

GENERAL NOTES

LAK-91-3.83

OHIO
FHWA
REGION 5

37
44

STRUCTURES

DESIGN STRESSES:

CONCRETE CLASS S - UNIT STRESS 1500 PSI
REINFORCING STEEL - ASTM A615, A616, OR A617
GRADE 60 - UNIT STRESS 24,000 PSI

PLAN OF OPERATIONS AND PROTECTION

THE CONTRACTOR SHALL SUBMIT TO THE DIRECTOR A COMPLETE SCHEDULE OF CONSTRUCTION OPERATIONS ALONG WITH PLANS CONTAINING HIS PROPOSED METHODS OF PREVENTING DEBRIS AND PAINT FROM FALLING ON THE ROADWAY BELOW. THESE PLANS MUST BE SUBMITTED AND APPROVED PRIOR TO COMMENCING THE WORK. NO REMOVAL WORK SHALL BE STARTED WITHOUT PRIOR APPROVAL OF THE ENGINEER. FOR RESTRICTIONS ON BRIDGE CLOSING AND MAINTENANCE OF BRIDGE TRAFFIC SEE THE MAINTENANCE OF TRAFFIC NOTES ON SHEET 9 OF 44.

THE MAJOR WORK ON THE BRIDGES IS AS FOLLOWS:

BRIDGE NO. LAK-91-0455

1. PATCH CONCRETE STRUCTURES WITH ITEM 519 PATCHING CONCRETE STRUCTURES, AS PER PLAN AND ITEM SPECIAL PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR.
2. REPLACE EXISTING CONCRETE MEDIAN ON BRIDGE.
3. SOUND CONCRETE BRIDGE COMPONENTS.
4. SEAL CONCRETE SURFACES AS SHOWN ON SHEETS 4/8 & 5/8.
5. CLEAN AND PAINT ALL EXISTING STRUCTURAL STEEL.
6. CLEAN AND SEAL BRIDGE DECK EXPANSION JOINTS.
7. INSTALL PROTECTIVE FENCING.

BRIDGE NO. LAK-91-0547

1. PATCH CONCRETE STRUCTURES WITH ITEM 519- PATCHING CONCRETE STRUCTURES AS PER PLAN.
2. REPAIR CRACKS IN DECK BY EPOXY INJECTION.
3. SOUND CONCRETE BRIDGE COMPONENTS.
4. SEAL CONCRETE SURFACES AS SHOWN ON SHEET 6/8, 7/8 & 8/8.
5. REPAIR STEEL GIRDERS AND CROSS FRAMES.
6. REPAIR AND RESET BRIDGE BEARINGS.
7. REPAIR CONTRACTION JOINTS IN RAMPS.
8. REPAIR PORTIONS OF SIDEWALK, GUTTER, AND HANDRAIL AS SHOWN ON SHEETS 6/8, 7/8 & 8/8.
9. ADD BRIDGE CLEARANCE SIGN.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTION 102.05 AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS, DIMENSIONS, ELEVATIONS, AND SKEW ANGLES WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

ANY ADDITIONAL COST RESULTING FROM VARIATIONS FROM PLAN DIMENSIONS IS THE RESPONSIBILITY OF THE CONTRACTOR AND NO ADDITIONAL PAYMENT OVER THE UNIT PRICE BID WILL BE AWARDED.

EXISTING STRUCTURE PLANS

THE ORIGINAL DESIGN PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 12 OFFICE, 5500 TRANSPORTATION BLVD., GARFIELD HEIGHTS, OHIO. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE DRAWINGS.

STRUCTURAL STEEL CLEANING AND COATING

A. AREAS TO BE COATED

ALL EXISTING STRUCTURAL STEEL SURFACES ON BRIDGE NO. LAK-91-0455 SHALL BE CLEANED AND COATED, INCLUDING SUCH ITEMS AS DRAINAGE CONDUCTORS AND BEARINGS. THE COLOR OF THE TOPCOAT OF THE STRUCTURAL COATING SHALL BE BLUE FEDERAL COLOR STD. NO. 15450.

B. LIMITATIONS OF OPERATIONS

NO NIGHT-TIME STRUCTURAL STEEL CLEANING AND COATING OPERATIONS SHALL BE PERMITTED.

TYING REBARS

THE PURPOSE OF THIS ITEM IS TO TIE EXPOSED STEEL REINFORCING BARS WHICH ARE IN CROSS CONTACT OR LAPPED. TACK WELDING SHALL NOT BE PERMITTED. THIS WORK SHALL BE PERFORMED WHERE AND AS DETERMINED BY THE ENGINEER TO RESTRICT THE RELATIVE MOVEMENT OF THE REINFORCING BARS.

PAYMENT FOR THIS WORK, INCLUDING EXTRA REMOVAL OF CONCRETE TO PERMIT TYING, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 511 - CLASS "S" CONCRETE, SUPERSTRUCTURE, AS PER PLAN.

ITEM 202- PORTIONS OF STRUCTURES REMOVED

WORK TO BE PAID FOR UNDER THIS ITEM SHALL INCLUDE THE REMOVAL OF STRUCTURAL COMPONENTS AS DETAILED IN THE PLANS AND AS DIRECTED BY THE ENGINEER. THESE REMOVALS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO THE FOLLOWING LIST:

1. PORTIONS OF BRIDGE MEDIAN (LAK-91-0455)

ONLY PNEUMATIC OR HAND TOOLS THAT WILL GIVE RESULTS SATISFACTORY TO THE ENGINEER SHALL BE USED IN THE REMOVAL OF THE DISINTEGRATED CONCRETE. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGING THE EXISTING REINFORCING STEEL WHICH IS TO REMAIN IN PLACE. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 60 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT HAMMERS NOT TO EXCEED 90 POUNDS MAY BE USED WITH THE APPROVAL OF THE ENGINEER. NO HOE RAMS SHALL BE USED. ANY STEEL WHICH IS MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT HIS COST.

ITEM 509- REINFORCING STEEL, AS PER PLAN

THIS ITEM SHALL BE USED TO REPLACE REINFORCING STEEL WHICH IS BENT, ELONGATED, MISSING OR EXTREMELY CORRODED. BARS SHALL BE THE SAME SIZE AS ORIGINAL BARS AND SHALL BE PLACED AS NEAR AS POSSIBLE TO THEIR ORIGINAL LOCATION. BARS SHALL BE LAPPED ACCORDING TO SECTION 509.08. PAYMENT FOR THIS ITEM SHALL INCLUDE THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLETE THE ABOVE WORK, INCLUDING REMOVAL OF EXISTING STEEL. ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSEABLE BY THE CONTRACTOR'S REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT HIS COST.

THE FOLLOWING ESTIMATED QUANTITY OF REINFORCING STEEL IS TO BE USED WHERE AND AS DIRECTED BY THE ENGINEER, AND HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES:

ITEM	DESCRIPTION	QUANTITY
509	REINFORCING STEEL, AS PER PLAN	200 POUNDS

ITEM 511 - CLASS S CONCRETE SUPERSTRUCTURE, AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND PLACING PORTLAND CEMENT CONCRETE IN ACCORDANCE WITH ITEM 511 WITH THE FOLLOWING ADDITION:

1. ALL CONCRETE SURFACES THAT WILL BE IN CONTACT WITH CLASS S CONCRETE SHALL BE THOROUGHLY SANDBLASTED AND AIR CLEANED.
2. See also "Tying Rebars" - this sheet.

ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

THIS ITEM SHALL CONSIST OF PATCHING EXISTING STRUCTURAL CONCRETE AT THE LOCATIONS AS SHOWN ON THE PLANS IN ACCORDANCE WITH ITEM 519 AND THE FOLLOWING ADDITIONAL REQUIREMENTS:

1. CONCRETE MATERIAL SHALL BE AS PER 519.02 (CLASS S).
2. REMOVAL OF CONCRETE SHALL BE IN ACCORDANCE WITH ITEM 519.03. AFTER COMPLETION OF THE REMOVAL OPERATION, THE ENGINEER WILL SOUND THE AREAS TO ENSURE THAT ONLY SOLID CONCRETE REMAINS.
3. SURFACE PREPARATION SHALL INCLUDE THE THOROUGH SANDBLASTING AND AIR CLEANING OF ALL SURFACES WHICH ARE TO BE IN CONTACT WITH THE PATCHING MATERIAL.

PAYMENT SHALL BE MADE UNDER THE SQUARE FOOT UNIT PRICE FOR ITEM 519-PATCHING CONCRETE STRUCTURES, AS PER PLAN.

ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN AND ITEM SPECIAL - PATCHING CONCRETE STRUCTURE WITH TROWELABLE MORTAR.

THESE ITEMS SHALL BE USED AS DIRECTED BY THE ENGINEER TO REPAIR DAMAGED CONCRETE AREAS OUTLINED BY THE ENGINEER.

GENERALLY, ITEM SPECIAL - PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR MAY BE USED WHERE THE SURFACE TO BE REPAIRED CANNOT READILY BE FORMED AND POURED OR THE REPAIR DEPTH IS 3 INCHES OR LESS. ITEM 519 PATCHING CONCRETE STRUCTURE, AS PER PLAN SHALL BE USED WHERE THE REPAIR DEPTH IS OVER 3 INCHES AND THE SURFACE CAN BE READILY FORMED AND POURED.

CLEANING SHALL PRECEDE ERECTION OF THE FORMS BY NOT MORE THAN 24 HOURS.

PAYMENT FOR THE ABOVE REQUIREMENTS SHALL BE INCLUDED WITH THE APPROPRIATE ITEM.

Burgess & Niple, Limited Engineers and Architects		bn 1982	1 / 8
STRUCTURE GENERAL NOTES			
BRIDGE NO. LAK-91-0455 BRIDGE NO. LAK-91-0547			
DESIGNED WAC	DRAWN PRD	TRACED	CHECKED RBB
REVIEWED DATE 7-20-90		REVISED	

BRIDGING 44-2317/1956