MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00008-00-BR	DEKALB	85	1
	ILLINOIS	CONTRACT NO. 87722		

SHEET INDEX

SEE SHEET 2 FOR SHEET INDEX

06-14-2024 LETTING ITEM 206

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
BRIDGE REPLACEMENT PLANS

MUN ROUTE 6090 (PEARL STREET)
OVER SOUTH BRANCH KISHWAUKEE RIVER
SECTION NO: 14–00009–00–BR
PROJECT NO: W98R(227)
VILLAGE OF KIRKLAND
DEKALB COUNTY
C–93–010–20

DESIGN DESIGNATION

PEARL STREET: LOCAL

TRAFFIC DATA

PEARL STREET:

ADT:
1,000 (2019)
1,200 (2050)

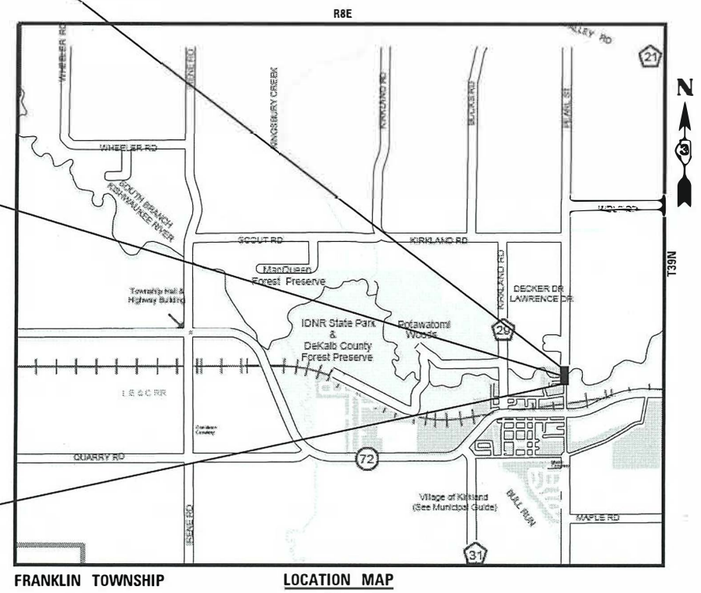
SPEED LIMIT:
POSTED – 30 MPH
DESIGN – 35 MPH

COMPOSITION:
P.V. – 90%
S.U. – 10%

PEARL STREET IMPROVEMENT ENDS STA. 114 + 95.00

PROP. STRUCTURE NO. 019–6500
EXIST. STRUCTURE NO. 019–4008

PEARL STREET IMPROVEMENT BEGINS STA. 106 + 95.00



FRANKLIN TOWNSHIP

LOCATION MAP
N.T.S.

PROJECT LENGTH (GROSS & NET)
TOTAL LENGTH 800.00 FT (0.152 MILE)

LOCATION OF SECTION INDICATED THUS: –

0	10′	20′	30′	100′	200′	300′	— 1″ =	10′	100′	
0	50′	100′					— 1″ =	50′		
0	50′	100′					— 1″ =	40′		
0	50′	100′					— 1″ =	30′		
0	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

PROJECT ENGINEER:
UNIT CHIEF:
DISTRICT 3 NUMBER: (815) 434–6131

CONTRACT NO. 87722

MATTHEW BALDWIN
062-063297
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

4/4/24

MATTHEW BALDWIN, P.E.
NO. 062-063297
EXP. DATE 11/30/25
SHEETS 1 TO 33 AND
SHEETS 74 TO 85

MATTHEW D. SANTEFORD
081-007244
LICENSED STRUCTURAL ENGINEER OF
STATE OF ILLINOIS

4/4/24

MATTHEW D. SANTEFORD, P.E., S.E.
NO. 081-007244
EXP. DATE 11/30/2024
SHEETS 34 TO 73

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED November 10, 2023
VILLAGE OF KIRKLAND

PASSED April 16 20 24
DISTRICT THREEE ENGINEER OF LOCAL ROADS AND STREETS

RELEASEING FOR BID BASED ON LIMITED REVIEW April 12 20 24
Trisha Thompson
REGIONAL ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

TRANSYSTEMS
1475 WOODFIELD ROAD #600
SCHAUMBURG, IL 60173
(847) 605-9600

GENERAL NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS PRIOR TO BIDDING ON THE PROJECT.
2. POSITIVE DRAINAGE WITHIN THE WORK ZONE MUST BE MAINTAINED AT ALL TIMES.
3. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT 1-800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOURS NOTIFICATION IS REQUIRED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL UTILITIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF ALL UTILITY EQUIPMENT. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS IF UTILITY RELOCATION, ADJUSTMENT, OR PROTECTION IS NECESSARY.
5. THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THE PLANS IS APPROXIMATE AND THEIR EXACT LOCATION IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND SURFACE UTILITIES EVEN THOUGH THEY MIGHT NOT BE SHOWN ON THE PLANS. ALL UTILITY PROPERTY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER IN ACCORDANCE WITH ARTICLES 105.07 AND 107.20 OF THE STANDARD SPECIFICATIONS.
7. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS, PROPERTY CORNERS AND REFERENCE MARKERS UNTIL THE OWNER, OWNER'S REPRESENTATIVE, OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.
8. THE CONTRACTOR SHALL USE NECESSARY PRECAUTIONS AND PROTECTION MEASURES REQUIRED TO MAINTAIN EXISTING UTILITIES, SEWERS, AND APPURTENANCES THAT MUST BE KEPT IN OPERATION.
9. ALL WORK SHALL BE COMPLETED WITHIN THE LIMITS OF THE PROJECT SHOWN. NO EQUIPMENT OR MATERIAL SHALL BE STORED OUTSIDE OF THE COUNTY RIGHT OF WAY OR ON PRIVATE PROPERTY WITHOUT WRITTEN PERMISSION OF THE ENGINEER.

CAUSEWAY AND COFFERDAM CONSTRUCTION

1. THE CONTRACTOR SHALL BE AWARE THAT COMMONWEALTH EDISON, NICOR, MEDIACOM AND FRONTIER HAVE UTILITIES RUNNING WITHIN THE RIGHT-OF-WAY OR UTILITY EASEMENT ON THE WEST SIDE OF PEARL STREET.

   FOR PURPOSE OF THE DESIGN, IT HAS BEEN ASSUMED THAT CONTRACTOR ACCESS FOR CONSTRUCTION OF COFFERDAMS, CAUSEWAY(S) ETC. WILL BE FROM THE EAST SIDE OF THE ROADWAY.

   COMED WILL BE RELOCATING THEIR POWER POLES ON THE NORTH SIDE OF THE RIVER TO BE OUTSIDE OF THE INFLUENCE OF THE BRIDGE CONSTRUCTION TO THE EXTENT POSSIBLE BUT HAVE LIMITATIONS WITH SPAN LENGTH AND PLACEMENT OF POLES WIHIN THE FLOODWAY. CONTRACTOR SHALL COORIDNATE WITH COMED IF HIS WORK OPERATIONS REQUIRE INSULATORS OR DEENERGIZATION OF THE OVERHEAD WIRES.

SURVEY DATUM

1. THE HORIZONTAL DATUM IS NAD 83 AND THE VERTICAL DATUM IS NAVD 88. SEE ALIGNMENT, TIES AND BENCHMARK SHEETS.

DRAIN TILE NOTES

1. ANY FARM DRAIN, FIELD TILE SYSTEM OR OTHER UNDERGROUND TILE FACILITY ENCOUNTERED IN THE WORK SHALL BE LOCATED AND STAKED AND REPORTED TO THE ENGINEER. ANY DRAINAGE LINES WHICH ARE CUT OR DAMAGED BY GRADING, TRENCHING, EXCAVATION OR OTHER CONSTRUCTION ACTIVITIES SHALL BE REPAIRED SO AS TO MAINTAIN ITS ORIGINAL ALIGNMENT.
2. THE WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 611. THE MINIMUM SIZE FOR REPLACEMENT MUST BE 12 INCH AND SHALL BE PAID FOR PER FOOT AS "FIELD TILE ADJUSTMENT". THE DRAIN PIPE MATERIAL SHALL BE PVC OR CORRUGATED PVC WITH A SMOOTH INTERIOR IN ACCORDANCE WITH SECTION 601. A TYPE A INLET W/ TYPE 1 CLOSED LID WILL BE CONSTRUCTED TO CONNECT THE TILE(S) AND/OR PIPE DRAIN. A NOMINAL QUANTITY HAS BEEN INCLUDED IN THE PLAN QUANTITIES.
3. PRIOR TO MAKING THE CONNECTION THE CONTRACTOR SHALL CLEAN THE ENDS OF THE TILE TO BE CONNECTED. IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATION THE EXISTING TILE SHALL BE REMOVED OR CRUSHED AND TRENCH BACKFILL MATERIAL SHALL BE PLACED IN THE TRENCH LEFT BY THE REMOVAL.

DISTRICT THREE GENERAL NOTES

1. THE HMA SURFACE OF ALL MAILBOX TURNOUTS, PRIVATE ENTRANCES, COMMERCIAL ENTRANCES, AND SIDE ROADS SHALL BE MADE NEATLY, IN A WORKMANLIKE MANNER, AND SHALL ACCURATELY CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. IF REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL SAW CUT THE HMA SURFACE TO CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. THIS WORK WILL BE INCLUDED IN THE COST OF THE HMA SURFACE.
2. EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
3. BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.
4. THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.
5. ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.
6. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
HMA RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT /100 FT OF APPLICATION
MIX FOR CRACKS, JTS & FLGWYS	0.0003	TONS / SQ YD
LEVEL BINDER (HAND METHOD)	0.0005	TONS / SQ YD
SUPPLEMENTAL WATERING	3	GAL / SQ YD / APPLICATION
CALCIUM CHLORIDE	2	LB / SQ YD / APPLICATION
AGGREGATE DITCH CHECKS	5	TONS AGGREGATE

7. MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

NICOR	SAKIBUL FORAH	630-388-2903
COMMONWEALTH EDISON	AHMAD JUNDI	630-703-3569
FRONTIER COMMUNICATIONS	PAULO JAVIER	309-820-1242
MEDIACOM	MITCH HANCOCK	815-797-5103

INDEX OF SHEETS

DISTRICT THREE DETAILS

STD. NO.	DESCRIPTION
406-8	HMA DETAIL AT BUTT JOINTS
440-2	REQUIRED COLD MILLED SURFACE TEXTURE
606-4	REINFORCEMENT DETAIL FOR COMBINATION CONCRETE CURB AND GUTTER
782-3	REFLECTOR MOUNTING DETAIL FOR STEEL RAILING

IDOT HIGHWAY STANDARDS

STD. NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420401-13	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-04	NAME PLATE FOR BRIDGES
601001-05	PIPE UNDERDRAINS
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
606001-08	CONCRETE CURB TYPE B AND COMBINATION CURB AND GUTTER
606201-04	TYPE B GUTTER (INLET, OUTLET & ENTRANCE)
630001-13	STEEL PLATE BEAM GUARDRAIL
630201-07	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-18	TRAFFIC BARRIER TERMINAL, TYPE 6
631032-10	TRAFFIC BARRIER TERMINAL, TYPE 6A
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
701901-09	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
725001-01	OBJECT AND TERMINAL MARKERS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

MODEL: Model
FILE NAME: pw:\\tq-pwint01.a-e.transystems.com:transystcorp-pw1\Documents\Projects 2021\CH401\401210075\Road\303 01 - Standard Sheets\02 General Notes\210075-sht-General Notes.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
GENERAL NOTES, INDEX OF SHEETS, AND HIGHWAY STANDARDS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	2
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	

SPLTY	PAY CODE REF NO.	DESCRIPTION	UNIT	QUANTITY	CONSTRUCTION TYPE CODE 80% FEDERAL 20% STATE BRIDGE REPLACEMENT 0010 URBAN
*	20101100	TREE TRUNK PROTECTION	EACH	11	11
	20200100	EARTH EXCAVATION	CU YD	1,665	1,665
	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	908	908
	20400800	FURNISHED EXCAVATION	CU YD	340	340
	20800150	TRENCH BACKFILL	CU YD	34	34
	21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	1,017	1,017
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	4,035	4,035
*	25000200	SEEDING, CLASS 2	ACRE	0.25	0.25
*	25000210	SEEDING, CLASS 2A	ACRE	0.75	0.75
*	25000312	SEEDING, CLASS 4A	ACRE	0.25	0.25
*	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	75	75
*	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	75	75
*	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	75	75
*	25100630	EROSION CONTROL BLANKET	SQ YD	915	915
*	25100900	TURF REINFORCEMENT MAT	SQ YD	2,843	2,843

TRANSYSTEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
SUMMARY OF QUANTITIES

SCALE: NONE | SHEET 1 OF 7 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	3
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			

SPLTY	PAY CODE REF NO.	DESCRIPTION	UNIT	QUANTITY	CONSTRUCTION TYPE CODE 80% FEDERAL 20% STATE BRIDGE REPLACEMENT 0010 URBAN
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	165	165
	28000305	TEMPORARY DITCH CHECKS	FOOT	203	203
	28000400	PERIMETER EROSION BARRIER	FOOT	1,097	1,097
	28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	4,035	4,035
	28100105	STONE RIPRAP, CLASS A3	SQ YD	6	6
	28100107	STONE RIPRAP, CLASS A4	SQ YD	63	63
	28100109	STONE RIPRAP, CLASS A5	SQ YD	1,000	1,000
	28200200	FILTER FABRIC	SQ YD	1,069	1,069
	30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	339	339
	30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	1,557	1,557
	31101191	SUBBASE GRANULAR MATERIAL, TYPE B 3"	SQ YD	455	455
	40200700	AGGREGATE SURFACE COURSE, TYPE A 8"	SQ YD	58	58
	40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	3,385	3,385
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	644	644
	40600370	LONGITUDINAL JOINT SEALANT	FOOT	487	487

					CONSTRUCTION TYPE CODE
					80% FEDERAL 20% STATE
SPLTY	PAY CODE REF NO.	DESCRIPTION	UNIT	QUANTITY	BRIDGE REPLACEMENT 0010 URBAN
	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	251	251
	40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	136	136
	42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	100	100
	42001300	PROTECTIVE COAT	SQ YD	1,053	1,053
	44000100	PAVEMENT REMOVAL	SQ YD	1,112	1,112
	44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	339	339
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	118	118
	48100600	AGGREGATE SHOULDERS, TYPE A 7"	SQ YD	37	37
	48203013	HOT-MIX ASPHALT SHOULDERS, 4"	SQ YD	455	455
	50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1	1
	50200100	STRUCTURE EXCAVATION	CU YD	456.3	456.3
	50200300	COFFERDAM EXCAVATION	CU YD	542.3	542.3
	50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1	1
	50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	1	1
	50201122	COFFERDAM (TYPE 2) (LOCATION - 2)	EACH	1	1

					CONSTRUCTION TYPE CODE
					80% FEDERAL 20% STATE
SPLTY	PAY CODE REF NO.	DESCRIPTION	UNIT	QUANTITY	BRIDGE REPLACEMENT 0010 URBAN
	50300225	CONCRETE STRUCTURES	CU YD	254.7	254.7
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	213.6	213.6
	50300260	BRIDGE DECK GROOVING	SQ YD	947	947
	50300265	SEAL COAT CONCRETE	CU YD	210.0	210.0
	50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	85.2	85.2
	50401305	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE BEAMS, IL27N	FOOT	1,102	1,102
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	130,000	130,000
*	50901050	STEEL RAILING, TYPE SM	FOOT	508	508
	51200963	FURNISHING METAL SHELL PILES 16" X 0.375"	FOOT	1,030	1,030
	51202305	DRIVING PILES	FOOT	1,030	1,030
	51203200	TEST PILE METAL SHELLS	EACH	5	5
	51204650	PILE SHOES	EACH	30	30
	51500100	NAME PLATES	EACH	1	1
	52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	20	20
	52100540	ANCHOR BOLTS, 1 1/2"	EACH	44	44

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
SUMMARY OF QUANTITIES

SCALE: NONE | SHEET 4 OF 7 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	6
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			

SPLTY	PAY CODE REF NO.	DESCRIPTION	UNIT	QUANTITY	CONSTRUCTION TYPE CODE 80% FEDERAL 20% STATE BRIDGE REPLACEMENT 0010 URBAN
	52200015	PERMANENT SHEET PILING	SQ FT	2,478	2,478
	54210202	PIPE ELBOW, 60"	EACH	2	2
	542C0220	PIPE CULVERTS, CLASS C, TYPE 1 15"	FOOT	80	80
	542C0265	PIPE CULVERTS, CLASS C, TYPE 1 60"	FOOT	26	26
	58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	115	115
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	72.0	72.0
	60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	6	6
	60108100	PIPE UNDERDRAINS 4" (SPECIAL)	FOOT	30	30
	60108501	PIPE UNDERDRAINS, TYPE 3	FOOT	774	774
	60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	136	136
	60235300	INLETS, TYPE A, TYPE 1 FRAME, CLOSED LID	EACH	2	2
*	63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	213	213
*	63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4.0	4.0
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	5

TRANSYSTEMS

USER NAME = bmsetzke	DESIGNED -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
SUMMARY OF QUANTITIES

SCALE: NONE | SHEET 5 OF 7 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	7
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			

SPLTY	PAY CODE REF NO.	DESCRIPTION	UNIT	QUANTITY	CONSTRUCTION TYPE CODE 80% FEDERAL 20% STATE BRIDGE REPLACEMENT 0010 URBAN
	67100100	MOBILIZATION	L SUM	1	1
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28
*	72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	6	6
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	6,416	6,416
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	11	11
*	A2005040	TREE, GYMNOCLADUS DIOICUS ESPRESSO-JFS (ESPRESSO KENTUCKY COFFEETREE), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	2	2
*	A2005956	TREE, PLATANUS X ACERIFOLIA MORTON CIRCLE (EXCLAMATION LONDON PLANETREE), 2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	2	2
*	A2007616	TREE, TAXODIUM DISTICHUM (COMMON BALD CYPRESS), 2" CALIPER, BALLED AND BURLAPPED	EACH	2	2
*	A2018718	TREE, ULMUS CARPINIFOLIA MORTON, (ACCOLADE ELM), 2" CALIPER, BALLED AND BURLAPPED	EACH	2	2
*	X2010350	TREE REMOVAL, ACRES (SPECIAL)	ACRE	1.00	1.00
	X2130010	EXPLORATION TRENCH, SPECIAL	FOOT	60	60
	X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	3	3
	X4024000	TEMPORARY ACCESS (FIELD ENTRANCE)	EACH	1	1
	X5080530	BAR TERMINATORS	EACH	488	488

TRANSYSTEMS

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	DRAWN -	REVISED -	
PLOT SCALE = 100.0001 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 5/10/2024	DATE - 5/10/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
SUMMARY OF QUANTITIES

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

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	8
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

SPLTY	PAY CODE REF NO.	DESCRIPTION	UNIT	QUANTITY	CONSTRUCTION TYPE CODE 80% FEDERAL 20% STATE BRIDGE REPLACEMENT 0010 URBAN
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1
	XX006821	CONCRETE TRUCK WASHOUT	L SUM	1	1
	XX009301	FIELD TILE ADJUSTMENT	FOOT	100	100
	Z0004514	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4"	SQ YD	158	158
	Z0013797	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	100	100
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	64	64

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	DRAWN -	REVISED -	
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PLOT DATE = 4/30/2024	DATE - 5/1/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
SUMMARY OF QUANTITIES

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

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	9
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			

EARTHWORK SUMMARY SCHEDULE

	TOPSOIL		EARTHWORK				SUBGRADE IMPROVEMENT (UNDERCUTS)		
BID ITEM	20201200**	21101615	20200100			20400800	20201200	30300001	21001000
LOCATION	TOPSOIL EXCAVATION (STRIPPING)	TOPSOIL FURNISH AND PLACE, 4"	EARTH EXCAVATION	EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT (ROADWAY)	FURNISHED EXCAVATION BALANCE WASTE (+) OR SHORTAGE (-)	REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL	AGGREGATE SUBGRADE IMPROVEMENT	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
	(CU YD)	(SQ YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(SQ YD)
PEARL STREET 106+95 TO 114+95	427.0	4,035.0	1,665.0	1,416.0	1,701.0	285.0			
UNDERCUT 112+06 TO 114+00							283.0	283.0	849.0
R.E. DESCRETION							56.0	56.0	168.0
SOUTH ABUTMENT						55.0			
NORTH ABUTMENT							142.0		
TOTAL	427.0	4,035.0	1,665.0		1,701.0	340.0	481.0	339.0	1,017.0

** TOPSOIL EXCAVATION WILL BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL.

EARTHWORK GENERAL NOTES

ALL EARTHWORK QUANTITIES ALONG THE PROJECT CORRIDOR WERE CALCULATED BY THE METHOD OF AVERAGE END AREAS USING THE PLAN CROSS SECTIONS.

SHRINKAGE FACTOR, ASSUMED TO BE 15% FOR THIS PROJECT IS ESTIMATED FOR THE PURPOSE OF DETERMINING A BALANCE OF EARTHWORK. THE CONTRACTOR SHALL ESTIMATE THEIR OWN SHRINKAGE FACTORS IN DETERMINING THEIR EARTHWORK. NO PAYMENT WILL BE MADE ON EARTHWORK QUANTITIES DUE TO VARIATION IN THE SHRINKAGE FACTOR SINCE EARTHWORK IS MEASURED IN ITS FINAL POSITION.

RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT PREPARED BY RINBINO ENGINEERING, DATED APRIL 11, 2023 WERE USED IN PREPARATION OF THE ROADWAY PLANS AND RELATED QUANTITY CALCULATIONS.

NO SHRINKAGE FACTOR WAS APPLIED WHEN CALCULATING TOPSOIL QUANTITIES.

THE AVERAGE THICKNESS OF FOUR (4) INCHES OF TOPSOIL WAS USED FOR THE PURPOSE OF CALCULATING TOPSOIL EXCAVATION (STRIPPING) QUANTITIES.

UNDERCUTS WILL BE MEASURED FOR PAYMENT AS "REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL".

EARTH EXCAVATION WILL ALSO INCLUDE ALL AGGREGATE BASE COURSES, AGGREGATE SUB-BASE'S, AGGREGATE SURFACES AND AGGREGATE SHOULDERS.

UNDERCUTS WILL BE PAID FOR AS "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL". AFTER TOPSOIL STRIPPING AND VEGETATION CLEARING ARE COMPLETE AND PRIOR TO UNDERCUTTING, THE SUBGRADE IN THE AREAS OF THE PROPOSED ROADWAY WILL BE TESTED WITH A STATIC OR DYNAMIC CONE PENETROMETER IN ACCORDANCE WITH THE IDOT SUBGRADE STABILITY MANUAL TO DETERMINE REMEDIAL TREATMENT.

WHERE PAVEMENTS ARE CONSTRUCTED, TESTING OF SUBGRADES AND EMBANKMENTS WILL BE REQUIRED. TESTING REQUIREMENTS WILL BE PER THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS AND THE SUBGRADE STABILITY MANUAL. IF PROOF ROLLS ARE REQUIRED BY THE ENGINEER, THE COST SHALL BE CONSIDERED INCLUDED IN THE COST OF EXCAVATION.

BASED ON THE GEOTECHNICAL REPORT, 283 CY OF AGGREGATE SUBGRADE IMPROVEMENT (CU YD) HAS BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSTABLE AND/OR UNSUITABLE WHEN WET. AN ADDITIONAL 56 CY HAS BEEN ADDED TO BE USED AT THE DISCRETION OF THE ENGINEER. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH AGGREGATE SUBGRADE IMPROVEMENT (CU YD) WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC CONE AND/OR DYNAMIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.04 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE CURRENT IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE SOILS ARE NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.

EARTH AND TOPSOIL EXCAVATION SHALL BE PAID FOR ONLY ONCE, REGARDLESS OF STAGING OR SEQUENCING OF CONTRACTORS OPERATIONS THAT REQUIRE TEMPORARY STOCKPILING OF MATERIALS FOR LATER USE FOR REDISTRIBUTION AND RESPREADING IN SHOULDERS AND CONSTRUCTING OF EMBANKMENTS.

TOPSOIL FURNISH AND PLACE INCLUDES TEMPORARILY STOCKPILING, AND PLACEMENT.

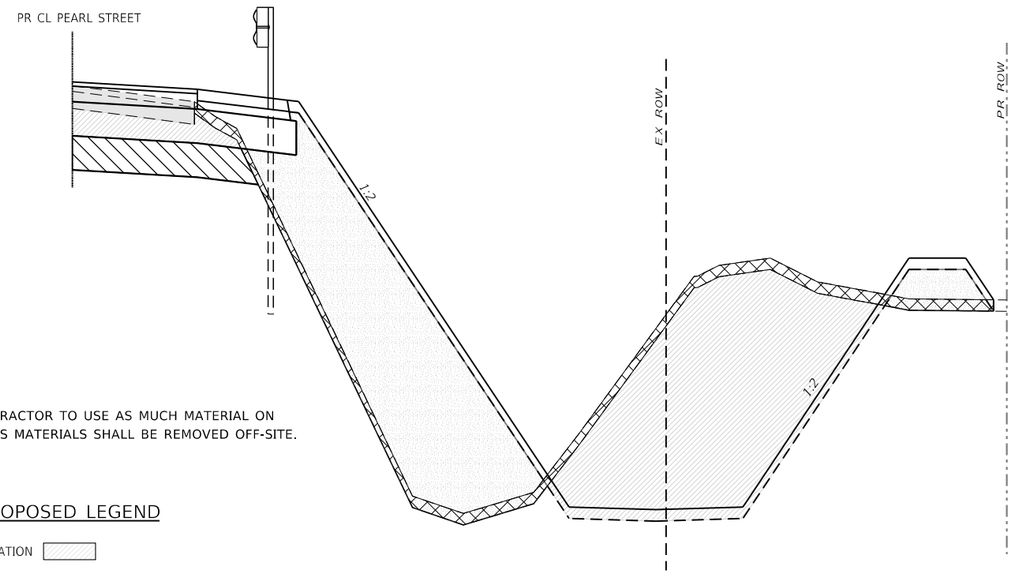
EMBANKMENT (ROADWAY) WILL BE IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS, EMBANKMENT WILL NOT BE MEASURED FOR PAYMENT BUT SHALL BE CONSIDERED INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.

SURPLUS MATERIALS

IT IS INTENDED FOR THE CONTRACTOR TO USE AS MUCH MATERIAL ON SITE AS POSSIBLE. ALL SURPLUS MATERIALS SHALL BE REMOVED OFF-SITE.

PROPOSED LEGEND

1. EARTH EXCAVATION
2. EMBANKMENT (ROADWAY)
3. TOPSOIL EXCAVATION (PAID AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL)
4. PAVEMENT AND SUBBASE REMOVAL
5. UNSUITABLE EXCAVATION (REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL. TO BE USED IN CONJUNCTION WITH AGGREGATE SUBGRADE IMPROVEMENT)



EARTHWORK TYPICAL SECTION

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
EARTHWORK SUMMARY AND GENERAL NOTES

SCALE: NONE | SHEET 1 OF 4 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	10
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

EARTHWORK SCHEDULE - PEARL STREET

LOCATION	END AREAS			TOPSOIL		EARTHWORK				SUBGRADE IMPROVEMENT		
	TOPSOIL EXCAVATION (STRIPPING) (TSS)	EARTH EXCAVATION (CUT)	ROADWAY EMBANKMENT (FILL)	20201200** TOPSOIL EXCAVATION (STRIPPING)	21101615 TOPSOIL FURNISH AND PLACE, 4"	20200100 EARTH EXCAVATION	EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	20400800 BALANCE WASTE (+) OR SHORTAGE (-)	20201200 REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL	30300001 AGGREGATE SUBGRADE IMPROVEMENT	21001000 GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
	(SQ FT)	(SQ FT)	(SQ FT)	(CU YD)	(SQ YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(SQ YD)
PEARL STREET												
107+00.00	1.2	37.6										
107+24.00	9.2	43.3	8.7	4.6	BASED ON SEEDING AREA	36.0	30.6	3.9	26.7	BASED ON 10% FULL DEPTH PAVEMENT AREA @ 12" (R.E. DESCRETION)	BASED ON 10% FULL DEPTH PAVEMENT AREA @ 12" (R.E. DESCRETION)	BASED ON 10% FULL DEPTH PAVEMENT AREA (R.E. DESCRETION)
107+50.00	26.5	134.7	132.7	17.2		85.7	72.9	68.1	4.8			
107+89.70	25.3	167.7	92.2	38.1		222.3	189.0	165.3	23.7			
108+00.00	25.9	162.8	97.0	9.8		63.1	53.6	36.1	17.5			
108+50.00	35.7	181.9	145.7	57.0		319.2	271.3	224.7	46.6			
109+00.00	38.2	160.7	177.7	68.4		317.3	269.7	299.5	-29.8			
109+25.00	33.7	138.4	168.0	33.3		138.5	117.7	160.1	-42.4			
109+54.00	34.0	119.6	87.0	36.3		138.5	117.8	136.9	-19.2			
BRIDGE												
111+78.00	21.6	1.1	229.6									
112+00.00	20.0	1.3	194.2	16.9		1.0	0.8	172.7	-171.8	11.6	11.6	34.7
112+50.00	20.3	61.3	94.4	37.3		57.9	49.2	267.2	-218.0	55.9	55.9	167.6
112+96.50	25.5	63.3	34.2	39.4		107.3	91.2	110.8	-19.6	58.8	58.8	176.3
113+50.00	11.6	40.1	9.9	36.7		102.4	87.1	43.8	43.3	71.3	71.3	214.0
114+00.00	3.9	7.5	0.4	14.3		44.1	37.5	9.6	27.9	64.3	64.3	192.8
114+33.80	8.9	15.4	0.3	8.0		14.3	12.2	0.4	11.7	21.1	21.1	63.2
114+50.00	4.4	6.3	1.3	4.0		6.5	5.5	0.5	5.0			
114+95.00	1.4	6.7		4.9		10.8	9.2	1.1	8.1			
SHRINKAGE FACTOR		15%		426.1	3681.0	1664.8	1415.1	1700.5	-285.4	282.9	282.9	848.6
				426.0	3681.0	1665.0	1415.0	1701.0	-285.0	283.0	283.0	849.0

** TOPSOIL EXCAVATION WILL BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
EARTHWORK SCHEDULE

SCALE: NONE | SHEET 2 OF 4 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	11
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			

RESTORATION ITEMS

LOCATION	21101615	25000200	25000210	25000312	25000400	25000500	25000600
	TOPSOIL FURNISH AND PLACE, 4"	SEEDING, CLASS 2	SEEDING, CLASS 2A	SEEDING, CLASS 4A	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT
	(SQ YD)	(ACRES)	(ACRES)	(ACRES)	(POUNDS)	(POUNDS)	(POUNDS)
STA. 106+95 to 110+50	2409	0.25	0.25	0.25	45	45	45
STA. 110+50 to 114+95	1626		0.50		30	30	30
TOTAL	4035	0.25	0.75	0.25	75	75	75

EROSION CONTROL ITEMS

LOCATION	25100630	25100900	28000250	28000305	28000400	28001100	28100105	28100107	28100109	282200200
	EROSION CONTROL BLANKET	TURF REINFORCEMENT MAT	TEMPORARY EROSION CONTROL SEEDING	TEMPORARY DITCH CHECKS	PERIMETER EROSION BARRIER	TEMPORARY EROSION CONTROL BLANKET	STONE RIPRAP, CLASS A3	STONE RIPRAP, CLASS A4	STONE RIPRAP, CLASS A5	FILTER FABRIC
	(SQ YD)	(SQ YD)	(POUND)	(FOOT)	(FOOT)	(SQ YD)	(SQ YD)	(SQ YD)	(SQ YD)	(SQ YD)
STA. 106+95 to 110+50	750	1659	100	100	454	2409		63	622	685
STA. 110+50 to 114+95	165	1184	65	84	543	1626	6		378	384
MAINTENANCE				19	100					
TOTAL	915	2843	165	203	1097	4035	6	63	1000	1069

PAVEMENT ITEMS

LOCATION	30300112	31101191	40200700	40600370	40603080	40604050	48100600	48203013	Z0004514
	AGGREGATE SUBGRADE IMPROVEMENT 12"	SUBBASE GRANULAR MATERIAL, TYPE B 3"	AGGREGATE SURFACE COURSE, TYPE A 8"	LONGITUDINAL JOINT SEALANT	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	AGGREGATE SHOULDERS, TYPE A 7"	HOT-MIX ASPHALT SHOULDERS, 4"	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4"
	(SQ YD)	(SQ YD)	(SQ YD)	(FOOT)	(TON)	(TON)	(SQ YD)	(SQ YD)	(SQ YD)
STA. 106+95 to 110+50	857	243	27	214	146	59	0	243	108
STA. 110+50 to 114+95	700	212	31	273	105	77	37	212	50
TOTAL	1557	455	58	487	251	136	37	455	158

DRAINAGE ITEMS

LOCATION	54210202	542C0220	542C0265	60100060	60108100	60108501
	PIPE ELBOW, 60"	PIPE CULVERTS, CLASS C, TYPE 1 15"	PIPE CULVERTS, CLASS C, TYPE 1 60"	CONCRETE HEADWALLS FOR PIPE DRAINS	PIPE UNDERDRAINS 4" (SPECIAL)	PIPE UNDERDRAINS, TYPE 3
	(EACH)	(FOOT)	(FOOT)	(EACH)	(FOOT)	(FOOT)
STA. 106+95 to 110+50	2			3	23	448
STA. 110+50 to 114+95		80	26	3	7	326
TOTAL	2	80	26	6	30	774

GAURDRAIL & PAVEMENT MARKING ITEMS

LOCATION	63000003	63100087	63100167	72501000	78001110	78200005
	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 6A	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	TERMINAL MARKER - DIRECT APPLIED	PAINT PAVEMENT MARKING - LINE 4"	GUARDRAIL REFLECTORS, TYPE A
	(FOOT)	(EACH)	(EACH)	(EACH)	(FOOT)	(EACH)
STA. 106+95 to 110+50	150	2	2	2	2856	6
STA. 110+50 to 114+95	62.5	2	2	2	3560	5
TOTAL	212.5	4	4	4	6416	11

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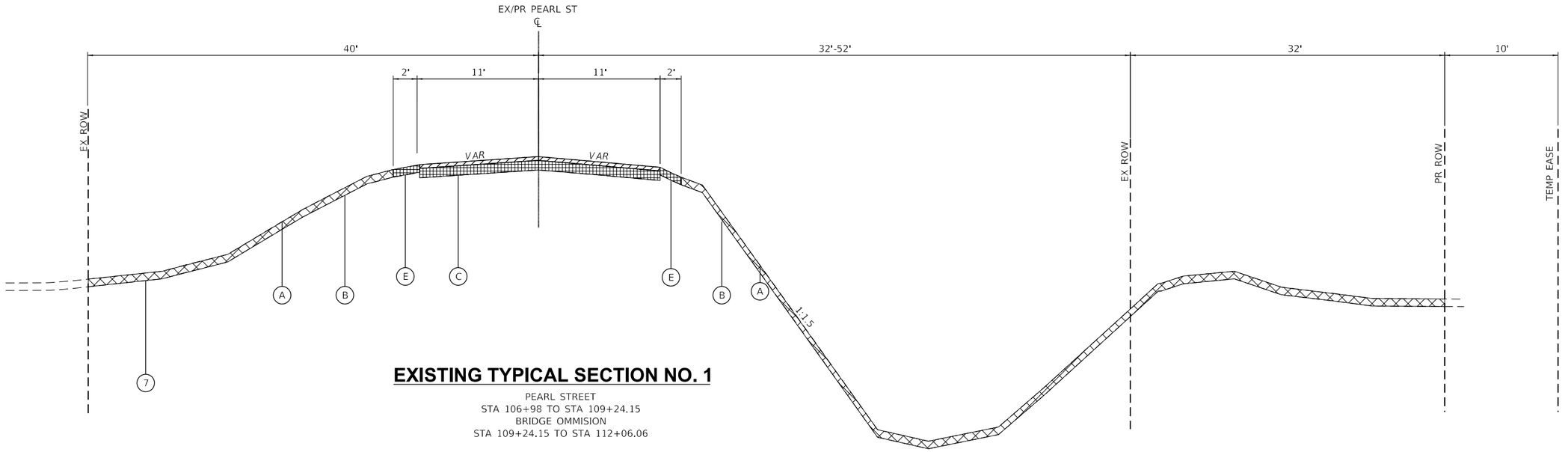
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
SCHEDULE OF QUANTITIES

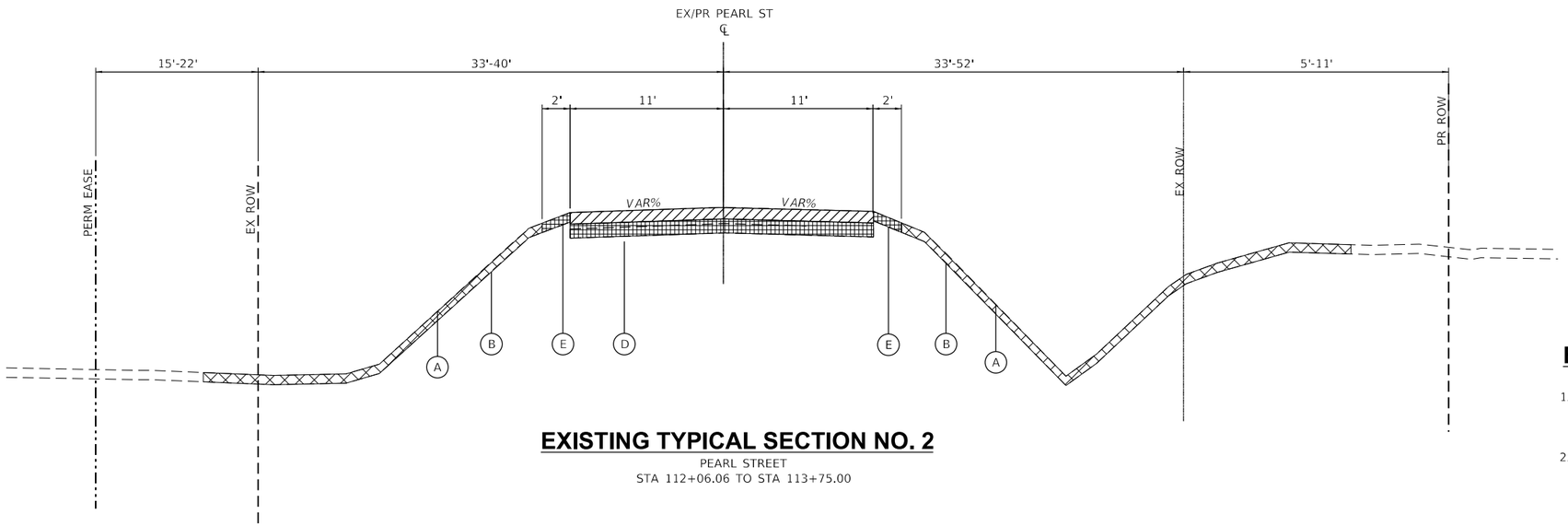
SCALE: NONE | SHEET 4 OF 4 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	13
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			



EXISTING TYPICAL SECTION NO. 1

PEARL STREET
STA 106+98 TO STA 109+24.15
BRIDGE OMMISION
STA 109+24.15 TO STA 112+06.06



EXISTING TYPICAL SECTION NO. 2

PEARL STREET
STA 112+06.06 TO STA 113+75.00

EXISTING LEGEND

- (A) EX GROUND
- (B) EX TOPSOIL, AVG. 4"
- (C) EX PAVEMENT STRUCTURE
  ASPHALT PAVEMENT, 2"
  AGGREGATE BASE, 4"-10"
- (D) EX PAVEMENT STRUCTURE
  ASPHALT PAVEMENT, 4.5"-5"
  AGGREGATE BASE, 6"-8"
- (E) EX AGGREGATE SHOULDER, 6"

- ASPHALT PAVEMENT - TO BE REMOVED FULL DEPTH
- ASPHALT PAVEMENT - TO BE SURFACE MILLED
- AGGREGATE BASE / SHOULDERS - TO BE REMOVED (PAID AS EARTH EXCAVATION)
- TOPSOIL EXCAVATION

EXISTING PAVEMENT NOTES

1. INFORMATION ON PAVEMENT AND AGGREGATE BASE THICKNESS WAS TAKEN FROM INFORMATION DOCUMENTED BY RUBINO ENGINEERING IN THE "REPORT OF SOIL EXPLORATION" DATED APRIL 11, 2023.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE THICKNESS PAVEMENTS TO BE REMOVED AND THE EXTENT TO WHICH THEY MAY BE REINFORCED (IF APPLICABLE). NO ADDITIONAL COMPENSATION WILL BE ALLOWED BECAUSE OF VARIATIONS FROM THE ASSUMED THICKNESS SHOWN ON THE PLANS OR DOCUMENT IN THE GEOTECHNICAL REPORT.

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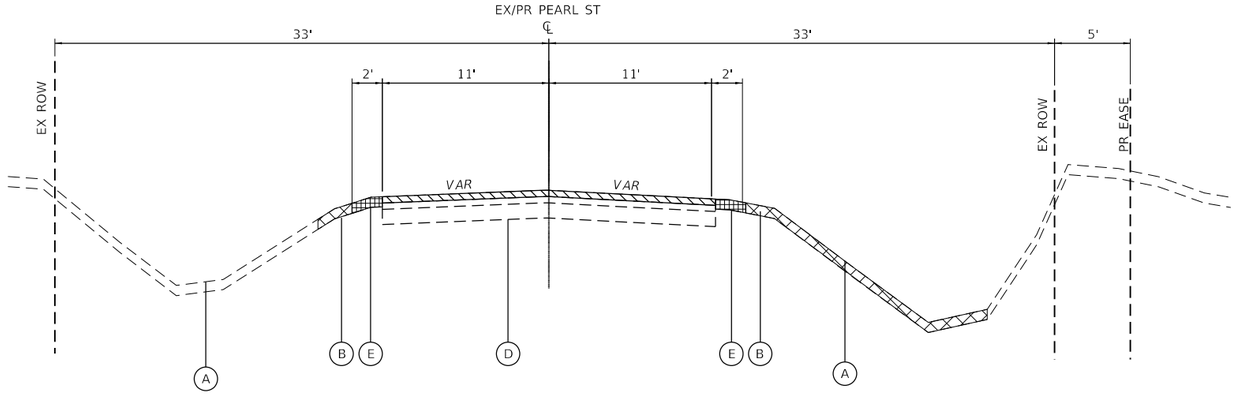
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
EXISTING TYPICAL SECTIONS

SCALE: NONE | SHEET 1 OF 4 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	14
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		



EXISTING TYPICAL SECTION NO. 3

PEARL STREET
STA 113+75.00 TO STA 114+95.00

EXISTING LEGEND

- (A) EX GROUND
- (B) EX TOPSOIL, AVG. 4"
- (C) EX PAVEMENT STRUCTURE
  ASPHALT PAVEMENT, 2"
  AGGREGATE BASE, 4"-10"
- (D) EX PAVEMENT STRUCTURE
  ASPHALT PAVEMENT, 4.5"-5"
  AGGREGATE BASE, 6"-8"
- (E) EX AGGREGATE SHOULDER, 6"

- ASPHALT PAVEMENT - TO BE REMOVED FULL DEPTH
- ASPHALT PAVEMENT - TO BE SURFACE MILLED
- AGGREGATE BASE / SHOULDERS - TO BE REMOVED (PAID AS EARTH EXCAVATION)
- TOPSOIL EXCAVATION

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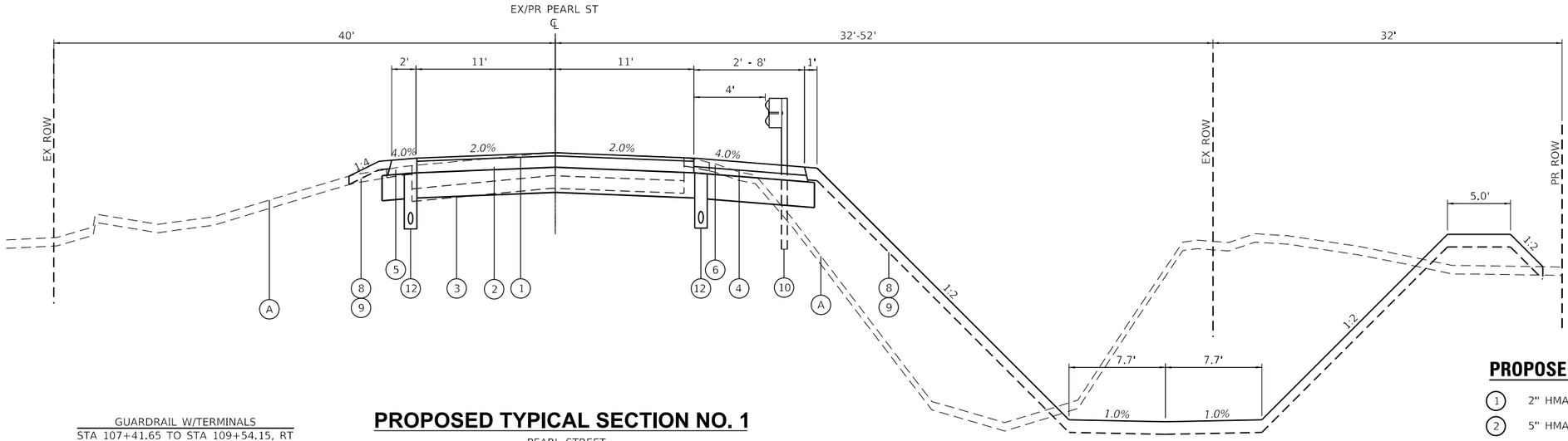
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
EXISTING TYPICAL SECTIONS

SCALE: NONE | SHEET 2 OF 4 SHEETS | STA. | TO STA.

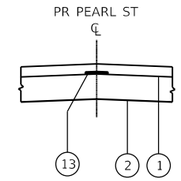
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	15
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		



GUARDRAIL W/TERMINALS
STA 107+41.65 TO STA 109+54.15, RT

PROPOSED TYPICAL SECTION NO. 1

PEARL STREET
STA 106+95.00 TO STA 107+60.00

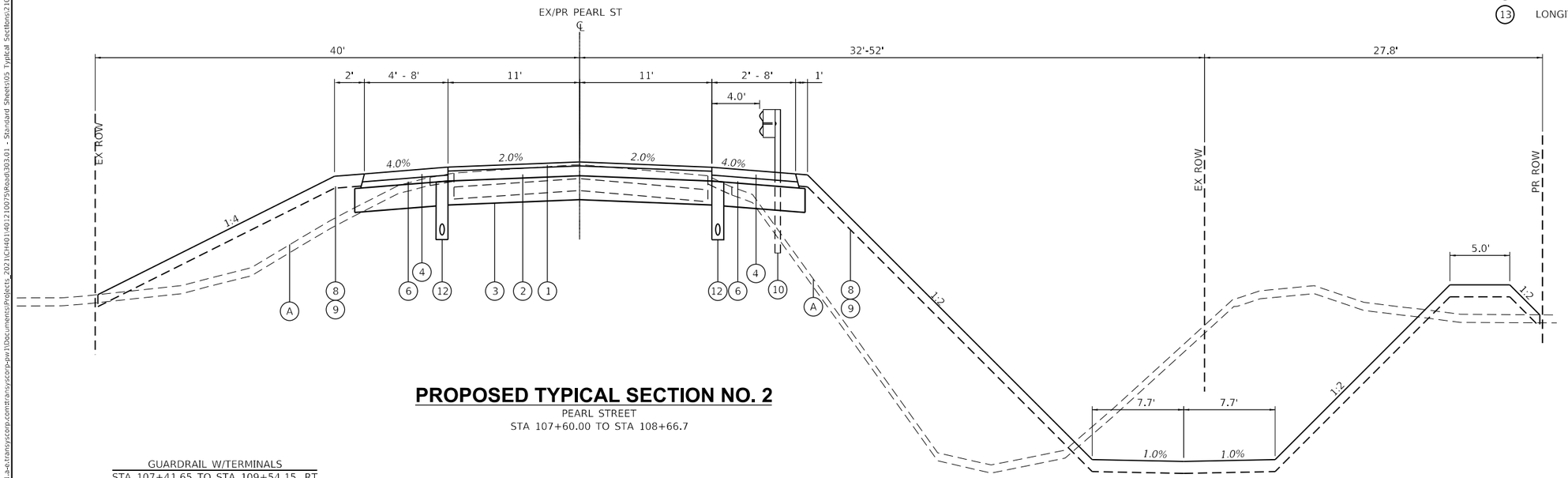


LONGITUDINAL JOINT SEALANT DETAIL

PEARL STREET
STA 106+95 TO STA 109+08.15
BRIDGE OMMISION

PROPOSED LEGEND

1. 2" HMA SURFACE COURSE, MIX "C", IL-9.5, N50
2. 5" HMA BINDER COURSE, IL-19.0, N50
3. AGGREGATE SUBGRADE IMPROVEMENT, 12"
4. HOT MIX ASPHALT SHOULDER, 4"
5. AGREGATE SHOULDER, 7"
6. SUBBASE GRANULAR MATERIAL, 3"
7. EMBANKMENT (ROADWAY)
8. 4" TOPSOIL PLACEMENT
9. SEEDING (TYPE AS SPECIFIED) W/EROSION CONTROL BLANKET
10. STEEL PLATE BEAM GUARDRAIL, TYPE A (9 FOOT POST)
11. GUARDRAIL DELINEATOR
12. UNDERDRAIN, TYPE 3
13. LONGITUDINAL JOINT SEALANT



PROPOSED TYPICAL SECTION NO. 2

PEARL STREET
STA 107+60.00 TO STA 108+66.7

GUARDRAIL W/TERMINALS
STA 107+41.65 TO STA 109+54.15, RT

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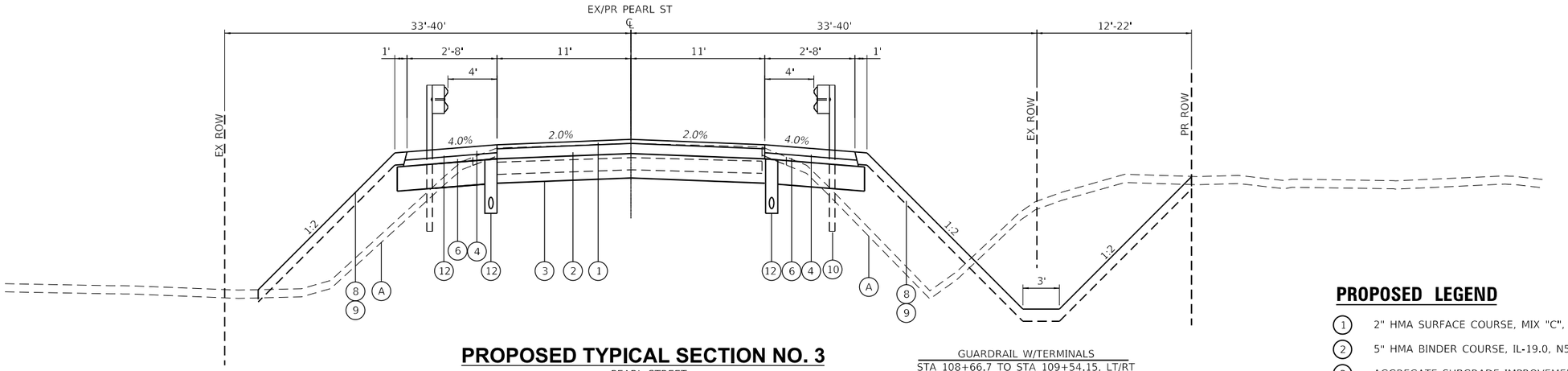
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
PROPOSED TYPICAL SECTIONS

SCALE: NONE | SHEET 3 OF 4 SHEETS | STA. | TO STA.

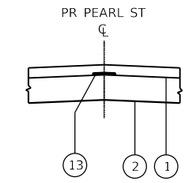
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	16
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



PROPOSED TYPICAL SECTION NO. 3

PEARL STREET
STA 108+66.7 TO STA 109+08.15
BRIDGE OMISSION
STA 112+22.06 TO STA 113+75.00

GUARDRAIL W/TERMINALS
STA 108+66.7 TO STA 109+54.15, LT/RT
BRIDGE OMISSION
STA 111+76.06 TO STA 112+76.05, LT
STA 111+76.06 TO STA 112+88.56, RT

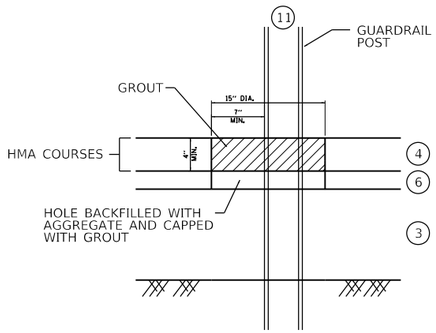


LONGITUDINAL JOINT SEALANT DETAIL

PEARL STREET
BRIDGE OMISSION
STA 112+22.06 TO STA 114+95.00

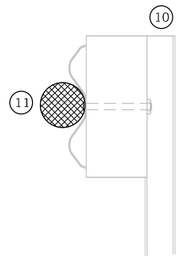
PROPOSED LEGEND

1. 2" HMA SURFACE COURSE, MIX "C", IL-9.5, N50
2. 5" HMA BINDER COURSE, IL-19.0, N50
3. AGGREGATE SUBGRADE IMPROVEMENT, 12"
4. HOT MIX ASPHALT SHOULDER, 4"
5. AGREGATE SHOULDER, 7"
6. SUBBASE GRANULAR MATERIAL, 3"
7. EMBANKMENT (ROADWAY)
8. 4" TOPSOIL PLACEMENT
9. SEEDING (TYPE AS SPECIFIED) W/EROSION CONTROL BLANKET
10. STEEL PLATE BEAM GUARDRAIL, TYPE A (9 FOOT POST)
11. GUARDRAIL DELINEATOR
12. UNDERDRAIN, TYPE 3
13. LONGITUDINAL JOINT SEALANT



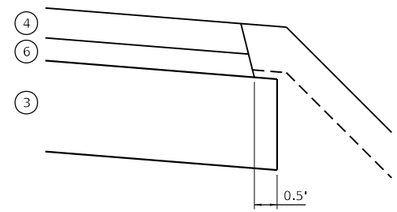
GUARDRAIL BLOCKOUT/GROUT DETAIL

SEE STD. 630201 FOR ADDITIONAL DETAILS



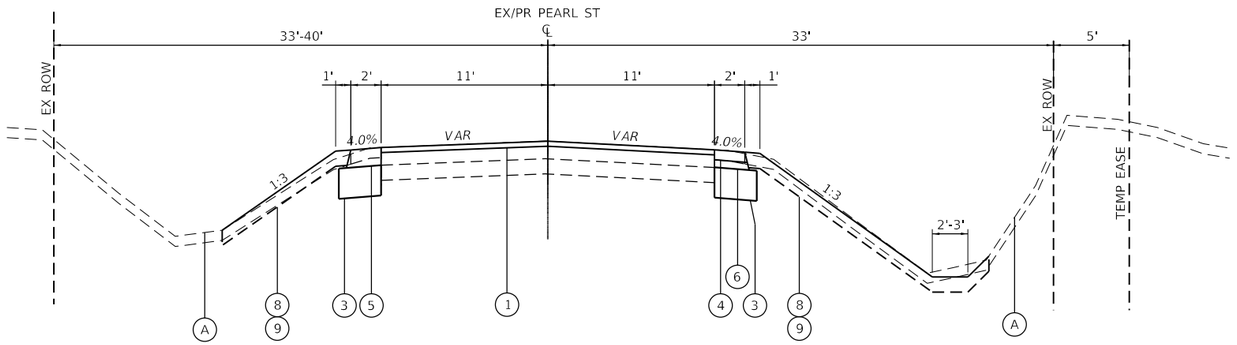
GUARDRAIL REFLECTOR

SEE PAVEMENT MARKING SHEET NO. 5PMK1
AND SPECIAL PROVISIONS FOR ADD'L INFORMATION



AGGREGATE BASE WIDTH

AGGREGATE SUBGRADE IMPROVEMENT SHALL BE PLACED FULL
WIDTH OF ROADWAY AND TO 0.5' BEYOND THE SHOULDER EDGE



PROPOSED TYPICAL SECTION NO. 5

PEARL STREET
STA 113+75.00 TO STA 114+95.00

HMA MIXTURE REQUIREMENT TABLE				
LOCATIONS:	ENTIRE PROJECT	ENTIRE PROJECT	ENTIRE PROJECT	ENTIRE PROJECT
MIXTURE USE(S):	HMA BINDER	HMA SURFACE	HMA SHOULDER BOTTOM LIFT	HMA SHOULDER TOP LIFT
BINDER GRADE (PG):	PG 64-22	PG 64-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS:	4.0% @ N50	4.0% @ N50	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION: (MIXTURE GRADATION)	IL 19.0	IL 9.5	IL 19.0	IL 9.5
FRICTION AGGREGATE:		MIXTURE C		
MIXTURE WEIGHT:	112.0 LB/SY/IN	112.0 LB/SY/IN	112.0 LB/SY/IN	112.0 LB/SY/IN
QUALITY MANAGEMENT PROGRAM:	QCQA	QCQA	QCQA	QCQA
SUBLOT SIZE:	N/A	N/A	N/A	N/A
DENSITY TEST METHOD:	CORES/NUCLEAR	CORES/NUCLEAR	CORES/NUCLEAR	CORES/NUCLEAR
MATERIAL TRANSFER DEVICE (REQUIRED):	NO	NO	NO	NO

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	DRAWN -	REVISED -	
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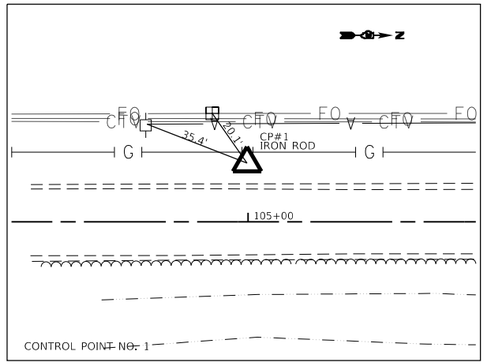
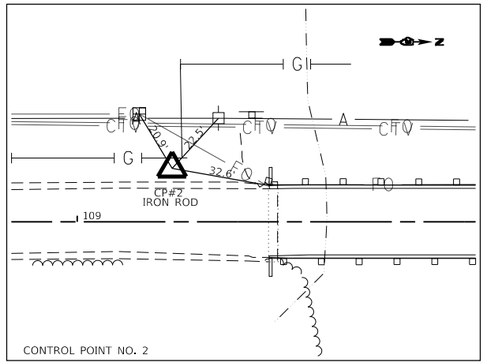
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

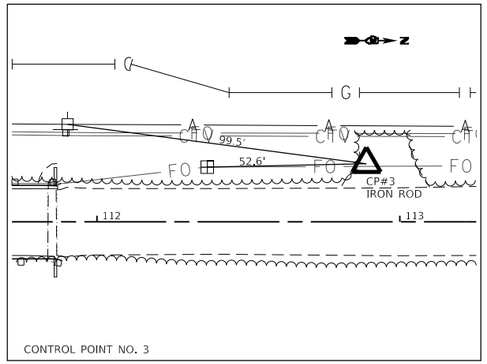
PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
PROPOSED TYPICAL SECTIONS

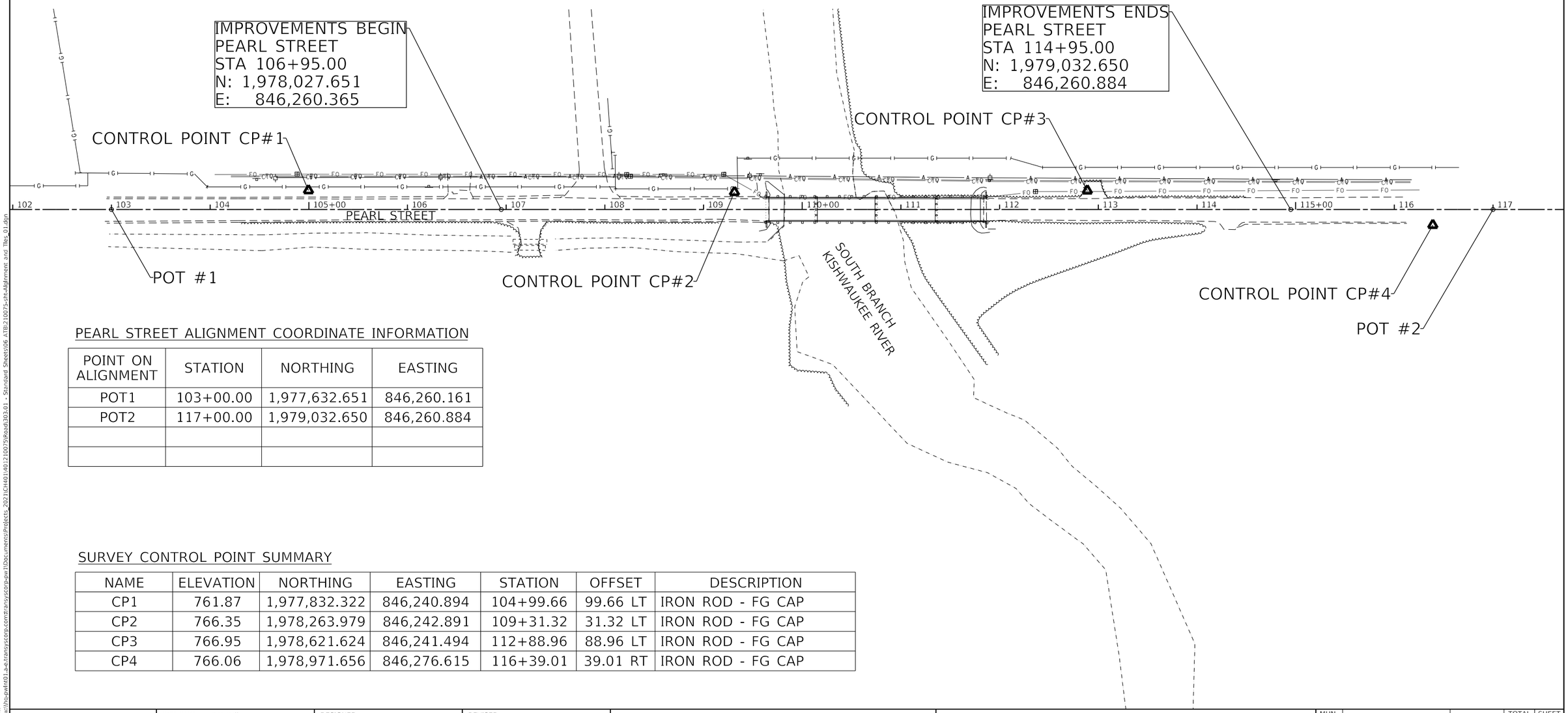
SCALE: NONE | SHEET 4 OF 4 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	17
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		









PEARL STREET ALIGNMENT COORDINATE INFORMATION

POINT ON ALIGNMENT	STATION	NORTHING	EASTING
POT1	103+00.00	1,977,632.651	846,260.161
POT2	117+00.00	1,979,032.650	846,260.884

SURVEY CONTROL POINT SUMMARY

NAME	ELEVATION	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
CP1	761.87	1,977,832.322	846,240.894	104+99.66	99.66 LT	IRON ROD - FG CAP
CP2	766.35	1,978,263.979	846,242.891	109+31.32	31.32 LT	IRON ROD - FG CAP
CP3	766.95	1,978,621.624	846,241.494	112+88.96	88.96 LT	IRON ROD - FG CAP
CP4	766.06	1,978,971.656	846,276.615	116+39.01	39.01 RT	IRON ROD - FG CAP

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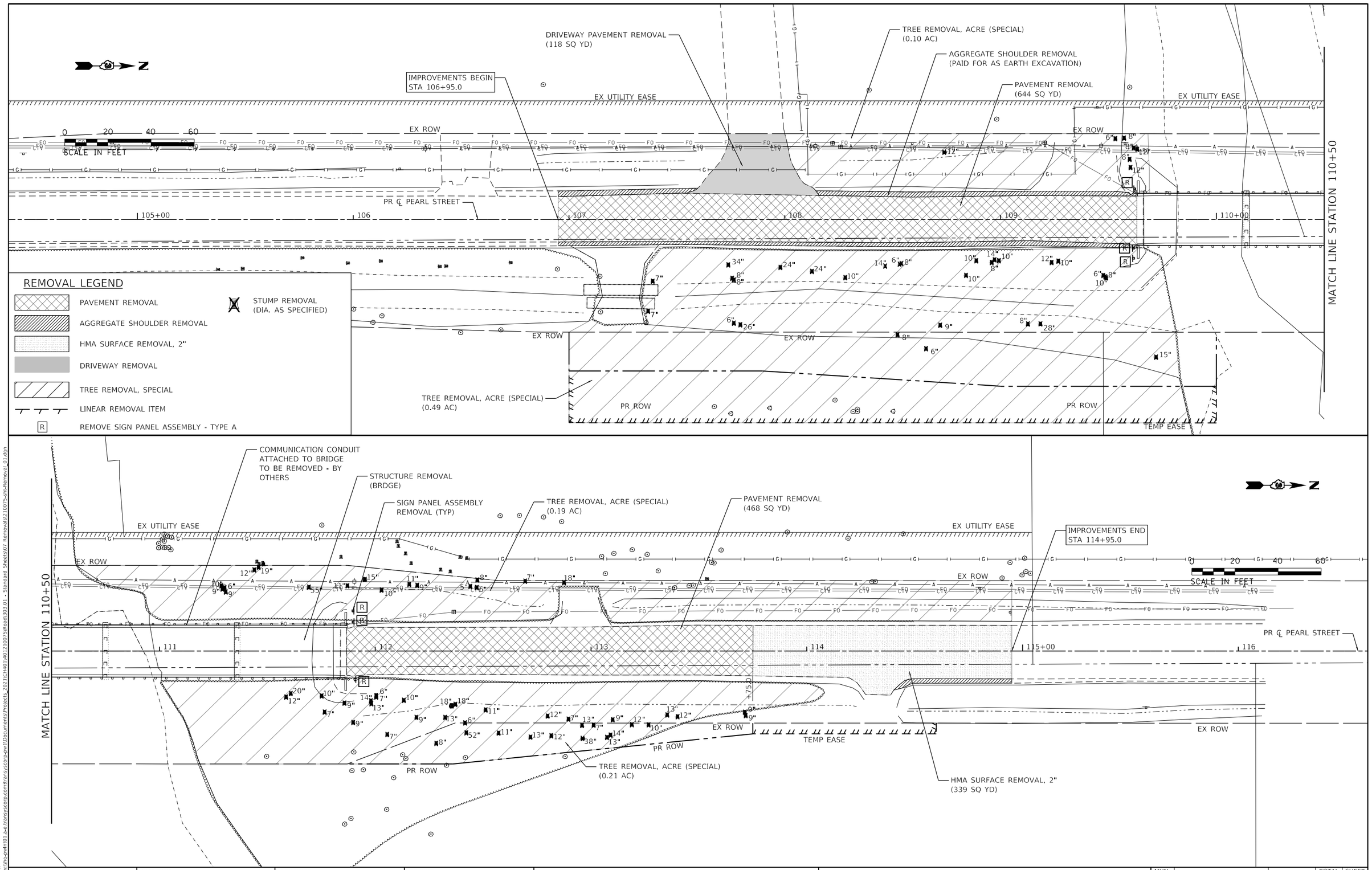
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
ALIGNMENT, TIES AND BENCHMARKS

SCALE: 1"=50" | SHEET 1 OF 1 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	18
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			



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		DRAWN -	REVISED -		
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -		SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. 109+95.00 TO STA. 114+95.00
	PLOT DATE = 4/30/2024	DATE - 5/1/2024	REVISED -		

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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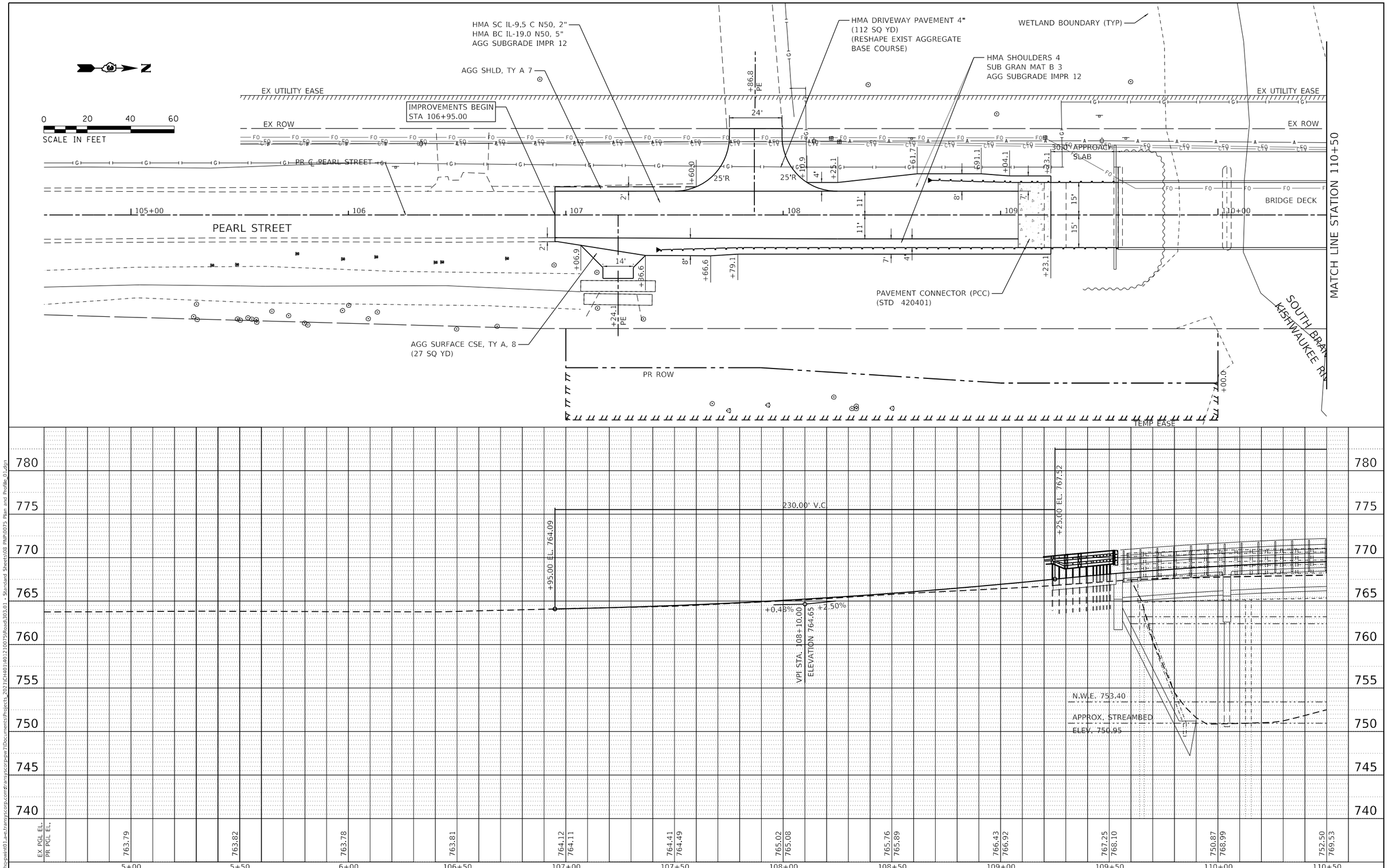
		CONTRACT NO. 87722		
		ILLINOIS | FED. AID PROJECT		



PLAN — DATE | BY | SURVEYED | PLOTTED | DRAWN | CHECKED | ALL DIMENSIONS CHECKED | RT. OF WAY CHECKED | CADD FILE NAME | NOTE BOOK | NO.

PROFILE — DATE | BY | SURVEYED | PLOTTED | DRAWN | CHECKED | BAR. NOTED | STRUCTURE NOTATNS CHKD | NOTE BOOK | NO.

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	PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
PLAN AND PROFILE

SCALE: 1"=20" | SHEET 1 OF 2 SHEETS | STA.109+95.00 TO STA. 110+50.00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	20
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			

PLAN
SURVEYED
PLOTTED
DRAWN
CHECKED
NOTE BOOK
NO.
DATE
BY
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME

MATCH LINE STATION 110+50

EX UTILITY EASE
223.9'
30.0' APPROACH SLAB
PAVEMENT CONNECTOR (PCC)
(STD 401201)
+96.5 PE
12'
AGG SURFACE CSE, TY A, 8
(9 SQ YD)
HMA DRIVEWAY PAVT 4
AGG BASE CSE B 8
HMA SHOULDERS 4
SUB GRAN MAT B 3
AGG SUBGRADE IMPR 12
AGG SHLD, TY A 7
IMPROVEMENTS END
STA 114+95.00
EX ROW
+07.1
+38.6
+51.1
+84.0
+15.0
+55.0
+75.0
2'
4'
7'
8'
15'
11'
111
112
113
114
115+00
116
PROPOSED BRIDGE OVER
SOUTH BRANCH KISHWAUKEE RIVER
℄ STRUCTURE 110+65.10
+63.6
+93.6
+39.8
+17.0
16.0'
+49.0
PR TEMP EASE
+33.1 FE
+60.0
EX ROW
PR ROW
+87.0
+36.1
WATER'S EDGE (TYP)
HMA SC IL-9.5 C N50, 2"
HMA BC IL-19.0 N50, 5"
AGG SUBGRADE IMPR 12
HMA SHOULDERS 4
SUB GRAN MAT B 3
AGG SUBGRADE IMPR 12
HMA SC IL-9.5 C N50, 2"
HMA DRIVEWAY PAVT 4
AGG BASE CSE B 8
AGG SURFACE CSE, TY A, 8
(22 SQ YD)

0 20 40 60
SCALE IN FEET

PROFILE
SURVEYED
PLOTTED
DRAWN
CHECKED
NOTE BOOK
NO.
BY
DATE
BAR. NOTED
STRUCTURE NO.
STATE'S CHKD

300.00' V.C.
VPI STA. 110+75.00
ELEVATION 771.27
2.50%
1.00%
+25.00 EL. 768.57
190.00' V.C.
LOW PNT +73.0
ELEV. 767.24
+5.00 EL. 767.34
VPI STA. 114+75.00
ELEVATION 767.66
-1.80%
+0.51%
VPI STA. 113+20.00
ELEVATION 766.86
H.W.E (100-YR) 763.20
D.H.W.E (30-YR) 762.40

780 775 770 765 760 755 750 745 740

EX PGL EL. / PR PGL EL.	752.50 / 769.53	755.49 / 769.70	756.39 / 769.52	767.74 / 768.98	767.66 / 768.16	767.53 / 767.56	767.23 / 767.27	767.29 / 767.28	767.52 / 767.52	767.68	767.48	767.09
	110+50	111+00	111+50	112+00	112+50	113+00	113+50	114+00	114+50	15+00	15+50	16+00

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
PLAN AND PROFILE

SCALE: 1"=20" | SHEET 2 OF 2 SHEETS | STA. 110+50.00 | TO STA. 114+95.00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	21
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

DETOUR GENERAL NOTES:

1. ALL SIGNING SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY, 1, 2022", "THE QUALITY STANDARD FOR WORK ZONE TRAFFIC CONTROL DEVICES ADOPTED 2010, "THE DETAILS IN THESE PLANS AND THE LATEST EDITION OF THE STATE OF ILLINOIS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".

2. THE ENGINEER SHALL BE NOTIFIED IN WRITING AT LEAST THREE WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT. THE ENGINEER SHALL APPROVE THE HOUR OF CLOSURE. THE CONTRACTOR WILL CONTACT THE APPROPRIATE LOCAL AGENCIES AND INTERESTED PARTIES.

3. IF DEEMED NECESSARY BY THE ENGINEER A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR SHALL BE HELD AT LEAST TWO WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT.

4. THE CONTRACTOR WILL BE REQUIRED TO COORDINATE ALL MAINTENANCE OF TRAFFIC OPERATIONS WITH ALL MUNICIPALITIES, TOWNSHIPS, COUNTY ENTITIES, AND OTHER STAKEHOLDERS WITHIN AND ADJACENT TO THE DETOUR. THE FOLLOWING IS THE LIST OF APPLICABLE CONTACTS.

KANE COUNTY SHERIFF'S OFFICE	SHERIFF	RON HAIN	630-232-6840
BIG ROCK TOWNSHIP	HIGHWAY COMMISSIONER	WADE THOMPSON	630-556-4331
KANEVILLE TOWNSHIP	HIGHWAY COMMISSIONER	DALE PIERSON	630-557-2858
HINCKLEY POLICE DEPARTMENT	POLICE CHIEF	KEN GETTEMY	815-286-7465
BIG ROCK FIRE DISTRICT	FIRE CHIEF	JOHN RUH	630-556-3214
HINCKLEY-BIG ROCK CUSD#429	SUPERINTENDENT	DR. TRAVIS MCGUIRE	815-286-7578
BIG ROCK POST OFFICE	POSTMASTER	CINDY J. CLARK	630-556-3177
KANE COUNTY EMERGENCY MANAGEMENT			630-232-5985

5. THE CONTRACTOR WILL FIELD MARK THE POSITONS OF ALL SIGN AT LEAST SEVENTY-TWO HOURS PRIOR TO THE PLACING THE SIGNS SO THE ENGINEER CAN VERIFY THE POSITIONS OF ANY SIGNS.

6. LONGITUDINAL DIMENSIONS SHOWN ON THESE PLANS MAY BE ADJUSTED TO FIT FIELD CONDITIONS, WITH THE APPROVAL OF THE ENGINEER.

7. THE ROAD SHALL NOT BE CLOSED UNTIL ALL SIGNING IS ERECTED IN ACCORDANCE WITH THE DETOUR PLAN AND INSPECTED AND APPROVED BY THE ENGINEER.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL BARRICADES, SIGNS, LIGHTS, AND OTHER DEVICES INSTALLED ARE IN PLACE AND OPERATING 24 HOURS EACH DAY INCLUDING SUNDAYS AND HOLIDAYS DURING THE TIME THE DETOUR IS IN EFFECT.

9. THE TRAFFIC CONTROL SHOWN ON THE DETOUR PLAN IS THE MINIMUM NECESSARY TO ENSURE THIS ROAD CLOSURE. THE CONTRACTOR SHALL MAKE ALL CHANGES IN TRAFFIC CONTROL THAT IS DEEMED NECESSARY BY THE ENGINEER. ADDITIONS AND DELETIONS OF TRAFFIC CONTROL FOR THIS DETOUR SHALL BE CONSIDERED INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, SPECIAL".

10. ALL EXISTING SIGNING THAT IS NOT APPLICABLE WHILE THE DETOUR IS IN EFFECT SHALL BE COMPLETELY COVERED BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.

11. ALL DETOUR SIGNING SHALL BE POST MOUNTED IF THE ROAD CLOSURE IS TO EXCEED FOUR (4) CALENDAR DAYS.

12. ALL DETOUR SIGNING EXCEPT REGULATORY SIGNS SHALL HAVE BLACK LEGENDS ON FLUORESCENT ORANGE SHEETING AND STANDARD BLACK BORDERS. THE FLUORESCENT ORANGE REFLECTIVE SHEETING SHALL MEET THE REQUIREMENTS OF SECTION 1091 OF THE STANDARD SPECIFICATIONS. ALL DETOUR SIGNING SHALL BE NEW OR LIKE NEW CONDITION. THE ENGINEER SHALL BE THE SOLE JUDGE OF THE CONDITION OF THE SIGNS.

13. THE SIZES OF ALL SIGNS NOT SPECIFIED IN THESE PLANS SHALL BE AS REQUIRED BY THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

14. AT A MINIMUM, ALL AMBER FLASHING LIGHTS THAT ARE REQUIRED FOR THIS DETOUR SHALL MEET THE REQUIREMENTS FOR TYPE A-LOW INTENSITY FLASHING LIGHTS IN ARTICLE 1106.02 OF THE STANDARD SPECIFICATIONS. ALL LIGHTS SHALL OPERATE DURING THE HOURS OF DARKNESS. ONLY LIGHTS THAT HAVE BEEN APPROVED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION SHALL BE USED.

15. WHEN REQUIRED THE MINIMUM DIMENSIONS OF THE ORANGE WARNING FLAGS SHOWN IN THESE PLANS ARE 18"X 18".

16. ALL BARRICADES SHALL HAVE REFLECTORIZED STRIPING ON BOTH SIDES OF THE BARRICADES. THE TYPE III BARRICADES USED AT THE POINT OF CLOSURE TO THRU TRAFFIC SHALL NOT EXCEED 8 FEET IN WIDTH EACH, FOR A SINGLE APPROACH LANE.

17. THE "ROAD CLOSED" (R11-2), SIGN SHALL BE MOUNTED ABOVE THE TOP OF THE BARRICADE. ALL TYPE III BARRICADES SHALL HAVE TWO (2) AMBER TYPE A-LOW INTENSITY FLASHING LIGHTS SPACED NEAR THE CENTERLINE OF THE SUPPORTS.

18. THE ROAD NAME SIGN SHALL HAVE A BLACK LEGEND ON THE FLUORESCENT ORANGE REFLECTIVE SHEETING. THE SIGN BLANK SHALL BE A 9" X VARIABLE OR A 12" X VARIABLE WITH DESIGN SERIES C LETTERS. THE CAPITAL LETTERS SHALL BE 6" WITH 4.5" LOWER CASE.

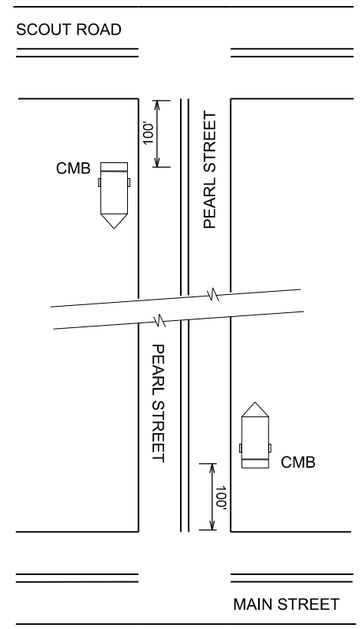
19. DURING NON-WORKING HOURS AT THE POINT OF ROAD CLOSURE TO ALL TRAFFIC THE CONTRACTOR SHALL PROVIDE A MEANS TO RESTRAIN THE BARRICADES FROM EASY MOVEMENT BY VANDALS. THE CHOSEN METHOD SHALL BE APPROVED BY THE ENGINEER.

20. CONSTRUCTION EQUIPMENT SHALL NOT BE PARKED IMMEDIATELY BEHIND THE TYPE III BARRICADES DURING NON-WORKING HOURS. IN ANY EVENT ARTICLE 701.04 OF THE STANDARD SPECIFICATIONS SHALL APPLY.

21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE VISIBILITY OF ALL DETOUR AND CONSTRUCTION SIGNING, INCLUDING BRUSHING BACK VEGETATION IF DEEMED NECESSARY BY THE ENGINEER.

22. THE FOLLOWING ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD IS APPLICABLE FOR THIS WORK:
STANDARD 701901

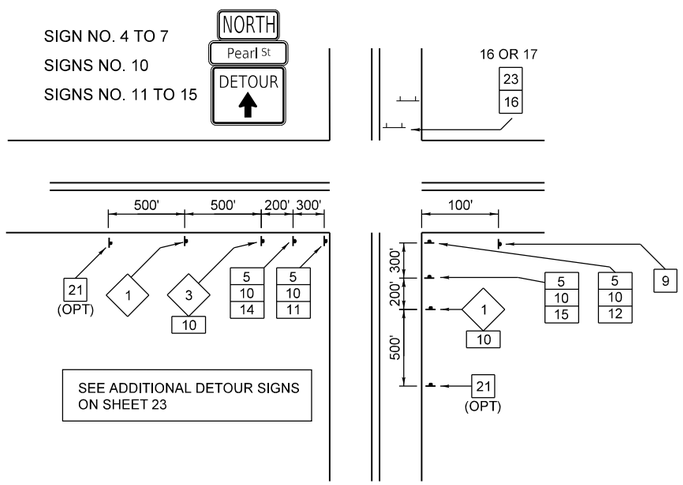
23. THE ENGINEER SHALL BE NOTIFIED AT LEAST TWO (2) HOURS BEFORE THE ROAD IS TO BE OPENED TO TRAFFIC. THE CONTRACTOR WILL CONTACT THE APPROPRIATE LOCAL AGENCIES AND STAKEHOLDERS.



CHANGABLE MESSAGE BOARD LOCATION

TYPICAL DETOUR ASSEMBLY SIGN

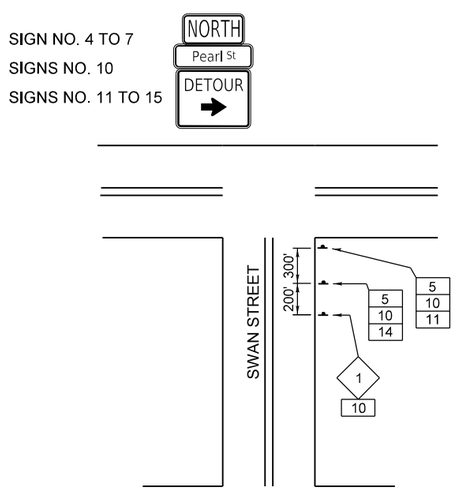
SIGN NO. 4 TO 7
SIGNS NO. 10
SIGNS NO. 11 TO 15



TYPICAL MAJOR INTERSECTION AT POINT OF DETOUR

TYPICAL DETOUR ASSEMBLY SIGN

SIGN NO. 4 TO 7
SIGNS NO. 10
SIGNS NO. 11 TO 15



TYPICAL MINOR RURAL INTERSECTION
ALONG DETOUR ROUTE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHAWAUKEE RIVER
DETOUR NOTES

SCALE: NONE | SHEET 1 OF 2 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	22
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

KIRKLAND RD

BUCKS RD

WOLF RD

SCOUT RD

SCOUT RD

PEARL RD

PEARL RD

N

SCHEDULE OF DETOUR SIGNS

1	DETOUR AHEAD	W20-2-4848	10	PEARL ST	D3-(O)3612-VAR	19	ROAD CLOSED TO THRU TRAFFIC	R11-4-6030
2	ROAD CLOSED AHEAD	W20-3-4848	11	DETOUR	M4-9R-3024	20	Pearl Street CLOSED USE IL 72	R11-3B-6030 "IL 72"
3	ROAD CLOSED 500 FT	W20-3-4848	12	DETOUR	M4-9R-3024	21	Pearl Street CLOSED USE Kirkland Road	R11-3B-6030 "Kirkland Road"
4	NORTH	M3-1(O)-2412	13	DETOUR	M4-9 SERIES-3024	22	Pearl Street CLOSED USE Scout Road	R11-3B-6030 "Scout Road"
5	EAST	M3-2(O)-2412	14	DETOUR	M4-9 SERIES-3024	23	BRIDGE OUT X MILES AHEAD LOCAL TRAFFIC ONLY	R11-3B-6030
6	SOUTH	M3-3(O)-2412	15	DETOUR	M4-9 SERIES-3024	24	ROAD CLOSED	R11-2-4830
7	WEST	M3-4(O)-2412	16	DETOUR	M4-10L-4818			
8	DETOUR	M4-8-2412	17	DETOUR	M4-10R-4818			
9	END DETOUR	M4-8A-2418	18	BRIDGE OUT	R11-2-4830			

D3-(O)3612-VAR

"1 MILE"

"1/4 MILE"

NORTH ST

PERRY RD

PERRY RD

ILLINOIS 72

ILLINOIS 72

PEERL ST

KIRKLAND RD

PEARL RD

HORTENSE RD

LEGEND

- SIGN POST LOCATION
- TYPE III BARRICADE (SEE NOTE)
- DIRECTION OF TRAFFIC FLOW
- CONSTRUCTION AREA
- 4 | 10 | 12 — SIGN ARRAY SEQUENCE
- DETOUR ROUTE

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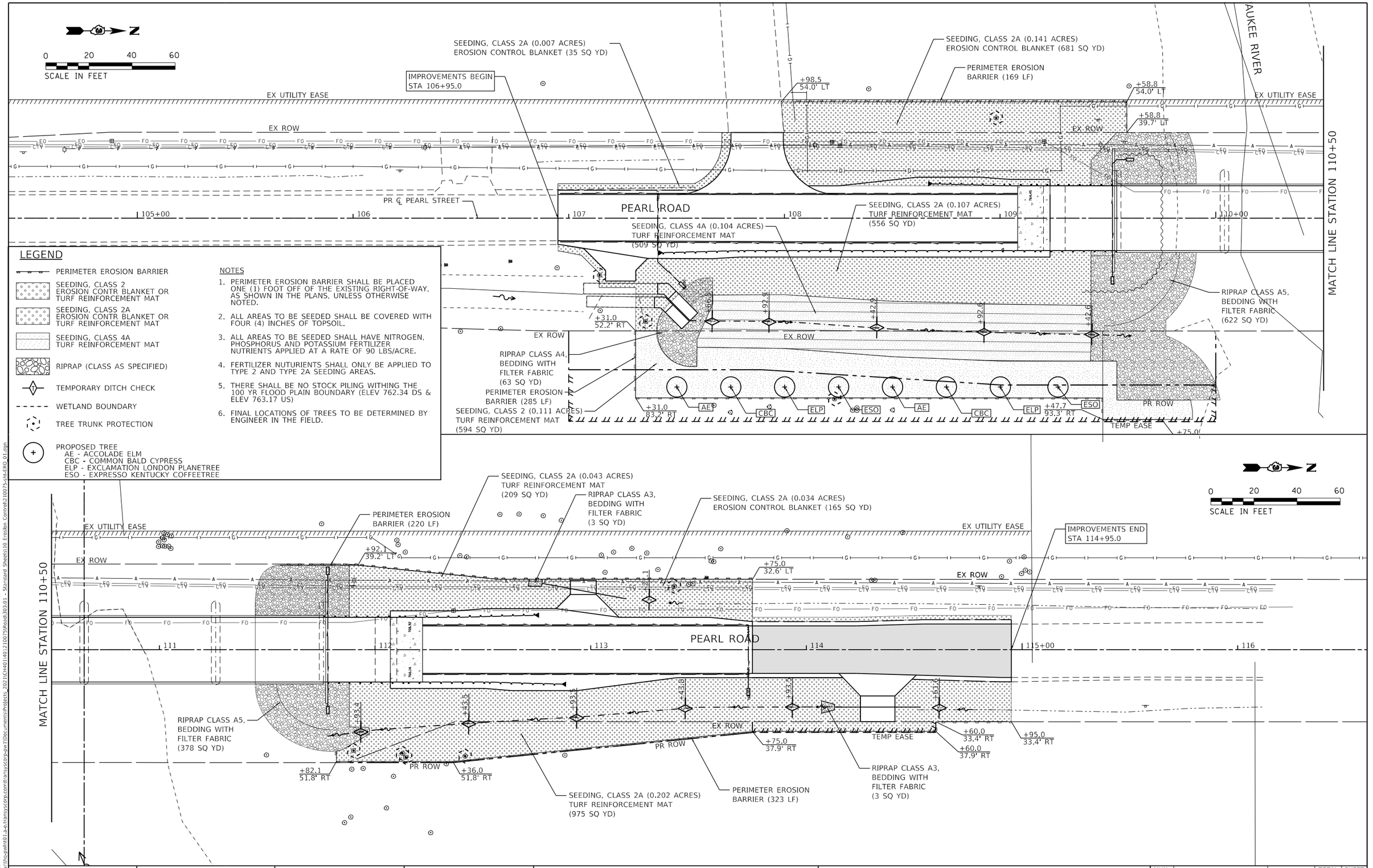
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
PEARL STREET DETOUR PLAN

SCALE: 1"=600' | SHEET 2 OF 2 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00008-00-BR	DEKALB	85	23
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
EROSION CONTROL AND RESTORATION PLANS

SCALE: 1" = 20' | SHEET 1 OF 5 SHEETS | STA. 106+95.00 | TO STA. 114+95.00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	24
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			

EROSION CONTROL INSPECTION

ALL EROSION CONTROL MEASURES MUST BE INSPECTED WEEKLY AND AFTER EACH ½" RAIN EVENT.

WINTER SHUT DOWN

A WINTER SHUT DOWN IS NOT ANTICIPATED FOR THIS PROJECT. BUT IN THE EVENT THAT UNAVOIDABLE CIRCUMSTANCES REQUIRE A WINTER SHUT DOWN, THE CONDITION OF THE CONSTRUCTION SITE FOR WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT SLOPES AND OTHER BARE EARTH AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR PROPER EROSION AND SEDIMENT CONTROL. ALL OPEN AREAS THAT ARE TO REMAIN IDLE THROUGHOUT THE WINTER SHALL RECEIVE TEMPORARY EROSION CONTROL MEASURES INCLUDING TEMPORARY SEEDING, MULCHING AND/OR EROSION CONTROL BLANKET PRIOR TO THE END OF THE FALL GROWING SEASON. THE AREAS TO BE WORKED BEYOND THE END OF THE GROWING SEASON MUST INCORPORATE SOIL STABILIZATION MEASURES THAT DO NOT RELY ON VEGETATIVE COVER SUCH AS EROSION CONTROL BLANKET AND HEAVY MULCHING.

TEMPORARY DITCH CHECKS

TEMPORARY DITCH CHECKS WILL BE REQUIRED AT THOSE LOCATIONS WHERE THE CONTRACTORS OPERATIONS REQUIRE TEMPORARY OR PERMANENT DITCHES. THE LOCATION OF TEMPORARY DITCH CHECKS ARE SHOWN ON THE PLANS. THE EXACT LOCATION MAY REQUIRE FIELD ADJUSTMENT AND WILL BE COORDINATED IN THE FIELD WITH THE ENGINEER. THE QUANTITIES INCLUDE A PLAN ALLOWANCE OF TEMPORARY DITCH CHECKS FOR MAINTENANCE PURPOSES. TEMPORARY DITCH CHECKS SHALL BE CONSTRUCTED AS SPECIFIED IN SECTION 280 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

PERIMETER EROSION BARRIER (SILT FENCE)

PERIMETER EROSION CONTROL BARRIER (SILT FENCE) SHALL BE PLACED AT THE LOCATIONS SHOWN ON THE PLANS. THE PERIMETER EROSION CONTROL BARRIER SHALL BE CONSTRUCTED AS DETAILED ON THE PLANS AND AS SPECIFIED IN SECTION 280 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

STOCKPILE LOCATIONS AND PROTECTING STOCK PILE AREAS

STOCKPILES SHOULD NOT BE PLACED IN OR NEAR CRITICAL AREAS, OR AREAS THAT HAVE HIGH POTENTIAL FOR CONTRIBUTING SEDIMENTS TO STORMWATER FACILITIES.

CONTRACTOR MAY OPT TO STOCKPILE MATERIAL. STAGING OF THE PROJECT IS AT THE DISCRETION OF THE CONTRACTOR AND COORDINATION APPROVAL OF STOCK PILE LOCATIONS WITH THE ENGINEER. STOCKPILES OF SOIL AND OTHER CONSTRUCTION MATERIALS TO REMAIN IN PLACE MORE THAN THREE (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). STOCKPILES, NOT BEING ACTIVELY WORKED AND TO REMAIN IN PLACE FOR 14 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.

STABILIZED CONSTRUCTION AREA

WHEN CONSTRUCTION OPERATIONS PREVENT INSTALLATION OF PERMANENT STABILIZATION OF THE CONSTRUCTION AREA THE CONTRACTOR SHALL INSTALL TEMPORARY STABILIZATION (EROSION CONTROL FENCE, DITCH CHECKS) AT END OF EACH WORK DAY TO PREVENT SEDIMENT FROM LEAVING THE SITE OR ENTERING ANY ACTIVE WATERWAY.

PERMANENT STABILIZATION OF THE CONSTRUCTION AREA SHALL BE COMPLETED WITHIN 7 DAYS OF FINAL GRADING.

WORK IN FLOWING WATER

NO WORK SHALL BE PERFORMED IN FLOWING WATER. WORK IN AND NEAR THE CRITICAL AREAS SHOULD BE ISOLATED FROM CONCENTRATED FLOWS OR STREAM FLOW. ONCE WORK IN THIS AREA BEGINS, PRIORITY SHALL BE GIVEN TO THE COMPLETION OF THE WORK AND FINAL STABILIZATION OF ALL DISTURBED AREAS. SEE ADDITIONAL IN-STREAM NOTES.

DEWATERING

WHEN DEWATERING THE CONSTRUCTION AREA IS NECESSARY, ALL WATERS SHALL BE FILTERED BY USING FILTER BAGS OR AN ALTERNATIVE MEASURE APPROVED BY THE ENGINEER. ALL FILTER BAGS MUST HAVE SECONDARY CONTAINMENT DEVICES, AND SHOULD BE PLACED ON LEVEL GROUND. WATER MUST HAVE SEDIMENT REMOVED BEFORE BEING ALLOWED TO RETURN TO THE ORIGINAL CREEK. THE DISCHARGE SHALL BE DESIGNED SO THAT RETURNING WATERS DO NOT CAUSE EROSION. THE CONTRACTOR WILL COORDINATE THE METHOD, DESIGN AND LOCATION OF THE DEWATERING PLAN AND FILTER BAG(S) WITH ENGINEER THE PRE-CONSTRUCTION MEETING.

DEWATERING AND FILTERING BAG SYSTEMS REQUIRED FOR ALL CONSTRUCTION OPERATIONS WILL NOT BE MEASURED SEPARATELY FOR PAYMENT BUT SHALL BE INCLUDED IN THE COST OF THE RELATED WORK ITEM REQUIRING DEWATERING. DEWATERING WILL INCLUDE MEANS, METHODS AND ALL MATERIALS TO DEWATER AND TO PROVIDE FILTRATION OF WATERS BEFORE RE-ENTERING THE CREEK.

KEEPING PAVEMENTS CLEAN

THE CONTRACTOR WILL KEEP ALL PERMANENT PAVEMENT SURFACES CLEAN OF DIRT OR CONSTRUCTION DEBRIS. THE PAVEMENT SHALL BE CLEANED AT THE END OF EACH DAYS OPERATION OR MORE FREQUENTLY AS REQUIRED BY THE ENGINEER IF THE DEBRIS IS DEEMED TO BE A HAZARD TO THE MOTORING PUBLIC.

STABILIZATION TYPE	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PERMANENT SEEDING				A				A				
DORMANT SEEDING	B										B	
TEMPORARY SEEDING			C									
EROSION CONTROL				D								

A. CLASS 2
CLASS 2A
CLASS 4A

B. INCREASE SEEDING RATES BY 25% WHEN DORMANT SEEDING (NOT ANTICIPATED)

C. TEMPORARY SEEDING (PERENNIAL RYE GRASS, SPRING OATS)

D. TEMPORARY AND PERMENENT EROSION CONTROL BLANKET

* IRRIGATION MAY BE NEEDED DURING JUNE AND JULY (INCLUDED IN SEEDING)

NOTE: SEEDING TO BE COMPLETED PER REQUIREMENTS OF SECTION 250 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGES AND THE SPECIAL PROVISIONS.

STABILIZED CONSTRUCTION ENTRANCE

A STABILIZED CONSTRUCTION ENTRANCE IS NOT ANTICIPATED FOR THIS PROJECT. HOWEVER, IF IT IS DETERMINED BY THE ENGINEER THAT THE CONTRACTOR OPERATIONS REQUIRE A STABILIZED ENTRANCE, QUANTITY HAS BEEN INCLUDED IN THE PROJECT TO COMPLETE THIS WORK. THERE WILL BE NO ADJUSTMENT TO THE CONTRACT IF THE ENTRANCE IS NOT CONSTRUCTED. IF REQUIRED, THE CONTRACTOR WILL SUBMIT THE LOCATION AND DETAILS TO ENGINEER FOR APPROVAL.

CONCRETE WASHOUT

A CONCRETE WASHOUT IS NEEDED FOR THIS PROJECT. IT SHOULD BE DRAWN ON THESE PLANS BY THE CONTRACTOR AT THE TIME OF INSTALLATION. WASHOUTS ARE TO BE CONSTRUCTED AND MAINTAINED IN A MANNER CONSISTENT WITH THE DETAILS ON THE PLANS AND THE LATEST EDITION OF THE ILLINOIS URBAN MANUAL.

GENERAL NOTES

A) UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL, LATEST EDITION.

B) A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

C) THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE ENGINEER.

D) IT IS THE RESPONSIBILITY OF THE OWNER AND/OR GENERAL CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS SET FORTH BY THE ILLINOIS EPA.

E) THE CONTRACTOR IS RESPONSIBLE FOR INDICATING THE CURRENT LOCATION OF THE CONCRETE WASHOUT AND ANY MODIFICATIONS TO THE LOCATIONS OR DETAILS OF EROSION AND SEDIMENT CONTROLS ON THESE PLANS.

F) ALL DROP INLETS ON AND ADJACENT TO THE SITE MUST HAVE SEDIMENT TRAPPING OR CONTAINMENT DEVICE INSTALLED DURING CONSTRUCTION ACTIVITIES. FILTER FABRIC ON ITS OWN IS NOT AN APPROVED METHOD. PREFABRICATED DROP INLET PROTECTION SHOULD BE AS RESTRICTIVE AS THE ILLINOIS URBAN MANUAL STANDARD 861 FOR INLET PROTECTION.

CONTRACTOR SUBMITTAL

MEANS AND METHODS TO CONSTRUCT THE BRIDGE, CHANNEL AND OTHER APPURTENANT WORK IS THE CONTRACTORS RESPONSIBILITY. THE CONTRACTOR IS REQUIRED TO SUBMIT TO THE ENGINEER FOR APPROVAL ALL DRAWINGS AND/OR DETAILS SHOWING THE EXACT SEQUENCING, METHODS, AND LOCATIONS OF THE COFFERDAMS AND CAUSEWAY(S) (IF REQUIRED) WHICH WILL INCLUDE DEWATERING AND FILTRATION METHODS.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
EROSION CONTROL GENERAL NOTES

SCALE: NONE | SHEET 2 OF 5 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	25
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

IN-STREAM WORK

1. WORK IN THE WATERWAY SHOULD BE TIMED TO TAKE PLACE DURING LOW OR NO-FLOW CONDITIONS. LOW FLOW CONDITIONS ARE AT OR BELOW THE NORMAL WATER ELEVATION.

2. THE PLAN MUST BE DESIGNED TO ALLOW FOR THE CONVEYANCE OF THE 2-YEAR PEAK FLOW PAST THE WORK AREA WITHOUT OVERTOPPING THE COFFERDAM. THE CORPS HAS THE DISCRETION TO REDUCE THIS REQUIREMENT IF DOCUMENTED BY THE APPLICANT TO BE INFEASIBLE OR UNNECESSARY.

3. WATER MUST BE ISOLATED FROM THE IN-STREAM WORK AREA USING A COFFERDAM CONSTRUCTED OF NON-ERODIBLE MATERIALS (STEEL SHEETS, AQUA BARRIERS, RIP RAP AND GEOTEXTILE LINER, ETC.). EARTHEN COFFERDAMS ARE NOT PERMISSIBLE.

4. THE COFFERDAM MUST BE CONSTRUCTED FROM THE UPLAND AREA AND NO EQUIPMENT MAY ENTER THE WATER AT ANY TIME. IF THE INSTALLATION OF THE COFFERDAM CANNOT BE COMPLETED FROM SHORE AND ACCESS IS NEEDED TO REACH THE AREA TO BE COFFERED, OTHER MEASURES, SUCH AS THE CONSTRUCTION OF A CAUSEWAY, WILL BE NECESSARY TO ENSURE THAT EQUIPMENT DOES NOT ENTER THE WATER. ONCE THE COFFERDAM IS IN PLACE AND THE ISOLATED AREA IS DEWATERED, EQUIPMENT MAY ENTER THE COFFERED AREA TO PERFORM THE REQUIRED WORK.

5. IF BYPASS PUMPING IS NECESSARY, THE INTAKE HOSE MUST BE PLACED ON A STABLE SURFACE OR FLOATED TO PREVENT SEDIMENT FROM ENTERING THE HOSE. THE BYPASS DISCHARGE MUST BE RELEASED ONTO A NON-ERODIBLE, ENERGY DISSIPATING SURFACE PRIOR TO REJOINING THE STREAM FLOW AND MUST NOT CAUSE EROSION. FILTERING OF BYPASS WATER IS NOT NECESSARY UNLESS THE BYPASS WATER HAS BECOME SEDIMENT-LADEN AS A RESULT OF THE CURRENT CONSTRUCTION ACTIVITIES.

6. DURING DEWATERING OF THE COFFERED WORK AREA, ALL SEDIMENT-LADEN WATER MUST BE FILTERED TO REMOVE SEDIMENT. POSSIBLE OPTIONS FOR SEDIMENT REMOVAL INCLUDE BAFFLE SYSTEMS, ANIONIC POLYMERS SYSTEMS, DEWATERING BAGS, OR OTHER APPROPRIATE METHODS. WATER MUST HAVE SEDIMENT REMOVED PRIOR TO BEING RE-INTRODUCED TO THE DOWNSTREAM WATERWAY. A STABILIZED CONVEYANCE FROM THE DEWATERING DEVICE TO THE WATERWAY MUST BE IDENTIFIED IN THE PLAN. DISCHARGE WATER MAY NOT RESULT IN A VISUALLY IDENTIFIABLE DEGRADATION OF WATER CLARITY.

7. THE AREA FROM THE TOE TO THE TOP OF THE SIDE SLOPE MUST BE TEMPORARILY STABILIZED DURING CONSTRUCTION TO REDUCE THE POTENTIAL FOR EROSION. ALL AREAS DISTURBED DUE TO CONSTRUCTION ACTIVITIES MUST BE RESTORED TO PROPOSED CONDITIONS AND FULLY STABILIZED PRIOR TO ACCEPTING FLOWS.

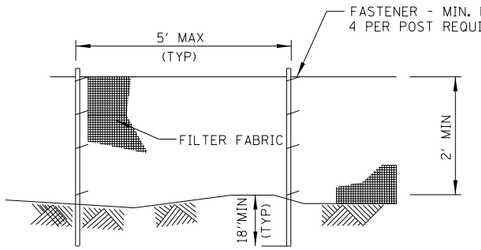
DEWATERING AND WATER DIVERSION

DEWATERING AND WATER DIVERSION WORK SHALL CONSIST OF FURNISHING ALL LABOR, TOOLS, EQUIPMENT, AND MATERIALS TO INSTALL, MAINTAIN, AND OPERATE ALL NECESSARY DEWATERING SYSTEMS TO DIVERT, REMOVE WATER FROM THE CHANNEL REACH OR DESIGNED TO CONTROL SEDIMENT DISCHARGE IN DEWATERING APPLICATIONS WHERE WATER IS BEING PUMPED FOR THE CONSTRUCTION OF THE PROPOSED BRIDGE, HEADWALLS, STONE RIP RAP SLOPE PROTECTION AND OTHER WORK ASSOCIATED WITH CONSTRUCTION OF THE BRIDGE TO ASSURE THE WORK CAN BE COMPLETED IN THE DRY OR IN MANAGEABLE CONDITIONS AS APPROVED BY THE ENGINEER.

THIS ITEM WILL ALSO CONSIST OF CONSTRUCTING A DEWATERING FILTERING SYSTEM CONSISTING OF FILTRATION OR SEDIMENT BAGS FOR COLLECTING SEDIMENT FROM PUMPING OPERATIONS WITHIN COFFER DAMS AND SUMP PITS. CONSTRUCTION WATERS WILL INCLUDE, BUT NOT BE LIMITED TO, ALL WATERS GENERATED FROM THE INSTALLATION OF BRIDGE, HEADWALLS, DRAINAGE SYSTEMS, FOOTING AND AGGREGATE BASE CONSTRUCTION.

DEWATERING AND WATER DIVERSION - BASIS OF PAYMENT

ALL WORK REQUIRED TO PROVIDE FOR THE DEWATERING AND/OR DIVERSION SYSTEMS FOR THE CONSTRUCTION OF THE BRIDGE, HEADWALLS, CHANNEL AND BANK STABILIZATION WILL NOT BE MEASURED SEPERATELY FOR PAYMENT BUT SHALL BE INLCUDED IN THE VAROUS ITEMS REQUIRING DETWATERING AND/OR DIVERSION, WHICH WORK SHALL INCLUDE MEANS AND METHODS FOR DESIGN OF COFFERDAMS, BARRIER WALL, FILTER FABRIC, PIPING, PUMPING, FOUNDATION PREPARATION, FRAMING AND SUPPORTS, DEWATERING FILTERING SYSTEM CONSISTING OF FILTRATION OR SEDIMENT BAGS, INSTALLATION,MAINTENANCE, REMOVAL OF SYSTEMS, CAUSEWAY(S) AND ALL LABOR, MATERIAL, AND EQUIPMENT NEEDED TO PERFORM THE WORK DESCRIBED HEREIN AND AS SPECIFIED ON THE PLANS AND SPECIAL PROVISIONS.



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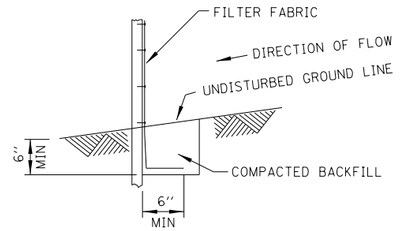


FABRIC ANCHOR DETAIL

PERIMETER EROSION BARRIER
(SILT FENCE)

STD. IUM-620A
(SILT FENCE PLAN)

PERIMETER EROSION BARRIER NOTES:

1. TEMPORARY SEDIMENT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. THEY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REMOVED IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.

2. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 40 FOR WOVEN.

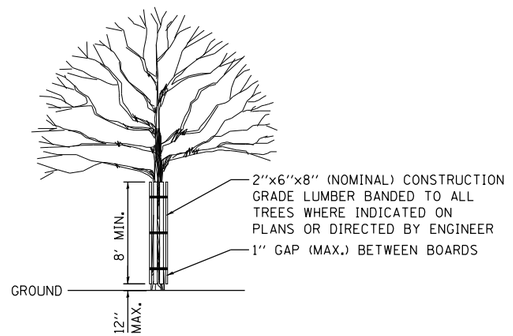
3. FENCE POSTS SHALL BE EITHER STANDARD STEEL POST OR WOOD POST WITH A MINIMUM CROSS-SECTIONAL AREA OF 3.0 SQ. IN.

WATERWAY INFORMATION

Drainage Area = 311.0 sq. mi.

Flood	Freq. Yr.	Q C.F.S.	Opening Sq Ft Exist.	Opening Sq Ft Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	2	3741	1134	1182	759.56	0.40	0.36	759.96	759.92

2-Year Velocity through Existing Bridge = 3.3 ft/s



TREE TRUNK PROTECTION

TREE TRUNK PROTECTION HAS BEEN PROVIDED FOR IN THE PLANS FOR TREES DEEMED NEEDING PROTECTION. THE LOCATIONS ARE SHOWN ON THE EROSION AND REMOVAL PLANS. AN ADDITIONAL NOMINAL QUANTITY HAS BEEN INCLUDED IN THE PLANS TO BE USED AT THE ENGINEER'S DISCRETION.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
EROSION CONTROL DETAILS

SCALE: NONE | SHEET 3 OF 5 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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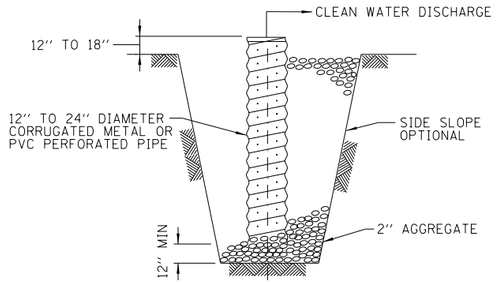
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		



SECTION

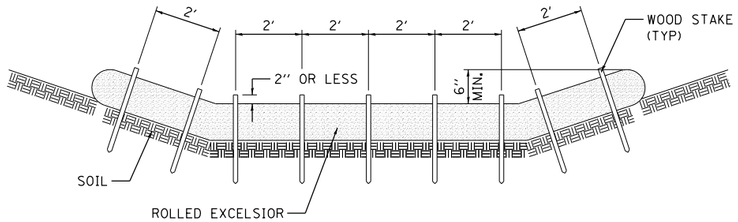
SUMP PIT NOTES:

1. PIT DIMENSIONS ARE OPTIONAL.
2. THE STANDPIPE WILL BE CONSTRUCTED BY PERFORATING A 12"-24" DIAMETER CORRUGATED METAL OR PVC PIPE.
3. A BASE OF 2" AGGREGATE WILL BE PLACED IN THE PIT TO A MINIMUM DEPTH OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE WILL THEN BE BACKFILLED WITH 2" AGGREGATE.
4. THE STANDPIPE WILL EXTEND 12" TO 18" ABOVE THE LIP OF THE PIT.
5. IF DISCHARGE WILL BE PUMPED DIRECTLY TO A STORM DRAINAGE SYSTEM, THE STANDPIPE WILL BE WRAPPED WITH FILTER FABRIC BEFORE INSTALLATION.
6. IF DESIRED, ¼"-½" HARDWARE CLOTH MAY BE PLACED AROUND THE STANDPIPE PRIOR TO ATTACHING THE FILTER FABRIC. THIS WILL INCREASE THE RATE OF WATER SEEPAGE INTO THE PIPE.

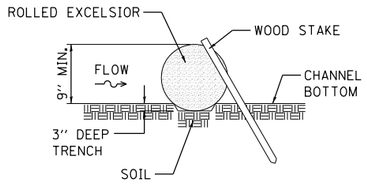
SUMP PIT PLAN

STD. IL-650
(SUMP PIT PLAN)

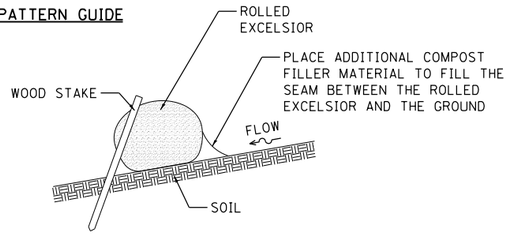
THE SUMP PIT WILL NOT BE MEASURED SEPARATELY FOR PAYMENT BUT SHALL BE CONSIDERED PART OF THE DEWATERING OPERATIONS.



STAKING PATTERN GUIDE



STAKE DETAIL



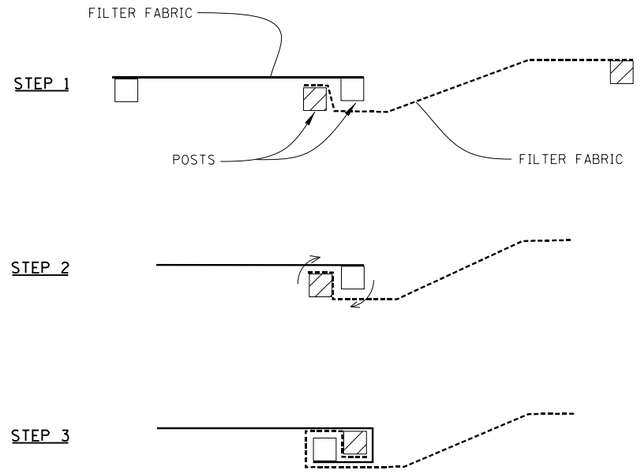
COMPOST FILTER SOCK DETAIL

TEMPORARY DITCH CHECK
ROLLED EXCELSIOR

STD. IUM-514RC
(ROLLED EROSION CONTROL PRODUCTS)

DITCH CHECK NOTES:

1. ENDS OF ROLLED EXCELSIOR SHALL BE TURNED AT LEAST 6" UPSLOPE.
2. RECOMMENDED STAKES ARE 1⅛" WIDE x 1⅛" THICK x 30" LONG.
3. STAKES SHALL NOT EXTEND ABOVE THE ROLLED EXCELSIOR MORE THAN 2".
4. SPACING: THE TOE OF THE UPSTREAM DITCH CHECK SHALL CREATE A HORIZONTAL LINE WITH THE TOP OF THE DOWNSTREAM DITCH CHECK.
5. WHEN COMPOST FILTER SOCK DITCH CHECK IS USED, PLACE A COMPOST BERM UPSTREAM OF THE FILTER SOCK (SEE IUM 805). A TRENCH IS NOT REQUIRED.
6. OVERLAP MINIMUM IS THE DIAMETER OF THE ROLL.
7. STAKES SHALL BE PLACED EVERY 2' FOR ROLLED EXCELSIOR, OR AS SPECIFIED BY THE MANUFACTURER.



ATTACHING TWO SILT FENCES

PERIMETER EROSION BARRIER NOTES:

1. PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE.
2. ROTATE BOTH POSTS AT LEAST 180 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL.
3. CUT THE FABRIC NEAR THE BOTTOM OF THE STAKES TO ACCOMMODATE THE 6" FLAP.
4. DRIVE BOTH POSTS A MINIMUM OF 18 INCHES INTO THE GROUND AND BURY THE FLAP.
5. COMPACT BACKFILL (PARTICULARLY AT SPLICES) COMPLETELY TO PREVENT STORMWATER PIPING.

PERIMETER EROSION BARRIER
(SILT FENCE) – SPLICING TWO FENCES

STD. IUM-620B
(SILT FENCE - SPLICING TWO FENCES)

TRANSYSTEMS

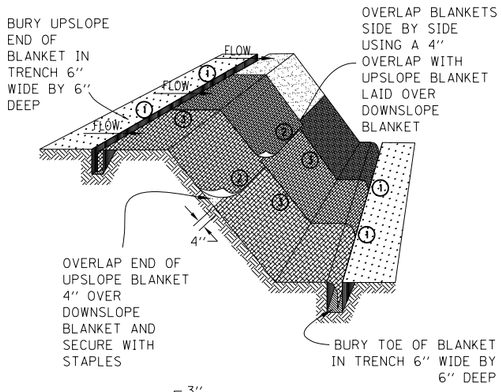
USER NAME = sbpottorff	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -

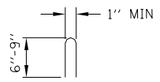
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
EROSION CONTROL DETAILS

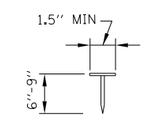
SCALE: NONE | SHEET 4 OF 5 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	27
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

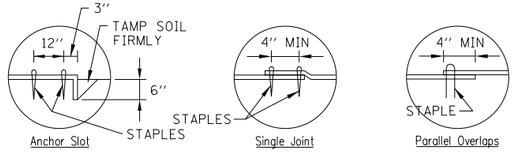




STAPLE DETAIL



PUSH PIN DETAIL

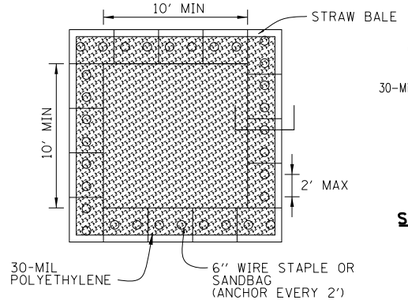


DETAIL 1 DETAIL 2 DETAIL 3

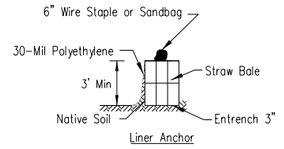
BLANKET NOTES:

1. STAPLES SHALL BE PLACED IN A DIAMOND PATTERN AT 2 PER S.Y. FOR STITCHED BLANKETS. NON-STICHED SHALL USE 4 STAPLES PER S.Y. OF MATERIAL. THIS EQUATES TO 200 STAPLES WITH STITCHED BLANKET AND 400 STAPLES WITH NON-STICHED BLANKET PER 100 S.Y. OF MATERIAL
2. STAPLE OR PUSH PIN LENGTHS SHALL BE SELECTED BASED ON SOIL TYPE AND CONDITIONS. (MINIMUM STAPLE LENGTH IS 6")
3. EROSION CONTROL MATERIAL SHALL BE PLACED IN CONTACT WITH THE SOIL OVER A PREPARED SEEDBED.
4. ALL ANCHOR SLOTS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

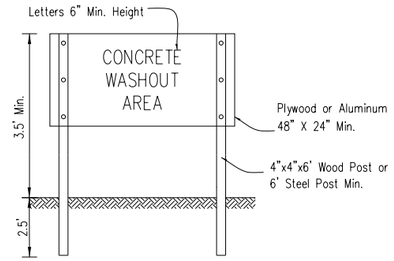
EROSION CONTROL BLANKET INSTALLATION DETAILS



PLAN VIEW



STRAW BALE ANCHOR SECTIONS



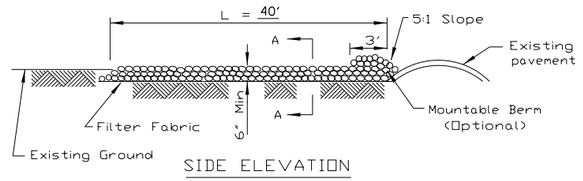
SIGN DETAIL

WASHOUT NOTES:

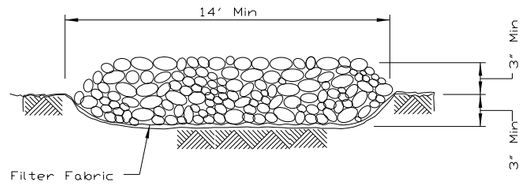
1. MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHALL INCLUDE REMOVING AND DISPOSING OF HARDENED CONCRETE AND/OR SLURRY AND RETURNING THE FACILITIES TO A FUNCTIONAL CONDITION.
2. FACILITY SHALL BE CLEANED OR RECONSTRUCTED IN A NEW AREA ONCE WASHOUT BECOMES TWO-THIRDS FULL.
3. EACH STRAW BALE IS TO BE STAKED IN PLACE USING (2) 2"X2"X4' WOODEN STAKES.

TEMPORARY CONCRETE WASHOUT FACILITY – STRAW BALE

STD. IUM-654SB
(TEMPORARY CONCRETE WASHOUT)



SIDE ELEVATION



SECTION A-A

NOTES:

1. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF ARTICLE 1080.03 OF THE STANDARD SPECIFICATIONS AND SHALL BE PLACED OVER THE CLEARED SUBGRADE AREA PRIOR TO PLACING THE ROCK.
2. AGGREGATE FILL SHALL MEET ONE OF THE FOLLOWING IDOT COARSE AGGREGATE GRADATIONS, CA-1, CA-2, CA-3 OR CA-4 AND BE PLACED ACCORDING TO SPECIAL PROVISION "STABILIZED CONSTRUCTION ENTRANCE".
3. ANY DRAINAGE FACILTIES REQUIRED BECAUSE OF WASHING SHALL BE CONSTRUCTED ACCORDING TO MANUFACTURERS SPECIFICATIONS.
4. IF WASH RACKS ARE USED THEY SHALL BE INSTALLED ACCORDING TO MANUFACTURERS SPECIFICATIONS.

STABILIZED CONSTRUCTION ENTRANCE PLAN

STD. IL-630(A), IL-630(B)
(STABILIZED CONTRUCTION ENTRANCE PLAN)

TRANSYSTEMS

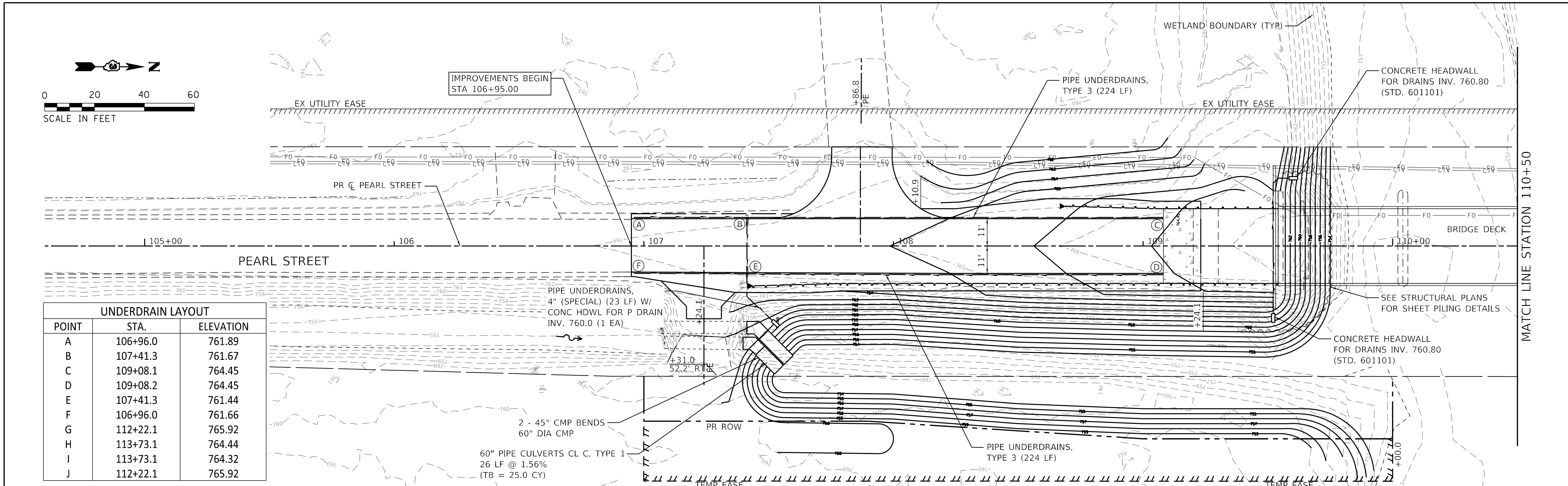
USER NAME = sbpottorff	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
EROSION CONTROL DETAILS

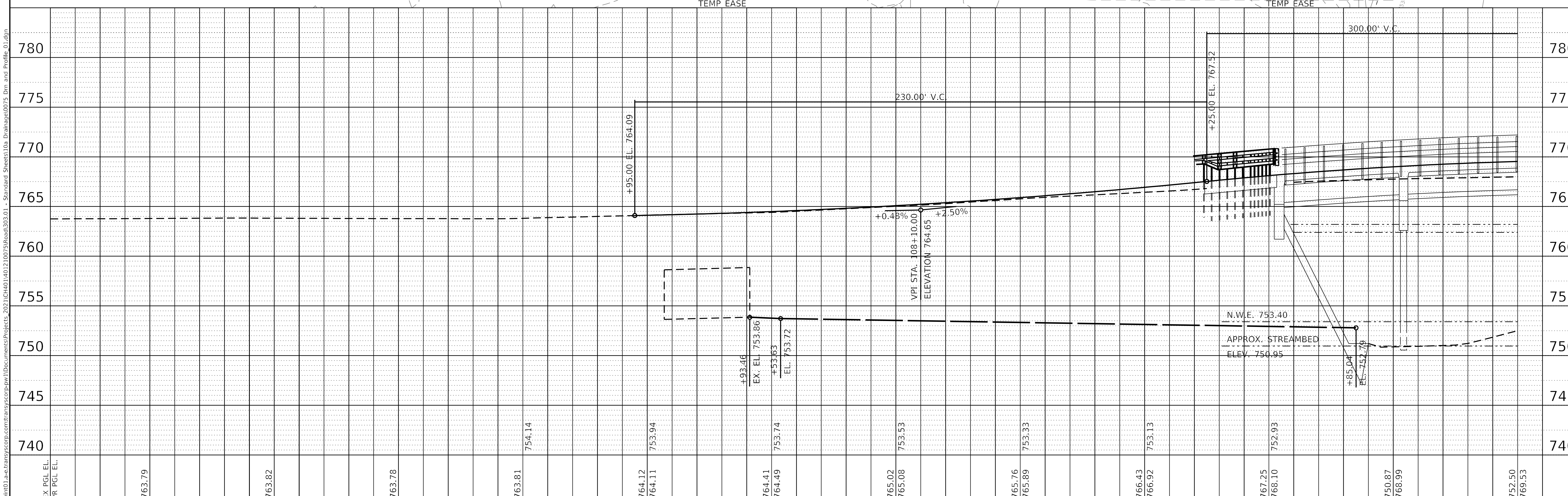
SCALE: NONE | SHEET 5 OF 5 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	28
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		



UNDERDRAIN LAYOUT

POINT	STA.	ELEVATION
A	106+96.0	761.89
B	107+41.3	761.67
C	109+08.1	764.45
D	109+08.2	764.45
E	107+41.3	761.44
F	106+96.0	761.66
G	112+22.1	765.92
H	113+73.1	764.44
I	113+73.1	764.32
J	112+22.1	765.92



PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME — NOTE BOOK NO. — BY — DATE

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTAT'NS CH'KD — NOTE BOOK NO. — BY — DATE

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TRANSYSTEMS

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	DRAWN -	REVISED -
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PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

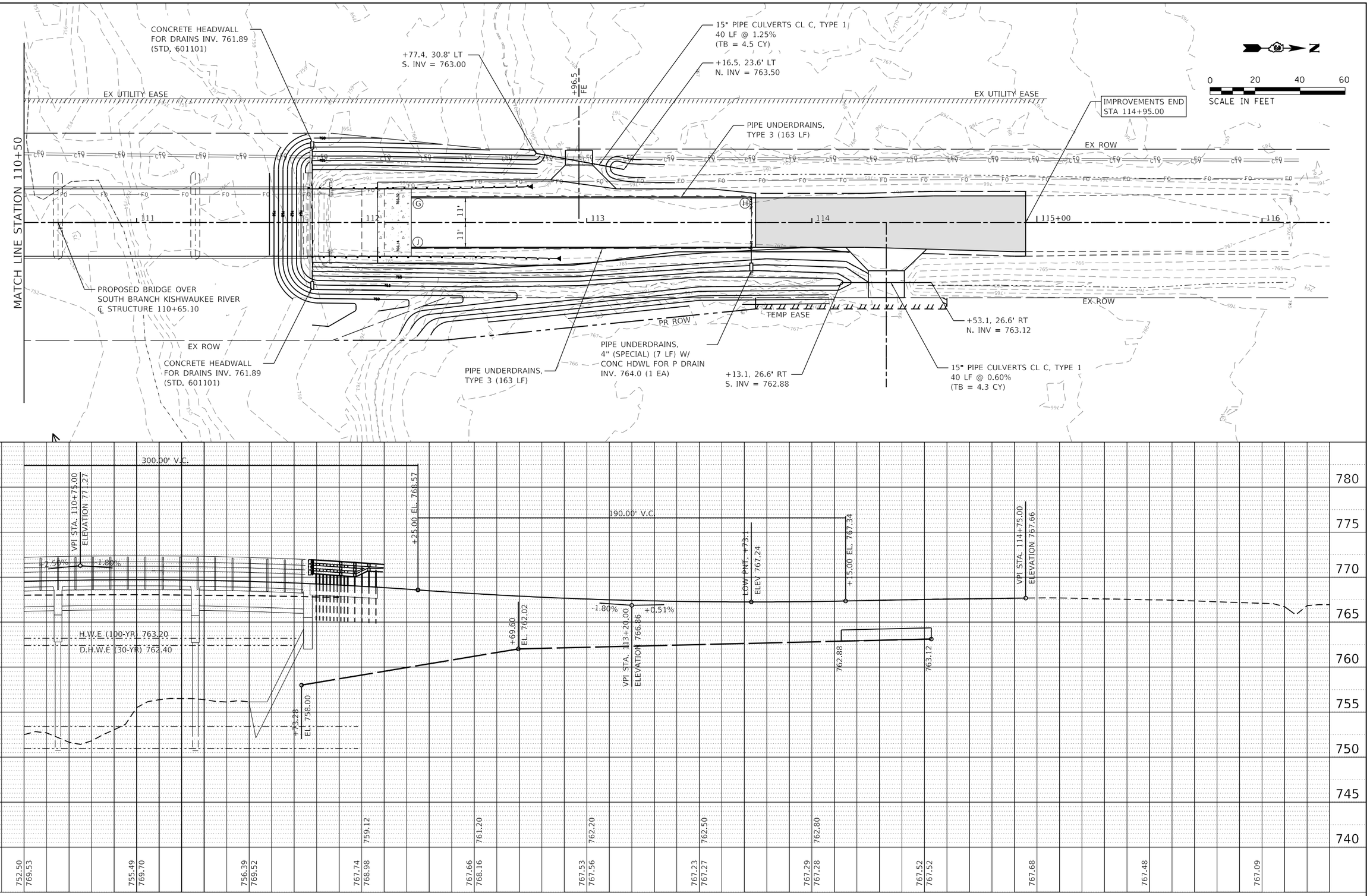
PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
DRAINAGE PLAN AND PROFILE

SCALE: 1"=20" | SHEET 1 OF 2 SHEETS | STA.109+95.00 TO STA. 110+50.00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	29

CONTRACT NO. 87722

ILLINOIS | FED. AID PROJECT



PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
DATE
BY

PROFILE
SURVEYED
PLOTTED
PROFILE CHECKED
BM. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
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TRANSYSTEMS

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PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/1/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
DRAINAGE PLAN AND PROFILE

SCALE: 1"=20" | SHEET 2 OF 2 SHEETS | STA. 110+50.00 | TO STA. 114+95.00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	30
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	

PART OF THE SE QUARTER OF SECTIOUN 23 AND THE SW QUARTER OF SECTION 24, TWP. 42 N., R. 3 E. OF THE 3RD P.M., IN DEKALB COUNTY, ILLINOIS

TOTAL HOLDINGS

LEGEND

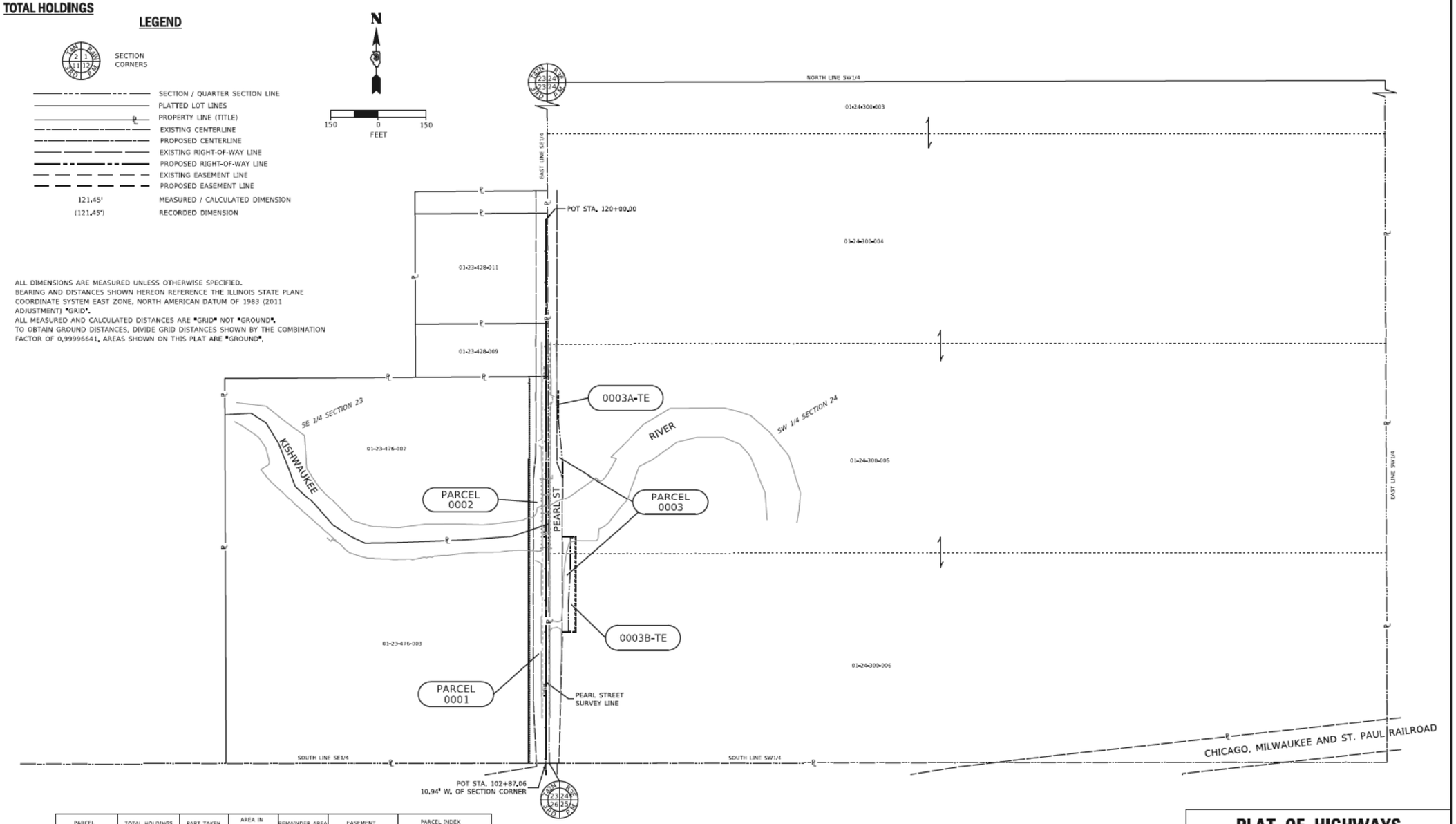
SECTION CORNERS

SECTION / QUARTER SECTION LINE
PLATTED LOT LINES
PROPERTY LINE (TITLE)
EXISTING CENTERLINE
PROPOSED CENTERLINE
EXISTING RIGHT-OF-WAY LINE
PROPOSED RIGHT-OF-WAY LINE
EXISTING EASEMENT LINE
PROPOSED EASEMENT LINE
121.45' MEASURED / CALCULATED DIMENSION
(121.45') RECORDED DIMENSION

N

150 0 150
FEET

ALL DIMENSIONS ARE MEASURED UNLESS OTHERWISE SPECIFIED.
BEARING AND DISTANCES SHOWN HEREON REFERENCE THE ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) "GRID".
ALL MEASURED AND CALCULATED DISTANCES ARE "GRID" NOT "GROUND".
TO OBTAIN GROUND DISTANCES, DIVIDE GRID DISTANCES SHOWN BY THE COMBINATION FACTOR OF 0.99996641. AREAS SHOWN ON THIS PLAT ARE "GROUND".



PARCEL NO.	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREAS	PARCEL INDEX NUMBER
0001	15.930		0.820	15.110		01-23-476-003
0002	8.510		0.460	5.050		01-23-476-002
0003 0003A-TE 0003B-TE	158.810	0.198	1.110	158.612	0.010 0.140	01-24-300-003 01-24-300-004 01-24-300-005 01-24-300-006

FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL
ILLINOIS
IOWA
WISCONSIN
FEHR GRAHAM JOB NO. 22-676

IDOT USE ONLY

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PEARL STREET

LIMITS: PEARL STREET
SECTION:
STA. 102+87.06 TO STA. 120+00.00
SCALE: 1" = 150'
COUNTY: DEKALB
JOB NO.:
SHEET: 2 OF 3 SHEETS

BUREAU OF LAND ACQUISITION
700 E NORRIS DR
OTTAWA, ILLINOIS 61350

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TRANSYSTEMS

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	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/30/2024	DATE - 5/1/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
PLAT OF HIGHWAYS

SCALE: 1"=50" | SHEET 1 OF 2 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	31
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			

PART OF THE SE QUARTER OF SECTIOUN 23 AND THE SW QUARTER OF SECTION 24, TWP. 42 N., R. 3 E. OF THE 3RD P.M., IN DEKALB COUNTY, ILLINOIS

SURVEYOR'S STATEMENT

I, SCOTT I. IMMEL, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, STATE THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS HEREON IN SECTION 10, TOWNSHIP 43 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN, MC HENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED THIS 29TH DAY OF APRIL, 2024

SCOTT I. IMMEL - ILLINOIS PROFESSIONAL LAND SURVEYOR NO.35-3462
CURRENT EXPIRATION DATE: NOVEMBER 30, 2024

SCOTT I. IMMEL 35-3462 ILLINOIS PROFESSIONAL LAND SURVEYOR OREGON, ILLINOIS

LEGEND

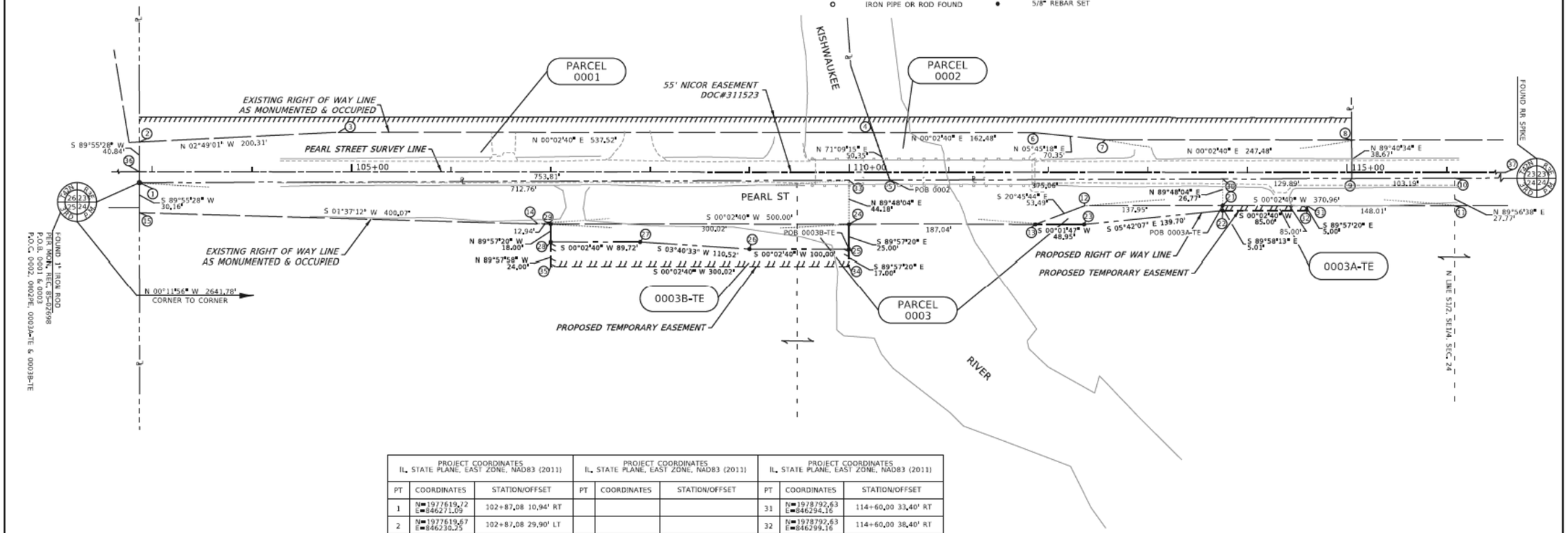
SECTION CORNERS

SECTION / QUARTER SECTION LINE
PLATTED LOT LINES
PROPERTY LINE (TITLE)
EXISTING CENTERLINE
PROPOSED CENTERLINE
EXISTING RIGHT-OF-WAY LINE
PROPOSED RIGHT-OF-WAY LINE
EXISTING EASEMENT LINE
PROPOSED EASEMENT LINE
121.45' MEASURED / CALCULATED DIMENSION
(121.45') RECORDED DIMENSION

IRON PIPE OR ROD FOUND
5/8" REBAR SET

50 0 50
FEET

ALL DIMENSIONS ARE MEASURED UNLESS OTHERWISE SPECIFIED.
BEARING AND DISTANCES SHOWN HEREON REFERENCE THE ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) "GRID".
ALL MEASURED AND CALCULATED DISTANCES ARE "GRID" NOT "GROUND".
TO OBTAIN GROUND DISTANCES, DIVIDE GRID DISTANCES SHOWN BY THE COMBINATION FACTOR OF 0.99996641. AREAS SHOWN ON THIS PLAT ARE "GROUND".



PROJECT COORDINATES IL. STATE PLANE, EAST ZONE, NAD83 (2011)			PROJECT COORDINATES IL. STATE PLANE, EAST ZONE, NAD83 (2011)			PROJECT COORDINATES IL. STATE PLANE, EAST ZONE, NAD83 (2011)		
PT	COORDINATES	STATION/OFFSET	PT	COORDINATES	STATION/OFFSET	PT	COORDINATES	STATION/OFFSET
1	N=1977619.72 E=846271.09	102+87.08 10.94' RT				31	N=1978792.63 E=846294.16	114+60.00 33.40' RT
2	N=1977619.67 E=846230.75	102+87.08 29.90' LT				32	N=1978792.63 E=846299.16	114+60.00 38.40' RT
3	N=1977819.74 E=846220.41	104+87.07 39.85' LT				33	N=1978332.48 E=846268.62	109+99.83 8.10' RT
4	N=1978357.26 E=846270.82	110+24.59 39.71' LT				34	N=1978332.60 E=846354.80	110+00.00 94.28' RT
5	N=1978373.53 E=846268.48	110+40.88 7.94' LT				35	N=1978032.58 E=846354.57	107+00.00 94.20' RT
6	N=1978519.74 E=846220.95	111+87.07 39.67 LT	21	N=1978707.63 E=846294.09	113+75.00 33.37' RT	36	N=1977619.71 E=846260.15	102+87.06 0.00' RT
7	N=1978589.73 E=846228.00	112+57.07 32.65' LT	22	N=1978707.63 E=846299.10	113+75.00 38.38' RT	37	N=1979332.65 E=846261.04	120+00.00 0.00' RT
8	N=1978837.21 E=846226.20	115+04.54 32.59' LT	23	N=1978568.62 E=846312.97	112+36.00 52.33' RT			
9	N=1978837.43 E=846266.87	115+04.78 6.09' RT	24	N=1978332.63 E=846312.80	110+00.00 52.28' RT			
10	N=1978940.61 E=846266.51	116+07.97 5.68' RT	25	N=1978332.61 E=846337.80	110+00.00 77.28' RT			
11	N=1978940.64 E=846294.28	116+08.01 33.44' RT	26	N=1978232.61 E=846337.73	109+00.00 77.26' RT			
12	N=1978569.68 E=846293.99	112+37.05 33.35' RT	27	N=1978122.31 E=846336.64	107+89.70 70.23' RT			
13	N=1978519.69 E=846312.95	111+87.05 52.33' RT	28	N=1978032.60 E=846330.57	107+00.00 70.20' RT			
14	N=1978019.67 E=846312.56	106+87.05 52.20' RT	29	N=1978032.61 E=846312.57	107+00.00 52.20' RT			
15	N=1977619.76 E=846301.25	102+87.13 41.10' RT	30	N=1978707.54 E=846267.32	113+74.89 6.60' RT			

FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL
ILLINOIS DESIGN FIRM NO. 184-003525
ILLINOIS IOWA WISCONSIN

FEHR GRAHAM JOB NO. 22-676

IDOT USE ONLY

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PEARL STREET

LIMITS: PEARL STREET
SECTION:
STA. 102+87.06 TO STA. 120+00.00
SCALE: 1" = 50'
COUNTY: DEKALB
JOB NO.:
SHEET: 3 OF 3 SHEETS

BUREAU OF LAND ACQUISITION
700 E NORRIS DR
OTTAWA, ILLINOIS 61350

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TRANSYSTEMS

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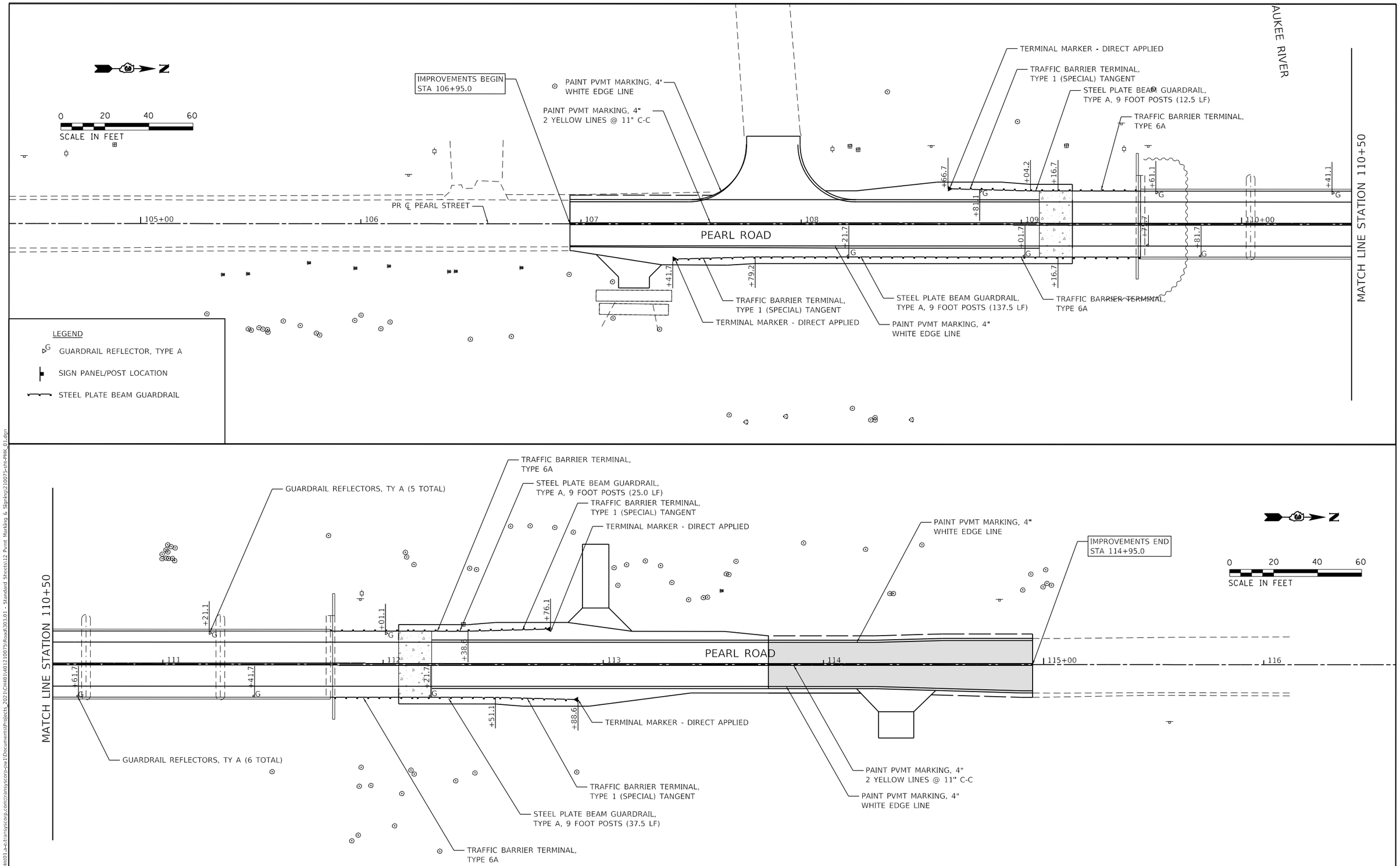
	DRAWN -	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/30/2024	DATE - 5/1/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
PLAT OF HIGHWAYS

SCALE: 1"=50" | SHEET 2 OF 2 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	32
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			



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TRANSYSTEMS	USER NAME = sbpottorff	DESIGNED -	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
		DRAWN -	REVISED -	
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
	PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -	

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
PAVEMENT MARKING AND SIGNING PLANS

SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. 109+95.00 TO STA. 114+95.00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	33
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			

Benchmark: Control Point Rebar. 39.31' right of existing station 14+23.43. Elevation 767.376.

Existing Structure: SN 019-4008 was constructed in 1949 as the Franklin Township Bridge. The four span continuous superstructure is composed of five WF24x84 steel beams and a 6½" thick reinforced concrete deck. The bridge measures 223'-8" from back-to-back of abutments and is 25'-8" wide. The substructure is composed of reinforced concrete bent piers and precast piles. Limited information is available, but SN 019-4008 was a replacement bridge itself for another bridge constructed around 1925. The original bridge constructed in 1925 consisted of: 1-40' steel truss approach span, 1-125' steel truss main span, and 3-32' steel beam approach spans. The original substructure consisted of masonry abutments and concrete filled piers. The existing structure will be fully removed and replaced. The existing structure will be closed to traffic during construction and traffic will be detoured.

DESIGN WATERWAY INFORMATION TABLE

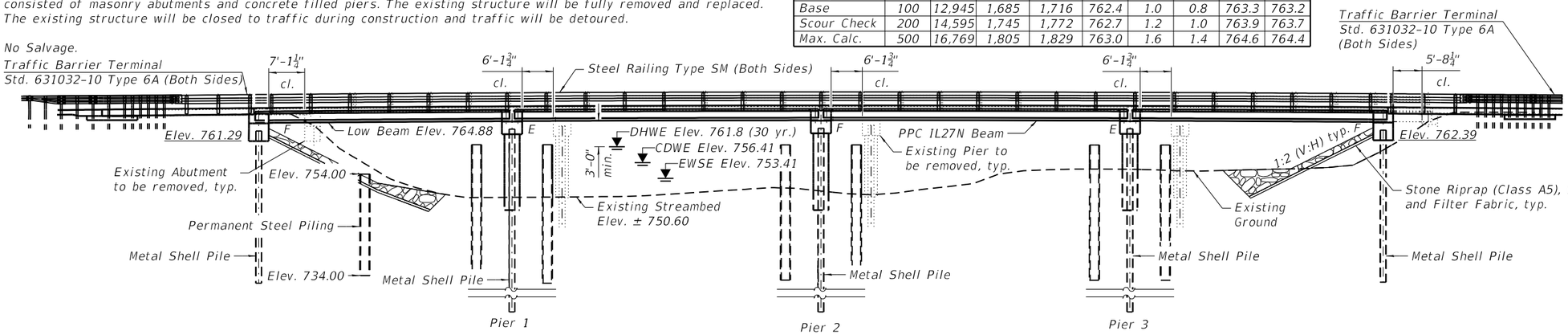
Drainage Area = 311.0 sq. mi. Exist. Overtopping Elev. 763.50 at Sta. 103+90
Prop. Overtopping Elev. 763.50 at Sta. 103+90

Flood	Freq. Yr.	Q C.F.S.	Opening Ft² Exist.	Opening Ft² Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Ten-Year	10	7,548	1,493	1,509	761.3	0.5	0.5	761.9	761.8
Design	30	10,124	1,570	1,603	761.8	0.7	0.6	762.5	762.4
Base	100	12,945	1,685	1,716	762.4	1.0	0.8	763.3	763.2
Scour Check	200	14,595	1,745	1,772	762.7	1.2	1.0	763.9	763.7
Max. Calc.	500	16,769	1,805	1,829	763.0	1.6	1.4	764.6	764.4

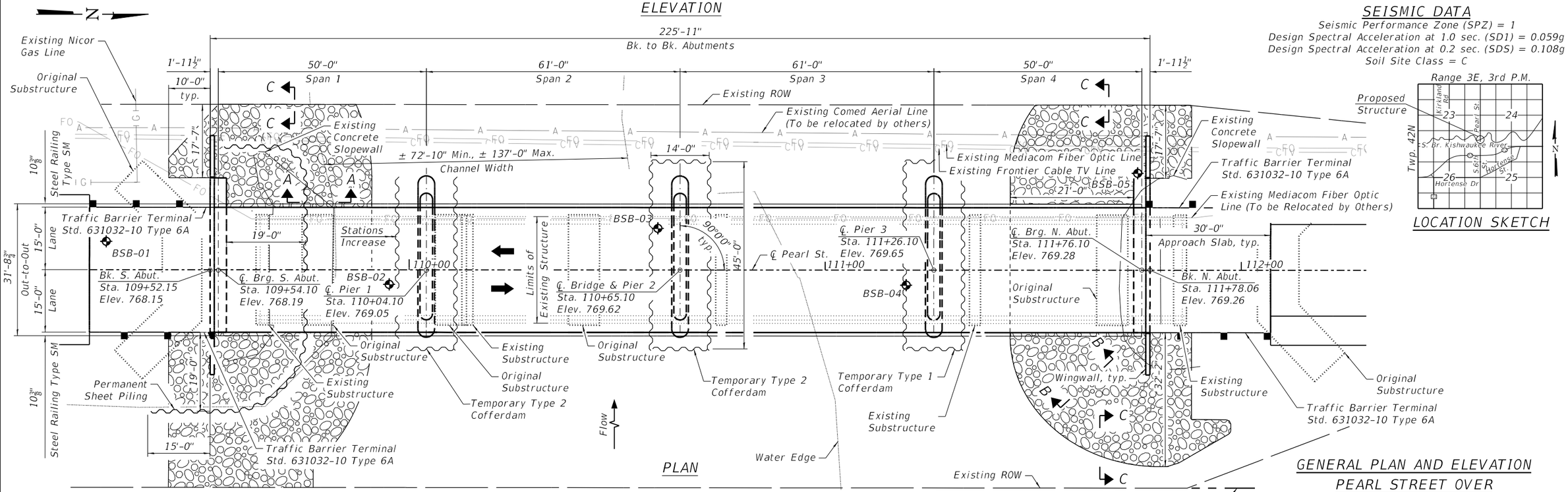
DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.) S. Abut.	Pier 1	Pier 2	Pier 3	N. Abut.
Q100	761.29	741.92	743.03	747.19	762.39
Q200	761.29	741.30	742.41	746.57	762.39

No Salvage.



ELEVATION



PLAN

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.
Maximum Live Load Deflection: Span /1,000

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi (Substructure)
f'c = 4,000 psi (Shell Pile Fill)
f'c = 5,000 psi (Superstructure)
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 8,500 psi
f'ci = 6,500 psi
fpu = 270,000 psi (0.6"∅ low lax. strands)
fpbt = 202,300 psi (0.6"∅ low lax. strands)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.059g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.108g
Soil Site Class = C

LOCATION SKETCH

Notes:
Approximate locations of the original substructure constructed in 1925 are indicated on this sheet. See General Note 10.
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
See sheet 24 of 34 for Section A-A and sheet piling layout plan.
See sheet 2 of 34 for Sections B-B, and C-C.
See sheet 2 of 34 for Permit Waterway Information Table.

MATTHEW D. SANTEFORD 081-007244 LICENSED STRUCTURAL ENGINEER OF STATE OF ILLINOIS

MATTHEW D. SANTEFORD, P.E., S.E.
NO. 081-007244
EXP. DATE 11/30/2024

I certify that to the best of knowledge, information, and belief, this bridge design is structurally adequate for the design loading shown. The design is an economical one for the style of structure and complies with the requirements of the current AASHTO LRFD Bridge Design Specifications.

GENERAL PLAN AND ELEVATION
PEARL STREET OVER
SOUTH BRANCH KISHWAUKEE RIVER
MUN. RTE. 6090 - SEC. 14-00009-00-BR
DEKALB COUNTY
STATION 110+65.10
STRUCTURE NO. 019-6500

TRANSYSTEMS

USER NAME = raapton	DESIGNED - RAA	REVISED -
	CHECKED - OS	REVISED -
PLOT SCALE = 24.0000 ' / in.	DRAWN - AWT	REVISED -
PLOT DATE = 4/30/2024	CHECKED - RAA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 019-6500
SHEET 1 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	34
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.

2. Plan dimensions and details relative to the existing structure have been taken from 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.

3. The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50 (AASHTO M270 Grade 50W.)

4. All (embedded and separate) bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.

5. The seal coat design thickness is based on the Cofferdam Design Water Elevation (CDWE) shown. Final cofferdam design, details and seal coat thickness shall be submitted to the Engineer for approval. The CDWE is equal to the Estimated Water Surface Elevation (EWSE) plus 3 feet.

6. Granular Backfill behind the abutments shall be compacted according to Article 205.06 of the Standard Specifications.

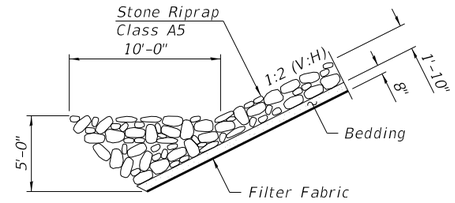
7. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

8. The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.

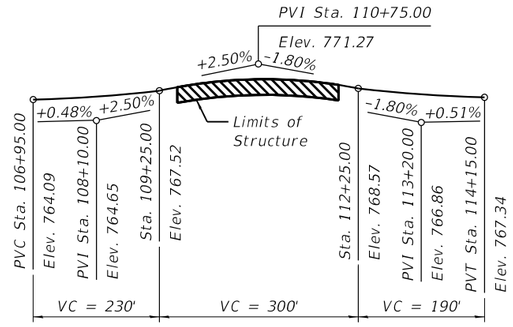
9. The Contractor shall submit detailed calculations for approval by the engineer demonstrating the structural integrity of the existing bridge is maintained under any construction loads during any phase of construction should the contractor decide to use the existing structure as a means of constructing the new structure.

10. When any abandoned foundations or obstructions are encountered that interfere with the proposed work, the Contractor shall notify the Engineer and upon concurrence of the Engineer, the Contractor shall remove such objects in accordance with Article 109.04 of the Standard Specifications.

INDEX OF SHEETS



SECTION B-B



PROFILE GRADE

(Along ℄ Pearl Street)

SOUTH BRANCH KISHWAUKEE RIVER
BUILT BY
VILLAGE OF KIRKLAND
SEC. 14-00009-00-BR
STA. 110+65.10
STR. NO. 019-6500 - HL-93 LOADING

NAME PLATE

See Std. 515001

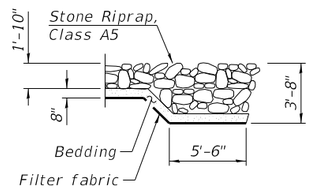
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Furnished Excavation	Sq. Yd.		55.0	55.0
Stone Riprap, Class A5	Cu. Yd.		1,000	1,000
Filter Fabric	Sq. Yd.		1,000	1,000
Protective Coat	Sq. Yd.		1,053	1,053
Removal of Existing Structure	Each	1		1
Structure Excavation	Cu. Yd.		456.3	456.3
Cofferdam Excavation	Cu. Yd.		542.3	542.3
Cofferdam (Type 1)	Each		1	1
Cofferdam (Type 2)	Each		2	2
Concrete Structures	Cu. Yd.		254.7	254.7
Concrete Superstructure	Cu. Yd.	213.6		213.6
Bridge Deck Grooving	Sq. Yd.	947		947
Seal Coat Concrete	Cu. Yd.		210.0	210.0
Concrete Superstructure (Approach Slab)	Cu. Yd.	85.2		85.2
Furnishing and Erecting Precast Prestressed Concrete Beams, IL27N	Foot	1,102		1,102
Reinforcement Bars, Epoxy Coated	Pound	105,580	24,420	130,000
Steel Railing, Type SM	Foot	508		508
Furnishing Metal Shell Piles 16" x 0.375"	Foot		1,030	1,030
Driving Piles	Foot		1,030	1,030
Test Pile Metal Shells	Each		5	5
Pile Shoes	Each		30	30
Name Plates	Each	1		1
Elastomeric Bearing Assembly, Type I	Each	20		20
Anchor Bolts, 1½"	Each	44		44
Permanent Sheet Piling	Sq. Ft.		2,478	2,478
Granular Backfill for Structures	Cu. Yd.		115.4	115.4
Geocomposite Wall Drain	Sq. Yd.		72	72
Pipe Underdrains for Structures, 4"	Foot		136	136
Bar Terminators	Each		488	488

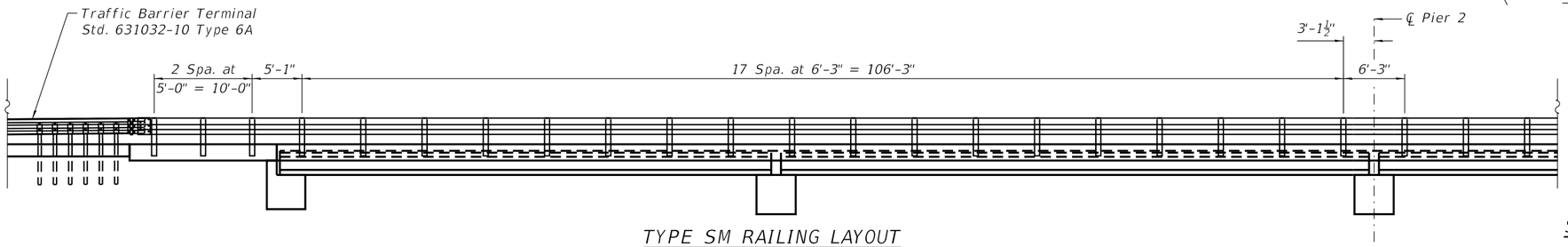
PERMIT WATERWAY INFORMATION TABLE

Drainage Area = 311.0 sq. mi. Exist. Overtopping Elev. 763.50 at Sta. 103+90
Prop. Overtopping Elev. 763.50 at Sta. 103+90

Flood	Freq. Yr.	Q C.F.S.	Opening Ft² Exist.	Opening Ft² Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Ten-Year	10	7,548	1,493	1,528	761.4	0.2	0.2	761.7	761.7
Design	30	10,124	1,570	1,603	761.8	0.4	0.4	762.2	762.2
Base	100	12,945	1,666	1,697	762.3	0.6	0.6	762.9	762.9
Scour Check	200	14,595	1,725	1,754	762.6	0.7	0.7	763.3	763.3
Overtop Ex	325	15,739	1,765	1,791	762.8	0.8	0.8	763.6	763.6
Overtop Pr	325	15,739	1,765	1,791	762.8	0.8	0.8	763.6	763.6
Max. Calc.	500	16,769	1,805	1,829	763.0	0.8	0.8	763.8	763.8

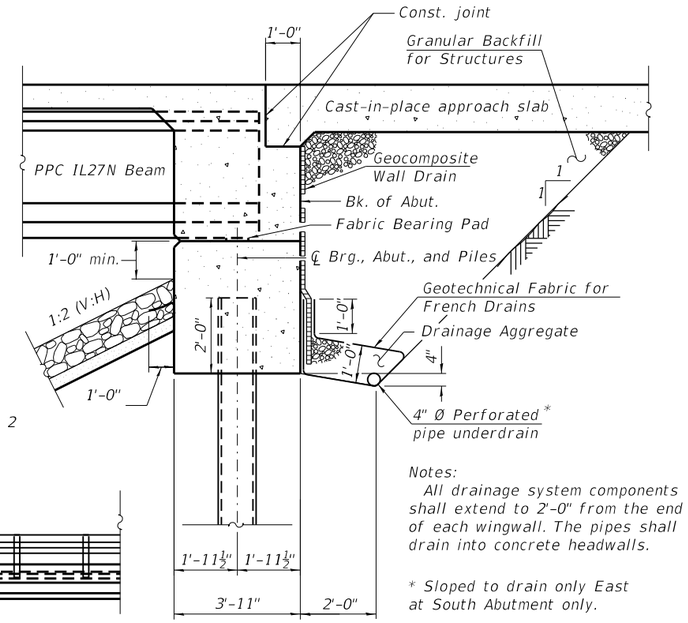


SECTION C-C



TYPE SM RAILING LAYOUT

(East Elevation Shown, West Elevation Similar)
(Layout symmetric about ℄ Pier 2)



Notes:
All drainage system components shall extend to 2'-0" from the end of each wingwall. The pipes shall drain into concrete headwalls.

* Sloped to drain only East at South Abutment only.

SECTION THRU INTEGRAL ABUTMENT

TRANSYSTEMS

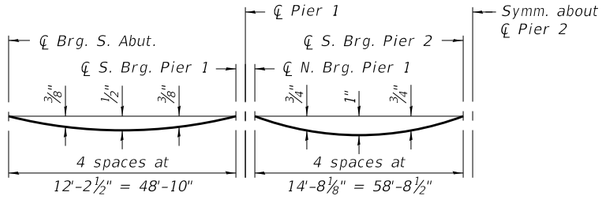
USER NAME = raapton	DESIGNED - RAA	REVISED -	
	CHECKED - OS	REVISED -	
PLOT SCALE = 24.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/30/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 019-6500

SHEET 2 OF 34 SHEETS

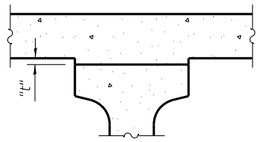
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	35
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



DEAD LOAD DEFLECTION DIAGRAM

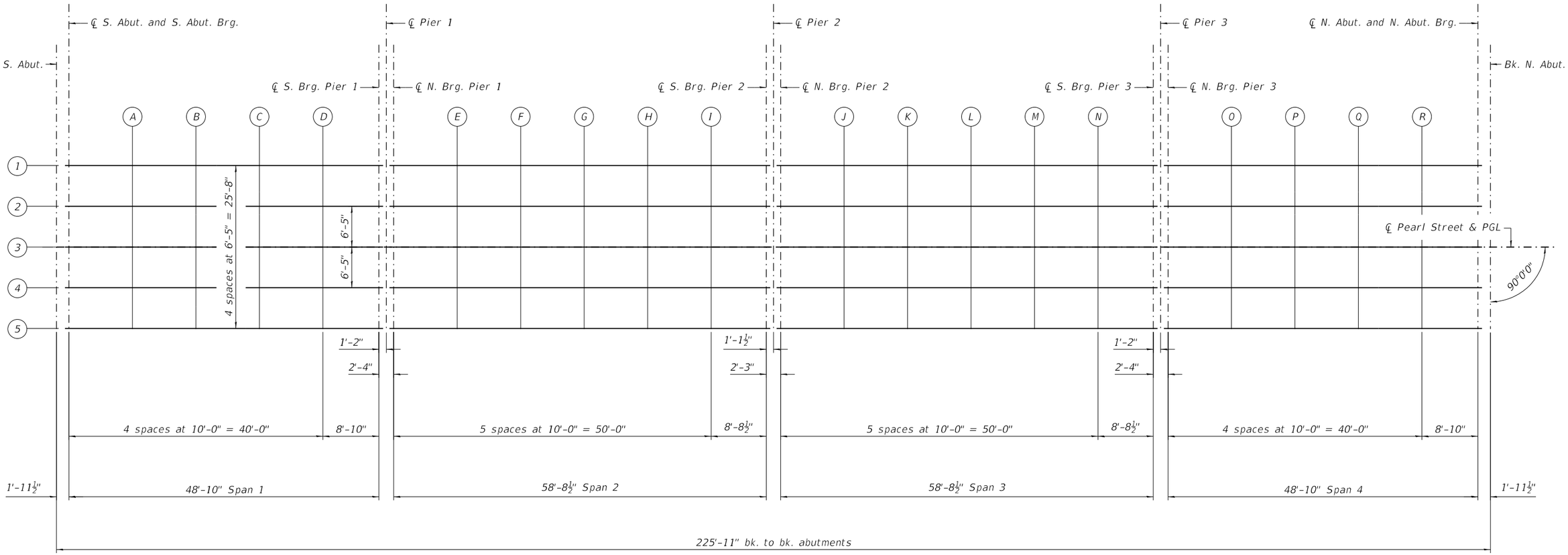
(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 4 and 5 of 34.



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



PLAN

LEGEND

(1) Beam Number

(A) Location

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - RAA	REVISED -
	CHECKED - ESS	REVISED -
PLOT SCALE = 16.0000 ' / in.	DRAWN - RAA	REVISED -
PLOT DATE = 4/4/2024	CHECKED - ESS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 1
STRUCTURE NO. 019–6500

SHEET 3 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	36

CONTRACT NO. 87722

ILLINOIS | FED. AID PROJECT

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. South Abut.	109+52.15	-12.83'	767.89	767.89
℄ Brg. South Abut.	109+54.10	-12.83'	767.93	767.93
A	109+64.10	-12.83'	768.13	768.16
B	109+74.10	-12.83'	768.32	768.36
C	109+84.10	-12.83'	768.49	768.53
D	109+94.10	-12.83'	768.65	768.67
℄ Pier 1 South Brg.	110+02.94	-12.83'	768.78	768.78
℄ Pier 1	110+04.10	-12.83'	768.79	768.79
℄ Pier 1 North Brg.	110+05.27	-12.83'	768.81	768.81
E	110+15.27	-12.83'	768.94	768.98
F	110+25.27	-12.83'	769.05	769.13
G	110+35.27	-12.83'	769.15	769.24
H	110+45.27	-12.83'	769.23	769.31
I	110+55.27	-12.83'	769.30	769.35
℄ Pier 2 South Brg.	110+63.98	-12.83'	769.35	769.35
℄ Pier 2	110+65.10	-12.83'	769.36	769.36
℄ Pier 2 North Brg.	110+66.23	-12.83'	769.36	769.36
J	110+76.23	-12.83'	769.41	769.45
K	110+86.23	-12.83'	769.43	769.51
L	110+96.23	-12.83'	769.44	769.54
M	111+06.23	-12.83'	769.44	769.52
N	111+16.23	-12.83'	769.42	769.47
℄ Pier 3 South Brg.	111+24.94	-12.83'	769.40	769.40
℄ Pier 3	111+26.10	-12.83'	769.39	769.39
℄ Pier 3 North Brg.	111+27.27	-12.83'	769.39	769.39
O	111+37.27	-12.83'	769.34	769.37
P	111+47.27	-12.83'	769.28	769.32
Q	111+57.27	-12.83'	769.20	769.25
R	111+67.27	-12.83'	769.11	769.14
℄ Brg. North Abut.	111+76.10	-12.83'	769.02	769.02
Bk. North Abut.	111+78.06	-12.83'	769.00	769.00

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. South Abut.	109+52.15	-6.42'	768.02	768.02
℄ Brg. South Abut.	109+54.10	-6.42'	768.06	768.06
A	109+64.10	-6.42'	768.26	768.28
B	109+74.10	-6.42'	768.45	768.48
C	109+84.10	-6.42'	768.62	768.66
D	109+94.10	-6.42'	768.78	768.80
℄ Pier 1 South Brg.	110+02.94	-6.42'	768.90	768.90
℄ Pier 1	110+04.10	-6.42'	768.92	768.92
℄ Pier 1 North Brg.	110+05.27	-6.42'	768.94	768.94
E	110+15.27	-6.42'	769.06	769.11
F	110+25.27	-6.42'	769.18	769.25
G	110+35.27	-6.42'	769.28	769.36
H	110+45.27	-6.42'	769.36	769.43
I	110+55.27	-6.42'	769.43	769.47
℄ Pier 2 South Brg.	110+63.98	-6.42'	769.48	769.48
℄ Pier 2	110+65.10	-6.42'	769.49	769.49
℄ Pier 2 North Brg.	110+66.23	-6.42'	769.49	769.49
J	110+76.23	-6.42'	769.53	769.58
K	110+86.23	-6.42'	769.56	769.63
L	110+96.23	-6.42'	769.57	769.65
M	111+06.23	-6.42'	769.57	769.64
N	111+16.23	-6.42'	769.55	769.59
℄ Pier 3 South Brg.	111+24.94	-6.42'	769.53	769.53
℄ Pier 3	111+26.10	-6.42'	769.52	769.52
℄ Pier 3 North Brg.	111+27.27	-6.42'	769.52	769.52
O	111+37.27	-6.42'	769.47	769.49
P	111+47.27	-6.42'	769.41	769.45
Q	111+57.27	-6.42'	769.33	769.37
R	111+67.27	-6.42'	769.24	769.26
℄ Brg. North Abut.	111+76.10	-6.42'	769.15	769.15
Bk. North Abut.	111+78.06	-6.42'	769.13	769.13

℄ PEARL STREET, PGL, AND ℄ BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. South Abut.	109+52.15	0.00'	768.15	768.15
℄ Brg. South Abut.	109+54.10	0.00'	768.19	768.19
A	109+64.10	0.00'	768.39	768.41
B	109+74.10	0.00'	768.57	768.61
C	109+84.10	0.00'	768.75	768.78
D	109+94.10	0.00'	768.91	768.93
℄ Pier 1 South Brg.	110+02.94	0.00'	769.03	769.03
℄ Pier 1	110+04.10	0.00'	769.05	769.05
℄ Pier 1 North Brg.	110+05.27	0.00'	769.06	769.06
E	110+15.27	0.00'	769.19	769.24
F	110+25.27	0.00'	769.31	769.38
G	110+35.27	0.00'	769.41	769.49
H	110+45.27	0.00'	769.49	769.56
I	110+55.27	0.00'	769.56	769.60
℄ Pier 2 South Brg.	110+63.98	0.00'	769.61	769.61
℄ Pier 2	110+65.10	0.00'	769.62	769.62
℄ Pier 2 North Brg.	110+66.23	0.00'	769.62	769.62
J	110+76.23	0.00'	769.66	769.70
K	110+86.23	0.00'	769.69	769.76
L	110+96.23	0.00'	769.70	769.78
M	111+06.23	0.00'	769.70	769.77
N	111+16.23	0.00'	769.68	769.72
℄ Pier 3 South Brg.	111+24.94	0.00'	769.65	769.65
℄ Pier 3	111+26.10	0.00'	769.65	769.65
℄ Pier 3 North Brg.	111+27.27	0.00'	769.64	769.64
O	111+37.27	0.00'	769.60	769.62
P	111+47.27	0.00'	769.54	769.57
Q	111+57.27	0.00'	769.46	769.50
R	111+67.27	0.00'	769.37	769.39
℄ Brg. North Abut.	111+76.10	0.00'	769.28	769.28
Bk. North Abut.	111+78.06	0.00'	769.26	769.26

Notes:
Offsets measured from ℄ Pearl Street.
Negative offsets indicate left when looking upstation and positive offsets indicate right when looking upstation.

MODEL: Default
FILE NAME: pw:\\hs-pwint01.a-k.transystems.com:transystems-pw-110documents\Projects\2021\CH401140\210075\BridgeStandard Sheets\4 Revised FINAL\0196500_004-Top of Slab Elevations 2.dgn

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	
	CHECKED - ESS	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - ESS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 2
STRUCTURE NO. 019-6500

SHEET 4 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	37
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. South Abut.	109+52.15	6.42'	768.02	768.02
℄ Brg. South Abut.	109+54.10	6.42'	768.06	768.06
A	109+64.10	6.42'	768.26	768.28
B	109+74.10	6.42'	768.45	768.48
C	109+84.10	6.42'	768.62	768.66
D	109+94.10	6.42'	768.78	768.80
℄ Pier 1 South Brg.	110+02.94	6.42'	768.90	768.90
℄ Pier 1	110+04.10	6.42'	768.92	768.92
℄ Pier 1 North Brg.	110+05.27	6.42'	768.94	768.94
E	110+15.27	6.42'	769.06	769.11
F	110+25.27	6.42'	769.18	769.25
G	110+35.27	6.42'	769.28	769.36
H	110+45.27	6.42'	769.36	769.43
I	110+55.27	6.42'	769.43	769.47
℄ Pier 2 South Brg.	110+63.98	6.42'	769.48	769.48
℄ Pier 2	110+65.10	6.42'	769.49	769.49
℄ Pier 2 North Brg.	110+66.23	6.42'	769.49	769.49
J	110+76.23	6.42'	769.53	769.58
K	110+86.23	6.42'	769.56	769.63
L	110+96.23	6.42'	769.57	769.65
M	111+06.23	6.42'	769.57	769.64
N	111+16.23	6.42'	769.55	769.59
℄ Pier 3 South Brg.	111+24.94	6.42'	769.53	769.53
℄ Pier 3	111+26.10	6.42'	769.52	769.52
℄ Pier 3 North Brg.	111+27.27	6.42'	769.52	769.52
O	111+37.27	6.42'	769.47	769.49
P	111+47.27	6.42'	769.41	769.45
Q	111+57.27	6.42'	769.33	769.37
R	111+67.27	6.42'	769.24	769.26
℄ Brg. North Abut.	111+76.10	6.42'	769.15	769.15
Bk. North Abut.	111+78.06	6.42'	769.13	769.13

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. South Abut.	109+52.15	12.83'	767.89	767.89
℄ Brg. South Abut.	109+54.10	12.83'	767.93	767.93
A	109+64.10	12.83'	768.13	768.16
B	109+74.10	12.83'	768.32	768.36
C	109+84.10	12.83'	768.49	768.53
D	109+94.10	12.83'	768.65	768.67
℄ Pier 1 South Brg.	110+02.94	12.83'	768.78	768.78
℄ Pier 1	110+04.10	12.83'	768.79	768.79
℄ Pier 1 North Brg.	110+05.27	12.83'	768.81	768.81
E	110+15.27	12.83'	768.94	768.98
F	110+25.27	12.83'	769.05	769.13
G	110+35.27	12.83'	769.15	769.24
H	110+45.27	12.83'	769.23	769.31
I	110+55.27	12.83'	769.30	769.35
℄ Pier 2 South Brg.	110+63.98	12.83'	769.35	769.35
℄ Pier 2	110+65.10	12.83'	769.36	769.36
℄ Pier 2 North Brg.	110+66.23	12.83'	769.36	769.36
J	110+76.23	12.83'	769.41	769.45
K	110+86.23	12.83'	769.43	769.51
L	110+96.23	12.83'	769.44	769.54
M	111+06.23	12.83'	769.44	769.52
N	111+16.23	12.83'	769.42	769.47
℄ Pier 3 South Brg.	111+24.94	12.83'	769.40	769.40
℄ Pier 3	111+26.10	12.83'	769.39	769.39
℄ Pier 3 North Brg.	111+27.27	12.83'	769.39	769.39
O	111+37.27	12.83'	769.34	769.37
P	111+47.27	12.83'	769.28	769.32
Q	111+57.27	12.83'	769.20	769.25
R	111+67.27	12.83'	769.11	769.14
℄ Brg. North Abut.	111+76.10	12.83'	769.02	769.02
Bk. North Abut.	111+78.06	12.83'	769.00	769.00

Notes:
Offsets measured from ℄ Pearl Street.
Negative offsets indicate left when looking upstation and positive offsets indicate right when looking upstation.

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TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	
	CHECKED - ESS	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - ESS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 3
STRUCTURE NO. 019–6500

SHEET 5 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	38
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	

WEST EDGE

Location	Station	Offset	Theoretical Grade Elevations
South End	109+23.15	-15.00'	767.18
S1	109+33.15	-15.00'	767.42
S2	109+43.15	-15.00'	767.65
North End	109+53.15	-15.00'	767.87

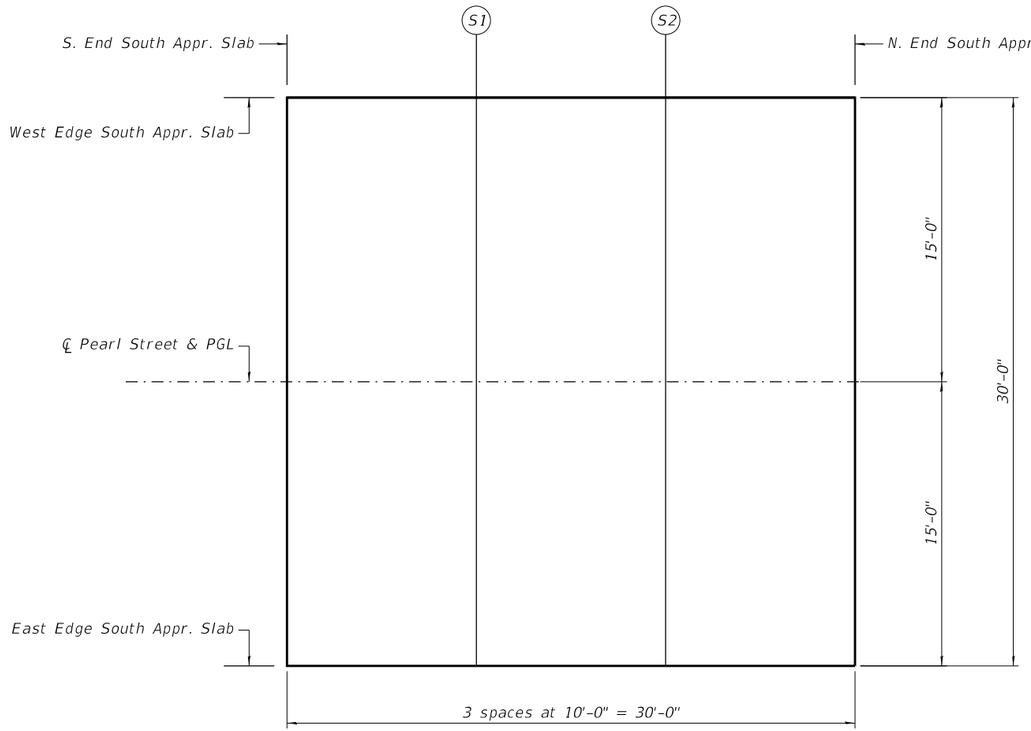
PGL AND ℄ PEARL STREET

Location	Station	Offset	Theoretical Grade Elevations
South End	109+23.15	0.00'	767.48
S1	109+33.15	0.00'	767.72
S2	109+43.15	0.00'	767.95
North End	109+53.15	0.00'	768.17

EAST EDGE

Location	Station	Offset	Theoretical Grade Elevations
South End	109+23.15	15.00'	767.18
S1	109+33.15	15.00'	767.42
S2	109+43.15	15.00'	767.65
North End	109+53.15	15.00'	767.87

N



LEGEND

(A) Location

PLAN

Notes:
Offsets measured from ℄ Pearl Street.
Negative offsets indicate left when looking upstation and positive offsets indicate right when looking upstation.

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TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	
	CHECKED - ESS	REVISED -	
PLOT SCALE = 8.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - ESS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 019-6500

SHEET 6 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	39
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

WEST EDGE

Location	Station	Offset	Theoretical Grade Elevations
South End	111+77.06	-15.00'	768.97
N1	111+87.06	-15.00'	768.85
N2	111+97.06	-15.00'	768.72
North End	112+07.06	-15.00'	768.57

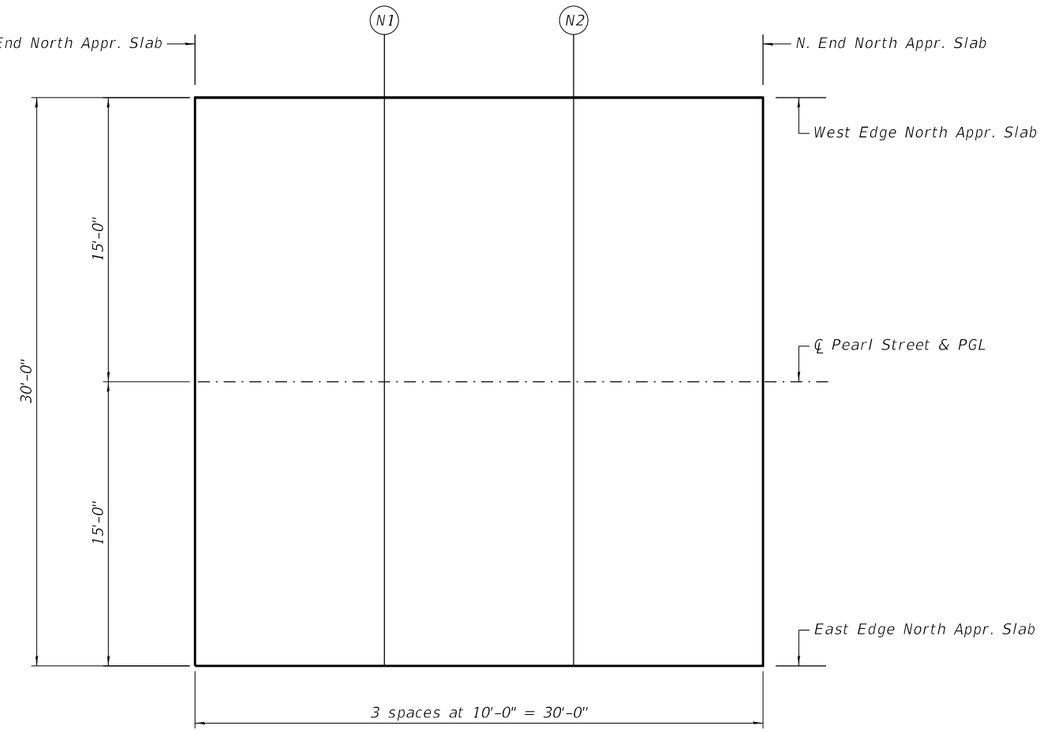
PGL AND ℄ PEARL STREET

Location	Station	Offset	Theoretical Grade Elevations
South End	111+77.06	0.00'	769.27
N1	111+87.06	0.00'	769.15
N2	111+97.06	0.00'	769.02
North End	112+07.06	0.00'	768.87

EAST EDGE

Location	Station	Offset	Theoretical Grade Elevations
South End	111+77.06	15.00'	768.97
N1	111+87.06	15.00'	768.85
N2	111+97.06	15.00'	768.72
North End	112+07.06	15.00'	768.57

N



PLAN

LEGEND

(A) Location

Notes:
Offsets measured from ℄ Pearl Street.
Negative offsets indicate left when looking upstation and positive offsets indicate right when looking upstation.

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TRANSYSTEMS

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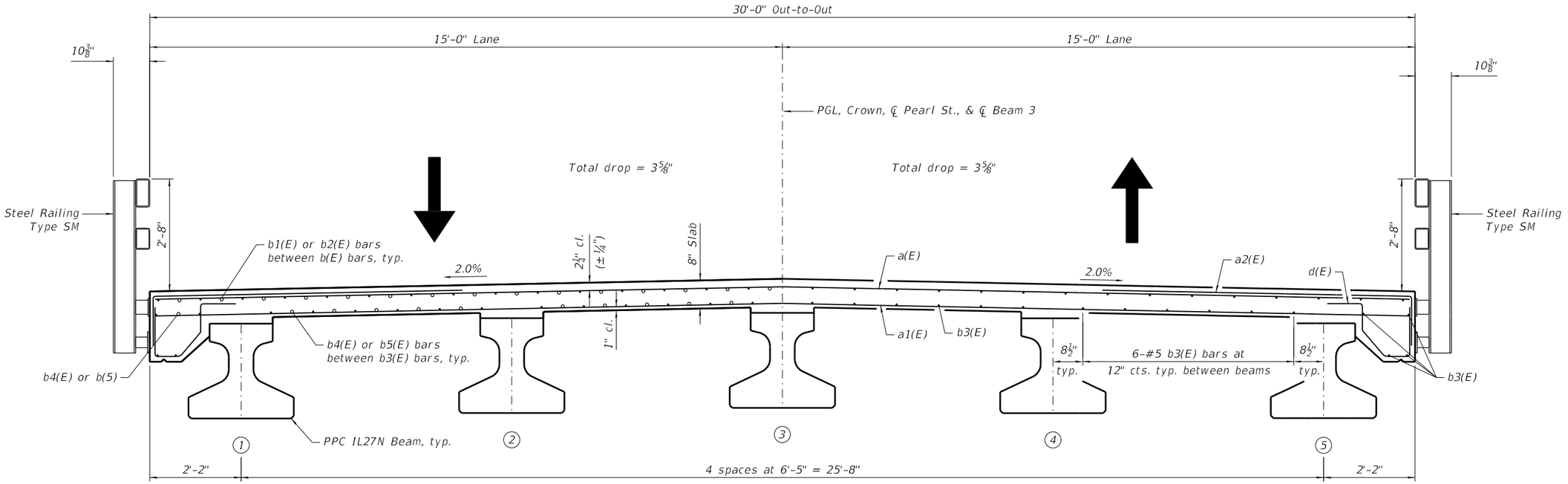
	CHECKED - ESS	REVISED -	
PLOT SCALE = 8.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - ESS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 019-6500

SHEET 7 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	40
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		



NEAR PIER

NEAR MIDSPAN

CROSS SECTION

(Looking North)

Note:
The existing structure to be removed is not shown for clarity.

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TRANSYSTEMS

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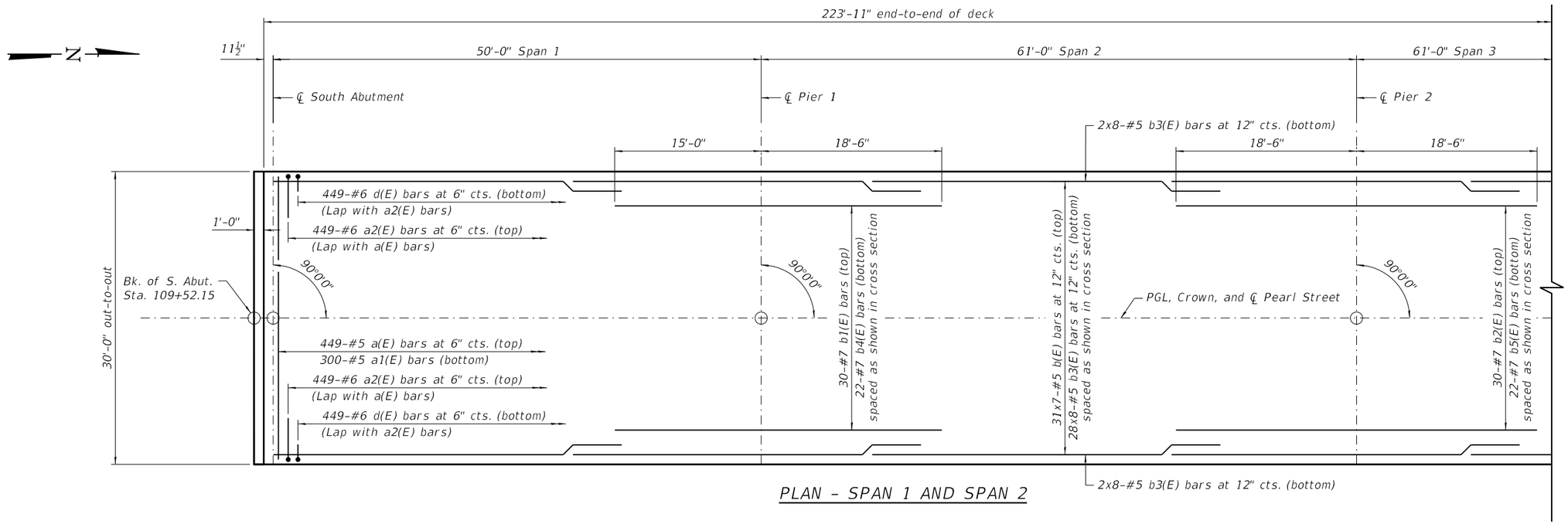
PLOT DATE = 4/4/2024	CHECKED - RAA	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE CROSS SECTION
STRUCTURE NO. 019-6500

SHEET 8 OF 34 SHEETS

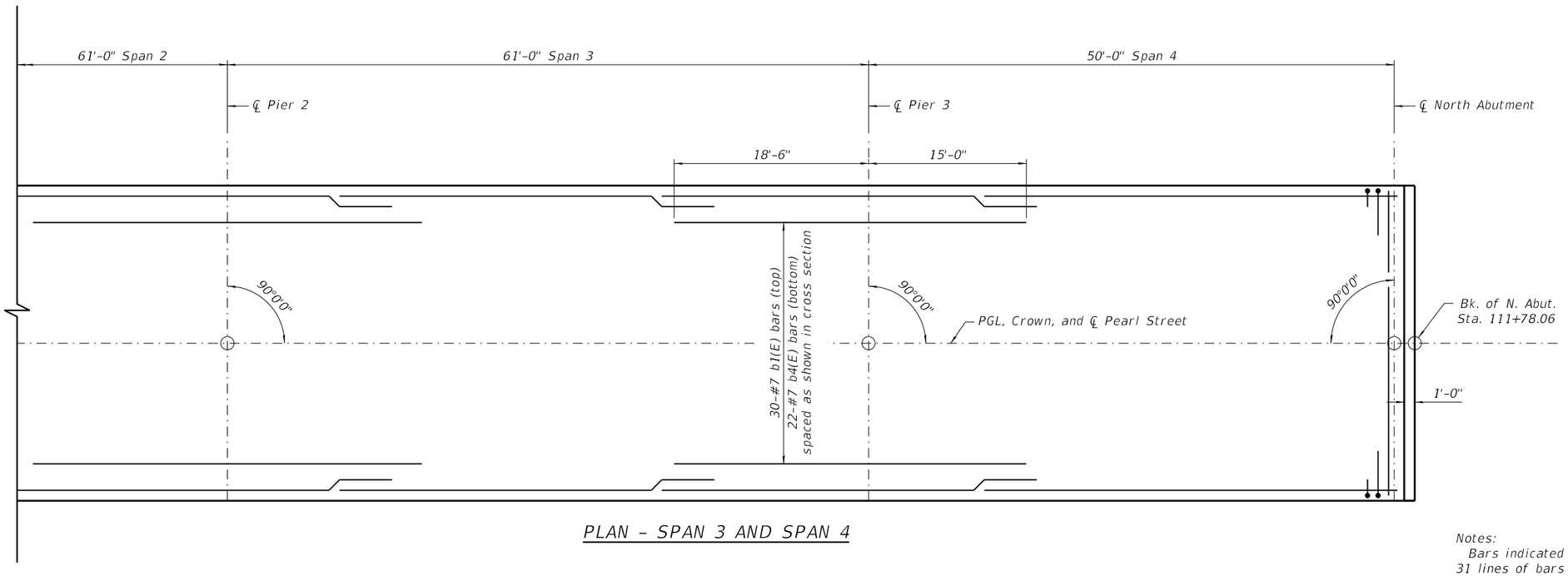
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	41
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		



PLAN - SPAN 1 AND SPAN 2

MINIMUM BAR LAP

#5 bar = 3'-6"



PLAN - SPAN 3 AND SPAN 4

Notes:
Bars indicated 31 x 7 indicates 31 lines of bars with 7 lengths per line.
Full limits of abutment backwall not shown for clarity.

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	
	CHECKED - OS	REVISED -	
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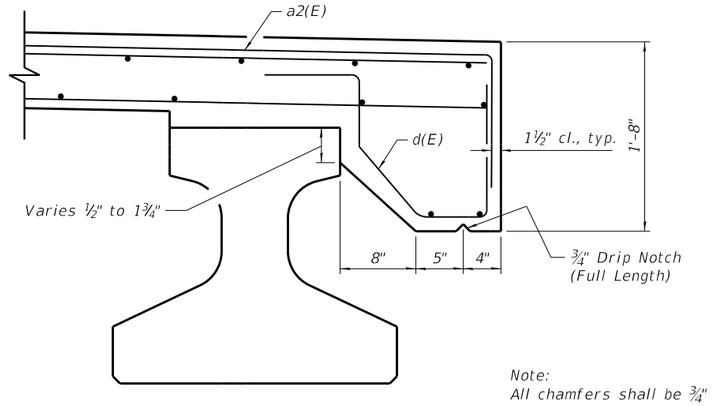
PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE PLAN
STRUCTURE NO. 019-6500

SHEET 9 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	42
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			



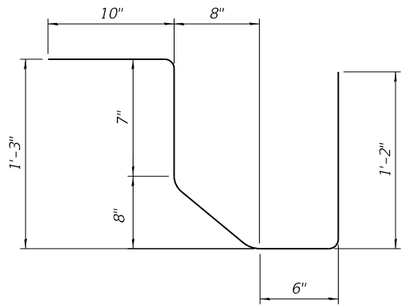
Note:
All chamfers shall be ¾"

SM RAILING OVERHANG REINFORCEMENT DETAIL

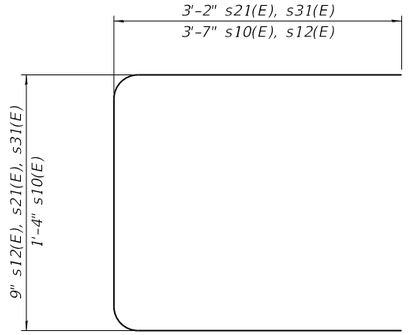
(Looking North)
(Railing not shown for clarity)

BILL OF MATERIAL

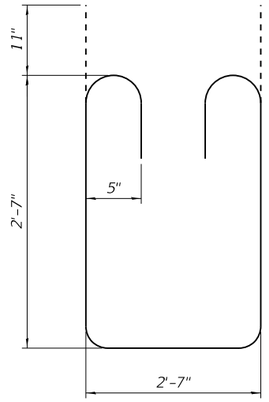
Bar	No.	Size	Length	Shape
a(E)	449	#5	29'-8"	
a1(E)	300	#5	29'-8"	
a2(E)	898	#6	8'-6"	
b(E)	217	#5	35'-0"	
b1(E)	60	#7	33'-6"	
b2(E)	30	#7	37'-0"	
b3(E)	256	#5	31'-1"	
b4(E)	44	#7	33'-6"	
b5(E)	22	#7	37'-0"	
d(E)	898	#6	4'-1"	
m10(E)	8	#6	29'-8"	
m11(E)	16	#6	5'-3"	
m12(E)	8	#6	1'-5"	
m13(E)	8	#6	3'-7"	
m14(E)	20	#5	5'-4"	
m20(E)	8	#6	3'-7"	
m21(E)	16	#6	5'-3"	
m22(E)	10	#5	5'-4"	
m30(E)	16	#6	3'-7"	
m31(E)	16	#6	5'-3"	
m32(E)	20	#5	5'-4"	
m33(E)	16	#6	5'-3"	
s10(E)	48	#5	8'-6"	
s11(E)	48	#5	9'-7"	
s12(E)	40	#5	7'-11"	
s20(E)	20	#5	9'-8"	
s21(E)	16	#5	7'-1"	
s30(E)	40	#5	9'-2"	
s31(E)	32	#5	7'-1"	
v10(E)	62	#5	3'-1"	
Reinforcement Bars, Epoxy Coated		Cu. Yd.	71,140	
Concrete Superstructure		Cu. Yd.	213.6	
Bridge Deck Grooving		Sq. Yd.	747	
Protective Coat		Sq. Yd.	830	
Bar Terminators		Each	156	



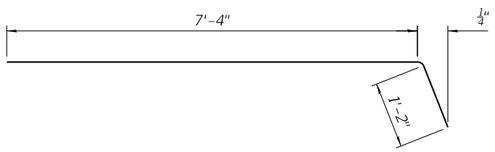
BAR d(E)



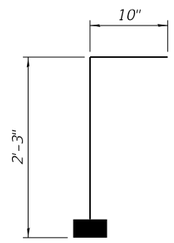
BARS s10(E), s12(E), s21(E), & s31(E)



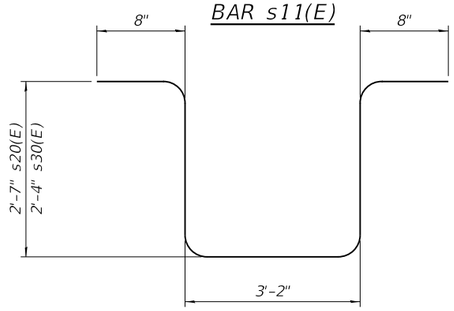
BAR s11(E)



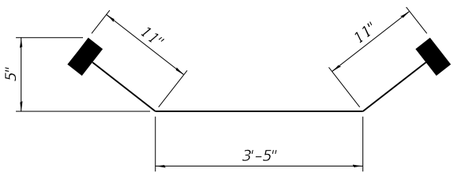
BAR a2(E)



BAR v100(E)
(Headed. 124 - #5 Bar Terminators)



BARS s20(E) & s30(E)



BAR m33(E)
(Headed. 32 - #6 Bar Terminators)

TRANSYSTEMS

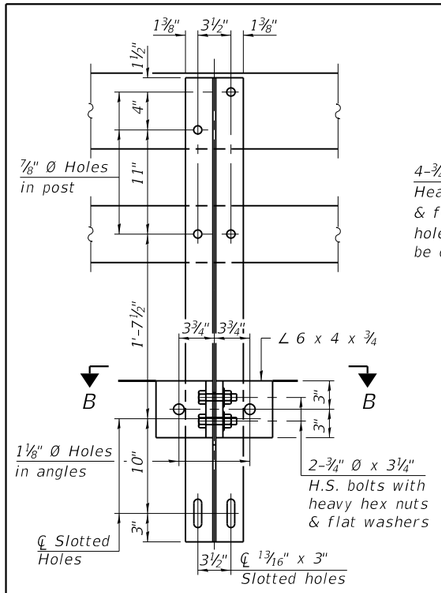
USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	
	CHECKED - OS	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

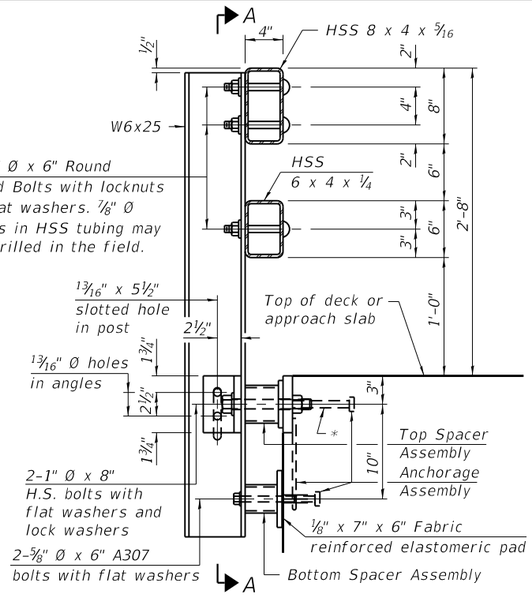
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 019-6500

SHEET 10 OF 34 SHEETS

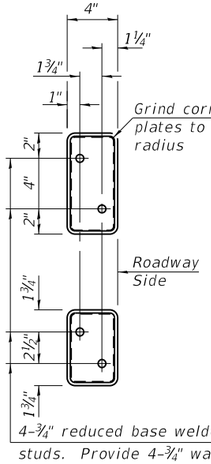
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	43
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			



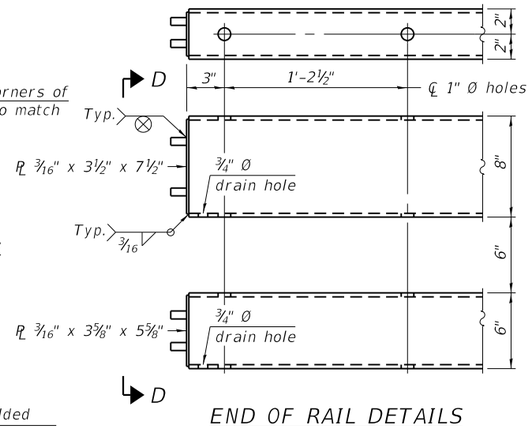
SECTION A-A



SECTION AT RAIL POST



VIEW D-D



END OF RAIL DETAILS

Notes:

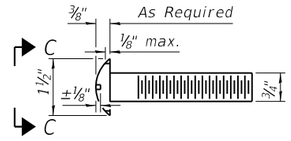
A sufficient number of shims of various thicknesses, sized to fit behind the top spacer assembly, 5" x 11½", and bottom spacer assembly, 6" x 7", shall be provided to adjust posts for proper alignment. If the summation of shims is greater than ¼" (top) or ½" (bottom), longer bolts are required. Cost included with Steel Railing, Type SM.

All steel rail elements including shims shall be galvanized according to Article 509.05 of the Standard Specifications.

All HSS tubing serving as railing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.

Rail splice inserts may be built out of 2 -⅜" bent plates in lieu of the 4 plate rail splice inserts shown, provided the outside dimensions are matched.

All round head bolts shall be ASTM A307 with locknuts according to ASTM A563 grade A.

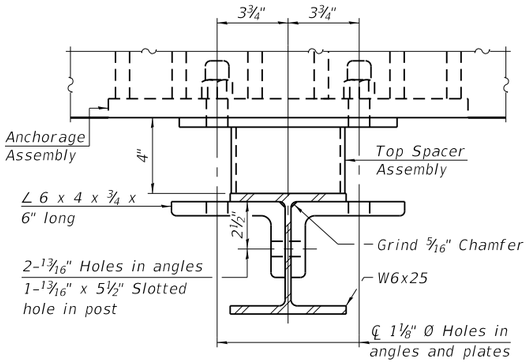


ROUND HEAD BOLT DETAIL

With Slot (shown) or Approved Recess

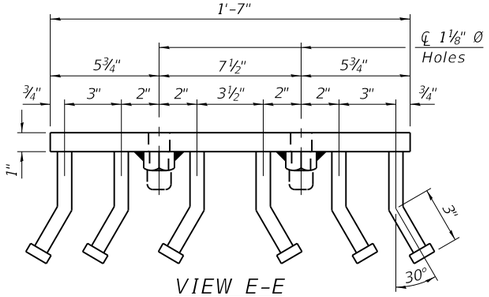
Without Slot or Recess

VIEW C-C

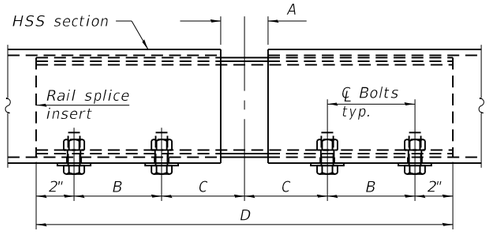


SECTION B-B

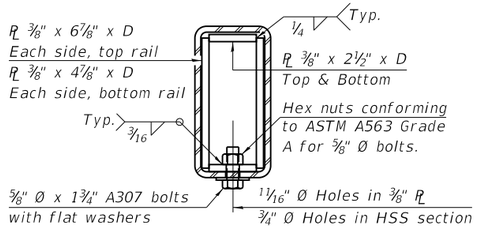
* The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



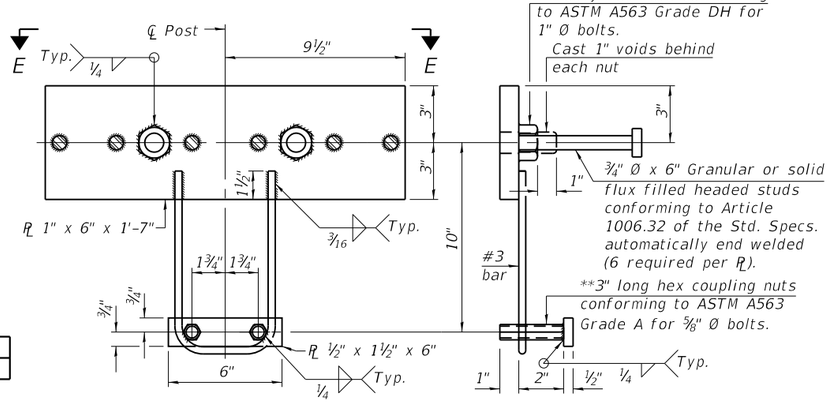
VIEW E-E



RAIL SPLICE ELEVATION

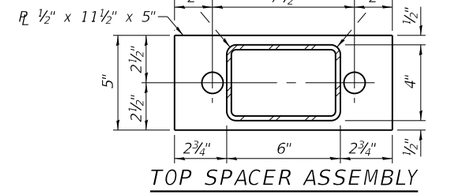


SECTION AT RAIL SPLICE

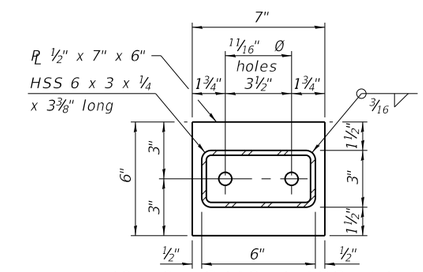


ANCHORAGE ASSEMBLY

** Threaded areas shall be plugged or blocked off during casting of concrete.



TOP SPACER ASSEMBLY



BOTTOM SPACER ASSEMBLY

SPLICE DIMENSIONS

Location	T	A	B	C	D	E
All splice locations	0	¼"	4"	4"	1'-8"	-

T = ; total movement along centerline of roadway.

Note:
See sheet 2 of 34 for proposed post layout.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	508

MODEL: Default
FILE NAME: pw:\\tc-pwint01.a-d.transystems.com:transystems.com:ansyscorp-pw1\Documents\Projects_2021\CH401\40212007\Bridge\Standard Sheets\4_Revised Final\196500-011-Steel Railing_Type SM_Details.dgn

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - RAA	REVISED -
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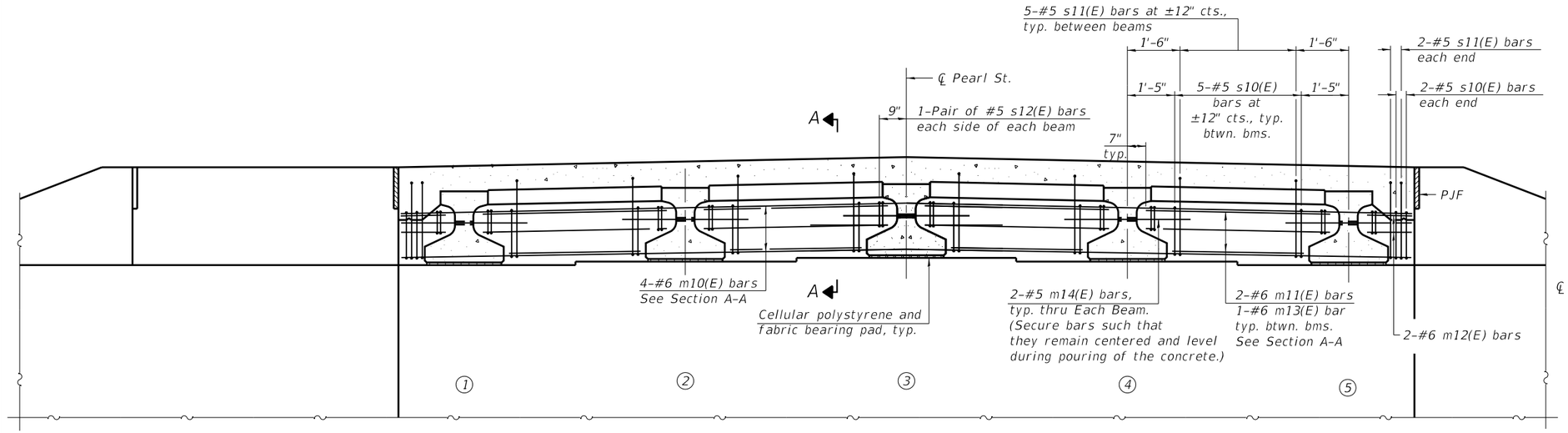
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -
PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE SM DETAILS
STRUCTURE NO. 019-6500

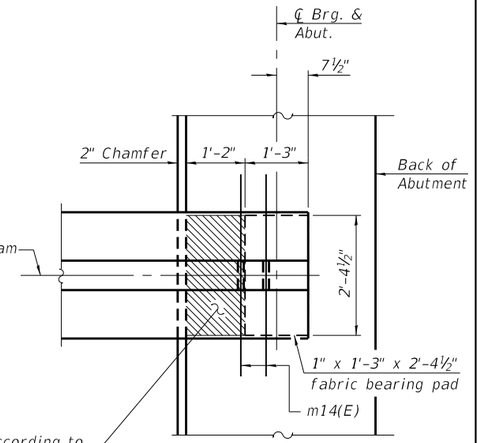
SHEET 11 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	44
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



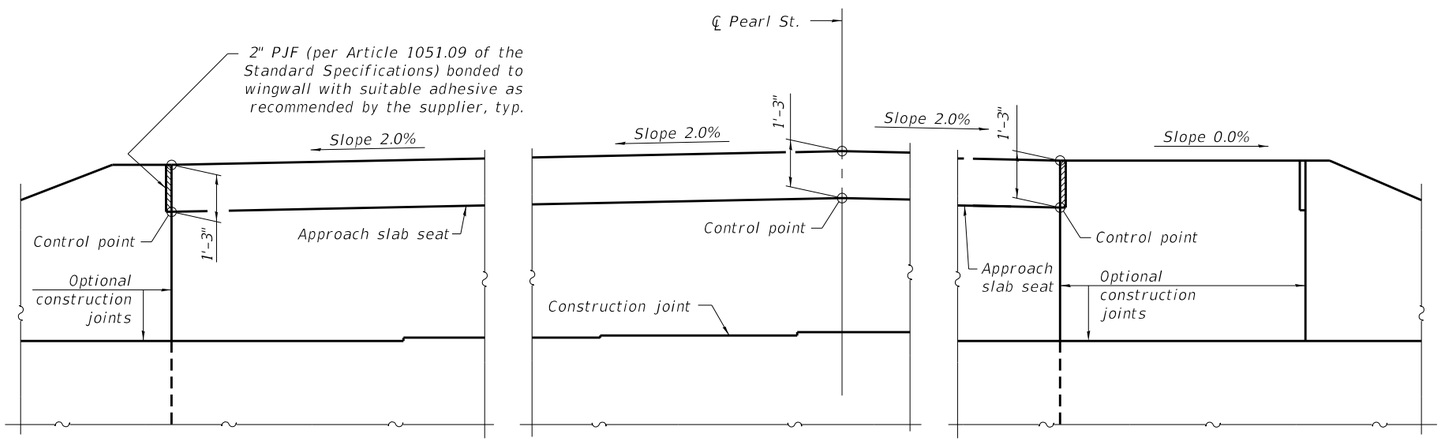
DIAPHRAGM AT ABUTMENT

(Looking north)
(North abutment shown, south abutment similar)



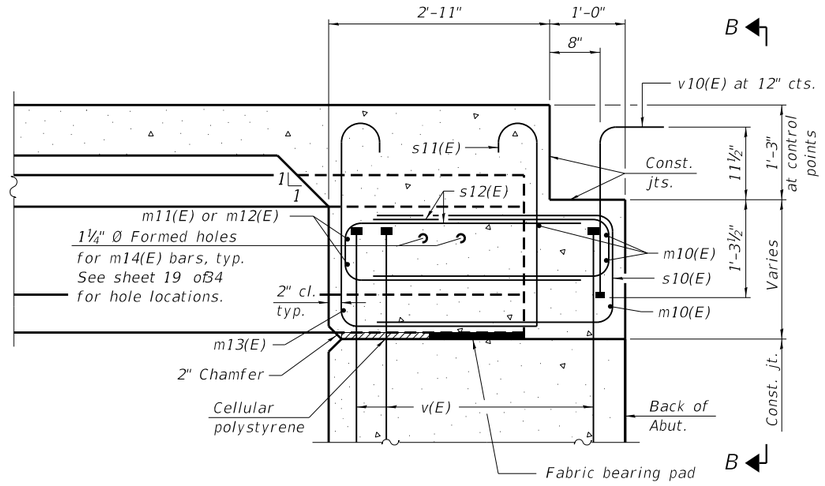
PLAN AT ABUTMENT

(Showing bottom flange of beam)



VIEW B–B

(North abutment shown, south abutment similar)



SECTION A–A

(North abutment shown, south abutment similar)

Notes:
See sheet 10 of 34 for superstructure details and Bill of Material.
The approach slab seat shall have a constant slope determined from the control points shown.
Cost of cellular polystyrene is included with Concrete Superstructure.

MODEL: Default
FILE NAME: pw:\\ho-pwint01.ja-k.transystems.com:transystems\Documents\Projects\2021\CH401\401210075\BridgeStandard Sheets\4 Revised FINAL\019\6500_012-Abutment Diaphragm Details.dgn

TRANSYSTEMS

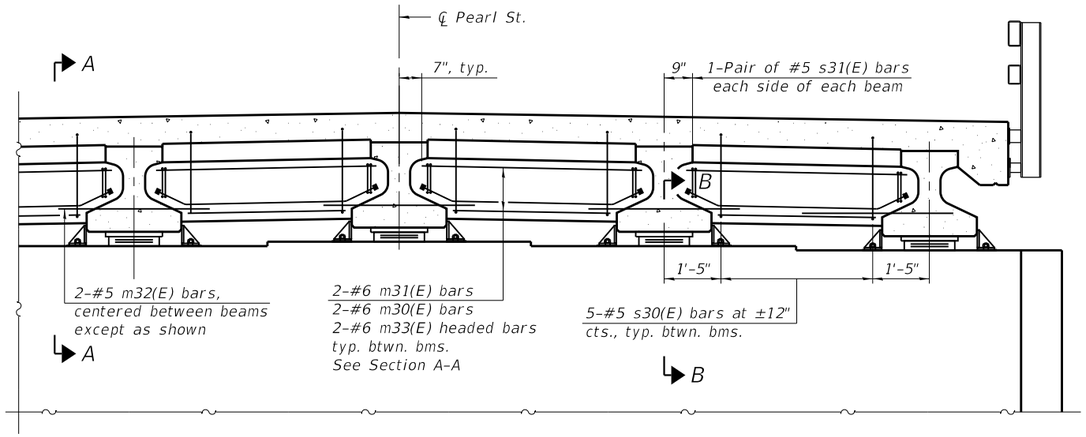
USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	
	CHECKED - OS	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

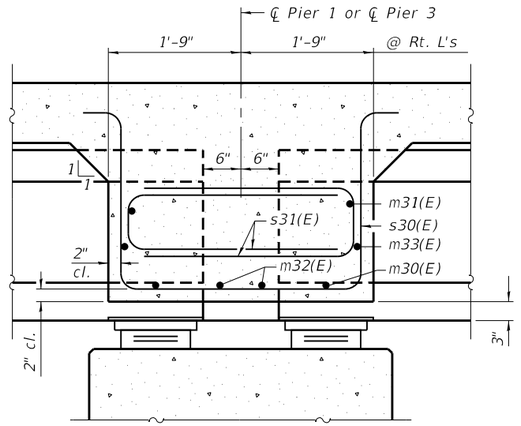
ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NO. 019–6500

SHEET 12 OF 34 SHEETS

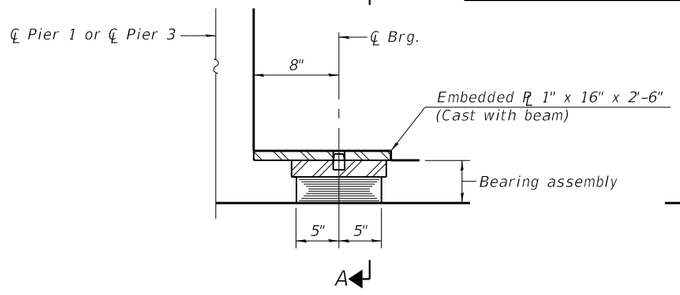
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	45
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		



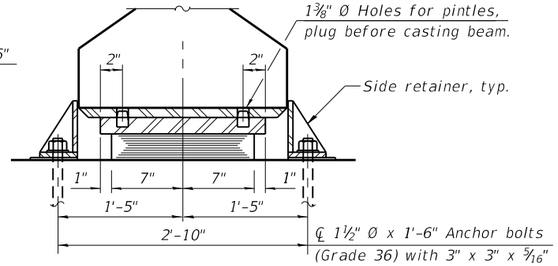
DIAPHRAGM AT PIER 1 AND PIER 3



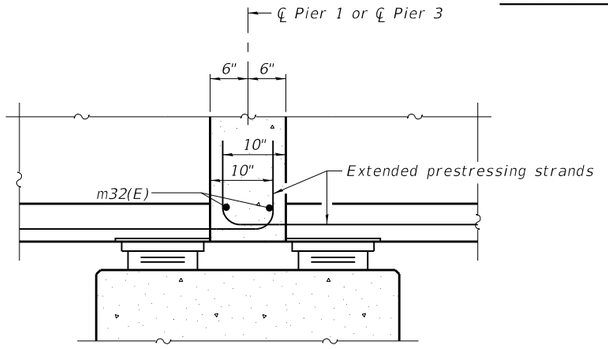
SECTION A-A



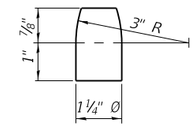
PARTIAL ELEVATION AT PIER



SECTION A-A



SECTION B-B



PINTLE

TYPE I ELASTOMERIC EXP. BRG.

Notes:

See sheet 10 of 34 for superstructure details and Bill of Material.

The s30(E) and s31(E) bars shall be placed parallel to the beams.

Spacing for these bars shall be at right angles to the beams.

Horizontal dimensions for Section A-A and Section B-B are along ℄ of beam unless otherwise noted.

Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.

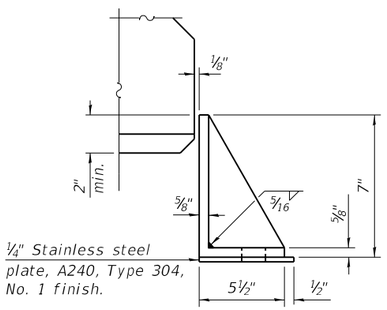
See sheet 21 of 34 for additional details of embedded plate.

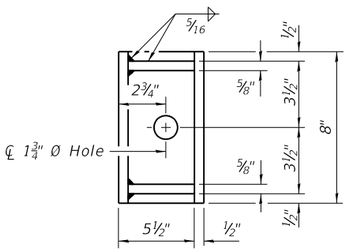
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

All exposed bearing plates and side retainers shall be hot dip galvanized according to AASHTO M111.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50 (AASHTO M270 Grade 50W).

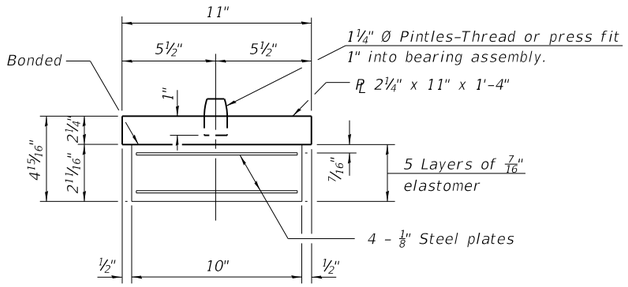
All (embedded and separate) bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.





SIDE RETAINER

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



BEARING ASSEMBLY

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	20
Anchor Bolts, 1½"	Each	40

TRANSYSTEMS

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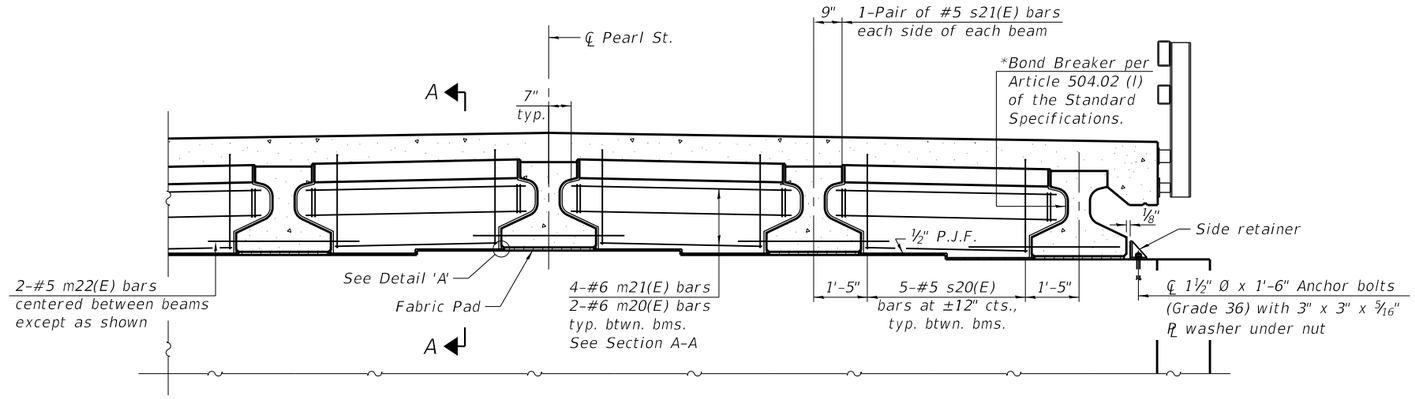
PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION PIER DIAPHRAGM DETAILS
STRUCTURE NO. 019-6500

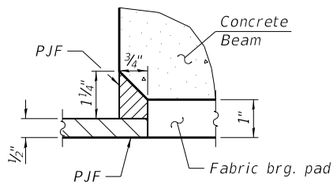
SHEET 13 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	46
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			

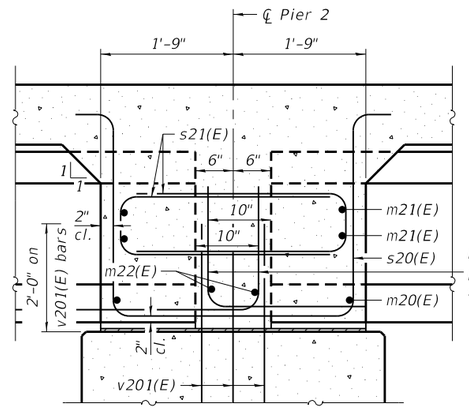


DIAPHRAGM AT PIER 2

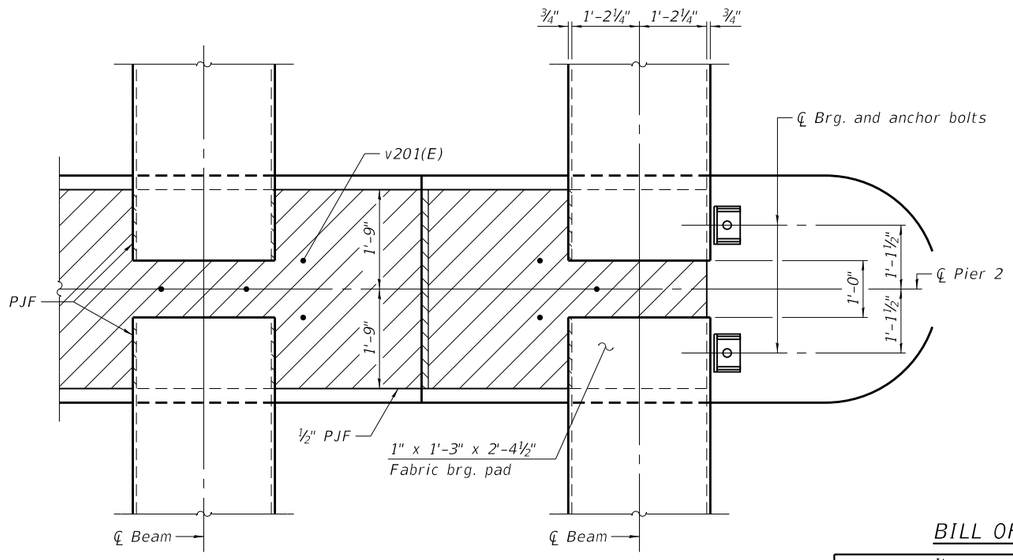
*Bonded to sides of beams embedded into diaphragm.



DETAIL 'A'

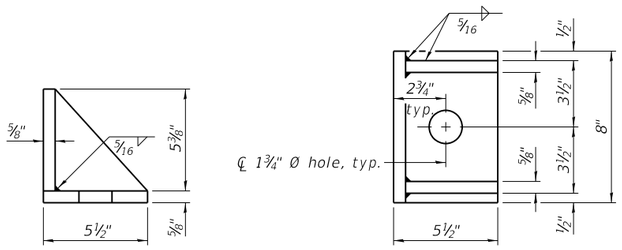


SECTION A-A



PLAN AT PIER 2

(Showing bearing pads and PJF details)



SIDE RETAINER

(2 required each side of pier).
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1½"	Each	4

Notes:

See sheet 10 of 34 for superstructure details and Bill of Material.

Cost of side retainers shall be included with Concrete Structures.

Anchor bolts and side retainers shall be installed as each exterior beam is erected unless an equivalent temporary means of lateral restraint is used.

All side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.

H.S. bolts in bearing assembly shall be galvanized according to ASTM B 695 Class 50.

MODEL: Default
FILE NAME: pw:\\he-pwint01.a-e.transystems.com:transystems.com\Projects_2021\CH401\40121007\5\Bridge\Standard Sheets\4 Revised Final\0196500_014-Fixed Pier Diaphragm Details.dgn

TRANSYSTEMS

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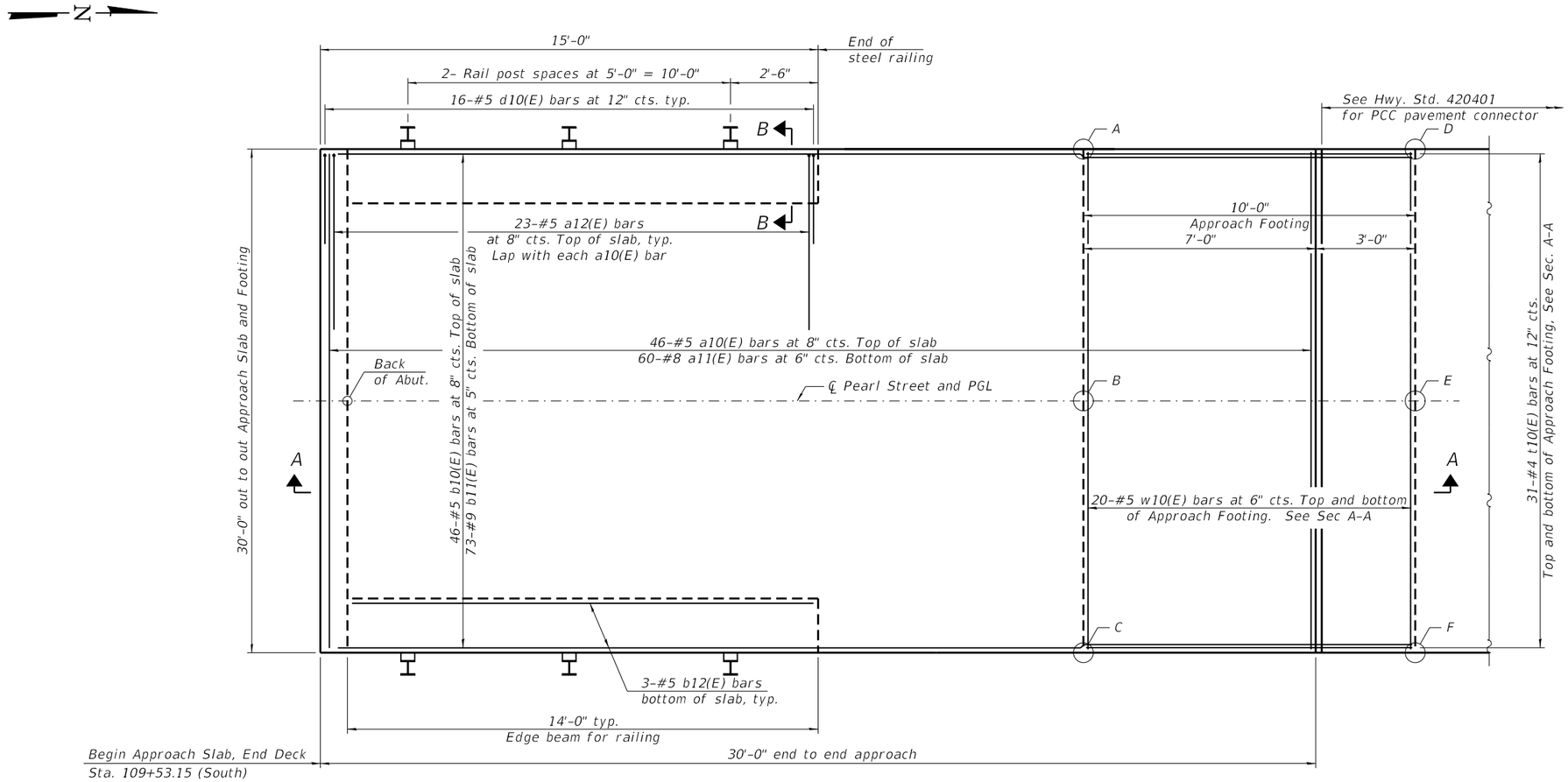
	CHECKED - OS	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIXED PIER DIAPHRAGM DETAILS
STRUCTURE NO. 019-6500

SHEET 14 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	47
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		



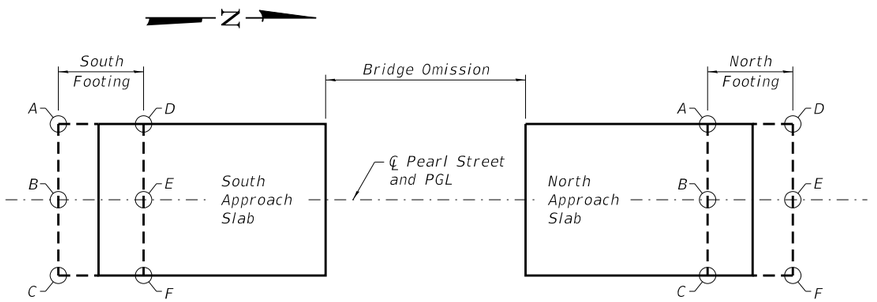
PLAN

(North approach slab shown; South approach slab similar by 180° rotation)

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

South Approach					North Approach				
Point/ Location	Station	Offset	Top	Bottom	Point/ Location	Station	Offset	Top	Bottom
A	109+20.15	-15.00'	765.85	765.02	A	112+00.06	-15.00'	767.42	766.59
B	109+20.15	0.00'	766.15	765.32	B	112+00.06	0.00'	767.72	766.89
C	109+20.15	15.00'	765.85	765.02	C	112+00.06	15.00'	767.42	766.59
D	109+30.15	-15.00'	766.10	765.26	D	112+10.06	-15.00'	767.27	766.44
E	109+30.15	0.00'	766.40	765.56	E	112+10.06	0.00'	767.57	766.74
F	109+30.15	15.00'	766.10	765.26	F	112+10.06	15.00'	767.27	766.44

Negative offsets indicate left when looking upstation. Positive offsets indicate right when looking upstation.
See Approach Slab Footing Key Plan.



APPROACH SLAB FOOTING KEY PLAN

TRANSYSTEMS

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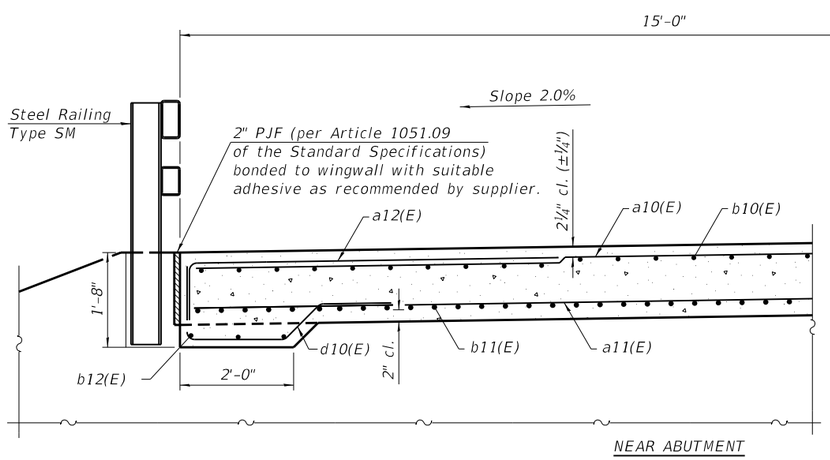
	CHECKED - OS	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

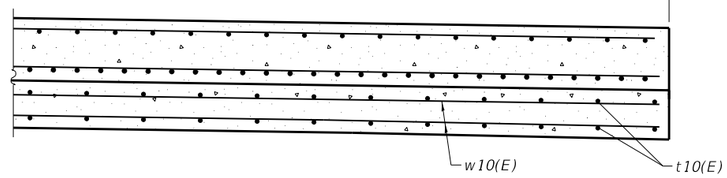
BRIDGE APPROACH SLAB DETAILS 1
STRUCTURE NO. 019-6500

SHEET 15 OF 34 SHEETS

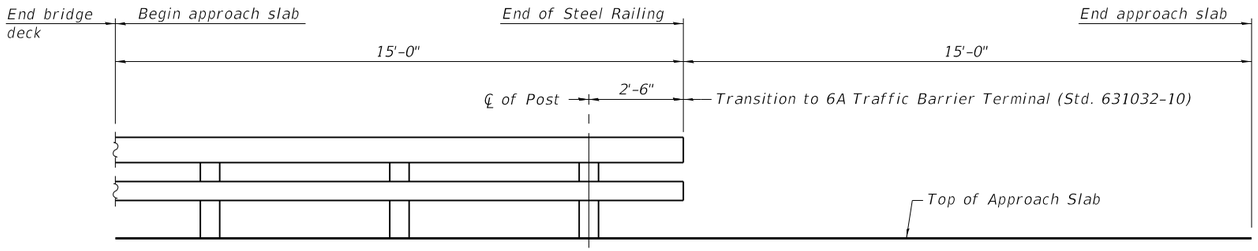
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	48
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		



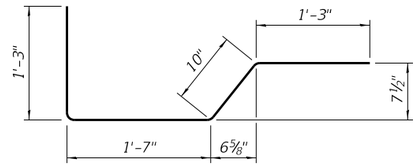
CROSS SECTION
(Looking North)



AT APPROACH FOOTING



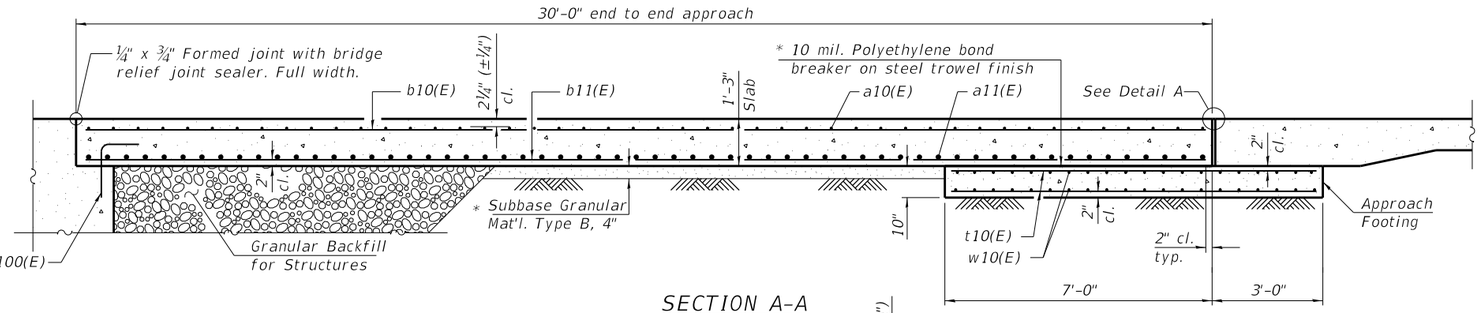
INSIDE ELEVATION OF SM RAILING



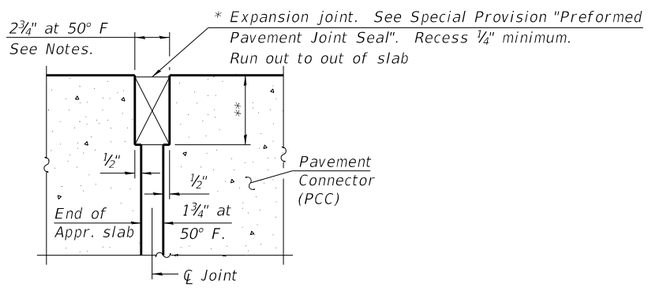
BAR d10(E)

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	92	#5	29'-8"	
a11(E)	120	#8	29'-8"	
a12(E)	92	#5	7'-8"	
b10(E)	92	#5	29'-8"	
b11(E)	146	#9	29'-8"	
b12(E)	12	#5	13'-8"	
d10(E)	64	#5	4'-11"	
t10(E)	124	#4	9'-8"	
w10(E)	80	#5	29'-8"	
Reinforcement Bars, Epoxy Coated			Pound	34,440
Concrete Superstructure (Approach Slab)			Cu. Yd.	85.2
Bridge Deck Grooving			Sq. Yd.	200
Protective Coat			Sq. Yd.	223



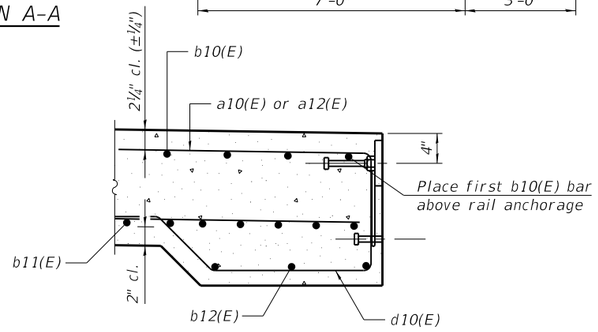
SECTION A-A



DETAIL A

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations



SECTION B-B

BAR a12(E)

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 34 .

For railing details, see sheets 2 & 11 of34 .

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	
	CHECKED - OS	REVISED -	
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PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS 2
STRUCTURE NO. 019-6500

SHEET 16 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	49
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			

N

℄ S. Abut. and S. Abut. Brg. ℄ Pier 1 ℄ Pier 2 ℄ Pier 3 ℄ N. Abut. and N. Abut. Brg.

Bk. S. Abut. ℄ S. Brg. Pier 1 ℄ N. Brg. Pier 1 ℄ S. Brg. Pier 2 ℄ N. Brg. Pier 2 ℄ S. Brg. Pier 3 ℄ N. Brg. Pier 3 Bk. N. Abut.

1'-2" 1'-1½" 1'-2"

IL27N beam, typ.

1 2 3 4 5

℄ Bracing, typ.

4 spaces at 6'-5" = 25'-8"

6'-5" 6'-5"

℄ Pearl Street & PGL

90°0'0"

2'-4" 2'-3" 2'-4"

16'-3" 16'-4" 16'-3" 19'-7" 19'-6½" 19'-7" 19'-7" 19'-6½" 19'-7" 16'-3" 16'-4" 16'-3"

1'-11½" 48'-10" Span 1 58'-8½" Span 2 58'-8½" Span 3 48'-10" Span 4 1'-11½"

225'-11" bk. to bk. abutments

FRAMING PLAN

LEGEND

(1) Beam Number

MODEL: Default
FILE NAME: pw:\\hs-pwint01.a-e.transystems.com:transystems-pw-11\Documents\Projects_2021\CH401402100758\Bridge\Standard Sheets\4 Revised Final\0196500_017-Framing Plan.dgn

TRANSYSTEMS	USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - OS	REVISED -	
	PLOT SCALE = 16.0000 ' / in.	DRAWN - RAA	REVISED -	
	PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

FRAMING PLAN
STRUCTURE NO. 019–6500
SHEET 17 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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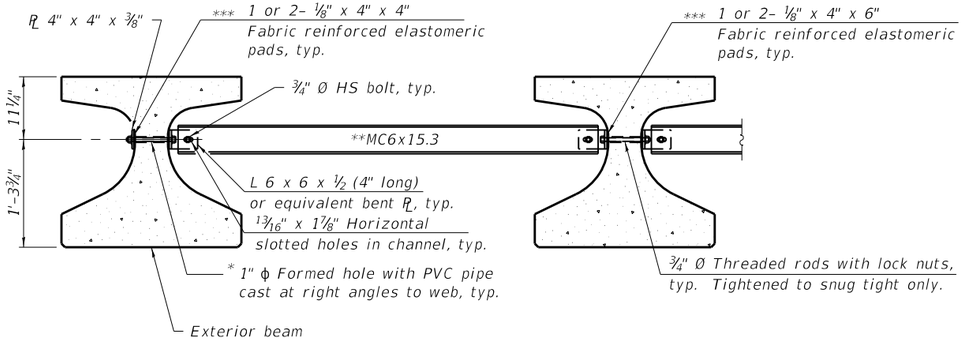
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

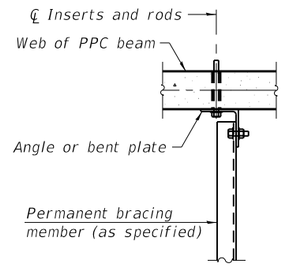


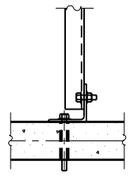
* Fabricator shall locate to miss strands within permissible tolerances.

** Alternate MC6x18 channels are permitted to facilitate material acquisition.

*** Place pads as necessary to provide a flat mounting surface between the steel and concrete.

PERMANENT BRACING DETAILS FOR IL27N BEAMS





PLAN

Notes:

All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.

Two hardened washers are required for each set of oversized holes.

All holes shall be 15/16" Ø unless otherwise noted.

5/16" x 3" x 3" plate washers are required over all slotted holes.

All bolts, threaded rods, and hardware shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

Bracing shall be installed as beams are erected and tightened as soon as possible during erection.

Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete Beams, IL27N.

I: Non-composite moment of inertia of beam section (in.⁴).
I': Composite moment of inertia of beam section (in.⁴).
S_b: Non-composite section modulus for the bottom fiber of the prestressed beam (in.³).
S_b': Composite section modulus for the bottom fiber of the prestressed beam (in.³).
S_t: Non-composite section modulus for the top fiber of the prestressed beam (in.³).
S_t': Composite section modulus for the top fiber of the prestressed beam (in.³).
DC1: Un-factored non-composite dead load (kips/ft.).
M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft).
LLDF: Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and further IDOT provisions.
M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
R_{DC1}: Un-factored reaction due to non-composite dead load (kip).
R_{DC2}: Un-factored reaction due to long-term composite (superimposed excluding future wearing surface) dead load (kip).
R_{DW}: Un-factored reaction due to long-term composite (superimposed future wearing surface only) dead load (kip).
R_L: Un-factored live load reaction (kip).
R_{IM}: Un-factored dynamic load allowance (impact) (kip).
R_{Total} (Strength I)(Impact): Total factored reaction including dynamic load allowance (impact) (kip).
R_{Total} (Strength I)(No Impact): Total factored reaction not including dynamic load allowance (impact) (kip).

4 span - interior spans symmetrical and exterior spans symmetrical

INTERIOR BEAM MOMENT TABLE						
		0.4 Sp. 1 0.6 Sp. 4	0.6 Sp. 1 0.4 Sp. 4	Pier 1 or 3	0.5 Sp. 2 0.5 Sp. 3	Pier 2
I	(in^4)	33,879	33,879	33,879	33,879	33,879
I'	(in^4)	141,492	141,492	141,492	141,492	141,492
S_b	(in^3)	3,060	3,060	3,060	3,060	3,060
S_b'	(in^3)	6,288	6,288	6,288	6,288	6,288
S_t	(in^3)	2,126	2,126	2,126	2,126	2,126
S_t'	(in^3)	31,442	31,442	31,442	31,442	31,442
DC1	(k/')	1.166	1.166	1.166	1.166	1.166
M_{DC1}	('k)	204	132	-333	181	-361
DC2	(k/')	0.198	0.198	0.198	0.198	0.198
M_{DC2}	('k)	35	23	-57	31	-62
DW	(k/')	0.25	0.25	0.25	0.25	0.25
M_{DW}	('k)	44	29	-72	39	-78
LLDF		0.649	0.649	0.638	0.628	0.638
M_{L+IM}	('k)	487	433	-463	486	-552

INTERIOR BEAM REACTION TABLE					
		Abutments	Pier 1 Span 1 Pier 3 Span 4	Pier 1 Span 2 Pier 3 Span 3	Pier 2 Span 2 Pier 2 Span 3
LLDF		0.649	0.649	0.649	0.649
R_{DC1}	(k)	28.5	28.5	34.3	34.3
* R_{DC2}	(k)	4.9	4.9	5.9	5.9
* R_{DW}	(k)	6.2	6.2	7.4	7.4
* R_{L+IM}	(k)	93.3	93.3	100.5	100.5
R_{Total} (Strength I)(Impact)	(k)	214.4	214.4	237.3	237.3
R_{Total} (Strength I)(No Impact)	(k)	180.6	180.6	201.7	201.7

* At continuous piers, reactions from composite loads are assumed to be equally distributed to each bearing line.

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TRANSYSTEMS

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CHECKED - OS | REVISED -
PLOT SCALE = 2.0000 ' / in. | DRAWN - RAA | REVISED -
PLOT DATE = 4/4/2024 | CHECKED - OS | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING DETAILS
STRUCTURE NO. 019-6500
SHEET 18 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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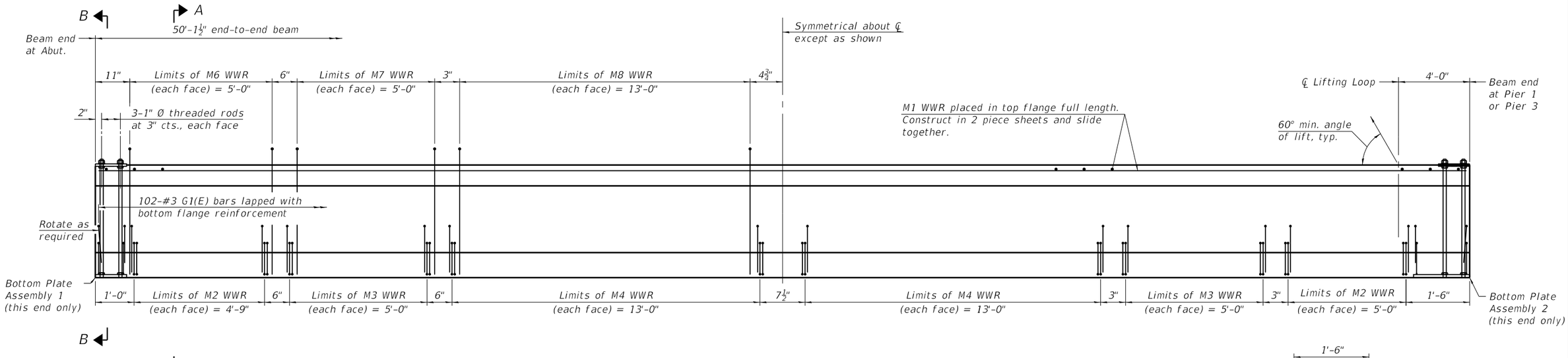
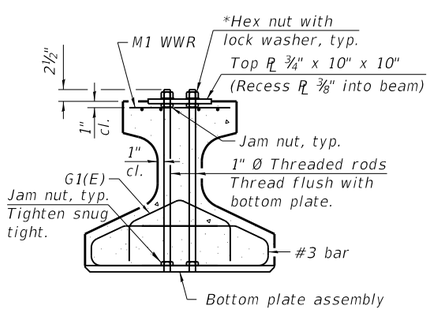
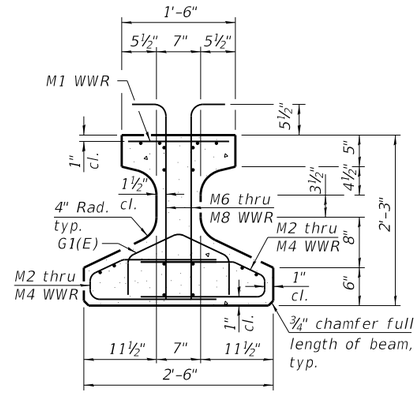
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		



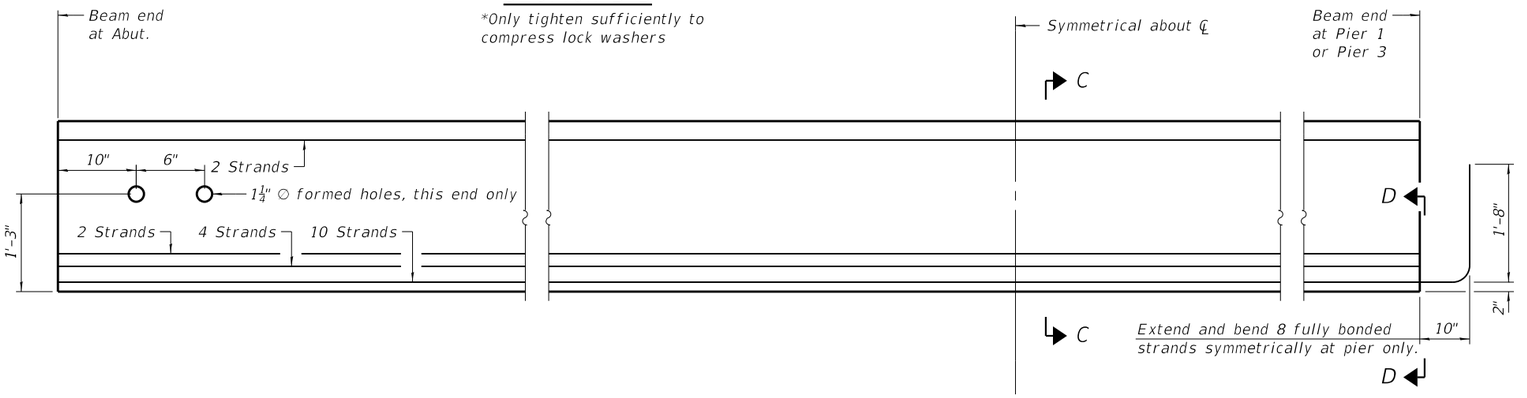
ELEVATION OF BEAM
(Showing reinforcement & dimensions)



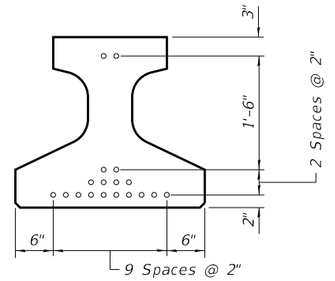
SECTION B-B
*Only tighten sufficiently to compress lock washers



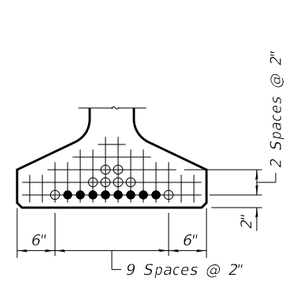
SECTION A-A



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C
(18-0.6" Ø 270 ksi strands)



VIEW D-D

○ Fully bonded strand

● Extended and bent strand (at pier only) (fully bonded)

SPAN 1 AND SPAN 4
IL27N-1830

Strand Pattern = 16B-2T-0db-0d

Note:
See sheet 21 of 34 for additional details and Bill of Material.
See sheets 17 & 18 of 34 for diaphragm drilling locations.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL27N BEAM (SPANS 1 AND 4)
STRUCTURE NO. 019-6500

SHEET 19 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 87722		
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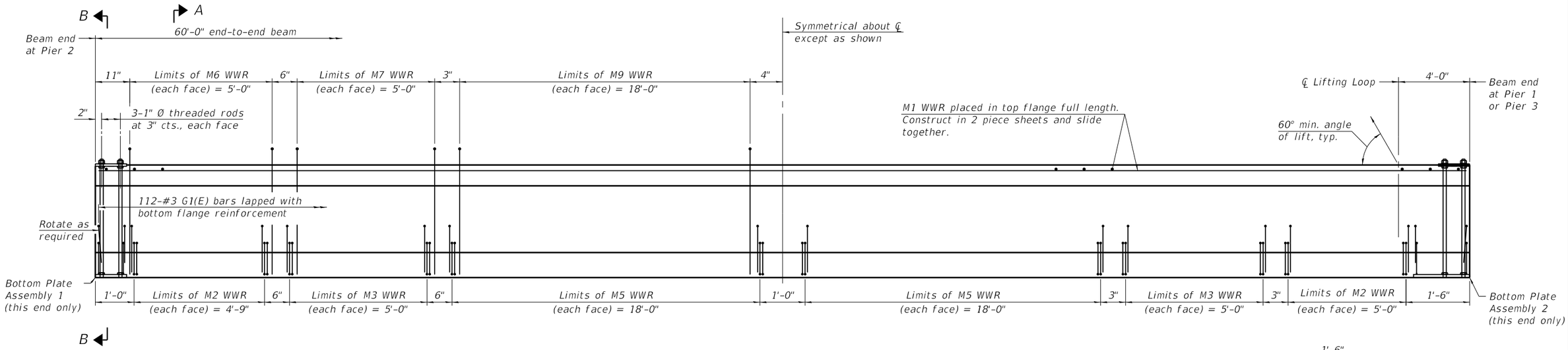
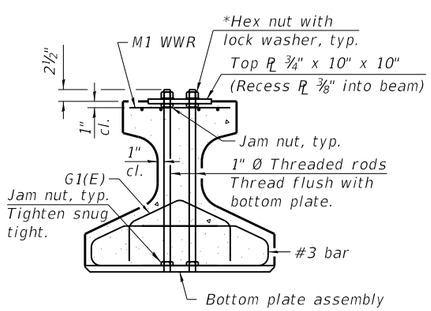
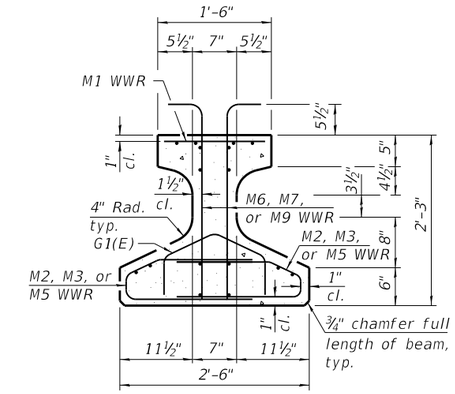


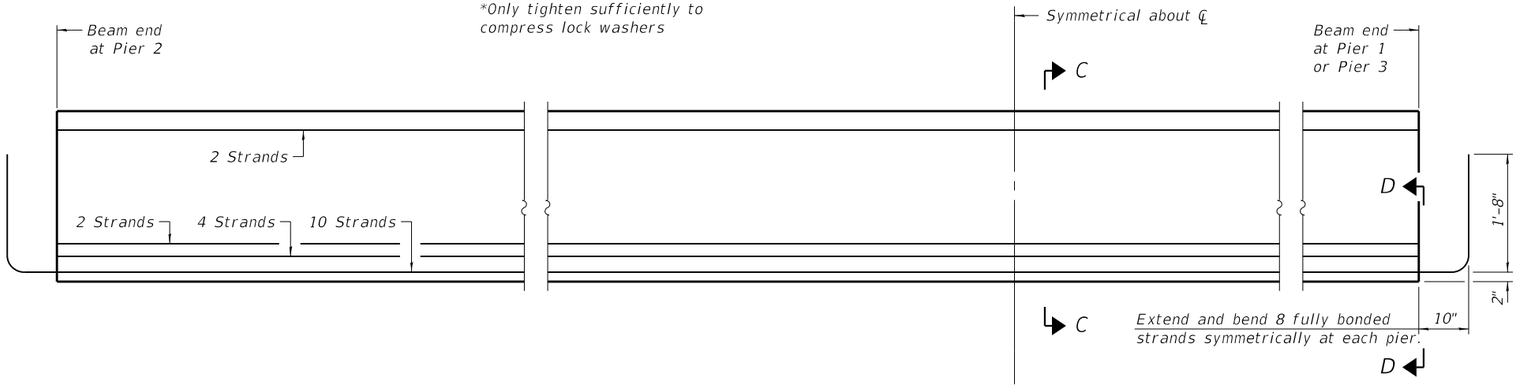
ELEVATION OF BEAM
(Showing reinforcement & dimensions)



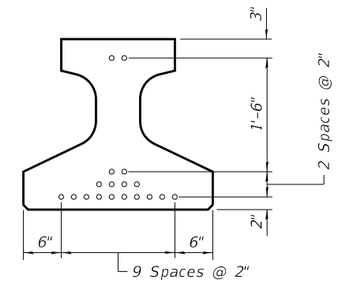
SECTION B-B
*Only tighten sufficiently to compress lock washers



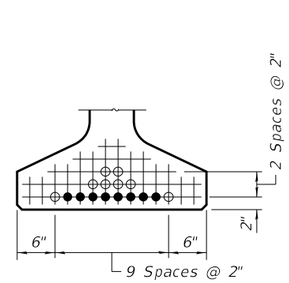
SECTION A-A



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C
(18-0.6" Ø 270 ksi strands)



VIEW D-D

○ Fully bonded strand

● Extended and bent strand (at pier only) (fully bonded)

Note:
See sheet 21 of 34 for additional details and Bill of Material.
See sheets 17 & 18 of 34 for diaphragm drilling locations.

SPAN 2 AND SPAN 3
IL27N-1830
Strand Pattern = 16B-2T-0db-0d

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL27N BEAM (SPANS 2 AND 3)
STRUCTURE NO. 019-6500

SHEET 20 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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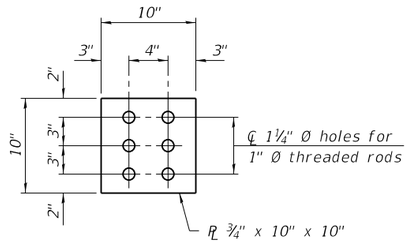
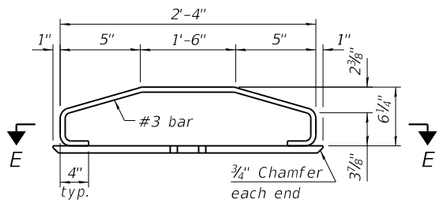
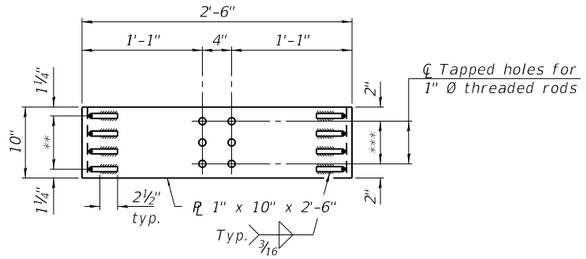
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		



PLAN – TOP PLATE



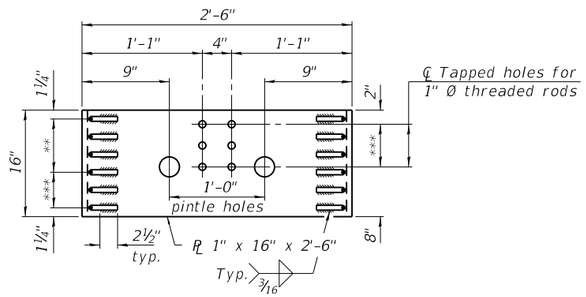
ELEVATION – BOTTOM PLATE ASSEMBLY



** 3 Spaces at 2½" = 7½"

*** 2 Spaces at 3" = 6"

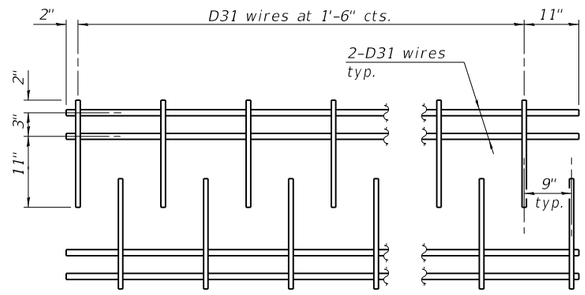
SECTION E-E
BOTTOM PLATE ASSEMBLY 1



** 3 Spaces at 2½" = 7½"

*** 2 Spaces at 3" = 6"

SECTION E-E
BOTTOM PLATE ASSEMBLY 2



M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (5'-0" long) shall be used to splice the longitudinal D31 wires together (Min. Lap 2'-2").

NOTES

Inserts for ¾" Ø threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be ½" and the nominal cross sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, f'c, of 8500 psi and a release concrete compressive strength, f'ci, of 6500 psi.

A minimum 2½" Ø lifting pin shall be used to engage the lifting loops during handling.

Bend the extended strands inward on the fascia beams to maintain 1½" clearance inside the pier diaphragm.

The top and bottom plates shall be AASHTO M270 Grade 50.

The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

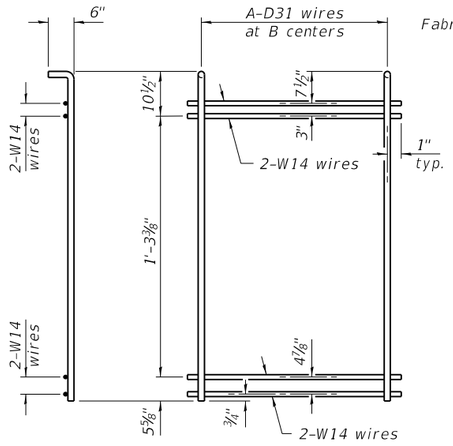
Threaded rods shall be ASTM F 1554 Grade 55.

Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating or ASTM A1060, Table 3 galvanized coating.

The top surface of the top flange shall be intentionally roughened to an amplitude of ¼" and shall be clean and free of laitance.

TABLE OF DIMENSIONS

(The WWR designs assume grade 60. If necessary, this permits the fabricator to directly substitute grade 60 rebar as detailed in the Manual for Fabrication of Precast Prestressed Concrete Products.)



M6 THRU M9 WWR DETAIL

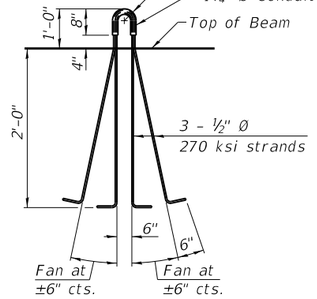
(See Table of Dimensions)

SPAN 1 & SPAN 4

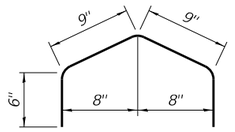
WWR	A	B
M2	21	3"
M3	11	6"
M4	14	1'-0"
M6	21	3"
M7	11	6"
M8	14	1'-0"

SPAN 2 & SPAN 3

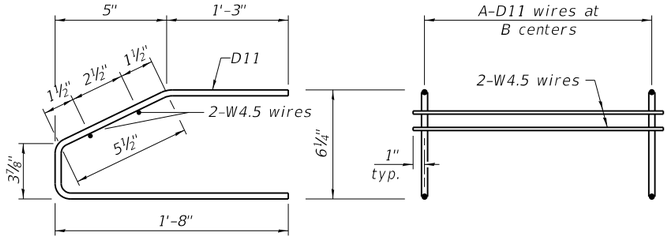
WWR	A	B
M2	21	3"
M3	11	6"
M5	19	1'-0"
M6	21	3"
M7	11	6"
M9	19	1'-0"



LIFTING LOOP DETAIL



BAR G1(E)



M2 THRU M5 WWR DETAIL

(See Table of Dimensions)

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL27N	Ft.	1,102

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TRANSYSTEMS

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PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL27N BEAM DETAILS
STRUCTURE NO. 019-6500

SHEET 21 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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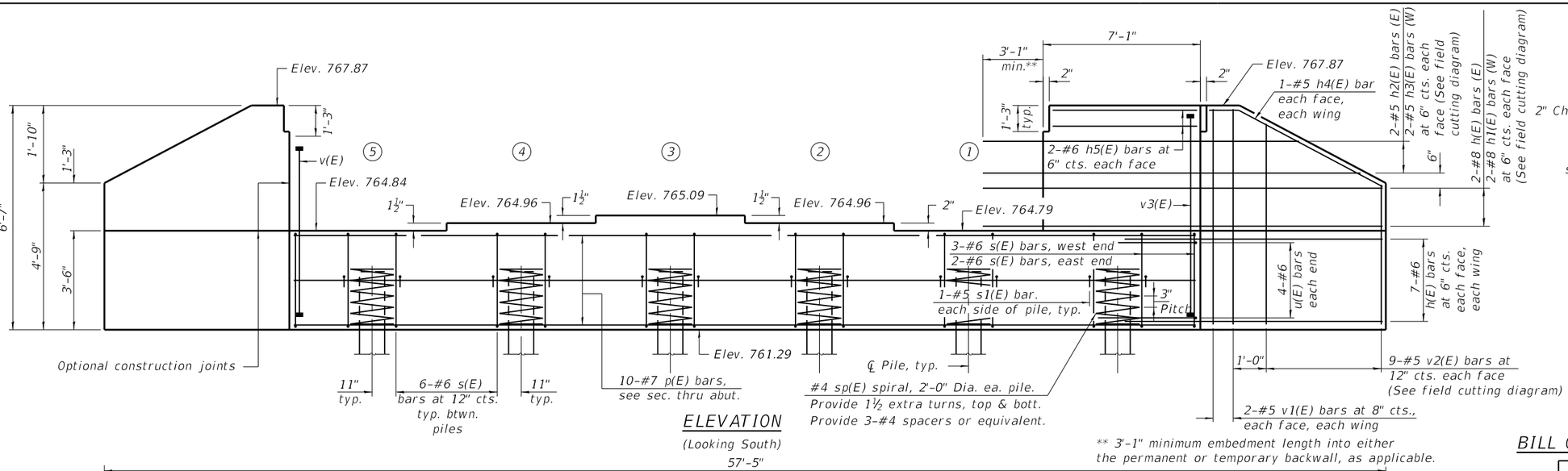
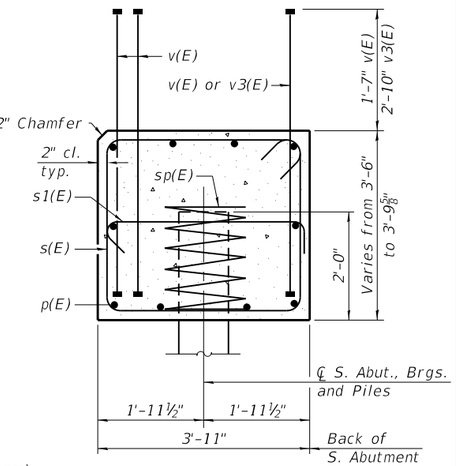
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



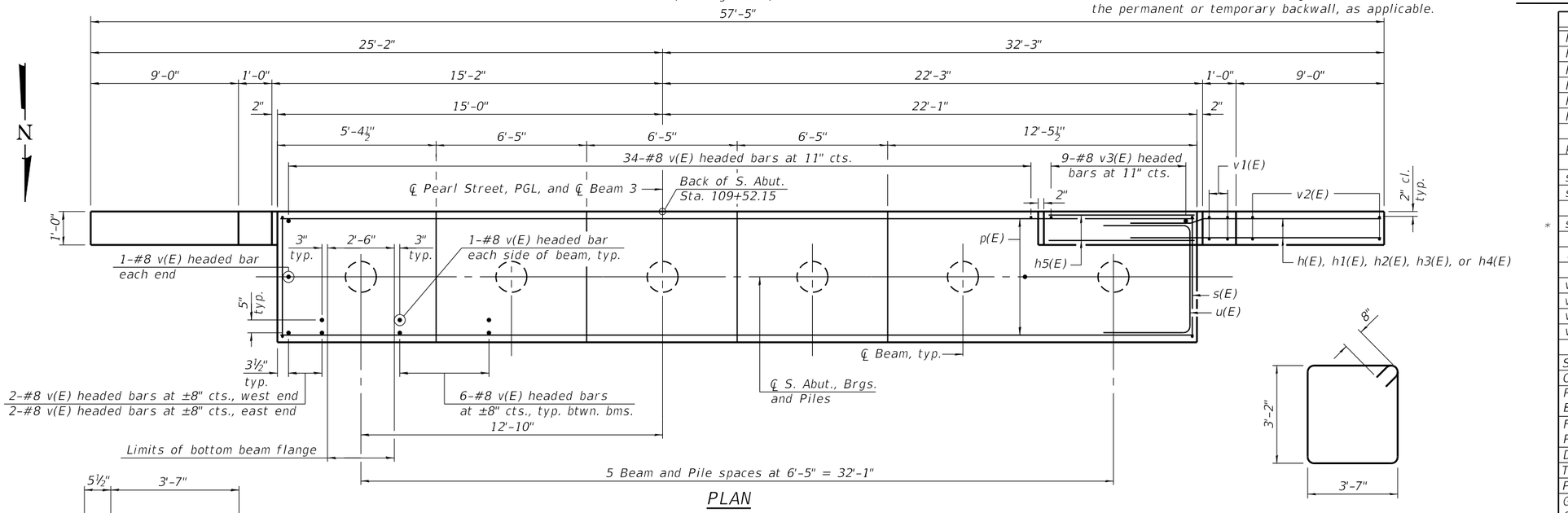
ELEVATION

(Looking South)

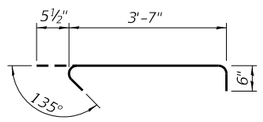
** 3'-1" minimum embedment length into either the permanent or temporary backwall, as applicable.



SEC. THRU ABUT.



PLAN



BAR s1(E)

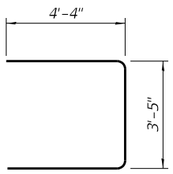
BAR s(E)

SOUTH ABUTMENT PILE DATA

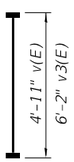
Type: PP16 x 0.375" with pile shoes
Nominal Required Bearing: 665 kips
Factored Resistance Available: 366 kips
Est. Length: 37 feet
No. Production Piles: 5
No. Test Piles: 1

LEGEND

(1) Beam Number

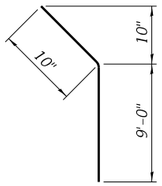


BAR u(E)



BAR v(E) or v3(E)

(v(E) headed. 148 - #8 Bar Terminators)
(v3(E) headed. 18 - #8 Bar Terminators)



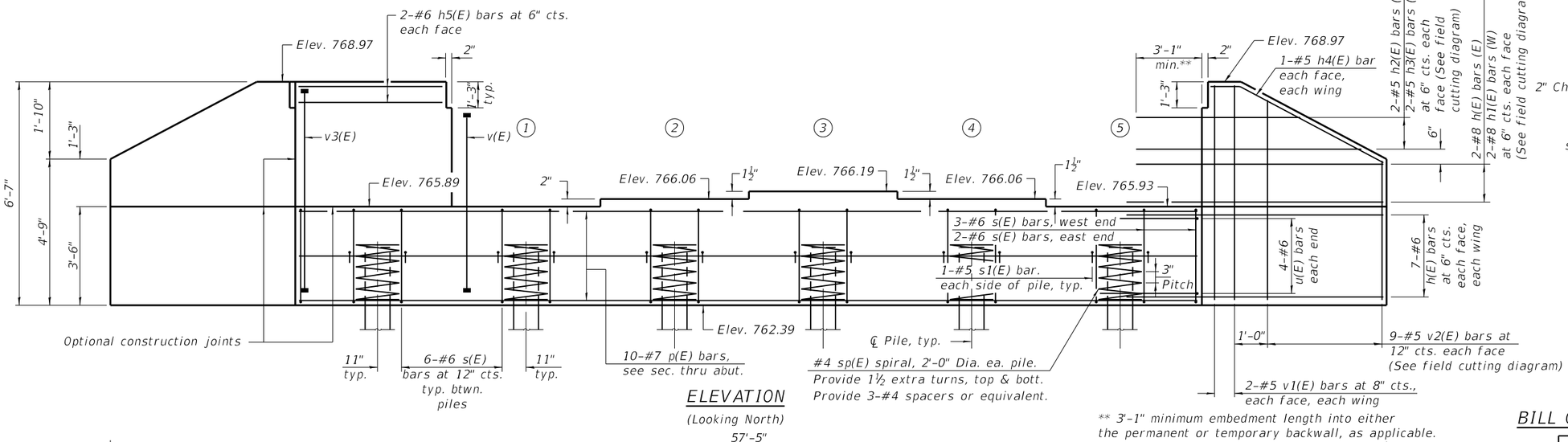
BAR h4(E)

BILL OF MATERIAL - SOUTH ABUTMENT

	Bar	No.	Size	Length	Shape
	h(E)	32	#6	13'-1"	
	h1(E)	4	#6	20'-2"	
	h2(E)	2	#6	22'-2"	
	h3(E)	2	#6	36'-4"	
	h4(E)	4	#5	9'-10"	
	h5(E)	4	#6	6'-7"	
	p(E)	10	#7	36'-9"	
	s(E)	35	#6	14'-10"	
	s1(E)	12	#5	4'-7"	
*	sp(E)	6	#4	2'-0"	
	u(E)	8	#6	12'-1"	
	v(E)	74	#8	4'-11"	
	v1(E)	8	#5	6'-2"	
	v2(E)	18	#5	10'-4"	
	v3(E)	9	#8	6'-2"	
	Structure Excavation		Cu. Yd.	456.3	
	Concrete Structures		Cu. Yd.	24.6	
	Reinforcement Bars, Epoxy Coated		Pound	4,410	
	Furnishing Metal Shell Piles 16" x 0.375"		Foot	185	
	Driving Piles		Foot	185	
	Test Pile Metal Shells		Each	1	
	Pile Shoes		Each	6	
	Granular Backfill for Structures		Cu. Yd.	57.9	
	Geocomposite Wall Drain		Sq. Yd.	36	
	Pipe Underdrains for Structures, 4"		Foot	68	
	Stone Riprpap, Class A5		Sq. Yd.	622	
	Filter Fabric		Sq. Yd.	622	
	Permanent Sheet Piling		Sq. Yd.	2,478	
	Bar Terminators		Each	166	

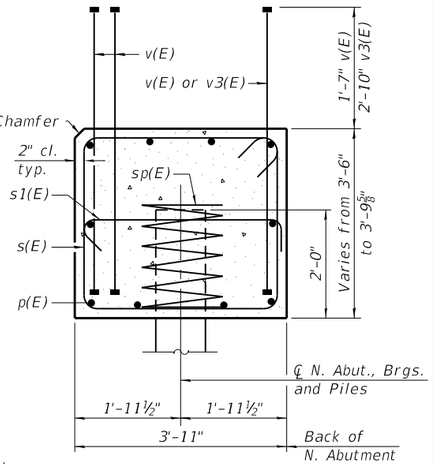
* Length is height of spiral.

Notes:
Pour steps monolithically with cap.
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
For details of piles see sheet 27 of 34 .
For scour protection details see sheet 24 of 34 .
The Pipe Underdrain shall only slope to the East.
For additional backwall details see sheet 24 of 34 .
For bar cutting diagram see sheet 24 of 34 .



ELEVATION

(Looking North)



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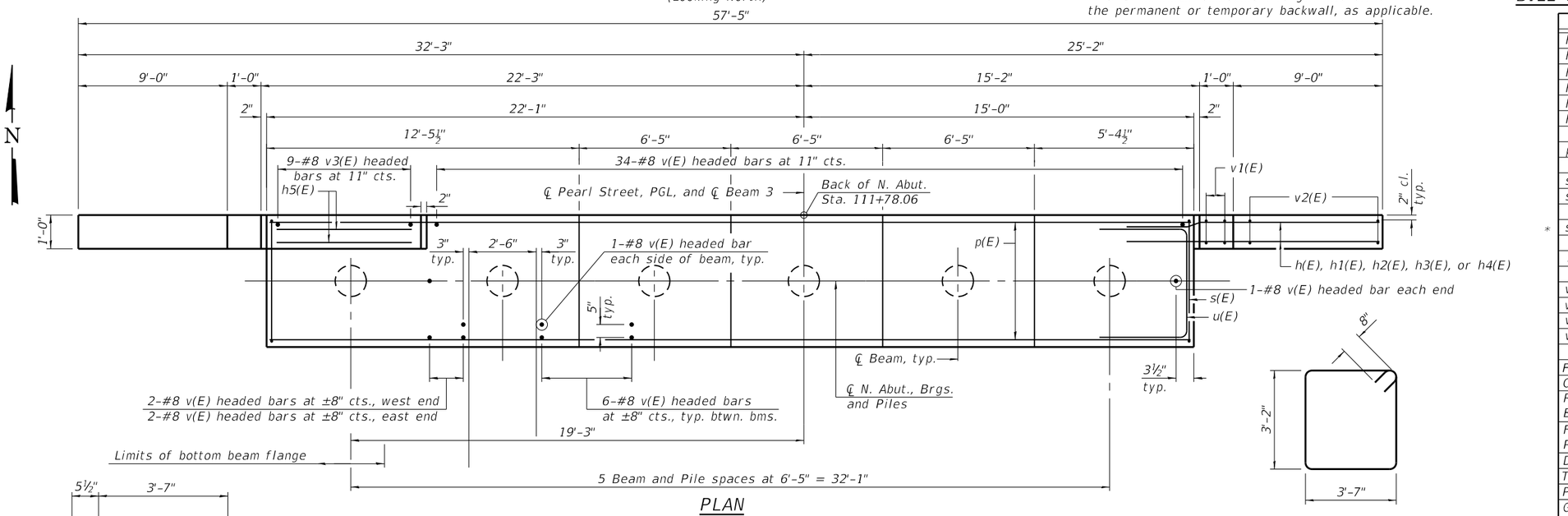


PLAN

BAR s1(E)

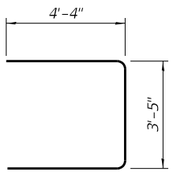
BAR s(E)

NORTH ABUTMENT PILE DATA

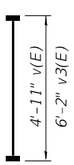
Type: PP16 x 0.375" with pile shoes
Nominal Required Bearing: 553 kips
Factored Resistance Available: 304 kips
Est. Length: 37 feet
No. Production Piles: 5
No. Test Piles: 1

LEGEND

(1) Beam Number

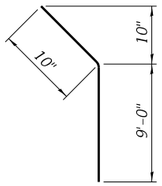


BAR u(E)



BAR v(E) or v3(E)

(v(E) headed. 148 - #8 Bar Terminators)
(v3(E) headed. 18 - #8 Bar Terminators)



BAR h4(E)

Notes:
Pour steps monolithically with cap.
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
For details of piles see sheet 27 of 34 .
For scour protection details see sheet 24 of 34 .
For additional backwall details see sheet 24 of 34 .
For bar cutting diagram see sheet 24 of 34 .

BILL OF MATERIAL - NORTH ABUTMENT

	Bar	No.	Size	Length	Shape
	h(E)	32	#6	13'-1"	
	h1(E)	4	#6	20'-2"	
	h2(E)	2	#6	22'-2"	
	h3(E)	2	#6	36'-4"	
	h4(E)	4	#5	9'-10"	
	h5(E)	4	#6	6'-7"	
	p(E)	10	#7	36'-9"	
	s(E)	35	#6	14'-10"	
	s1(E)	12	#5	4'-7"	
*	sp(E)	6	#4	2'-0"	
	u(E)	8	#6	12'-1"	
	v(E)	74	#8	4'-11"	
	v1(E)	8	#5	6'-2"	
	v2(E)	18	#5	10'-4"	
	v3(E)	9	#8	6'-2"	
	Furnished Excavation		Cu. Yd.	55.0	
	Concrete Structures		Cu. Yd.	24.6	
	Reinforcement Bars, Epoxy Coated		Pound	4,410	
	Furnishing Metal Shell Piles 16" x 0.375"		Foot	185	
	Driving Piles		Foot	185	
	Test Pile Metal Shells		Each	1	
	Pile Shoes		Each	6	
	Granular Backfill for Structures		Cu. Yd.	57.5	
	Geocomposite Wall Drain		Sq. Yd.	36	
	Pipe Underdrains for Structures, 4"		Foot	68	
	Stone Riprpap, Class A5		Sq. Yd.	378	
	Filter Fabric		Sq. Yd.	378	
	Bar Terminators		Each	166	

* Length is height of spiral.

TRANSYSTEMS

USER NAME = raapton	DESIGNED - RAA	REVISED -	
	CHECKED - OS	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/30/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 019-6500

SHEET 23 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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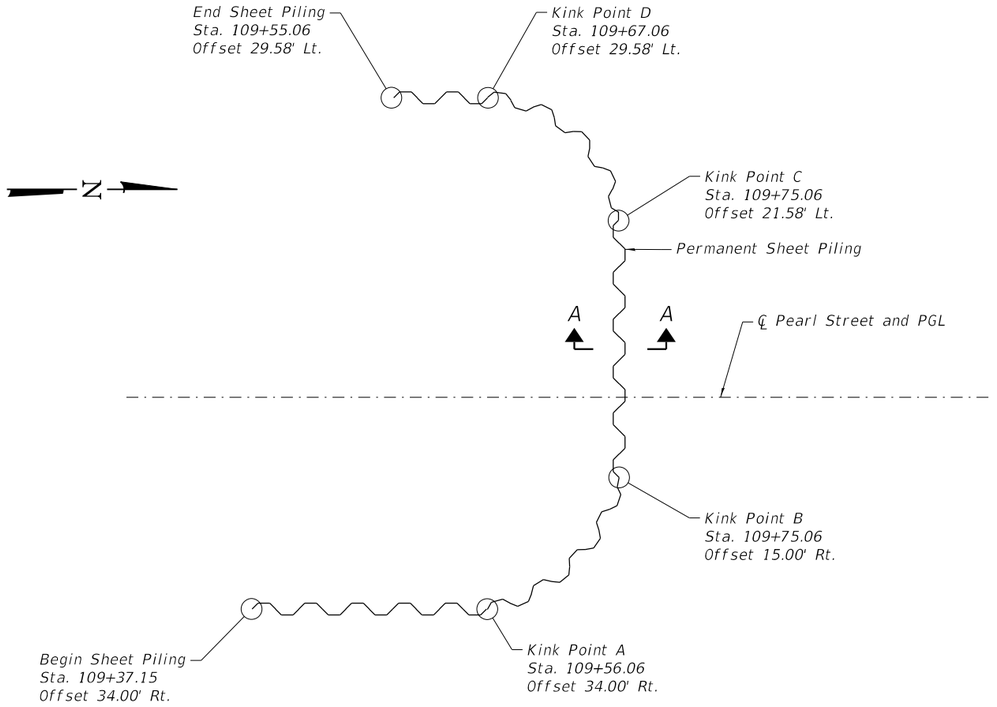
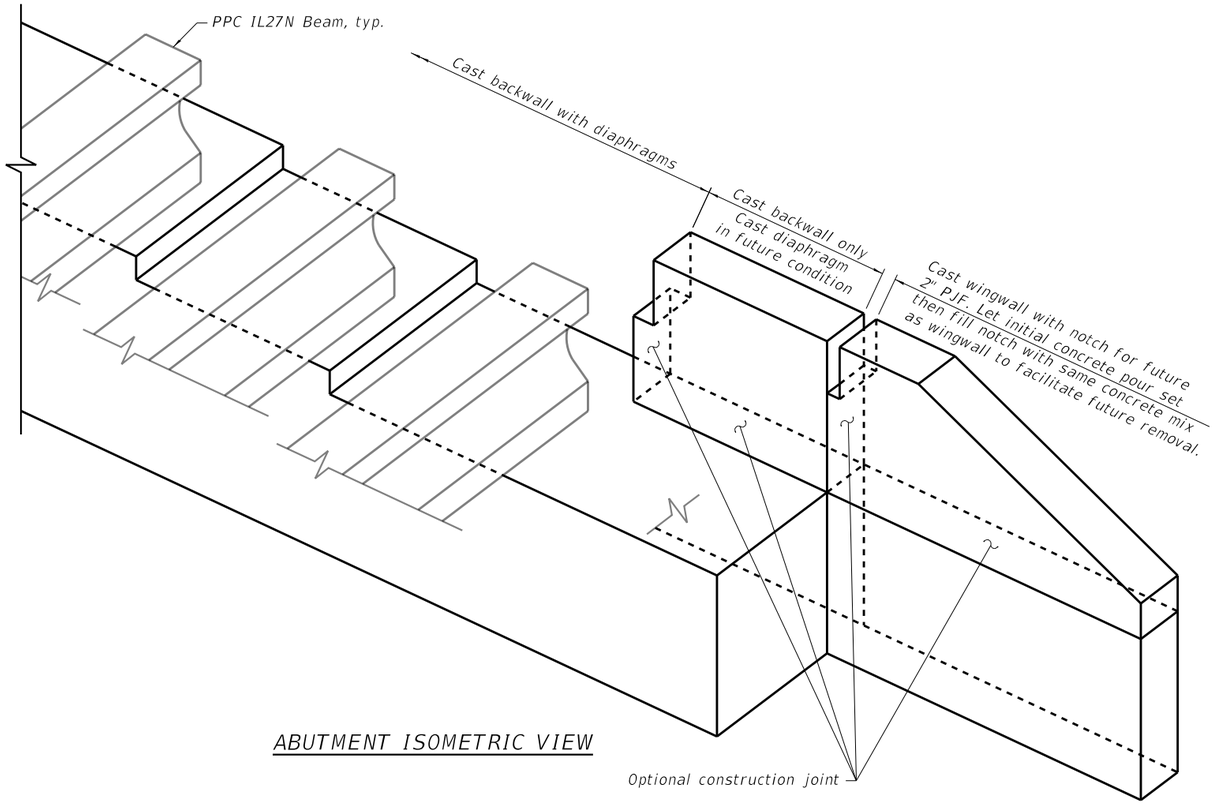
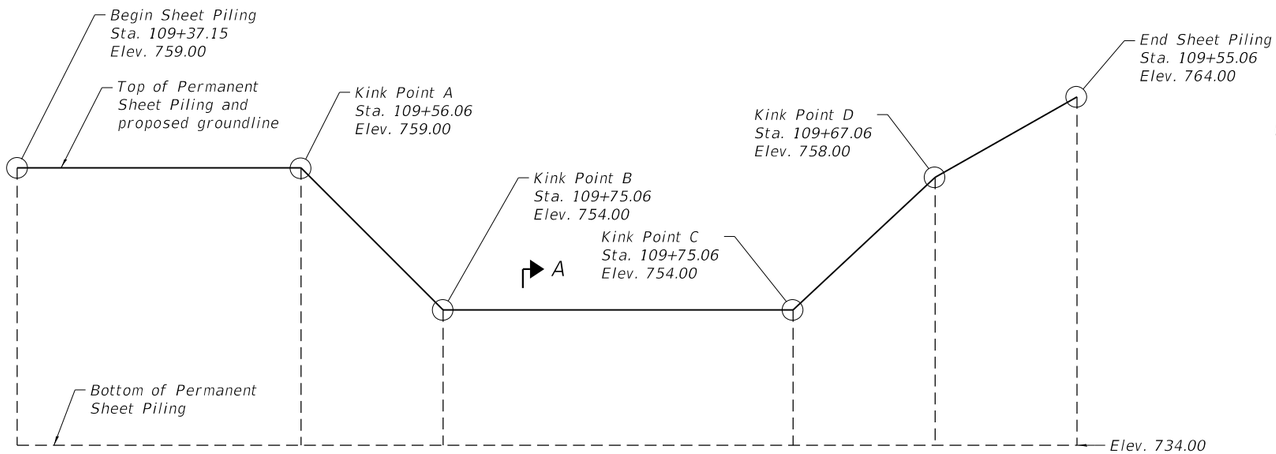
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		



SHEET PILE LAYOUT PLAN

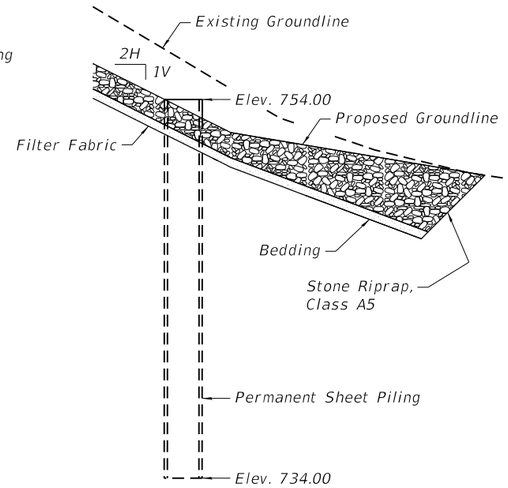


ABUTMENT ISOMETRIC VIEW

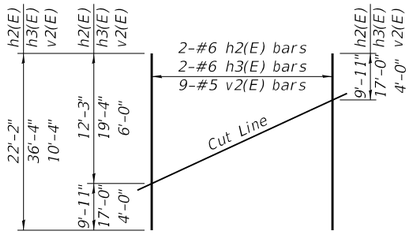


UNFOLDED SHEET PILE ELEVATION

(Looking South)



SECTION A-A



FIELD CUTTING DIAGRAM

Order h2(E), h3(E), and v2(E) full length.
Cut h2(E) and h3(E) as shown and use remainder of bars on same face of same wing.
Cut v2(E) as shown and use remainder of bars on opposite face of same wing.

Notes:

The top of the permanent sheet piling. shall be flush with the top of the proposed A5 riprap.

The permanent sheet piling shall be installed after the existing structure has been removed.

The material specifications for the permanent sheet piling to be installed at the South Abutment shall be submitted to and approved by the engineer prior to any construction activities beginning.

MODEL: Default
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TRANSYSTEMS

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	CHECKED - RAA	REVISED -	
PLOT SCALE = 32.0000 ' / in.	DRAWN - OS	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - RAA	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS
STRUCTURE NO. 019-6500

SHEET 24 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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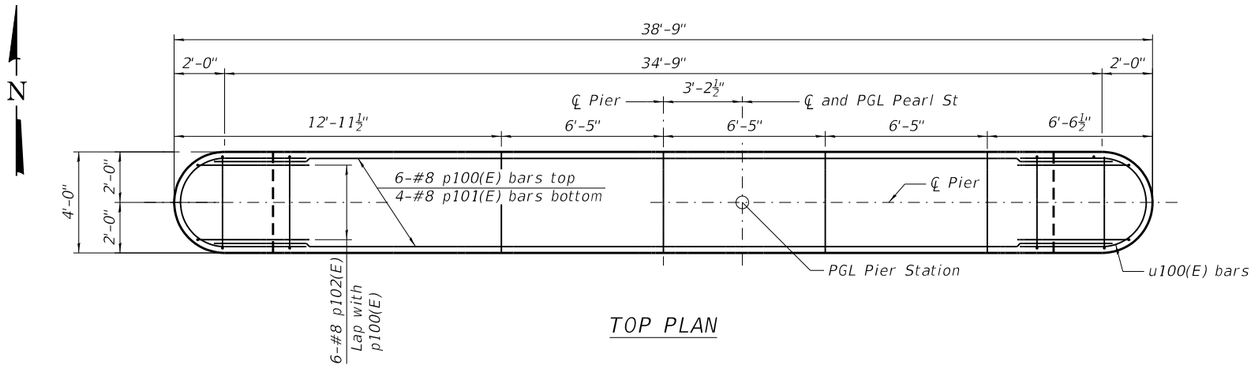
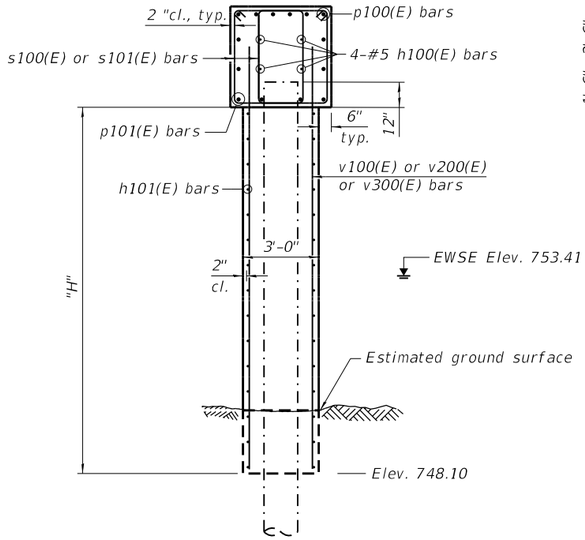
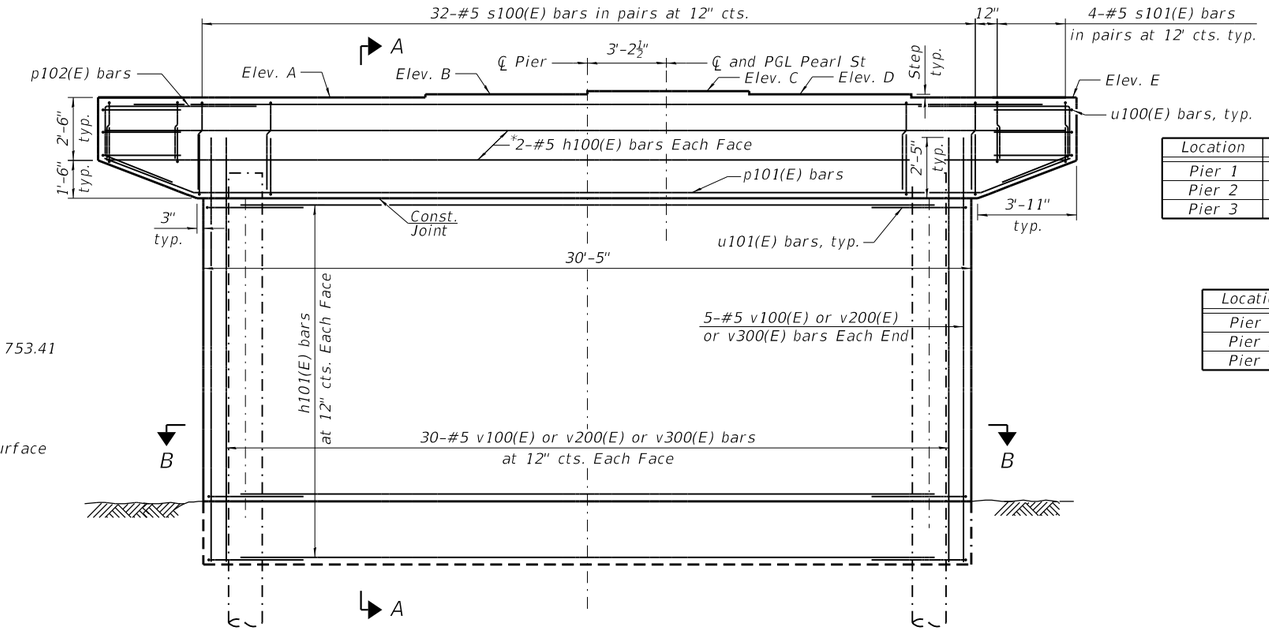
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



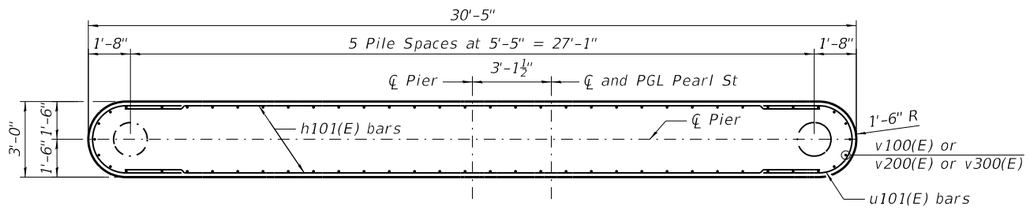
TOP PLAN



SECTION A-A



ELEVATION
(Looking North)



SECTION B-B

ENCASEMENT HEIGHTS

Location	Station	Estimated Ground Surface Elevation	H
Pier 1	110+04.10	750.72	13'-3"
Pier 2	110+65.10	751.83	14'-2"
Pier 3	111+26.10	755.99	13'-10"

STEP ELEVATIONS

Location	Elev. A	Elev. B	Elev. C	Elev. D	Elev. E
Pier 1	765.31	765.48	765.61	765.48	765.35
Pier 2	766.22	766.39	766.52	766.39	766.26
Pier 3	765.92	766.09	766.22	766.09	765.97

STEP HEIGHTS

Location	A to B	B to C	C to D	D to E
Pier 1	2"	1½"	1½"	1½"
Pier 2	2"	1½"	1½"	1½"
Pier 3	2"	1½"	1½"	1½"

PIER 1 PILE DATA

Type: PP16 x 0.375" with pile shoes
Nominal Required Bearing: 665 kips
Factored Resistance Available: 356 kips
Est. Length: 45 feet
No. Production Piles: 5
No. Test Piles: 1

PIER 2 PILE DATA

Type: PP16 x 0.375" with pile shoes
Nominal Required Bearing: 665 kips
Factored Resistance Available: 359 kips
Est. Length: 46 feet
No. Production Piles: 5
No. Test Piles: 1

PIER 3 PILE DATA

Type: PP16 x 0.375" with pile shoes
Nominal Required Bearing: 665 kips
Factored Resistance Available: 350 kips
Est. Length: 41 feet
No. Production Piles: 5
No. Test Piles: 1

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour Steps Monolithically with cap.
For Bill of Material and bar details see sheet 26 of 34 .
*Cut to Fit

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - OS	REVISED -	
	CHECKED - RAA	REVISED -	
PLOT SCALE = 6.0000 ' / in.	DRAWN - OS	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - RAA	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1, PIER 2, AND PIER 3
STRUCTURE NO. 019-6500

SHEET 25 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	58
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			

BILL OF MATERIAL - PIER 1

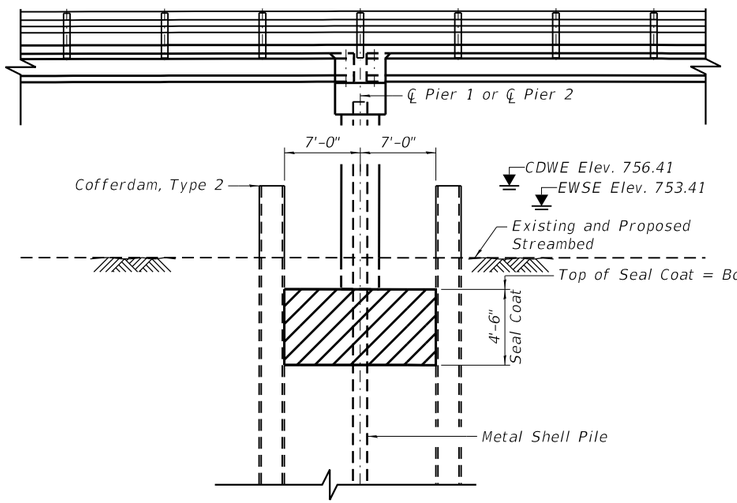
Bar	No.	Size	Length	Shape
h100(E)	8	#5	38'-0"	
h101(E)	28	#5	27'-3"	
p100(E)	6	#8	36'-0"	
p101(E)	4	#8	38'-8"	
p102(E)	12	#8	11'-8"	
s100(E)	64	#5	13'-8"	
s101(E)	16	#5	10'-8"	
u100(E)	6	#5	12'-3"	
u101(E)	28	#5	9'-3"	
v100(E)	70	#5	15'-8"	
Reinforcement Bars, Epoxy Coated			Pound	5,060
Concrete Structures			Cu. Yd.	68.3
Cofferdam Excavation			Cu. Yd.	166.1
Cofferdam (Type 2)			Each	1
Furnishing Metal Shell Piles 16" x 0.375"			Foot	225
Driving Piles			Foot	225
Test Pile Metal Shells			Each	1
Pile Shoes			Each	6
Seal Coat Concrete			Cu. Yd.	105.0

BILL OF MATERIAL - PIER 2

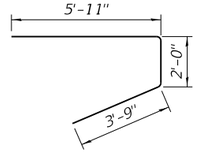
Bar	No.	Size	Length	Shape
h100(E)	8	#5	38'-0"	
h101(E)	30	#5	27'-3"	
p100(E)	6	#8	36'-0"	
p101(E)	4	#8	38'-8"	
p102(E)	12	#8	11'-8"	
s100(E)	64	#5	12'-10"	
s101(E)	16	#5	9'-10"	
u100(E)	6	#5	12'-3"	
u101(E)	30	#5	9'-3"	
v200(E)	70	#5	16'-4"	
v201(E)	30	#8	4'-2"	
Reinforcement Bars, Epoxy Coated			Pound	5,450
Concrete Structures			Cu. Yd.	66.3
Cofferdam Excavation			Cu. Yd.	192.0
Cofferdam (Type 2)			Each	1
Furnishing Metal Shell Piles 16" x 0.375"			Foot	230
Driving Piles			Foot	230
Test Pile Metal Shells			Each	1
Pile Shoes			Each	6
Seal Coat Concrete			Cu. Yd.	105.0

BILL OF MATERIAL - PIER 3

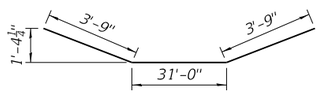
Bar	No.	Size	Length	Shape
h100(E)	8	#5	38'-0"	
h101(E)	30	#5	27'-3"	
p100(E)	6	#8	36'-0"	
p101(E)	4	#8	38'-8"	
p102(E)	12	#8	11'-8"	
s100(E)	64	#5	12'-10"	
s101(E)	16	#5	9'-10"	
u100(E)	6	#5	12'-3"	
u101(E)	30	#5	9'-3"	
v300(E)	70	#5	16'-0"	
Reinforcement Bars, Epoxy Coated			Pound	5,090
Concrete Structures			Cu. Yd.	52.2
Cofferdam Excavation			Cu. Yd.	184.1
Cofferdam (Type 1)			Each	1
Furnishing Metal Shell Piles 16" x 0.375"			Foot	205
Driving Piles			Foot	205
Test Pile Metal Shells			Each	1
Pile Shoes			Each	6



SEAL COAT DETAILS



BARS p102(E)



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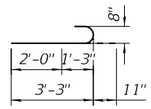
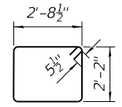
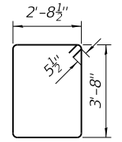


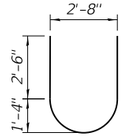
BARS v201(E)



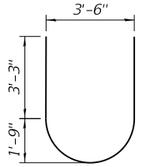
BARS s101(E)



BARS s100(E)



BARS u101(E)



BARS u100(E)

Notes:
The interfaces between the seal coat concrete and both the temporary cofferdam and the foundation shell piles shall be free of any material, such as mud, the may weaken the bond between the joined materials.
For bottom of pier elevations, see sheet 25 of 34 .
The final seal coat thickness shall be designed by the Contractor.
For Details of v201(E) bars placement see sheet 14 of 34 .

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - OS	REVISED -	
	CHECKED - RAA	REVISED -	
PLOT SCALE = 6.0000 ' / in.	DRAWN - OS	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - RAA	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER DETAILS
STRUCTURE NO. 019-6500
SHEET 26 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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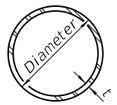
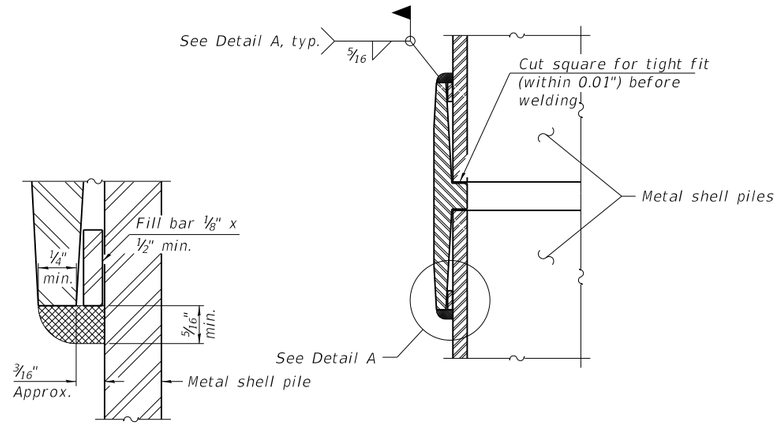
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			



METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume ($yd.^3/ft.$)
PP16	0.375"	62.64	0.0470



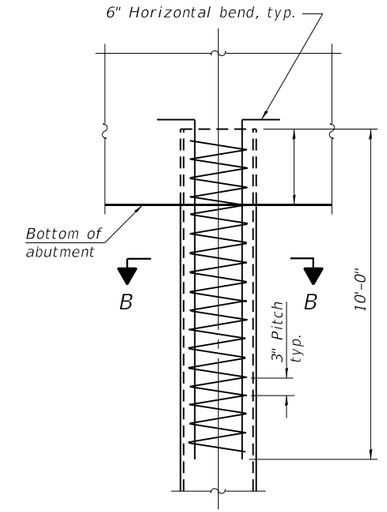
DETAIL A

WELDED COMMERCIAL SPLICE

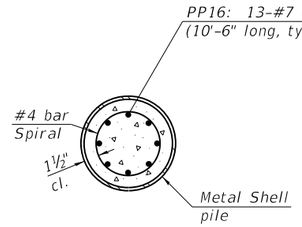
Notes:

The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.

Pile segments shall be driven to solid contact with splicer before welding.

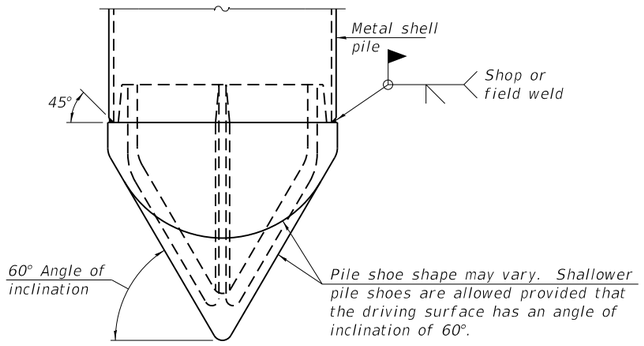


ELEVATION



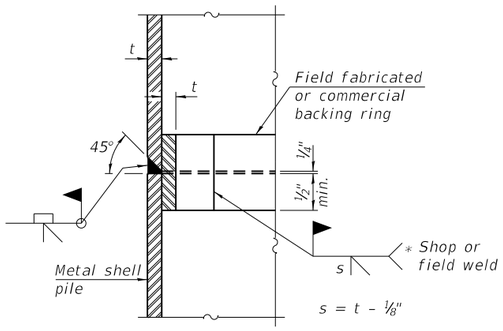
SECTION B-B

REINFORCEMENT AT ABUTMENTS



PILE SHOE ATTACHMENT

(When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 80-50 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld).



COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

Note:

The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	
	CHECKED - ESS	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - ESS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METAL SHELL PILE DETAILS
STRUCTURE NO. 019-6500

SHEET 27 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	60
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			

rubino ENGINEERING INC.

SOIL BORING LOG

Date 1/31/23

ROUTE 6090 DESCRIPTION South Abutment LOGGED BY J.W.

SECTION 14-00009-00-BR LOCATION SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb DRILLING METHOD Hollow Stem Auger & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. BSB-01
Station 109+27.46
Offset 7.46LT
Ground Surface Elev. 766.71 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter 12 ft
Upon Completion 12 ft
After N/A Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6 inches of ASPHALT	766.21			
10 inches of GRAVEL FILL	765.38			
FILL: black silty clay, little gravel *Soils Frozen. N-values may be elevated.* *3% Organic Content*		4 5 5		12
	763.21			
FILL: dark brown clay loam, little to some gravel		8 7 5		8
	760.71			
FILL: black to dark brown silty clay, trace sand and gravel		2 2 2	0.5 P	17
	758.21			
FILL: black to dark gray gray clay loam *Organic wood fibers observed* *5% Organic Content*		2 3 4	2.0 P	26
5% Organic Content	754.71 ▼	2 5 5	1.5 P	35
Medium dense, brown and gray SAND, some gravel		6 8 6		9
	750.71			
Loose, brown and gray SAND and GRAVEL		6 3 5		12
	748.21			
Dense, brown and gray SAND and GRAVEL		13 20 20		5
Dense, brown and gray SAND and GRAVEL *(continued)*		25 17 14		7
	743.21			
Medium stiff to stiff, gray SILTY CLAY to SILTY CLAY LOAM, trace gravel		3 2 5	2.0 P	13
		4 5 7	2.0 P	11
		3 4 3	1.5 P	11
		3 5 5	2.3 P	12
		9 9 34	1.0 P	12
Very dense, gray SAND, some gravel				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

rubino ENGINEERING INC.

SOIL BORING LOG

Date 1/31/23

ROUTE 6090 DESCRIPTION South Abutment LOGGED BY J.W.

SECTION 14-00009-00-BR LOCATION SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb DRILLING METHOD Hollow Stem Auger & Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. BSB-01
Station 109+27.46
Offset 7.46LT
Ground Surface Elev. 766.71 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter 12 ft
Upon Completion 12 ft
After N/A Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Very dense, gray SAND, some gravel *(continued)*				
	722.46	37 50		12
Very dense, gray SAND and GRAVEL	-45	50/4"		
		34 50/5"		14
	712.96			
Auger refusal at approximately 53¾ feet below existing grade. End of boring at approximately 53¾ feet below existing grade.	-55	50/3"		9
	-60			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

TRANSYSTEMS			
USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	
	CHECKED - OS	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 1
STRUCTURE NO. 019–6500

SHEET 28 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	61
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

rubino ENGINEERING INC.

SOIL BORING LOG

Date 2/15/23

ROUTE 6090 DESCRIPTION South Pier LOGGED BY A.T.

SECTION 14-00009-00-BR LOCATION SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. BSB-02
Station 109+95.19
Offset 3.49RT
Ground Surface Elev. 768.82 ft

Surface Water Elev. 753.41 ft
Stream Bed Elev. 750.68 ft

Groundwater Elev.:
First Encounter N/A ft
Upon Completion N/A ft
After N/A Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Approximately 6¼ inches of CONCRETE BRIDGE DECK	768.30			
Auger through open air underneath bridge deck to approximately 11 feet below existing grade	-5			
	-10			
	757.82			
Auger through Kiskwaukee River to river bed at approximately 18 feet below existing grade	-15			
	750.82			
Drilled out approximately 18 to 21 feet below existing grade. Hard drilling, slow advancement, possible rubble, concrete.	-20			
	747.82			
Very dense, brown and gray SAND and GRAVEL *Possible fill*		50/4		16
	745.32			
Medium stiff to stiff, gray SILTY CLAY LOAM, trace gravel	-25	3 4 6	1.0 B	13
		4 3 5	0.8 P	13
	-30	0 1 2	1.1 B	12
		4 2 3	1.5 B	12
	-35	0 4 3	0.9 B	12
	733.32			
Loose, gray fine-grained SAND, trace gravel *3-inch clay lense observed at approximately 37½ feet below existing grade*	-40	2 2 3		16
		4 3 6		19

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

rubino ENGINEERING INC.

SOIL BORING LOG

Date 2/15/23

ROUTE 6090 DESCRIPTION South Pier LOGGED BY A.T.

SECTION 14-00009-00-BR LOCATION SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. BSB-02
Station 109+95.19
Offset 3.49RT
Ground Surface Elev. 768.82 ft

Surface Water Elev. 753.41 ft
Stream Bed Elev. 750.68 ft

Groundwater Elev.:
First Encounter N/A ft
Upon Completion N/A ft
After N/A Hrs. N/A ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Loose, gray fine-grained SAND, trace gravel *(continued)*	727.82			
Medium dense, gray coarse-grained SAND, some gravel	725.32	13 10 16		17
Very dense, gray coarse-grained SAND, some gravel	724.32	12 18		10
Very dense, gray SAND and GRAVEL	-45	32		
	721.82	27 24	4.5 P	9
Hard, gray SILTY CLAY LOAM, trace gravel	-50	26 6 31 39		9
	715.32			
Very dense, gray SANDY LOAM, some gravel, rock chips observed	-55	44 50/5"		14
	710.32			
Very dense, gray SAND and GRAVEL	-60	32 46 41		8
Very dense, gray SAND and GRAVEL *(continued)*	705.32			
Hard, brown SILTY CLAY, trace gravel *Sand lenses observed*	-65	17 28 30	5.8 B	15
	700.32			
Very dense, brown SILTY LOAM, little gravel	-70	11 30 32		12
	695.57			
Auger refusal at approximately 73 ¼ feet below existing grade. End of boring at approximately 73 ¼ feet below existing grade.	-75	50/1"		12
	-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	
	CHECKED - OS	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 2
STRUCTURE NO. 019–6500

SHEET 29 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	62
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

rubino ENGINEERING INC.

SOIL BORING LOG

Date 3/7/23

ROUTE 6090 DESCRIPTION Center Pier LOGGED BY J.W.

SECTION 14-00009-00-BR LOCATION SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb DRILLING METHOD Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. BSB-03
Station 110+59.76
Offset 10LT
Ground Surface Elev. 765.76 ft

Surface Water Elev. 753.41 ft
Stream Bed Elev. 751.42 ft

Groundwater Elev.:
First Encounter N/A ft
Upon Completion N/A ft
After N/A Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Approximately 6¼ inches of CONCRETE BRIDGE DECK 765.24			
Auger through open air underneath bridge deck to approximately 12½ feet below existing grade			
-5			
-10			
753.76			
Drilled out/casing installed from approximately 12½ to 18½ feet below existing grade			
-15			
-20			
Begin sampling at 21 feet below existing grade 744.76			
Medium stiff to stiff, gray SILTY CLAY, trace sand and gravel	2 3 3	0.6 B	12
	4 4	1.4 B	13
-25	5		
	3 4 5	1.2 B	14
	4 4		
-30	4		
734.76			
Medium stiff, gray SILTY CLAY LOAM, trace gravel	3 4 4	0.8 B	12
732.26			
Medium dense, gray coarse SAND, little gravel	6 5		9
-35	6		
	5 6 7	4.5 P	9
728.51			
Stiff, gray SILTY CLAY LOAM, trace gravel			
727.26			
Medium dense, gray fine SAND, trace gravel	8 9		23
-40	10		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

rubino ENGINEERING INC.

SOIL BORING LOG

Date 3/7/23

ROUTE 6090 DESCRIPTION Center Pier LOGGED BY J.W.

SECTION 14-00009-00-BR LOCATION SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb DRILLING METHOD Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. BSB-03
Station 110+59.76
Offset 10LT
Ground Surface Elev. 765.76 ft

Surface Water Elev. 753.41 ft
Stream Bed Elev. 751.42 ft

Groundwater Elev.:
First Encounter N/A ft
Upon Completion N/A ft
After N/A Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Medium dense, gray fine SAND, trace gravel *(continued)*			
	13 12 11		19
722.26			
Dense, gray SANDY LOAM, some gravel	33 23		10
-45	17		
719.76			
Hard, gray CLAY LOAM, some gravel	14 30 24	2.6 B	14
717.26			
Very hard, gray SILTY CLAY LOAM, trace sand and gravel	38 50/5"	1.6 B	15
-50			
	50/1"		9
-55			
707.26			
Very dense, gray SANDY LOAM and GRAVEL	44 50/4"		
-60			
Very dense, gray SANDY LOAM and GRAVEL *(continued)*			
702.26			
Dense, brown SANDY LOAM and GRAVEL	26 23		13
-65	24		
697.26			
Hard, brown LOAM, some gravel	16 32	4.5 P	17
-70	27		
692.26			
Very hard, brown SILTY CLAY LOAM, little sand and gravel	13 19	5.5 B	16
690.76	-75 31		
End of boring at approximately 75 feet below existing grade.			
-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - RAA	REVISED -
	CHECKED - OS	REVISED -
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -
PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 3
STRUCTURE NO. 019–6500

SHEET 30 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	63
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

rubino ENGINEERING INC.

SOIL BORING LOG

Date 2/21/23

ROUTE 6090 DESCRIPTION North Pier LOGGED BY P.P.

SECTION 14-00009-00-BR LOCATION SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb DRILLING METHOD Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. BSB-04
Station 111+19.45
Offset 3.62RT
Ground Surface Elev. 769.14 ft

Surface Water Elev. 753.41 ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter N/A ft
Upon Completion N/A ft
After N/A Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Approximately 6 inches of CONCRETE BRIDGE DECK 768.64			
Auger through open air underneath bridge deck to approximately 12½ feet below existing grade			
-5			
-10			
756.64			
Drilled out/casing installed from approximately 12½ to 18½ feet below existing grade			
-15			
750.64			
Begin sampling at 18½ feet below existing grade			
Stiff to very stiff, gray SILTY CLAY, trace sand and gravel	3	0.9	12
	3	B	
-20	6		
Stiff to very stiff, gray SILTY CLAY, trace sand and gravel *(continued)*			
	4		14
	5		
	6		
	4		14
-25	6		
	7		
	4	1.2	12
	5	B	
	8		
-30	5		14
	6		
	8		
	6		
	7		
735.64	9		
Hard, gray SILTY CLAY LOAM, some gravel	22	4.8	9
	22	S	
-35	22		
733.14			
Dense, gray SAND and GRAVEL	16		9
	18		
	24		
730.14	37	4.5	16
Hard, gray SILTY CLAY LOAM, little sand and gravel	25	P	
-40	16		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

rubino ENGINEERING INC.

SOIL BORING LOG

Date 2/21/23

ROUTE 6090 DESCRIPTION North Pier LOGGED BY P.P.

SECTION 14-00009-00-BR LOCATION SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb DRILLING METHOD Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. BSB-04
Station 111+19.45
Offset 3.62RT
Ground Surface Elev. 769.14 ft

Surface Water Elev. 753.41 ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter N/A ft
Upon Completion N/A ft
After N/A Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Hard, gray SILTY CLAY LOAM, little sand and gravel *(continued)* 728.14			
Very hard, brown SILTY CLAY LOAM, little gravel	24	1.0	9
	32	B	
	19		
725.64			
Medium dense, brown SANDY LOAM and GRAVEL	12	4.5	11
724.64	14	P	
Very hard, brown and gray SILTY CLAY, trace sand and gravel	8		
	20	9.6	11
	40	B	
	50/5"		
	20	9.4	10
	38	S	
-50	50/3"		
715.64			
Stiff to hard, brown SILTY CLAY LOAM, some gravel	20	2.5	11
	30	B	
-55	32		
	50	4.5	11
		B	
-60			
Stiff to hard, brown SILTY CLAY LOAM, some gravel *(continued)*			
-65			
	38	1.8	14
	50	B	
-70	27		
	20	3.9	20
	29	B	
695.64			
Hard to very hard, brown SILTY CLAY, little to some gravel	20	4.9	11
	24	B	
-75	28		
	20	2.1	18
	28	B	
-80	34		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	
	CHECKED - OS	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 4
STRUCTURE NO. 019–6500

SHEET 31 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	64
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

rubino ENGINEERING INC.

SOIL BORING LOG

Date 2/21/23

ROUTE 6090 DESCRIPTION North Pier LOGGED BY P.P.

SECTION 14-00009-00-BR LOCATION SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb DRILLING METHOD Mud Rotary HAMMER TYPE Automatic

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. BSB-04
Station 111+19.45
Offset 3.62RT
Ground Surface Elev. 769.14 ft

Surface Water Elev. 753.41 ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter N/A ft
Upon Completion N/A ft
After N/A Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
Hard to very hard, brown SILTY CLAY, little to some gravel *(continued)*				
685.64				
Very hard, brown SILTY CLAY, little gravel *1% Organic Content* 684.89	20 27	0.8 B	27	
-85 Weathered Limsestone Bedrock *Grinding during drilling from 85 to 89 feet below existing grade.*	50/5"			
680.14				
Borehole continued with rock coring.				
-90				
-95				
-100				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

ROCK CORE LOG

Date 2/21/23

ROUTE 6090 DESCRIPTION North Pier LOGGED BY P.P.

SECTION 14-00009-00-BR LOCATION SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb CORING METHOD 10 foot double tube NX

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. BSB-04
Station 111+19.45
Offset 3.62RT
Ground Surface Elev. 769.14 ft

CORING BARREL TYPE & SIZE NX
Core Diameter 2 in
Top of Rock Elev. 680.14 ft
Begin Core Elev. 680.14 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Borehole continued with rock coring 680.14 Light brown LIMESTONE, moderate, strong field strength, microcrystalline, thinly to medium bedded, vuggy, moderate to intensely fractured	1	100	70	2.41	380
-90					
-95					
-100	2	100	83	3.15	
-105					
663.64					
End of rock core operations at approximately 105½ feet below existing grade. End of Boring					

Color pictures of the cores Yes
Cores will be stored for examination until N/A
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	
	CHECKED - OS	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 5
STRUCTURE NO. 019–6500

SHEET 32 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	65
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

rubino ENGINEERING INC.

SOIL BORING LOG

Page 1 of 2

Date 1/27/23

ROUTE 6090 **DESCRIPTION** North Abutment **LOGGED BY** J.W.

SECTION 14-00009-00-BR **LOCATION** SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb **DRILLING METHOD** Hollow Stem Auger **HAMMER TYPE** Automatic

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. BSB-05
Station 112+30.59
Offset 5.31RT
Ground Surface Elev. 767.63 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter 11 ft ▼
Upon Completion 14 ft ▽
After N/A **Hrs.** N/A ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Approximately 5 inches of ASPHALT	767.21				
Approximately 7 inches of GRAVEL FILL	766.63				
FILL: brown silty clay, trace sand and gravel			3 10 9		17
		-5	1 2 5		12
	761.38				
FILL: dark brown and black silty clay, trace sand and gravel			1 2 4	1.0 P	21
		-10	3 3 4	2.0 P	21
	756.63 ▼				
Medium dense, brown SAND and GRAVEL	756.13				
Medium stiff, brown SILTY CLAY, trace sand and gravel			4 6 4	0.8 B	12
	▽	-15	5 6 7		16
	751.63				
Stiff, gray SILTY CLAY, trace to little gravel			3 3 5	1.6 B	11
		-20	3 4 6	1.2 B	12

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Stiff, gray SILTY CLAY, trace to little gravel *(continued)*					
			3 5 6	1.3 B	12
		-25	4 5 7	2.1 B	12
			5 4 6		12
		-30	8 11 18	1.2 B	11
	734.13				
Very stiff, gray SILT, trace sand and gravel	733.13		10 21 27	1.5 P	16
Dense, brown and gray SAND, trace gravel		-35			
	729.13				
Very dense, gray SANDY LOAM, trace gravel		-40	10 21 27		15

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

rubino ENGINEERING INC.

SOIL BORING LOG

Page 2 of 2

Date 1/27/23

ROUTE 6090 **DESCRIPTION** North Abutment **LOGGED BY** J.W.

SECTION 14-00009-00-BR **LOCATION** SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb **DRILLING METHOD** Hollow Stem Auger **HAMMER TYPE** Automatic

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. BSB-05
Station 112+30.59
Offset 5.31RT
Ground Surface Elev. 767.63 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter 11 ft ▼
Upon Completion 14 ft ▽
After N/A **Hrs.** N/A ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Very dense, gray SANDY LOAM, trace gravel *(continued)*					
	724.13				
Hard, gray SILTY CLAY, trace gravel	723.13		12 17 22	4.9 B	12
Dense to very dense, gray SANDY LOAM, trace gravel		-45			
	718.13		14 50/5"		11
Very hard, gray SILTY CLAY, trace sand and gravel		-50			
	714.13				
Medium dense, gray SAND, trace gravel *Some interbedded clay lenses*		-55	5 8 18		12
	709.13				
Very hard, brown SILTY CLAY LOAM, trace sand and gravel		-60	50/5"	4.5 P	10

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Very hard, brown SILTY CLAY LOAM, trace sand and gravel *(continued)*					
	704.88				
Auger refusal at approximately 62¾ feet below existing grade. End of boring at approximately 62¾ feet below existing grade.			50/0"		
		-65			
		-70			
		-75			
		-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

rubino ENGINEERING INC.

SOIL BORING LOG

Page 1 of 1

Date 1/31/23

ROUTE 6090 DESCRIPTION South of Pearl Street Bridge LOGGED BY J.W.

SECTION 14-00009-00-BR LOCATION SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. SGB-01
Station 107+23.60
Offset 19.93RT
Ground Surface Elev. 763.22 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter 6.5 ft
Upon Completion 7 ft
After N/A Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Approximately 4 inches of TOPSOIL 762.89			
FILL: black to dark brown sandy loam, little gravel *A-6* *LL=33 PL=21*	4 4 4	0.3 B	12
	2 2 2	2.0 P	15
757.22			
Very loose, brown SAND, little to some gravel	2 1 1		15
754.72			
Loose to medium dense, brown SAND and GRAVEL	7 7 6		10
	5 4 3		13
	12 8 6		12
748.22			
End of boring at approximately 15 feet below existing grade.			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

rubino ENGINEERING INC.

SOIL BORING LOG

Page 1 of 1

Date 1/31/23

ROUTE 6090 DESCRIPTION North of Pearl Street Bridge LOGGED BY J.W.

SECTION 14-00009-00-BR LOCATION SEC. 24, TWP. 42N, RNG. 3E, 3rd PM

COUNTY Dekalb DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 019-6500
Station 110+65.10

BORING NO. SGB-02
Station 113+43.62
Offset 5.47LT
Ground Surface Elev. 767.06 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter N/A ft
Upon Completion N/A ft
After N/A Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Approximately 4 inches of ASPHALT 766.73			
Approximately 9 inches of GRAVEL FILL 765.98			
FILL: brown, black, and gray silty clay, trace sand and gravel *A-6* *LL=34 PL=20*	12 4 5	3.0 P	14
763.56			
Medium stiff, brown CLAY LOAM, trace sand and gravel	3 3 4	1.0 P	15
761.06			
Medium dense, brown SAND, some gravel	7 12 15		3
	13 13 15		4
757.06			
End of boring at approximately 10 feet below existing grade.			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED - RAA	REVISED -	
	CHECKED - OS	REVISED -	
PLOT SCALE = 2.0000 ' / in.	DRAWN - RAA	REVISED -	
PLOT DATE = 4/4/2024	CHECKED - OS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 7
STRUCTURE NO. 019–6500

SHEET 34 OF 34 SHEETS

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	67
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

Existing Structure: (to be removed by bridge contractor) 1 - 40' span steel approach truss
1 - 125' span steel main truss
3 - 32' steel beam approach spans,
masonry abutments and concrete filled piers

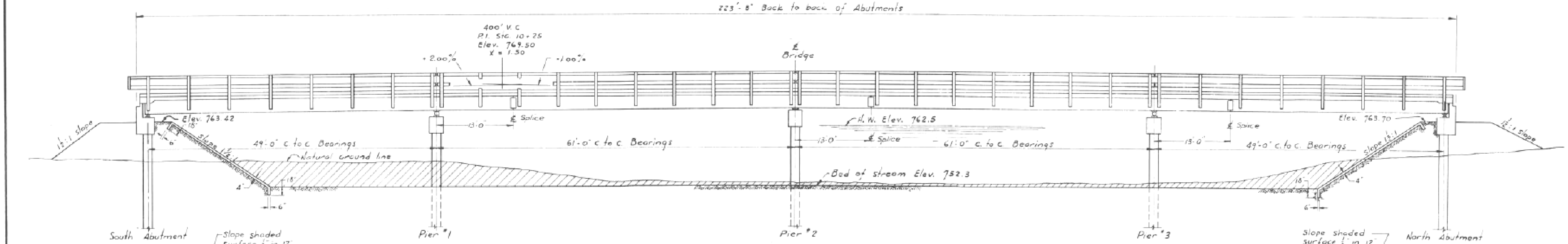
B.M.#1 - Sp. & washer in root of 24" tree Lt. Sta. 2+80 - Elev. 760.55

B.M.#2 - Sp. & washer in top of Cor. F.P. Rt. Sta. 9+16 - Elev. 763.51

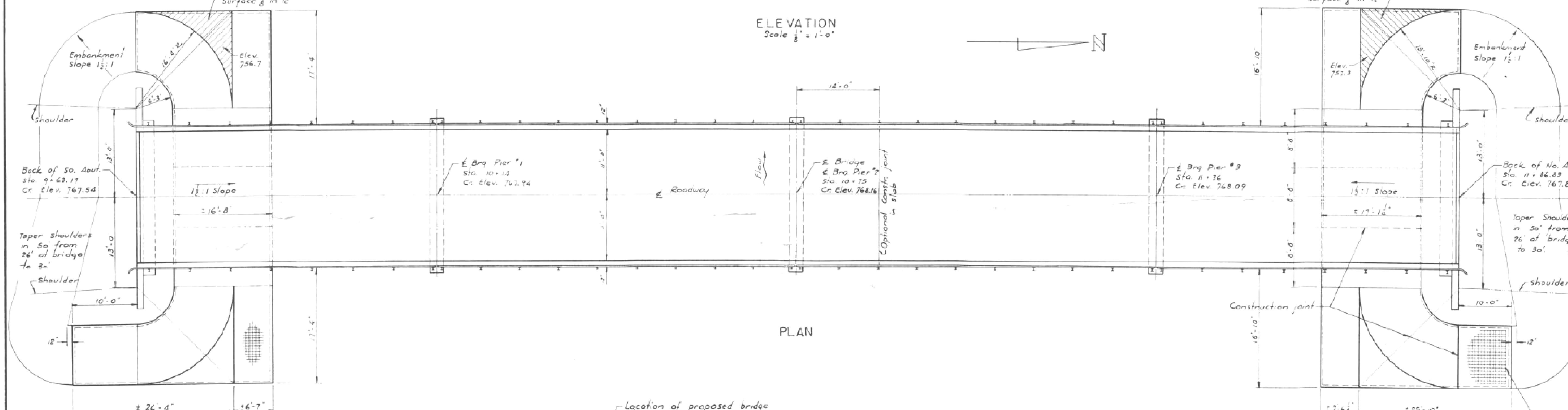
B.M.#3 - Sp. & washer in root 36" tree Rt. Sta. 12+43 - Elev. 766.58

Note: All elevations - U.S.G.S. datum

SHEET NO. 7
OF 11 SHEETS



ELEVATION
Scale ⅛" = 1'-0"

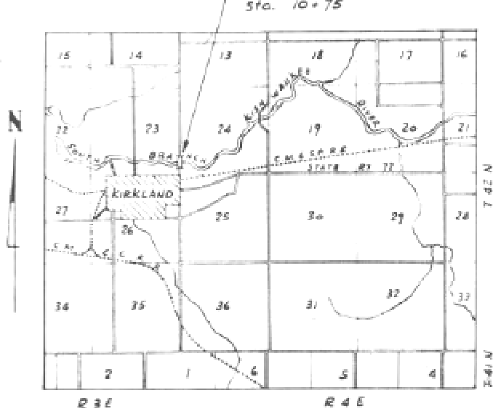


PLAN

Welded wire fabric #4 x #4 wires - 6" x 6" mesh reinforcement @ .53 #/sq. ft. - all walls lap wire mesh 16" at constr. joints.

GENERAL NOTES:

1. Class X concrete shall be used throughout.
2. Concrete floor slab shall be poured in one continuous operation between construction joints shown on plans and finished in accordance with Art. 61.3 (e) of the standard specifications. No additional construction joints will be allowed without written permission of the Engineer.
3. Structural grade reinforcement bars will not be permitted.
4. The Contractor shall drive two concrete test piles as directed by the Engineer before furnishing the remainder of the piles.
5. All rollers, bearing plates, lolo plates, pintles, and anchor bolts shall be furnished, painted, and set in accordance with Art. 56.3 (d) of the Standard Specifications and are included for payment as Structural Steel.
6. Anchor bolts shall be set before riveting diaphragms over abutments or piers.
7. Floor drains shall receive one shop coat of red lead paint and 2 field coats of aluminum paint.
8. Structural steel shall be inspected by Illinois Division of Highways before painting.
9. All structural steel shall receive one shop coat of red lead paint after inspection and shall receive two field coats of aluminum paint.
10. All paint shall be furnished and applied by the contractor.
11. All connections shall be riveted unless otherwise noted and all rivets shall be ¾" φ and open holes 13/16" φ except as noted.
12. All splices for stringers shall have rivet holes punched 11/16" φ and reamed to required size with all stringers of a continuous unit assembled in shop in their proper position with or without diaphragms in place. Leave assembled for inspection.
13. The Contractor shall place the embankment around the abutments to the lines shown in accordance with Sec. 16 of the Standard Specifications before erecting the steel work.
14. The existing bridge and abutments shall be removed by the Contractor and disposed of outside of the right of way in a manner satisfactory to the Engineer. This work shall be paid for at the contract unit price each for "Removal of Existing Structure."



of 3rd P.M.

LOCATION MAP
Scale 1" = 1 Mile

TOTAL BILL OF MATERIAL

ITEM	UNITS	SUPER	SUB	TOTAL
CLASS X CONCRETE	CU. YDS.	120.8	45.4	166.2
REINFORCEMENT BARS	LBS.	26,280	4070	30,350
STRUCTURAL STEEL	LBS.	154,380		154,380
FLOOR DRAINS	EACH	44		44
PRECAST CONCRETE PILES (18)(32'Lg)	LIN. FT.		320	320
PRECAST CONCRETE PILES (18)(40'Lg)	LIN. FT.		600	600
PRECAST CONCRETE TEST PILES	EACH		2	2
CONCRETE - SLOPE WALL	SQ. YDS.		267	267
NAME PLATE	EACH	1		1
REMOVAL OF EXISTING STRUCT.	EACH	1		1

Stresses
f_s = 18,000 #/□" Structural
f_s = 20,000 #/□" Reinforcement
f_c = 1,200 #/□" Superstructure
f_c = 800 #/□" Substructure
n = 10

Note: Structural grade reinforcing bars will not be used.

H-15 Loading

FRANKLIN TOWNSHIP BRIDGE
DE KALB COUNTY, ILLINOIS

Drawn by: K.B.
Checked by: R.H.
Registered Structural Engineer

C. K. WILLETT
CONSULTING ENGINEERS
DIXON, ILLINOIS

Date March 24, 1949
Revised May, 1949

Sheet 7 of 11 Sheets

MODEL: Default
FILE NAME: pw:\\hq-pwint01.a-e.transyscorp.com:transyscorp-pw1\Documents\Projects_2021\CH401\401210075\Road\303.01 - Standard Sheets\13 Existing Bridge Asbuilts\210075-Bridge Record Dwg_01

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

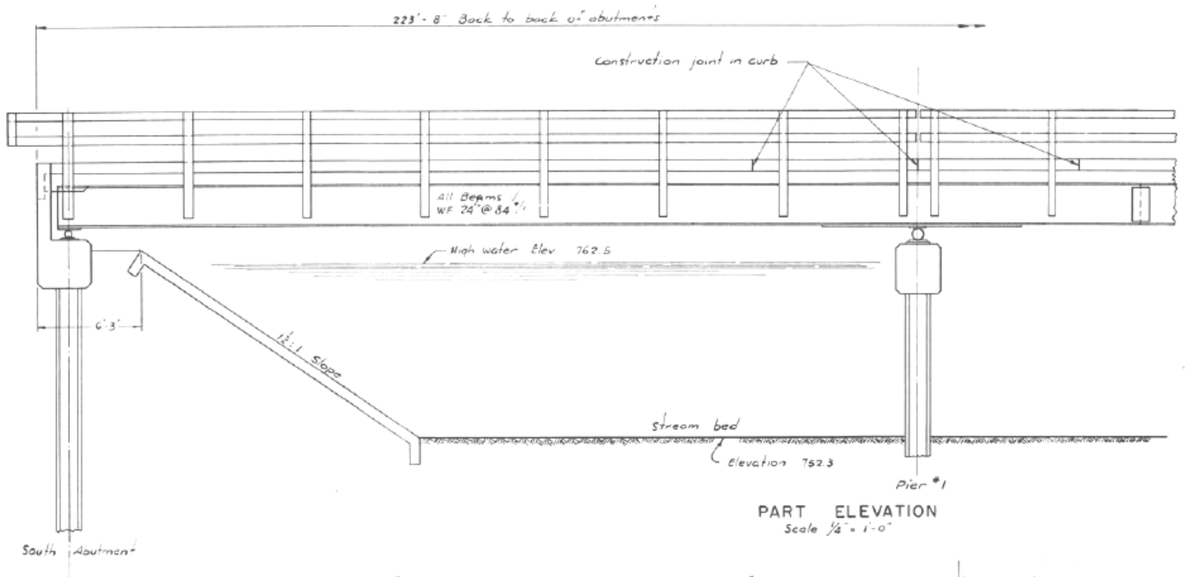
PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
EXISTING BRIDGE RECORD DRAWINGS

SCALE: NONE | SHEET 1 OF 6 SHEETS | STA. TO STA.

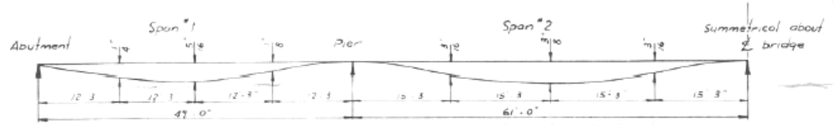
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	68

CONTRACT NO. 87722

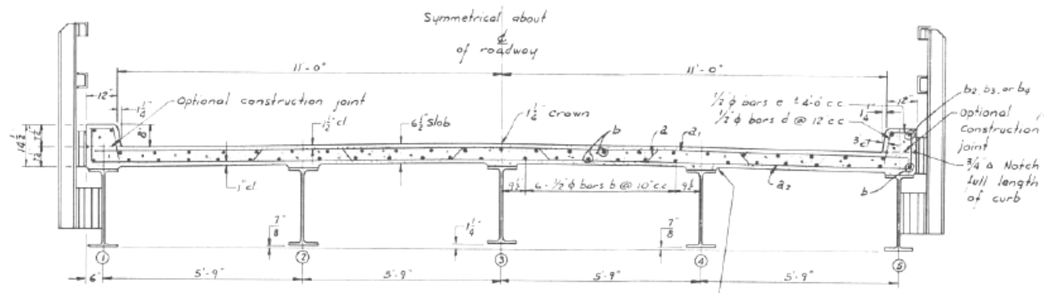
ILLINOIS | FED. AID PROJECT



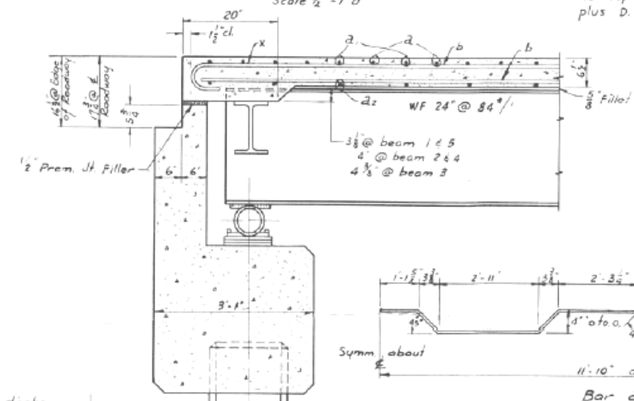
PART ELEVATION
Scale ¼" = 1'-0"



D. L. DEFLECTION DIAGRAM

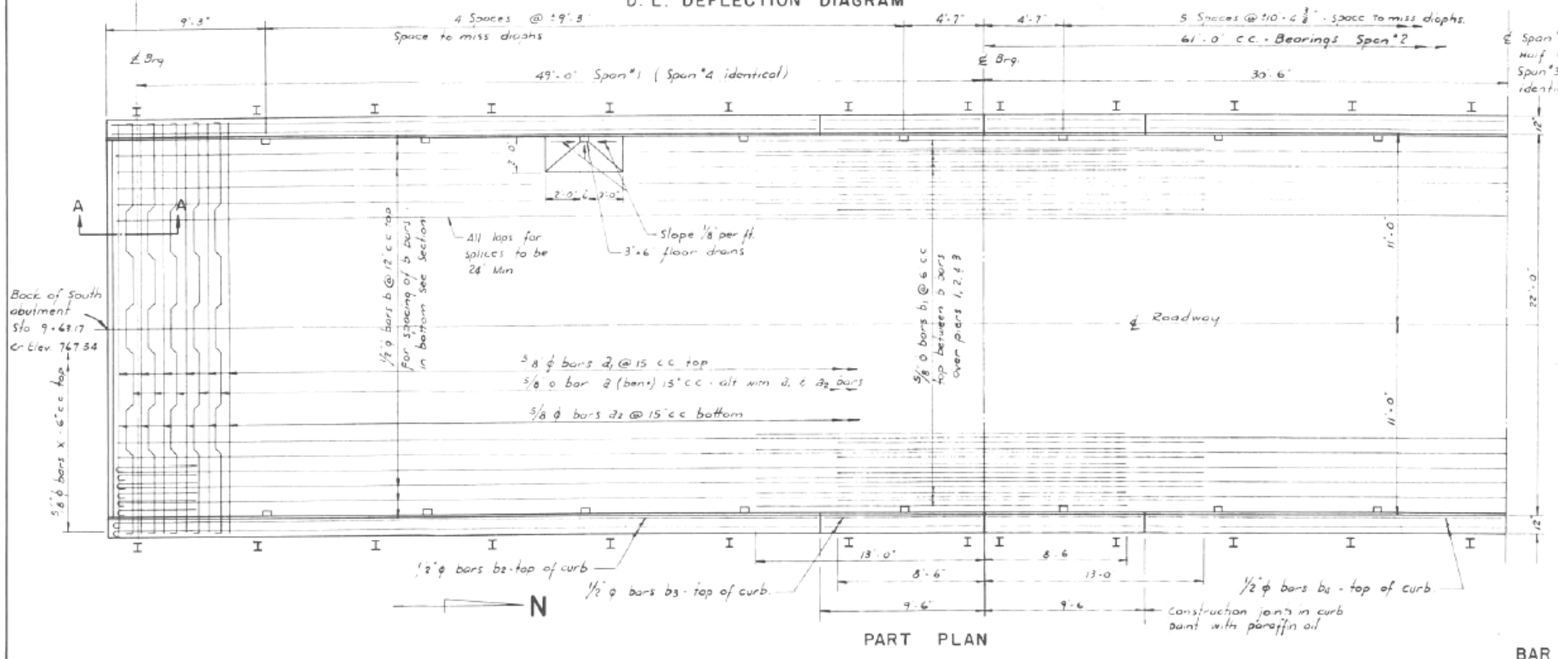


CROSS SECTION THRU DECK
Scale ½" = 1'-0"

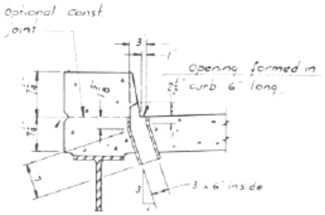


SECTION A-A
Scale - ¾" = 1'-0"

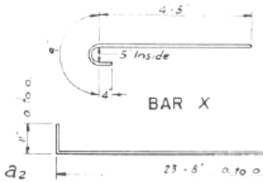
Bar a

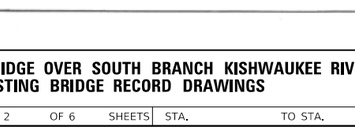


PART PLAN



FLOOR DRAIN DETAIL





BILL OF MATERIAL - SUPER

BAR	NO.	SIZE	LENGTH	SHAPE
a	178	⅝ ϕ	26'-0"	
a1	179	⅝ ϕ	23'-6"	
a2	179	⅝ ϕ	25'-6"	
b	441	½ ϕ	26'-6"	
b1	132	½ ϕ	21'-6"	
b2	16	½ ϕ	21'-6"	
b3	24	½ ϕ	9'-3"	
b4	16	½ ϕ	21'-9"	
d	486	#4	1'-0"	—
e	116	#4	0'-9"	—
x	98	⅝ ϕ	5'-6"	

Class X Concrete	Cu Yds	120.8
Reinforcement Bars	Lbs	26,280
Structural Steel	Lbs	154,380
Floor Drains	Each	44
Name Plate	Each	one
Removal of Existing Structure	Each	One

FRANKLIN TOWNSHIP BRIDGE
OVER
KISHWAUKEE RIVER (SOUTH BRANCH)
DEKALB COUNTY

1475

MODEL: Default
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TRANSYSTEMS

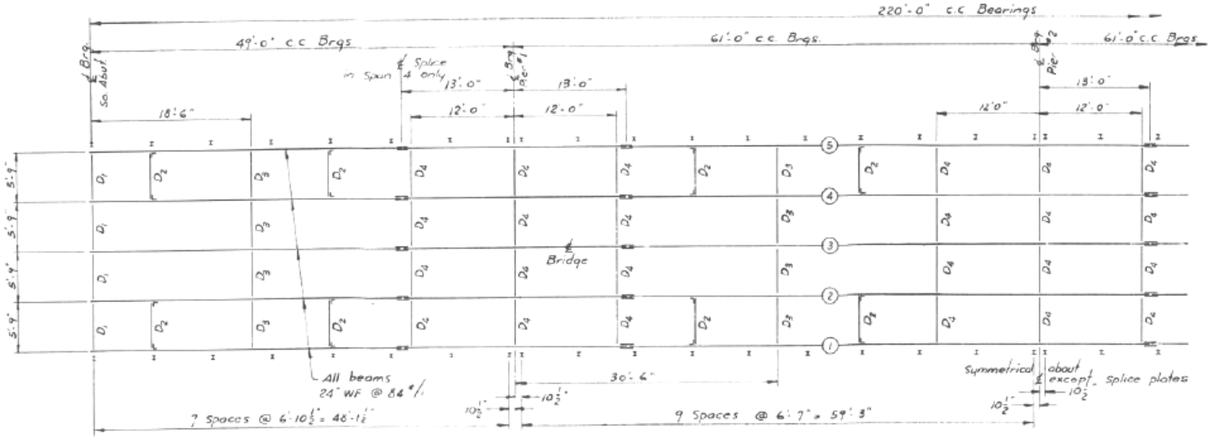
USER NAME = sbpottorff	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

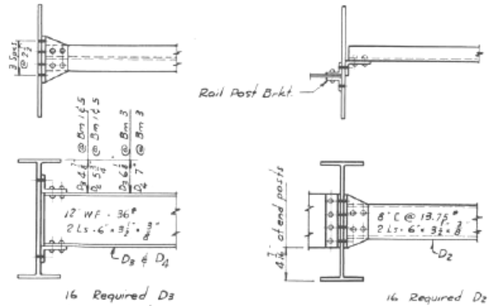
PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
EXISTING BRIDGE RECORD DRAWINGS

SCALE: NONE | SHEET 2 OF 6 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	69
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			



FRAMING PLAN
Scale 1/8" = 1'-0"

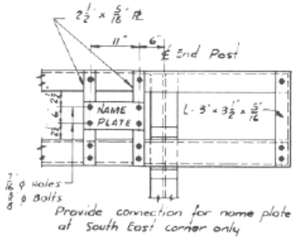


16 Required D3
36 Required D4

16 Required D2

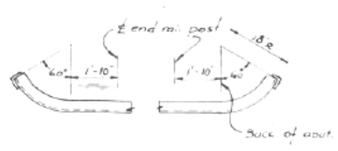
8 Required D1

DIAPHRAGM DETAILS

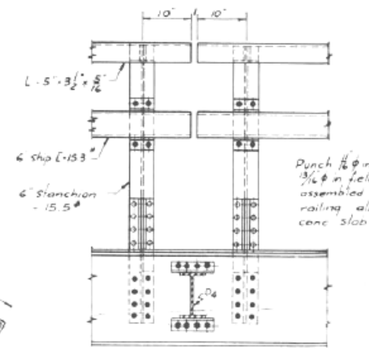


Provide connection for name plate at South East corner only

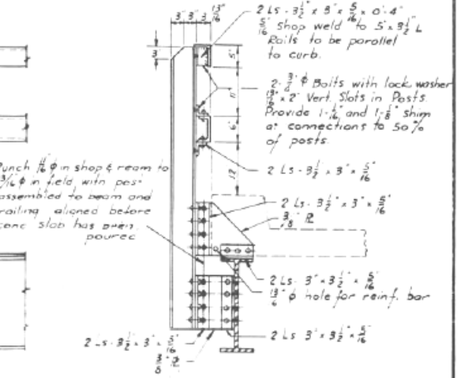
END OF RAIL



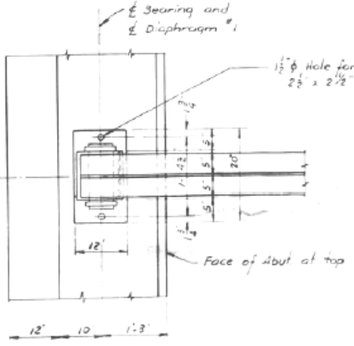
RAIL BEND



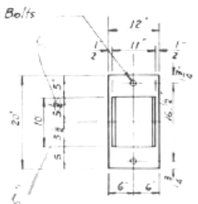
DETAIL OF RAIL



RAIL POST DETAIL



PLAN



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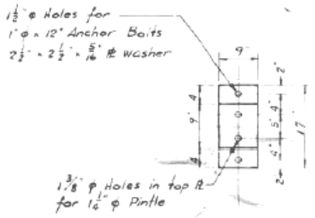
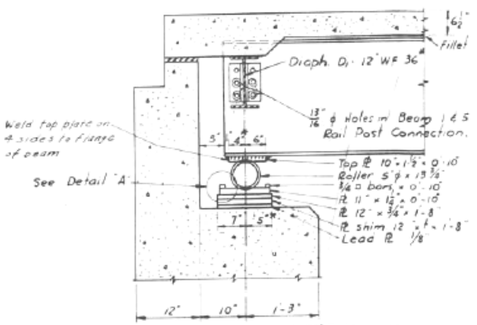
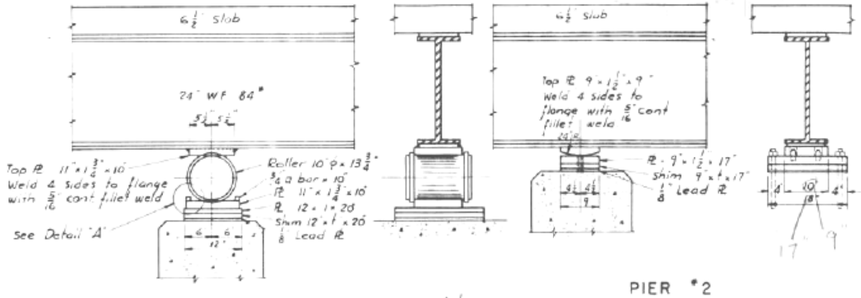


PLAN



Note: Dim. marked thus * apply at 50°F. Increase each dim by the same amount if abutment has mared or if temp is above 50°F. Decrease each by same amount if temp is below 30°F

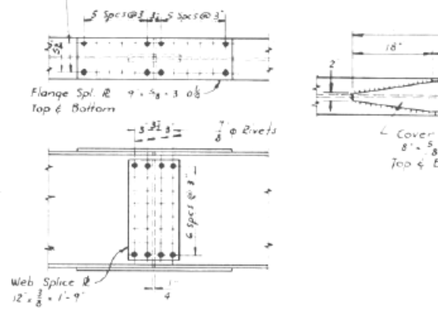
SECTION AT ABUTMENT
Scale ¾" = 1'-0"



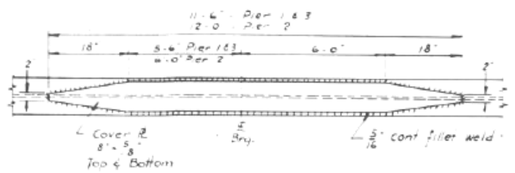
PIER #1 & #3

PIER #2

Note:
Estimated weight of rollers, bearing plates, anchor bolts, and lead plates - 8,950 Lbs. - Included in item - "Structural Steel" of Bill of Material.



DETAIL OF SPLICE

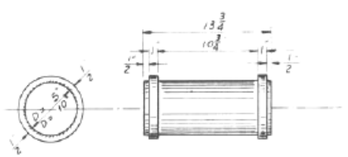


COVER PLATE DETAIL

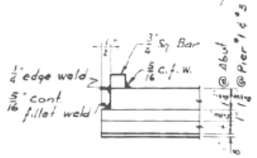
TABLE OF "t" DIMENSIONS

Beam No	1	2	3	4	5
ABUTS		⅞"	1¼"	⅞"	
PIER #1		⅞"	1¼"	⅞"	
PIER #2		⅞"	1¼"	⅞"	
PIER #3		⅞"	1¼"	⅞"	

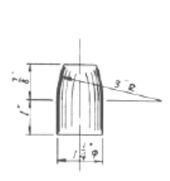
Note -
Filler Pls over 1" thick may be made up of thinner Pls tack welded



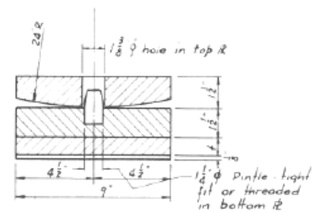
ROLLER DETAIL



DETAIL "A"



PINTLE DETAIL



PIER 2 BEARING DETAIL

FRANKLIN TOWNSHIP BRIDGE
OVER
KISHWAUKEE RIVER (SOUTH BRANCH)
DEKALB COUNTY

1435

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
EXISTING BRIDGE RECORD DRAWINGS

SCALE: NONE | SHEET 3 OF 6 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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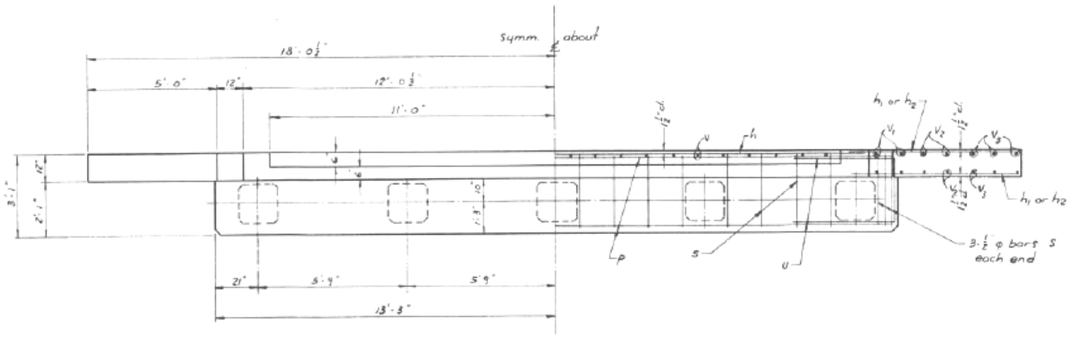
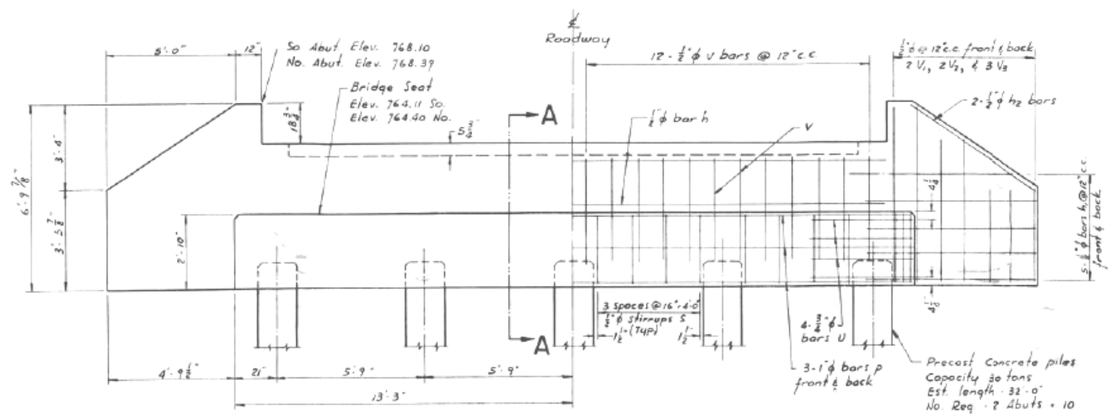
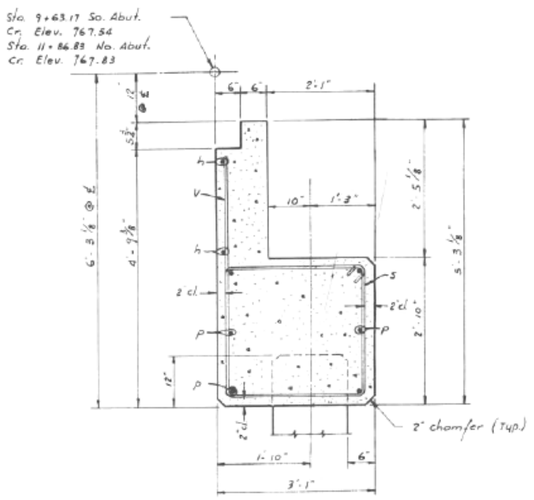
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



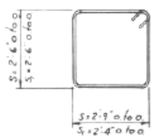
ABUTMENT PLAN
Scale 3/8" = 1'-0"



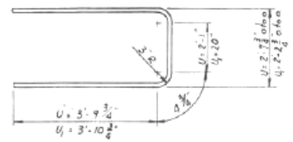
ABUTMENT ELEVATION



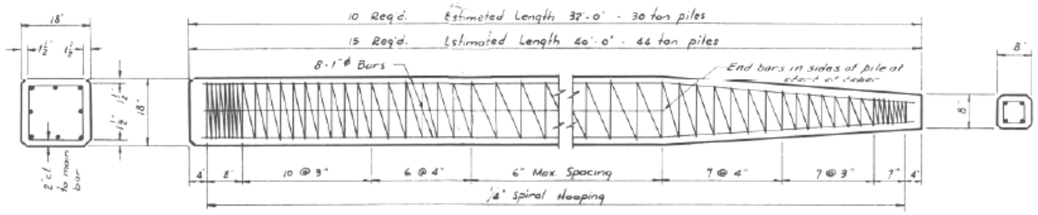
SECTION A A
Scale 3/4" = 1'-0"



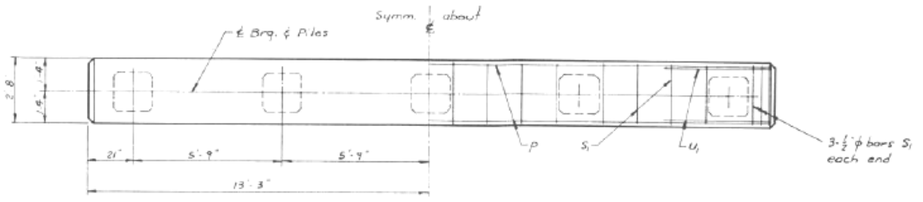
BARS S & S₁



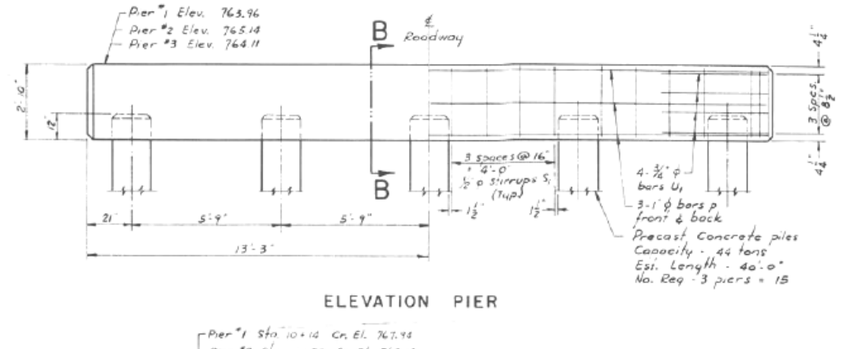
BARS U & U₁



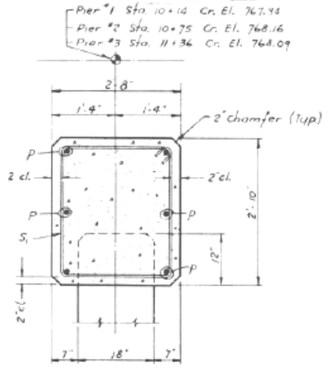
DETAIL OF PRECAST CONCRETE PILES



PLAN PIER
Scale 3/8" = 1'-0"



ELEVATION PIER



SECTION B B
Scale 3/4" = 1'-0"

BILL OF MATERIAL

TWO ABUTMENTS & THREE PIERS

BAR	NO.	SIZE	LENGTH
h	4	½" φ	24'-0"
h₁	40	½" φ	6'-6"
h₂	8	½" φ	5'-9"
V	48	½" φ	4'-0"
V₁	16	½" φ	6'-9"
V₂	16	½" φ	5'-3"
V₃	24	½" φ	3'-6"
p	30	1" φ	76'-0"
S	44	½" φ	11'-6"
S₁	66	½" φ	10'-3"
U	16	¾" φ	10'-6"
U₁	24	¾" φ	10'-0"
Class X Concrete	Cu. Yds.		45.4
Reinforcement Bars	Lbs.		4070
Precast Conc Piles (18")(32'-0" Lg.)	Lin Ft.		320
Precast Conc Piles (18")(40'-0" Lg.)	Lin Ft.		600
Precast Conc Test Pile	Each		Two

FRANKLIN TOWNSHIP BRIDGE
OVER
KISHWAUKEE RIVER (SOUTH BRANCH)
DE KALB COUNTY

1435

MODEL: Default
FILE NAME: pw:\\ts-pwfil01.ss-e.transystems.com:transystems-pw11\Documents\Projects_2021\CH401\401210075\Road\303.01 - Standard Sheets\13 Existing Bridge Asbuilts\210075-Bridge Record Dwg_01

TRANSYSTEMS	USER NAME = sbpottorff	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
EXISTING BRIDGE RECORD DRAWINGS

SCALE: NONE | SHEET 4 OF 6 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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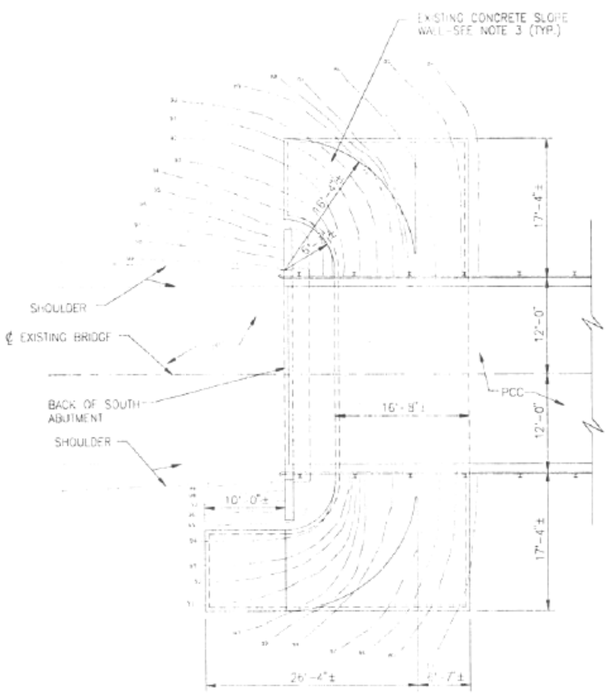
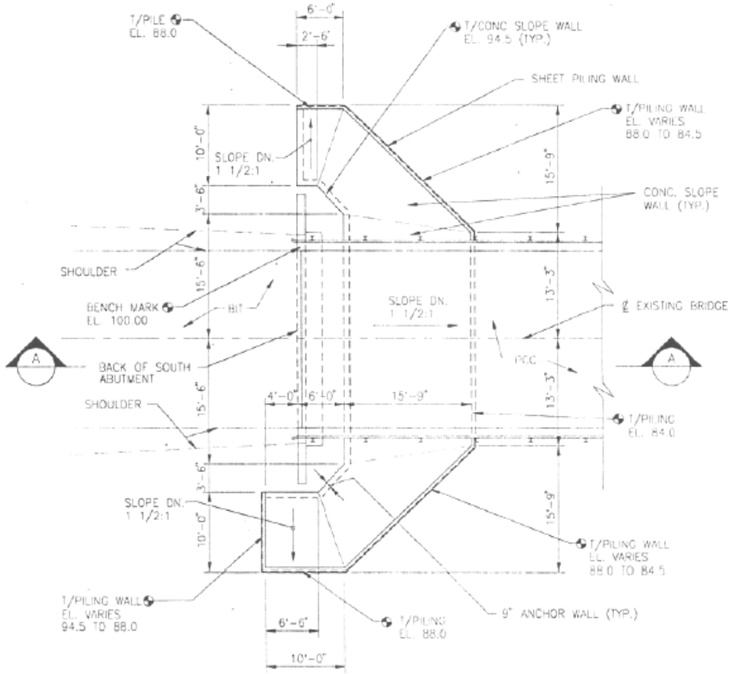
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



SOUTH ABUTMENT

EXISTING CONCRETE SLOPE WALL-PLAN

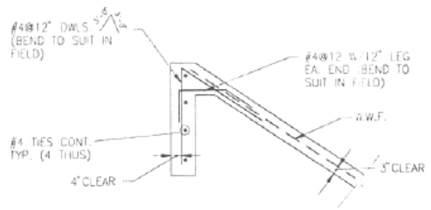
SCALE: 1/8"=1'-0"



SOUTH ABUTMENT

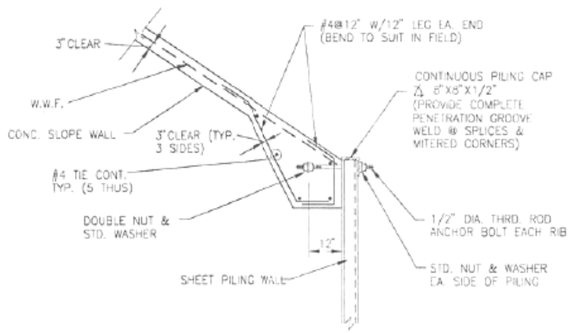
PROPOSED CONCRETE SLOPE WALL-PLAN

SCALE: 1/8"=1'-0"



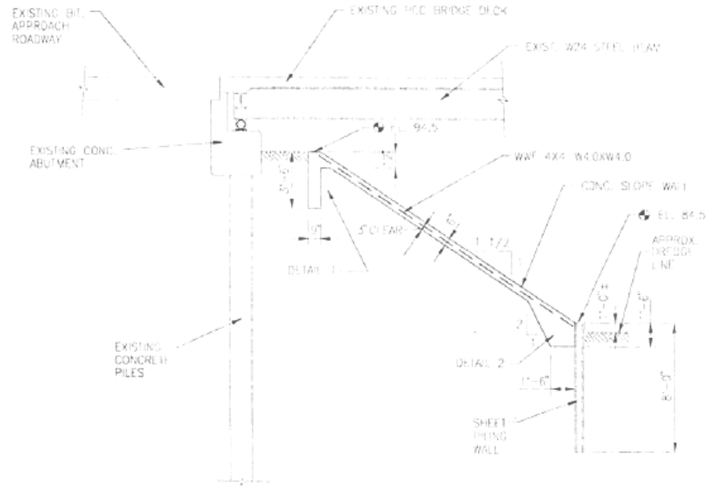
DETAIL 1

SCALE: 1/2"=1'-0"



DETAIL 2

SCALE: 1/2"=1'-0"



SECTION A

SCALE: 1/4"=1'-0"

SUMMARY OF QUANTITIES

ITEM	QUANTITY	UNIT
CLEANING AND PAINTING METAL STRUCTURES	1.00	LUMP SUM
CONCRETE REMOVAL	1.00	LUMP SUM
SHEET PILING WALL	880.00	SQ. FT.
SLOPE WALL	119.00	SQ. YD.
CONTAINMENT & DISPOSAL OF BLASTING RESIDUES	1.00	LUMP SUM

GENERAL NOTES

1. PERFORM WORK IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JULY 1, 1988 AND SPECIAL PROVISIONS.
2. CLEANING AND PAINTING METAL STRUCTURES (SEE SPECIAL PROVISIONS)
   A. CLEAN AND PAINT EXISTING METAL SURFACES PREVIOUSLY FIELD PAINTED INCLUDING ALL RAILING, RAIL POSTS AND METALWORK BELOW THE BRIDGE DECK.
3. CONCRETE REMOVALS (SEE SPECIAL PROVISIONS)
   A. REMOVE AND DISPOSE OF EXISTING CONCRETE SLOPE WALL.
4. SHEET PILING WALL (SEE SPECIAL PROVISIONS)
   A. CONSTRUCT SHEET PILING WALL USING MATERIAL CONFORMING TO THE REQUIREMENTS OF AASHTO M 202.
   B. USE STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AASHTO M 183 FOR THE CONTINUOUS PILING CAP FASTENED WITH ANCHOR BOLTS CONFORMING TO THE REQUIREMENTS OF ASTM A 307.
5. SLOPE WALL (SEE SPECIAL PROVISIONS)
   A. PERFORM EARTHWORK ON THE SOUTH EMBANKMENT AS REQUIRED FOR CONSTRUCTION OF THE PROPOSED CONCRETE SLOPE WALL.
   B. CONSTRUCT PROPOSED SLOPE WALL USING CLASS X CONCRETE.
   C. USE CONCRETE REINFORCING BARS CONFORMING TO THE REQUIREMENTS OF AASHTO M 31, GRADE 60 DEFORMED BARS AND WELDED WIRE FABRIC CONFORMING TO THE REQUIREMENTS OF AASHTO M 55.
   D. PROVIDE A MINIMUM 40 BAR DIAMETER LAP LENGTH AT REINFORCING BAR SPLICES AND OVERLAP ADJOINING SECTIONS OF WELDED WIRE FABRIC A MINIMUM OF TWO FULL MESH PANELS AT SHEETS.

Baxter & Woodman
environmental engineers
Crystal Lake, Illinois Schererville, Indiana Burlington, Wisconsin

REV. NO.	DATE	DESCRIPTION	REV. NO.	DATE	DESCRIPTION
1	4-13-90	REV. SUMMARY OF QUANTITIES			
* REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWINGS					

DEKALB COUNTY HIGHWAY DEPARTMENT
SECTION 88-00143-00-BR
STRUCTURE 4008
PEARL STREET BRIDGE REPAIRS

PLANS, SECTION AND DETAILS

DESIGNED BY CAH	SCALE AS NOTED
DRAWN BY DEK	PROJECT NO. H3644
CHECKED BY CHW	SHEET NO. 10F1
DATE 8-2-90	

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
EXISTING BRIDGE RECORD DRAWINGS

SCALE: NONE | SHEET 5 OF 6 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	72
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		

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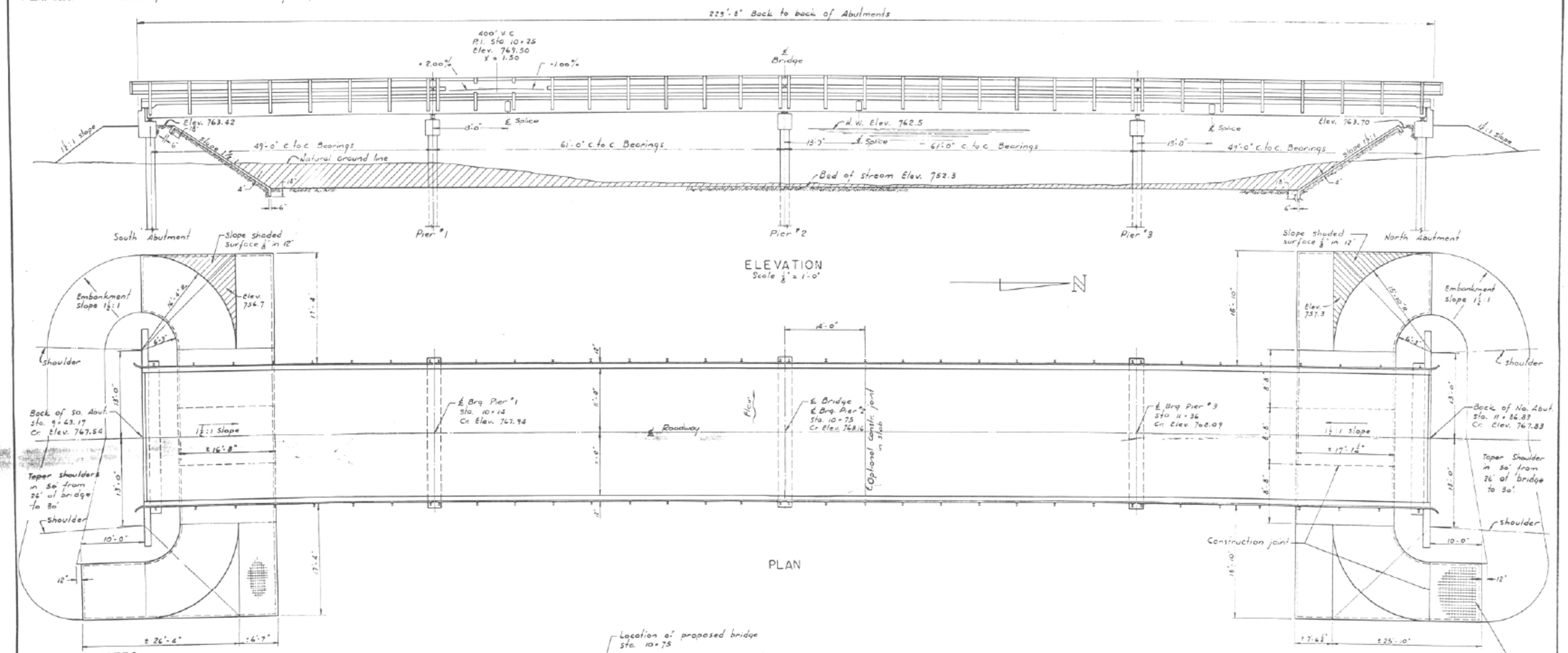
Existing Structure: (to be removed by bridge contractor) 1-40' span steel approach truss, 1-125' span steel main truss, 3-32' steel beam approach spans, masonry abutments and concrete filled piers

B.M.#1-Sp. & washer in root of 24" tree Lt. Sta. 2+80 - Elev. 760.55

B.M.#2 Sp. & washer in top of Cor. F.P. Rt. Sta. 9+16 - Elev. 763.51

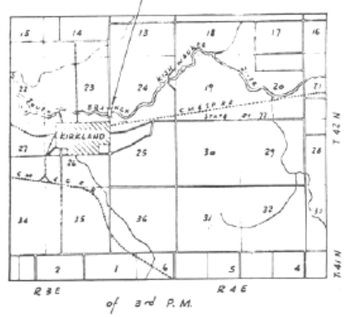
B.M.#3-Sp. & washer in root 36" tree Rt. Sta. 12+93 - Elev. 766.58

Note: All elevations - U.S.G.S. datum



GENERAL NOTES:

1. Class X concrete shall be used throughout.
2. Concrete floor slab shall be poured in one continuous operation between construction joints shown on plans and finished in accordance with Art. no. 3(e) of the standard specifications. No additional construction joints will be allowed without written permission of the Engineer.
3. Structural grade reinforcement bars will not be permitted.
4. The Contractor shall drive two concrete test piles as directed by the Engineer before furnishing the remainder of the piles.
5. All rollers bearing plates, lede plates, pintles and anchor bolts shall be furnished, painted, and set in accordance with art. 564.3 (d) of the standard specifications and are included for payment as Structural Steel.
6. Anchor bolts shall be set before riveting diaphragms over abutments or piers.
7. Floor drains shall receive one shop coat of red lead paint and 2 field coats of aluminum paint.
8. Structural steel shall be inspected by Illinois Division of Highways before painting.
9. All structural steel shall receive one shop coat of red lead paint after inspection and shall receive two field coats of aluminum paint.
10. All paint shall be furnished and applied by the contractor.
11. All connections shall be riveted unless otherwise noted and all rivets shall be ¾" ϕ and open holes 15/16" ϕ except as noted.
12. All splices for stringers shall have rivet holes punched 9/16 ϕ and reamed to required size with all stringers of a continuous unit assembled in shop in their proper position with or without diaphragms in place. Leave assembled for inspection.
13. The Contractor shall place the embankment around the abutments to the lines shown in accordance with Sec. 16 of the Standard Specifications before erecting the steel work.
14. The existing bridge and abutments shall be removed by the Contractor and disposed of outside of the right of way in a manner satisfactory to the Engineer. This work shall be paid for at the contract unit price each for "Removal of Existing Structure."



LOCATION MAP
Scale 1" = 1 Mile

TOTAL BILL OF MATERIAL

ITEM	UNITS	SUPER	SUB	TOTAL
CLASS X CONCRETE	CU. YDS.	120.8	45.4	166.2
REINFORCEMENT BARS	LBS.	26,280	4070	30,350
STRUCTURAL STEEL	LBS.	154,380		154,380
FLOOR DRAINS	EACH	44		44
PRECAST CONCRETE PILES(18")(32'-0")	LIN. FT.		320	320
PRECAST CONCRETE PILES(18")(40'-0")	LIN. FT.		600	600
PRECAST CONCRETE TEST PILES	EACH		2	2
CONCRETE - SLOPE WALL	SQ. YDS.		267	267
NAME PLATE	EACH	1		1
REMOVAL OF EXISTING STRUCT.	EACH	1		1

Welded wire fabric "6 x 2 wires - 6"x6" mesh reinforcement @ .83 #/sq. ft. - all walls lap wire mesh ±6" at constr. joints.

Stresses
f_s = 18,000 #/in² Structural
f_s = 20,000 #/in² Reinforcement
f_c = 1,200 #/in² Superstructure
f_c = 800 #/in² Substructure
n = 10

Note: Structural grade reinforcing bars will not be used

H - 15 Loading

FRANKLIN TOWNSHIP BRIDGE
DE KALB COUNTY, ILLINOIS

Drawn by: G.D.
Checked by: P.H.
Date: March 24, 1949
Revised: May, 1949

Registered Structural Engineer

C. K. WILLETT
CONSULTING ENGINEERS
DIXON, ILLINOIS

Sheet 7 of 11 Sheets

1435

MODEL: Default
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		DRAWN -	REVISED -
	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
EXISTING BRIDGE RECORD DRAWINGS

SCALE: NONE | SHEET 6 OF 6 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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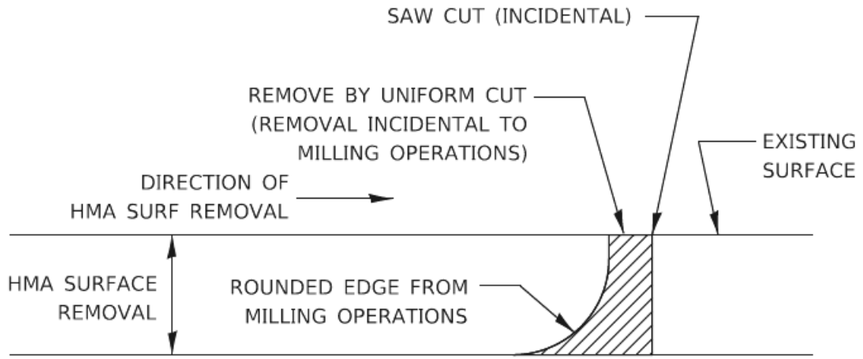
		CONTRACT NO. 87722		
	ILLINOIS	FED. AID PROJECT		



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

HMA DETAIL AT BUTT JOINTS

406-8

TRANSYSTEMS

USER NAME = sbpottorff	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
DISTICT THREE DETAILS

SCALE: NONE | SHEET 1 OF 3 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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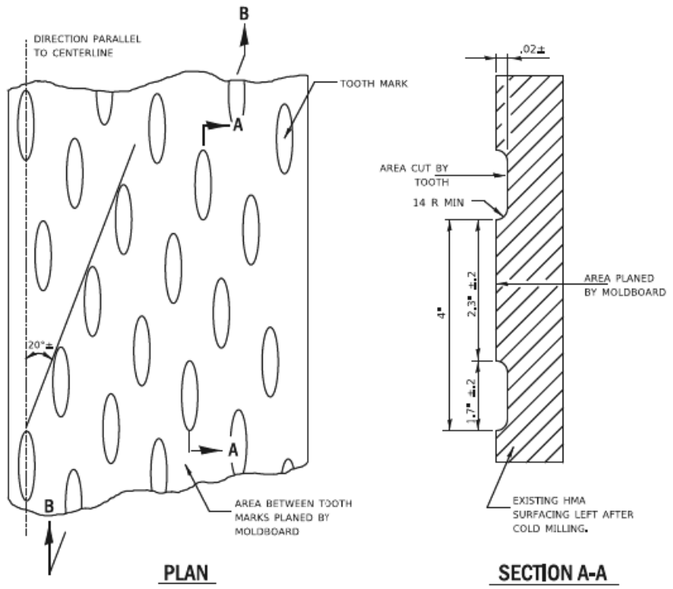
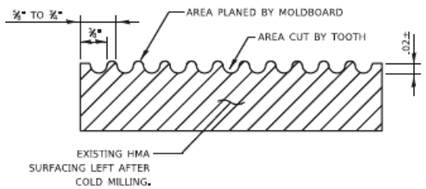
	ILLINOIS	FED. AID PROJECT		



PLAN

SECTION A-A



SECTION B-B
PROJECTED PERPENDICULAR
TO CENTERLINE

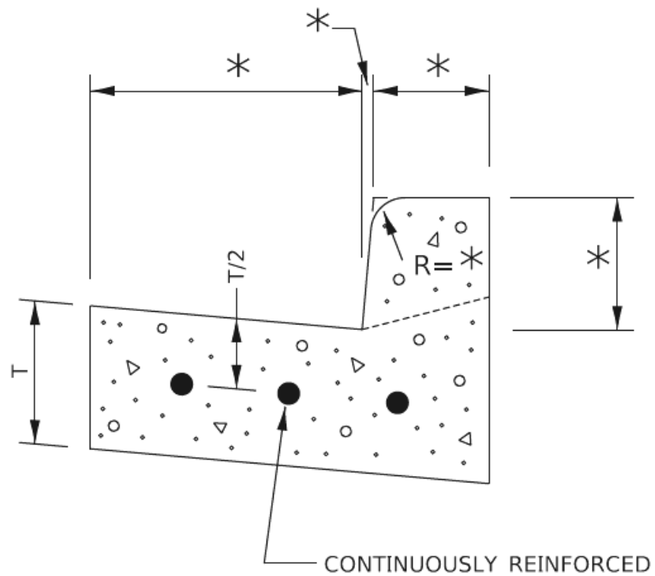
1. COLD MILLING SHALL CONSIST OF TWO PROCESSES: CUTTING WITH CARBIDE TEETH MOUNTED ON A ROTATING DRUM, AND PLANING WITH A MOLDBOARD MOUNTED IMMEDIATELY BEHIND THE CUTTING DRUM.
2. OTHER SIMILAR PATTERNS WILL BE ACCEPTABLE IF THEY CONSIST OF A SMOOTH, FLAT PLANED SURFACE INTERSPERSED WITH A PATTERN OF DISCONTINOUS LONGITUDINAL STRIATIONS.

DESIGNER NOTE:
TO BE USED WITH RECURRING CHECK SHEET
"HMA SURFACE CORRECTION"

REQUIRED COLD MILLED SURFACE TEXTURE

440-2

* VARIES - SEE STANDARD 606001



REINFORCEMENT SHALL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR CC&G.

REINFORCEMENT DETAIL FOR COMBINATION CONCRETE CURB AND GUTTER

606-4

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TRANSYSTEMS	USER NAME = sbpottorff	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER DISTICT THREE DETAILS
		DRAWN -	REVISED -		
	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -		
	PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -		SCALE: NONE SHEET 2 OF 3 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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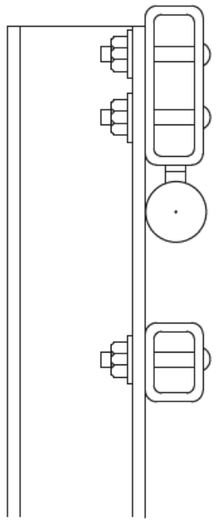
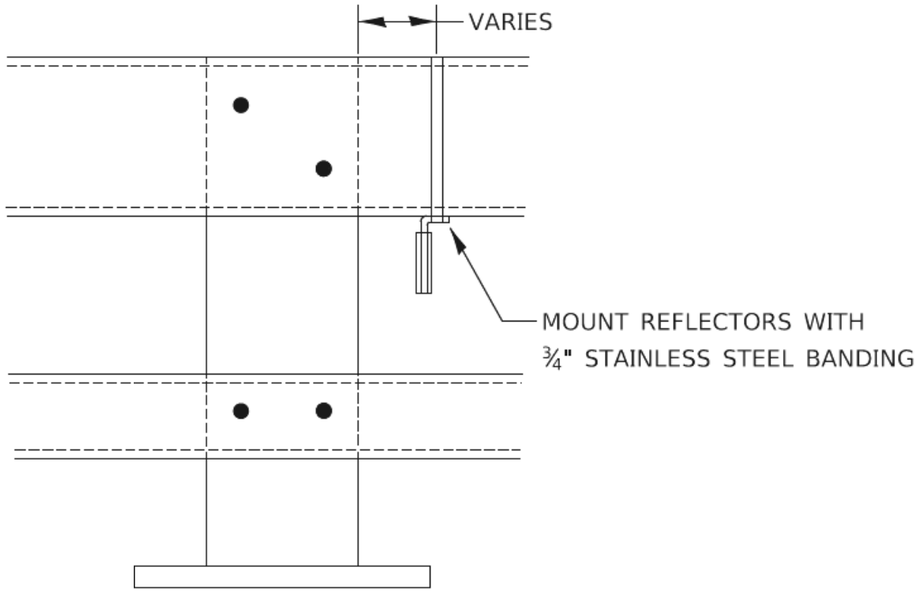
	ILLINOIS FED. AID PROJECT			





NOTES

1. REFLECTORS SHALL MEET THE REQUIREMENTS OF ARTICLE 1097.03 OF THE STANDARD SPECIFICATIONS.

2. FURNISHING AND INSTALLING THE COMPLETE REFLECTOR UNIT WILL WILL BE PAID AT THE CONTRACT UNIT PRICE EACH FOR GUARD RAIL MARKERS.

REFLECTOR MOUNTING DETAIL FOR STEEL RAIL

782-3

TRANSYSTEMS

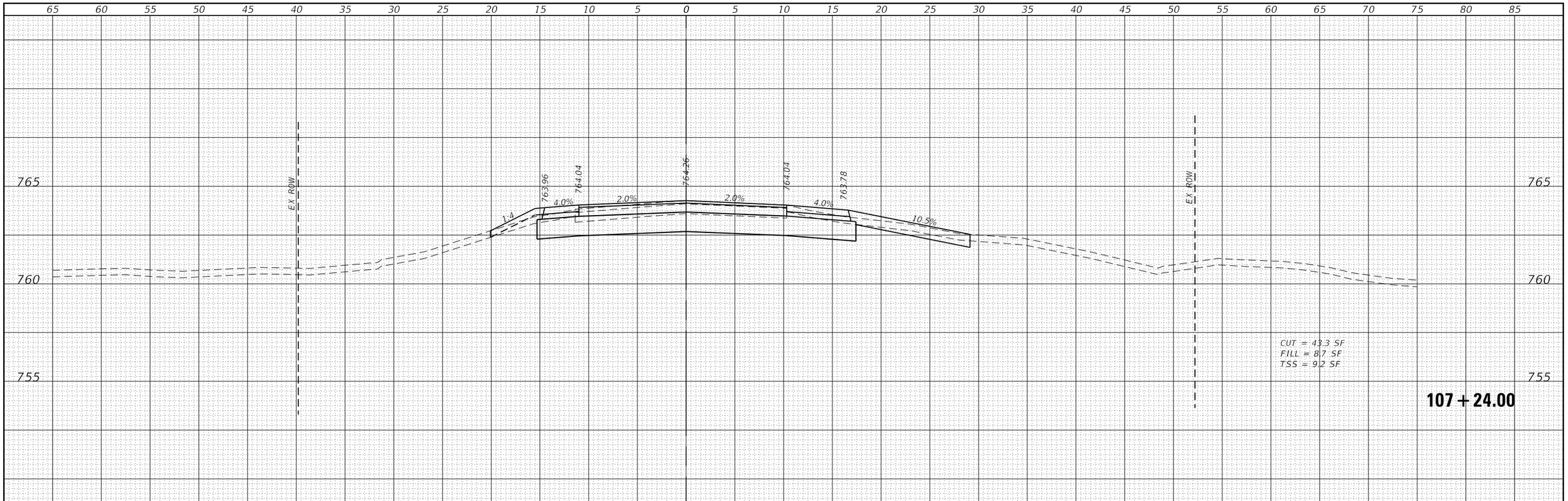
USER NAME = sbpottorff	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -

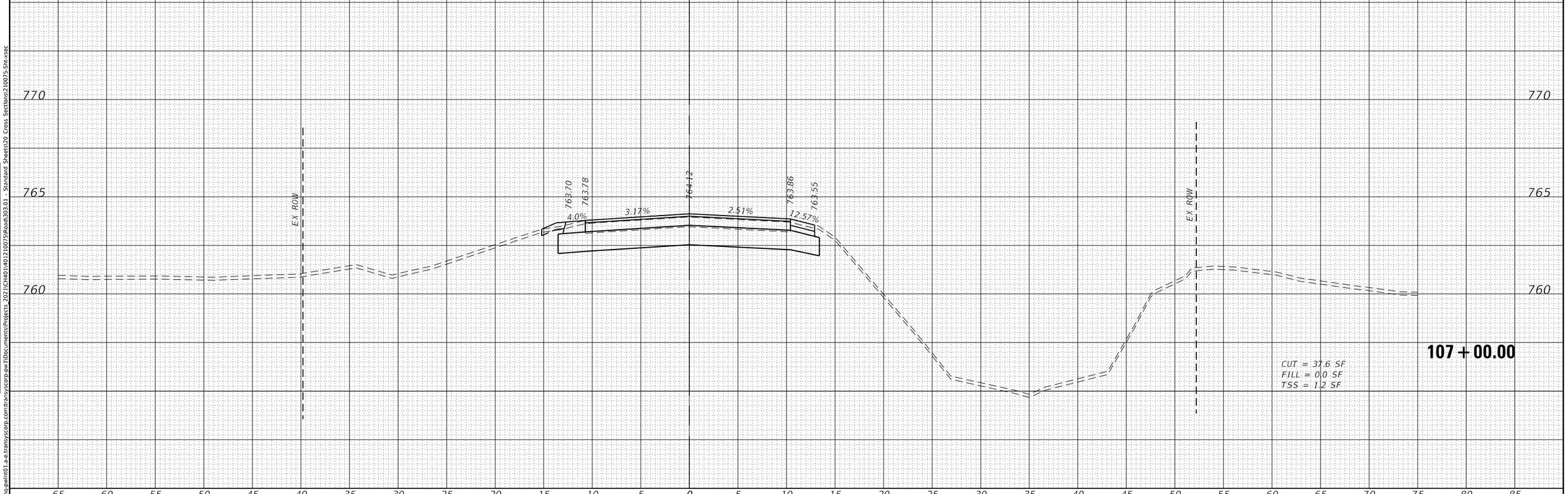
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET BRIDGE OVER SOUTH BRANCH KISHWAUKEE RIVER
DISTICT THREE DETAILS

SCALE: NONE | SHEET 3 OF 3 SHEETS | STA. | TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	76
		CONTRACT NO. 87722		
	ILLINOIS FED. AID PROJECT			





FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
NOTE BOOK		
AREAS		
NO.	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
NOTE BOOK		
AREAS		
NO.	AREAS CHECKED	

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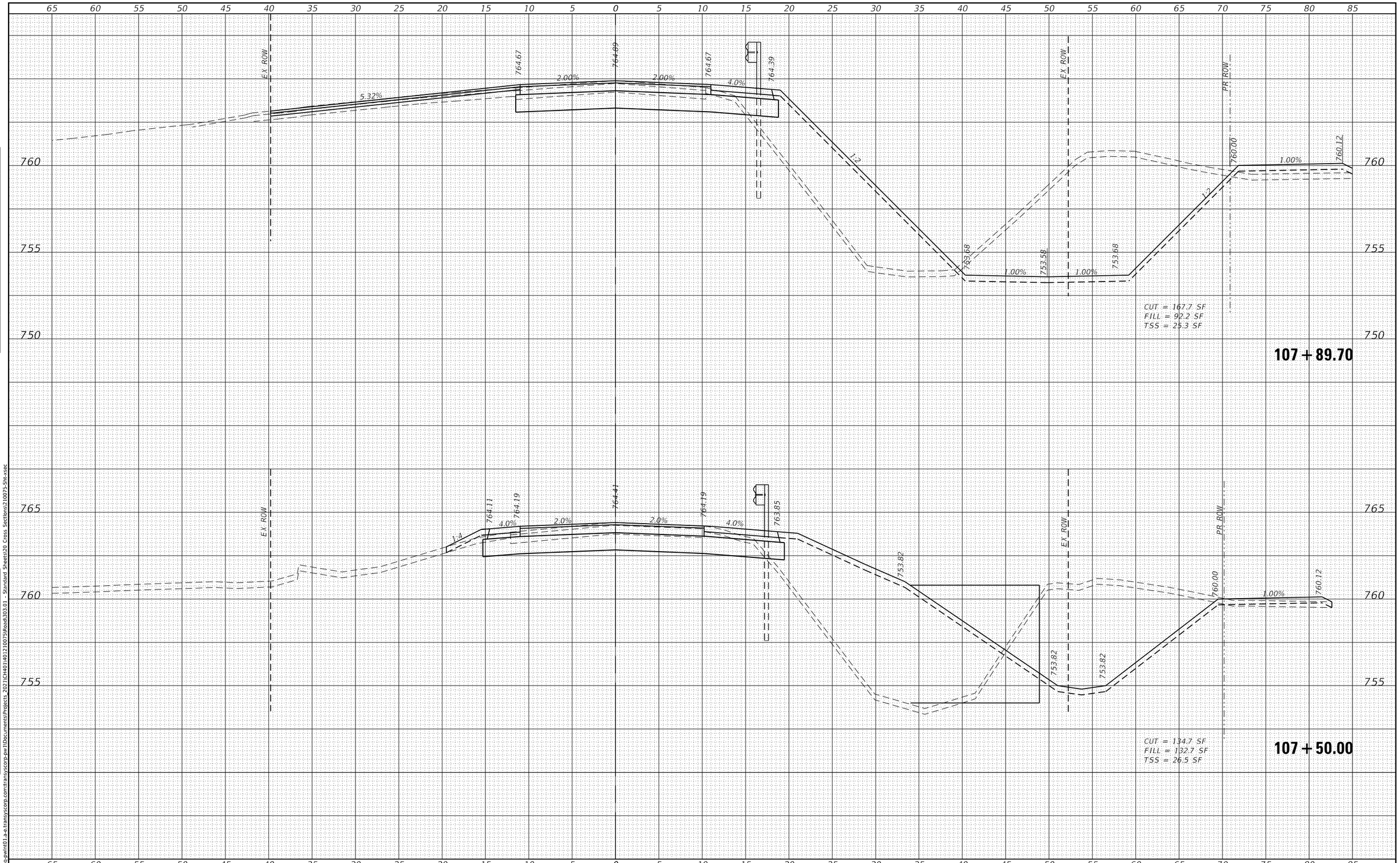
PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
CROSS SECTIONS

SCALE: H:5 V:2.5 | SHEET 1 OF 9 SHEETS | STA. 107+00.00 TO STA. 107+24.00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	77
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



FINAL SURVEY

NO.	NOTE BOOK	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE

ORIGINAL SURVEY

NO.	NOTE BOOK	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE

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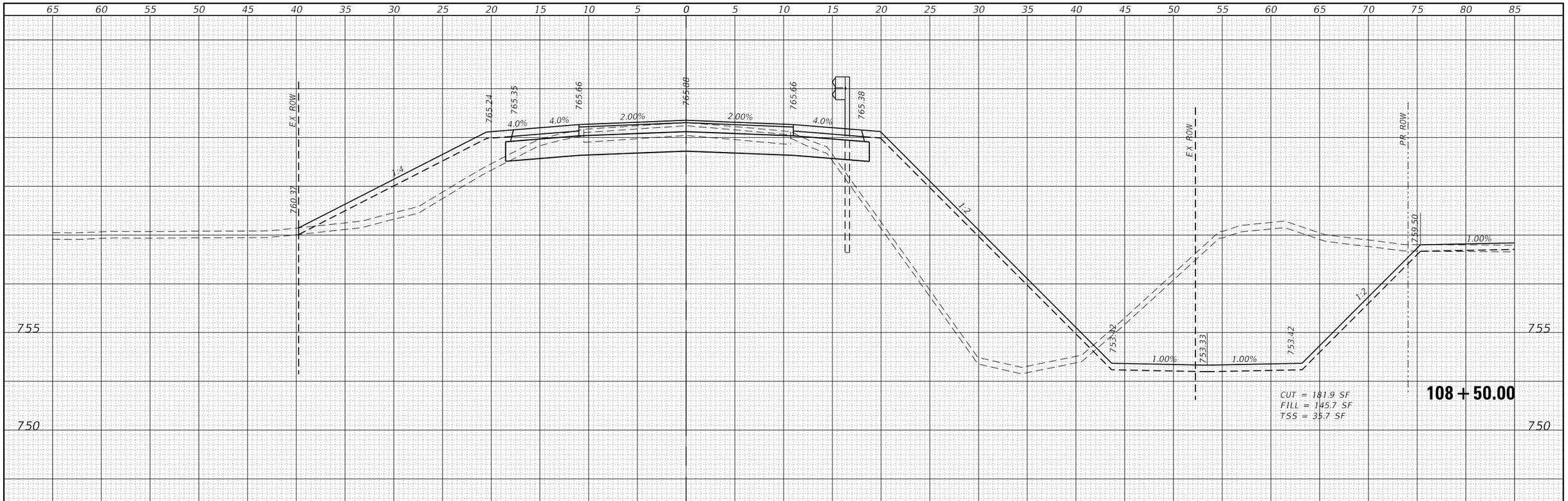
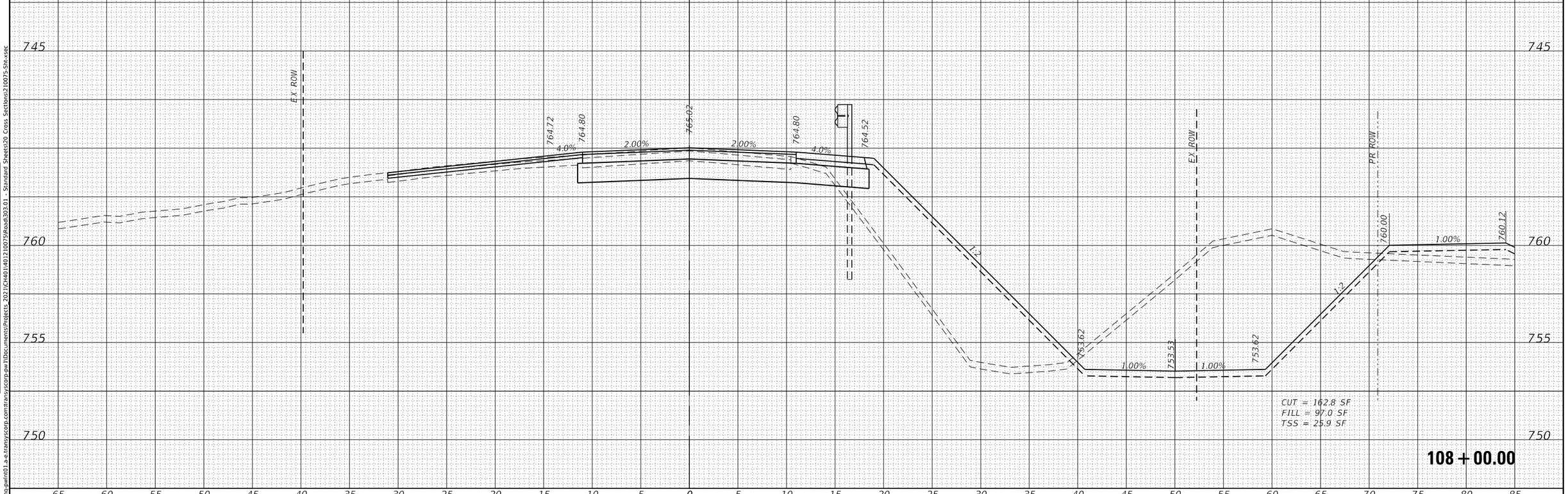
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
CROSS SECTIONS

SCALE: H:5 V:2.5 | SHEET 2 OF 9 SHEETS | STA. 107+50.00 TO STA. 107+89.70

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	78
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	





FINAL SURVEY

ORIGINAL SURVEY

NO.	NOTE BOOK	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE

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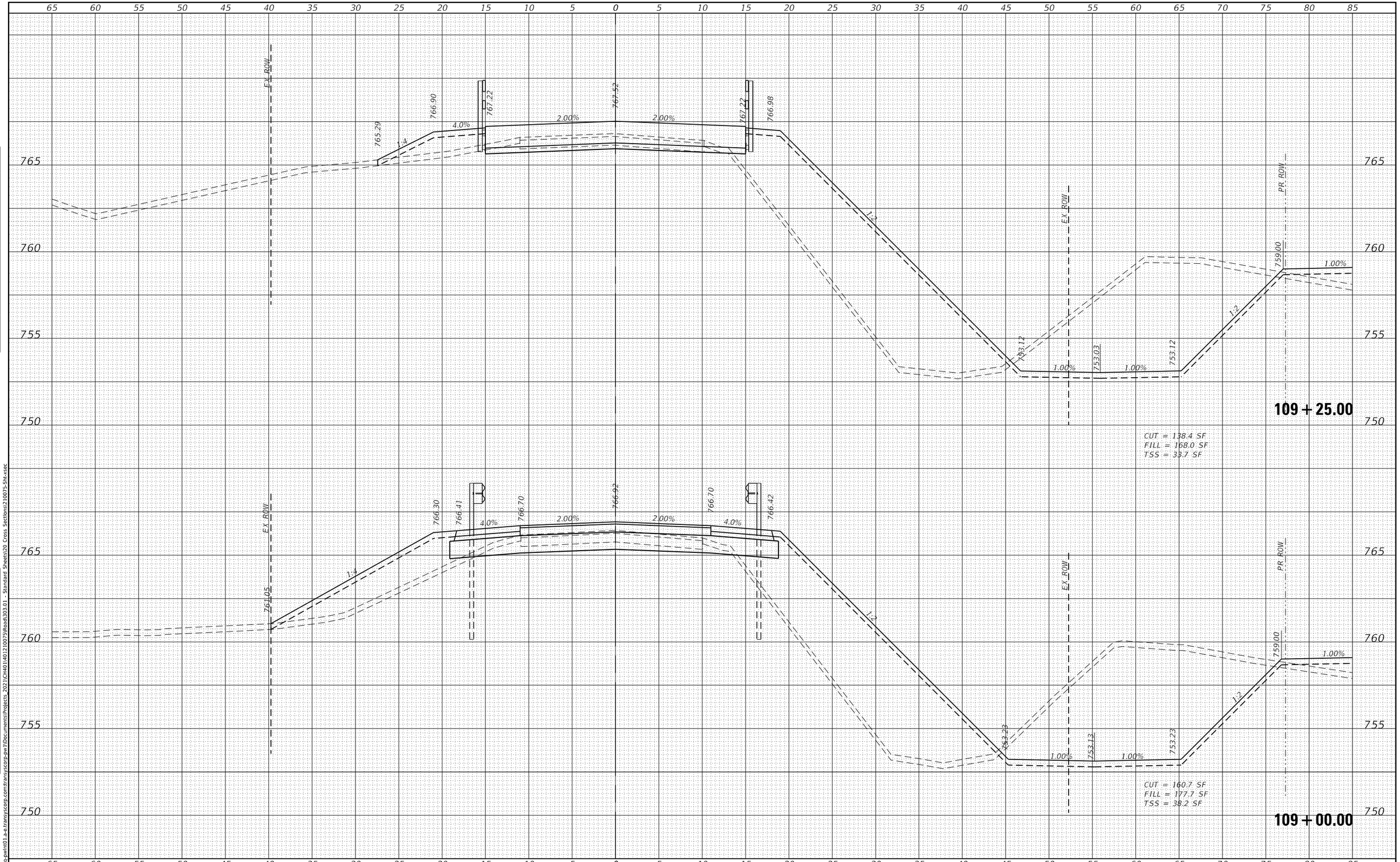
PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
CROSS SECTIONS

SCALE: H:5 V:2.5 | SHEET 3 OF 9 SHEETS | STA. 108+00.00 TO STA. 108+50.00

COMM. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	79
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

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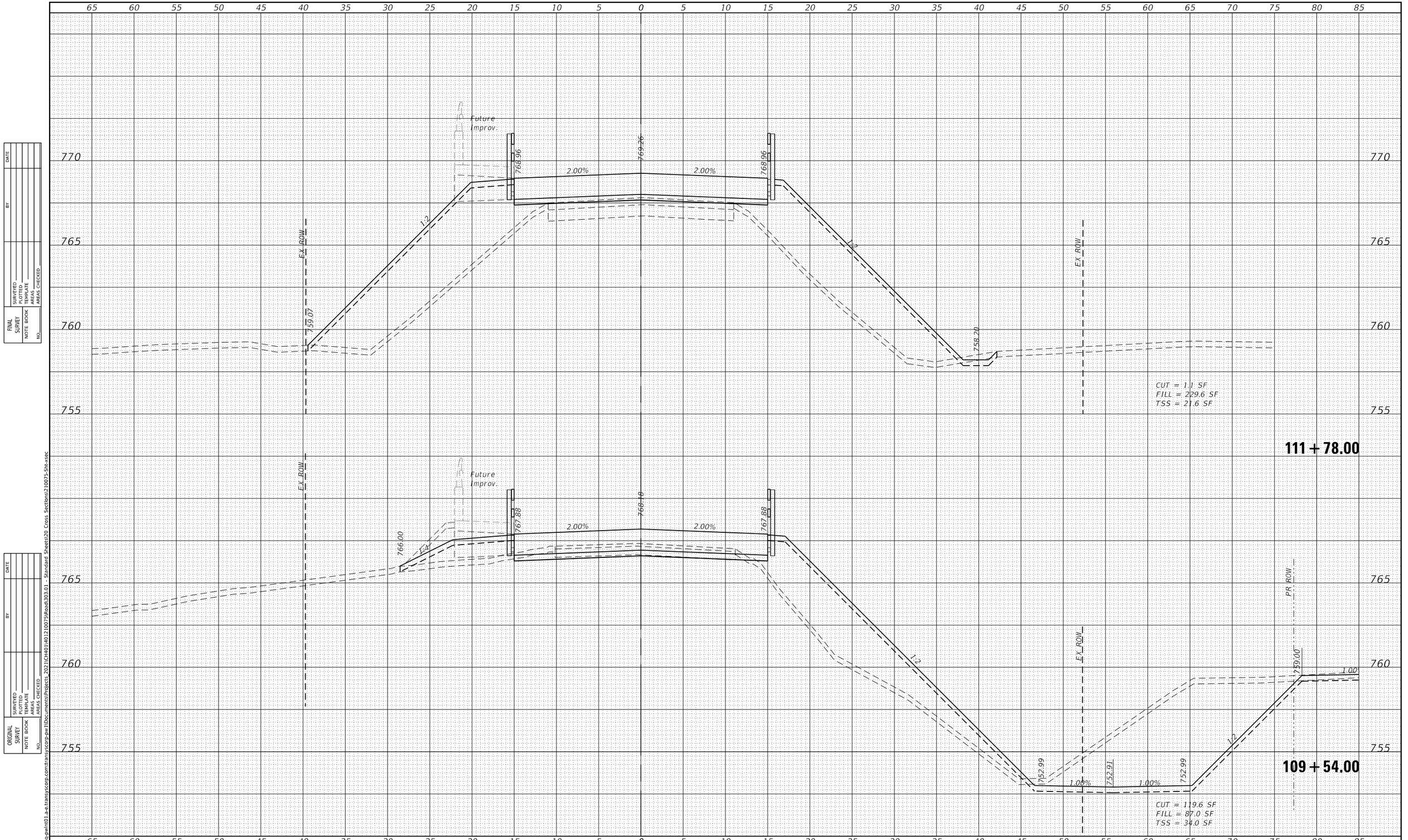
PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
CROSS SECTIONS

SCALE: H:5 V:2.5 | SHEET 4 OF 9 SHEETS | STA. 109+00.00 TO STA. 109+25.00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	80
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE

ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE

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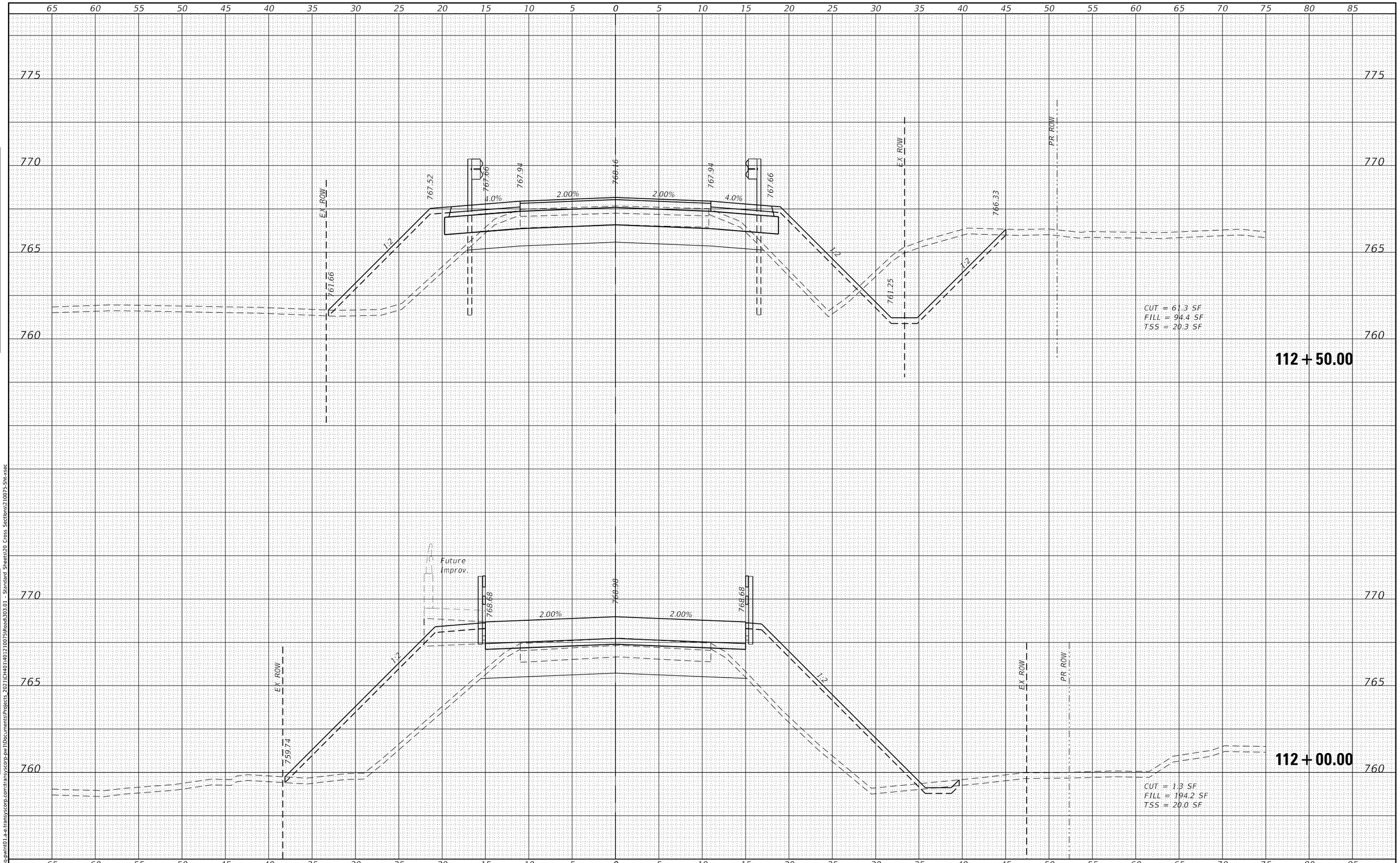
PLOT DATE = 4/30/2024	DATE - 5/1/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
CROSS SECTIONS

SCALE: H:5 V:2.5 | SHEET 5 OF 9 SHEETS | STA. 109+54.00 TO STA. 111+78.00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	81
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



FINAL SURVEY

NO.	NOTE BOOK	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE

ORIGINAL SURVEY

NO.	NOTE BOOK	SURVEYED	PLOTTED	TEMPLATE	AREAS	AREAS CHECKED	BY	DATE

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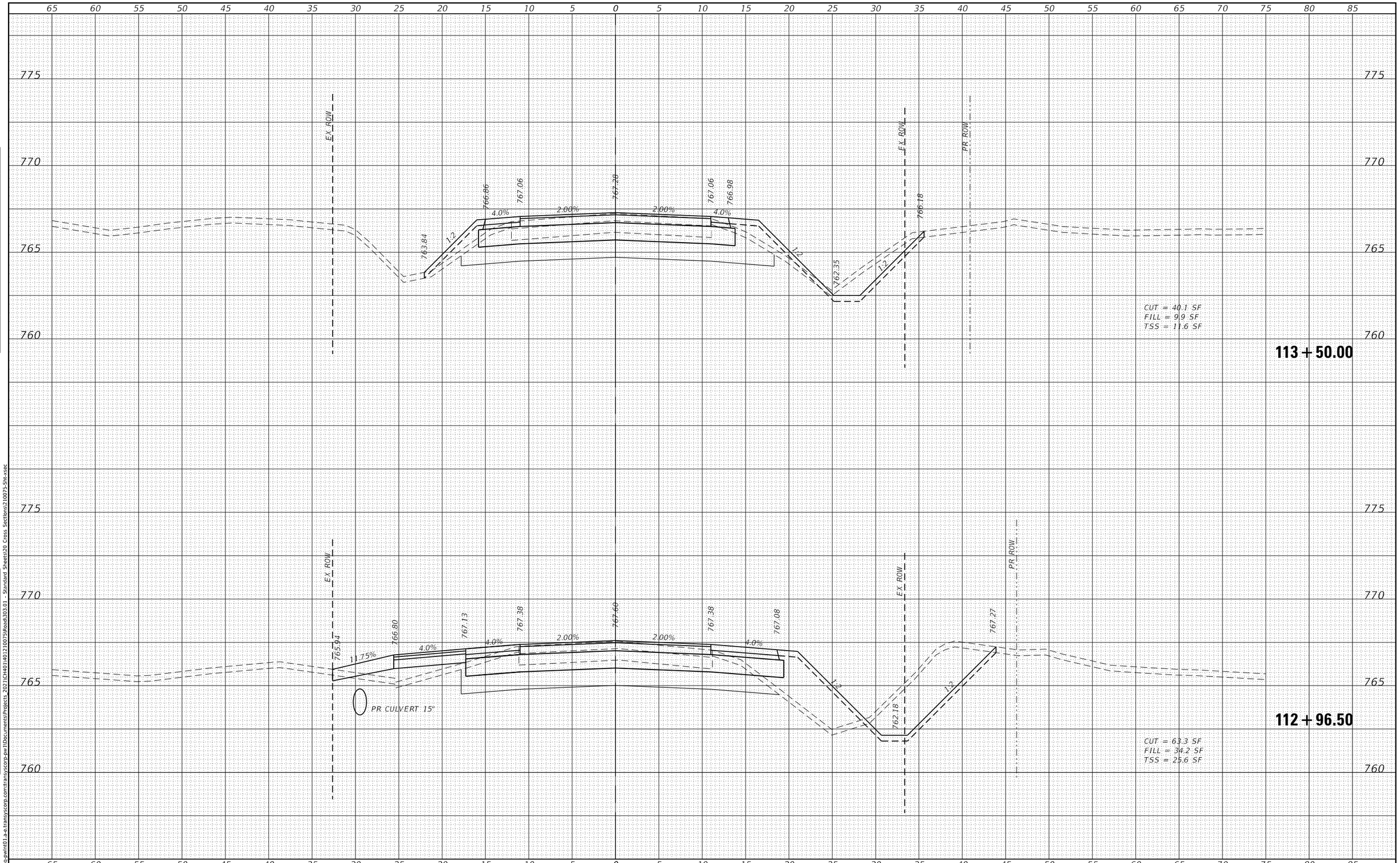
PLOT DATE = 4/30/2024	DATE - 5/1/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
CROSS SECTIONS

SCALE: H:5 V:2.5 | SHEET 6 OF 9 SHEETS | STA. 112+00.00 TO STA. 112+50.00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	82
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



FINAL SURVEY / ORIGINAL SURVEY

NO.	NOTE BOOK	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

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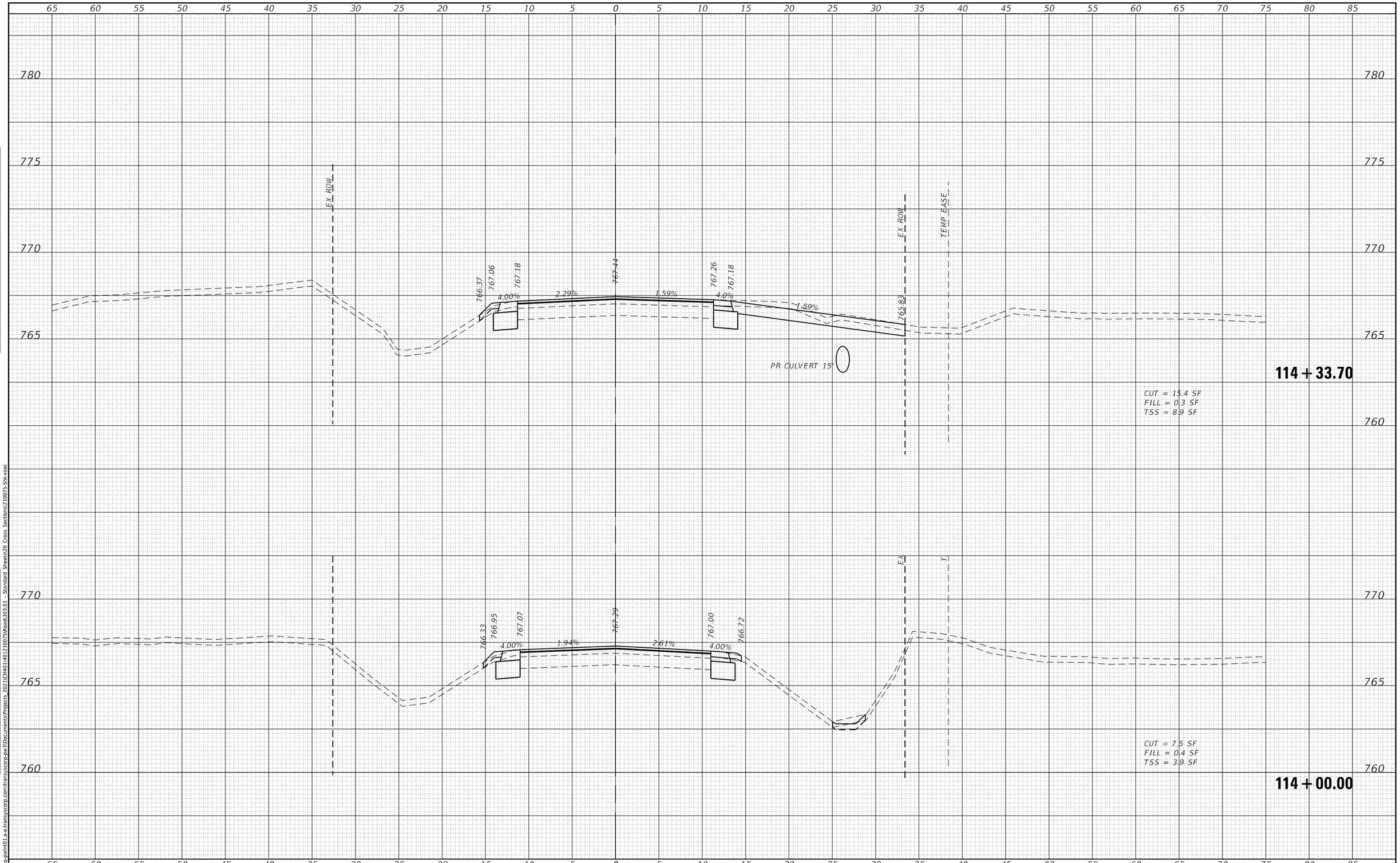
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
CROSS SECTIONS

SCALE: H:5 V:2.5 | SHEET 7 OF 9 SHEETS | STA. 112+96.50 TO STA. 113+50.00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	83
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	



FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

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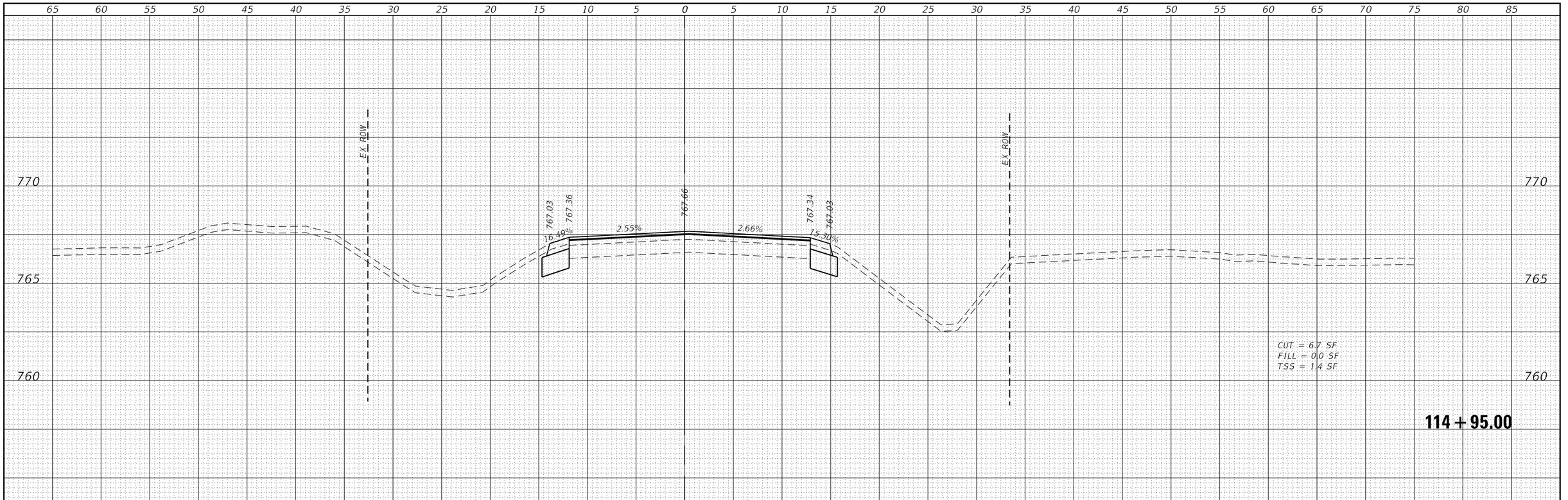
PLOT DATE = 4/4/2024	DATE - 4/4/2024	REVISED -

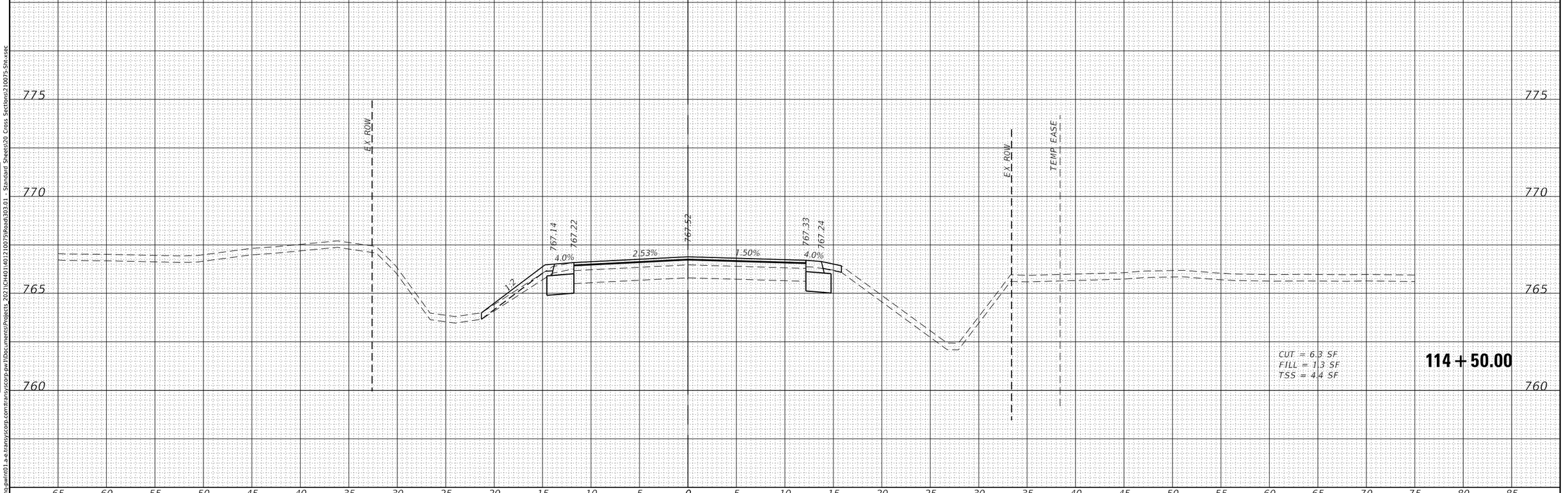
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
CROSS SECTIONS

SCALE: H:5 V:2.5 | SHEET 8 OF 9 SHEETS | STA. 114+00.00 TO STA. 114+33.70

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	84
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	





FINAL SURVEY	BY	DATE
SURVEYED		
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AREAS		
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NOTE BOOK		
NO.		

ORIGINAL SURVEY	BY	DATE
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEARL STREET OVER SOUTH BRANCH KISHWAUKEE RIVER
CROSS SECTIONS

SCALE: H:5 V:2.5 | SHEET 9 OF 9 SHEETS | STA. 114+50.00 TO STA. 114+95.00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6090	14-00009-00-BR	DEKALB	85	85
		CONTRACT NO. 87722		
		ILLINOIS	FED. AID PROJECT	