## STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

McLEAN 8 1 TILINOIS PROJECT NO. 19E508

FOR INDEX OF SHEETS, SEE SHEET NO. 2 FOR SUMMARY OF QUANTITES, SEE SHEET NO. 2

## **CURRENT** TRAFFIC DATA

S.B.I. - 2 (OLD 51) 2016 ADT = 1,1002032 ADT = 1,396PU + PC % = 96.4SU % = 2.73

### **DESIGN DESIGNATION**

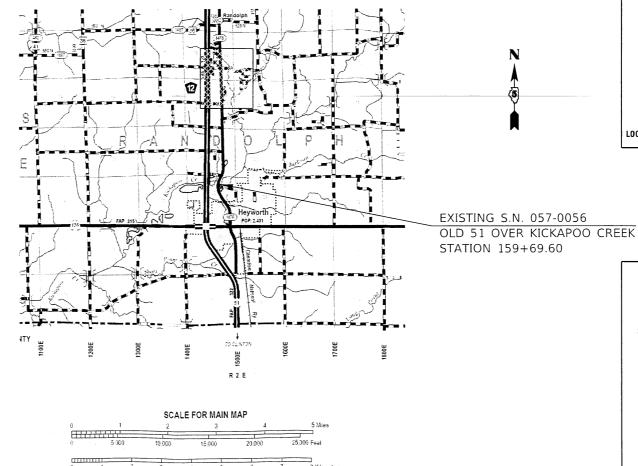
MAJOR COLLECTOR

ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS 1-800-892-0123 RANDOLPH TOWNSHIP

# **PROPOSED** HIGHWAY PLANS

S.N. 057-0056 DAY LABOR **PROJECT NUMBER 19E508 BRIDGE DECK REPAIRS** S.B.I. - 2 (OLD 51) OVER KICKAPOO CREEK **MCLEAN COUNTY** 



GROSS LENGTH = 301.00 FT. = 0.057 MILE

NET LENGTH = 301.00 FT. = 0.057 MILE

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION ENGINEER OF DESIGN AND ENVIRONMENT DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

LOCATION OF SECTION INDICATED THUS: -

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

**PROJECT NO. 19E508** 

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#### **INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS
2	LIST OF HIGHWAY STANDARDS
2	GUIDE BRIDGE SPECIAL PROVISIONS
2	SUMMARY OF QUANTITIES
2	CONSTRUCTION SEQUENCE
3	TYPICAL DECK CROSS SECTIONS
4	STAGED CONSTRUCTION DETAILS
5	GENERAL PLAN & ELEVATION 057-0056
6	GENERAL PLAN - OLD 51 ROADWAY & BRIDGE
7	BRIDGE JOINT DETAIL
8	DECK PATCHING PLAN

#### HIGHWAY STANDARDS

	STANDARD NO.	DESCRIPTION
	701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
_	701316-12	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR, FOR SPEEDS >= 45 MPH
	701400-09	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
	701401-12	LANE CLOSURE, FREEWAY/EXPRESSWAY
	701901-08	TRAFFIC CONTROL DEVICES

#### **GUIDE BRIDGE SPECIAL PROVISIONS**

BSP NO.	TITLI

DOF NO.

# 28 DECK SLAB REPAIR

# 35 SILICONE BRIDGE JOINT SEALER

#### **SUMMARY OF QUANTITIES**

			TOTAL
CODE NO.	PAY ITEM	UNIT	QUANTITY
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	590.00
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQYD	285.00
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	147.00
48101200	AGGREGATE SHOULDERS, TYPE B	TON	12.00
67100100	MOBILIZATION	L SUM	1.00
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	1.00
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2.00
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQYD	30.00
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQYD	86.00
Z0021906	SILICONE JOINT SEALER, 1.5"	FOOT	88.00
Z0041895	POLYMER CONCRETE	CUFT	10.00

#### CONSTRUCTION SEQUENCE

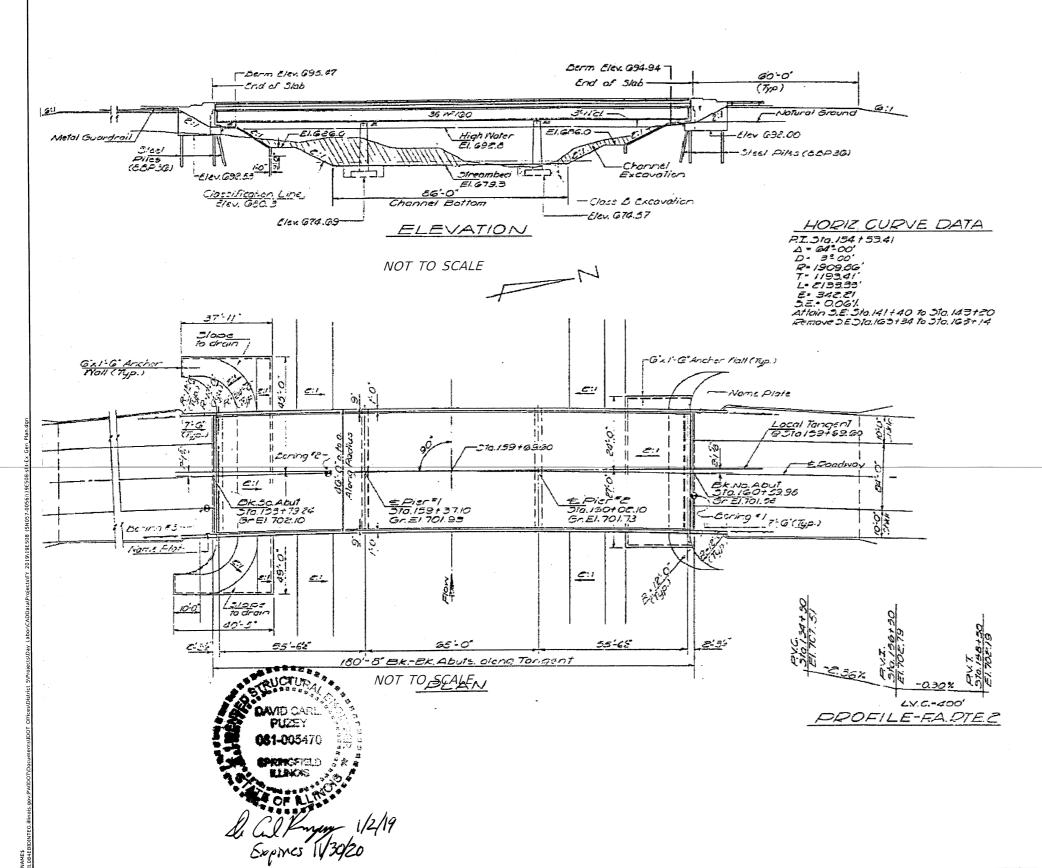
#### STAGE

- 1. DAY LABOR Acquire temporary signals and set 701316 for Stage I Closure of SB lane
- 2. DISTRICT 5 Perform bridge deck patching and approach pavement cleaning
- 3. DAY LABOR Mill butt joint & pave approaches and bridge deck with 2" HMA
- 4. DAY LABOR or DISTRICT 5 Place aggregate shoulders, Type B
- 5. DISTRICT 5 Install polymer concrete and silicone joints

#### STAGE II

- 6. DAY LABOR Switch 701316 to Stage II closure of NB lane
- 7. DISTRICT 5 Perform bridge deck patching and approach pavement cleaning
- 8. DAY LABOR Mill butt joint & pave approaches and bridge deck with 2" HMA
- 9. DAY LABOR or DISTRICT 5 Place aggregate shoulders, Type B
- 10. DISTRICT 5 Install polymer concrete and silicone joints

USER NAME = piersonbr	DESIGNED -	REVISED -		INDEX, STANDARDS, GUIDE BRIDGE SPL. PROVISIONS, SOQ & CONSTRUCTION SEQUENCE			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.			
	DRAWN -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				1476	DAY LABOR	MCLEAN	8	2			
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -			304	a cont		ION SEGO	LINGL			PROJECT	NO. 19E	800
PLOT DATE = 12 28/2018	DATE -	REVISED -		SCALE: NONE	SHEET 1	OF 1	SHEE	TS STA.	TO STA.		ILLINOIS FED.	AID PROJECT		



THE EXISTING STRUCTURE WAS BUILT IN 1969 AS F.A. ROUTE 2, SECTION 55 BR AT STATION 159+69.60 IN MCLEAN COUNTY. THE SUPERSTRUCTURE CONSISTS OF SIX – W36 X 118 ROLLED STEEL BEAMS SUPPORTING AN 8" R.C. DECK. THE SUPERSTRUCTURE IS SUPPORTED BY TWO PILE BENT ABUTMENTS ON STEEL PILES AND TWO SOLID WALL PIERS ON SPREAD FOOTINGS. THE EXISTING STRUCTURE MEASURES 180'-8" BK – BK OF ABUTMENTS AND 46'-0" OUT TO OUT OF DECK. THE STRUCTURE WAS BUILT ON A HORIZONTAL CURVE.

WORK SHALL BE COMPLETED UTILIZING STAGED CONSTRUCTION.

#### **INTENT OF PROJECT**

SUPERSTRUCTURE REPLACEMENT OF 057-0056 IS STILL 5+ YEARS AWAY. RIDE QUALITY IS POOR. A 2" HMA WEARING SURFACE MUST BE PLACED TO GAIN 5+ YRS. DUE TO THE SHORT-TERM NATURE OF THIS PROJECT, WATERPROOFING WILL BE OMITTED. PATCHING WILL BE LIMITED TO THE WORST LOCATIONS.

#### PROPOSED IMPROVEMENTS

- 1. FULL & PARTIAL DEPTH PATCHING
- 2. MILL BUTT JOINT
- 3. HMA SURFACE COURSE, 2"
- 4. PLACE AGGREGATE SHOULDERS
- 5. POLYMER CONCRETE AND SILICONE JOINTS

#### **GENERAL NOTES**

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTEMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

#### **BILL OF MATERIALS**

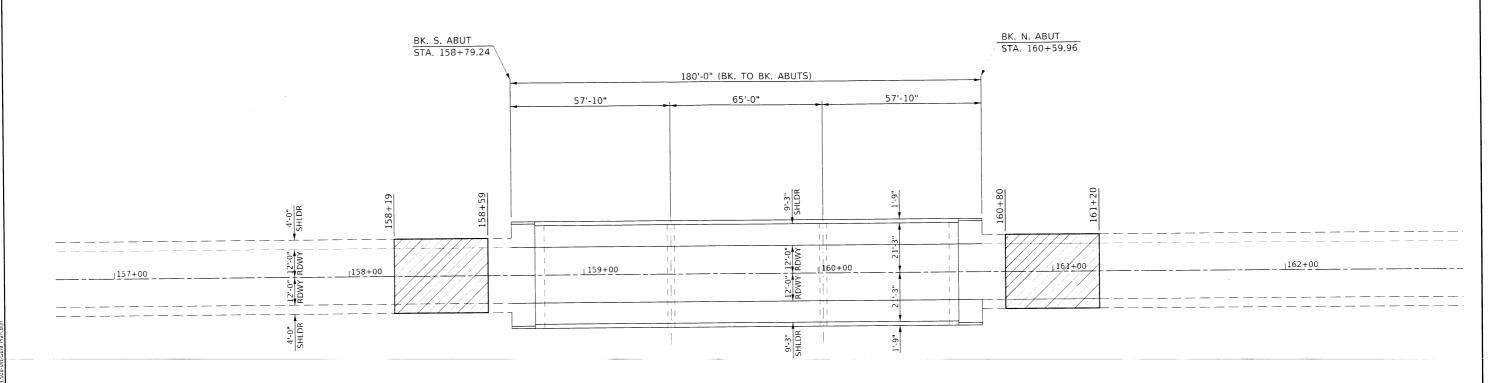
ITEM	UNIT	TOTAL
BITUMINOUS MATERIALS (PRIME COAT)	POUND	590.00
HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQYD	285.00
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	147.00
AGGREGATE SHOULDERS, TYPE B	TON	12.00
DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQYD	30.00
DECK SLAB REPAIR (PARTIAL)	SQYD	86.00
SILICONE JOINT SEALER, 1.5"	FOOT	88.00
POLYMER CONCRETE	CUFT	10.00

\* INCLUDES BRIDGE DECK & APPROACHES

\*\* ESTIMATED

USER NAME = piersonbr	DESIGNED - JAL	REVISED -		GENERAL PLAN & ELEVATION S.N. 057–0056		F.A.S. RTE.	SECTION	COUNTY TOTAL SHE	D.				
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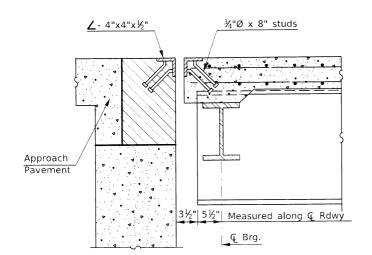




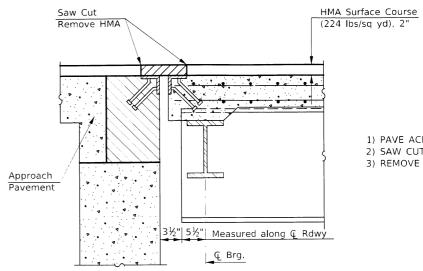
HMA SURFACE REMOVAL - BUTT JOINT

 USER NAME = piersonbr	DESIGNED -	REVISED -	27.7 #110010	GEN	ERAL PLAN & ELEVATION	F.A.S. SECTION	COUNTY SHEETS NO.
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## **BRIDGE JOINT DETAILS** S.N. 057-0056

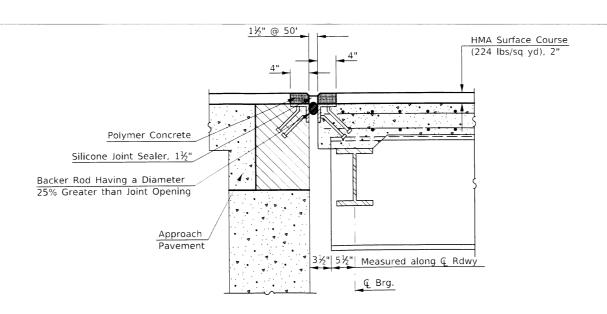


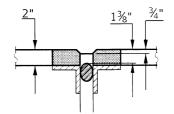
SECTION AT EXISTING JOINT



1) PAVE ACROSS JOINT 2) SAW CUT AT BACK OF ARMOUR 3) REMOVE HMA OVER ARMOUR

**SECTION AT JOINT AFTER PAVING** 





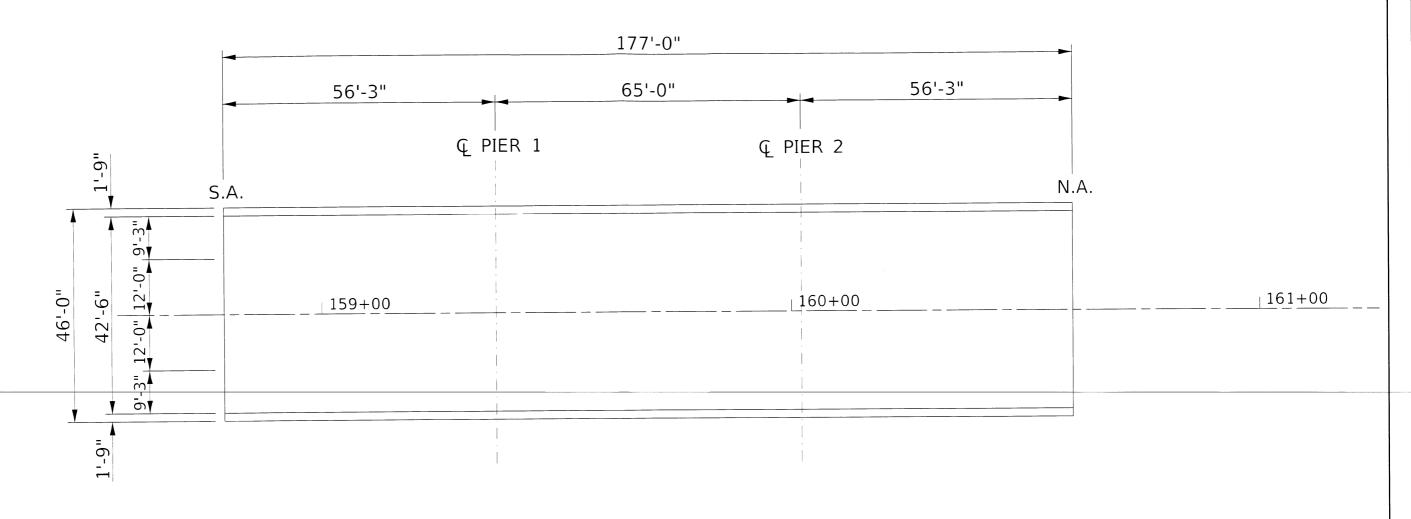
**ENLARGED DETAIL** AT JOINT

#### SECTION AT PROPOSED JOINT

USER NAME = piersonbr	DESIGNED -	REVISED -				BRIDGE JOINT DETAILS		RTE.	SECTION	COUNTY SHEETS NO.	_
	DRAWN -	REVISED -	STATE OF ILLINOIS			S.N. 057-0056		1476	DAY LABOR	MCLEAN 8 7	_
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## **DECK PATCHING PLAN**





### NOTES:

EXISTING BARS SHALL BE REUSED, CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION

AREA OF DECK SLAB REPAIR (PARTIAL) HAS BEEN ESTIMATED AT 10% OF THE DECK AREA AND (FULL DEPTH) 5% OF THE DECK AREA. THE ACTUAL QUANTITY AND LOCATIONS SHALL BE DETERMINED BY THE ENGINEER AND SHOWN ON THIS SHEET FOR AS BUILT RECORDS.

USER NAME = piersonbr	DESIGNED -	REVISED -	07.77	DECK PATCHING PLAN	RTE. SECTION COUNTY SHEETS NO.	ı
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PLOT DATE = 12 28/2018	DATE -	REVISED -		SCALE: 1" = 10' SHEET 1 OF 1 SHEETS STA. TO STA.	ILLINOIS FED. AID PROJECT	i