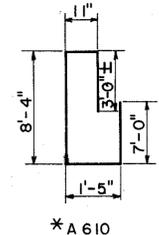
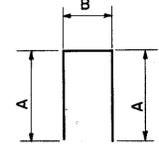


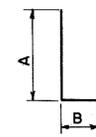
LAKE COUNTY
SEC. LAK - I - 10.38



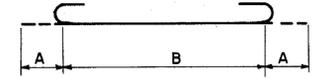
*A 610



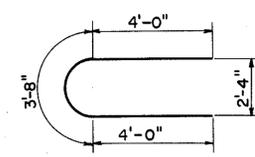
TYPE #1



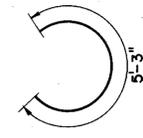
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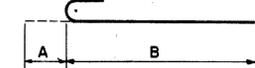
TYPE #3



* P 701



* RE 401



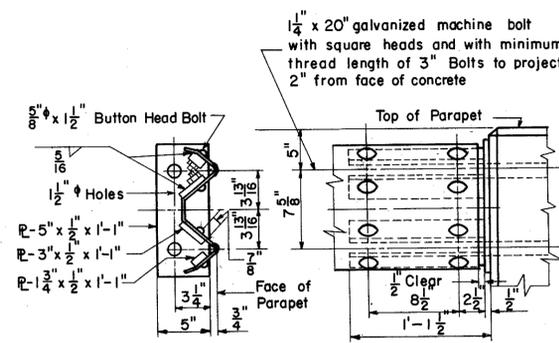
TYPE #4

REINFORCING STEEL LIST

ABUTMENTS										SUPERSTRUCTURE										PIERS										REPLACEMENT BARS							
MARK	ABUT. #1	ABUT. #2	TOTAL	LENGTH	WEIGHT	TYPE	A	B	VARIABLES BY	No. of Ea.	MARK	No.	LENGTH	WEIGHT	TYPE	A	B	VARIABLES BY	No. of Ea.	MARK	PIER #1	PIER #2	PIER #3	PIER #4	PIER #5	TOTAL	LENGTH	WEIGHT	TYPE	A	B	MARK	No.	LENGTH	WEIGHT	TYPE	
AF 701	16	16	32	28'-9"	1880	Str.					S 401	1314	4'-4"	3,801	1	2'-0"	6"			PF 601	56	56	56	56	56	280	5'-6"	2,313	Str.			RE 401	1	5'-3"		*	
AF 702	8	8	16	23'-0"	752	Str.					S 402	1314	3'-7"	3,142	1	6"	2'-9"			PF 901	48	48	48	48	48	240	6'-3"	5,100	2	5'-6"	1'-0"	RE 402	1	5'-3"		Str.	
AF 703	8	8	16	18'-4" to 12'-3"	501	Str.			2'-0"	5/16"	4	S 403	2628	1'-8"	2,932	2	1'-3"	6"																			
AF 504	66	66	132	10'-0"	1377	1	3'-10"	2'-6"			S 501	1061	30'-0"	33,199	Str.					P 501	4	4	4	4	4	20	14'-3"	297	Str.			RE 501	3	5'-7"		Str.	
AF 505	46	46	92	8'-5"	808	1	3'-1"	2'-6"			S 502	100	28'-0" to 6'-9"	1,813	Str.			5 3/16"	2	P 502	36	36	36	36	36	180	7'-5"	1,393	1	2'-6"	2'-8"	RE 601	7	5'-11"		Str.	
AF 506	80	80	160	6'-7"	1098	1	2'-10"	1'-2"			S 601	53	37'-9"	3,005	Str.					P 701	8	8	8	8	8	40	11'-8"	914	*			RE 701	1	6'-3"		Str.	
A 607	14	14	28	26'-2"	1101	Str.					S 602	2337	30'-0"	105,305	Str.					P 702	4	4	4	4	4	20	14'-3"	583	Str.			RE 801	1	6'-6"		Str.	
A 508	34	34	68	5'-10"	413	Str.					S 603	110	20'-0"	3,304	Str.					P 703	6	6	6	6	6	30	15'-6"	950	Str.			RE 901	1	6'-10"		Str.	
A 609	50	50	100	6'-6"	976	4	8"	5'-10"			S 604	100	28'-0" to 6'-9"	2,610	Str.			5 3/16"	2	P 704a	4	4	4	4	4	20	21'-8"	885	1	3'-6"	15'-10"						
A 610	50	50	100	20'-0"	3004	*					S 605	40	5'-6"	330	Str.					P 704b	4	4	4	4	4	20	23'-4"	955	1	3'-6"	16'-8"						
A 511	20	20	40	26'-2"	1092	Str.													P 704c	2	2	2	2	2	10	23'-8"	484	1	3'-6"	17'-0"							
A 612	20	20	40	5'-4"	320	1	1'-0"	3'-8"												P 901	24					24	20'-9"	1693									
WF 813	36	36	72	6'-1"	1170	4	1'-1"	5'-0"												P 902	24					48	20'-5"	3332									
WF 514	24	24	48	4'-2"	209	Str.														P 903		24	24			48	21'-5"	3496									
W 615	30	30	60	11'-4"	1021	2	10'-4"	10"												P 904		24	24	24		72	21'-0"	5141									
W 516	19	19	38	11'-6"	656	Str.														P 905					24	24	19'-3"	1571									
W 617	6	6	12	21'-8"	391	Str.														P 906					24	24	18'-6"	1510									
W 618	6	6	12	12'-8"	228	Str.																															
W 619	6	6	12	12'-0" to 9'-0"	189	Str.			1'-6"	3																											
W 620	6	6	12	22'-0" to 19'-0"	369	Str.			1'-6"	3																											
W 621	6	6	12	16'-0"	288	Str.																															
W 622	6	6	12	26'-4"	475	Str.																															
W 523	14	14	28	7'-2"	209	Str.																															
W 524	8	8	16	4'-0"	67	Str.																															
W 525	8	8	16	5'-3"	88	Str.																															
W 526	6	6	12	26'-3" to 29'-3"	347	Str.			1'-6"	4																											
W 527	6	6	12	16'-0" to 19'-0"	219	Str.			1'-6"	4																											
W 528	17	17	34	6'-5"	227	1	2'-8"	1'-4"																													
W 529	28	28	56	5'-9" to 3'-1"	259	1	2'-7" to 0"	1'-4"	3 11/16"	4																											
W 431	41	41	82	4'-4"	237	1	2'-0"	6"																													
W 533	16	16	32	4'-4"	112	Str.																															
W 534	4	4	8	5'-6"	46	Str.																															
W 935	10	10	20	9'-6"	646	3	1'-3"	7'-0"																													
TOTAL										159,441	TOTAL										36,986	TOTAL					6,369										

NOTES:

All dimensions are out to out of the bar.
 Bar Size is indicated in the bar mark. The first digit where three digits are used, and the first two where four are used, indicate the bar size number. For example, A700 is a No. 7 size bar & A1014 is a No. 10 size.
 The length shown in the bar list for the spiral bars is the distance from the top of the footing to the bottom of the cap.
 The number of turns shown is the length divided by the pitch, plus 3 turns (total number of closed coils) expressed as the nearest whole number.
 Spiral bars shall not have deformations but shall in other respects conform to Item S-4.
 1/2 closed coils shall be provided at the ends of each spiral unit.
 Four steel channel, tee or angle spacers, weighing approximately 0.68 lbs. per lin. ft., shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of 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: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Testing Laboratory, test samples as provided in Sec. S-4.02 need not be furnished and replacement bars will not be required.



NOTE: Guard Rail End Connection Assembly shall be galvanized after welding.

GUARD RAIL DETAIL
Included with Item S-14 for payment

APPROACH SLABS										
MARK	SLAB #1	SLAB #2	TOTAL	LENGTH	WEIGHT	TYPE	A	B	VARIABLES BY	No. of Ea.
AP 501	28	28	56	23'-0"	Include	Str.				
AP 502	1	1	2	11'-6"	with	Str.				
AP 503	1	1	2	9'-0"	Item	Str.				
AP 504	1	1	2	6'-0"	I-7	Str.				
AP 505	1	1	2	2'-9"	for payment	Str.				
AP 801	49	49	98	15'-7"		5	1'-1"	14'-6"		
AP 802	44	44	88	14'-0" to 6'-0"		5	1'-1"	12'-11" to 4'-11"	4 9/16"	4
AP 803	4	4	8	18'-6"		Str.				
AP 804	4	4	8	29'-0"		Str.				
AP 805	6	6	12	21'-6" to 28'-0"		Str.			1'-6"	2
AP 806	14	14	28	3'-6" to 8'-6"		Str.			3 1/8"	2

SEC. C-31A

PREPARED BY
CAPITOL ENGINEERING ASSOCIATES, DILLSBURG, PA.
FOR

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

REINFORCING BAR LIST
BRIDGE NO. LAK - I - 1199
S.R.I UNDER MORLEY ROAD
LAKE COUNTY

STA. 280 + 75.45

DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
					3-1-60