FED. RD. DIV. NO.	STATE	FED. AID PROJECT	FISCAL YEAR	5 / 15
2	OHIO		1947	

LAKE COUNTY
S. H. SEC. LAK-20-5.60

DISINTEGRATED AREAS*

(SEE SHEETS No. 6 & 7 FOR LOCATION)

LOCATION	SIDE	Fascia Beam, sq.ft.	Underside of Sidewalk Slab, sq.ft.	Sidewalk Bracket no. requiring repair	Columns over Arch Rib, sq.ft.	Top of Arch Rib, sq.ft.	Bottom of Arch Rib, sq.ft.	Jack Arch (no. requ. repair)	Roadway Slab, sq.ft.	Floor Beam, sq.ft.	Vertical Abutment Wall, sq.ft.	Abutment Copings, sq.ft.	Pier Walls, sq.ft.	Railings, Pylons Light Standards	Sidewalk (top Surface) Curb & Gutter
WEST ABUTMENT	North										150	100			
	Front										320				
	South														
SPAN "A"	North	56	181	3											
	South	126	226		Minor repair	Minor repair	Minor repair	Minor repair	20						
PIER No 1	North							Top of piers badly disintegrated at bearings **					100		
	South														
SPAN "B"	North	85	181	2	Minor repair	100			484	360					
	South	113	136	2		Minor repair									
PIER No. 2	North							Tops disintegrated at bearings Inner surfaces of walls require extensive repair					Minor repair		
	South												Minor repair		
SPAN "C"	North	113	226	5	Minor repair	Minor repair	Minor repair		256	360					
	South	175	136	2					740						
PIER No. 3	North							Top disintegrated at bearings Repair disintegrated area at haunch					100		
	South														
SPAN "D"	North	113	316	6	Minor repair	Minor repair			256						
	South	175	406	6					1410						
PIER No. 4	North							Top of piers badly disintegrated at bearings					30		
	South												50		
SPAN "E"	North	68	316	4	Minor repair	Minor repair			1224						
	South	83	406	3			Minor repair		256						
PIER No. 5	North							Top of piers at bearings (N. & S. sides) and haunch on S. side only, badly disintegrated					50		
	South														
SPAN "F"	North	57	181	1		Minor repair			541	180					
	South	58	226	2	Minor repair				57						
PIER No. 6	North							50 sq. ft. disintegrated at haunch, S. side; Tops of piers disintegrated at bearings, both sides.					100		
	South												50		
SPAN "G"	North	88	181	2	Minor repair	Minor repair			86						
	South	100	136	2			Minor repair		900						
PIER No. 7	North							Haunch disintegrated, S. side; tops of piers disintegrated, both sides.					100		
	South												50		
SPAN "H"	North	68	226	3		Minor repair	10	4	960						
	South	70	226	6			30	3	180						
PIER No. 8	North							Haunch & top of pier badly disintegrated, N. & S. sides.					100		
	South												150		
SPAN "I"	North	68	271	5		50	50	1	260	360					
	South	68	181	3				3	230						
PIER No. 9	North							Top of pier at bearing badly disintegrated, N. & S. sides; haunch disintegrated, S. side.					40		
	South												25		
SPAN "J"	North	90	181	2	50	50	Minor repair		660						
	South	175	361	3	Minor repair	50			200						
PIER No. 10	North							Top of pier at bearing badly disintegrated, N. & S. sides.					60		
	South												50		
SPAN "K"	North	55	45	1			25	1	30	360					
	South	127	136	1		25	25	1	300						
EAST ABUTMENT	North										1200	50			
	Front										130				
	South										50	15			

See note "Railing Repairs" and Sheet No. 14 for details of extent of repairs.

See Sheet No. 14 for details of extent of repairs

* Areas and quantities given in this Table are approximate values.
** See note "Sliding Plates Installed" & Sheet No. 15 for details and extent of repair.

GENERAL NOTES

SUPPLEMENTAL SPECIFICATION S-303, dated Dec. 20, 1946 is a part of these plans.

DETAILS OF EXISTING STRUCTURE shown in these plans were taken from the original drawings, copies of which may be examined at Columbus Central Office or Cleveland Division Office of the Department of Highways.

THE WORK to be done consists of removing all of the disintegrated or loose sections of concrete throughout the entire structure, as directed by the Engineer, cleaning the concrete and reinforcing steel which is to be covered, and restoring the members to their original lines or sections by the application of pneumatically placed mortar and reinforcing in accordance with the Construction and Material Specifications of the Department except as modified by these special provisions. At points where removal of disintegrated concrete and preparation of the surfaces results in practically total removal of the section or member, and at such other places that the Engineer may designate, the repairs shall be made by pouring or casting Class "C" concrete.

Members to be repaired or restored include portions of:

- Abutment walls & copings
- Pier walls & tops
- Arch ribs
- Spandrel columns
- Jack arches
- Floor beams
- Roadway slab
- Sidewalk brackets
- Fascia beams
- Sidewalks
- Curbs
- Gutters
- Expansion joints through deck
- Railing, pylons, light standards
- Any other disintegrated concrete

Other items include:

- Bronze bearing plates
- Weep holes in abutment walls
- Scuppers in deck
- Resurfacing roadway

PREPARATION: In addition to the preparation of surfaces called for in Sec. S-6.03, all surface areas to be repaired shall be designated and their limits marked by the Engineer before the work is begun. No work shall be done outside the designated areas without the Engineer's approval. At the areas designated, all loose or disintegrated concrete shall be removed until a sound dependable surface is obtained, suitable for bonding the new work. The bonding surface and exposed reinforcement shall be thoroughly cleaned by use of wire brushes, compressed air, water and sand blast equipment as directed by the Engineer.

REINFORCING MATERIAL: In lieu of the wire mesh specified in S-6.02, 2"x2" No.12 welded wire mesh or an approved equivalent may be used. Adjacent sheets of mesh shall be lapped not less than 3 inches, and shall be firmly fastened together at intervals of approximately 18 inches. The mesh shall be firmly attached to the bonding surface by means of ¼" dia. expansion bolts, 4 inches long, and spaced approximately 2'-6" centers in each direction. In special cases other methods of attachment may be used providing they have the approval of the Engineer. Care shall be taken that the mesh does not rest directly against the bonding surface and that no reinforcement is located closer than ¾ inch from any finished surface. In places where the depth of the section removed exceeds 3 inches over an appreciable area, two or more layers of fabric shall be used.

FINISHING: A wood float finish shall be made on surfaces of the pneumatically placed mortar except on the underneath side of the roadway slab, which shall be left gun finish.

METHOD OF MEASUREMENT: Sec. S-6.08 shall be amended as follows: The quantity of pneumatically placed mortar to be paid for shall be the actual number of bags of Portland Cement used in mixing the mortar. The actual bag count shall be determined by the Engineer.

BASIS OF PAYMENT: Sec. S-6.09 shall be amended as follows: The actual bag count determined as provided above shall be paid for at the contract unit price per standard bag of Portland Cement bid for "Item S-6 Pneumatically Placed Mortar," which price and payment shall constitute full compensation for removing disintegrated material and preparing bonding surfaces, for furnishing and preparing all materials, including wire mesh, expansion bolts, and placing and finishing, and for all labor, equipment, tools, scaffolding and incidentals necessary to complete this item.

RAILING REPAIRS: The repairs to the railing, pylons, & light standards of this bridge shall consist of the removal of all disintegrated concrete, the filling in between the railing spindles and the disintegrated surfaces with pneumatically placed mortar, and the flash coating of ¼" pneumatically placed mortar on all surfaces of the railing, pylons, and light standards. The flash coat on the railing surfaces toward the roadway shall have a smooth surface, and on the surfaces away from the roadway shall be left gun finish.

POURED CONCRETE WORK: At points designated by the Engineer where removal of disintegrated concrete and preparation of surfaces results in practically total removal of the section or member the repairs shall be made as specified under "Item S-1 Class "C" Concrete, Structure Repairs". Payment for this item shall include reinforcing steel and the removal of all disintegrated material.

SLIDING PLATES INSTALLED: The repair work at the bearings of jack arches on piers and abutments shall be done by shoring up the jack arches, removing disintegrated concrete and replacing with pneumatically placed mortar, and installing new bronze sliding plates. Repairs to bearings shall be paid for at the contract unit price bid for each bearing, "Item S-9 Sliding Plates Installed", which price shall include bronze plates, premolded expansion joint filler and shoring necessary to complete this item. Pneumatically placed mortar shall be paid for under Item S-6.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

GENERAL NOTES & TABLE OF DISINTEGRATED AREAS

BRIDGE NO. LA-20-56
OVER CHAGRIN RIVER
LAKE COUNTY
SEC. LAK-20-5.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	EJC	KET KBL	W.C.K.	ERJ	11/24/47	