

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super.	Abut.	Piers	Gen'l	As-Built
511	474	Cu.Yds.	Class "C" concrete, superstructure	474				
511	8	Cu.Yds.	Class "E" concrete, abutments		8			
509	83,622	Lbs.	Reinforcing steel	83,990	692			
516	15,950	Lbs.	Structural steel expansion joints	15,950				
513	10,750	Lbs.	Gutters	10,750				
514	26,700	Lbs.	Field painting of new structural steel	26,700				
514	Lump	Sum	Cleaning and painting existing structural steel	Lump				
517	743	linft.	Railing (606 Type 4 with galvanized steel posts, bolts and handrail)	743				
202	Lump	Sum	Removal of portion of existing structure				Lump	
518	16	each	Scuppers, including supports	16				
808	474	each	Water-reducing, set-retarding admixture	474				
516	15	Sq.Ft.	1/2" Preformed expansion joint filler AASHO Spec. M-15.3		15			
825	1631	Sq.yds.	Concrete Surface Treatment	1631				
512	10	Sq.yds.	Type "A" Waterproofing		10			

PROPOSED WORK

Remove existing concrete superstructure including expansion dams.
Remove existing abutment back walls to the limits shown on the plans, and approach slabs where necessary to replace new end dams.
Provide and erect structural steel expansion dams, scuppers and bulb angle gutter.
Construct new concrete deck.
Rebuild abutment back walls, approach slabs and sidewalks.
Provide and erect guardrail with top handrail.
Clean and paint existing structural steel.

GENERAL NOTES

REFERENCE shall be made to Standard Drawings CS-2-65 sheet 1 dated 6-1-65 and SD-1-63 sheets 2, 3 and 4 dated 11-12-63 and Supplemental Specification 808 dated 7-14-65 and 825 dated 4-22-65.

DESIGN SPECIFICATIONS: The repair work 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.

Design Loading - CF130(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.)
Reinforcing Steel - ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 psi.

EXCAVATION necessary for the removal and replacement of the existing end dams and sidewalks and replacement of backfill shall be included with item 202 for payment.

DIMENSIONS of the existing structure shall be verified in the field by the Contractor before work begins. Existing bridge plans are available for review at the Bureau of Bridges in Columbus and at Division 12 office.

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shp	Bending Diagrams	Mark	No.	Length	Weight	Shp	
Abutments					Superstructure (cont.)						
A501	4	28'-6"	119	S		S503	of to	2378	S		
A502	50	3'-5"	178	B		S504	564	31'-8"	18,628	S	
A503	16	3'-11"	65	B		S401	496	3'-6"	1,160	S	
A504	4	34'-0"	142	S		S402	496	6'-11"	2,292	B	
A505	4	8'-0"	33	S *		Replacement Bars					
A506	20	5'-2"	116	B		REB01	2	6'-6"	-	S	
A507	8	4'-8"	39	S *		RE501	3	5'-7"	-	S	
Superstructure						RE401	1	6'-1"	-	B	
S801	288	32'-3"	24,799	S	Vary each by 2'-6"						
S501	846	37'-8"	33,236	S	* Bend in field to fit						
Series 6'-2"					S502 of to 1713 S						
	11	31'-2"									

The S501 bars may be furnished in pairs of equal lengths lapped 1'-7" at the centerline, or they may be furnished in pairs of different lengths in order to lap beyond a longitudinal construction joint, at the option of the Contractor. Determination of the pay quantity will be based on the number and length of bars as shown hereon unless otherwise called for on the plans.

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicate the bar size number. For example, A700 is a No. 7 size bar and A1014 is a No. 10 size.

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

ESTIMATED QUANTITIES, REINFORCING STEEL LIST, PROPOSED WORK & GENERAL NOTES
BRIDGE NO. LAK-84-1888
OVER GRAND RIVER

LAKE COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FPK	FPK	JVA	JDR	BFJ	8-19-65	