

Print modified for clarity.

TWP.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
61		DEKALB	18	4

ILLINOIS PROJECT BR08-0037(051)
 08-18121-00-BR
 CONTRACT NO. 87467

2/22/13

GENERAL NOTES

COMPLETE PLANS FOR THE EXISTING STRUCTURE ARE AVAILABLE FROM THE DEKALB COUNTY HIGHWAY OFFICE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THESE PLANS PRIOR TO CONSTRUCTION TO FAMILIARIZE HIMSELF WITH DETAILS OF THE EXISTING STRUCTURE.

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO MINOR CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY USED AT THE UNIT PRICE BID FOR THE WORK.

THE CONTRACTOR SHALL COORDINATE THE WORK REQUIRED TO REMOVE AND REATTACH THE EXISTING UTILITIES ATTACHED TO THE EXISTING SUPERSTRUCTURE. EXISTING TELEPHONE CABLE SHALL BE DETACHED FROM THE EXISTING STRUCTURE AND BE REATTACHED TO THE NEW STRUCTURE IN ACCORDANCE WITH REQUIREMENTS OF THE UTILITY COMPANY. ALL SHOP DRAWINGS FOR ATTACHING THE UTILITY TO THE NEW SUPERSTRUCTURE SHALL BE APPROVED BY THE ENGINEER.

FOR UTILITY INFORMATION, CALL J.U.I.L.E. 800-892-0123

CALCULATED WEIGHT OF STRUCTURAL STEEL - 180,827 POUNDS AASHTO M270 GRADE 50 BEAMS, DIAPHRAGMS, SPLICES, FIXED BEARING PLATES, AND ASSOCIATED FASTENERS. WEIGHTS FOR STEEL AND FASTENERS FOR TYPE 1 ELASTOMERIC BEARINGS ASSEMBLIES, INCLUDING SIDE RETAINERS, ARE NOT INCLUDED.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706, GRADE 60.

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 3/4" DIAMETER, OPEN HOLES 13/16" DIAMETER UNLESS OTHERWISE NOTED.

TIGHTENING AND INSPECTION OF ALL HIGH STRENGTH BOLT CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST ISSUE OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A328 (M16A) OR A490 (M253) BOLTS FOR SLIP-CRITICAL CONNECTIONS. EXCEPT TIGHTENING METHODS USING EITHER THE LOAD INDICATING WASHERS OR THE CALIBRATED WRENCH ARE NOT ALLOWED.

REMOVAL OF EXISTING STRUCTURES INCLUDE THE COMPLETE REMOVAL AND SATISFACTORY DISPOSAL OF THE EXISTING SUPERSTRUCTURE INCLUDING BEARINGS AND RELATED HARDWARE.

REMOVAL OF EXISTING STRUCTURES SHALL BE ACCOMPLISHED BY ANY METHOD THE CONTRACTOR ELECTS TO USE BUT MUST CONFORM TO ALL REQUIREMENTS OF THE U.S. ARMY CORPS OF ENGINEERS PERMIT CONDITIONS ALONG WITH ANY OTHER AGENCY REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ALL CONCRETE AND DEBRIS THAT FALLS INTO THE CREEK AS A RESULT OF ANY CONSTRUCTION OPERATION. REMOVAL METHODS SHALL NOT DAMAGE PORTIONS OF THE STRUCTURE TO REMAIN IN PLACE.

PROTECTIVE COAT HAS BEEN INCLUDED FOR THE TOP OF DECK AND THE NORTH AND SOUTH EDGE OF THE DECK TO THE DRIPNOTCH.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER SUPPORTS.

THE MAIN LOAD CARRYING MEMBER COMPONENTS SUBJECT TO TENSILE STRESS SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS ZONE 2. THESE COMPONENTS ARE (THE WIDE FLANGE BEAMS) (THE TENSION FLANGES, WEBS) AND ALL SPLICE PLATE MATERIAL OF THE STEEL GIRDERS.

BEARING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATIONS WITHIN A TOLERANCE OF 1/8" INCH. ADJUSTMENT SHALL BE MADE EITHER BY GRINDING THE SURFACE OR BY SHIMMING THE BEARING. TWO 1/8" ADJUSTING SHIMS, OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS.

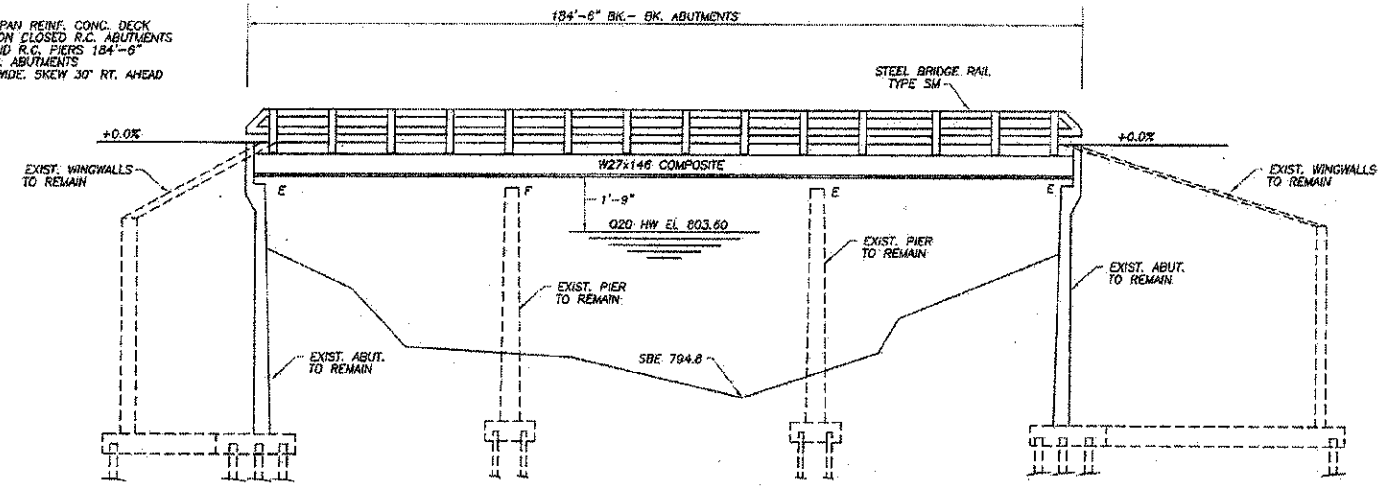
THE CONTRACTOR SHALL MAKE ALLOWANCE FOR THE DEFLECTION OF FORMS, SHRINKAGE AND SETTLEMENT OF FALSEWORK, IN ADDITION TO ALLOWANCE FOR DEAD LOAD DEFLECTION.

IF CANTILEVER FORMING BRACKETS ARE USED ON THE EXTERIOR BEAMS OR GIRDERS, THE BRACKETS SHALL BE PLACED AT THE SAME LOCATIONS AS REQUIRED FOR THE HARDWOOD BLOCKS IN ARTICLE 803.08(b) OF THE STANDARD SPECIFICATIONS. IF ADDITIONAL CANTILEVER FORMING BRACKETS ARE REQUIRED, HARDWOOD BLOCKING SHALL BE WEDGED BETWEEN THE EXTERIOR AND FIRST INTERIOR BEAM AT EACH OF THESE ADDITIONAL BRACKET LOCATIONS.

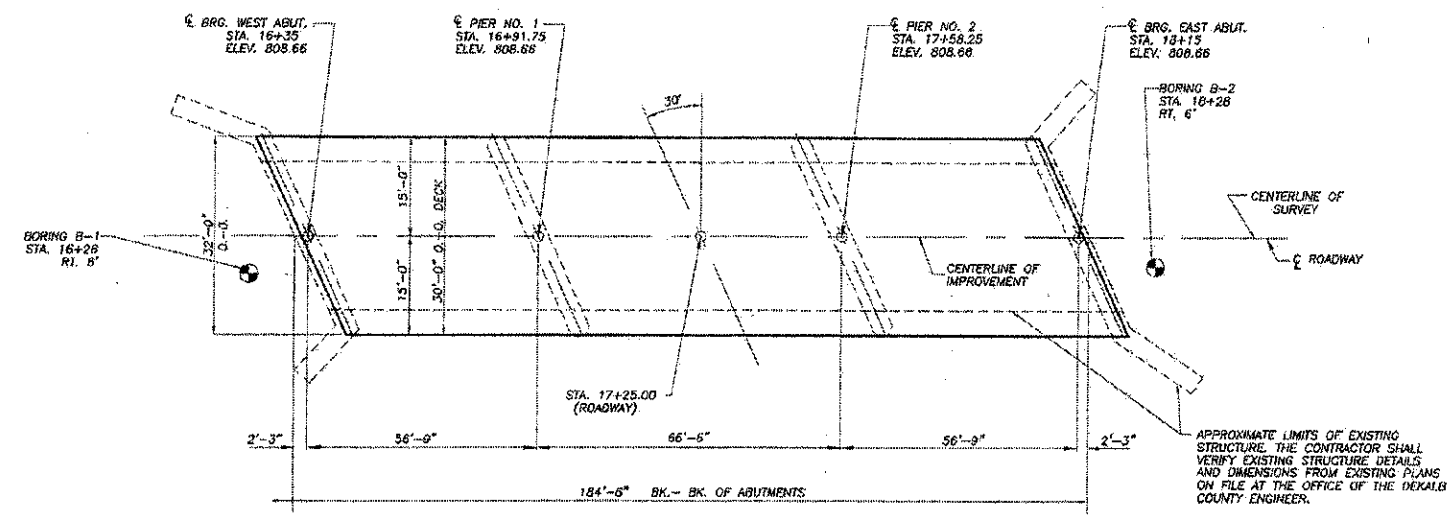
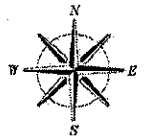
STRUCTURAL STEEL SHALL ONLY BE PAINTED FOR A DISTANCE EQUAL TO THE DEPTH OF EMBEDMENT INTO THE CONCRETE CAP PLUS 3 IN. PAINTED AREAS SHALL BE PRIMED IN THE SHOP WITH A DEPARTMENT APPROVED ZINC RICH PRIMER. FIELD PAINTING WILL NOT BE REQUIRED.

EXISTING STRUCTURE: THREE SPAN REINF. CONC. DECK BRIDGE ON CLOSED R.C. ABUTMENTS AND SOLID R.C. PIERS 184'-6" BK.-BK. ABUTMENTS 28'-4" WIDE, SKEWED 30° RT. AHEAD

SALVAGE: NONE.



ELEVATION



PLAN

ALL DIMENSIONS REFERENCING THE EXISTING STRUCTURE SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING WORK OR PROCURING ANY MATERIALS DEPENDENT UPON THOSE DIMENSIONS.

LOADING HS 20-44
 ALLOW 25 psf FOR FUTURE WEARING SURFACE

DESIGN SPECIFICATIONS
 A.A.S.H.T.O. 2007 SPECIFICATIONS AND 2009 INTERIMS

DESIGN DATA
 A.D.T. 1080 (CURRENT)
 1500 (20 YEAR)
 DESIGN SPEED 50 MPH

DESIGN STRESSES
 $f_c = 5000$ psi
 $f_y = 60,000$ psi (REINFORCEMENT)
 $f_y = 50,000$ psi (STRUCTURAL STEEL)
 (AASHTO M270, GRADE 50W)

WATERWAY INFORMATION

DRAINAGE AREA= 230 SQ.M. LOW GRADE ELEV. 808.86 AT STA. 17+25

FLOOD	FREQ. YR.	Q. C.F.S.	OPENING SQ. FT. EXIST.	PROP.	NAT. H.W.E.	HEAD-FT. EXIST.	PROP.	HEADWATER EL.
DESIGN	20	4398	1287	1267	803.6	0.2	0.2	803.6
BASE	100	6280	1487	1487	805.0	0.4	0.3	804.9
MAX. CALC.	500	7977			805.8	1.1	0.7	805.9

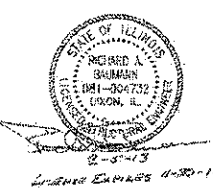
SOUTH BRANCH OF KISHWAUKEE
 STA 17+25.00
 SECTION 08-18121-00-BR
 DEKALB COUNTY
 BUILT 2010 LOADING HS20
 STR. NO. 019-4500

LETTERING FOR NAME PLATE
 SEE STD. 515001-03

DESIGNED:	RLR
DRAWN:	BOS
CHECKED:	
DATE:	

BILL OF MATERIAL BRIDGE

ITEM	UNIT	SUPERSTR.	SUBSTR.	TOTAL
REMOVAL OF EXISTING SUPERSTRUCTURES	EACH			1
CONCRETE STRUCTURES	CU YD		8.3	8.3
CONCRETE SUPERSTRUCTURE	CU YD	145.5		145.5
BRIDGE DECK GROOVING	SQ YD	611.2		611.2
PROTECTIVE COAT	SQ YD	665.6		665.6
FURNISHING AND ERECTING STRUCTURAL STEEL	L. SUM	7		7
STUD SHEAR CONNECTORS	EACH	2700		2700
REINFORCEMENT BARS (EPOXY COATED)	POUND	37842	1048	38890
NAMEPLATES	EACH	1		1
ELASTOMERIC BEARING ASSEMBLY, TYPE 1	EACH	15		15
STEEL BRIDGE RAIL, TYPE SM	FOOT	389		389
STRUCTURAL REPAIR OF CONCRETE (DEPTH >5")	SQ FT		21	21
STRUCTURAL REPAIR OF CONCRETE (DEPTH <5")	SQ FT		30	30



I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THIS BRIDGE/BOX CULVERT DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMIC ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES".

GENERAL PLAN & ELEVATION
 SECTION 08-18121-00-BR
 DEKALB COUNTY
 S.N. 019-4500

SCALE: 1" = 100'

DATE	REVISION

DESIGNED BY	RLR
DRAWN BY	BOS
CHECKED BY	
DATE	

wendler
 COUNTY DESIGN SOLUTIONS
 ENGINEERS ARCHITECTS SCENARISTS
 www.wendlerdesign.com ph: 312.262.2261
 1400 Professional Design Firm, Inc. 88-100001

GENERAL PLAN AND ELEVATION
 OF
 BASE LINE ROAD BRIDGE PROJECT
 FOR
 DEKALB COUNTY HIGHWAY

SHEET TITLE

GPE

JOB NUMBER
 2080382

DATE
 2/8/2013

SHEET NO.

4 of 18