

ITEM SPECIAL - LOW PRESSURE EPOXY INJECTING OF DELAMINATED CONCRETE-DECK BOTTOM SURFACE, CONT.

THE RESIN SHALL BE INJECTED ONLY WHEN THE DECK IS DRY AND ITS TEMPERATURE IS ABOVE 50 DEGREES F. THE INJECTION RESIN SHALL BE AT 70 DEGREES F. PRIOR TO MIXING COMPONENTS. THE EPOXY INJECTION EQUIPMENT SHALL BE CAPABLE OF INJECTING THE MATERIAL INTO THE PORTS AT LOW PRESSURE OF 14 TO 20 PSI. THE INJECTION EQUIPMENT SHALL BE CAPABLE OF METERING, MIXING, INJECTING AND MEASURING THE FLOW OF THE EPOXY RESIN ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.

THE INJECTION SHALL COMMENCE AT THE EDGE OF THE DELAMINATION AND CONTINUE UNTIL THE EPOXY RESIN APPEARS AT THE NEXT PORT. MOST INCOMPLETELY FILLED VOIDS ARE CAUSED BY THE OPERATOR STOPPING THE INJECTION PROCESS PREMATURELY; THEREFORE, A STEADY, LOW PRESSURE SHALL BE MAINTAINED ON THE EPOXY UNTIL A STEADY CLEAR FLOW APPEARS AT THE NEXT PORT. THEN THE NOZZLE IS REMOVED, THE PORT CLOSED AND THE INJECTION CONTINUED FROM PORT TO PORT UNTIL THE VOID IS COMPLETELY FILLED. SINCE THE GROUT FACE IS MOVING UNDER VISCOUS FLOW CONDITIONS WHICH ARE GOVERNED BY FLUID SURFACE FRICTION, THE INJECTION PROCESS IS SLOW. REGARDLESS, INJECTION PRESSURE SHALL BE 20 PSI MAXIMUM SO THAT COVER CONCRETE IS NOT BLOWN OFF. PROGRESS OF THE EPOXY SHALL BE CHECKED WITH A TAPPING HAMMER.

THE OUTLINED INJECTED VOIDS SHALL BE SOUNDED WITH A HAMMER BY THE ENGINEER. ANY REMAINING UNSOUND AREAS SHALL BE PORTED AND RE-INJECTED AT NO ADDITIONAL COST TO THE STATE. ALL PORTS SHALL BE CUT OFF FLUSH WITH THE SURFACE. ALL EQUIPMENT, LABOR AND MATERIALS REQUIRED BY THE ENGINEER TO ACCOMPLISH THIS WORK SHALL BE SUPPLIED BY THE CONTRACTOR.

THIS SPECIFICATION LIMITS THE INJECTING PRESSURE TO 20 PSI MAX. TO PREVENT BLOWING THE DELAMINATION OFF THE DECK. IF THE CONTRACTOR PREFERS TO UTILIZE A HIGHER PRESSURE INJECTION PROCESS INSTEAD OF THE LOW PRESSURE HEREIN REQUIRED, HE SHALL SUBMIT HIS PROPOSED METHOD OF PREVENTING BLOW OFF OF THE SURFACE TO THE ENGINEER FOR APPROVAL. NO HIGH PRESSURE INJECTION WILL BE PERMITTED WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.

NO VEHICULAR TRAFFIC INCLUDING CONSTRUCTION TRAFFIC WILL BE PERMITTED ON A BRIDGE DECK WHICH HAS RECEIVED WEARING SURFACE INJECTION UNTIL THE EPOXY HAS CURED A MINIMUM OF SIX HOURS AND HAS DEVELOPED ITS DESIGN STRENGTH. THE ADDITIONAL TIME REQUIRED TO CURE WILL DEPEND ON THE EPOXY FORMULATION AND WILL BE DETERMINED BY THE MANUFACTURER AND PROVIDED TO THE ENGINEER.

METHOD OF MEASUREMENT
THE FOOTAGE UNDER THIS ITEM SHALL BE THE NUMBER OF SQUARE FEET OF DELAMINATED DECK CONCRETE THAT ARE SATISFACTORILY INJECTED AND ACCEPTED.

BASIS OF PAYMENT
PAYMENT WILL BE MADE AT CONTRACT PRICES FOR: ITEM SPECIAL - LOW PRESSURE EPOXY INJECTING OF DELAMINATED CONCRETE - DECK BOTTOM SURFACE. THIS PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR FURNISHING AND PLACING ALL MATERIALS, SOUNDING THE INJECTED AREAS, SUPPLYING THE MANUFACTURER'S REPRESENTATIVE AND ALL OTHER MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN ACCORDANCE WITH THIS SPECIFICATION AND TO THE SATISFACTION OF THE ENGINEER.

ITEM 607 - FENCE, MISC: FENCE FABRIC REMOVED AND REPLACED

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND REPLACING THE EXISTING SIX FOOT HIGH FABRIC FROM THE FENCE ALONG THE NORTH SIDE OF THE BRIDGE IN ACCORDANCE WITH ODOT STANDARD DRAWING VPF-I-90M DATED 3-20-95 AND THESE PLANS AND NOTES.

INCLUDED IN THIS WORK IS THE REMOVAL AND REPLACEMENT OF THE TENSION BANDS, ACCESS HOLES, THE WEST END 1/4" BOTTOM RAIL AND ANY OTHER DAMAGED OR UNUSABLE PARTS OF THE NORTH FENCE PRIOR TO THE REPLACEMENT OF THE NEW FENCE FABRIC.

MEASUREMENT
THE MEASUREMENT SHALL BE THE LENGTH OF FABRIC REPLACED MEASURED IN LINEAR FEET.

PAYMENT
PAYMENT SHALL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 607 - FENCE, MISC: FENCE FABRIC REMOVED AND REPLACED; THIS PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS AND TO THE SATISFACTION OF THE ENGINEER.

ITEM 847 - WEARING COURSE REMOVED, ASPHALT

THIS WORK IS THE REMOVAL OF THE ASPHALT WEARING SURFACE ON THE TOP SURFACE OF THE BACKWALLS AS PER ODOT SUPPLEMENTAL SPECIFICATION 847.

PAYMENT SHALL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 847 - WEARING COURSE REMOVED, ASPHALT. THIS PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS AND TO THE SATISFACTION OF THE ENGINEER.

ITEM 530 - STRUCTURES MISC.: SOUNDING CONCRETE DECK BOTTOM AND REMOVING SPALLS

THIS WORK SHALL CONSIST OF SUPPLYING THE MATERIALS, LABOR AND EQUIPMENT NECESSARY FOR SOUNDING THE CONCRETE DECK BOTTOM IN ORDER THAT THE ENGINEER MAY OUTLINE THE DELAMINATED AREAS WITH WATERPROOF YELLOW PAINT AS PER CMS 519, AND THE CONTRACTOR MAY REMOVE ALL SPALLS FORMING IN THE DECK BOTTOM CONCRETE. AFTER ALL WEARING SURFACE AND DECK REMOVAL OPERATIONS ON THE BRIDGE ARE COMPLETED THE CONTRACTOR SHALL SOUND THE CONCRETE DECK BOTTOM WITH HAMMERS AND REMOVE SPALLS FORMING IN THE DECK BOTTOM CONCRETE. SPALLS FORMING ARE EVIDENCED BY A VISIBLE EDGE. DELAMINATIONS THAT DO NOT HAVE A VISIBLE EDGE WILL BE OUTLINED BY THE ENGINEER.

THE FOOTAGE UNDER THIS ITEM SHALL BE THE NUMBER OF SQUARE FEET OF CONCRETE SURFACE THAT ARE SATISFACTORILY SOUNDED, CLEANED OF FORMING SPALLS AND ACCEPTED. THE ACCEPTED QUANTITIES OF SOUNDING WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR ITEM 530 - STRUCTURES MISC.: SOUNDING CONCRETE DECK BOTTOM AND REMOVING SPALLS. THIS PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR FURNISHING ALL LABOR, EQUIPMENT, MATERIAL AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS AND TO THE SATISFACTION OF THE ENGINEER.

ITEM 847 - EXISTING CONCRETE OVERLAY REMOVED, 1/4" NOMINAL THICKNESS

THIS WORK IS THE REMOVAL OF THE CONCRETE WEARING SURFACE FROM CURB TO CURB AND WITHIN THE DECK LIMITS AS PER ODOT SUPPLEMENTAL SPECIFICATION 847.

PAYMENT SHALL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 847 - EXISTING CONCRETE OVERLAY REMOVED, 1/4" NOMINAL THICKNESS. THIS PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS AND TO THE SATISFACTION OF THE ENGINEER.

ITEM 847 - MICROSILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS)

THIS ITEM OF WORK INCLUDES THE REMOVAL AND VARIABLE DEPTH PATCHING OF THE DECK AREAS AS PER ODOT SUPPLEMENTAL SPECIFICATION 847 AND THESE PLANS AND NOTES.

MEASUREMENT SHALL BE THE ACTUAL VOLUME IN CUBIC YARDS USED TO PATCH THE DECK PLUS THE VOLUME IN CUBIC YARDS MEASURED AS THE DIFFERENCE BETWEEN THE TOTAL VOLUME OF THE FINAL OVERLAY PLACED AND ACCEPTED, LESS THE CALCULATED VOLUME OF THE 2/4" OVERLAY AND LESS ANY WASTED CONCRETE.

PAYMENT SHALL INCLUDE THE ACTUAL VOLUME IN CUBIC YARDS OF MICROSILICA MODIFIED CONCRETE AS MEASURED ABOVE, PLUS ANY LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY FOR REMOVAL AND PATCHING THE DECK IN PREPARATION OF THE FINAL 2/4" MICROSILICA MODIFIED CONCRETE OVERLAY.

PAYMENT SHALL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 847 - MICROSILICA MODIFIED CONCRETE OVERLAY, (VARIABLE THICKNESS). THIS PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS AND TO THE SATISFACTION OF THE ENGINEER.

ITEM 847 - MICROSILICA MODIFIED CONCRETE OVERLAY, 2/4" THICK

THIS WORK SHALL BE PERFORMED AS PER ODOT SUPPLEMENTAL SPECIFICATION 847 WITH THE FOLLOWING EXCEPTIONS:

A. ITEM 848 - CONCRETE REMOVAL BY HYDRO-DEMOLITION SHALL BE USED AND THE DIMENSION "D" SHALL BE 1/2 INCHES.

B. FULL DEPTH REPAIR WILL NOT HAVE TO BE USED UNLESS THE FULL DEPTH OF THE DECK HAS BEEN PENETRATED.

PAYMENT SHALL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 847 - MICROSILICA MODIFIED CONCRETE OVERLAY, 2/4" THICK. THIS PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS AND TO THE SATISFACTION OF THE ENGINEER.

ITEM 848 - SURFACE PREPARATION USING HYDRO-DEMOLITION

THIS WORK SHALL BE PERFORMED AS PER ODOT SUPPLEMENTAL SPECIFICATION 848 WITH THE FOLLOWING EXCEPTIONS:

A. THE DIMENSION "D" SHALL BE 1/2 INCHES.

B. FULL DEPTH REPAIR WILL NOT HAVE TO BE USED UNLESS THE FULL DEPTH OF THE DECK HAS BEEN PENETRATED.

PAYMENT SHALL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 848 - SURFACE PREPARATION USING HYDRO-DEMOLITION. THIS PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS AND TO THE SATISFACTION OF THE ENGINEER.

ITEM 848 - HAND CHIPPING

THIS WORK SHALL BE THE REMOVAL OF UNSOUND CONCRETE AS PER SUPPLEMENTAL SPECIFICATION 848. IN ADDITION THIS ITEM WILL ALSO INCLUDE THE REMOVAL OF THE TOP SURFACE CONCRETE SURFACE OF THE BACKWALLS AS NECESSARY.

PAYMENT SHALL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 848 - HAND CHIPPING. THIS PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS AND TO THE SATISFACTION OF THE ENGINEER.

ITEM 863 - STRUCTURAL STEEL MEMBERS, MISCELLANEOUS LEVEL FABRICATION, AS PER PLAN - ENDFRAME ANGLE REPLACEMENT

THIS WORK IS THE REMOVAL AND REPLACEMENT OF THE ENDFRAME ANGLES AS PER ODOT SUPPLEMENTAL SPECIFICATION 863, DATED 10/12/99, THE PLANS AND NOTES, AND AS DIRECTED BY THE ENGINEER. ALSO INCLUDED IS THE FIELD PAINTING PER SUPPLEMENTAL SPECIFICATION 816 OF THE NEW STEEL AND ADJACENT EXISTING STEEL WHERE THE PAINT FILM HAS BEEN DAMAGED BY THE REPAIR OPERATIONS.

PAYMENT SHALL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 863 - STRUCTURAL STEEL MEMBERS, MISCELLANEOUS LEVEL FABRICATION, AS PER PLAN - ENDFRAME ANGLE REPLACEMENT. THIS PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS AND TO THE SATISFACTION OF THE ENGINEER.

ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22

THIS ITEM IS TO BE USED FOR THE ASPHALT BUTT JOINT AT EACH END OF THE BRIDGE AS PER PLAN AND COMPLY WITH ODOT CMS 448.

PAYMENT SHALL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 448 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22. THIS PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS AND TO THE SATISFACTION OF THE ENGINEER.

UTILITY PROTECTION

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THESE PLANS. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA. HOWEVER THE CONTRACTOR IS DIRECTED TO CONTACT THE OHIO UTILITIES PROTECTION SERVICE PRIOR TO DOING ANY DIGGING.

SHOULD THE CONTRACTOR DEEM PROTECTION OF UTILITIES IS REQUIRED DURING THE BRIDGE OVERLAY WORK, ANY SUCH WORK OR MATERIALS FOR PROTECTION OF UTILITIES SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 847 - MICROSILICA MODIFIED CONCRETE OVERLAY, 2/4" THICK.

SHOULD THE CONTRACTOR DEEM PROTECTION OF UTILITIES IS REQUIRED DURING THE INSTALLATION OF THE CATHODIC PROTECTION SYSTEM, ANY SUCH WORK OR MATERIALS FOR PROTECTION OF UTILITIES SHALL BE INCLUDED IN THE PRICE BID FOR ITEM SPECIAL - CATHODIC SYSTEM.

BURGESS & NIPLE	
DATE	4-28-00
REVIEWED	DWL
STRUCTURE FILE NUMBER	4302133
DRAWN	DCF
REVISION	MAR
DESIGNED	DCF
CHECKED	MAR
STRUCTURE NOTES SHEET 2	
BRIDGE NO. LAK-20-1434	
US ROUTE 20 OVER STATE ROUTE 44	
LAK-20-1434	
LAK-44-5.10	
3 / 12	
12	
25	