

GENERAL NOTES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

AS-1-81 DATED 11-27-81 BR-2-82 DATED 11-1-82
SD-1-69 DATED 6-12-69
EXJ-4-87 DATED 1-5-89
RB-1-55 REVISED 2-2-59

AND TO SUPPLEMENTAL SPECIFICATIONS:

852 DATED 7-30-93

DESIGN STRESSES:

CONCRETE CLASS S - UNIT STRESS 1,500 PSI
REINFORCING STEEL - ASTM A615, A616, OR A617
GRADE 60 - UNIT STRESS 24,000 PSI

DECK PROTECTION METHOD: SUPERPLASTICIZED DENSE CONCRETE OVERLAY

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 FROM FALLING ON THE ROADWAY OR RAILWAY 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 LANE CLOSURES, SEE MAINTENANCE OF TRAFFIC NOTES ON SHEET 10 OF 56.

THE MAJOR WORK ON BOTH BRIDGES IS AS FOLLOWS:

- PATCH CONCRETE STRUCTURES WITH ITEM 519 AS PER PLAN OR ITEM SPECIAL-TROWELABLE MORTAR, AS GIVEN IN THE PLANS AND AS DIRECTED BY THE ENGINEER.
- INSTALL 1-3/4" SDC OVERLAY ON THE BRIDGE DECK, INCLUDING VARIABLE AND FULL DEPTH REPAIRS.
- SEAL CONCRETE SURFACES AS SHOWN ON SHEETS 5/24 & 16/24 & 23/24
- INSTALL SAFETY SHAPED PARAPETS AND TRANSITIONS.
- CLEAN AND PAINT ALL EXISTING AND PROPOSED STRUCTURAL STEEL.
- INSTALL LONGITUDINAL DECK JOINT SEAL.
- VERTICALLY EXTEND STRUCTURAL EXPANSION JOINTS INCLUDING ELASTOMERIC STRIP SEALS AS PER PLAN.
- REPAIR OR REPLACE ABUTMENT DRAINAGE SYSTEM AND PLUG DECK SCUPPERS.
- RESET BRIDGE BEARINGS AT LOCATIONS INDICATED IN THE PLANS.

ADDITIONAL MAJOR WORK ON BRIDGE NO. LAK-91-0423 ONLY IS AS FOLLOWS:

- REMOVE AND REPLACE EXISTING CONCRETE APPROACH SLAB.
- INSTALLATION OF A RETAINING WALL SYSTEM WITHIN THE ABUTMENT FORESLOPE AREAS.

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.

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:

- PORTIONS OF BRIDGE NOT ASSOCIATED WITH CONCRETE RAILING REFACE WORK AND EXP. JOINT REHABILITATION WORK.
- APPROACH SLABS (BRG. NO. LAK-91-0423 ONLY)
- REMOVE DEBRIS FROM EXISTING ABUTMENT BRIDGE SEATS.
- EXISTING ASPHALT WEARING SURFACE ON BRIDGE DECKS

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.

ALL NECESSARY PRECAUTIONS SHALL BE EXERCISED TO PREVENT DEBRIS FROM FALLING TO AND/OR DAMAGING THE GROUND, THE RAILROAD TRACKS AND BED OR LAKE LAND BLVD. NO DEBRIS SHALL BE ALLOWED TO REMAIN ON THE SITE.

ITEM 509--EPOXY COATED 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 INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE 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 FOR BRIDGE NO. LAK-91-0423 AND BRIDGE NO. LAK-91-0449

ITEM	DESCRIPTION	QUANTITY
509	EPOXY COATED REINFORCING STEEL, AS PER PLAN	200 POUNDS (EA. BRIDGE)

STRUCTURAL STEEL CLEANING AND PAINTING:

A. AREA TO BE PAINTED

- ALL NEW STRUCTURAL STEEL.
- ALL EXISTING STRUCTURAL STEEL TO REMAIN AS PART OF THE RECONSTRUCTED BRIDGE

PROPOSAL NOTE "FIELD PAINTING OF EXISTING STEEL, SYSTEM OZEU" (HEREIN REFERRED TO AS OZEU) SHALL APPLY WHEN COATING ALL EXISTING STRUCTURAL STEEL ON THIS PROJECT. THE EXISTING STRUCTURAL STEEL SURFACES ON BRG. NO. LAK-91-0423 SHALL BE SOLVENT CLEANED PER PROPOSAL NOTE 119-88. PROPOSAL NOTE "OZEU" SHALL ALSO APPLY TO THE INTERMEDIATE COAT AND TOP COAT WHEN COATING NEW STRUCTURAL STEEL. ALL NEW STRUCTURAL STEEL HOWEVER, SHALL BE SHOP COATED IN ACCORDANCE WITH CMS 514, SYSTEM A, EXCEPT TYPE 111 PRIMER AS SPECIFIED IN 708.17 SHALL NOT BE ALLOWED. PAYMENT FOR THE SHOP SURFACE PREPARATION AND PRIME COAT SHALL BE INCLUDED IN THE PRICE BID FOR THE PERTINENT STEEL ITEMS. THE TOP OF ALL TOP FLANGES SHALL ALSO RECEIVE A PRIME COAT IN THE SHOP. NEW STEEL RECEIVING THE PRIME COAT IN THE SHOP SHALL NOT NEED TO BE WASHED AS REQUIRED BY PROPOSAL NOTE "OZEU."

NBS CALIBRATION TEST PLATES AS SPECIFIED IN PROPOSAL NOTE "OZEU" ARE NOT REQUIRED FOR STRUCTURAL STEEL PAINTED IN THE SHOP.

THE WORK LIMITATION DATES AS SPECIFIED IN PROPOSAL NOTE "OZEU" SHALL NOT APPLY TO THE SHOP COAT FOR NEW STRUCTURAL STEEL.

THE FINISH COAT SHALL BE BLUE AS PER FEDERAL COLOR STANDARD NO. FS-595A-15450. THE TOP COAT COLORS AS SPECIFIED IN PROPOSAL NOTE "OZEU" SHALL NOT APPLY.

THE APPLICATION OF THE INTERMEDIATE COAT WITHIN TEN DAYS OF THE PRIME COAT APPLICATION AS PER PROPOSAL NOTE "OZEU" SHALL BE WAIVED WHEN COATING NEW STEEL THAT WAS PRIMED IN THE SHOP.

THE INTERMEDIATE COAT AND TOP COAT SHALL BE MANUFACTURED BY THE SAME COMPANY WHEN COATING NEW STEEL THAT WAS PRIMED IN THE SHOP. HOWEVER, THE INTERMEDIATE AND TOP COAT NEED NOT BE MANUFACTURED BY THE SAME COMPANY AS THE SHOP PRIME COAT.

AFTER ALL STEEL IS ERECTED, FIELD WELDS AND ADJACENT SURFACES, THE EDGES OF CONTACT SURFACES, ANY EXPOSED UNPAINTED AREAS CREATED BY STRUCTURAL MODIFICATION IN THIS CONTRACT, AND ALL SURFACES FROM WHICH THE PRIME COAT WAS OMITTED, OR HAS BEEN REMOVED OR BECOME DEFECTIVE, SHALL BE CLEANED AND PAINTED USING PROCEDURES SPECIFIED IN PROPOSAL NOTE "OZEU."

PAYMENT FOR PAINTING NEW STRUCTURAL STEEL SHALL BE MADE UNDER ITEM SPECIAL - FIELD PAINTING NEW STEEL COMPLETE (INTERMEDIATE AND FINISH COATS), UNIT-POUND.

B. LIMITATIONS OF OPERATIONS

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

NEW STRUCTURAL STEEL: HAS BEEN INCLUDED AS A CONTINGENCY QUANTITY DUE TO THE POSSIBLE PARTIAL REPLACEMENT OF EXISTING DEFICIENT END CROSS FRAME MEMBERS AT BRIDGE NO. LAK-91-0423 AND BRIDGE NO. LAK-91-0449. FOLLOWING EXISTING STEEL CLEANING OPERATIONS, THE END CROSS FRAME MEMBERS SHALL BE INSPECTED BY THE ENGINEER FOR PARTIAL SECTION LOSS. STRUCTURALLY DEFICIENT MEMBERS SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER. PAINTING OF NEW CROSS FRAME MEMBERS SHALL CONFORM TO THE OZEU PAINT SYSTEM PROPOSAL NOTE EXCEPT THAT PAYMENT FOR PAINTING SHALL BE INCLUDED UNDER ITEM 513. THIS WORK SHALL BE IN ACCORDANCE WITH AND PAID FOR UNDER THE FOLLOWING:

ITEM	DESCRIPTION	QUANTITY
513	STRUCTURAL STEEL REPLACEMENT OF DETERIORATED END CROSS FRAMES, AS PER PLAN	200 LBS (EACH BRIDGE)

ITEM 519--PATCHING CONCRETE STRUCTURES, AS PER PLAN:

THIS ITEM SHALL CONSIST OF PATCHING EXISTING DAMAGED STRUCTURAL CONCRETE AT THE LOCATIONS AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. WORK SHALL BE IN ACCORDANCE WITH ITEM 519 AND THE FOLLOWING ADDITIONAL REQUIREMENTS:

THE SURFACE OF ALL AREAS TO BE PATCHED SHALL BE CLEANED BY ABRASIVE BLASTING.

ITEM SPECIAL--PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR:

THIS ITEM SHALL CONSIST OF PATCHING EXISTING DAMAGED STRUCTURAL CONCRETE AT THE LOCATIONS AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. WORK SHALL BE IN ACCORDANCE WITH THE PROPOSAL NOTE "PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR" AND THE FOLLOWING ADDITIONAL REQUIREMENTS.

GENERALLY, THIS ITEM MAY BE USED WHERE THE SURFACE TO BE REPAIRED CANNOT READILY BE FORMED AND POURED OR THE REPAIR DEPTH IS 3 INCHES OR LESS.

Burgess & Niple, Limited  1/24
Engineers and Architects

GENERAL STRUCTURE NOTES

BRIDGE NO. LAK - 91 - 0423
BRIDGE NO. LAK - 91 - 0449

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	SJS TPM		WAC	RBB 4/1/92	