

PROJECTS \ P18391B \ PLANS \ 18391SNA.DGN 14 AUG 2001

PROPOSAL NOTES:

SEALING OF CONCRETE SURFACES.

STANDARD DRAWINGS:

REFERENCE SHALL BE MADE TO THE FOLLOWING STANDARD DRAWINGS:

- AS-1-81 REVISED 09-15-94
- EXJ-4-87 DATED 02-14-97
- PCB-91 REVISED 07-06-99
- SBR-1-99 DATED 01-12-99
- VPF-1-90M DATED 03-20-95

AND SUPPLEMENTAL SPECIFICATIONS:

- 842 DATED 01-06-99
- 844 DATED 01-06-99
- 847 DATED 06-30-98
- 899 DATED 10-21-98

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997 TO 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA:

CONCRETE
HIGH PERFORMANCE CONCRETE (HPC) SS 844 -
COMPRESSIVE STRENGTH 4,500 PSI (SUPERSTRUCTURE).

HIGH PERFORMANCE CONCRETE (HPC) SS 844 -
COMPRESSIVE STRENGTH 4,000 PSI (SUBSTRUCTURE).

REINFORCING STEEL - ASTM A615, A616 OR A617 GRADE
60, MINIMUM YIELD STRENGTH 60,000 PSI.

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL.
2 1/2" CONCRETE COVER.
SEALING OF CONCRETE SURFACES.

MAINTENANCE OF TRAFFIC:

TWO WAY OF TRAFFIC SHALL BE MAINTAINED ON
JACKSON STREET AND SR 44 AT ALL TIMES.

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 SECTIONS 102.05,
105.02 AND 863.07.

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
AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE
CONTRACTOR IN THE FIELD.

EXISTING STRUCTURE PLANS:

THE ORIGINAL DESIGN AND UPGRADING PLANS MAY BE
EXAMINED BY PROSPECTIVE BIDDERS AT THE OHIO
DEPARTMENT OF TRANSPORTATION, DISTRICT 12 OFFICE,
5500 TRANSPORTATION BOULEVARD, GARFIELD HEIGHTS,
OHIO. THE CONTRACTOR SHALL BECOME FAMILIAR WITH
THE DRAWINGS.

CONVERSION OF METRIC STANDARD BRIDGE DRAWINGS:

SOME OF THE STANDARD BRIDGE DRAWINGS REFERENCED
IN THIS PLAN ARE METRIC. ANY CONVERSION OF
DIMENSIONS REQUIRED TO CONSTRUCT THE ITEMS SHOWN
ON THE STANDARDS SHALL BE THE RESPONSIBILITY OF
THE CONTRACTOR. CONVERSIONS SHALL BE MADE USING
THE SI (METRIC) TO ENGLISH CONVERSION FACTORS
PROVIDED IN SECTION 109.011 OF THE 1997
CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE
APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY
ADDITIONAL CONVERSION FACTORS REQUIRED.
CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND
SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES
WHERE SUITABLE.

COLORS:

THE TOP COAT COLOR FOR ITEM SPECIAL - SEALING OF
CONCRETE SURFACES (EPOXY-URETHANE) SHALL BE
FEDERAL COLOR NUMBER 595B-36492, GRAY.

PROPOSED WORK:

1. PROTECT AND MAINTAIN ALL TRAFFIC DURING ALL
PHASES OF CONSTRUCTION.
2. REMOVE THE EXISTING PARAPET, SIDEWALK, FENCE,
SPLASH BARRIER, AND BULB ANGLE AT NORTH SIDE ONLY.
3. MODIFY THE EXISTING ABUTMENTS AS SHOWN IN THE
PLANS TO ACCOMMODATE THE PROPOSED APPROACH SLAB
EXTENSION.
4. SCARIFY DECK AS SHOWN IN THE PLANS TO
ACCOMMODATE THE PROPOSED OVERLAY.
5. CONSTRUCT NEW SINGLE SLOPE BARRIER AT NORTH
ONLY.
6. CONSTRUCT PROPOSED OVERLAY.
7. REINSTALL 8-FOOT TALL VANDAL PROTECTION FENCE.
8. SEAL NEW CONCRETE SURFACES.

CONSTRUCTION SEQUENCE:

1. REMOVE EXISTING PARAPET AND SIDEWALK TO THE
STAGE 1 REMOVAL LIMITS SHOWN IN THE PLANS.
REMOVE DECK ENDS AND BACKWALL AND INSTALL
STRUCTURAL STEEL EXPANSION JOINT EXTENSIONS.
2. CONSTRUCT DECK ENDS AND NEW 42" SINGLE SLOPE
BARRIER.
3. INSTALL PORTABLE CONCRETE BARRIER PER
MAINTENANCE OF TRAFFIC PLANS.
4. REMOVE REMAINING SIDEWALK, SPLASH BARRIER AND
PARTIAL WINGWALL AS SHOWN IN THE PLANS.
5. SCARIFY AND REMOVE DECK CONCRETE AS SHOWN IN
THE PLANS AND REMOVE EXISTING BULB ANGLE GUTTER.
6. CONSTRUCT PROPOSED OVERLAY.
7. CONSTRUCT PROPOSED APPROACH SLAB EXTENSION AND
TRANSITION BARRIER.

OTHER WORK:

WORK NOT LISTED IN THE SEQUENCE MAY BE
PERFORMED ACCORDING TO THE CONTRACTOR'S TIMING
IN ACCORDANCE WITH CONTRACT PROVISIONS.

**ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER
PLAN:**

DESCRIPTION:
THIS WORK SHALL CONSIST OF THE REMOVAL OF
CONCRETE DECKS INCLUDING SIDEWALKS, PARAPETS,
RAILINGS, DECK JOINTS AND OTHER APPURTENANCES
FROM SUPPORTING SYSTEMS (BEAMS, GIRDERS, CROSS
FRAMES, ETC.). THIS WORK SHALL ALSO INCLUDE
ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES
FOR REMOVAL THAT ARE NOT SEPARATELY LISTED FOR
PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL.
ITEMS TO BE REMOVED INCLUDE ALL EXISTING
MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND
MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE
INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE
DIRECTED TO BE REMOVED BY THE ENGINEER. CARE
SHALL BE TAKEN DURING REMOVALS TO PROTECT
PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED
AND INCORPORATED INTO THE PROPOSED STRUCTURE. IN
THIS RESPECT, THE USE OF EXPLOSIVES, HEADACHE
BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS
PROHIBITED.

PROTECTION OF TRAFFIC:
PRIOR TO DEMOLITION OF ANY PORTIONS OF THE
EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL
SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC
(VEHICULAR, PEDESTRIAN, BOAT, ETC.) ADJACENT TO
AND/OR UNDER THE STRUCTURE TO THE DIRECTOR FOR
APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS
FOR ANY DEVICES AND STRUCTURES THAT MAY BE
NECESSARY TO ENSURE SUCH PROTECTION. TEMPORARY
VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN
THE PROPOSAL SHALL BE MAINTAINED AT ALL TIMES
EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR.

PROTECTION OF STEEL SUPPORT SYSTEMS:
BEFORE DECK SLAB CUTTING IS PERMITTED, THE
OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH
THE BOTTOM OF THE DECK SHALL BE DRAWN ON THE
SURFACE OF DECK. SMALL DIAMETER PILOT HOLES
SHALL BE DRILLED 2 INCHES OUTSIDE THESE LINES TO
CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS
OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT
EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB
REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF
FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE
DECK. DURING CUTTING OF THE DECK SLAB, CARE
SHALL BE TAKEN NOT TO DAMAGE STEEL MEMBERS THAT
ARE TO BE INCORPORATED INTO THE PROPOSED
STRUCTURE.

REMOVAL METHODS:
THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR
HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF
REMOVAL AND THE WEIGHT OF HAMMER SHALL BE
APPROVED BY THE ENGINEER. ALL WORK SHALL BE DONE
IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE
THE EXISTING REINFORCING STEEL TO BE PRESERVED.
CONCRETE MAY BE REMOVED BY CUTTING AND BY MEANS
OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING
POINTED OR BLUNTED CHISEL TYPE TOOLS. CHIPPING
HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL
90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE
PLACED IN DIRECT CONTACT WITH REINFORCING STEEL
THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

DECK REMOVALS:
CARE SHALL BE TAKEN DURING DECK REMOVALS TO
PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE
SALVAGED AND INCORPORATED INTO THE PROPOSED
STRUCTURE. FOR REMOVALS OVER BRIDGE MEMBERS
(PRESTRESSED BOX BEAM, PRESTRESSED I-BEAM, STEEL
BEAM, STEEL GIRDER, ETC), A HAMMER HEAVIER THAN
35 POUNDS BUT NOT TO EXCEED 90 POUNDS MAY BE USED
AT THE APPROVAL OF THE ENGINEER. REMOVAL METHODS
OVER BRIDGE MEMBERS SHALL ENSURE ADEQUATE DEPTH
CONTROL AND PREVENT NICKING OR GOUGING THE
PRIMARY STEEL MEMBERS.

DUE TO THE POSSIBLE PRESENCE OF WELDED
ATTACHMENTS TO EXISTING STRUCTURAL STEEL
(FINISHING MACHINE, SCUPPER AND FORM SUPPORTS,
ETC.), CARE SHALL BE TAKEN DURING DECK REMOVAL TO
AVOID DAMAGING STRINGERS WHICH ARE TO REMAIN.
STRINGERS DAMAGED BY THE CONTRACTOR'S REMOVAL
OPERATIONS SHALL, AT NO COST TO THE PROJECT, BE
REPLACED OR REPAIRED. PROPOSED REPAIRS,
DEVELOPED BY A OHIO REGISTERED PROFESSIONAL
ENGINEER, SHALL BE SUBMITTED IN WRITING FOR
REVIEW AND APPROVAL BY THE DIRECTOR.

EXTRANEIOUS MEMBERS:
EXISTING EXTRANEIOUS MEMBERS (I.E., FINISHING
MACHINE AND FORM SUPPORTS, ETC., AND THE SUPPORT
FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE
REMOVED) ATTACHED BY WELDED CONNECTION TO THE
DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF
EXISTING STEEL MEMBERS SHALL BE REMOVED AND THE
FLANGE SURFACES GROUND SMOOTH. GRINDING SHALL BE
CAREFULLY DONE AND PARALLEL TO THE FLANGES.

CUT LINE CONSTRUCTION JOINT PREPARATION:
SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS
1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE.
THE EXISTING REINFORCING STEEL, IF REQUIRED IN
THE PLANS, SHALL BE LEFT IN PLACE. INSTALL DOWEL
BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT
ABRASIVELY CLEAN JOINT SURFACES AND EXISTING
EXPOSED REINFORCEMENT TO REMOVE LOOSE AND
DISINTEGRATED CONCRETE AND LOOSE RUST. THE JOINT
SURFACE AND EXPOSED REINFORCEMENT SHALL BE
THOROUGHLY CLEANED OF ALL DIRT, DUST, RUST OR
OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR
UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE
SATISFACTORY RESULTS. EXISTING REINFORCING STEEL
DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT
ALL PACK AND LOOSE RUST SHALL BE REMOVED.
EXISTING CONCRETE SURFACES WHICH NEW CONCRETE
WILL BE PLACED AGAINST SHALL BE WET, BUT WITHOUT
FREE WATER, AT THE TIME OF CONCRETE PLACEMENT.

SUBSTRUCTURE CONCRETE REMOVAL:
SUBSTRUCTURE CONCRETE REMOVAL SHALL BE BY MEANS
OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED
AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE
HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE
HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR
REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE
PRESERVED. OUTSIDE THE 18 INCH LIMIT, HAMMERS
NOT EXCEEDING 90 POUNDS, MAY BE USED UPON THE
APPROVAL OF THE ENGINEER. PNEUMATIC HAMMERS
SHALL NOT BE PLACED IN DIRECT CONTACT WITH
REINFORCING STEEL THAT IS TO BE RETAINED IN THE
REBUILT STRUCTURE.

LOADING LIMITATIONS:
NO PART OF THE STRUCTURE SHALL BE SUBJECTED TO
UNIT STRESSES THAT EXCEED 136.5% OF ALLOWABLE
UNIT STRESSES AS DEFINED IN THE AASHTO STANDARD
SPECIFICATIONS FOR HIGHWAY BRIDGES DUE EITHER TO
DEMOLITION, ERECTION OR CONSTRUCTION METHODS, OR
TO THE USE OR MOVEMENT OF DEMOLITION OR ERECTION
EQUIPMENT ON OR ACROSS THE STRUCTURE. STRUCTURAL
ANALYSIS COMPUTATIONS, BY A OHIO REGISTERED
PROFESSIONAL ENGINEER, SHOWING THE ALLOWABLE
STRESSES AND THE MAXIMUM STRESSES PRODUCED BY THE
CONTRACTOR'S METHODS OR EQUIPMENT SHALL BE
SUBMITTED TO THE DIRECTOR FOR REVIEW AND APPROVAL
AT LEAST TWO WEEKS PRIOR TO THE START OF THE WORK.

PAYMENT:
THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP
SUM PRICE BID, WHICH PRICE AND PAYMENT SHALL BE
FULL COMPENSATION FOR ALL LABOR, EQUIPMENT,
MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE
THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS,
WITH PERTINENT PROVISIONS OF 202, AND TO THE
SATISFACTION OF THE ENGINEER.

ITEM 514, FIELD PAINTING MISC.: JOINT ARMOR

THIS ITEM SHALL CONSIST OF PREPARING AND COATING
THE FOLLOWING AREAS OF EXISTING STEEL:

1. AREAS OF STRUCTURAL EXPANSION JOINT
EXTENSIONS ACCESSIBLE TO PAINTING
OPERATIONS.
2. AREAS OF EXISTING STRUCTURAL EXPANSION
JOINT WHERE PAINT IS REMOVED IN ORDER TO
WELD THE PROPOSED ANGLES OF THE EXPANSION
JOINT EXTENSION.

SURFACE PREPARATION SHALL CONSIST OF ABRASIVE
BLASTING THE AREA TO BE COATED TO AN SA 2 1/2 NEAR-
WHITE CONDITION. BLASTING ABRASIVES CONTAINING
MORE THAN 1 % FREE SILICA SHALL NOT BE ALLOWED.
THESE AREAS SHALL BE COATED THE SAME DAY THAT
THEY ARE BLASTED.

THE PREPARED AREAS SHALL BE COATED WITH ONE OF A
HIGH SOLIDS EPOXY AT LEAST 5 MILS THICK. THE HIGH
SOLIDS EPOXY SHALL BE APPLIED BY BRUSH. THE
COLOR OF THE HIGH SOLIDS EPOXY SHALL CLOSELY
MATCH THE COLOR OF THE EXISTING COATING.

THE HIGH SOLIDS EPOXY SHALL BE ONE OF THE
FOLLOWING PRODUCTS:

1. AMERON AMERLOCK 400
2. VALSPAR HIGH SOLIDS EPOXY 76 SERIES
3. TNEMEC CHEMBUILD SERIES 135
4. SHERWIN WILLIAMS - EPOXY-MASTIC COATING

COST FOR FURNISHING ALL MATERIALS, LABOR, AND
EQUIPMENT NECESSARY TO COMPLETE THIS ITEM
SHALL BE INCLUDED IN THESQUAR FOOT BID PRICE
FOR THIS ITEM:

ITEM	UNIT	DESCRIPTION
514	SQ. FT.	FIELD PAINTING MISC.: JOINT ARMOR

DESIGN AGENCY: BURGESS & NIPLE
 100 WEST ERIE STREET PAINESVILLE, OHIO 44077
 DATE: 2-28-01
 REVIEWED: DWL
 DRAWN: MKB
 DESIGNED: MKB
 CHECKED: SCT
 STRUCTURE FILE NUMBER: 4302702
 STRUCTURE NOTES 1 OF 11
 BRIDGE NO. LAK-44-0510
 JACKSON STREET OVER STATE ROUTE 44
 LAKE COUNTY
 LAK-2/44-13.05/4J4
 2/8
 85B
 93