027

01-17-2020 LETTING ITEM 027

INDEX OF SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	(102BR)BDR	STEPHENSON	21	1
		CONTRACT NO. 64N75		
		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP ROUTE 316 (IL 26) OVER THE PECATONICA RIVER
SECTION (102BR)BDR
PROJECT: NHPP-A06Q(274)
BRIDGE REPAIR
STEPHENSON COUNTY

C-92-044-19

D-92-041-19

LOCATION OF SECTION INDICATED THUS: -

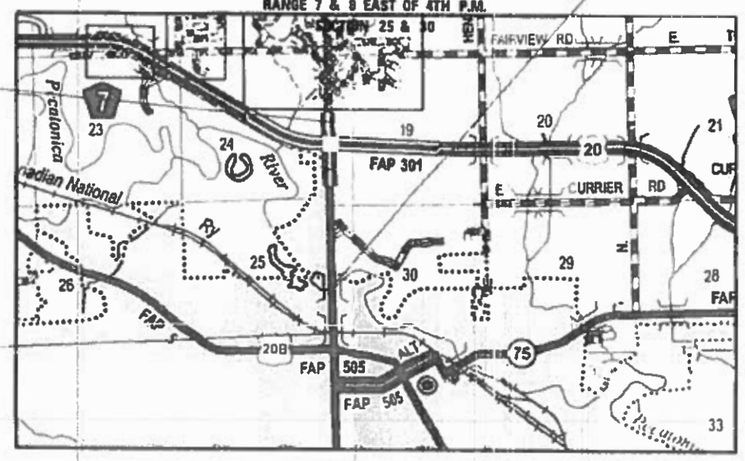
EXISTING STRUCTURE

S.N. 089-0051 A FIVE SPAN P.C.C. I-BEAM (L=429'-4" AND W=93'-2") SUPERSTRUCTURE WITH OPEN ABDUTMENTS AND SOLID WALL PIERS

PROJECT ENDS
443+00.00

PROJECT BEGINS
STA: 373+60.00

TOWNSHIP 27 NORTH
RANGE 7 & 8 EAST OF 4TH P.M.



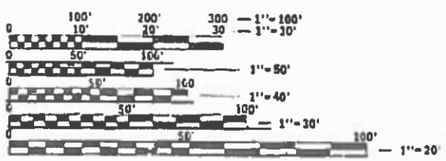
MAP NOT TO SCALE

LOCATION MAP

GROSS LENGTH = 6,940 FT. = 1.3 MILE
NET LENGTH = 6,940 FT. = 1.3 MILE

DESIGN DESIGNATIONS

OTHER PRINCIPAL ARTERIA (CLASS II TURCK ROUTE)
CURRENT ADT: 14,300 (2017)
DESIGN SPEED: 55 MPH
POSTED SPEED: 55 MPH
MU=1.7%, SU=2.3%



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 GEOFFREY F. SMITH, P.E.
PROJECT MANAGER MAHMOUD ETEMADI, P.E.

CONTRACT NO. 64N75

GEOFFREY F. SMITH
062-049202
LICENSED
PROFESSIONAL
ENGINEER
OF
ILLINOIS

DATE: 7-25-2019
EXPIRES 11/30/19

QUIGG ENGINEERING INC

WILLETT HOFMANN ASSOCIATES INC

Kaskaskia Engineering Group, LLC

LANCE D. CHRISMAN
062-056127
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS
7/25/19

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED October 2nd 2019
REGIONAL ENGINEER
Dec 10 2019
ENGINEER OF DESIGN AND ENVIRONMENT
Dec 10 2019
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV. 11/19/19

HIGHWAY STANDARDS

000001-07	STANDARD SYMBOLYS, ABBREVIATIONS, AND PATTERNS
001001-02	AREA OF REINFORCEMENT BARS
542546-01	FLUSH INLET BOX FOR MEDIAN
610001-08	SHOULDER INLET WITH CURB
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≤ 40 MPH
701431-13	LANE CLOSURE, MULTILANE, UNDIV. WITH CROSSOVER, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS

	1.5"	1.0"
LOCATIONS(S):	IL 26	IL 26
MIXTURE USE(S):	SURFACE	LEVEL BINDER
PG:	SBS PG 70-28	SBS PG 70-28
DESIGN AIR VOIDS:	4.0% @ N70	4.0% @ N50
MIXTURE COMPOSITION:	IL 9.5	IL 4.75
FRICTION AGGREGATE:	D	N/A
MIXTURE WEIGHT:	112 LB/SY/IN	N/A
QUALITY MANAGEMENT PROGRAM:	QC/QA	QC/QA
SUBLOT SIZE:	N/A	N/A
NUMBER OF ROLLER PASSES:	N/A	N/A

GENERAL NOTES

ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTHMOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.

THE STRUCTURE WILL RETAIN THE SAME NUMBER: 089-0051

PAVEMENT MARKING SHALL BE DONE ACCORDING TO STANDARD 78001, EXCEPT AS FOLLOW:

1. ALL WORDS, SUCH AS ONLY, SHALL BE 8 FEET HIGH.
2. ALL NON-FREEWAY ARROWS SHALL BE THE LARGE SIZE.
3. THE DISTANCE BETWEEN YELLOW NO-PASSING LINES SHALL BE 8 INCHES, NOT 7 INCHES, AS SHOWN IN THE DETAIL OR TYPICAL LANDE AND EDGE LINES
4. CENTERLINE SKIP DASH PAVEMENT MARKING ON MULTI-LANE DIVIDED, MULTI-LANE UNDIVIDED, AND ONE-WAY ROADWAY SHALL BE ACCORDING TO DISTRICT 41.1.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.39 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCED NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123. THE FOLLOWING LISTED UTILITIESLOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS ARE MEMEBER OF JULIE.

IDOT IS NOT A MEMBER OF JULIE, IF YOU ARE NEAR ANY OVERHEAD LIGHTING, INTERSECTION LIGHTING OR TRAFFIC SIGNALS, CONTACT THE IDOT TRAFFIC OFFICE AND 815-284-5469 AT LEAST 48 HOURS PRIOR TO WORK.

CADD DATA WILL BE AVAILABLE TO CONTRACTORS AND CONSULTANTS WORKING ON THIS PROJECT, ONCE THE PROJECT HAS BEEN AWARDED. THIS INFORMATION WILL BE PROVIDED UPON REQUEST AS MICROSTATION CADD FILES AND GEOPAK COORDINATE GEOMETRY FILES ONLY. IF DATA IS REUIRED IN OTHER FORMATS IT WILL BE YOUR REPONSIBILITY TO MAKE THESE CONVERSIONS. IF ANY DISCREPANCY OR INCONSISTENCY ARISES BETWEEN THE ELECTRONIC DATA AND THE INFORMATION ON THE HARD COPY, THE INFORMATION ON THE HARD COPY SHOULD BE USED. CONTACT THE DISTRICTS PROJECT ENGINEER TO REQUEST THESE FILES.

RELOCATE TEMPORARY IMPACT ATTENUATORS SHALL INCLUDE STORAGE AND TRASNPORTATION TO AND FROM STORAGE, WHEN THE DEVICE IS NOT NEEDED FOR A TIME, AS SHOWN ON THE STAGING PLANS. THIS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER EACH FOR IMPACT ATTENUATORS, RELOCATE OF THE TYPE SPECIFIED.

WHEN RELOCATE TEMPORARY CONCRETE BARRIER IS SPECIFIED, THE WALL SHALL BE REMOVED, STORAGE AND TRANSPORTATION TO AND FROM STORAGE, WHEN THE WALL IS NOT NEEDED FOR A TIME AS SHOWN ON THE STAGING PLANS, RELOCATED AND REINSTATED AT THE NEW LOCATION. THE REINSTALLATION REQUIREMENTS SHALL BE THE SAME AS THOSE FOR A NEW INSTALLATION. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR RELOCATE TEMPORARY CONCRETE BARRIER.

THE TEMPORARY CONCRETE BARRIER SHALL BE PINNED TO THE PAVEMENT WITH THREE(3) ANCHOR PINS PER SECTION ON THE TRAFFIC SIDE OF THE BARRIER WALL AT THE FOLLWOING LOCATIONS:

STAGE 1
LT 384+55.0 - 384+67.5
LT 396+42.5 - 396+55.0
STAGE 2
RT 384+55.0 - 384+67.5
RT 396+42.5 - 396+55.0

THE BARRIER UNIT AT EACH END SHALL BE ANCHORED AS SPECIFIED IN ARTICLE 704.04. ALL ANCHORING AND PINNING HOLES SHALL BE CORE DRILLED.

ILLINOIS ROUTE 26:ALL CORE HOLES FROM THE TYPE III BARRICADES SHALL BE FILLED IMEADIATELY UPON THE START OF THE PROJECT. ANY AND ALL WATER SHALL BE REMOVED FROM THE CORE HOLES PRIOR TO FILLING. ALL CORE HOLES SHALL BE FILLED WITH A RAPID HARDENING MORTAR OR CONCRETE WHICH SHALL BE MIXED IN A SEPERATE CONTAINAR PRIOR TO PLACEMENT IN THE HOLE. ANY DEPRESSIONS IN THE SURFACE OF THE FILLED CORE HOLES GREATER THAN 1/4 IN. (6mm) AT THE TIME OF FINAL INSPECTION WILL REQUIRE REMOVAL OF THE FILL MATERIAL TO THE DEPTH OF THE PAVEMENT SURFACE.

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WILLETT HOFMANN & ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
830EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-000918

USER NAME = greg	DESIGNED - LGN	REVISED -
	DRAWN - GBG	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - GFS	REVISED -
PLOT DATE = 7/25/2019	DATE - 7/24/19	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HIGHWAY STANDARDS AND GENERAL NOTES

SCALE N/A | SHEET 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	(102BR)BDR	STEPHENSON	21	02
		CONTRACT NO. 64N75		
	ILLINOIS	FED. AID PROJECT		

CONSTRUCTION CODE: 0013 80% FED 20% STATE URBAN

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
40600295	POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)	POUND	2,542
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	435
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	900
40603540	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	652
50102400	CONCRETE REMOVAL	CU YD	17.2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	21
50300300	PROTECTIVE COAT	SQ YD	65
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2,430
50800515	BAR SPLICERS	EACH	20
52000110	PREFORMED JOINT STRIP SEAL	FOOT	187
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	2
67100100	MOBILIZATION	L SUM	1
70107025	CHANGEABLE MESSAGE SIGN (CAL DAY)	CAL DA	56
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	96

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	20,779
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	1,500
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1,500
	70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
	70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	144
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	13,677
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1,813
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1,920
	X0326331	CLEANING AND PAINTING BEARINGS	EACH	28
	X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	6,121
	X0931400	INLET BOXES TO BE ADJUSTED (SPECIAL)	EACH	5
	X5810100	WATERPROOFING MEMBRANE SYSTEM (SPECIAL)	SQ YD	4,244.5
	X7010214	TRAFFIC CONTROL AND PROTECTION, STANDARD 701431 (SPECIAL)	EACH	1

* SPECIALITY ITEM

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WILLETT HOFMANN & ASSOCIATES, INC.

USER NAME = luken	DESIGNED - LGN	REVISED -	
	DRAWN - GBG	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - GFS	REVISED -	
PLOT DATE = 8/6/2019	DATE - 7/24/19	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE N/A | SHEET 1 OF 2 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	(102BR)BDR	STEPHENSON	21	03
		CONTRACT NO. 64N75		
	ILLINOIS FED. AID PROJECT			

REV. 11/19/19

80% FED
CONSTRUCTION CODE: 0013 20% STATE URBAN

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
	X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	6,983
*	X7830070	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	4,336
*	X7830074	GROOVING FOR RECESSED PAVEMENT MARKING 7"	FOOT	390
*	X7830078	GROOVING FOR RECESSED PAVEMENT MARKING 13"	FOOT	574
	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	12
	Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	30
	Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	170
	Z0024477	TUBULAR MARKER MAINTENANCE	EACH	35
	Z0043800	PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR	SQ FT	17

CODE NO.	ITEM	UNIT	TOTAL QUANTITY

* SPECIALITY ITEM

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WILLETT HOFMANN & ASSOCIATES INC

USER NAME = greg	DESIGNED - LGN	REVISED -	
	DRAWN - GBG	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - GFS	REVISED -	
PLOT DATE = 7/29/2019	DATE - 7/24/19	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE N/A | SHEET 2 OF 2 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	(102BR)BDR	STEPHENSON	21	04
		CONTRACT NO. 64N75		
	ILLINOIS FED. AID PROJECT			

REV. 11/19/19

SCHEDULE OF QUANTITIES

40600295 POLYMERIZED BITUMINOUS MATERIAL (TACK COAT)

STATION	POUND	REMARKS
I-26		
386+33.3 - 388+08.3	394	EXISTING SURFACE
386+33.3 - 388+08.3	394	LEVELING BINDER
388+08.3 - 392+37.7	966	BRIDGE DECK
392+37.7 - 394+12.7	394	EXISTING SURFACE
392+37.7 - 394+12.7	394	LEVELING BINDER
PROJECT TOTAL	2,542	

40600625 LEVELING BINDER (MACHINE METHOD) N50

STATION	TON	REMARKS
I-26		
386+33.3 - 388+08.3	98	DEPTH = 1"
388+08.3 - 392+37.7	239	DEPTH = 1" (BRIDGE DECK)
392+37.7 - 394+12.7	98	DEPTH = 1"
PROJECT TOTAL	435	

40600982 HOT-MIX ASPHALT SURFACE REMOVAL BUTT JOINT

STATION	SQ YD	REMARKS
I-26		
386+33.3 - 388+08.3	450	SOUTH OF BRIDGE (90FT X 45FT)
392+37.7 - 394+12.7	450	NORTH OF BRIDGE (90FT X 45FT)
PROJECT TOTAL	900	

40603540 POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D" N70

STATION	TON	REMARKS
I-26		
386+33.3 - 388+08.3	147	DEPTH = 1 1/2"
388+08.3 - 392+37.7	358	DEPTH = 1 1/2" (BRIDGE DECK)
392+37.7 - 394+12.7	147	DEPTH = 1 1/2"
PROJECT TOTAL	652	

70107025 CHANGEABLE MESSAGE SIGN (CAL DAY)

STATION	CAL DAY	REMARKS
I-26		
IL ROUTE 26	56	2 CHANGEABLE MESSAGE SIGNS
PROJECT TOTAL	56	

70300210* TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS

STATION	SQ FT	REMARKS
I-26		
LT 382+22	16	LT ARROW
RT 407+85	16	LT ARROW
RT 405+64	16	LT ARROW
RT 406+74	16	LT ARROW
RT 407+85	16	LT ARROW
LT 409+12	16	LT ARROW
PROJECT TOTAL	96	

70300220* TEMPORARY PAVEMENT MARKING - LINE 4"

STATION	FOOT	REMARKS
I-26		
LT & RT 377+40.0 - 408+19.9	5,708	STAGE 1
LT & RT 381+80.9 - 417+00.0	3,712	STAGE 1
LT 407+41.3 - 408+26.7	102	STAGE 1
LT 408+59.3 - 409+57.3	137	STAGE 1
LT & RT 375+40.0 - 417+00.0	7,186	STAGE 2
LT & RT 375+40.0 - 410+10.0	3,759	STAGE 2
RT 380+49.3 - 381+22.1	81	STAGE 2
RT 381+78.4 - 382+56.5	94	STAGE 2
PROJECT TOTAL	20,779	

70400100 TEMPORARY CONCRETE BARRIER

STATION	FOOT	REMARKS
I-26		
LT 383+58.6 - 398+55.0	1,500	STAGE 1
PROJECT TOTAL	1,500	

70400200 RELOCATE TEMPORARY CONCRETE BARRIER

STATION	FOOT	REMARKS
I-26		
RT 383+61.7 - 398+59.3	1,500	STAGE 2
PROJECT TOTAL	1,500	

70600250* IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3

STATION	EACH	REMARKS
I-26		
LT 383+58.6	1	STAGE 1
LT 398+55.0	1	STAGE 1
PROJECT TOTAL	2	

70600350 IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3

STATION	EACH	REMARKS
I-26		
RT 383+61.7	1	STAGE 2
RT 398+59.3	1	STAGE 2
PROJECT TOTAL	2	

78000100 THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS

STATION	SQ FT	REMARKS
I-26		
LT 382+22	16	LT ARROW
LT 382+93	16	LT ARROW
LT 383+65	16	LT ARROW
RT 405+64	16	LT ARROW
RT 406+74	16	LT ARROW
RT 407+85	16	LT ARROW
LT 409+12	16	LT ARROW
LT 410+33	16	LT ARROW
LT 411+50	16	LT ARROW
PROJECT TOTAL	144	

78000200 THERMOPLASTIC PAVEMENT MARKING LINE - LINE 4"

STATION	FOOT	REMARKS
I-26		
LT 381+98.6 - 383+89.7	191	SOLID
LT & RT 375+40.0 - 408+10.6	11,658	DOUBLE
RT 405+40.2 - 408+10.6	270	SOLID
LT & RT 386+33.3 - 394+12.7	1,558	EDGE
PROJECT TOTAL	13,677	

78000400 THEMOPLASTIC PAVEMENT MARKING LINE - LINE 6"

STATION	FOOT	REMARKS
I-26		
LT 377+19.3 - 417+00.0	995	SKIP DASH
RT 375+40.0 - 408+10.6	818	SKIP DASH
PROJECT TOTAL	1,813	

78000600 THERMOPLASTIC PAVEMENT MARKING LINE - LINE 12"

STATION	FOOT	REMARKS
I-26		
LT & RT 382+00 - 408+11	1,920	SOLID
PROJECT TOTAL	1,920	

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WILLETT HOFMANN & ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815.284.3381 DESIGN FIRM #184-000918

USER NAME = luken	DESIGNED - LGN	REVISED -	
	DRAWN - GBG	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - GFS	REVISED -	
PLOT DATE = 8/6/2019	DATE - 7/24/19	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE N/A | SHEET 1 OF 2 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	(102BR)BDR	STEPHENSON	21	05
		CONTRACT NO. 64N75		
	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

X0327980* PAVEMENT MARKING REMOVAL - WATER BLASTING

STATION	SQ FT	REMARKS
I-26		
LT 381+80.8 - 417+00.0	290	4" SKIP (STAGE 1)
LT 381+98.6 - 383+89.7	63	4" SOLID (STAGE 1)
LT & RT 381+98.6 - 408+10.6	3,456	4" DOUBLE (STAGE 1)
RT 405+40.2 - 408+10.6	89	4" SOLID (STAGE 1)
RT 377+40.0 - 408+10.6	253	4" SKIP (STAGE 1)
LT 377+19.3 - 383+80.8	38	4" SKIP (STAGE 2)
LT 408+89.7 - 411+74.9	94	4" SOLID (STAGE 2)
RT 375+10.0 - 381+30.9	391	4" DOUBLE (STAGE 2)
RT 375+40.0 - 377+40.0	17	4" SKIP (STAGE 2)
LT & RT 382+00.0 - 408+11.0	1,286	8" SOLID (STAGE 1)
LT 382+22.0	16	LT ARROW (STAGE 1)
LT 382+93.0	16	LT ARROW (STAGE 1)
LT 383+65.0	16	LT ARROW (STAGE 1)
RT 405+64.0	16	LT ARROW (STAGE 1)
RT 406+74.0	16	LT ARROW (STAGE 1)
RT 407+85.0	16	LT ARROW (STAGE 1)
LT 409+12.0	16	LT ARROW (STAGE 1)
LT 410+33.0	16	LT ARROW (STAGE 1)
LT 411+50.0	16	LT ARROW (STAGE 1)
PROJECT TOTAL	6,121	

X0931400* INLET BOXES TO BE ADJUSTED (SPECIAL)

STATION	EACH	REMARKS
I-26		
387+76.37	1	STD 542546 (DOUBLE)
LT 387+87.37	1	STD 610001 (TYPE F)
RT 387+87.37	1	STD 610001 (TYPE F)
LT 392+58.71	1	STD 610001 (TYPE F)
RT 392+58.71	1	STD 610001 (TYPE F)
PROJECT TOTAL	5	

X7010214* TRAFFIC CONTROL AND PROTECTION, STANDARD 701431 (SPECIAL)

STATION	EACH	REMARKS
I-26		
IL ROUTE 26	1	
PROJECT TOTAL	1	

X7030005* TEMPORARY PAVEMENT MARKING REMOVAL

STATION	SQ FT	REMARKS
I-26		
LT & RT 377+40.0 - 408+19.9	1,916	4" LINE (STAGE 1)
LT & RT 381+80.9 - 417+00.0	1,225	4" LINE (STAGE 1)
LT 407+41.3 - 408+26.7	34	4" LINE (STAGE 1)
LT 408+59.3 - 409+57.3	45	4" LINE (STAGE 1)
LT & RT 375+40.0 - 417+00.0	2,371	4" LINE (STAGE 2)
LT & RT 375+40.0 - 410+10.0	1,240	4" LINE (STAGE 2)
RT 380+49.3 - 381+22.1	27	4" LINE (STAGE 2)
RT 381+78.4 - 382+56.5	31	4" LINE (STAGE 2)
TEMP LEFT TURN ARROW	94	STAGE 1 & 2
PROJECT TOTAL	6,983	

X7830070* GROOVING FOR RECESSED PAVEMENT MARKING 5"

STATION	FOOT	REMARKS
I-26		
LT & RT 386+33.3 - 394+12.7	2,778	DOUBLE
LT & RT 386+33.3 - 394+12.7	1,558	EDGE
PROJECT TOTAL	4,336	

X7830074* GROOVING FOR RECESSED PAVEMENT MARKING 7"

STATION	FOOT	REMARKS
I-26		
LT 386+33.3 - 394+12.7	195	SKIP DASH
RT 386+33.3 - 394+12.7	195	SKIP DASH
PROJECT TOTAL	390	

X7830078* GROOVING FOR RECESSED PAVEMENT MARKING 13"

STATION	FOOT	REMARKS
I-26		
LT & RT 386+33.3 - 394+12.7	574	SOLID
PROJECT TOTAL	574	

Z0024477* TUBULAR MARKER MAINTENANCE

STATION	EACH	REMARKS
I-26		
RT 387+75.0 - 393+50.0	17	STAGE 1
LT 375+75.0 - 392+75.0	18	STAGE 2
PROJECT TOTAL	35	

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WILLETT HOFMANN & ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
909EAST 2ND STREET, DIXON, IL 61021-0367
T. 815-284-3381 DESIGN FIRM: #184-000918

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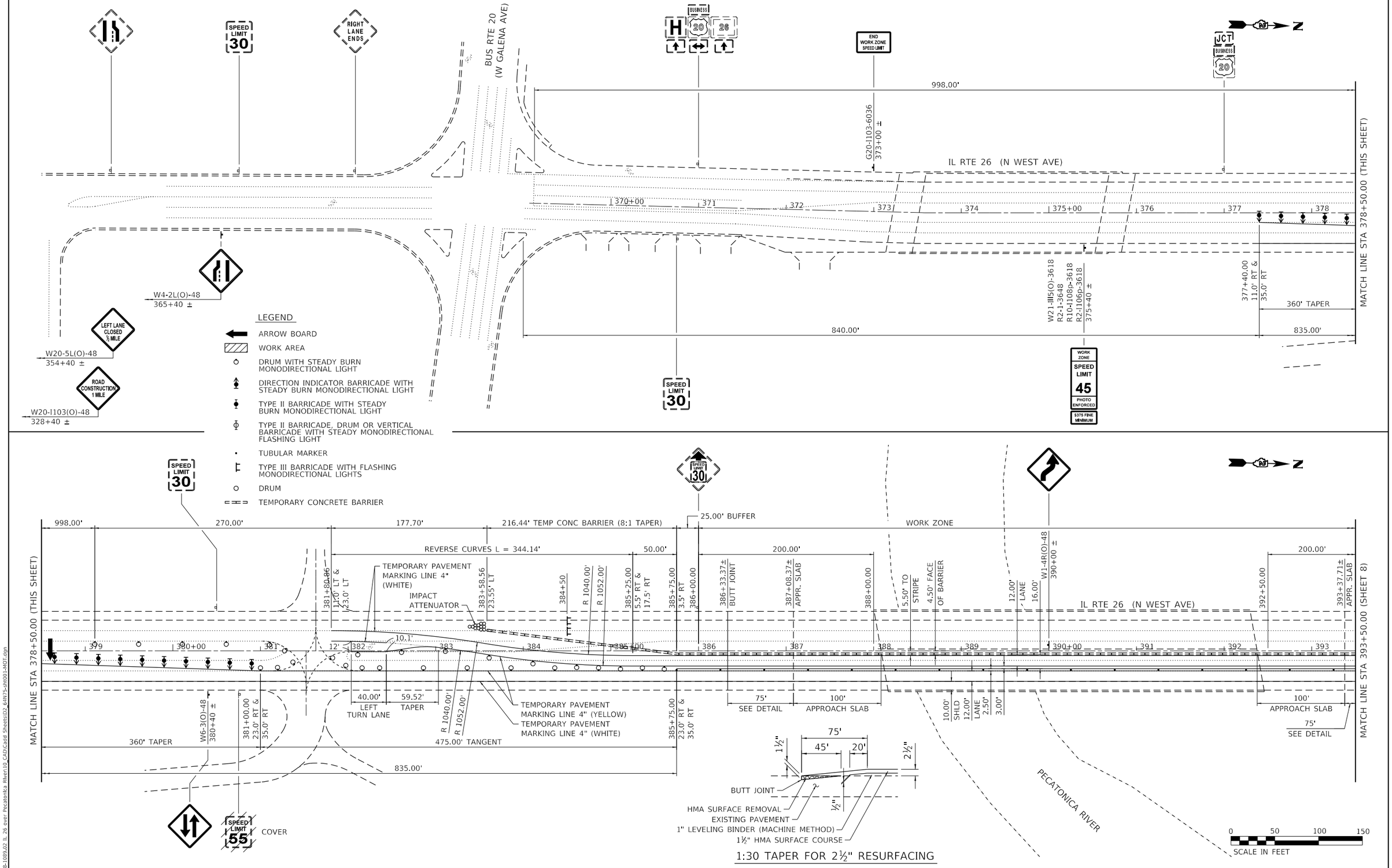
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE N/A | SHEET 2 OF 2 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
316	(102BR)BDR	STEPHENSON	21	06
		CONTRACT NO. 64N75		
	ILLINOIS FED. AID PROJECT			



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Kaskaskia Engineering Group, LLC
200 E. Main St., Suite 100, Belleville, Illinois 62220, 618.233.5077 phone, 618.233.5977 fax, www.kaskaskiaeng.com
PROFESSIONAL REGISTRATIONS: Illinois Professional Design Firm; Professional Engineering Group
LICENSE NO.: 184.005753; 20-3680586

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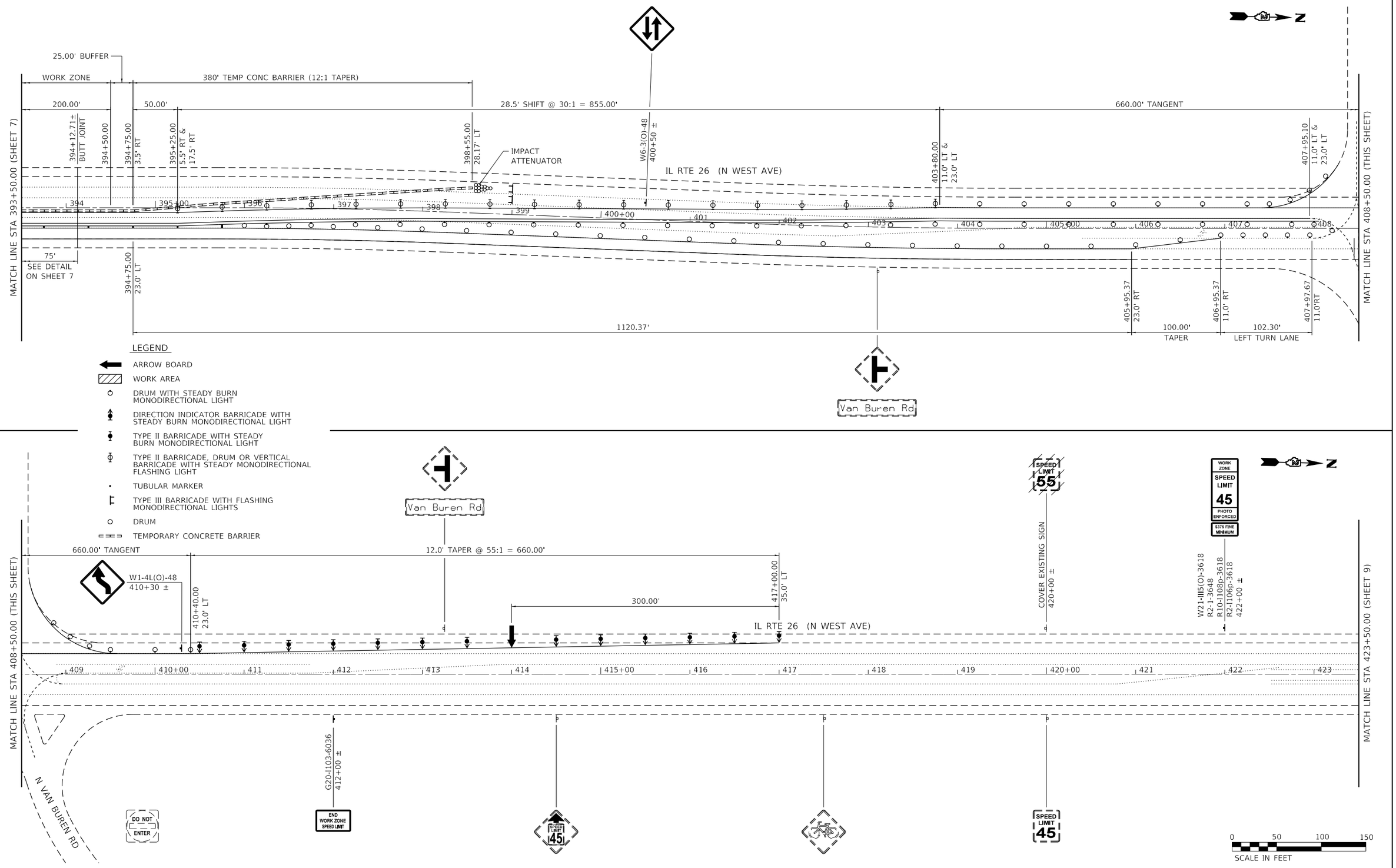
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 26 OVER PECATONICA RIVER
STAGE 1

SCALE: 1"=50' | SHEET 1 OF 6 SHEETS | STA. 369+06.78 TO STA. 393+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
38	(102BR)BDR	STEPHENSON	21	7
		CONTRACT NO. 64N75		
	ILLINOIS	FED. AID PROJECT		



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Kaskaskia Engineering Group, LLC 208 E. Main St., Suite 100, Belleville, Illinois 62220 618.233.5077 phone 618.233.5977 fax www.kaskaskiaeng.com PROFESSIONAL REGISTRATIONS Illinois Professional Design Firm 184.004773 Professional Engineering Group 20-5880086	USER NAME = rjo	DESIGNED - RJO	REVISED -
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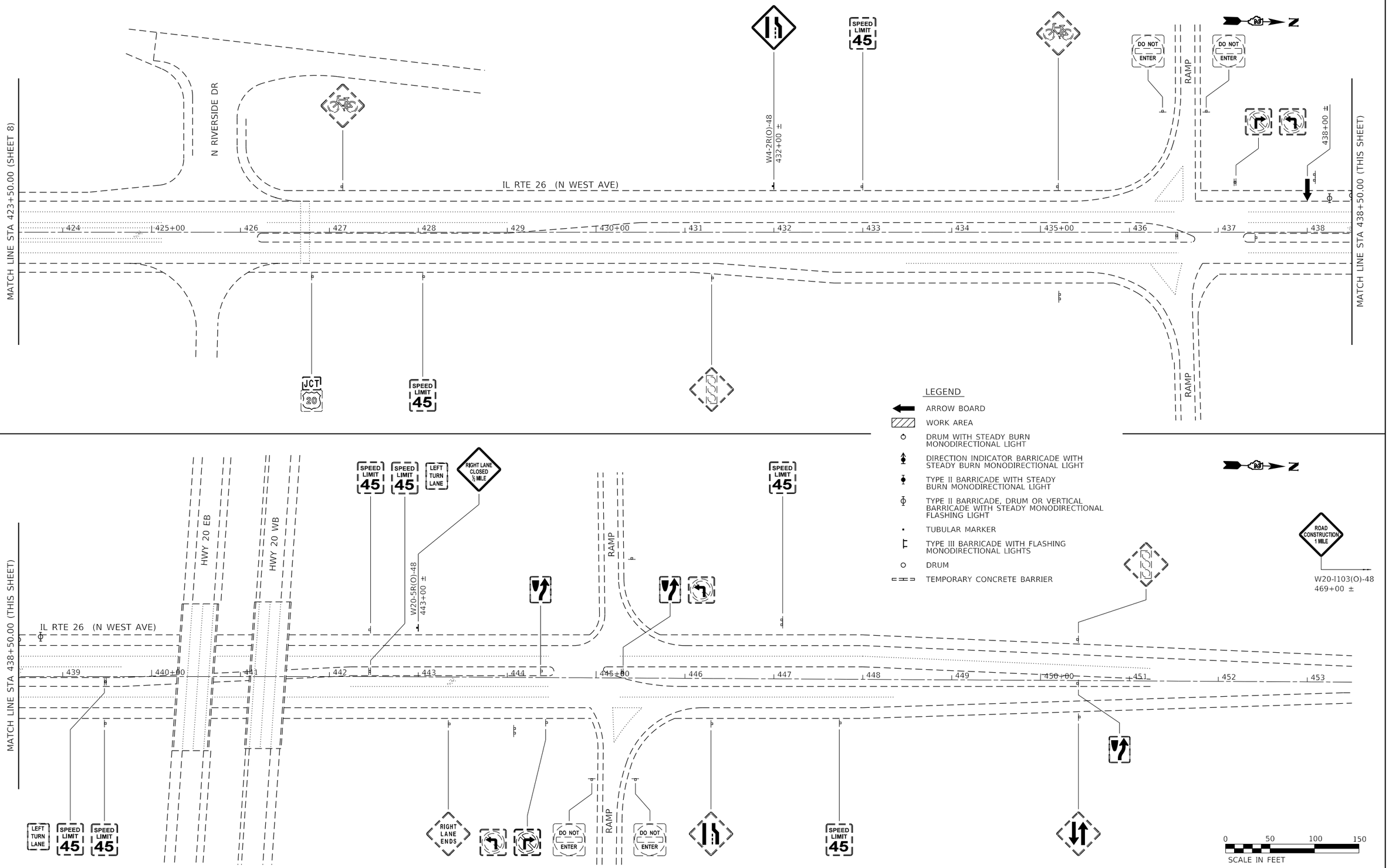
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 26 OVER PECATONICA RIVER
STAGE 1

SCALE: 1"=50' | SHEET 2 OF 6 SHEETS | STA. 393+50.00 TO STA. 423+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
38	(102BR)BDR	STEPHENSON	21	8
		CONTRACT NO. 64N75		
		ILLINOIS	FED. AID PROJECT	



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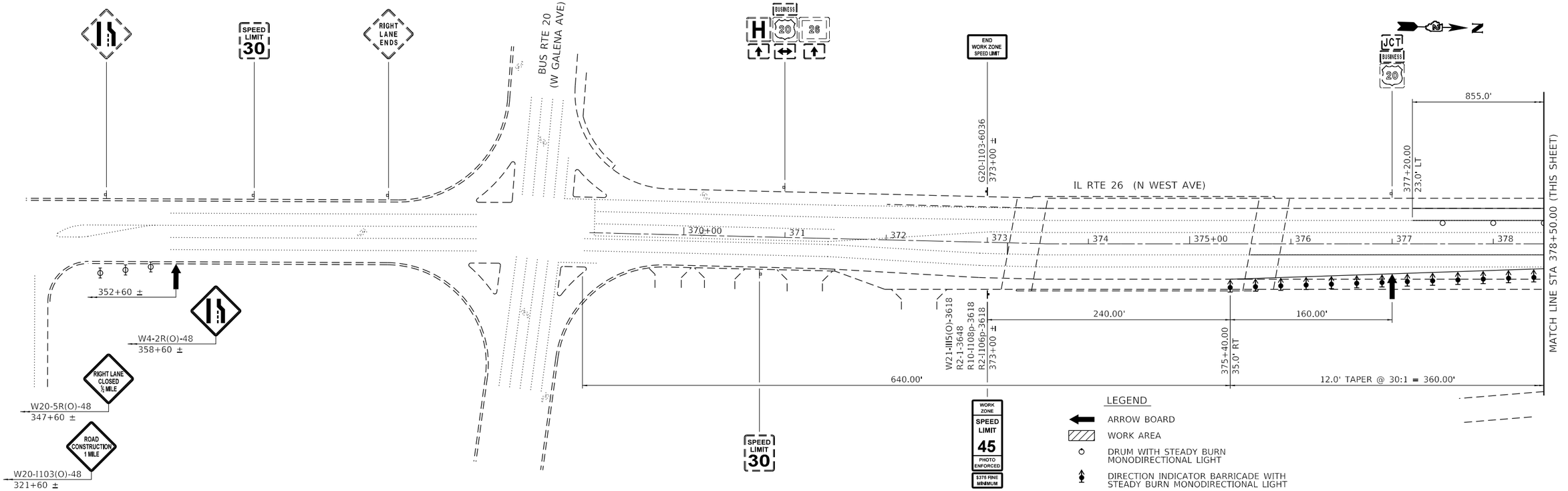
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 26 OVER PECATONICA RIVER
STAGE 1

SCALE: 1"=50' | SHEET 3 OF 6 SHEETS | STA. 423+50.00 TO STA. 453+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
38	(102BR)BDR	STEPHENSON	21	9
		CONTRACT NO. 64N75		
		ILLINOIS	FED. AID PROJECT	



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200 E. Main St., Suite 100, Perryville, Illinois 62275
618.233.5077 phone 618.233.5975 fax www.kaskaskiaeng.com
PROFESSIONAL REGISTRATIONS: Illinois Professional Design Firm 184.005773; Professional Engineering Group 20-5000186
LICENSE NO.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 26 OVER PECATONICA RIVER
STAGE 2

SCALE: 1"=50' | SHEET 4 OF 6 SHEETS | STA. 369+06.78 TO STA. 393+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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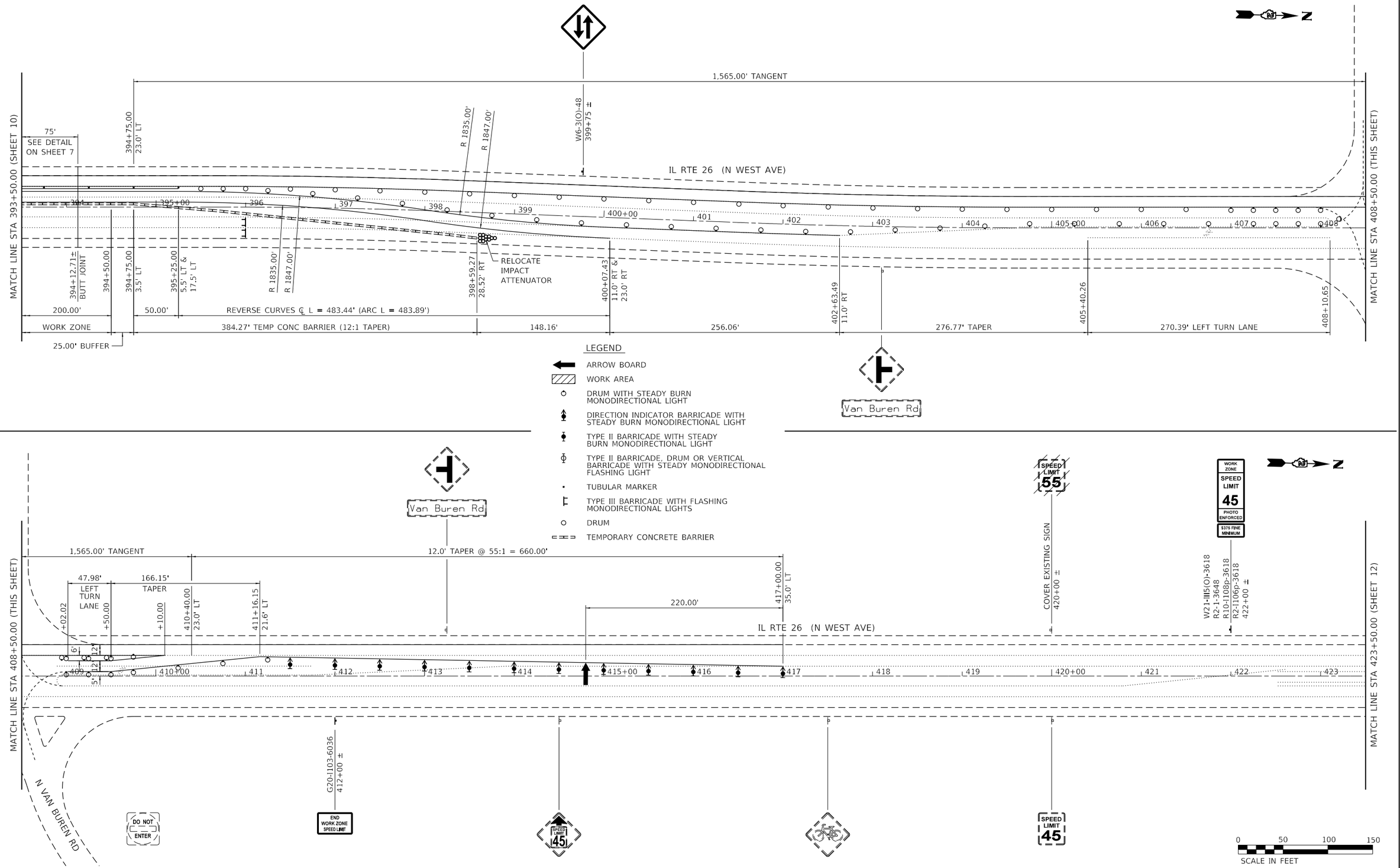
	ILLINOIS	FED. AID PROJECT		



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www.kaskaskiaeng.com
PROFESSIONAL REGISTRATIONS
Illinois Professional Design Firm
Professional Engineering Group
LICENSE NO.
184.004773
20-3680186

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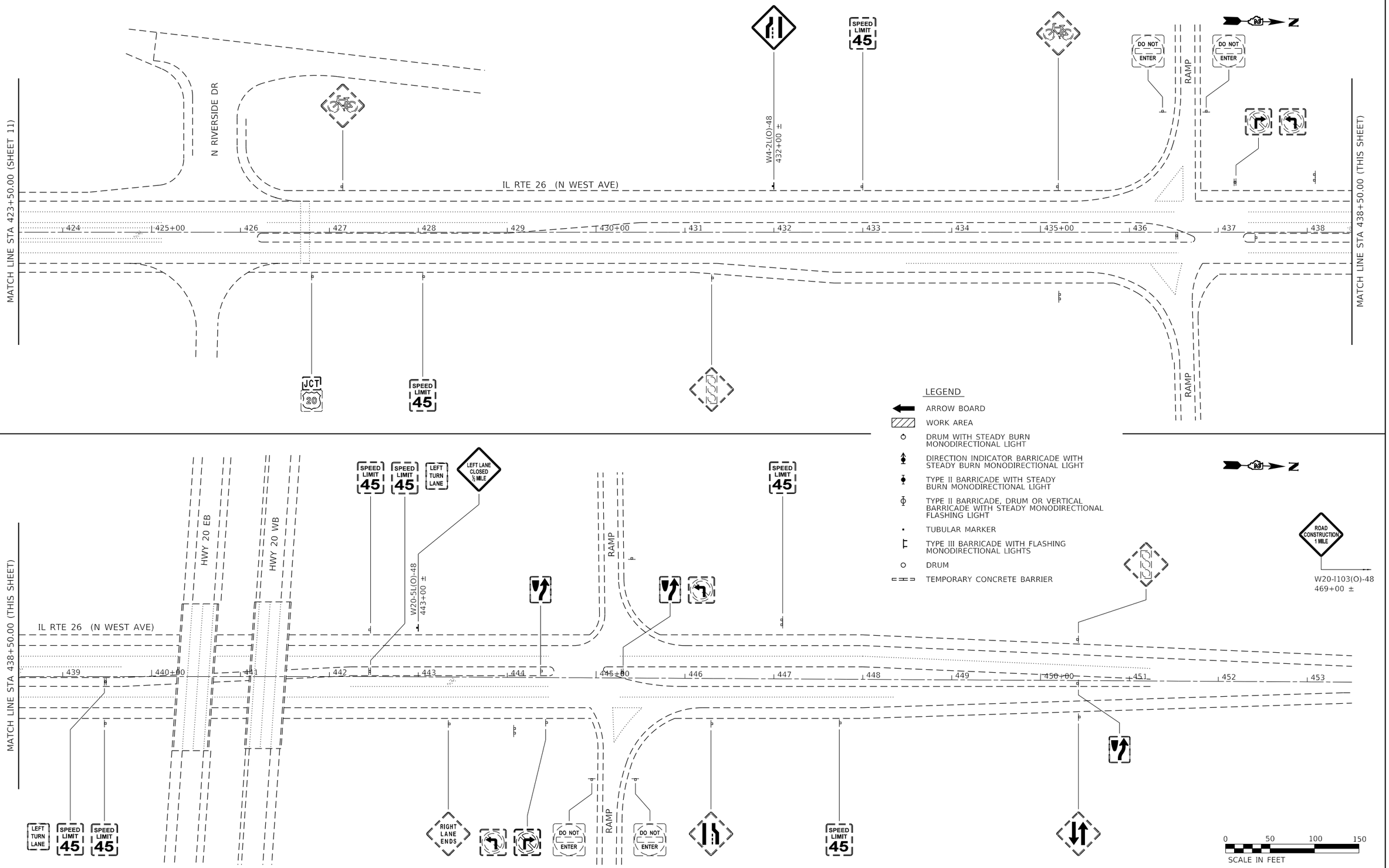
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 26 OVER PECATONICA RIVER
STAGE 2

SCALE: 1"=50' | SHEET 5 OF 6 SHEETS | STA. 393+50.00 TO STA. 423+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
38	(102BR)BDR	STEPHENSON	21	11
		CONTRACT NO. 64N75		
	ILLINOIS	FED. AID PROJECT		



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Kaskaskia Engineering Group, LLC
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618.233.5975 fax
www.kaskaskiaeng.com

USER NAME = rjo	DESIGNED - RJO	REVISED -	
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PLOT DATE = 7/24/2019	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 26 OVER PECATONICA RIVER
STAGE 2

SCALE: 1"=50' | SHEET 6 OF 6 SHEETS | STA. 423+50.00 TO STA. 453+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
38	(102BR)BDR	STEPHENSON	21	12
		CONTRACT NO. 64N75		
		ILLINOIS	FED. AID PROJECT	

Existing Structure: S.N. 089-0051, originally built in 1983, as a five-span PPC I-Beam superstructure with open abutments and solid wall piers. The back to back length = 429'-4" and the out to out width = 47'-2". In 1991 the bridge was widened in kind to a new out to out width = 93'-2" . Structure is to be repaired as detailed in these plans. Stage construction will be used to maintain one lane of traffic in each direction.

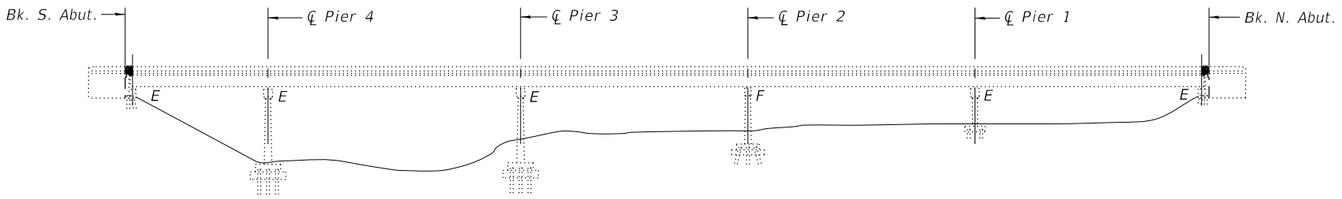
No Salvage

DESIGN SPECIFICATIONS

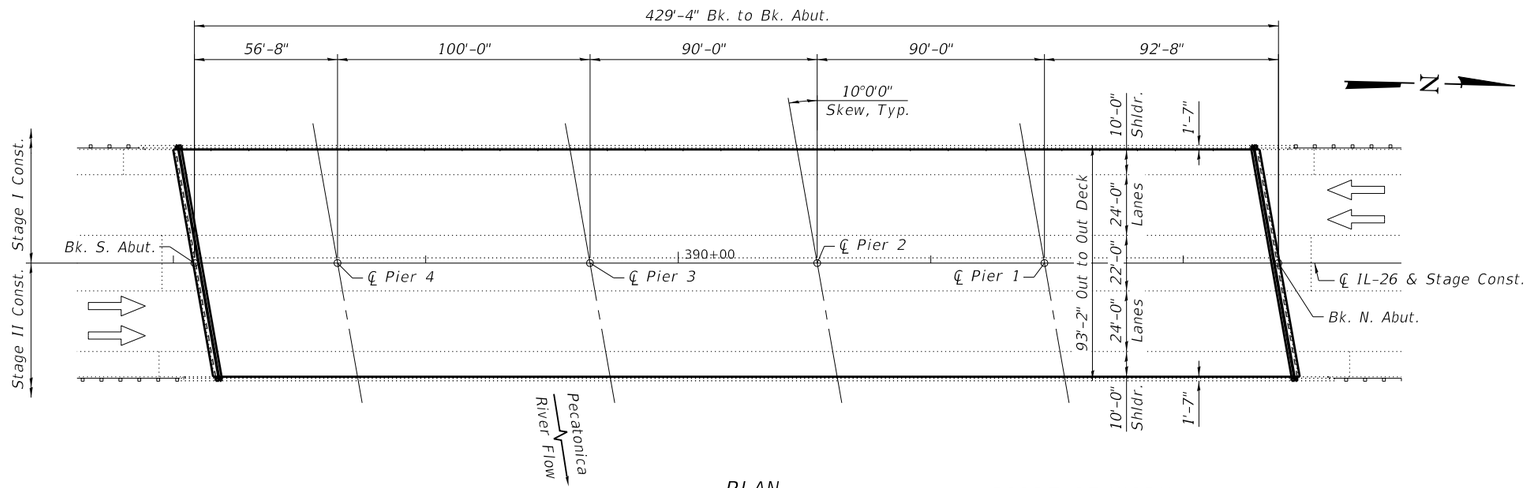
2002 AASHTO Standard Specifications for Highway Bridges - LFD

LOADING HS20-44

Existing and Proposed



ELEVATION



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Polymerized Hot-Mix Asphalt Surface Course, Mix "D", N70	Ton	596.9		596.9
Concrete Removal	Cu. Yd.	17.2		17.2
Concrete Superstructure	Cu. Yd.	21		21
Protective Coat	Sq. Yd.	65		65
Reinforcement Bars, Epoxy Coated	Pound	2,430		2,430
Bar Splicers	Each	20		20
Preformed Joint Strip Seal	Foot	187		187
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	12		12
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	30		30
Deck Slab Repair (Partial)	Sq. Yd.	170		170
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	17		17
Cleaning and Painting Bearings	Each	28		28
Waterproofing Membrane System (Special)	Sq. Yd.	4,244.5		4,244.5

GENERAL NOTES

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Protective coat shall not be applied to surfaces to which waterproofing membrane system is applied.

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

The protective coat shall be applied to the top and inside faces of the new parapets and to the new deck sections on either side of the expansion joints.

Deck Slab Repair (Full Depth Type I) is only to be used on the Stage II Construction side of the deck.

The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beams.

Joint openings shall be adjusted according to Art. 520.04 of the standard specifications when the deck is poured at an ambient temperature other than 50°F.

The deck surface at abutment joints shall have its finish tined according to Art. 420.09(e)(1) of the standard specifications. Cost included with Concrete Superstructure.

DESIGN STRESSES

FIELD UNITS (EXIST. CONST.)

f'c = 3,500 psi (Concrete Slab)
fy = 60,000 psi (Reinforcement for Slab)

PRECAST PRESTRESSED UNITS (EXIST. CONST.)

f'c = 6,000 psi
f'ci = 4,200 psi (1983 Original Const.)
f'ci = 4,800 psi (1991 Widening Const.)
f's = 270,000 psi (½" Ø Strands)
f'si = 189,000 psi (½" Ø Strands)

FIELD UNITS (NEW CONST.)

f'c = 4,000 psi (Superstructure)
fy = 60,000 psi

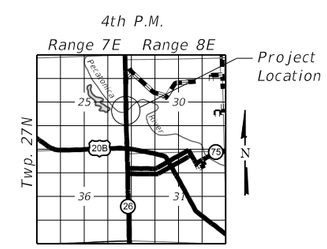
STATE OF ILLINOIS
MICHAEL D. CIMA
081-005984
SPRINGFIELD, ILL.
LICENSED STRUCTURAL ENGINEER

Michael D. Cima 7/31/2019
Michael D. Cima, Illinois S.E. 081-005984 Date
Expires 11/30/2020

SCOPE OF WORK

1. *Replace the transverse expansion joints located at the ends of the bridge deck using the shallow replacement detail.*
2. *Deck slab partial depth and full depth repairs.*
3. *Add waterproofing membrane system with 2½" HMA Overlay.*
4. *Beam repairs at PPC I-Beam ends.*
5. *Clean and paint existing bearings below transverse joints.*

INDEX OF SHEETS



LOCATION SKETCH

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 26 OVER
PECATONICA RIVER
SECTION (102BR)BDR
STEPHENSON COUNTY
STATION 390+23.08
STRUCTURE NO. 089-0051

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QUIGG ENGINEERING INC

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 089-0051
SHEET 1 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 64N75		
		ILLINOIS	FED. AID PROJECT	

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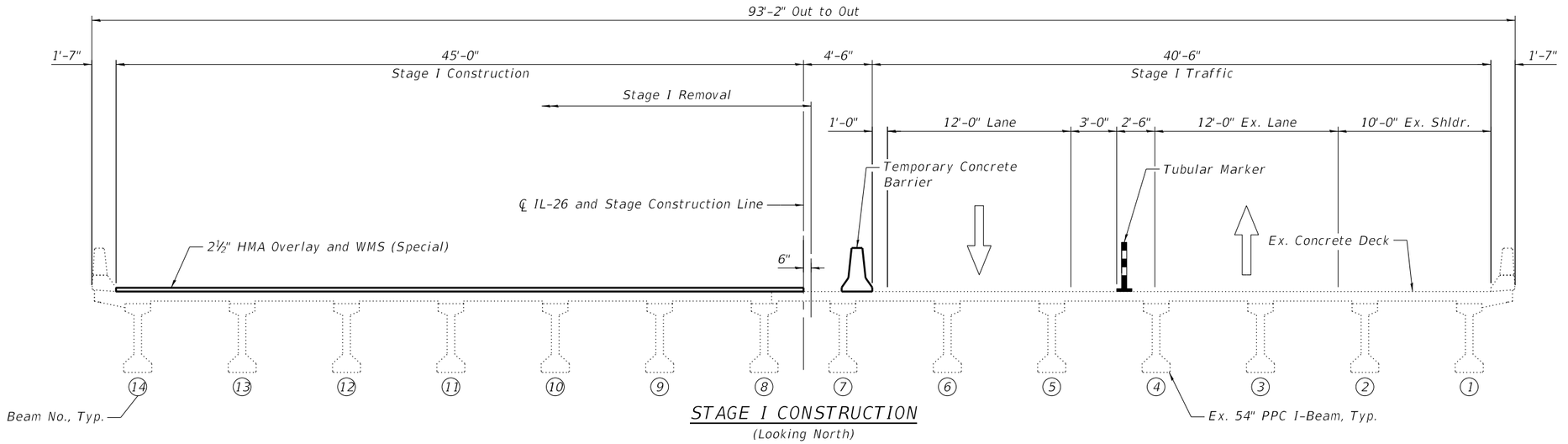
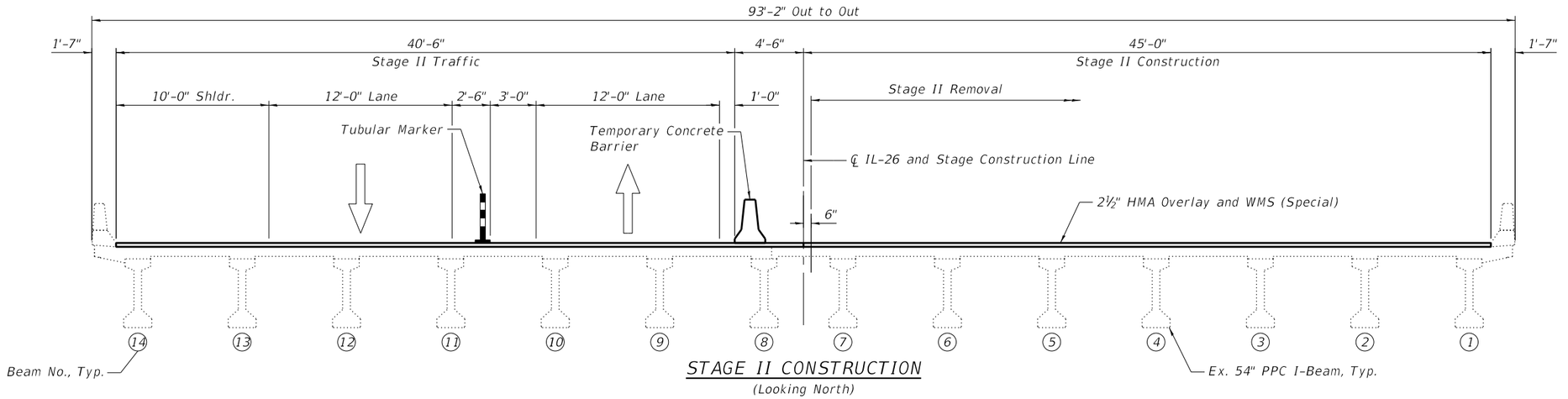


STAGE I CONSTRUCTION

(Looking North)



STAGE II CONSTRUCTION

(Looking North)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 089-0051

SHEET 2 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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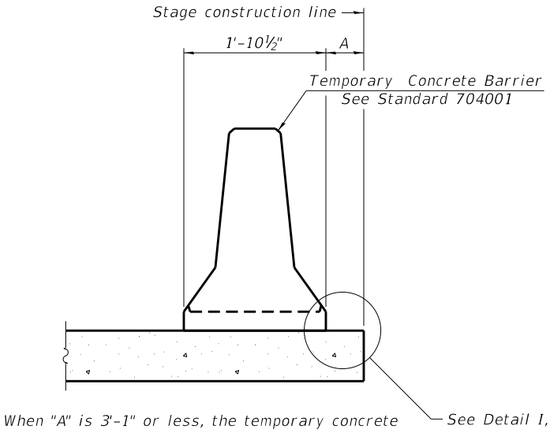
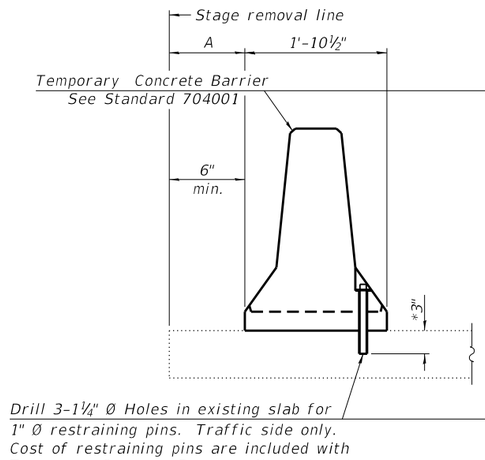
		CONTRACT NO. 64N75		
	ILLINOIS	FED. AID PROJECT		



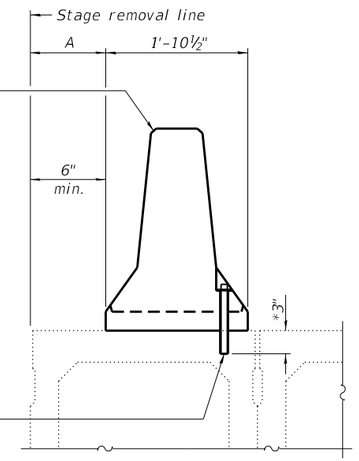
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

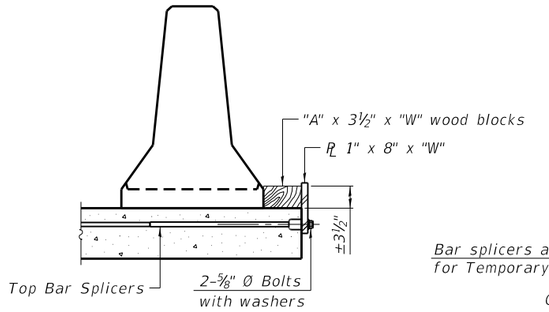
EXISTING SLAB



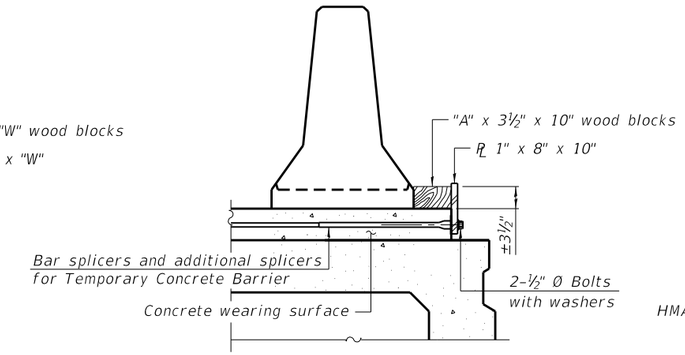
* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

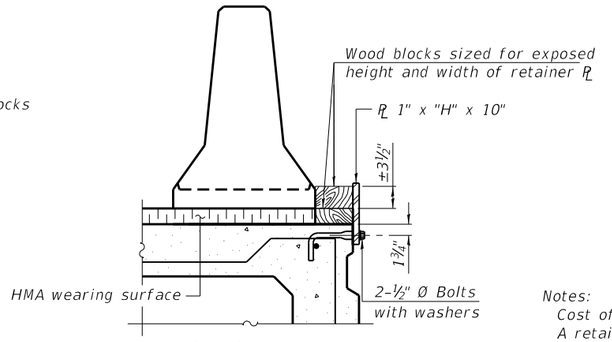
SECTIONS THRU SLAB OR DECK BEAM



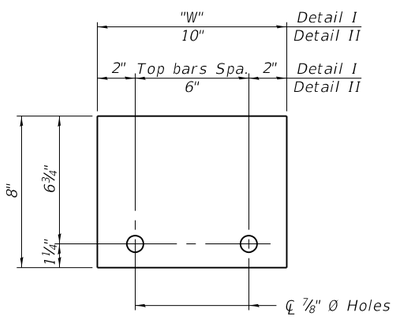
DETAIL I



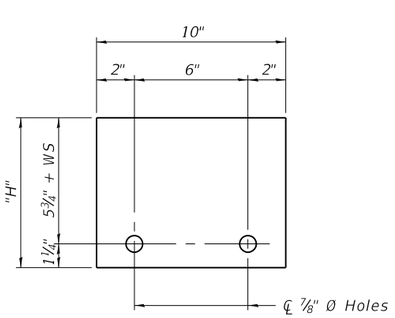
DETAIL II



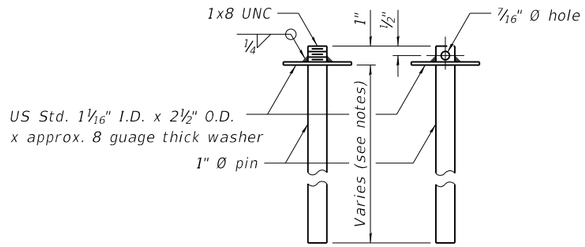
DETAIL III



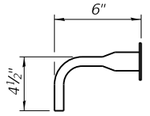
STEEL RETAINER ℄ 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER ℄ 1" x "H" x 10"
(Detail III)



RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27

8-11-2017

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 089-0051

SHEET 3 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26	(102BR)BDR	STEPHENSON	21	15
		CONTRACT NO. 64N75		
	ILLINOIS	FED. AID PROJECT		

MODEL: $MODELNAMES
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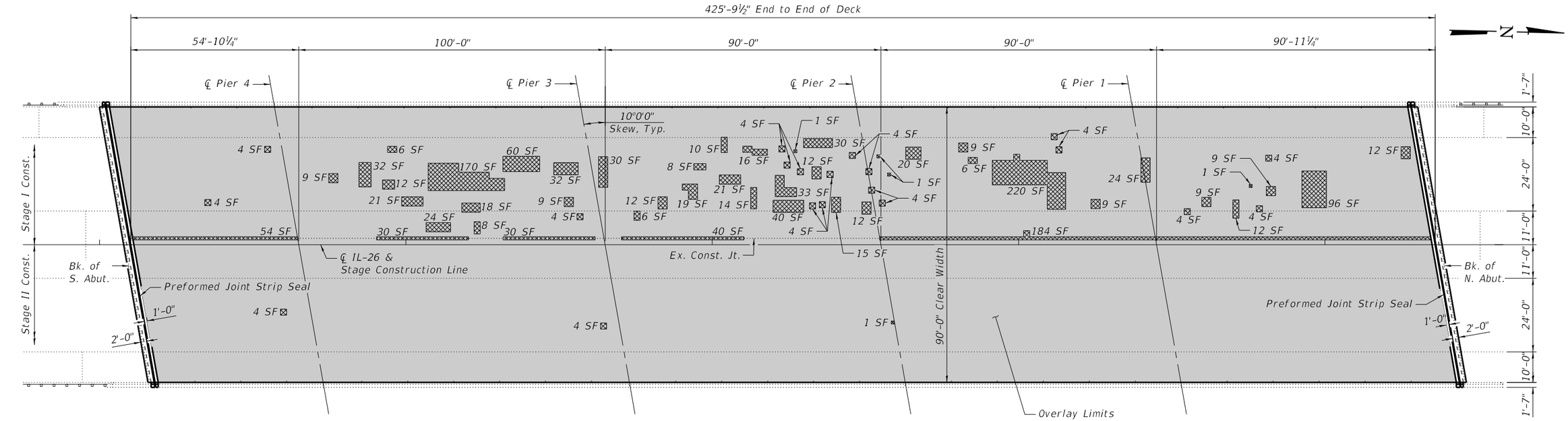
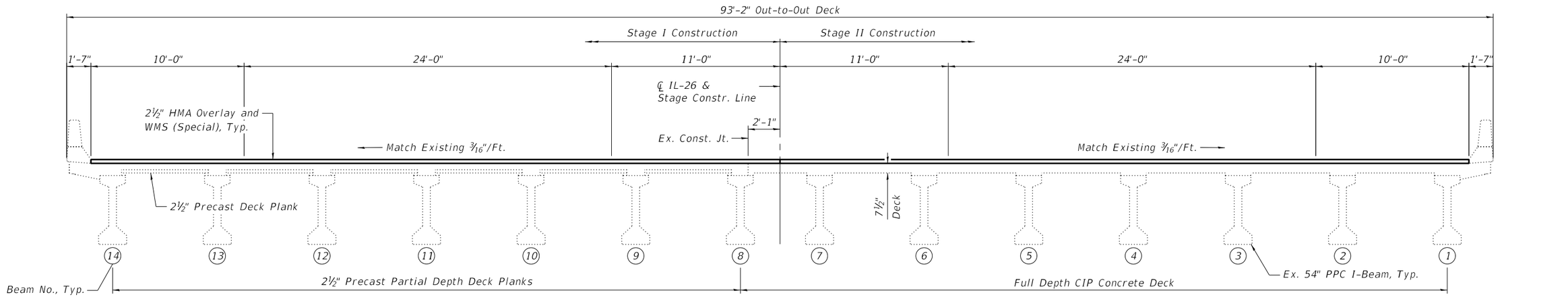
7/31/2019 5:02:46 PM



PLAN

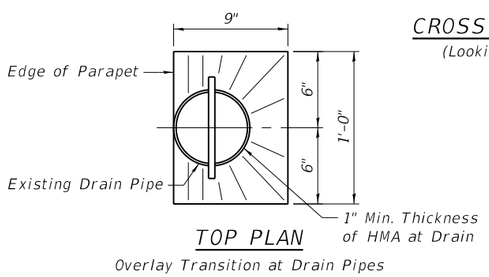
LEGEND

Partial Depth Deck Repair Area



CROSS SECTION

(Looking North)



TOP PLAN

Overlay Transition at Drain Pipes

Notes:

Overlay consist of waterproofing membrane system (special) with 2½" HMA surface layer.

Deck Slab Repair (Partial) areas are estimated, and will be field verified by the Engineer prior to patching. The Engineer shall show actual locations of deck repairs on the as-built plans.

The Contractor will take extreme care not to damage the 2½" Precast Partial Depth Deck Planks during Stage I Partial Depth Patching operations. If damaged, the precast planks will be replaced at the Contractors expense.

HMA SURFACE LAYER DESIGN

Mixture Use(s)	Surface	Level Binder
Thickness	1.5"	1"
PG	SBS PG 70-28	SBS PG 70-28
Design Air Voids	4.0% @ 70	4% @ N50
Mixture Composition	IL 9.5	IL 4.75
Friction Aggregate	D	N/A
Mixture Weight	112 lb/sy/in	N/A

BILL OF MATERIAL

Item	Unit	Total
Polymerized Hot-Mix Asphalt Surface Course, Mix "D", N70	Ton	596.9
Protective Coat	Sq. Yd.	65
Waterproofing Membrane System (Special)	Sq. Yd.	4,244.5
Deck Slab Repair (Partial)	Sq. Yd.	170
Deck Slab Repair (Full Depth, Type 1)	Sq Yd.	30

MODEL: $MODELNAMES
FILE NAME: S:\2018\18L0029 Var Ph II Bridge Rehab IDOT D2 Willett Hofmann PTB 189-181\Work Order 2 Bridge Repairs 089-0051\CADD\CADD Sheets\0890051-64N75-004-Deck Overlay.dgn
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PLOT DATE = 7/31/2019	CHECKED - MDC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE DECK REPAIR AND OVERLAY DETAILS
STRUCTURE NO. 089-0051

SHEET 4 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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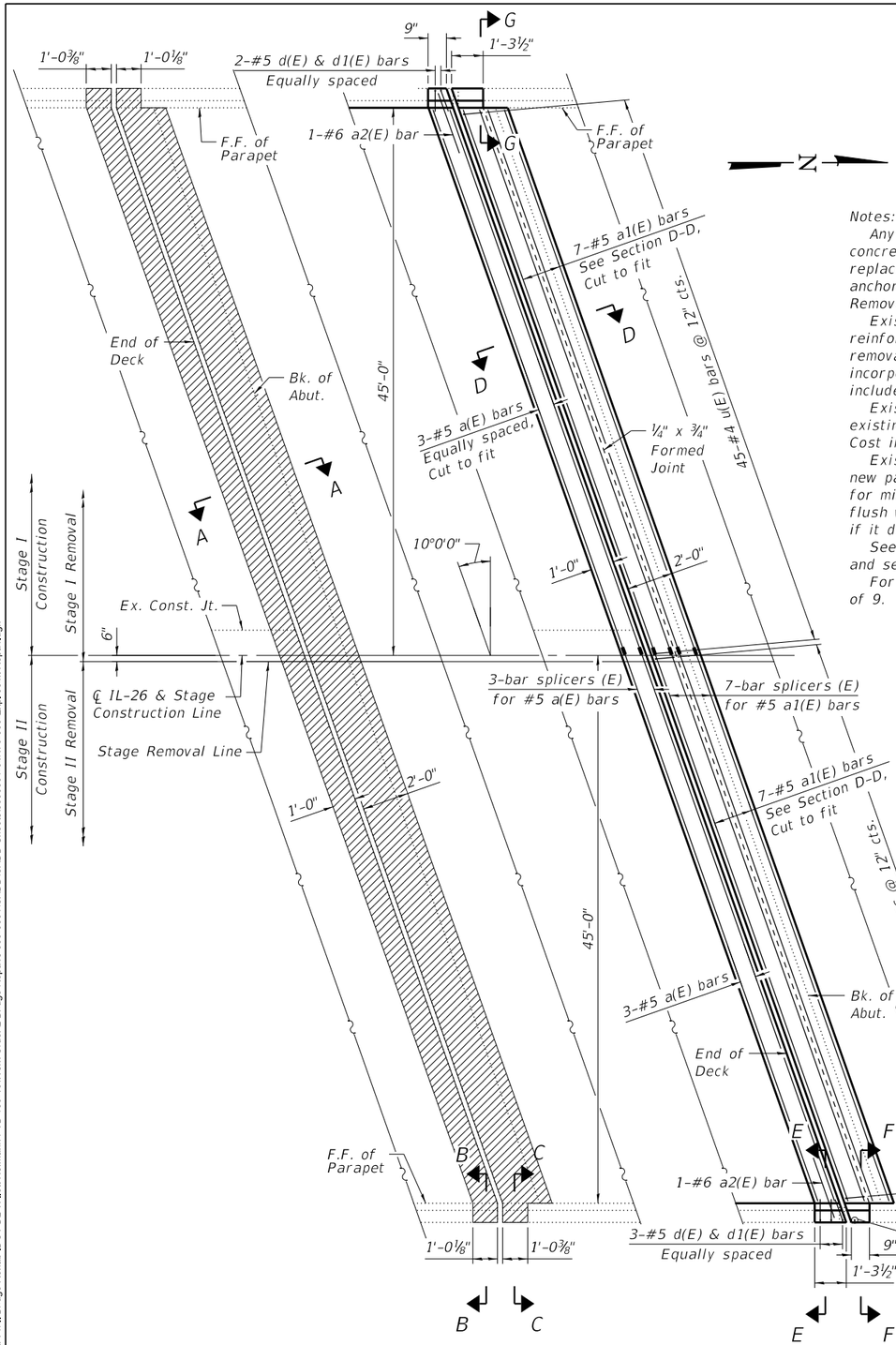
		CONTRACT NO. 64N75		
	ILLINOIS	FED. AID PROJECT		



CONCRETE REMOVAL PLAN

(North Abut. Shown, South Abut. Similar)

CONCRETE REPLACEMENT PLAN

(North Abut. Shown, South Abut. Similar)

Notes:

Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

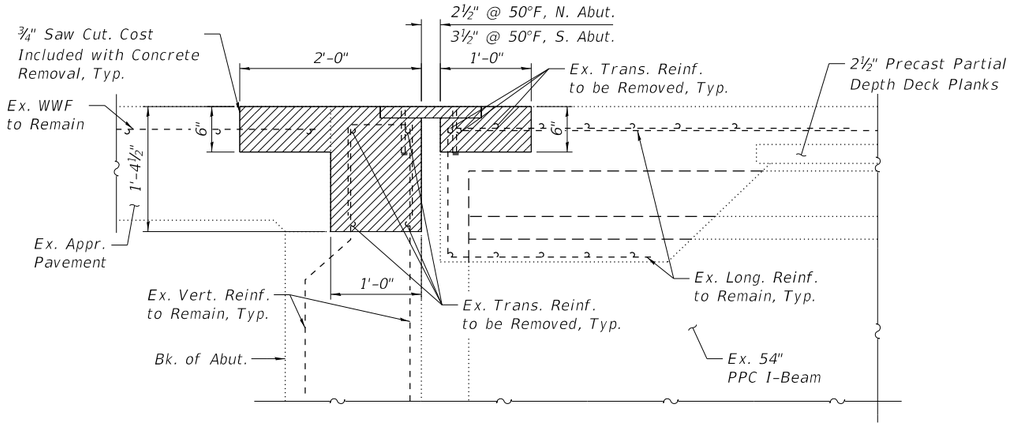
Existing transverse, longitudinal, and vertical reinforcements remaining and extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Cost included with Concrete Removal.

Existing Guardrail shall be detached from existing parapet & reattached to the new parapet. Cost included with Concrete Superstructure.

Existing reinforcement that does not fit into the new parapet configuration shall be trimmed to allow for min. concrete cover in new layout or cut, ground flush with the concrete and coated with epoxy paint if it does not fit within the new parapets.

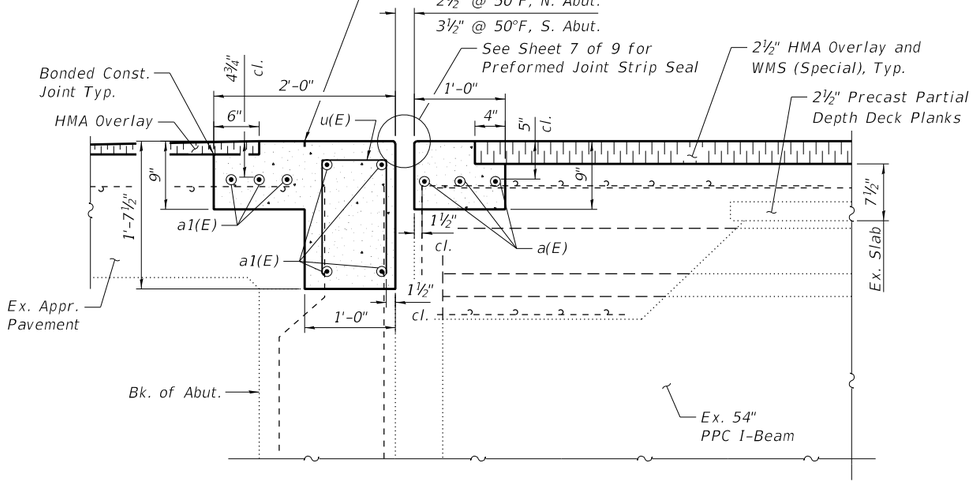
See Sheet 6 of 9 for Bill of Material, bar details and sections B-B, C-C, E-E, and F-F.

For Overlay details see cross section on sheet 4 of 9.



SECTION A-A

(Dimensions at Right Angles to Abut.)



SECTION D-D

(Dimensions at Right Angles to Abut.)

LEGEND

▨ Concrete Removal

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QUIGG ENGINEERING INC

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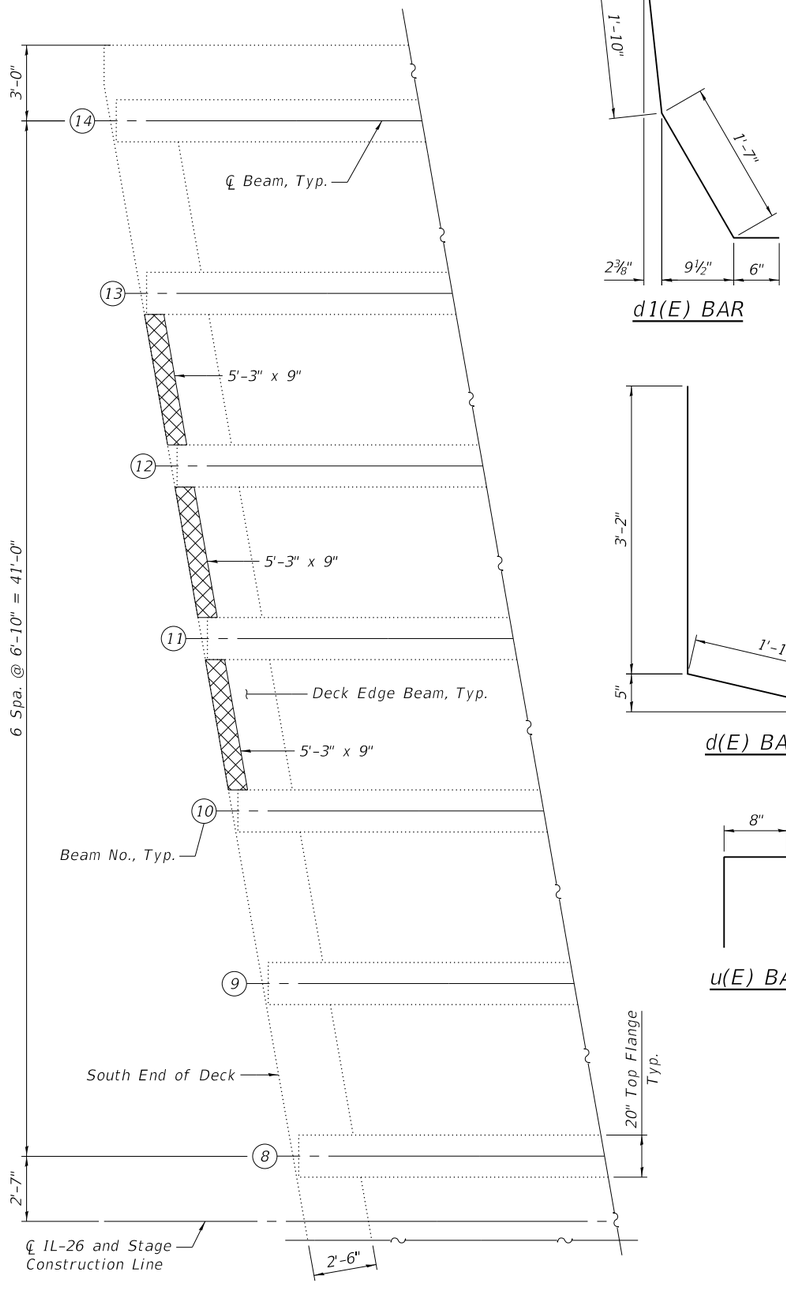
PLOT DATE = 7/31/2019	CHECKED - MDC	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26	(102BR)BDR	STEPHENSON	21	17
		CONTRACT NO. 64N75		
	ILLINOIS	FED. AID PROJECT		



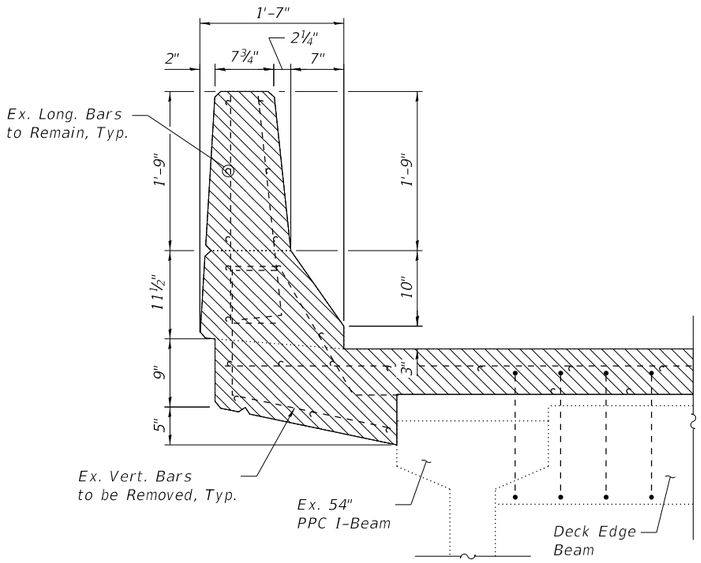
PLAN (BOTTOM OF DECK)

(S. Abut. End Shown)

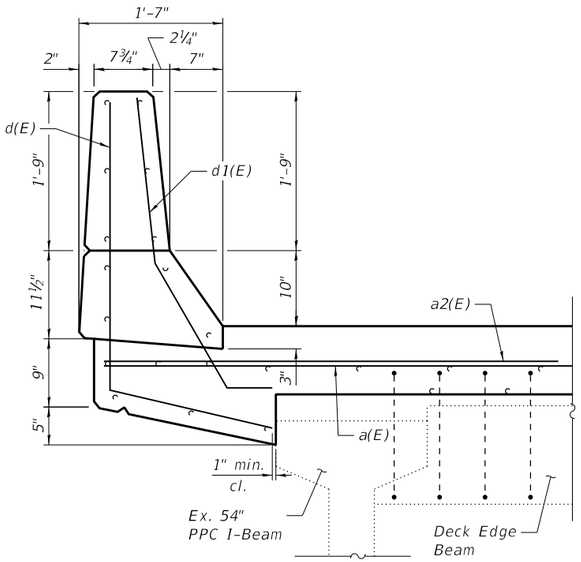
d1(E) BAR

d(E) BAR

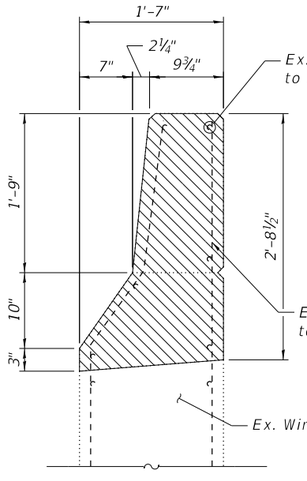
u(E) BAR



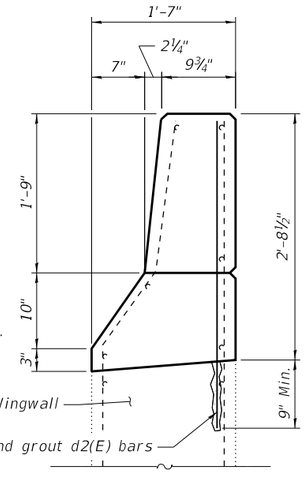
SECTION B-B



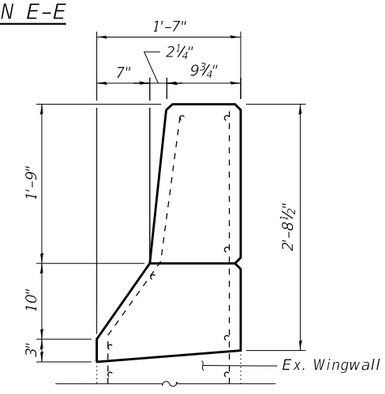
SECTION E-E



SECTION C-C



SECTION F-F



SECTION G-G

LEGEND

Concrete Removal

Repair Area

Note:
Dimensions given for repair areas are length by width.
See sheet 5 of 9 for locations of section cuts.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	12	#5	47'-0"	
a1(E)	28	#5	45'-6"	
a2(E)	4	#6	5'-0"	
d(E)	10	#5	5'-0"	⌋
d1(E)	10	#5	3'-11"	⌋
d2(E)	2	#5	3'-5"	
u(E)	180	#4	3'-2"	⊓

Item	Unit	Total
Concrete Removal	Cu. Yd.	17.2
Concrete Superstructure	Cu. Yd.	21
Reinforcement Bars, Epoxy Coated	Pound	2,430
Bar Splicers	Each	20
Structural Repair on Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	12

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USER NAME = cstokes	DESIGNED - CFS	REVISED -
0890051-64N75-006-Exp. Jt and Repair.dgn	CHECKED - KFO	REVISED -
PLOT SCALE = 0:2.0000 ':' / in.	DRAWN - CFS/KFO	REVISED -
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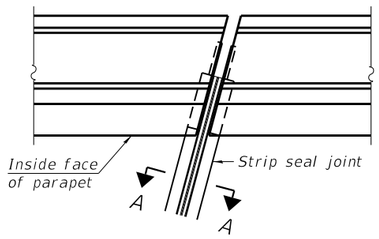
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

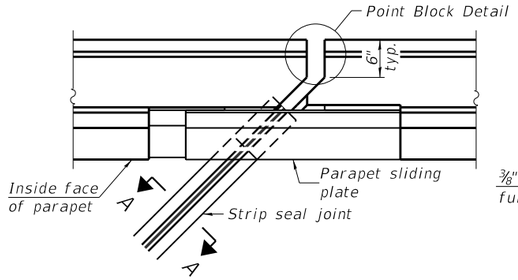
EXPANSION JOINT AND REPAIR DETAILS
STRUCTURE NO. 089-0051

SHEET 6 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26	(102BR)BDR	STEPHENSON	21	18
		CONTRACT NO. 64N75		
	ILLINOIS	FED. AID PROJECT		

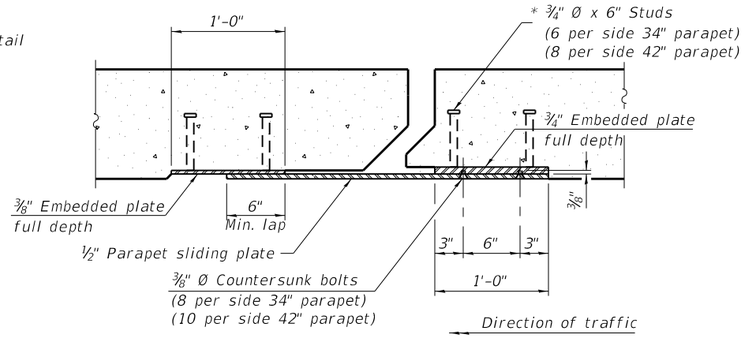


FOR SKEWS ≤ 30°



FOR SKEWS > 30°

PLAN AT PARAPET



SECTION B-B

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

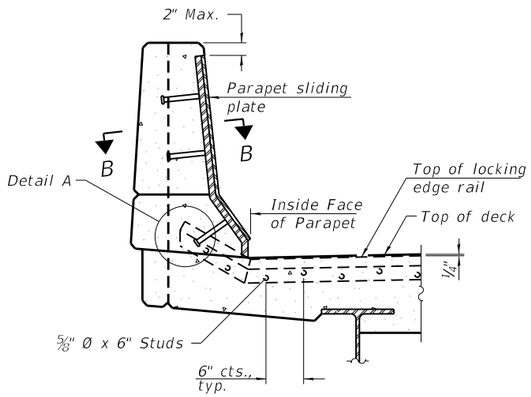
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.

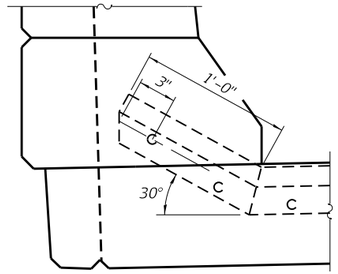
34" F-shape barrier shown, 42" F-shape similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

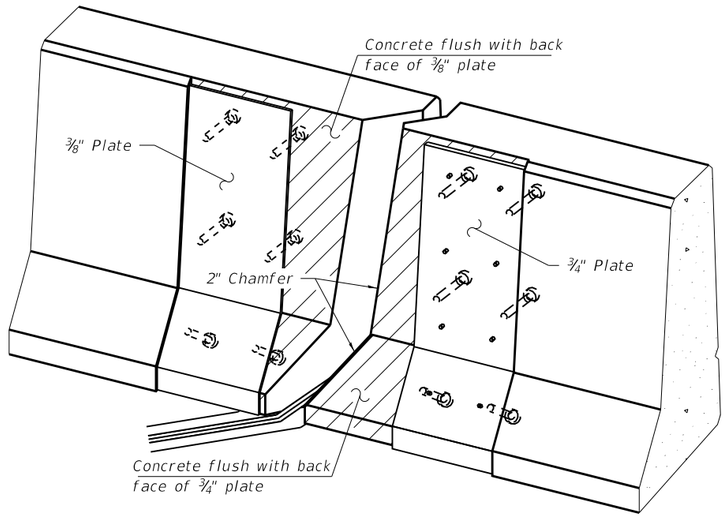


ELEVATION AT PARAPET

(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)

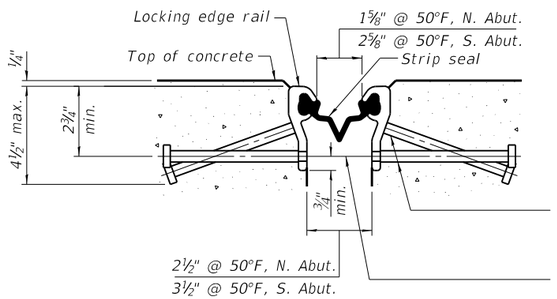


DETAIL A

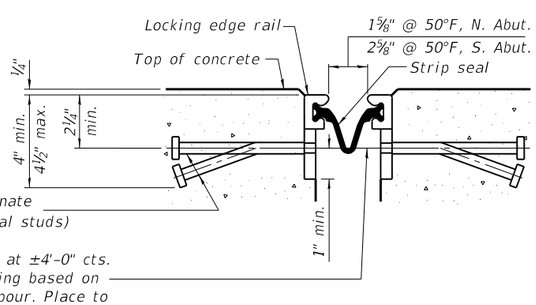


TRIMETRIC VIEW

(Showing embedded plates only)



SHOWING ROLLED RAIL JOINT



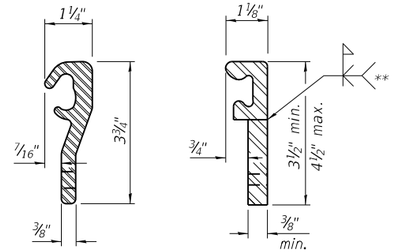
SHOWING WELDED RAIL JOINT

* ⅜" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

⅜" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

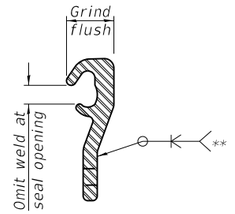
SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	187

EJ-SS

8-11-17

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USER NAME = cstokes	DESIGNED - CFS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PREFORMED JOINT STRIP SEAL STRUCTURE NO. 089-0051	
0890051-64N75-007-PJS Seal.dgn	CHECKED - KFO	REVISED -			
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PLOT DATE = 7/31/2019	CHECKED - MDC	REVISED -		SHEET 7 OF 9 SHEETS	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26	(102BR)BDR	STEPHENSON	21	19
		CONTRACT NO. 64N75		
	ILLINOIS	FED. AID PROJECT		

MODEL: $MODELNAME$
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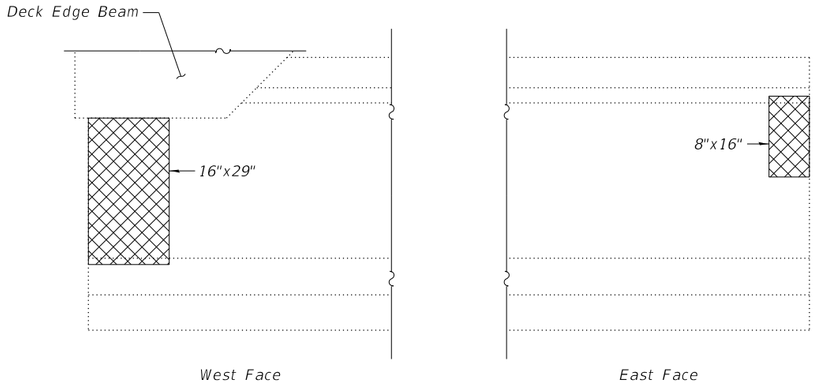
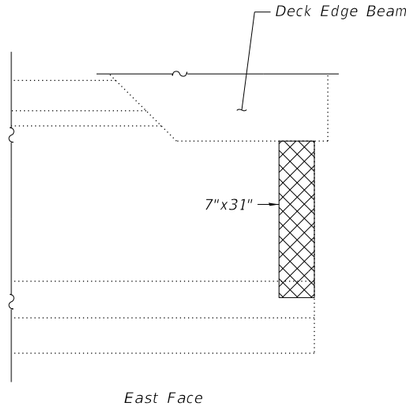
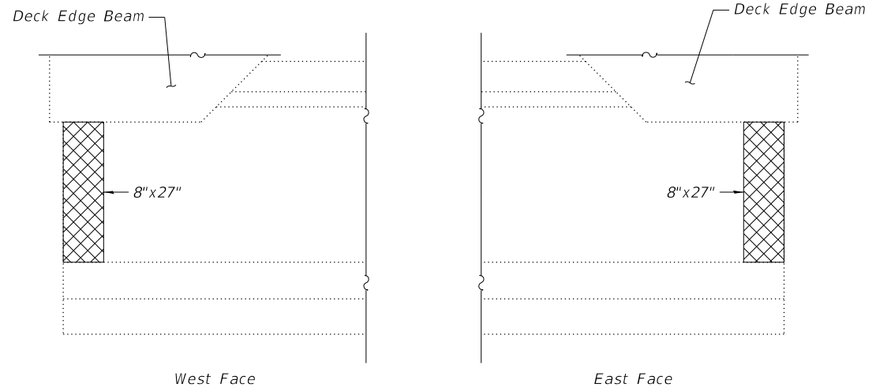


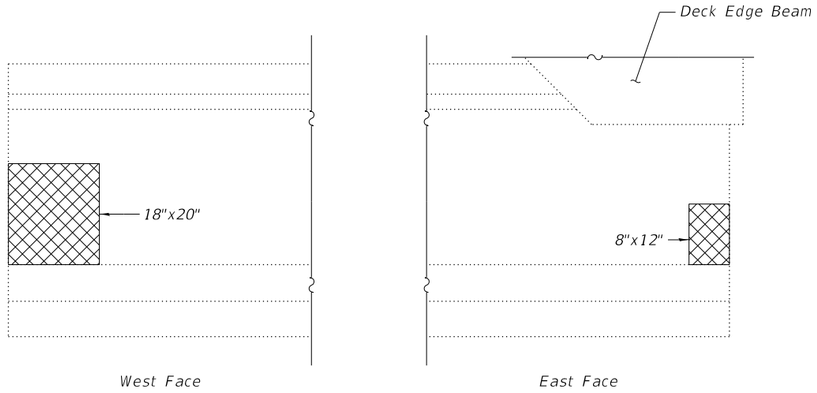
SPAN 1 BEAM 1 N. END



SPAN 1 BEAM 6 N. END



SPAN 1 BEAM 13 N. END



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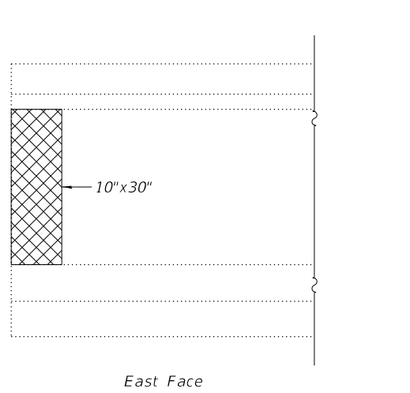

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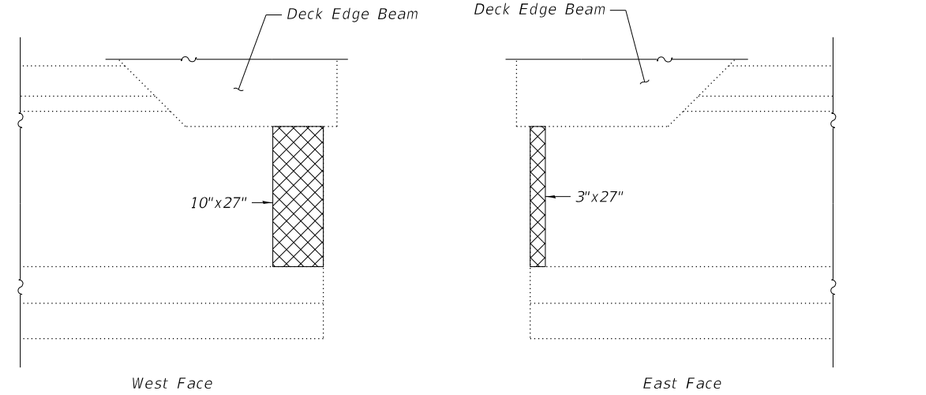
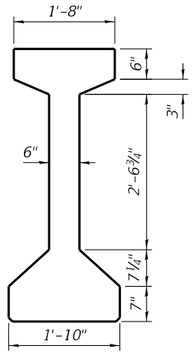


SPAN 5 BEAM 8 S. END



BEAM CROSS SECTION

LEGEND

Repair Area

Note:
Dimensions given for repair areas are width by height.

BILL OF MATERIAL

Item	Unit	Total
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	17

MODEL: $MODELNAME$
FILE NAME: S:\2018\18IL029 Var Ph II Bridge Rehab IDOT D2 West Hofmann PTB 189-18\Work Order 2 Bridge Repairs 089-0051\CADD\CADD Sheets\0890051-64N75-008-Beam End Repairs.dgn
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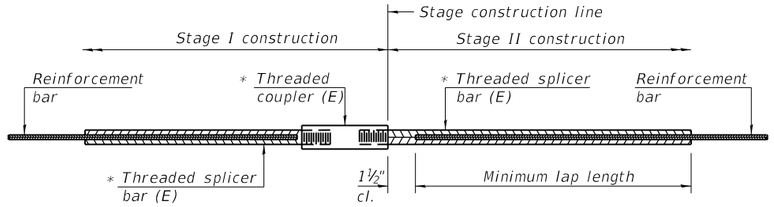
PLOT DATE = 7/31/2019	CHECKED - MDC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM END REPAIRS
STRUCTURE NO. 089-0051
SHEET 8 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26	(102BR)BDR	STEPHENSON	21	20
		CONTRACT NO. 64N75		
	ILLINOIS	FED. AID PROJECT		

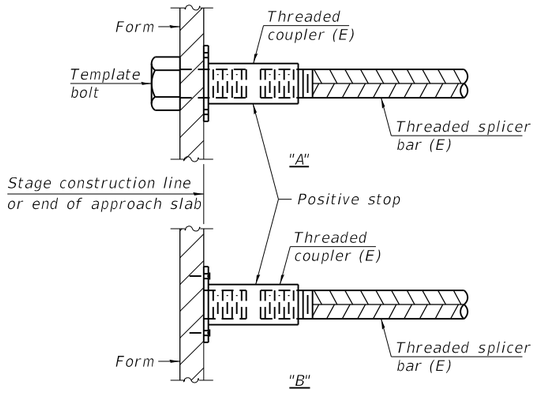


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1½" + thread length

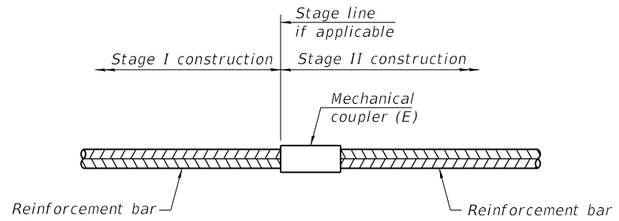
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
N. End of Deck	#5	3	3'-6"
S. End of Deck	#5	3	3'-6"
N. Abut. Hatchblock	#5	4	3'-6"
S. Abut. Hatchblock	#5	4	3'-6"
N. Appr. Pavement	#5	3	3'-6"
S. Appr. Pavement	#5	3	3'-6"



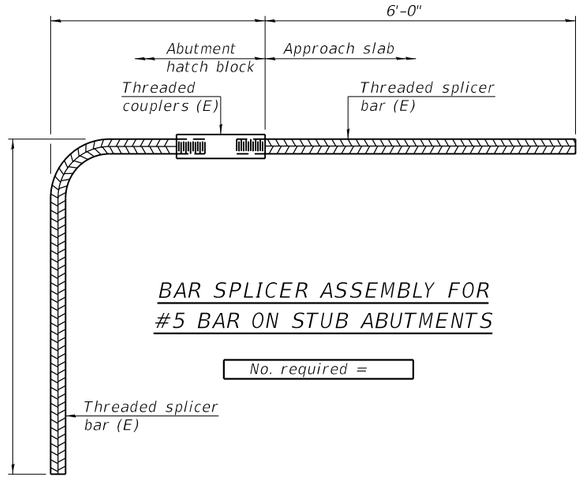
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



Notes:
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 2-17-2017

QUIGG ENGINEERING INC

USER NAME = cstokes	DESIGNED - CFS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 089-0051
0890051-64N75-009-Bar Splicer.dgn	CHECKED - KFO	REVISED -		
PLOT SCALE = 0:2.0000 ':" / in.	DRAWN - CFS/KFO	REVISED -		SHEET 9 OF 9 SHEETS
PLOT DATE = 7/31/2019	CHECKED - MDC	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26	(102BR)BDR	STEPHENSON	21	21
		CONTRACT NO. 64N75		
	ILLINOIS	FED. AID PROJECT		

MODEL: $MODELNAME$
FILE NAME: S:\2018\18L029 Var Ph II Bridge Rehab IDOT D2 Willett Hofmann PTB 189-18\Work Order 2 Bridge Repairs 089-0051\CADD\CADD Sheets\0890051-64N75-009-Bar Splicer.dgn

7/31/2019 5:02:55 PM