04-26-2024 LETTING ITEM 084

F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	1
	ILLINOIS	CONTRACT NO. 70H14		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

VARIOUS ROUTES
SECTION D5 BRIDGE PAINTING 2024-2
PROJECT HBFP-TPZ7(217)
BRIDGE PAINTING
MCLEAN COUNTY

C-95-039-24

VARIOUS LOCATIONS IN MCLEAN COUNTY

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4 - 5

CURRENT TRAFFIC DATA

LOC. #1	LOC. #2	LOC. #3
I-39 = 13,500 Northtown Rd = 850 (2023)	I-39 = 13,500 Northtown Rd = 850 (2023)	US 51 = 9,650 US 136 = 6,550 (2023)
LOC. #4	**LOC. #5**	**LOC. #6**
US 51 = 9,650 US 136 = 6,550 (2023)	700 (2022)	1,000 (2023)

LOC. #1: S.N. 057-0216 - I-39 SB over NORTHTOWN RD (TR 201B)
LOC. #2: S.N. 057-0217 - I-39 NB over NORTHTOWN RD (TR 201B)
LOC. #3: S.N. 057-0198 - US 51 (FAP 322) SB over US 136 @ Heyworth
LOC. #4: S.N. 057-0199 - US 51 (FAP 322) NB over US 136 @ Heyworth
LOC. #5: S.N. 057-0200 - FAS 1478 (Leroy Spur) over W Fork Salt Creek
LOC. #6: S.N. 057-0218 - US 136 (FAP 709) over Salt Creek

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

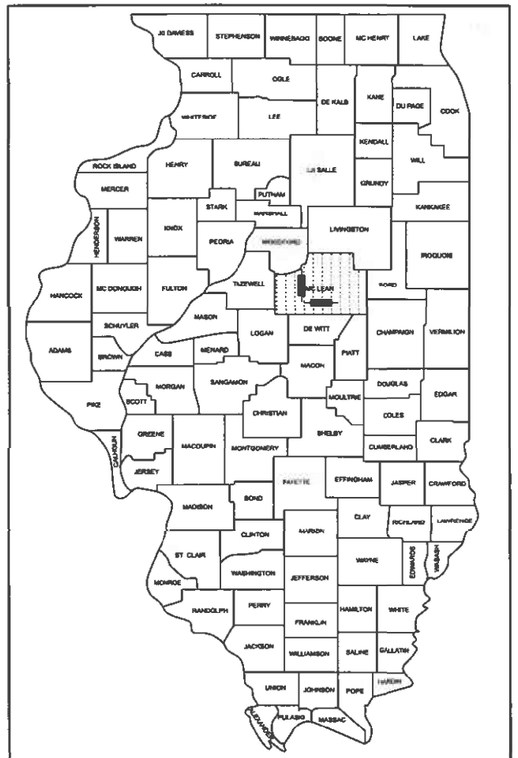
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: JASON STULTS
SQUAD LEADER: GREG EAGLIN
DESIGNER: JASON LEE
PHONE NUMBER: (217)465-4181

CONTRACT NO. 70H14

FOR LOCATION MAP, SEE SHEET 3

D-95-019-24



LOCATION OF SECTION INDICATED THUS: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 1/17 20 24
Kenial A. Garnett SWN
REGIONAL ENGINEER

March 22, 2024
ENGINEER OF DESIGN AND ENVIRONMENT

March 22, 2024
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV. 3/11/24

INDEX OF SHEETS

HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701321-18	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-09	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

GENERAL NOTES

G.N.-100A
ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR

G.N.-506 (SPL.)
ALL FINAL SURFACES OF THE BEAMS SHALL BE PAINTED GRAY (MUNSELL COLOR STANDARD - 5B 7/1). IN SOME CASES THE EXTERIOR SURFACES OF THE EXTERIOR BEAMS SHALL BE PAINTED WITH EITHER INTERSTATE GREEN (MUNSELL COLOR STANDARD 7.5G 4/8) OR REDDISH BROWN (MUNSELL COLOR STANDARD 2.5YR 3/4) AS SPECIFIED UNDER THE DESCRIPTION FOR EACH STRUCTURE.

ONLY STRUCTURAL STEEL AND OTHER DESIGNATED SURFACES SHALL BE PAINTED. ALL OTHER SURFACES SHALL BE PROTECTED FROM CONTRACTORS BLASTING AND PAINTING OPERATIONS. ANY AREAS DAMAGED BY BLASTING OR OVERSPRAY WILL BE REMOVED OR REPAIRED AT THE CONTRACTOR'S EXPENSE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

CARE SHALL BE TAKEN NOT TO DAMAGE RUBBER BEARING OR JOINT COMPONENTS DURING BLASTING AND CLEANING OPERATIONS. ANY DAMAGE TO THESE COMPONENTS SHALL BE REPAIRED AT CONTRACTORS EXPENSE.

THE SSPC-QP1 AND QP2 PAINTING CONTRACTOR CERTIFICATIONS WILL BE REQUIRED FOR THIS CONTRACT.

ALL TRASH AND PAINTING DEBRIS, EXCLUDING WASTE BARRELS OR ROLL-OFF DUMPSTERS, SHALL BE REMOVED BEFORE BEGINNING WORK AT ANOTHER LOCATION.

2 YEAR PAINT WARRANTY REQUIRED FOR ALL STRUCTURES

COMMITMENTS
THERE ARE NO COMMITMENTS ON THIS PROJECTS

MODEL: Index of Sheets [Sheet]
FILE NAME: c:\pw_work\pwidot\steven.wood@illinois.gov\d0941673\D570H14-Sht-GenNote.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 1/4/2024	DATE -	REVISED -	

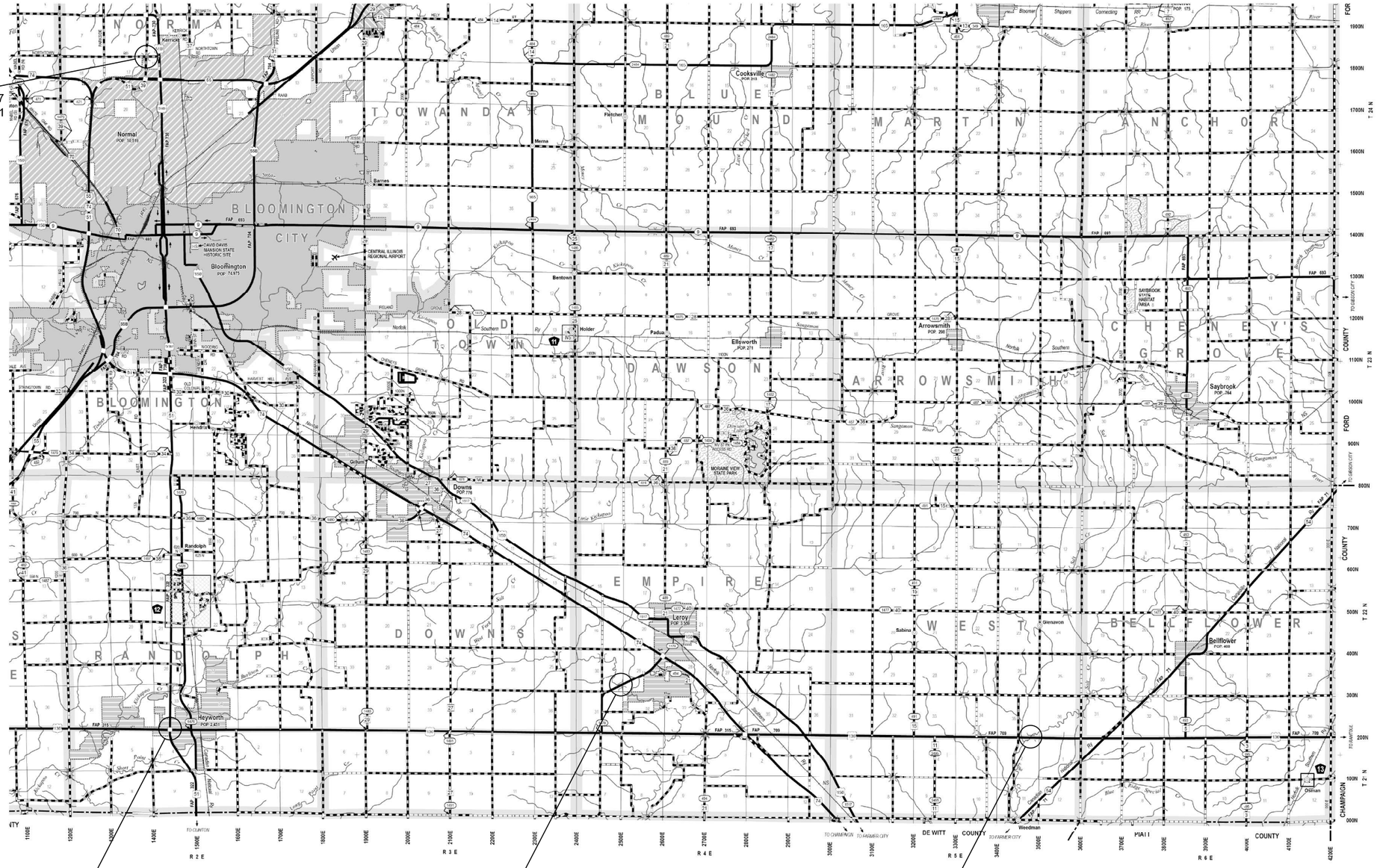
INDEX OF SHEETS, HIGHWAY STANDARDS & GENERAL NOTES

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	2
		CONTRACT NO. 70H14		
	ILLINOIS FED. AID PROJECT			

MCLEAN COUNTY

LOCATION 1 & 2
S.N. 057-0216 SB / STA. 124+99.57
S.N. 057-0217 NB / STA. 125+01.61



LOCATION 3 & 4
S.N. 057-0198 SB / STA. 267+60.00
S.N. 057-0199 NB / STA. 267+60.00

LOCATION 5
S.N. 057-0200 / STA. 86+51.00

LOCATION 6
S.N. 057-0218 / STA. 1067+44.50

N

TOWNSHIPS

NORMAL
RANDOLPH
EMPIRE
WEST

SCALE FOR MAIN MAP

0 1 2 3 4 5 Miles
0 5,000 10,000 15,000 20,000 25,000 Feet
0 1 2 3 4 5 6 7 8 Kilometers

MODEL: Location Map [Sheet]
FILE NAME: c:\pw_work\pwdot\steven.wood@illinois.gov\d0941673\D570H14-ShtLocation_Map.dgn

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	DRAWN -	REVISED -	
PLOT SCALE = 0.16666633 ' / In.	CHECKED -	REVISED -	
PLOT DATE = 1/4/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE LOCATION MAP
MCLEAN COUNTY

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	3
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

LOCATION OF WORK:	LOC. #1	LOC. #2	LOC. #3	LOC. #4	LOC. #5	LOC. #6
	FAI 39 (I-39)	FAI 39 (I-39)	FAP 322 (US 51)	FAP 322 (US 51)	FAS 1478	FAP 709 (US 136)
	S.N. 057-0216	S.N. 057-0217	S.N. 057-0198	S.N. 057-0199	S.N. 057-0200	S.N. 057-0218
COUNTY:	MCLEAN	MCLEAN	MCLEAN	MCLEAN	MCLEAN	MCLEAN
	URBAN	URBAN	RURAL	RURAL	RURAL	RURAL
FUNDING BREAKOUT:	90% FED	90% FED	80% FED	80% FED	80% FED	80% FED
	10% STATE	10% STATE	20% STATE	20% STATE	20% STATE	20% STATE
CONSTRUCTION TYPE CODE:	0047	0047	0047	0047	0047	0047

	CODE NO.		ITEM	UNIT	TOTAL QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
	67100100		MOBILIZATION	L SUM	1.0	0.17	0.17	0.17	0.17	0.16	0.16
	70100450		TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1.0	0.2	0.2	0.2	0.2	0.1	0.1
	X5060601		CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1.0	1.0					
	X5060602		CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1.0		1.0				
	X5060603		CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 3	L SUM	1.0			1.0			
	X5060604		CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 4	L SUM	1.0				1.0		
	X5060605		CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 5	L SUM	1.0					1.0	
	X5060606		CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES NO. 6	L SUM	1.0						1.0
	X5067501		BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 1	L SUM	1.0	1.0					
	X5067502		BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 2	L SUM	1.0		1.0				
* DENOTES SPECIALTY ITEM											

SUMMARY OF QUANTITIES

LOCATION OF WORK:	LOC. #1	LOC. #2	LOC. #3	LOC. #4	LOC. #5	LOC. #6
	FAI 39 (I-39)	FAI 39 (I-39)	FAP 322 (US 51)	FAP 322 (US 51)	FAS 1478	FAP 709 (US 136)
	S.N. 057-0216	S.N. 057-0217	S.N. 057-0198	S.N. 057-0199	S.N. 057-0200	S.N. 057-0218
COUNTY:	MCLEAN	MCLEAN	MCLEAN	MCLEAN	MCLEAN	MCLEAN
	URBAN	URBAN	RURAL	RURAL	RURAL	RURAL
FUNDING BREAKOUT:	90% FED	90% FED	80% FED	80% FED	80% FED	80% FED
	10% STATE	10% STATE	20% STATE	20% STATE	20% STATE	20% STATE
CONSTRUCTION TYPE CODE:	0047	0047	0047	0047	0047	0047

	CODE NO.		ITEM	UNIT	TOTAL QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
	X5067503		BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 3	L SUM	1.0			1.0			
	X5067504		BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 4	L SUM	1.0				1.0		
	X5067505		BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 5	L SUM	1.0					1.0	
	X5067506		BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 6	L SUM	1.0						1.0
	Z0010501		CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1.0	1.0					
	Z0010502		CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1.0		1.0				
	Z0010503		CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM	1.0			1.0			
	Z0010504		CLEANING AND PAINTING STEEL BRIDGE NO. 4	L SUM	1.0				1.0		
	Z0010505		CLEANING AND PAINTING STEEL BRIDGE NO. 5	L SUM	1.0					1.0	
	Z0010506		CLEANING AND PAINTING STEEL BRIDGE NO. 6	L SUM	1.0						1.0
* DENOTES SPECIALTY ITEM											

MODEL: SOQ 2 [Sheet]
FILE NAME: c:\pw_work\pwidot\steven.wood@illinois.gov\d0941673\D570H14-Sht-SOQ.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 0.1666633 ' / In.	CHECKED -	REVISED -	
PLOT DATE = 1/4/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITES

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	5
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		

LOCATION #1

DESCRIPTION:	I-39 SB over NORTHTOWN RD (TR 201B) - 0.53 mi N of I-55
COUNTY:	MCLEAN
ROUTE:	FAI 39
MARKED ROUTE:	I-39
SECTION:	57-2HB-2
STRUCTURE NO.:	057-0216
TYPE OF STRUCTURE:	1 SPAN STEEL PLATE GIRDER
	9 BEAM LINES - LENGTH Varies 105.97' to 106.43'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR STEEL SURFACES SHALL BE GRAY, MUNSELL NO. 5B 7/1. THE COLOR OF THE FINAL FINISH COAT FOR ALL EXTERIOR SURFACES AND THE BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE GRAY, MUNSELL NO. 5B 7/1.

THE STRUCTURE HAS AN EXISTING ZINC-SILICATE AND VINYL PAINT SYSTEM. CONTAINMENT OF CLEANING RESIDUE IS REQUIRED TO CONTROL NUISANCE DUST. THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES".

NOTE: DECK DRAINS WITHIN THE PAINTING LIMITS DESCRIBED ABOVE ARE TO BE PAINTED AT NO ADDITIONAL COST.

NOTE: ELASTOMERIC BEARINGS AT NORTH ABUTMENT

TWO (2) YEAR PAINT WARRANTY REQUIRED FOR THIS STRUCTURE

LOCATION #2

DESCRIPTION:	I-39 NB over NORTHTOWN RD (TR 201B) - 0.53 mi N of I-55
COUNTY:	MCLEAN
ROUTE:	FAI 39
MARKED ROUTE:	I-39
SECTION:	57-2HB-2
STRUCTURE NO.:	057-0217
TYPE OF STRUCTURE:	1 SPAN STEEL PLATE GIRDER
	6 BEAM LINES - LENGTH = 106.0'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR STEEL SURFACES SHALL BE GRAY, MUNSELL NO. 5B 7/1. THE COLOR OF THE FINAL FINISH COAT FOR ALL EXTERIOR SURFACES AND THE BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE GRAY, MUNSELL NO. 5B 7/1.

THE STRUCTURE HAS AN EXISTING ZINC-SILICATE AND VINYL PAINT SYSTEM. CONTAINMENT OF CLEANING RESIDUE IS REQUIRED TO CONTROL NUISANCE DUST. THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES".

NOTE: DECK DRAINS WITHIN THE PAINTING LIMITS DESCRIBED ABOVE ARE TO BE PAINTED AT NO ADDITIONAL COST.

NOTE: ELASTOMERIC BEARINGS AT NORTH ABUTMENT

TWO (2) YEAR PAINT WARRANTY REQUIRED FOR THIS STRUCTURE

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESCRIPTION OF WORK
LOCATIONS #1 & #2

SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	6
		CONTRACT NO. 70H14		
	ILLINOIS FED. AID PROJECT			

LOCATION #3

DESCRIPTION: US 51 (FAP 322) SB over US 136 @ HEYWORTH
COUNTY: MCLEAN
ROUTE: FAP 322
MARKED ROUTE: US 51
SECTION: 57-1HB
STRUCTURE NO.: 057-0198
TYPE OF STRUCTURE: 1 SPAN STEEL PLATE GIRDER
6 BEAM LINES - LENGTH = 125.71'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR STEEL SURFACES SHALL BE GRAY, MUNSELL NO. 5B 7/1. THE COLOR OF THE FINAL FINISH COAT FOR ALL EXTERIOR SURFACES AND THE BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE GRAY, MUNSELL NO. 5B 7/1.

THE STRUCTURE HAS AN EXISTING ZINC-SILICATE AND VINYL PAINT SYSTEM. CONTAINMENT OF CLEANING RESIDUE IS REQUIRED TO CONTROL NUISANCE DUST. THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES".

NOTE: DECK DRAINS WITHIN THE PAINTING LIMITS DESCRIBED ABOVE ARE TO BE PAINTED AT NO ADDITIONAL COST.

NOTE: ELASTOMERIC BEARINGS AT NORTH ABUTMENT

NOTE: NEW EMSEAL EXPANSION JOINTS HAVE BEEN INSTALLED AT THE ABUTMENTS. THE CELLULAR FOAM MATERIAL ON THE UNDERSIDE OF THE JOINT COULD BE DAMAGED FROM THE CONTRACTORS BLASTING OPERATIONS WHEN BLASTING BEAM ENDS AND THE BACKSIDE OF THE DIAPHRAGMS. THE CONTRACTOR SHALL TAKE CARE TO PROTECT AND AVOID DAMAGE TO THE UNDERSIDE OF THE JOINT FOAM MATERIAL.

TWO (2) YEAR PAINT WARRANTY REQUIRED FOR THIS STRUCTURE

LOCATION #4

DESCRIPTION: US 51 (FAP 322) NB over US 136 @ HEYWORTH
COUNTY: MCLEAN
ROUTE: FAP 322
MARKED ROUTE: US 51
SECTION: 57-1HB
STRUCTURE NO.: 057-0199
TYPE OF STRUCTURE: 1 SPAN STEEL PLATE GIRDER
6 BEAM LINES - LENGTH = 125.71'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR STEEL SURFACES SHALL BE GRAY, MUNSELL NO. 5B 7/1. THE COLOR OF THE FINAL FINISH COAT FOR ALL EXTERIOR SURFACES AND THE BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE GRAY, MUNSELL NO. 5B 7/1.

THE STRUCTURE HAS AN EXISTING ZINC-SILICATE AND VINYL PAINT SYSTEM. CONTAINMENT OF CLEANING RESIDUE IS REQUIRED TO CONTROL NUISANCE DUST. THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES".

NOTE: DECK DRAINS WITHIN THE PAINTING LIMITS DESCRIBED ABOVE ARE TO BE PAINTED AT NO ADDITIONAL COST.

NOTE: ELASTOMERIC BEARINGS AT NORTH ABUTMENT

NOTE: NEW EMSEAL EXPANSION JOINTS HAVE BEEN INSTALLED AT THE ABUTMENTS. THE CELLULAR FOAM MATERIAL ON THE UNDERSIDE OF THE JOINT COULD BE DAMAGED FROM THE CONTRACTORS BLASTING OPERATIONS WHEN BLASTING BEAM ENDS AND THE BACKSIDE OF THE DIAPHRAGMS. THE CONTRACTOR SHALL TAKE CARE TO PROTECT AND AVOID DAMAGE TO THE UNDERSIDE OF THE JOINT FOAM MATERIAL.

TWO (2) YEAR PAINT WARRANTY REQUIRED FOR THIS STRUCTURE

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESCRIPTION OF WORK
LOCATIONS #3 & #4

SCALE: | SHEET 2 OF 3 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	7
		CONTRACT NO. 70H14		
	ILLINOIS FED. AID PROJECT			

LOCATION #5

DESCRIPTION: FAS 1478 (Leroy Spur) over W FORK SALT CREEK - 1.3 mi S of I-74
COUNTY: MCLEAN
ROUTE: FAS 1478 (Leroy Spur)
MARKED ROUTE: 2450 E
SECTION: 102BR-1
STRUCTURE NO.: 057-0200
TYPE OF STRUCTURE: 3 SPAN STEEL
5 BEAM LINES - CTR-CTR BENTS = 144.0'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR STEEL SURFACES SHALL BE GRAY, MUNSELL NO. 5B 7/1. THE COLOR OF THE FINAL FINISH COAT FOR ALL EXTERIOR SURFACES AND THE BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE GRAY, MUNSELL NO. 5B 7/1.

THE STRUCTURE HAS WEATHERING STEEL AND AN EXISTING OZ/E/U PAINT SYSTEM. CONTAINMENT OF CLEANING RESIDUE IS REQUIRED TO CONTROL NUISANCE DUST. THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES".

NOTE: DECK DRAINS WITHIN THE PAINTING LIMITS DESCRIBED ABOVE ARE TO BE PAINTED AT NO ADDITIONAL COST.

NOTE: ELASTOMERIC BEARINGS AT EAST & WEST ABUTMENTS

NOTE: NEW EMSEAL EXPANSION JOINTS HAVE BEEN INSTALLED AT THE ABUTMENTS. THE CELLULAR FOAM MATERIAL ON THE UNDERSIDE OF THE JOINT COULD BE DAMAGED FROM THE CONTRACTORS BLASTING OPERATIONS WHEN BLASTING BEAM ENDS AND THE BACKSIDE OF THE DIAPHRAGMS. THE CONTRACTOR SHALL TAKE CARE TO PROTECT AND AVOID DAMAGE TO THE UNDERSIDE OF THE JOINT FOAM MATERIAL.

TWO (2) YEAR PAINT WARRANTY REQUIRED FOR THIS STRUCTURE

LOCATION #6

DESCRIPTION: US 136 (FAP 709) over SALT CREEK - 5.5 mile E of US 150
COUNTY: MCLEAN
ROUTE: FAP 709
MARKED ROUTE: US 136
SECTION: 103BR
STRUCTURE NO.: 057-0218
TYPE OF STRUCTURE: 3 SPAN CONTINUOUS STEEL
5 BEAM LINES - BK-BK ABUTS = 115.0'

CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES." ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10.

THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING SSPC-SP10 SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR STEEL SURFACES SHALL BE GRAY, MUNSELL NO. 5B 7/1. THE COLOR OF THE FINAL FINISH COAT FOR ALL EXTERIOR SURFACES AND THE BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE GRAY, MUNSELL NO. 5B 7/1.

THE STRUCTURE HAS AN EXISTING ZINC-SILICATE AND VINYL PAINT SYSTEM. CONTAINMENT OF CLEANING RESIDUE IS REQUIRED TO CONTROL NUISANCE DUST. THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES".

NOTE: DECK DRAINS WITHIN THE PAINTING LIMITS DESCRIBED ABOVE ARE TO BE PAINTED AT NO ADDITIONAL COST.

NOTE: ELASTOMERIC BEARINGS AT EAST & WEST ABUTMENTS

NOTE: NEW EMSEAL EXPANSION JOINTS HAVE BEEN INSTALLED AT THE ABUTMENTS. THE CELLULAR FOAM MATERIAL ON THE UNDERSIDE OF THE JOINT COULD BE DAMAGED FROM THE CONTRACTORS BLASTING OPERATIONS WHEN BLASTING BEAM ENDS AND THE BACKSIDE OF THE DIAPHRAGMS. THE CONTRACTOR SHALL TAKE CARE TO PROTECT AND AVOID DAMAGE TO THE UNDERSIDE OF THE JOINT FOAM MATERIAL.

TWO (2) YEAR PAINT WARRANTY REQUIRED FOR THIS STRUCTURE

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESCRIPTION OF WORK
LOCATIONS #5 & #6

SCALE: | SHEET 3 OF 3 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	8
		CONTRACT NO. 70H14		
	ILLINOIS FED. AID PROJECT			

AS–BUILT PLANS FOR S.N. 057–0216 / S.N. 057–0217

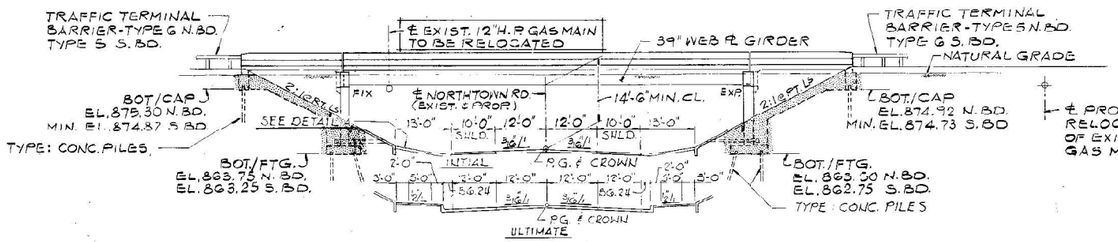
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 412	57-2HB-2	McLEAN	182	71
STA:		TO STA.		
F. HW. A. REG. NO. 4	ILLINOIS	PROJECT		

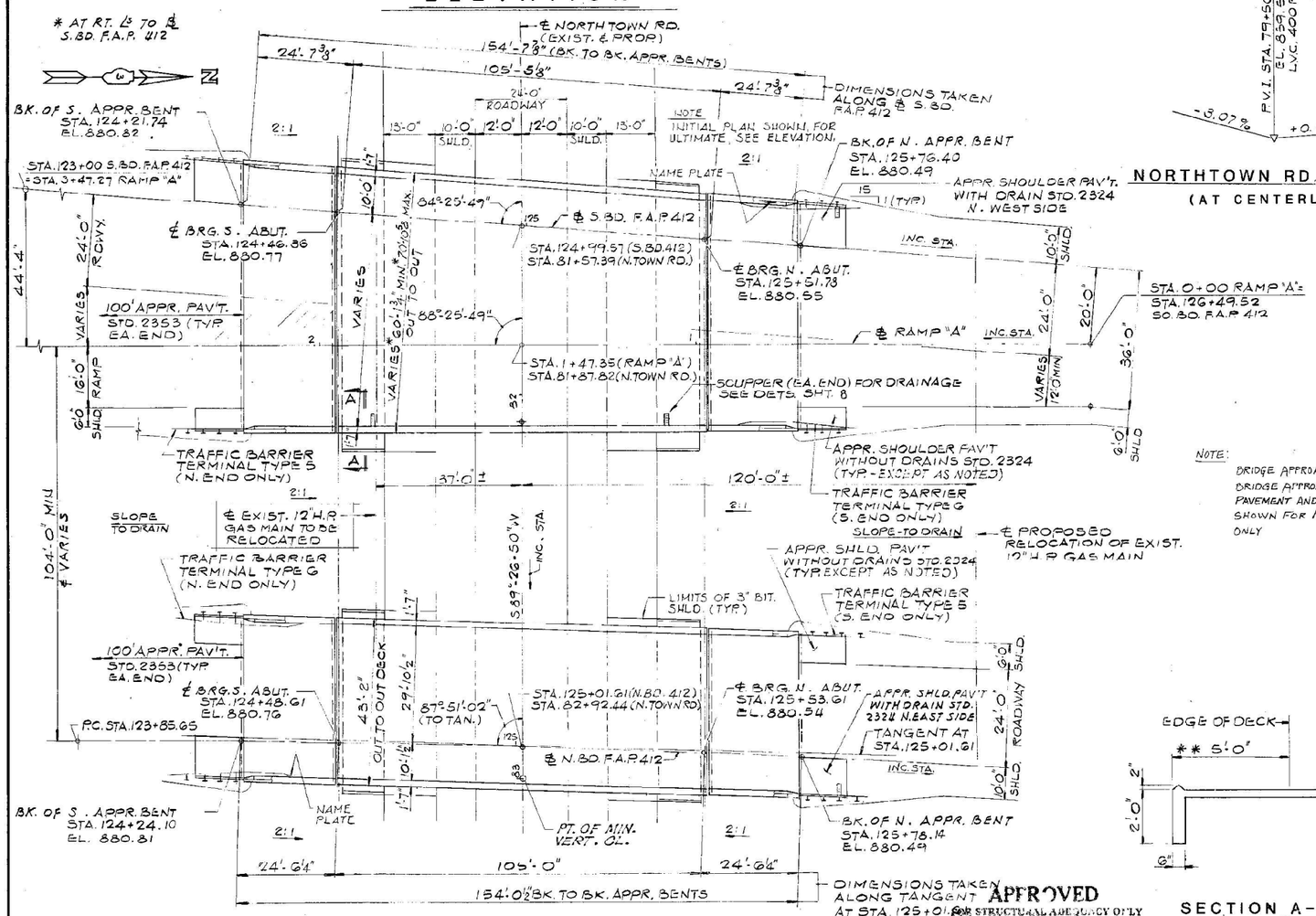
SHEET 1 OF 26

T. B. M. # 873: R.R. SPIKE IN POWER POLE ON SOUTH SIDE OF NORTHTOWN RD. 1,750' ± WEST OF US-51. EL. 878.75 NO EXISTING STRUCTURE. NORTHTOWN RD. TO BE CLOSED DURING CONSTRUCTION. TRAFFIC DETOURED TO TR 181.

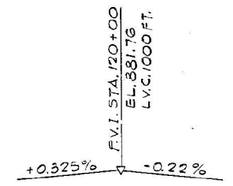
INDICATES STRUCTURE EXCAVATION



ELEVATION



PLAN

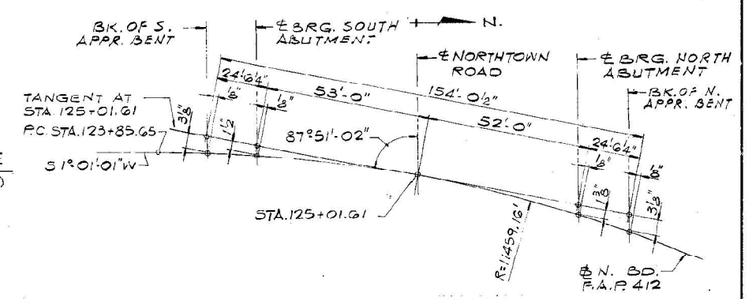


F.A.P. 412 PROFILE

(AT N. BD. & S. BD. BASELINE)

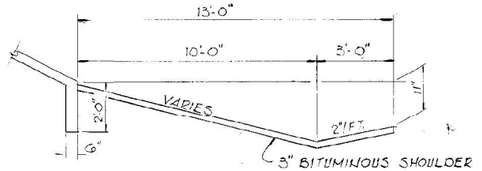
NORTHTOWN RD. PROFILE

(AT CENTERLINE)



OFFSET SKETCH

(NORTH BOUND F.A.P. 412)



DETAIL "A"

INTIAL PHASE

HORIZONTAL CURVE DATA

(N.BD. F.A.P. 412)

P.I. STA.	= 127+85.82
Δ	= 4°-00'-00"
D	= 0°-30'-00"
R	= 11459.16
L	= 800.00
E	= 6.98
T	= 400.16
P.C. STA.	= 123+85.65
P.T. STA.	= 131+85.65

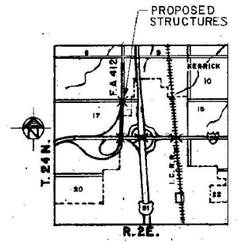
S.E. TRANSITION: 0.016 ½ FT.
BEGIN STA. 122+15.65
END STA. 124+70.65

NOTE:

BRIDGE APPROACH PAVEMENT, BRIDGE APPROACH SHOULDER PAVEMENT AND GUARDRAIL SHOWN FOR INFORMATION ONLY

SECTION A-A

** PROVIDE 2'-0" FOR N. BD. F.A.P. 412 ℄ WEST SIDE OF S. BD. F.A.P. 412



LOCATION PLAN

3RD. P.M.

alfred benesch & company
CONSULTING ENGINEERS
200 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
JOB NO. 2203

LINDELIUS D. ASHWILL 81-2502 REGISTERED STRUCTURAL ENGINEER STATE OF ILLINOIS

DESIGN SPECIFICATIONS

AASHTO (1983) AND 1984, 1985 & 1986 INTERIMS WITH EXCEPTIONS OR MODIFICATIONS AS INDICATED.

LOADING HS20-44

ALLOW 25 PSF FOR FUTURE WEARING SURFACE.

DESIGN STRESSES

F'c = 3,500 PSI
Fy = 60,000 PSI
Fy = 50,000 PSI (STRUCTURAL STEEL, AASHTO M 229)
Fy = 36,000 PSI (STRUCTURAL STEEL, AASHTO M 183)

GENERAL PLAN AND ELEVATION

F.A.P. ROUTE 412
OVER NORTHTOWN RD.
F.A.P. ROUTE 412-SEC. 57-2HB-2
McLEAN COUNTY
STATION 124+99.57 (S.B.) 125+01.61 (N.B.)
STRUCTURE NUMBER 057-0216 (S.B.) 057-0217 (N.B.)

APPROVED

John W Clark
Registered Structural Engineer

FOR STRUCTURAL ADEQUACY ONLY

ACME COPY CORP.

MODEL: Loc1n2 sheet 1 [Sheet]
FILE NAME: c:\pw_work\pwdot\steven.wood@illinois.gov\d0941673\D570H14-Sht-As_Builts-Loc1&2.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 0.16666633 ' / In.	CHECKED -	REVISED -	
PLOT DATE = 1/5/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILT PLANS LOCATION #1 & #2
S.N. 057-0216 (SB) & S.N. 057-0217 (NB)

SCALE: | SHEET 1 OF 6 SHEETS | STA. | TO STA.

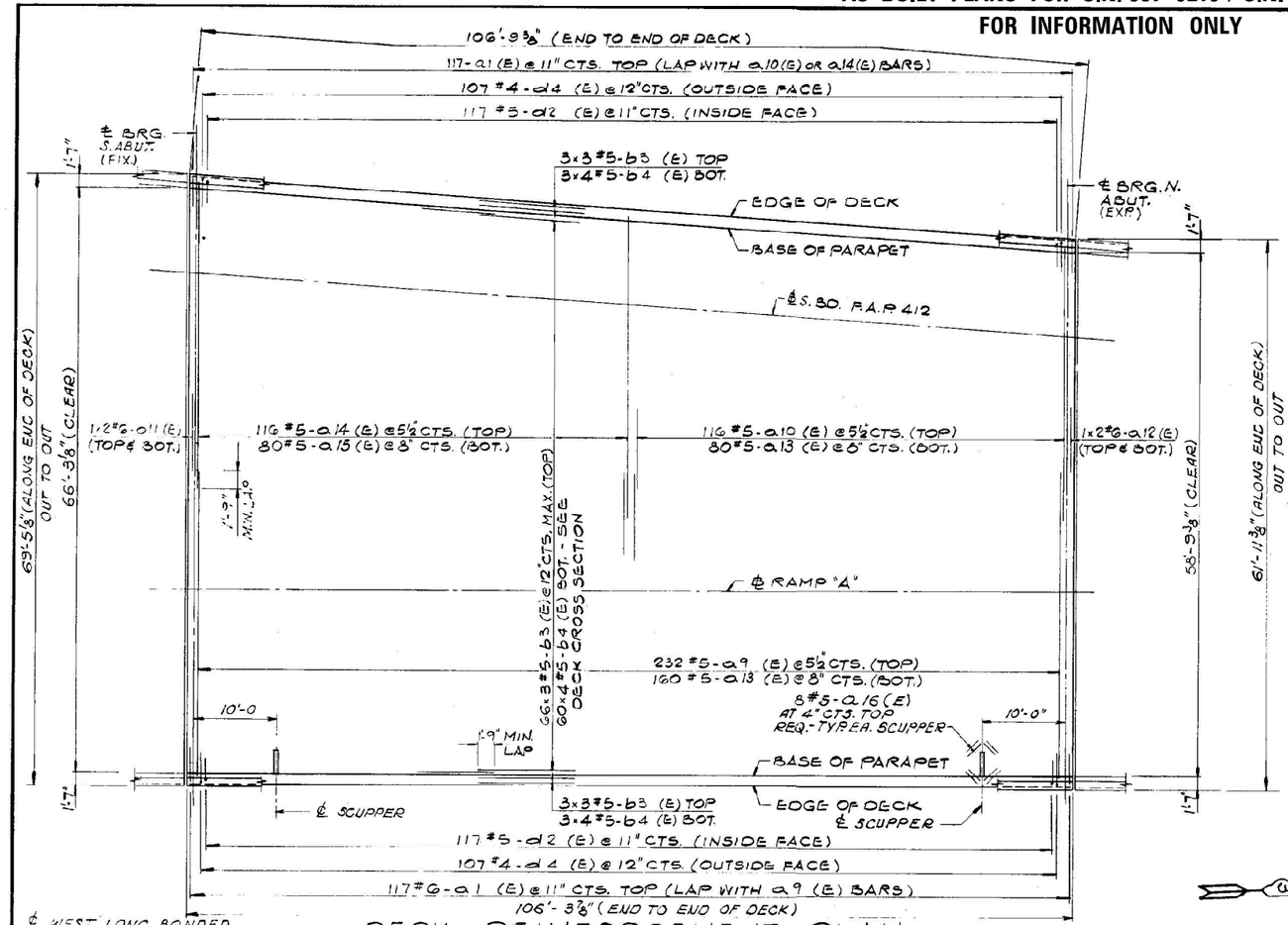
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	9
		CONTRACT NO. 70H14		
	ILLINOIS FED. AID PROJECT			

AS–BUILT PLANS FOR S.N. 057–0216 / S.N. 057–0217

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 412	57-2HB-2	McLEAN	182	75
STA.	TO STA.			
F. HWY. A. REG. NO. 4	ILLINOIS	PROJECT		

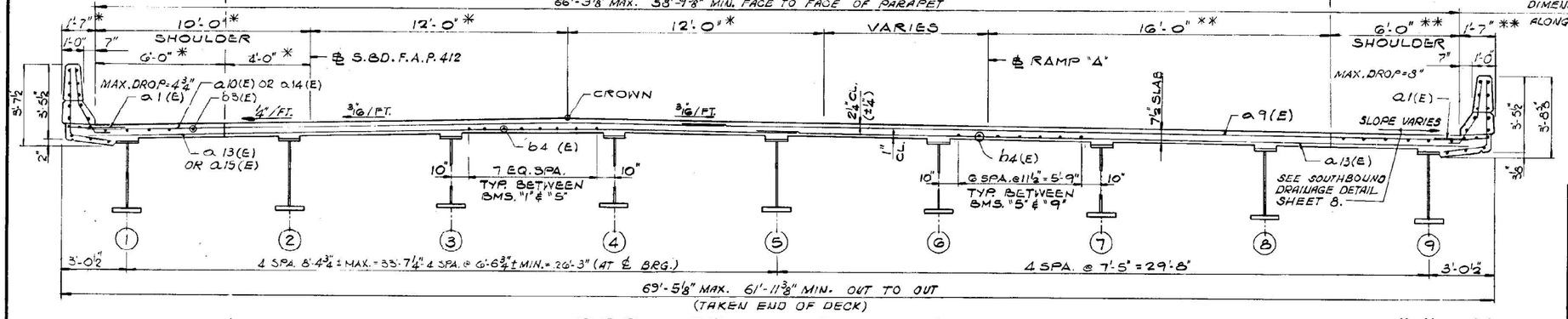
SHEET 5 OF 26



DECK REINFORCEMENT PLAN

(SOUTH BOUND F.A.P. 412)

* DIMENSIONS ⊥ TO ℄ S.BD. FAP 412
** DIMENSIONS ⊥ TO ℄ RAMP "A"



* DIMENSIONS ⊥ TO ℄ S.BD. FAP 412
** DIMENSIONS ⊥ TO ℄ RAMP "A"

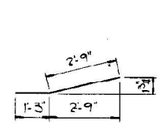
DECK CROSS SECTION

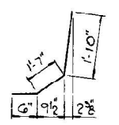
(LOOKING NORTH)

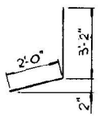
NOTES:
- ALL BAR DIMENSIONS ARE OUT TO OUT.
- BARS DESIGNATED (E) SHALL BE EPOXY COATED.

BILL OF MATERIAL

MARK	NO	SIZE	LENGTH	SHAPE
a1 (E)	234	6	4- 0	
a9 (E)	232	5	36- 6	
a10(E)	116	5	29- 6	
a11(E)	4	6	34- 9	
a12(E)	4	6	31- 0	
a13(E)	240	5	33- 0	
a14(E)	116	5	32- 6	
a15(E)	80	5	37- 0	
a16(E)	16	5	2- 0	
b3 (E)	216	5	37- 0	
b4 (E)	280	5	28- 0	
b5 (E)	12	8	38- 0	
d2 (E)	234	5	3-11	
d4 (E)	214	4	5- 2	
e1 (E)	72	4	17- 4	
CLASS X CONCRETE SUPERSTRUCTURE		CY. YDS.	189.	
REINFORCEMENT BARS		LBS	0.	
REINFORCEMENT BARS (EPOXY COATED)		LBS	49780	







BAR LAP
#5 BAR - 1'-9"

DECK REINFORCEMENT PLAN
SOUTH BOUND MAIN SPAN
F.A.P. ROUTE 412 OVER
NORTH TOWN RD.
F.A.P. ROUTE 412 - SEC. 57-2HB-2
McLEAN COUNTY
STATION 124+99.57 (S.B.)
125+01.61 (N.B.)
STRUCTURE NUMBER 057-0216 (S.B.)
057-0217 (N.B.)

alfred benesch & company
CONSULTING ENGINEERS
200 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
JOB NO. 2203

ACME COPY CORP.

MODEL: Loc1n2 sheet 2 [Sheet]
FILE NAME: c:\pw_work\pwdot\steven.wood@illinois.gov\d0941673\D570H14-Sht-As_Builts-Loc1&2.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / In.	CHECKED -	REVISED -
PLOT DATE = 1/5/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILT PLANS LOCATION #1 & #2
S.N. 057-0216 (SB) & S.N. 057-0217 (NB)

SCALE: | SHEET 2 OF 6 SHEETS | STA. | TO STA.

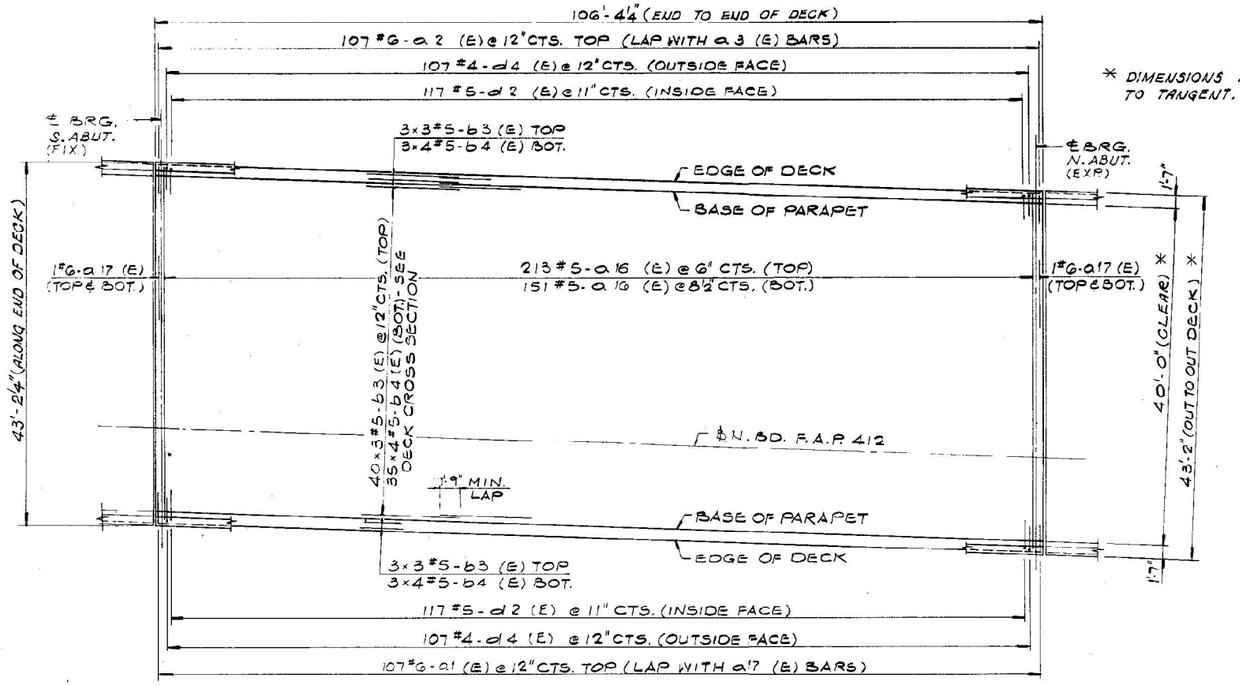
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	10
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		

AS–BUILT PLANS FOR S.N. 057–0216 / S.N. 057–0217

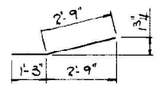
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 412	57-2HB-2	McLEAN	182	76
STA.		TO STA.		
F. HW. A. REG. NO. 4	ILLINOIS	PROJECT		

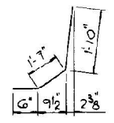
SHEET 6 OF 26



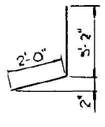
* DIMENSIONS NORMAL TO TANGENT.



a1 (E)



d2 (E)



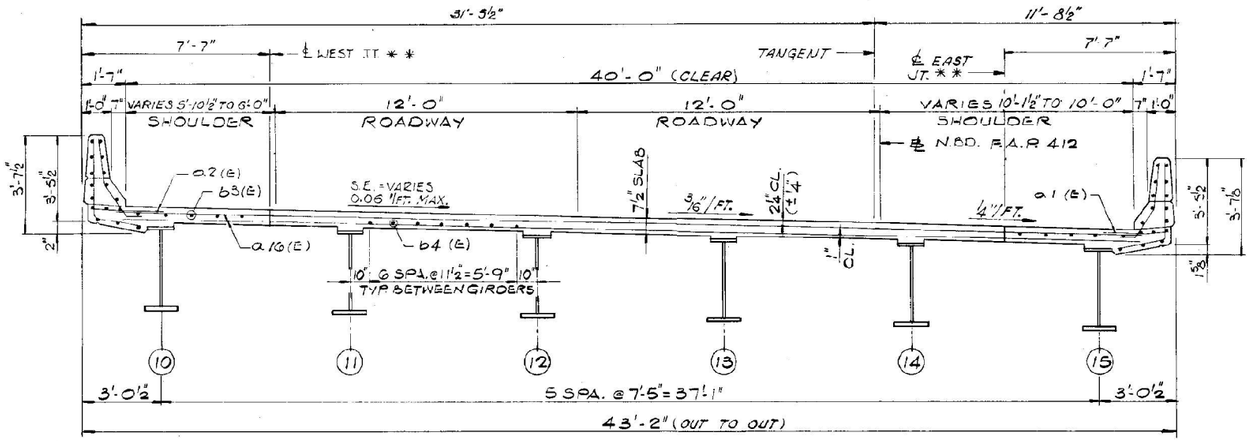
d4 (E)

BILL OF MATERIAL

MARK	NO	SIZE	LENGTH	SHAPE
a1 (E)	107	6	4- 0	—
a2 (E)	107	6	4- 0	—
a16 (E)	364	5	40- 9	—
a17 (E)	4	6	40- 9	—
b3 (E)	138	5	37- 0	—
b4 (E)	180	5	28- 0	—
b5 (E)	12	8	38- 0	—
d2 (E)	234	5	3-11	L
d4 (E)	214	4	5- 2	L
e1 (E)	72	4	17- 4	—
CLASS X CONCRETE SUPERSTRUCTURE		CY. YDS.	131.	
REINFORCEMENT BARS		LBS	0.	
REINFORCEMENT BARS (EPOXY COATED)		LBS	31330.	

N

DECK REINFORCEMENT PLAN



DECK CROSS SECTION

(LOOKING NORTH)

* * BONDED LONGITUDINAL CONSTRUCTION JOINT DO NOT EDGE

NOTES:
- ALL BAR DIMENSIONS ARE OUT TO OUT.
- BARS DESIGNATED (E) SHALL BE EPOXY COATED.

alfred benesch & company
CONSULTING ENGINEERS
233 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
JOB NO. 2203

DECK REINFORCEMENT PLAN
NORTH BOUND MAIN SPAN
F.A.P. ROUTE 412 OVER
NORTH TOWN RD.
F.A.P. ROUTE 412 - SEC. 57-2HB-2
McLEAN COUNTY
STATION 124-99.57 / 125-01.61
STRUCTURE NUMBER 057-0216 (S.B.) / 057-0217 (N.B.)

ACME COPY CORP.

MODEL: Loc1n2 sheet 3 [Sheet]
FILE NAME: c:\pw_work\pwdot\steven.wood@illinois.gov\d0941673\D570H14-Sht-As_Builts-Loc1&2.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 0.16666633 ' / In.	CHECKED -	REVISED -	
PLOT DATE = 1/5/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILT PLANS LOCATION #1 & #2
S.N. 057-0216 (SB) & S.N. 057-0217 (NB)

SCALE: | SHEET 3 OF 6 SHEETS | STA. | TO STA.

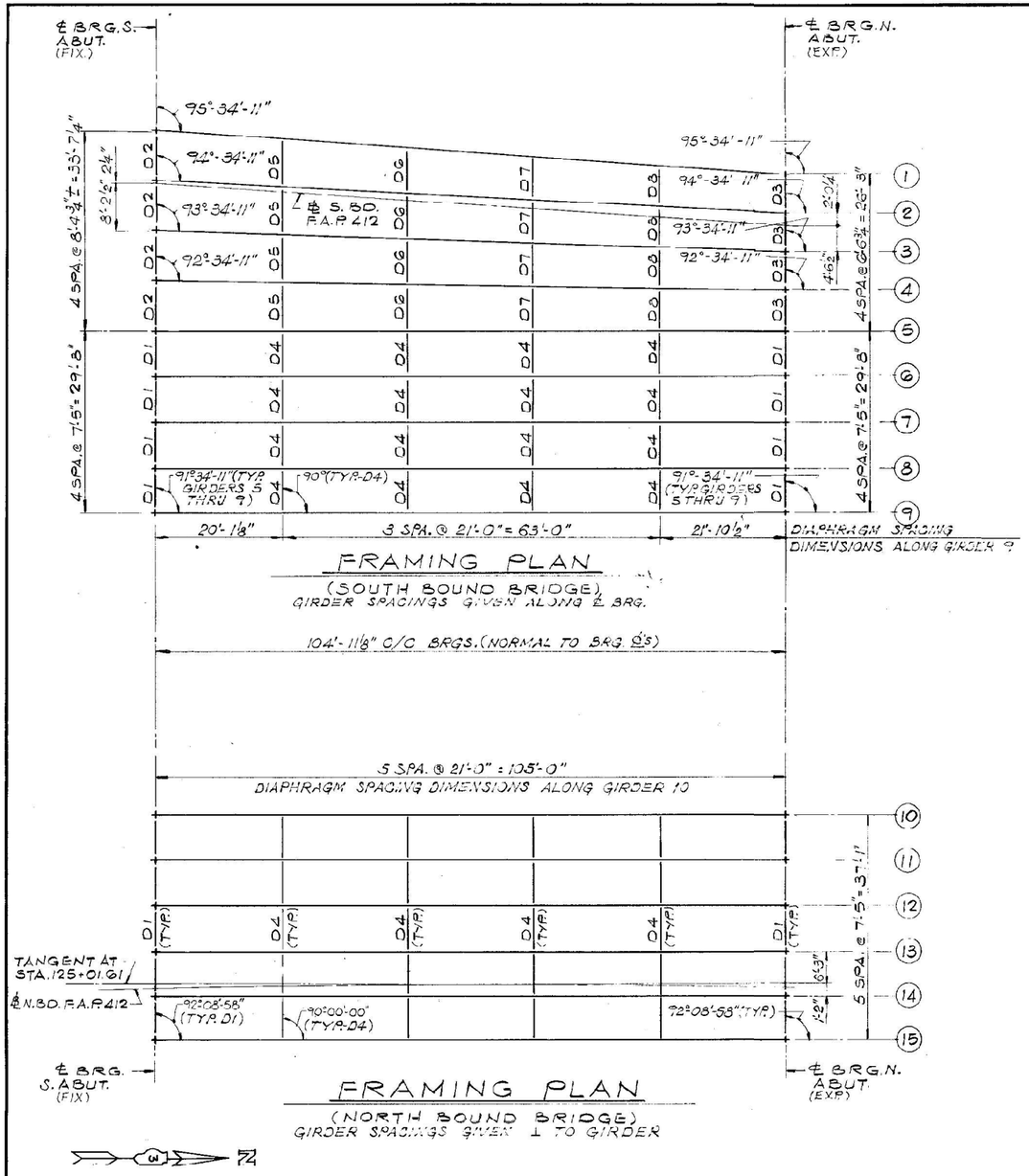
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	11
		CONTRACT NO. 70H14		
		ILLINOIS	FED. AID PROJECT	

AS-BUILT PLANS FOR S.N. 057-0216 / S.N. 057-0217

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 412	57-2HB-2	McLEAN	182	84
STA.		TO STA.		
F. HW. A. REG. NO. 4	ILLINOIS	PROJECT		

SHEET 14 OF 26

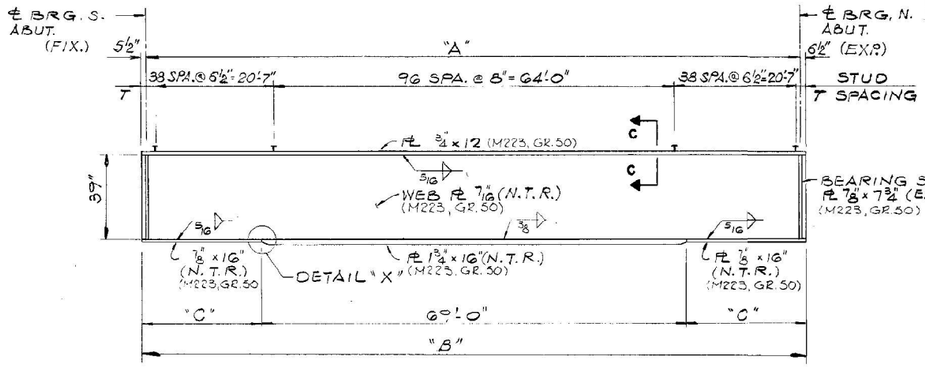


FRAMING PLAN

(SOUTH BOUND BRIDGE)
GIRDER SPACINGS GIVEN ALONG ℄ BRG.

FRAMING PLAN

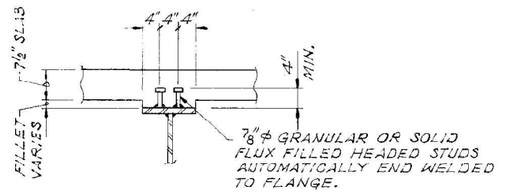
(NORTH BOUND BRIDGE)
GIRDER SPACINGS GIVEN ⊥ TO GIRDER



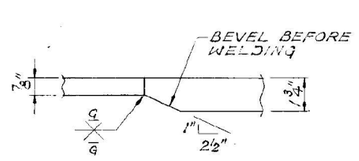
ELEVATION

(GIRDERS "1" THRU "15")

GIRDER	GIRDER DIMENSIONS			
	"A"	"B"	"C"	"T"
1	105'-5 1/8"	106'-5 1/8"	18'-8 9/16"	7 9/16"
2	105'-3 1/8"	106'-3 1/8"	18'-7 9/16"	6 9/16"
3	105'-1 1/8"	106'-1 1/8"	18'-6 13/16"	5 13/16"
4	105'-0 3/8"	106'-0 3/8"	18'-8 3/16"	5 3/16"
5, 6, 7, 8, 9	104'-11 5/8"	105'-11 5/8"	18'-5 13/16"	4 13/16"
10, 11, 12 13, 14, 15	105'-0"	106'-0"	18'-6"	5"



SECTION "C-C"



DETAIL "X"

NOTES:

N.T.R. DENOTES PLATES TO WHICH NOTCH TOUGHNESS REQUIREMENTS ARE APPLICABLE.

FRAMING PLAN
GIRDER ELEVATION

F.A.P. ROUTE 412 OVER
NORTH TOWN RD.
F.A.P. ROUTE 412 - SEC. 57-2HB-2
McLEAN COUNTY
STATION 124+99.57 (S.B)
125+01.61 (N.B
STRUCTURE NUMBER 057-0216 (S.B.)
057-0217 (N.B.)

alfred benesch & company
CONSULTING ENGINEERS
225 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
JOB NO. 2203

MODEL: Loc1n2 sheet 4 [Sheet]
FILE NAME: c:\pw_work\pwdot\steven.wood@illinois.gov\d0941673\D570H14-Sht-As_Builts-Loc1&2.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 0.1666633 ' / In.	CHECKED -	REVISED -	
PLOT DATE = 1/5/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

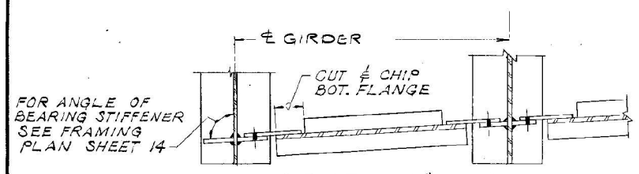
AS BUILT PLANS LOCATION #1 & #2
S.N. 057-0216 (SB) & S.N. 057-0217 (NB)

SCALE: | SHEET 4 OF 6 SHEETS | STA. | TO STA.

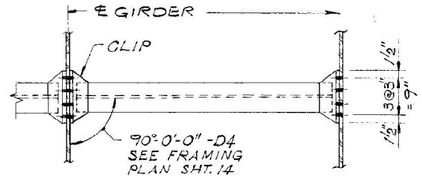
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	McLEAN	35	12
		CONTRACT NO. 70H14		
	ILLINOIS FED. AID PROJECT			

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 412	57-2HB-2	McLEAN	182	85
STA.		TO STA.		
F. HW. A. REG. NO. 4	ILLINOIS	PROJECT		

SHEET 15 OF 26

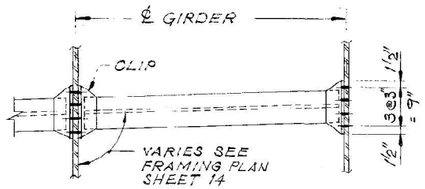


SECTION "A-A"

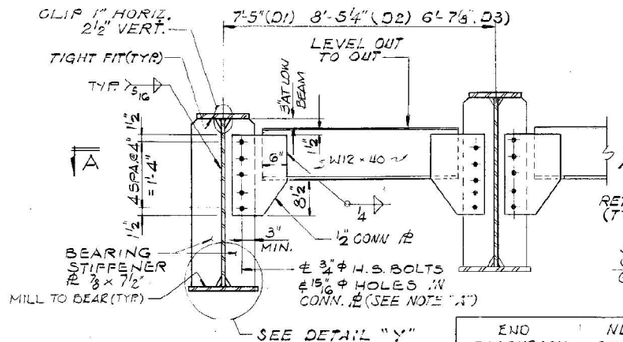


SECTION "B-B"

INTERIOR DIAPHRAGM	NUMBER REQUIRED
D4	36
D5	4
D6	4
D7	4
D8	4



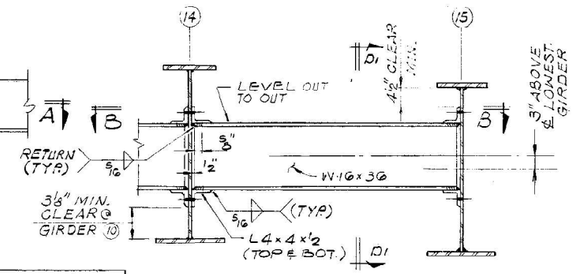
SECTION "C-C"



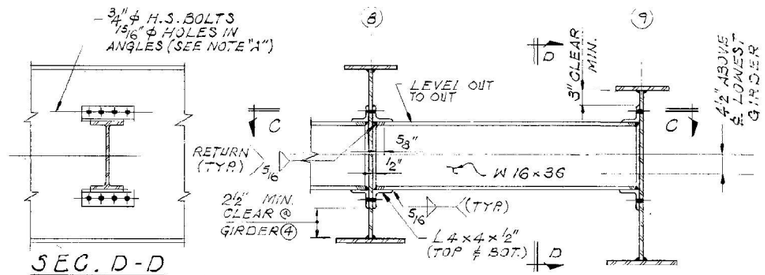
END DIAPHRAGMS
FOR D1, D2 & D3

END DIAPHRAGM	NUMBER REQUIRED
D1	18
D2	4
D3	4

NOTE "A"
HARDENED WASHERS SHALL BE USED OVER 15/16" ϕ HOLES IN DIAPHRAGM ANGLES AND CONNECTION PLATES.



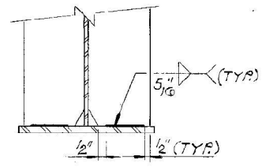
FOR N.BD. FAP 412
FOR D4 ONLY



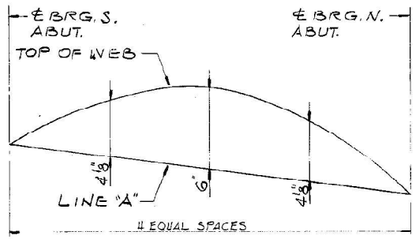
SEC. D-D
(SECTION D1-D1 SIMILAR)

FOR S.BD. FAP 412
FOR D4 THRU D8

INTERIOR DIAPHRAGMS
FOR D4 THRU D8



DETAIL "Y"
(BOT. FL. SHOWN, TOP FL. SIMILAR)



CAMBER DIAGRAM

NOTES:
LINE "A" IS A STRAIGHT LINE BETWEEN ℄ BEARINGS OF ABUTMENTS AT TOP OF WEB.

CAMBER SHOWN INCLUDES ALLOWANCES FOR VERTICAL CURVE AND DEAD LOAD DEFLECTION DUE TO DECK CONCRETE AND STEEL WEIGHT ONLY.

GIRDER MOMENT TABLE		0.5 SPAN
Is	(IN.⁴)	14512
Ic	(IN.⁴)	45385
Ss	(IN.³)	1036
Sc	(IN.³)	1415
℄	(K/')	0.908
M ℄	('K)	1231
S ℄	(K/')	0.303
Ms ℄	('K)	418
ML	('K)	1090
M IMP	('K)	236
⅔(ML+I)	('K)	2210
Ma	('K)	5043
fs ℄ NON-COMP (K.S.I.)		14.5
fs ℄ (COMP) (K.S.I.)		5.5
fs ⅔(ML+I) (K.S.I.)		18.7
fs (OVERLOAD) (K.S.I.)		36.7
fs (TOTAL) K.S.I.		47.7
VR	(K)	59.8

Is AND Ss ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE STEEL SECTION USED IN COMPUTING fs (DEADLOAD).

Ic AND Sc ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE COMPOSITE SECTION USED IN COMPUTING fs (TOTAL AND OVERLOAD).

VR IS THE MAXIMUM L + IMPACT SHEAR RANGE IN SPAN.

fs (TOTAL) IS THE SUM OF THE STRESSES DUE TO 1.3 [M℄ + Ms℄ + ⅔ (ML + I)] = Ma (APPLIED MOMENT).

fs (OVERLOAD) IS THE SUM OF THE STRESSES DUE TO M℄ + Ms℄ + ⅔ (ML + I).

M℄ - MOMENT DUE TO DEAD LOADS ON NON-COMPOSITE SECTION.

Ms℄ - MOMENT DUE TO DEAD LOADS ON COMPOSITE SECTION.

ML - MOMENT DUE TO LIVE LOAD ON NON-COMPOSITE OR COMPOSITE SECTION.

I - LIVE LOAD IMPACT.

TOP OF WEB ELEVATIONS

SOUTH BOUND — GIRDER / LOCATION	1	2	3	4	5	6	7	8	9
℄ BRG. S. ABUT.	879.812	879.986	880.117	880.101	879.969	879.852	879.785	879.619	879.383
℄ BRG. N. ABUT.	879.589	879.724	879.836	879.937	879.860	879.743	879.626	879.509	879.273

NORTH BOUND — GIRDER / LOCATION	10	11	12	13	14	15
℄ BRG. S. ABUT.	880.408	880.313	880.217	880.106	879.984	879.828
℄ BRG. N. ABUT.	880.232	880.115	879.999	879.882	879.760	879.604

GIRDER REACTION TABLE — LOCATION		ABUTS.
R ℄	(K)	63.6
R L	(K)	49.1
IMP	(K)	10.7
R TOTAL	(K)	123.4

alfred benesch & company
CONSULTING ENGINEERS
230 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
JOB NO. 2203

STEEL DETAILS

F.A.P. ROUTE 412 OVER NORTHTOWN RD.
F.A.P. ROUTE 412 - SEC. 57-2HB-2
McLEAN COUNTY
STATION 124+99.57 (S.B.) 125+01.61 (N.B.)
STRUCTURE NUMBER 057-0216 (S.B.) 057-0217 (N.B.)

MODEL: Loc1n2 sheet 5 [Sheet]
FILE NAME: c:\pw_work\pwdot\steven.wood@illinois.gov\d0941673\D5070H14-Sht-As_Builts-Loc1&2.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/5/2024	DATE -	REVISED -

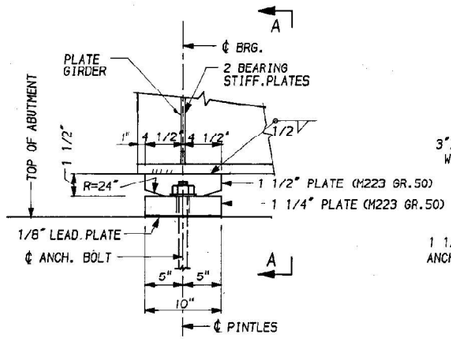
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILT PLANS LOCATION #1 & #2
S.N. 057-0216 (SB) & S.N. 057-0217 (NB)
SCALE: | SHEET 5 OF 6 SHEETS | STA. | TO STA.

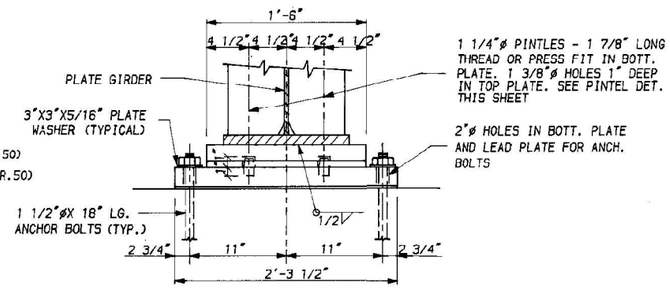
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	McLEAN	35	13
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 412	57-2HB-2	McLEAN	182	86
STA.		TO STA.		
F. HW. A. REG. NO. 4	ILLINOIS	PROJECT		

SHEET 16 OF 26

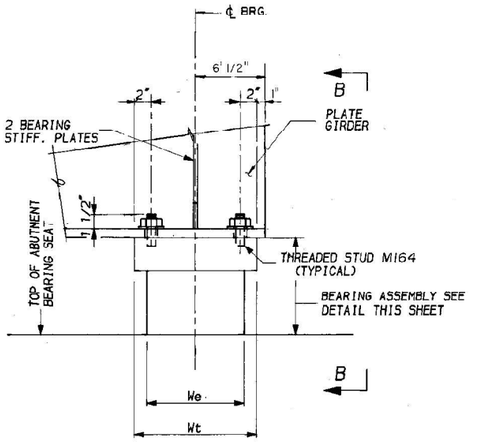


ELEVATION AT FIXED ABUTMENT
(SOUTH ABUTMENTS)

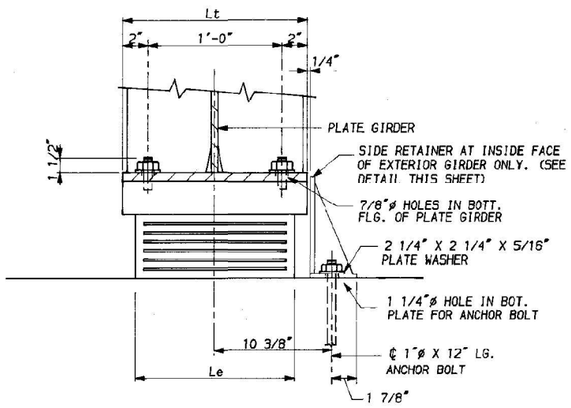


SECTION A-A

FIXED BEARING DETAILS

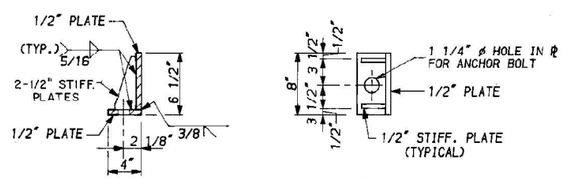


ELEVATION AT EXPANSION ABUTMENT
(NORTH ABUTMENTS)

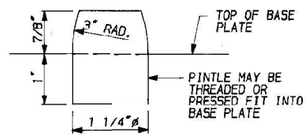


SECTION B-B

EXPANSION BEARING DETAILS - ELASTOMERIC TYPE I



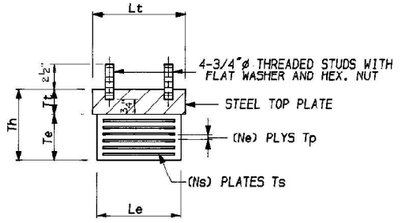
SIDE RETAINER DETAILS



PINTLE DETAIL

TABLE Y

MARK	LOCATION				
	SOUTH ABUT'S.				
Lt	16"				
Wt	11"				
Tt	1 3/4"				
Le	14"				
We	10"				
Te	3 13/16"				
Th	5 9/16"				
Ns	6				
Ts	1/8"				
Ne	7				
Tp	7/16"				



EXPANSION BEARING ASSEMBLY DETAIL

BILL OF MATERIAL

ITEM	UNIT	TOTAL
ELASTOMERIC BEARING ASSEMBLY TYPE I	EACH	15

NOTES:

SEE SHEETS 17 & 20 FOR ANCHOR BOLT INSTALLATION AT SOUTH ABUTMENTS.
SEE SHEETS 18 & 21 FOR ANCHOR BOLT INSTALLATION AT NORTH ABUTMENTS.
FOR SIDE RETAINER EQUIVALENT ROLLED ANGLE WITH STIFFENERS WILL BE ALLOWED IN LIEU OF WELDED PLATES.
SHIM PLATES SHALL NOT BE PLACED UNDER ELASTOMERIC BEARING ASSEMBLY.

FOR Lt, Wt, Tt, Le, We, Te, Th, Ns, Ts, Ne AND Tp VALUES SEE TABLE Y THIS SHEET.

alfred benesch & company
CONSULTING ENGINEERS
230 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
JOB NO. 2203

BEARING DETAILS

F.A.P. ROUTE 412 OVER NORTHTOWN RD.
F.A.P. ROUTE 412-SEC. 57-2HB-2
McLEAN COUNTY
STATION 124+99.57 (S.B.) 125+01.61 (N.B.)
STRUCTURE NUMBER 057-0216 (S.B.) 057-0217 (N.B.)

USER NAME = Steven.Wood	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 1/5/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILT PLANS LOCATION #1 & #2
S.N. 057-0216 (SB) & S.N. 057-0217 (NB)

SCALE: | SHEET 6 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	14
		CONTRACT NO. 70H14		
	ILLINOIS FED. AID PROJECT			

AS-BUILT PLANS FOR S.N. 057-0198 / S.N. 057-0199

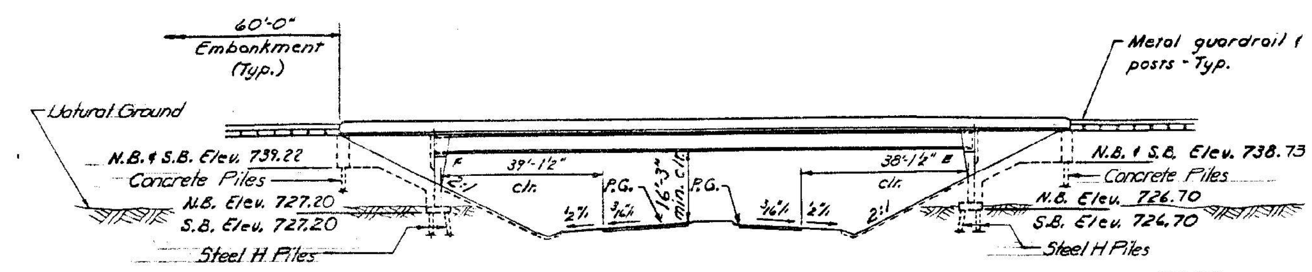
FOR INFORMATION ONLY

Bench Mark: P.K. nail in power pole 42' lt. Sta. 499+87 (U.S.-136) Elev. 731.39

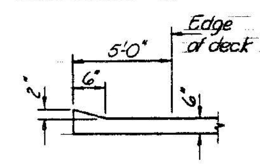
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 412	57-1(B) 1HB	MCLEAN	68	27

SHEET NO. 1
21 SHEETS

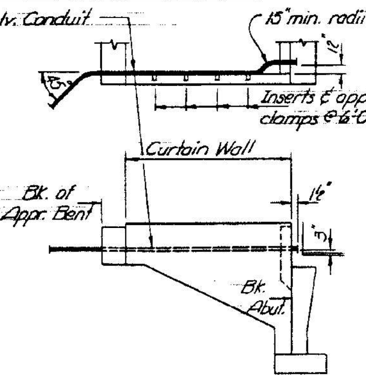


ELEVATION

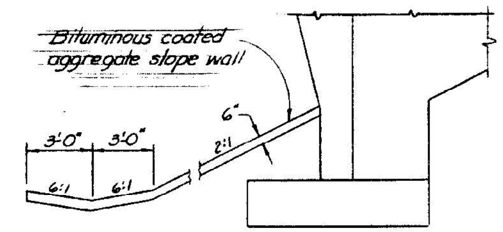


SEC. B-B

Note:
2" ⌀ Galv. Conduit shall be Sch. 40 pipe. Extend to clear end of wing wall and terminate at a point outside of the shoulder. Thread and cap each end. 1 required at each outside curtain wall. Cost incidental.



ELECTRICAL CONDUIT DETAILS



SECTION THRU SLOPE WALL

GENERAL NOTES

See Proposal for Boring Data.

Fasteners shall be high strength bolts. Bolts ¾" ⌀, open holes 15/16" ⌀, unless otherwise noted.

Calculated weight of Structural Steel: M183=188,100; M223=150,340 lbs.

The Zinc-silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted.

Field welding of construction accessories will not be permitted to the bottom flange of girders. Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before bolting cross frames over supports.

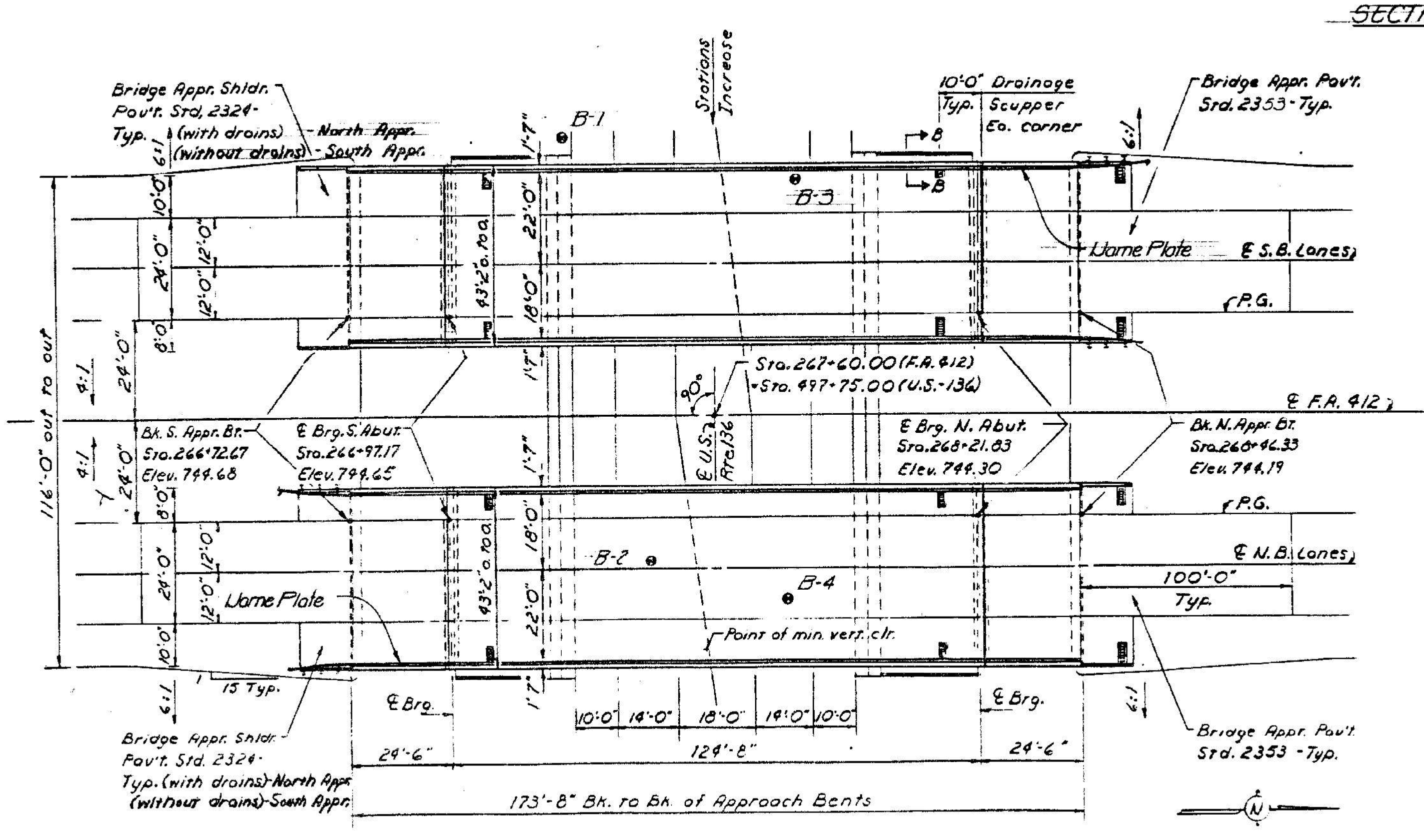
The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These Components are the webs and tension flanges of the steel girders.

Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ⅛ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two ⅛" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, shims of the dimensions of the top plate shall be provided and placed as detailed.

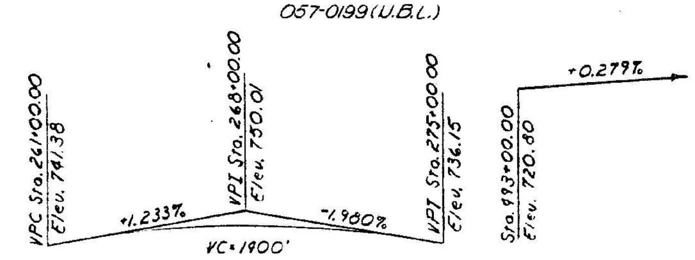
The contractor shall drive 2 test piles (Steel HP10x42) in a permanent location, one each at the So. Abut. (NBL) and the No. Abut. (SBL) and shall drive 2 concrete test piles in a permanent location, one each at the So. Appr. Bent (SBL) and the No. Appr. Bent (NBL) as directed by the Engineer before ordering the remainder of piles.



PLAN

STATION 267+60.00
BUILT 198_ BY
STATE OF ILLINOIS
F.A. RT. 412 SEC. 57-1HB
F.A. PROJ. PD-412-2(45)
LOADING HS20
*STR. NO.

NAME PLATE
(See Std. 2113)
* STR. NO. 057-0198 (SBL)
057-0199 (N.B.L.)



PROFILE GRADE ~ F.A. 412
(@ median edge of pav't)

PROFILE GRADE - U.S. 136
(@ median edge of pav't.)

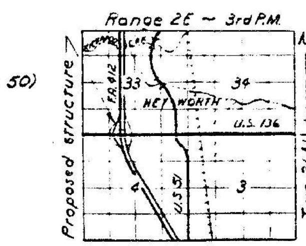
DESIGN STRESSES

f'c=3,500 p.s.i.
fy=36,000 p.s.i. (A.A.S.H.T.O. M-183)
fy=50,000 p.s.i. (A.A.S.H.T.O. M-223, Grade 50)
fy=60,000 p.s.i. (reinforcement)

LOADING HS20-44

Design Specifications: 1983 A.A.S.H.T.O.

Allow 25#/sq. ft. for future wearing surface.



LOCATION MAP

TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub.	Total
Protective Coat	Sq. Yds.	1817		1817
Structure Excavation	Cu. Yds.		848	848
Class X Concrete	Cu. Yds.	484.4	398.2	882.6
Structural Steel	L.S.	1		1
Stud Shear Connectors	Each	2808		2808
Reinforcement Bars	Lbs.	27620	44,360	71,980
Reinforcement Bars (Epoxy Ctd.)	Lbs.	85,490		85,490
Steel Piles HP10x42	Lin. Ft.		2717	2717
Test Piles (Steel HP10x42)	Each		2	2
Concrete Piles	Lin. Ft.		1391	1391
Test Piles (Concrete)	Each		2	2
Name Plates	Each	2		2
Sand Backfill	Cu. Yds		544	544
Drainage Scuppers	Each	8		8
Preformed Joint Seal 4"	Lin. Ft	86		86
Elastomeric Brg. Asm. Type I	Each	12		12
Bituminous coated aggregate slope wall 6"	Sq. Yds.		1097	1097
Preformed Joint Seal 1¾"	Lin. Ft.	86		86

GENERAL PLAN
U.S. ROUTE 51 OVER U.S. ROUTE 136
F.A. ROUTE 412 ~ SECTION 57-1HB
McLEAN COUNTY
STATION 267+60.00

DESIGNED	[signature]	EXAMINED	[signature] ENGINEER OF BRIDGE DESIGN
CHECKED	[signature]	PASSED	[signature] ENGINEER OF BRIDGES AND STRUCTURES
DRAWN	W.C.	APPROVED	DIRECTOR OF HIGHWAYS
CHECKED	TEA GR		

May 22 1985

MODEL: Location 3n4 sheet 1 [Sheet]
FILE NAME: c:\pw_work\pwidot\steven.wood@illinois.gov\d0941673\D570H14-Sht-As_Builts-Loc3&4.dgn

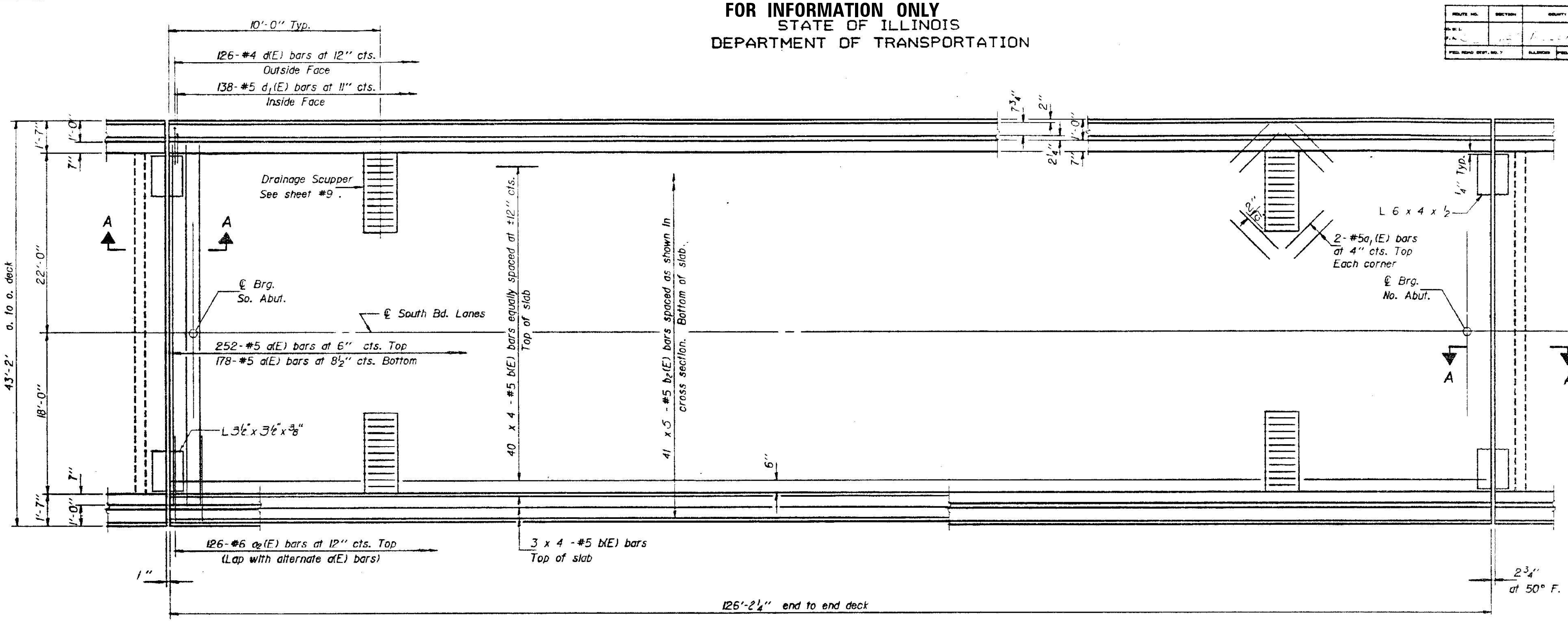
USER NAME = Steven.Wood	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	AS BUILT PLANS LOCATION #3 & #4 S.N. 057-0198 (SB) & S.N. 057-0199 (NB)	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED -			VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	15
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -			CONTRACT NO. 70H14				
PLOT DATE = 1/4/2024	DATE -	REVISED -		SCALE: SHEET 1 OF 7 SHEETS STA. TO STA.	ILLINOIS FED. AID PROJECT				

AS-BUILT PLANS FOR S.N. 057-0198 / S.N. 057-0199

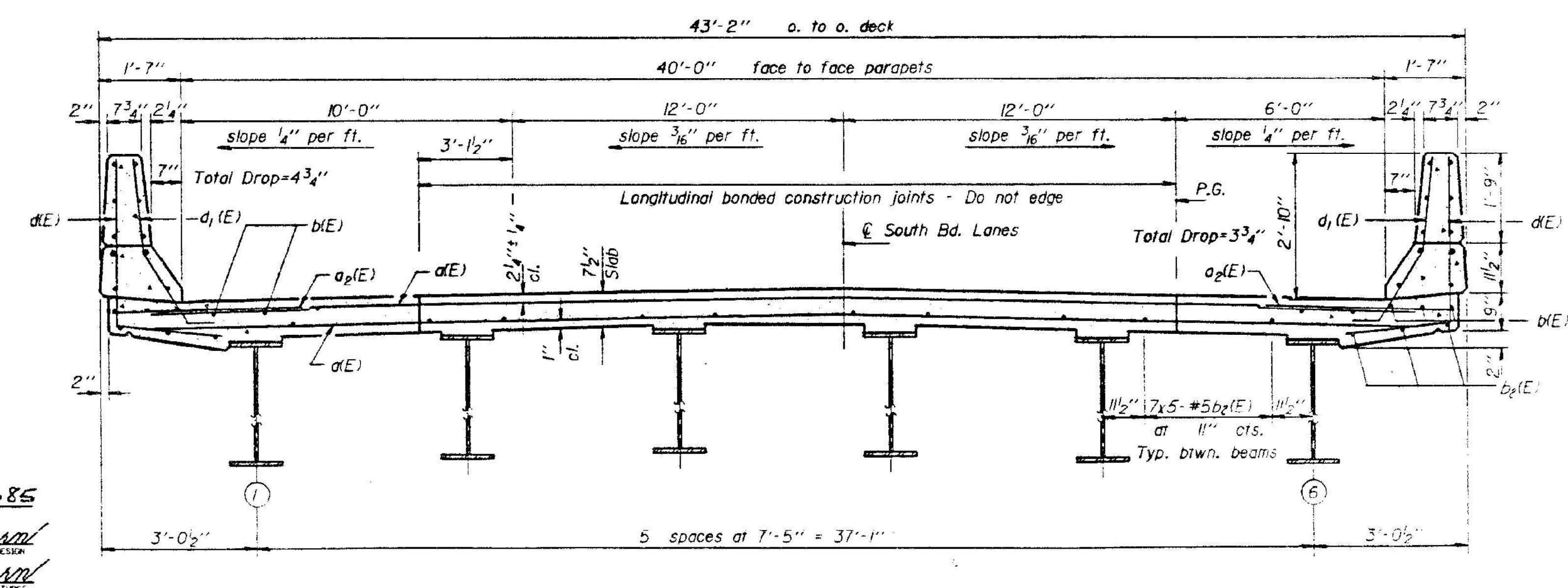
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 5
21 SHEETS



PLAN



CROSS SECTION
(Looking North)

Notes: See sheet #8 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

MIN. BAR LAP
#5 Bar = 1'-8"
#8 Bar = 2'-8"

SUPERSTRUCTURE
SOUTH BOUND LANES
F.A. RT. 412 SECTION 57-1HB
McLEAN COUNTY
STA. 267+60.00

DESIGNED	
CHECKED	
DRAWN	J.T.Downing
CHECKED	TEA GR

EXAMINED May 22 1985
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

S-2-0 12-1-83

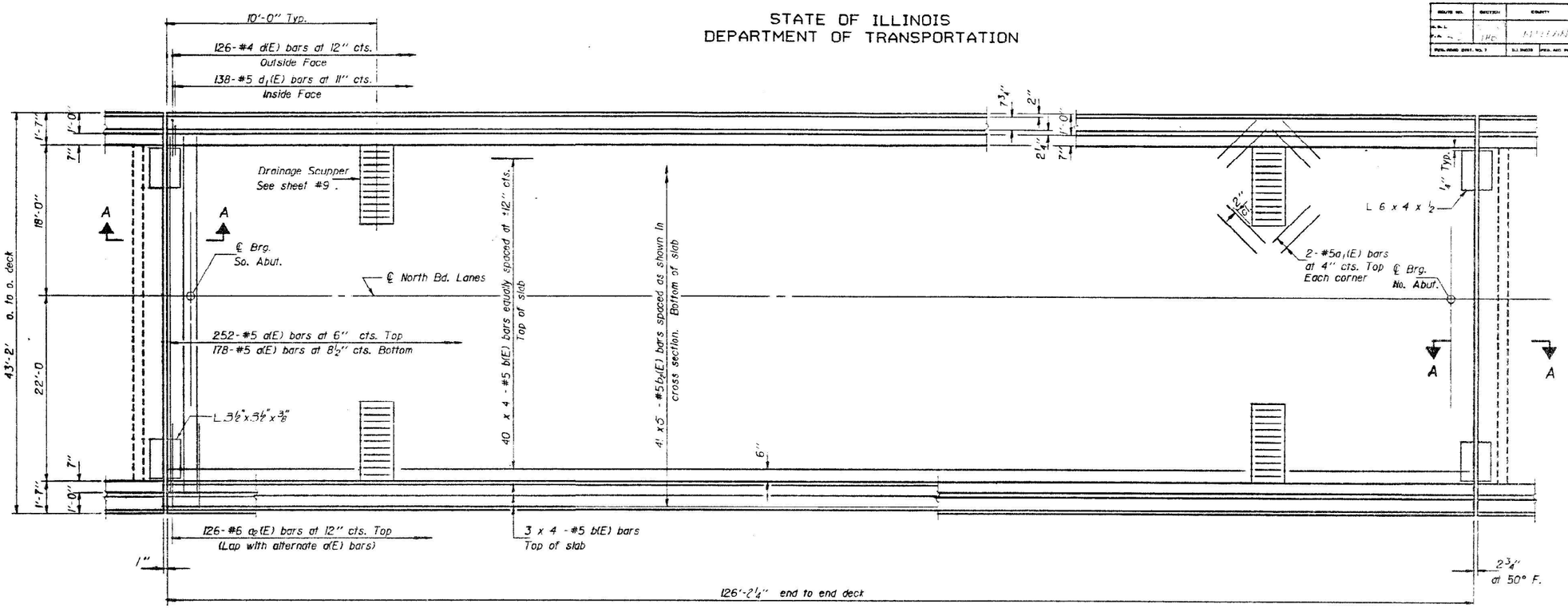
AS–BUILT PLANS FOR S.N. 057–0198 / S.N. 057–0199

FOR INFORMATION ONLY

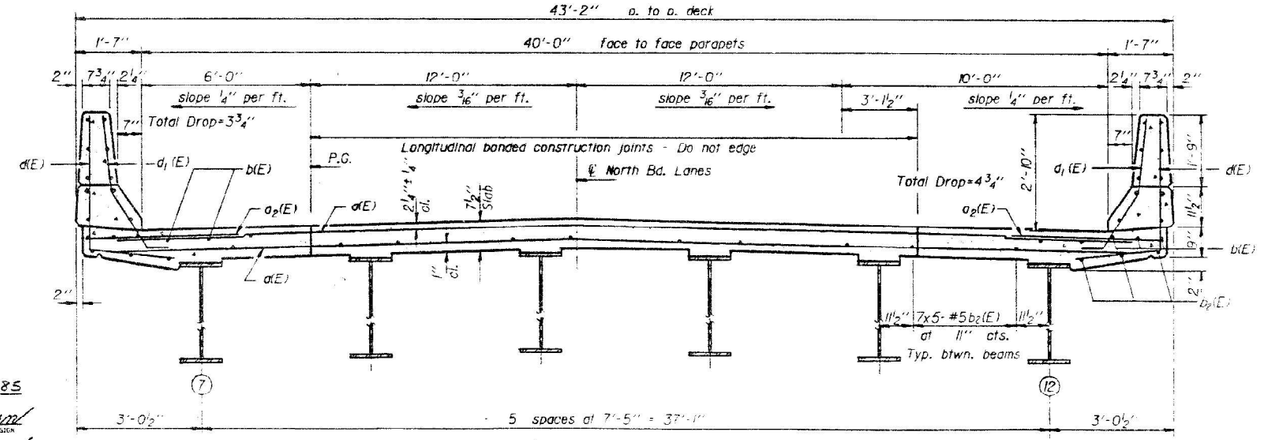
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 412	1HB	McLEAN	68	25
PROJ. ROAD DIST. NO. 7	S.J. 34039	FED. AID PROJECT		

SHEET NO. 7
21 SHEETS



PLAN



CROSS SECTION
(Looking North)

Notes: See sheet #8 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

MIN. BAR LAP
#5 Bar = 1'-8"
#8 Bar = 2'-8"

DESIGNED	Todd E. Adrian
CHECKED	Stephen J. Sonnenberg
DRAWN	J.T.Downing
CHECKED	TEA

May 22 1985

EXAMINED James T. Rayburn
ENGINEER OF BRIDGE DESIGN

PASSED James T. Rayburn
ENGINEER OF BRIDGE & STRUCTURE

APPROVED
DIRECTOR OF HIGHWAYS

S-2-0 12-1-83

SUPERSTRUCTURE
NORTH BOUND LANES
F.A. RT. 412 SECTION 57-1HB
McLEAN COUNTY
STA. 267+60.00

MODEL: Location 3n4 sheet 3 [Sheet]
FILE NAME: c:\pw_work\pwidot\steven.wood\d0941673\D570H14-Sht-As_Builts-Loc3&4.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / In.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILT PLANS LOCATION #3 & #4
S,N. 057-0198 (SB) & S,N. 057-0199 (NB)

SCALE: | SHEET 3 OF 7 SHEETS | STA. | TO STA.

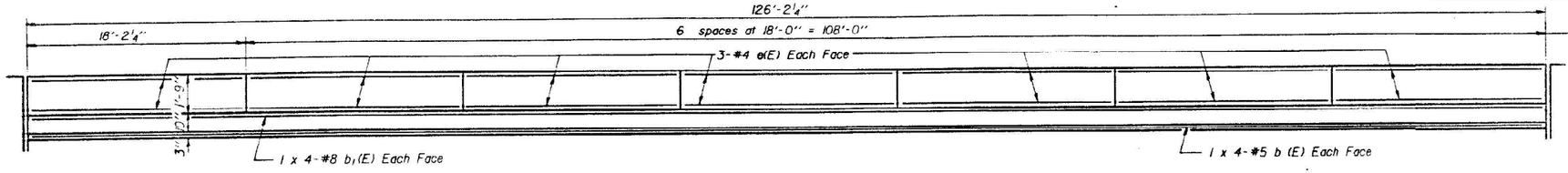
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	17
		CONTRACT NO. 70H14		
		ILLINOIS FED. AID PROJECT		

AS–BUILT PLANS FOR S.N. 057–0198 / S.N. 057–0199

FOR INFORMATION ONLY

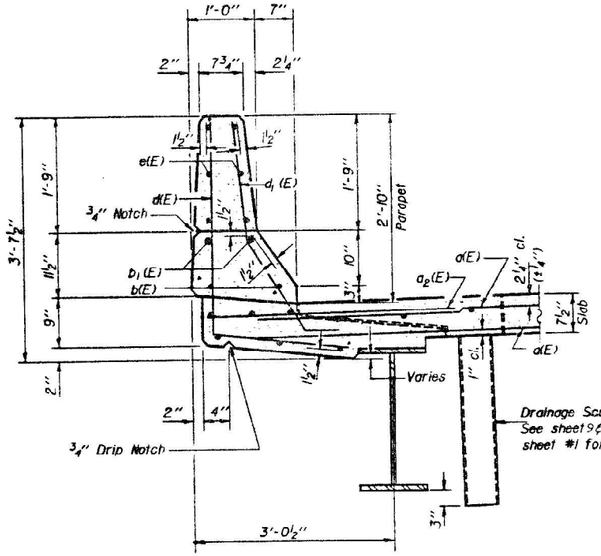
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.				SHEET NO. 8
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		21 SHEETS



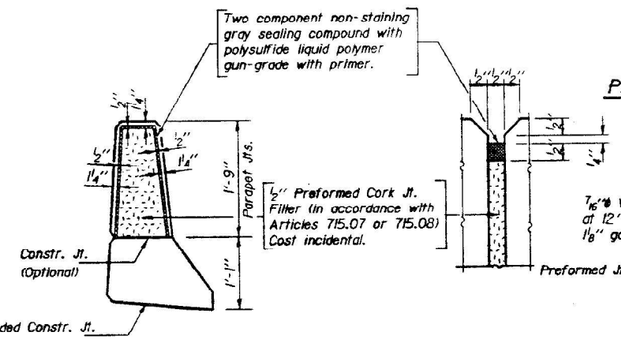
MIN BAR LAP

#5 Bar = 1'-8"
#8 Bar = 2'-8"

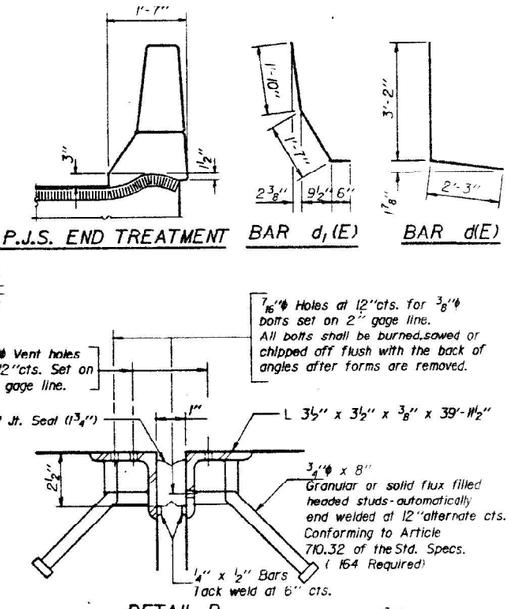


SECTION THRU PARAPET

INSIDE ELEVATION OF PARAPET



PARAPET JOINT DETAILS



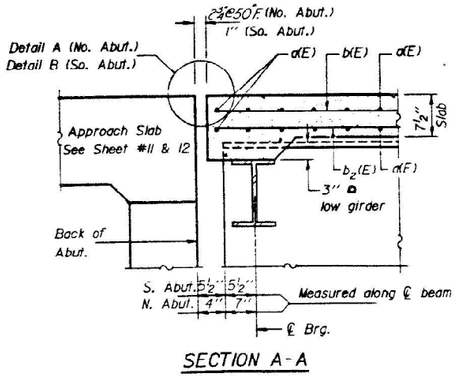
P.J.S. END TREATMENT

BAR d1(E)

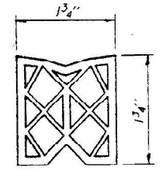
BAR d(E)

DETAIL B

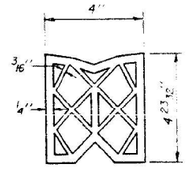
DETAIL A



SECTION A-T



PREFORMED JOINT SEAL (1¾")



PREFORMED JOINT SEAL (4")

TWO SUPERSTRUCTURES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	860	#5	41'-3"	
a1(E)	64	#5	2'-0"	
a2(E)	504	#6	4'-0"	
b(E)	400	#5	32'-6"	
b1(E)	32	#8	33'-6"	
b2(E)	410	#5	26'-9"	
d(E)	504	#4	5'-5"	L
d1(E)	552	#5	3'-11"	L
e(E)	168	#4	17'-9"	
Reinforcement Bars (Epoxy Coated)		Lbs.	74090	
Class X Concrete		Cu. Yds.	312.4	

Reinforcement bars designated (E) shall be epoxy coated.

DESIGNED	Jody E. Stevens
CHECKED	Jeffrey Downing
DRAWN	J.T Downing
CHECKED	TEA

May 22 1985
EXAMINED James J. Raybuck
ENGINEER OF BRIDGE DESIGN
PASSED James J. Raybuck
ENGINEER OF BRIDGES AND STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

S-2-D 12-1-83

TWO SUPERSTRUCTURES DETAIL
F.A. RT. 412 SECTION 57-1HB
McLEAN COUNTY
STATION 267+60.00

MODEL: Location 3in4 sheet 4 [Sheet]
FILE NAME: c:\dw_work\pwidot\steven.wood@illinois.gov\d0941673\D570H14-Sht-4Sa_Builts-Loc3&4.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / In.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

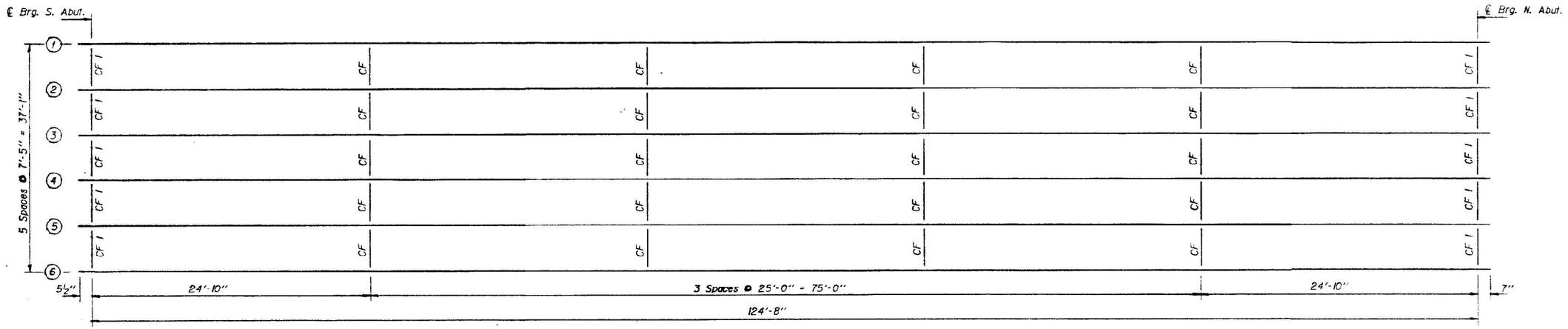
AS BUILT PLANS LOCATION #3 & #4
S.N. 057-0198 (SB) & S.N. 057-0199 (NB)

SCALE: | SHEET 4 OF 7 SHEETS | STA. | TO STA.

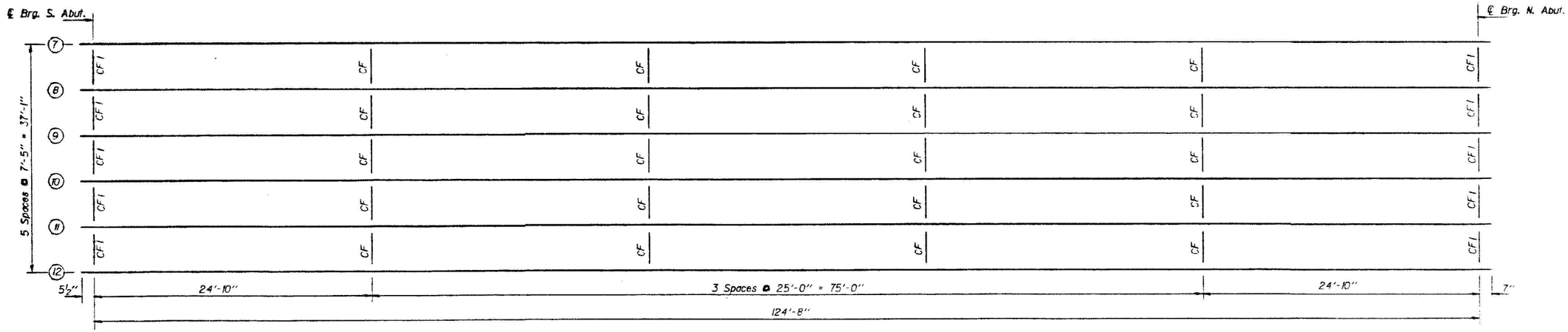
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	18
		CONTRACT NO. 70H14		
		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

				SHEET NO. 13
F.A. 412	SECTION 57-1HB	McLEAN	VAR	39 21 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



SOUTH BOUND LANES



NORTH BOUND LANES

DESIGNED	Todd E Adams
CHECKED	Steven Rowan
DRAWN	J.T.Downing
CHECKED	TEA GR

May 22 1985

EXAMINED James T Rayburn
ENGINEER OF BRIDGE DESIGN

PASSED James T Rayburn
ENGINEER OF BRIDGES AND STRUCTURES

APPROVED
DIRECTOR OF HIGHWAYS

Note: For Structural Steel details see sheet # 14.

FRAMING PLAN
STRUCTURAL STEEL
F.A. RT. 412 SECTION 57-1HB
McLEAN COUNTY
STA. 267+60.00

USER NAME = Steven.Wood	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 0.16666633 ' / In.	CHECKED -	REVISED -	
PLOT DATE = 1/4/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILT PLANS LOCATION #3 & #4
S.N. 057-0198 (SB) & S.N. 057-0199 (NB)

SCALE: | SHEET 5 OF 7 SHEETS | STA. | TO STA.

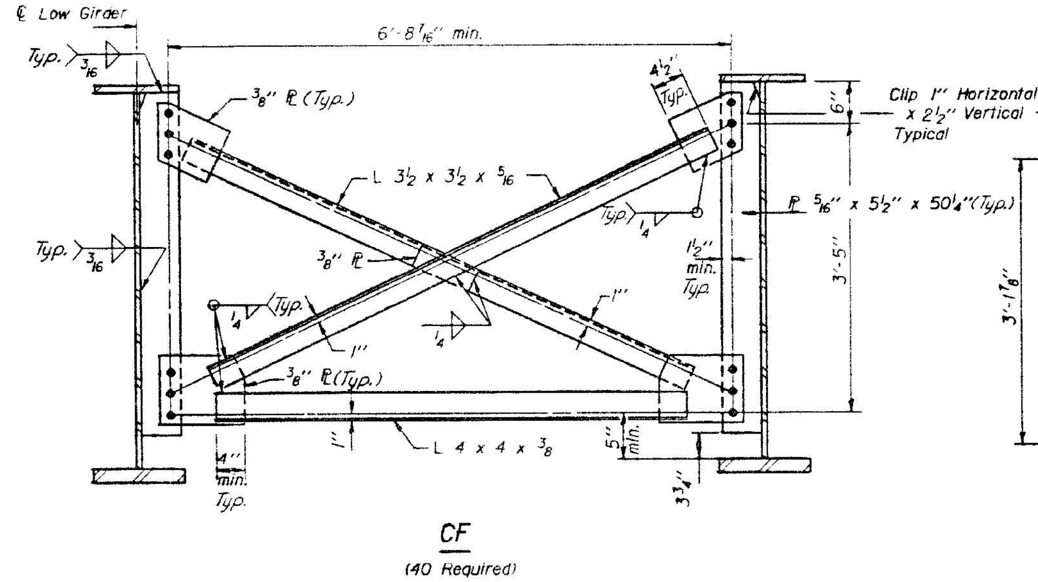
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	19
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		

MODEL: Location 3n4 sheet 5 [Sheet]
FILE NAME: c:\pw_work\pwdot\steven.wood@illinois.gov\d0941673\D570H14-Sht-As_Builts-Loc3&4.dgn

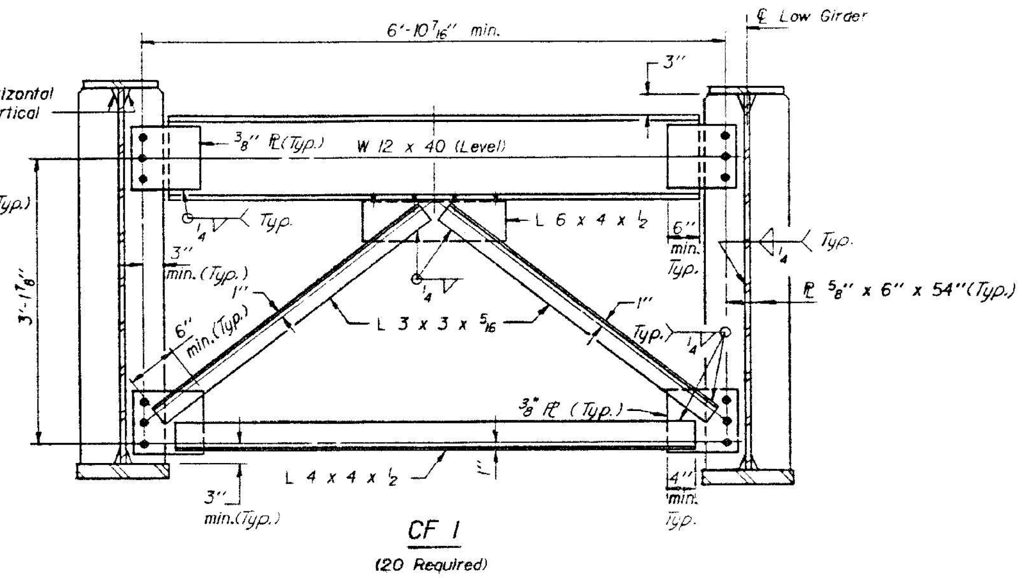
AS-BUILT PLANS FOR S.N. 057-0198 / S.N. 057-0199
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 14
21 SHEETS



CF
(40 Required)

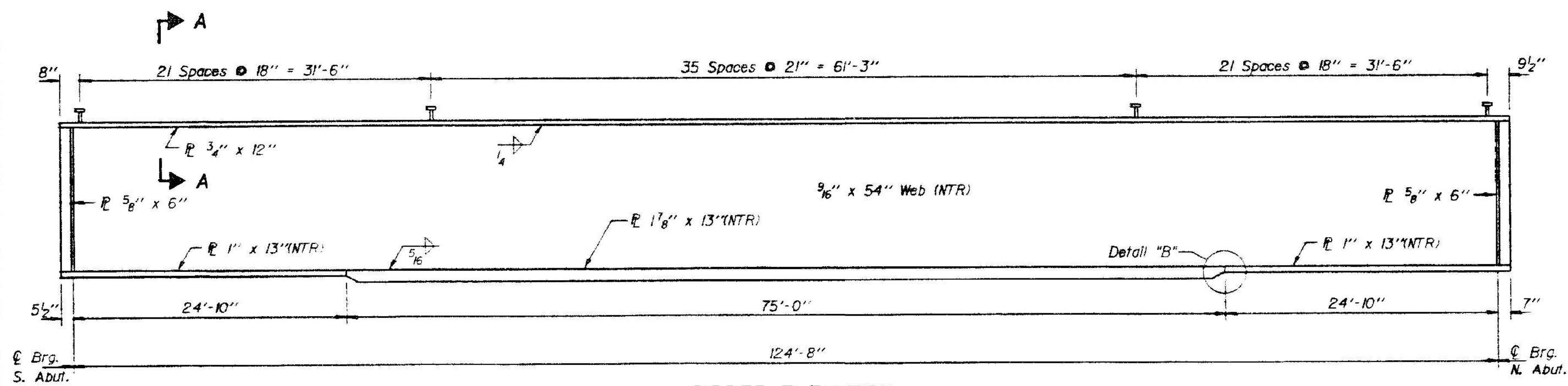


CF I
(20 Required)

INTERIOR BEAM MOMENT TABLE	
	0.5 Sp.
Is (in.4)	30203.0
Ic (in.4)	82339.9
Ss (in.3)	1369.1
Sc (in.3)	1915.0
D (K/')	0.944
MD ('K)	1834.6
sD (K/')	0.322
MsD ('K)	625.6
ML ('K)	1324.0
M Imp. ('K)	264.8
5/3 (ML+I) ('K)	2648.1
Ma ('K)	6640.7
Mu ('K)	7779.7
fsD non-comp (ksi)	16.1
fsD (comp) (ksi)	3.9
fs 5/3 (L+I) (ksi)	16.6
fs (Overload) (ksi)	36.6
fs (Total) (ksi)	47.6
VR (K)	53.9

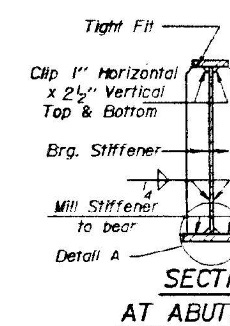
INTERIOR BEAM REACTION TABLE	
	Abut.
RD (K)	78.9
RL (K)	44.9
Imp. (K)	9.0
R (Total) (K)	132.8

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total and Overload).
Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Total and Overload).
VR is the maximum L + Impact shear range in span.
fs (Total) is the sum of the stresses due to 1.3 [MD+MsD+5/3(ML+I)]
fs (Overload) is the sum of the stresses due to MD+MsD+5/3(ML+I)
Ma (Applied Moment) = 1.3 [MD+MsD+5/3(ML+I)]
Mu is the ultimate moment capicity for non-compact section.

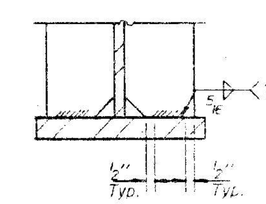


GIRDER ELEVATION

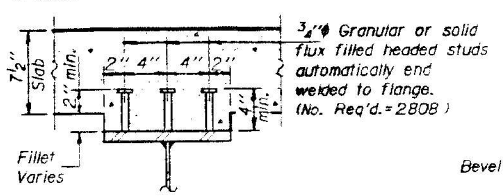
"NTR" denotes plates to which notch toughness requirements are applicable.



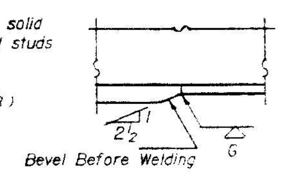
SECTION AT ABUTMENTS



DETAIL A



SECTION A-A



DETAIL "B"

NORTH BOUND LANES

	Girder #12	Girder #11	Girder #10	Girder #9	Girder #8	Girder #7
℄ Brg. S. Abut.	743.72	743.88	744.00	744.06	743.94	743.8[illegible]
℄ Brg. N. Abut.	743.37	743.53	743.65	743.71	743.59	743.46

SOUTH BOUND LANES

	Girder #1	Girder #2	Girder #3	Girder #4	Girder #5	Girder #6
℄ Brg. S. Abut.	743.72	743.88	744.00	744.06	743.94	743.81
℄ Brg. N. Abut.	743.37	743.53	743.65	743.71	743.59	743.46

TOP OF WEB ELEVATIONS *

* For fabrication only

Note:
All girder flanges shall be AASHTO M223 Grade 50.
All girder webs, bearing stiffeners, bearing retainers, fixed bearing plates, shims, cross frames and connecting plates shall be AASHTO M183.
Two hardened washers shall be required over all 15/16"⌀ holes.
For Camber Diagram see sh. # 15.

DESIGNED	Todd E. Ahren
CHECKED	[illegible]
J.D. DRAWN	
CHECKED	TEA GR

May 22 1985
EXAMINED James T. Rayburn — ENGINEER OF BRIDGE DESIGN
PASSED James T. Rayburn — ENGINEER OF BRIDGES AND STRUCTURES
APPROVED — DIRECTOR OF HIGHWAYS

G-1 4-1-79

STRUCTURAL STEEL
F.A. RT. 412 SECTION 57-IHB
McLEAN COUNTY
STA. 267+60.00

MODEL: Location 3n4 sheet 6 [Sheet]
FILE NAME: c:\pw_work\pwidot\steven.wood@illinois.gov\d0941673\D570H14-Sht-As_Builts-Loc3&4.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 1/4/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILT PLANS LOCATION #3 & #4
S.N. 057-0198 (SB) & S.N. 057-0199 (NB)

SCALE: SHEET 6 OF 7 SHEETS STA. TO STA.

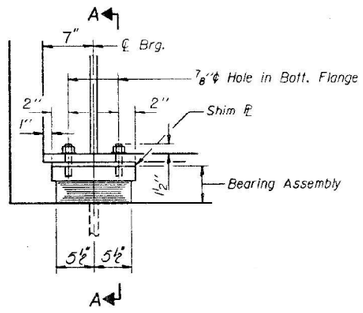
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	20

CONTRACT NO. 70H14
ILLINOIS FED. AID PROJECT

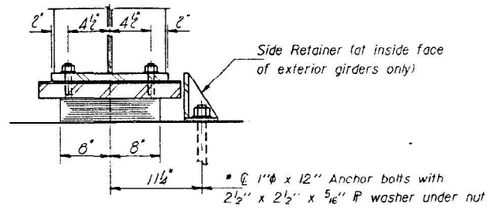
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 412	57-1(b) 1HB	MCLEAN	68	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 15
21 SHEETS

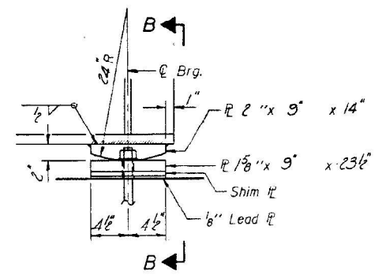


ELEVATION AT NORTH ABUTS.

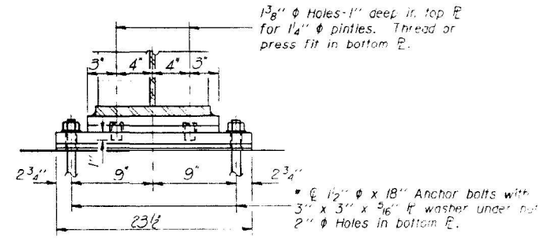


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

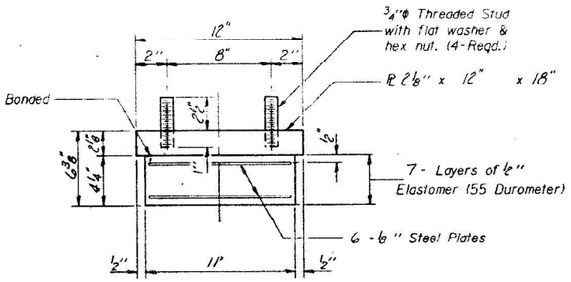


ELEVATION AT SOUTH ABUTS



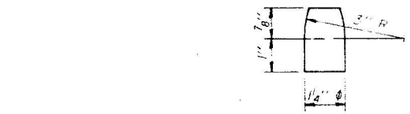
SECTION B-B

FIXED BEARING

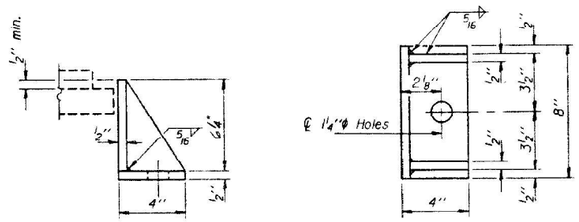


BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.

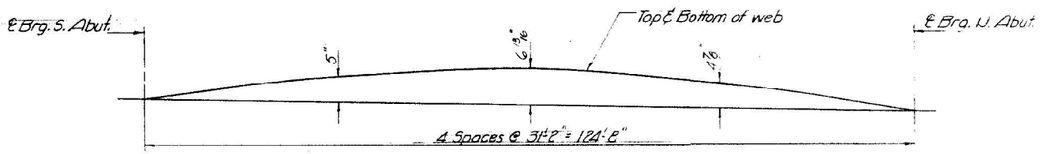


PINTLE



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



CAMBER DIAGRAM

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12

DESIGNED	Todd E. Adams
CHECKED	Dennis Tennis
JD DRAWN	
CHECKED	TEA GR

I-2-EI 12-1-83

May 22 1985
EXAMINED Jay D. Kaspar ENGINEER OF BRIDGE DESIGN
PASSED James T. Kapturn ENGINEER OF BRIDGES AND STRUCTURES
APPROVED DIRECTOR OF HIGHWAYS

BEARINGS
F.A. RT. 412 SEC. 57-1HB
Mc LEAN COUNTY
STA. 267+60.00

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / In.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILT PLANS LOCATION #3 & #4
S.N. 057-0198 (SB) & S.N. 057-0199 (NB)
SCALE: | SHEET 7 OF 7 SHEETS | STA. | TO STA.

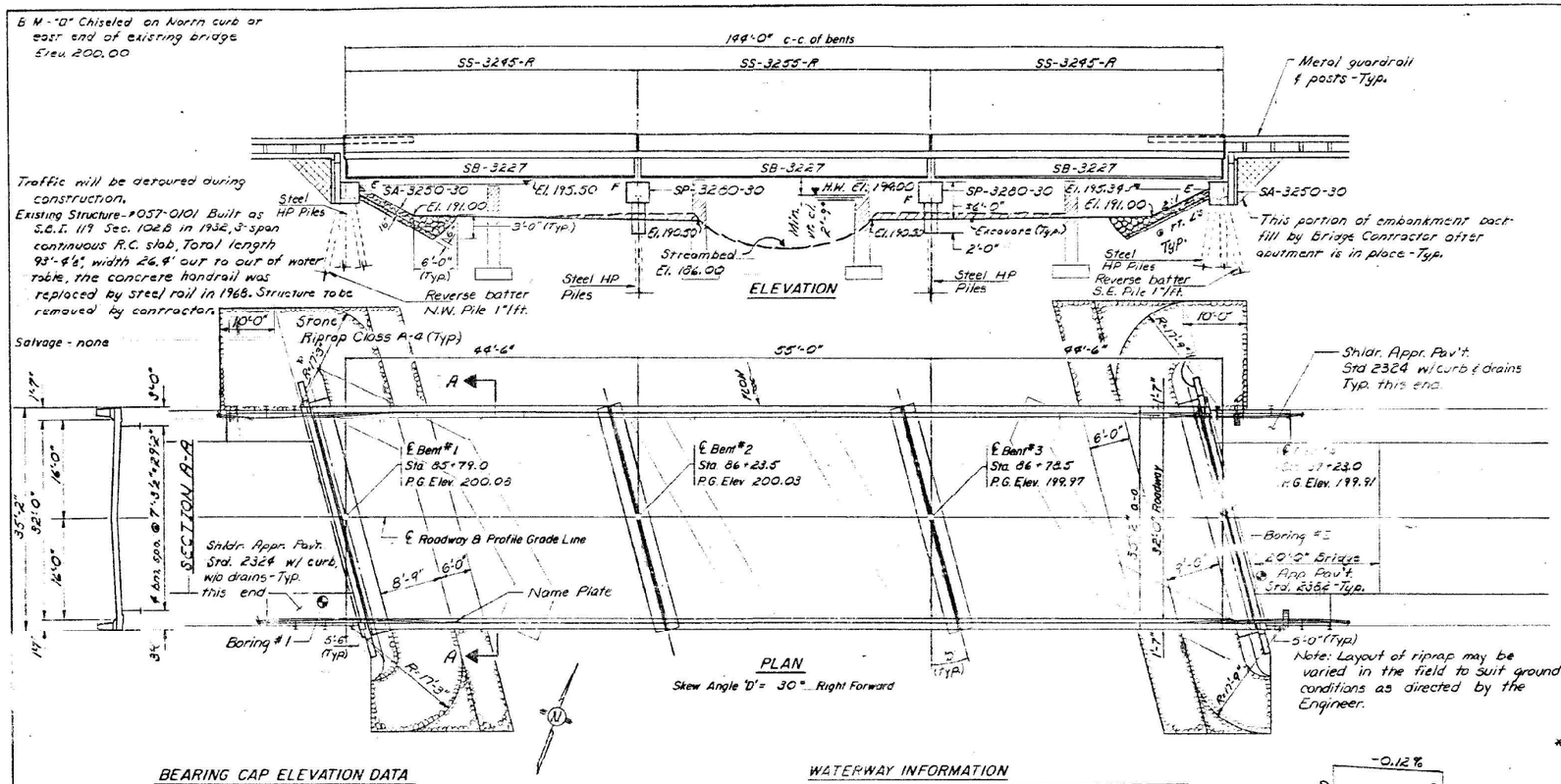
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	21
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		

MODEL: Location 3n4 sheet 7 [Sheet]
FILE NAME: c:\pw_work\pwidot\steven.wood@illinois.gov\d0941673\D570H14-Sht-As_Builts-Loc3&4.dgn

AS–BUILT PLANS FOR S.N. 057–0200
FOR INFORMATION ONLY

ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
SBI 119	102BR-1	McLean	35	21
FED ROAD DIST NO 7	ILLINOIS	PROJECT		

SHEET NO 1 // SHEETS



GENERAL NOTES

See Special Provisions for boring data and Top of Slab Elevations.

Class X Concrete shall be used throughout.

Fasteners shall be high strength bolts. (AASHTO M164, Type 3). Bolts ⅞"ϕ, open holes 15/16"ϕ, unless otherwise noted.

All structural steel shall be AASHTO M222 except expansion joint angles and attached bars which shall be AASHTO M183.

The Zinc-Silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted.

Expansion joint angles and attached bars shall be shop painted with the zinc-silicate primer.

AASHTO M222 structural steel shall not be painted except that for a distance of three times the depth of the beams (but not exceeding 10 feet) each way from the deck joints, the [illegible] structural steel shall be cleaned and given one coat of the zinc-silicate primer and a dark maroon vinyl finish coat. Both coats may be applied in the shop with spot painting only in the field.

Field welding of construction accessories will not be permitted to the bottom flange of beams. Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before bolting diaphragms over supports.

The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M222.

The main load carrying member shall conform to the Supplemental Requirements for Notch Toughness Zone 2.

Reinforcement bars shall conform to the requirements of AASHTO M31, M42, or M53, Grade 60.

The Contractor shall drive one steel (H.P 10x42) test pile in permanent locations at Bent 1 & Bent 3 as directed by the Engineer before ordering the remainder of piles.

For cantilever forming brackets, see Special Provisions.

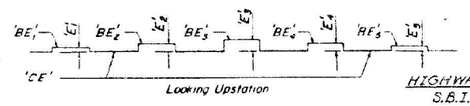
TOTAL BILL OF MATERIAL

	Item	Unit	Super	Sub Piers	Sub Abuts	Total
	Removal of Existing Structures	Each				1
	Structure Excavation	Cu. Yd		28	90	118
	Floor Drains	Each	14			14
***	Protective Coat	Sq. Yd	638			638
	Class X Concrete	Cu. Yd		52.3	62.8	115.1
	Preformed Joint Seal 4"	Lin. Ft				80
	F B E Struct. Steel	L. Sum				1
	Stud Shear Connectors	Each	2050			2050
	Elast. Bearing Assy. T1	Each			10	10
	Reinforcement Bars	Lbs		4660	5260	9920
	Rein. Bars (Epoxy Ctd.)	Lbs	37,250			37,250
	Steel Piles HP 10 x 42	Lin. Ft		367	298	665
	Class X Concrete Superstructure	Cu. Yd.	155.8			155.8
	Test Pile Steel (HP 10 x 42)	Each		1	1	2
	Name Plates	Each	1			1
	Stone Riprap Class A-4	Sq. Yd.				352

*** Superstructure deck surface is included.

BEARING CAP ELEVATION DATA

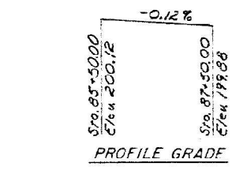
Bent	'CE'	Bm. #1 'BE'1	Bm. #1 'E'1	Bm. #2 'BE'2	Bm. #2 'E'2	Bm. #3 'BE'3	Bm. #3 'E'3	Bm. #4 'BE'4	Bm. #4 'E'4	Bm. #5 'BE'5	Bm. #5 'E'5
#1	196.36	196.51	1⅜"	196.62	3"	196.73	¢ 3⅜"	196.61	2⅞"	196.49	1½"
#2	196.52	196.67	1⅜"	196.78	3"	196.89	¢ 3⅜"	196.77	2⅞"	196.65	1½"
#3	196.96	196.60	1⅜"	196.71	3"	196.82	¢ 3⅜"	196.70	2⅞"	196.58	1½"
#4	196.19	196.34	1⅜"	196.45	3"	196.55	¢ 3⅜"	196.44	2⅞"	196.32	1½"



WATERWAY INFORMATION

Drainage Area = 13.5 sq. mi. Low Grade Elev. = 199.36 / 199.39 (P) At Sta. 87+50

Flood	Freq. Yr	Q C.F.S.	Opening Sq. Ft. Exist	Opening Sq. Ft. Prop.	Natural H.W.E	Head-Ft Exist	Head-Ft Prop.	Headwater El. Exist	Headwater El. Prop.
Design	30	1825	223	397	194.0	2.32	0.68	196.32	194.68
Base	100	2346	252	451	194.5	3.14	0.92	197.64	195.96
Overtopping									
Max Calc	500	3022		509	195.1		1.30		196.00

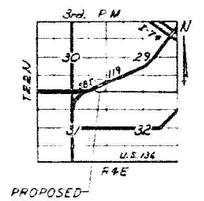


PROFILE GRADE

PILE DATA

Bent	#1	#2	#3	#4
Type	*Stl. H	*Stl. H	*Stl. H	*Stl. H
Capacity - Ton	43	33	33	43
Estimated Length - Feet	24	23	20	22
Number Required	6	9	8	7
Test Piles	1		1	

*Driven to Bearing.



LOCATION SKETCH

HIGHWAY CLASSIFICATION

S.B.I. 119 ~ Leroy Spur
D.H.U. ~ 144 (2005)
A.D.T. ~ 950 (1985); 1150 (2005)
Functional class - major
Design speed - 50 m.p.h.

DESIGN SPECIFICATIONS

1983 AASHTO & 1984, 1985, and 1986 Interims

H S20-44 Loading. Load Factor Design

STATION 86+51.00
LEROY SPUR
BUILT 1986
C.B.I. RTE. 119 SEC. 102BR-1
PROJ. BROS-113(13)
LOADING HS20
STR. NO 057-0200

LETTERING FOR NAME PLATE

Locate Name Plate at Corner of Bridge (See Standard 2113)

CALCULATED WEIGHT of STRUCTURAL STEEL

Standard SB-3227	74,999	lbs
Standard SD-3201	2,692	lbs
Standard SD-3202	3,020	lbs
Total	80,711	lbs

INDEX OF SHEETS

Gen. Index		
21	1.	General Plan & Elevation
22	2	Standard SS-3245R
23	3	Standard SS-3255R
24	4	Standard SB-3227
25	5	Standard SA-3250-30
26	6	Standard SP-3280-30
27	7	Standard SD-3201
28	**8	Standard SD-3202
29	9	Standard SE-3200
30	10.	Standard SX-1
31	11.	Anchor Bolt Details for Bearings

** See sheet #11 for anchor bolt details.

SGP-3R(7-1-81) AFS A.K DJR

Illinois Department of Transportation

Aug. 26 1985

APPROVED James T. Parkinson
Engineer of Bridges and Structures

BAH

Rev. 3-9-88 D.B.

STANDARD BRIDGE
STEEL BEAMS 32' ROADWAY
GENERAL PLAN & ELEVATION
S.B.I. ROUTE 119
OVER WEST FORK OF SALT CREEK
RT. S.B.I. 119 SEC. 102BR-1
McLEAN ◦ COUNTY
STATION 86+51.00 S.N. 057-0200

I-6

MODEL: As Built Loc 5 Sheet 1 [Sheet]
FILE NAME: c:\dw_work\pwidot\steven.wood@illinois.gov\d0941673\D570H14-Sht-As_Built-Loc5.dgn

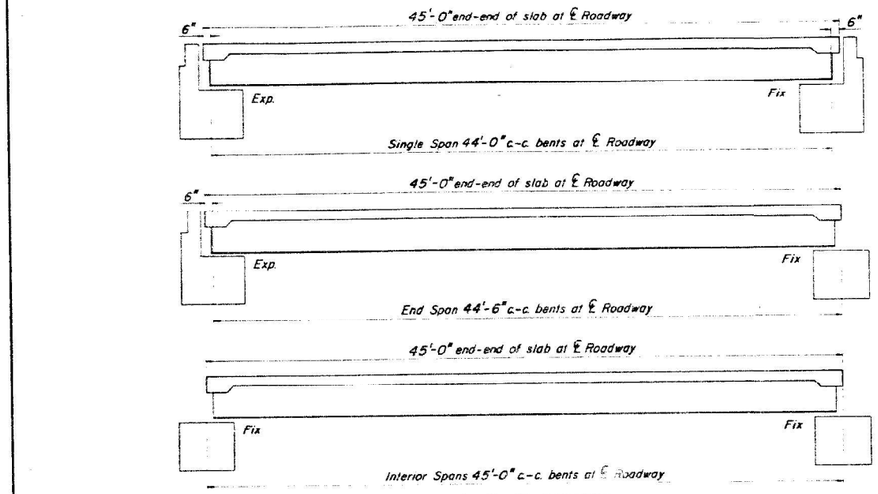
USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / In.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

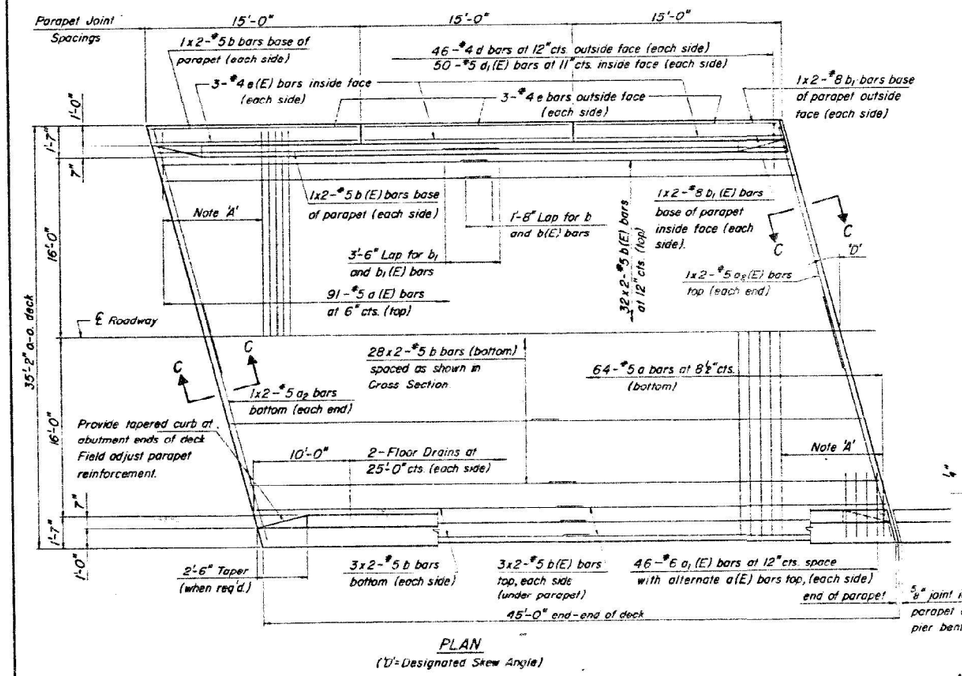
AS BUILT PLANS
LOCATION #5 S.N. 057-0200

SCALE: | SHEET 1 OF 5 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	22
		CONTRACT NO. 70H14		
		ILLINOIS FED. AID PROJECT		



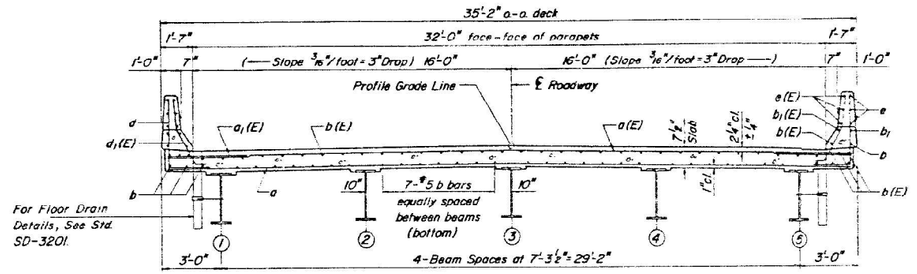
TYPICAL ELEVATIONS



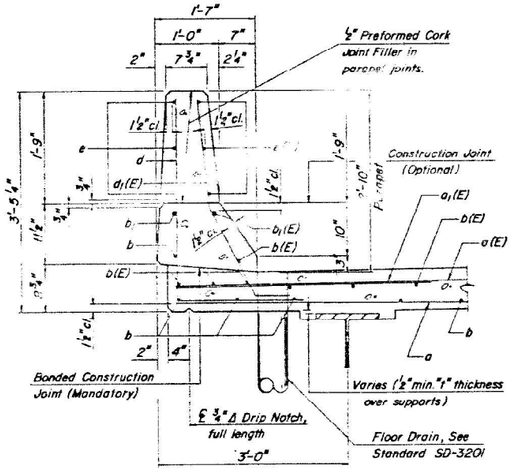
PLAN
('D'=Designated Skew Angle)

Bars indicated thus; 28x2-#5 etc. indicates 28 lines of bars with 2 lengths per line.

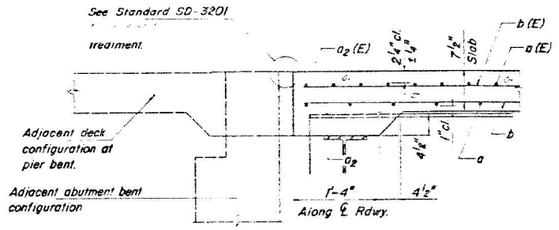
Note 'A':
Field cut a and a(E) bars to fit skew and use remainder of bars in opposite end.



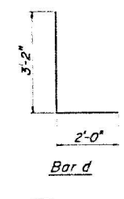
CROSS SECTION
(Looking Upstation)



PARAPET SECTION



SECTION C-C



BAR LIST FOR ONE SPAN

Bar	No.	Size.	Length	Shape
a	64	#5	34'-7"	——
a(E)	91	#5	34'-7"	——
a1(E)	92	#6	4'-0"	——
a2	4	#5	20'-8"	——
a2(E)	4	#5	20'-6"	——
b	72	#5	23'-2"	——
b(E)	80	#5	23'-2"	——
b1	4	#8	24'-1"	——
b1(E)	4	#8	24'-1"	——
d	92	#4	5'-2"	
d1(E)	100	#5	3'-11"	
e	18	#4	14'-8"	——
e(E)	18	#4	14'-8"	——

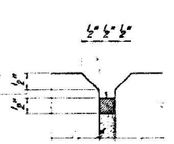
All reinforcement bars in the above table shall be epoxy coated.

QUANTITIES FOR ONE SPAN

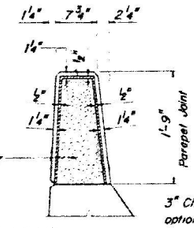
Class 'A' Concrete	48.3	Cu. Yds.
Reinforcement Bars	4890	Lbs.
Rein. Bars (Epoxy Coated)	6700	Lbs.
Floor Drains	4	Each
Protective Coat	197.9	Sq. Yds.

DESIGN STRESSES

f'c = 3,500 psi
fy = 60,000 psi



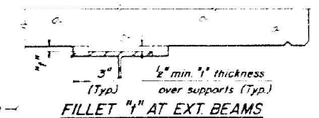
Two component non-staining gray sealing compound with polysulfide liquid polymers - gun grade with primer.



3" Cheeks are optional where beams have shear connectors.

PARAPET JOINT DETAILS

½" joint in parapet over pier bents.



FILLET "f" AT EXT BEAMS

FILLET "f" AT INT. BEAMS

See Steel Framing Standards for Dead Load Deflection Diagram.

METHOD FOR DETERMINING FILLET HEIGHT "f"

After all structural steel has been erected, elevations of the top flanges of each beam shall be taken at intervals not to exceed 10 feet. From these elevations, subtract the increment of deflection for these points determined from the "Dead Load Deflection Diagram". The elevation so attained subtracted from the theoretical top of slab elevations over each beam minus the slab thickness equals the fillet height "f" above the top of the beam.

Illinois Department of Transportation
APPROVED SEPT 16, 1982
Engineer of Bridges and Structures
APPROVED JULY 1, 1981
Engineer of Design
10-1-24 DSGSI

STEEL BEAM BRIDGES
SUPERSTRUCTURE

32' RDWY.	45° SPAN	RIGHT

STANDARD SS-3245-R

USER NAME = Steven.Wood	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 1/4/2024	DATE -	REVISED -	

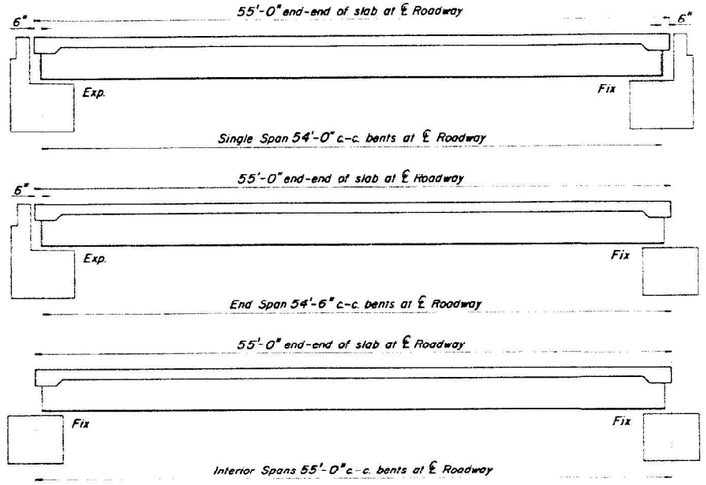
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILT PLANS
LOCATION #5 S.N. 057-0200

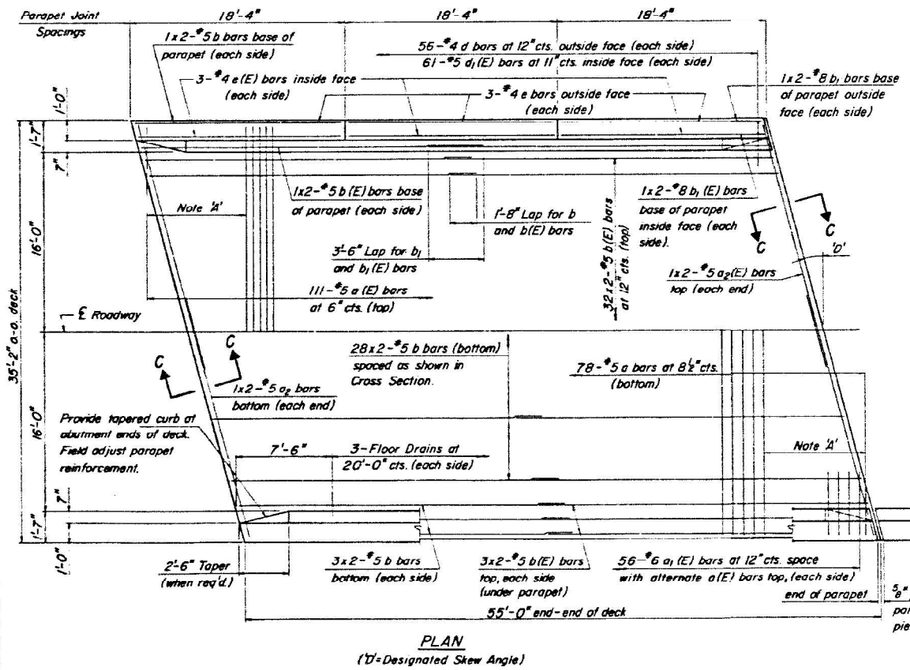
SCALE: | SHEET 2 OF 5 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	23
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		

MODEL: As Built Loc 5 Sheet 2 [Sheet]
FILE NAME: c:\dw_work\pwidot\steven.wood@illinois.gov\d0941673\D570H14-Sht-As_Built-Loc5.dgn



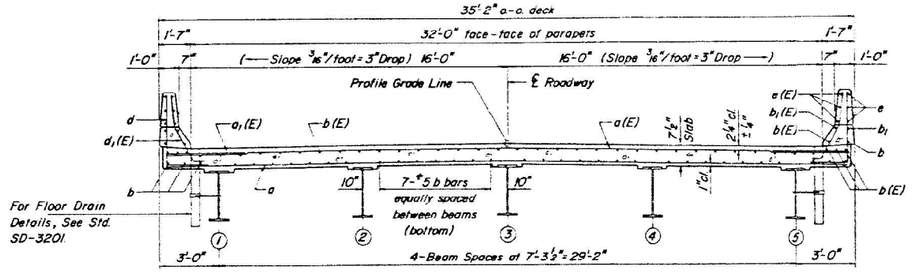
TYPICAL ELEVATIONS



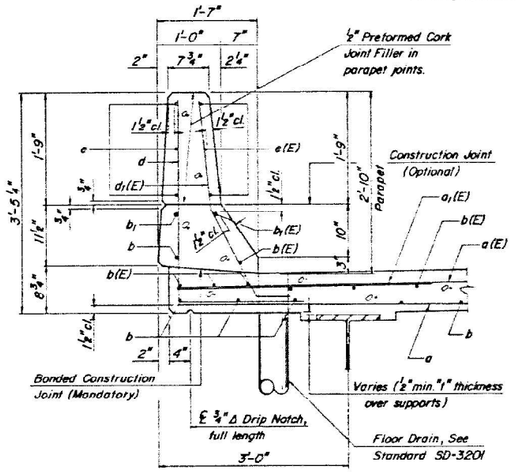
PLAN
('D'=Designated Skew Angle)

Bars indicated thus; 28 1x2-#5 etc. indicates 28 lines of bars with 2 lengths per line.

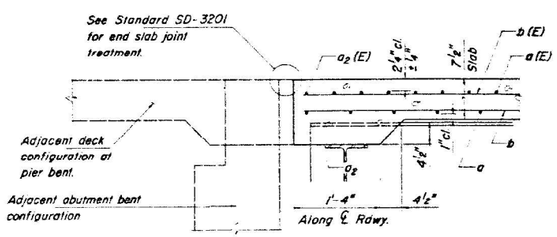
Note 'A':
Field cut a and a(E) bars to fit skew and use remainder of bars in opposite end.



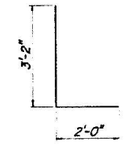
CROSS SECTION
(Looking Upstation)



PARAPET SECTION



SECTION C-C



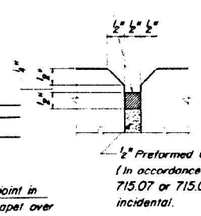
Bar d

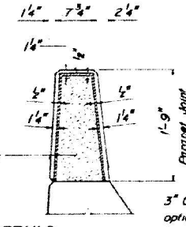
Bar $d_1(E)$

BAR LIST FOR ONE SPAN

Bar	No.	Size	Length	Shape
a	78	#5	34'-7"	——
a(E)	111	#5	34'-7"	——
$a_1(E)$	112	#6	4'-0"	——
a_2	4	#5	20'-8"	——
$a_2(E)$	4	#5	20'-8"	——
b	72	#5	28'-2"	——
b(E)	80	#5	28'-2"	——
b_1	4	#8	29'-1"	——
$b_1(E)$	4	#8	29'-1"	——
d	112	#4	5'-2"	⌞
$d_1(E)$	122	#5	3'-11"	⌞
e	18	#4	18'-0"	——
e(E)	18	#4	18'-0"	——

All reinforcement bars in the above table shall be epoxy coated.

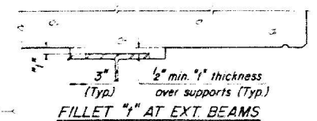




PARAPET JOINT DETAILS

Two component non-staining gray sealing compound with polysulfide liquid polymers - gun grade with primer.

3" Cheeks are optional where beams have shear connectors.



FILLET "f" AT EXT. BEAMS

FILLET "f" AT INT. BEAMS

See Steel Framing Standards for Dead Load Deflection Diagram.

QUANTITIES FOR ONE SPAN

Class 'X' Concrete	59.2 Cu. Yds.
Reinforcement Bars	5930 Lbs.
Rein. Bars (Epoxy Coated)	8140 Lbs.
Floor Drains	6 Each
Protective Coat	241.7 Sq. Yds.

DESIGN STRESSES

f'c = 3,500 psi
fy = 60,000 psi

STEEL BEAM BRIDGES
SUPERSTRUCTURE

32' RDWY.	55' SPAN	RIGHT

STANDARD SS-3255-R

METHOD FOR DETERMINING FILLET HEIGHT "f"

After all structural steel has been erected, elevations of the top flanges of each beam shall be taken at intervals not to exceed 10 feet. From these elevations, subtract the increment of deflection for these points determined from the "Dead Load Deflection Diagram". The elevation so attained subtracted from the theoretical top of slab elevations over each beam minus the slab thickness equals the fillet height "f" above the top of the beam.

Illinois Department of Transportation

APPROVED SEPT. 15, 1984
Engineer of Bridges and Structures

APPROVED JULY 1, 1981
Engineer of Design

ISSUED 10-1-24

USER NAME = Steven.Wood	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 1/4/2024	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILT PLANS
LOCATION #5 S,N. 057-0200

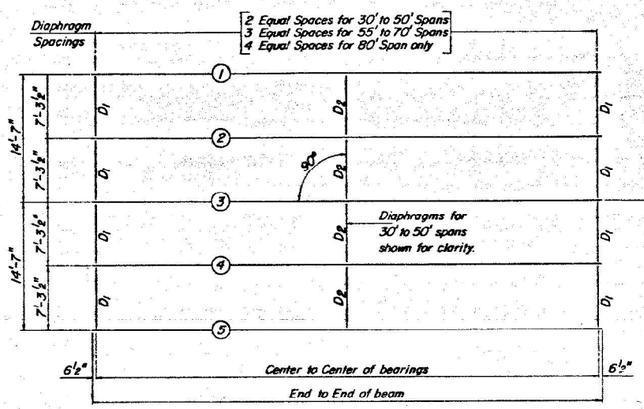
SCALE: | SHEET 3 OF 5 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	24
		CONTRACT NO. 70H14		
		ILLINOIS FED. AID PROJECT		

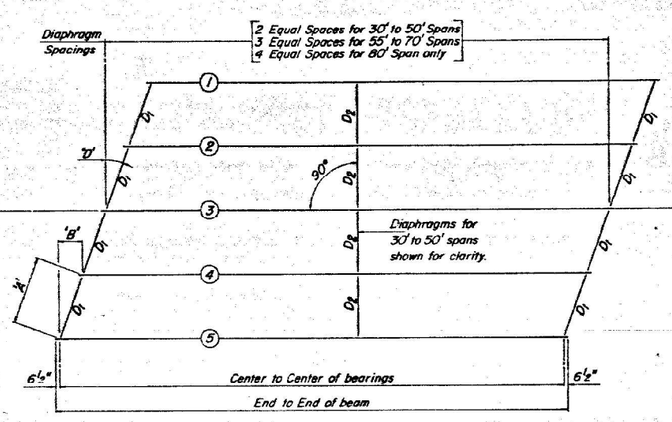
AS-BUILT PLANS FOR S.N. 057-0200

FOR INFORMATION ONLY

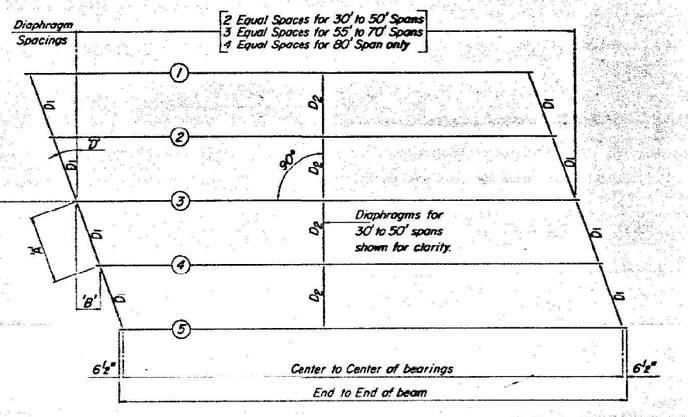
Span	Beam Size	Values for 'SD' Exp.	Values for 'SD' Fixed	Ctr.-Ctr. Bearings	End-End Beam	No. of Diaphragms D_1	No. of Diaphragms D_2	Stud Shear Connector Spacings a	b	c	d	e	Studs Per Line	Total Studs	Deflections ¼ Pt.	Deflections ½ Pt.	Deflections ¾ Pt.	Calculated Weight by 'D' 0°	5°	10°	15°	20°	25°	30°	Bearing Type Exp.	Bearing Type Fixed
30'	W27x84	3.357'	3.112'	28'-0"	29'-1"	8	4	NON-COMPOSITE							.008'	.013'	.008'	15163	15171	15192	15229	15284	15357	15453	EX-I	FX-III
35'	W27x84	3.357'	3.112'	33'-0"	34'-1"	8	4	NON-COMPOSITE							.017'	.023'	.017'	17265	17271	17292	17329	17384	17457	17553	EX-I	FX-III
40'	W27x84	3.357'	3.112'	38'-0"	39'-1"	8	4	12-Spaces at 7"	12-Spaces at 8"	12-Spaces at 8"	12-Spaces at 8"	12-Spaces at 7"	2	610	.027'	.037'	.027'	19363	19371	19392	19429	19484	19557	19653	EX-II	FX-III
45'	W27x84	3.357'	3.112'	43'-0"	44'-1"	8	4	9-Spaces at 6"	8-Spaces at 8"	28-Spaces at 10"	8-Spaces at 8"	9-Spaces at 6"	2	630	.043'	.060'	.043'	21463	21471	21492	21529	21584	21657	21753	EX-II	FX-III
50'	W27x84	3.357'	3.112'	48'-0"	49'-1"	8	4	12-Spaces at 6"	15-Spaces at 8"	16-Spaces at 12"	15-Spaces at 8"	12-Spaces at 6"	2	710	.067'	.094'	.067'	23563	23571	23592	23629	23684	23757	23853	EX-III	FX-III
55'	W27x102	3.389'	3.144'	53'-0"	54'-1"	8	8	12-Spaces at 6"	12-Spaces at 8"	30-Spaces at 10"	12-Spaces at 8"	12-Spaces at 6"	2	790	.079'	.110'	.079'	31204	31211	31233	31270	31324	31397	31493	EX-III	FX-III
60'	W27x114	3.405'	3.160'	58'-0"	59'-1"	8	8	18-Spaces at 7"	8-Spaces at 9"	30-Spaces at 10"	8-Spaces at 9"	18-Spaces at 7"	2	830	.101'	.140'	.101'	37297	37305	37326	37363	37417	37491	37586	EX-III	FX-III
70'	W27x146	3.413'	3.168'	68'-0"	69'-1"	8	8	21-Spaces at 7"	17-Spaces at 9"	18-Spaces at 12"	17-Spaces at 9"	21-Spaces at 7"	2	950	.139'	.195'	.139'	54051	54058	54080	54117	54171	54244	54340	EX-V	FX-V
80'	W27x178	3.449'	3.204'	78'-0"	79'-1"	8	12	21-Spaces at 7"	19-Spaces at 9"	25-Spaces at 12"	19-Spaces at 9"	21-Spaces at 7"	2	1060	.196'	.274'	.196'	74674	74681	74703	74740	74793	74867	74962	EX-VI	FX-VI



FRAMING PLAN (0° SKEW)



FRAMING PLAN (Lt. Fwd. Skew)
('D'=Designated Skew Angle)



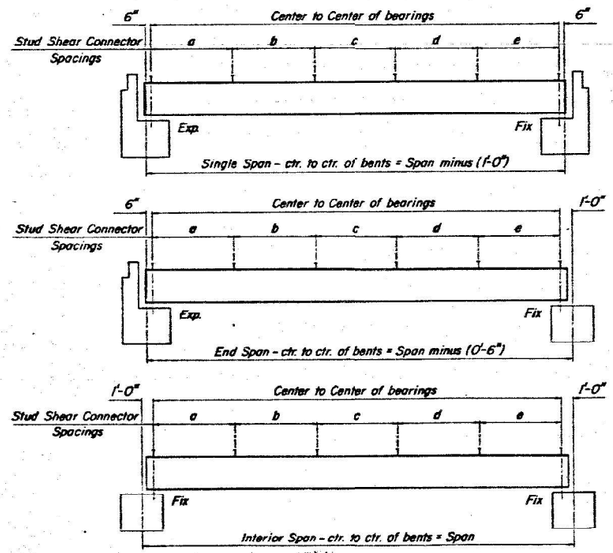
FRAMING PLAN (Rt Fwd. Skew)
('D'=Designated Skew Angle)

DIMENSION 'A' & 'B'

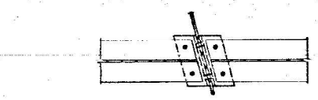
'D'	'A'	'B'
5°	7'-3 13/16"	7 5/8"
10°	7'-4 7/8"	1'-3 7/16"
15°	7'-6 9/16"	1'-11 7/16"
20°	7'-9 1/8"	2'-7 7/8"
25°	8'-0 9/16"	3'-4 13/16"
30°	8'-5 1/16"	4'-2 1/2"

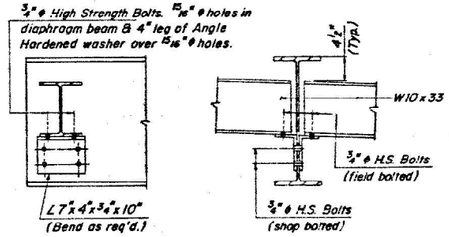
DESIGN STRESSES

fy = 50,000 psi
n = 9 (Composite)

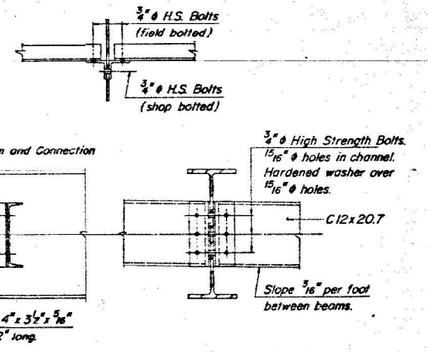


TYPICAL ELEVATIONS

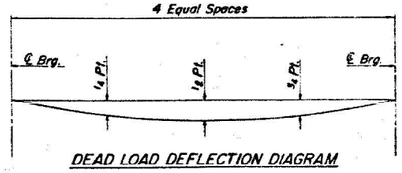




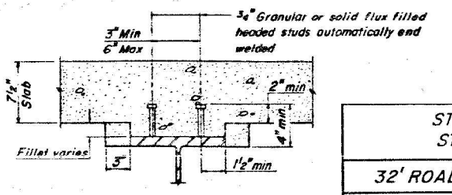
END DIAPHRAGM D_1



INTERIOR DIAPHRAGM D_2



DEAD LOAD DEFLECTION DIAGRAM



STUD SHEAR CONNECTOR DETAIL

Illinois Department of Transportation
APPROVED JULY 1, 1981
Engineer of Bridges and Structures
APPROVED JULY 1, 1981
Engineer of Design
ISSUED 7-1-81

STEEL BEAM BRIDGES
STEEL BEAM DETAILS

32' ROADWAY	W27 BEAMS
STANDARD SB-3227	

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILT PLANS
LOCATION #5 S.N. 057-0200

SCALE: | SHEET 4 OF 5 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	25
		CONTRACT NO. 70H14		
	ILLINOIS FED. AID PROJECT			

MODEL: As Built Loc 5 Sheet 4 [Sheet]
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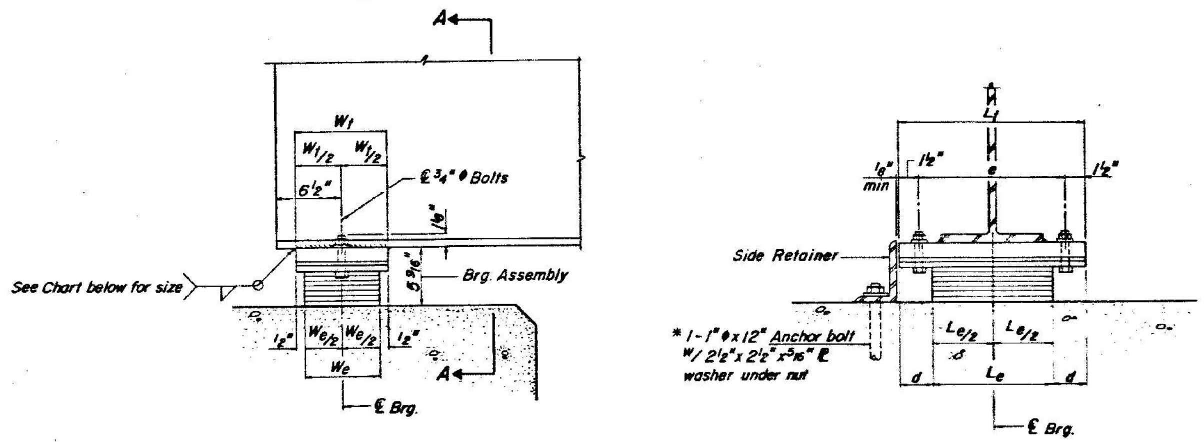
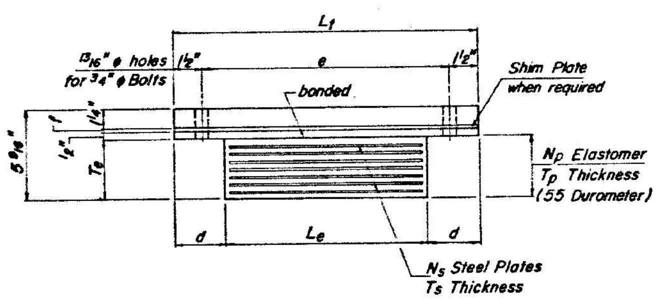
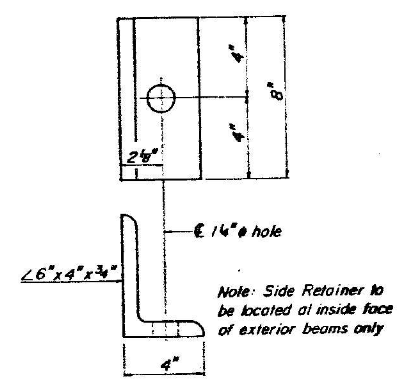


ELEVATION

SECTION A–A



BEARING ASSEMBLY

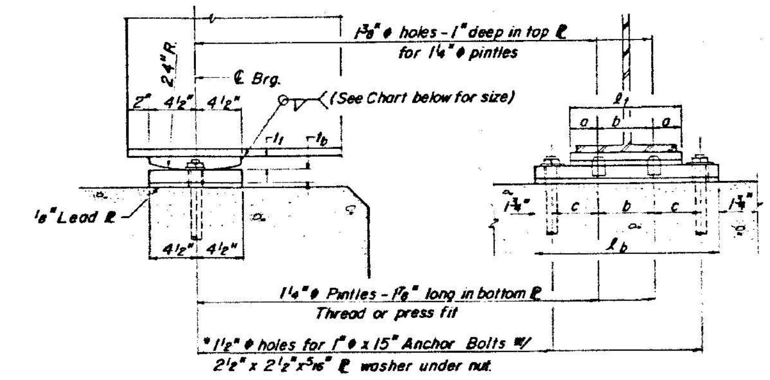


SIDE RETAINER

Brg. Type	L_e	W_e	L_t	W_t	℞	T_p	N_p	T_s	N_s	T_e	d	e	f	Stl. Wt.	Tapered Top ℞
EX-I	10"	7"	18"	8"	5/16"	3/8"	8	14ga.	7	3½"	4"	15"	5/16"	66 lbs.	Grades > 4.0%
EX-II	12"	7"	18"	8"	5/16"	3/8"	8	14 ga.	7	3½"	3"	15"	5/16"	66 lbs.	Grades > 4.0%
EX-III	12"	9"	18"	10"	5/16"	3/8"	8	3/32"	7	3⅝"	3"	15"	3/16"	76 lbs.	Grades > 2.5%
EX-IV	12"	9"	19"	10"	5/16"	3/8"	8	3/32"	7	3⅝"	3½"	16"	3/16"	80 lbs.	Grades > 2.5%
EX-V	12"	9"	21"	10"	3/8"	3/8"	8	3/32"	7	3⅝"	4½"	18"	3/16	89 lbs.	Grades > 2.5%
EX-VI	14"	10"	21"	11"	3/8"	7/16"	7	1/8"	6	3 13/16"	3½"	18"	–	85 lbs.	Grades > 2.0%

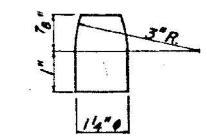
* Note: After beams have been erected, holes for Side Retainers shall be drilled and Anchor Bolts grouted in place.

TYPE EX EXPANSION BEARINGS



ELEVATION

SECTION



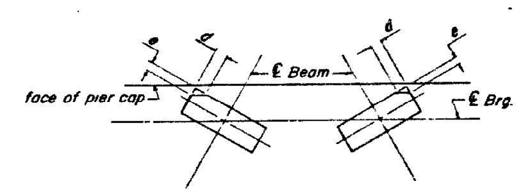
PINTLE

Brg. Type	ℓ_t	ℓ_b	℞	t_t	t_b	a	b	c	Tot. Weight**
FX-I	8"	15½"	5/16"	1¼"	1¼"	2"	4"	4"	94 Lbs.
FX-II	10"	17½"	5/16"	1¼"	1¼"	2½"	5"	4½"	108 Lbs.
FX-III	11½"	19"	5/16"	1¼"	1¼"	3"	5½"	5"	118 Lbs.
FX-IV	13"	20½"	3/8"	1¼"	1¼"	3¼"	6½"	5¼"	129 Lbs.
FX-V	16"	23½"	3/8"	1¼"	1¼"	4"	8"	6"	149 Lbs.

**Total weight of one assembly includes Top Plate, Bottom Plate, Anchor Bolts, Plate Washers, and Lead Plate.

NOTE: Anchor Bolts at fixed Brgs. may be built into the masonry or drilled and grouted into place after beams are set.

TYPE FX FIXED BEARINGS



BEARING CLIP DIM.
(Bottom Plate)

Bearing	d	e
FX-IV	7/8"	½"
FX-V	2⅜"	1⅜"

Clip plates for 'D's ≥ 20°

NOTES

The calculated Stl. Wt., for the ¼" plate and Shim ℞ (when req'd.), is to be included with the calculated weight of Structural Steel.

Provide Side Retainers, Plate washers, and Anchor Bolts at Expansion Abutments only. Cost is incidental.

For grades greater than shown in table, the top plate of the brg. shall be tapered to match grade. Maintain 1¼" thickness at ℄ of brg.

Illinois Department of Transportation
APPROVED JULY 1, 1981
Engineer of Bridges and Structures
APPROVED JULY 1, 1981
Engineer of Design
1-81 7-1-81

STEEL BEAM BRIDGES
EXPANSION AND FIXED BEARINGS
STANDARD SD-3202

MODEL: As Built Loc 5 Sheet 5 [Sheet]
FILE NAME: c:\pw_work\pwidot\steven.wood@illinois.gov\d0941673\D570H14-Sht-As_Built-Loc5.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	AS BUILT PLANS LOCATION #5 S.N. 057-0200
	DRAWN -	REVISED -		
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -		
PLOT DATE = 1/4/2024	DATE -	REVISED -		SCALE: SHEET 5 OF 5 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	26
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 709		McLEAN		26
IDOT/FHWA REG. NO. 5	ILLINOIS	FED. AID PROJECT-		

SHEET 2 OF 15 SHEETS

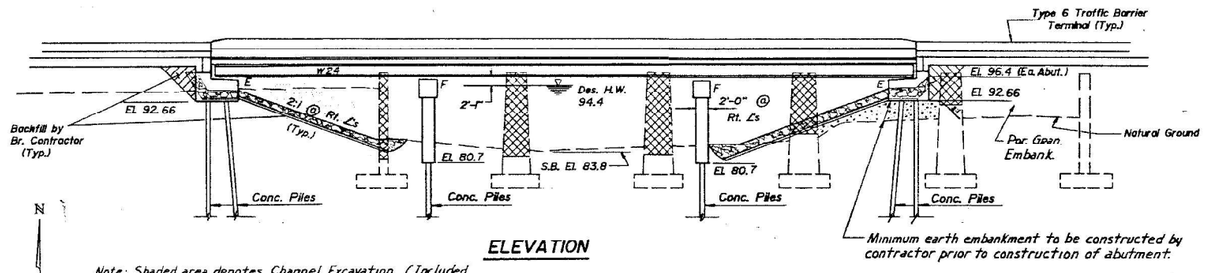
AS-BUILT PLANS FOR S.N. 057-2218

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

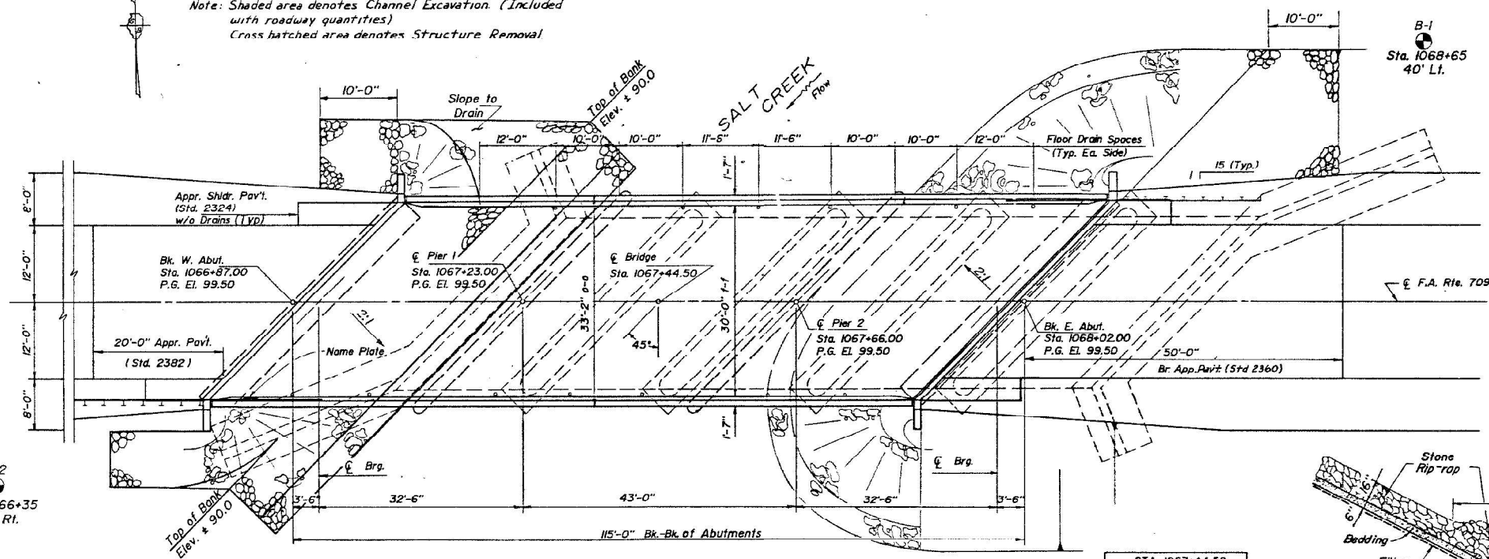
B.M. Chiseled square in Northwest Hub Guard of Existing Bridge Elev. 100.00 (Assumed)

Exist. Struct.: # 057-0099. Five span R.C. Slab on solid R.C. piers and R.C. closed abutments. Bridge is 26'-4" x 114'-2". Built 1933. To be removed. No salvage. Traffic to be detoured during construction.

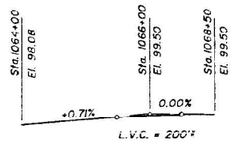


ELEVATION

Note: Shaded area denotes Channel Excavation. (Included with roadway quantities)
Cross hatched area denotes Structure Removal



PLAN



PROFILE GRADE FA709 *

* Overlay existing

WATERWAY INFORMATION

Drainage Area: 31.9 sq. mi. Low Grade Elev. 96.2 @ Sta. 1059+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	2419	538	458	94.4	0.6	0.7	95.0	95.1
Base	100	2760	596	469	94.7	0.6	1.0	95.3	95.7
Max. Calc.	500	3535	644	519	95.4	0.9	1.4	96.3	96.8

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

John W Clark
Registered Structural Engineer

STA. 1067+44.50
BUILT 198__ BY
STATE of ILLINOIS
FA RTE 709 SEC 103BR
LOADING HS 20
STR.NO. 057-0218

NAME PLATE
(See Std. 2113)

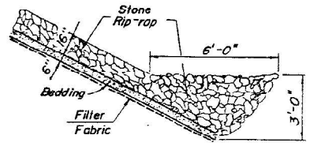
DESIGN STRESSES

f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (Reinf.)
fy = 36,000 p.s.i. (Str. St. M183)

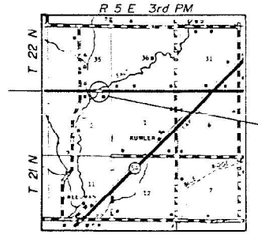
LOADING HS20-44

Design Specifications : 1983 A.A.S.H.T.O. & subsequent interims (Thru 1986).

Allow 25 # / Sq.Ft. for future surface.



STONE RIP-RAP ANCHOR DETAIL



LOCATION MAP

GENERAL NOTES

(1) Fasteners shall be high strength bolts AASHTO M-164. Bolts $\frac{3}{4}$" ϕ, open holes $\frac{13}{16}$"ϕ, or $\frac{7}{8}$"ϕ, open holes $\frac{15}{16}$"ϕ, unless otherwise noted.

(2) Calculated weight of structural steel equals 58,133 pounds.

(3) The Zinc Silicate and Vinyl Paint System shall be used for shop and and field painting of structural steel, except where otherwise noted.

(4) Field welding of construction accessories will not be permitted to 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 premitted only when approved by the Engineer.

(5) 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 steel wide flange beams and splice material.

(6) Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

(7) Bearing seat surfaces shall be constructed or adjusted to the design elevations within a tolerance of $\frac{1}{8}$". Adjustments shall be made by grinding the surface, or by shimming the bearing. Two $\frac{1}{8}$" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, shims of the dimensions of the top plate shall be provided and placed as detailed.

(8) For Boring Data see sheet No. 14.

(9) Anchor bolts shall be set before bolting diaphragms over supports.

(10) The Contractor shall drive one(1) metal shell test pile in permanent location as directed by the Engineer at the West Abutment, at Pier 1 and 2 and at the East Abutment. Test piles shall be driven before ordering the remainder of piles.

(11) The concrete, for bridge floors finished in accordance with Article 503.15 of the Standard Specifications, shall be placed and compacted parallel to the skew in uniform increments along center line of bridge. The finishing machine, when required, shall be set parrallel to the skew for striking off and screeding the concrete.

(12) All structural steel fabricators preforming work on the main load carring components of steel strructures shall be certified under Category I (AISC) of the Quality Certification Program.

TOTAL BILL OF MATERIALS

ITEM	UNIT	SUB	SUPER	TOTAL
Removal of Existing Structures	Each			1
Class X Concrete	Cu. Yd.	85.6		85.6
Class X Concrete - Superstructure	Cu. Yd.		114.8	114.8
Furnish and Erect Structural Steel	Lmp Sum		1	1
Reinforcement Bars	Pound	7350		7350
Reinforcement Bars (Epoxy Coated)	Pound		25,774	25,774
Protective Coat	Sq. Yd.	500		500
Floor Drains	Each		14	14
Furnishing Metal Pile Shells 12"	Lin Ft.	584		584
Driving and Filling Shells	Lin.Ft.	1082		1082
Test Pile Metal Shells	Each	4		4
Class X Concrete Encasement	Cu. Yd.	14.0		14.0
Stone Riprap, Class A4	Sq. Yd.			715
Name Plates	Each		1	1
Elastomeric Bearing Assembly, Type I	Each		10	10
Neoprene Expansion Joint 2"	Lin.Ft.		88	88
Filter Fabric for use with Riprap	Sq. Yd.			715
Structure Excavation	Cu. Yd.	100		100
Furnishing Metal Pile Shells 14"	Lin. Ft.	498		498

Robert Bradford Jr.

GENERAL PLAN & ELEVATION

FA RTE. 709 over SALT CREEK
* SECTION 103BR
McLEAN COUNTY
STATION 1067+44.50
S.N. 057-0218

GREENE & BRADFORD, INC.
OF SPRINGFIELD
CONSULTING ENGINEERS
1005 STEVENSON DR. 217/529-6669 SPRINGFIELD, IL.

MODEL: As Built Loc6 Sheet 1 [Sheet]
FILE NAME: c:\pw_work\pwidot\steven.wood@illinois.gov\d0941673\D570H14-Sht-As_Built-Loc6.dgn

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	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #6 S.N. 057-0218

SCALE: | SHEET 1 OF 6 SHEETS | STA. | TO STA.

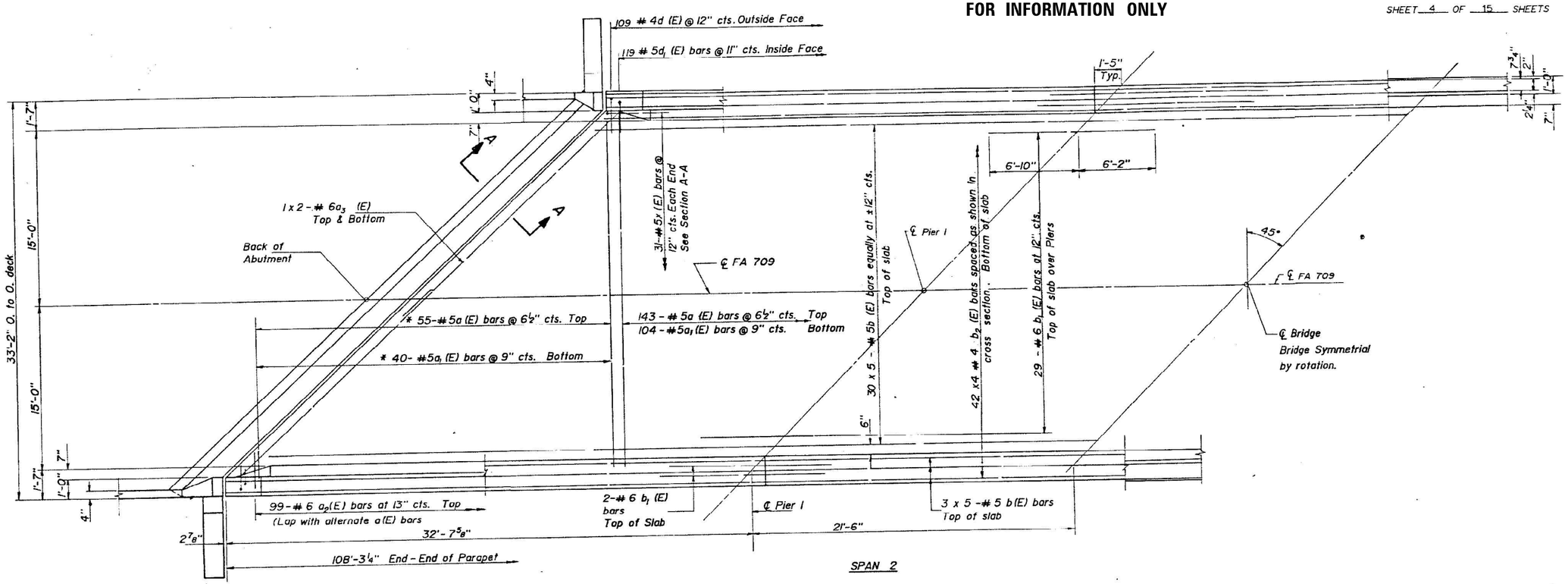
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	27
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
709		McLEAN		40
FHWA REG. NO. 5	ILLINOIS	FED. AID PROJECT-		

SHEET 4 OF 15 SHEETS

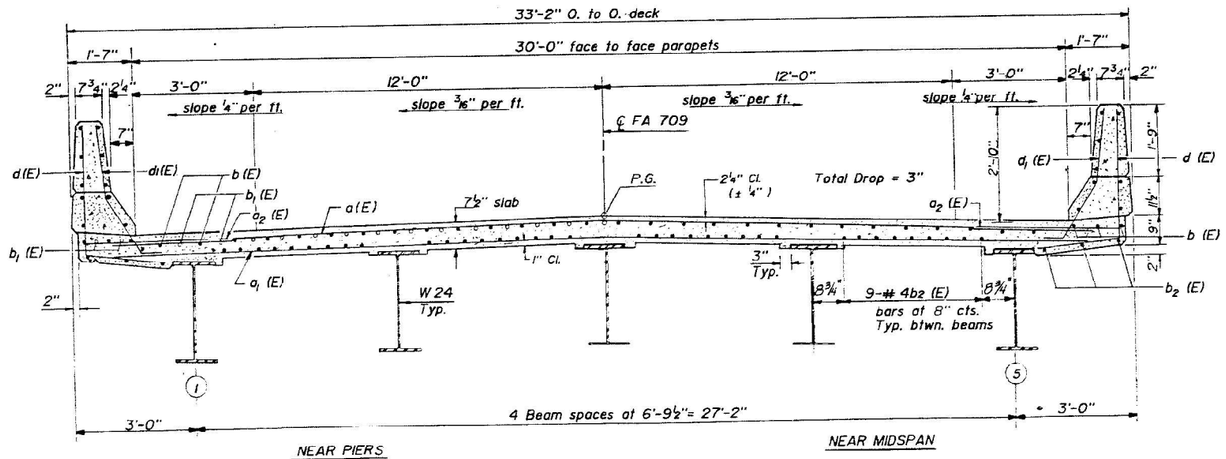
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS FOR S.N. 057-218
FOR INFORMATION ONLY



* Order a(E) & a_1 (E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

For Section A-A see Sheet No. 4



CROSS SECTION
(Looking East)

Notes: See sheet # 4 for superstructure details and Bill of Materials.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3## 5 etc. indicate 20 lines of bars with 3 lengths per line.

SUPERSTRUCTURE

FA RTE 709 SEC 103BR
STA 1067+44.50
McLEAN CO.

GREENE & BRADFORD, INC.
OF SPRINGFIELD
CONSULTING ENGINEERS
1919 STEVENSON DR. 217/529-6616 SPRINGFIELD, IL.

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / In.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #6 S,N, 057-0218

SCALE: | SHEET 2 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	28
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		

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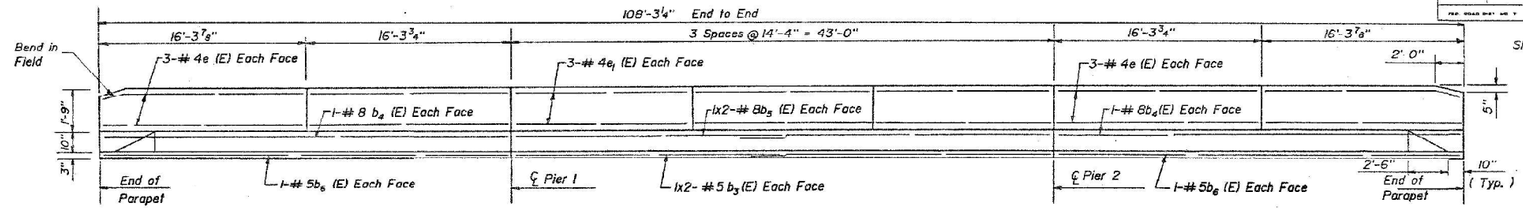
AS–BUILT PLANS FOR S.N. 057–218

FOR INFORMATION ONLY

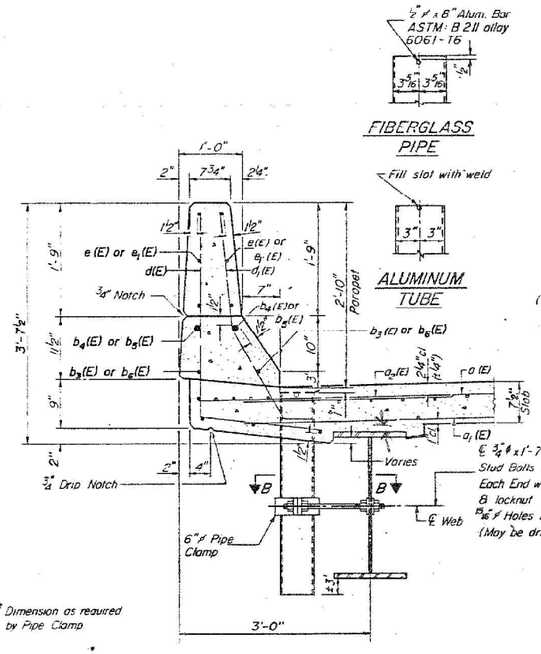
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A. 709		McLEAN		41

SHEET 5 OF 15 SHEETS

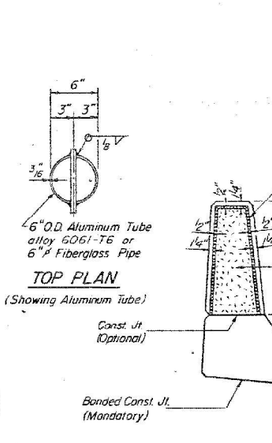


INSIDE ELEVATION OF PARAPET



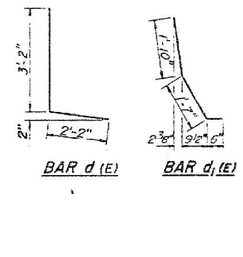
* Dimension as required by Pipe Clamp

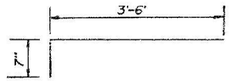
SECTION THRU PARAPET



PARAPET JOINT DETAILS

Note:
The exterior surfaces of the Floor Drain shall be painted with the Vinyl enamel coat painting specified for Structural Steel. The exterior surface of the Aluminum tube shall be cleaned and given a wash coat pretreatment in accordance with Steel Structures Painting Council's Spec. SSPC-SP1 & SSPC-Paint 27 prior to painting.
Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30000 psi minimum. The surface of the fiberglass pipe shall be free of bond inhibiting agents.





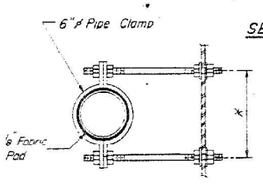
MINIMUM BAR LAPS

#4	1'-4"
#5	1'-8"
#6	2'-0"
#8	3'-5"

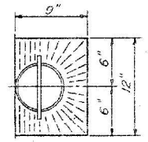
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a (E)	202	#5	30'-6"	
a1 (E)	146	#5	31'-0"	
a2(E)	202	#6	4'-0"	
a3(E)	8	#6	23'-0"	
b (E)	180	#5	23'-0"	
b1(E)	58	#6	13'-0"	
b2(E)	168	#4	28'-0"	
b3(E)	8	#5	22'-2"	
b4 (E)	8	#8	32'-4"	
b5(E)	8	#8	23'-3"	
b6(E)	8	#5	32'-4"	
d (E)	218	#4	5'-4"	L
d1(E)	238	#5	4'-1"	L
e(E)	48	#4	16'-0"	
e1(E)	36	#4	14'-0"	
X(E)	62	#5	4'-1"	⌐
Reinforcement Bars (Epoxy Coated)		Lbs.	25,774	
Class X Concrete Superstructure		Cu Yds	114.8	

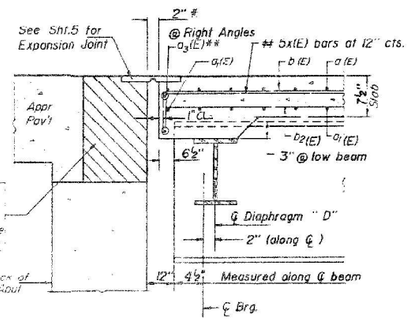
Reinforcement bars designated (E) shall be epoxy coated



SECTION B-B



TOP PLAN



SECTION A-A

* Blockout Dimensions to be Determined by Contractor.

** Place top a_3 (E) bars in back of expansion device anchor bolt if req'd. to maintain 1" (½") clear.

SUPERSTRUCTURE DETAILS
F.A. ROUTE 709
SECTION 103BR McLEAN CO.
STA. 1067+44.50

GREENE & BRADFORD, INC.
OF SPRINGFIELD
CONSULTING ENGINEERS
1829 STEVENSON DR. 217/529-6601 SPRINGFIELD, IL

MODEL: As Built Log6 Sheet 3 [Sheet]
FILE NAME: c:\pw_work\pwidot\steven.wood@illinois.gov\d0941673\D570H14-Sht-As_Built-Log6.dgn

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	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #6 S,N, 057-0218

SCALE: | SHEET 3 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	29
		CONTRACT NO. 70H14		
		ILLINOIS	FED. AID PROJECT	

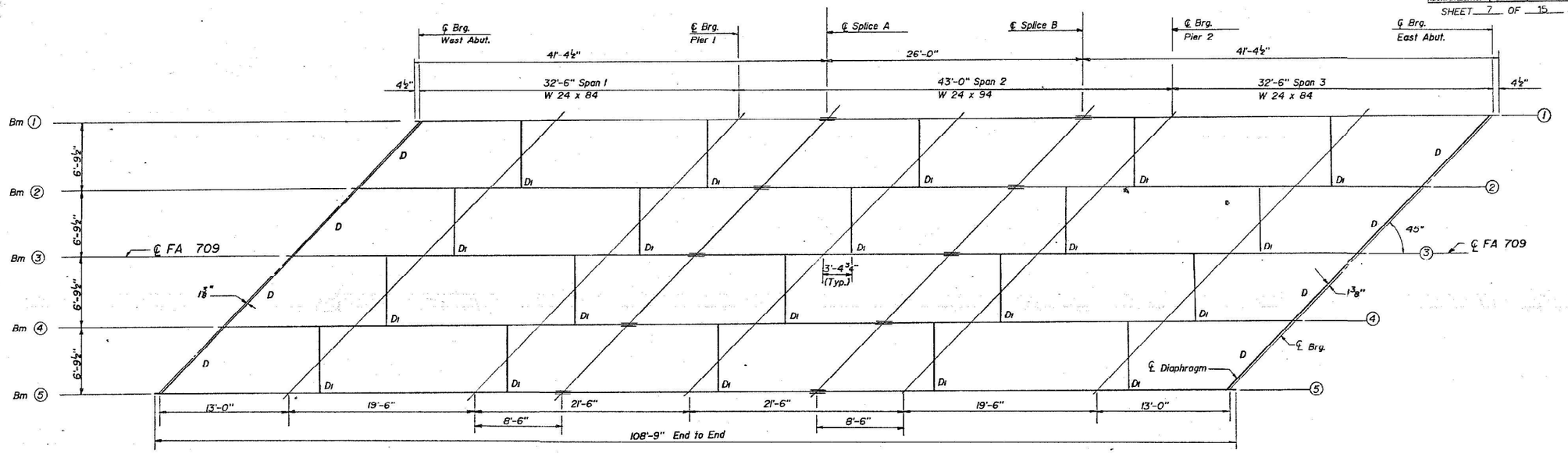
AS–BUILT PLANS FOR S.N. 057–218

FOR INFORMATION ONLY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
709		Mc LEAN		43
FHWA REG. NO. 5	ILLINOIS	FED. AID PROJECT-		

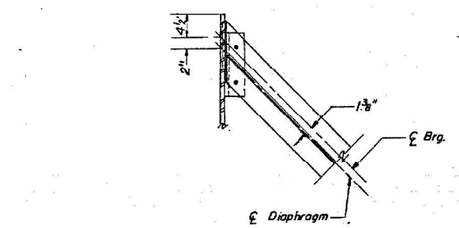
SHEET 7 OF 15 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

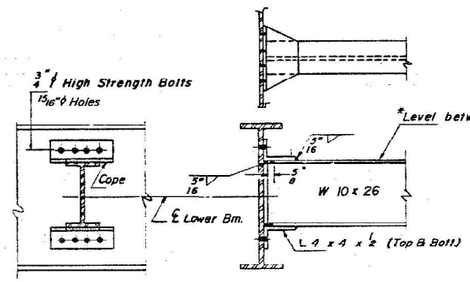


FRAMING PLAN
(All Beams NTR)

(1) NTR – Must conform to Supplemental Notch Toughness Requirements Zone 2. See General Notes Sheet No 1.



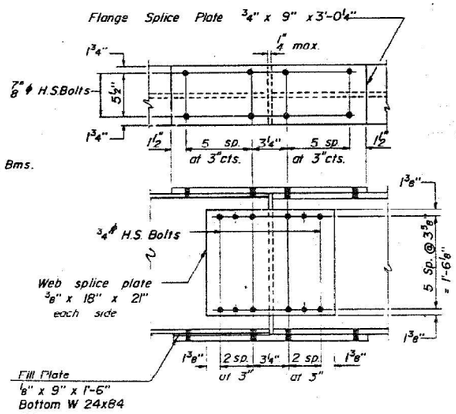
DIAPHRAGM D
8 Required



DIAPHRAGM D
20 Required

Note : Two hardened washers shall be required over all 15/16" ϕ holes in diaphragm connectors.

Note : Diaphragms D are offset from ℄ Brg. See Section A-A, Sheet 4



SPLICE
(NTR)

STRUCTURAL STEEL
FA RTE 709 (US 36)
SEC 103 BR McLEAN CO.
STA. 1067+44.50

GREENE & BRADFORD, INC.
OF SPRINGFIELD
CONSULTING ENGINEERS
1919 STEVENSON DR. 217/529-4411 SPRINGFIELD, IL

MODEL: As Built Los6 Sheet 4 [Sheet]
FILE NAME: c:\dw_work\pwdotsteven.wood@illinois.gov\d0941673\D570H14-Sht-As_Built-Los6.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / In.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #6 S,N, 057-0218

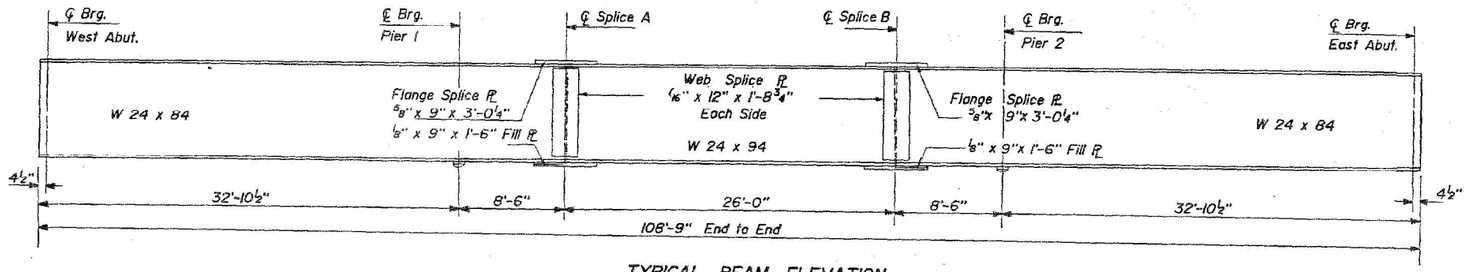
SCALE: | SHEET 4 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	30
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		

ROUTE	SECTION	COUNTY	TOTAL SHEETS	NO.
709		McLEAN		44
FHWA REG NO 5	ILLINOIS	FED. AID PROJECT –		

SHEET 8 OF 15 SHEETS

AS-BUILT PLANS FOR S.N. 057-218
FOR INFORMATION ONLY



TYPICAL BEAM ELEVATION

MOMENT TABLE - Symmetrical 3 Span (Non-composite)

INTERIOR GIRDER MOMENT TABLE	0.4 Sp.1, 0.6 Sp.3	PIER	0.5 Span 2
I_s (in^4)	2370	2370	2700
S_s (in^3)	196	196	222
Z (in^3)	224	224	254
$\frac{D}{L}$ (K/I)	1.071	1.071	1.082
$M\frac{D}{L}$ (K)	73.7	-155.2	95.1
$M\frac{L}{L}$ (K)	160.9	-141.8	189.7
M Imp. (K)	48.3	-42.6	56.9
$\frac{5}{3}$ (M L + I) (K)	348.7	-307.3	411.0
Ma (K)	549.1	-601.2	657.9
Mu (K)	672	672	762
fs D non-comp (k.s.i)	4.51	-9.50	5.14
fs $\frac{5}{3}$ (L + I) (k.s.i)	21.34	-18.81	22.21
fs (Overload) (k.s.i.)	25.85	-28.31	27.35

INTERIOR GIRDER REACTION TABLE	Abut.	Pier
$R\frac{L}{L}$ (k)	12.6	45.5
$R\frac{L}{L}$ (k)	29.8	50.0
Imp. (k)	8.9	15.0
R_{TOTAL} (k)	51.3	110.5

SYMBOLS

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total and Overload).

f_s (Total) is the sum of the stresses due to $1.3\left[M\frac{D}{L} + \frac{5}{3}\left(M\frac{L}{L} + I\right)\right]$

f_s (Overload) is the sum of the stresses due to $M\frac{L}{L} + \frac{5}{3}\left(M\frac{L}{L} + I\right)$

$M\frac{D}{L}$ - Moment due to dead loads.

$M\frac{L}{L}$ - Moment due to live load.

I_{mp} - Live load impact.

Z is the plastic section modulus used to determine the Fully Plastic Moments in the non-composite areas.

The Fully Plastic Moment capacity (M_u) is computed according to AASHTO 10.48.1

DESIGN DATA TABLES

* Mu = Full Plastic Moment Capacity for Compact, Braced section.

Ma (Applied Moment) = $1.3\left[M\frac{D}{L} + \frac{5}{3}\left(M\frac{L}{L} + I\right)\right]$

TOP OF WF ELEVATIONS

Loc. / Beam	West Abut.	Pier 1	Splice A	Splice B	Pier 2	East Abut.
1	98.55	98.55	98.55	98.55	98.55	98.55
2	98.67	98.67	98.67	98.67	98.67	98.67
3	98.77	98.77	98.77	98.77	98.77	98.77
4	98.67	98.67	98.67	98.67	98.67	98.67
5	98.55	98.55	98.55	98.55	98.55	98.55

STRUCTURAL STEEL

FA RTE 709 (U.S. 36)
SEC 103 BR McLEAN Co.
STA. 1067+44.50

GREENE & BRADFORD, INC.
OF SPRINGFIELD
CONSULTING ENGINEERS
1015 STEVENSON DR. 217/525-1648 SPRINGFIELD, IL.

MODEL: As Built Loc6 Sheet 5 [Sheet]
FILE NAME: c:\pw_work\pwdotsteven.wood@illinois.gov\d0941673\D570H14-Sht-As_Built-Loc6.dgn

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / In.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

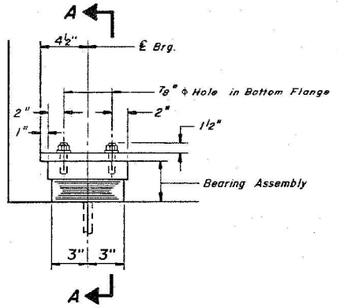
AS-BUILT PLANS
LOCATION #6 S.N. 057-0218

SCALE: | SHEET 5 OF 6 SHEETS | STA. | TO STA.

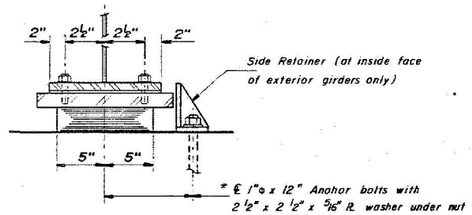
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	31
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
709		M^{c}LEAN		45
F.H.W.A. REG. NO. 5	ILLINOIS	FED. AID PROJECT–		

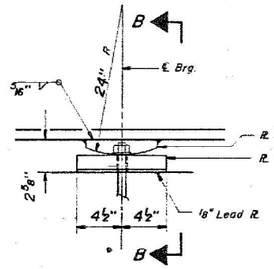
SHEET 9 OF 15 SHEETS



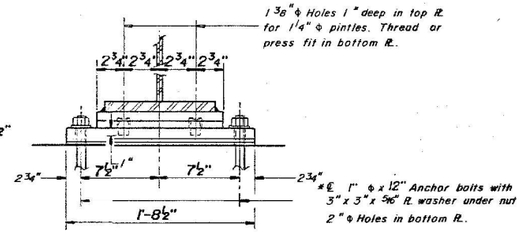
ELEVATION AT ABUT.



SECTION A·A



ELEVATION AT PIER

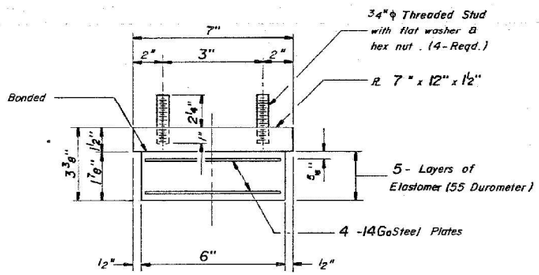


SECTION B·B

TYPE I ELASTOMERIC EXP. BRG.

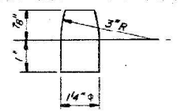
* NOTES: Anchor bolts at fixed bearings may be built into the masory.
See sheet # 9 for Anchor Bolt installation.

FIXED BEARING

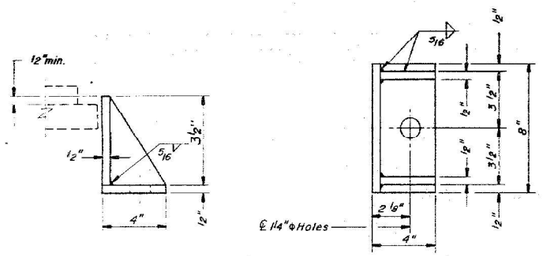


BEARING ASSEMBLY

NOTES: Shim plates shall not be placed under Bearing Assembly.



PINTLE



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	10

BEARINGS

FA RTE 709
SEC. 103BR M^{c}LEAN CO.
STA. 1067+44.50

GREENE & BRADFORD, INC.
OF SPRINGFIELD
CONSULTING ENGINEERS
1015 STEVENSON DR. 217/525-6601 SPRINGFIELD, IL.

USER NAME = Steven.Wood	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / In.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

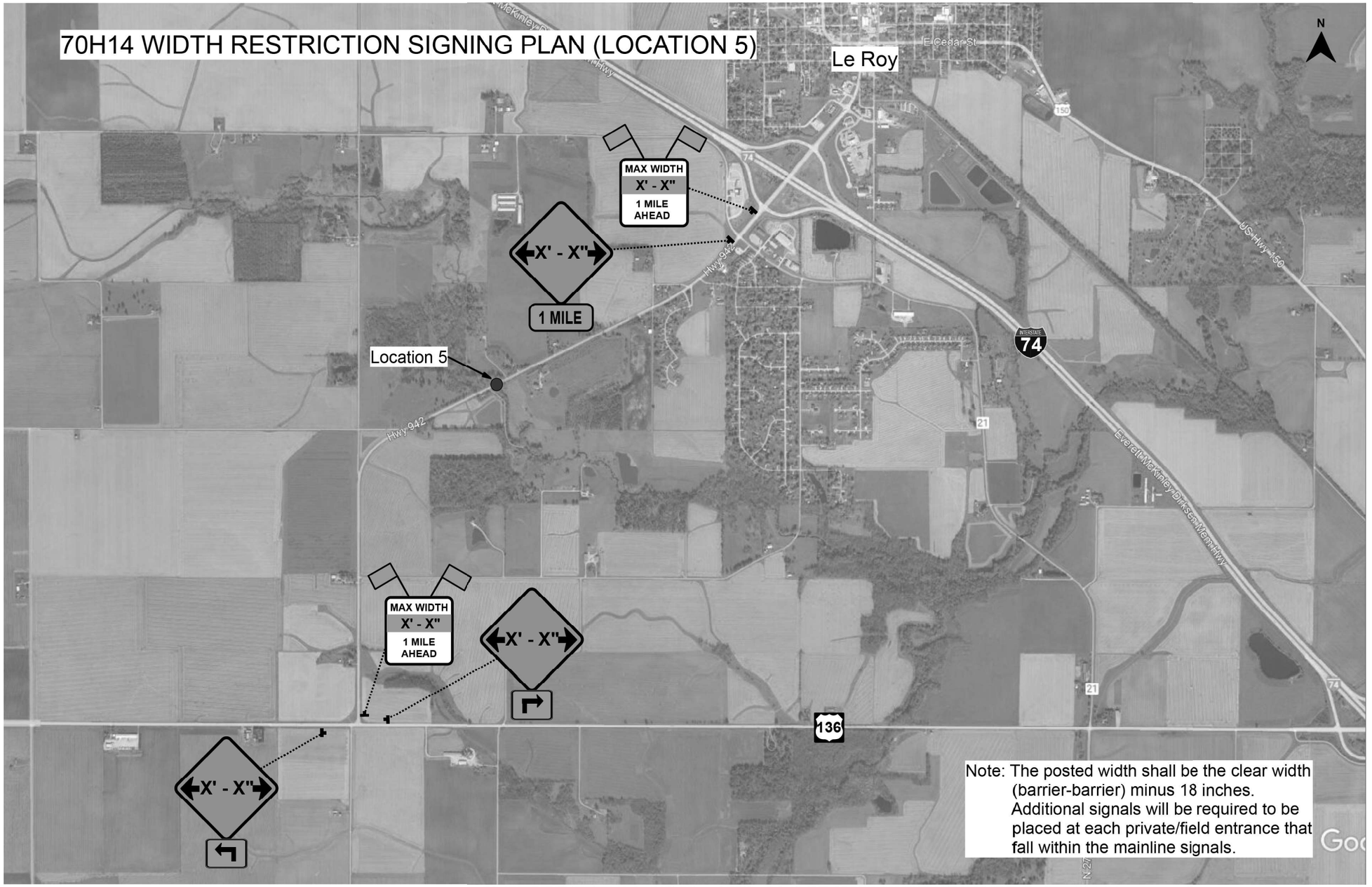
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
LOCATION #6 S.N. 057-0218

SCALE: | SHEET 6 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	32
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		

WIDTH RESTRICTION SIGNING
LOCATION #5 S.N. 057–0200



NOTE: WIDTH RESTRICTION SIGNING ONLY REQUIRED IF TEMPORARY CONCRETE BARRIERS ARE USED FOR TRAFFIC CONTROL AT LOCATION #5

MODEL: WRS-1 [Sheet]
FILE NAME: c:\pw_work\pwidot\steven.wood@illinois.gov\d0941673\D570H14-Sht-Width-Restriction.dgn

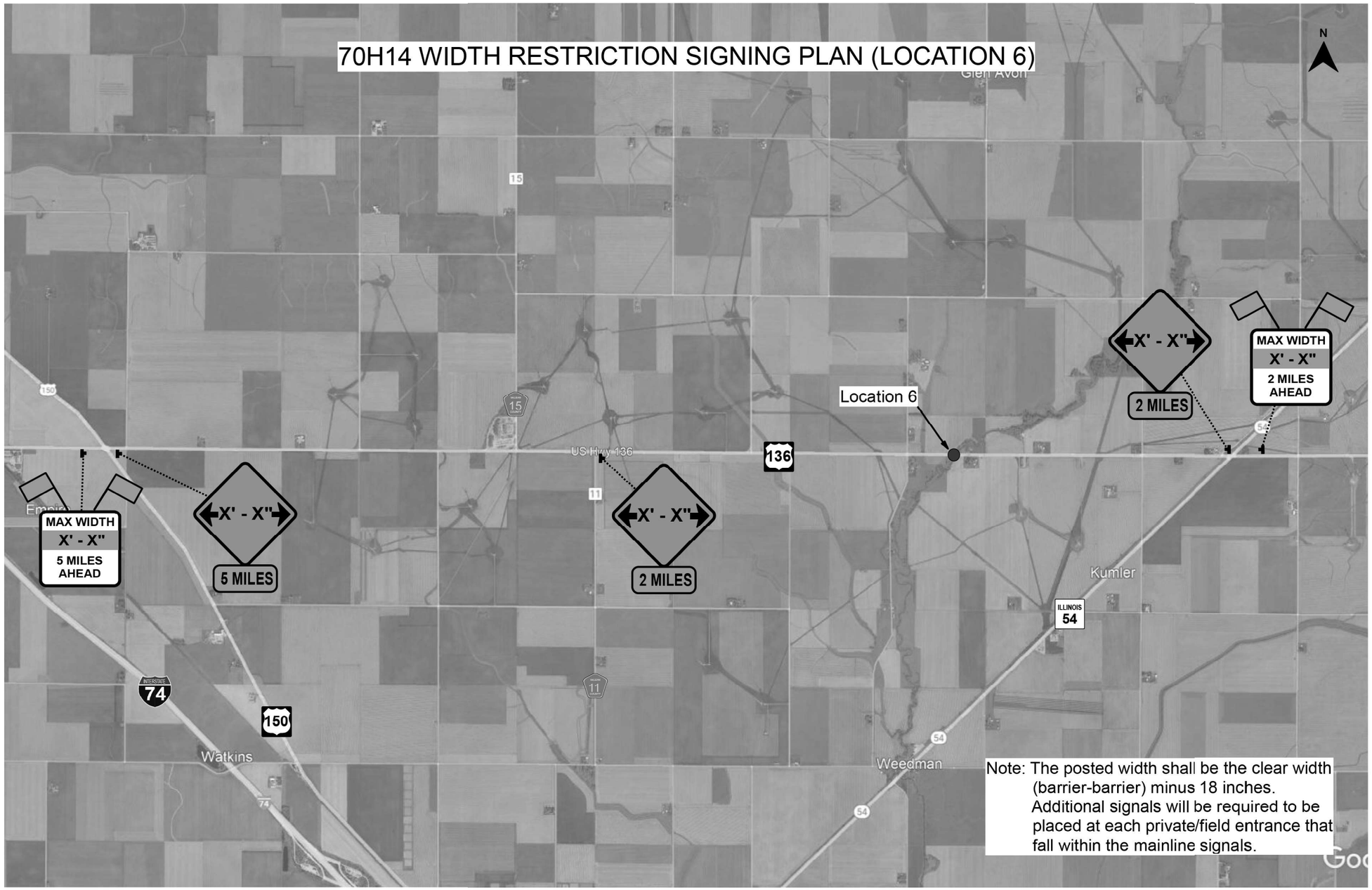
USER NAME = Steven.Wood	DESIGNED -	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
	DRAWN -	REVISED -	
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 1/4/2024	DATE -	REVISED -	

WIDTH RESTRICTION SIGNING
LOCATION #5

SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	33
		CONTRACT NO. 70H14		
	ILLINOIS FED. AID PROJECT			

WIDTH RESTRICTION SIGNING
LOCATION #6 S.N. 057–0218



N

NOTE: WIDTH RESTRICTION SIGNING ONLY REQUIRED IF TEMPORARY CONCRETE BARRIERS ARE USED FOR TRAFFIC CONTROL AT LOCATION #6

MODEL: WRS-2 [Sheet]
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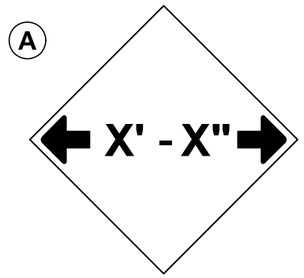
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 1/4/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDTH RESTRICTION SIGNING
LOCATION #6

SCALE: | SHEET 2 OF 3 SHEETS | STA. | TO STA.

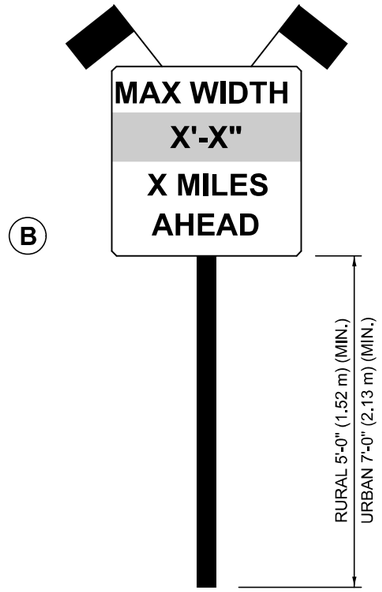
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	34
		CONTRACT NO. 70H14		
	ILLINOIS FED. AID PROJECT			



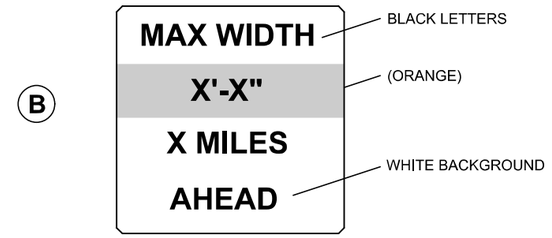
W12-2(0)-48"x48"(1200x1200)

SIGN (A) 2 SIGNS - W12-2(O)-48"x48"(1200x1200) ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

SIGN (B) 2 SIGNS - (SIGN PANEL, TYPE II) AS SHOWN ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.



SIGN PANEL, TYPE II



W12-I103(O)-48"x48"(1200x1200)
"D" LETTERS/NUMBERS

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.

2. ALL (B) SIGNS SHALL HAVE FLAGS INSTALLED UNLESS OTHERWISE DIRECTED.

3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.

4. ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.

5. ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE DIRECTED.

6. ALL SIGNS SHOWN ORANGE (O) SHALL BE FLUORESCENT ORANGE.

7. ALL SIGNS SHOWN SHALL CONSIST OF THE CURRENT RETROREFLECTIVE SHEETING REQUIREMENTS AS OUTLINED IN SECTION 1106.01 OF THE STANDARD SPECIFICATIONS BOOK.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

MODEL: SHT_PLAN
FILE NAME: C:\Bentley\CONNECT10\1\Organization-Civil\IDOT_Standards\Cell\IDOT_Sheets.cel

USER NAME = Eric.Thomas	DESIGNED -	REVISED -	05-08/
	DRAWN -	REVISED -	10-08 KJT
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -	07-09 KJT
PLOT DATE = 12/7/2022	DATE -	REVISED -	03-11 KJT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDTH RESTRICTION SIGNING

SCALE: | SHEET 3 OF 3 SHEETS | STA. | TO STA.

DISTRICT 5 DETAIL NO. X7200201

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	D5 BRIDGE PAINTING 2024-2	MCLEAN	35	35
		CONTRACT NO. 70H14		
	ILLINOIS	FED. AID PROJECT		