11–18–2022 LETTING ITEM 054

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	1
		ILLINOIS	CONTRACT NO. 76M79	

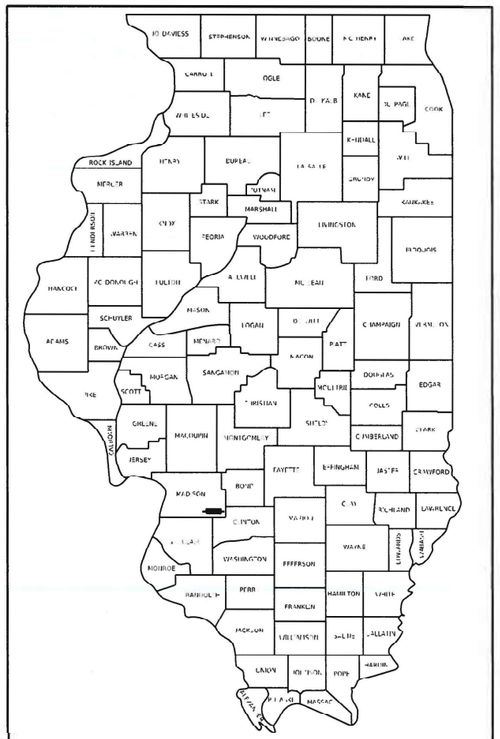
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

FAP ROUTE 793 (US 40 / IL 143)
SECTION (R–1)RS–5
PROJECT NHPP–KA57(594)
STANDARD OVERLAY RESURFACING
MADISON COUNTY

C–98–020–20

D-98-006-20

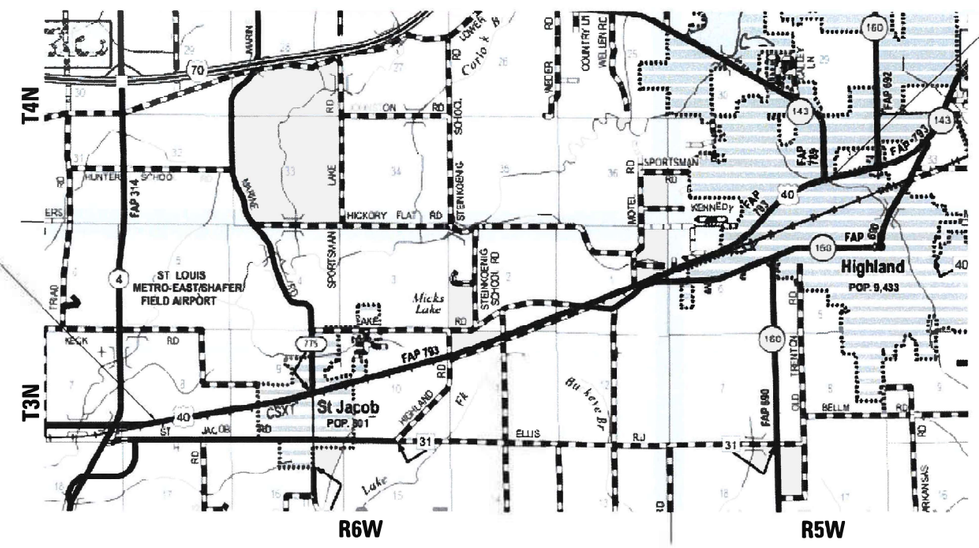


LOCATION OF SECTION INDICATED THUS:–

INDEX OF SHEETS

1	COVER
2	HIGHWAY STANDARDS, TRAFFIC MAP, MIX CHART, GENERAL NOTES & COMMITMENTS
3-9	SUMMARY OF QUANTITIES
10-11	TYPICAL SECTIONS
12-15	SCHEDULES OF QUANTITIES
16	LOCATION PLAN
17-19	GUARDRAIL PLAN
20-28	PAVEMENT MARKING PLAN
29-31	SIDEWALK RAMP DETAILS
32-33	TRAFFIC SIGNAL PLANS
34-38	DETECTOR LOOP REPLACEMENT PLANS
39	TRAFFIC CONTROL PLAN - STRUCTURE NO. 060-2514
40-42	STRUCTURE PLANS - BOX CULVERT EXTENSION STRUCTURE NO. 060-2514
43	GRADING AND EROSION CONTROL PLAN - STRUCTURE NO. 060-2514
44	MISCELLANEOUS CONSTRUCTION DETAILS

BEGIN PROJECT
STA 100+00
LAT: 38°42'58.28"N
LONG: 89°47'52.66"W



END PROJECT
462+98
LAT: 38°44'55.24"N
LONG: 89°40'45.59"W

N

LOCATION MAP
NOT TO SCALE

100' 200' 300' — 1" = 100'
10' 20' 30' — 1" = 10'
50' 100' — 1" = 50'
50' 100' — 1" = 40'
50' 100' — 1" = 30'
50' 100' — 1" = 20'

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 EXCAVATORS
1–800–892–0123
OR 811

GROSS LENGTH = 36,298 FT. = 6.875 MILE
NET LENGTH = 36,298 FT. = 6.875 MILE

PROJECT ENGINEER: BILLIE OWEN
PROJECT MANAGER: BRANDON HUMPHREYS

CONTRACT NO. 76M79

08/25/22
KENT J. SCHWIERJOHN, P.E.
IL LICENSED PROFESSIONAL ENGINEER NO. 062–066103
LICENSE EXPIRES NOVEMBER 30, 2023

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Aug. 26 2022
REGIONAL ENGINEER

October 14, 2022
ENGINEER OF DESIGN AND ENVIRONMENT

October 14, 2022
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

HMG ENGINEERS

HMG ENGINEERS, INC.
9360 HOLY CROSS LANE
BREESE, ILLINOIS 62230
888.HMG.ENGR

IL PROF. DESIGN FIRM NO. 184.000899

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
424001-11	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424031-02	MEDIAN PEDESTRIAN CROSSINGS
442101-09	CLASS B PATCHES
606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
630001-12	STEEL PLATE BEAM GUARDRAIL
630101-10	STRONG POST GUARDRAIL ATTACHED TO CULVERT
630106-02	LONG-SPAN GUARDRAIL OVER CULVERT
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
642006-01	SHOULDER RUMBLE STRIPS, 8 IN.
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
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-04	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701336-07	LANE CLOSURE, 2L, 2W, WORK AREAS IN SERIES, FOR SPEEDS ≥ 45 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782001-01	CURB REFLECTORS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
878001-11	CONCRETE FOUNDATION DETAILS
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUT FOR DETECTION LOOPS

HIGHWAY STANDARDS CONT.

280001-07	TEMPORARY EROSION CONTROL SYSTEM
420001-10	PAVEMENT JOINTS
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
631011-10	TRAFFIC BARRIER TERMINAL, TYPE 2
720001-01	SIGN PANEL MOUNTING DETAILS

MIX CHART

MIXTURE USE	SURFACE	BINDER	POLY SURFACE	SHOULDER (LOWER)	SHOULDER (SURFACE)
AC/PG	PG 64-22	PG 64-22	SBS PG 76-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70	4.0% @ Ndes=70	4.0% @ Ndes=30	4.0% @ Ndes=30
MIX COMPOSITION (GRADATION)	IL 9.5	IL 9.5 FG	IL 9.5	IL 19.0L	IL 9.5L
FRICTION AGG	MIXTURE "D"	MIXTURE "C"	MIXTURE "D"		
QUALITY MGMT PROGRAM	QCP	QCP	QC/QA	QC/QA	QC/QA
MatTranDev Required?	YES	YES	NO	NO	NO

	TURN LANES < 500 FEET		
MIXTURE USE	SURFACE	BINDER	POLY SURFACE
AC/PG	PG 64-22	PG 64-22	SBS PG 76-22
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70	4.0% @ Ndes=70
MIX COMPOSITION (GRADATION)	IL 9.5	IL 19.0	IL 9.5
FRICTION AGG	MIXTURE "D"	MIXTURE "B"	MIXTURE "D"
QUALITY MGMT PROGRAM	QC/QA	QC/QA	QC/QA
MatTranDev Required?	NO	NO	NO

ANY QCP PAY ITEM THAT HAS A QUANTITY OF 1600 TONS OR LESS WILL HAVE TWO SUBLOTS EACH OF WHICH WILL BE HALF OF PLAN QUANTITY OR HALF OF THE ADJUSTED QUANTITY BY THE RESIDENT ENGINEER/TECHNICIAN.

COMMITMENTS

NONE

GENERAL NOTES

1. UTILITIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA:

AMEREN ILLINOIS	ELECTRIC
AT&T ILLINOIS	COMMUNICATIONS
BLUEBIRD NETWORK	COMMUNICATIONS
CHARTER COMMUNICATIONS, INC.	CABLE TV
CLEARWAVE COMMUNICATIONS	COMMUNICATIONS
DEPARTMENT OF CENTRAL MANAGEMENT SERVICES	COMMUNICATIONS
FRONTIER COMMUNICATIONS	COMMUNICATIONS
CITY OF HIGHLAND	WATER AND SANITARY SEWER
CITY OF HIGHLAND	ELECTRIC
CITY OF HIGHLAND	COMMUNICATIONS
HOME TELEPHONE COMPANY	COMMUNICATIONS
SOUTHWESTERN ELECTRIC COOPERATIVE, INC.	ELECTRIC
VILLAGE OF ST. JACOB	WATER AND SANITARY SEWER
TRI-TOWNSHIP WATER DISTRICT	WATER
ZAYO GROUP LLC	COMMUNICATIONS

2. THE PROPOSED PAVEMENT MARKING SHALL MATCH THE LOCATIONS OF THE EXISTING PAVEMENT MARKING, AS DIRECTED BY THE ENGINEER.

3. THE RESIDENT ENGINEER SHALL VERIFY THE EXISTENCE OF HIGHWAY LIGHTING AND/OR INTELLIGENT TRANSPORTATION SYSTEMS (I.T.S.) UTILITIES, AND/OR ELECTRICAL CABLES ASSOCIATED WITH TRAFFIC SIGNALS WITHIN THE PROJECT LIMITS. IF HIGHWAY LIGHTING AND/OR I.T.S. EXISTS WITHIN THE PROJECT LIMITS, AND IF THESE ITEMS REQUIRE RELOCATING, THE CONTRACTOR SHALL DO SO ACCORDING TO SECTION 803 OF THE STANDARD SPECIFICATIONS.

4. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.

5. 10 CHANGEABLE MESSAGE SIGNS SHALL BE REQUIRED FOR THIS PROJECT. THEY SHALL BE PLACED 2 WEEKS PRIOR TO ANY LANE CLOSURE AND SHALL REMAIN FOR THE DURATION OF THE PROJECT. THE CHANGEABLE MESSAGE SIGNS SHALL BE PLACED ALONG US 40 (2), IL 143 (1), WALNUT ST IN HIGHLAND (1), HEMLOCK ST IN HIGHLAND (1), FRANK WATSON PKWY IN HIGHLAND (1), LAKE RD (1), HIGHLAND RD (1) AND N DOUGLAS ST IN ST. JACOB (2).

6. THE CONTRACTOR SHALL PROVIDE POSITIVE AND ADEQUATE DRAINAGE AT ALL TIMES.

7. ALL ELEVATIONS REFER TO THE USGS MEAN SEA LEVEL DATUM.

8. ONLY SHORT TERM PAVEMENT MARKING REMOVAL FROM THE FINALL SURFACE SHALL BE PAID FOR AS "SHORT TERM PAVEMENT MARKING REMOVAL."

9. THE CONTRACTOR SHALL BE AWARE THAT THERE MAY BE MANHOLES & VALVES LOCATED WITHIN THE RESURFACING LIMITS. CARE SHALL BE TAKEN TO IDENTIFY THESE ITEMS DURING MILLING OPERATIONS.

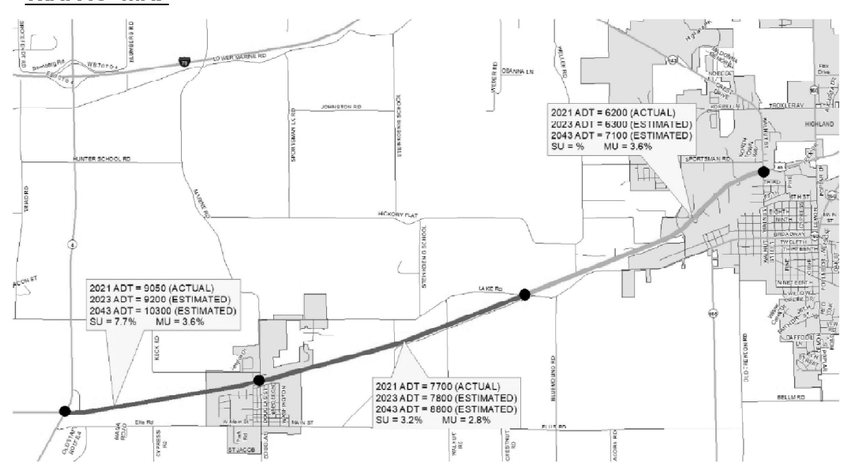
10. ALL REMOVED GUARDRAIL COMPONENTS ARE THE PROPERTY OF THE CONTACTOR, AND THE SALVAGE VALUE OF SAID COMPONENTS SHALL BE REFLECTED IN THE CONTRACTOR'S BID.

11. FACTORS FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

HOT-MIX ASPHALT SURFACE COURSE	112 LBS/SQ YD/IN
AGGREGATE MATERIALS	2.05 TON/CU YD

12. THE USE OF A MATERIAL TRANSFER DEVICE SHALL BE PERMITTED FOR THE PAVING OPERATIONS OF THIS PROJECT. THE MATERIAL TRANSFER DEVICE MAY OPERATE IN AN UNLOADED CONDITION WITH A MAXIMUM GROSS WEIGHT OF 40 TONS ON SN 060-2513 AND SN 060-2514.

TRAFFIC MAP



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HMG ENGINEERS IL PROF DESIGN FIRM 184.000899	USER NAME = kschwierjohn	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGHWAY STANDARDS, TRAFFIC MAP, MIX CHART GENERAL NOTES & COMMITMENTS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN -	REVISED -			793	(R-1)RS-5	MADISON	44 / 2
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 76M79	
	PLOT DATE = 8/26/2022	DATE -	REVISED -		SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 80% FED 20% STATE ROADWAY 0005 URBAN	80% FED 20% STATE ROADWAY 0005 RURAL	80% FED 20% STATE SAFETY 0021 URBAN	80% FED 20% STATE SAFETY 0021 RURAL
20300100	CHANNEL EXCAVATION	CU YD	28	28			
20400800	FURNISHED EXCAVATION	CU YD	26	26			
28000315	AGGREGATE DITCH CHECKS	TON	10	10			
28100105	STONE RIPRAP, CLASS A3	SQ YD	21			21	
28100109	STONE RIPRAP, CLASS A5	SQ YD	71	71			
28200200	FILTER FABRIC	SQ YD	71	71			
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	86333	27139	59194		
40600370	LONGITUDINAL JOINT SEALANT	FOOT	46953	18380	28573		
40600990	TEMPORARY RAMP	SQ YD	1691	1293	398		
40602970	HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N70	TON	7183	2345	4838		
40604062	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	8207	2400	5807		
40604162	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	787	787			
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	419			419	
42400800	DETECTABLE WARNINGS	SQ FT	40			40	

REV. - MS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 80% FED 20% STATE ROADWAY 0005 URBAN	80% FED 20% STATE ROADWAY 0005 RURAL	80% FED 20% STATE SAFETY 0021 URBAN	80% FED 20% STATE SAFETY 0021 RURAL
44000160	HOT-MIX ASPHALT SURFACE REMOVAL, 2 3/4"	SQ YD	127776	40081	87695		
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	123			123	
44000600	SIDEWALK REMOVAL	SQ FT	325			325	
44003100	MEDIAN REMOVAL	SQ FT	234			234	
44200050	WELDED WIRE REINFORCEMENT	SQ YD	796	34	762		
44201043	CLASS B PATCHES, TYPE II, 16 INCH	SQ YD	640	63	577		
44201047	CLASS B PATCHES, TYPE III, 16 INCH	SQ YD	334	35	299		
44201048	CLASS B PATCHES, TYPE IV, 16 INCH	SQ YD	463		463		
44201299	DOWEL BARS 1 1/2"	EACH	2120	180	1940		
44213200	SAW CUTS	FOOT	5862	442	5420		
44213204	TIE BARS 3/4"	EACH	110		110		
48101200	AGGREGATE SHOULDERS, TYPE B	TON	299	206	93		
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	1770	354	1416		
48203100	HOT-MIX ASPHALT SHOULDERS	TON	3858	996	2862		

REV. - MS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 80% FED 20% STATE ROADWAY 0005 URBAN	80% FED 20% STATE ROADWAY 0005 RURAL	80% FED 20% STATE SAFETY 0021 URBAN	80% FED 20% STATE SAFETY 0021 RURAL
50102400	CONCRETE REMOVAL	CU YD	9.2	9.2			
50200100	STRUCTURE EXCAVATION	CU YD	77	77			
50800105	REINFORCEMENT BARS	POUND	5080	5080			
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	460	460			
54002050	EXPANSION BOLTS 3/4 INCH X 9 INCH	EACH	32	32			
54003000	CONCRETE BOX CULVERTS	CU YD	23.4	23.4			
60604400	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	FOOT	37			37	
60609800	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.18	FOOT	86			86	
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	189			189	
* 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	1012.5	775	237.5		
* 63000030	STRONG POST GUARDRAIL ATTACHED TO CULVERT	FOOT	87.5	87.5			
* 63000350	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN	FOOT	37.5		37.5		
* 63000370	LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT SPAN	FOOT	100	100			
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	3	3			

* SPECIALTY ITEM

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 80% FED 20% STATE ROADWAY 0005 URBAN	80% FED 20% STATE ROADWAY 0005 RURAL	80% FED 20% STATE SAFETY 0021 URBAN	80% FED 20% STATE SAFETY 0021 RURAL
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	7	5	2		
*	63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	1	1			
	63200310	GUARDRAIL REMOVAL	FOOT	1449	1072	377		
	64200108	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	54488		54488		
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	1.8	4.2		
	67100100	MOBILIZATION	L SUM	1	0.25	0.25	0.25	0.25
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1		0.5		0.5
	70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1		0.5		0.5
	70100600	TRAFFIC CONTROL AND PROTECTION, STANDARD 701336	L SUM	1		0.5		0.5
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	0.5		0.5	
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.5		0.5	
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1			1	
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	1050	525	525		

* SPECIALTY ITEM

REV. - MS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 80% FED 20% STATE ROADWAY 0005 URBAN	80% FED 20% STATE ROADWAY 0005 RURAL	80% FED 20% STATE SAFETY 0021 URBAN	80% FED 20% STATE SAFETY 0021 RURAL
70300100	SHORT TERM PAVEMENT MARKING	FOOT	10908	3233	7675		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	1200	356	844		
70300211	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - PAINT	SQ FT	561	468	93		
70300221	TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT	FOOT	104783	40589	64194		
70300241	TEMPORARY PAVEMENT MARKING - LINE 6"- PAINT	FOOT	489	489			
70300251	TEMPORARY PAVEMENT MARKING - LINE 8"- PAINT	FOOT	834	658	176		
70300261	TEMPORARY PAVEMENT MARKING - LINE 12"- PAINT	FOOT	993	909	84		
70300281	TEMPORARY PAVEMENT MARKING - LINE 24"- PAINT	FOOT	411	342	69		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	63	63			
70400125	PINNING TEMPORARY CONCRETE BARRIER	EACH	9	9			
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2			
* 72000100	SIGN PANEL - TYPE 1	SQ FT	1.8			1.8	
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	11	9	2		
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	561	468	93		
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	104783	40589	64194		

* SPECIALTY ITEM

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HMG ENGINEERS
IL PROF DESIGN FIRM 184.000899

USER NAME = kschwierjohn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/26/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	7

CONTRACT NO. 76M79

ILLINOIS FED. AID PROJECT

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 80% FED 20% STATE ROADWAY 0005 URBAN	80% FED 20% STATE ROADWAY 0005 RURAL	80% FED 20% STATE SAFETY 0021 URBAN	80% FED 20% STATE SAFETY 0021 RURAL
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	489	489			
*	78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	834	658	176		
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	993	909	84		
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	411	342	69		
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	730	371	359		
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	23	18	5		
*	78200020	CURB REFLECTORS	EACH	28	14		14	
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	730	371	359		
	78300201	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	38073	16243	21830		
*	81028370	UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	5			5	
*	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	110			110	
*	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	117			117	
*	87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	15			15	
*	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	3			3	

* SPECIALTY ITEM

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	DRAWN -	REVISED -	
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PLOT DATE = 8/26/2022	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	8
		CONTRACT NO. 76M79		
		ILLINOIS	FED. AID PROJECT	

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 80% FED 20% STATE ROADWAY 0005 URBAN	80% FED 20% STATE ROADWAY 0005 RURAL	80% FED 20% STATE SAFETY 0021 URBAN	80% FED 20% STATE SAFETY 0021 RURAL
*	88102719	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, POST MOUNTED WITH COUNTDOWN TIMER	EACH	2			2	
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	5289	5289			
*	89501150	RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	1			1	
*	89502200	MODIFY EXISTING CONTROLLER	EACH	1			1	
	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	226			226	
	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1			1	
	89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	1			1	
	X2510635	HEAVY DUTY EROSION CONTROL BLANKET, SPECIAL	SQ YD	66	66			
	X8140205	MODIFY EXISTING CONCRETE HANDHOLE	EACH	1			1	
*	X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	2			2	
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1			1	
	Z0034105	MATERIAL TRANSFER DEVICE	TON	16177	5532	10645		
Ø	Z0076600	TRAINEES	HOUR	2000	2000			
*	Z0036200	PAINT CURB	FOOT	211	86		125	
Ø	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	2000	2000			
	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1			

* SPECIALTY ITEM

REV. - MS

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HMG ENGINEERS
IL PROF DESIGN FIRM 184.000899

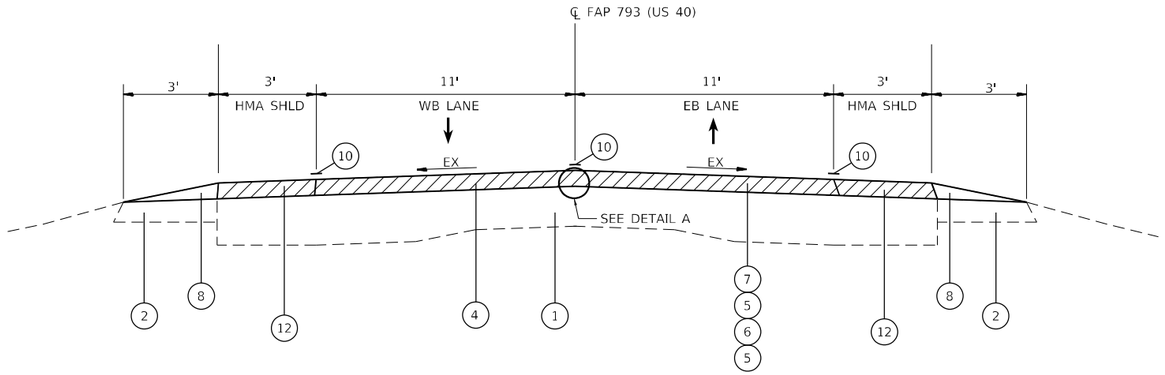
USER NAME = kschwierjohn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/26/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

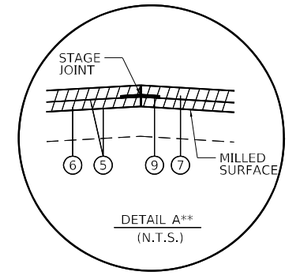
SCALE: | SHEET 7 OF 7 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	9
		CONTRACT NO. 76M79		
		ILLINOIS	FED. AID PROJECT	

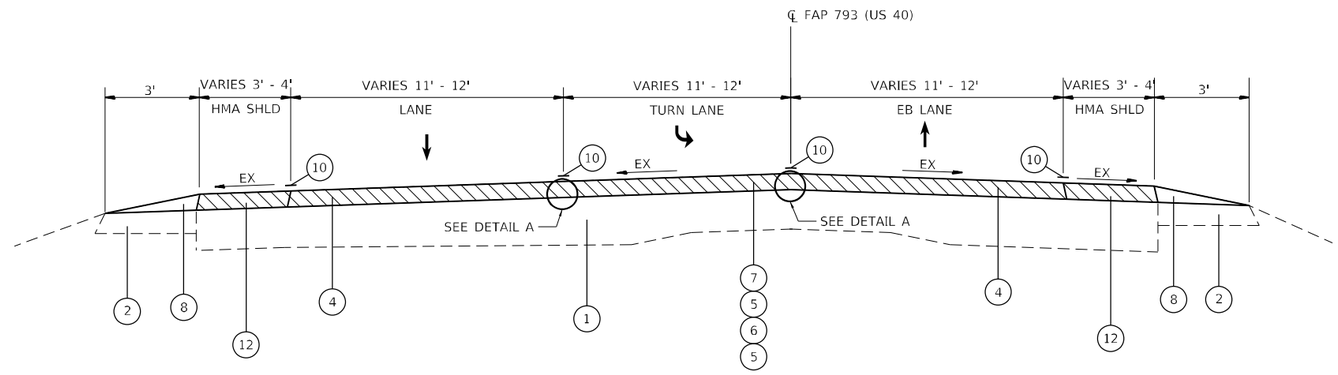


TYPICAL SECTION – US 40 (TWO LANE)

STA. 100+00 TO STA. 176+00
STA. 196+00 TO STA. 319+00
STA. 325+51 TO STA. 398+00
STA. 416+76 TO STA. 441+24



**DETAIL "A" SHALL NOT BE APPLIED ALONG THE EDGE OF PAVEMENT

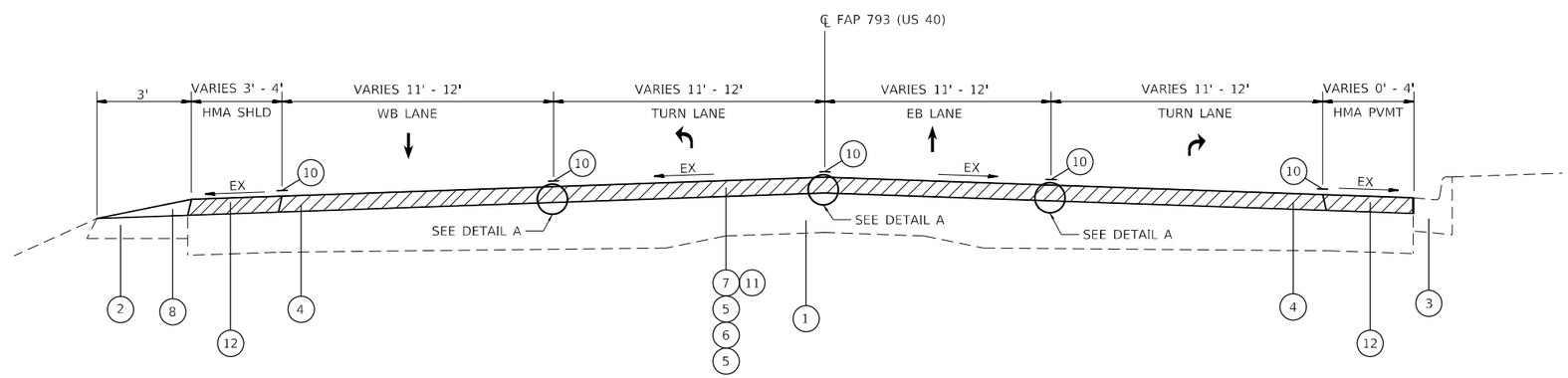


TYPICAL SECTION – US 40 (THREE LANE)

STA. 185+76 TO STA. 196+00 (12' LANES, 4' HMA SHLDS)
STA. 319+00 TO STA. 325+51 (11' LANES, 3' HMA SHLDS)
STA. 407+44 TO STA. 416+76 (11' LANES, 3' HMA SHLDS)
STA. 441+24 TO STA. 448+84 (12' LANES, 4' HMA SHLDS)

LEGEND

1. EX PAVEMENT
2. EX AGGREGATE SHOULDER
3. EX CURB AND GUTTER
4. PR HMA SURFACE REMOVAL 2¾"
5. PR BITUMINOUS MATERIALS (TACK COAT)
6. PR HMA BINDER COURSE, IL-9.5FG, N70, 1¼"
7. PR HMA SURFACE COURSE, IL-9.5, MIX "D", N70, 1½"
8. PR AGGREGATE WEDGE SHOULDER, TYPE B
9. PR LONGITUDINAL JOINT SEALANT
10. PR PAVEMENT MARKING
11. PR POLYMERIZED HMA SURFACE COURSE, IL-9.5, MIX "D", N70, 1½"
12. PR HMA SHOULDERS



TYPICAL SECTION – US 40 (FOUR LANE)

STA. 176+00 TO STA. 185+76 (12' LANES, 4' HMA SHLDS, AGG WEDGE BOTH SIDES)
STA. 398+00 TO STA. 407+44 (11' LANES, 3' HMA SHLDS, AGG WEDGE BOTH SIIDES)
STA. 448+84 TO STA. 456+96 (12' LANES, 4' HMA SHLDS, AGG WEDGE BOTH SIDES)
STA. 456+96 TO STA. 459+15 (12' LANES, 4' HMA SHLDS, CURB & GUTTER BOTH SIDES)
STA. 459+15 TO STA. 462+98 (12' LANES, 4' HMA SHLD, AGG WEDGE BOTH SIDES)

NOTES:
FOR EXACT LANE CONFIGURATIONS, SEE PAVEMENT MARKING DETAILS.

POLYMERIZED HMA SURFACE COURSE SHALL BE USED FROM STA. 455+86 TO STA. 460+77.

STA. 319+00 TO STA. 325+51, THE ℄ IS LOCATED BETWEEN THE THRU LANES.

STA. 398+00 TO STA. 407+44, THE ℄ IS LOCATED BETWEEN THE WB THRU LANE AND THE EB EXCLUSIVE RIGHT TURN LANE.

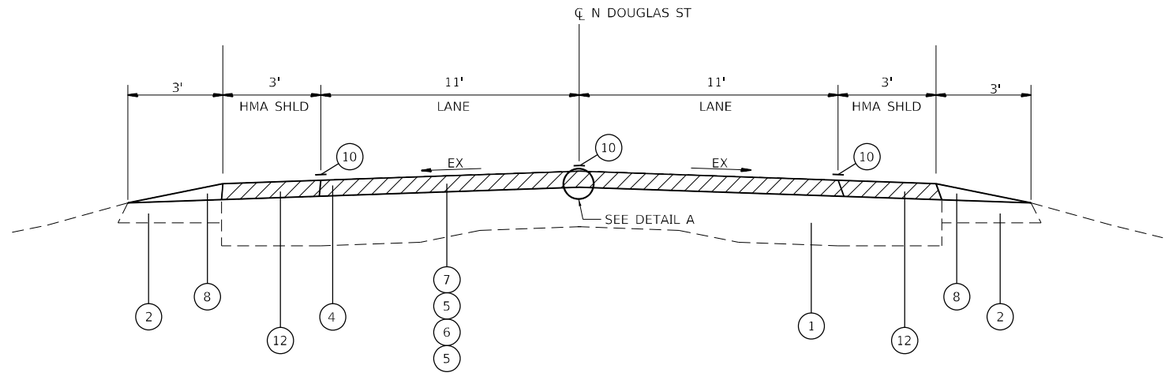
STA. 407+44 TO STA. 416+76, THE ℄ IS LOCATED BETWEEN THE WB THRU LANE AND THE WB EXCLUSIVE LEFT TURN LANE.

STA. 441+24 TO STA. 448+84, THE ℄ SPLITS THE EB EXCLUSIVE LEFT TURN LANE.

STA. 458+25 TO STA. 462+98, THE ℄ IS LOCATED BETWEEN THE WB THRU LANE AND THE EB EXCLUSIVE LEFT TURN LANE.

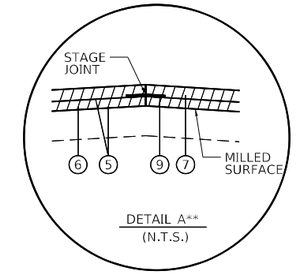
MODEL: Default
FILE NAME: H:\8066_IDOT_D818_PB194_0598066_100_WO19_US40\CAD Sheets\0876M79-pn-Typical 1.dgn

HMG ENGINEERS IL PROF DESIGN FIRM 184.000899	USER NAME = kschwierjohn	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN -	REVISED -			793	(R-1)RS-5	MADISON	44 / 10
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 76M79	
	PLOT DATE = 8/26/2022	DATE -	REVISED -		SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT	



TYPICAL SECTION – N DOUGLAS ST (TWO LANE)

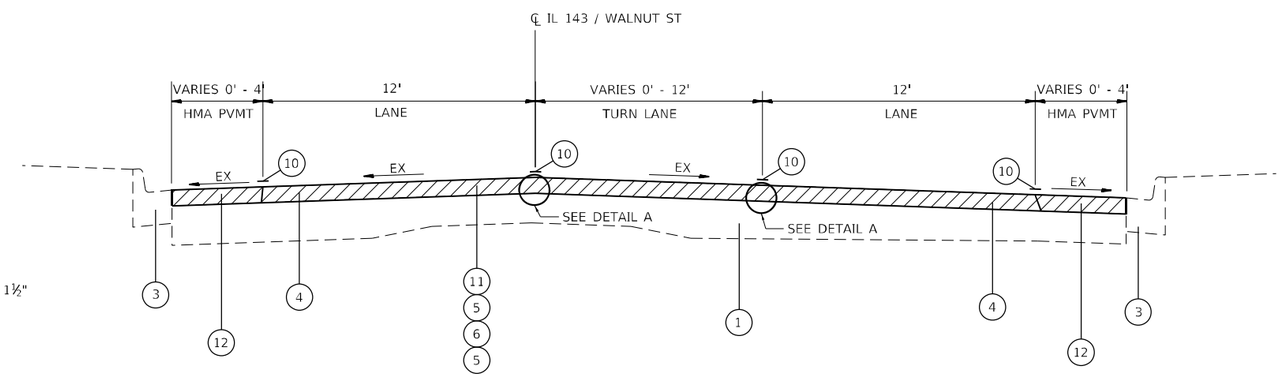
105' SOUTH OF ℄ FAP 793 (US 40)
151' NORTH OF ℄ FAP 793 (US 40)



**DETAIL "A" SHALL NOT BE APPLIED ALONG THE EDGE OF PAVEMENT

LEGEND

1. EX PAVEMENT
2. EX AGGREGATE SHOULDER
3. EX CURB AND GUTTER
4. PR HMA SURFACE REMOVAL 2¾"
5. PR BITUMINOUS MATERIALS (TACK COAT)
6. PR HMA BINDER COURSE, IL-9.5FG, N70, 1¼"
7. PR HMA SURFACE COURSE, IL-9.5, MIX "D", N70, 1½"
8. PR AGGREGATE WEDGE SHOULDER, TYPE B
9. PR LONGITUDINAL JOINT SEALANT
10. PR PAVEMENT MARKING
11. PR POLYMERIZED HMA SURFACE COURSE, IL-9.5, MIX "D", N70, 1½"
12. PR HMA SHOULDERS



TYPICAL SECTION – IL 143 / WALNUT ST (THREE LANE)

156' SOUTH OF ℄ FAP 793 (US 40)
273' NORTH OF ℄ FAP 793 (US 40)

NOTES:
FOR EXACT LANE CONFIGURATIONS, SEE PAVEMENT MARKING DETAILS.

ALONG N DOUGLAS ST SOUTH OF ℄FAP 793 (US 40), PAVING SHALL TERMINATE 15' BEFORE THE RAILROAD TRACKS.

MODEL: Default
FILE NAME: H:\8066_IDOT_D618_PB194_0598066_100_WO19_US40\CAD Sheets\0876M79-prt-Typical 2.dgn

HMG ENGINEERS IL PROF DESIGN FIRM 184.000899	USER NAME = kschwierjohn	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN -	REVISED -			793	(R-1)RS-5	MADISON	44 / 11
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 76M79	
	PLOT DATE = 8/26/2022	DATE -	REVISED -		SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT	

PAVING SCHEDULE

LOCATION				TEMPORARY RAMP	BITUMINOUS MATERIALS (TACK COAT)	LONGITUDINAL JOINT SEALANT	HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N70	HOT-MIX ASPHALT SURFACE COURSE,IL-9.5, MIX "D", N70	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE,IL-9.5, MIX "D", N70	MATERIAL TRANSFER DEVICE	HOT-MIX ASPHALT SURFACE REMOVAL, 2 3/4"	HOT-MIX ASPHALT SHOULDERS	AGGREGATE WEDGE SHOULDER, TYPE B	SHOULDER RUMBLE STRIPS, 8 INCH
STA	TO	STA	LENGTH	(SQ YD)	(POUND)	(FOOT)	(TON)	(TON)	(TON)	(TON)	(SQ YD)	(TON)	(TON)	(FOOT)
US 40														
100+00	TO	176+00	7600	46.7	15956.7	7600.0	1300.4	1560.5		2860.9	23639.5	780.3	381.9	14199.8
176+00	TO	185+76	976	146.0	3828.7	3006.4	337.3	404.8		742.1	5672.1	131.4	39.1	
185+76	TO	196+00	1024		3621.8	2221.7	308.2	369.8		678.0	5365.7	148.4	54.9	
196+00	TO	319+00	12300	40.5	25833.7	12300.0	2105.1	2526.1		4631.2	38272.2	1262.8	633.4	24600.0
319+00	TO	324+15	515	67.6	1410.9	1030.0	122.3	147.3		269.6	2090.2	52.9	23.7	1030.9
324+15	TO	398+00	7385	243.1	15992.4	7643.4	1310.5	1572.6		2883.1	23692.4	765.6	377.5	14657.0
398+00	TO	407+44	944	166.4	2998.4	1904.5	259.6	311.5		571.1	4442.0	112.0	39.0	
407+44	TO	416+76	932	186.6	2491.5	1785.3	219.8	263.8		483.6	3691.1	84.5	37.5	
416+76	TO	441+24	2448	308.9	5140.8	2448.1	418.9	502.7		921.6	7616.0	251.3	112.7	
441+24	TO	448+84	760	124.4	2196.7	1497.4	184.4	221.2		405.6	3254.3	95.6	33.8	
448+84	TO	457+06	822	97.2	2806.1	2055.4	239.9	234.5	53.3	527.7	4157.2	111.9	19.1	
457+06	TO	459+59	253		2177.0	1977.3	206.8		248.2	455.0	3093.1	6.4		
459+59	TO	462+98	339	79.5	1363.9	1134.5	120.1	91.5	52.6	264.2	2020.6	46.9	13.4	
IL 143														
156' SOUTH		OF US 40 ℄	140	83.0	173.9	120.7	17.2		20.6	37.8	257.7			
273' NORTH		OF US 40 ℄	240	100.8	340.3	227.9	32.4		412.2	444.6	511.1	7.5	4.0	
			SUBTOTAL:	1690.7	86332.8	46952.6	7182.9	8206.3	786.9	16176.1	127775.2	3857.5	1770.0	54487.7
			ROUNDED TOTAL:	1691	86333	46953	7183	8207	787	16177	127776	3858	1770	54488

GUARDRAIL SCHEDULE

LOCATION		LENGTH OF NEED			GUARDRAIL REMOVAL	AGGREGATE SHOULDERS, TYPE B	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	STRONG POST GUARDRAIL ATTACHED TO CULVERT	LONG-SPAN GUARDRAIL OVER CULVERT, 12 FT 6 IN SPAN	LONG-SPAN GUARDRAIL OVER CULVERT, 25 FT SPAN	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	TRAFFIC BARRIER TERMINAL, TYPE 2	GUARDRAIL REFLECTORS, TYPE A	TERMINAL MARKER-DIRECT APPLIED
					(FOOT)	(TON)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(EACH)	(EACH)	(EACH)	(EACH)	(EACH)
US 40/IL 143		STA	TO	STA											
LOCATION #1	RT	171+47.23	TO	174+97.01	376.9	92.2	237.5		37.5		2			5	2
LOCATION #2	LT	452+08.47	TO	453+58.07	172.5	52.8	25.0			50.0	1	1		3	2
LOCATION #3	RT	451+03.97	TO	452+04.39	314.2	76.3	250.0	12.5		50.0	2		2	6	4
LOCATION #4	RT			457+71.41	300.4	21.6	275.0	50.0			1			5	1
LOCATION #5A	RT				53.0										
LOCATION #5B	RT			461+12.65	231.6	55.2	225.0	25.0			1		1	4	2
				SUBTOTAL:	1448.6	298.1	1012.5	87.5	37.5	100.0	7	1	3	23	11
				ROUNDED TOTAL:	1449	299	1012.5	87.5	37.5	100.0	7	1	3	23	11

SIDEWALK SCHEDULE

LOCATION	PC CONC SIDEWALK 4	DETECTABLE WARNINGS	COMB CURB GUTTER REM	SIDEWALK REMOVAL	MEDIAN REMOVAL	COMB CC&G TB6.18	COMB CC&G TM6.18	CONC MEDIAN SURF 4	STONE RIPRAP CL A3	PAINT CURB
STA	(SQ FT)	(SQ FT)	(FOOT)	(SQ FT)	(SQ FT)	(FOOT)	(FOOT)	(SQ FT)	(SQ YD)	(FOOT)
IL ROUTE 143 SE QUAD	157.0	10.0	21.0	125.0		21.0			21.0	
IL ROUTE 143 ISLAND	124.0	20.0	86.0	85.0	234.0		86.0	189.0		211.0
IL ROUTE 143 NE QUAD	138.0	10.0	16.0	115.0		16.0				
SUBTOTAL:	419.0	40.0	123.0	325.0	234.0	37.0	86.0	189.0	21.0	211.0
ROUNDED TOTAL:	419	40	123	325	234	37	86	189	21	211

MODEL: Default
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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

USER NAME = kschwierjohn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 9/6/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES

SCALE: | SHEET 1 OF 4 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	12

CONTRACT NO. 76M79

ILLINOIS | FED. AID PROJECT

PAVEMENT MARKING SCHEDULE

LOCATION	THERMOPLASTIC PAVEMENT MARKING - LINE 4"				THERMOPLASTIC PAVEMENT MARKING - LINE 6"	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	THERMOPLASTIC PAVEMENT MARKING - LINE 12"		THERMOPLASTIC PAVEMENT MARKING - LINE 24"	THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS	RAISED REFLECTIVE PAVEMENT MARKER		
	SOLID WHITE	SOLID YELLOW	30'-10' SKIP-DASH YELLOW	2'-6' SKIP-DASH WHITE	SOLID WHITE	SOLID WHITE	SOLID WHITE	SOLID YELLOW	SOLID WHITE		ONE-WAY CRYSTAL	ONE-WAY AMBER	TWO-WAY AMBER
	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(SQ FT)	(EACH)	(EACH)	(EACH)
US 40													
100+00.00 TO 176+00.00	15200.0	1208.2	1861.1										95
176+00.00 TO 185+76.00	2710.9	3392.4		94.1		86.3	28.0	110.9	78.0	93.6	17	30	14
185+76.00 TO 196+00.00	2600.7	3046.3		47.7	488.7	64.9		107.8	46.6	31.2	9	31	8
196+00.00 TO 319+00.00	24509.5	422.0	3075.0										154
319+00.00 TO 324+15.00	1107.2		128.8	69.4						31.2	6		7
324+15.00 TO 398+00.00	14517.5	248.9	1846.2			176.1	84.1		69.2	61.2			97
398+00.00 TO 407+44.00	2456.6	2758.0		82.6				62.8	22.0	93.6	19	26	10
407+44.00 TO 416+76.00	1817.2	2612.2		41.1				66.4	22.0	46.8	10	24	10
416+76.00 TO 441+24.00	4313.6	502.7	549.2										31
441+24.00 TO 448+84.00	1381.2	2550.4		29.7				96.5		31.2	3	29	3
448+84.00 TO 457+06.00	1883.5	3053.0		140.7				154.9		46.8	6	36	4
457+06.00 TO 459+59.00	1073.4	471.4				506.6	245.7		172.8	78.0	14		6
459+59.00 TO 462+98.00	913.1	1086.5		110.8				35.1		31.2	6	11	4
IL 143													
156' SOUTH OF US 40 ℄	181.7	117.9									2		2
273' NORTH OF US 40 ℄	342.2	227.5								15.6	3		3
SUBTOTAL:	75008.3	21697.4	7460.3	616.1	488.7	833.9	357.8	634.4	410.6	560.4	95	187	448
ROUNDED TOTAL:	104783				489	834	993		411	561	730		

CONTINUED

NOTES:

IF REQUIRED, TEMPORARY PAVEMENT MARKING SHALL BE EXACTLY THE SAME AS THE PERMANENT PAVEMENT MARKINGS.

SHORT TERM PAVEMENT MARKING QUANTITIES CALCULATED FOR 3 APPLICATIONS AND REMOVAL OF 1 OF THESE APPLICATIONS.

LOCATION	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	CURB REFLECTORS	PAVEMENT MARKING REMOVAL-GRINDING	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL
		ONE-WAY CRYSTAL			
	(EACH)	(EACH)	(SQ FT)	(FOOT)	(SQ FT)
US 40					
100+00.00 TO 176+00.00	95		6089.8	2072.7	228.0
176+00.00 TO 185+76.00	61		2483.8	480.3	52.8
185+76.00 TO 196+00.00	48		2418.1	354.6	39.0
196+00.00 TO 319+00.00	154		9335.5	3354.6	369.0
319+00.00 TO 324+15.00	13		466.3	199.2	21.9
324+15.00 TO 398+00.00	97		5938.6	2048.1	225.3
398+00.00 TO 407+44.00	55		1966.1	442.5	48.6
407+44.00 TO 416+76.00	44		1647.4	341.4	37.5
416+76.00 TO 441+24.00	31		1788.5	667.8	73.5
441+24.00 TO 448+84.00	35		1448.1	222.9	24.5
448+84.00 TO 457+06.00	46		1894.1	290.1	31.9
457+06.00 TO 459+59.00	20	28	1521.3	180.6	19.9
459+59.00 TO 462+98.00	21		769.8	156.6	17.3
IL 143					
156' SOUTH OF US 40 ℄	4		115.5	33.0	3.6
273' NORTH OF US 40 ℄	6		189.9	63.0	6.9
SUBTOTAL:	730	28	38072.8	10907.4	1199.7
ROUNDED TOTAL:	730	28	38073	10908	1200

NOTES:

IF REQUIRED, TEMPORARY PAVEMENT MARKING SHALL BE EXACTLY THE SAME AS THE PERMANENT PAVEMENT MARKINGS.

SHORT TERM PAVEMENT MARKING QUANTITIES CALCULATED FOR 3 APPLICATIONS AND REMOVAL OF 1 OF THESE APPLICATIONS.

76M79 PATCHING SURVEY

US 40 - START 0.02 MILES EAST OF IL 4 TO 0.1 MILES EAST OF IL 143/WALNUT ST. IN HIGHLAND

PATCH	MILE	STATION	LOCATION	LANE	LENGTH	WIDTH	AREA	CLASS B PATCHES, 16 INCH			SAW CUTS	DOWEL BARS 1 1/2"	TIE BARS 3/4"	WELDED WIRE REINFORCEMENT
								TYPE II	TYPE III	TYPE IV				
1	0.00	100+00.00	EB	DL	20	14	31.1			31.1	62	20		31.1
2	0.02	101+05.60	EB	DL	8	14	12.4	12.4			50	20		
3	0.14	107+39.20	EB	DL	6	14	9.3	9.3			48	20		
4	0.15	107+92.00	EB	DL	8	14	12.4	12.4			50	20		
5	0.18	109+50.40	EB	DL	12	14	18.7		18.7		54	20		18.7
6	0.20	110+56.00	EB	DL	12	14	18.7		18.7		54	20		18.7
7	0.22	111+61.60	EB	DL	10	14	15.6		15.6		52	20		15.6
8	0.27	114+25.60	EB	DL	12	14	18.7		18.7		54	20		18.7
9	0.30	115+84.00	EB	DL	6	14	9.3	9.3			48	20		
10	0.31	116+36.80	EB	DL	20	14	31.1			31.1	62	20		31.1
11	0.39	120+59.20	EB	DL	20	14	31.1			31.1	62	20		31.1
12	0.41	121+64.80	EB	DL	12	14	18.7		18.7		54	20		18.7
13	0.44	123+23.20	EB	DL	8	14	12.4	12.4			50	20		
14	0.45	123+76.00	EB	DL	4	14	6.2	6.2			46	20		
15	0.53	127+98.40	EB	DL	4	14	6.2	6.2			46	20		
16	0.54	128+51.20	EB	DL	4	14	6.2	6.2			46	20		
17	0.55	129+04.00	EB	DL	8	14	12.4	12.4			50	20		
18	0.60	131+68.00	EB	DL	4	14	6.2	6.2			46	20		
19	0.61	132+20.80	EB	Long EL	80	6	53.3			53.3	178	10	27	53.3
20	0.66	134+84.80	EB	DL	4	14	6.2	6.2			46	20		
21	0.68	135+90.40	EB	DL	6	14	9.3	9.3			48	20		
22	0.70	136+96.00	EB	DL	4	14	6.2	6.2			46	20		
23	0.74	139+07.20	EB	DL	4	14	6.2	6.2			46	20		
24	0.77	140+65.60	EB	DL	6	14	9.3	9.3			48	20		
25	0.97	151+21.60	EB	DL	14	14	21.8		21.8		56	20		21.8
26	1.13	159+66.40	EB	DL	20	14	31.1			31.1	62	20		31.1
27	1.62	185+53.60	EB	TL	6	12	8.0	8.0			48	20		
28	1.63	186+06.40	EB	TL	6	12	8.0	8.0			48	20		
29	1.92	201+37.60	EB	DL	4	14	6.2	6.2			46	20		
30	2.20	216+16.00	EB	DL	4	14	6.2	6.2			46	20		
31	2.23	217+74.40	EB	Long EL	40	6	26.7			26.7	98	10	14	26.7
32	2.24	218+27.20	EB	DL	6	14	9.3	9.3			48	20		
33	2.32	222+49.60	EB	DL	8	14	12.4	12.4			50	20		
34	2.34	223+55.20	EB	DL	4	14	6.2	6.2			46	20		
35	2.47	230+41.60	EB	DL	4	14	6.2	6.2			46	20		
36	2.61	237+80.80	EB	DL	4	14	6.2	6.2			46	20		
37	2.61	237+80.80	EB	Long EL	40	6	26.7			26.7	98	10	14	26.7
38	2.63	238+86.40	EB	Long EL	40	6	26.7			26.7	98	10	14	26.7
39	2.65	239+92.00	EB	DL	12	14	18.7		18.7		54	20		18.7
40	2.80	247+84.00	EB	DL	4	14	6.2	6.2			46	20		
41	2.87	251+53.60	EB	DL	4	14	6.2	6.2			46	20		
42	2.88	252+03.10	EB	DL	6	14	9.3	9.3			48	20		
43	2.96	256+28.80	EB	DL	6	14	9.3	9.3			48	20		
44	3.05	261+04.00	EB	DL	4	14	6.2	6.2			46	20		
45	3.35	276+88.00	EB	DL	6	14	9.3	9.3			48	20		
46	3.92	306+97.60	EB	DL	6	14	9.3	9.3			48	20		
47	4.52	338+65.60	EB	DL	4	14	6.2	6.2			46	20		
48	4.65	345+52.00	EB	DL	4	14	6.2	6.2			46	20		
49	4.67	346+57.60	EB	DL	8	14	12.4	12.4			50	20		
50	4.77	351+85.60	EB	DL	4	14	6.2	6.2			46	20		
51	5.58	394+62.40	EB	DL	8	14	12.4	12.4			50	20		
52	5.68	399+90.40	EB	DL	6	14	9.3	9.3			48	20		
53	5.75	403+60.00	EB	DL	6	14	9.3	9.3			48	20		
54	5.79	405+71.20	EB	DL	6	14	9.3	9.3			48	20		
						TOTALS	714.7	326.0	130.9	257.8	2,948	1,040	69	388.7

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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

USER NAME = kschwierjohn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 9/6/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES

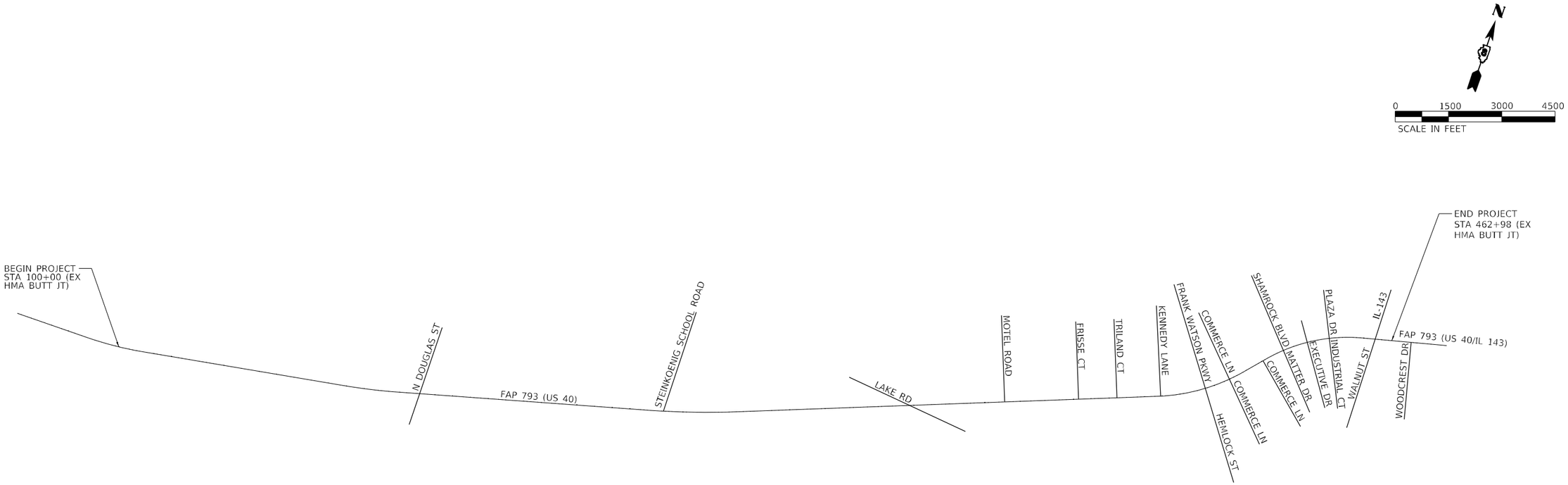
SCALE: | SHEET 3 OF 4 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	14
		CONTRACT NO. 76M79		
	ILLINOIS	FED. AID PROJECT		

76M79 PATCHING SURVEY

US 40 - START 0.02 MILES EAST OF IL 4 TO 0.1 MILES EAST OF IL 143/WALNUT ST. IN HIGHLAND

PATCH	MILE	STATION	LOCATION	LANE	LENGTH	WIDTH	AREA	CLASS B PATCHES, 16 INCH			SAW CUTS	DOWEL BARS 1 1/2"	TIE BARS 3/4"	WELDED WIRE REINFORCEMENT
								TYPE II	TYPE III	TYPE IV				
1	0.00	100+00.00	WB	DL	20	14	31.1			31.1	62	20		31.1
2	0.02	101+05.60	WB	DL	8	14	12.4	12.4			50	20		
3	0.14	107+36.20	WB	DL	6	14	9.3	9.3			48	20		
4	0.15	109+50.40	WB	DL	8	14	12.4	12.4			50	20		
5	0.18	110+56.00	WB	DL	12	14	18.7		18.7		54	20		18.7
6	0.20	111+61.60	WB	DL	12	14	18.7		18.7		54	20		18.7
7	0.22	116+36.80	WB	DL	10	14	15.6		15.6		52	20		15.6
8	0.27	114+25.60	WB	DL	12	14	18.7		18.7		54	20		18.7
9	0.31	116+36.80	WB	DL	20	14	31.1			31.1	62	20		31.1
10	0.33	117+42.40	WB	DL	12	14	18.7		18.7		54	20		18.7
11	0.39	120+59.20	WB	DL	20	14	31.1			31.1	62	20		31.1
12	0.41	121+64.80	WB	DL	12	14	18.7		18.7		54	20		18.7
13	0.44	123+23.20	WB	DL	8	14	12.4	12.4			50	20		
14	0.45	123+76.00	WB	DL	4	14	6.2	6.2			46	20		
15	0.53	127+98.40	WB	DL	4	14	6.2	6.2			46	20		
16	0.54	128+51.20	WB	DL	4	14	6.2	6.2			46	20		
17	0.55	129+04.00	WB	DL	8	14	12.4	12.4			50	20		
18	0.60	131+68.00	WB	DL	4	14	6.2	6.2			46	20		
19	0.66	134+84.80	WB	DL	4	14	6.2	6.2			46	20		
20	0.68	135+90.40	WB	DL	6	14	9.3	9.3			48	20		
21	0.70	136+96.00	WB	DL	4	14	6.2	6.2			46	20		
22	0.74	139+07.20	WB	DL	4	14	6.2	6.2			46	20		
23	0.77	140+65.60	WB	DL	6	14	9.3	9.3			48	20		
24	0.97	151+21.60	WB	DL	14	14	21.8		21.8		56	20		21.8
25	1.13	159+66.40	WB	DL	12	14	18.7		18.7		54	20		18.7
26	1.36	171+80.80	WB	EL (Culvert)	80	6	53.3			53.3	178	10	27	53.3
27	1.92	201+37.60	WB	DL	4	14	6.2	6.2			46	20		
28	2.20	216+16.00	WB	DL	4	14	6.2	6.2			46	20		
29	2.24	218+27.20	WB	DL	6	14	9.3	9.3			48	20		
30	2.34	223+55.20	WB	DL	4	14	6.2	6.2			46	20		
31	2.47	230+41.60	WB	DL	4	14	6.2	6.2			46	20		
32	2.53	233+58.40	WB	DL	4	14	6.2	6.2			46	20		
33	2.65	239+92.00	WB	DL	12	14	18.7		18.7		54	20		18.7
34	2.80	247+84.00	WB	DL	4	14	6.2	6.2			46	20		
35	2.87	251+53.60	WB	DL	4	14	6.2	6.2			46	20		
36	2.88	252+06.40	WB	DL	6	14	9.3	9.3			48	20		
37	2.96	256+28.80	WB	DL	6	14	9.3	9.3			48	20		
38	3.05	261+04.00	WB	DL	4	14	6.2	6.2			46	20		
39	3.35	276+88.00	WB	DL	6	14	9.3	9.3			48	20		
40	3.92	306+97.60	WB	DL	6	14	9.3	9.3			48	20		
41	4.07	314+89.60	WB	DL	4	14	6.2	6.2			46	20		
42	4.52	338+65.60	WB	DL	4	14	6.2	6.2			46	20		
43	4.65	345+52.00	WB	DL	4	14	6.2	6.2			46	20		
44	4.67	346+57.60	WB	DL	8	14	12.4	12.4			50	20		
45	4.77	351+85.30	WB	DL	4	14	6.2	6.2			46	20		
46	5.40	385+12.00	WB	DL	6	14	9.3	9.3			48	20		
47	5.48	389+34.40	WB	DL	4	14	6.2	6.2			46	20		
48	5.49	389+87.20	WB	(Long) EL	40	6	26.7			26.7	98	10	14	26.7
49	5.58	394+62.40	WB	DL	8	14	12.4	12.4			50	20		
50	5.61	396+20.80	WB	DL	8	14	12.4	12.4			50	20		
51	5.62	396+73.60	WB	DL	20	14	31.1			31.1	62	20		31.1
52	5.66	398+84.80	WB	DL	12	14	18.7		18.7		54	20		18.7
53	5.75	403+60.00	WB	DL	10	14	15.6		15.6		52	20		15.6
54	5.79	405+71.20	WB	DL	6	14	9.3	9.3			48	20		
55	6.17	425+77.60	WB	DL	6	14	9.3	9.3			48	20		
						TOTALS	720.1	313.1	202.6	204.4	2,914	1,080	41	407.0



LOCATION

STA. 185+77.25	N DOUGLAS STREET
STA. 254+55.93	STEINKOENIG SCHOOL ROAD
STA. 323+95.20	LAKE ROAD
STA. 350+72.69	MOTEL ROAD
STA. 371+54.22	FRISSE COURT
STA. 382+33.90	TRILAND COURT
STA. 394+65.47	KENNEDY LANE
STA. 407+45.54	FRANK WATSON PARKWAY - NORTH
STA. 407+45.54	HEMLOCK STREET - SOUTH
STA. 414+70.44	COMMERCE LANE - NORTH
STA. 414+70.44	COMMERCE LANE - SOUTH
STA. 425+47.10	COMMERCE LANE - SOUTH
STA. 431+91.67	SHAMROCK BLVD
STA. 431+91.67	MATTER DRIVE
STA. 439+06.64	EXECUTIVE DRIVE
STA. 445+36.93	PLAZA DRIVE - NORTH
STA. 445+36.93	INDUSTRIAL COURT - SOUTH
STA. 458+28.40	IL 143 - NORTH
STA. 458+25.40	WALNUT STREET - SOUTH
STA. 468+47.07	WOODCREST DRIVE

URBAN / RURAL LIMITS

US 40:
STA. 100+00 TO STA. 176+00 (RURAL)
STA. 176+00 TO STA. 185+76 (URBAN)
STA. 185+76 TO STA. 196+00 (URBAN)
STA. 196+00 TO STA. 319+00 (RURAL)
STA. 319+00 TO STA. 324+15 (RURAL)
STA. 324+15 TO STA. 398+00 (RURAL)
STA. 398+00 TO STA. 407+44 (URBAN)
STA. 407+44 TO STA. 416+76 (URBAN)
STA. 416+76 TO STA. 441+24 (URBAN)
STA. 441+24 TO STA. 448+84 (URBAN)
STA. 448+84 TO STA. 457+06 (URBAN)
STA. 457+06 TO STA. 459+59 (URBAN)
STA. 459+59 TO STA. 468+98 (URBAN)

IL 143:
156' SOUTH OF US 40 ℄ (URBAN)
273' NORTH OF US 40 ℄ (URBAN)

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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

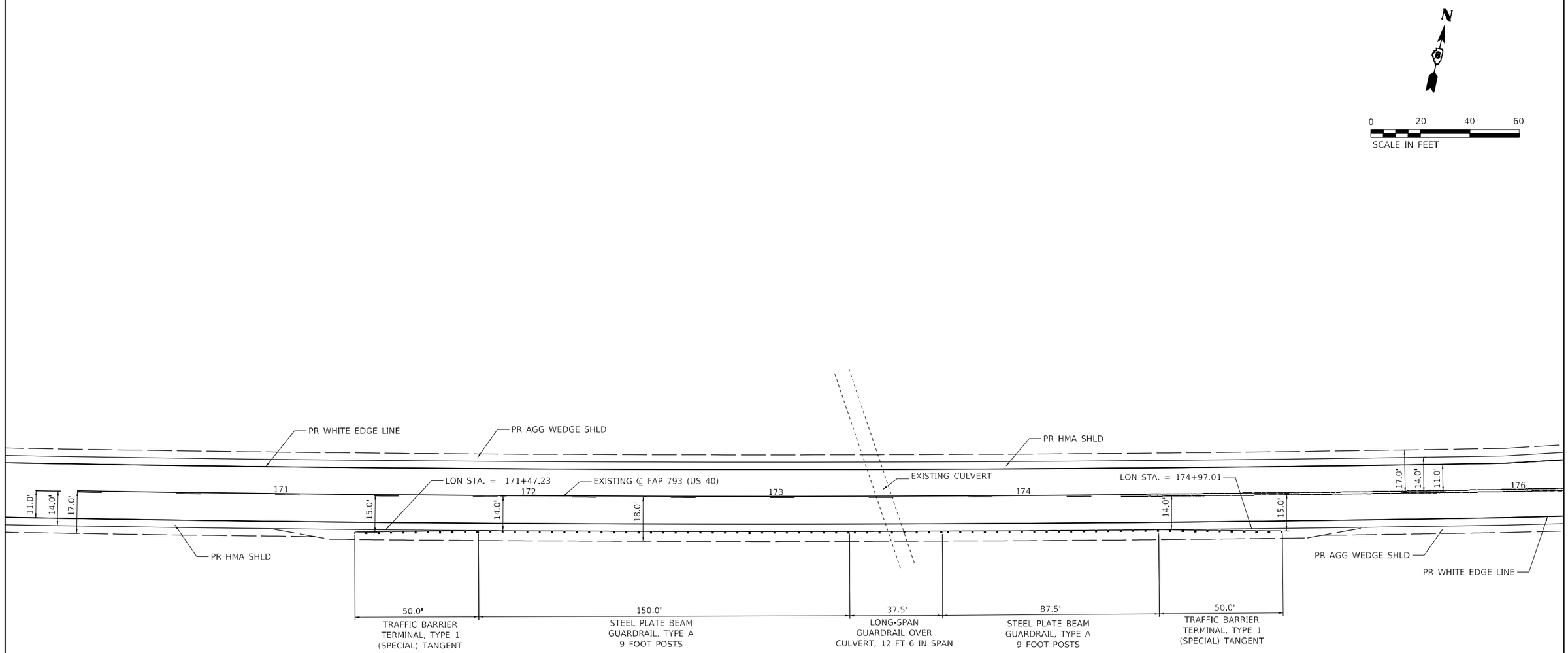
USER NAME = kschwierjohn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 3000.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/26/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION PLAN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	16
		CONTRACT NO. 76M79		
		ILLINOIS	FED. AID PROJECT	



NOTE:

CONTRACTOR SHALL CENTER LONG-SPAN GUARDRAIL OVER CULVERT, 12 FOOT 6 INCH SPAN OVER EXISTING CULVERT AND THEN CONSTRUCT GUARDRAIL IN BOTH DIRECTIONS FROM THAT POINT.

ALL DIMENSIONS SHOWN AT GUARDRAIL ARE TO THE FACE OF GUARDRAIL.

ALL EXISTING GUARDRAIL SHALL BE REMOVED, HOWEVER ONLY PROPOSED GUARDRAIL IS SHOWN. SEE GUARDRAIL SCHEDULE.

MODEL: Default
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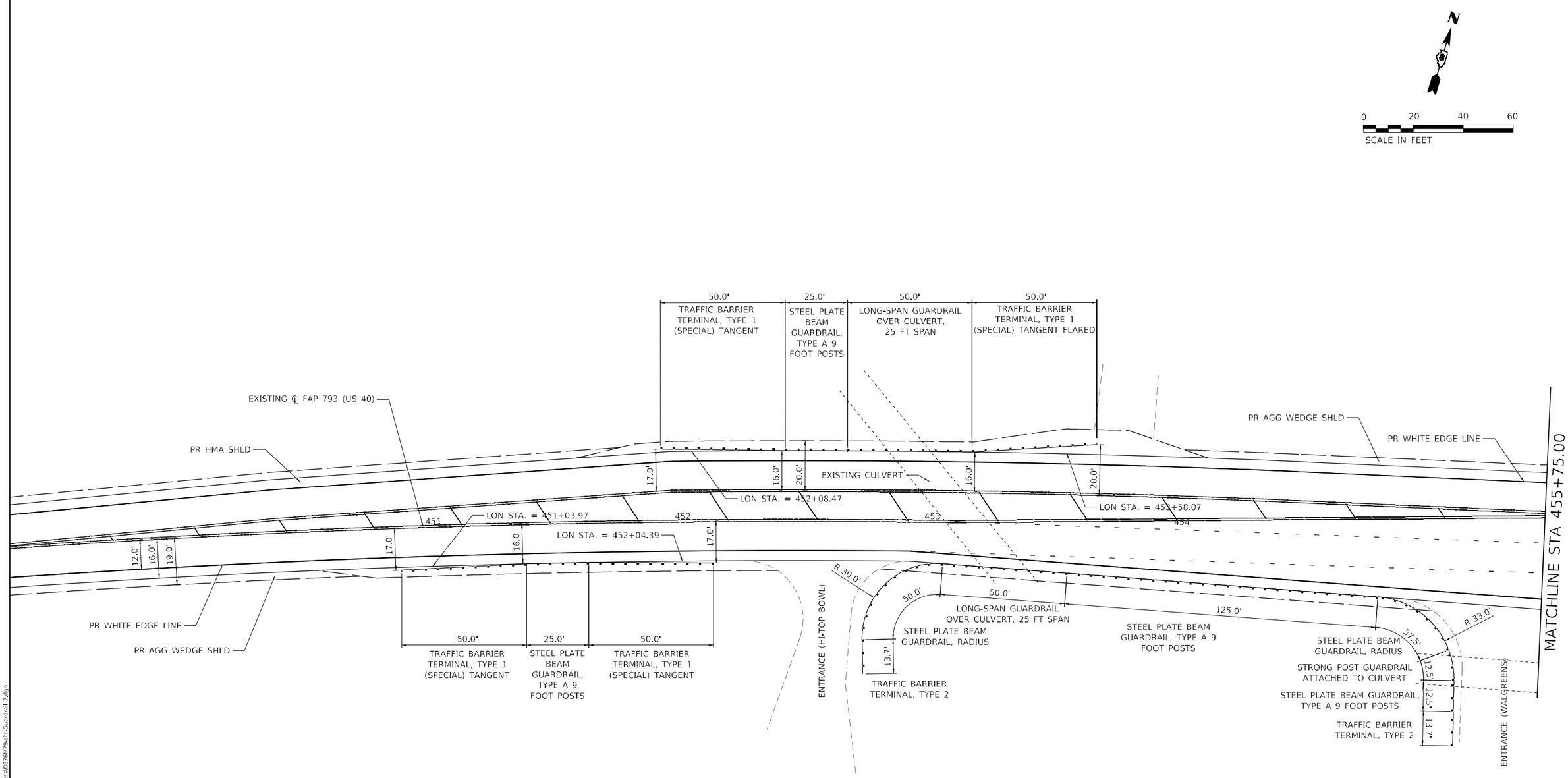
HMG ENGINEERS IL PROF DESIGN FIRM 184.000899	USER NAME = kschwierjohn	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GUARDRAIL PLAN LOCATION #1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			793	(R-1)RS-5	MADISON	44	17
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 76M79		
	PLOT DATE = 8/26/2022	DATE -	REVISED -		SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT		



NOTE:

CONTRACTOR SHALL CENTER LONG-SPAN GUARDRAIL OVER CULVERT, 25 FOOT SPAN OVER EXISTING CULVERT AND THEN CONSTRUCT GUARDRAIL IN BOTH DIRECTIONS FROM THAT POINT.

ALL DIMENSIONS SHOWN AT GUARDRAIL ARE TO THE FACE OF GUARDRAIL.

ALL EXISTING GUARDRAIL SHALL BE REMOVED, HOWEVER ONLY PROPOSED GUARDRAIL IS SHOWN. SEE GUARDRAIL SCHEDULE.

MODEL: Default
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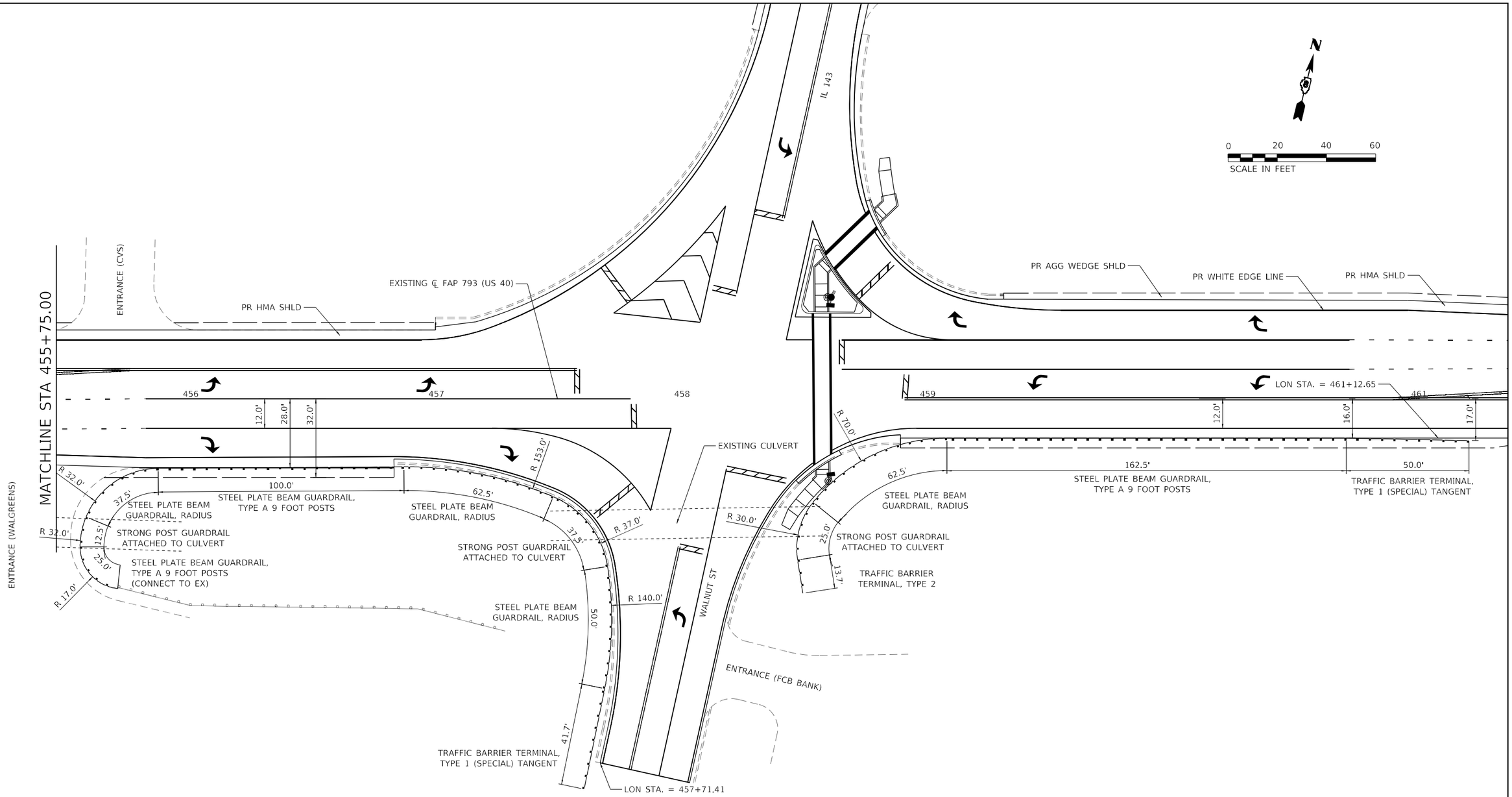
HMG ENGINEERS IL PROF DESIGN FIRM 184.000899	USER NAME = kschwierjohn	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GUARDRAIL PLAN LOCATION #2 AND LOCATION #3	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			793	(R-1)RS-5	MADISON	44	18
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 76M79		
	PLOT DATE = 8/26/2022	DATE -	REVISED -		SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT		



NOTE:

CONTRACTOR SHALL CENTER LONG-SPAN GUARDRAIL OVER CULVERT, 12 FOOT 6 INCH SPAN OVER EXISTING CULVERT AND THEN CONSTRUCT GUARDRAIL IN BOTH DIRECTIONS FROM THAT POINT.

ALL DIMENSIONS SHOWN AT GUARDRAIL ARE TO THE FACE OF GUARDRAIL.

ALL EXISTING GUARDRAIL TO BE REMOVED IS NOT SHOWN. PROPOSED GUARDRAIL AND EXISTING GUARDRAIL TO REMAIN ARE SHOWN. SEE GUARDRAIL SCHEDULE.

MODEL: Default
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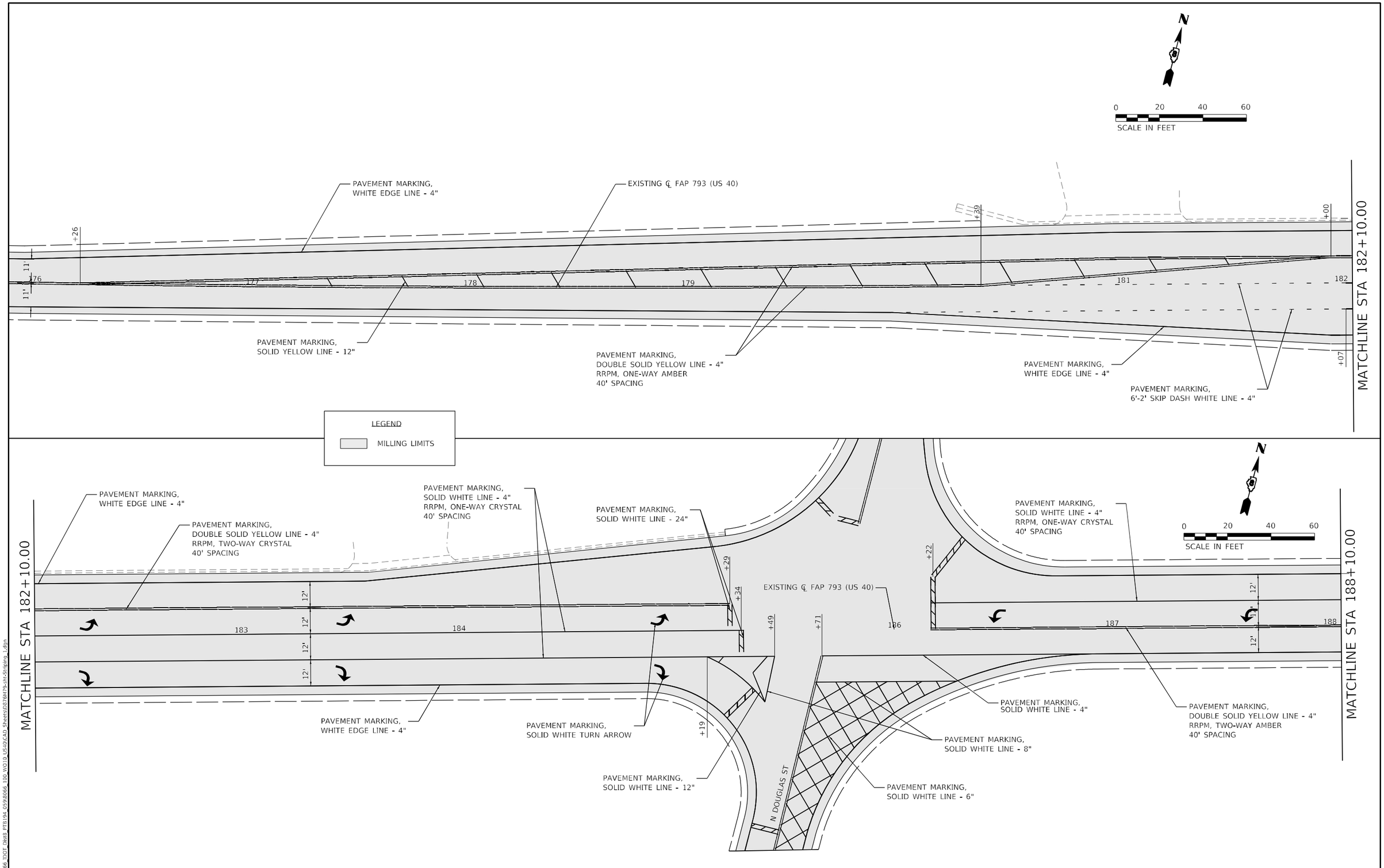
HMG ENGINEERS IL PROF DESIGN FIRM 184.000899	USER NAME = kschwierjohn	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GUARDRAIL PLAN LOCATION #4 AND LOCATION #5B	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			793	(R-1)RS-5	MADISON	44	19
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 76M79		
	PLOT DATE = 8/26/2022	DATE -	REVISED -		SCALE: SHEET 3 OF 3 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT		



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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

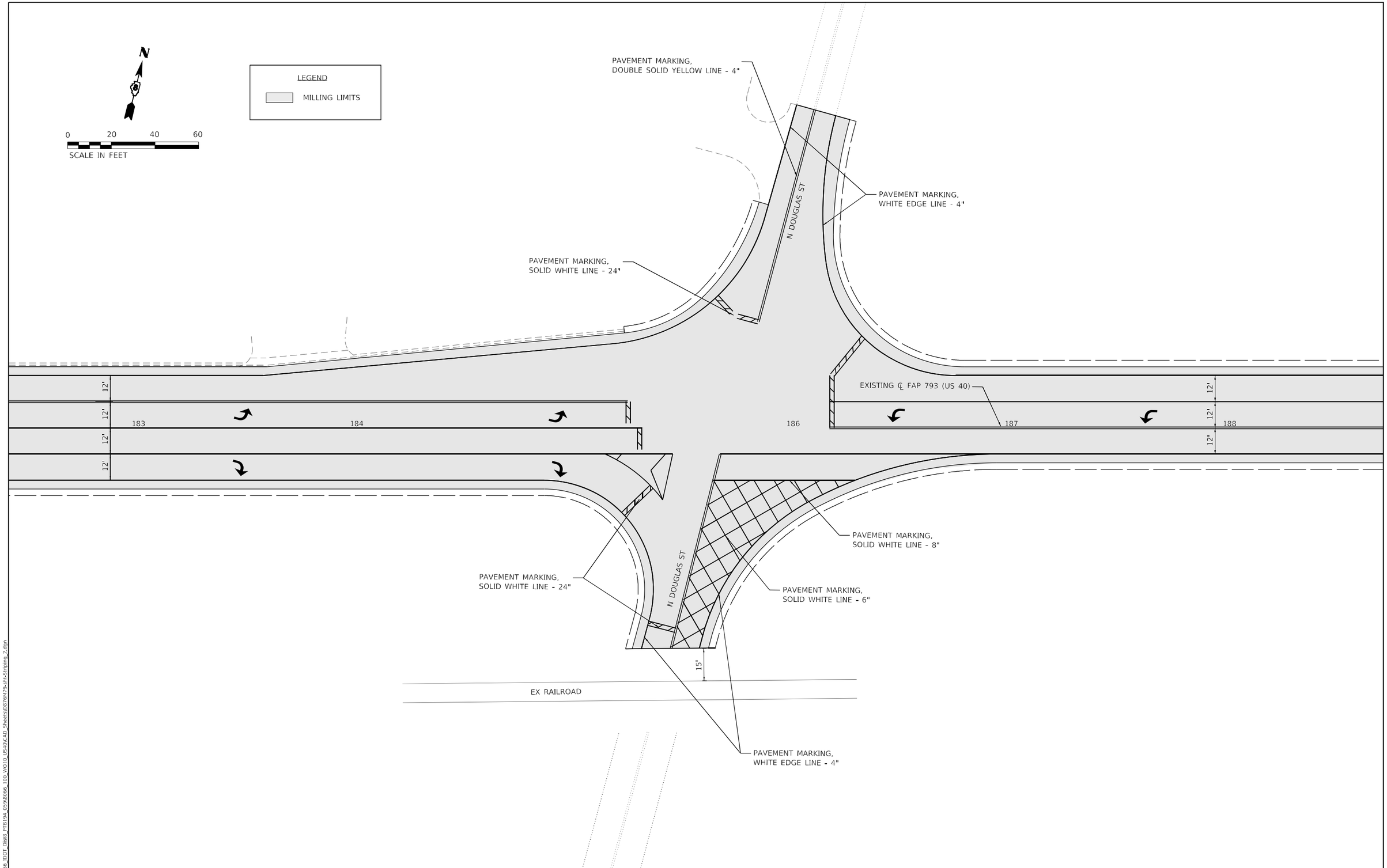
USER NAME = kschwierjohn	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 9/6/2022	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
US 40 / N DOUGLAS RD

SCALE: | SHEET 1 OF 9 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	20
		CONTRACT NO. 76M79		
		ILLINOIS	FED. AID PROJECT	



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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

USER NAME = kschwierjohn	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 8/26/2022	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

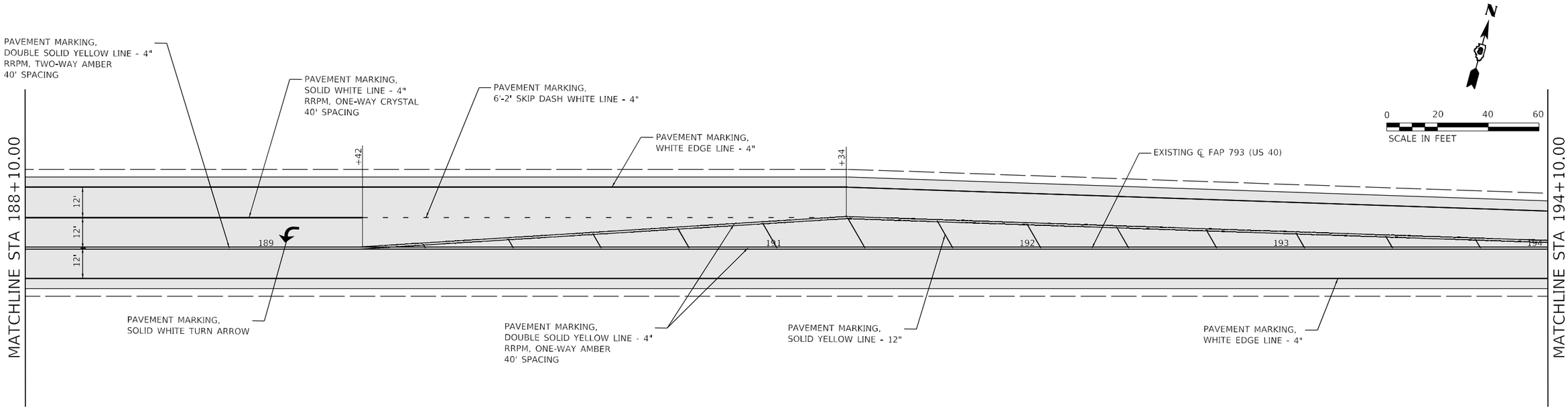
PAVEMENT MARKING PLAN
US 40 / N DOUGLAS RD

SCALE: | SHEET 2 OF 9 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	21

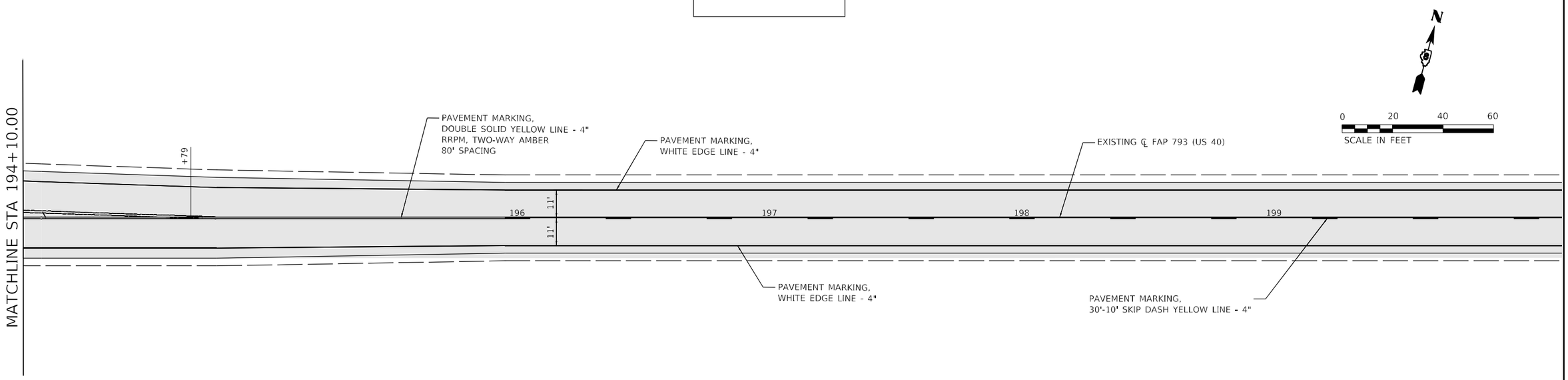
CONTRACT NO. 76M79

ILLINOIS | FED. AID PROJECT



LEGEND

MILLING LIMITS



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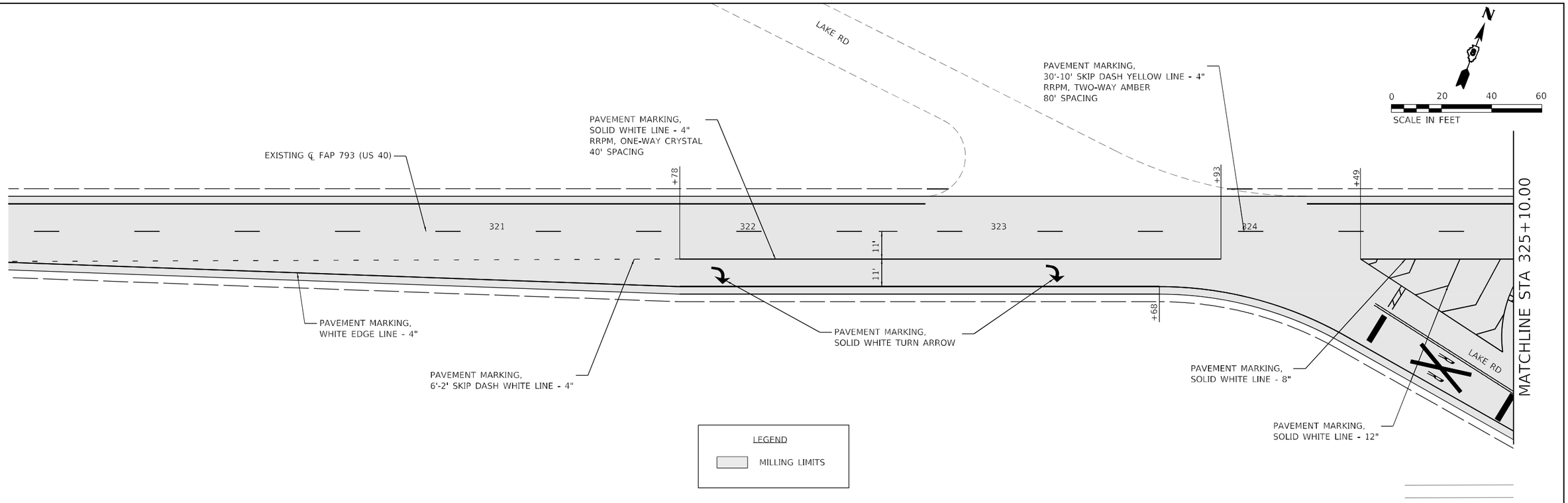
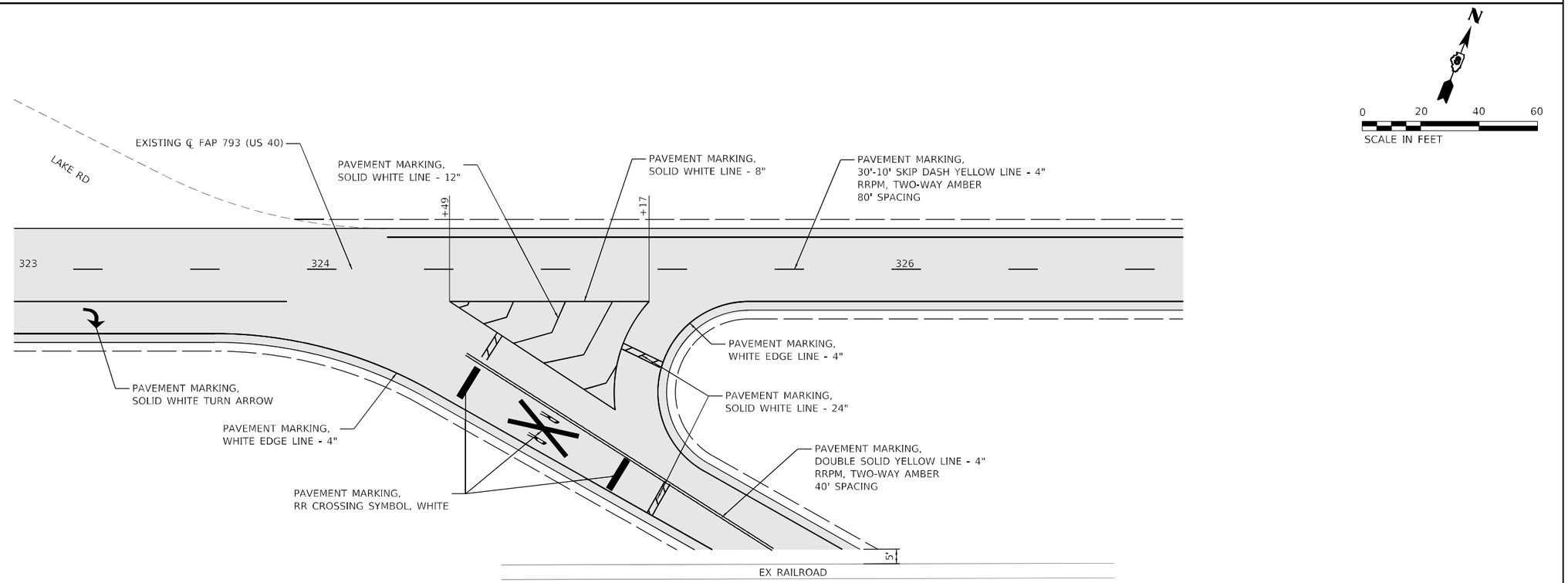
HMG ENGINEERS IL PROF DESIGN FIRM 184.000899	USER NAME = kschwierjohn	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING PLAN US 40 / N DOUGLAS RD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN -	REVISED -			793	(R-1)RS-5	MADISON	44 / 22
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 76M79	
	PLOT DATE = 8/26/2022	DATE -	REVISED -		SCALE: SHEET 3 OF 9 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT	





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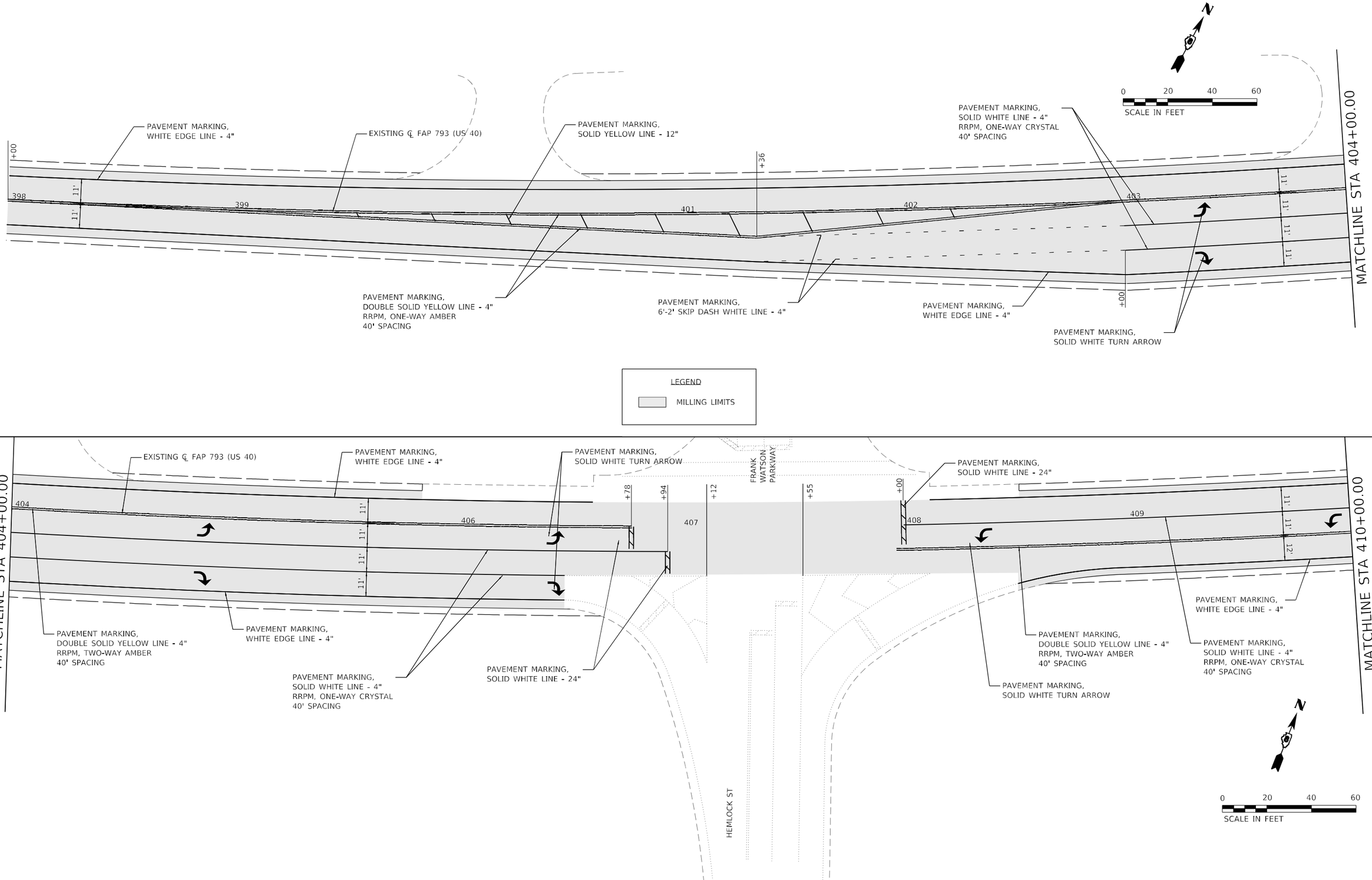
HMG ENGINEERS IL PROF DESIGN FIRM 184.000899	USER NAME = kschwierjohn	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING PLAN US 40 / LAKE RD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN -	REVISED -			793	(R-1)RS-5	MADISON	44 / 23
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 76M79	
	PLOT DATE = 8/26/2022	DATE -	REVISED -		SCALE: SHEET 4 OF 9 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT	



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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

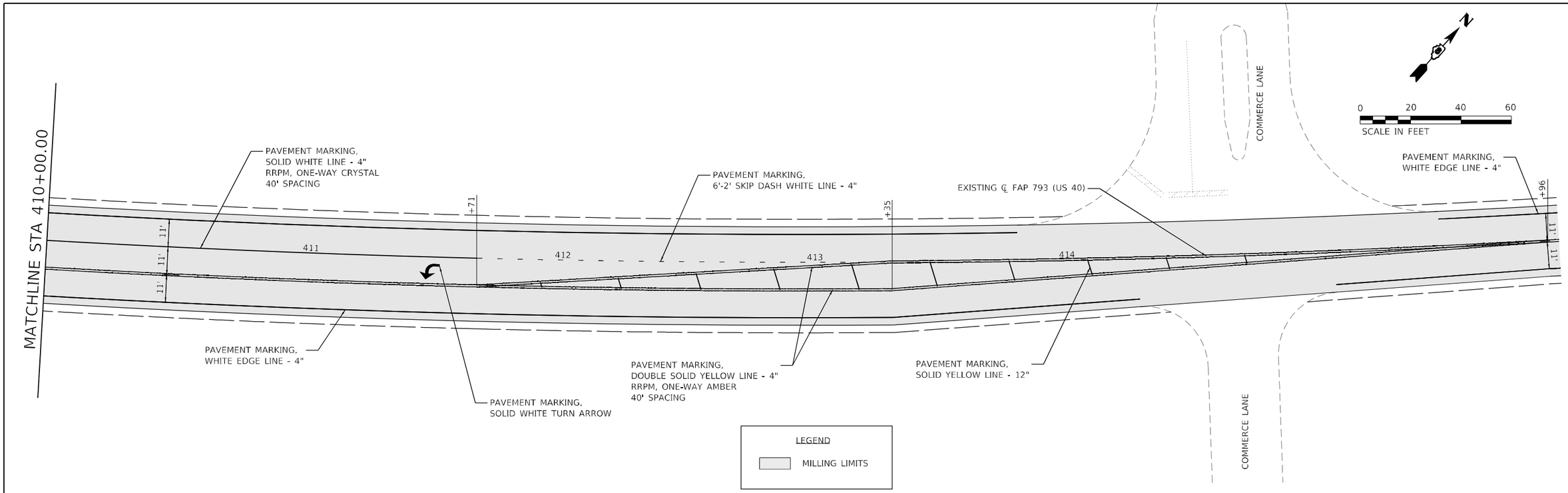
USER NAME = kschwierjohn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/26/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
US 40 / FRANK WATSON PKWY

SCALE: | SHEET 5 OF 9 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	24
		CONTRACT NO. 76M79		
		ILLINOIS	FED. AID PROJECT	



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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

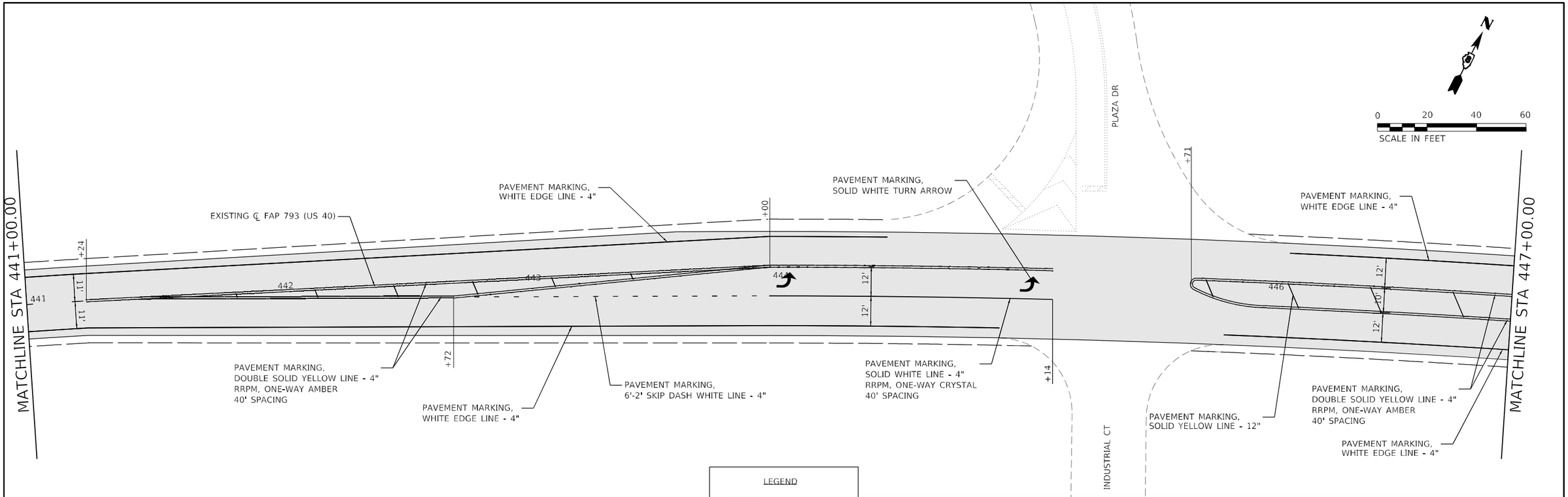
USER NAME = kschwierjohn	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/26/2022	DATE -	REVISED -

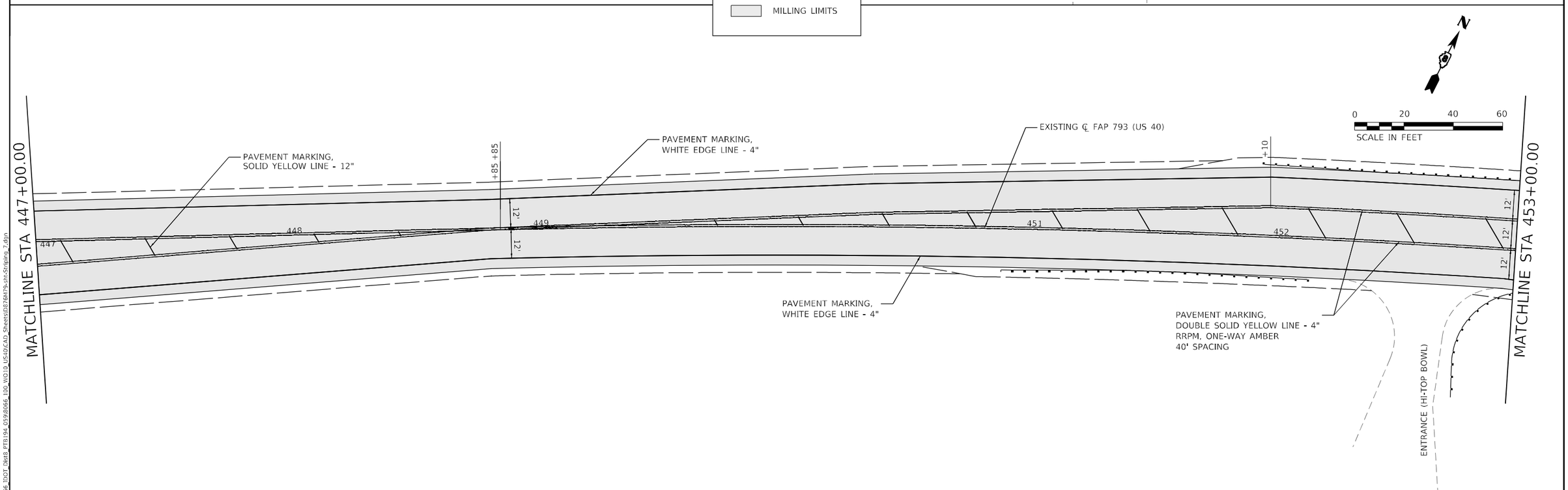
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
US 40 / COMMERCE LN

SCALE: SHEET 6 OF 9 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	25
		CONTRACT NO. 76M79		
	ILLINOIS	FED. AID PROJECT		





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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

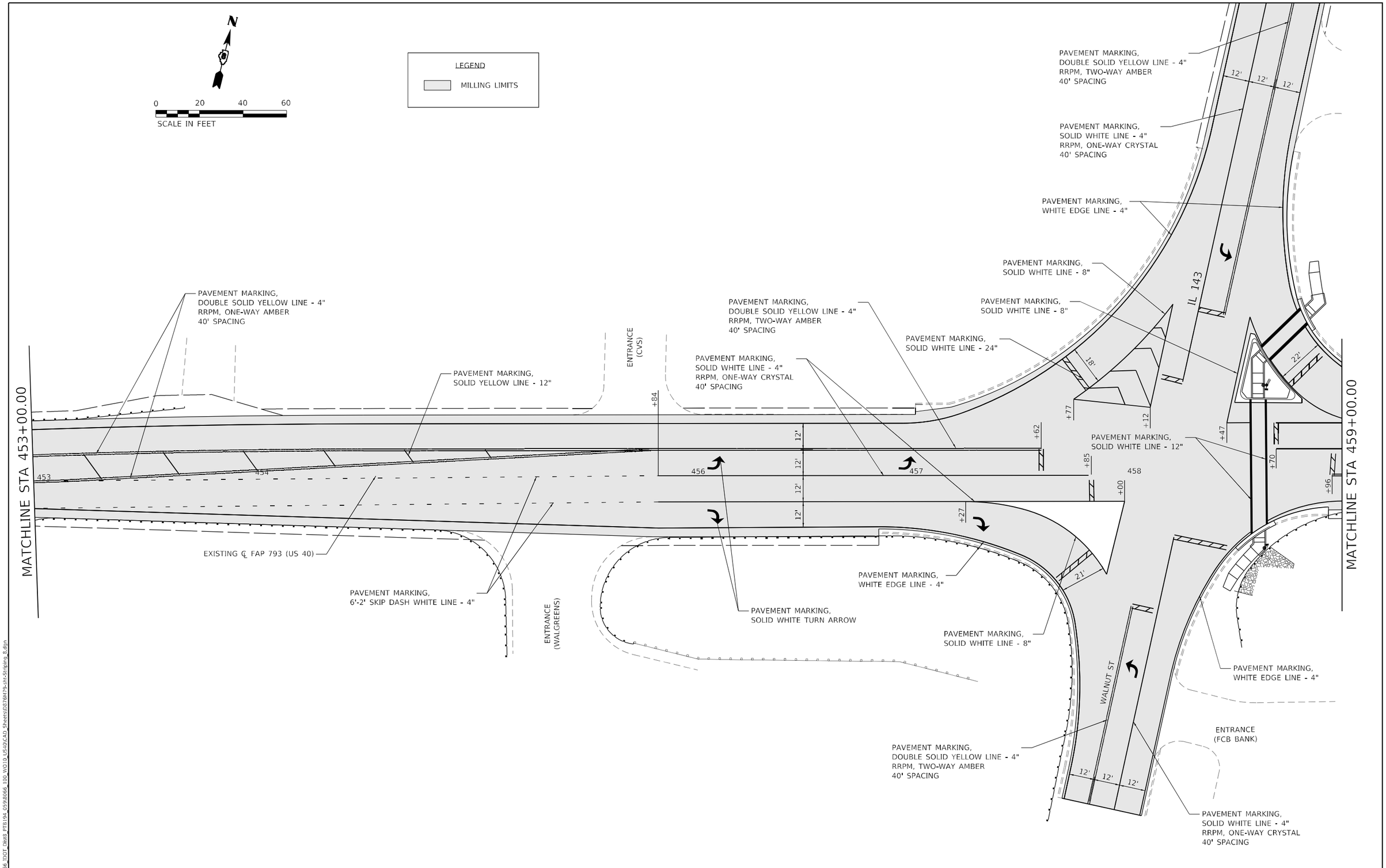
USER NAME = kschwierjohn	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 9/6/2022	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
US 40 / PLAZA DR

SCALE: | SHEET 7 OF 9 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	26
		CONTRACT NO. 76M79		
	ILLINOIS	FED. AID PROJECT		



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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

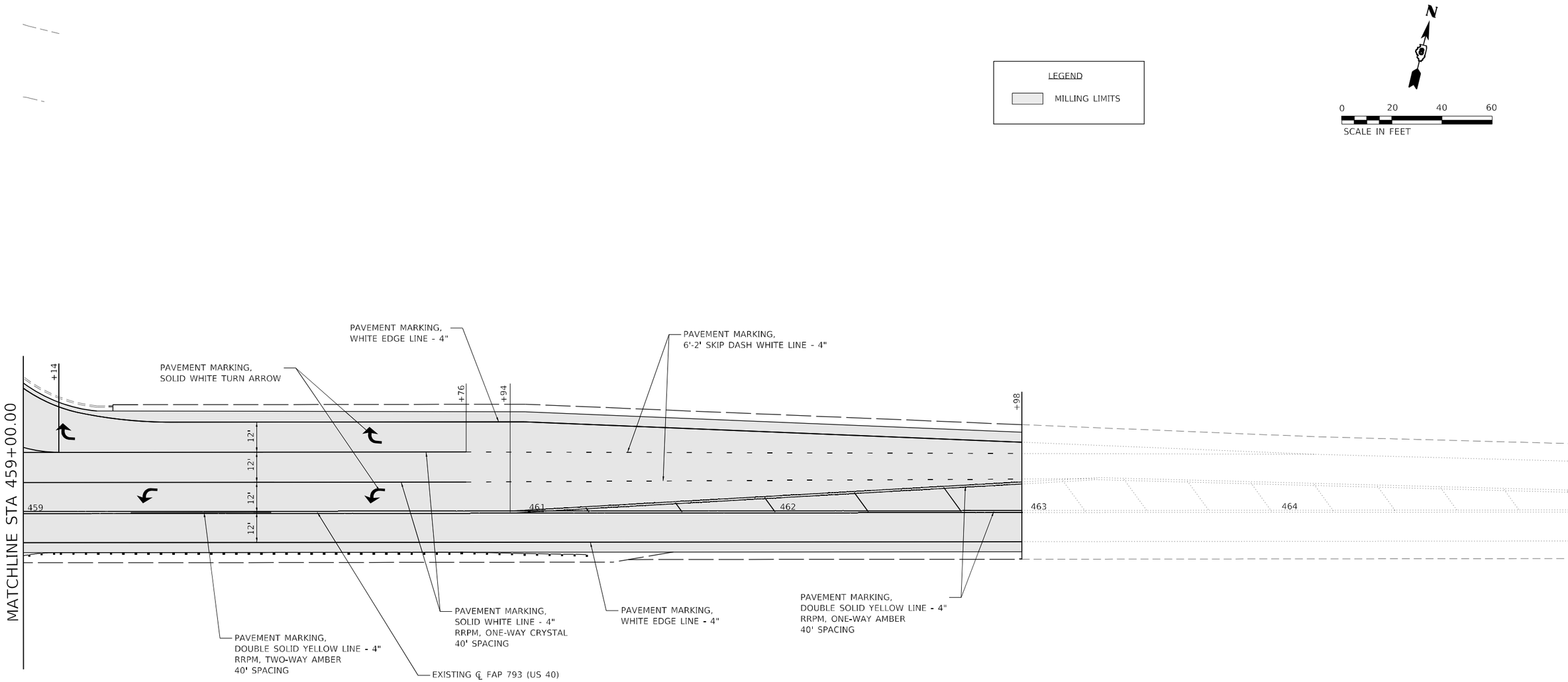
USER NAME = kschwierjohn	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 8/26/2022	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
US 40 / IL 143

SCALE: | SHEET 8 OF 9 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	27
		CONTRACT NO. 76M79		
	ILLINOIS	FED. AID PROJECT		



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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

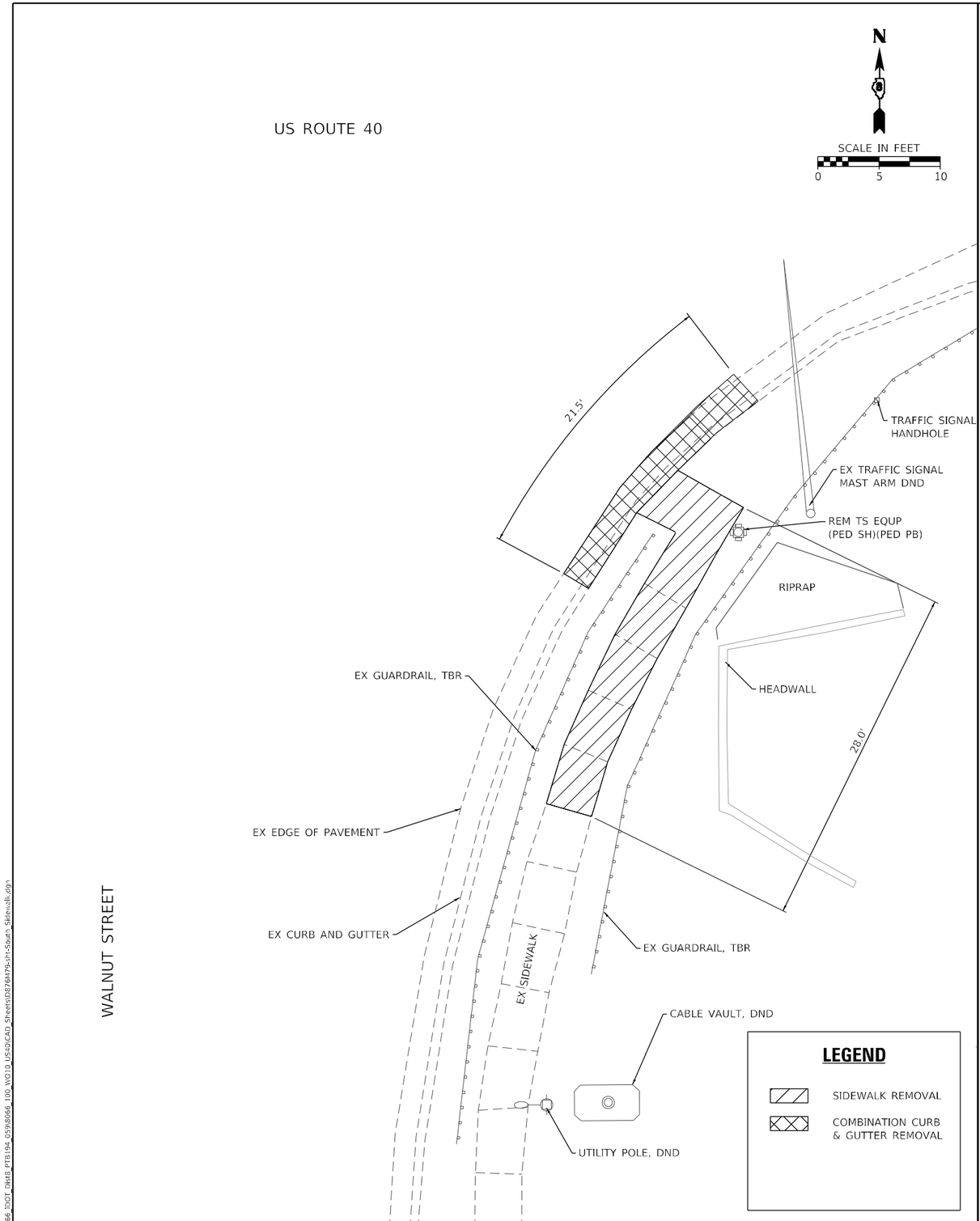
USER NAME = kschwierjohn	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 8/26/2022	DATE -	REVISED -	

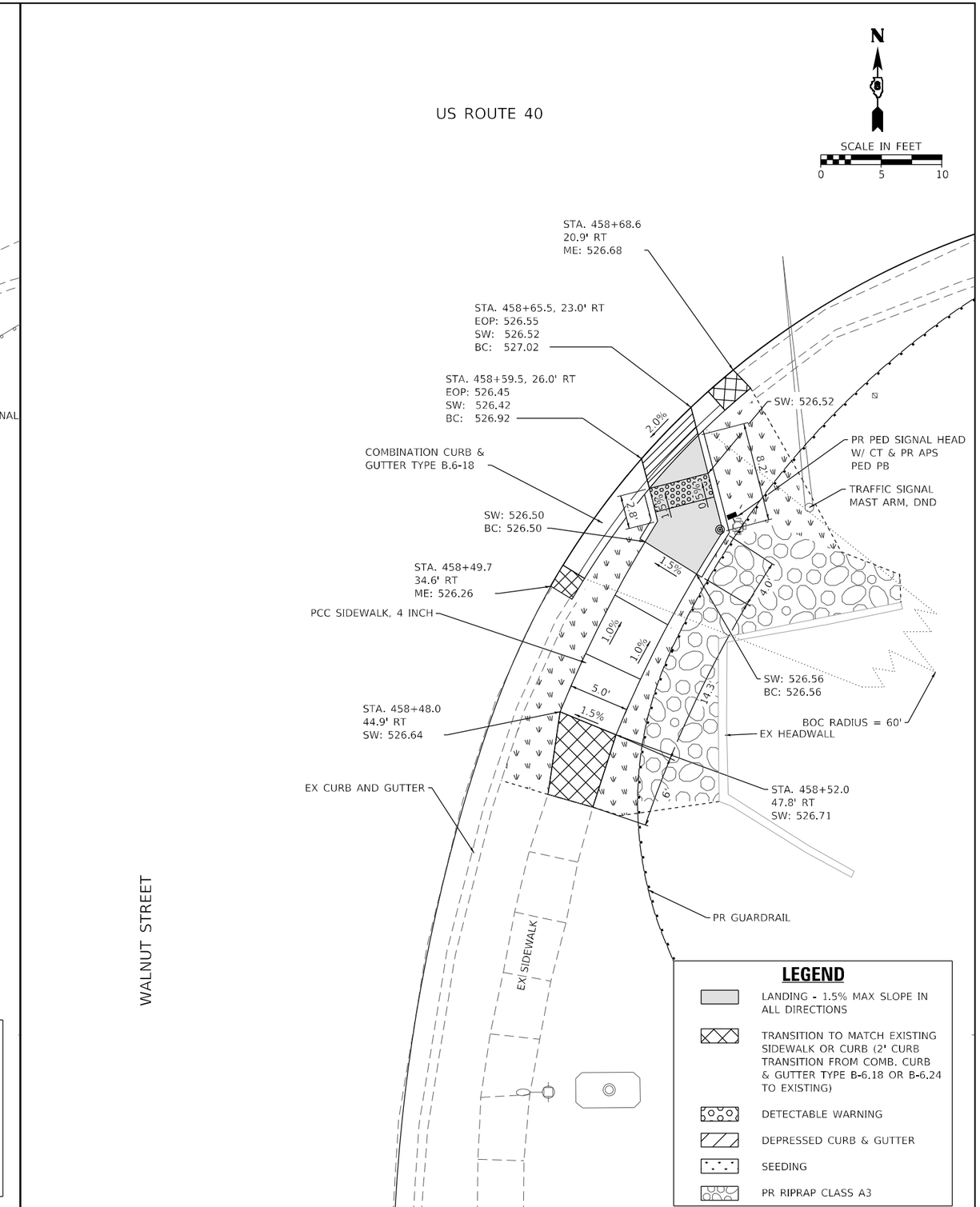
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
US 40 / IL 143

SCALE: SHEET 9 OF 9 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	28
		CONTRACT NO. 76M79		
		ILLINOIS	FED. AID PROJECT	





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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

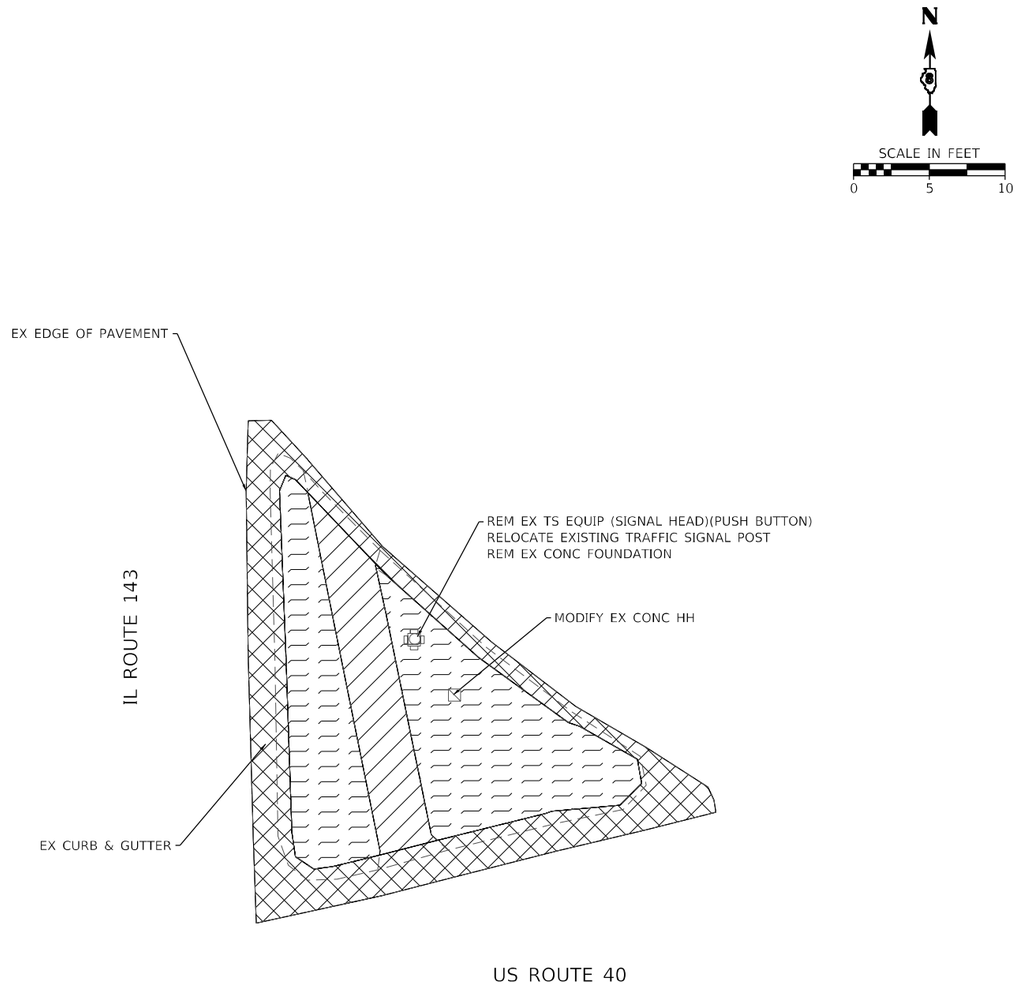
USER NAME = bratermann	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/25/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIDEWALK RAMP DETAILS
SOUTHEAST CORNER US ROUTE 40 AND WALNUT STREET

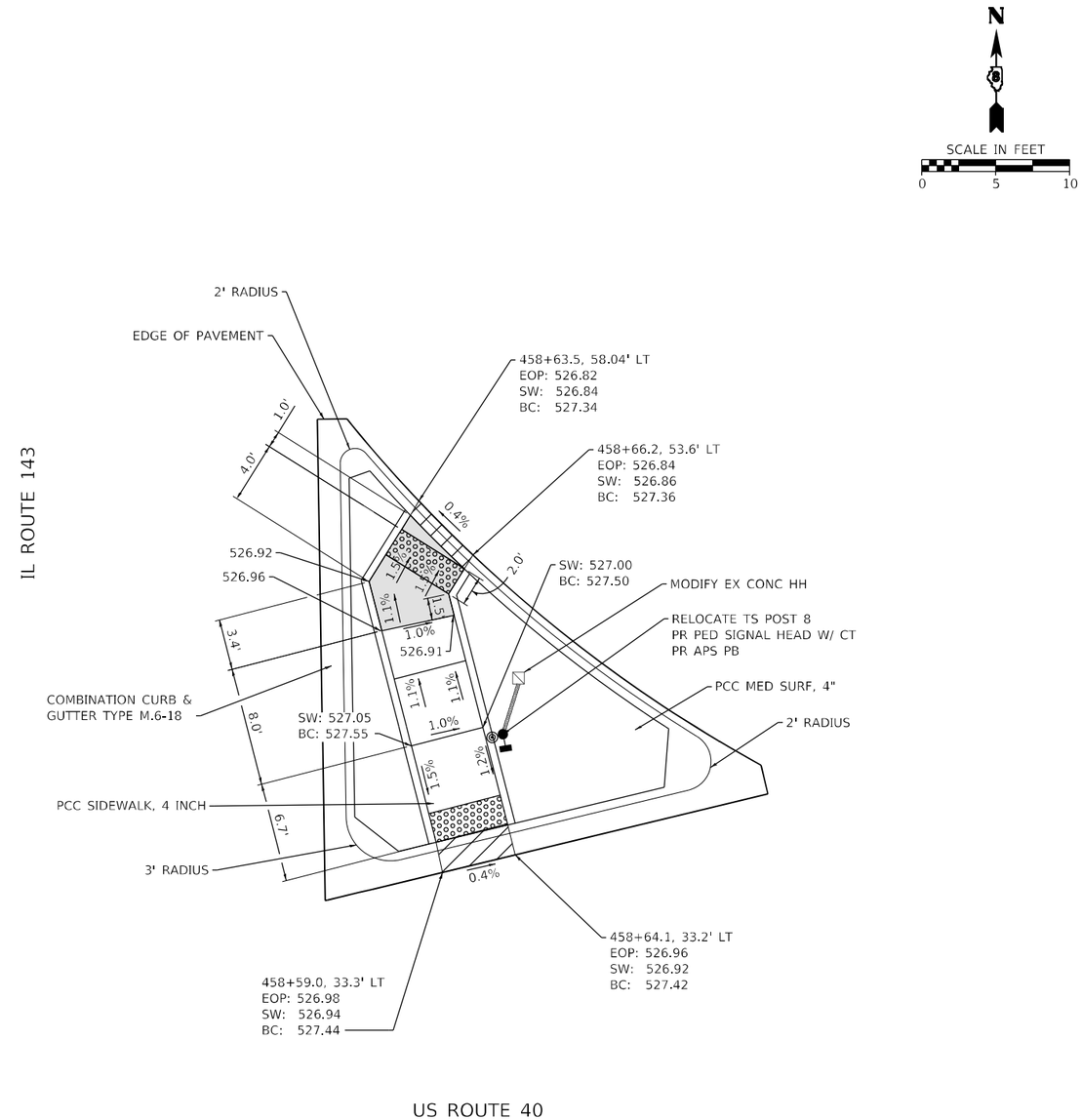
SCALE: 1" = 5' | SHEET 1 OF 3 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	29
		CONTRACT NO. 76M79		
		ILLINOIS	FED. AID PROJECT	



LEGEND

- SIDEWALK REMOVAL
- COMBINATION CURB & GUTTER REMOVAL
- MEDIAN REMOVAL



LEGEND

- LANDING - 1.5% MAX SLOPE IN ALL DIRECTIONS
- TRANSITION TO MATCH EXISTING SIDEWALK OR CURB (2' CURB TRANSITION FROM COMB. CURB & GUTTER TYPE B-6.18 OR B-6.24 TO EXISTING)
- DETECTABLE WARNING
- DEPRESSED CURB & GUTTER
- SEEDING

MODEL: Default
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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

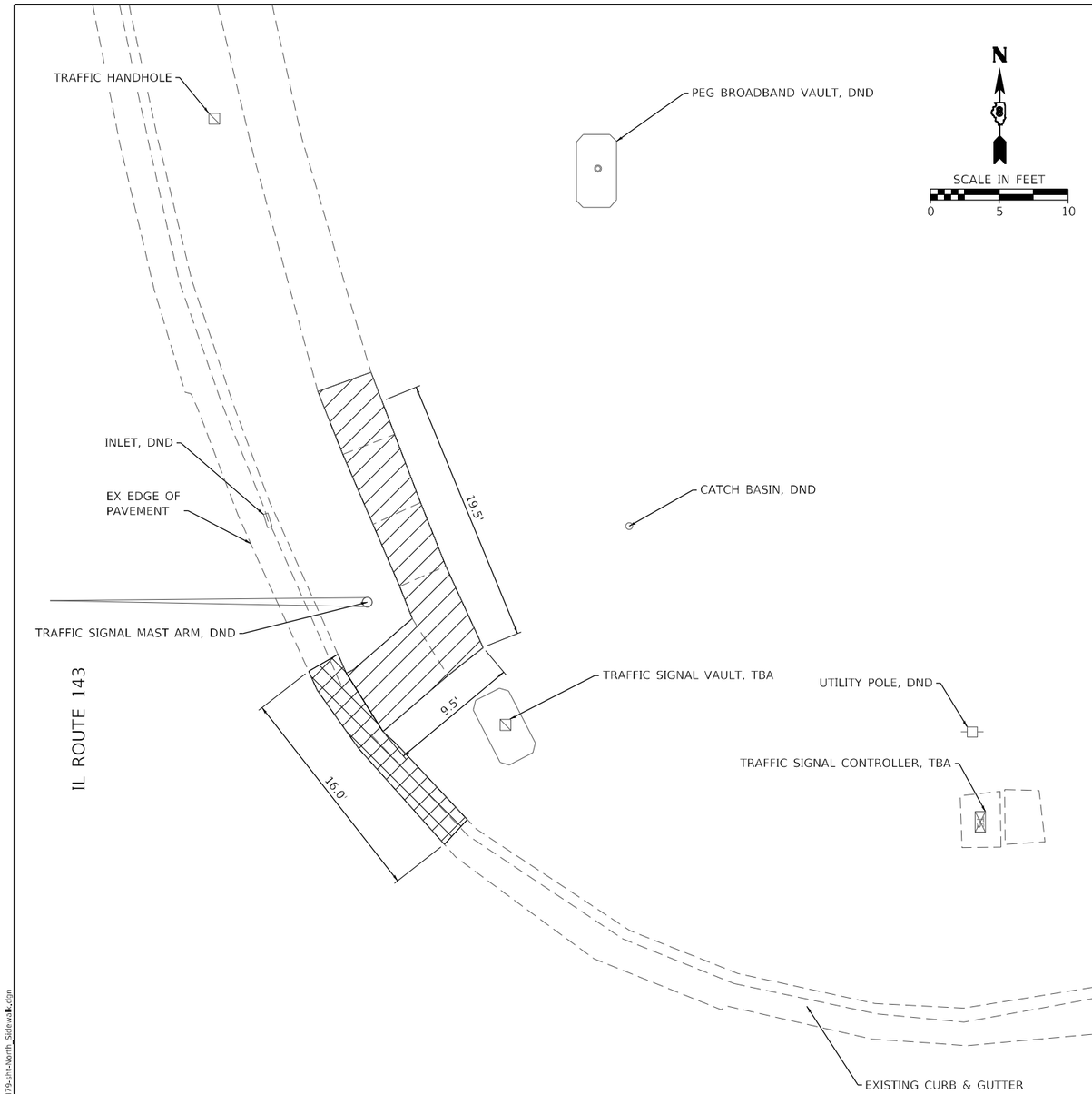
USER NAME = bratermann	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 8/25/2022	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIDEWALK RAMP DETAILS
MEDIAN US ROUTE 40 AND IL ROUTE 143

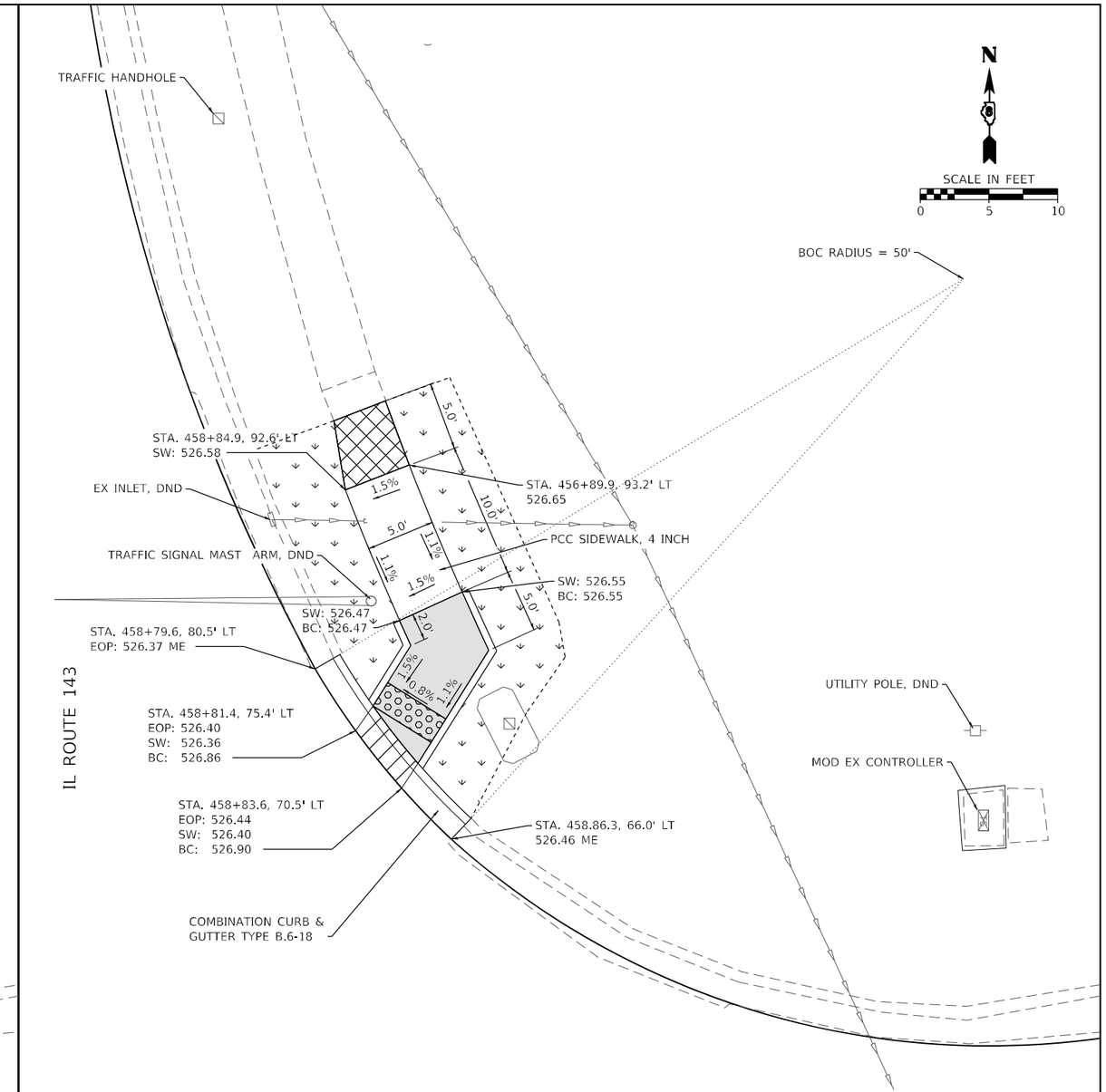
SCALE: 1" = 5' | SHEET 2 OF 3 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	30
		CONTRACT NO. 76M79		
		ILLINOIS	FED. AID PROJECT	



LEGEND

- SIDEWALK REMOVAL
- COMBINATION CURB & GUTTER REMOVAL



LEGEND

- LANDING - 1.5% MAX SLOPE IN ALL DIRECTIONS
- TRANSITION TO MATCH EXISTING SIDEWALK OR CURB (2' CURB TRANSITION FROM COMB. CURB & GUTTER TYPE B-6.18 OR B-6.24 TO EXISTING)
- DETECTABLE WARNING
- DEPRESSED CURB & GUTTER
- SEEDING

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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

USER NAME = bratermann	DESIGNED -	REVISED -	
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PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 8/25/2022	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIDEWALK RAMP DETAILS
NORTHEAST CORNER US ROUTE 40 AND IL ROUTE 143

SCALE: 1" = 5' | SHEET 3 OF 3 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	31
		CONTRACT NO. 76M79		
	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL GENERAL NOTES

1. PRIOR TO COMMENCING CONSTRUCTION OF ANY COMPONENT OF THE PROPOSED TRAFFIC SIGNAL SYSTEM, ALL UNDERGROUND UTILITIES SHALL BE FIELD LOCATED ACCORDING TO ARTICLE 107.39 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION". AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT LIMITS ARE LISTED IN THE GENERAL NOTES OF THE PLANS.
2. NEW MOUNTING HARDWARE AND BRACKETS SHALL BE USED FOR ALL PROPOSED TRAFFIC SIGNAL EQUIPMENT AND ON THE TRAFFIC SIGNAL POLE TO BE RELOCATED.
3. MOUNTING HARDWARE, EXCEPT WHERE NOTED, SHALL BE UNPAINTED ALUMINUM. ALL BOLTS, SCREWS, NUTS, AND WASHERS SHALL BE STAINLESS STEEL. ANTI -SEIZE PASTE COMPOUND SHALL BE USED ON ALL MOUNTING HARDWARE FIELD CONNECTIONS.
4. EXTENSION ARMS MAY BE NECESSARY TO INSTALL THE ACCESSIBLE PEDESTRIAN SIGNAL PUSH BUTTONS TO MEET ADA POLICY. THE COST FOR THE EXTENSION ARMS SHALL BE INCLUDED IN THE UNIT PRICE FOR ACCESSIBLE PEDESTRIAN SIGNALS.
5. ALL TRAFFIC SIGNAL CABLES SHALL BE #14 AWG STRANDED COPPER UNLESS OTHERWISE SPECIFIED. TERMINAL ENDS SHALL HAVE CRIMPED-ON RING TONGUE CONNECTORS.
6. THE PROPOSED LOCATION OF SIGNAL PUSH BUTTONS AND PEDESTRIAN SIGNAL HEADS SHALL BE APPROVED BY THE ENGINEER BEFORE INSTALLATION.
7. IF THERE IS NOT SUFFICIENT SLACK TO RELOCATE EXISTING PEDESTRIAN SIGNAL HEADS OR PUSH BUTTONS; REMOVE ELECTRIC CABLE FROM CONDUIT QUANTITY HAS BEEN INCLUDED TO REMOVE THE TRAFFIC SIGNAL CABLE ONLY FOR THE RESPECTIVE EQUIPMENT AND INSTALL NEW TRAFFIC SIGNAL CABLE IN THE EXISTING CONDUIT.
8. EXISTING NO. 6, EQUIPMENT GROUNDING CABLE IS NOT INTENDED TO BE REMOVED WITH SIGNAL CABLE WHEN RELOCATING TRAFFIC SIGNAL EQUIPMENT.

TRAFFIC SIGNAL LEGEND

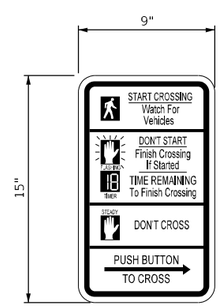
- EXISTING HANDHOLE
- EXISTING DOUBLE HANDHOLE
- EXISTING CONDUIT
- PROPOSED CONDUIT
- EXISTING SIGNAL HEAD, PEDESTRIAN
- EXISTING PEDESTRIAN PUSH BUTTON DETECTOR
- EXISTING CONTROLLER
- EXISTING SIGNAL POST
- PROPOSED SIGNAL HEAD, PEDESTRIAN
- PROPOSED APS PEDESTRIAN PUSH BUTTON

TRAFFIC SIGNAL BILL OF MATERIALS

CODE NO.	ITEM	UNIT	TOTAL QUANTITIES
72000100	SIGN PANEL - TYPE 1	SQ FT	1.8
81028370	UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	5
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	110
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	117
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	15
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	3
88102719	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, POST MOUNTED WITH COUNTDOWN TIMER	EACH	2
89501150	RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	1
89502200	MODIFY EXISTING CONTROLLER	EACH	1
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	226
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	1
X8140205	MODIFY EXISTING CONCRETE HANDHOLE	EACH	1
X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	2

STANDARDS FOR TRAFFIC SIGNAL SHEETS

720001	SIGN PANEL MOUNTING DETAILS
873001	TRAFFIC SIGNAL GROUNDING & BONDING
878001	CONCRETE FOUNDATION DETAILS
880006	TRAFFIC SIGNAL MOUNTING DETAILS



ACCESSIBLE PEDESTRIAN SIGNAL SIGN
R10–3e

(A)

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HMG ENGINEERS
IL PROF DESIGN FIRM 184.000899

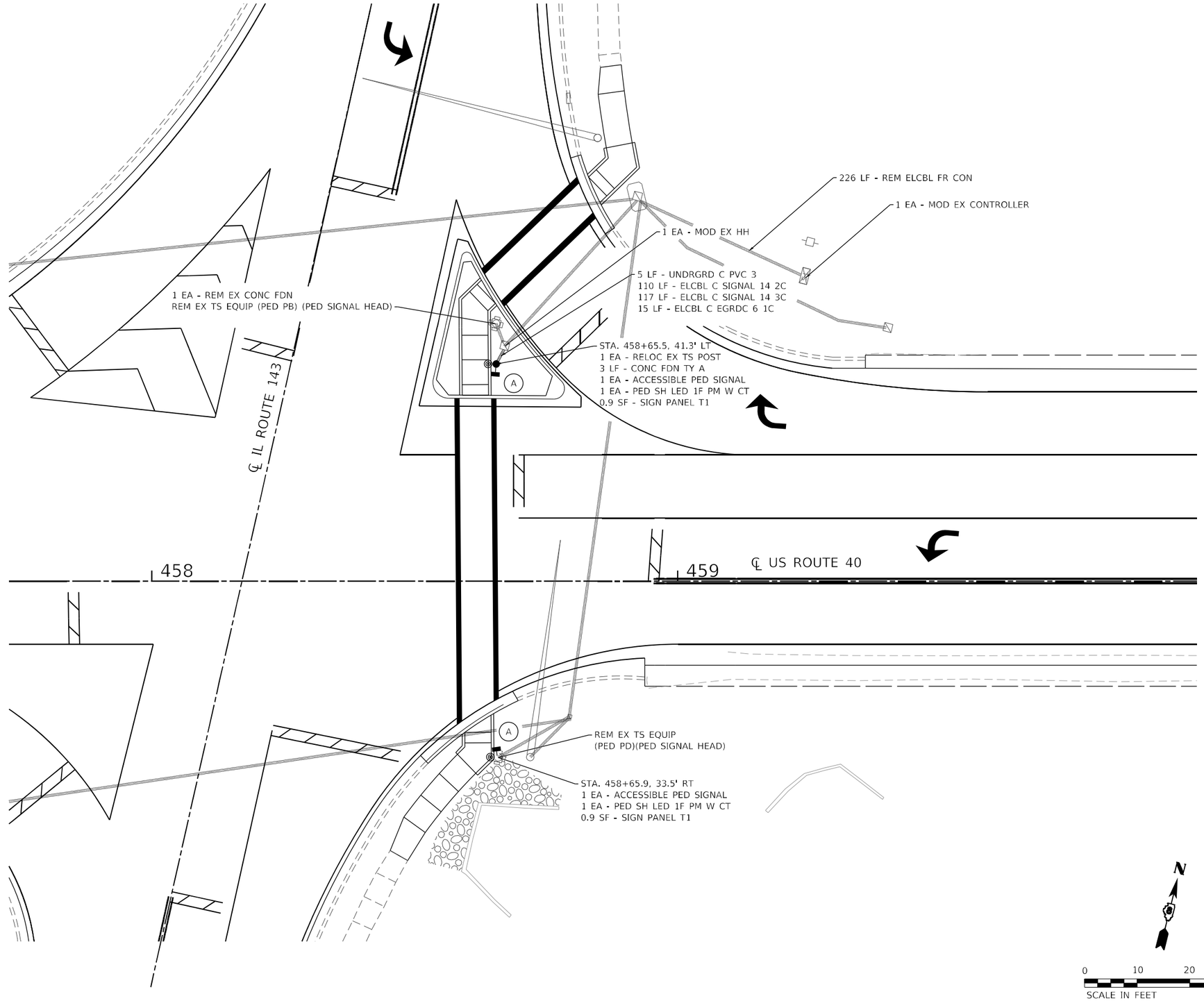
USER NAME = bratermann	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 8/25/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL SHEETS

SCALE: NTS | SHEET 1 OF 2 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	32
		CONTRACT NO. 76M79		
		ILLINOIS	FED. AID PROJECT	



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HMG ENGINEERS IL PROF DESIGN FIRM 184.000899	USER NAME = bratermann	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN -	REVISED -			793	(R-1)RS-5	MADISON	44 / 33
	PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -		SCALE: 1" = 20' SHEET 2 OF 2 SHEETS STA. TO STA.			CONTRACT NO. 76M79	
	PLOT DATE = 8/25/2022	DATE -	REVISED -				ILLINOIS	FED. AID PROJECT	

NOTES:

SEE TABLE "DETECTOR LOOP REQUIREMENTS AND CALCULATIONS" FOR LOOP SIZE AND CALCULATED NUMBER OF TURNS.
SEE "DETAIL A" FOR INSTALLING DETECTOR LOOP WIRES IN EXISTING CONDUITS.

SCHEDULE OF QUANTITIES			TOTAL QUANTITIES	US 40 & IL 143	US 40 & F. W. PRKWY. / HEMLOCK ST.	US 40 & DOUGLAS ST. / MARINE RD.
CODE NO	ITEM	UNIT				
88600600	DETECTOR LOOP REPLACEMENT	FOOT	5289	2193	787	2309

DETECTOR LOOP REQUIREMENTS AND CALCULATIONS
FOR IL 143/US 40 & N. DOUGLAS ST. (CR 2670E)

LOOP#	PHASE #	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES	CALCULATED RESISTANCE OHMS
1. EB CCO	6	6' x 6'	7	507.27	3.63
2. EB LT CD	1	6' x 50'(Q)	3-6-3	851.78	3.09
3. EB THRU CD	6	6' x 50'(Q)	3-6-3	849.14	3.03
4. EB RT CD	6	6' x 50'(Q)	3-6-3	847.16	2.98
5. NB RR THRU 1 CD	4	6' x 50'(Q)	3-6-3	855.74	3.18
6. NB RR THRU 2 CD	4	6' x 50'(Q)	3-6-3	855.30	3.17
7. NB THRU CD	4	6' x 50'(Q)	3-6-3	823.40	2.44
8. NB RT CD	4	6' x 6'	6	813.94	2.23
9. WB CCO	2	6' x 50'(Q)	3-6-3	351.46	2.56
10. WB LT CD	5	6' x 50'(Q)	3-6-3	801.84	1.95
11. WB THRU CD	2	6' x 50'(Q)	3-6-3	798.54	1.85
12. WB RT CD	2	6' x 6'	6	796.56	1.83
13. SB CCO	3	6' x 50'(Q)	3-6-3	342.00	2.34
14. SB THRU CD	3	6' x 50'(Q)	3 6 3	824.50	2.47
15. SB RT CD	3	6' x 45'(Q)	3-6-3	747.08	2.26

DETECTOR LOOP REQUIREMENTS AND CALCULATIONS
FOR IL 143/US 40 & FRANK WATSON PRKWY_HEMLOCK ST.

LOOP#	PHASE #	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES	CALCULATED RESISTANCE OHMS
1. SB CCO	8	6' x 6'	6	374.12	3.07
2. SB LT CD	3	6' x 50'(Q)	3-6-3	853.10	3.12
3. SB THRU CD	8	6' x 50'(Q)	3-6-3	850.46	3.06
4. EB CCO	6	6' x 6'	7	514.31	3.79
5. EB LT CD	1	6' x 50'(Q)	3-6-3	854.86	3.16
6. EB THRU CD	6	6' x 50'(Q)	3-6-3	852.66	3.11
7. EB RT CD	6	6' x 50'(Q)	3-6-3	849.80	3.04
8. NB LT CD	7	6' x 50'(Q)	3-6-3	823.40	2.44
9. NB THRU CD	4	6' x 50'(Q)	3-6-3	820.98	2.39
10. NB RT CD	4	6' x 50'(Q)	3-6-3	818.12	2.32
11. WB CCO	2	6' x 6'	6	375.44	3.10
12. WB LT CD	2	6' x 50'(Q)	3-6-3	816.58	2.29
13. WB THRU CD	5	6' x 50'(Q)	3-6-3	815.04	2.25

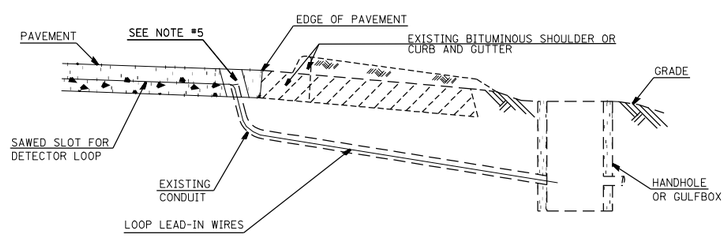
DETECTOR LOOP REQUIREMENTS AND CALCULATIONS
FOR IL 143/US 40 & WALNUT ST./IL 143

LOOP#	PHASE #	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES	CALCULATED RESISTANCE OHMS
1. EB CCO	2	6' x 6'	7	512.11	3.74
2. EB LT CD	5	6' x 50'(Q)	3-6-3	859.70	3.27
3. EB THRU CD	2	6' x 50'(Q)	3-6-3	857.28	3.21
4. EB RT CD	2	6' x 50'(Q)	3-6-3	853.76	3.13
5. NB CCO	8	6' x 6'	6	355.20	2.64
6. NB LT CD	3	6' x 50'(Q)	3-6-3	838.36	2.78
7. NB THRU CD	8	6' x 50'(Q)	3-6-3	828.90	2.57
8. WB CCO	6	6' x 6'	6	351.90	2.57
9. WB LT CD	1	6' x 50'(Q)	3-6-3	817.68	2.31
10. WB THRU CD	6	6' x 50'(Q)	3-6-3	818.34	2.33
11. WB RT CD	6	6' x 50'(Q)	3-6-3	799.42	1.90
12. SB CCO	4	6' x 6'	6	339.80	2.29
13. SB LT CD	7	6' x 50'(Q)	3-6-3	812.40	2.19
14. SB THRU CD	4	6' x 50'(Q)	3-6-3	821.42	2.40
15. SB RT CD	4	6' x 50'(Q)	3-6-3	837.92	2.77

THE ABOVE VALUES ARE CALCULATED OF COMBINED LOOP AND LEAD-IN INDUCTANCE AND RESISTANCE. ACTUAL MEASURED VALUES SHOULD BE WITHIN +/- 20% OF THESE VALUES.

Q=QUADRAPOLE

(*) =SEE "DETAIL A"



DETAIL A
(NO SCALE)
INSTALLING DETECTOR LOOP WIRES IN EXISTING CONDUIT

1. DRILL OUT PAVEMENT SEALANT AND CLEAN EXISTING CONDUIT.
2. REMOVE EXISTING DETECTOR LOOP WIRES TO HANDHOLE OR GULFBOX.
3. INSTALL NEW LOOP LEAD-IN WIRES IN EXISTING CONDUIT.
4. SPLICE NEW DETECTOR LOOP WIRES TO EXISTING LOOP LEAD-IN CABLE IN HANDHOLE OR GULFBOX.
5. FILL HOLE WITH APPROVED SEALER. PREVENT SEALER FROM ENTERING INTO CONDUIT.
6. LOCATING UNDERGROUND CABLE WILL BE PAID FOR SEPARATELY.

NOT A PAY ITEM. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "DETECTOR LOOP REPLACEMENT"

DETECTOR LOOP REPLACEMENT LEGEND

- EX. HANDHOLE
- EX. DETECTOR LOOP
- EX. TRAFFIC SIGNAL CONTROLLER
- EXISTING CONDUIT
- PROPOSED DETECTOR LOOP

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	DRAWN -	REVISED -	
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PLOT DATE = 8/25/2022	DATE -	REVISED -	

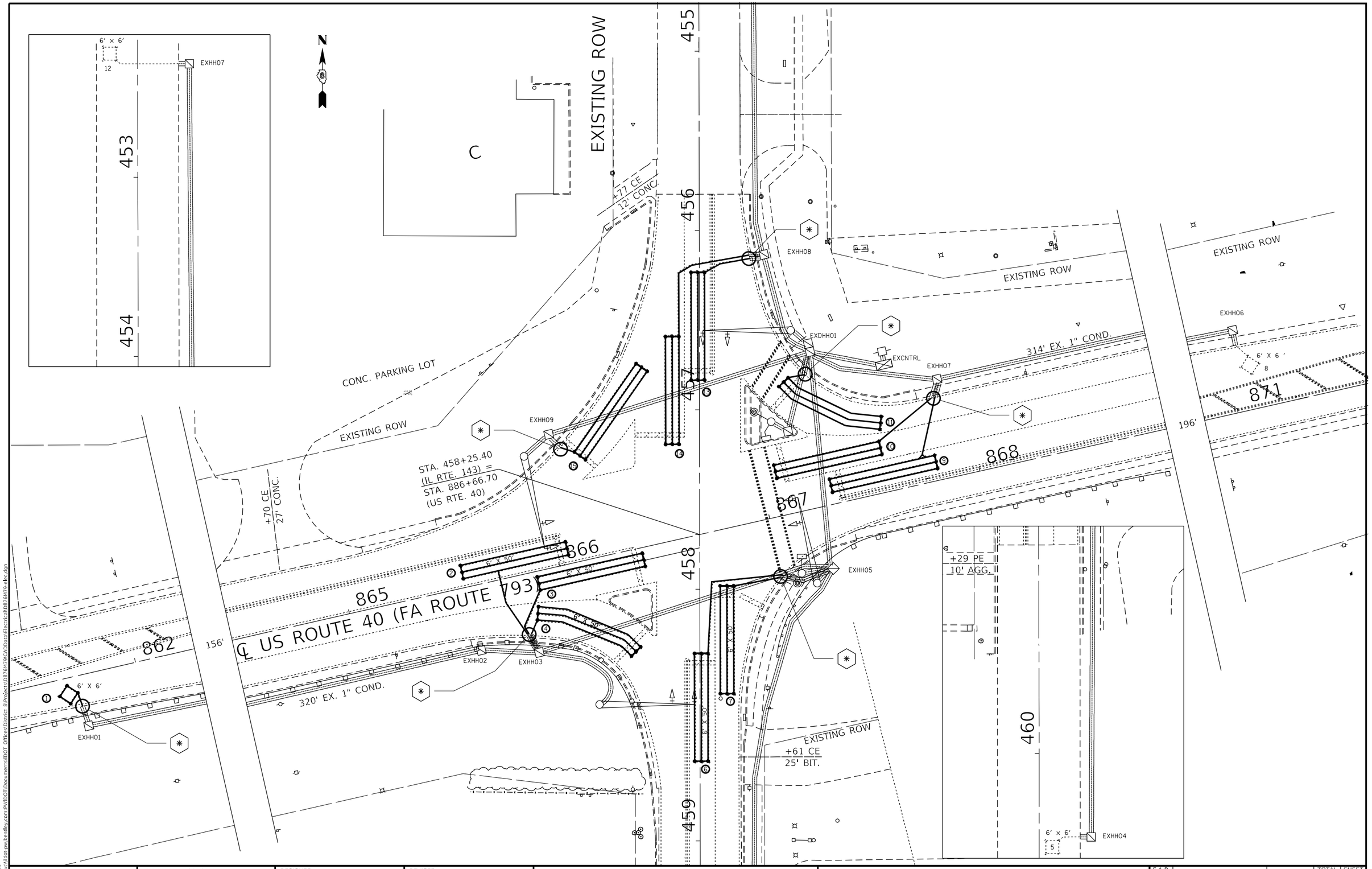
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP REPLACEMENT
GENERAL NOTES, SCHEDULE OF QUANTITIES, DETAIL AND LEGEND

SCALE: | SHEET 01 OF 05 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	34

CONTRACT NO. 76M79
ILLINOIS | FED. AID PROJECT



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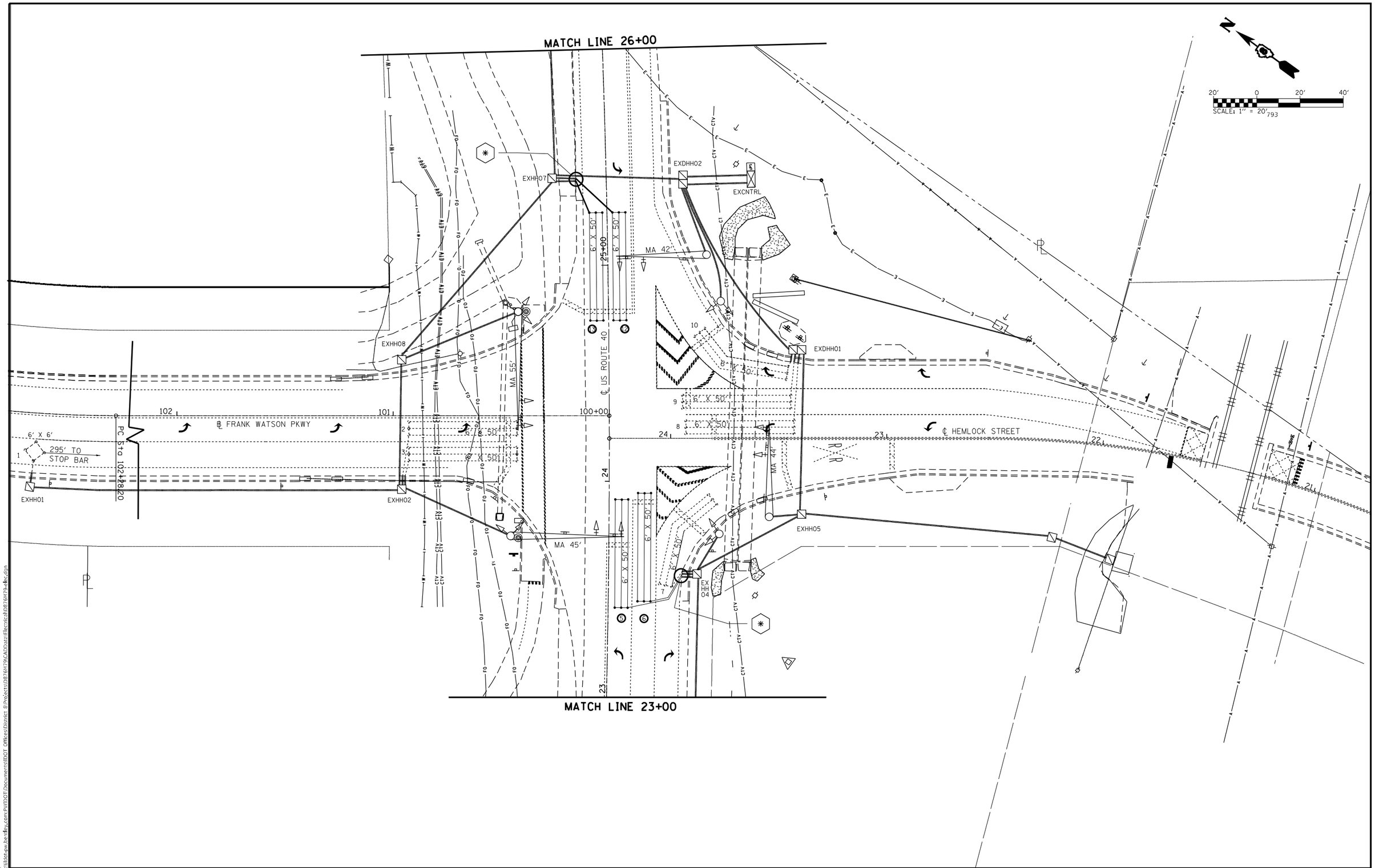
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP REPLACEMENT PLAN
US 40 AT IL 143

SCALE: | SHEET 02 OF 05 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	35
		CONTRACT NO. 76M79		
		ILLINOIS	FED. AID PROJECT	



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PLOT DATE = 8/25/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP REPLACEMENT PLAN
US 40 AT FRANK WATSON PRKWY./HEMLOCK ST.
1 OF 2

SCALE: | SHEET 03 OF 05 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	36
		CONTRACT NO. 76M79		
		ILLINOIS FED. AID PROJECT		

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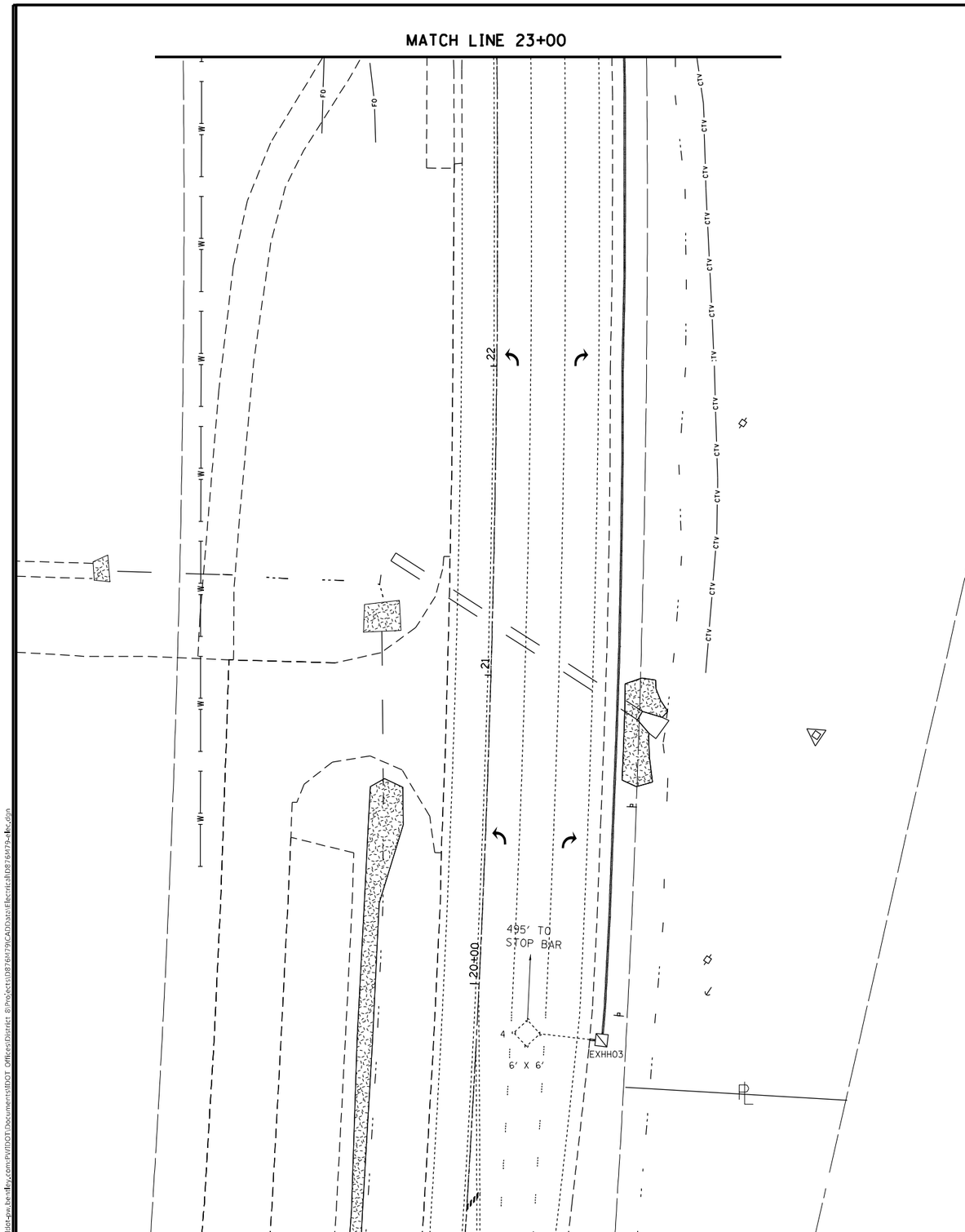

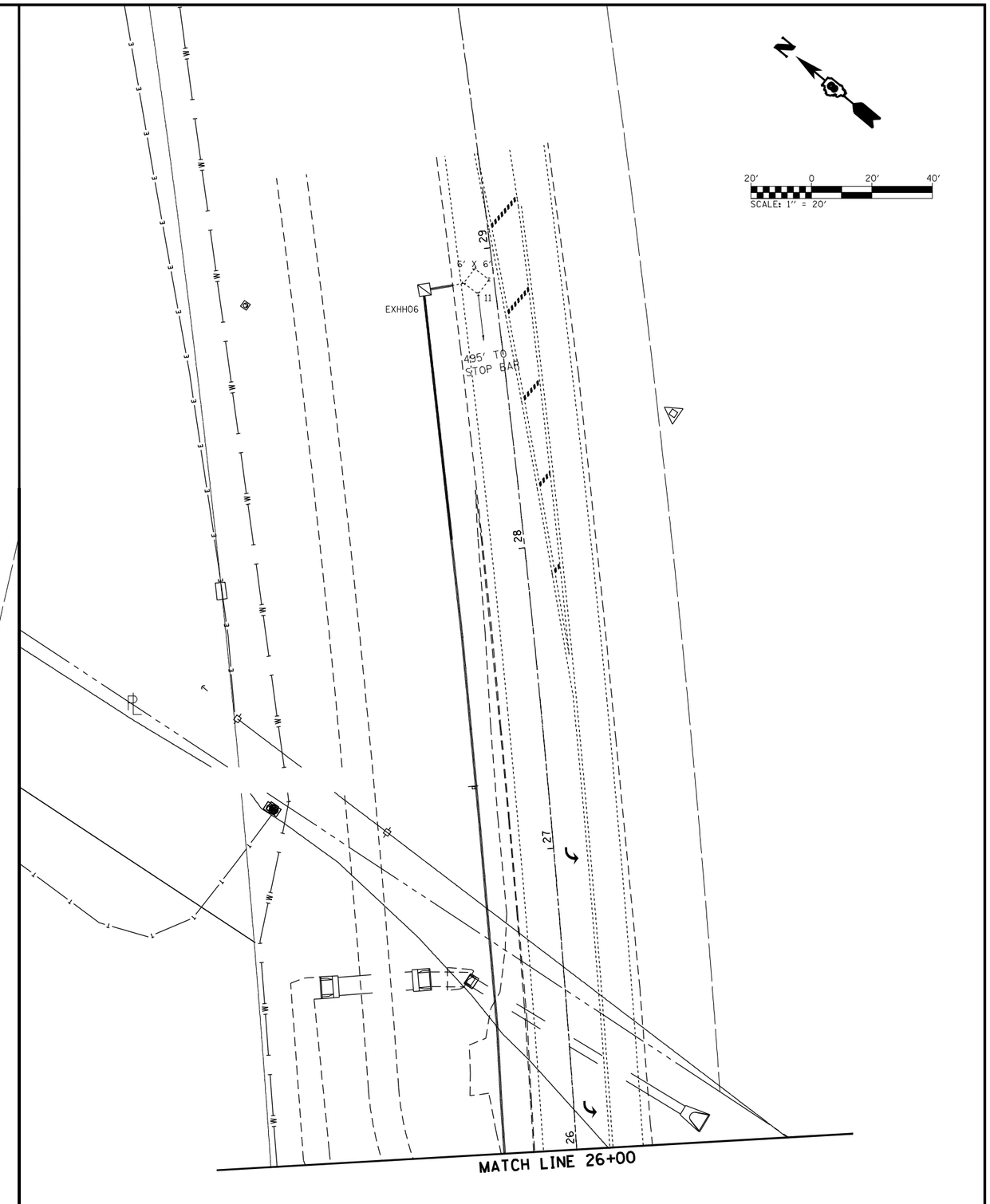

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP REPLACEMENT PLAN
US 40 AT FRANK WATSON PRKWY./HEMLOCK ST.
2 OF 2

SCALE: | SHEET 04 OF 05 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	37

CONTRACT NO. 76M79

ILLINOIS | FED. AID PROJECT

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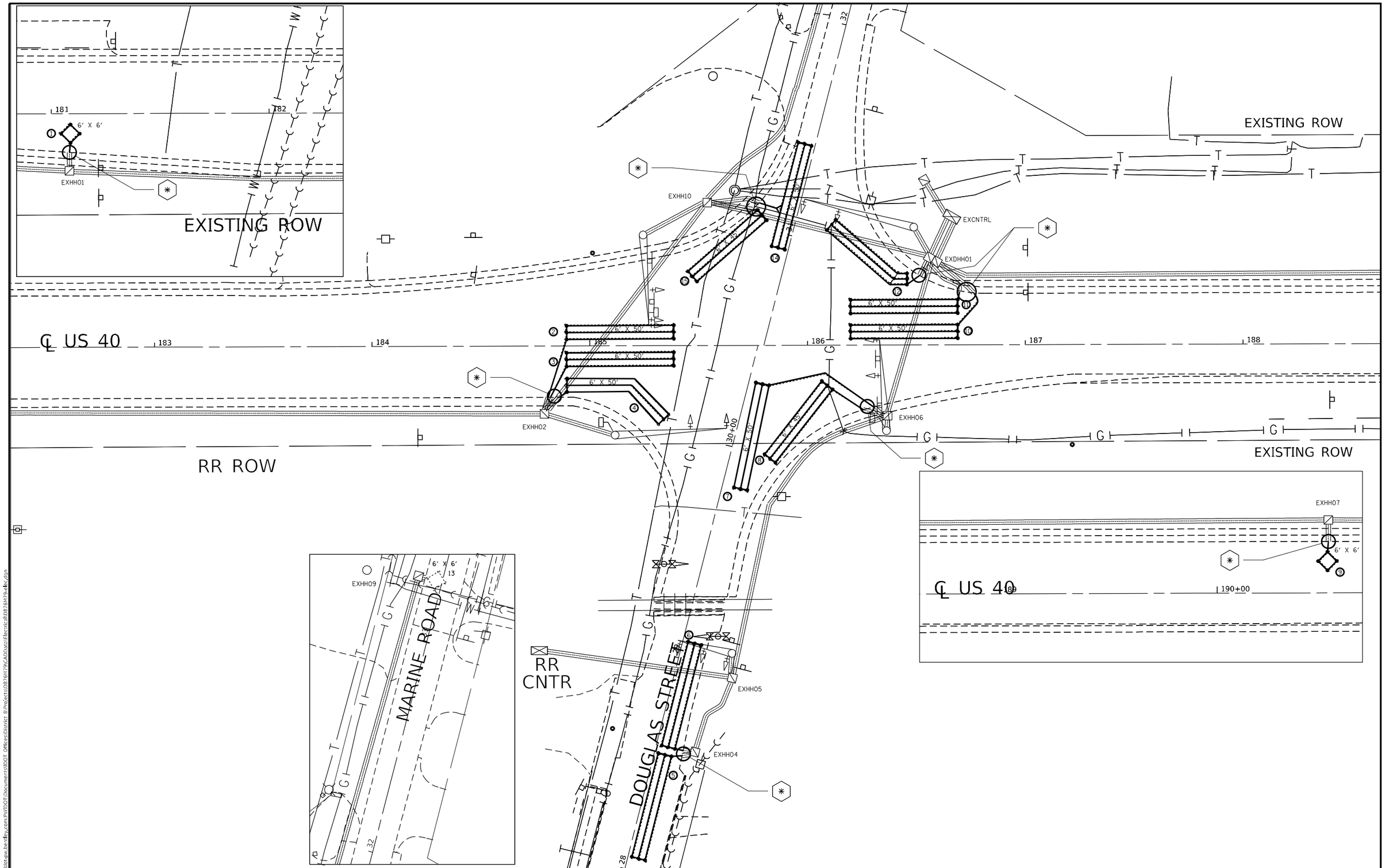

USER NAME = Michael.Preston	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
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PLOT DATE = 8/25/2022	DATE -	REVISED -	

DETECTOR LOOP REPLACEMENT PLAN
US 40 AT DOUGLAS ST./MARINE RD.

SCALE: | SHEET 05 OF 05 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	38
		CONTRACT NO. 76M79		
	ILLINOIS	FED. AID PROJECT		

MODEL: Default
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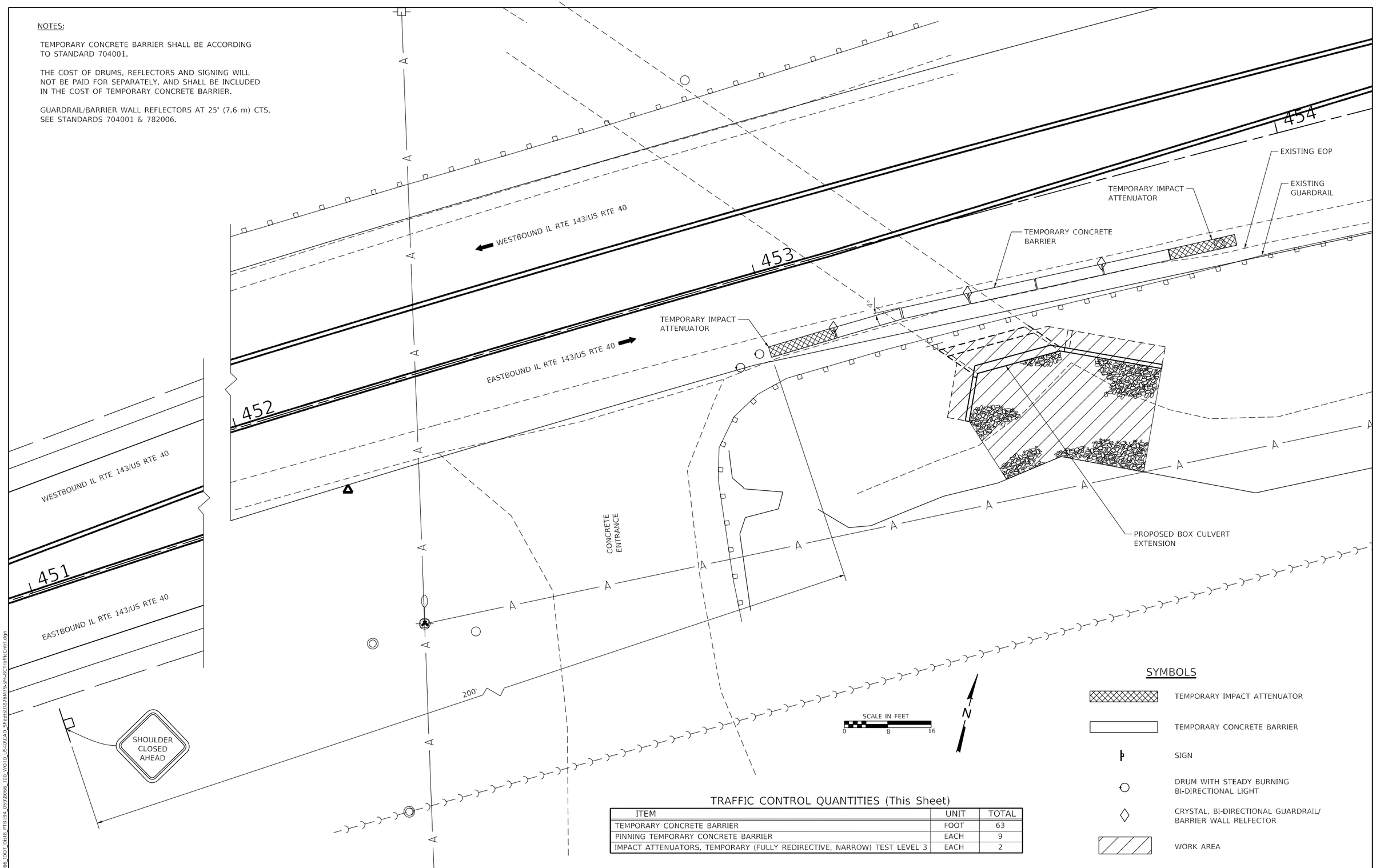
NOTES:

TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO STANDARD 704001.

THE COST OF DRUMS, REFLECTORS AND SIGNING WILL NOT BE PAID FOR SEPARATELY, AND SHALL BE INCLUDED IN THE COST OF TEMPORARY CONCRETE BARRIER.

GUARDRAIL/BARRIER WALL REFLECTORS AT 25' (7.6 m) CTS, SEE STANDARDS 704001 & 782006.



TRAFFIC CONTROL QUANTITIES (This Sheet)

ITEM	UNIT	TOTAL
TEMPORARY CONCRETE BARRIER	FOOT	63
PINNING TEMPORARY CONCRETE BARRIER	EACH	9
IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW) TEST LEVEL 3	EACH	2

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HMG ENGINEERS
IL PROF DESIGN FIRM 184.000899

USER NAME = kschwierjohn	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
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PLOT DATE = 8/26/2022	DATE -	REVISED -	

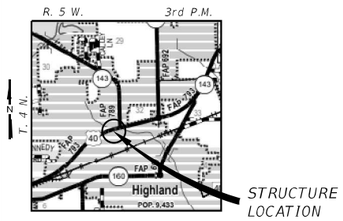
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
STRUCTURE NO. 060–2514

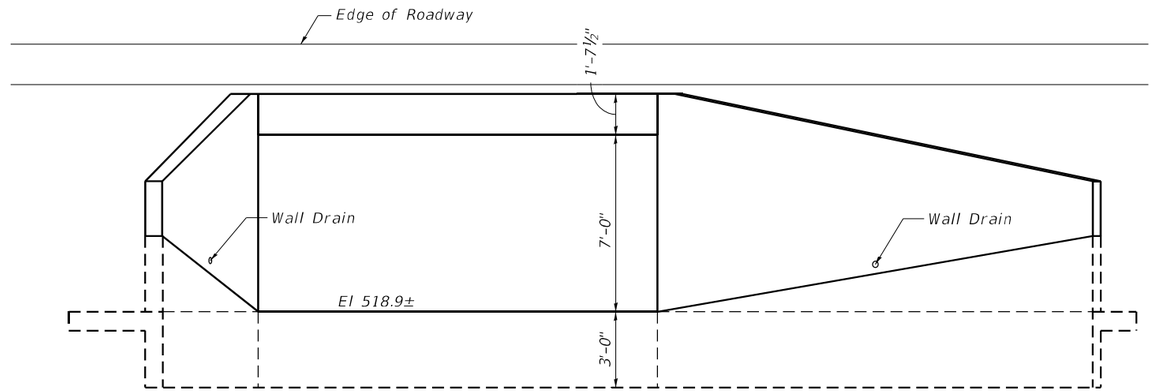
SCALE: | SHEET 1 OF 1 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	39
		CONTRACT NO. 76M79		
	ILLINOIS	FED. AID PROJECT		

BENCHMARK: TBM RR Spike in Power Pole
Sta 452+23.00, 44.5' Rt
El 530.53



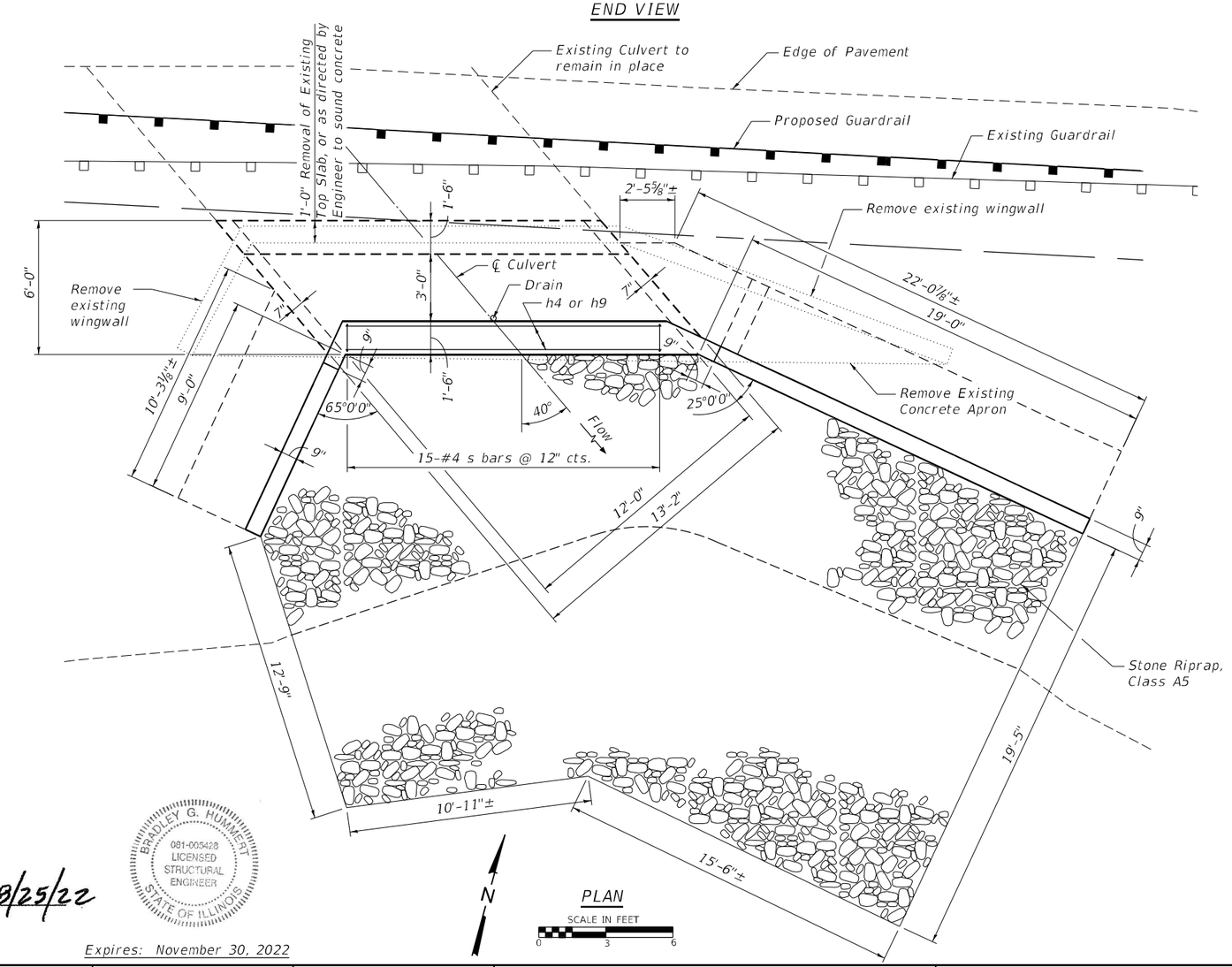
LOCATION SKETCH



END VIEW

WATERWAY INFORMATION

Drainage Area = 0.63 Sq.Mi.			
Flood	Freq. Yr.	Q CFS	Headwater Elev.
Design	50	690	527.0
Base	100	800	527.9



DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

LOADING HS20-44

Allow 50 psf for future wearing surface.
Allowable soil bearing pressure = 4,000 psf

DESIGN STRESSES

CAST IN PLACE CONCRETE (NEW CONST.)

f'c = 3,500 psi
fy = 60,000 psi (reinf.)

INDEX OF SHEETS

1. General Plan & Elevation
2. General Data
3. Box Culvert Extension Details

BRADLEY G. HUMMERT 081-005428 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS

Bradley G. Hummert Date: 8/25/22
Bradley G. Hummert
Licensed Structural Engineer
in Illinois No. 081-005428

Expires: November 30, 2022

GENERAL PLAN & ELEVATION
FAP 793 (US RTE 40) OVER
W. TRIBUTARY TO SUGAR CREEK
SECTION (R-1)RS-5
MADISON COUNTY
STATION 453+19
STRUCTURE NO. 060-2514

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HMG ENGINEERS IL PROF DESIGN FIRM 184.000899	USER NAME = kschwierjohn	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			793	(R-1)RS-5	MADISON	44	40
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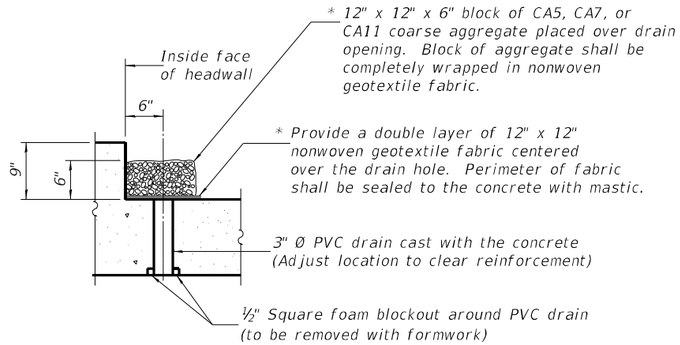
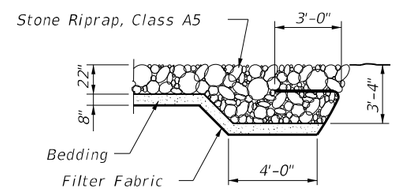
	PLOT DATE = 8/26/2022	DATE -	REVISED -		SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT		

* Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.

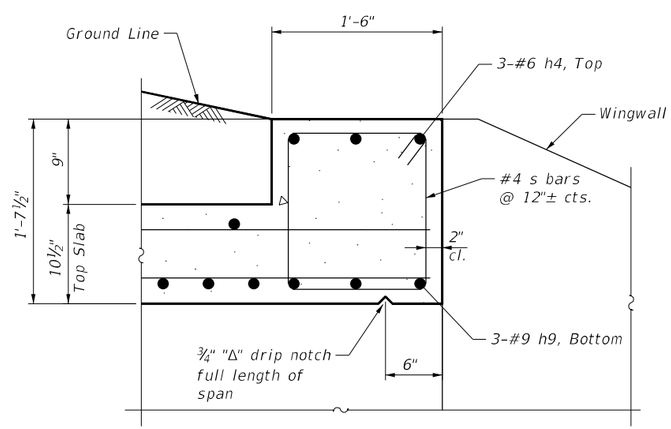


DRAIN DETAIL

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



RIPRAP FLANK DETAIL



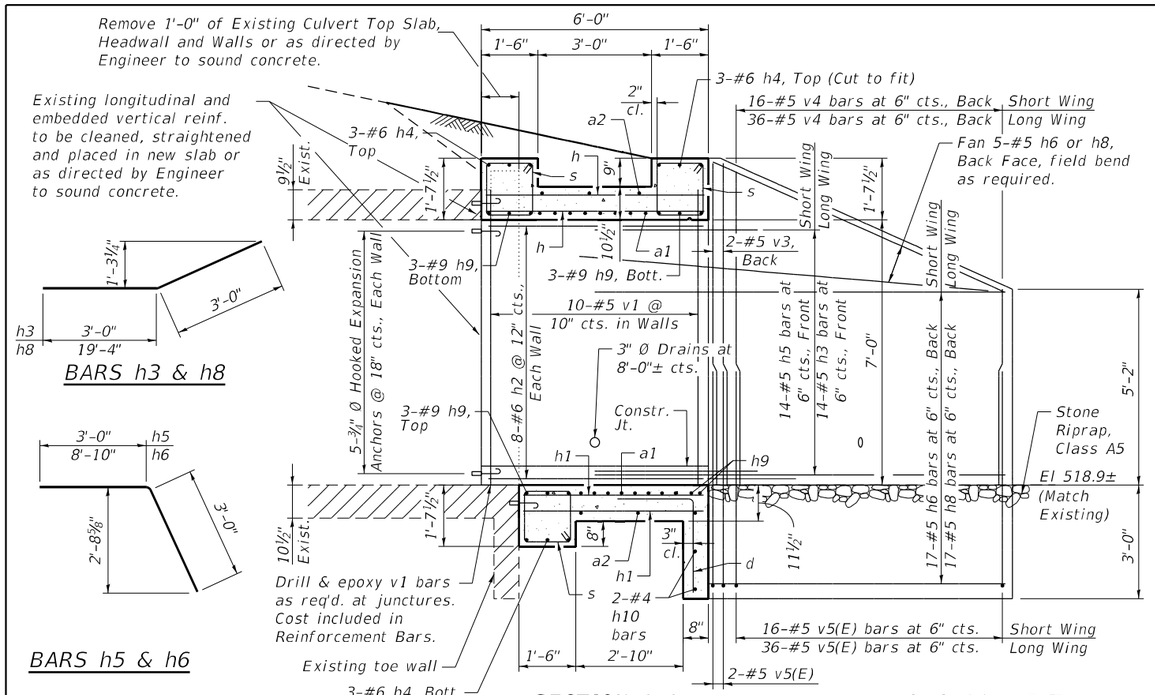
HEADWALL DETAIL

GENERAL NOTES

1. It shall be the responsibility of the Contractor to divert the stream flow during construction in order to maintain flow and keep the construction areas free of water. The method of diversion shall be subject to the approval of the Engineer and the cost shall be included in the unit bid price of "Concrete Box Culverts".
2. Optional use of precast concrete box culvert sections will not be permitted.
3. Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.
4. Exposed edges of concrete shall have ¾" chamfer unless otherwise noted.
5. All construction joints shall be bonded.
6. Reinforcement bars designated (E) shall be epoxy coated.
7. 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.
8. The Contractor shall take necessary care and precautions to protect the roadway/shoulder structure and base from damage and undermining during excavation and construction operations. As part of the Contractor's means and methods this will not be paid for separately, but all costs shall be included in the unit price for Structure Excavation.

TOTAL BILL OF MATERIAL

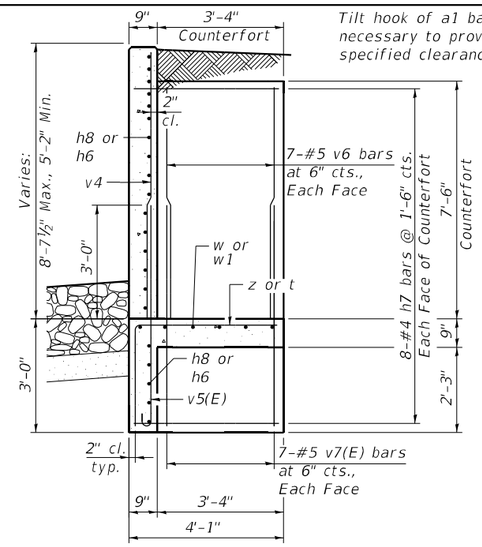
ITEM	UNIT	TOTAL
Channel Excavation	Cu Yd	28
Stone Riprap, Class A5	Sq Yd	71
Filter Fabric	Sq Yd	71
Structure Excavation	Cu Yd	77
Concrete Removal	Cu Yd	9.2
Expansion Bolts ¾ inch x 9 inch	Each	32
Concrete Box Culverts	Cu Yd	23.4
Reinforcement Bars	Pound	5,080
Reinforcement Bars, Epoxy Coated	Pound	460



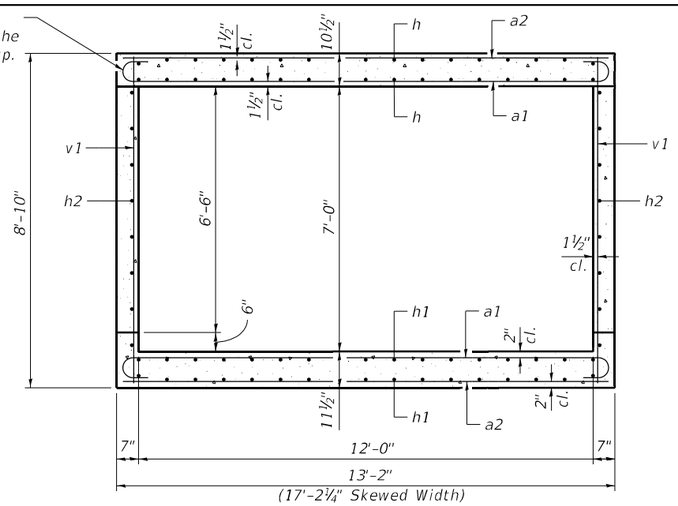
SECTION A-A
At Right Angles

BARS h3 & h8

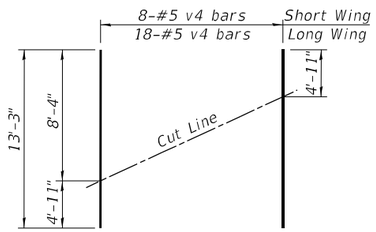
BARS h5 & h6



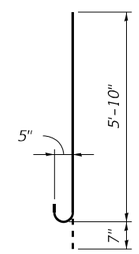
SECTION B-B
Omit Counterfort at Short Wing



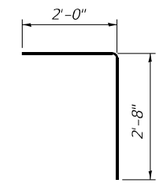
CROSS SECTION



FIELD CUTTING DIAGRAM
Order v4 bars full length. Cut as shown and use remainder of bars in opposite end.

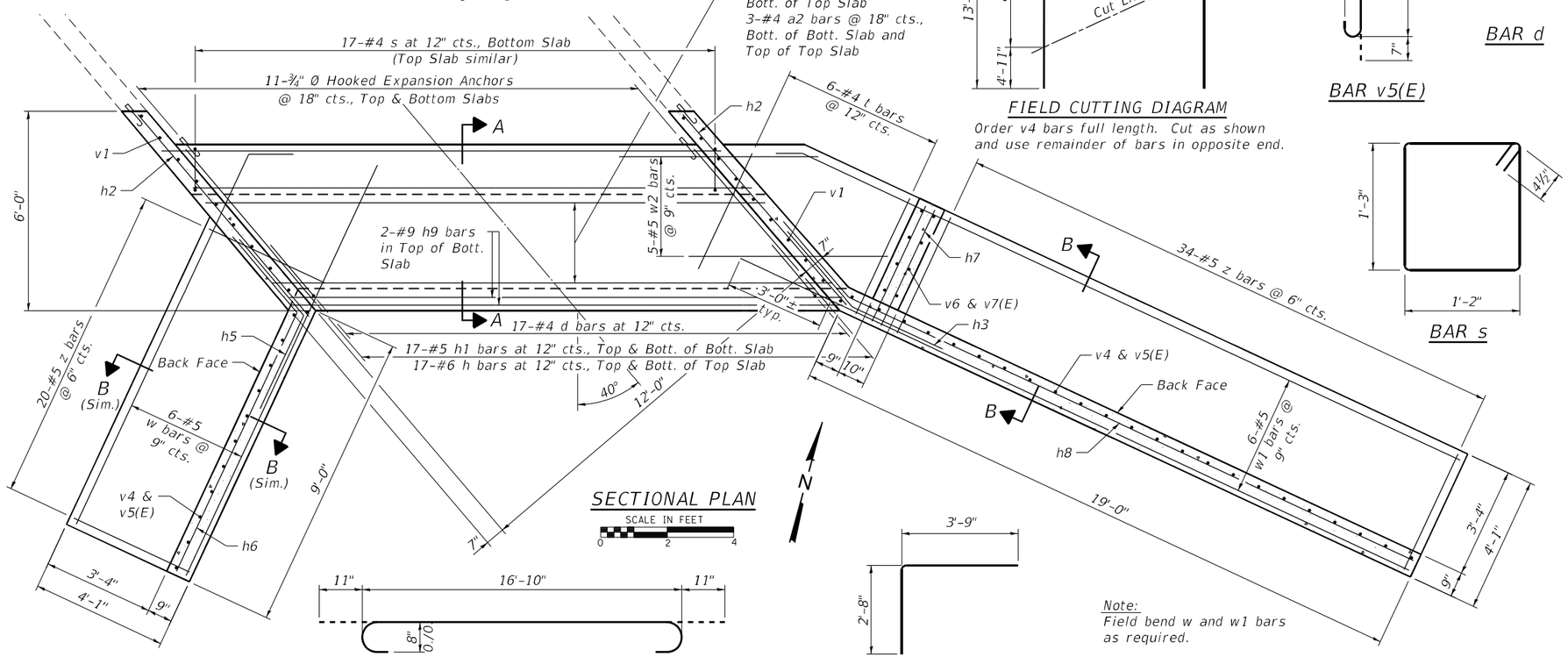


BAR v5(E)



BAR d

BAR s



SECTIONAL PLAN
SCALE IN FEET
0 2 4

BAR a1

BAR z

Note:
Field bend w and w1 bars as required.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	16	#8	18'-8"	
a2	6	#4	16'-10"	
d	17	#4	4'-8"	
h	34	#6	7'-6"	
h1	34	#5	6'-2"	
h2	16	#6	7'-8"	
h3	14	#5	6'-0"	
h4	9	#6	16'-10"	
h5	14	#5	6'-0"	
h6	22	#5	11'-10"	
h7	16	#4	3'-9"	
h8	22	#5	22'-4"	
h9	11	#9	16'-10"	
h10	2	#4	16'-10"	
s	49	#4	5'-7"	
t	6	#4	3'-9"	
v1	20	#5	8'-6"	
v3	4	#5	8'-4"	
v4	26	#5	13'-3"	
v5(E)	56	#5	6'-5"	
v6	14	#5	7'-4"	
v7(E)	14	#5	5'-11"	
w	6	#5	13'-0"	
w1	6	#5	22'-0"	
w2	5	#5	6'-0"	
z	54	#5	6'-5"	
Concrete Box Culverts			Cu Yd	23.4
Reinforcement Bars			Pound	5,080
Reinforcement Bars, Epoxy Coated			Pound	460

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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

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	DRAWN -	REVISED -	
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PLOT DATE = 8/26/2022	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT EXTENSION DETAILS
STRUCTURE NO. 060-2514

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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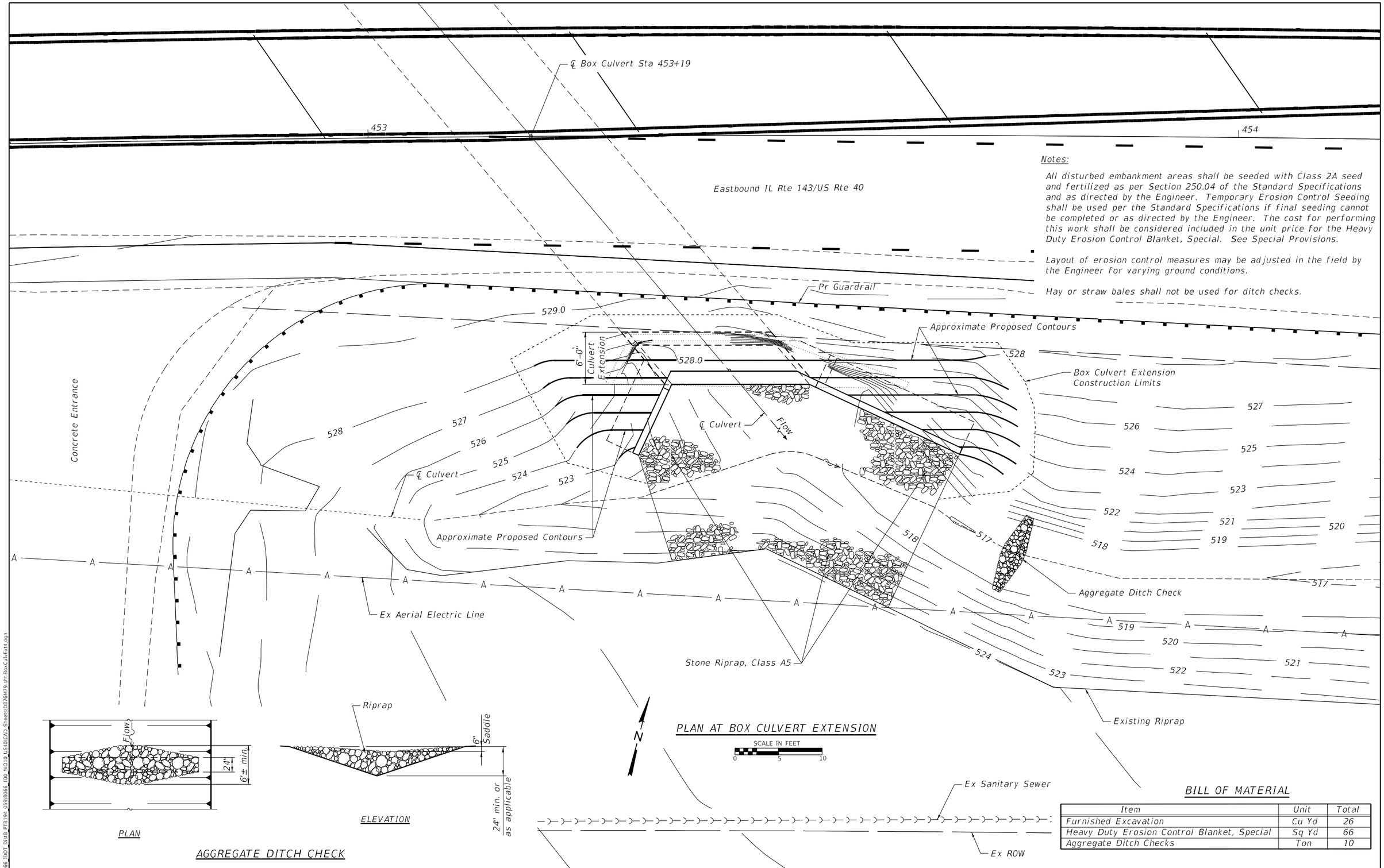
		CONTRACT NO. 76M79		
		ILLINOIS	FED. AID PROJECT	



Notes:

All disturbed embankment areas shall be seeded with Class 2A seed and fertilized as per Section 250.04 of the Standard Specifications and as directed by the Engineer. Temporary Erosion Control Seeding shall be used per the Standard Specifications if final seeding cannot be completed or as directed by the Engineer. The cost for performing this work shall be considered included in the unit price for the Heavy Duty Erosion Control Blanket, Special. See Special Provisions.

Layout of erosion control measures may be adjusted in the field by the Engineer for varying ground conditions.

Hay or straw bales shall not be used for ditch checks.

BILL OF MATERIAL

Item	Unit	Total
Furnished Excavation	Cu Yd	26
Heavy Duty Erosion Control Blanket, Special	Sq Yd	66
Aggregate Ditch Checks	Ton	10

MODEL: Default
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HMG
ENGINEERS
IL PROF DESIGN FIRM 184.000899

USER NAME = kschwierjohn	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 0.1667 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 8/26/2022	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

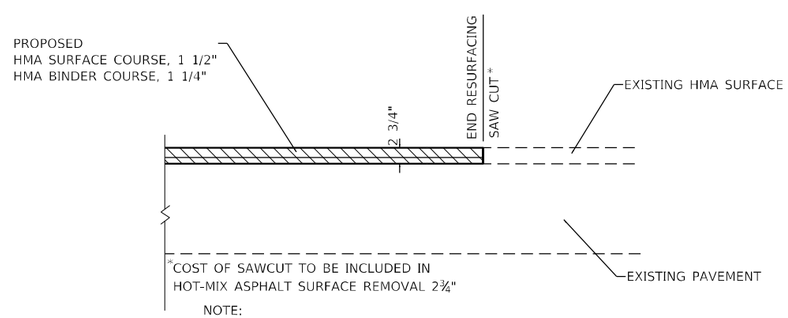
GRADING AND EROSION CONTROL PLAN
STRUCTURE NO. 060-2514

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
793	(R-1)RS-5	MADISON	44	43

CONTRACT NO. 76M79

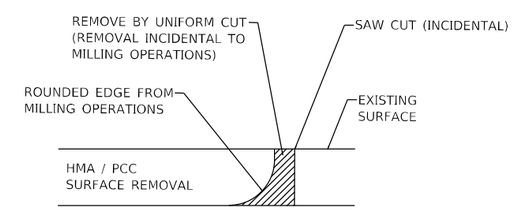
ILLINOIS | FED. AID PROJECT



NOTE:
JOINT DETAIL APPLIES TO ALL LOCATIONS WHERE THE PROPOSED RESURFACING WILL TERMINATE ADJACENT TO EXISTING HMA PAVEMENT.

BUTT JOINT DETAIL

ELEVATION VIEW



NOTE:
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL.

BUTT JOINT DETAIL

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HMG ENGINEERS IL PROF DESIGN FIRM 184.000899	USER NAME = kschwierjohn	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MISCELLANEOUS CONSTRUCTION DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
		DRAWN -	REVISED -			793	(R-1)RS-5	MADISON	44 / 44
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 76M79	
	PLOT DATE = 8/26/2022	DATE -	REVISED -		SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT	