272.17	LINEAL	MAKING FORMS	272.17	24.75		
81.9	24	SCU. YD.	SCU. YD. INCLUDING SPALLS	24			
82.0	4500	SQ. YD.	FIRST TEST HILL	24			
82.1	4500	SQ. YD.	1/2" DIA. CAST-IN-PLACE REINFORCED CONCRETE PILES	7250	3360		
82.2	50	LINEAL	ROADWAY BACKFILL	50			
82.3	100	LINEAL	1" BINDER PINE DOWNDRUMS GAL. STEEL OR HROUGHT IRON	100			
82.4	784	NO. YD.	CONCRETE SLOPE PROTECTION	784	120		
82.5	65	LINEAL	ELECTRIC LIGHTING SYSTEM	65			
82.6	20.5	LINEAL	UNPERFORATED HELICAL CURB PILES INCLUDING SPECIALS	20.5			
82.7	55	LINEAL	UNPERFORATED HELICAL CURB PILES INCLUDING SPECIALS	55			
82.8	118.5	LINEAL	GUARD RAIL S.P. ALUM. TYPE (COPR.) 3/4" DIA. X 1/2" THICK	118.5			
82.9	5.5	UNIT	WATER REDUCING SET RETARDING ADMIXTURE	5.5			

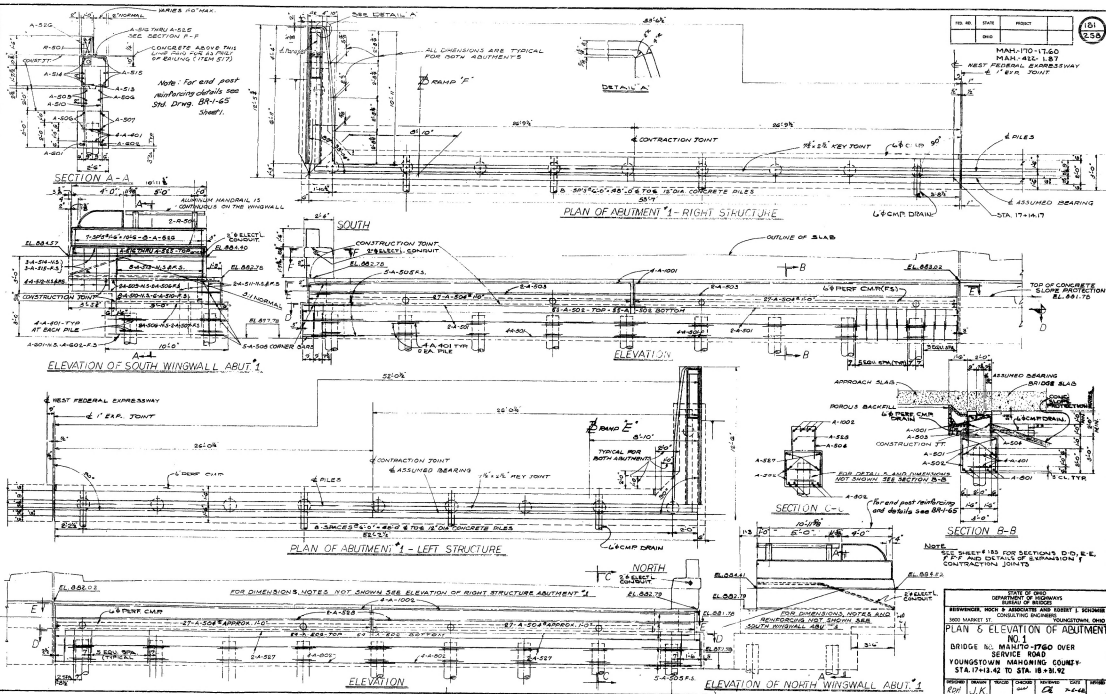


PLAN



ELEVATION

STATE OF OHIO
 DEPARTMENT OF HIGHWAYS
 BUREAU OF BRIDGES
 BRIDGES, HIGHWAYS, AND STRUCTURES
 CONSULTING ENGINEER
 3000 MARKET ST.
 COLUMBUS, OHIO
 GENERAL PLAN & ELEVATION
 BRIDGE NO. MAH-170-1760 OVER
 SERVICE ROAD
 YOUNGSTOWN MAHONING COUNTY
 STA. 17+15.42 TO STA. 18+31.92



STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

BEIFWENGER, MOCH & ASSOCIATES AND ROBERT J. SCHNEIDER
CONSULTING ENGINEERS
1600 MARKET ST. YOUNGSTOWN, OHIO

PLAN & ELEVATION OF ABUTMENT
NO. 1
BRIDGE NO. MAHANTO-1760 OVER
SERVICE ROAD
YOUNGSTOWN MAHONING COUNTY
STA. 17+13.42 TO STA. 18+51.92

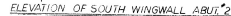
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	APPROVED
Rori	J.K.		and		7-6-68	


$$10^2 = 1.1 \times 10^2$$


WEST FEDERAL EXPRESSWAY



SOUTH



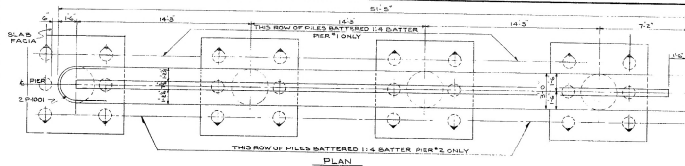
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES
BRIDGEMAN, HOCH & ASSOCIATES AND ROBERT J. SCHOMER
CONSULTING ENGINEERS
2600 MARKET ST. CINCINNATI, OHIO 45202

PLAN & ELEVATION ABUTMENT
NO. 2
BRIDGE NO. MAHITO-1760 OVER
SERVICE ROAD

YOUNGSTOWN MAHONING COUNTY
STA. 17+13.42 TO STA. 18+31.92

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
2004	1/10		2004	2/10	2-10-04	

姓名	性别	年龄	职业	住址
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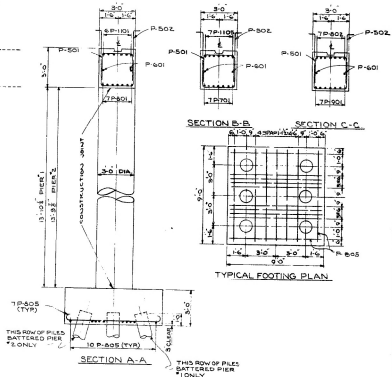
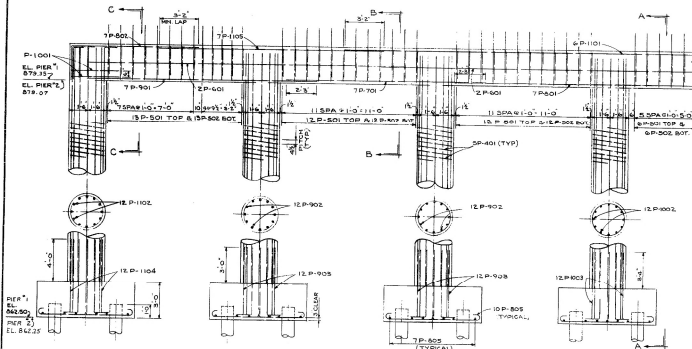


WEST FEDERAL EXPRESSWAY

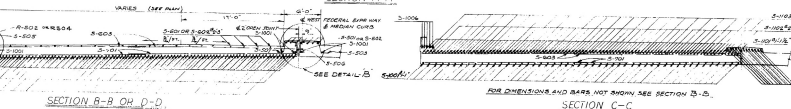
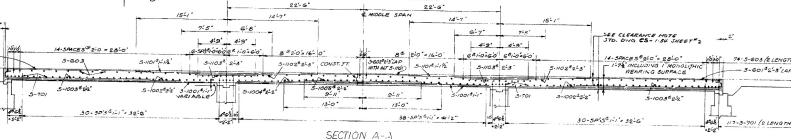
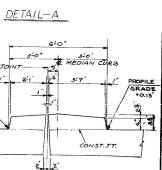
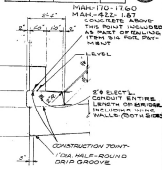
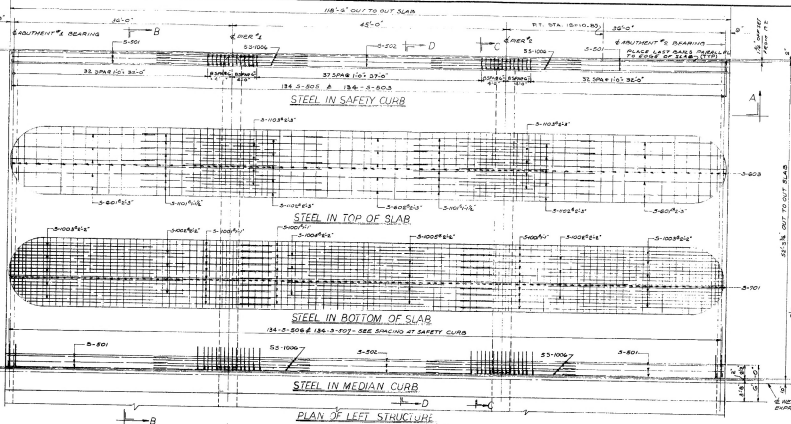


NO.	REV.	DATE	REMARKS
184	250		

MAH 170-1760
MAH 461-187



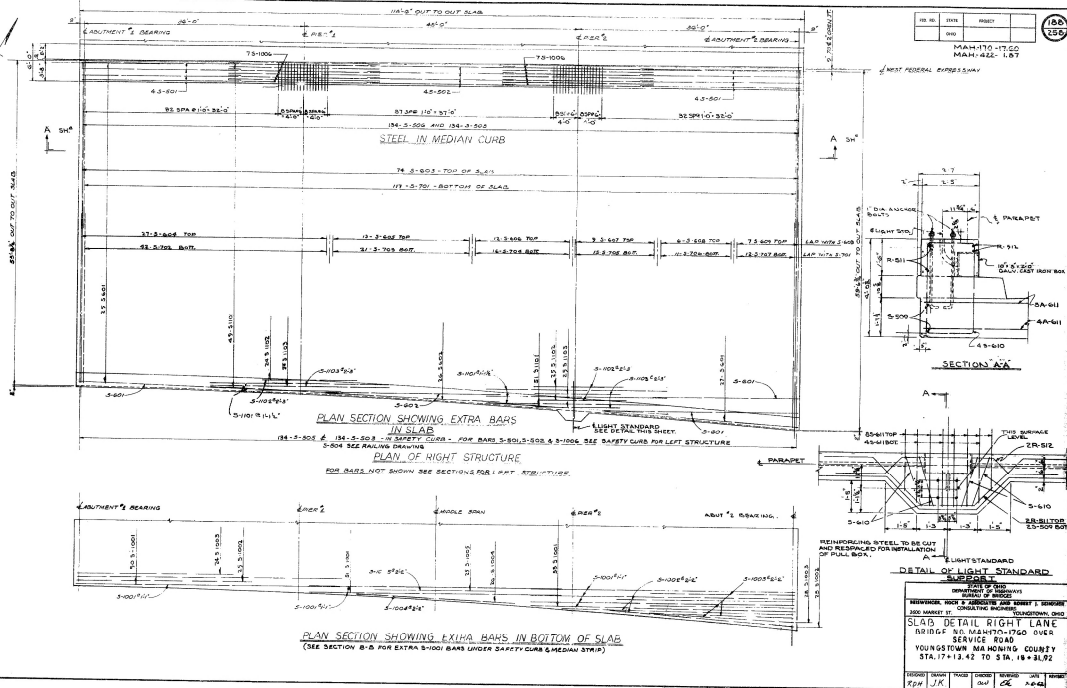
STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES	
DESIGNED BY: ROBERT T. SCHULZ CHECKED BY: ROBERT T. SCHULZ DATE: 10/1/60	
BRIDGE NO. MAH 170-1760 OVER SERVICE ROAD YOUNGSTOWN MAHONING COUNTY STA. 17+13.42 TO STA. 18+31.92	
NO.	REV.
184	250



NOTE: SEE DRAINAGE DETAILS FOR DETAILS & LOCATION OF SLUMPERS.

DESIGNED BY
DEPARTMENT OF HIGHWAYS
BUREAU OF
BRIDGES
REVISIONS: 187-1760-1760 OVER
BRIDGE NO. MAHITO-1760 OVER
SERVICE ROAD
YOUNGSTOWN 14 HAWKING COUNTY
STA. 17+13.42 TO STA. 18+31.92

DESIGN	DRAWN	CHECKED	APPROVED
J.K.	J.K.	J.K.	J.K.

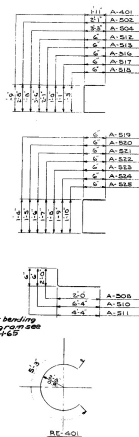


DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	APPROVED
PDM	J.K.		ew	Ch	7-6-82	

REINFORCING STEEL																							
MARK				MARK				MARK															
LENGTH		WEIGHT		LENGTH		WEIGHT		LENGTH		WEIGHT													
ABUTMENTS		ABUTMENTS (CONT)		PIERS (CONT)		SUPERSTRUCTURE (CONT)		SUPERSTRUCTURE (CONT)		PIERS (CONT)													
NO.	SIZE	QTY	WT	NO.	SIZE	QTY	WT	NO.	SIZE	QTY	WT												
A-401	10	2.5	21.9	BT																			
A-501	8	3.2	23.1	BT	A-801	8	28.2	600	ST	P-901	14	15.0	587	BT	S-1001	30	237.1	19421	ST				
A-502	44.6	8	3.5	BT	A-802	16	22.2	11.1	ST	P-902	36	14.4	2340	ST	S-1002	42	344.4	15133	ST				
A-503	4	2.5	11.0	BT	A-803	8	30.1	640	ST	P-904	1	18.4	440	ST	S-1003	31	30.5	1309.9	ST				
A-504	22.2	8	3.5	BT	A-804	16	22.2	11.1	ST	P-905	7	19.6	456	ST	S-1004	18	33.5	976	ST				
A-505	10	2.5	18.1	BT	A-805	10	29.9	100.7	ST	P-906	7	19.6	456	ST	S-1005	18	33.5	976	ST				
A-506	10	2.5	16.1	BT	A-806	10	29.9	100.7	ST	P-907	7	19.6	456	ST	S-1006	18	33.5	976	ST				
A-507	10	2.5	16.1	BT	A-807	10	29.9	100.7	ST	P-908	7	19.6	456	ST	S-1007	18	33.5	976	ST				
A-508	10	2.5	16.1	BT	A-808	10	29.9	100.7	ST	P-909	7	19.6	456	ST	S-1008	18	33.5	976	ST				
A-509	8	12.0	10.0	BT	A-809	8	29.9	100.7	ST	P-910	14	15.0	587	BT	S-1009	30	237.1	19421	ST				
A-510	8	12.0	10.0	BT	A-810	8	29.9	100.7	ST	P-911	14	15.0	587	BT	S-1010	30	237.1	19421	ST				
A-511	10	2.5	16.1	BT	A-811	10	29.9	100.7	ST	P-912	14	15.0	587	BT	S-1011	30	237.1	19421	ST				
A-512	32	4.6	14.4	BT	A-812	32	4.6	14.4	BT	P-913	14	15.0	587	BT	S-1012	30	237.1	19421	ST				
A-513	12	2.1	19.5	BT	A-813	12	2.1	19.5	BT	P-914	14	15.0	587	BT	S-1013	30	237.1	19421	ST				
A-514	12	2.1	19.5	BT	A-814	12	2.1	19.5	BT	P-915	14	15.0	587	BT	S-1014	30	237.1	19421	ST				
A-515	12	2.1	19.5	BT	A-815	12	2.1	19.5	BT	P-916	14	15.0	587	BT	S-1015	30	237.1	19421	ST				
A-516	4	2.5	9	BT	A-816	4	2.5	9	BT	P-917	14	15.0	587	BT	S-1016	30	237.1	19421	ST				
A-517	4	2.5	9	BT	A-817	4	2.5	9	BT	P-918	14	15.0	587	BT	S-1017	30	237.1	19421	ST				
A-518	4	2.5	9	BT	A-818	4	2.5	9	BT	P-919	14	15.0	587	BT	S-1018	30	237.1	19421	ST				
A-519	4	2.5	9	BT	A-819	4	2.5	9	BT	P-920	14	15.0	587	BT	S-1019	30	237.1	19421	ST				
A-520	4	2.5	9	BT	A-820	4	2.5	9	BT	P-921	14	15.0	587	BT	S-1020	30	237.1	19421	ST				
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TOTAL SUPERSTRUCTURE 1504.5												TOTAL PIERS 207.9											
TOTAL ABUTMENTS																							

SPIRAL REINFORCING						
MARK	NO	CORE DIA.	LENGTH OF SPIRAL	PITCH	NR OF TURNS	WEIGHT
SP-401	16	2'-3"	3'-10 1/2"	4'-2"	40	3.525
SPACERS						660
TOTAL						4185

Total for bridge = 252,000 LBS



For bending
diagram see
BR+65

SPIRAL REINFORCING NOTES

THE LENGTH SHOWN IN THE STEEL LIST FOR SPIRAL BARS IS THE DISTANCE FROM THE TOP OF THE FOOTING TO BOTTOM OF THE PIER CAP.

THE NUMBER OF TURNS SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE LENGTH DIVIDED BY THE PITCH PLUS THREE TURNS (TOTAL NUMBER OF CLOSED COILS) EXPRESSED AS THE NEAREST WHOLE NUMBER.

AS THE NEAREST WHOLE NUMBER
SPIRAL REINFORCING BARS SHALL

ITEMS SHALL BE SHAPED SO AS TO HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM 509.

ONE AND ONE HALF COUDED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT
FOUR (4) STEEL CHANNEL, TEE OR ANGLE SPACERS WEIGHING APPROX. 0.68 LBS PER LINEAL

FOOT OF SPACERS SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF EACH COIL. THE NUMBER OF POUNDS OF THESE

SPACERS, BASED ON 0.65 LBS PER LINEAL FOOT WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.

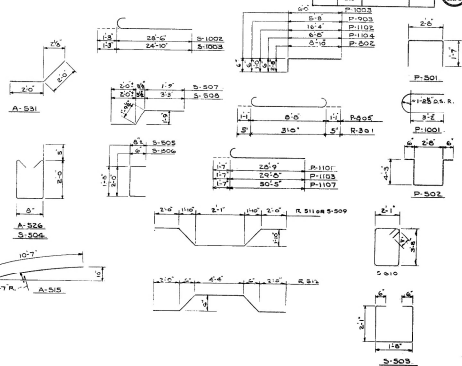
BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE

USED AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, R-701 IS A #7 SIZE BAR AND S-1001 IS A #10 SIZE BAR.

1. Press the **ENTER** key to go to the next screen.

* RAILING REINFORCING BARS WILL BE INCLUDED AS PART OF ITEM 517 FOR PAYMENT.

100



STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

BRIDGEWOMEN, HOCH & ASSOCIATES AND ROBERT J. SCHMIDT
CONSULTING ENGINEERS
2900 MARKET ST. YOUNGSTOWN, OHIO

REINFORCING SCHEDULE
BRIDGE NO. MAH-10-1760 OVER
SERVICE ROAD
YOUNGSTOWN MANHONING COUNTY
STA. 17+13.42 TO STA. 18+31.92

DESIGNED	DRAWN	TRACES	CHECKED	REVIEWED	DATE	REVISION
RAH	JLH		SW	CR	7-6-62	