

GENERAL NOTES

TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURES:

A. GENERAL

THIS WORK SHALL CONSIST OF CONSTRUCTING AND REMOVING RIGID TEMPORARY CONSTRUCTIONS REQUIRED TO COMPLETE THE WORK IN ADDITION TO THE FORMWORK AND ITEMS WHICH ARE SPECIFICALLY INCLUDED ELSEWHERE. THE WORK INCLUDES TEMPORARY PLATFORMS OR OTHER MEANS TO PREVENT LOOSE MATERIALS FROM FALLING DURING THE REMOVAL AND CONSTRUCTION OF SUPERSTRUCTURE. TIMBER SUBDECKING ALREADY EXISTS OVER THE TRAVELED LANES OF INTERSTATE 90.

B. REQUIREMENTS

IN ORDER TO PROTECT AGAINST DAMAGE FROM FALLING MATERIAL AND DEBRIS, WHILE SUPERSTRUCTURE CONCRETE IS BEING REPLACED OR WHILE WORK IS IN PROGRESS OVERHEAD, THE CONTRACTOR SHALL FURNISH AND ERECT TEMPORARY PROTECTIVE STRUCTURES. THE FLOORING AND SIDING OF THE STRUCTURES SHALL HAVE NO CRACKS OR OPENINGS THROUGH WHICH MATERIAL PARTICLES AND WATER USED FOR SAWING OPERATIONS OR CURING MAY FALL.

THE PROTECTION IN ALL CASES SHALL EXTEND BEYOND THE EXTERIOR STRINGERS A SUFFICIENT DISTANCE TO PROTECT AREA UNDER THE BRIDGE RAILINGS.

AFTER THE TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURES HAVE SERVED THEIR PURPOSE, AND WHEN SO DIRECTED BY THE ENGINEER, THEY SHALL BE REMOVED. ALL MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE.

DETAILS OF THE TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURES INCLUDING THE PROPOSED TEMPORARY UNDERCLEARANCES TO I-90 SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL. THE REDUCTION OF VERTICAL CLEARANCE ON I-90 DUE TO THE INSTALLATION OF FALSEWORK SHALL NOT ALLOW THE VERTICAL CLEARANCE TO BE LESS THAN 15'-6". THIS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

C. TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURES WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED WITH THE UNIT PRICE BID FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

TEMPORARY SHORING:

TEMPORARY SHEETING SHALL BE USED TO SUPPORT EXISTING AND PROPOSED ROADWAY DURING PART WIDTH CONSTRUCTION. THE TEMPORARY SHEET PILE SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE MADE AT THE CONTRACT BID PRICE FOR ITEM 503, COFFERDAMS, CRIBS AND SHEETING.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN

UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH 503 EXCEPT THAT THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE 203 GRANULAR MATERIAL PLACED IN LIFTS NOT TO EXCEED A THICKNESS OF MORE THAN SIX (6) INCHES.

ITEM 842, CONCRETE MISC.: DOWEL HOLES

THIS ITEM SHALL INCLUDE THE DRILLING OF HOLES INTO CONCRETE OR MASONRY AND THE FURNISHING AND PLACING OF GROUT INTO HOLES. NONSHRINKING EPOXY GROUT SHALL BE USED IN ACCORDANCE WITH CMS 510 AND 705.20. PAYMENT UNDER ITEM 842, EACH.

INSPECTION OF STRUCTURAL STEEL:

THE ENGINEER SHALL VISUALLY INSPECT ALL EXISTING BUTT-WELDED SPLICES AND /OR TOP FLANGE COVER PLATE FILLET WELDS TO ENSURE THAT THEY ARE FREE OF DEFECTS. THE DECK SLAB HAUNCH FORMS IMMEDIATELY ADJACENT TO SUCH WELDS SHALL NOT BE ERECTED UNTIL AFTER THE ENGINEER HAS COMPLETED THIS INSPECTION. THIS INSPECTION SHALL NOT TAKE PLACE UNTIL AFTER THE TOP FLANGES ARE CLEANED AS SPECIFIED IN 511.08, BUT IT SHALL BE DONE BEFORE THE DECK SLAB REINFORCEMENT IS INSTALLED. THE COST ASSOCIATED WITH THIS INSPECTION SHALL BE INCLUDED WITH ITEM 844, SUPERSTRUCTURE CONCRETE FOR PAYMENT.

SEALING OF CONCRETE SURFACES

CONCRETE SEALER SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES WITH THE SPECIFIED SEALER AS LISTED BELOW:

- A. SUPERSTRUCTURE AND WINGWALL PARAPETS - USE EPOXY-URETHANE SEALER.
- B. SUBSTRUCTURE - USE EPOXY-URETHANE SEALER.
- C. PIER COLUMNS - USE EPOXY-URETHANE SEALER.
- D. PIER CAPS - USE EPOXY-URETHANE SEALER.

THE COLOR FOR CONCRETE SEALER SHALL CONFORM TO FEDERAL SPECIFICATIONS NO. 595A-I687.

SEE THE PROPOSAL NOTE FOR SURFACE PREPARATION REQUIREMENTS, APPLYING RATES, MATERIAL REQUIREMENTS AND APPLICATION PROCEDURES.

ITEM 844 HIGH PERFORMANCE CONCRETE, SUPERSTRUCTURE, (DECK) AS PER PLAN ITEM 844 HIGH PERFORMANCE CONCRETE, SUPERSTRUCTURE, (PARAPET) AS PER PLAN

The provisions of 844 shall apply except as noted below.

SLIPFORMING
Slipforming shall not be allowed for this project.

MIX OPTIONS
All other concrete shall be this mix or mix 2 concrete.
The following proportions will be used as a starting mix design.

Aggregate Type	CONCRETE TABLE Quantities Per Cubic Yard Aggregates (SSD)									
	Fine Aggre. (lb)	#8 Coarse Aggre. (lb)	#57 Coarse Aggre. (lb)	Total (lb)	Cement Content (lb)	GGBF (lb)	Micro-Silica (lb)	Water to Cementitious Ratio	Max	Air Content +/-2%
Gravel	1245	360	1315	2920	400	170	30	0.42		7
Limestone	1245	360	1335	2940	400	170	30	0.42		7
Slag	1245	315	1155	2715	400	170	30	0.42		7

The weights specified in the concrete table were calculated for materials of the following bulk specific gravities (SSD): natural sand and gravel 2.62, limestone sand 2.68, limestone 2.65, slag 2.30, fly ash 2.65, GGBF slag 2.90, Microsilica solids 2.20, and Portland cement 3.15. For aggregates of specific gravities differing more than plus or minus 0.02 from these, the weights in the table will be corrected.

BASIS OF PAYMENT
Payment for the above completed and accepted quantities will be made at the contract bid price for:

Item	Units	Description
844E48001	Cubic yard	High performance concrete superstructure (deck), as per plan
844E48021	Cubic yard	High performance concrete superstructure (parapet), as per plan
844E48041	Cubic yard	High performance concrete substructure, as per plan
844E49000	Lump sum	High performance concrete trial mix
844E49010	Lump sum	High performance concrete testing

ITEM 863, STRUCTURAL STEEL MEMBERS, MISCELLANEOUS LEVEL FABRICATION, AS PER PLAN

STEEL MEMBERS TO BE FABRICATED UNDER THIS ITEM WILL NOT REQUIRE SHOP DRAWINGS PRIOR TO FABRICATION. THE CONTRACTOR SHALL MAKE NECESSARY MEASUREMENTS AND PREPARE SKETCHES, DRAWINGS, TABLES, ETC. THE ENGINEER SHALL HAVE AUTHORITY AND RESPONSIBILITY FOR ENSURING THAT THE FABRICATED STEEL IS ACCEPTABLE. TECHNICAL ASSISTANCE WILL BE PROVIDED ON REQUEST BY THE OFFICE OF STRUCTURAL ENGINEERING. TEST REPORTS AND SHIPPING DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INCORPORATING STEEL ITEMS INTO THE WORK, AS REQUIRED BY 501.07. AFTER FABRICATION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL TO ENSURE THAT THE DRAWINGS DEPICT THE STEEL AS ACTUALLY INCORPORATED INTO THE WORK. THE ENGINEER WILL THEN SEND ONE APPROVED SET TO THE OFFICE OF STRUCTURAL ENGINEERING FOR INFORMATION. PAY WEIGHTS SHALL BE COMPUTED IN COMPLIANCE WITH 863 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND SUBMITTED TO THE ENGINEER FOR HIS REVIEW AND APPROVAL. THE FABRICATOR SHALL FURNISH A 35 MILLIMETER MICROFILM COPY OF EACH SHOP DRAWING, WHICH SHALL BE MOUNTED ON AN APERTURE CARD AS SPECIFIED IN 501.05.

STEEL MEMBERS INCLUDED IN THIS ITEM INCLUDE CROSSFRAMES, END-CROSSFRAMES, AND POSSIBLY TOP FLANGE COVERPLATES AND RIVETS.

PAINTING OF STRUCTURAL STEEL

A. NEW STRUCTURAL STEEL

ALL NEW STRUCTURAL STEEL SHALL BE CLEANED AND PRIME PAINTED IN THE SHOP WITH SYSTEM IZEU IN CONFORMANCE WITH ITEM 863. IT SHALL BE PAINTED WITH A FULL INTERMEDIATE EPOXY COAT AND A BLUE (FEDERAL SPECIFICATION NO. 595A-15450) URETHANE FINISH COAT IN CONFORMANCE WITH THE SUPP. SPEC. 816 PAINTING OF NEW STEEL, SYSTEM IZEU.

ALL COSTS FOR PAINTING NEW STRUCTURAL STEEL SHALL BE PAID FOR AS SPECIFIED IN THE SUPP. SPEC. 816 "FIELD PAINTING OF NEW STEEL, SYSTEM IZEU."

B. FIELD PAINTING OF EXISTING STEEL AND PORTIONS OF NEW STEEL

ALL FIELD PAINTING OF EXISTING STEEL AND PORTIONS OF NEW STEEL SHALL BE PERFORMED AS DESCRIBED HEREIN AND IN THE SUPPLEMENTAL SPECIFICATION 815.

THE FIELD PAINTING SHALL BE APPLIED TO ALL SURFACES OF EXISTING STRUCTURAL STEEL INCLUDING ALL GIRDERS, BEAMS, CROSS FRAMES, BEARINGS (EXISTING OR NEW).

ALL SURFACES OF EXISTING STRUCTURAL STEEL SHALL BE CLEANED, PRIMED AND FIELD PAINTED IN CONFORMANCE TO THE SUPPLEMENTAL SPECIFICATION 815.

THE COLOR OF THE URETHANE FINISH COAT SHALL BE BLUE, (FEDERAL SPECIFICATION NO. 595A-15450).

SEE THE SUPP. SPEC. 815 FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIAL REQUIREMENTS AND APPLICATION PROCEDURES. THE COST OF THIS WORK SHALL BE INCLUDED IN THE SEVERAL OZEU PAINTING ITEMS FOR PAYMENT.

THE OSBORN ENGINEERING COMPANY										2/52
CONSULTING ENGINEERS CLEVELAND, OHIO 44114										
GENERAL NOTES										
BRIDGE NO. LAK-90-17.42/25.15/27.76										
LAKE COUNTY										OHIO
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED				
LYH	BFG		JRS	GA	2/94	6/17/94				
						5/24/99				