

03-11-2022 LETTING ITEM 162

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STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED MAJOR BRIDGE PROGRAM

CH 24 - FAU 7355 (REAS BRIDGE ROAD)

MACON COUNTY

SECTION 12-00251-00-BR

PROJECT A2HA(541)

JOB C-97-006-22

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	1
		ILLINOIS	CONTRACT NO. 95912	



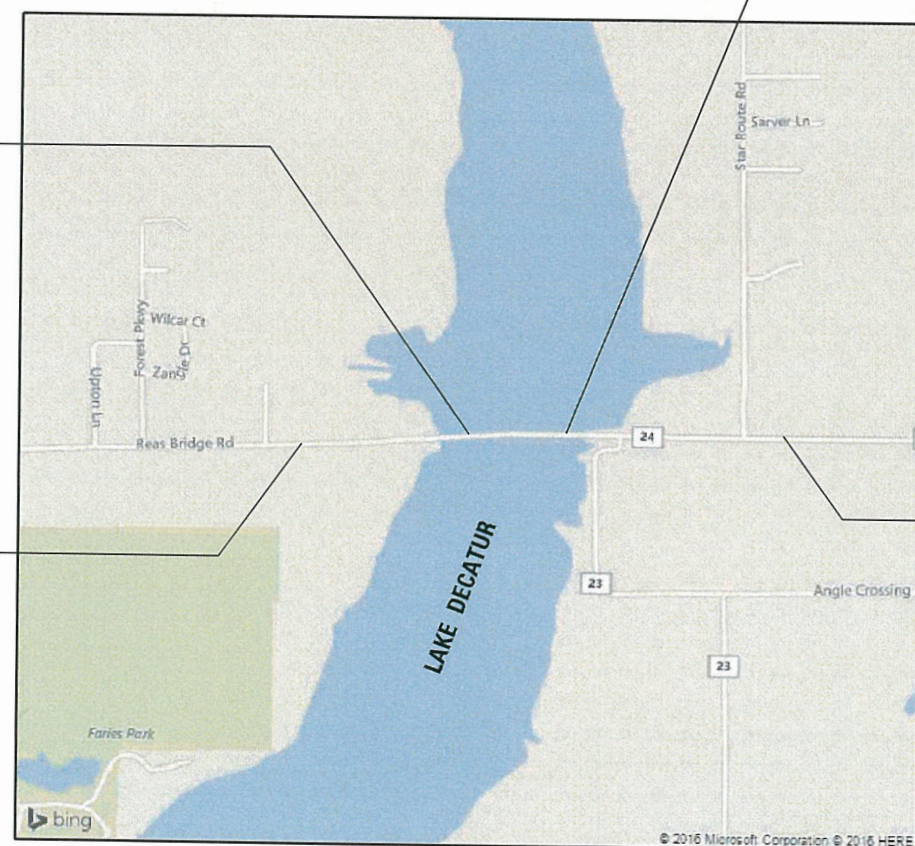
FUNCTIONAL CLASSIFICATION - RURAL MAJOR COLLECTOR
 2022 ADT = 2450
 2042 ADT = 2950
 P.V. = 94% S.U. = 4% M.U. = 2%

PROPOSED STRUCTURE
 STA 44 + 05.50
 PROPOSED STRUCTURE NO. 058-3408
 EXISTING STRUCTURE NO. 058-3032

PROPOSED STRUCTURE
 STA 33 + 69.00
 PROPOSED STRUCTURE NO. 058-3409
 EXISTING STRUCTURE NO. 058-3033

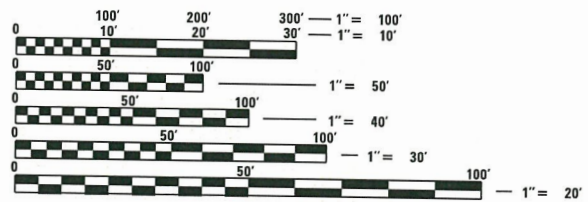
PROJECT ENDS
 STA 59 + 25.00

PROJECT BEGINS
 STA 16 + 50.00



LOCATION MAP

GROSS LENGTH = 4,275 FT. = 0.810 MILE
 NET LENGTH = 4,275 FT. = 0.810 MILE



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

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

HLC PROJECT NO 6407
 HLC FIELD BOOK NO 525

CONTRACT NO. 95912



1/24/22
 JEREMY BUENING, P.E., S.E. DATE
 LICENSE EXPIRES 11/30/23

APPROVED 1/24/22
Bruce H. Bird
 COUNTY ENGINEER

PASSED 01/27/22
[Signature]
 DISTRICT SEVEN ENGINEER OF LOCAL ROADS AND STREETS

Releasing For Bid Based on Limited Review 01/27/22
[Signature]
 REGION FOUR ENGINEER

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 DECATUR (217) 422-8544
 SCHAUMBURG (773) 714-0050
 ROCKFORD (815) 489-0050
 184-001397

GENERAL NOTES

1. REFERENCES TO THE "SSRB" SHALL BE INTERPRETED AS REFERENCES TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2022. COPIES OF THESE SPECIFICATIONS CAN BE PURCHASED FROM THE FOLLOWING ORGANIZATION:
ILLINOIS DEPARTMENT OF TRANSPORTATION
2300 S. DIRKSEN PARKWAY
SPRINGFIELD, IL 62764
<http://www.idot.illinois.gov/home/resources/Manuals/Manuals-and-Guides>
2. ILLINOIS DEPARTMENT OF TRANSPORTATION HIGHWAY STANDARDS, WITH THE REVISION NUMBERS SHOWN IN THE STANDARDS LIST, SHALL APPLY TO THIS CONTRACT.
3. THE DESIGN ENGINEER SHALL NOT GUARANTEE THE WORK OF ANY CONTRACTOR OR SUBCONTRACTOR. SHALL HAVE NO AUTHORITY TO STOP WORK, SHALL HAVE NO SUPERVISION OR CONTROL AS TO THE WORK OR PERSONS DOING THE WORK, SHALL NOT BE RESPONSIBLE FOR SAFETY IN, ON, OR ABOUT THE JOB SITE OR HAVE ANY CONTROL OF THE SAFETY OR ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENT, SCAFFOLDING, SUPPORTS, FORMS OR OTHER WORK AIDS, AND SHALL HAVE NO DUTIES OR RESPONSIBILITIES IMPOSED BY ACTS GOVERNING THE WORKPLACE. IN ADDITION, THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SHALL BE MODIFIED AS FOLLOWS:

UNDER ARTICLE 105.01, ADD THE FOLLOWING SENTENCE: NOTHING CONTAINED HEREIN SHALL RELIEVE THE CONTRACTOR OF HIS/HER DUTY TO OBSERVE AND COMPLY WITH ALL APPLICABLE LAWS, NOR SHALL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S COMPLIANCE OR NON-COMPLIANCE WITH SUCH LAWS.

UNDER ARTICLE 107.01, ADD THE FOLLOWING SENTENCE: THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S DUTY TO OBSERVE AND COMPLY WITH THE PROVISIONS OF THIS SECTION, OR FOR THE CONTRACTOR'S FAILURE TO DO SO.
4. THE CONTRACTOR AGREES THAT HE/SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS INCLUDES SAFETY OF ALL PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE COUNTY AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCE AND PROCEDURES OF CONSTRUCTION.
6. ALL CONTRACTORS WORKING WITHIN THE CITY OF DECATUR MUST BE LICENSED AND BONDED WITH THE CITY OF DECATUR.
7. ALL ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). THE PROPOSED GRADE ELEVATIONS SHOWN ON THE PLAN AND PROFILE SHEETS AND STATION CROSS-SECTIONS ARE THE ELEVATIONS FOR THE FINISHED SURFACE AT LOCATIONS AS INDICATED.
8. ALL COORDINATES SHOWN ARE BASED ON THE ILLINOIS COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983, ADJUSTMENT OF 2004 (NAD1983).
9. THE PLAN DIMENSIONS WERE DETERMINED FROM EXISTING PLANS AND FIELD SURVEYS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS AND EXISTING SITE CONDITIONS PRIOR TO BIDDING.

GENERAL NOTES - CONT.

10. ENTRANCE RADII DIMENSIONS SHOWN ON PLAN SHEETS ARE TO EDGE OF PAVEMENT, ALL OTHER RADII SHOWN ON PLAN SHEETS ARE TO EDGE OF PAVEMENT.
11. ALL PAVEMENT ELEVATIONS SHOWN ARE AT EDGE OF PAVEMENT UNLESS OTHERWISE INDICATED.
12. STATION, OFFSET, AND ELEVATIONS OF CONCRETE PIPE CULVERTS ARE AT THE POINT OF CONNECTION TO THE FLARED END SECTION.
13. BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH TYPE I OR TYPE II BARRICADE USED - ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL.
14. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY ACCESS TO ALL PRIVATE AND COMMERCIAL PROPERTIES. ACCESS TO COMMERCIAL PROPERTIES SHALL REMAIN OPEN CONTINUOUSLY. ACCESS TO PRIVATE PROPERTIES SHALL NOT BE CLOSED FOR MORE THAN 8 HOURS. THE CONTRACTOR SHALL NOTIFY PRIVATE RESIDENTS A MINIMUM OF 24 HOURS IN ADVANCE OF ACCESS CLOSURE. MAINTAINING THE TEMPORARY ACCESS SHALL INCLUDE RELOCATING AND/OR REGRADING THE AGGREGATE SURFACE FOR ANY OPERATION THAT MAY DISTURB OR REMOVE THE TEMPORARY ACCESS. THE SAME TYPE AND GRADATION OF MATERIAL USED TO CONSTRUCT THE TEMPORARY ACCESS SHALL BE USED TO MAINTAIN IT. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR AGGREGATE FOR TEMPORARY ACCESS. QUANTITY SHOWN IS ESTIMATED.
15. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON COUNTY, CITY OR PRIVATE PROPERTY WITHOUT WRITTEN PERMISSION.
16. ALL PERMANENT CHAIN LINK FENCE SHALL BE BLACK VINYL COATED TO MATCH BRIDGE RAILING.
16. CONTRACTOR RESPONSIBLE FOR ANY ADDITIONAL PERMITS FROM THE US ARMY CORP AND/OR IDNR FOR TEMPORARY CONSTRUCTION WORKS THAT INVOLVE PLACING FILL IN THE LAKE, SUCH AS TEMPORARY CAUSEWAYS, THAT IS BEYOND THE LIMITS OF THE PROPOSED EMBANKMENT. IF THROUGH COORDINATION WITH THOSE AGENCIES IT IS DETERMINED ADDITIONAL PERMITTING WOULD NOT BE REQUIRED, CONTRACTOR SHALL OBTAIN APPROVAL IN WRITING FROM THE THOSE THOSE AGENCIES AND SUBMIT TO THE ENGINEER.

UTILITY GENERAL NOTES

1. THE CONTRACTOR SHALL COORDINATE WITH AMEREN PRIOR TO AND THROUGHOUT CONSTRUCTION ON STAGING FOR AMEREN TO RELOCATE HIGH VOLTAGE POLES LOCATED WITHIN PROJECT LIMITS.
2. THE LOCATIONS OF THE EXISTING UNDERGROUND UTILITIES WERE OBTAINED FROM RECORDS AND FIELD SURVEYS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO EXCAVATION FOR THE PROJECT.
3. SOME UTILITY RELOCATIONS MAY HAVE ALREADY OCCURRED PRIOR TO CONSTRUCTION, THEREFORE ALL UTILITIES SHALL BE LOCATED PRIOR TO BEGINNING WORK TO IDENTIFY ANY CONFLICTS WHICH MAY EXIST.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH AFFECTED UTILITY COMPANIES.

COMMITMENTS

1. TREE CLEARING RESTRICTION:
TREES THREE INCHES OR GREATER IN DIAMETER AT BREAST HEIGHT SHALL NOT BE CLEARED FROM APRIL 1 THROUGH SEPTEMBER 30TH.
2. ENDANGERED SPECIES - KIRTLAND SNAKE:
THE ENDANGERED KIRTLAND SNAKE MAY HAVE HABITAT WITHIN THE LIMITS OF CONSTRUCTION. AN INCIDENTAL TAKE AUTHORIZATION (ITA) HAS BEEN OBTAINED FROM THE IDNR AND SHALL BE ON SITE WITH THE CONTRACTOR AND RESIDENT ENGINEER AT ALL TIMES. ALL COMMITMENTS AND RESTRICTIONS OUTLINED IN THE FINAL SIGNED ITA MUST BE ADHERED TO AT ALL TIMES.
3. WETLAND IMPACTS:
WETLANDS ARE DELINEATED WITHIN THE PROJECT LIMITS. IMPACTS TO THESE AREAS BY THE CONTRACTOR SHALL BE MINIMIZED AS MUCH AS POSSIBLE. WETLAND #2 IS CATEGORIZED AS A SEEP AND SHALL UNDER NO CIRCUMSTANCES BE IMPACTED BY CONSTRUCTION ACTIVITIES, AND THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS WHEN IN THE VICINITY OF THIS PARTICULAR WETLAND.

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PLOT DATE =	DATE -	REVISED -



DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0950
ROCKFORD (815) 489-0050
184-001397

GENERAL NOTES AND SPECIFICATIONS			
CH 24 (REAS BRIDGE ROAD)			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	2
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

HIGHWAY STANDARDS

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
420001-10	PAVEMENT JOINTS
420401-13	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
424001-11	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-04	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
542401-04	METAL FLARED END SECTIONS FOR PIPE CULVERTS
602301-04	INLET TYPE A
602306-03	INLET TYPE B
602401-07	PRECAST MANHOLE TYPE A 4' DIAMETER
602701-02	MANHOLE STEPS
604006-05	FRAME AND GRATE TYPE 3
604036-03	GRATE TYPE 8
606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-17	TRAFFIC BARRIER TERMINAL, TYPE 6
664001-02	CHAIN LINK FENCE
665001-02	WOVEN WIRE FENCE
666001-01	RIGHT OF WAY MARKERS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS GREATER THEN 45 MPH
701316-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR, FOR SPEEDS GREATER THAN OR EQUAL TO 45
701321-18	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
725001-01	OBJECT AND TERMINAL MARKERS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-05	TYPICAL PAVEMENT MARKINGS
782001-01	CURB REFLECTORS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR22-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES - CONSTRUCTION ON RURAL LOCAL HIGHWAYS

APPLICATION RATES

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

TEMPORARY SEEDING	100 LBS/ACRE (2 APP)
RIPRAP	1.50 TON/CU YD
ROCK FILL - EMBANKMENT	1.89 TON/CU YD
AGGREGATE DITCH CHECK	2.07 TON/CU YD
AGGREGATE FOR TEMPORARY ACCESS	2.03 TON/CU YD
BITUMINOUS MATERIALS (PRIME COAT)	0.25 LBS/SO FT (ON AGG)
BITUMINOUS MATERIALS (TACK COAT)	0.025 LBS/SO FT (BETWEEN LIFTS)

HMA MIX DESIGN

MIX DESIGN INFORMATION (REAS BRIDGE ROAD)			
MIXTURE USE(S)	• 9" HMA BINDER	• 2" HMA SURFACE	6" HMA SHOULDERS
PG	PG 64-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0 % @ Ndes = 70	4.0 % @ Ndes = 70	4.0 % @ Ndes = 30
MIX COMP (GRADATION)	IL 19.0	IL 9.5	IL 19.0L
FRICTION AGGREGATE	MIX C	MIX C	

• PAID FOR AS HOT-MIX ASPHALT PAVEMENT (FULL DEPTH), 11"

MIX DESIGN INFORMATION (SANGAMON ROAD)		
MIXTURE USE(S)	• 4" HMA BINDER	• 2" HMA SURFACE
PG	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0 % @ Ndes = 70	4.0 % @ Ndes = 70
MIX COMP (GRADATION)	IL 19.0	IL 9.5
FRICTION AGGREGATE	MIX C	MIX C

• PAID FOR AS HOT-MIX ASPHALT PAVEMENT (FULL DEPTH), 6"

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PLOT DATE =	DATE -	REVISED -



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**HIGHWAY STANDARDS & APPLICATION RATES
CH 24 (REAS BRIDGE ROAD)**


SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	3
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	BRIDGE	BRIDGE
				0003 RURAL	0010 S. N. 058-3408	0010 S. N. 058-3409
35101600	AGGREGATE BASE COURSE, TYPE B 4"	SO YD	2156	2156		
35101800	AGGREGATE BASE COURSE, TYPE B 6"	SO YD	1187	1187		
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	480	480		
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	17343	17343		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	2762	2762		
40701801	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 6"	SO YD	2092	2092		
40701901	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 11"	SO YD	4997	4997		
40800025	BITUMINOUS MATERIALS (PRIME COAT)	POUND	2671	2671		
42000060	WELDED WIRE REINFORCEMENT	SO YD	13282	13282		
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SO YD	440	440		
42000401	PORTLAND CEMENT CONCRETE PAVEMENT 9" (JOINTED)	SO YD	13282	13282		
42001300	PROTECTIVE COAT	SO YD	15017	15017		
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SO YD	325	325		
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	12805	12805		


△ SPECIALTY ITEMS

USER NAME :	DESIGNED -	REVISED -	 CHASTAIN & ASSOCIATES LLC CONSULTING ENGINEERS DECATUR (217) 422-8544 SCHAUMBURG (773) 714-0050 ROCKFORD (815) 489-0050 184-001397	SUMMARY OF QUANTITIES CH 24 (REAS BRIDGE ROAD)		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DRAWN -	REVISED -	7355				12-00251-00-BR	MACON	196	5	
PLOT SCALE :	CHECKED -	REVISED -				CONTRACT NO. 95912				
PLOT DATE :	DATE -	REVISED -				ILLINOIS FED. AID PROJECT				
			SCALE:	SHEET NO. 2 OF 9 SHEETS	STA. TO STA.					

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	BRIDGE	BRIDGE
				0003 RURAL	0010 S. N. 058-3408	0010 S. N. 058-3409
42400800	DETECTABLE WARNINGS	SO FT	40	40		
44000100	PAVEMENT REMOVAL	SO YD	7396	7396		
44000200	DRIVEWAY PAVEMENT REMOVAL	SO YD	1391	1391		
48100500	AGGREGATE SHOULDERS, TYPE A 6"	SO YD	1119	1119		
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SO YD	375	375		
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SO YD	1490	1490		
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1			1
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1		1	
50105220	PIPE CULVERT REMOVAL	FOOT	642	642		
50200100	STRUCTURE EXCAVATION	CU YD	262		109	153
50200300	COFFERDAM EXCAVATION	CU YD	1305		832	473
50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	1			1
50201122	COFFERDAM (TYPE 2) (LOCATION - 2)	EACH	1		1	
50201123	COFFERDAM (TYPE 2) (LOCATION - 3)	EACH	1		1	

Δ SPECIALTY ITEMS

USER NAME =	DESIGNED -	REVISED -	 CHASTAIN & ASSOCIATES LLC CONSULTING ENGINEERS	DECATUR (217) 422-8544 SCHAUMBURG (773) 714-0050 ROCKFORD (815) 489-0050 184-001397	SUMMARY OF QUANTITIES CH 24 (REAS BRIDGE ROAD)			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FLUT SCALE =	CHECKED -	REVISED -						7355	12-00251-00-BR	MACON	196	6
FLUT DATE =	DATE -	REVISED -			SCALE: SHEET NO. 3 OF 9 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT CONTRACT NO. 95912				

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	BRIDGE	BRIDGE
				0003 RURAL	0010 S. N. 058-3408	0010 S. N. 058-3409
50300225	CONCRETE STRUCTURES	CU YD	921.4		554.4	367
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1623.7		948.7	675
50300260	BRIDGE DECK GROOVING	SQ YD	4026		2316	1710
50300265	SEAL COAT CONCRETE	CU YD	557		356	201
50300300	PROTECTIVE COAT	SQ YD	6525		3785	2740
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	232.8			232.8
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		0.5	0.5
50500505	STUD SHEAR CONNECTORS	EACH	15609		9570	6039
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	569220		289990	279230
50800515	BAR SPLICERS	EACH	3156		1768	1388
Δ 50901720	BICYCLE RAILING	FOOT	651		378	273
Δ 50901750	PARAPET RAILING	FOOT	651		378	273
51201800	FURNISHING STEEL PILES HP14X73	FOOT	5900		3290	2610
51202305	DRIVING PILES	FOOT	5900		3290	2610

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	DATE -	REVISED -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

SUMMARY OF QUANTITIES
CH 24 (REAS BRIDGE ROAD)

SCALE: SHEET NO. 4 OF 9 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	7
			CONTRACT NO. 95912	
ILLINOIS FED. AID PROJECT				

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	BRIDGE	BRIDGE
				0003 RURAL	0010 S. N. 058-3408	0010 S. N. 058-3409
51203800	TEST PILE STEEL HP14X73	EACH	7		4	3
51500100	NAME PLATES	EACH	2		1	1
52000110	PREFORMED JOINT STRIP SEAL	FOOT	167		167	
52100520	ANCHOR BOLTS, 1"	EACH	88		44	44
52100530	ANCHOR BOLTS, 1 1/4"	EACH	66		44	22
52200020	TEMPORARY SOIL RETENTION SYSTEM	SO FT	2955		1692	1263
542A1063	PIPE CULVERTS, CLASS A, TYPE 2 18"	FOOT	140	140		
542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	52	52		
542D0229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	93	93		
542D1060	PIPE CULVERTS, CLASS D, TYPE 2 15"	FOOT	48	48		
542D1066	PIPE CULVERTS, CLASS D, TYPE 2 21"	FOOT	90	90		
542D1069	PIPE CULVERTS, CLASS D, TYPE 2 24"	FOOT	202	202		
542D1099	PIPE CULVERTS, CLASS D, TYPE 2 54"	FOOT	96	96		
5421D018	PIPE CULVERTS, CLASS D, TYPE 1 18" (TEMPORARY)	FOOT	25	25		

△ SPECIALTY ITEMS

USER NAME =	DESIGNED -	REVISED -
DRAWN -	REVISOR -	REVISIONS -
PLOT SCALE =	CHECKED -	DATE -
PLOT DATE =	DATE -	REVISED -

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SUMMARY OF QUANTITIES
CH 24 (REAS BRIDGE ROAD)

SCALE: SHEET NO. 5 OF 9 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	8
			CONTRACT NO. 95912	
ILLINOIS FED. AID PROJECT				

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	BRIDGE	BRIDGE
				0003 RURAL	0010 S. N. 058-3408	0010 S. N. 058-3409
54213450	END SECTIONS 15"	EACH	2	2		
54213453	END SECTIONS 18"	EACH	4	4		
54213456	END SECTIONS 21"	EACH	4	4		
54213459	END SECTIONS 24"	EACH	12	12		
54213489	END SECTIONS 54"	EACH	2	2		
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	20	20		
54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	1	1		
54220054	PIPE CULVERTS, CLASS D, TYPE 2 54" (TEMPORARY)	FOOT	120	120		
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	1163	1163		
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	636		313	323
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	353		175	178
60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	484		242	242
60218500	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 3 FRAME AND GRATE	EACH	2	2		
60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	26	26		

△ SPECIALTY ITEMS

USER NAME =	DESIGNED -	REVISED -
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	DATE -	REVISED -



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 184-001397

SUMMARY OF QUANTITIES		
CH 24 (REAS BRIDGE ROAD)		
SCALE:	SHEET NO. 6 OF 9 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	9
ILLINOIS FED. AID PROJECT			CONTRACT NO. 95912	

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	BRIDGE	BRIDGE
				0003 RURAL	0010 S. N. 058-3408	0010 S. N. 058-3409
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	3890	3890		
△ 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	1117	1117		
△ 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	5	5		
△ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	3	3		
63200310	GUARDRAIL REMOVAL	FOOT	2757	2757		
△ 66400105	CHAIN LINK FENCE, 4'	FOOT	1384	1384		
△ 66500105	WOVEN WIRE FENCE, 4'	FOOT	584	584		
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	14	14		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	24	24		
67100100	MOBILIZATION	L SUM	1	1		
70106700	TEMPORARY RUMBLE STRIPS	EACH	12	12		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	8723	8723		
70306120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE III TAPE	FOOT	25767	25767		
70306210	TEMPORARY PAVEMENT MARKING - LINE 24"- TYPE III TAPE	FOOT	67	67		

△ SPECIALTY ITEMS

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PLOT DATE =	DATE -	REVISED -

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CONSULTING ENGINEERS

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SUMMARY OF QUANTITIES			
CH 24 (REAS BRIDGE ROAD)			
SCALE:	SHEET NO. 7 OF 9 SHEETS	STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	10
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	BRIDGE	BRIDGE
				0003 RURAL	0010 S. N. 058-3408	0010 S. N. 058-3409
70400100	TEMPORARY CONCRETE BARRIER	FOOT	2262.5	2262.5		
70600240	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 2	EACH	2	2		
△ 72000100	SIGN PANEL TYPE 1	SQ FT	109.7	109.7		
△ 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	3	3		
△ 72900100	METAL POST - TYPE A	FOOT	262.5	262.5		
△ 78008200	POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS	SQ FT	249	249		
△ 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	17303	17303		
△ 78008230	POLYUREA PAVEMENT MARKING TYPE I - LINE 6"	FOOT	54	54		
△ 78008250	POLYUREA PAVEMENT MARKING TYPE I - LINE 12"	FOOT	273	273		
△ 78008270	POLYUREA PAVEMENT MARKING TYPE I - LINE 24"	FOOT	27	27		
△ 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	16	16		
△ 78200010	BARRIER WALL REFLECTORS, TYPE B	EACH	19	19		
△ 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	183	183		
• X2010400	STUMP REMOVAL ONLY	UNIT	64	64		

△ SPECIALTY ITEMS

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PLOT DATE =	DATE -	REVISED -



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SUMMARY OF QUANTITIES		
CH 24 (REAS BRIDGE ROAD)		
SCALE:	SHEET NO. 8 OF 9 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	11
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	BRIDGE	BRIDGE
				0003 RURAL	0010 S. N. 058-3408	0010 S. N. 058-3409
△ • X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	6	6		
• X4400110	TEMPORARY PAVEMENT REMOVAL	SQ YD	3317	3317		
• X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	558		558	
• X5040100	PRECAST BRIDGE APPROACH SLAB	SQ FT	4800		4800	
• X6020050	INLETS, TYPE B, SPECIAL, TYPE B FRAME AND GRATE	EACH	2	2		
• X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1		
• XX006520	AGGREGATE DRIVEWAY, 6"	SQ YD	556	556		
• Z0004510	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3"	SQ YD	1187	1187		
• Z0004638	PAVEMENT BREAKING	SQ YD	3140	3140		
• Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
• Z0018004	DRAINAGE SCUPPERS, DS-12	EACH	26		14	12
• Z0022800	FENCE REMOVAL	FOOT	648	648		
• Z0054515	ROCK FILL - EMBANKMENT	TON	90225	90225		
• Z0062456	TEMPORARY PAVEMENT	SQ YD	1310	1310		

△ SPECIALTY ITEMS

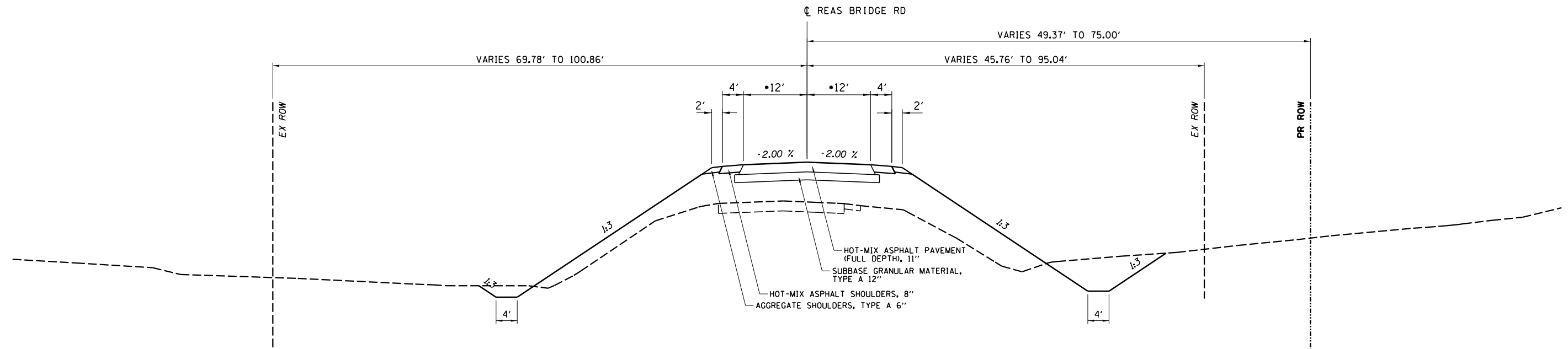
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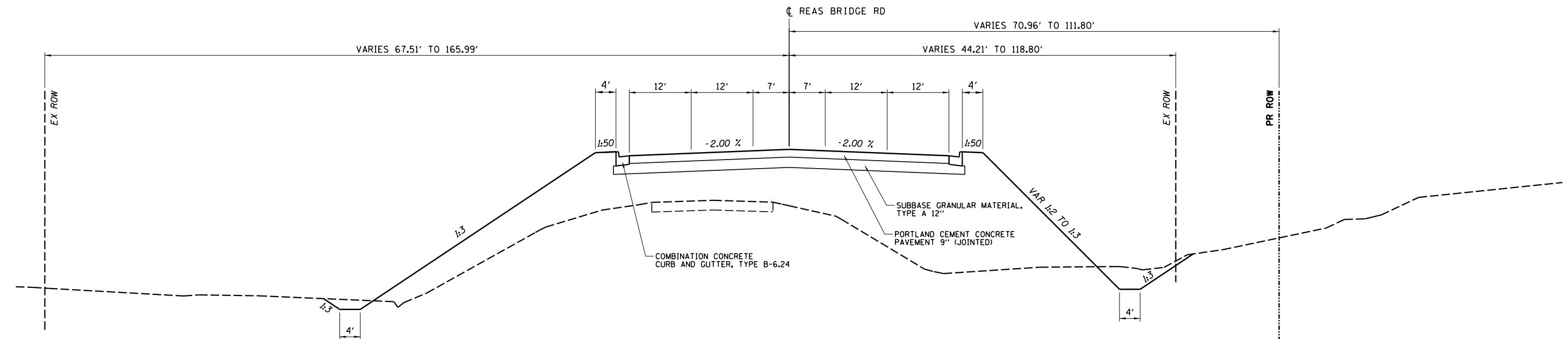
SUMMARY OF QUANTITIES			
CH 24 (REAS BRIDGE ROAD)			
SCALE:	SHEET NO. 9 OF 9 SHEETS	STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	12
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				



REAS BRIDGE ROAD

STA 16+50.00 TO STA 26+00.33
 STA 52+00.00 TO STA 59+25.00
 • VARIES 12' TO 19' FROM STA 22+85.33 TO 26+00.33
 AND 12' TO 19.5' FROM STA 52+00 TO 55+41.67



REAS BRIDGE ROAD

STA 26+00.33 TO STA 31+00.00
 STA 46+86.67 TO STA 52+00.00

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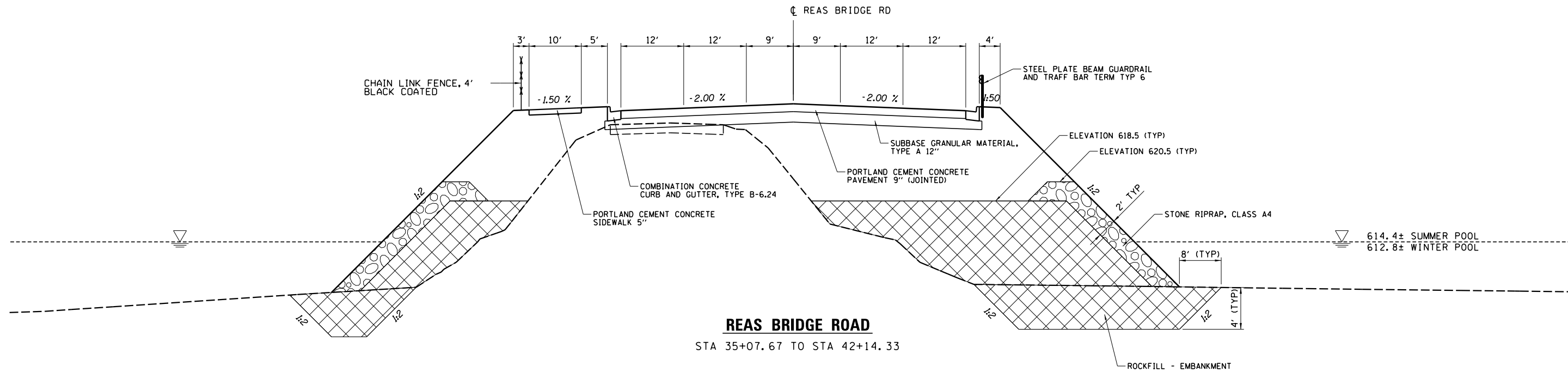
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 184-001397

**PROPOSED TYPICAL SECTIONS
 CH 24 (REAS BRIDGE ROAD)**

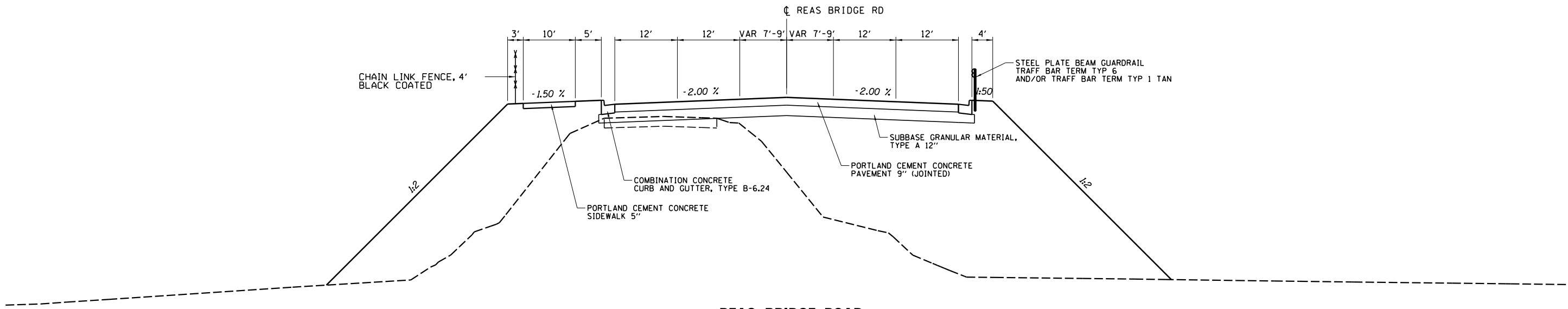
SCALE: SHEET NO. 1 OF 3 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	13
CONTRACT NO. 95912				
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REAS BRIDGE ROAD
STA 35+07.67 TO STA 42+14.33



REAS BRIDGE ROAD
STA 31+00.00 TO STA 32+30.33
STA 45+96.67 TO STA 46+86.67

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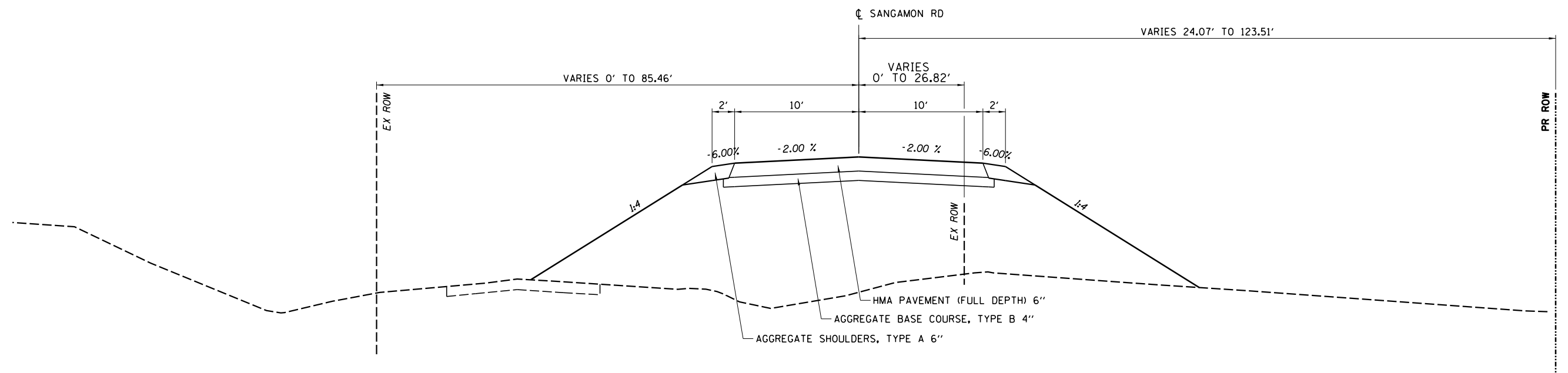
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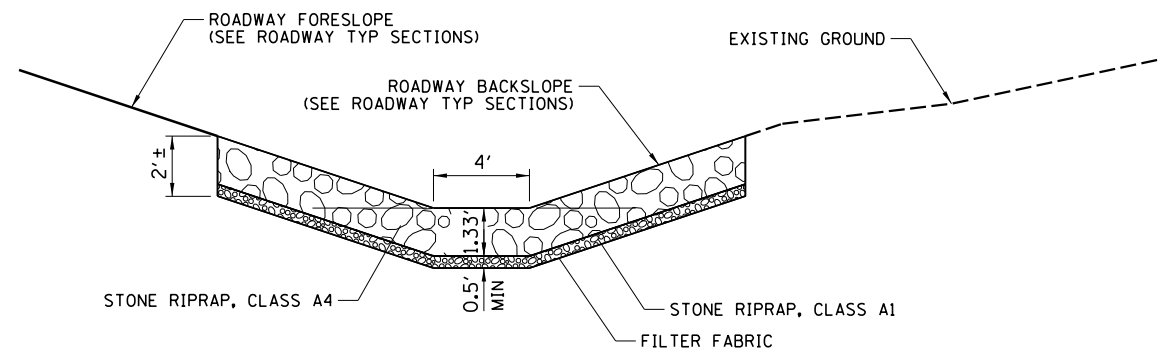
PROPOSED TYPICAL SECTIONS
CH 24 (REAS BRIDGE ROAD)

SCALE: SHEET NO. 2 OF 3 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	14
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				



SANGAMON ROAD
 STA 73+50.00 TO STA 79+69.33



DITCH LINING DETAIL

RIGHT DITCH SHOWN
 LEFT DITCH OPPOSITE HAND

LEFT DITCH	RIGHT DITCH
20+75 TO 21+50	19+50 TO 22+00
26+00 TO 28+00	46+50 TO 48+00
46+50 TO 50+00	

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**PROPOSED TYPICAL SECTIONS
 CH 24 (REAS BRIDGE ROAD)**

SCALE: SHEET NO. 3 OF 3 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	15
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

TREE REMOVAL, UNIT

STATION	OFFSET (FT)	20100110	20100210	X2010400
		6 - 15 UNIT DIA.	OVER 15 UNIT DIA.	STUMP REMOVAL ONLY
REAS BRIDGE ROAD				
20+48 to 22+05	RT			
20+88 to 29+44	LT			
22+74.74	106.82		22	
23+22 to 24+84	RT			
28+86.82	25.33	8		
29+02.09	67.15		24	
29+22.02	20.28	15		
29+22.58	22.58	12		
29+26.02	32.55	10		
29+28.39	36.22		18	
29+36.04	46.95		18	
29+38.87	46.66	12		
29+63.69	24.26	14		
31+62.74	16.97		40	
37+03.76	10.67		16	
39+40.49	12.49		20	
40+11.	-56.55		16	
41+09.84	7.18		16	
46+63.69	-83.02	6		
46+64.69	-83.02	6		
46+65.69	-83.02	6		
47+23.18	-77.69	6		
47+24.18	-77.69	6		
47+25.18	-77.69	6		
45+85 to 51+29	RT			
51+19 to 52+27	RT			
52+13.8	15.2	12		
52+75.6	43.64	14		
52+92.6	24.42	12		
53+02.11	30.91	6		
53+63.91	34.43	12		
54+79.07	46.54	8		
SANGAMON ROAD				
75+90.88	-5.25	10		
76+09.25	-14.3	10		
76+35.45	-23.7	12		
76+69.34	-40.08		18	
77+82.81	-75.75			18
77+86.84	5.88		16	
78+11.41	-44.85			30
78+17.17	-42.31			16
TOTAL		203	224	64

TREE REMOVAL, ACRES

STATION	STATION	OFFSET	20100500 TREE REMOVAL ACRES
20+48.	22+05.	RT	0.07
20+88.	29+44.	LT	0.36
23+22.	24+84.	RT	0.02
45+85.	51+29.	RT	0.70
51+19.	52+27.	RT	0.08
TOTAL			1.23

DITCH CHECKS

STATION	OFFSET	28000315 AGGREGATE DITCH CHECK CU FT
26+43.5	LT	18.8
26+87.0	LT	18.8
27+30.5	LT	18.8
48+50.0	LT	18.8
48+86.7	LT	18.8
49+23.3	LT	18.8
49+60.0	LT	18.8
46+88.0	RT	18.8
47+16.0	RT	18.8
47+44.0	RT	18.8
47+72.0	RT	18.8
TOTAL		207

MISCELLANEOUS REMOVAL

STATION	OFFSET	STATION	OFFSET	TYPE	44000100	Z0004638	44000200	50105220	63200310	Z0022800	X4400110
					PAVEMENT REMOVAL	PAVEMENT BREAKING	DRIVEWAY PAVEMENT REMOVAL	PIPE CULVERT REMOVAL	GUARDRAIL REMOVAL	FENCE REMOVAL	TEMPORARY PAVEMENT REMOVAL
					SO YD	SO YD	SO YD	FOOT	FOOT	FOOT	SO YD
REAS BRIDGE ROAD											
16+50.00		20+65.00			1276						
20+39.49	34.75 LT	20+71.88	35.26 LT	18" CMP				32			
20+65.00		23+25.00			687						
21+26.74	57.19 LT	22+34.23	58.72 LT							108	
22+43.31	39.99 RT	22+69.87	38.63 RT	18" CMP				27			
22+55.80	RT	-	-	BIT			115				
22+90.13	38.40 RT	23+20.63	39.14 RT	18" CMP				31			
23+04.30	RT	-	-	BIT			191				
24+91.66	35.71 RT	25+21.97	33.08 RT	30" CMP				30			
26+47.36	101.57 RT	27+54.95	92.45 RT	12" CMP				108			
27+32.59	7.99 RT	32+84.91	9.15 LT	SPBG					552		
27+50.00		32+85.70				1377					
28+39.26	69.42 RT	28+59.34	71.78 RT	12" PVC				20			
28+52.12	87.07 LT	28+92.61	81.70 LT							41	
28+92.61	81.70 LT	28+95.85	85.59 LT							5	
28+94.10	67.94 LT	29+30.83	17.52 RT	54" CMP				93			
30+05.49	39.41 LT	32+85.75	35.65 LT	SPBG					280		
34+51.88	37.99 LT	42+62.04	37.40 LT	SPBG					810		
34+52.25		39+75.00			1245						
34+52.49	12.18 LT	42+62.01	10.81 LT	SPBG					810		
39+75.00		42+61.90				675					
45+62.28	36.24 LT	47+51.87	42.70 LT	SPBG					190		
45+62.31	9.99 LT	46+76.73	2.37 LT	SPBG					115		
46+75.00		48+25.00				401					
48+25.00		59+25.00			2941						
49+50.00	RT	60+85.00	RT								3317
50+28.00	11.00 RT	51+19.00	11.00 RT	18" CMP				91			
50+71.10	51.43 LT	51+16.43	54.08 LT	24" CMP				45			
50+87.80	LT			BIT			118				
51+10.67	RT			BIT			30				
52+19.63	15.65 RT	52+45.08	16.58 RT	18" CMP				26			
52+34.70	RT			BIT			132				
54+10.66	17.49 RT	54+43.80	17.08 RT	18" CMP				33			
54+20.60	LT			BIT			156				
54+26.10	RT			BIT/CONC			130				
55+79.40	RT			BIT			114				
56+80.40	RT			BIT			100				
57+60.40	RT			BIT			88				
58+25.50	LT			BIT/CONC			147				
58+72.40	RT			BIT			38				
58+95.00	RT			BIT			32				
SANGAMON ROAD											
73+50.00		79+70.79			1934						
74+70.14	21.65 RT	77+29.90	85.17 LT							282	
76+94.27	79.43 LT	76+67.99	125.42 LT	2-18" CMP				106			
77+29.90	85.17 LT	77+91.53	68.78 LT							55	
77+91.53	68.78 LT	78+55.14	74.83 RT							157	
TOTAL					7,396	3,140	1,391	642	2,757	648	3,317

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CONSULTING ENGINEERS

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184-001397

SCHEDULE OF QUANTITIES
CH 24 (REAS BRIDGE ROAD)

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	16
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

GUARDRAIL

STATION	STATION	OFFSET	63000001	63100085	63100167	72501000	78200005	78200010
			STEEL PLATE BEAM GUARD RAIL TYPE A, 6 FT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 6	TRAFFIC BARRIER TERMINAL, TY 1 (SPL) TANGENT	TERMINAL MARKER DIRECT APPLIED	GUARDRAIL REFLECTORS TYPE A	BARRIER WALL REFLECTORS TYPE B
			FOOT	EACH	EACH	EACH	EACH	EACH
27+20.78	27+58.28	RT			1	1		
27+20.78	32+46.08	RT					7	
27+58.28	32+08.58	RT	450.0					
32+08.58	32+46.08	RT		1				
32+46.08	34+91.83	RT						4
34+91.83	35+29.33	RT		1				
34+91.83	42+30.35	RT					5	
35+29.33	41+92.85	RT	667.0					
41+92.85	42+30.35	RT		1				
42+30.35	45+81.66	RT						5
31+30.33	35+05.83	LT						5
35+05.83	35+66.83	LT					2	
35+05.83	35+43.33	LT		1				
35+43.33	35+80.83	LT			1	1		
42+14.00	45+96.06	LT						5
45+96.06	46+33.56	LT		1				
45+96.06	46+71.06	LT					2	
46+33.56	46+71.06	LT			1	1		
TOTAL			1,117	5	3	3	16	19

STORM SEWERS

STATION	OFFSET	STATION	OFFSET	550A0050	54213657	60218500	60235700
				STORM SEWER CLASS A TYPE 1 12"	PRECAST REINFORCED CONCRETE FLARED END SECTION 12"	MANHOLES TYPE A 4' DIAMETER TYPE 3 FRAME & GRATE	INLETS TYPE A TYPE 3 FRAME & GRATE
				FOOT	EACH	EACH	EACH
27+10.0	-33.45 LT	27+10.0	-40.98 LT	7.5	1		1
27+10.0	33.45 RT	27+10.0	39.69 RT	6.2	1		1
28+00.0	-33.45 LT	28+00.0	-40.97 LT	7.5	1		1
28+00.0	33.45 RT	28+00.0	39.68 RT	6.2	1		1
29+00.0	-33.45 LT	29+00.0	-40.97 LT	7.5	1		1
29+00.0	33.45 RT	29+00.0	39.68 RT	6.2	1		1
29+37.0	-33.45 LT	29+37.0	-40.97 LT	7.5	1		1
30+00.0	33.45 RT	30+00.0	39.68 RT	6.2	1		1
31+00.0	33.45 RT	31+00.0	39.68 RT	6.2	1		1
31+75.0	-33.45 LT	31+75.0	-53.51 LT	20.1	1		1
32+13.8	-31.94 LT	32+13.8	-55.17 LT	23.2	1		1
32+13.8	33.94 RT	32+13.8	41.31 RT	7.4	1		1
36+00.7	-34.69 LT	37+38.1	-34.70 LT	137.4			1
37+40.0	-37.58 LT	37+40.0	-60.55 LT	23.0	1	1	
36+00.7	34.69 RT	37+38.1	34.70 RT	137.4			1
37+40.0	37.58 RT	37+40.0	47.11 RT	9.5	1	1	
38+74.3	-34.69 LT	37+41.9	-35.69 LT	132.4			1
38+74.3	34.69 RT	37+41.9	35.69 RT	132.4			1
39+74.3	-34.69 LT	38+75.7	-34.69 LT	98.5			1
39+74.3	34.69 RT	38+75.7	34.69 RT	98.5			1
40+74.3	-34.69 LT	39+75.7	-34.69 LT	98.5			1
40+74.3	34.69 RT	39+75.7	34.69 RT	98.5			1
46+36.0	-34.25 LT	46+36.0	-54.35 LT	20.1	1		1
46+36.0	34.25 RT	46+36.0	40.50 RT	6.3	1		1
47+75.0	-33.44 LT	47+75.0	-53.47 LT	20.0	1		1
47+75.0	33.44 RT	47+75.0	45.95 RT	12.5	1		1
49+50.0	-33.44 LT	49+50.0	-55.50 LT	22.1	1		1
49+50.0	33.44 RT	49+50.0	36.81 RT	3.4	1		1
TOTAL				1163	20	2	26

RIPRAP

STATION	STATION	OFFSET	TYPE	28100107	28200200
				STONE RIPRAP CLASS A4	FILTER FABRIC
				TONS	SO YD
19+50.0	22+00.0	RT	DITCH LINING	560	611
20+75.0	21+50.0	LT	DITCH LINING	168	183
26+00.0	28+00.0	LT	DITCH LINING	448	489
27+00.0	-	LT	PIPE OUTLET	13	15
27+00.0	-	RT	PIPE OUTLET	7	8
28+00.0	-	LT	PIPE OUTLET	23	25
28+00.0	-	RT	PIPE OUTLET	12	13
29+00.0	-	LT	PIPE OUTLET	23	25
29+00.0	-	RT	PIPE OUTLET	13	14
29+37.0	-	LT	PIPE OUTLET	23	25
29+00.0	32+49.3	RT	CAUSEWAY	1251	1364
30+00.0	-	RT	PIPE OUTLET	9	9
31+00.0	-	RT	PIPE OUTLET	8	9
31+51.0	-	LT	PIPE OUTLET	13	15
32+25.0	-	LT	PIPE OUTLET	7	7
32+25.0	-	RT	PIPE OUTLET	7	8
32+00.0	32+49.3	LT	CAUSEWAY	121	132
32+49.3	33+04.6		BRIDGE	853	931
34+33.1	34+88.6		BRIDGE	861	938
34+88.6	42+33.0	LT	CAUSEWAY	2460	2684
34+88.6	42+33.0	RT	CAUSEWAY	2347	2560
42+33.0	42+91.0		BRIDGE	904	987
45+14.7	45+77.7		BRIDGE	1086	1185
45+77.7	46+50.0	LT	CAUSEWAY	227	248
45+77.7	46+50.0	RT	CAUSEWAY	166	181
46+05.0	-	LT	PIPE OUTLET	15	16
46+05.0	-	RT	PIPE OUTLET	18	20
46+50.0	50+00.0	LT	DITCH LINING	570	622
46+50.0	48+00.0	RT	DITCH LINING	336	367
47+75.0	-	LT	PIPE OUTLET	13	13
TOTAL				12562	13704

CONCRETE CURB AND GUTTER

STATION	OFFSET	STATION	OFFSET	60605000	42001300
				CONCRETE CURB AND GUTTER TYPE B-6.24	PROTECTIVE COAT
				FOOT	SO YD
26+00.0	31 LT	29+38.8	31 LT	339	113
29+38.8	31 LT	30+13.4	47.7 LT	77	25
30+13.4	47.7 LT	30+39.9	89.2 LT	53	18
30+86.3	86 LT	31+00.0	56 LT	34	11
31+00.0	56 LT	31+49.9	31.2 LT	57	19
31+49.9	31.2 LT	32+30.3	33 LT	81	27
26+00.3	31 RT	31+00.0	31 RT	500	166
31+00.0	31 RT	31+40.3	31 RT	40	13
31+40.3	31 RT	32+30.3	33 RT	90	30
35+07.8	33 LT	42+14.0	33 LT	706	236
35+07.5	33 RT	42+14.6	33 RT	707	236
45+96.7	33 LT	46+86.7	31 LT	90	30
46+86.7	31 LT	51+00.0	31 LT	413	138
51+00.0	31 LT	52+00.0	31 LT	100	33
45+96.7	33 RT	46+86.7	31 RT	90	30
46+86.7	31 RT	51+00.0	31 RT	413	138
51+00.0	31 RT	52+00.0	31 RT	100	33
TOTAL				3890	1296

INLET & PIPE PROTECTION

STATION	OFFSET		28000500
			INLET AND PIPE PROTECTION EACH
REAS BRIDGE ROAD			
18+62.0	33.8	RT	1
20+41.4	34.8	RT	1
22+00.0	47.0	RT	1
22+80.0	54.9	RT	1
24+69.0	59.9	RT	1
26+28.0	76.1	RT	1
27+10.0	32.7	RT	1
27+10.0	32.7	RT	1
28+00.0	32.7	RT	1
28+00.0	32.7	RT	1
29+00.0	32.7	RT	1
29+00.0	32.7	RT	1
29+37.0	32.7	RT	1
30+00.0	32.7	RT	1
31+00.0	32.7	RT	1
31+75.0	33.0	RT	1
32+13.8	34.6	RT	1
32+13.8	34.6	RT	1
36+00.0	34.7	RT	1
36+00.0	34.7	RT	1
37+40.0	34.7	RT	1
37+40.0	34.7	RT	1
38+75.0	34.7	RT	1
38+75.0	34.7	RT	1
39+75.0	34.7	RT	1
39+75.0	34.7	RT	1
40+75.0	34.7	RT	1
40+75.0	34.7	RT	1
46+36.0	34.5	RT	1
46+36.0	34.5	RT	1
47+75.0	32.7	RT	1
47+75.0	32.7	RT	1
49+50.0	32.7	RT	1
49+50.0	32.7	RT	1
50+14.7	46.6	RT	1
51+16.5	62.6	RT	1
51+57.8	46.6	RT	1
52+46.0	36.4	RT	1
54+38.0	31.9	RT	1
54+48.7	47.3	RT	1
55+96.3	33.4	RT	1
56+95.2	36.2	RT	1
58+49.3	47.7	RT	1
59+10.3	35.0	RT	1
SANGAMON ROAD			
76+00.0	22.0	RT	1
77+40.0	39.3	RT	1
79+00.0	37.5	RT	1
TOTAL			47

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 ROCKFORD (815) 489-0050
 184-001397

SCHEDULE OF QUANTITIES				
CH 24 (REAS BRIDGE ROAD)				
SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	17
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

DRAINAGE

STATION	OFFSET	STATION	OFFSET	542A1063	542D0223	542D0229	542D1060	542D1066	542D1069	542D1099	54210018	5422D054	54213663	54213450	54213453	54213456	54213459	54213489	X6020050							
				PIPE CULVERTS										PRECAST REINFORCED CONCRETE FLARED	END SECTION	END SECTIONS	END SECTIONS	END SECTIONS	END SECTIONS	END SECTIONS	INLETS TYPE B SPL TYPE 8 F&G					
				CLASS A		CLASS D																TEMPORARY CLASS D				
				TYPE 2	TYPE 1	TYPE 2			TYPE 1	TYPE 2																
18"	18"	24"	15"	21"	24"	54"	18"	54"						18"	15"	18"	21"	24"	54"	EACH	EACH	EACH	EACH	EACH	EACH	EACH
				FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	EACH		EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		
REAS BRIDGE ROAD																										
20+41.3	34.80 LT	20+71.3	35.50 LT			30													2							
22+01.5	47.70 RT	22+78.5	54.90 RT	78																1						
22+81.5	54.90 RT	23+43.0	55.40 RT	62									1							1						
21+90.0	27.50 RT	22+00.0	47.70 RT																							
24+56.4	80.10 RT	24+70.5	59.40 RT								25															
24+69.0	59.90 RT	25+44.0	63.70 RT						75											2						
26+28.0	76.10 RT	27+04.0	65.20 RT						77											2						
29+02.3	74.70 LT	30+22.2	80.30 LT																	120						
49+85.8	46.60 RT	50+11.8	46.60 RT			26														2						
50+64.0	62.60 LT	51+14.0	62.60 LT						50											2						
51+13.0	46.60 RT	51+50.0	46.60 RT			37														2						
52+20.0	42.20 RT	52+46.0	36.40 RT			26														2						
54+12.0	32.40 RT	54+38.0	31.90 RT			26														2						
SANGAMON ROAD																										
76+00.0	22.00 RT	76+00.0	23.00 LT					90												4						
76+92.0	39.30 LT	77+40.0	39.30 LT			48								2												
79+00.0	37.50 RT	79+00.0	58.50 LT						96											2						
				TOTAL	140	52	93	48	90	202	96	25	120	1	2	4	4	12	2	2						

SIGNAGE

ENTRANCES

LOCATION	RT/LT	TYPE	35101800	40800025	42300400	XX006520	Z0004510
			AGGREGATE BASE COURSE TYPE B 6"	BITUMINOUS MATERIALS (PRIME COAT)	P. C. C. DRIVEWAY PAVEMENT 8"	AGGREGATE DRIVEWAY 6"	HMA DRIVEWAY PAVEMENT 3"
			SO YD	LBS	SO YD	SO YD	SO YD
REAS BRIDGE ROAD							
20+55.00	LT	F. E.				59	
22+55.80	RT	P. E.	71	160			71
23+04.30	RT	P. E.	154	347			154
25+02.60	RT	C. E.	167	377			167
26+65.50	RT	C. E.	132	297			132
50+00.00	RT	P. E.	70	158			70
50+87.80	LT	C. E.	160	361			160
51+37.00	RT	F. E.	79	177			79
52+34.70	RT	P. E.	60	134			60
54+20.60	LT	C. E.			180		
54+26.10	RT	P. E.	81	182			81
55+79.40	RT	P. E.	60	134			60
56+80.40	RT	P. E.	65	146			65
57+60.40	RT	P. E.	50	113			50
58+25.50	LT	C. E.			145		
58+72.40	RT	P. E.	20	45			20
58+95.00	RT	P. E.	18	40			18
SANGAMON ROAD							
77+15.30	LT	C. E.				192	
78+42.00	RT	F. E.				161	
78+42.00	LT	C. E.				144	
			TOTAL	1187	2671	325	556

STATION	OFFSET	SIDE	LANE	FACING	TYPE OF SIGN	SIGN CODE	SIGN SIZE	72000100	72900100	
								SIGN PANEL TYPE 1	METAL POST TYPE A	NUMBER
							INCH	SO FT		
REAS BRIDGE ROAD										
21+95.7	24.0	RT	WB	EAST	SIDE ROAD (TO LEFT)	W2-2	30x30	6.25	1	20.5
					SANGAMON RD	W16-8P				
25+78.8	30.5	LT	EB	WEST	CHEVERON	W1-8	18x24	3.00	1	21.0
26+53.9	36.1	LT	EB	WEST	SIDE ROAD (TO LEFT)	W2-2	30x30	6.25	1	14.5
26+98.8	36.1	LT	EB	WEST	CHEVERON	W1-8	18x24	3.00	1	10.5
28+18.8	36.1	LT	EB	WEST	CHEVERON	W1-8	18x24	3.00	1	10.5
29+38.8	36.1	LT	EB	WEST	CHEVERON	W1-8	18x24	3.00	1	10.5
31+49.8	36.2	LT	EB	WEST	CHEVERON	W1-8	18x24	3.00	1	12.5
35+51.2	37.8	LT	EB	WEST	LANE ENDS	W4-2	36x36	9.00	1	14.6
37+63.1	37.8	LT	EB	WEST	SIDE ROAD (TO RIGHT)	W2-2	30x30	6.25	1	15.0
					SANGAMON RD	W16-8P				
41+65.7	38.1	RT	WB	EAST	LANE ENDS	W4-2	36x36	9.00	1	12.6
46+86.7	36.1	RT	WB	EAST	CHEVERON	W1-8	18x24	3.00	1	10.7
47+47.0	35.6	LT	EB	WEST	SPEED LIMIT 55	R2-1	30x36	7.50	1	16.0
					ADOPT-A-STREET "IZAAK WALTON LEAGUE OF AMERICA"	D14-2	36x30	7.50		
47+47.0	36.1	RT	WB	EAST	SPEED LIMIT 45	R2-1	30x36	7.50	1	11.7
47+47.0	40.6	RT	WB	EAST	TRUCK ENTRANCE	W11-22	36x36	9.00	1	14.3
48+06.7	36.1	RT	WB	EAST	CHEVERON	W1-8	18x24	3.00	1	10.7
49+26.7	36.1	RT	WB	EAST	CHEVERON	W1-8	18x24	3.00	1	10.7
49+86.7	36.1	RT	WB	EAST	HIDDEN DRIVE	W11-Y13	30x30	6.25	1	12.0
50+46.7	36.1	RT	WB	EAST	CHEVERON	W1-8	18x24	3.00	1	10.7
51+66.7	36.1	RT	WB	EAST	CHEVERON	W1-8	18x24	3.00	1	10.7
SANGAMON ROAD										
79+44.8	32.5	RT	NB	SOUTH	STOP	R1-1	30x30	5.2	1	12.8
					6200 REAS BRIDGE RD	D3-1				
					3100 SANGAMON RD	D3-1				
								TOTAL	109.7	262.5

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184-001397

SCHEDULE OF QUANTITIES			
CH 24 (REAS BRIDGE ROAD)			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	18
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

PAVEMENT MARKINGS

STATION TO STATION	DIRECTION	78008210		78000230		78008250		78008270		78008200	
		POLYUREA PAVEMENT MARKING, TYPE 1									
		4" WHITE LINE		4" YELLOW LINE		6" WHITE LINE		12" WHITE LINE	24" WHITE LINE	LETTERS AND SYMBOLS	
		SOLID	SKIP-DASH	SOLID	SKIP-DASH	SKIP-DASH					
(FOOT)										(SQ FT)	
REAS BRIDGE ROAD											
16+50.0	22+85.3	EB	635.3			158.8					
16+50.0	22+85.3	WB	635.3								
22+85.3	26+00.0	EB	314.8	314.8							
22+85.3	26+00.0	WB	314.8	314.8							
26+00.3	29+34.2	EB	334.0								
26+00.3	31+40.3	EB		540.0							
26+00.3	31+40.3	WB	540.1	540.0							
26+00.3	29+38.8	EB									
29+34.2	31+49.9	EB				53.9		130.6			
31+49.9	32+30.3	EB	80.5								
31+40.3	32+30.3	EB		90.0							
31+40.3	32+30.3	WB	90.0	22.5	90.0						
32+30.3	35+07.8	WB		69.3							
32+30.3	45+96.7	EB	1,366.3		1,366.3						
32+30.3	45+96.7	WB	1,366.3		1,366.3						
31+87.8		EB								41.5	
32+81.2	35+07.8	EB		56.7							
33+08.2		EB								41.5	
34+26.2		EB								41.5	
35+07.8	42+14.0	EB		176.6							
35+07.8	42+14.0	WB		176.6							
42+14.0	45+96.7	EB		95.7							
42+14.0	45+55.4	WB		85.3							
44+00.8		WB								41.5	
45+21.2		WB								41.5	
45+96.7	46+86.7	EB	90.0	22.5	90.0						
45+96.7	46+86.7	WB	90.0		90.0						
46+41.6		WB								41.5	
46+86.7	52+00.0	EB	513.5		513.3						
46+86.7	52+00.0	WB	513.5		513.3			141.6			
52+00.0	54+94.2	EB	294.3		294.2						
52+00.0	54+94.2	WB	294.3		294.2						
54+94.2	55+41.7	EB	47.5		47.5						
54+94.2	55+41.7	WB	47.5		47.5						
55+41.7	59+25.0	EB	383.3			95.9					
55+41.7	59+25.0	WB	383.3								
SANGAMON ROAD											
73+50.0	77+19.1	SB	369.1								
77+19.1	79+11.7	SB	187.6								
79+11.7	79+68.8	SB	92.8								
73+50.0	79+46.5					149.1					
73+50.0	79+11.7	NB	561.7								
79+11.7	79+65.4	NB	95.3								
79+65.4	79+73.6	SB	40.6								
79+45.4		NB						26.2			
TOTAL			9,681.7	705.2	6,512.2	403.8	53.9	272.2	26.2	249.0	
USE			17,303			54	273	27	249		

SEEDING

STATION	STATION	OFFSET	AREA (SQ FT)	X25001000					28000250	
				SEEDING CLASS 2 (SPECIAL)	*NITROGEN FERTILIZER NUTRIENT	*PHOSPHORUS FERTILIZER NUTRIENT	*POTASSIUM FERTILIZER NUTRIENT	*MULCH METHOD 2	TEMPORARY EROSION CONTROL SEEDING	
				ACRE	POUNDS	POUNDS	POUNDS	ACRE	POUNDS	
REAS BRIDGE ROAD										
16+50.0	18+72.5	RT	1360	0.031	2	7	4	0.031		
16+50.0	20+49.0	LT	1762	0.040	2	10	5	0.040		
19+14.1	22+49.8	RT	8212	0.189	11	45	23	0.189		
22+44.4	22+98.1	RT	2241	0.051	3	12	6	0.051		
20+61.0	29+38.8	LT	29029	0.666	40	160	80	0.666		
23+10.3	24+96.6	RT	10896	0.250	15	60	30	0.250		
25+08.6	26+59.5	RT	10308	0.237	14	57	28	0.237		
26+71.5	32+49.3	RT	18991	0.436	26	105	52	0.436		
31+24.5	32+66.2	LT	3549	0.081	5	20	10	0.081		
35+07.7	42+14.3	RT	14373	0.330	20	79	40	0.330		
35+07.7	42+14.3	LT	16733	0.384	23	92	46	0.384		
45+44.0	50+80.4	LT	13056	0.300	18	72	36	0.300		
45+99.2	49+94.0	RT	10762	0.247	15	59	30	0.247		
49+94.0	51+30.8	RT	5456	0.125	8	30	15	0.125		
50+95.7	54+13.2	LT	10068	0.231	14	55	28	0.231		
51+40.0	52+27.8	RT	2859	0.066	4	16	8	0.066		
52+35.7	54+19.4	RT	5655	0.130	8	31	16	0.130		
54+37.1	58+10.7	LT	9351	0.215	13	52	26	0.215		
54+29.1	55+73.3	RT	2442	0.056	3	13	7	0.056		
55+85.4	56+74.7	RT	1035	0.024	1	6	3	0.024		
56+85.7	57+55.4	RT	556	0.013	1	3	2	0.013		
57+65.4	58+67.4	RT	351	0.008	0	2	1	0.008		
58+40.6	59+25.0	LT	1525	0.035	2	8	4	0.035		
58+77.4	59+25.0	RT	137	0.003	0	1	0	0.003		
SANGAMON ROAD										
73+50.0	77+09.1	LT	11851	0.272	16	65	33	0.272		
73+50.0	78+34.3	RT	9821	0.225	14	54	27	0.225		
77+21.6	78+35.7	LT	10478	0.241	14	58	29	0.241		
78+49.7	79+66.4	RT	9519	0.219	13	52	26	0.219		
78+48.4	79+51.2	LT	4974	0.114	7	27	14	0.114		
TOTAL				5.22	313	1253	626	5.22	500	

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SCHEDULE OF QUANTITIES			
CH 24 (REAS BRIDGE ROAD)			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	19
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

PAVEMENT

STATION	STATION	31100910 SUB-BASE GRANULAR MATERIAL 12" SQ YD	35101600 AGGREGATE BASE COURSE TYPE B 4" SQ YD	40201000 AGGREGATE FOR TEMPORARY ACCESS TON	40600275 BITUMINOUS MATERIAL PRIME COAT LBS	40600290 BITUMINOUS MATERIAL TACK COAT LBS	40701801 HOT-MIX ASPHALT PAVEMENT (FD), 6" SQ YD	40701901 HOT-MIX ASPHALT PAVEMENT (FD), 11" SQ YD	42000060 WELDED WIRE REINFORCEMENT SQ YD	42000080 PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB SQ YD	42000401 PORTLAND CEMENT CONCRETE PAVEMENT 9" (JOINTED) SQ YD	42001300 PROTECTIVE COAT SQ YD	42400200 PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL SQ FT	42400800 DETECTABLE WARNINGS SQ FT	48100500 AGGREGATE SHOULDERS TYPE A, 6" SQ YD	481001500 AGGREGATE SHOULDERS TYPE B, 6" SQ YD	48203029 HOT-MIX ASPHALT SHOULDERS, 8" SQ YD	20062456 TEMPORARY PAVEMENT SQ YD	
REA'S BRIDGE ROAD																			
16+50.0	26+00.0	3,129			7,041	1,250		2,779							475		91	845	
19+50.0	26+00.0																		
26+00.0	31+00.0	3,787						3,444		3,444	3,444								
31+00.0	32+15.3							808		808	808								
31+00.0	32+27.3	983																	
31+08.1	32+30.3												1,120	40					
32+15.3	32+30.3									110		110							
35+07.7	35+22.7									110		110							
35+07.7	42+13.9												6,961						
35+10.7	42+11.3	5,618																	
35+22.7	41+99.3							4,962		4,962	4,962								
41+99.3	42+14.3									110		110							
45+96.7	46+11.7									110		110							
45+96.7	50+76.0												4,724						
45+99.7	46+86.7	673																	
46+11.7	46+86.7							531		531	531								
46+86.7	51+00.0	3,130						2,848		2,848	2,847								
49+50.0	60+85.0																284		1,310
51+00.0	52+00.0	758																	
52+00.0	59+25.0	2,423			5,452	998		2,218		689	689	689			363			645	
18+94.9			193		435	86	191												
19+04.8	25+00.0			480															
SANGAMON ROAD																			
73+50.0	77+19.1		862		1,938	185	820								185				
77+19.1	79+11.7		225		506	48	214								96				
77+19.1	79+69.0		682		1,533	151	673												
79+11.7	79+69.0		194		438	44	194												
TOTAL		20,501	2,156	480	17,343	2,762	2,092	4,997	13,282	440	13,282	13,721	12,805	40	1,119	375	1,490	1,310	

EARTHWORK

LOCATION	20200100	20400800	20201200	20054515		
	1				2	3
	EARTH EXCAVATION	*EXCAVATION TO BE USED IN EMBANKMENT (ADJUSTED FOR SHRINKAGE) (COL 1 X 0.85)	*EMBANKMENT (FILL)	EARTHWORK BAL WASTE (+) OR FURNISHED EXCAVATION (-) (COL 2 - COL 3)	REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL	ROCK FILL EMBANKMENT
	CU YD	CU YD	CU YD	CU YD	CU YD	TON
PRE STAGE 1	324	243	1,793	-1,550	0	0
STAGE 1	8,511	6,383	45,410	-39,027	14,502	70,552
STAGE 2	4,485	3,364	25,578	-22,214	4,430	19,673
STAGE 3	1,093	820	1,431	-611	0	0
PROJECT TOTAL	14,413	10,810	74,212	-63,402	18,932	90,225

EARTH EXCAVATION SHRINKAGE FACTOR = 25%
ITEMS MARKED WITH AN ASTERISK (*) ARE FOR INFORMATION ONLY.

PERIMETER EROSION BARRIER

STATION	OFFSET	STATION	OFFSET	28000400
				PERIMETER EROSION BARRIER FOOT
28+00.0	88' LT	29+00.0	85.2' LT	100
29+00.0	85.2' LT	29+32.6	133.3' LT	58
29+00.0	58.5' RT	29+00.0	75.6' RT	17
29+00.0	58.5' RT	32+49.3	58.1' RT	352
31+40.4	86.5' LT	32+00.0	88' LT	60
32+00.0	88' LT	32+00.0	70.7' LT	17
32+00.0	70.7' LT	32+49.3	71.3' LT	49
32+49.3	58.1' RT	32+49.3	36.6' RT	22
32+49.3	71.3' LT	32+49.3	47.6' LT	24
34+88.7	47.6' LT	34+88.7	68.5' LT	21
34+88.7	68.5' LT	42+32.9	72' LT	737
34+88.7	36.6' RT	34+88.7	55' RT	18
34+88.7	55' RT	42+32.9	58.2' RT	751
42+32.9	58.2' RT	42+32.9	36.7' RT	22
TOTAL				2,248

RIGHT OF WAY MARKERS

STATION	OFFSET	66600105
		FURNISH AND ERECT ROW MARKERS EACH
REAS BRIDGE ROAD		
27+56.33	111.80 RT	1
29+32.55	133.31 LT	1
46+81.98	95.11 RT	1
47+58.42	105.00 LT	1
47+52.52	87.77 LT	1
48+50.00	65.00 RT	1
49+45.32	72.19 LT	1
50+00.00	85.00 RT	1
52+13.66	70.00 RT	1
52+53.75	60.00 RT	1
54+11.75	60.05 RT	1
54+65.00	45.37 RT	1
SANGAMON ROAD		
74+51.15	24.07 RT	1
76+00.00	40.00 RT	1
TOTAL		14

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SCHAUMBURG (773) 714-0950
ROCKFORD (815) 489-0050
184-001397

SCHEDULE OF QUANTITIES			
CH 24 (REAS BRIDGE ROAD)			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	20
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

MAINTENANCE OF TRAFFIC

STATION TO STATION	DIRECTION	70306120		70306210	70400100	78200011	70600240	70106700
		TEMPORARY PAVEMENT MARKING TAPE, TYPE III			TEMPORARY CONCRETE BARRIER	BARRIER WALL REFLECTOR, TYPE C	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	TEMPORARY RUMBLE STRIP
		4" WHITE - LINE SOLID	4" YELLOW - LINE SOLID DOUBLE	24" WHITE - LINE				
		(FOOT)			(FOOT)	(EACH)	(EACH)	(EACH)
Stage 1								
BEFORE WORK ZONE	EB & WB							6
29+00	47+65			3730				
29+00	47+85	WB	1885					
29+00	49+50	EB	2050					
47+85	51+00	WB	316					
49+50	50+96	EB	146					
50+96	59+25	EB	830					
51+00	59+25	WB	825					
59+25	60+84	EB	159					
59+25	61+95	WB	271					
Stage 2								
BEFORE WORK ZONE	EB & WB							6
16+50	26+00	EB & WB	1900	1900				
18+05		WB			11			
19+11		STAR RT RD			18			
26+00	29+00	EB & WB	602	601				
29+00		EB			11			
29+00	31+40	EB & WB	480	480				
31+40	32+30	EB & WB	180	180				
32+30	45+97	EB & WB	2734	2733				
45+97	46+87	EB & WB	180	180				
46+87	49+80	EB & WB		587				
46+87	50+00	WB	313					
46+87	54+74	EB	787					
50+00		WB			11			
50+00	52+27	WB	227					
52+27	55+42	WB	315					
54+74	59+32	EB	459					
55+42	59+33	WB	391					
56+19		EB			16			
59+33	60+76	EB	144					
61+04	61+95	EB & WB		182				
26+39	29+00				262.5	22	1	
29+00	31+41				237.5	19		
31+41	32+28				87.5	7		
32+28	45+97				1375	110		
45+97	46+84				87.5	7		
46+84	48+97				212.5	18	1	
SUBTOTAL			15194	10573	67	2262.5	183	2
TOTAL				25767	67	2262.5	183	2

FENCE

STATION	OFFSET	STATION	OFFSET	66400105	66500105
				CHAIN LINK FENCE 4'	WOVEN WIRE FENCE 4'
				FOOT	FOOT
REAS BRIDGE ROAD					
21+27.25	56.98 LT	22+32.39	58.78 LT		107
28+50.66	87.00 LT	28+95.63	85.41 LT		45
31+08.11	49.50 LT	31+87.17	50.63 LT	197	
35+07.75	47.58 LT	42+14.03	47.37 LT	707	
45+96.6	47.61 LT	50+75.53	49.58 LT	479	
SANGAMON ROAD					
74+51.15	24.07 RT	78+70.86	116.86		431
TOTAL				1,383	583

EROSION CONTROL BLANKET

STATION	STATION	OFFSET	25100630
			EROSION CONTROL BLANKET SO YD
REAS BRIDGE ROAD			
16+50.	18+72.5	RT	149
16+50.	20+49.	LT	196
19+14.1	22+49.8	RT	1004
22+58.7	22+98.1	RT	249
20+61.	29+38.8	LT	3612
23+10.3	24+96.6	RT	1082
25+08.6	26+59.5	RT	1068
26+71.5	32+30.3	RT	2095
31+49.5	32+30.3	LT	336
35+07.5	42+14.8	RT	1433
35+07.9	42+13.7	LT	1911
45+96.7	50+80.	LT	1891
45+96.7	51+30.8	RT	2052
50+95.4	54+11.6	LT	1091
51+40.	52+25.7	RT	336
52+35.7	54+19.4	RT	628
54+37.1	58+10.7	LT	309
54+29.1	55+73.3	RT	247
55+85.4	56+74.9	RT	46
56+86.	57+55.4	RT	69
57+65.4	58+67.4	RT	37
58+40.6	59+25.	LT	63
58+77.4	59+25.	RT	15
SANGAMON ROAD			
73+50.	77+09.1	LT	1317
73+50.	78+34.3	RT	1109
77+21.6	78+35.7	LT	1163
78+49.7	79+66.4	RT	1122
78+48.4	79+51.2	LT	579
TOTAL			25,208

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184-001397

**SCHEDULE OF QUANTITIES
CH 24 (REAS BRIDGE ROAD)**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	21
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

BM NO. 1
CHISELED LINE ON SE WINGWALL
OF EAST BRIDGE
STA 32+83.3, 3, 40.0' LT
ELEV. 617.17

BM NO. 2
RAILROAD SPIKE SET IN SW FACE
OF POWER POLE BY SUBSTATION
FOR DREDGING OPERATIONS
STA 28+35.0, 78.3' RT
ELEV. 623.44

BM NO. 3
RAILROAD SPIKE SET IN N FACE
POWER POLE SOUTH SIDE OF REAS
BRIDGE ROAD EAST OF BEGINNING OF PROJECT
STA 9+76.9, 57.7' LT
ELEV. 680.90

BM NO. 4
CHISELED SQUARE ON SE ABUTMENT
OF EAST BRIDGE
STA 32+84.7, 38.0' LT
ELEV. 627.32

BM NO. 5
CHISELED SQUARE ON SW WINGWALL
OF WEST BRIDGE
STA 45+61.9, 39.5' LT
ELEV. 627.44

BM NO. 6
RAILROAD SPIKE SET IN N FACE
POWER POLE AT E ENTRANCE TO ADM
WATER FACILITY
STA 51+35.4, 75.3' LT
ELEV. 645.28

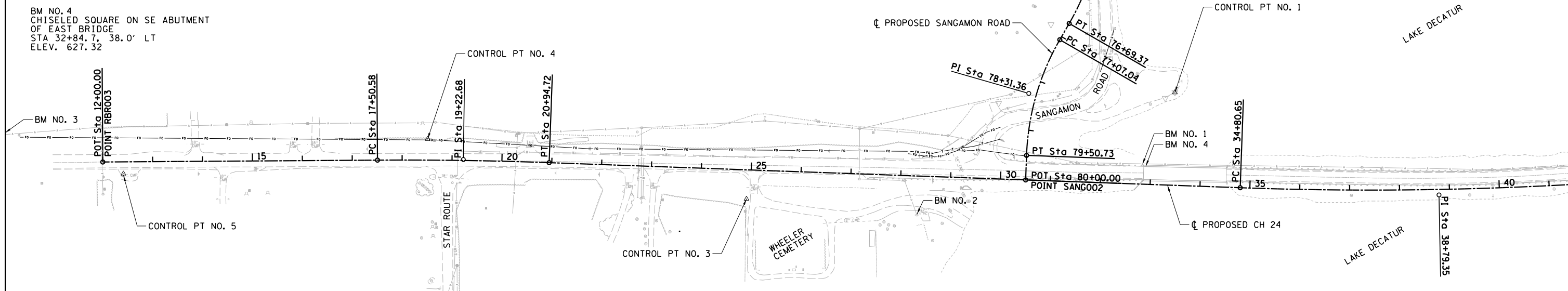
BM NO. 7
RAILROAD SPIKE SET IN S FACE
POWER POLE ON N SIDE AT
5440 REAS BRIDGE RD
STA 60+62.2, 41.2' RT
ELEV. 666.33

PROP. CURVE PR_RBR-1
PI STA. = 19+22.68
 $\Delta = 2^\circ 27' 53''$ (RT)
D = 0° 42' 58"
R = 8,000.00'
T = 172.10'
L = 344.14'
E = 1.85'
P.C. STA = 17+50.58
P.T. STA = 20+94.72

PROP. CURVE SANGAMON-1
PI STA. = 75+37.51
 $\Delta = 30^\circ 59' 56''$ (RT)
D = 11° 27' 33"
R = 500.00'
T = 138.66'
L = 270.52'
E = 18.87'
P.C. STA = 73+98.85
P.T. STA = 76+69.37

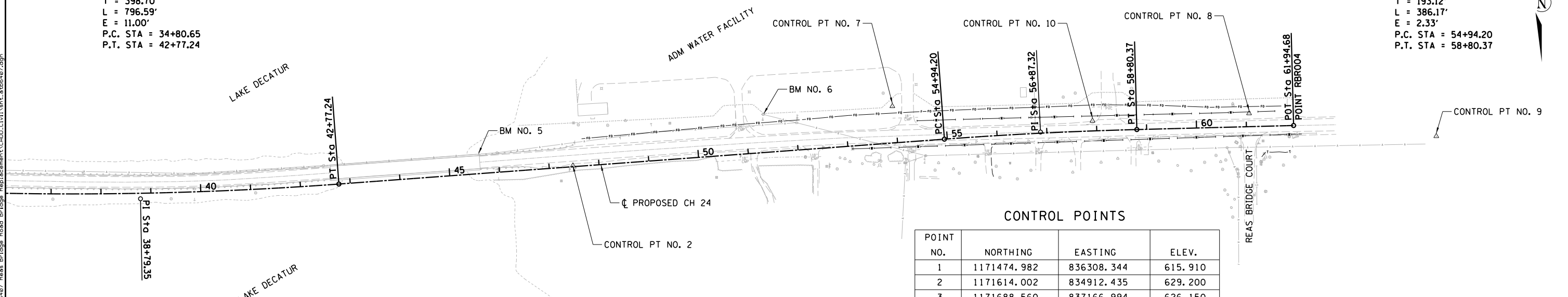
PROP. CURVE SANGAMON-2
PI STA. = 78+31.36
 $\Delta = 27^\circ 55' 30''$ (LT)
D = 11° 27' 33"
R = 500.00'
T = 124.32'
L = 243.69'
E = 15.22'
P.C. STA = 77+07.04
P.T. STA = 79+50.73

PROP. CURVE PR_RBR-2
PI STA. = 38+79.35
 $\Delta = 6^\circ 19' 17''$ (LT)
D = 0° 47' 37"
R = 7,220.00'
T = 398.70'
L = 796.59'
E = 11.00'
P.C. STA = 34+80.65
P.T. STA = 42+77.24



PROP. CURVE PR_RBR-2
PI STA. = 38+79.35
 $\Delta = 6^\circ 19' 17''$ (LT)
D = 0° 47' 37"
R = 7,220.00'
T = 398.70'
L = 796.59'
E = 11.00'
P.C. STA = 34+80.65
P.T. STA = 42+77.24

PROP. CURVE PR_RBR-3
PI STA. = 56+87.32
 $\Delta = 2^\circ 45' 57''$ (RT)
D = 0° 42' 58"
R = 8,000.00'
T = 193.12'
L = 386.17'
E = 2.33'
P.C. STA = 54+94.20
P.T. STA = 58+80.37



CONTROL POINTS

POINT NO.	NORTHING	EASTING	ELEV.
1	1171474.982	836308.344	615.910
2	1171614.002	834912.435	629.200
3	1171688.560	837166.994	626.150
4	1171568.228	837806.007	656.100
5	1171646.999	838415.747	677.130
7	1171619.799	835069.380	626.521
8	1171509.056	833557.248	661.820
9	1171554.883	833182.036	662.200
10	1171524.066	833871.046	658.260

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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0950
ROCKFORD (815) 489-0050
184-001397

**ALIGNMENT, TIES AND BENCHMARKS
CH 24 (REAS BRIDGE ROAD)**

SCALE: 1"=100' SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	22
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

CENTERLINE CH 24

Point RBR003 N 1, 171, 614.363 E 838, 457.156 Sta 12+00.00
 Course from RBR003 to PC PR_RBR-1 S 89° 36' 44" W Dist 550.581

Curve Data

Curve PR_RBR-1
 P.I. Station = 19+22.68 N 1, 171, 609.470 E 837, 734.494
 Delta = 2° 27' 53" (RT)
 Degree = 0° 42' 58"
 Tangent = 172.097
 Length = 344.141
 Radius = 8,000.000
 External = 1.851
 Long Chord = 344.115
 Mid. Ord. = 1.850
 P.C. Station = 17+50.58 N 1, 171, 610.635 E 837, 906.587
 P.T. Station = 20+94.72 N 1, 171, 615.707 E 837, 562.510
 C.C. = N 1, 179, 610.452 E 837, 852.426
 Back = S 89° 36' 44" W
 Ahead = N 87° 55' 23" W
 Chord Bear = N 89° 09' 20" W

Course from PT PR_RBR-1 to PC PR_RBR-2 N 87° 55' 23" W Dist 1,385.929

Curve Data

Curve PR_RBR-2
 P.I. Station = 38+79.35 N 1, 171, 680.381 E 835, 779.054
 Delta = 6° 19' 17" (LT)
 Degree = 0° 47' 37"
 Tangent = 398.698
 Length = 796.588
 Radius = 7,220.000
 External = 11.000
 Long Chord = 796.184
 Mid. Ord. = 10.983
 P.C. Station = 34+80.65 N 1, 171, 665.932 E 836, 177.491
 P.T. Station = 42+77.24 N 1, 171, 650.871 E 835, 381.449
 C.C. = N 1, 164, 450.675 E 835, 915.842
 Back = N 87° 55' 23" W
 Ahead = S 85° 45' 19" W
 Chord Bear = S 88° 54' 58" W

Course from PT PR_RBR-2 to PC PR_RBR-3 S 85° 45' 19" W Dist 1,216.960

Curve Data

Curve PR_RBR-3
 P.I. Station = 56+87.32 N 1, 171, 546.503 E 833, 975.233
 Delta = 2° 45' 57" (RT)
 Degree = 0° 42' 58"
 Tangent = 193.124
 Length = 386.173
 Radius = 8,000.000
 External = 2.331
 Long Chord = 386.136
 Mid. Ord. = 2.330
 P.C. Station = 54+94.20 N 1, 171, 560.797 E 834, 167.828
 P.T. Station = 58+80.37 N 1, 171, 541.519 E 833, 782.173
 C.C. = N 1, 179, 538.854 E 833, 575.703
 Back = S 85° 45' 19" W
 Ahead = S 88° 31' 16" W
 Chord Bear = S 87° 08' 18" W

Course from PT PR_RBR-3 to RBR004 S 88° 31' 16" W Dist 314.306

Point RBR004 N 1, 171, 533.407 E 833, 467.972 Sta 61+94.68

CENTERLINE SANGAMON ROAD

Point SANG001 N 1, 170, 979.034 E 836, 455.006 Sta 73+00.00
 Course from SANG001 to PC SANGAMON-1 N 0° 59' 49" W Dist 98.855

Curve Data

Curve SANGAMON-1
 P.I. Station = 75+37.51 N 1, 171, 216.510 E 836, 450.873
 Delta = 30° 59' 56" (RT)
 Degree = 11° 27' 33"
 Tangent = 138.658
 Length = 270.518
 Radius = 500.000
 External = 18.870
 Long Chord = 267.230
 Mid. Ord. = 18.184
 P.C. Station = 73+98.85 N 1, 171, 077.873 E 836, 453.286
 P.T. Station = 76+69.37 N 1, 171, 336.589 E 836, 520.206
 C.C. = N 1, 171, 086.574 E 836, 953.210
 Back = N 0° 59' 49" W
 Ahead = N 30° 00' 07" E
 Chord Bear = N 14° 30' 09" E

Course from PT SANGAMON-1 to PC SANGAMON-2 N 30° 00' 07" E Dist 37.670

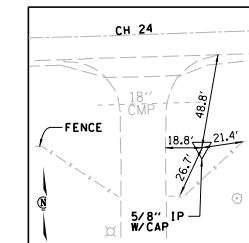
Curve Data

Curve SANGAMON-2
 P.I. Station = 78+31.36 N 1, 171, 476.870 E 836, 601.204
 Delta = 27° 55' 30" (LT)
 Degree = 11° 27' 33"
 Tangent = 124.317
 Length = 243.693
 Radius = 500.000
 External = 15.223
 Long Chord = 241.288
 Mid. Ord. = 14.773
 P.C. Station = 77+07.04 N 1, 171, 369.211 E 836, 539.042
 P.T. Station = 79+50.73 N 1, 171, 601.106 E 836, 605.709
 C.C. = N 1, 171, 619.225 E 836, 106.037
 Back = N 30° 00' 07" E
 Ahead = N 2° 04' 37" E
 Chord Bear = N 16° 02' 22" E

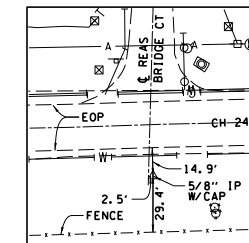
Course from PT SANGAMON-2 to SANG002 N 2° 04' 37" E Dist 49.266

Point SANG002 N 1, 171, 650.339 E 836, 607.494 Sta 80+00.00

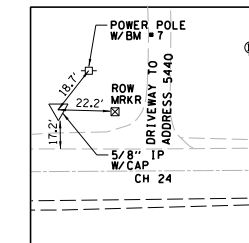
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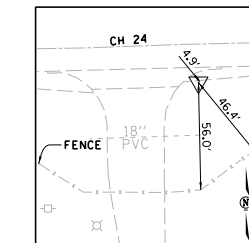
CONTROL POINT NO. 7



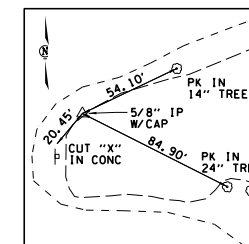
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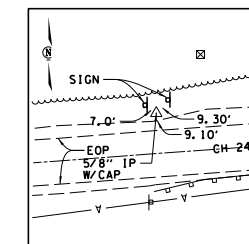
CONTROL POINT NO. 9



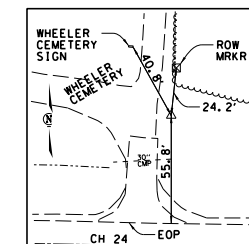
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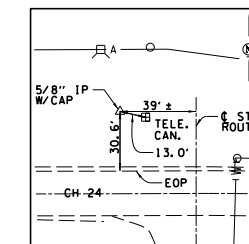
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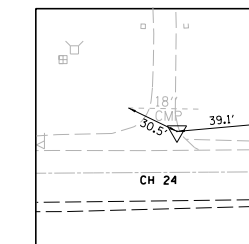
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CONTROL POINT NO. 3



CONTROL POINT NO. 4



CONTROL POINT NO. 5

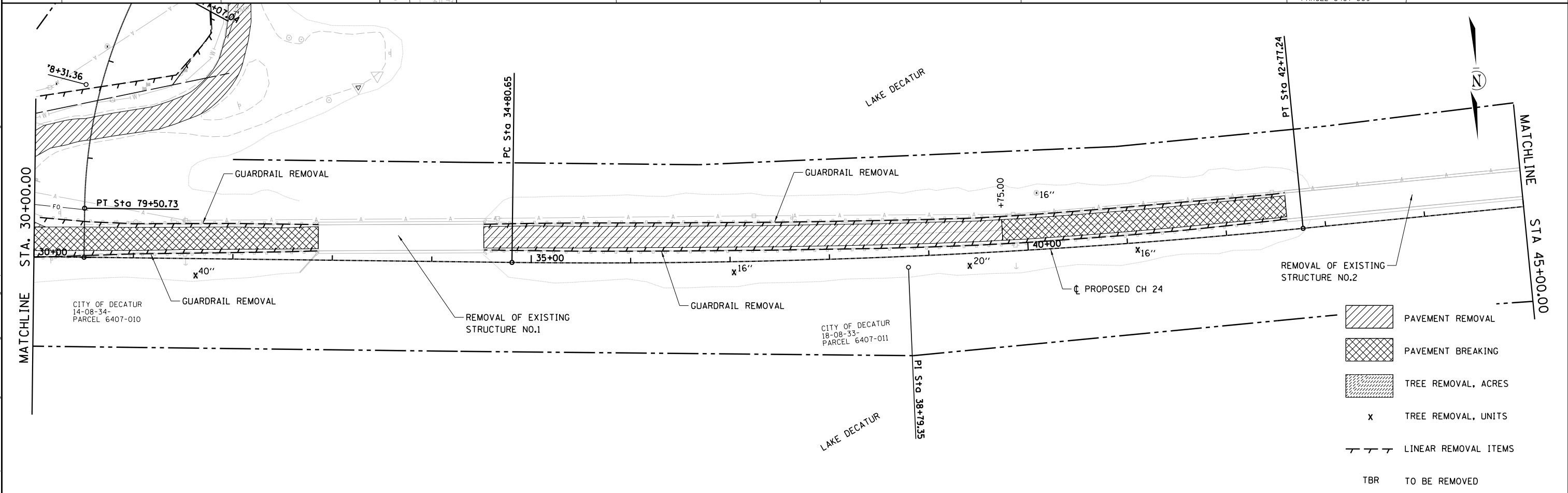
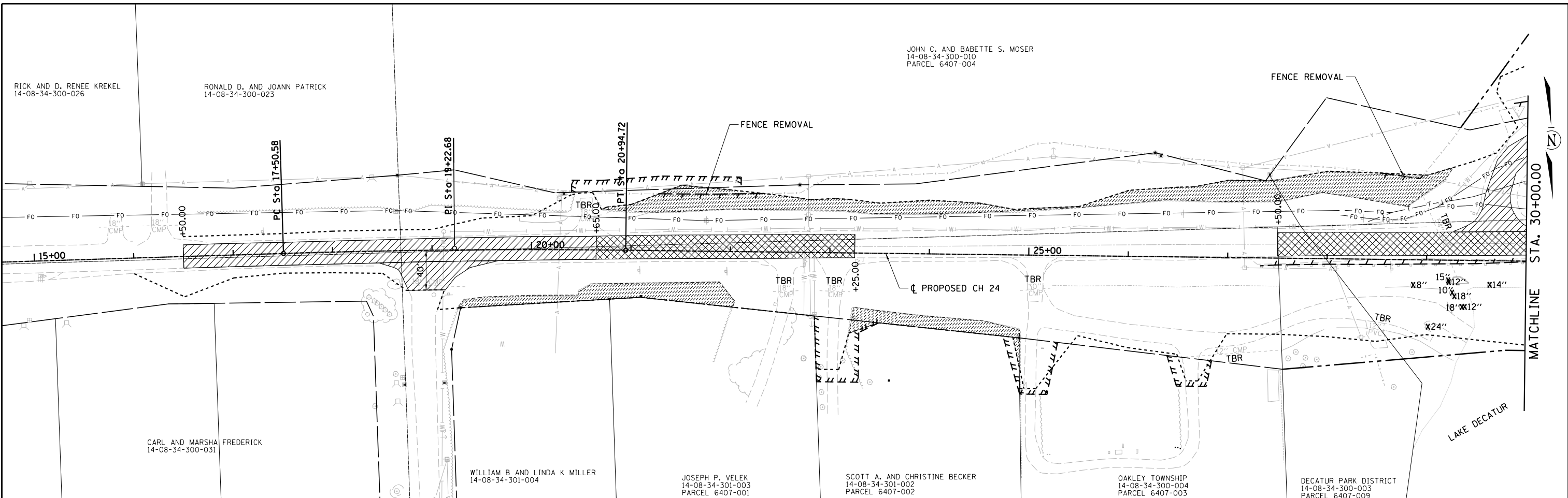
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DRAWN -	REVISIONS -	
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DATE -	REVISED -

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 SCHAUMBURG (773) 714-0950
 ROCKFORD (815) 489-0050
 184-001397

ALIGNMENT, TIES AND BENCHMARKS
CH 24 (REAS BRIDGE ROAD)
 SCALE: 1"=100' SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	23
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				



- PAVEMENT REMOVAL
- PAVEMENT BREAKING
- TREE REMOVAL, ACRES
- TREE REMOVAL, UNITS
- LINEAR REMOVAL ITEMS
- TO BE REMOVED

USER NAME =	DESIGNED - TES	REVISED -
	DRAWN - RLK	REVISED -
PLOT SCALE =	CHECKED - JMB	REVISED -
PLOT DATE =	DATE -	REVISED -

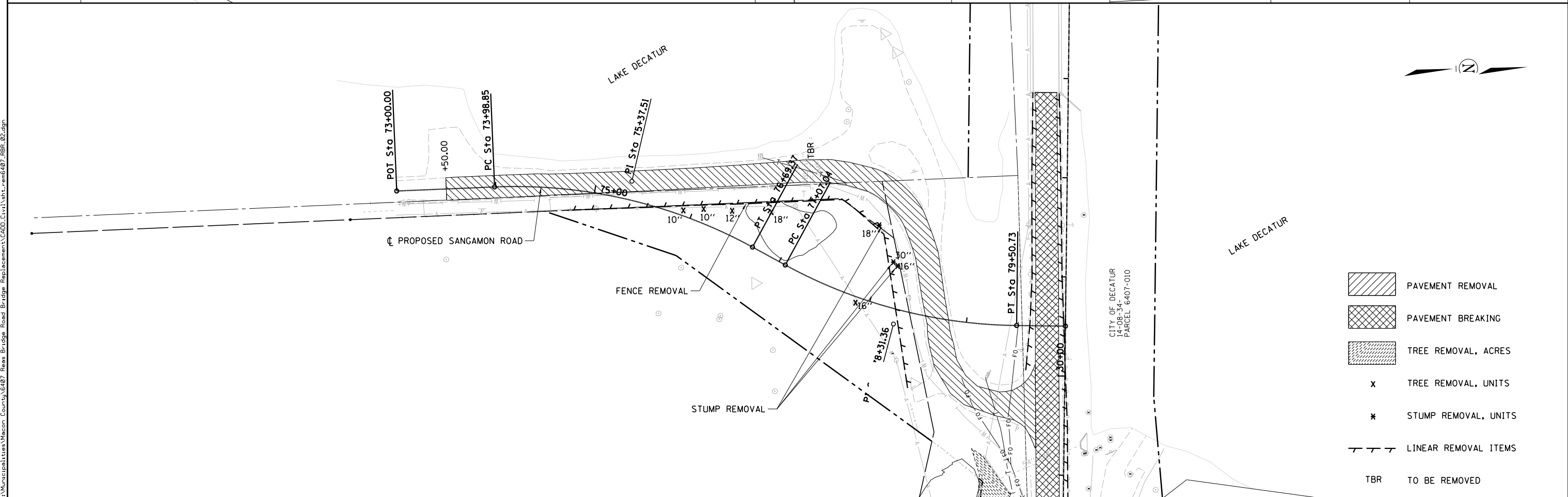
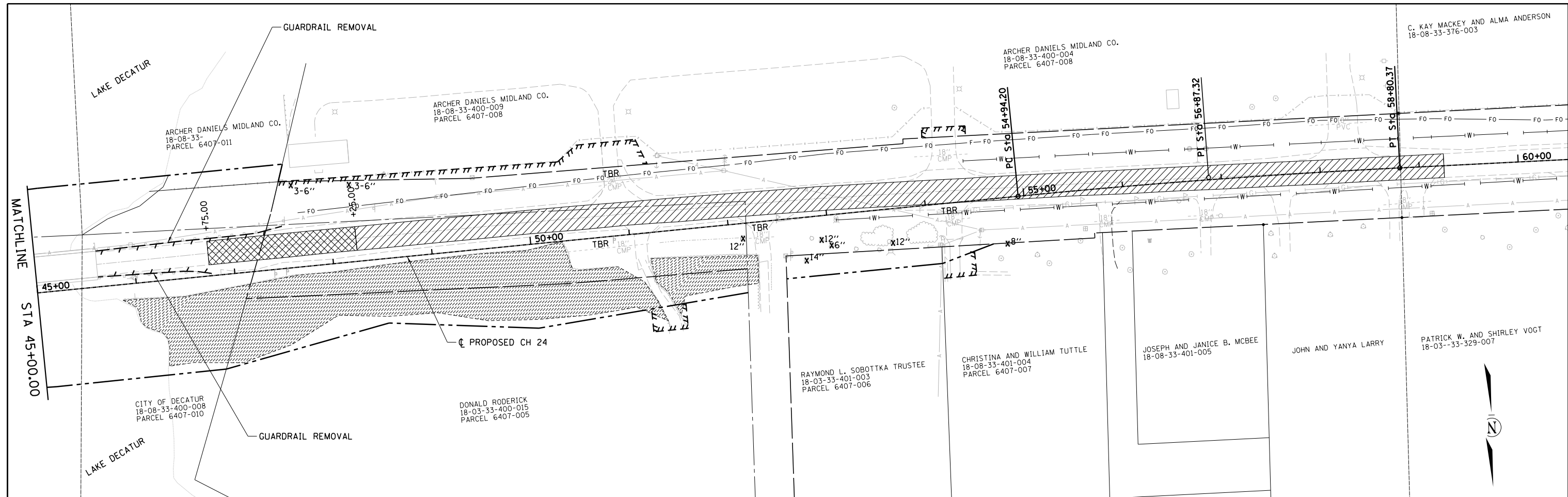
CHASTAIN & ASSOCIATES LLC
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

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REMOVAL PLAN	
CH 24 (REAS BRIDGE ROAD)	
SCALE:	TO STA.
SHEET NO. 1 OF 2 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	24
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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-  PAVEMENT REMOVAL
-  PAVEMENT BREAKING
-  TREE REMOVAL, ACRES
-  TREE REMOVAL, UNITS
-  STUMP REMOVAL, UNITS
-  LINEAR REMOVAL ITEMS
-  TO BE REMOVED

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USER NAME =	DESIGNED - <i>TES</i>	REVISED -
	DRAWN - <i>RLK</i>	REVISED -
PLOT SCALE =	CHECKED - <i>JMB</i>	REVISED -
PLOT DATE =	DATE -	REVISED -

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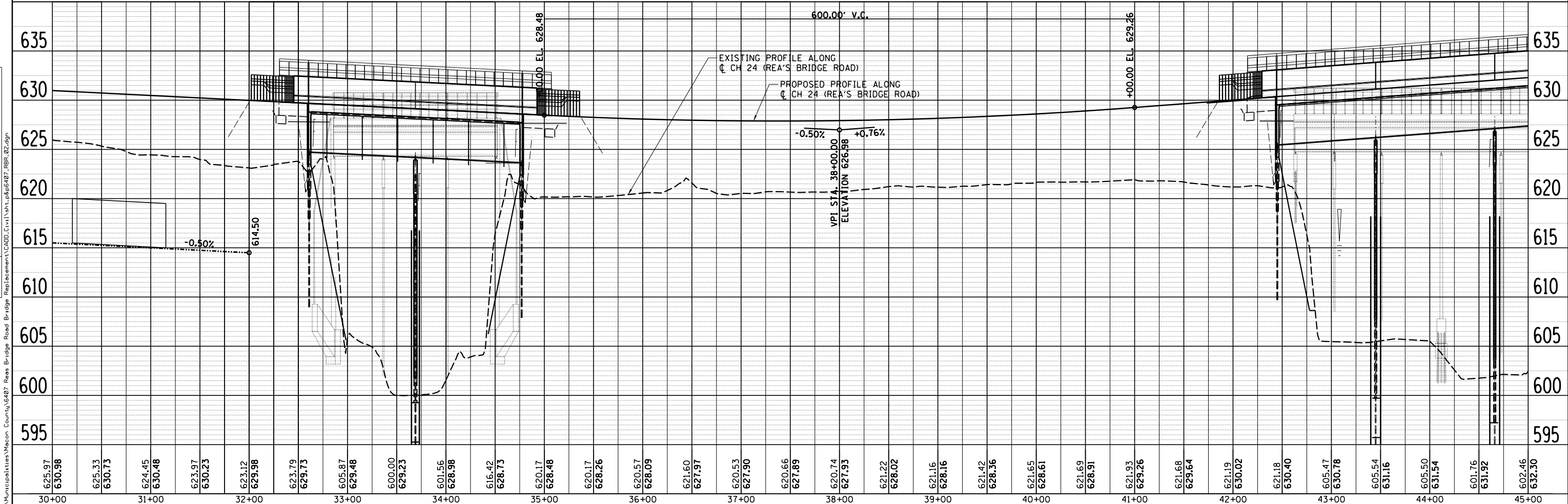
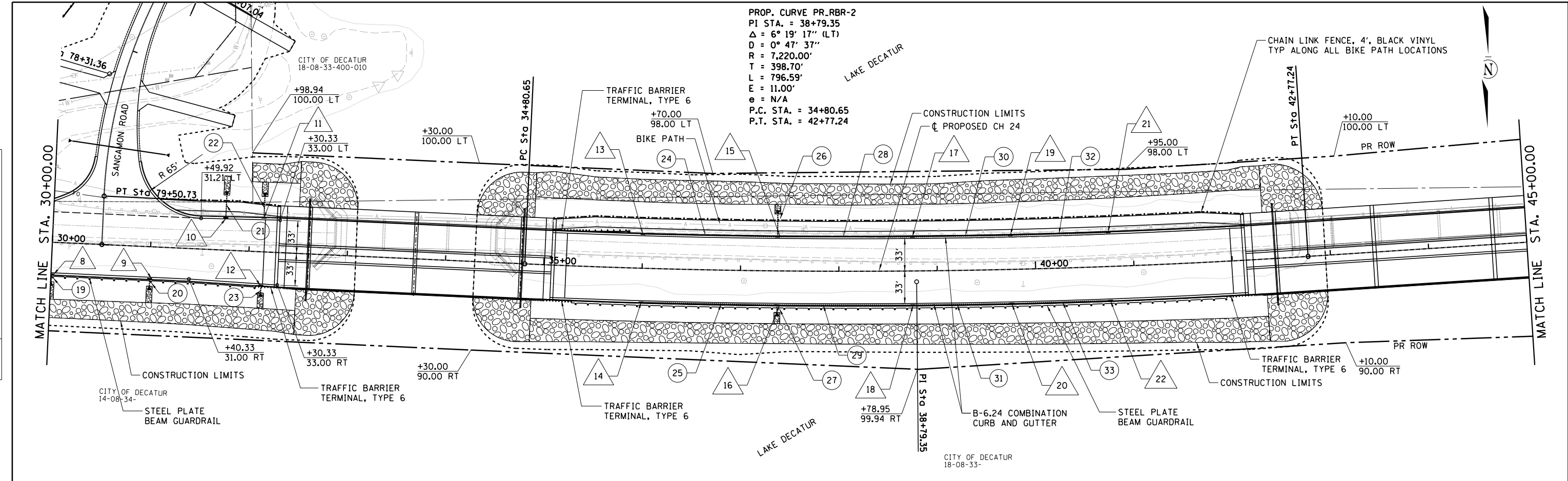
REMOVAL PLAN
CH 24 (REAS BRIDGE ROAD)

SCALE: SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	25
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	
	CHECKED	
	FILED	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATIONS	
	CHKD	
	NO.	



625.97	630.98	625.33	630.73	624.45	630.48	623.97	630.23	623.12	629.98	623.79	629.73	605.87	629.48	600.00	629.23	601.56	628.98	616.42	628.73	620.17	628.48	620.17	628.26	620.57	628.09	621.60	627.97	620.53	627.90	620.66	627.89	620.74	627.93	621.22	628.02	621.16	628.16	621.42	628.36	621.65	628.61	621.69	628.91	621.93	629.26	621.68	629.64	621.19	630.02	621.18	630.40	605.47	630.78	605.54	631.16	605.50	631.54	601.76	631.92	602.46	632.30
30+00	31+00	32+00	33+00	34+00	35+00	36+00	37+00	38+00	39+00	40+00	41+00	42+00	43+00	44+00	45+00																																														

USER NAME = j_buening	DESIGNED - TES	REVISIED -
	DRAWN - RLK	REVISIED -
PLOT SCALE = 100.0000' / in.	CHECKED - JMB	REVISIED -
PLOT DATE = 1/26/2022	DATE -	REVISIED -

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 ROCKFORD (815) 489-0050
 184-001397

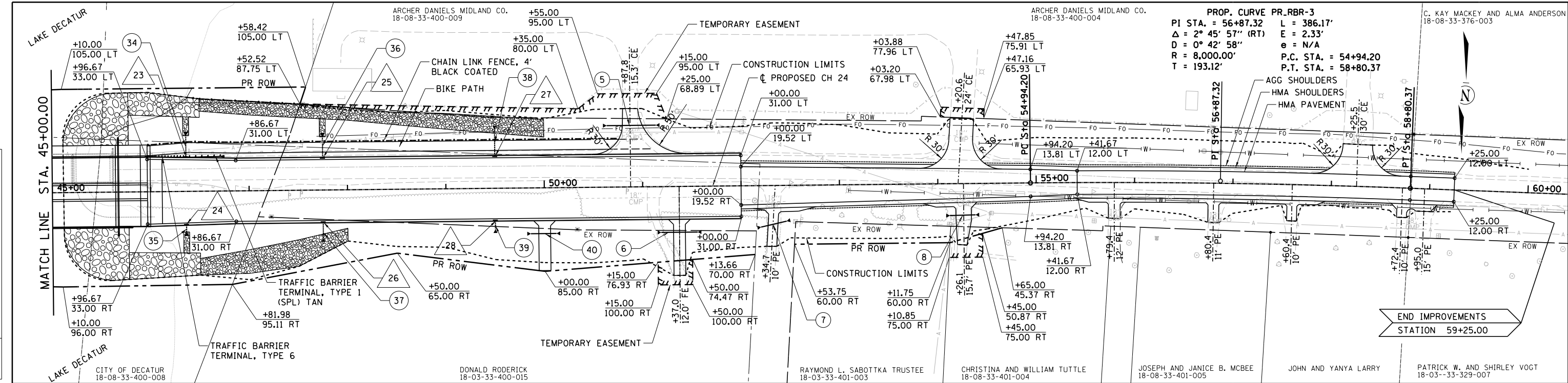
PLAN AND PROFILE			
CH 24 (REA'S BRIDGE ROAD)			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	27
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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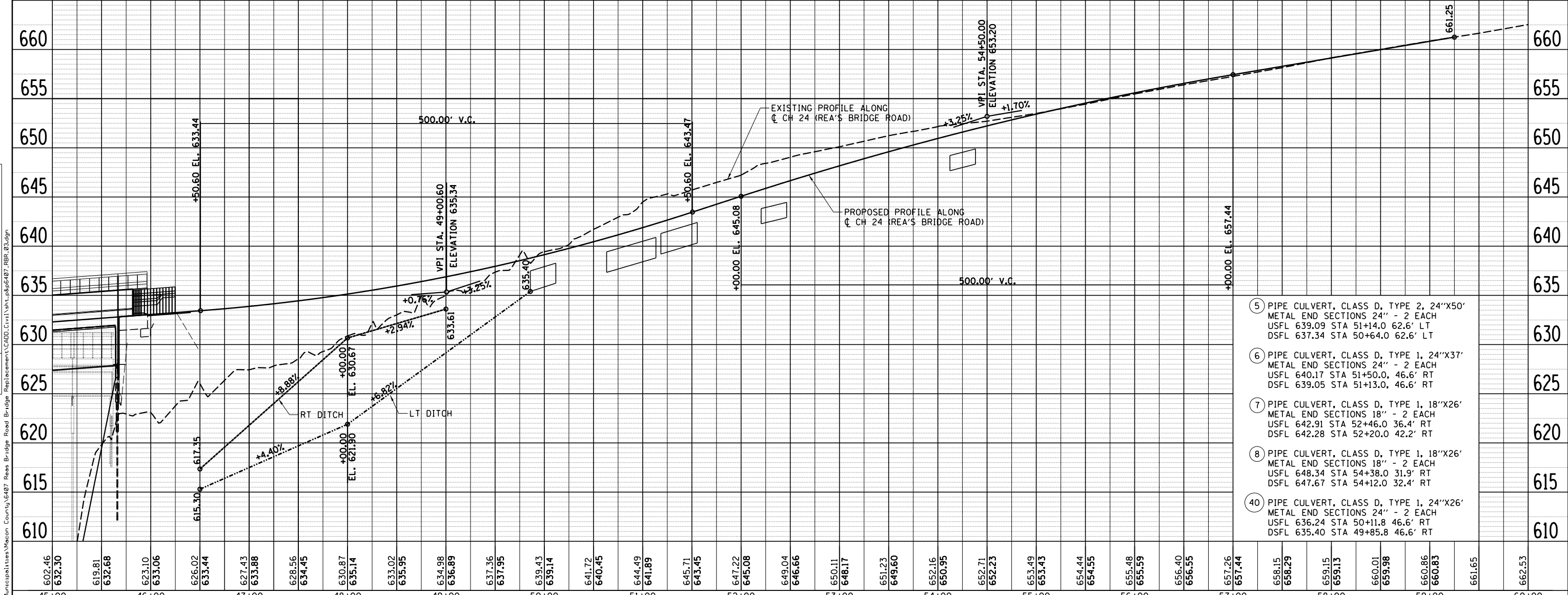
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	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NO. _____	
	FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NO. _____	
	FILE NAME	



PROP. CURVE PR_RBR-3
 PI STA. = 56+87.32 L = 386.17'
 $\Delta = 2^\circ 45' 57''$ (RT) E = 2.33'
 $D = 0^\circ 42' 58''$ e = N/A
 R = 8,000.00' P.C. STA. = 54+94.20
 T = 193.12' P.T. STA. = 58+80.37

C. KAY MACKEY AND ALMA ANDERSON
 18-08-33-376-003



- 5) PIPE CULVERT, CLASS D, TYPE 2, 24"X50' METAL END SECTIONS 24" - 2 EACH
 USFL 639.09 STA 51+14.0 62.6' LT
 DSFL 637.34 STA 50+64.0 62.6' LT
- 6) PIPE CULVERT, CLASS D, TYPE 1, 24"X37' METAL END SECTIONS 24" - 2 EACH
 USFL 640.17 STA 51+50.0, 46.6' RT
 DSFL 639.05 STA 51+13.0, 46.6' RT
- 7) PIPE CULVERT, CLASS D, TYPE 1, 18"X26' METAL END SECTIONS 18" - 2 EACH
 USFL 642.91 STA 52+46.0 36.4' RT
 DSFL 642.28 STA 52+20.0 42.2' RT
- 8) PIPE CULVERT, CLASS D, TYPE 1, 18"X26' METAL END SECTIONS 18" - 2 EACH
 USFL 648.34 STA 54+38.0 31.9' RT
 DSFL 647.67 STA 54+12.0 32.4' RT
- 40) PIPE CULVERT, CLASS D, TYPE 1, 24"X26' METAL END SECTIONS 24" - 2 EACH
 USFL 636.24 STA 50+11.8 46.6' RT
 DSFL 635.40 STA 49+85.8 46.6' RT

FILE NAME = I:\Municipalities\Mason County\407 Reas Bridge Road Bridge Replacement\CADD\Civil\18-08-33-407_RBR_03.dgn	USER NAME = j_buening	DESIGNED - TES	REVISIONS	CHASTAIN & ASSOCIATES LLC CONSULTING ENGINEERS DECATUR (217) 422-8544 SCHAUMBURG (773) 714-0050 ROCKFORD (815) 489-0050 184-001397	PLAN AND PROFILE CH 24 (REA'S BRIDGE ROAD)			F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000' / 1"	CHECKED - JMB	REVISIONS		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	MACON	196	28
	PLOT DATE = 1/26/2022	DATE	REVISIONS					CONTRACT NO. 95912			ILLINOIS FED. AID PROJECT	

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	CADD FILE NAME	

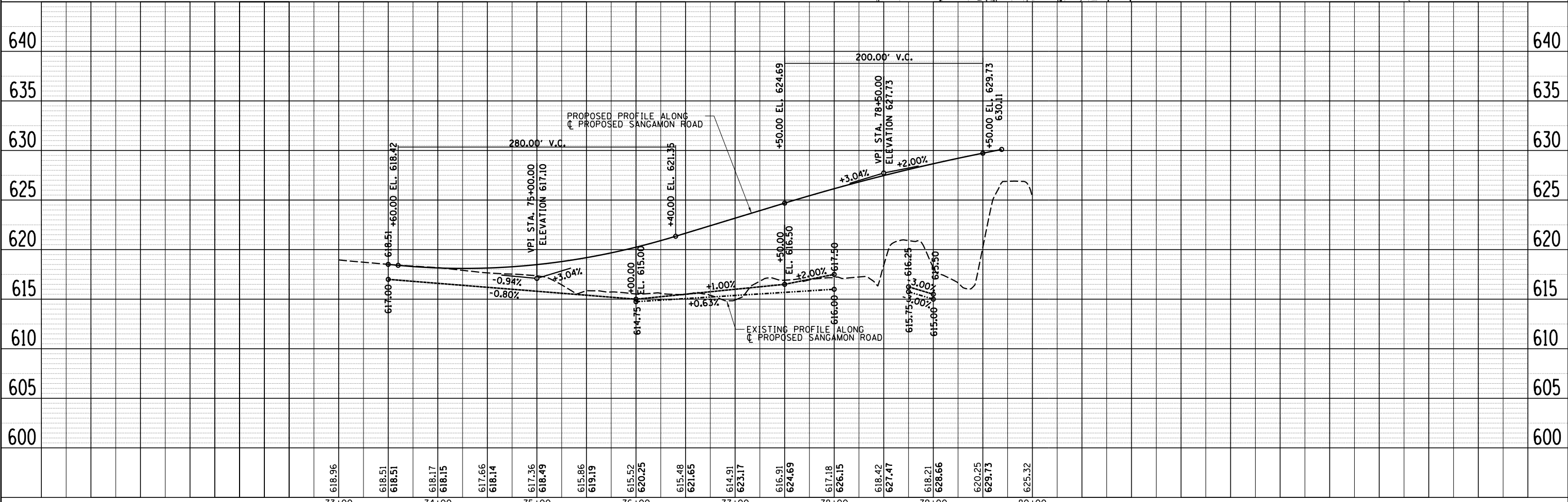
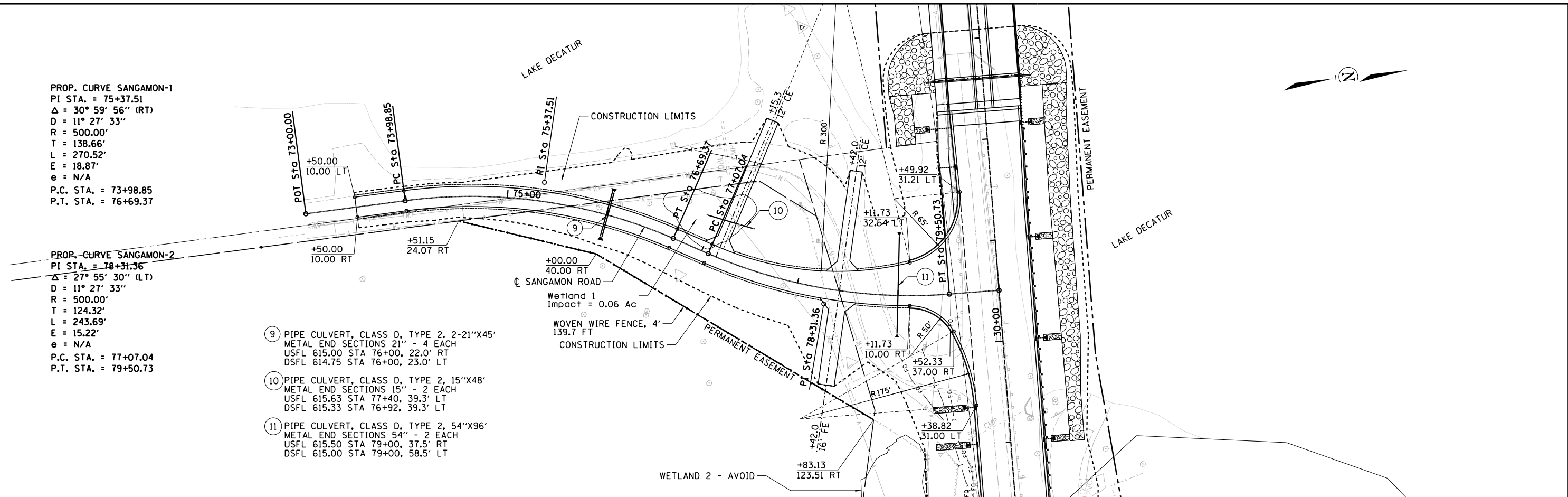
PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	CADD FILE NAME	

FILE NAME = I:\Municipalities\Macon County\407 Reas Bridge Road Bridge Replacement\CADD\Civil\Int_LaSp407_Sang_01.dgn

PROP. CURVE SANGAMON-1
 PI STA. = 75+37.51
 $\Delta = 30^\circ 59' 56''$ (RT)
 D = 111' 27' 33"
 R = 500.00'
 T = 138.66'
 L = 270.52'
 E = 18.87'
 e = N/A
 P.C. STA. = 73+98.85
 P.T. STA. = 76+69.37

PROP. CURVE SANGAMON-2
 PI STA. = 78+31.36
 $\Delta = 27^\circ 55' 30''$ (LT)
 D = 111' 27' 33"
 R = 500.00'
 T = 124.32'
 L = 243.69'
 E = 15.22'
 e = N/A
 P.C. STA. = 77+07.04
 P.T. STA. = 79+50.73

- 9 PIPE CULVERT, CLASS D, TYPE 2, 2'-21"X45'
 METAL END SECTIONS 21" - 4 EACH
 USFL 615.00 STA 76+00, 22.0' RT
 DSFL 614.75 STA 76+00, 23.0' LT
- 10 PIPE CULVERT, CLASS D, TYPE 2, 15"X48'
 METAL END SECTIONS 15" - 2 EACH
 USFL 615.63 STA 77+40, 39.3' LT
 DSFL 615.33 STA 76+92, 39.3' LT
- 11 PIPE CULVERT, CLASS D, TYPE 2, 54"X96'
 METAL END SECTIONS 54" - 2 EACH
 USFL 615.50 STA 79+00, 37.5' RT
 DSFL 615.00 STA 79+00, 58.5' LT



USER NAME = jbuening	DESIGNED - TES	REVISED -
	DRAWN - RLK	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - JMB	REVISED -
PLOT DATE = 1/26/2022	DATE -	REVISED -

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PLAN AND PROFILE SANGAMON ROAD
 SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	12-00251-00-BR	MACON	196	29
CONTRACT NO. 95912			ILLINOIS FED. AID PROJECT	

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STRUC. NO.	1	2	3	4	5	6	7	8	9	10
TYPE	INLET TY A	INLET TY A	INLET TY A	INLET TY A	INLET TY A	INLET TY A	INLET TY A	INLET TY A	INLET TY A	INLET TY A
FRAME & LID	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G
STATION	27+10.00	27+10.00	28+00.00	28+00.00	29+00.00	29+00.00	29+37.00	30+00.00	31+00.00	31+75.00
OFFSET	32.7' LT	32.7' RT	32.7' LT	32.7' RT	32.7' LT	32.7' RT	32.7' LT	32.7' RT	32.7' RT	32.95' LT
RIM ELEV.	631.66	631.66	631.17	631.17	630.67	630.67	630.49	630.17	629.67	629.30
T. O. M.	630.83	630.83	630.34	630.34	629.84	629.84	629.66	629.34	628.84	628.47
NORTH INV.		628.00		627.51		627.01		626.51	626.01	
SOUTH INV.	628.00				627.01		626.83			625.64
EAST INV.										
WEST INV.										
PIPE NO.	12	13	14	15	16	17	18	19	20	21
SIZE	12	12	12	12	12	12	12	12	12	12
LENGTH	7.5	6.2	7.5	6.2	7.5	6.2	7.5	6.2	6.2	20
TYPE	1	1	1	1	1	1	1	1	1	1
STRUC. NO.	11	12	13	14	15	16	17	18	19	20
TYPE	INLET TY A	INLET TY A	INLET TY A	INLET TY A	MANHOLE TY A, 4' DIA.	MANHOLE TY A, 4' DIA.	INLET TY A	INLET TY A	INLET TY A	INLET TY A
FRAME & LID	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G
STATION	32+13.75	32+13.75	36+00.00	36+00.00	37+40.00	37+40.00	38+75.00	38+75.00	39+75.00	39+75.00
OFFSET	34.6' LT	34.6' RT	34.7' LT	34.7' RT	34.7' LT	34.7' RT	34.7' LT	34.7' RT	34.7' LT	34.7' RT
RIM ELEV.	629.25	629.25	627.24	627.24	627.03	627.03	627.23	627.23	627.62	627.62
T. O. M.	628.38	628.38	626.41	626.41	626.20	626.20	626.40	626.40	626.79	626.79
NORTH INV.		625.55				621.25				
SOUTH INV.	625.55				621.25					
EAST INV.					622.18	622.18	622.17	622.17	622.87	622.87
WEST INV.			623.58	623.58	621.35	621.35	622.27	622.27	622.97	622.97
PIPE NO.	22	23	24	25	26	27	28	29	30	31
SIZE	12	12	12	12	12	12	12	12	12	12
LENGTH	23.2	7.4	134	135.5	23	9.5	134	135.5	97.5	99
TYPE	1	1	1	1	1	1	1	1	1	1
STRUC. NO.	21	22	23	24	25	26	27	28		
TYPE	INLET TY A	INLET TY A	INLET TY A	INLET TY A	INLET TY A	INLET TY A	INLET TY A	INLET TY A		
FRAME & LID	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G	TYPE 3 F & G		
STATION	40+75.00	40+75.00	46+36.00	46+36.00	47+75.00	47+75.00	49+50.00	49+50.00		
OFFSET	34.7' LT	34.7' RT	34.7' LT	34.7' RT	32.7' LT	32.7' RT	32.7' LT	32.7' RT		
RIM ELEV.	628.23	628.23	632.48	632.48	633.97	633.97	637.14	637.14		
T. O. M.	627.40	627.40	631.65	631.65	633.14	633.14	636.31	636.31		
NORTH INV.				628.82	628.82	630.31	630.31	633.48		
SOUTH INV.										
EAST INV.	624.57	624.57								
WEST INV.										
PIPE NO.	32	33	34	35	36	37	38	39		
SIZE	12	12	12	12	12	12	12	12		
LENGTH	97.5	99	20.1	6.3	20	12.5	22.1	3.4		
TYPE	1	1	1	1	1	1	1	1		

USER NAME =	DESIGNED - <i>TES</i>	REVISED -
	DRAWN - <i>RLK</i>	REVISED -
PLOT SCALE =	CHECKED - <i>JMB</i>	REVISED -
PLOT DATE =	DATE -	REVISED -

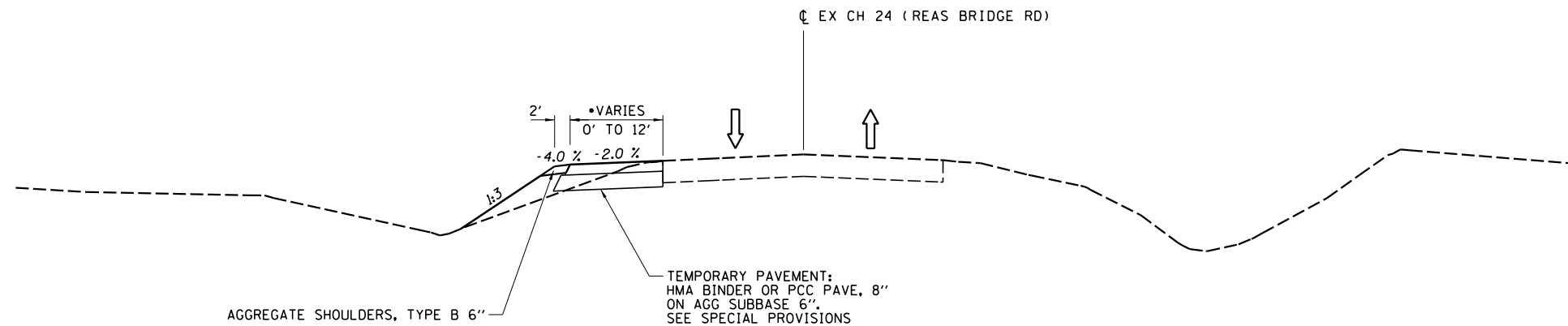
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184-001397

STORM SEWER NOTES
CH 24 (REAS BRIDGE ROAD)

SCALE: SHEET NO. OF SHEETS STA. TO STA.

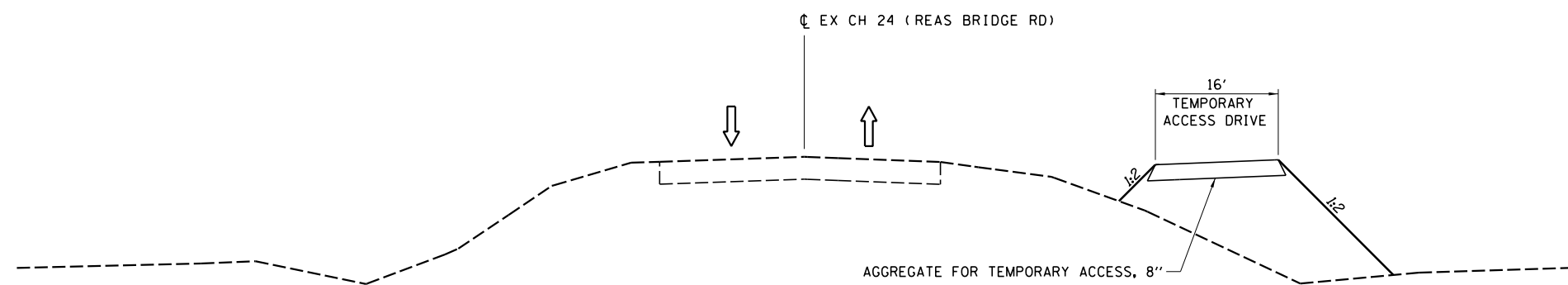
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	30
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				



REAS BRIDGE ROAD – TEMPORARY WIDENING

STA 49+50 TO STA 60+85

•VARIES: 0' TO 12' STA 49+50 TO 50+95
 12' STA 50+95 TO 59+25
 12' TO 0' STA 59+25 TO 60+85



TEMPORARY ACCESS DRIVE

STA 19+10 TO STA 25+00

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	DRAWN - <i>RLK</i>	REVISED -
PLOT SCALE =	CHECKED - <i>JMB</i>	REVISED -
PLOT DATE =	DATE -	REVISED -

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**PRE STAGE 1 TYPICAL SECTIONS
 CH 24 (REAS BRIDGE ROAD)**

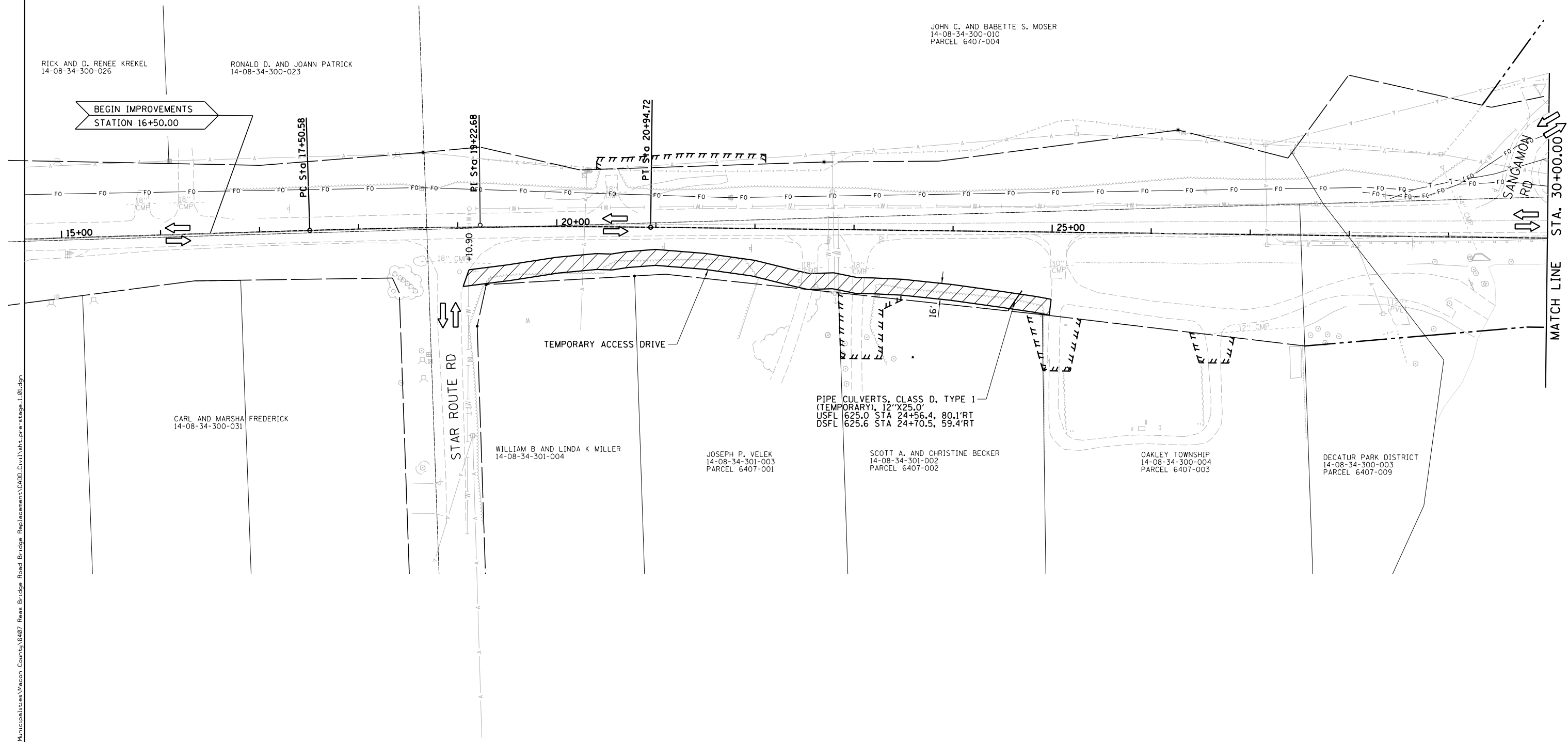
SCALE: SHEET NO. 1 OF 4 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	31
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

PRE-STAGE 1

CONSTRUCT TEMPORARY ACCESS DRIVE (16')

TRAFFIC ON EXISTING REAS BRIDGE ROAD



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	DRAWN - <i>RLK</i>	REVISED -
PLOT SCALE =	CHECKED - <i>JMB</i>	REVISED -
PLOT DATE =	DATE -	REVISED -

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ROCKFORD (815) 489-0050
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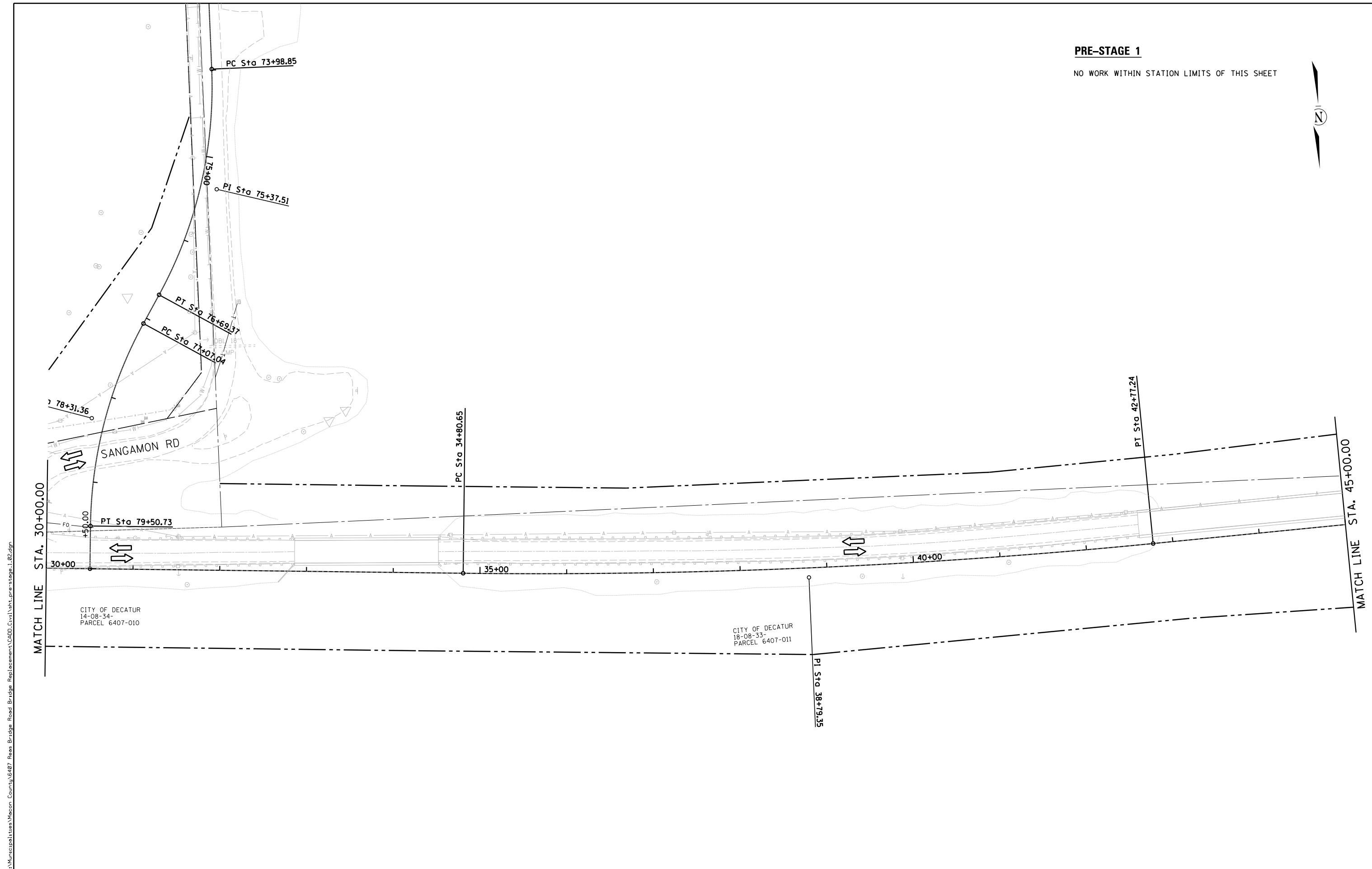
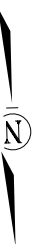
**PRE STAGE 1 CONSTRUCTION
CH 24 (REAS BRIDGE ROAD)**

SCALE: 1" = 50' SHEET NO. 2 OF 4 SHEETS STA. 15+00 TO STA. 30+00

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	32
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

PRE-STAGE 1

NO WORK WITHIN STATION LIMITS OF THIS SHEET



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	DRAWN - <i>RLK</i>	REVISED -
PLOT SCALE =	CHECKED - <i>JMB</i>	REVISED -
PLOT DATE =	DATE -	REVISED -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

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PRE STAGE 1 CONSTRUCTION
CH 24 (REAS BRIDGE ROAD)

SCALE: 1" = 50' SHEET NO. 3 OF 4 SHEETS STA. 30+00 TO STA. 45+00

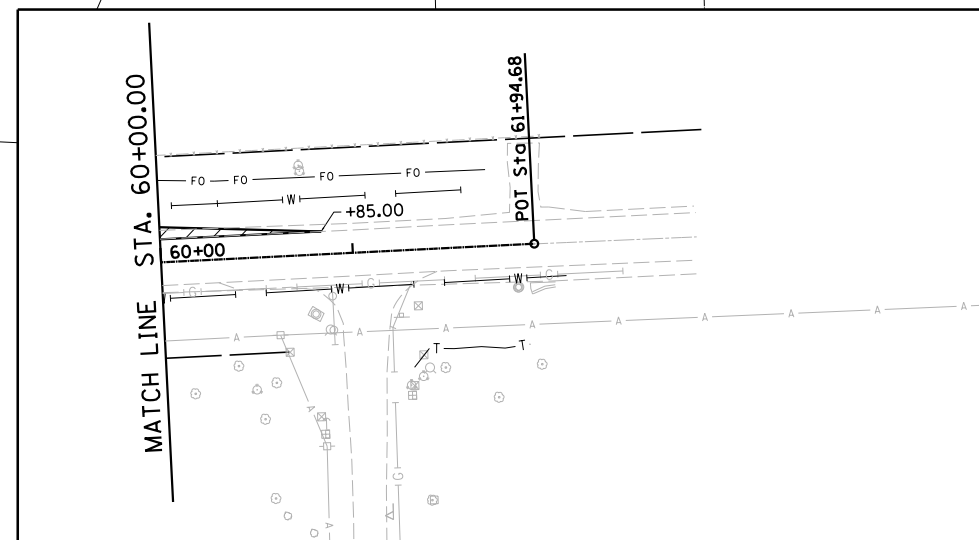
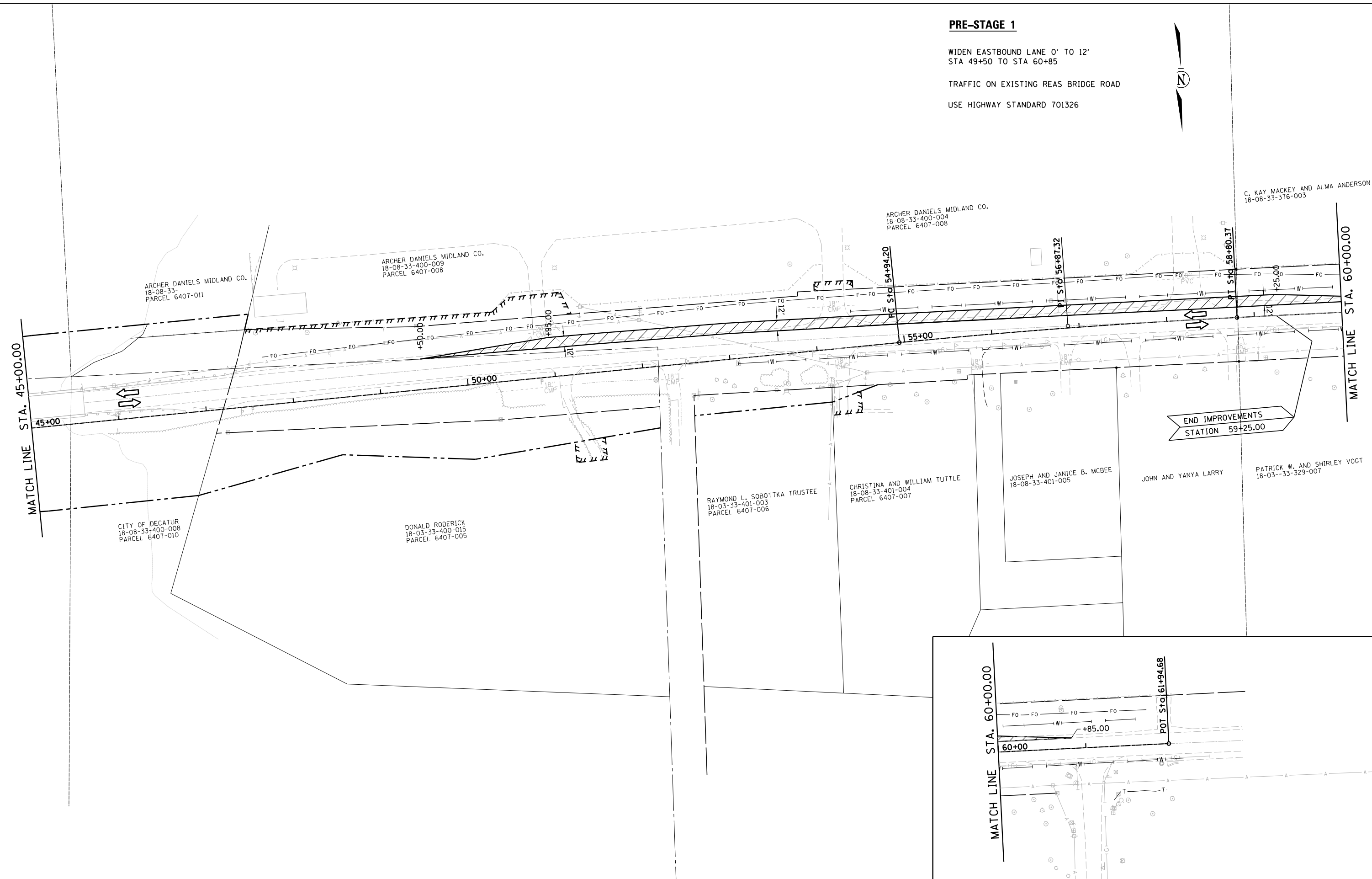
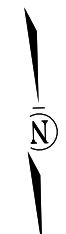
F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	33
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

PRE-STAGE 1

WIDEN EASTBOUND LANE 0' TO 12'
STA 49+50 TO STA 60+85

TRAFFIC ON EXISTING REAS BRIDGE ROAD

USE HIGHWAY STANDARD 701326



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USER NAME =	DESIGNED - <i>TES</i>	REVISED -
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PLOT SCALE =	CHECKED - <i>JMB</i>	REVISED -
PLOT DATE =	DATE -	REVISED -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

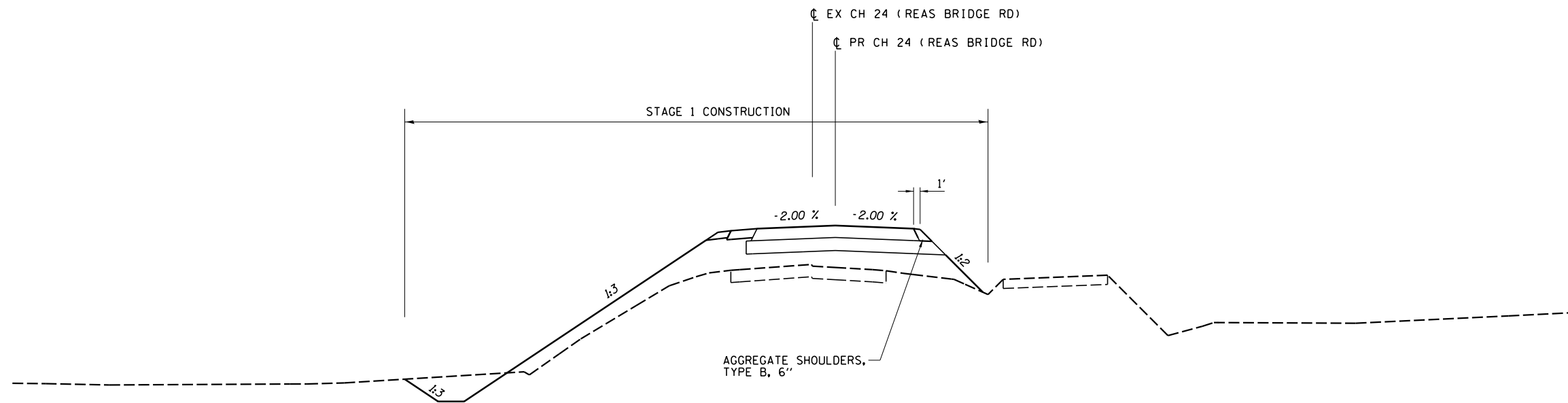
DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0950
ROCKFORD (815) 489-0050
184-001397

**PRE STAGE 1 CONSTRUCTION
CH 24 (REAS BRIDGE ROAD)**

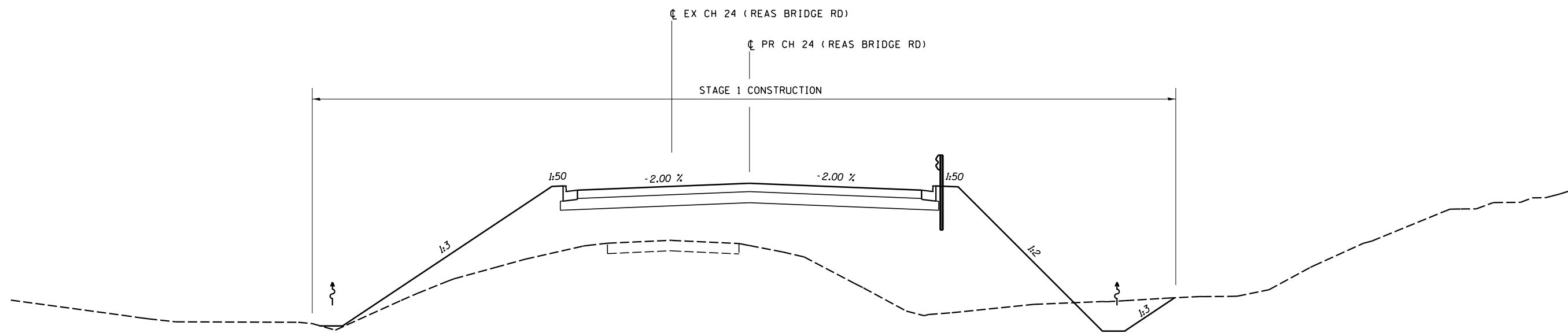
SCALE: 1" = 50' SHEET NO. 4 OF 4 SHEETS STA. 45+00 TO STA. 60+50

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	34
CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT



REAS BRIDGE ROAD
STA 19+50 TO STA 26+00



REAS BRIDGE ROAD
STA 26+00 TO STA 29+00

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PLOT SCALE =	CHECKED - JMB	REVISED -
PLOT DATE =	DATE -	REVISED -

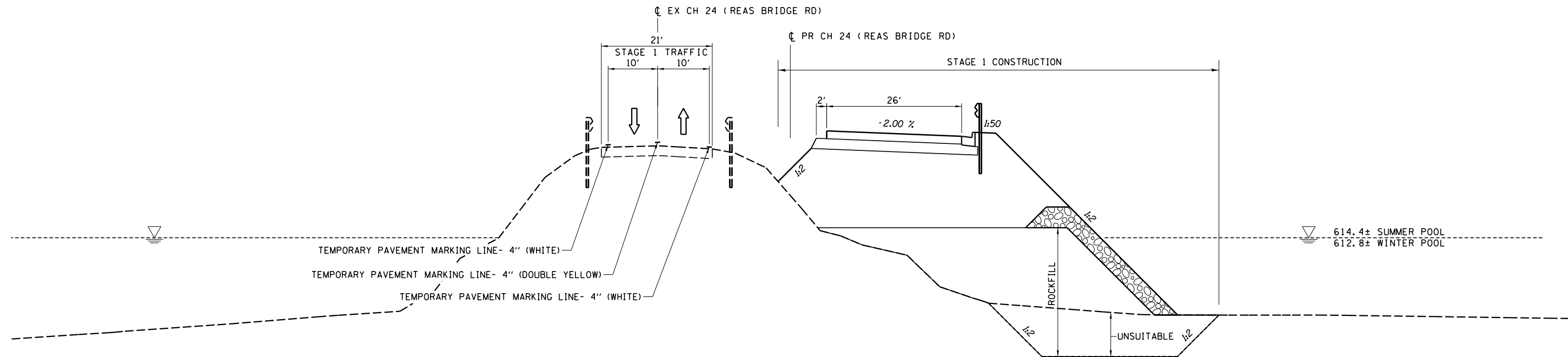
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ROCKFORD (815) 489-0050
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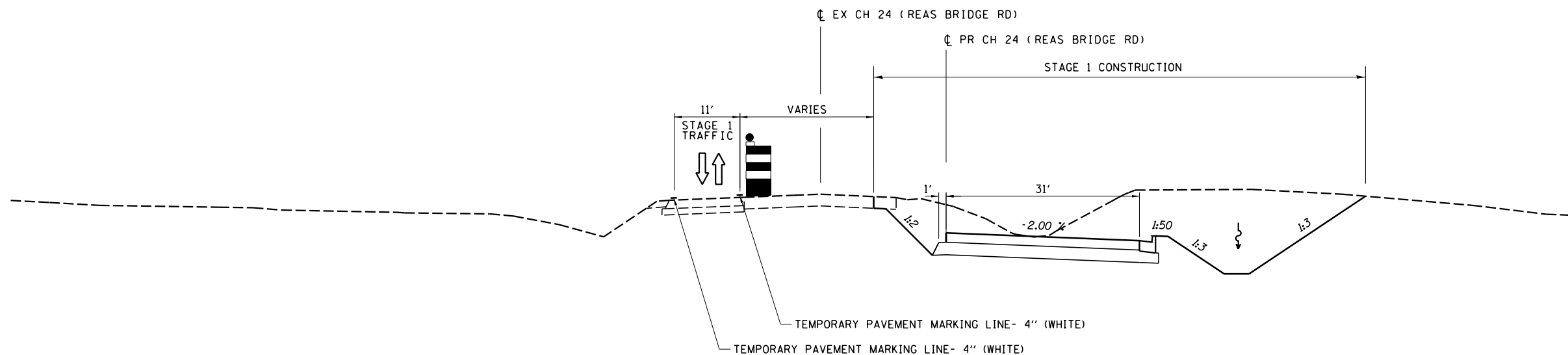
**STAGE 1 TYPICAL SECTIONS
CH 24 (REAS BRIDGE ROAD)**

SCALE: SHEET NO. 1 OF 6 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	35
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				



REAS BRIDGE ROAD
STA 29+00 TO STA 49+00



REAS BRIDGE ROAD
STA 49+00 TO STA 52+00

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PLOT DATE =	DATE -	REVISED -

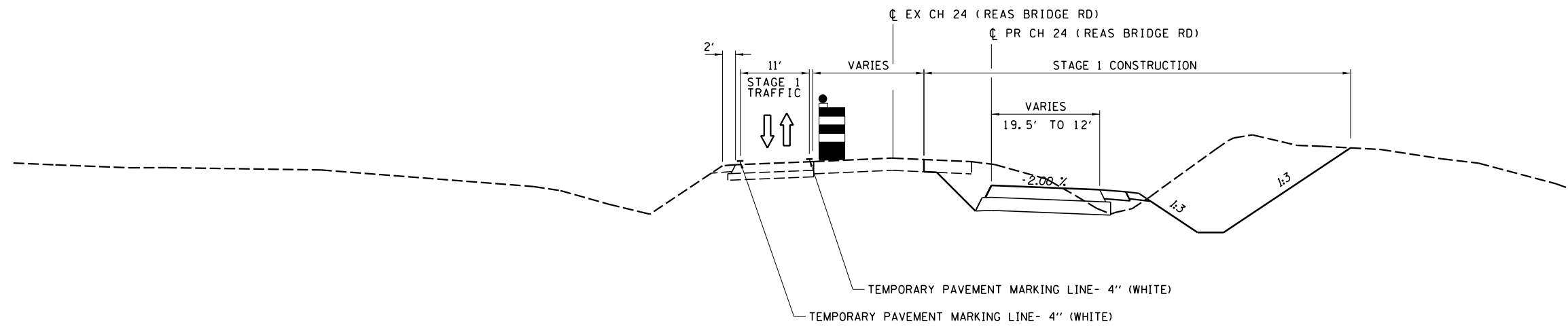
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184-001397

**STAGE 1 TYPICAL SECTIONS
CH 24 (REAS BRIDGE ROAD)**

SCALE: SHEET NO. 2 OF 6 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	36
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				



REAS BRIDGE ROAD
 STA 52+00 TO STA 59+25

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USER NAME =	DESIGNED - <i>TES</i>	REVISED -
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PLOT SCALE =	CHECKED - <i>JMB</i>	REVISED -
PLOT DATE =	DATE -	REVISED -

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 ROCKFORD (815) 489-0050
 184-001397

STAGE 1 TYPICAL SECTIONS
CH 24 (REAS BRIDGE ROAD)

SCALE: SHEET NO. 3 OF 6 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	37
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

STAGE 1

INSTALL TEMPORARY CULVERT UNDER SANGAMON ROAD PRIOR TO CLOSURE OF REAS BRIDGE ROAD.

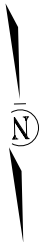
REAS BRIDGE ROAD CLOSED FROM STA 19+50 TO 29+50.

CONSTRUCT EB & WB REAS BRIDGE ROAD STA 16+50 TO 29+00, EXCEPT RIGHT SHOULDERS AND RIGHT ENTRANCES BETWEEN STA 19+50 TO STA 26+00. END EB PAVEMENT CONSTRUCTION AT STA 29+00. CONTINUE WB PAVEMENT BEYOND STA 29+00 TO WEST.

MINIMIZE LENGTH OF CLOSURE OF STAR ROUTE ROAD BY CONSTRUCTING EMBANKMENT WEST OF INTERSECTION FIRST. UTILIZE TEMP CLOSURES AT THE STAR RT RD INTERSECTION.

USE HIGHWAY STANDARD BLR 22.

TEMPORARY ACCESS DRIVE IS ONLY FOR ACCESS TO ENTRANCES DURING REAS BRIDGE ROAD CLOSURE AND NOT INTENDED FOR THRU TRAFFIC. ACCESS DRIVE SHALL BE MAINTAINED AT ALL TIMES FOR WASHOUTS AND EROSION.



JOHN C. AND BABETTE S. MOSER
14-08-34-300-010
PARCEL 6407-004

PIPE CULVERT, CLASS D, TYPE 2, (TEMPORARY), 54"X120.0'
USFL 616.00 STA 29+02.34 74.7' LT
DSFL 615.50 STA 30+22.21 80.3' LT

RICK AND D. RENEE KREKEL
14-08-34-300-026

RONALD D. AND JOANN PATRICK
14-08-34-300-023

BEGIN IMPROVEMENTS
STATION 16+50.00

PC Sta 17+50.58

PI Sta 19+22.68

PT Sta 20+94.72

+03.00

15+00

20+00

25+00

STA. 30+00.00

MATCH LINE

CARL AND MARSHA FREDERICK
14-08-34-300-031

WILLIAM B AND LINDA K MILLER
14-08-34-301-004

JOSEPH P. VELEK
14-08-34-301-003
PARCEL 6407-001

SCOTT A. AND CHRISTINE BECKER
14-08-34-301-002
PARCEL 6407-002

OAKLEY TOWNSHIP
14-08-34-300-004
PARCEL 6407-003

DECATUR PARK DISTRICT
14-08-34-300-003
PARCEL 6407-009

STAR ROUTE RD

TEMPORARY ACCESS DRIVE

SANGAMON RD

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PLOT SCALE =	CHECKED - JMB	REVISED -
PLOT DATE =	DATE -	REVISED -

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ROCKFORD (815) 489-0050
184-001397

**STAGE 1 CONSTRUCTION
CH 24 (REAS BRIDGE ROAD)**

SCALE: 1" = 50' SHEET NO. 4 OF 6 SHEETS STA. 15+00 TO STA. 30+00

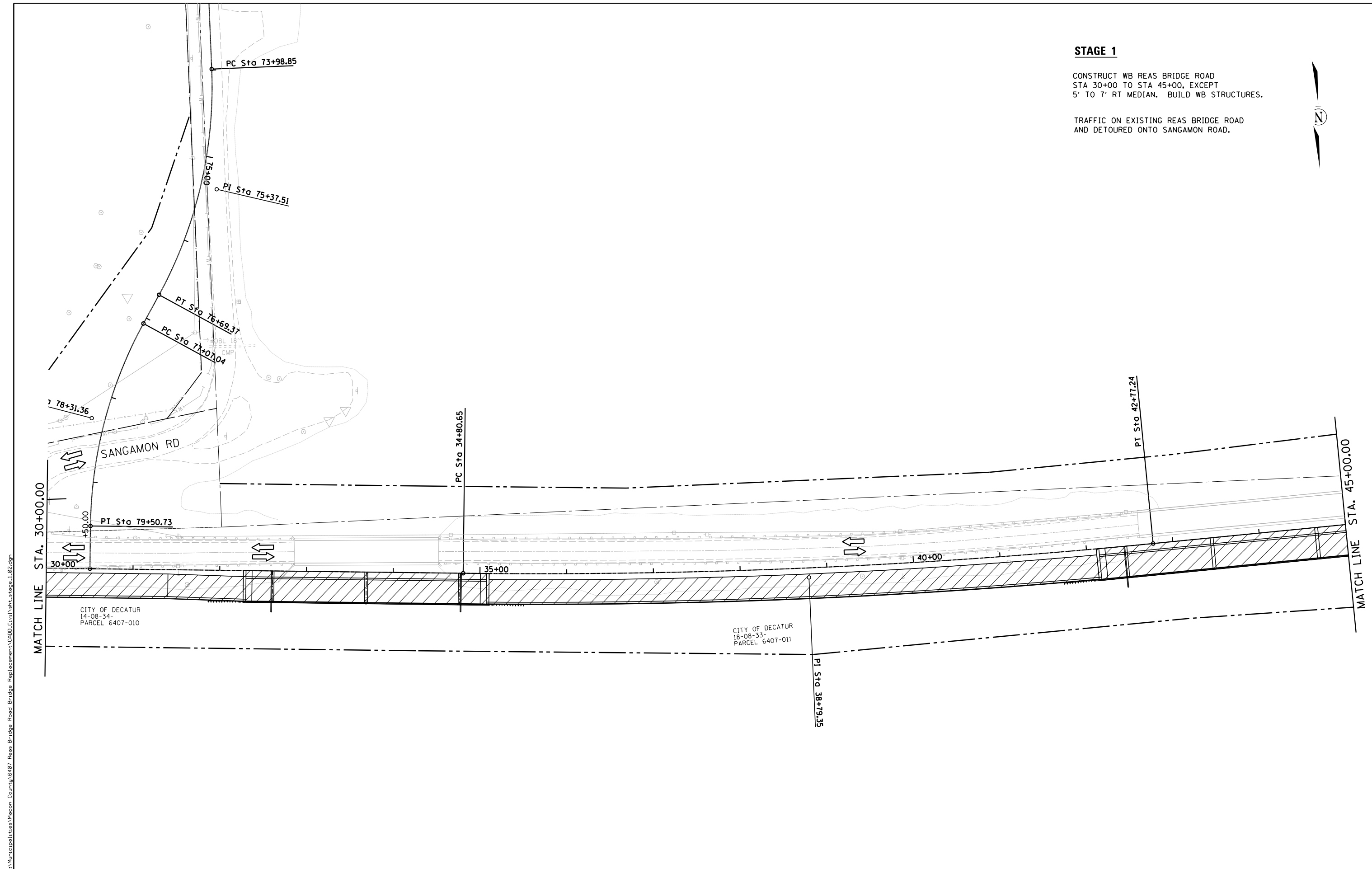
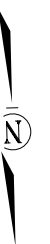
F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	38
CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT

STAGE 1

CONSTRUCT WB REAS BRIDGE ROAD
 STA 30+00 TO STA 45+00, EXCEPT
 5' TO 7' RT MEDIAN. BUILD WB STRUCTURES.

TRAFFIC ON EXISTING REAS BRIDGE ROAD
 AND DETOURED ONTO SANGAMON ROAD.



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PLOT DATE =	DATE -	REVISED -

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 CONSULTING ENGINEERS

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 SCHAUMBURG (773) 714-0050
 ROCKFORD (815) 489-0050
 184-001397

**STAGE 1 CONSTRUCTION
 CH 24 (REAS BRIDGE ROAD)**

SCALE: 1" = 50' SHEET NO. 5 OF 6 SHEETS STA. 30+00 TO STA. 45+00

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	39
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

STAGE 1

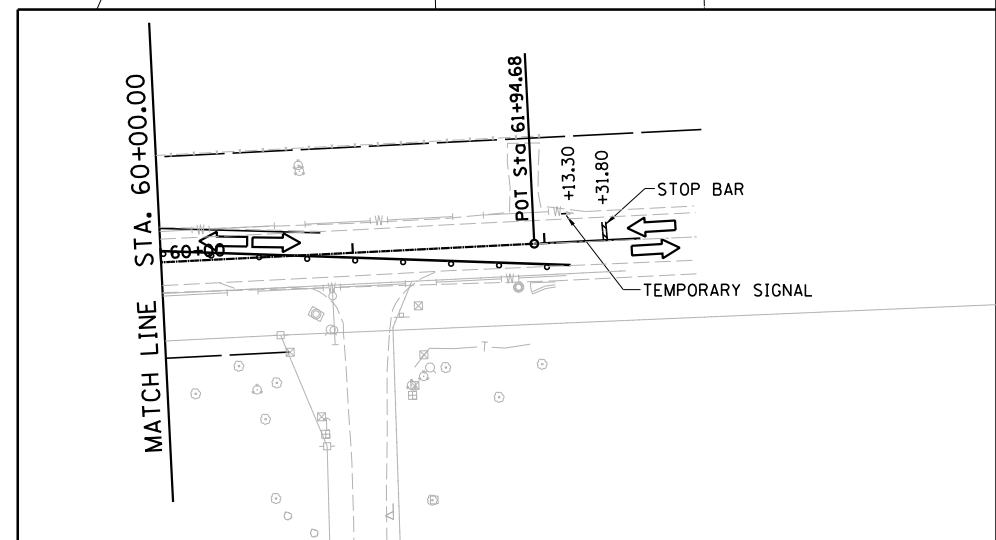
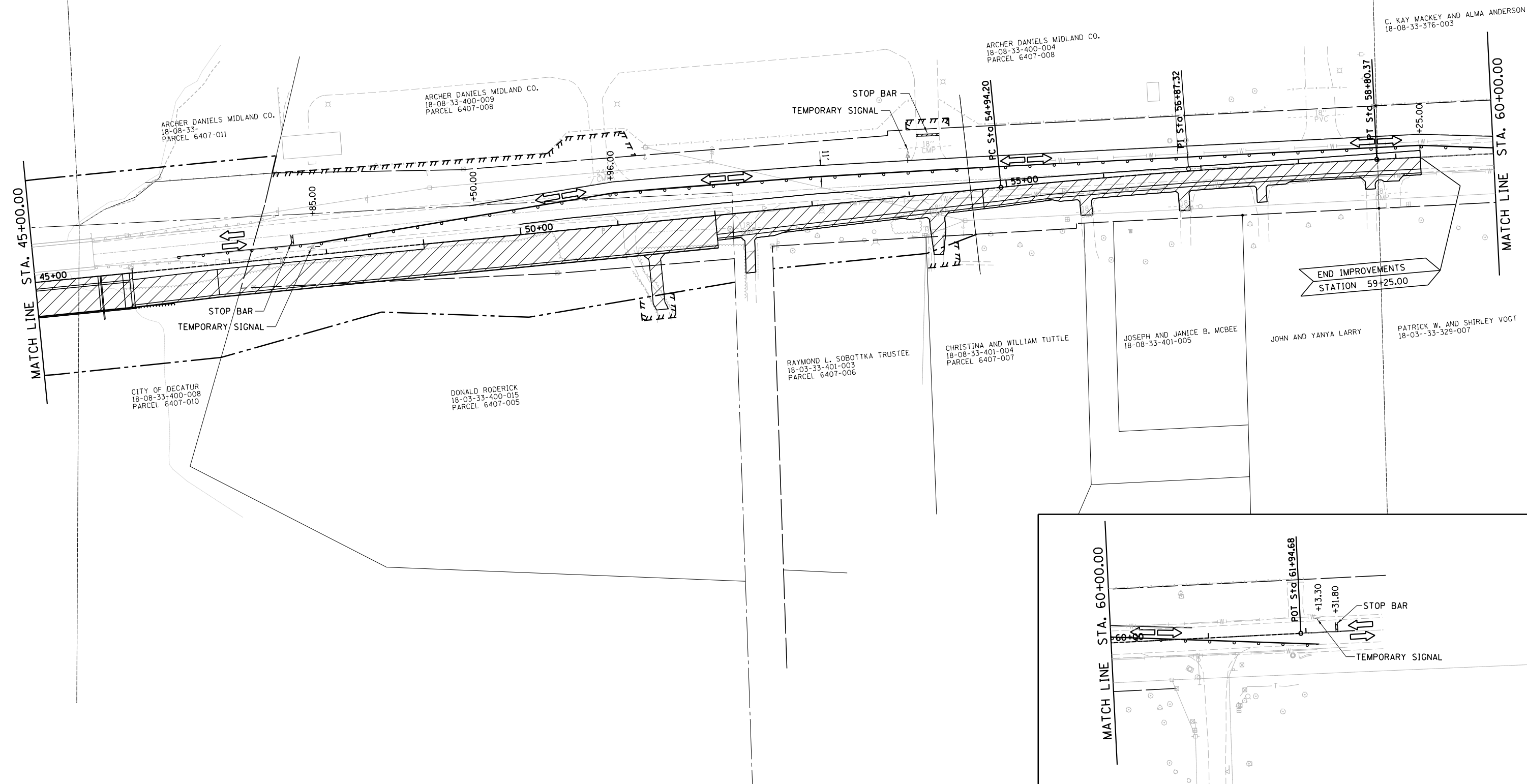
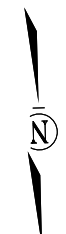
CONSTRUCT WB REAS BRIDGE ROAD
 STA 45+00 TO 54+75, EXCEPT 7'
 MEDIAN STA 46+00 TO STA 49+00.

INSTALL TEMP SIGNALS AT STA 47+85 AND 57+90
 AND BEGIN TAPER TO ONE LANE ONTO WIDENED WB
 PAVEMENT PERFORMED IN PRE-STAGE 1.

INSTALL TEMP SIGNALS AT MIDDLE ADM ENTRANCE
 OR AS OTHERWISE INSTRUCTED BY ADM REPRESENTATIVES.

TRAFFIC ON EXISTING REAS BRIDGE ROAD

USE HIGHWAY STANDARD 701326



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PLOT SCALE =	CHECKED - <i>JMB</i>	REVISED -
PLOT DATE =	DATE -	REVISED -

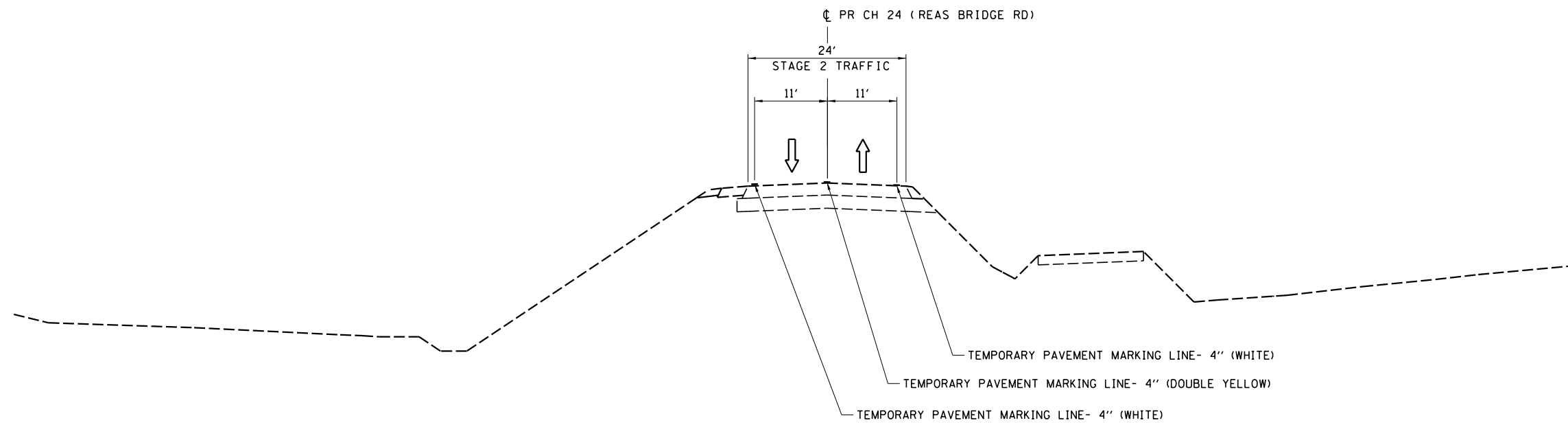
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 SCHAUMBURG (773) 714-0050
 ROCKFORD (815) 489-0050
 184-001397

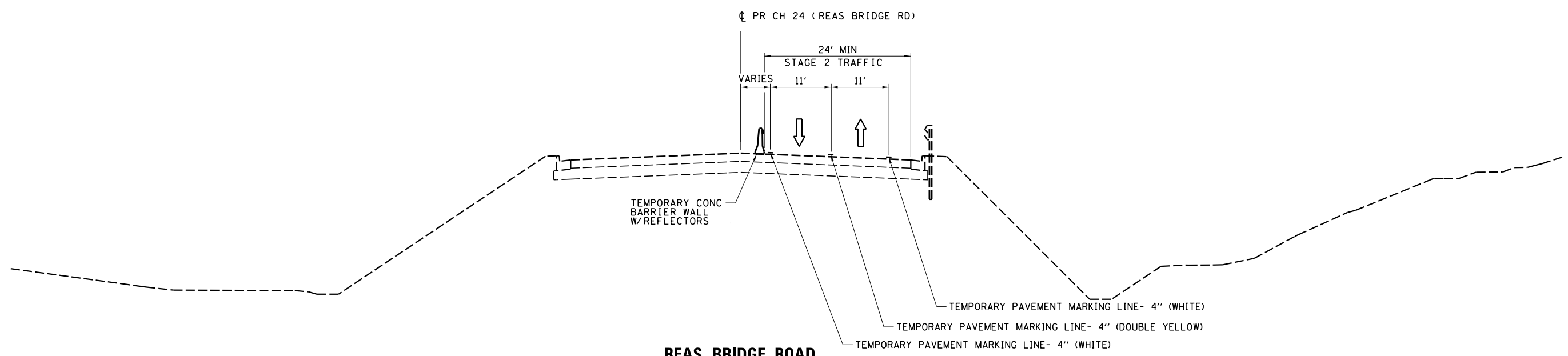
STAGE 1 CONSTRUCTION
CH 24 (REAS BRIDGE ROAD)
 SCALE: 1" = 50' SHEET NO. 6 OF 6 SHEETS STA. 45+00 TO STA. 60+50

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	40
CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT



REAS BRIDGE ROAD
STA 19+50 TO STA 26+00



REAS BRIDGE ROAD
STA 26+00 TO STA 29+00

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USER NAME =	DESIGNED - <i>TES</i>	REVISED -
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PLOT SCALE =	CHECKED - <i>JMB</i>	REVISED -
PLOT DATE =	DATE -	REVISED -

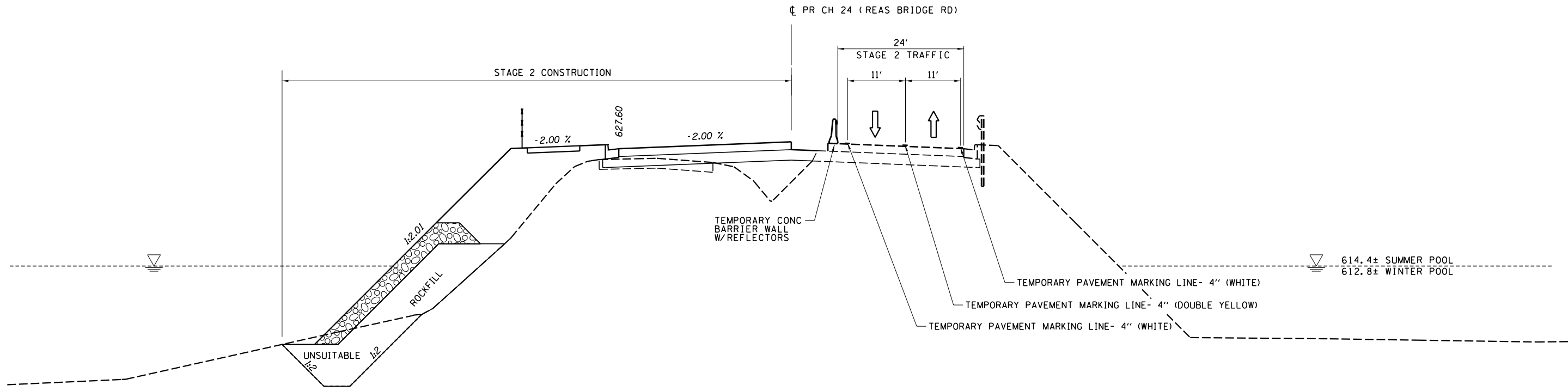
CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR (317) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

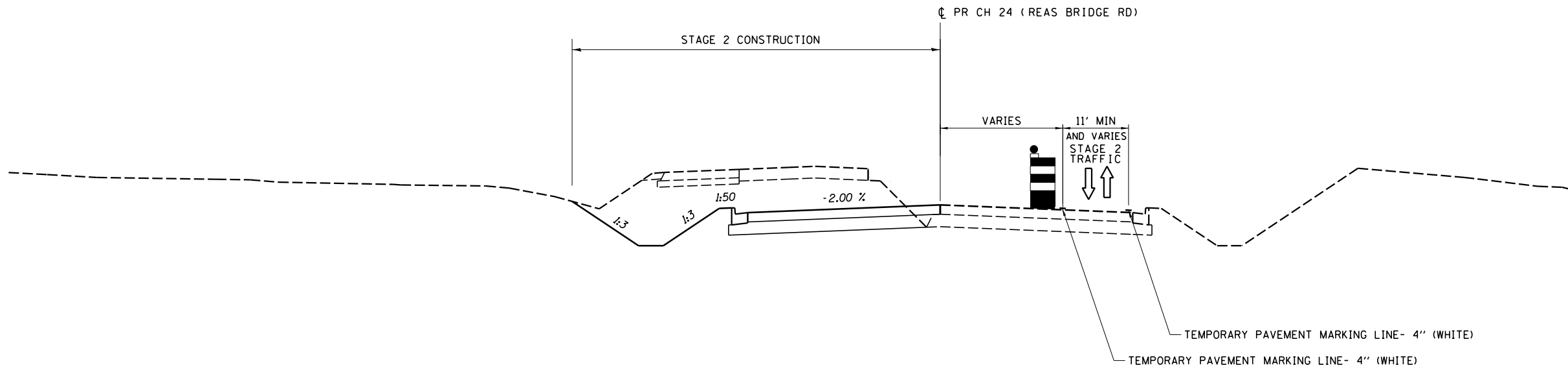
**STAGE 2 TYPICAL SECTIONS
CH 24 (REAS BRIDGE ROAD)**

SCALE: SHEET NO. 1 OF 6 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	41
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				



REAS BRIDGE ROAD
STA 29+00 TO STA 49+00



REAS BRIDGE ROAD
STA 49+00 TO STA 52+00

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PLOT SCALE =	CHECKED - <i>JMB</i>	REVISED -
PLOT DATE =	DATE -	REVISED -

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CONSULTING ENGINEERS

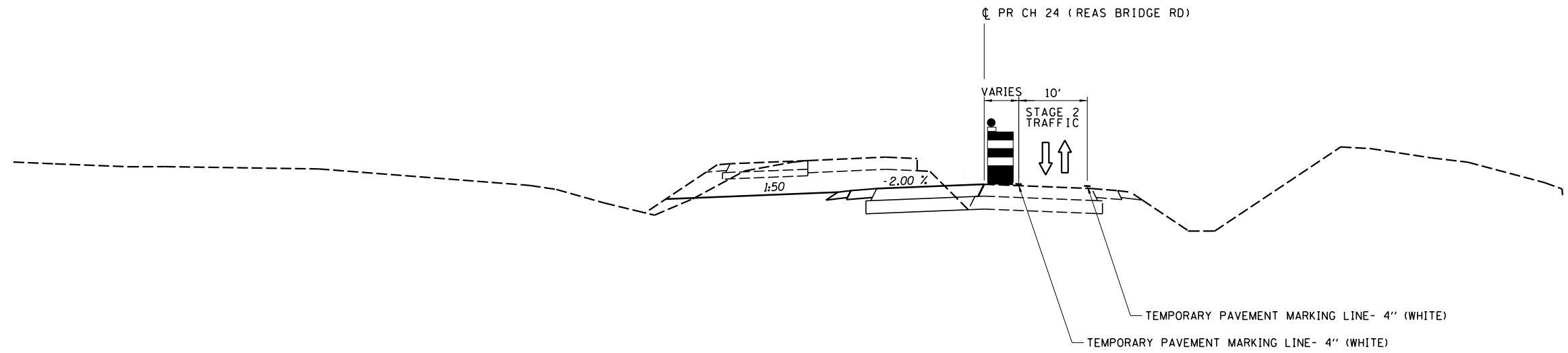
DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0950
ROCKFORD (815) 489-0050
184-001397

**STAGE 2 TYPICAL SECTIONS
CH 24 (REAS BRIDGE ROAD)**

SCALE: SHEET NO. 2 OF 6 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	42
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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REAS BRIDGE ROAD
STA 52+00 TO STA 59+25

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PLOT DATE =	DATE -	REVISED -

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SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

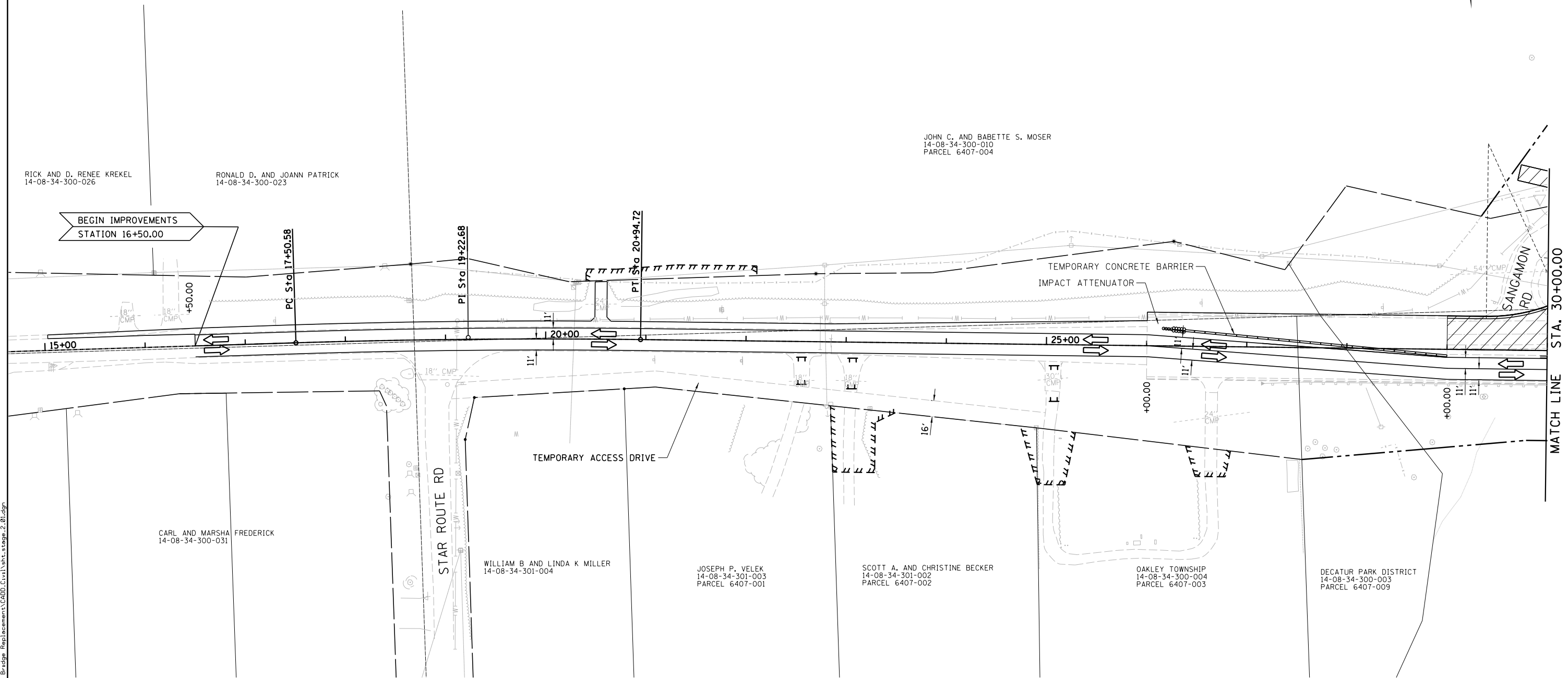
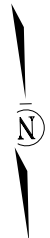
STAGE 2 TYPICAL SECTIONS
CH 24 (REAS BRIDGE ROAD)

SCALE: SHEET NO. 3 OF 6 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	43
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

STAGE 2

CONSTRUCT EB REAS BRIDGE ROAD
 STA 29+00 TO STA 30+00.
 TRAFFIC ON EXISTING REAS BRIDGE ROAD
 CONSTRUCTED IN STAGE 1.



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PLOT SCALE =	CHECKED - <i>JMB</i>	REVISED -
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STAGE 2 CONSTRUCTION
CH 24 (REAS BRIDGE ROAD)
 SCALE: 1" = 50' SHEET NO. 4 OF 6 SHEETS STA. 15+00 TO STA. 30+00

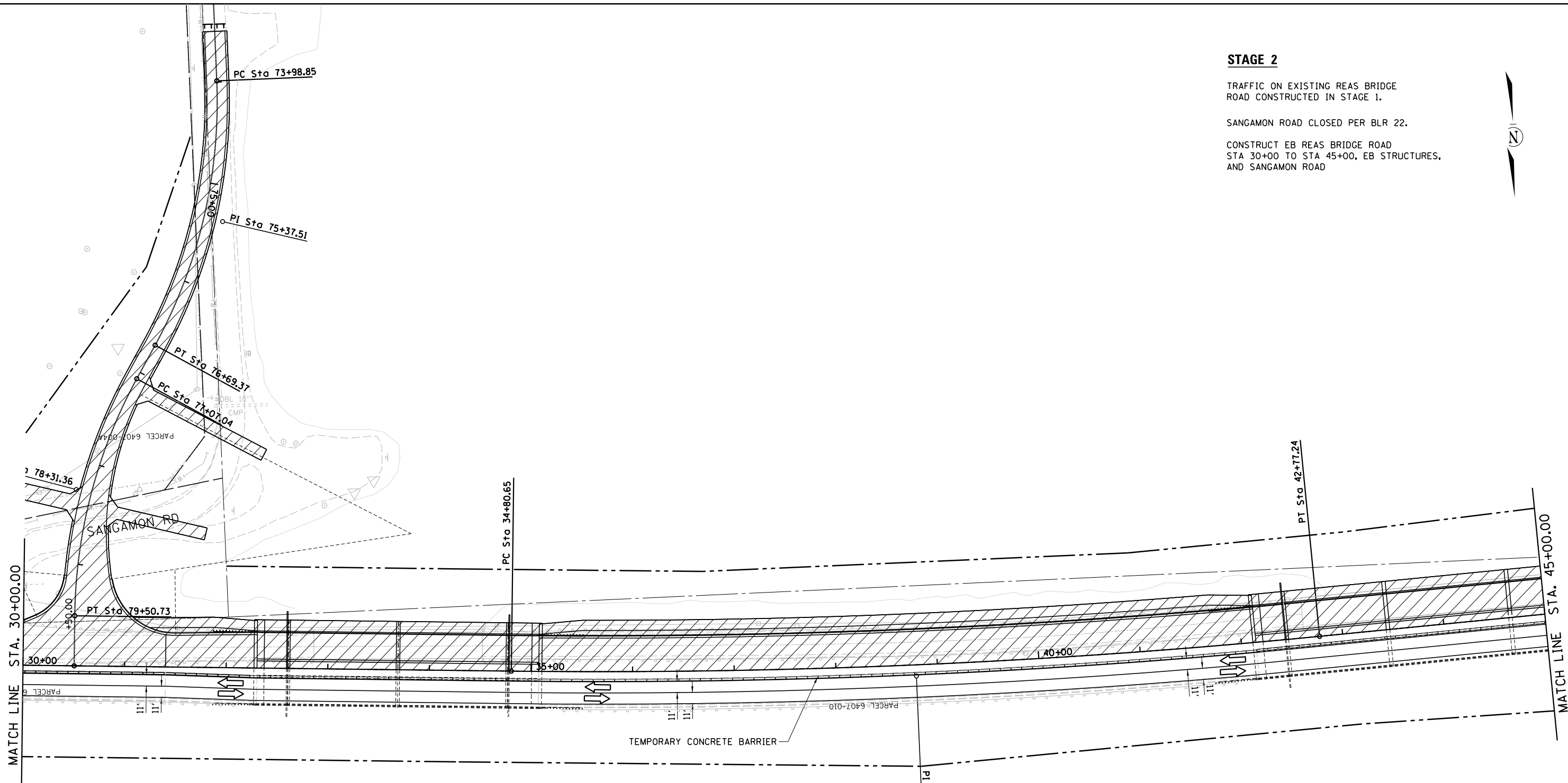
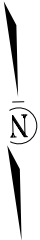
F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	44
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

STAGE 2

TRAFFIC ON EXISTING REAS BRIDGE ROAD
ROAD CONSTRUCTED IN STAGE 1.

SANGAMON ROAD CLOSED PER BLR 22.

CONSTRUCT EB REAS BRIDGE ROAD
STA 30+00 TO STA 45+00, EB STRUCTURES,
AND SANGAMON ROAD



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PLOT DATE =	DATE -	REVISED -

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**STAGE 2 CONSTRUCTION
CH 24 (REAS BRIDGE ROAD)**

SCALE: 1" = 50' SHEET NO. 5 OF 6 SHEETS STA. 30+00 TO STA. 45+00

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	45
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

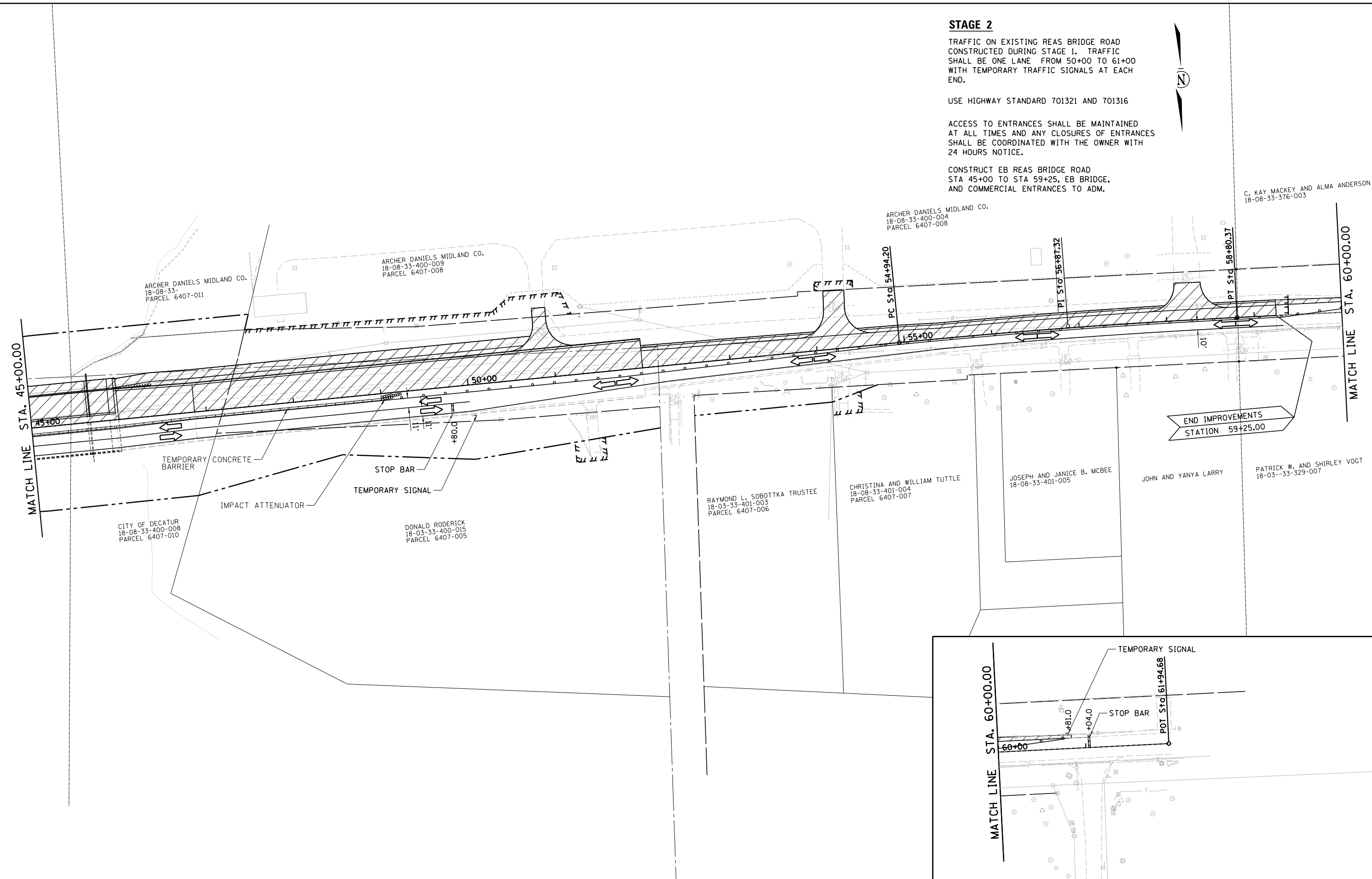
STAGE 2

TRAFFIC ON EXISTING REAS BRIDGE ROAD
CONSTRUCTED DURING STAGE 1. TRAFFIC
SHALL BE ONE LANE FROM 50+00 TO 61+00
WITH TEMPORARY TRAFFIC SIGNALS AT EACH
END.

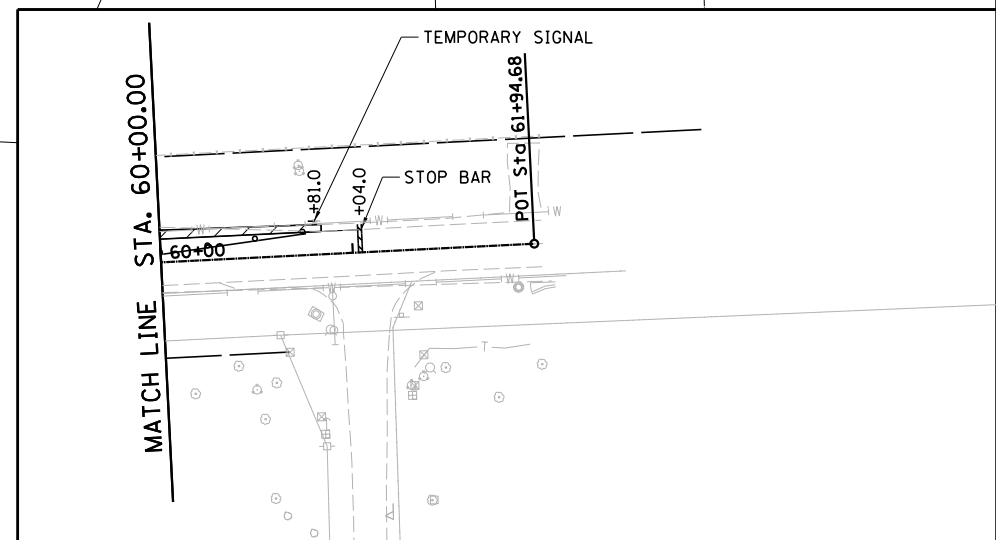
USE HIGHWAY STANDARD 701321 AND 701316

ACCESS TO ENTRANCES SHALL BE MAINTAINED
AT ALL TIMES AND ANY CLOSURES OF ENTRANCES
SHALL BE COORDINATED WITH THE OWNER WITH
24 HOURS NOTICE.

CONSTRUCT EB REAS BRIDGE ROAD
STA 45+00 TO STA 59+25, EB BRIDGE,
AND COMMERCIAL ENTRANCES TO ADM.



END IMPROVEMENTS
STATION 59+25.00



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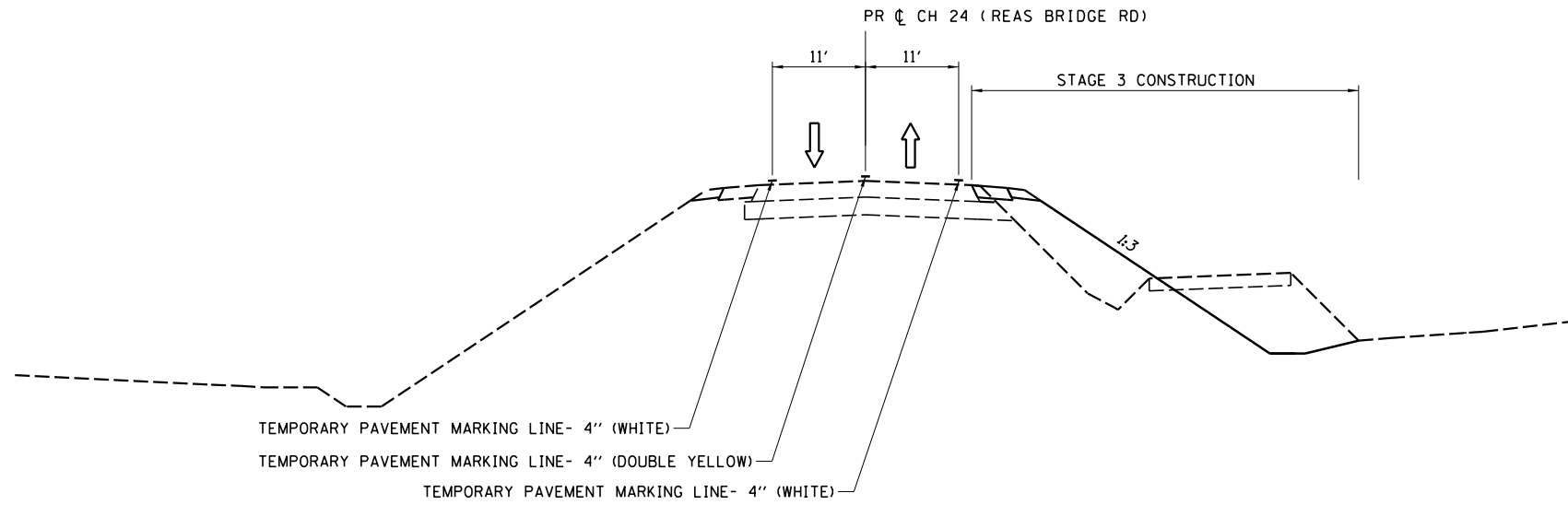
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	DRAWN - RLK	REVISED -
PLOT SCALE =	CHECKED - JMB	REVISED -
PLOT DATE =	DATE -	REVISED -

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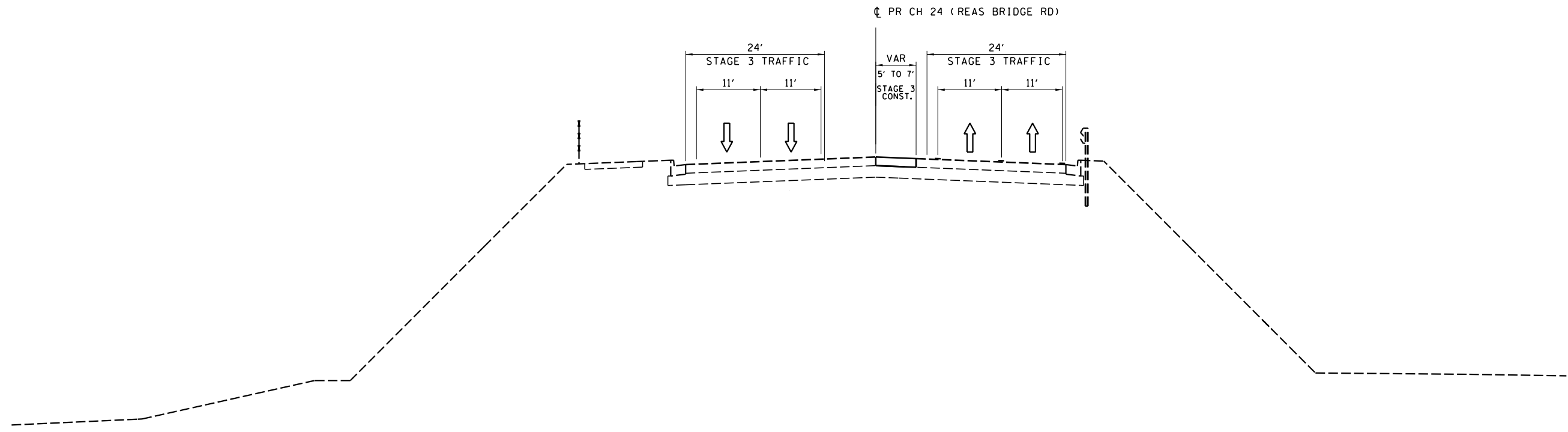
STAGE 2 CONSTRUCTION
CH 24 (REAS BRIDGE ROAD)
SCALE: 1" = 50' SHEET NO. 6 OF 6 SHEETS STA. 45+00 TO STA. 60+50

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	46
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				



REAS BRIDGE ROAD

STA 19+50 TO STA 25+25 (EMBANKMENT)
 STA 19+50 TO STA 26+00 (SHOULDERS)



REAS BRIDGE ROAD

STA 29+00 TO STA 49+00

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PLOT DATE =	DATE -	REVISED -

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**STAGE 3 TYPICAL SECTIONS
 CH 24 (REAS BRIDGE ROAD)**

SCALE: SHEET NO. 1 OF 4 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	47
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

STAGE 3

CONSTRUCT WB REAS BRIDGE ROAD SHOULDERS STA 19+50 TO STA 26+00.

CONSTRUCT REMAINING RIGHT EMBANKMENT STA 19+50 TO STA 25+25.

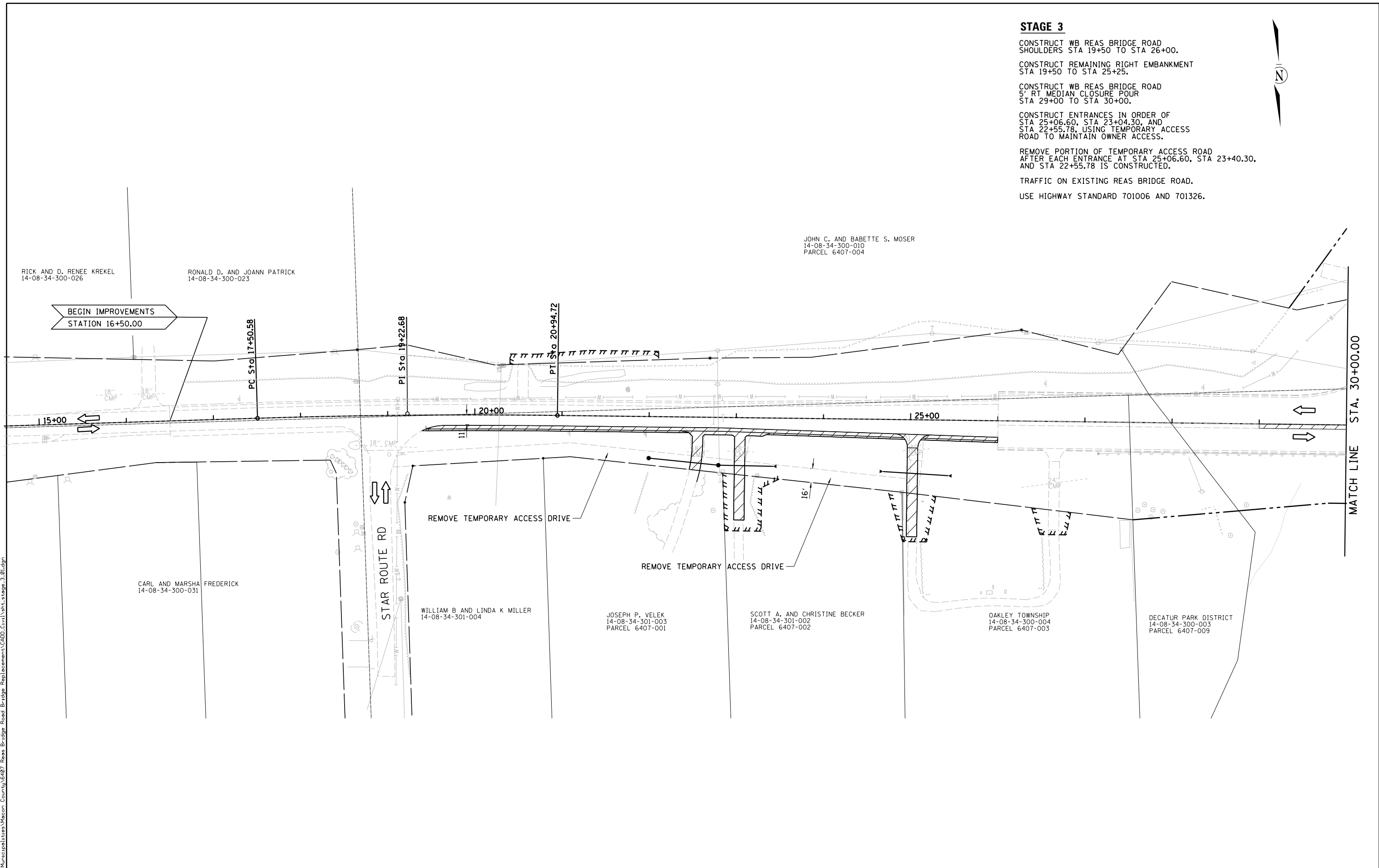
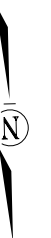
CONSTRUCT WB REAS BRIDGE ROAD 5' RT MEDIAN CLOSURE POUR STA 29+00 TO STA 30+00.

CONSTRUCT ENTRANCES IN ORDER OF STA 25+06.60, STA 23+04.30, AND STA 22+55.78, USING TEMPORARY ACCESS ROAD TO MAINTAIN OWNER ACCESS.

REMOVE PORTION OF TEMPORARY ACCESS ROAD AFTER EACH ENTRANCE AT STA 25+06.60, STA 23+40.30, AND STA 22+55.78 IS CONSTRUCTED.

TRAFFIC ON EXISTING REAS BRIDGE ROAD.

USE HIGHWAY STANDARD 701006 AND 701326.



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PLOT SCALE =	CHECKED - <i>JMB</i>	REVISED -
PLOT DATE =	DATE -	REVISED -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

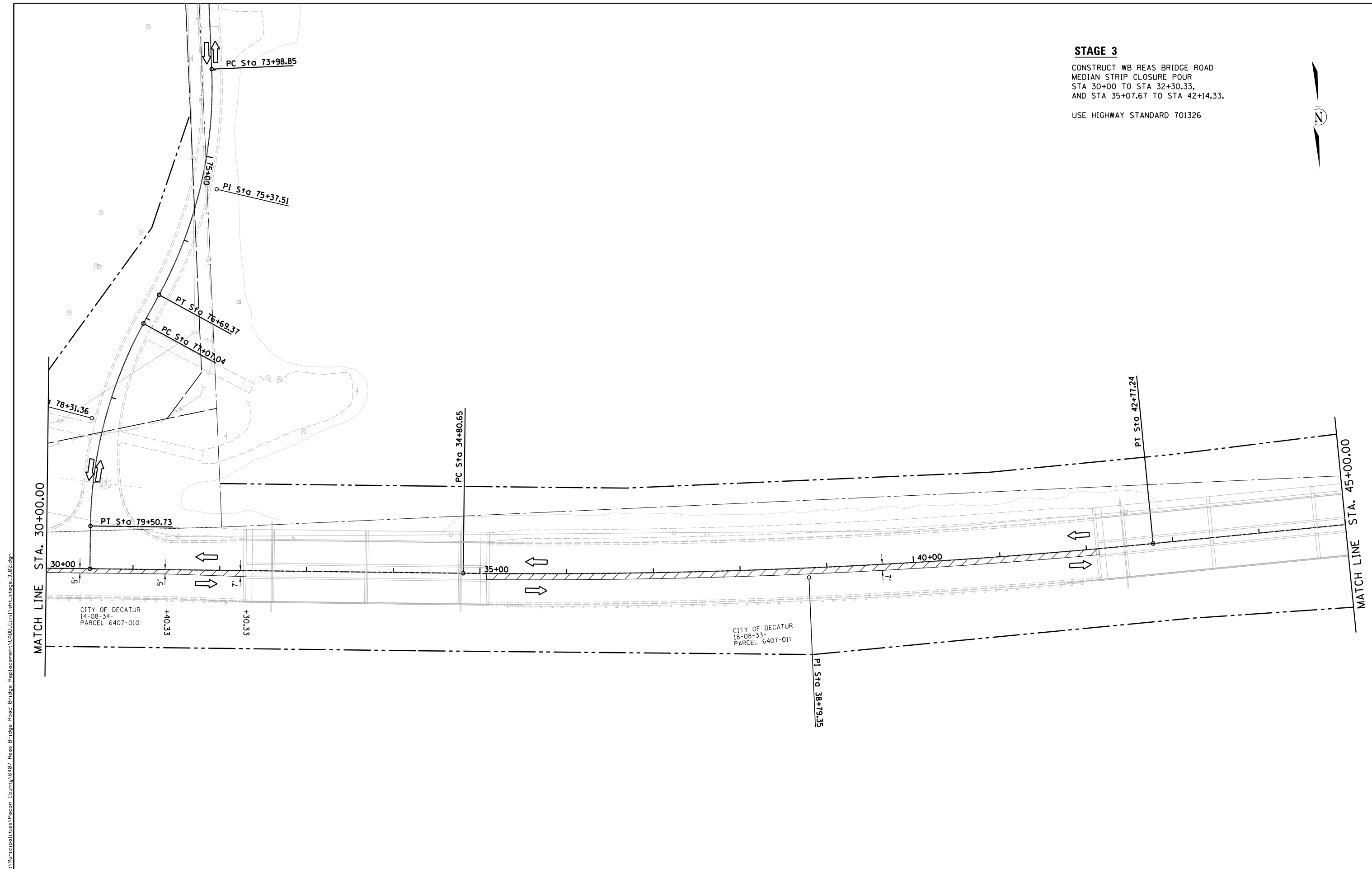
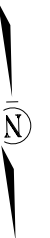
STAGE 3 CONSTRUCTION
CH 24 (REAS BRIDGE ROAD)
SCALE: 1" = 50'
SHEET NO. 2 OF 4 SHEETS
STA. 15+00 TO STA. 30+00

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	48
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

STAGE 3

CONSTRUCT WB REAS BRIDGE ROAD
 MEDIAN STRIP CLOSURE POUR
 STA 30+00 TO STA 32+30.33,
 AND STA 35+07.67 TO STA 42+14.33.

USE HIGHWAY STANDARD 701326



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PLOT DATE =	DATE -	REVISED -

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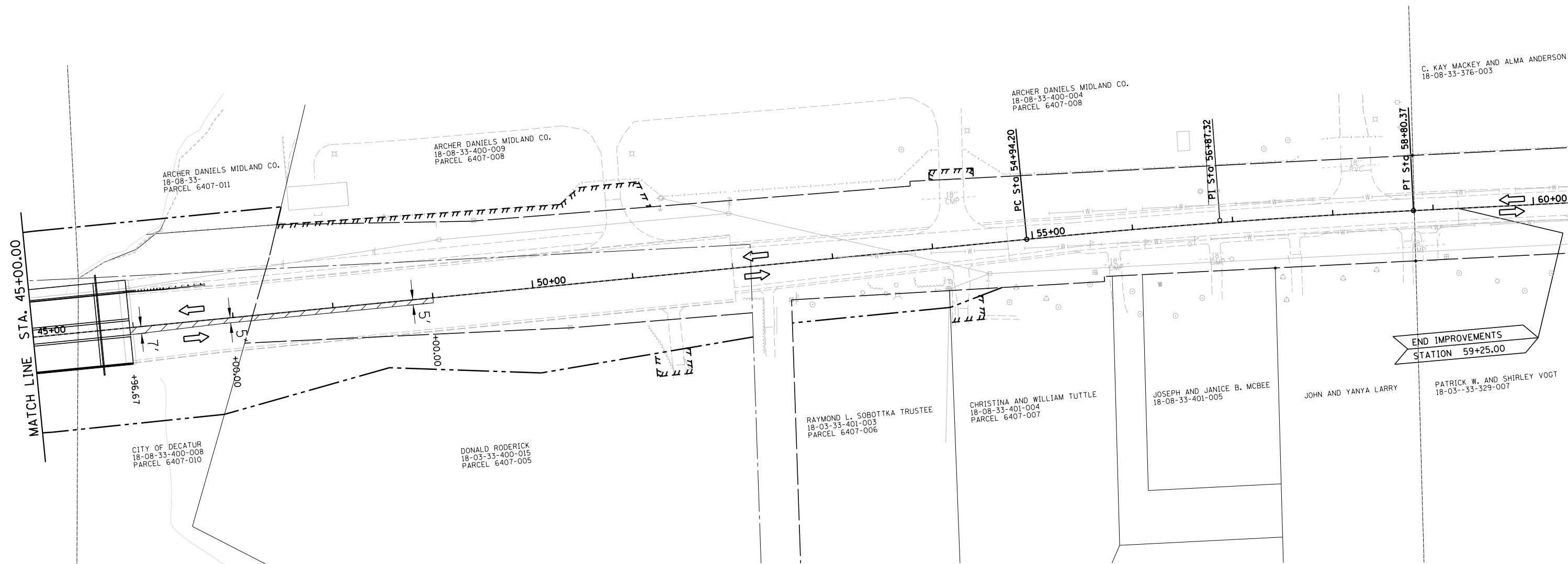
STAGE 3 CONSTRUCTION
CH 24 (REAS BRIDGE ROAD)
 SCALE: 1" = 50' SHEET NO. 3 OF 4 SHEETS STA. 30+00 TO STA. 45+00

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	49
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

STAGE 3

CONSTRUCT WB REAS BRIDGE ROAD
 MEDIAN CLOSURE STRIP STA 45+96.67 TO 49+00

USE HIGHWAY STANDARD 701326



END IMPROVEMENTS
 STATION 59+25.00

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PLOT DATE =	DATE -	REVISED -

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
DECATUR (217) 422-8544
 SCHAUMBURG (773) 714-0050
 ROCKFORD (815) 489-0050
 184-001397

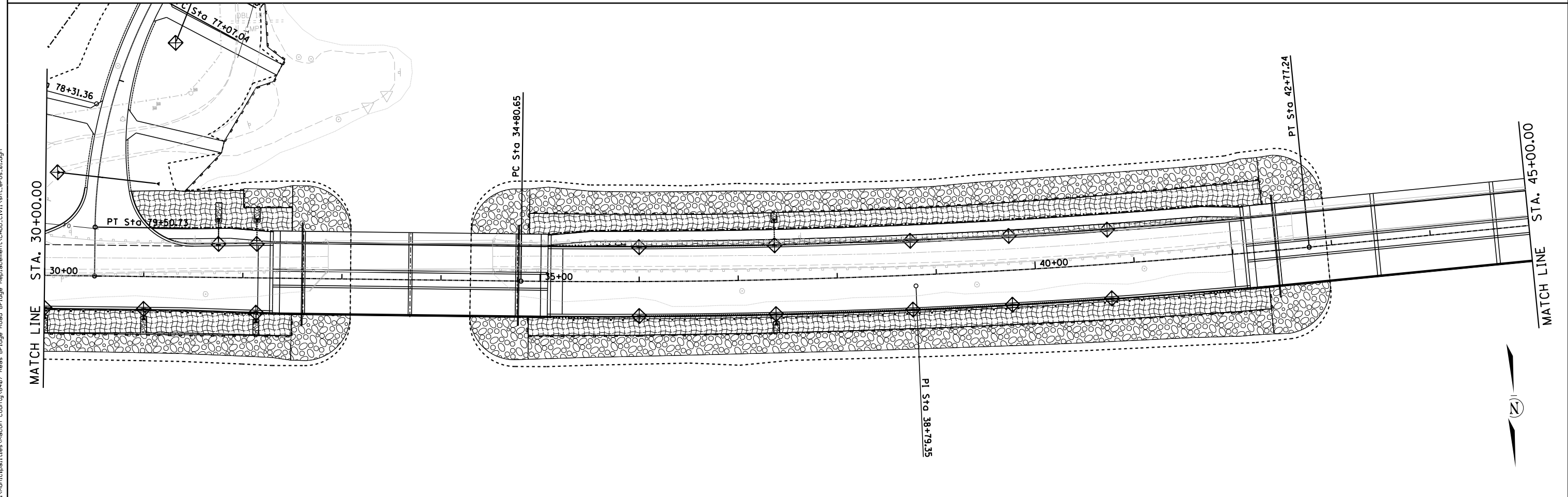
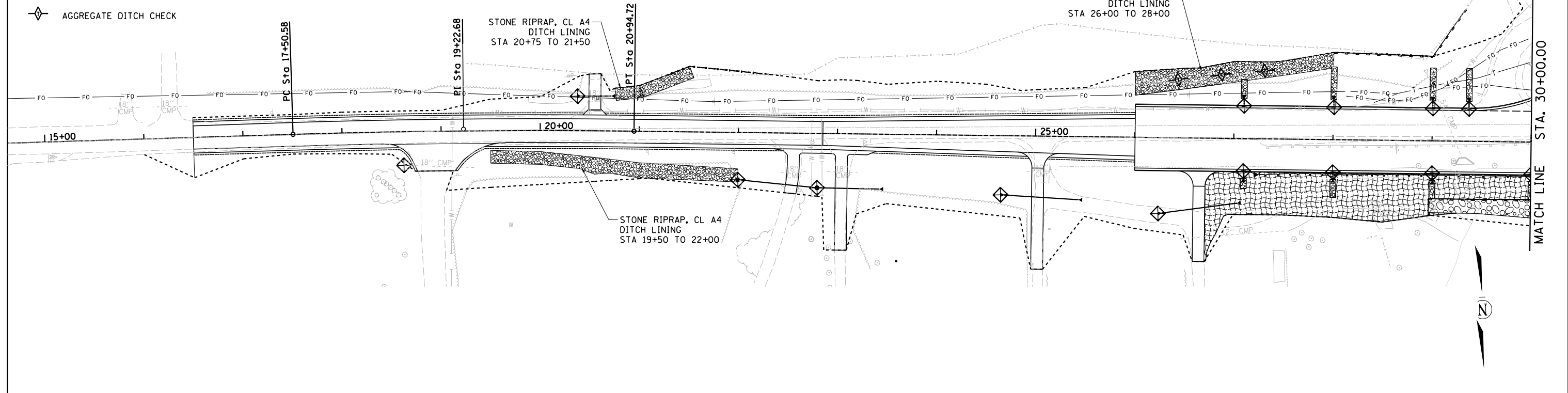
**STAGE 3 CONSTRUCTION
 CH 24 (REAS BRIDGE ROAD)**

SCALE: 1" = 50' SHEET NO. 4 OF 4 SHEETS STA. 45+00 TO STA. 60+50

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	50
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

LEGEND

-  EROSION CONTROL BLANKET
-  STONE RIPRAP, CLASS A4
-  INLET AND PIPE PROTECTION
-  PERIMETER EROSION BARRIER
-  AGGREGATE DITCH CHECK



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	DATE -	REVISED -

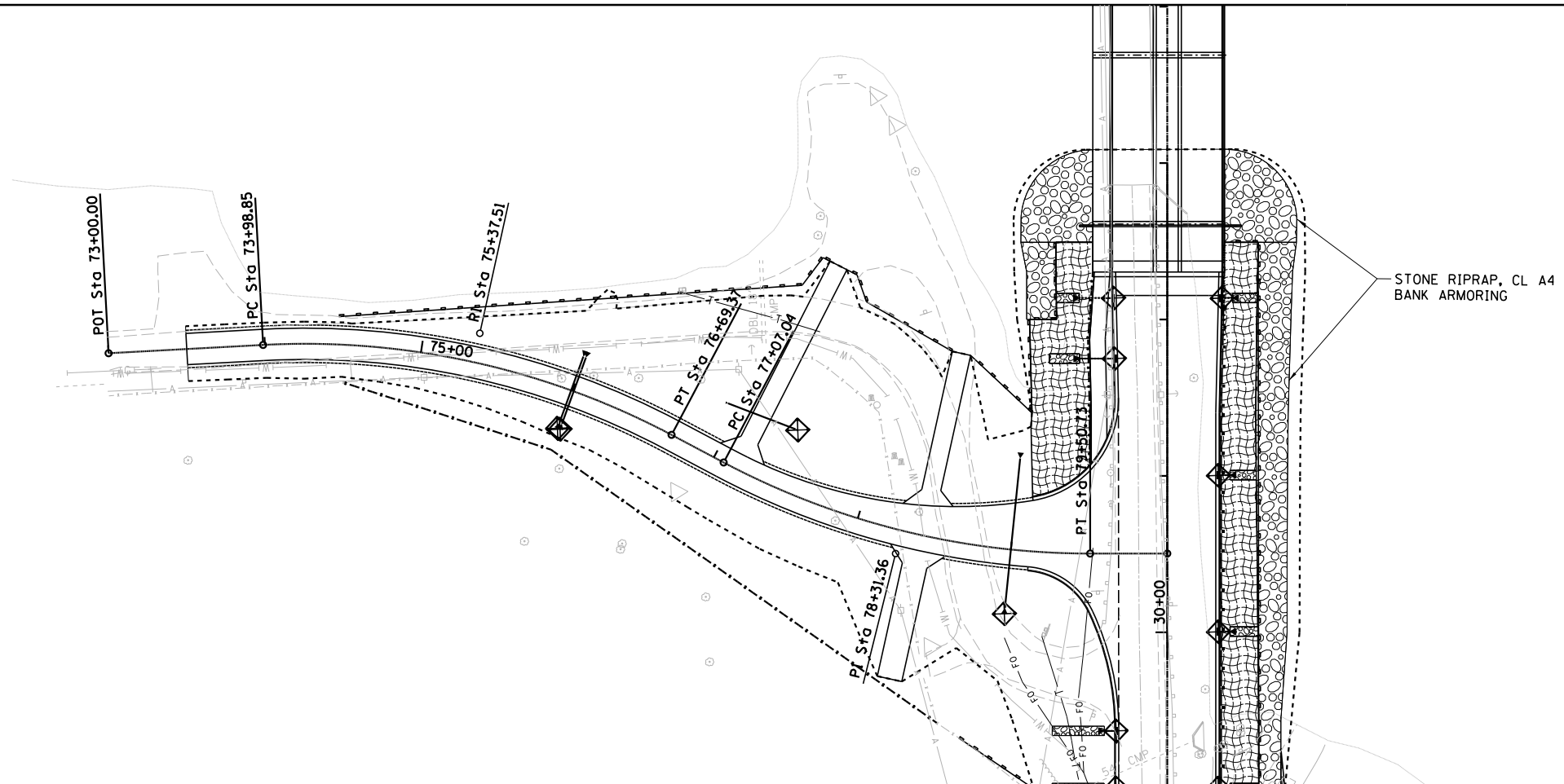
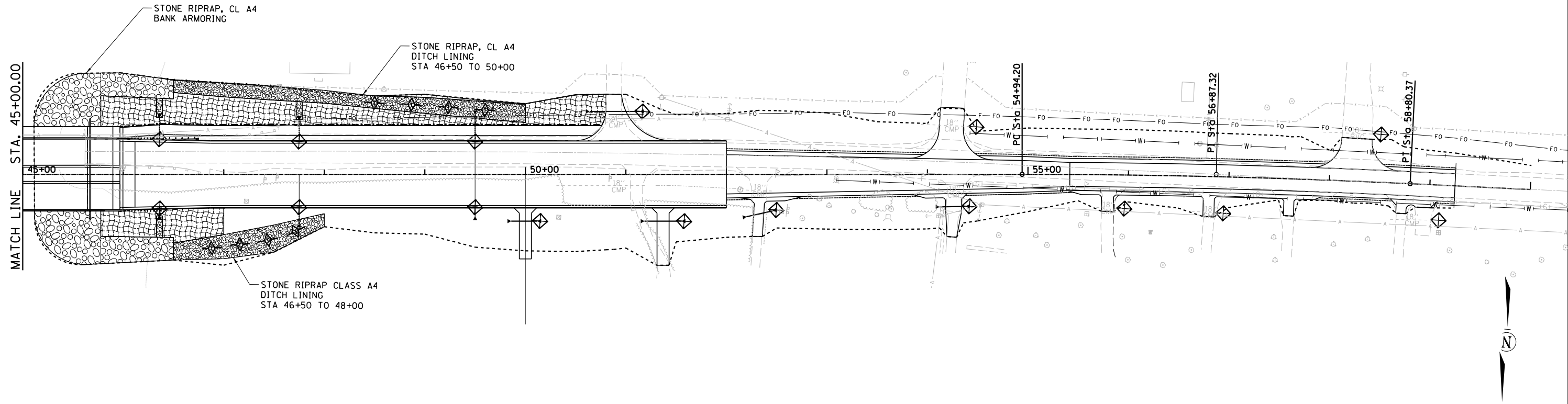
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184-001397

**EROSION CONTROL PLAN
CH 24 (REAS BRIDGE ROAD)**

SCALE: SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	51
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				



LEGEND

	EROSION CONTROL BLANKET
	STONE RIPRAP, CLASS A4
	INLET AND PIPE PROTECTION
	PERIMETER EROSION BARRIER
	AGGREGATE DITCH CHECK

FILE NAME = I:\Municipalities\Macon County\6487 Reas Bridge Road Bridge Replacement\CADD\Civil\shl_eros.02.dgn

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	DATE -	REVISED -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

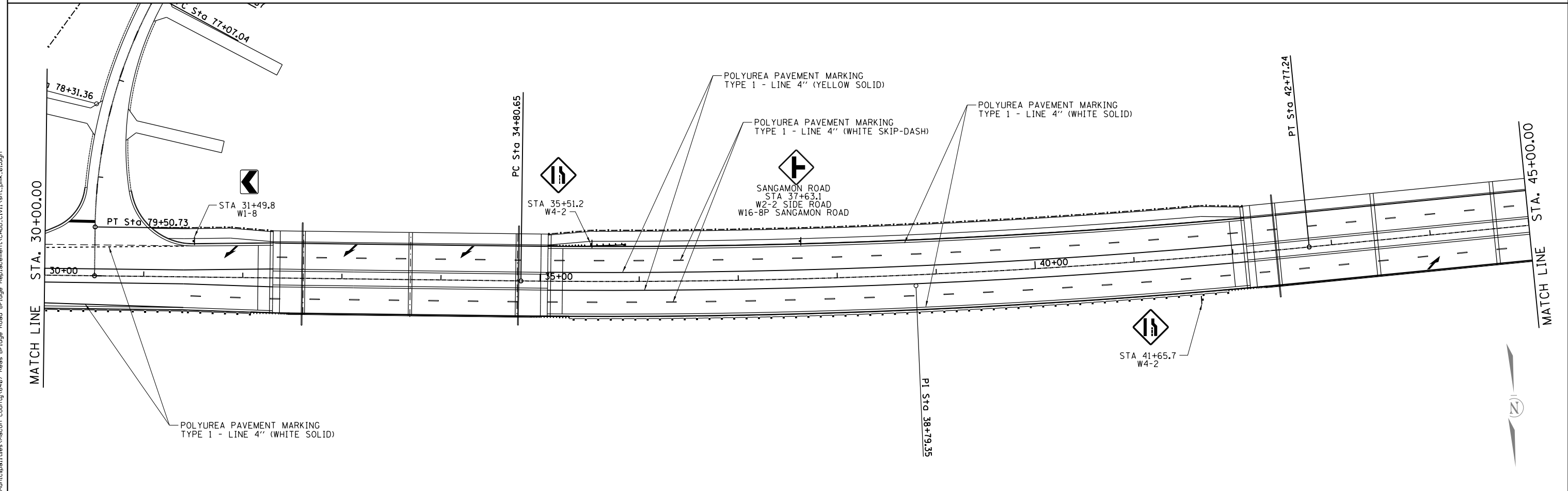
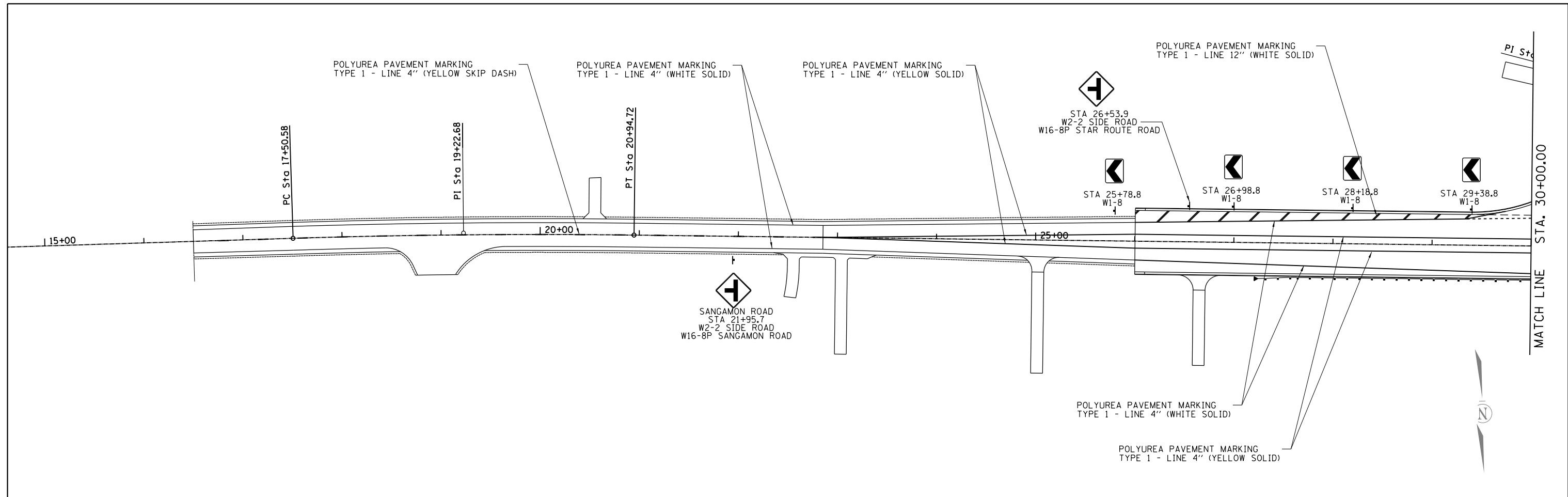
DECATUR (217) 422-8544
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ROCKFORD (815) 489-0050
184-001397

EROSION CONTROL PLAN
CH 24 (REAS BRIDGE ROAD) AND SANGAMON ROAD

SCALE: SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	52
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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PLOT SCALE = 100.0000' / in.	CHECKED - JMB	REVISED -
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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

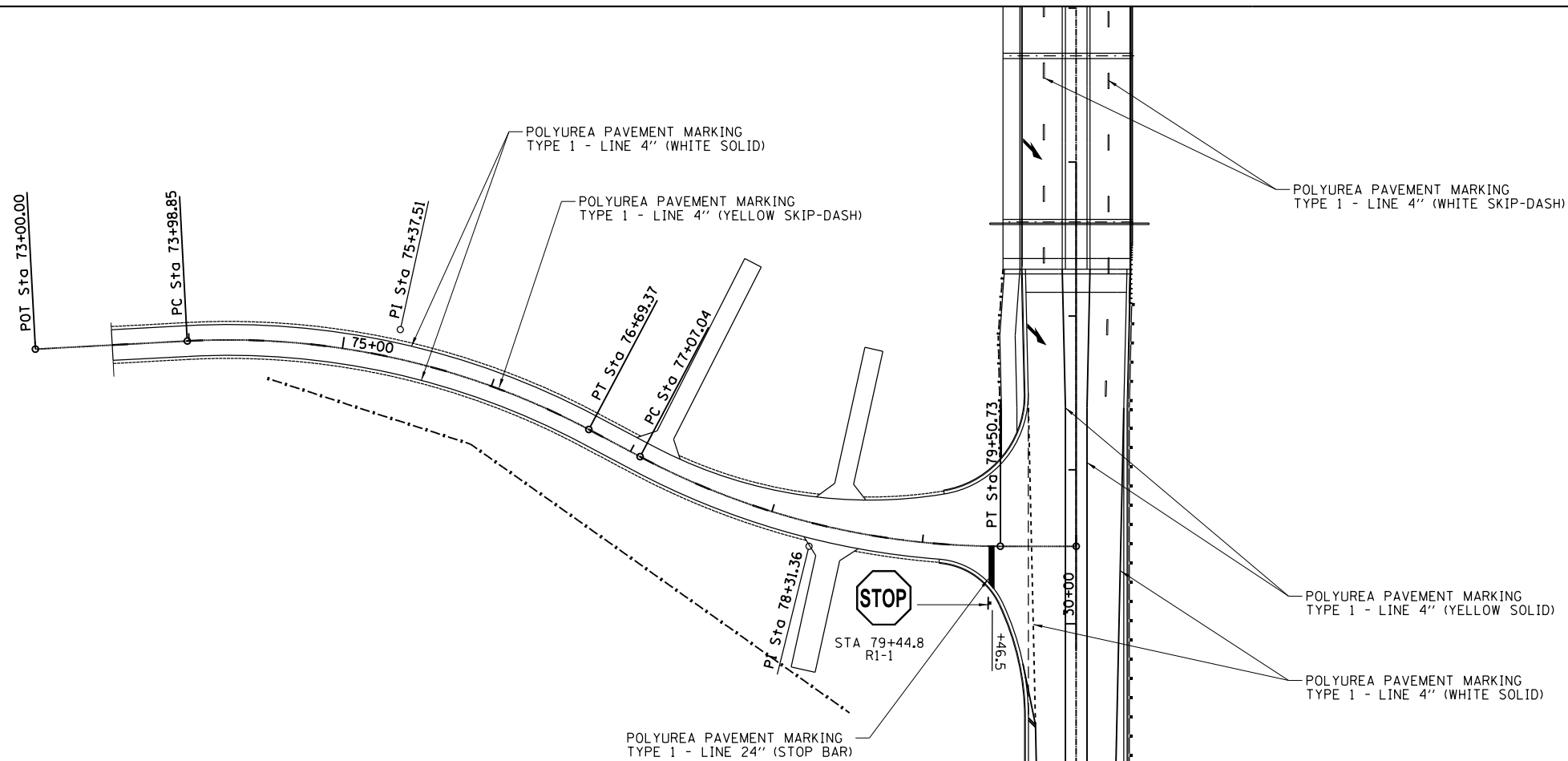
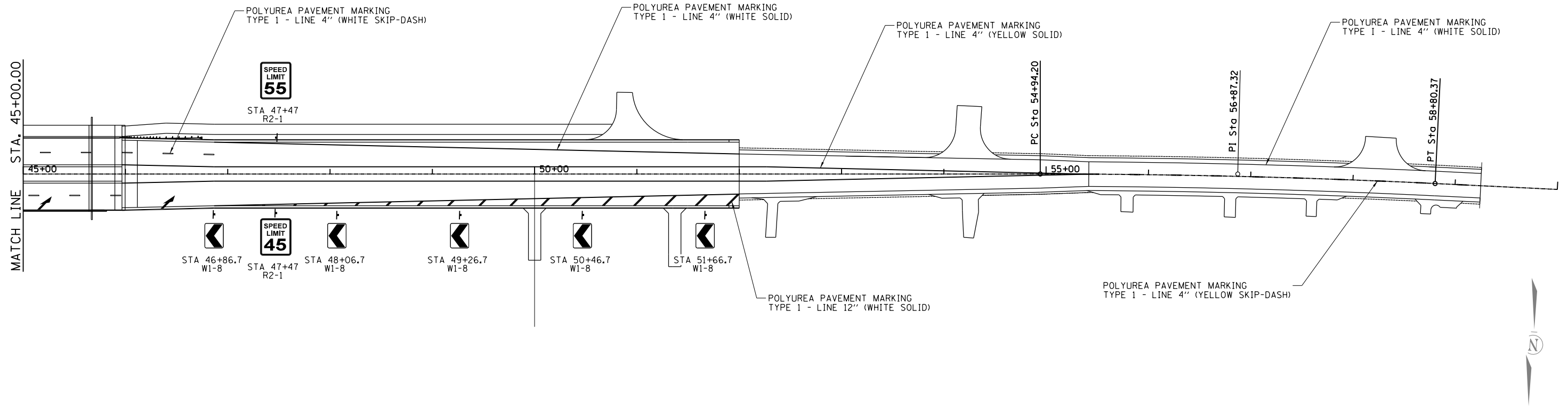
DECATUR (217) 422-8544
SCHAMBURG (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

PAVEMENT MARKING & SIGNING PLAN
CH 24 (REAS BRIDGE ROAD)

SCALE: SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	53
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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PLOT DATE = 1/26/2022	DATE -	REVISED -

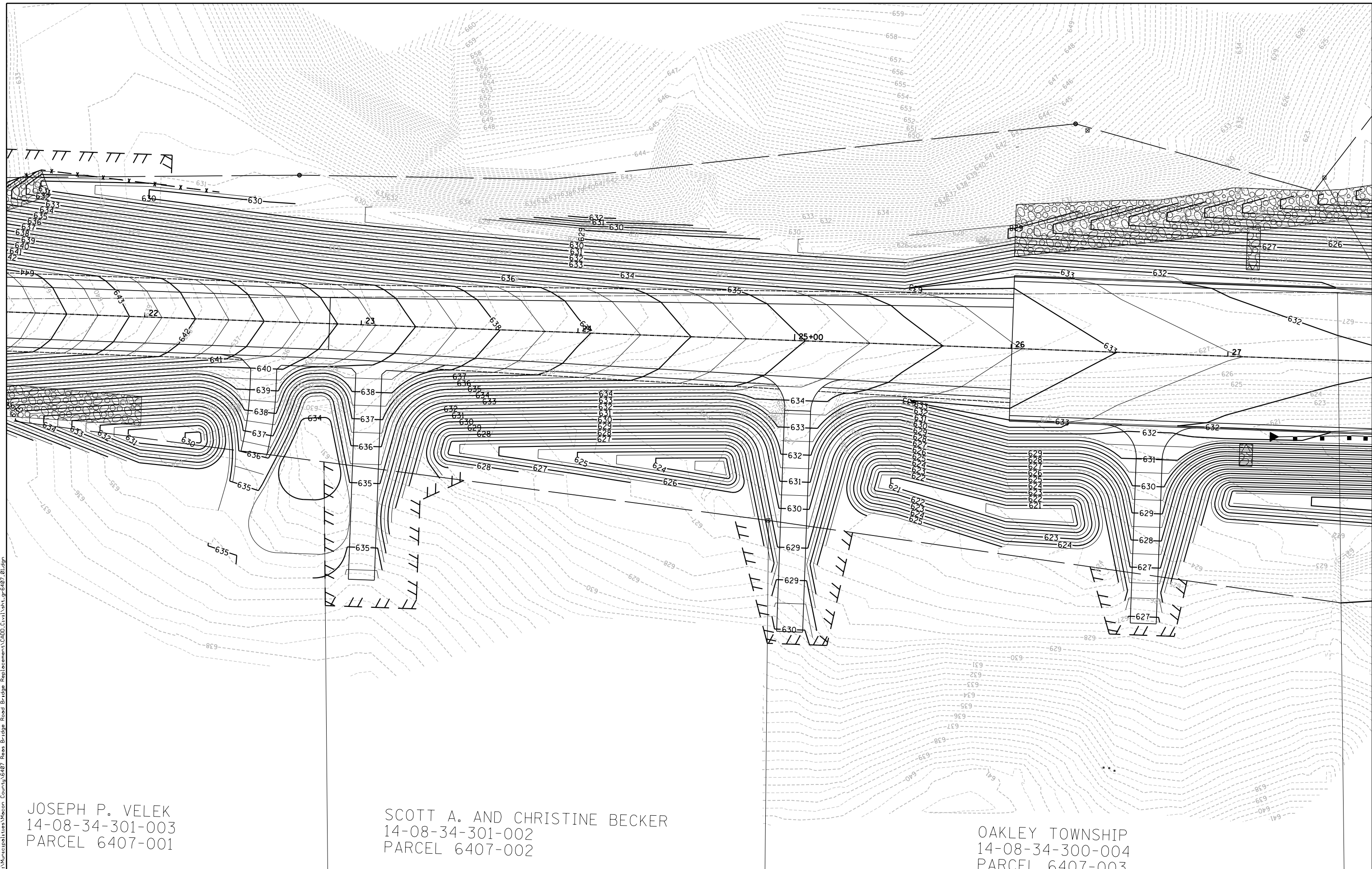
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184-001397

PAVEMENT MARKING & SIGNING PLAN
CH 24 (REAS BRIDGE ROAD) AND SANGAMON ROAD

SCALE: SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	54
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				



JOSEPH P. VELEK
 14-08-34-301-003
 PARCEL 6407-001

SCOTT A. AND CHRISTINE BECKER
 14-08-34-301-002
 PARCEL 6407-002

OAKLEY TOWNSHIP
 14-08-34-300-004
 PARCEL 6407-003

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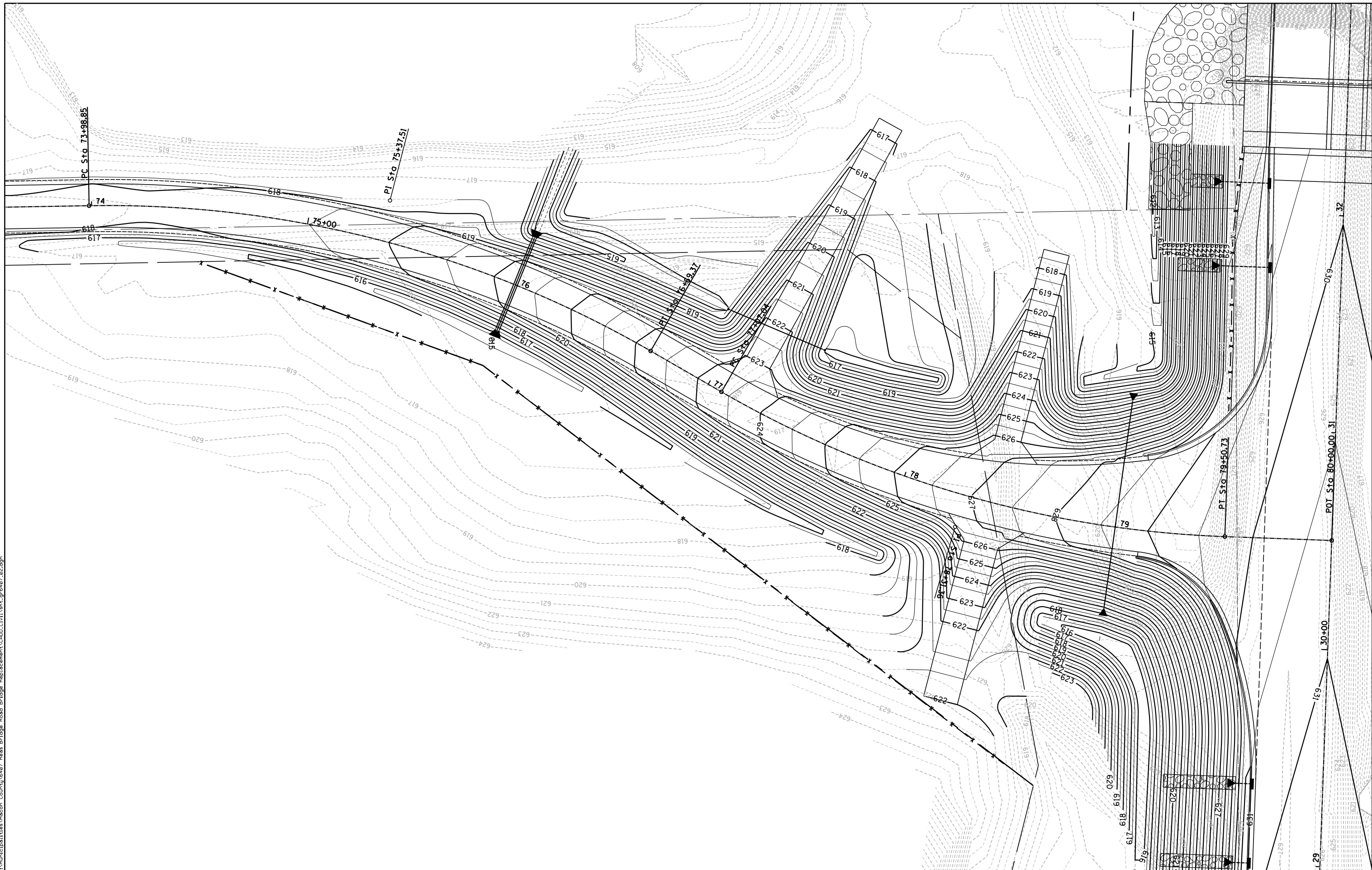
DECATUR (217) 422-8544
 SCHAUMBURG (773) 714-0050
 ROCKFORD (815) 489-0050
 184-001397

GRADING PLAN - CH 24 (EAST)
CH 24 (REAS BRIDGE ROAD)

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	55
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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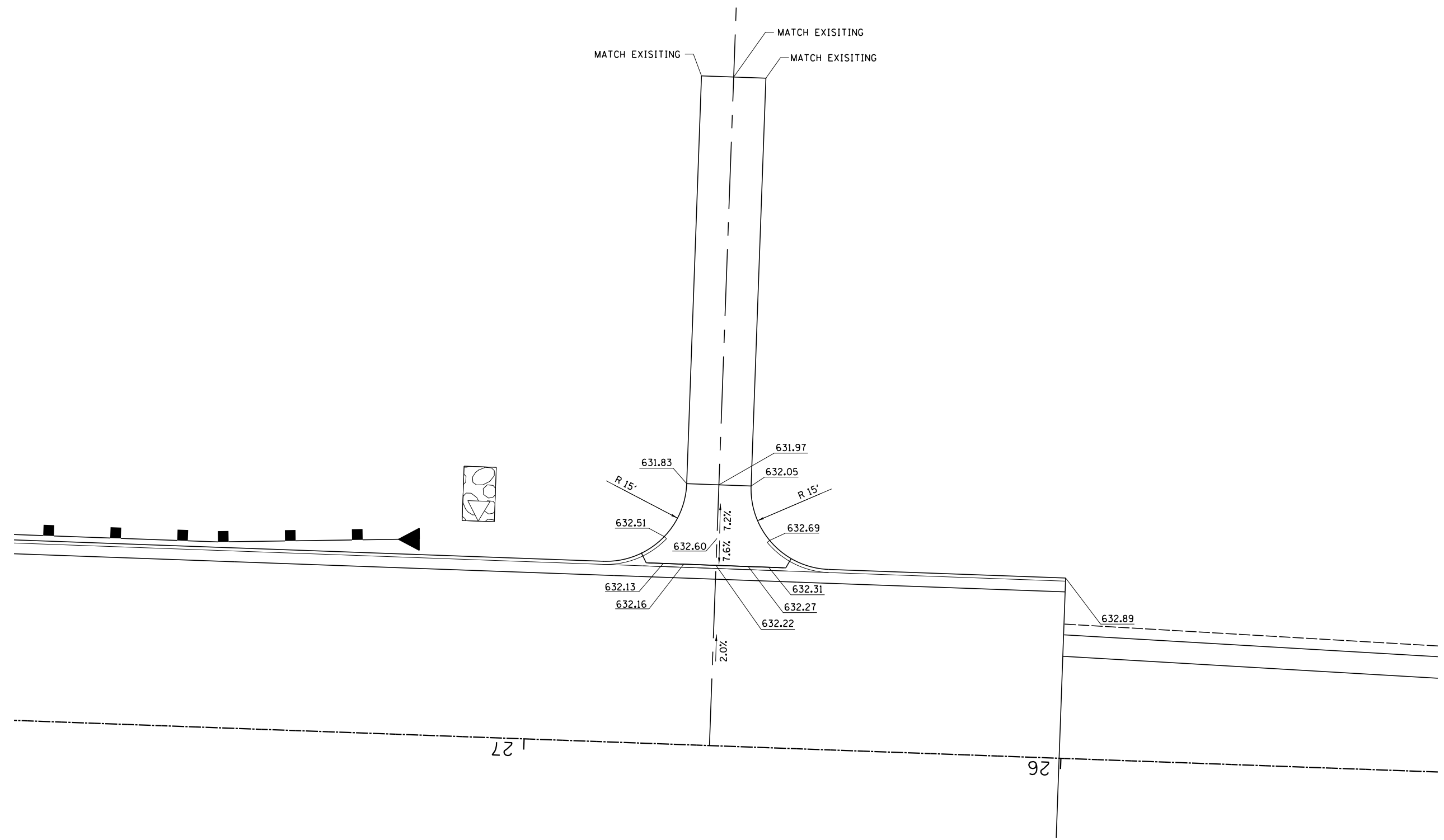
DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

**GRADING PLAN - SANGAMON ROAD
CH 24 (REAS BRIDGE ROAD)**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	56
CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT



STA 26+65.47, RT - CE

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PLOT DATE =	DATE -	REVISED -

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CONSULTING ENGINEERS

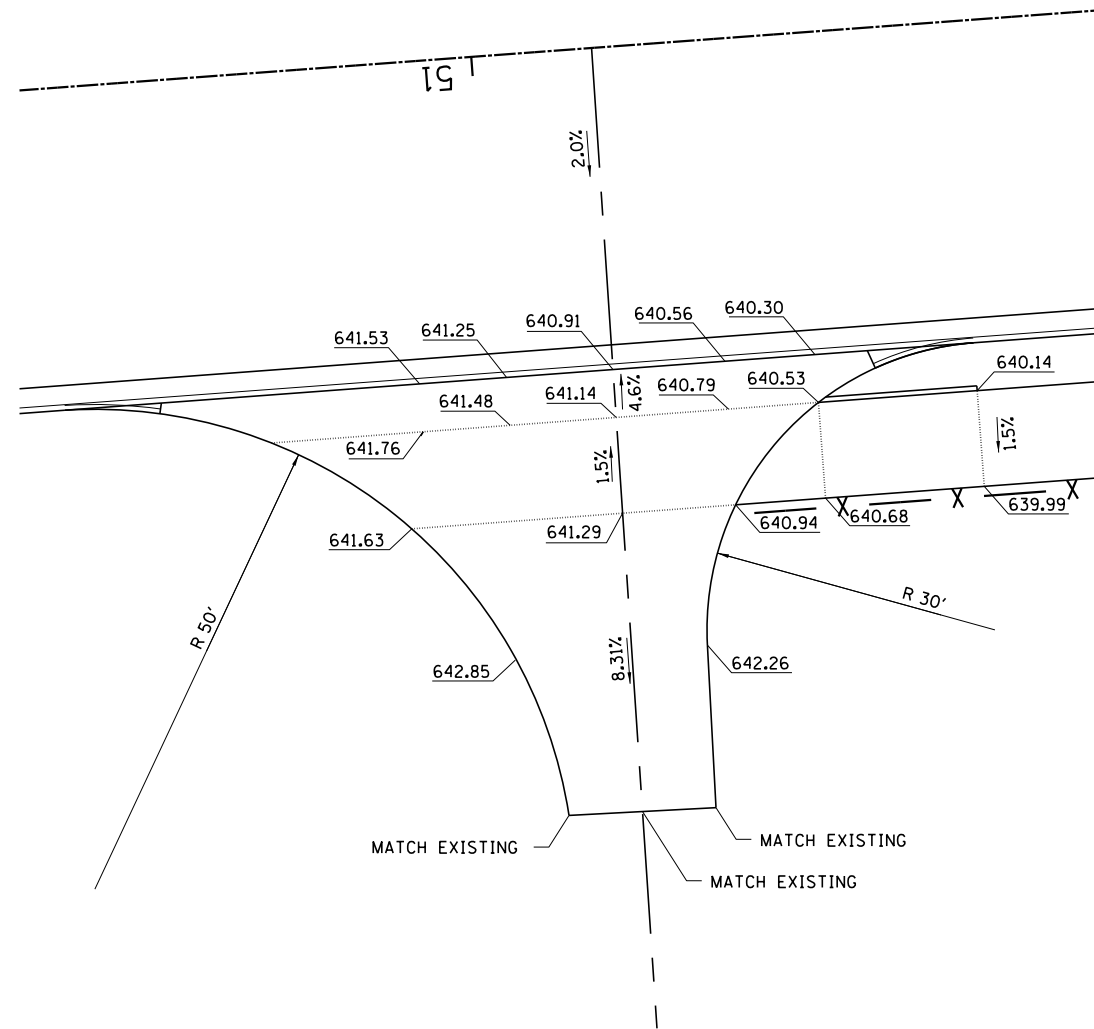
DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

INTERSECTION DETAIL
CH 24 (REAS BRIDGE ROAD) / DRIVEWAY

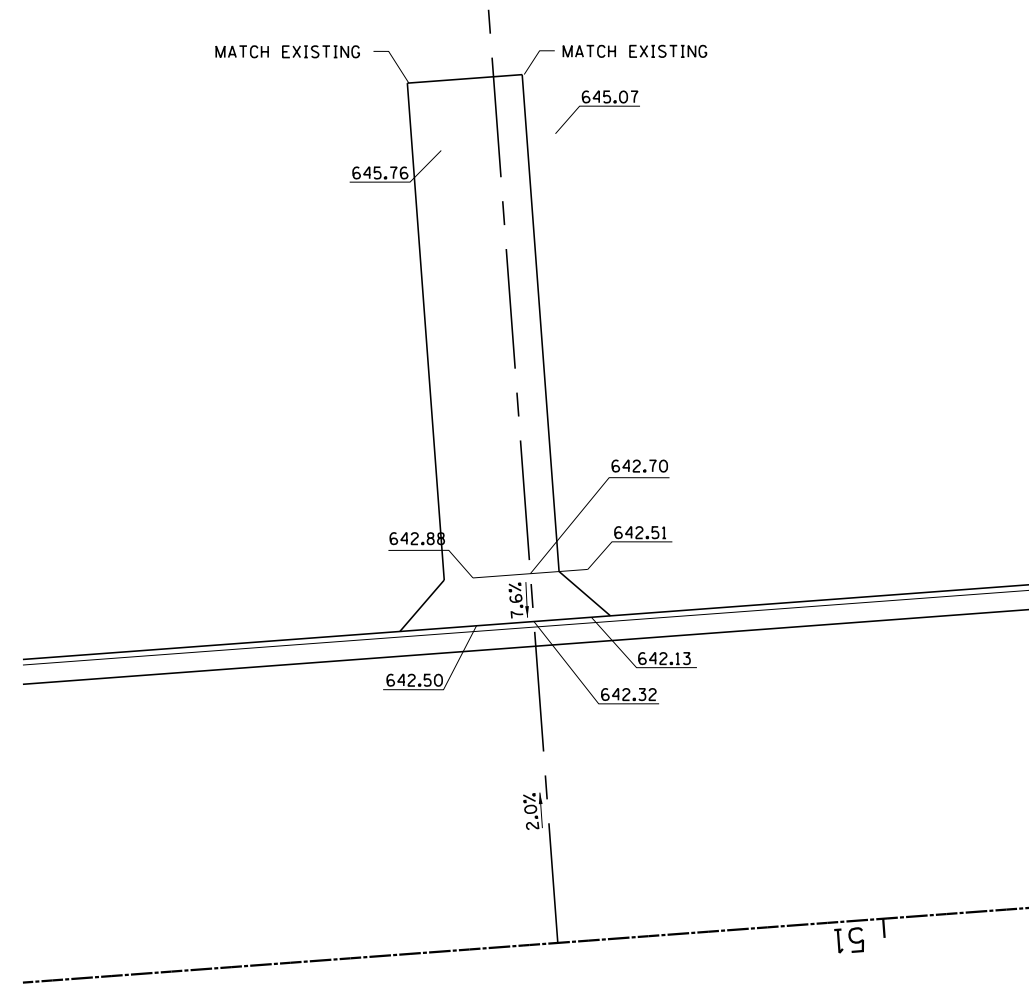
SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	57
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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STA 50 + 87.81, LT - CE



STA 51 + 34.00, RT - PE



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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

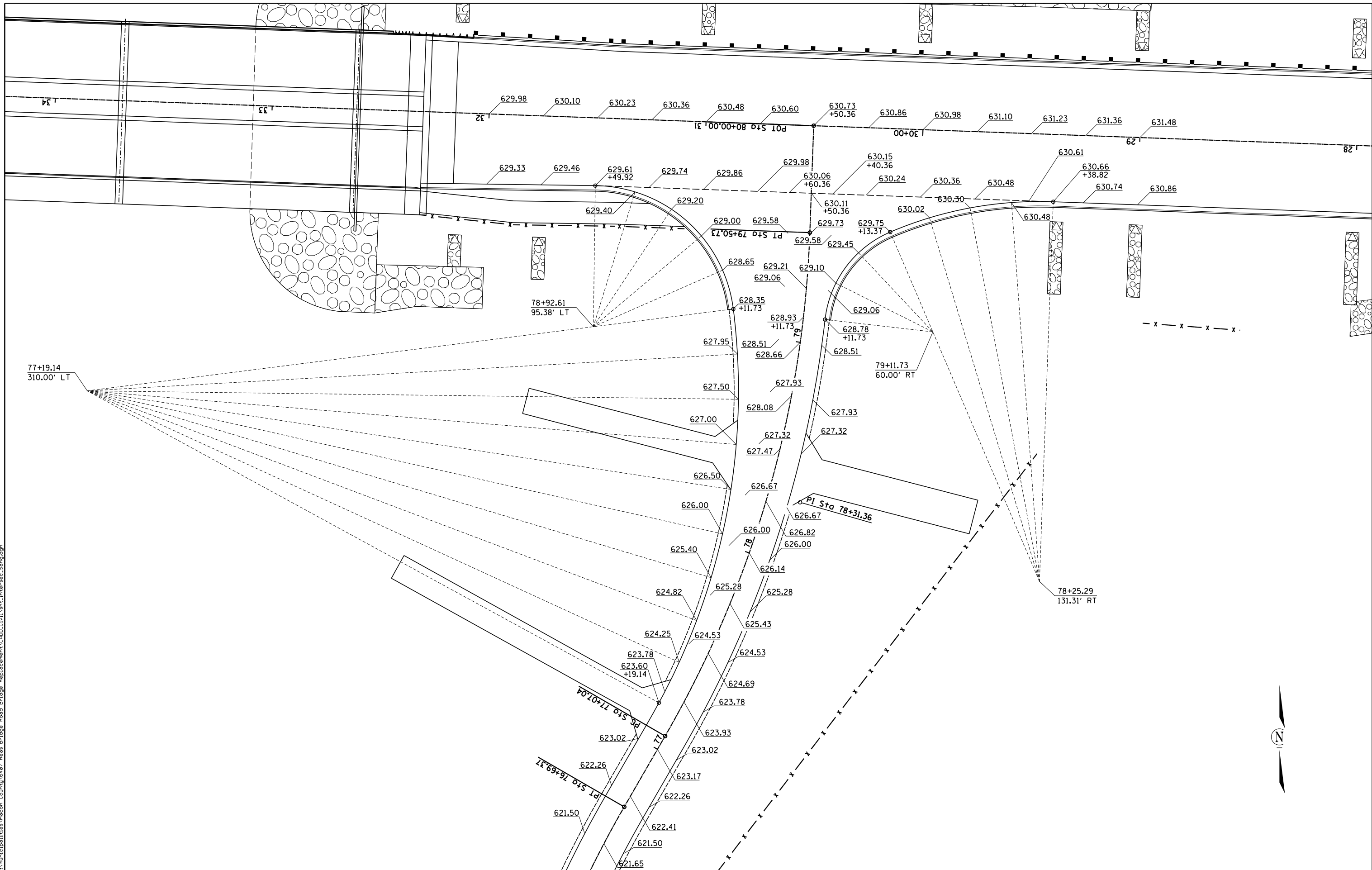
DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

INTERSECTION DETAIL
CH 24 (REAS BRIDGE ROAD) / DRIVEWAY

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	58
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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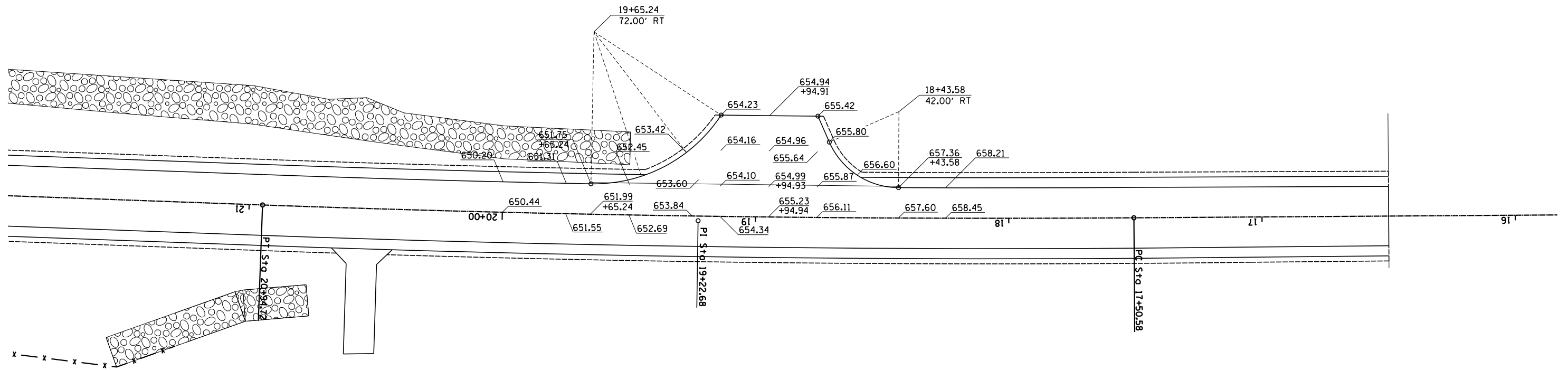
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184-001397

INTERSECTION DETAIL			
CH 24 (REAS BRIDGE ROAD) / SANGAMOND ROAD			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	59
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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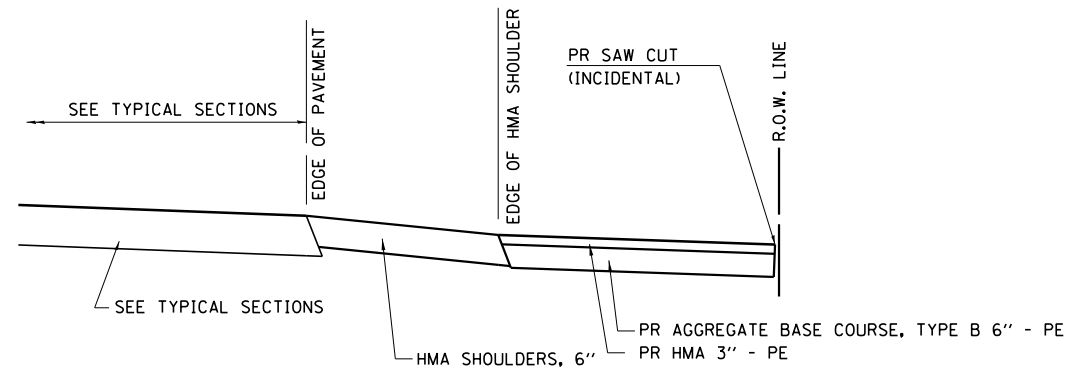
DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

INTERSECTION DETAIL
CH 24 (REAS BRIDGE ROAD) / STAR ROUTE ROAD

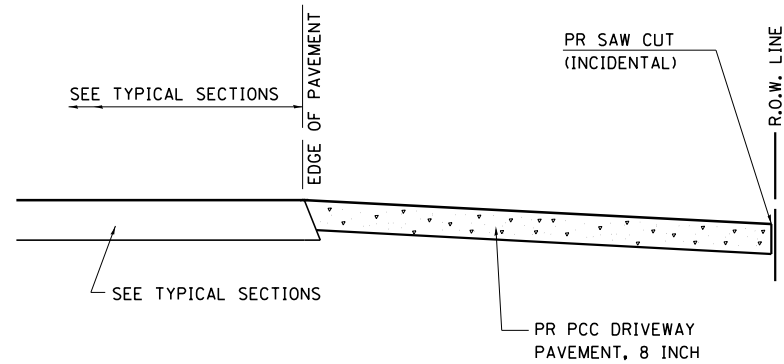
SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 95912				

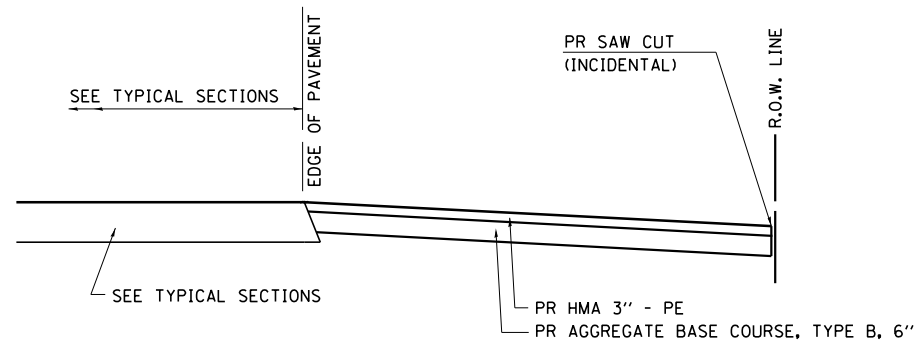
ILLINOIS FED. AID PROJECT



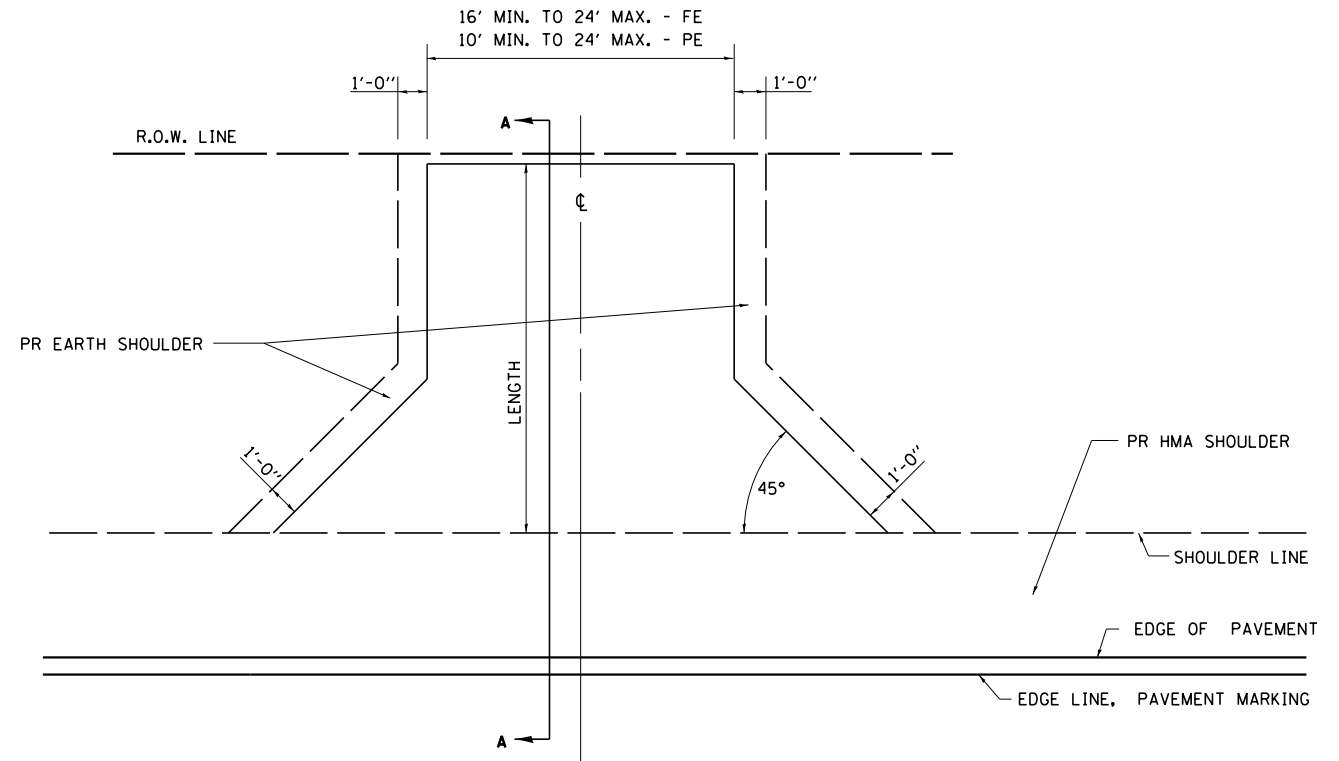
SECTION A-A FOR EX HMA PE



SECTION B-B FOR EX CE
STA. 54+20.6 & 58+25.5

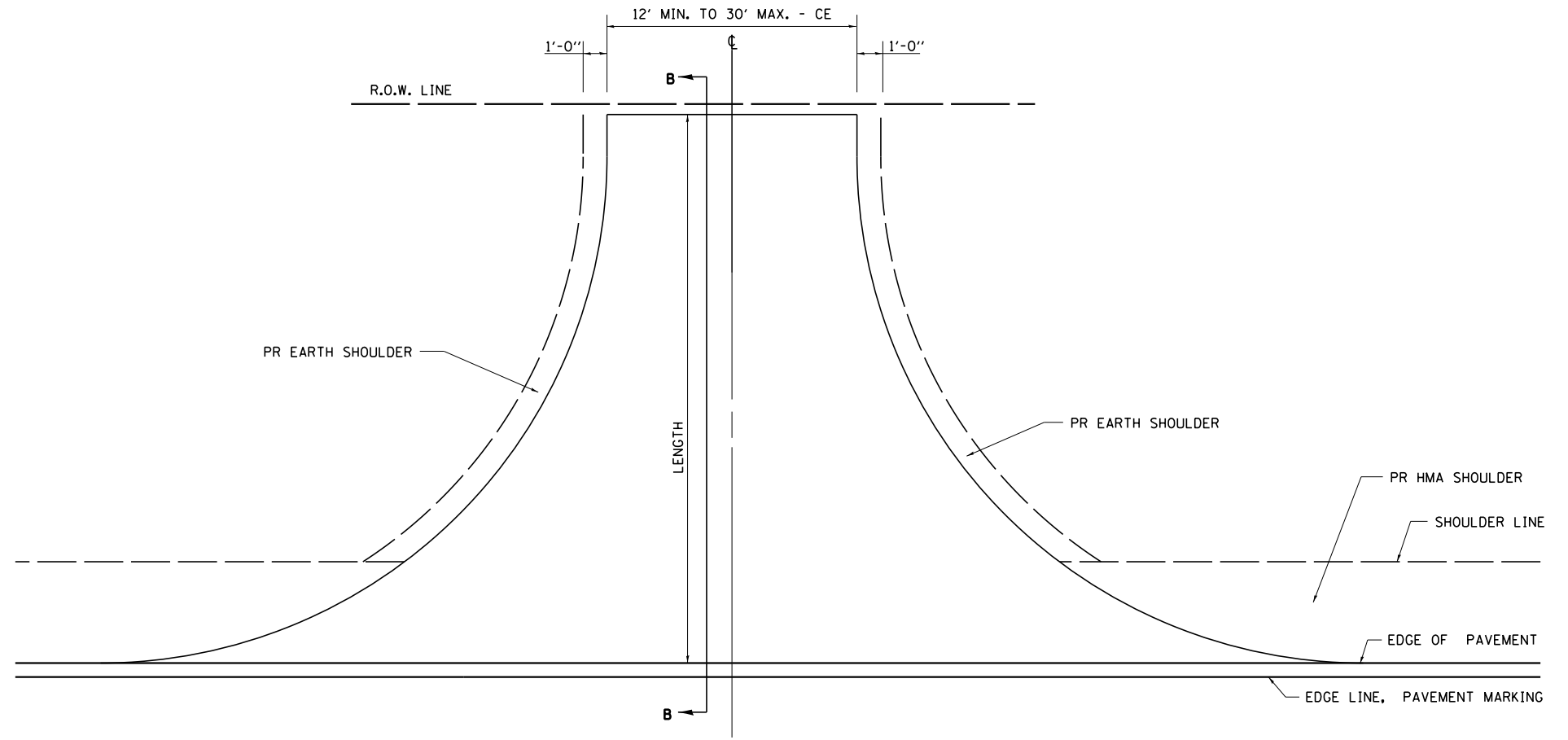


SECTION B-B FOR EX CE
STA. 25+02.6



PLAN - PRIVATE AND FIELD ENTRANCE WITH HMA SHOULDERS

STA. 20+55.0, STA. 58+72.4, STA 58+95.0



PLAN - COMMERCIAL ENTRANCE WITH HMA SHOULDERS

STA. 25+02.6, STA. 54+20.6, STA. 58+25.5

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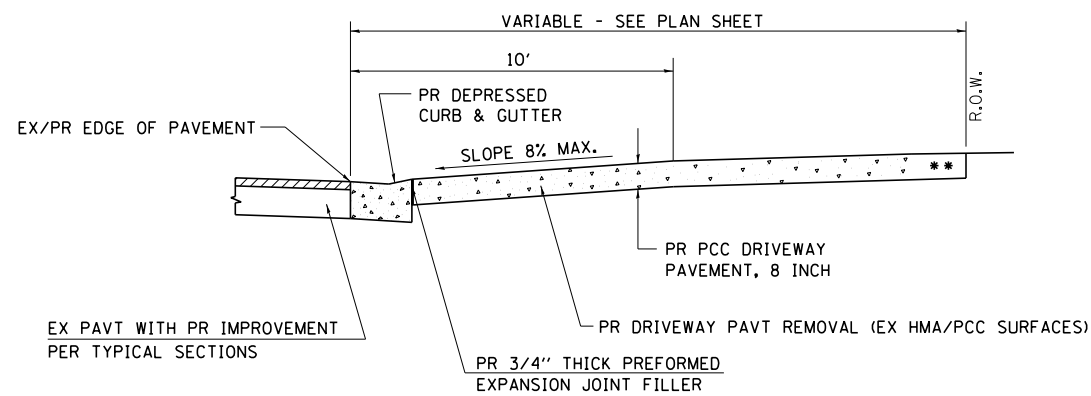
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PLOT DATE =	DATE -	REVISED -

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CONSULTING ENGINEERS

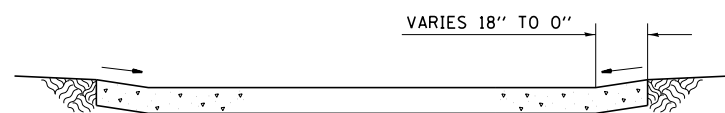
DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

ENTRANCE DETAILS			
CH 24 (REAS BRIDGE ROAD)			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	61
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				



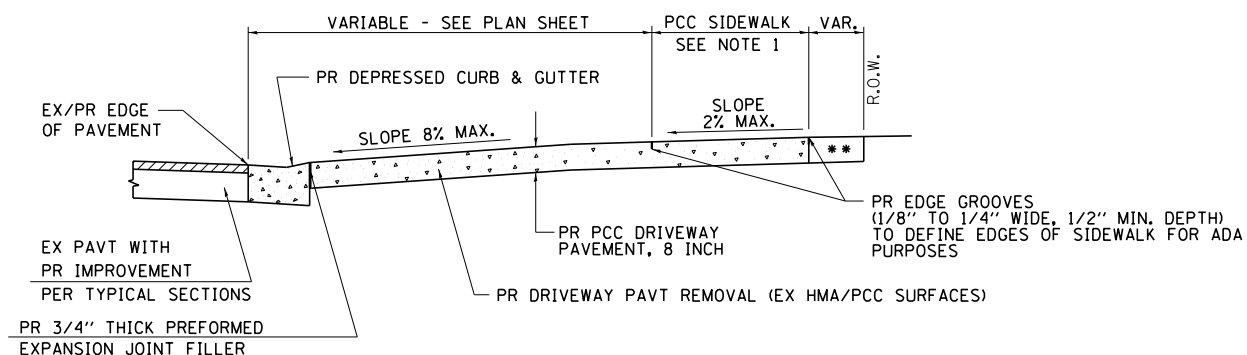
SECTION C - C



SECTION D - D

NOTES:

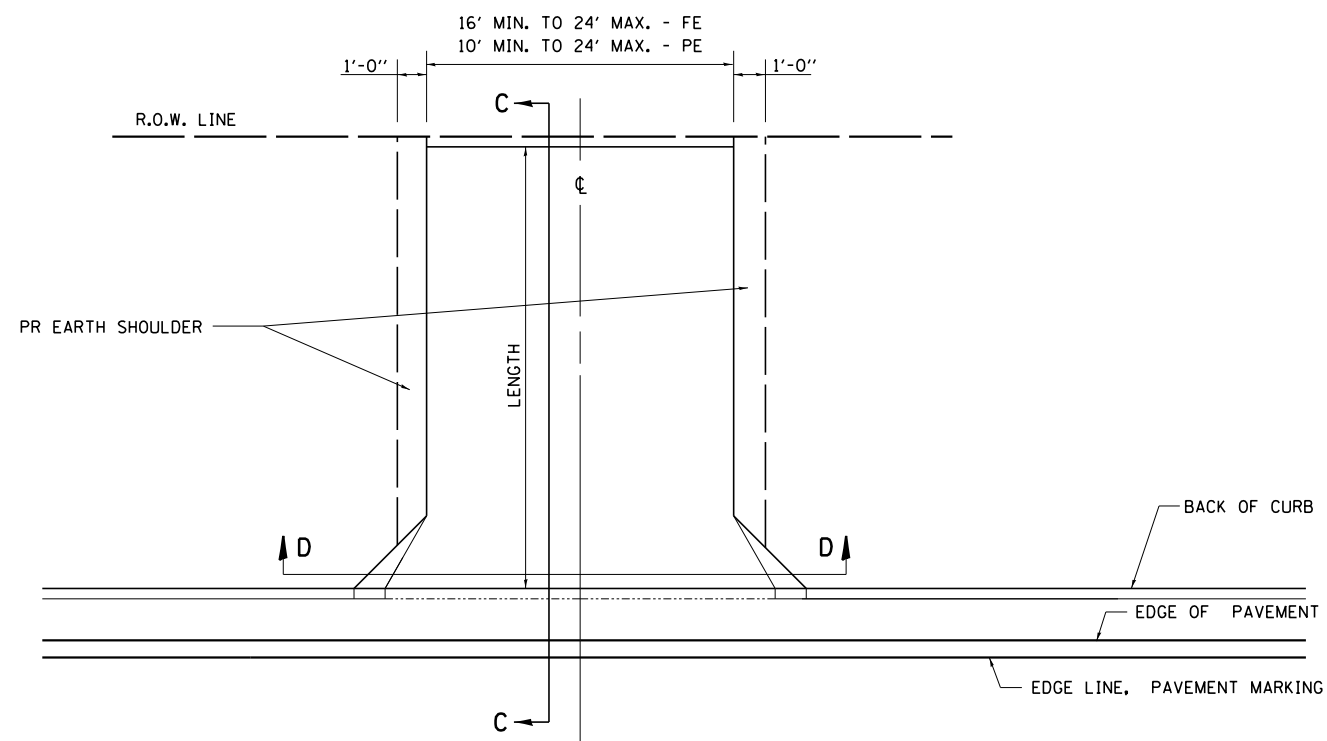
1. SEE PLAN SHEET / ENTRANCE PROFILE FOR LOCATION OF SIDEWALK.
2. THE COST OF FURNISHING AND INSTALLING THE 3/4" PREFORMED EXPANSION JOINT FILLER AND REINFORCEMENT BARS SHALL BE INCLUDED IN THE COST OF P.C.C. DRIVEWAY PAVEMENT.



SECTION E - E

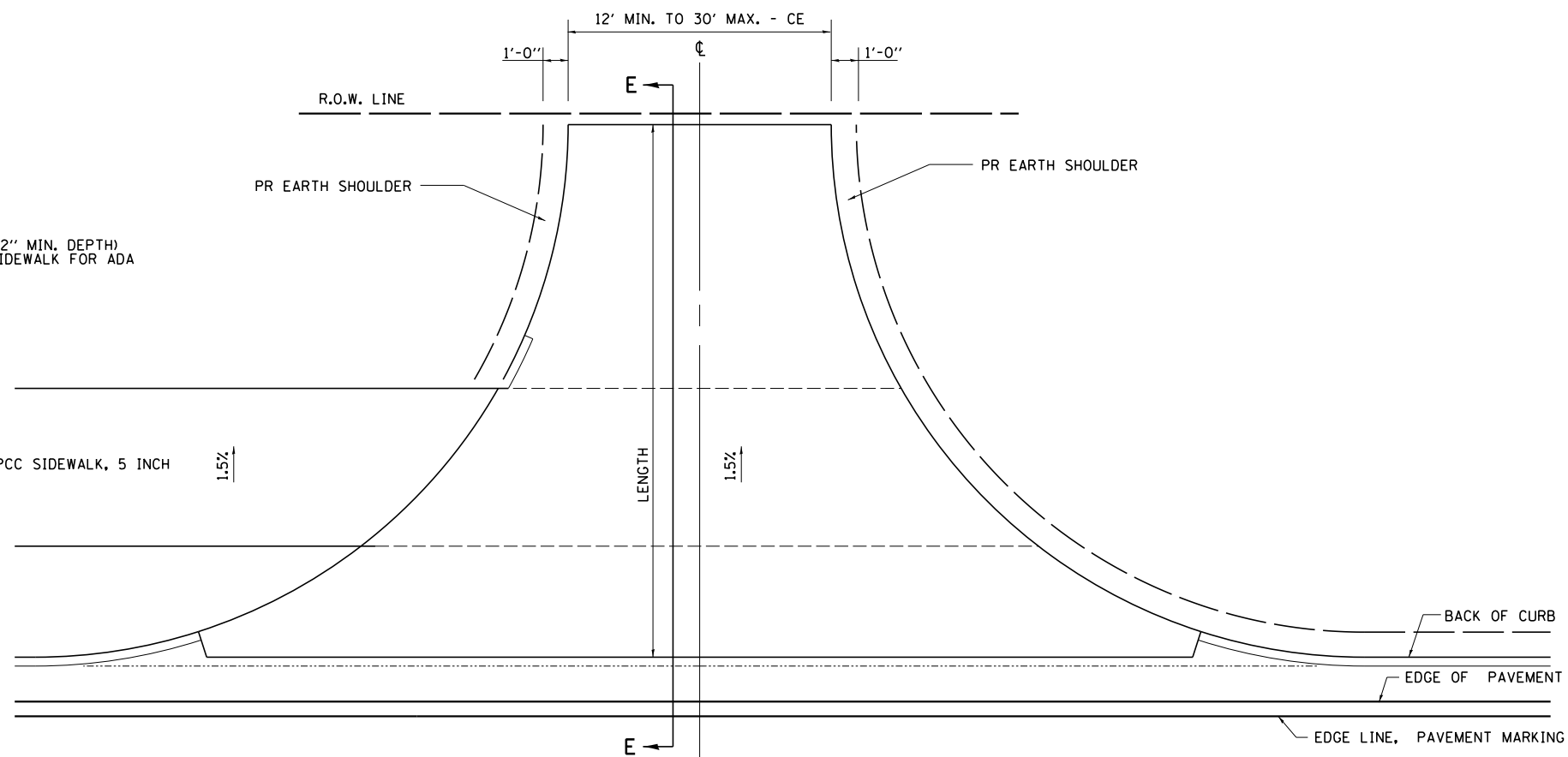
NOTES:

1. SEE PLAN SHEET / ENTRANCE PROFILE FOR LOCATION OF SIDEWALK.
2. THE COST OF FURNISHING AND INSTALLING THE 3/4" PREFORMED EXPANSION JOINT FILLER AND REINFORCEMENT BARS SHALL BE INCLUDED IN THE COST OF P.C.C. DRIVEWAY PAVEMENT.



PLAN - PRIVATE AND FIELD ENTRANCE WITH CURB AND GUTTER

STA. 51+34.0



PLAN - COMMERCIAL ENTRANCE WITH CURB AND GUTTER

STA. 26+65.5, STA 50+87.8

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USER NAME =	DESIGNED - TES	REVISED -
	DRAWN - RLK	REVISED -
PLOT SCALE =	CHECKED - JMB	REVISED -
PLOT DATE =	DATE -	REVISED -

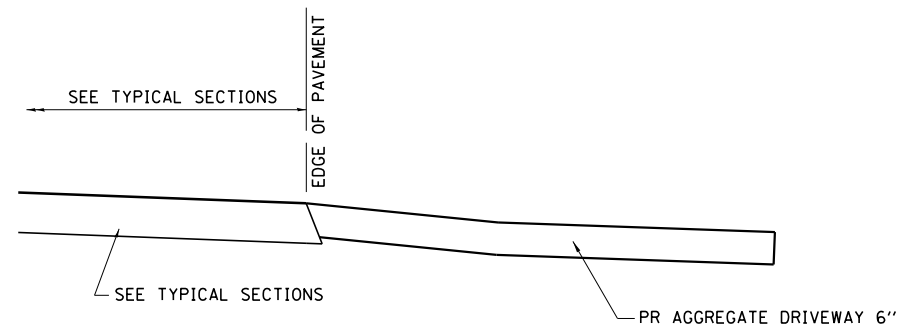
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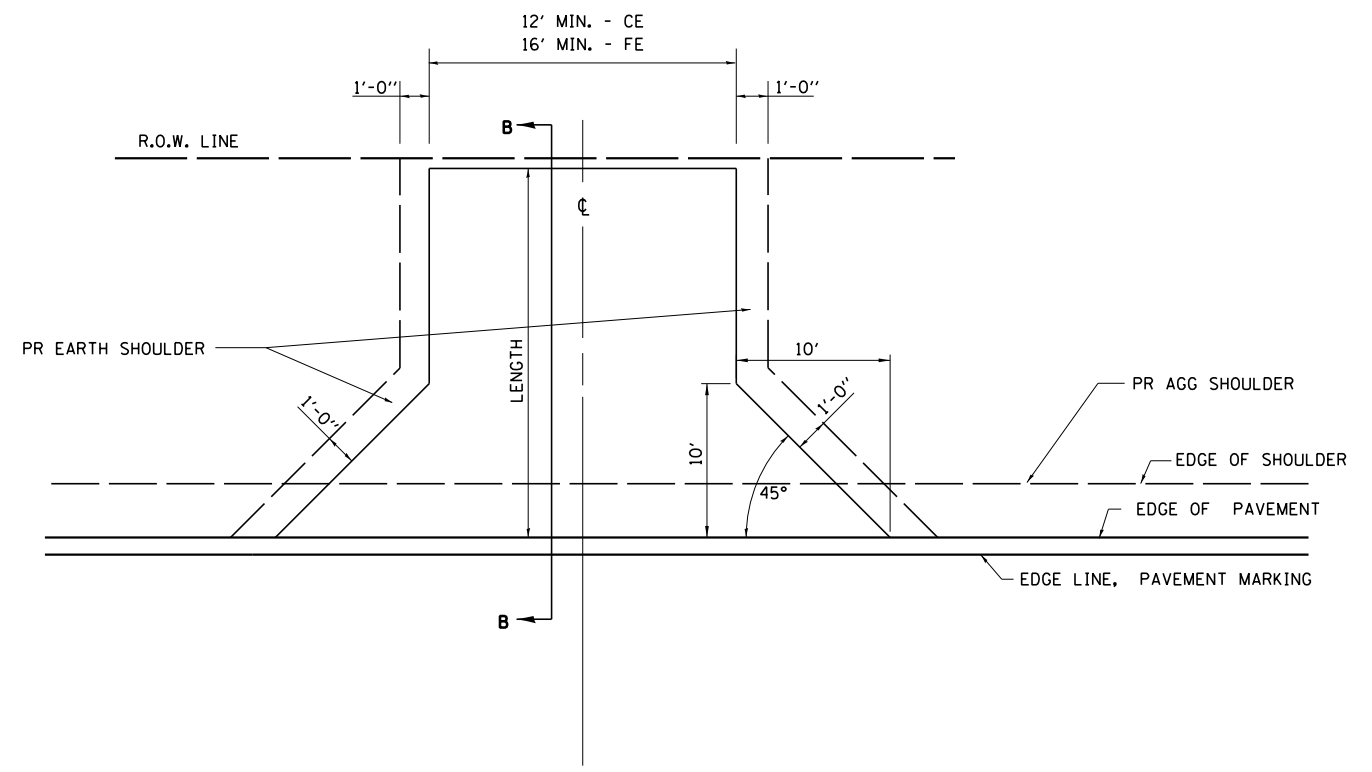
ENTRANCE DETAILS			
CH 24 (REAS BRIDGE ROAD)			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	62
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

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SECTION A-A FOR EX AGG FE/CE



PLAN - COMMERCIAL AND FIELD ENTRANCE WITH AGG SHOULDERS

STA. 77+15.3, STA. 78+42.0 LT, STA 78+42.0 RT

USER NAME =	DESIGNED - <i>TES</i>	REVISED -
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PLOT SCALE =	CHECKED - <i>JMB</i>	REVISED -
PLOT DATE =	DATE -	REVISED -

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ENTRANCE DETAILS			
CH 24 (REAS BRIDGE ROAD)			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	63
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

Existing Structure SN 058-3033:
 The existing bridge is a 166.0' long 3 span W-section beam bridge.
 The closed abutments are supported by precast concrete piling.
 Piers 1 and 2 consist of a reinforced concrete cap on precast concrete piling. This original structure was built in 1957.
 Traffic is to be maintained on this structure until Stage I of the new structure is complete.
 No salvage.

Bench Marks:
 BM #1: Chiseled line on SE wingwall.
 Elev. 617.17
 BM #4: Chiseled square on SE corner of east abutment
 Elev. 627.32

DESIGN SPECIFICATIONS
 2018 AASHTO LRFD Bridge Design Specifications, 8th Edition with 2018 Interims

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f'_c = 4,000$ psi (Superstructure)
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50W)

LOADING HL-93

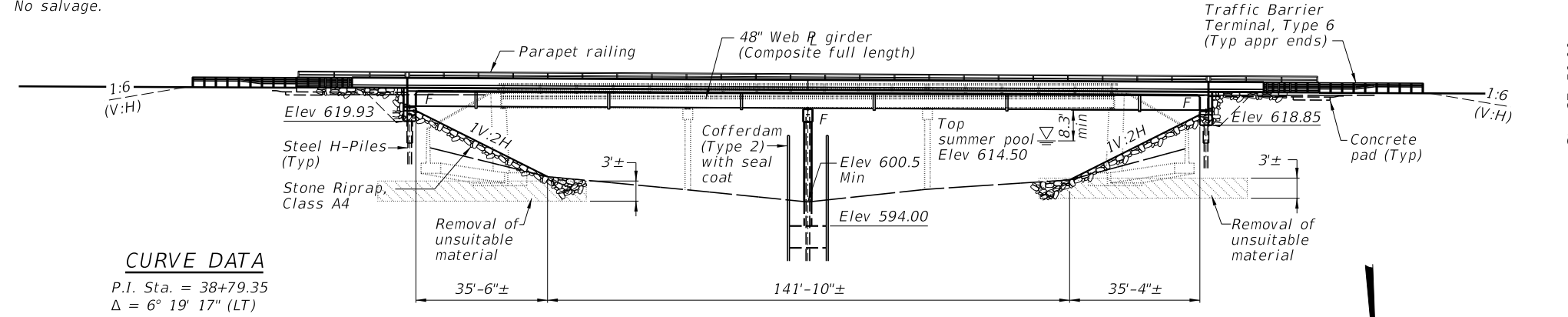
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

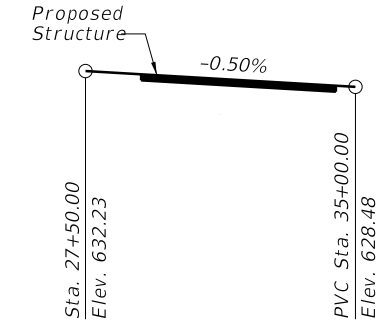
Seismic Performance Zone (SPZ) = 2
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.152g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.274g
 Soil Site Class = D

CURVE DATA

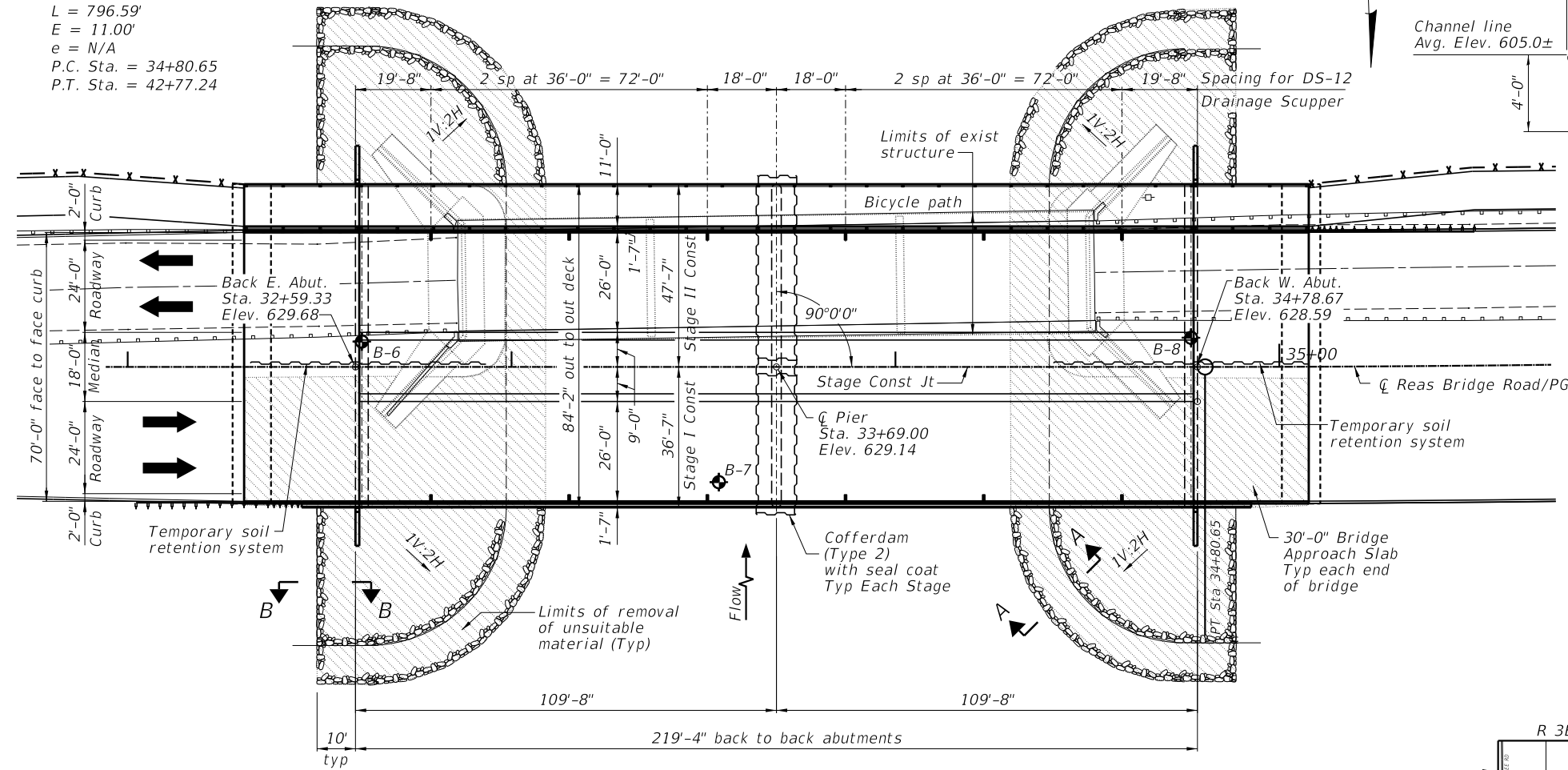
P.I. Sta. = 38+79.35
 $\Delta = 6^\circ 19' 17''$ (LT)
 $D = 0^\circ 47' 37''$
 $R = 7,220.00'$
 $T = 398.70'$
 $L = 796.59'$
 $E = 11.00'$
 $e = N/A$
 P.C. Sta. = 34+80.65
 P.T. Sta. = 42+77.24



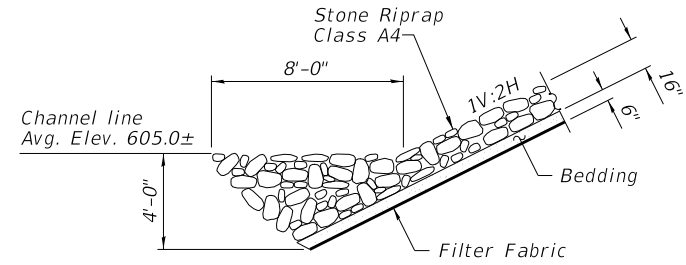
ELEVATION



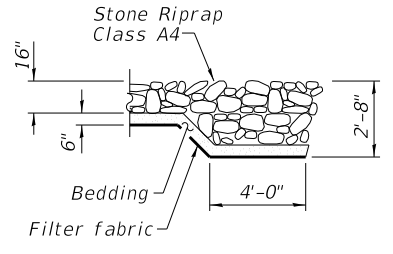
PROFILE GRADE
 (Along G.L.)



PLAN



SECTION A-A



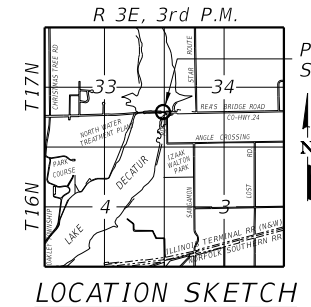
SECTION B-B

REAS BRIDGE ROAD OVER
 LAKE DECATUR
 BUILT 20 BY
 MACON COUNTY
 SECTION 12-00251-00-BR
 STA 33+69.00
 STR. NO. 058-3409 LOADING HL-93

NAME PLATE
 See Std. 515001

DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.)			Item 113
	E. Abut.	Pier	W. Abut.	
Q100	619.9	587.9	618.9	5
Q200	619.9	586.5	618.9	
Design	619.9	587.9	618.9	
Check	619.9	586.5	618.9	



LOCATION SKETCH



Jeremy Buening, P.E., S.E. Date 1/24/22
 License Expires 11/30/22

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.

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GENERAL PLAN AND ELEVATION
STRUCTURE NO. 058-3409
 SHEET NO. 1 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	65
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Structural Data
- 3 Footing Layout
- 4 Stage Construction Details
- 5 Temporary Soil Retention
- 6 Temporary Concrete Barrier for Stage Construction
- 7 Top of Deck Elevations
- 8 Top of Deck Elevations
- 9 Top of Deck Elevations
- 10 Top of East Approach Slab Elevations
- 11 Top of West Approach Slab Elevations
- 12 Superstructure
- 13 Superstructure Details
- 14 Superstructure Details
- 15 Superstructure Details
- 16 Diaphragm Details
- 17 Bridge Approach Slab Details
- 18 Bridge Approach Slab Details
- 19 Bridge Approach Slab Details
- 20 Bicycle Railing
- 21 Drainage Scupper, DS-12
- 22 Framing Plan and Details
- 23 Framing Details
- 24 Moment Tables
- 25 Bearing Details
- 26 East Abutment
- 27 West Abutment
- 28 Abutment Details
- 29 Pier
- 30 Pier Details
- 31 HP Pile Details
- 32 Bar Splicer Assembly and Mechanical Splicer Details
- 33 Subsurface Data Profile

GENERAL NOTES:

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas.
Bolts 7/8" Ø in holes 1 1/16" Ø, unless otherwise noted.

Calculated weight of Structural Steel = 541,830 lb
All structural steel shall be AASHTO M270 Grade 50W
No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

If the CONTRACTOR elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 18 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.

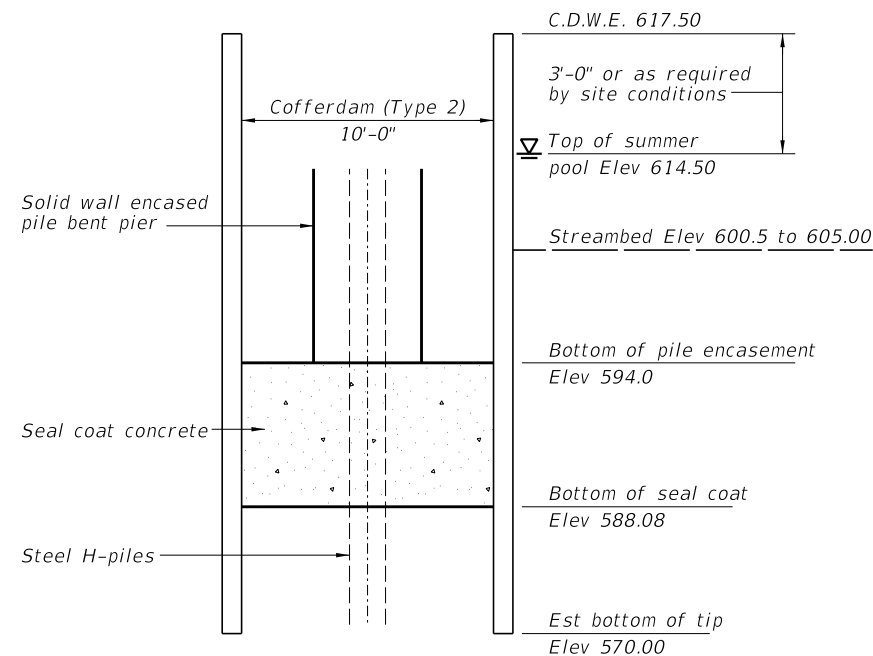
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the ENGINEER.

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

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.

Seal coat thickness design is based on the Estimated Water Surface Elevation (EWSE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the ENGINEER for approval with the cofferdam design.

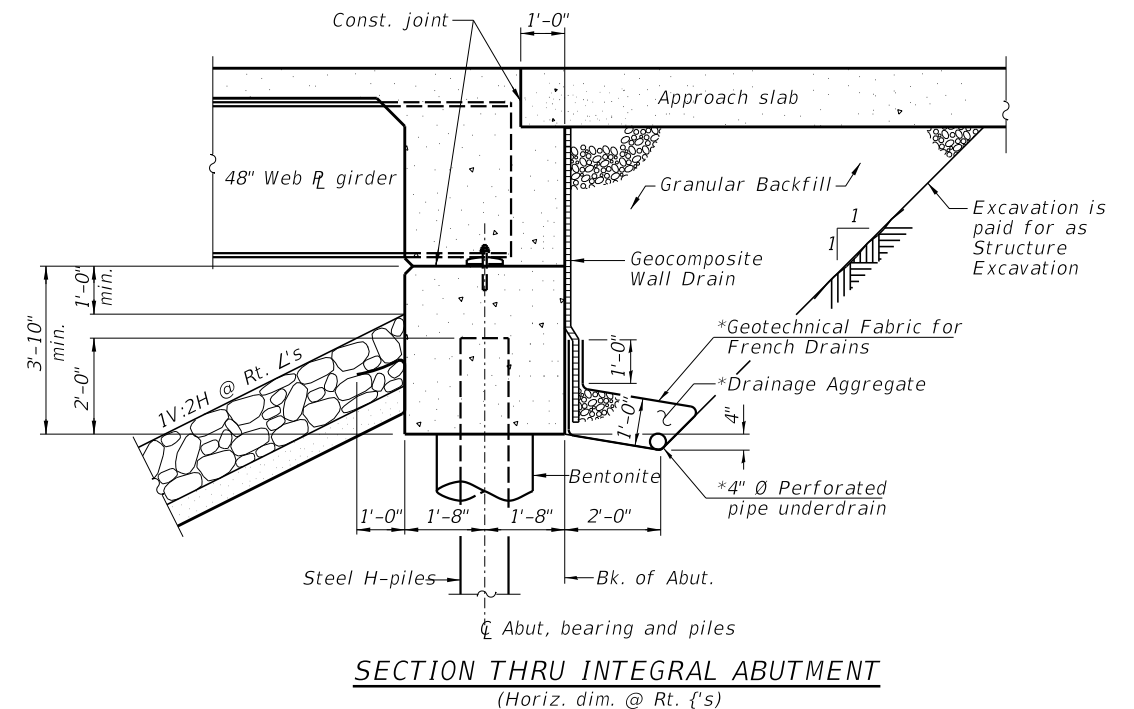
Slipforming of parapets is not allowed.



SEAL COAT SCHEMATIC

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Removal of Existing Structures No. 1	Each	1	---	1
Structure Excavation	Cu. Yd.	---	153	153
Cofferdam Excavation	Cu. Yd.	---	473	473
Cofferdam (Type 2) (Location - D)	Each	---	1	1
Concrete Structures	Cu. Yd.	---	367.0	367.0
Concrete Superstructure	Cu. Yd.	675.0	---	675.0
Bridge Deck Grooving	Sq. Yd.	1710	---	1710
Seal Coat Concrete	Cu. Yd.	---	201	201
Protective Coat	Sq. Yd.	2740	---	2740
Concrete Superstructure (Approach Slab)	Cu. Yd.	232.8	---	232.8
Furnishing and Erecting Structural Steel	L. Sum	0.5	---	0.5
Stud Shear Connectors	Each	6039	---	6039
Reinforcement Bars, Epoxy Coated	Pound	247,140	32,090	279,230
Bar Splicers	Each	1274	114	1388
Bicycle Railing	Foot	273	---	273
Parapet Railing	Foot	273	---	273
Furnishing Steel Piles HP14x73	Foot	---	2610	2610
Driving Piles	Foot	---	2610	2610
Test Pile Steel HP14x73	Each	---	3	3
Name Plates	Each	1	---	1
Anchor Bolts, 1"	Each	---	44	44
Anchor Bolts, 1 1/4"	Each	---	22	22
Temporary Soil Retention System	Sq. Ft.	---	1263	1263
Geocomposite Wall Drain	Sq. Yd.	---	178	178
Granular Backfill for Structures	Cu. Yd.	---	323	323
Drainage Scuppers, DS-12	Each	12	---	12
Pipe Underdrains for Structures 4"	Foot	---	242	242



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. {s})

*Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

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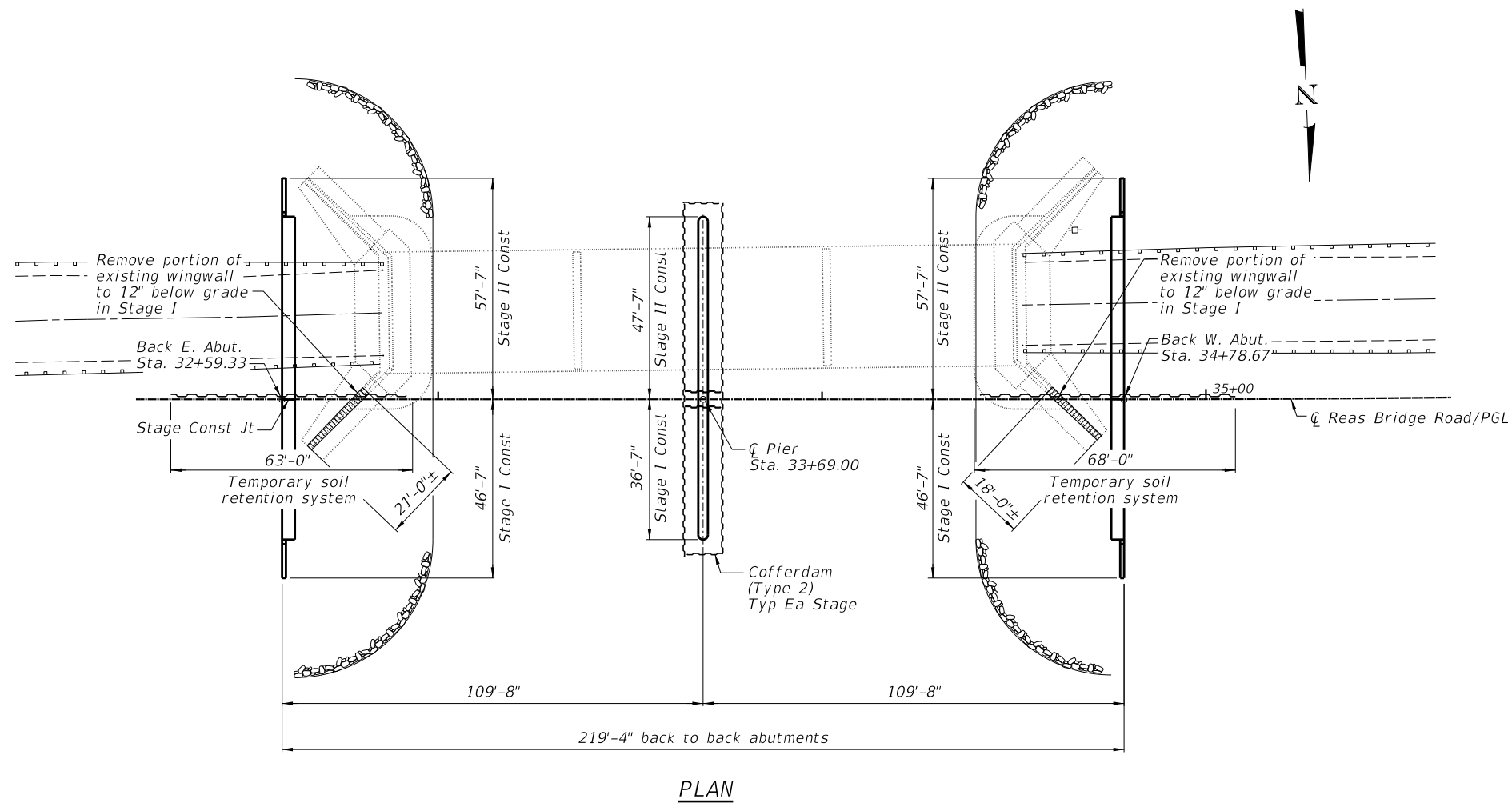
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ROCKFORD (815) 489-0050
184-001397

GENERAL STRUCTURAL DATA
STRUCTURE NO. 058-3409

SHEET NO. 2 OF 33 SHEETS

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	66
CONTRACT NO. 95912			ILLINOIS FED. AID PROJECT	

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PLAN

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REVISED -

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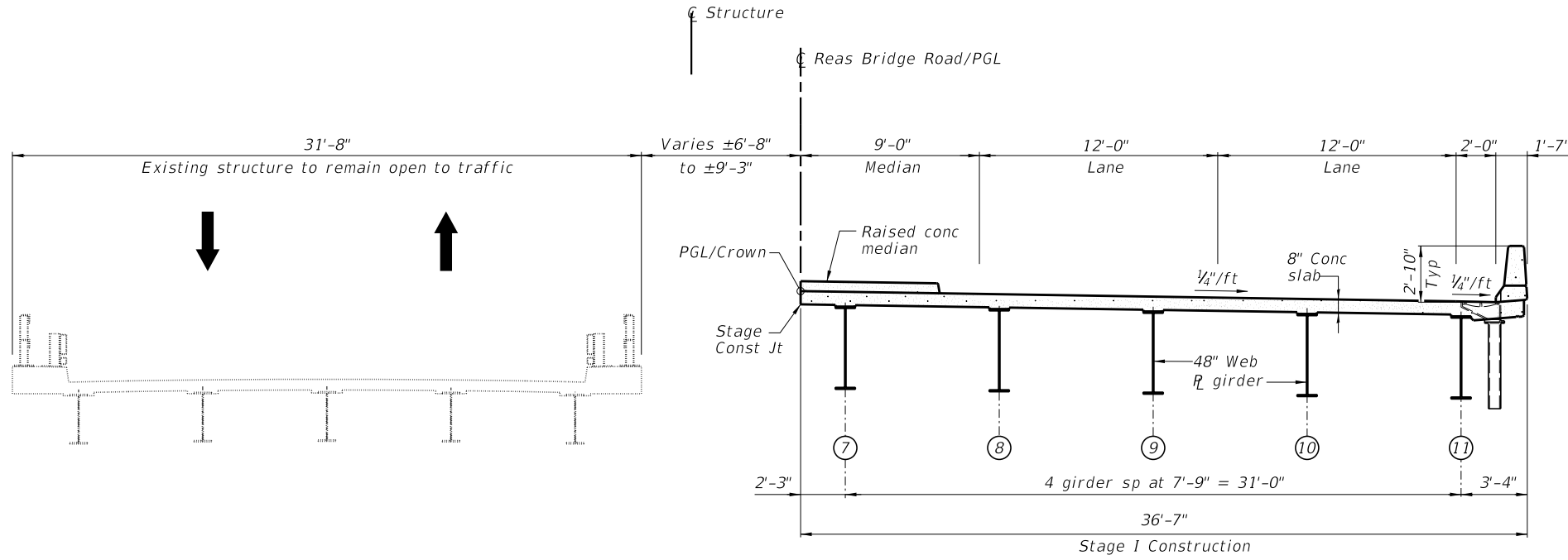
FOOTING LAYOUT
STRUCTURE NO. 058-3409

SHEET NO. 3 OF 33 SHEETS

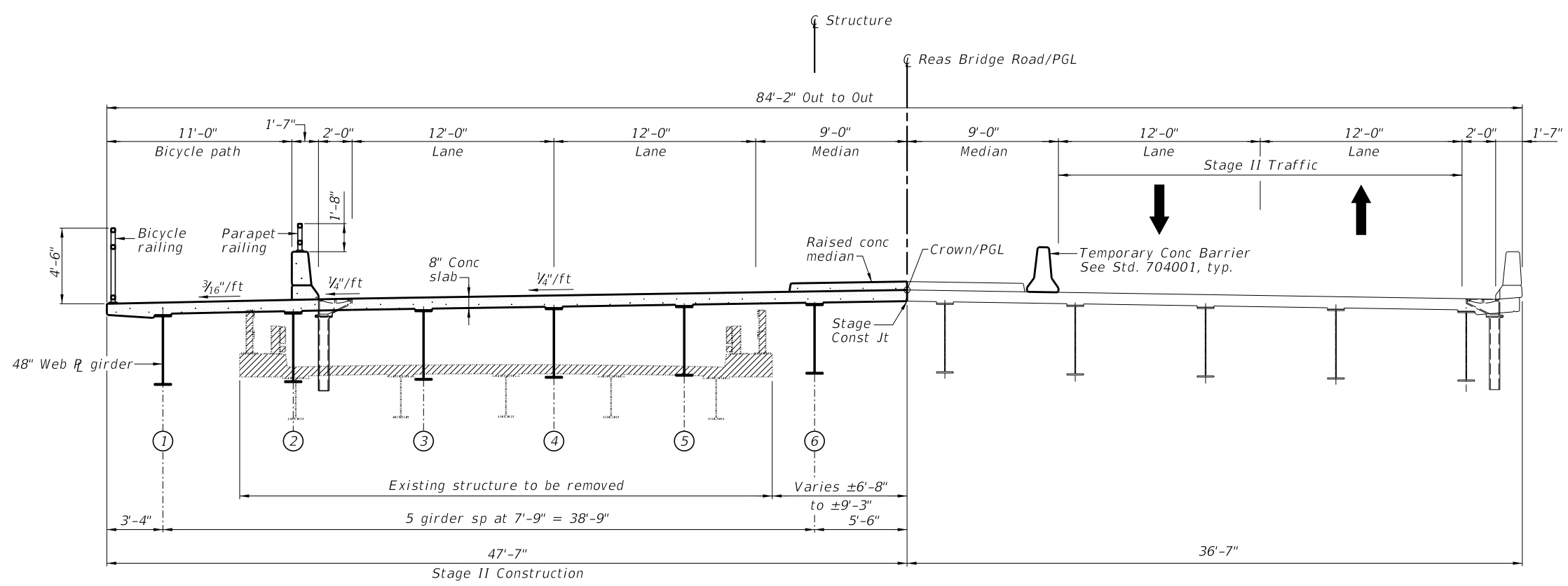
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CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT

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STAGE I CONSTRUCTION
Looking West



STAGE II CONSTRUCTION
Looking West

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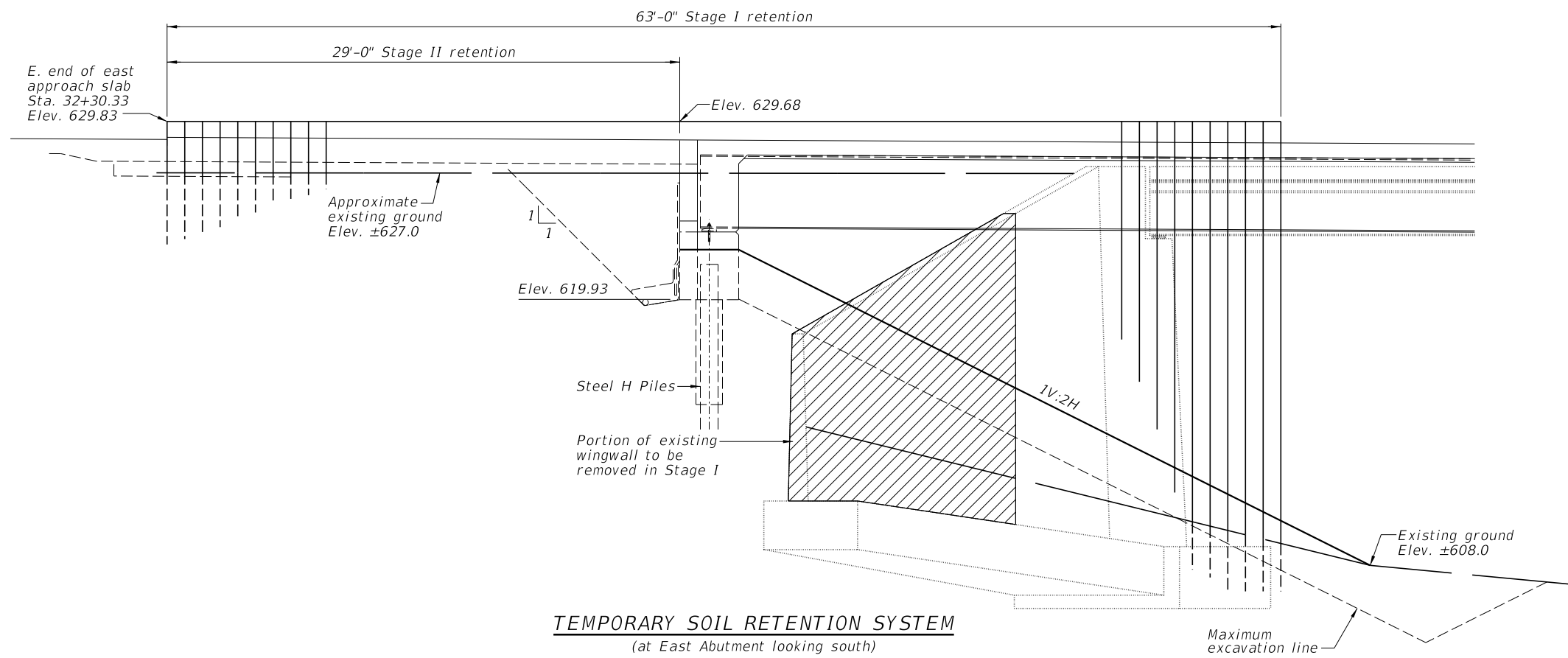
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STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 058-3409

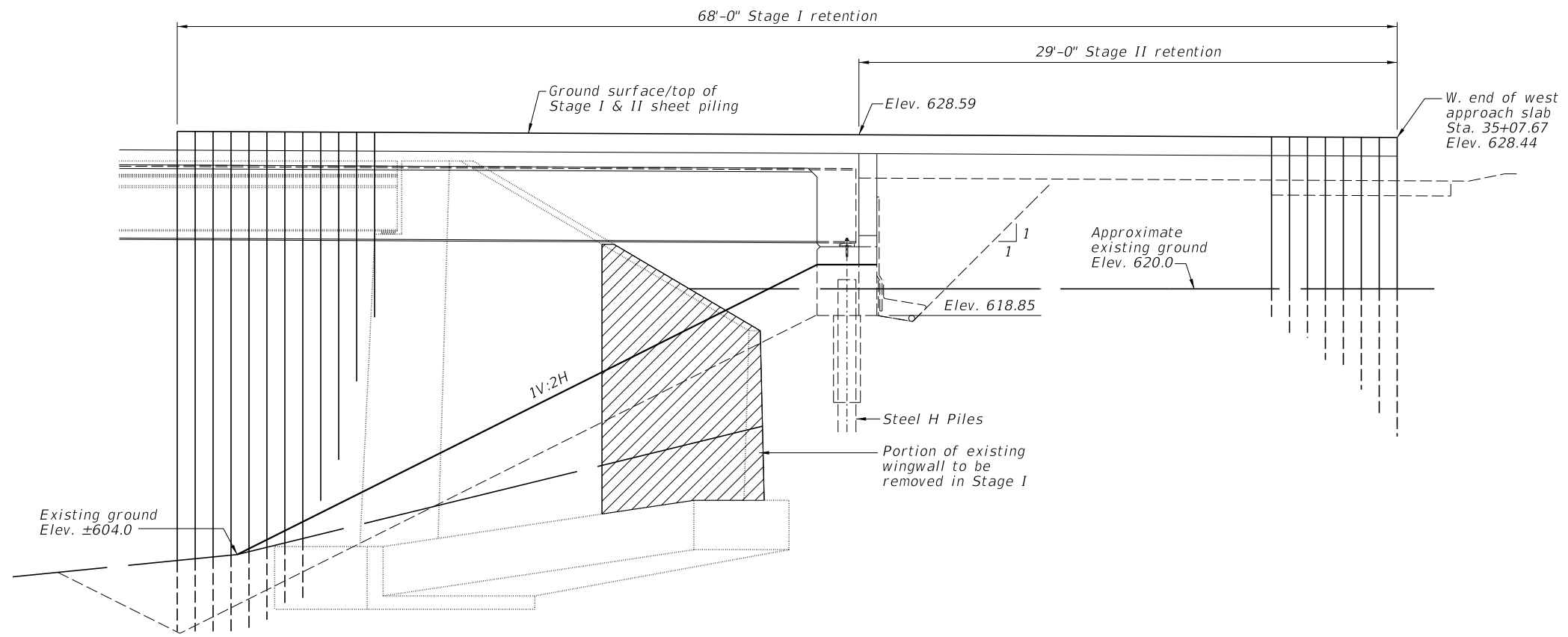
SHEET NO. 4 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	68
CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT



TEMPORARY SOIL RETENTION SYSTEM
(at East Abutment looking south)



TEMPORARY SOIL RETENTION SYSTEM
(at West Abutment looking south)

FILE NAME = i:\municipalities\macon\macon-county-6487-reos-bridge-road-bridge-replacement\cadd\structural\east-bridge-temp-sheet.dgn

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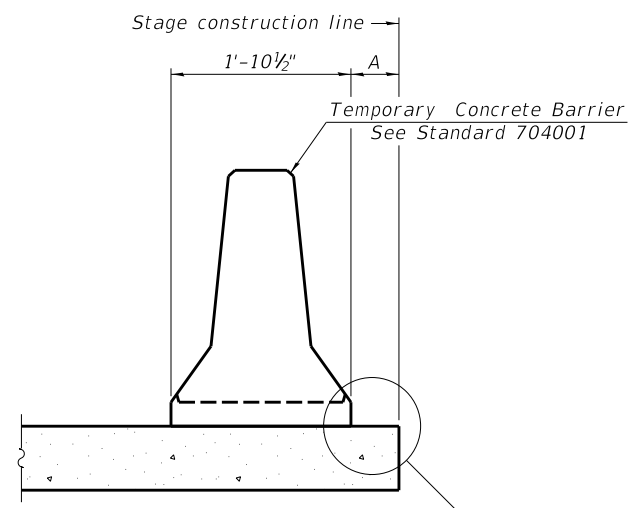
TEMPORARY SOIL RETENTION
STRUCTURE NO. 058-3409

SHEET NO. 5 OF 33 SHEETS

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CONTRACT NO. 95912				

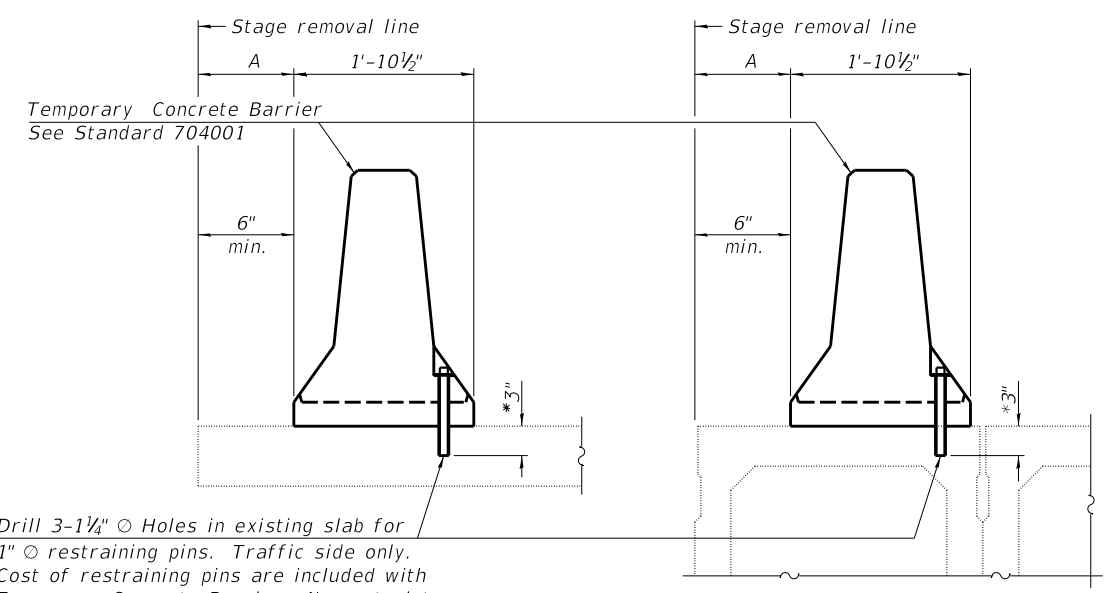
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When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1". See Detail I, II or III

NEW SLAB OR NEW DECK BEAM



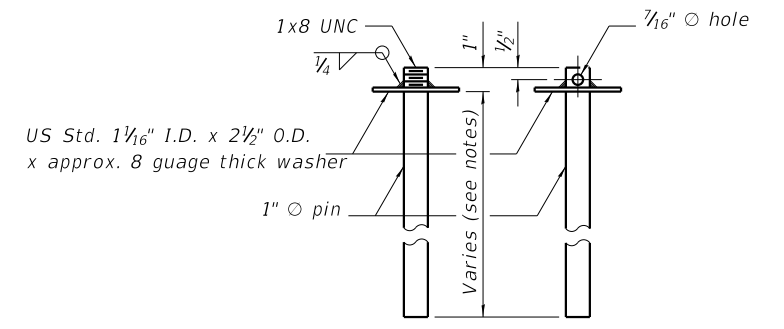
Drill 3-1/4" O Holes in existing slab for 1" O restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

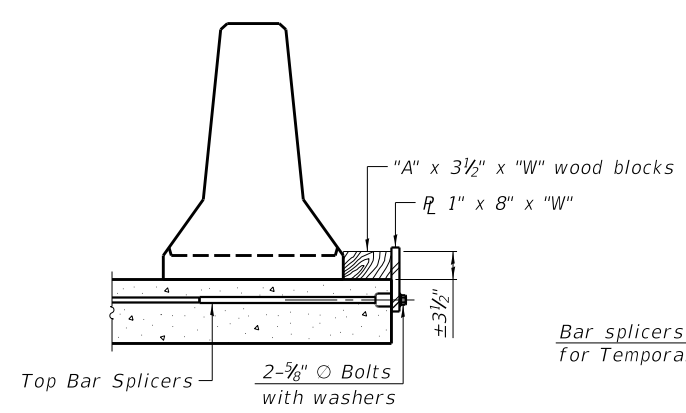
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

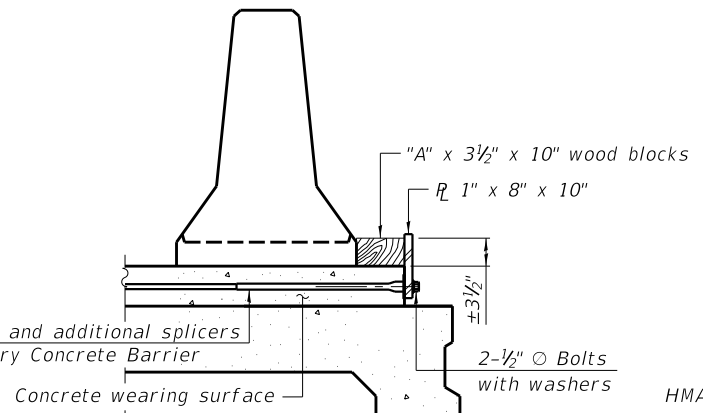
SECTIONS THRU SLAB OR DECK BEAM



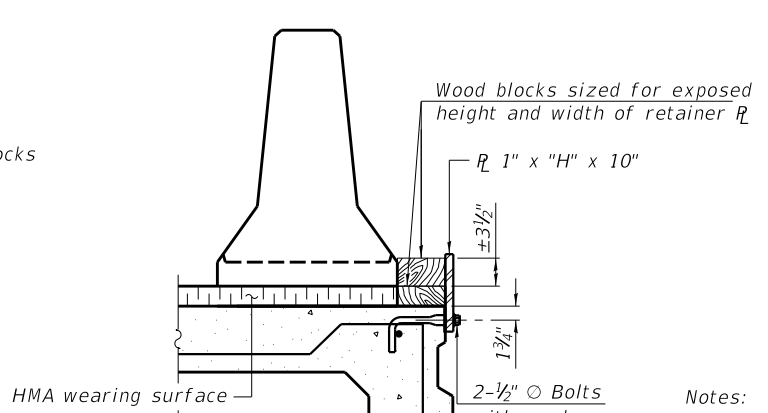
RESTRAINING PIN



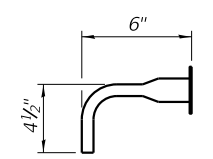
DETAIL I



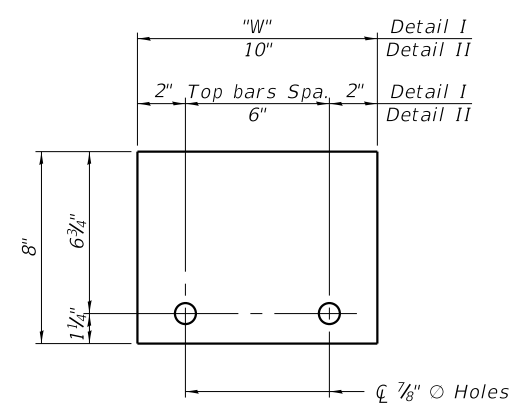
DETAIL II



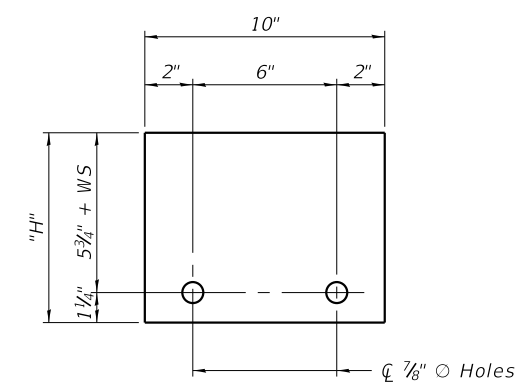
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



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



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

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate C of each temporary concrete barrier.
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
 When the 'A' dimension is less than 1 1/2', the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.
 Detail I - Installation for a new bridge deck or bridge slab.
 Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
 Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

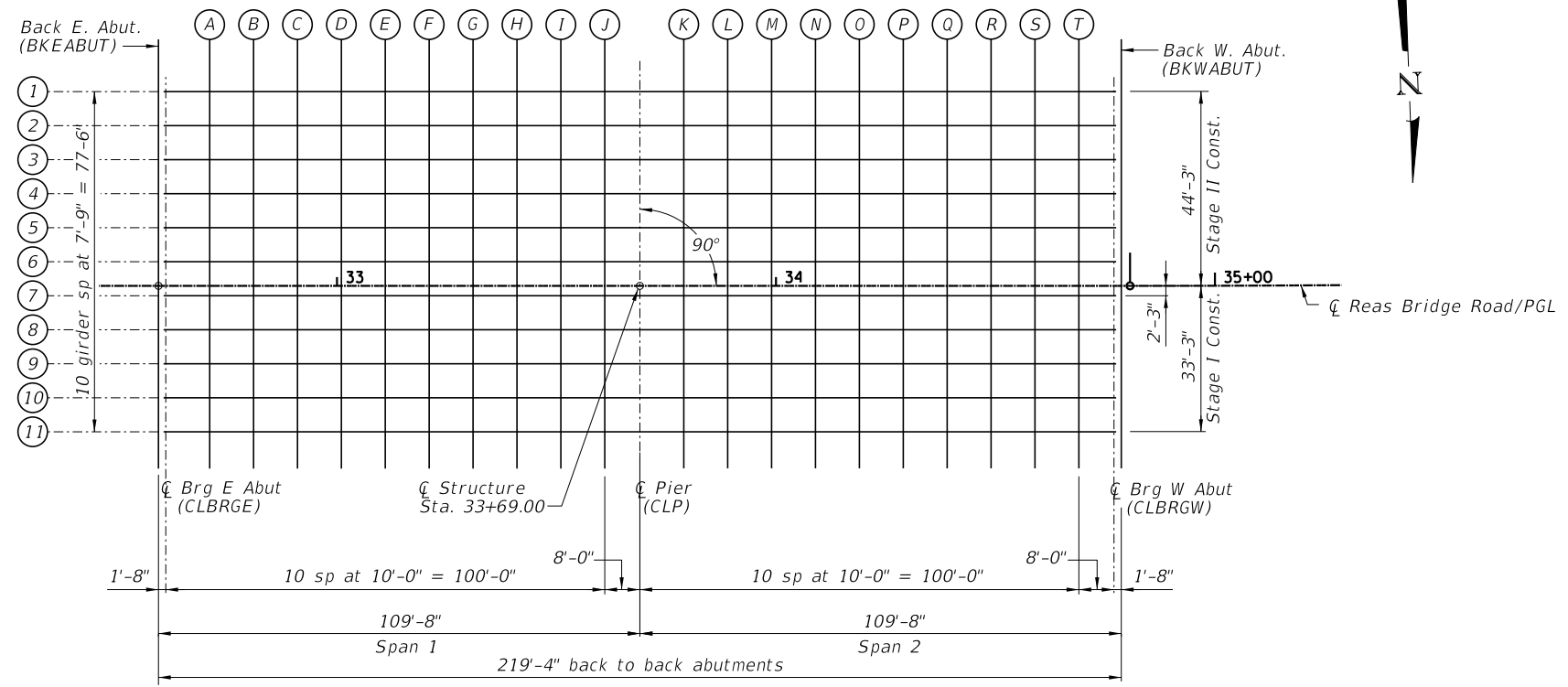
R-27 2-17-2017

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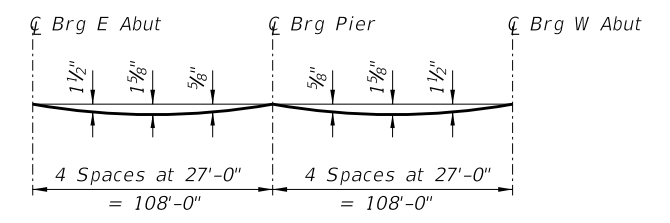
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 184-001397

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 058-3409
 SHEET NO. 6 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	70
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

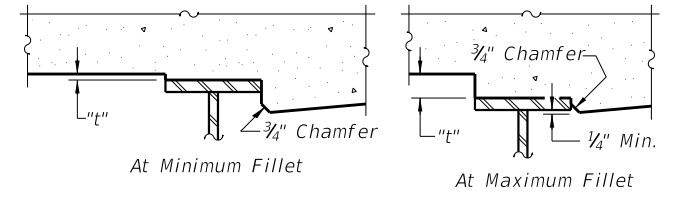


DECK ELEVATION LAYOUT



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 in the tables on Sheets 7 thru 9 of 33.



FILLET HEIGHTS

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown in the tables. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets 7 thru 9 of 33, minus slab thickness, equals the fillet heights "t" above top flange of beams.

GIRDER 1

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKEABUT	32+59.33	-44.25	628.81	628.81
CLBRGE	32+61.00	-44.25	628.80	628.80
A	32+71.00	-44.25	628.75	628.80
B	32+81.00	-44.25	628.70	628.80
C	32+91.00	-44.25	628.65	628.78
D	33+01.00	-44.25	628.60	628.74
E	33+11.00	-44.25	628.55	628.69
F	33+21.00	-44.25	628.50	628.62
G	33+31.00	-44.25	628.45	628.54
H	33+41.00	-44.25	628.40	628.46
I	33+51.00	-44.25	628.35	628.38
J	33+61.00	-44.25	628.30	628.31
CLP	33+69.00	-44.25	628.26	628.26
K	33+79.00	-44.25	628.21	628.22
L	33+89.00	-44.25	628.16	628.20
M	33+99.00	-44.25	628.11	628.18
N	34+09.00	-44.25	628.06	628.16
O	34+19.00	-44.25	628.01	628.14
P	34+29.00	-44.25	627.96	628.10
Q	34+39.00	-44.25	627.91	628.05
R	34+49.00	-44.25	627.86	627.98
S	34+59.00	-44.25	627.81	627.90
T	34+69.00	-44.25	627.76	627.80
CLBRGW	34+77.00	-44.25	627.72	627.72
BKWABUT	34+78.67	-44.25	627.71	627.71

GIRDER 2

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKEABUT	32+59.33	-36.50	628.93	628.93
CLBRGE	32+61.00	-36.50	628.92	628.92
A	32+71.00	-36.50	628.87	628.93
B	32+81.00	-36.50	628.82	628.92
C	32+91.00	-36.50	628.77	628.90
D	33+01.00	-36.50	628.72	628.86
E	33+11.00	-36.50	628.67	628.81
F	33+21.00	-36.50	628.62	628.74
G	33+31.00	-36.50	628.57	628.66
H	33+41.00	-36.50	628.52	628.58
I	33+51.00	-36.50	628.47	628.50
J	33+61.00	-36.50	628.42	628.43
CLP	33+69.00	-36.50	628.38	628.38
K	33+79.00	-36.50	628.33	628.34
L	33+89.00	-36.50	628.28	628.32
M	33+99.00	-36.50	628.23	628.30
N	34+09.00	-36.50	628.18	628.28
O	34+19.00	-36.50	628.13	628.26
P	34+29.00	-36.50	628.08	628.22
Q	34+39.00	-36.50	628.03	628.17
R	34+49.00	-36.50	627.98	628.11
S	34+59.00	-36.50	627.93	628.02
T	34+69.00	-36.50	627.88	627.93
CLBRGW	34+77.00	-36.50	627.84	627.84
BKWABUT	34+78.67	-36.50	627.83	627.83

GIRDER 3

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKEABUT	32+59.33	-28.75	629.08	629.08
CLBRGE	32+61.00	-28.75	629.08	629.08
A	32+71.00	-28.75	629.03	629.08
B	32+81.00	-28.75	628.98	629.07
C	32+91.00	-28.75	628.93	629.05
D	33+01.00	-28.75	628.88	629.02
E	33+11.00	-28.75	628.83	628.96
F	33+21.00	-28.75	628.78	628.90
G	33+31.00	-28.75	628.73	628.82
H	33+41.00	-28.75	628.68	628.73
I	33+51.00	-28.75	628.63	628.66
J	33+61.00	-28.75	628.58	628.58
CLP	33+69.00	-28.75	628.54	628.54
K	33+79.00	-28.75	628.49	628.50
L	33+89.00	-28.75	628.44	628.47
M	33+99.00	-28.75	628.39	628.45
N	34+09.00	-28.75	628.34	628.43
O	34+19.00	-28.75	628.29	628.41
P	34+29.00	-28.75	628.24	628.38
Q	34+39.00	-28.75	628.19	628.33
R	34+49.00	-28.75	628.14	628.26
S	34+59.00	-28.75	628.09	628.18
T	34+69.00	-28.75	628.04	628.08
CLBRGW	34+77.00	-28.75	628.00	628.00
BKWABUT	34+78.67	-28.75	627.99	627.99

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PLOT SCALE = 40.0000' / 1"	CHECKED BCG	REVISED -
PLOT DATE = 1/24/2022	DATE	REVISED -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

TOP OF DECK ELEVATIONS
STRUCTURE NO. 058-3409
SHEET NO. 7 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	71
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

GIRDER 4

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKEABUT	32+59.33	-21.00	629.25	629.25
CLBRGE	32+61.00	-21.00	629.24	629.24
A	32+71.00	-21.00	629.19	629.24
B	32+81.00	-21.00	629.14	629.24
C	32+91.00	-21.00	629.09	629.22
D	33+01.00	-21.00	629.04	629.18
E	33+11.00	-21.00	628.99	629.13
F	33+21.00	-21.00	628.94	629.06
G	33+31.00	-21.00	628.89	628.98
H	33+41.00	-21.00	628.84	628.90
I	33+51.00	-21.00	628.79	628.82
J	33+61.00	-21.00	628.74	628.75
CLP	33+69.00	-21.00	628.70	628.70
K	33+79.00	-21.00	628.65	628.66
L	33+89.00	-21.00	628.60	628.63
M	33+99.00	-21.00	628.55	628.61
N	34+09.00	-21.00	628.50	628.59
O	34+19.00	-21.00	628.45	628.57
P	34+29.00	-21.00	628.40	628.54
Q	34+39.00	-21.00	628.35	628.49
R	34+49.00	-21.00	628.30	628.42
S	34+59.00	-21.00	628.25	628.34
T	34+69.00	-21.00	628.20	628.24
CLBRGW	34+77.00	-21.00	628.16	628.16
BKWABUT	34+78.67	-21.00	628.15	628.15

GIRDER 5

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKEABUT	32+59.33	-13.25	629.41	629.41
CLBRGE	32+61.00	-13.25	629.40	629.40
A	32+71.00	-13.25	629.35	629.40
B	32+81.00	-13.25	629.30	629.40
C	32+91.00	-13.25	629.25	629.38
D	33+01.00	-13.25	629.20	629.34
E	33+11.00	-13.25	629.15	629.29
F	33+21.00	-13.25	629.10	629.22
G	33+31.00	-13.25	629.05	629.14
H	33+41.00	-13.25	629.00	629.06
I	33+51.00	-13.25	628.95	628.98
J	33+61.00	-13.25	628.90	628.91
CLP	33+69.00	-13.25	628.86	628.86
K	33+79.00	-13.25	628.81	628.82
L	33+89.00	-13.25	628.76	628.79
M	33+99.00	-13.25	628.71	628.77
N	34+09.00	-13.25	628.66	628.76
O	34+19.00	-13.25	628.61	628.73
P	34+29.00	-13.25	628.56	628.70
Q	34+39.00	-13.25	628.51	628.65
R	34+49.00	-13.25	628.46	628.58
S	34+59.00	-13.25	628.41	628.50
T	34+69.00	-13.25	628.36	628.40
CLBRGW	34+77.00	-13.25	628.32	628.32
BKWABUT	34+78.67	-13.25	628.31	628.31

GIRDER 6

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKEABUT	32+59.33	-5.50	629.57	629.57
CLBRGE	32+61.00	-5.50	629.56	629.56
A	32+71.00	-5.50	629.51	629.56
B	32+81.00	-5.50	629.46	629.56
C	32+91.00	-5.50	629.41	629.54
D	33+01.00	-5.50	629.36	629.50
E	33+11.00	-5.50	629.31	629.45
F	33+21.00	-5.50	629.26	629.38
G	33+31.00	-5.50	629.21	629.30
H	33+41.00	-5.50	629.16	629.22
I	33+51.00	-5.50	629.11	629.14
J	33+61.00	-5.50	629.06	629.07
CLP	33+69.00	-5.50	629.02	629.02
K	33+79.00	-5.50	628.97	628.98
L	33+89.00	-5.50	628.92	628.95
M	33+99.00	-5.50	628.87	628.94
N	34+09.00	-5.50	628.82	628.92
O	34+19.00	-5.50	628.77	628.90
P	34+29.00	-5.50	628.72	628.86
Q	34+39.00	-5.50	628.67	628.81
R	34+49.00	-5.50	628.62	628.74
S	34+59.00	-5.50	628.57	628.66
T	34+69.00	-5.50	628.52	628.56
CLBRGW	34+77.00	-5.50	628.48	628.48
BKWABUT	34+78.67	-5.50	628.47	628.47

CL REAS BRIDGE ROAD/PGL

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKEABUT	32+59.33	0.00	629.68	629.68
CLBRGE	32+61.00	0.00	629.67	629.67
A	32+71.00	0.00	629.62	629.68
B	32+81.00	0.00	629.57	629.67
C	32+91.00	0.00	629.52	629.65
D	33+01.00	0.00	629.47	629.62
E	33+11.00	0.00	629.42	629.56
F	33+21.00	0.00	629.37	629.49
G	33+31.00	0.00	629.32	629.42
H	33+41.00	0.00	629.27	629.33
I	33+51.00	0.00	629.22	629.25
J	33+61.00	0.00	629.17	629.18
CLP	33+69.00	0.00	629.14	629.14
K	33+79.00	0.00	629.09	629.10
L	33+89.00	0.00	629.04	629.07
M	33+99.00	0.00	628.99	629.05
N	34+09.00	0.00	628.94	629.03
O	34+19.00	0.00	628.89	629.01
P	34+29.00	0.00	628.84	628.98
Q	34+39.00	0.00	628.79	628.93
R	34+49.00	0.00	628.74	628.86
S	34+59.00	0.00	628.69	628.77
T	34+69.00	0.00	628.64	628.68
CLBRGW	34+77.00	0.00	628.60	628.60
BKWABUT	34+78.67	0.00	628.59	628.59

GIRDER 7

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKEABUT	32+59.33	2.25	629.64	629.64
CLBRGE	32+61.00	2.25	629.63	629.63
A	32+71.00	2.25	629.58	629.63
B	32+81.00	2.25	629.53	629.63
C	32+91.00	2.25	629.48	629.61
D	33+01.00	2.25	629.43	629.57
E	33+11.00	2.25	629.38	629.52
F	33+21.00	2.25	629.33	629.45
G	33+31.00	2.25	629.28	629.37
H	33+41.00	2.25	629.23	629.29
I	33+51.00	2.25	629.18	629.21
J	33+61.00	2.25	629.13	629.14
CLP	33+69.00	2.25	629.09	629.09
K	33+79.00	2.25	629.04	629.05
L	33+89.00	2.25	628.99	629.02
M	33+99.00	2.25	628.94	629.00
N	34+09.00	2.25	628.89	628.99
O	34+19.00	2.25	628.84	628.96
P	34+29.00	2.25	628.79	628.93
Q	34+39.00	2.25	628.74	628.88
R	34+49.00	2.25	628.69	628.81
S	34+59.00	2.25	628.64	628.73
T	34+69.00	2.25	628.59	628.63
CLBRGW	34+77.00	2.25	628.55	628.55
BKWABUT	34+78.67	2.25	628.54	628.54

GIRDER 8

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKEABUT	32+59.33	10.00	629.48	629.48
CLBRGE	32+61.00	10.00	629.47	629.47
A	32+71.00	10.00	629.42	629.47
B	32+81.00	10.00	629.37	629.46
C	32+91.00	10.00	629.32	629.45
D	33+01.00	10.00	629.27	629.41
E	33+11.00	10.00	629.22	629.36
F	33+21.00	10.00	629.17	629.29
G	33+31.00	10.00	629.12	629.21
H	33+41.00	10.00	629.07	629.13
I	33+51.00	10.00	629.02	629.05
J	33+61.00	10.00	628.97	628.97
CLP	33+69.00	10.00	628.93	628.93
K	33+79.00	10.00	628.88	628.89
L	33+89.00	10.00	628.83	628.86
M	33+99.00	10.00	628.78	628.84
N	34+09.00	10.00	628.73	628.82
O	34+19.00	10.00	628.68	628.80
P	34+29.00	10.00	628.63	628.77
Q	34+39.00	10.00	628.58	628.72
R	34+49.00	10.00	628.53	628.65
S	34+59.00	10.00	628.48	628.57
T	34+69.00	10.00	628.43	628.47
CLBRGW	34+77.00	10.00	628.39	628.39
BKWABUT	34+78.67	10.00	628.38	628.38

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PLOT DATE = 1/24/2022	DATE	REVISED -



DECATUR (217) 422-8544
 SCHAUMBURG (773) 714-0050
 ROCKFORD (815) 489-0050
 184-001397

**TOP OF DECK ELEVATIONS
 STRUCTURE NO. 058-3409**

SHEET NO. 8 OF 33 SHEETS

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	72
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

GIRDER 9

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKEABUT	32+59.33	17.75	629.31	629.31
CLBRGE	32+61.00	17.75	629.31	629.31
A	32+71.00	17.75	629.26	629.31
B	32+81.00	17.75	629.21	629.30
C	32+91.00	17.75	629.16	629.28
D	33+01.00	17.75	629.11	629.25
E	33+11.00	17.75	629.06	629.19
F	33+21.00	17.75	629.01	629.12
G	33+31.00	17.75	628.96	629.05
H	33+41.00	17.75	628.91	628.96
I	33+51.00	17.75	628.86	628.88
J	33+61.00	17.75	628.81	628.81
CLP	33+69.00	17.75	628.77	628.77
K	33+79.00	17.75	628.72	628.73
L	33+89.00	17.75	628.67	628.70
M	33+99.00	17.75	628.62	628.68
N	34+09.00	17.75	628.57	628.66
O	34+19.00	17.75	628.52	628.64
P	34+29.00	17.75	628.47	628.61
Q	34+39.00	17.75	628.42	628.56
R	34+49.00	17.75	628.37	628.49
S	34+59.00	17.75	628.32	628.40
T	34+69.00	17.75	628.27	628.31
CLBRGW	34+77.00	17.75	628.23	628.23
BKWABUT	34+78.67	17.75	628.22	628.22

GIRDER 10

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKEABUT	32+59.33	25.50	629.15	629.15
CLBRGE	32+61.00	25.50	629.14	629.14
A	32+71.00	25.50	629.09	629.15
B	32+81.00	25.50	629.04	629.14
C	32+91.00	25.50	628.99	629.12
D	33+01.00	25.50	628.94	629.09
E	33+11.00	25.50	628.89	629.03
F	33+21.00	25.50	628.84	628.96
G	33+31.00	25.50	628.79	628.88
H	33+41.00	25.50	628.74	628.80
I	33+51.00	25.50	628.69	628.72
J	33+61.00	25.50	628.64	628.65
CLP	33+69.00	25.50	628.60	628.60
K	33+79.00	25.50	628.55	628.56
L	33+89.00	25.50	628.50	628.54
M	33+99.00	25.50	628.45	628.52
N	34+09.00	25.50	628.40	628.50
O	34+19.00	25.50	628.35	628.48
P	34+29.00	25.50	628.30	628.44
Q	34+39.00	25.50	628.25	628.39
R	34+49.00	25.50	628.20	628.33
S	34+59.00	25.50	628.15	628.24
T	34+69.00	25.50	628.10	628.15
CLBRGW	34+77.00	25.50	628.06	628.06
BKWABUT	34+78.67	25.50	628.06	628.06

GIRDER 11

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION
BKEABUT	32+59.33	33.25	628.99	628.99
CLBRGE	32+61.00	33.25	628.98	628.98
A	32+71.00	33.25	628.93	628.99
B	32+81.00	33.25	628.88	628.98
C	32+91.00	33.25	628.83	628.96
D	33+01.00	33.25	628.78	628.92
E	33+11.00	33.25	628.73	628.87
F	33+21.00	33.25	628.68	628.80
G	33+31.00	33.25	628.63	628.72
H	33+41.00	33.25	628.58	628.64
I	33+51.00	33.25	628.53	628.56
J	33+61.00	33.25	628.48	628.49
CLP	33+69.00	33.25	628.44	628.44
K	33+79.00	33.25	628.39	628.40
L	33+89.00	33.25	628.34	628.38
M	33+99.00	33.25	628.29	628.36
N	34+09.00	33.25	628.24	628.34
O	34+19.00	33.25	628.19	628.32
P	34+29.00	33.25	628.14	628.28
Q	34+39.00	33.25	628.09	628.23
R	34+49.00	33.25	628.04	628.17
S	34+59.00	33.25	627.99	628.08
T	34+69.00	33.25	627.94	627.99
CLBRGW	34+77.00	33.25	627.90	627.90
BKWABUT	34+78.67	33.25	627.89	627.89

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PLOT DATE = 1/24/2022	DATE	REVISED -



DECATUR (217) 422-8544
 SCHAUMBURG (773) 714-0950
 ROCKFORD (815) 489-0050
 184-001397

TOP OF DECK ELEVATIONS
 STRUCTURE NO. 058-3409

SHEET NO. 9 OF 33 SHEETS

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	73
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

SOUTH EDGE OF BICYCLE PATH

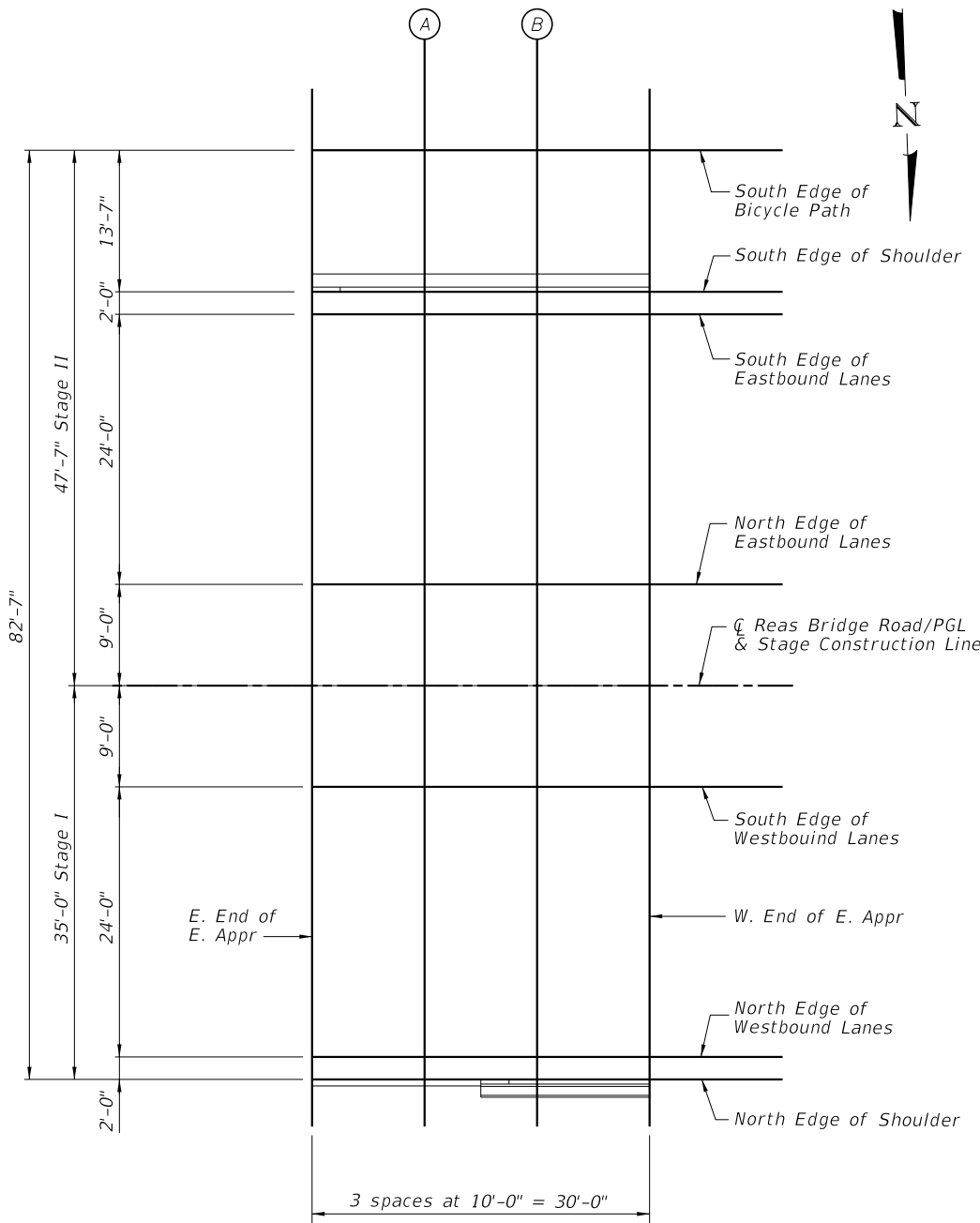
Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr.	32+30.33	-47.58	628.90
A	32+40.33	-47.58	628.85
B	32+50.33	-47.58	628.80
W. End of E. Appr.	32+60.33	-47.58	628.75

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr.	32+30.33	-35.00	629.10
A	32+40.33	-35.00	629.05
B	32+50.33	-35.00	629.00
W. End of E. Appr.	32+60.33	-35.00	628.95

SOUTH EDGE OF EASTBOUND LANES

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr.	32+30.33	-33.00	629.14
A	32+40.33	-33.00	629.09
B	32+50.33	-33.00	629.04
W. End of E. Appr.	32+60.33	-33.00	628.99



PLAN

NORTH EDGE OF EASTBOUND LANES

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr.	32+30.33	-9.00	629.64
A	32+40.33	-9.00	629.59
B	32+50.33	-9.00	629.54
W. End of E. Appr.	32+60.33	-9.00	629.49

C REAS BRIDGE ROAD/PGL & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr.	32+30.33	0.00	629.83
A	32+40.33	0.00	629.78
B	32+50.33	0.00	629.73
W. End of E. Appr.	32+60.33	0.00	629.68

SOUTH EDGE OF WESTBOUND LANES

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr.	32+30.33	9.00	629.64
A	32+40.33	9.00	629.59
B	32+50.33	9.00	629.54
W. End of E. Appr.	32+60.33	9.00	629.49

NORTH EDGE OF WESTBOUND LANES

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr.	32+30.33	33.00	629.14
A	32+40.33	33.00	629.09
B	32+50.33	33.00	629.04
W. End of E. Appr.	32+60.33	33.00	628.99

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr.	32+30.33	35.00	629.10
A	32+40.33	35.00	629.05
B	32+50.33	35.00	629.00
W. End of E. Appr.	32+60.33	35.00	628.95

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PLOT DATE = 1/25/2022	DATE	REVISED -

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TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 058-3409

SHEET NO. 10 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	74
CONTRACT NO. 95912				

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SOUTH EDGE OF BICYCLE PATH

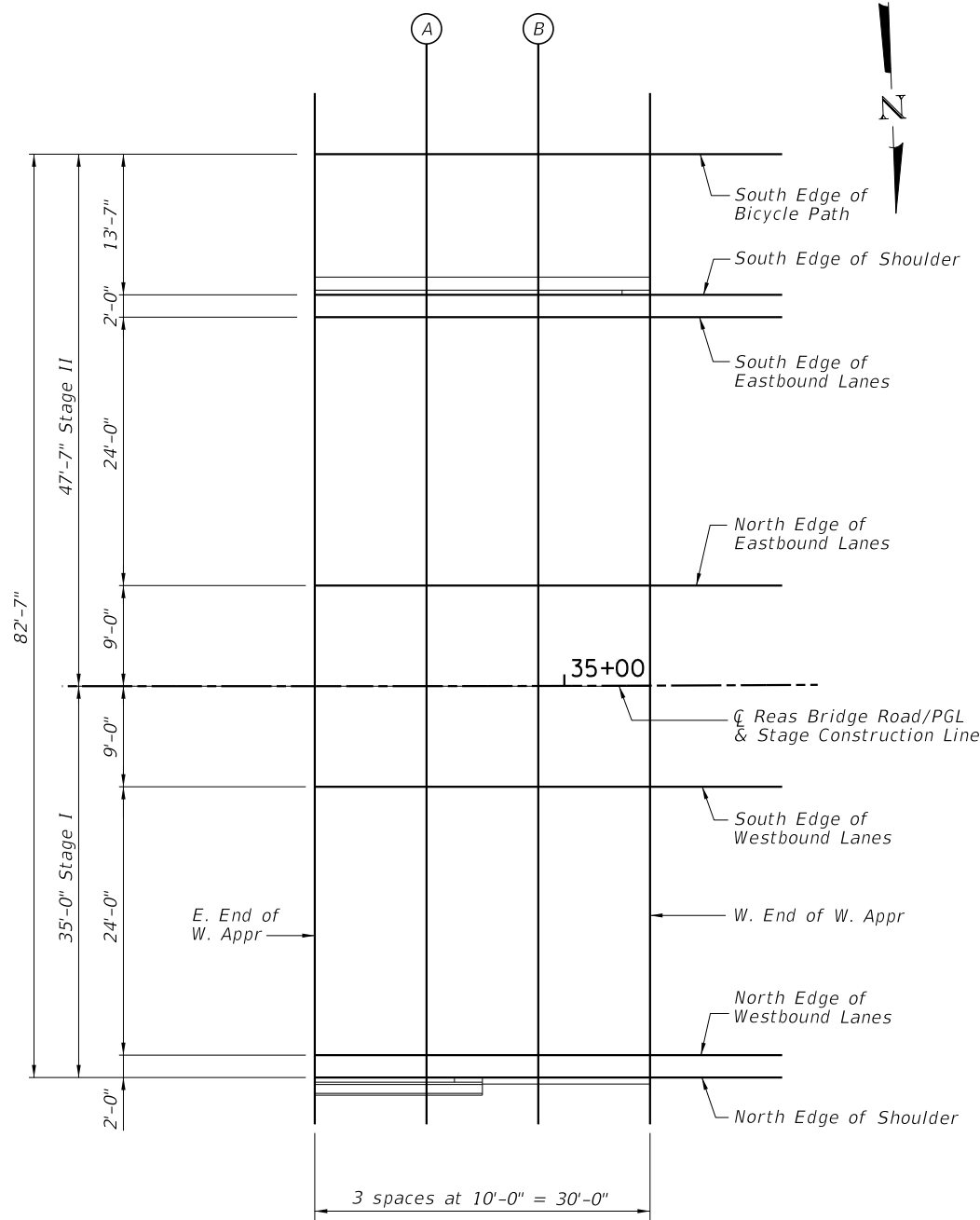
Location	Station	Offset	Theoretical Grade Elevations
E. End of W. Appr.	34+77.67	-47.58	627.67
A	34+87.71	-47.58	627.62
B	34+97.78	-47.58	627.57
W. End of W. Appr.	35+07.85	-47.58	627.52

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
E. End of W. Appr.	34+77.67	-35.00	627.86
A	34+87.70	-35.00	627.81
B	34+97.75	-35.00	627.76
W. End of W. Appr.	35+07.80	-35.00	627.71

SOUTH EDGE OF EASTBOUND LANES

Location	Station	Offset	Theoretical Grade Elevations
E. End of W. Appr.	34+77.67	-33.00	627.90
A	34+87.70	-33.00	627.85
B	34+97.74	-33.00	627.80
W. End of W. Appr.	35+07.79	-33.00	627.75



PLAN

NORTH EDGE OF EASTBOUND LANES

Location	Station	Offset	Theoretical Grade Elevations
E. End of W. Appr.	34+77.67	-9.00	628.40
A	34+87.68	-9.00	628.35
B	34+97.69	-9.00	628.30
W. End of W. Appr.	35+07.70	-9.00	628.25

REAS BRIDGE ROAD/PGL & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
E. End of W. Appr.	34+77.67	0.00	628.59
A	34+87.67	0.00	628.54
B	34+97.67	0.00	628.49
W. End of W. Appr.	35+07.67	0.00	628.44

SOUTH EDGE OF WESTBOUND LANES

Location	Station	Offset	Theoretical Grade Elevations
E. End of W. Appr.	34+77.67	9.00	628.40
A	34+87.66	9.00	628.35
B	34+97.65	9.00	628.30
W. End of W. Appr.	35+07.63	9.00	628.25

NORTH EDGE OF WESTBOUND LANES

Location	Station	Offset	Theoretical Grade Elevations
E. End of W. Appr.	34+77.67	33.00	627.90
A	34+87.63	33.00	627.85
B	34+97.59	33.00	627.80
W. End of W. Appr.	35+07.54	33.00	627.76

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
E. End of W. Appr.	34+77.67	35.00	627.86
A	34+87.63	35.00	627.81
B	34+97.58	35.00	627.76
W. End of W. Appr.	35+07.54	35.00	627.71

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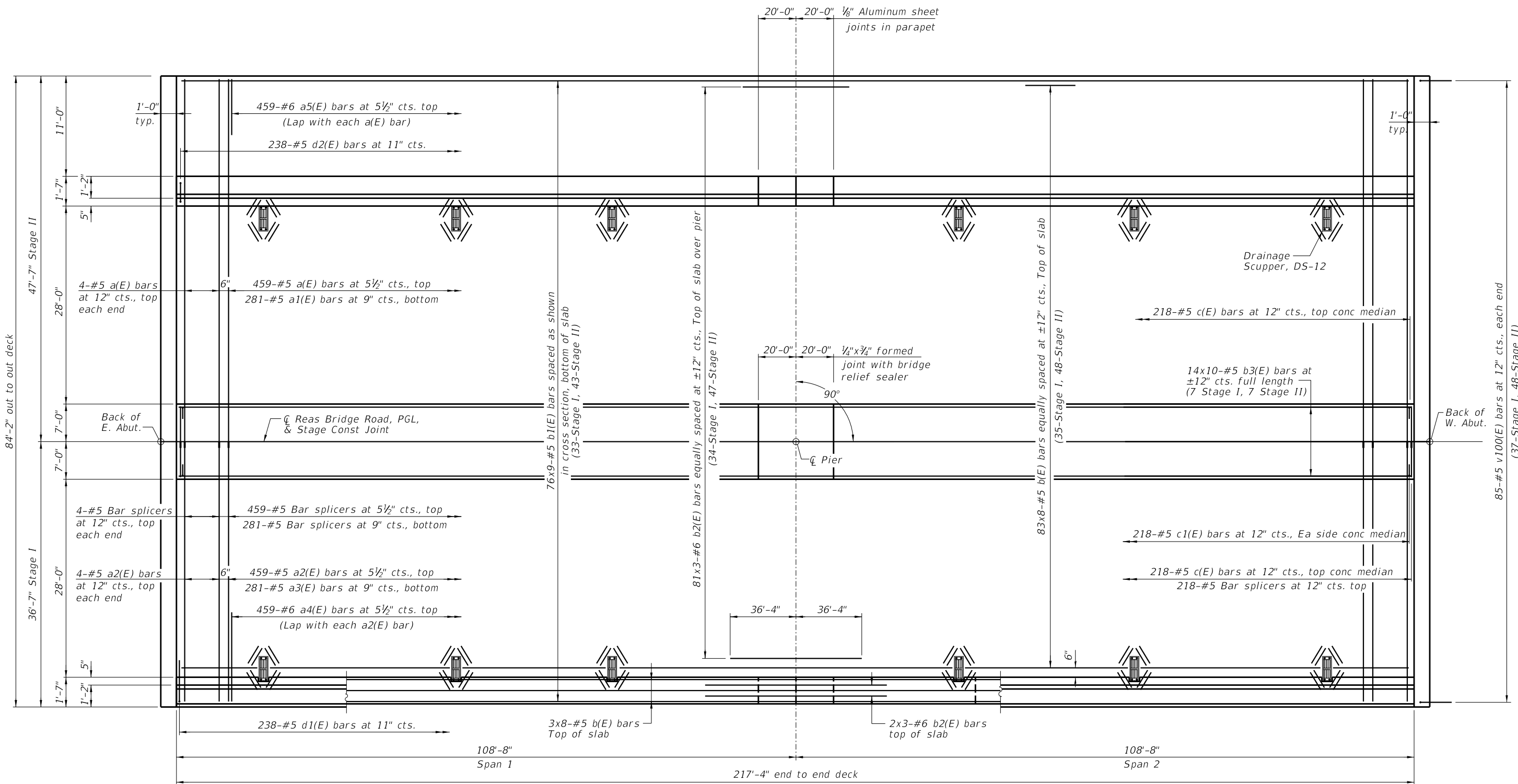
TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 058-3409

SHEET NO. 11 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	75
CONTRACT NO. 95912				

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FILE NAME = i:\Municipalities\Macon County\6487 Reas Bridge Replacement\CADD\Structural\EastBridge\deckplan.dgn



PLAN

MIN BAR LAP
 #5 bar = 3'-6"
 #6 bar = 4'-10"

Notes:
 See Sheets 13 thru 15 of 33 for superstructure details and Bill of Material.
 Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 See Sheet 15 of 33 for parapet reinforcement.
 See Sheet 1 of 33 for scupper locations.
 See Sheet 32 of 33 for bar splicer details.
 See Sheet 20 of 33 for railing details.
 See Sheet 16 of 33 for diaphragm details.

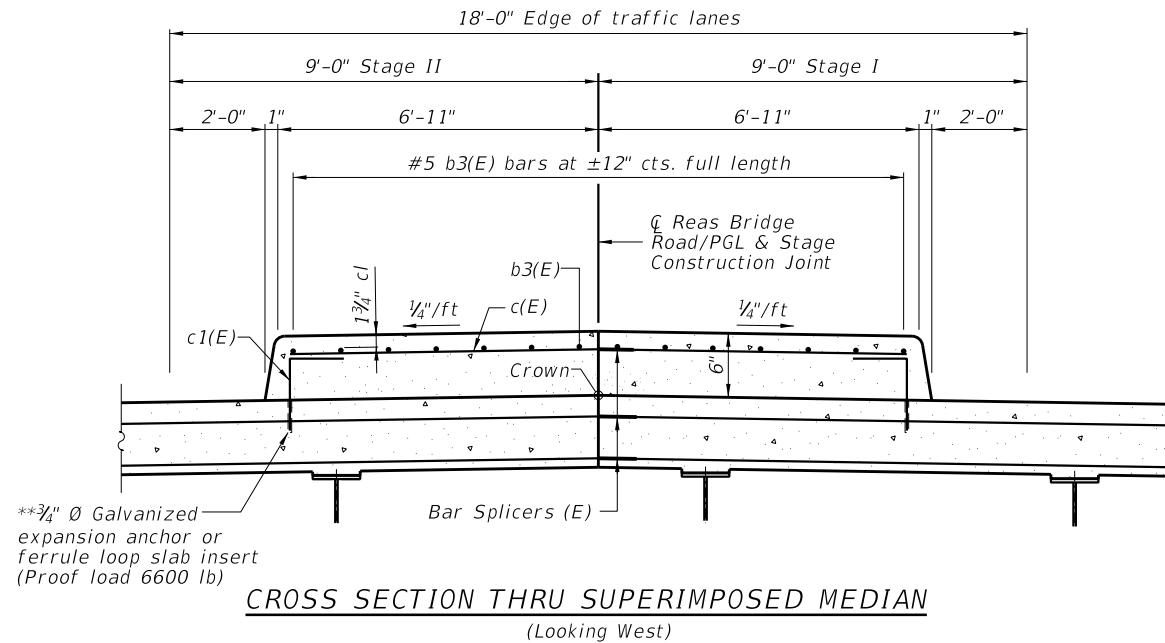
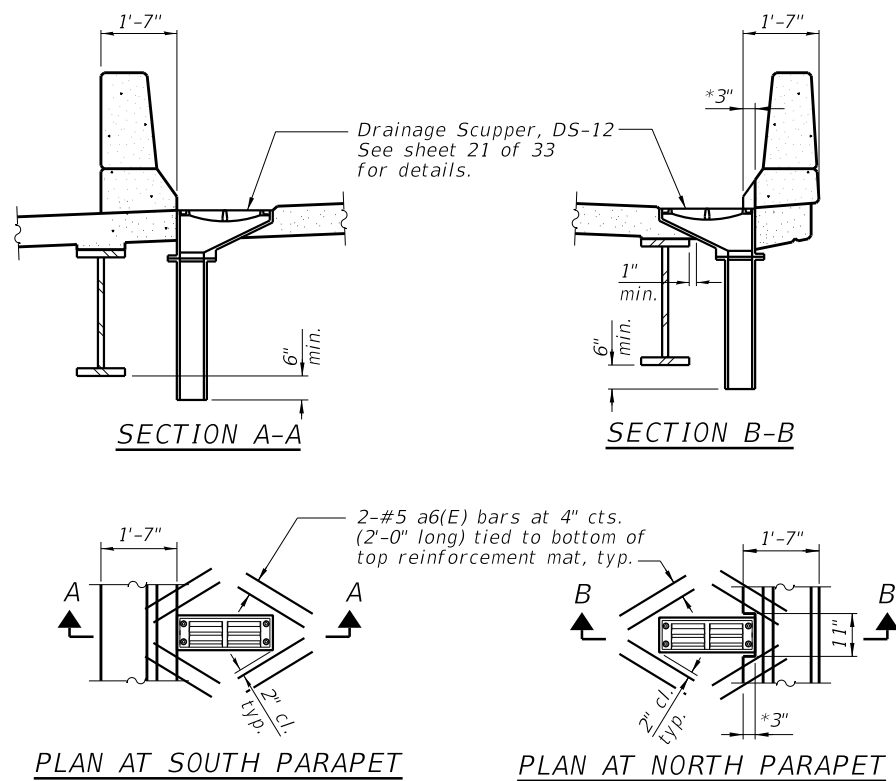
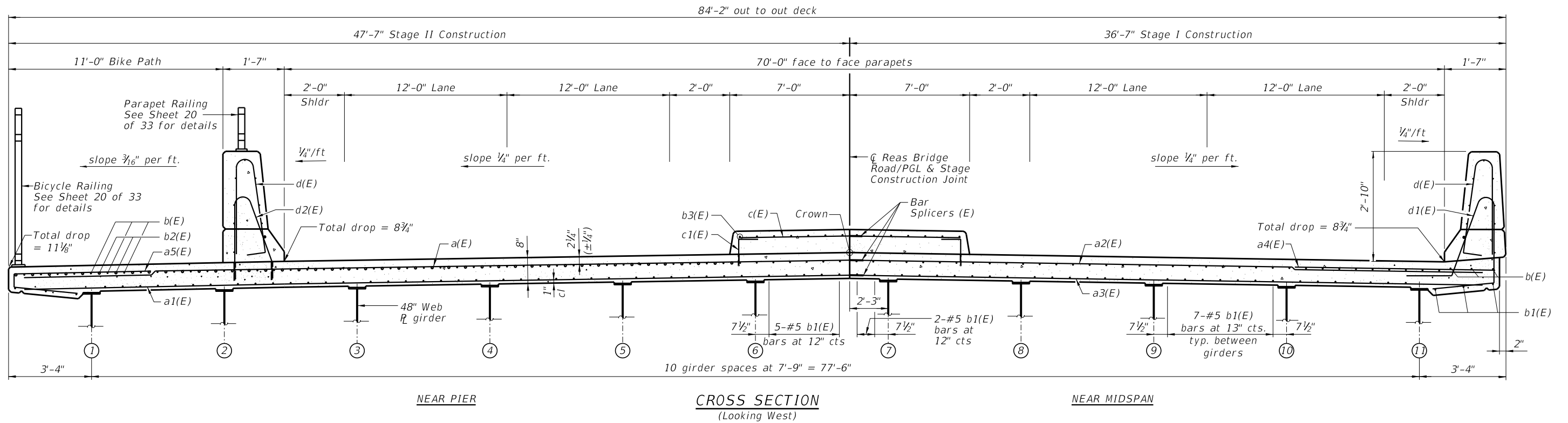
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SUPERSTRUCTURE
STRUCTURE NO. 058-3409
 SHEET NO. 12 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	76
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				



**The cost of expansion anchors/inserts is included in the cost of Reinforcement Bars, Epoxy Coated.

Note:
 Cut longitudinal reinforcement to clear drainage scuppers.
 *Notch Parapet 11"x3" to allow placement of scuppers and future removal of grate. 3" dimension may be reduced if scupper can be moved closer to fascia girder.

FILE NAME = i:\Municipalities\Macon County\6487 Reas Bridge Road Bridge Replacement\CADD\Structural\EastBridge\deckplan.dgn

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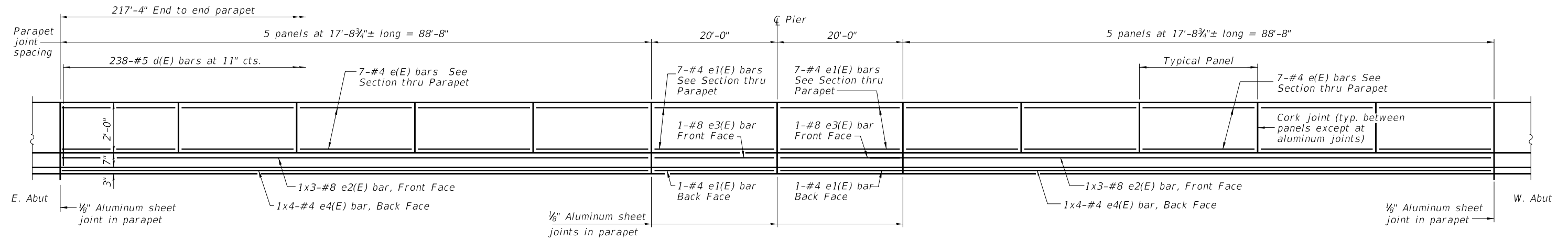
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SUPERSTRUCTURE DETAILS
STRUCTURE NO. 058-3409

SHEET NO. 13 OF 33 SHEETS

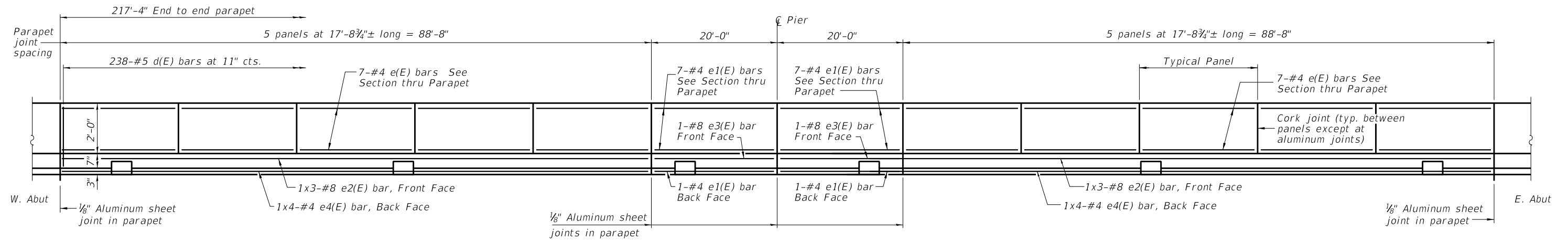
FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	77
CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT



INSIDE ELEVATION OF SOUTH PARAPET

MINIMUM BAR LAP
 (Parapet)
 #4 bar = 2'-5"
 #8 bar = 5'-11"



INSIDE ELEVATION OF NORTH PARAPET

FILE NAME = I:\Municipalities\Macon County\6487 Reos Bridge Road Bridge Replacement\CADD\Structural\EastBridge\super-details.dwg

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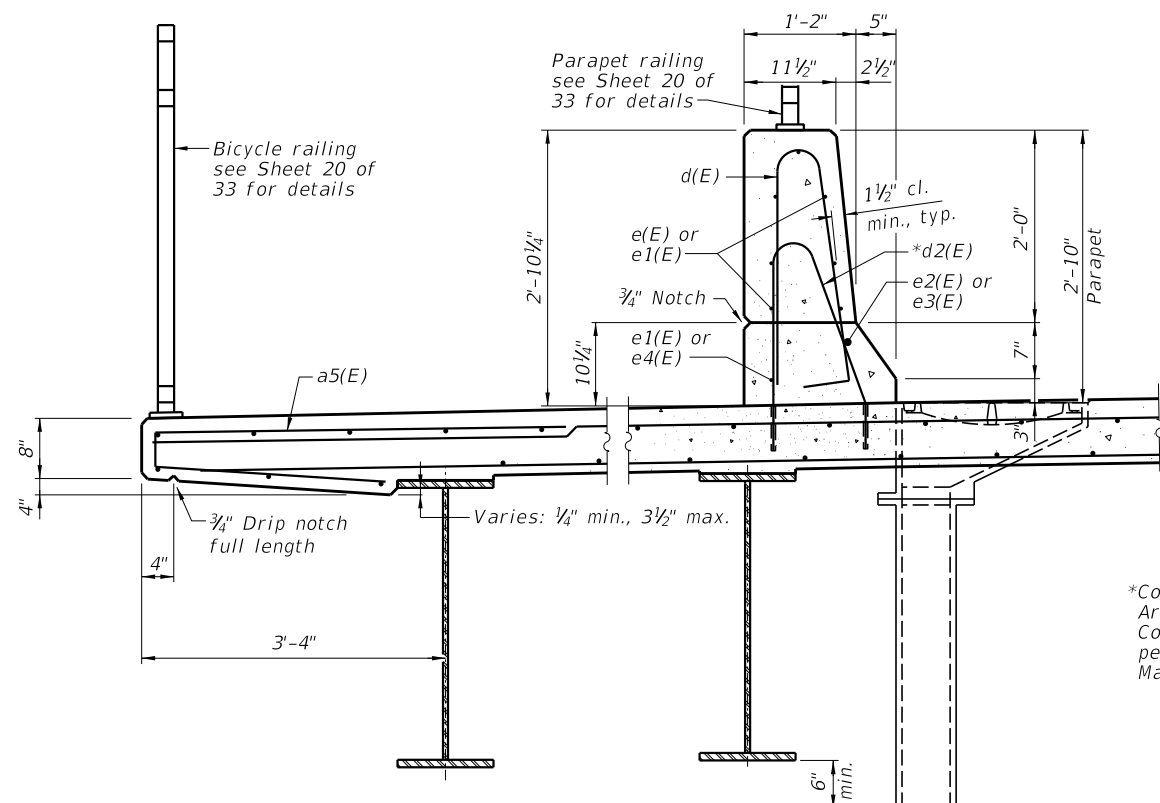
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SUPERSTRUCTURE DETAILS
STRUCTURE NO. 058-3409

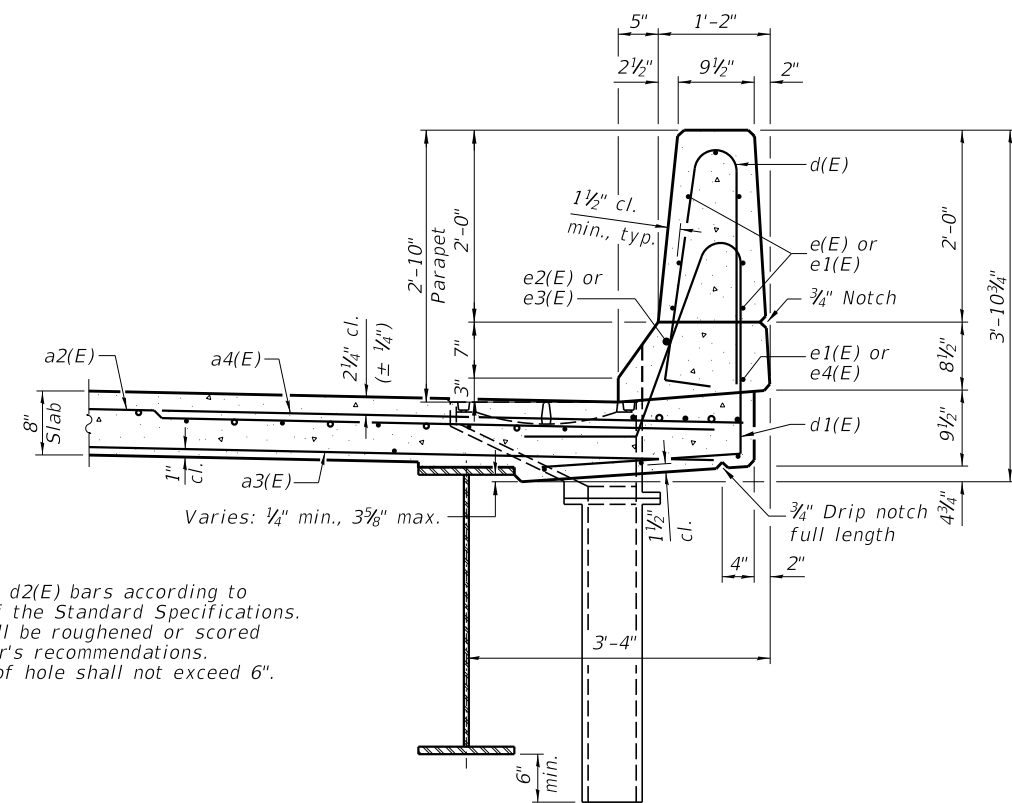
SHEET NO. 14 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT

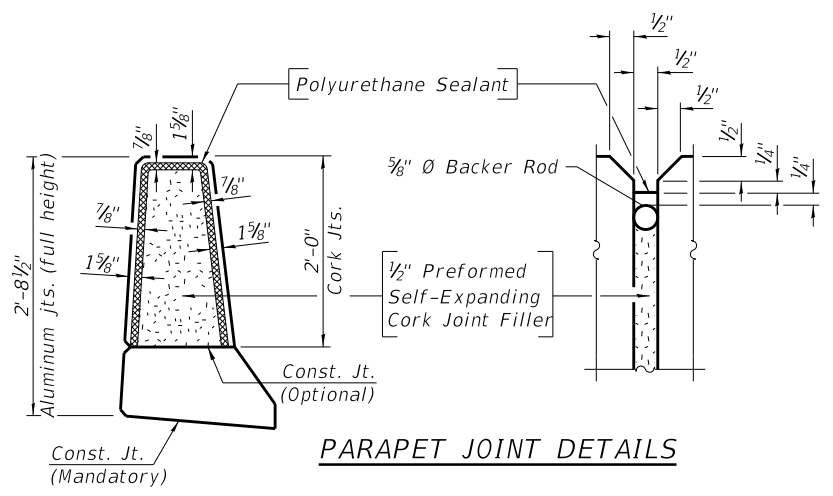


SECTION THRU SOUTH PARAPET

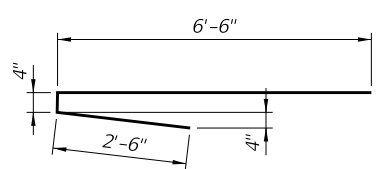


SECTION THRU NORTH PARAPET

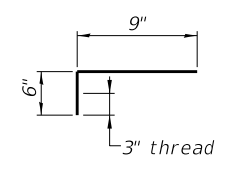
*Core and set #5 d2(E) bars according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6\"/>



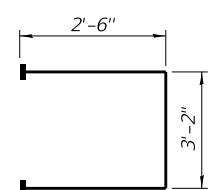
PARAPET JOINT DETAILS



BAR a5(E)

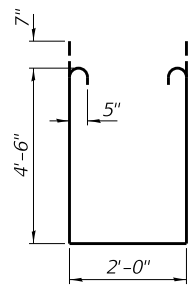


BAR c1(E)

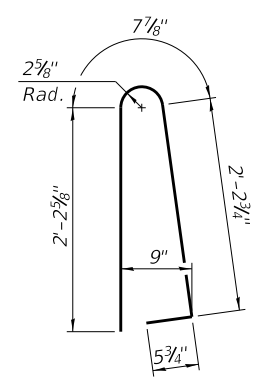


BAR s(E)

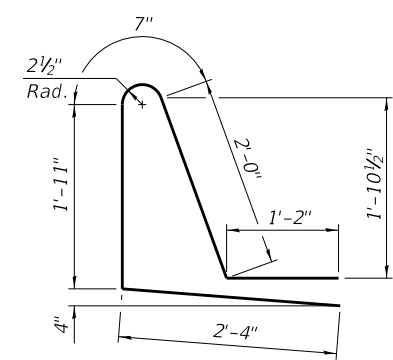
(Headed)



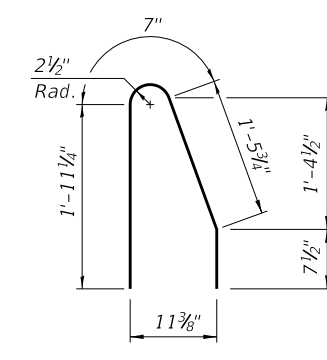
BAR s1(E)



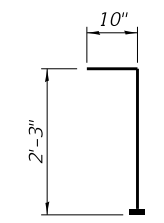
BAR d(E)



BAR d1(E)



BAR d2(E)



BAR v100(E)

(Headed)

**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar No.	Size	Length	Shape
a(E)	467 #5	47'-4"	—
a1(E)	281 #5	47'-0"	—
a2(E)	467 #5	36'-2"	—
a3(E)	281 #5	35'-10"	—
a4(E)	459 #6	6'-6"	—
a5(E)	459 #6	9'-4"	—
a6(E)	96 #5	2'-0"	—
b(E)	712 #5	30'-3"	—
b1(E)	684 #5	27'-3"	—
b2(E)	249 #6	27'-6"	—
b3(E)	140 #5	24'-11"	—
c(E)	436 #5	6'-7"	—
c1(E)	436 #5	1'-3"	—
d(E)	476 #5	5'-7"	—
d1(E)	238 #5	8'-0"	—
d2(E)	238 #5	4'-8"	—
e(E)	140 #4	17'-5"	—
e1(E)	32 #4	19'-8"	—
e2(E)	12 #8	33'-5"	—
e3(E)	4 #8	19'-8"	—
e4(E)	16 #4	23'-11"	—
m(E)	20 #6	25'-8"	—
m1(E)	80 #6	7'-4"	—
m2(E)	16 #6	3'-0"	—
m3(E)	88 #5	4'-0"	—
m4(E)	8 #6	36'-2"	—
s(E)	152 #5	8'-2"	—
s1(E)	152 #5	12'-2"	—
v100(E)	170 #5	3'-1"	—
Reinforcement Bars, Epoxy Coated	Pound	150,700	
Concrete Superstructure	Cu. Yds.	664.3	
Bridge Deck Grooving	Sq. Yd.	1256	
Protective Coat	Sq. Yd.	2162	

Bars indicated thus 14x10-#5 etc. indicates 14 lines of bars with 10 lengths per line.

Notes:
 The 1/8" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
 The Polyurethane Sealant shall be non-staining gray one component non-sag elastomeric gun grade meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a 5/8" backer rod.
 The 1/2" Preformed Self-Expanding Cork Joint Filler shall be according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.
 Headed bars shall conform to ASTM A970 Class HA. Cost included with Reinforcement Bars, Epoxy Coated.

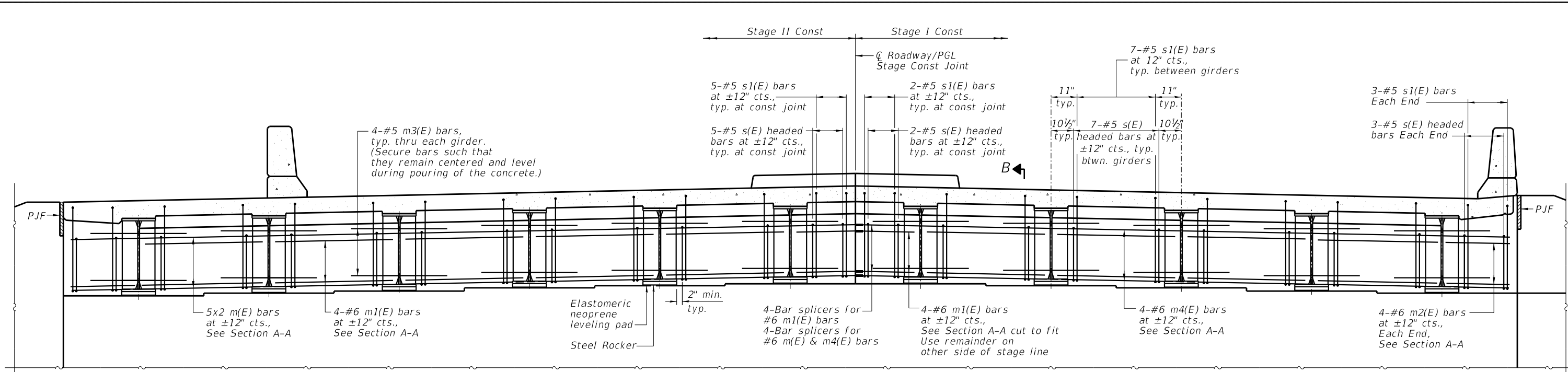
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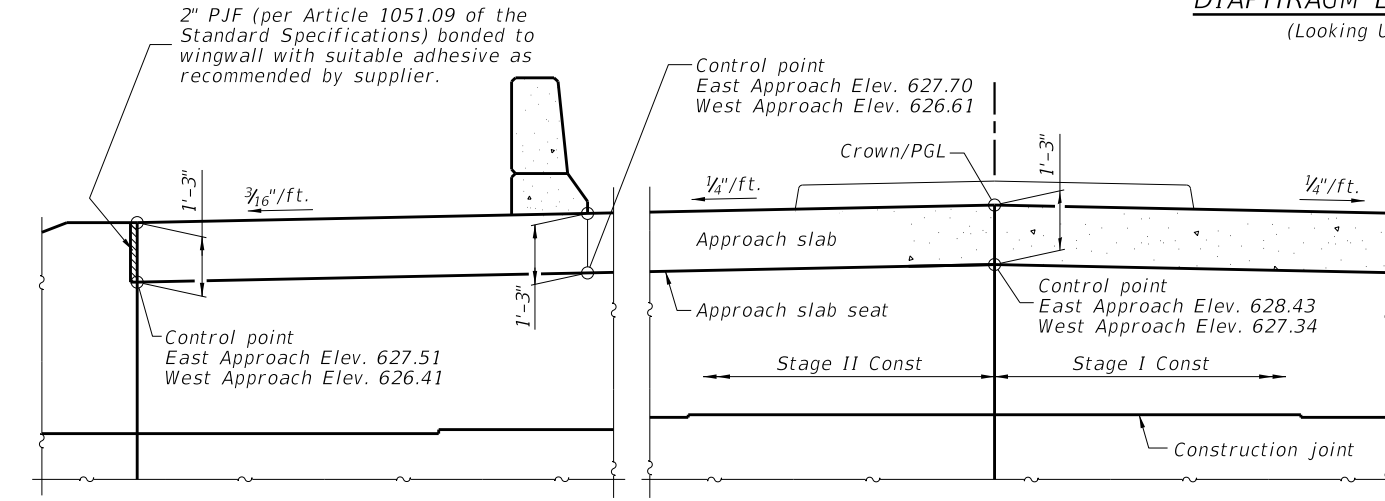
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SUPERSTRUCTURE DETAILS
STRUCTURE NO. 058-3409
 SHEET NO. 15 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	79
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

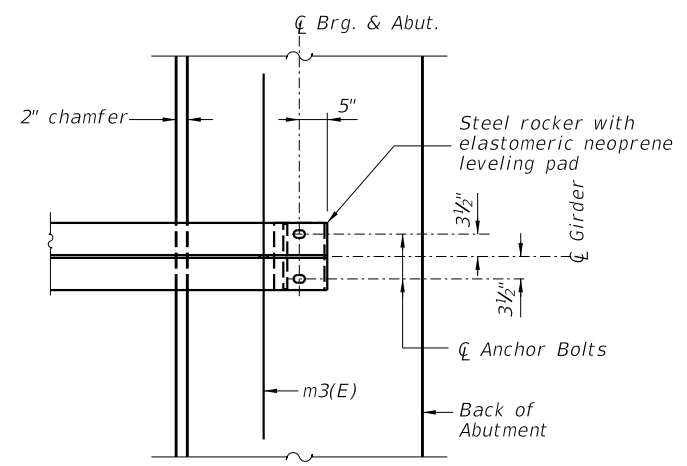


DIAPHRAGM ELEVATION AT WEST ABUTMENT
(Looking Up Station - East abutment similar)



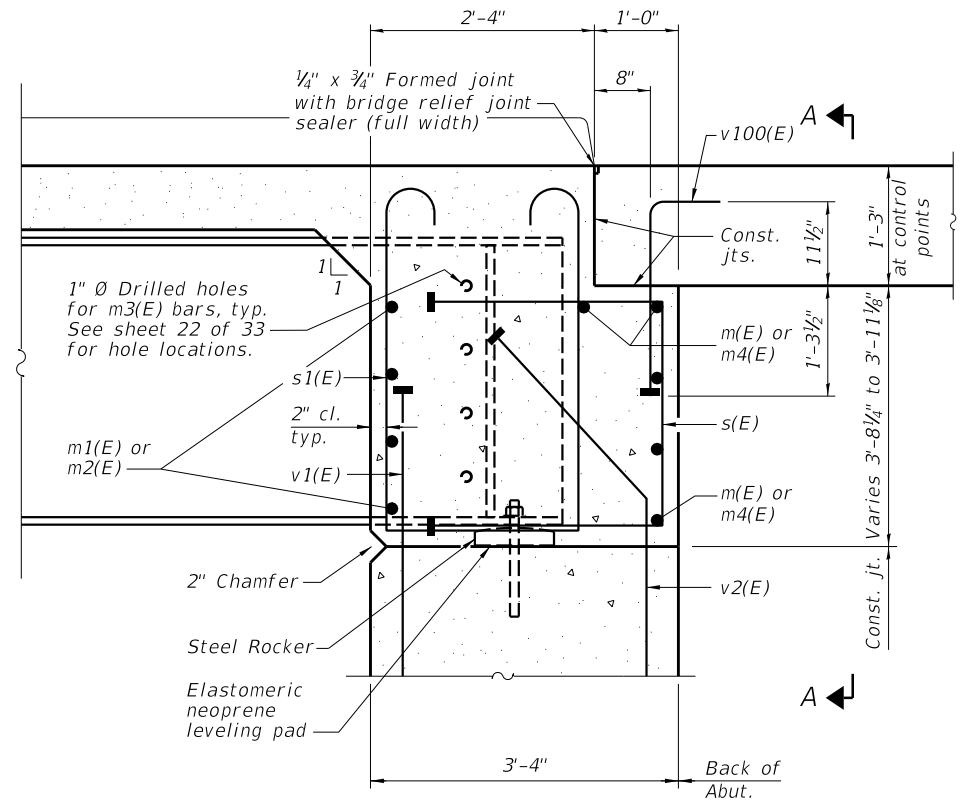
SECTION A-A

MIN BAR LAP
#6 bar = 4'-0"



PARTIAL PLAN AT ABUTMENT
(Showing bottom flange of beam)

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 15 of 33.
Concrete in diaphragm is included with Concrete Superstructure on sheet 15 of 33.
For details of bars s(E) and s1(E) see sheet 15 of 33.
The approach slab seat shall have a constant slope determined from the control points shown.
For bearing details see sheet 25 of 33.
Girders shall be braced for stability during erection and remain braced until deck is poured and cured.



SECTION B-B

FILE NAME = i:\Municipalities\Macon County\6487 Reos Bridge Road Bridge Replacement\CADD\Structural\EastBridgeDiaphragm.dgn

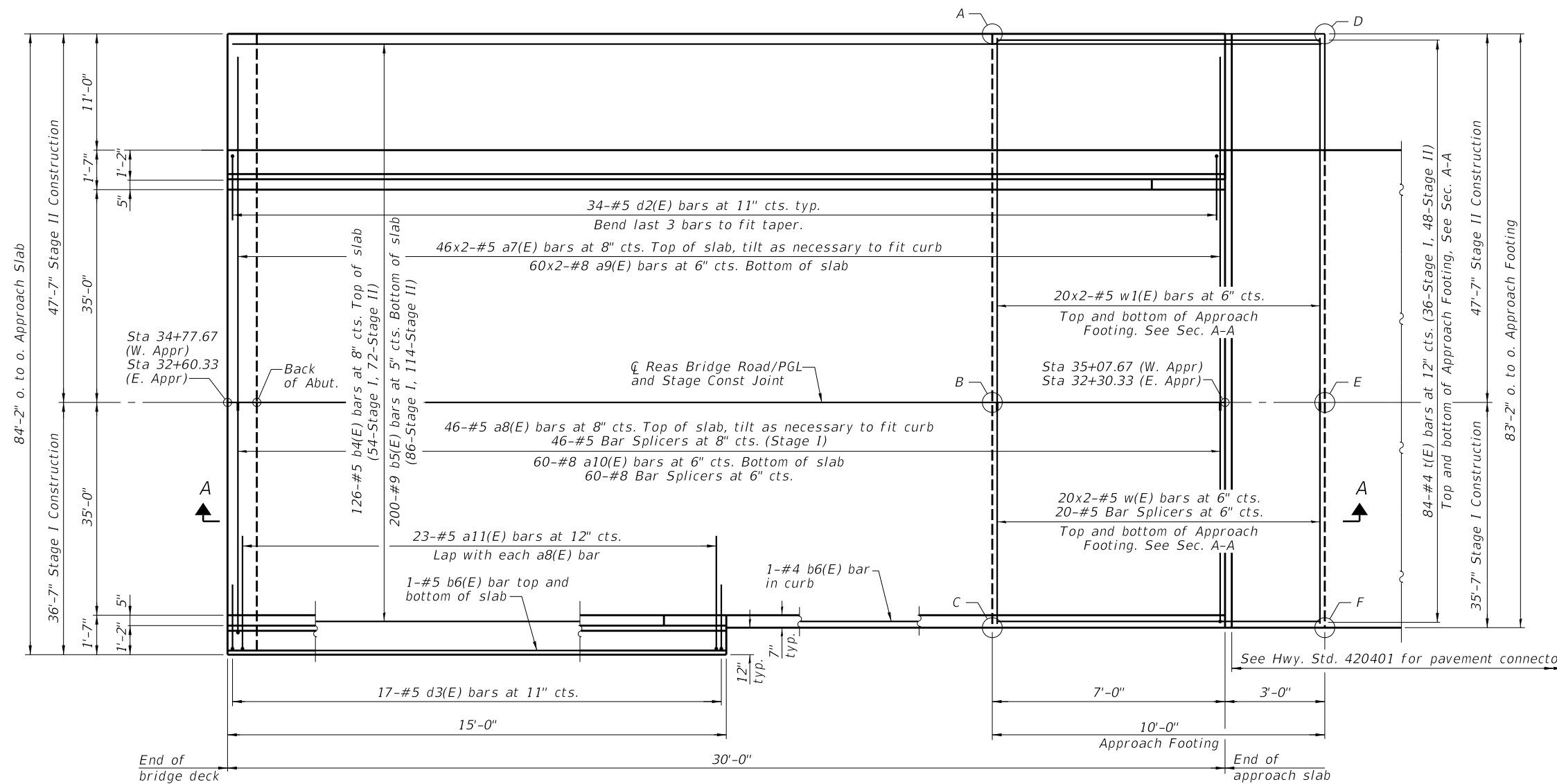
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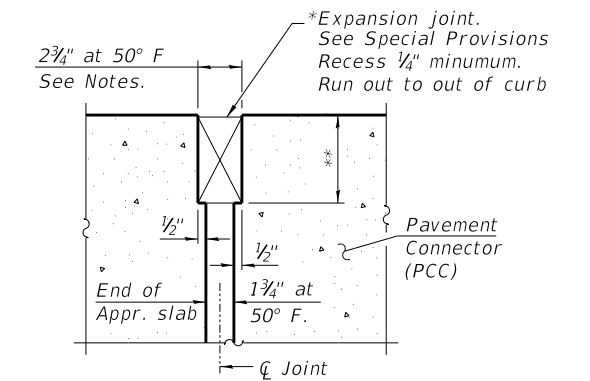
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DIAPHRAGM DETAILS
STRUCTURE NO. 058-3409
SHEET NO. 16 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	80
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

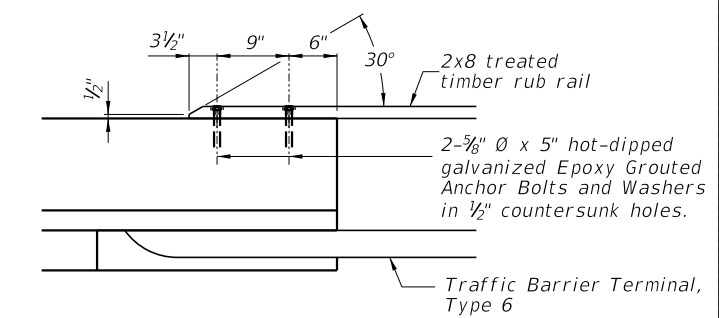


PLAN
(West approach shown, East approach similar)

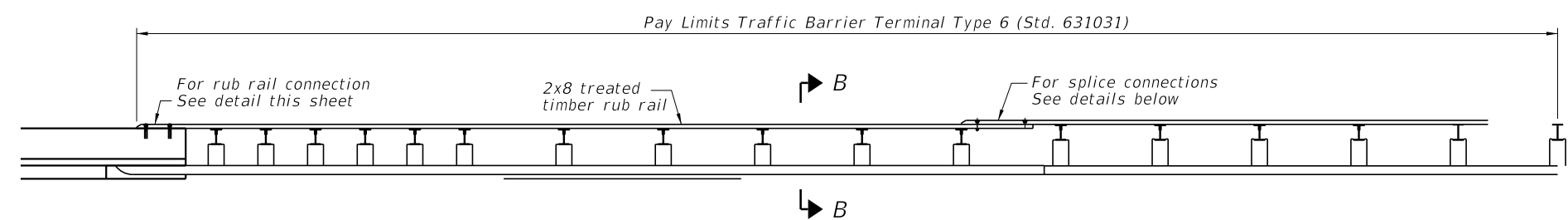


DETAIL A

* Cost included with Concrete Superstructure (Approach Slab).
** Per manufacturer recommendations

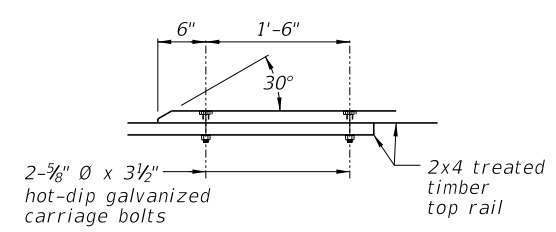


RUB RAIL CONNECTION TO PARAPET



SHARED-USE PATH RUB RAIL DETAIL

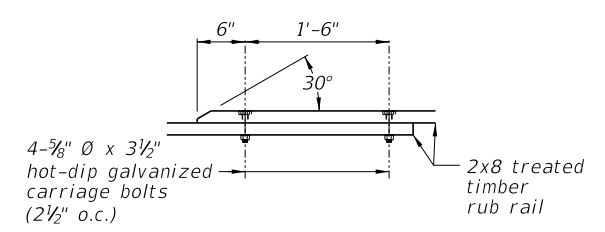
The cost for the rub rail and top rail work shall be included in the cost of Traffic Barrier Terminal, Type 6. (See Roadway Plans) Rub rail shall conform to Section 1007.



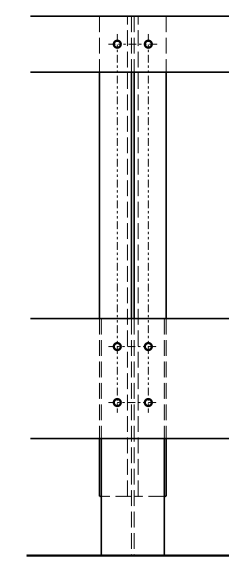
2x4 SPLICE CONNECTION DETAIL

RUB RAIL LOCATION

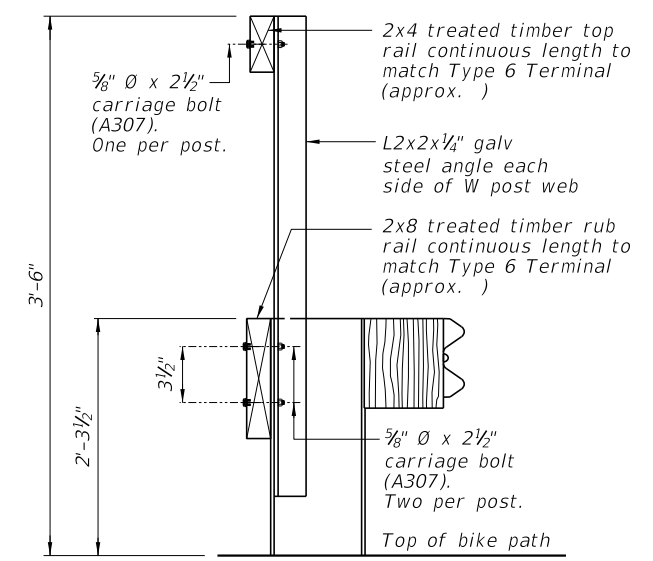
Station	to	Station
Lt 34+78		Lt 35+51



2x8 SPLICE CONNECTION DETAIL



ELEVATION



SECTION B-B

(Sheet 1 of 3)

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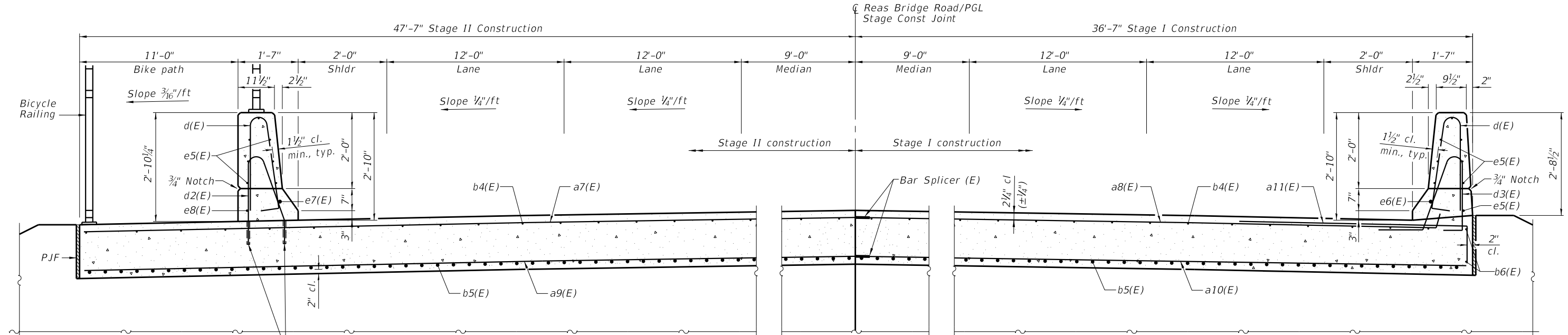
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BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 058-3409

SHEET NO. 17 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

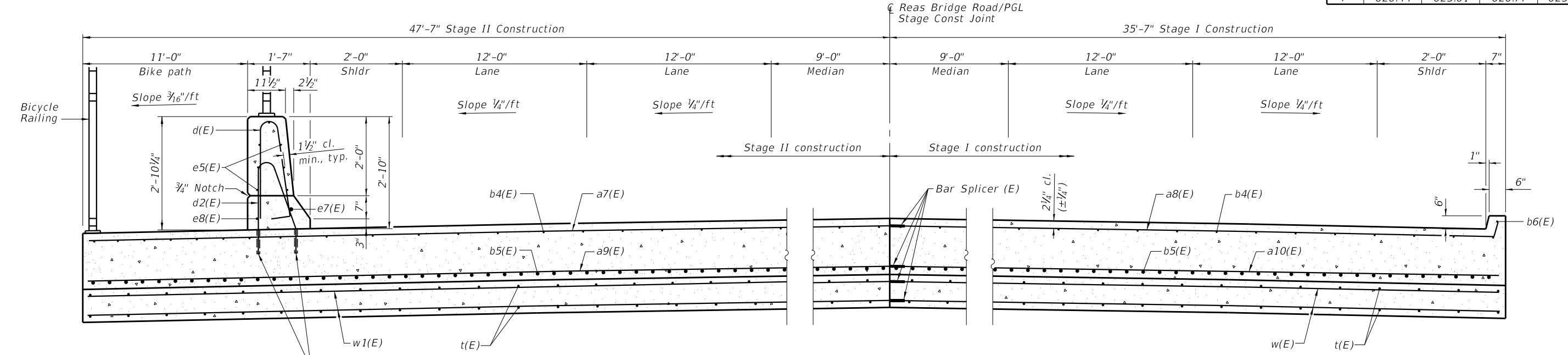


Core and set #5 d2(E) bar according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6".

APPROACH CROSS SECTION NEAR ABUTMENT
(Looking West)

TOP AND BOTTOM ELEVATIONS
FOR APPROACH FOOTING

Point	West Approach		East Approach	
	Top	Bottom	Top	Bottom
A	626.29	625.46	626.52	625.69
B	627.23	626.40	627.46	626.63
C	626.49	625.66	626.72	625.89
D	626.24	625.41	626.57	625.74
E	627.18	626.35	627.51	626.68
F	626.44	625.61	626.77	625.94



Core and set #5 d2(E) bar according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6".

APPROACH CROSS SECTION AT APPROACH FOOTING
(Looking West)

FILE NAME = i:\municipalities\macon\macon county\6487 Reas Bridge Replacement\CADD\Structural\EastBridgeApproach.dgn

(Sheet 2 of 3)

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PLOT SCALE = 8.0000' / 1"	CHECKED BCG	REVISED -
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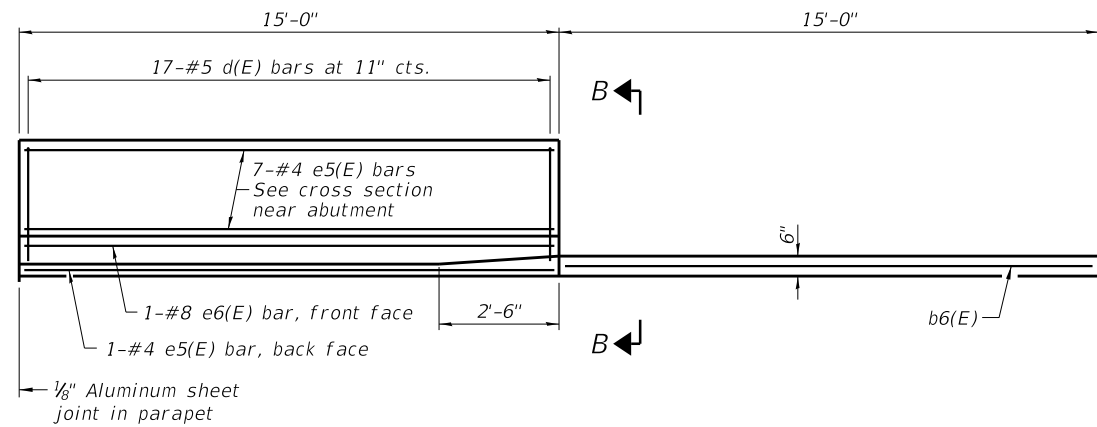
DECATUR (217) 422-8544
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184-001397

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 058-3409

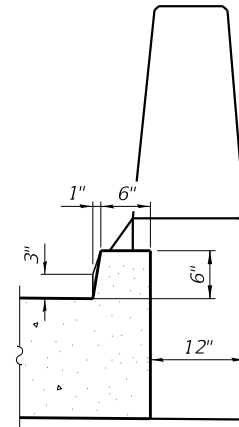
SHEET NO. 18 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	82
CONTRACT NO. 95912				

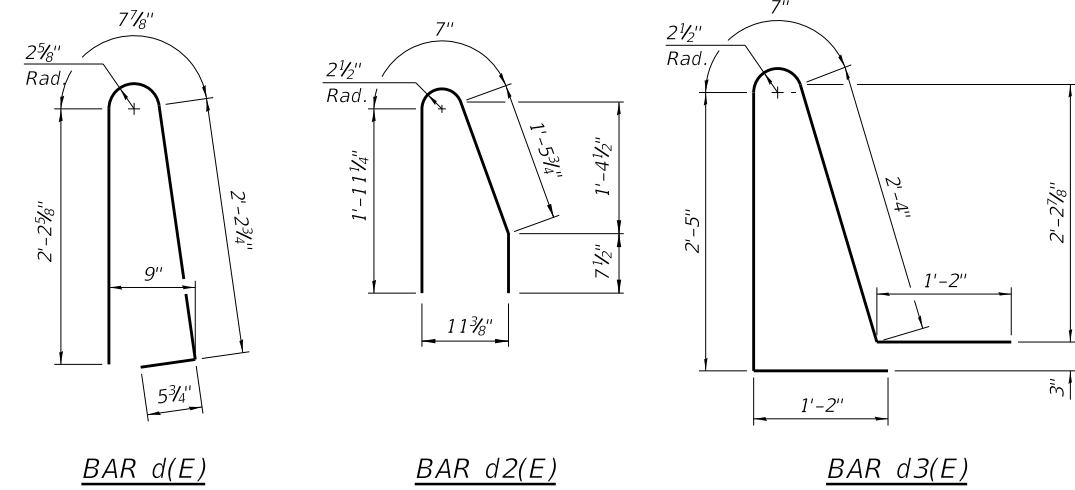
ILLINOIS FED. AID PROJECT



INSIDE ELEVATION OF NORTH PARAPET AND CURB



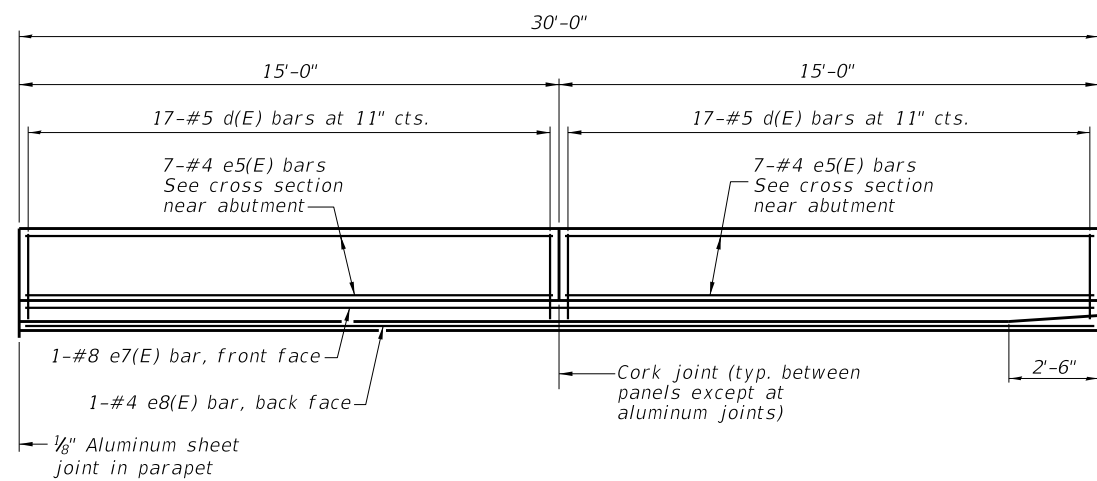
VIEW B-B



BAR d(E)

BAR d2(E)

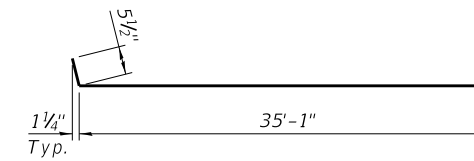
BAR d3(E)



INSIDE ELEVATION OF SOUTH PARAPET

MIN BAR LAP

#5 bar = 3'-6"
#8 bar = 4'-9"



BAR a8(E)



BAR a11(E)

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a7(E)	184	#5	25'-5"	—
a8(E)	92	#5	35'-7"	—
a9(E)	240	#8	26'-1"	—
a10(E)	120	#8	35'-4"	—
a11(E)	46	#5	7'-4"	—
b4(E)	252	#5	29'-8"	—
b5(E)	400	#9	29'-8"	—
b6(E)	4	#5	14'-8"	—
d(E)	102	#5	5'-7"	⌋
d2(E)	68	#5	4'-8"	⌋
d3(E)	34	#5	7'-8"	⌋
e5(E)	44	#4	14'-8"	—
e6(E)	2	#8	14'-8"	—
e7(E)	2	#8	29'-8"	—
e8(E)	2	#4	29'-8"	—
t(E)	336	#4	9'-8"	—
w(E)	160	#5	19'-5"	—
w1(E)	160	#5	25'-5"	—
Concrete Superstructure		Cu. Yd.	10.7	
Concrete Superstructure (Approach Slab)		Cu. Yd.	232.8	
Concrete Structures		Cu. Yd.	81.4	
Reinforcement Bars, Epoxy Coated		Pound	96,440	
Bridge Deck Grooving		Sq. Yd.	454	
Protective Coat		Sq. Yd.	578	

Bars indicated thus 46x2-#5 etc. indicates 46 lines of bars with 2 lengths per line.

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 pavement.

Parapet concrete shall be paid for as Concrete Superstructure.

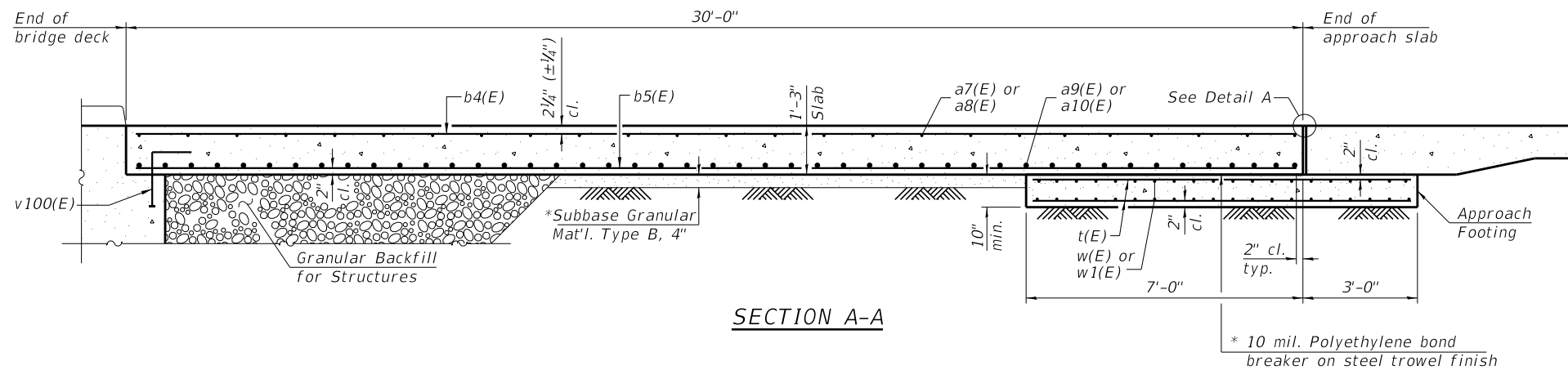
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

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 33.



SECTION A-A

(Sheet 3 of 3)

FILE NAME = i:\Municipalities\Macon County\6487 Reos Bridge Replacement\CADD\Structural\EastBridge\Approach.dgn

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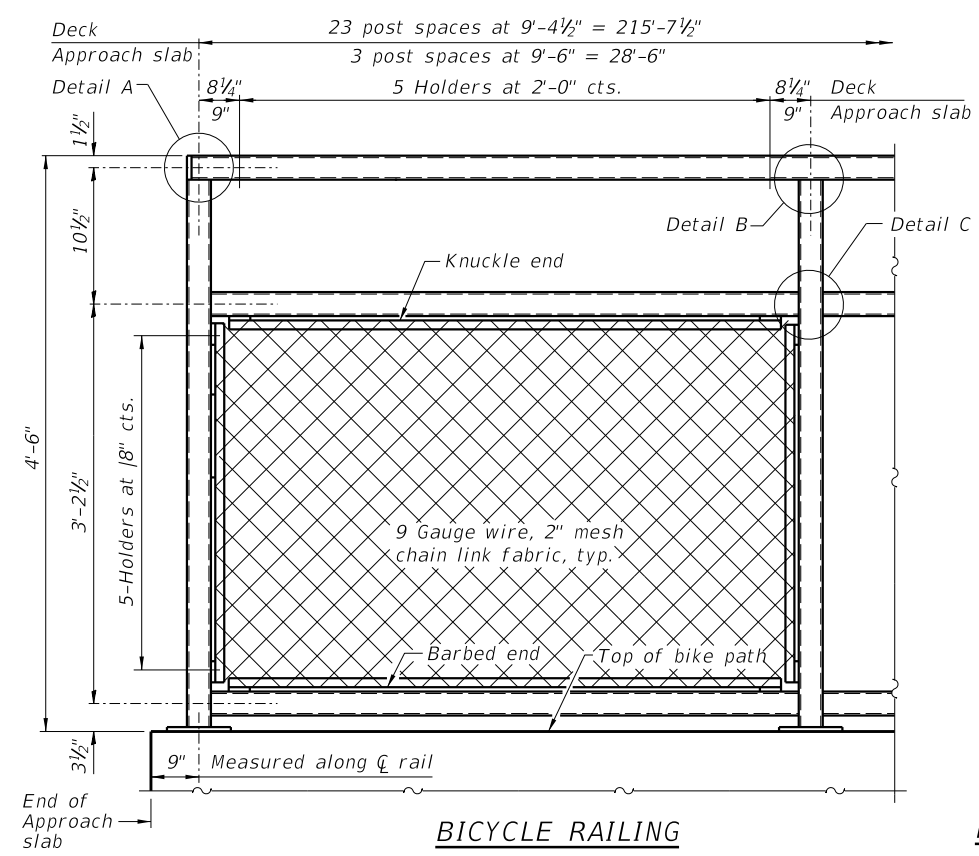
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 058-3409

SHEET NO. 19 OF 33 SHEETS

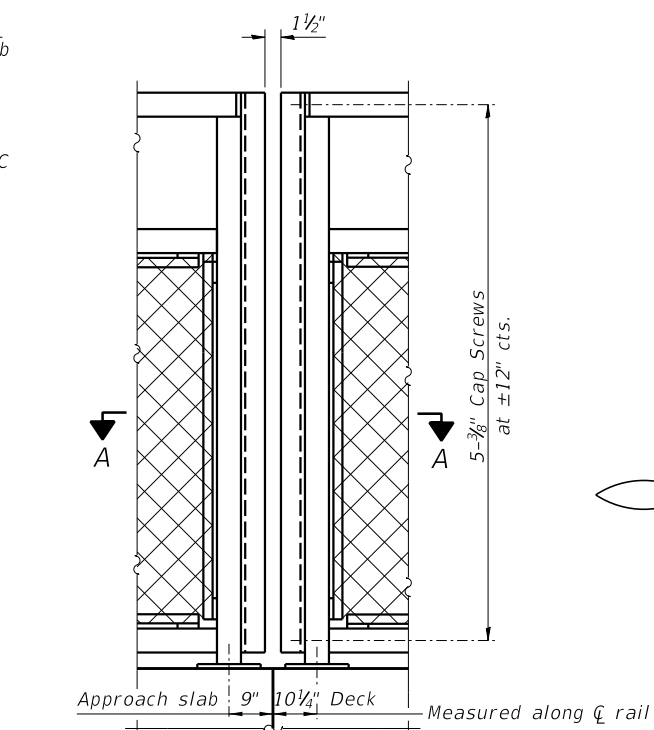
FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	83
CONTRACT NO. 95912				

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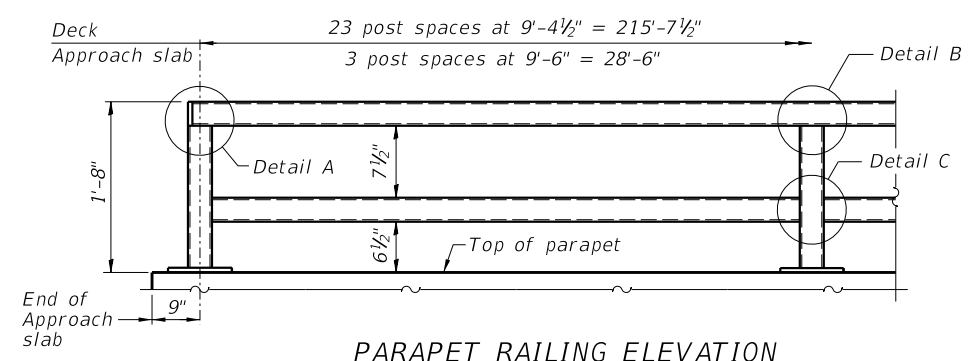
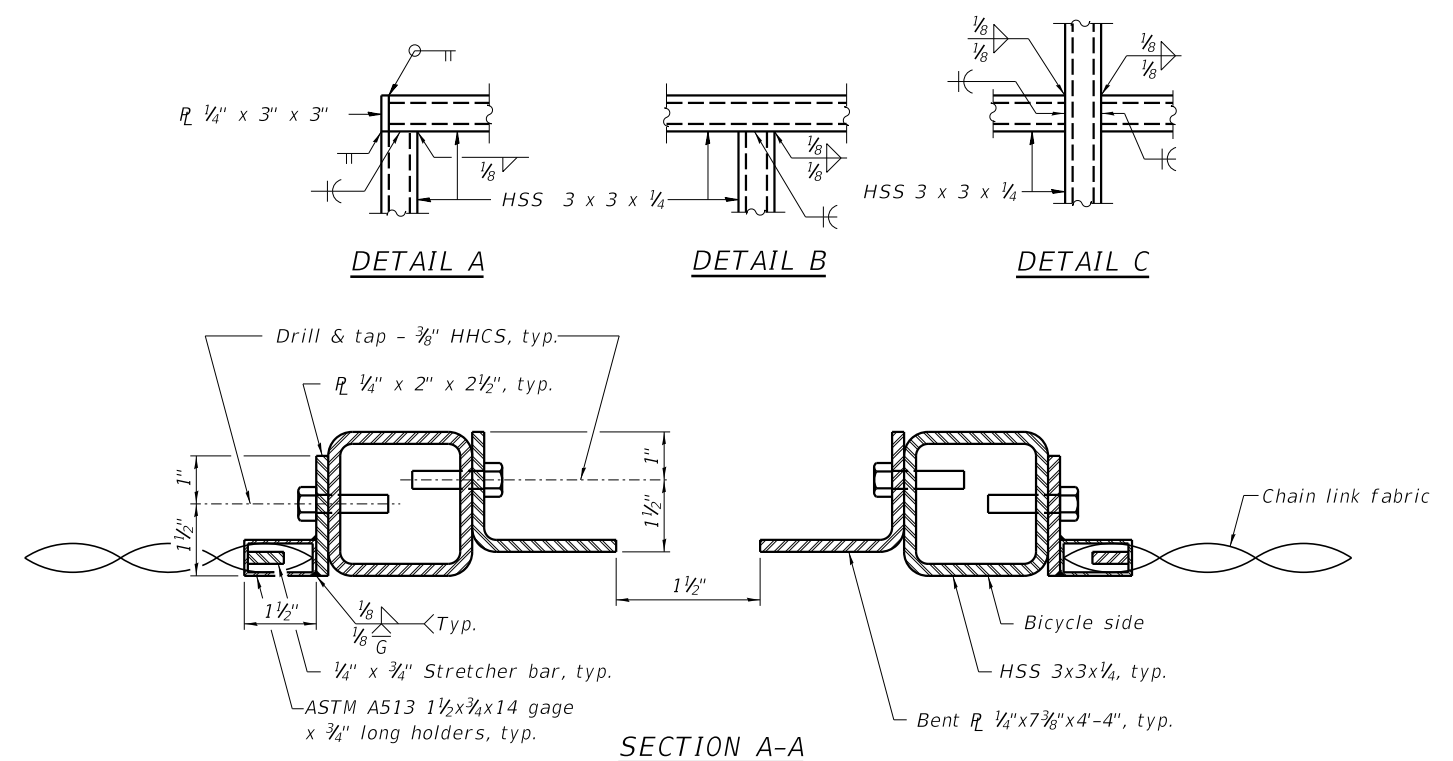
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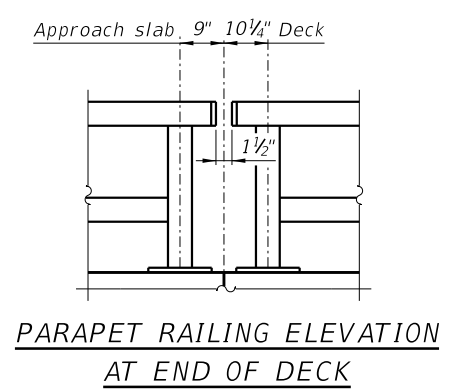
BICYCLE RAILING



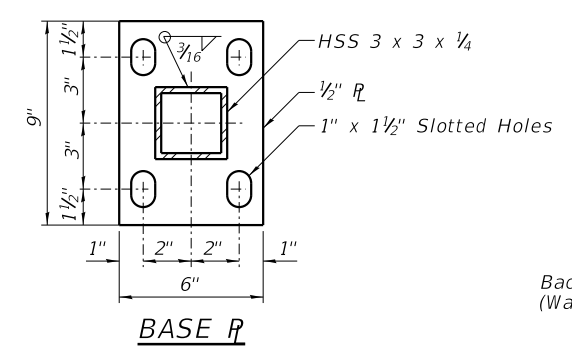
BICYCLE RAILING AT END OF DECK



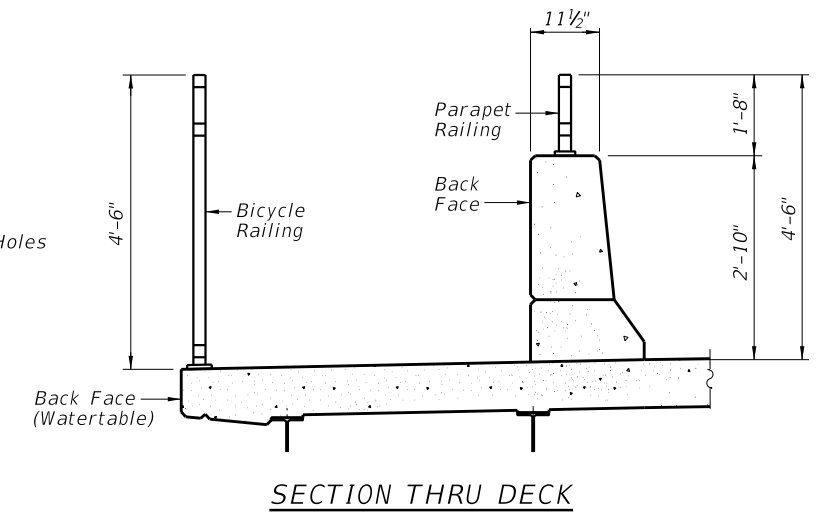
PARAPET RAILING ELEVATION



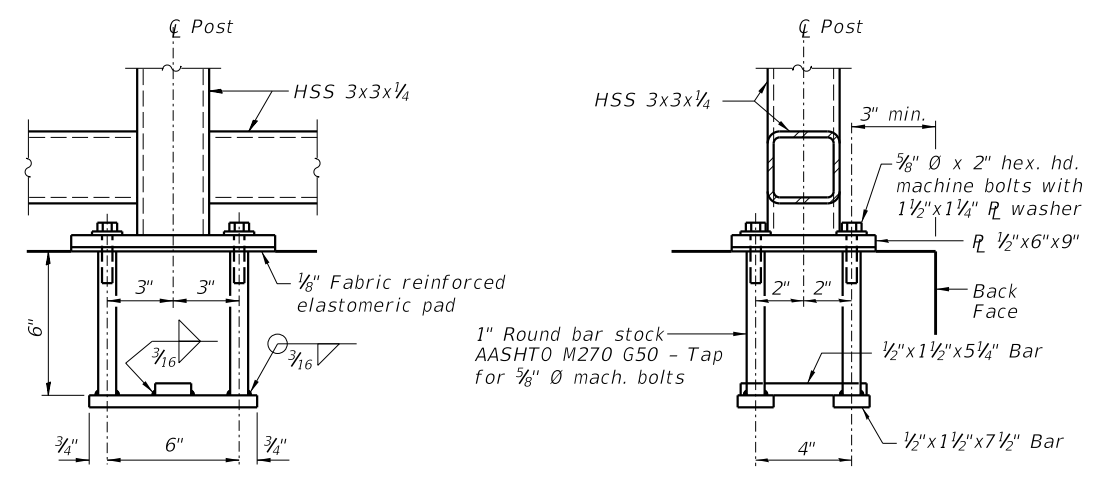
PARAPET RAILING ELEVATION AT END OF DECK



BASE PLATE

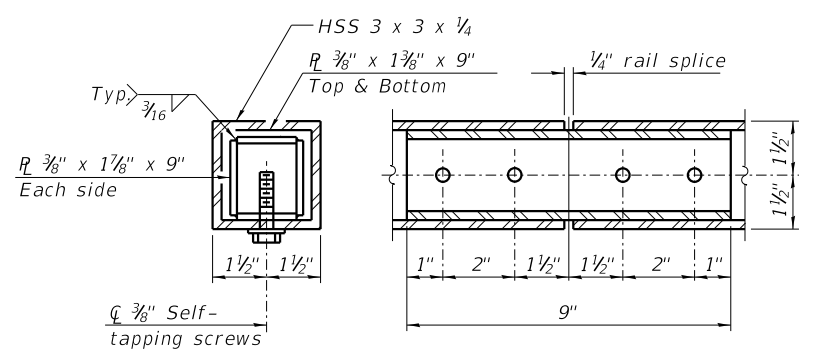


SECTION THRU DECK



ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the CONTRACTOR has the option of drilling and setting 3/8" Ø anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



RAIL SPLICE

Notes:
 All structural steel tubing, post and railing, for parapet railing shall be CVN tested according to 1006.34(b) of the Standard Specifications.
 CVN testing may be omitted for the bicycle railing.

The chain link fabric shall be black coated vinyl and conform to the requirements of Article 1006.27(a)(1)d of the Standard Specifications.

- All posts, railing, splices, anchor devices and bent plates shall be painted using one of the two following paint systems:
1. Inorganic Zinc-rich/waterborne Acrylic for shop and field applications.
 2. Organic Zinc-rich/Epoxy/Urethane for full shop application.

Finish paint color shall be N1-Black. See Article 506 "Cleaning and Painting New Steel Structures".

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	273
Parapet Railing	Foot	273

R-29 2-17-2017 (10'-0" Maximum Post Spacing)

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PLOT TIME = 11:56:04 PM	DRAWN RLK	REVISED -
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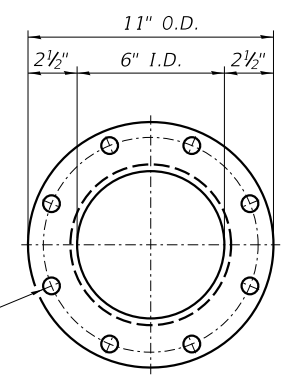
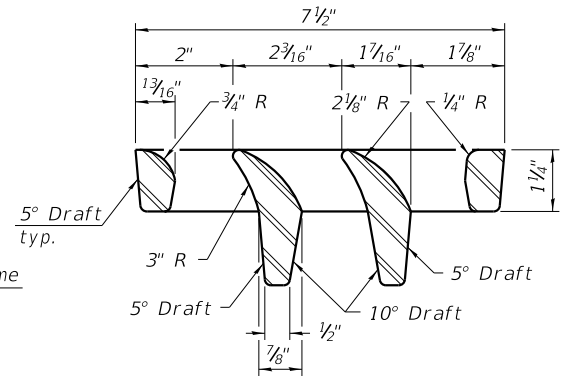
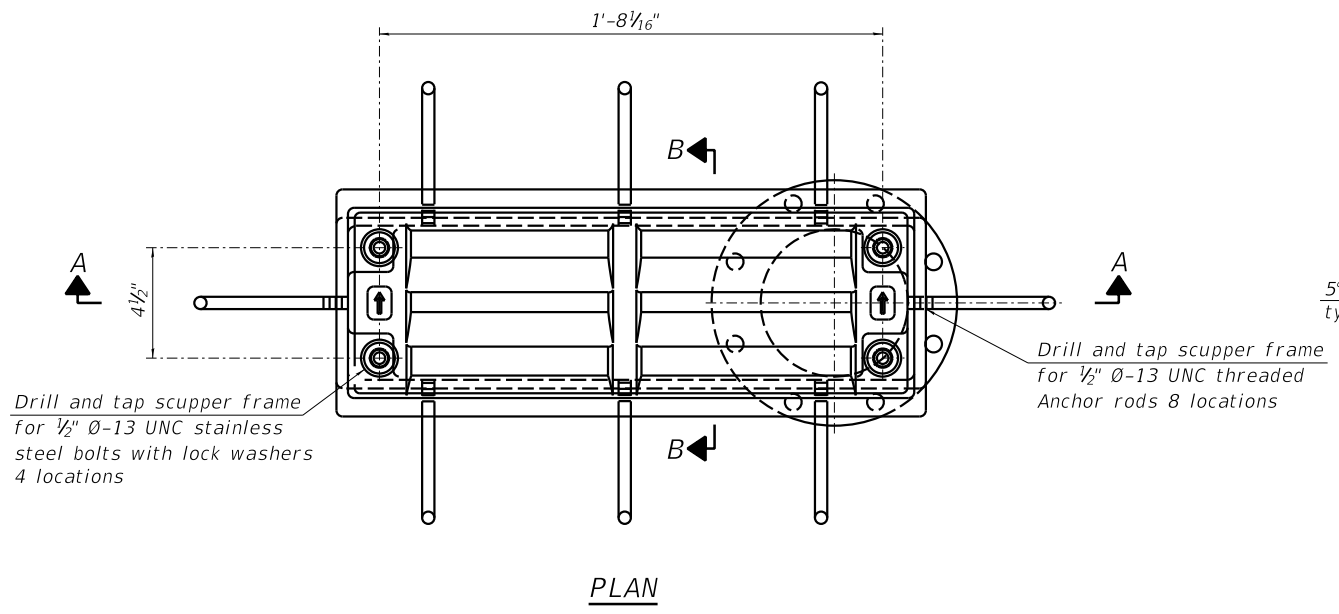
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BICYCLE RAILING
STRUCTURE NO. 058-3409
 SHEET NO. 20 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	84
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

FILE NAME = i:\Municipalities\Macon County\6487 Reos Bridge Road Bridge Replacement\CADD\Structural\EastBridge\scupper.dgn



Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M105, Class 35B and AASHTO M306.

Bolts, anchor rods, nuts and washers shall be according to ASTM A307 and shall be galvanized according to AASHTO M232. As an alternate stainless steel may be used.

Stainless steel hardware shall be according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frames and downspouts; however, the scupper grates shall remain cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.

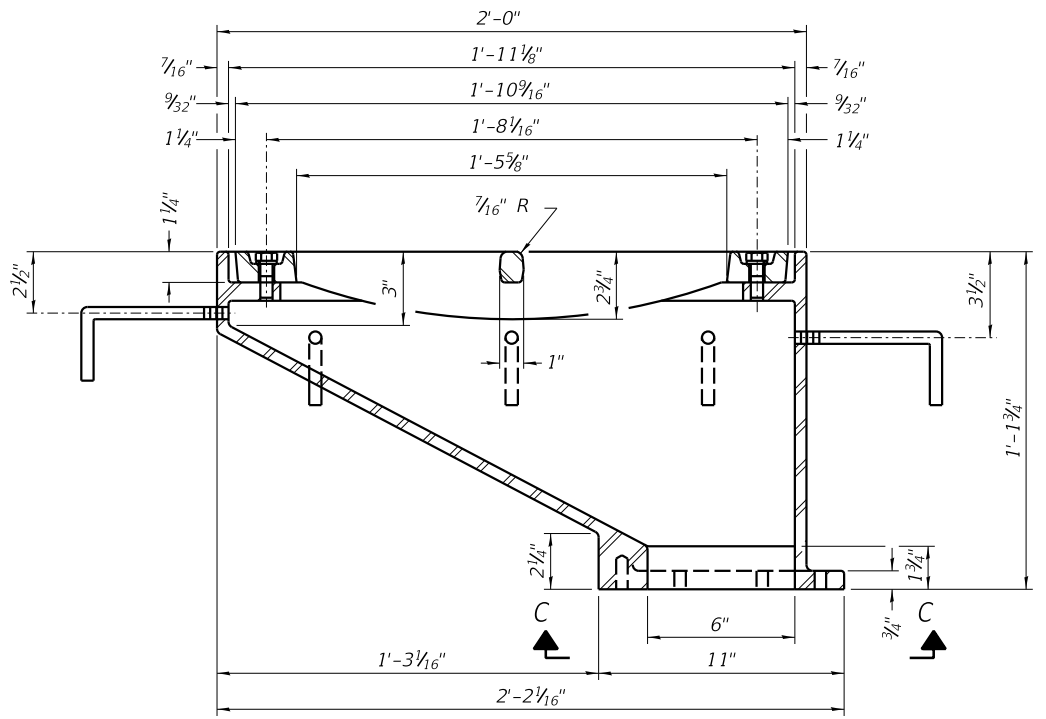
Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.

As an alternate, fiberglass may be used for downspouts according to ASTM D2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. in lieu of the cast iron or structural steel.

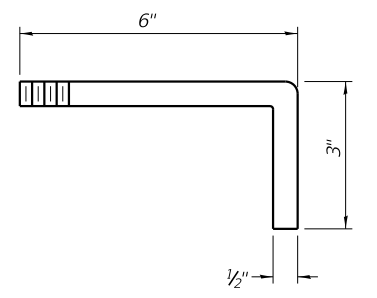
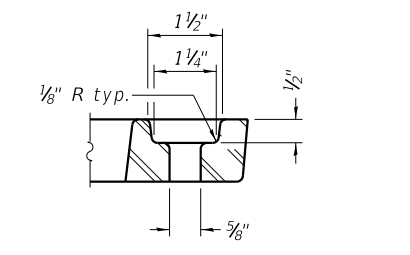
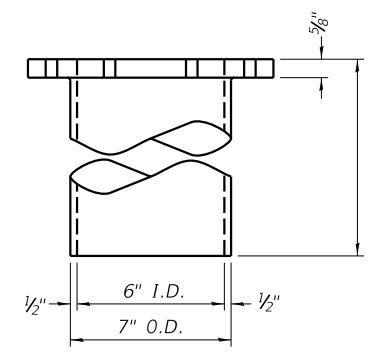
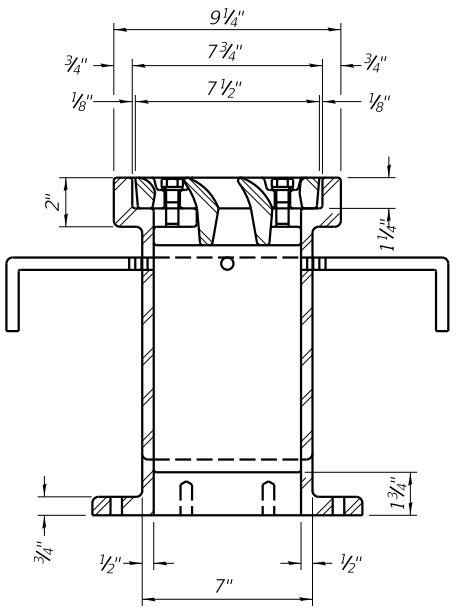
Exterior surfaces of downspouts and exterior exposed surfaces of the scupper frame below deck shall be treated as specified on sheet of .

The CONTRACTOR shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

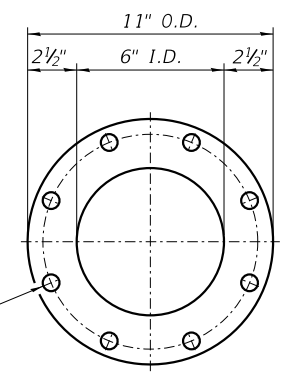
Cost of the grate, frame, downspout, anchor rods, nuts and washers including complete installation of the scupper shall be paid for at the contract unit price for Drainage Scupper, DS-12.



See sheet 13 of 33 for scupper location relative to parapet.



Drill and tap 8 holes for 3/4" Ø-13 UNC bolts on 9 1/2" Ø bolt circle. (2 blind holes are 1 1/4" deep, 6 thru holes)



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	12

DS-12

1-1-2020

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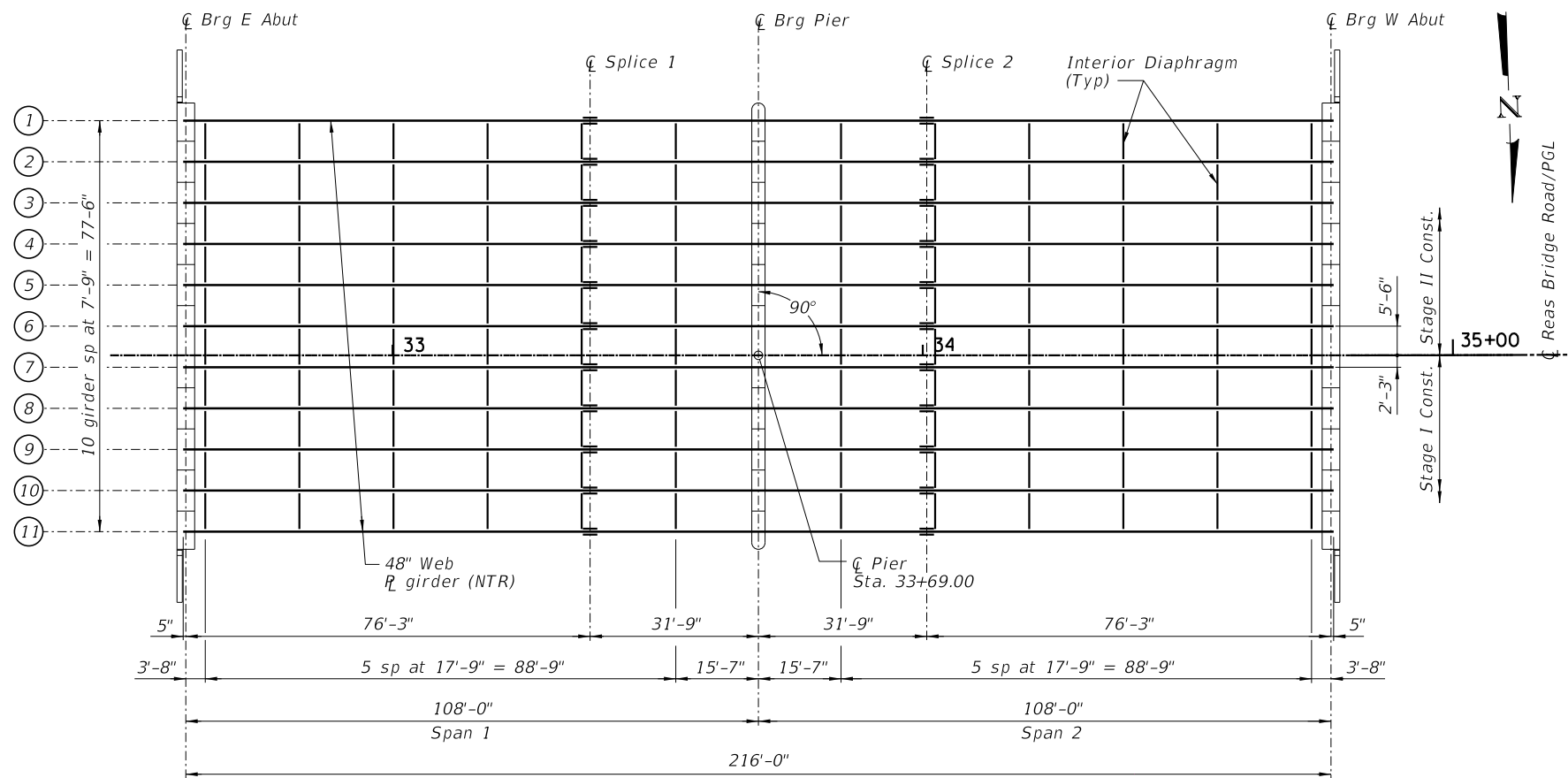
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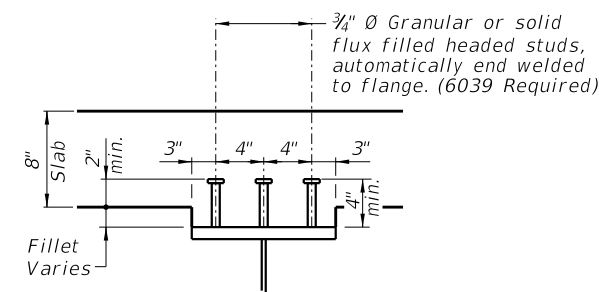
DRAINAGE SCUPPER, DS-12
STRUCTURE NO. 058-3409

SHEET NO. 21 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	85
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				



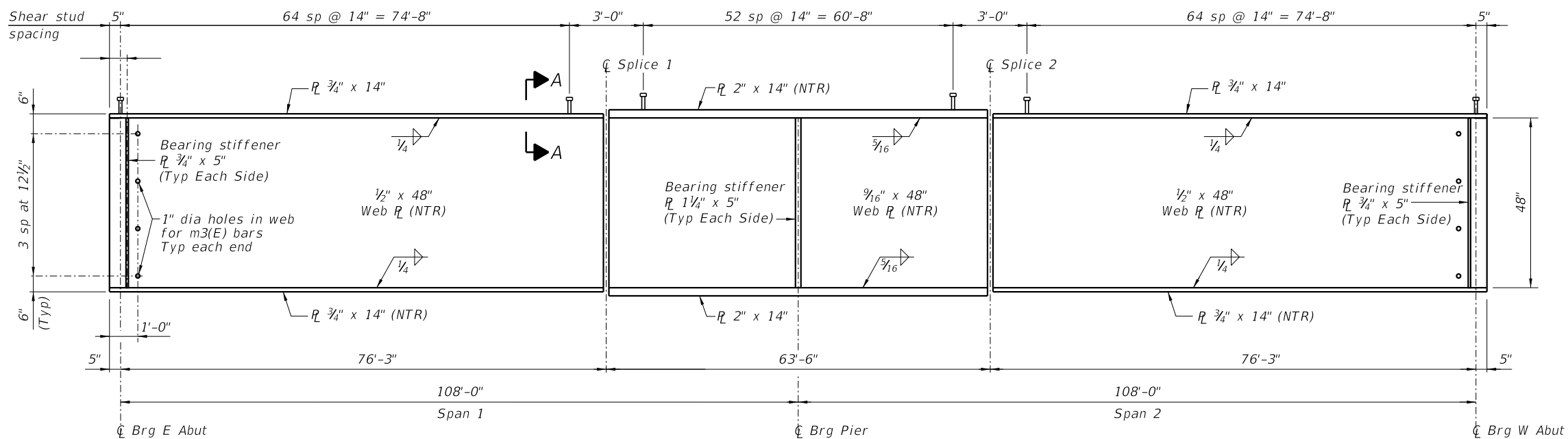
FRAMING PLAN



SECTION A-A

NOTES:

- All girders, splice plates, diaphragms and bearing stiffeners shall be AASHTO M270 Grade 50W.
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.



GIRDER ELEVATION

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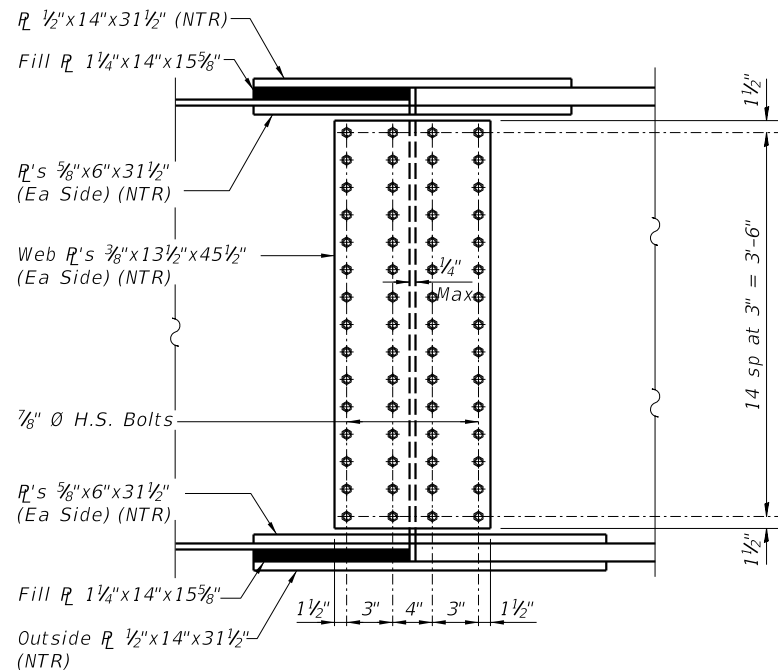
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FRAMING PLAN AND DETAILS
STRUCTURE NO. 058-3409

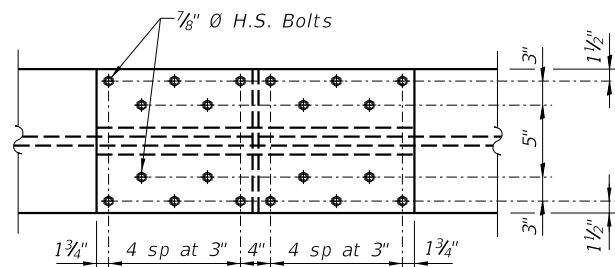
SHEET NO. 22 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	86
CONTRACT NO. 95912				

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WEB SPLICE PLATE

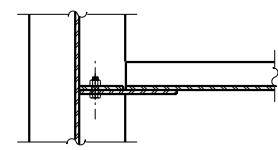


TOP & BOTTOM FLANGE SPLICE PLATE

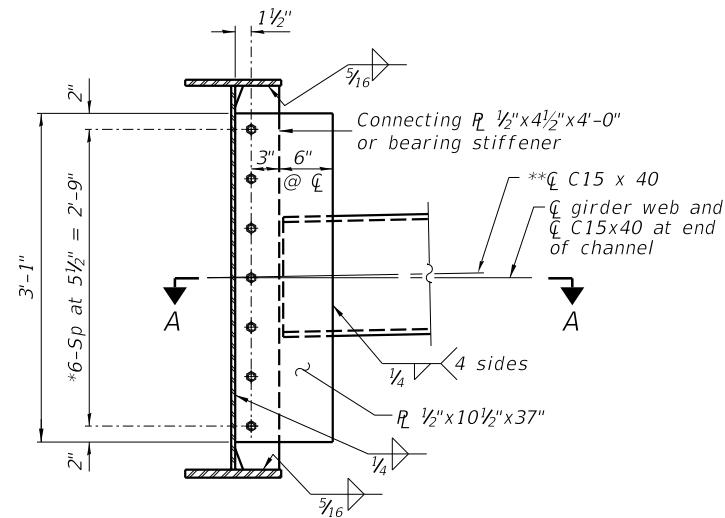
FIELD SPLICE DETAILS

NOTES

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



SECTION A-A



INTERIOR DIAPHRAGM

Note:

Two hardened washers required for each set of oversized holes.
 *3/4" Ø HS bolts, 1 1/16" Ø holes
 **Alternate channels C15x50 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.
 The alternate, if utilized, shall be provided at no additional cost to the Department.

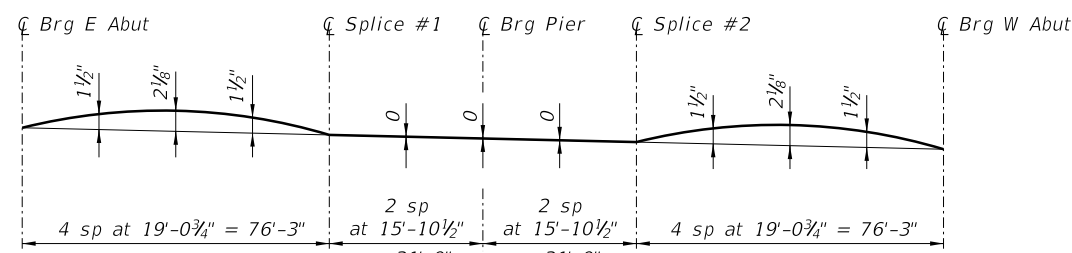


INITIAL BOLT ERECTION POSITION

FINAL ERECTION POSITION AFTER STAGE II DECK POUR

DIAPHRAGM

***3/4" Ø HS bolts on the north side of Girder 6 with 1 3/16" x 1 7/8" vertical slotted holes in both connection plates. Bolts in slotted holes shall be finger tightened until the second stage pour is completed. Position slots so bolts move from one end with no concrete load to the opposite end under the deck load. The slotted holes in the connection plates and bearing stiffeners shall be positioned as shown to allow the bolts to move to the final erection position under deck load. The holes shall be positioned to allow maximum bolt displacement without laterally stressing the girders.

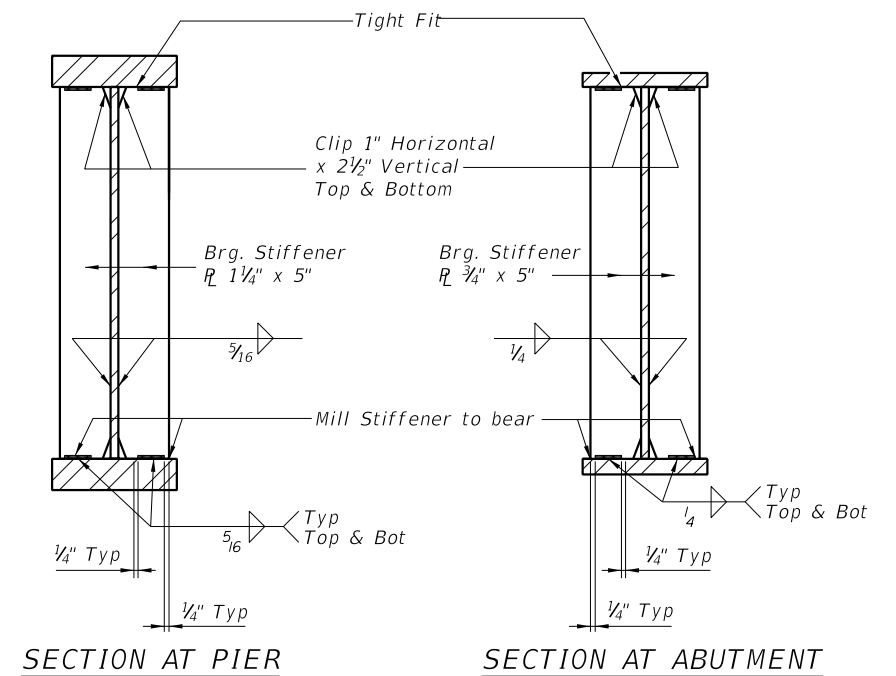


CAMBER DIAGRAM

*TOP OF WEB ELEVATIONS

Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6	Girder 7	Girder 8	Girder 9	Girder 10	Girder 11
CL Brg at E. Abut	628.01	628.12	628.27	628.43	628.60	628.76	628.82	628.66	628.50	628.34	628.18
CL Splice 1	627.52	627.63	627.78	627.94	628.10	628.27	628.33	628.17	628.01	627.85	627.69
CL Brg at Pier 1	627.36	627.47	627.62	627.78	627.94	628.11	628.17	628.01	627.85	627.69	627.53
CL Splice 2	627.20	627.31	627.46	627.62	627.79	627.95	628.01	627.85	627.69	627.53	627.37
CL Brg at W. Abut	626.93	627.04	627.19	627.35	627.52	627.68	627.74	627.58	627.42	627.26	627.10

* For fabrication only



SECTION AT PIER

SECTION AT ABUTMENT

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FRAMING DETAILS
STRUCTURE NO. 058-3409

SHEET NO. 23 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	87
CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT

FILE NAME = I:\Municipalities\Macon County\6487 Reos Bridge Road Bridge Replacement\CADD\Structural\EastBridge\momtable.dgn

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1	Pier	0.6 Sp. 2
<i>I_s</i>	(in ⁴)	17086	40203	17086
<i>I_c(n)</i>	(in ⁴)	44021	82275	44021
<i>I_c(3n)</i>	(in ⁴)	33276	61792	33276
<i>I_c(cr)</i>	(in ⁴)	-	-	-
<i>S_s</i>	(in ³)	690.3	1546.3	690.3
<i>S_c(n)</i>	(in ³)	985.7	1945.5	985.7
<i>S_c(3n)</i>	(in ³)	903.7	1796.8	903.7
<i>S_c(cr)</i>	(in ³)	-	-	-
<i>DC1</i>	(k/')	0.96	1.10	0.96
<i>MDC1</i>	('k)	656	1847	656
<i>DC2</i>	(k/')	0.26	0.26	0.26
<i>MDC2</i>	('k)	183	452	183
<i>DW</i>	(k/')	0.39	0.39	0.39
<i>MDW</i>	('k)	273	673	273
<i>LLDF</i>		0.577	0.616	0.577
<i>M_ℓ + IM</i>	('k)	1378	1897	1378
<i>M_u (Strength I)</i>	('k)	3870	7203	3870
<i>∅f M_n</i>	('k)	4903	7543	4903
<i>f_s DC1</i>	(ksi)	11.4	14.3	11.4
<i>f_s DC2</i>	(ksi)	2.4	3.0	2.4
<i>f_s DW</i>	(ksi)	3.6	4.5	3.6
<i>f_s (ℓ+IM)</i>	(ksi)	16.8	11.7	16.8
<i>f_s (Service II)</i>	(ksi)	39.3	37.1	39.3
<i>0.95Rh Fyf</i>	(ksi)	47.5	47.5	47.5
<i>f_s (Total)(Strength I)</i>	(ksi)	-	-	-
<i>∅f F_n</i>	(ksi)	-	-	-
<i>Vf</i>	(k)	29.7	30.2	29.7

INTERIOR GIRDER REACTION TABLE HL93 Loading				
	Abutments		Pier	
	Interior	Exterior	Interior	Exterior
<i>LLDF</i>	0.797	0.618	0.797	0.618
<i>OCF</i>	-	1.000	-	-
<i>RDC1</i> (k)	37.0	36.6	147.0	145.3
<i>RDC2</i> (k)	9.9	5.7	36.5	21.0
<i>RDW</i> (k)	14.7	10.7	54.3	39.4
<i>R_ℓ + IM</i> (k)	91.2	79.7	179.5	157.0
<i>RTotal</i> (k)	152.7	132.7	417.3	362.8

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing *f_s*(Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).

I_c(n), S_c(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing *f_s*(Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.⁴ and in.³).

I_c(3n), S_c(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing *f_s*(Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

I_c(cr), S_c(cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing *f_s* (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and in.³).

DC1: Un-factored non-composite dead load (kips/ft.).
MDC1: 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.).
LLDF: Live Load distribution factor
MDC2: 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.).
MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
M_ℓ + IM: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
M_u (Strength I): Factored design moment (kip-ft.).
 $1.25 (MDC1 + MDC2) + 1.5 MDW + 1.75 M_{ℓ} + IM$
∅f M_n: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
MDC1 / S_c
f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
MDC2 / S_c(3n) or MDC2 / S_c(cr) as applicable.
f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
MDW / S_c(3n) or MDW / S_c(cr) as applicable.
f_s (ℓ+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
 $M_{ℓ} + IM / S_c(n) or MDW / S_c(cr) as applicable.$
f_s (Service II): Sum of stresses as computed below (ksi).
 $f_sDC1 + f_sDC2 + f_sDW + 1.3 f_s(ℓ + IM)$
0.95RhFyf: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
 $1.25 (f_sDC1 + f_sDC2) + 1.5 f_sDW + 1.75 f_s(ℓ + IM)$
∅f F_n: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
Vf: Maximum factored shear range in span computed according to Article 6.10.10.
OCF: Obtuse correction factor

Note:
M_ℓ and *R_ℓ* include the effects of centrifugal force and superelevation.

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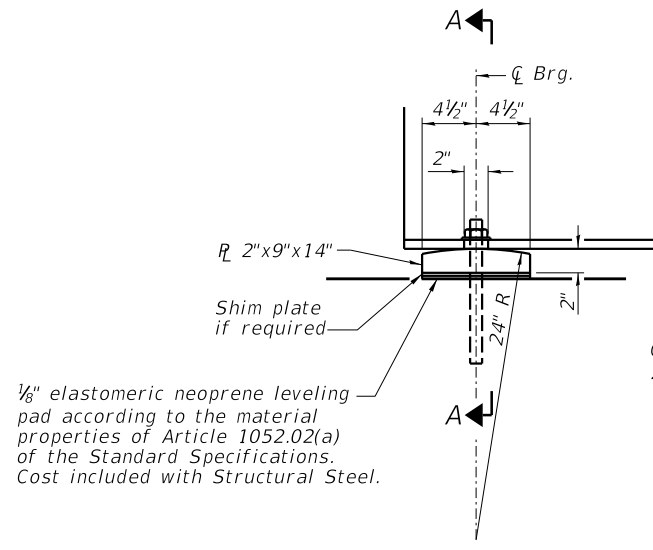
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MOMENT TABLES
STRUCTURE NO. 058-3409

SHEET NO. 24 OF 33 SHEETS

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	88
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

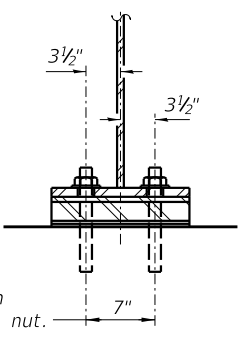
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ELEVATION AT ABUTMENT

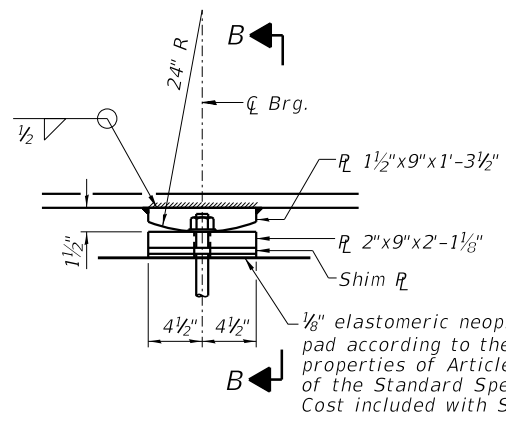
1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.

1" \varnothing x 12" anchor bolts with 2 1/4" x 2 1/4" x 3/16" R washer under nut. 1 3/8" x 2" slotted hole in flange. 1 1/2" \varnothing holes in bearing plate.



SECTION A-A

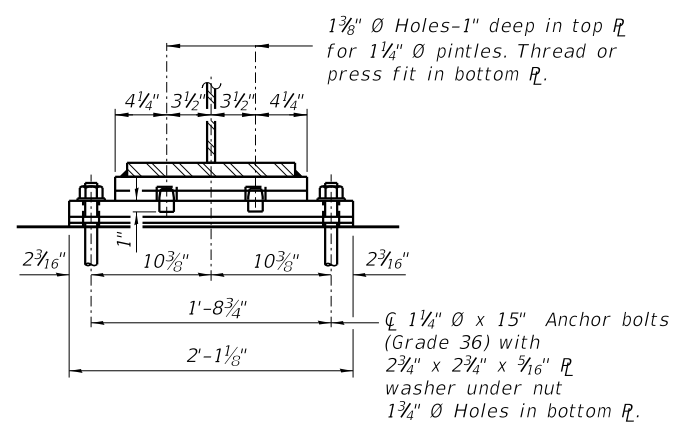
FIXED BEARING



ELEVATION AT PIER

1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.

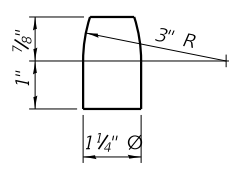
FIXED BEARING



SECTION B-B

1 3/8" \varnothing Holes-1" deep in top R for 1 1/4" \varnothing pintles. Thread or press fit in bottom R.

1 1/4" \varnothing x 15" Anchor bolts (Grade 36) with 2 3/4" x 2 3/4" x 3/16" R washer under nut. 1 3/4" \varnothing Holes in bottom R.



PINTLE

Notes:
 Anchor bolts shall be ASTM F1554 all-thread (or an ENGINEER-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554 (Grade 36).
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.
 Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shapes and placed as shown in bearing details.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	44
Anchor Bolts, 1 1/4"	Each	22

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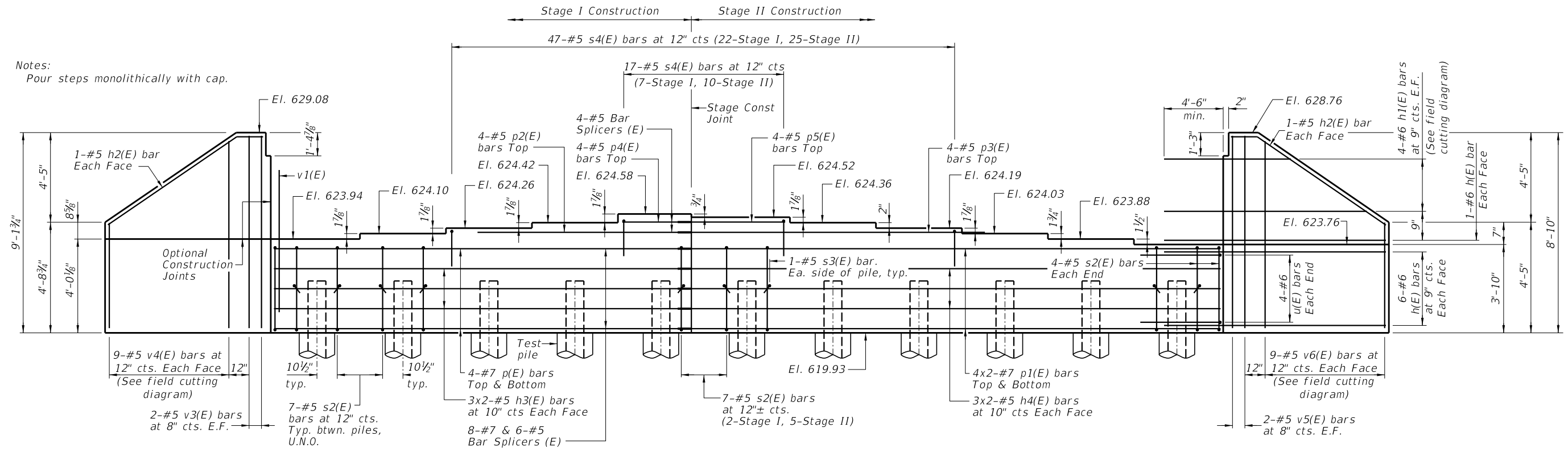
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BEARING DETAILS
STRUCTURE NO. 058-3409

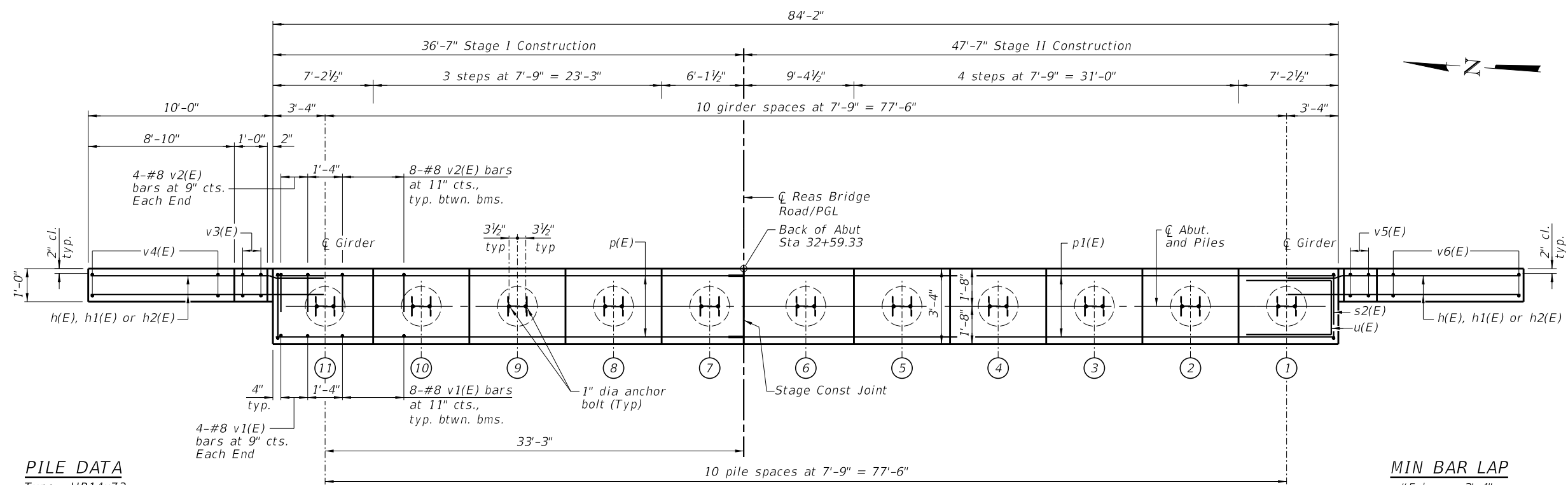
SHEET NO. 25 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	89
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

Notes:
Pour steps monolithically with cap.



ELEVATION - EAST ABUTMENT
(Looking East)



PLAN - EAST ABUTMENT

PILE DATA
Type: HP14x73
Nominal Required Bearing: 431 k
Factored Resistance Available: 182 k
Est. Length: 72'
No. Production Piles: 10
No. Test Piles: 1

MIN BAR LAP
#5 bar = 3'-4"
#7 bar = 4'-8"

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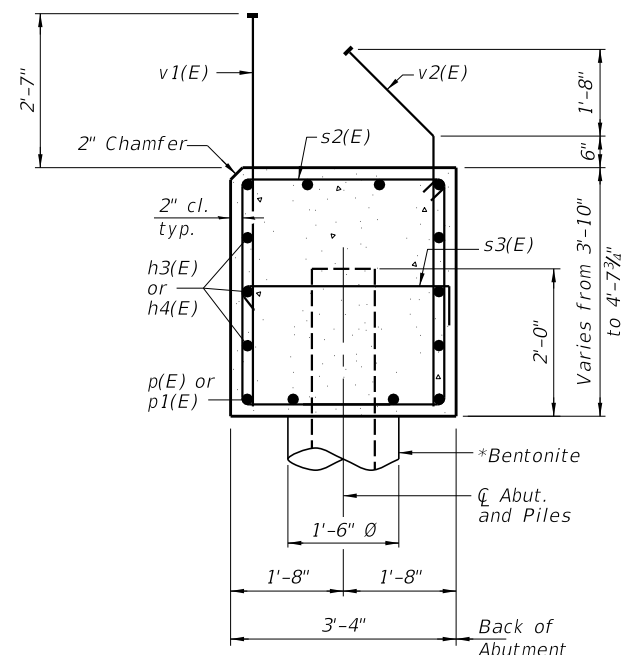
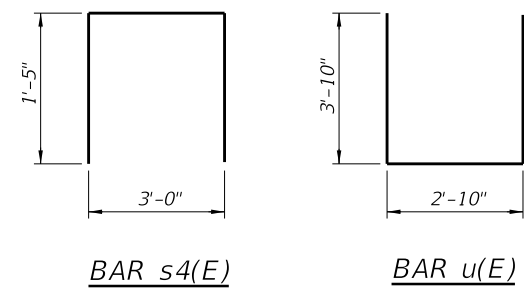
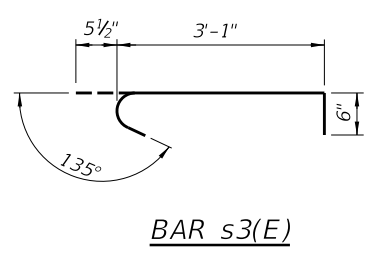
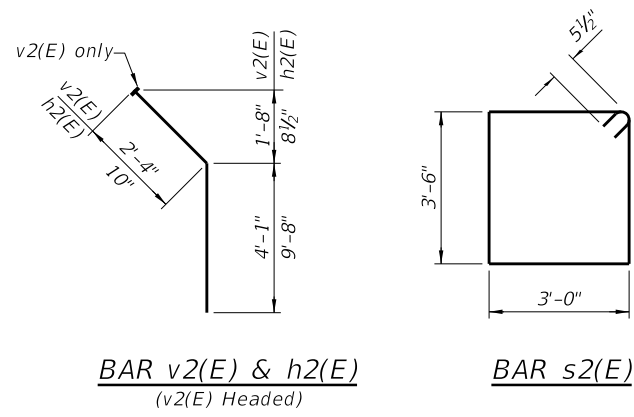
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EAST ABUTMENT
STRUCTURE NO. 058-3409
SHEET NO. 26 OF 33 SHEETS

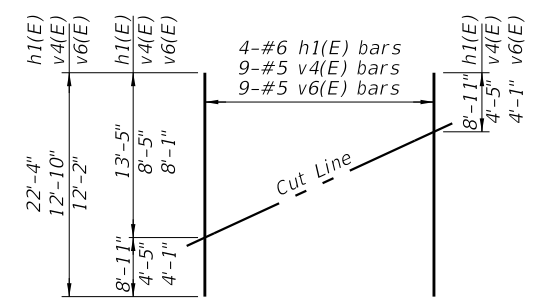
FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	90
CONTRACT NO. 95912				
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SECTION THRU ABUTMENT

*Piles shall be driven into 1'-6" diameter precored holes extending to Elev. 614.00 according to Article 512.09(c) of the Standard Specifications. Holes to be backfilled with Bentonite. Cost included with Driving Piles.



FIELD CUTTING DIAGRAM
Order h1(E), v4(E) and v6(E) full length. Cut as shown and use remainder of bars in opposite face.

BILL OF MATERIAL EAST ABUTMENT

Bar	No.	Size	Length	Shape
h(E)	28	#6	14'-4"	—
h1(E)	8	#6	22'-4"	—
h2(E)	4	#5	10'-6"	—
h3(E)	12	#5	19'-10"	—
h4(E)	12	#5	25'-4"	—
p(E)	8	#7	36'-2"	—
p1(E)	16	#7	26'-0"	—
p2(E)	4	#5	21'-4"	—
p3(E)	4	#5	24'-7"	—
p4(E)	4	#5	5'-10"	—
p5(E)	4	#5	9'-1"	—
s2(E)	78	#5	13'-11"	—
s3(E)	22	#5	4'-1"	—
s4(E)	64	#5	5'-10"	—
u(E)	8	#6	10'-6"	—
v1(E)	88	#8	6'-2"	—
v2(E)	88	#8	6'-5"	—
v3(E)	4	#5	8'-9"	—
v4(E)	9	#5	12'-10"	—
v5(E)	4	#5	8'-5"	—
v6(E)	9	#5	12'-2"	—
Structure Excavation	Cu. Yd.		67	
Concrete Structures	Cu. Yd.		49.4	
Reinforcement Bars, Epoxy Coated	Pound		8,180	
Furnishing Steel Piles HP14x73	Foot		720	
Driving Piles	Foot		720	
Test Pile Steel HP14x73	Each		1	

BILL OF MATERIAL WEST ABUTMENT

Bar	No.	Size	Length	Shape
h(E)	28	#6	14'-4"	—
h1(E)	8	#6	22'-4"	—
h2(E)	4	#5	10'-6"	—
h3(E)	12	#5	19'-10"	—
h4(E)	12	#5	25'-4"	—
p(E)	8	#7	36'-2"	—
p1(E)	16	#7	26'-0"	—
p2(E)	4	#5	21'-4"	—
p3(E)	4	#5	24'-7"	—
p4(E)	4	#5	5'-10"	—
p5(E)	4	#5	9'-1"	—
s2(E)	78	#5	13'-11"	—
s3(E)	22	#5	4'-1"	—
s4(E)	64	#5	5'-10"	—
u(E)	8	#6	10'-6"	—
v1(E)	88	#8	6'-2"	—
v2(E)	88	#8	6'-5"	—
v3(E)	4	#5	8'-9"	—
v4(E)	9	#5	12'-10"	—
v5(E)	4	#5	8'-5"	—
v6(E)	9	#5	12'-2"	—
Structure Excavation	Cu. Yd.		86	
Concrete Structures	Cu. Yd.		49.4	
Reinforcement Bars, Epoxy Coated	Pound		8,180	
Furnishing Steel Piles HP14x73	Foot		600	
Driving Piles	Foot		600	
Test Pile Steel HP14x73	Each		1	

NOTES

For details of piles see sheet 31 of 33.
For details of bar splicers see sheet 32 of 33.
Bars indicated thus 4x2-#7 etc. indicates 4 lines of bars with 2 lengths per line.

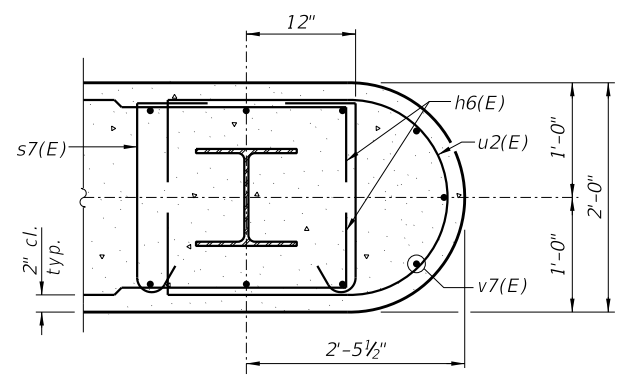
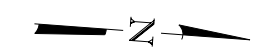
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ABUTMENT DETAILS
STRUCTURE NO. 058-3409
SHEET NO. 28 OF 33 SHEETS

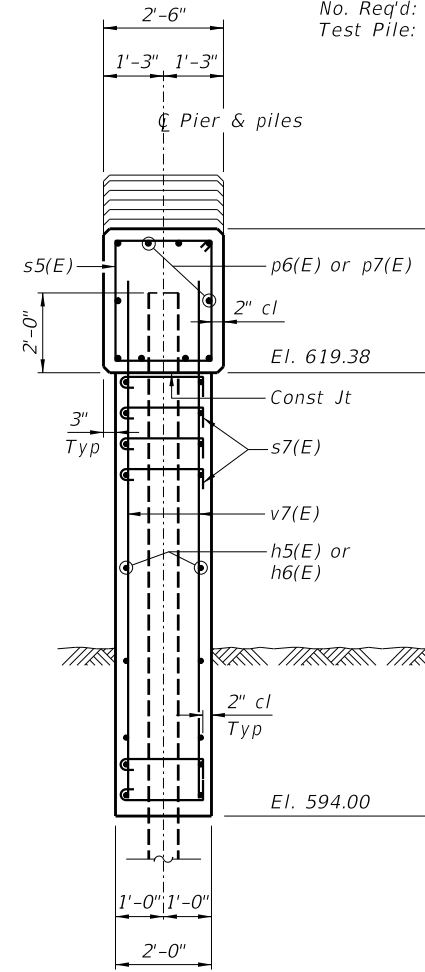
FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	92
CONTRACT NO. 95912				
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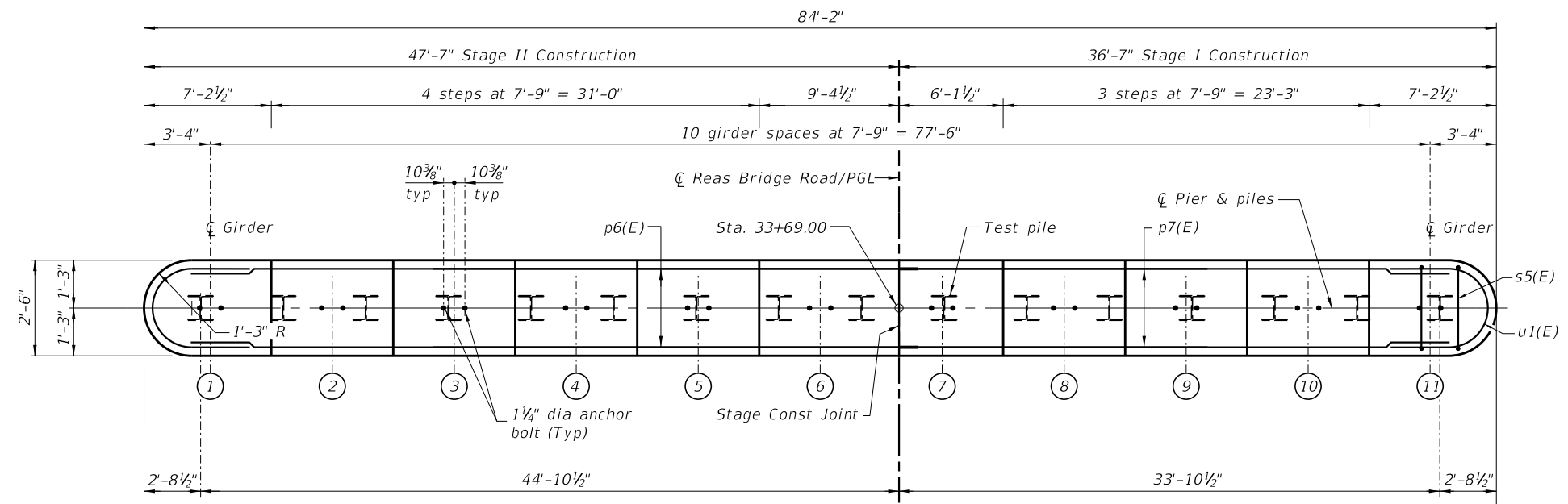
SECTION C-C

PILE DATA

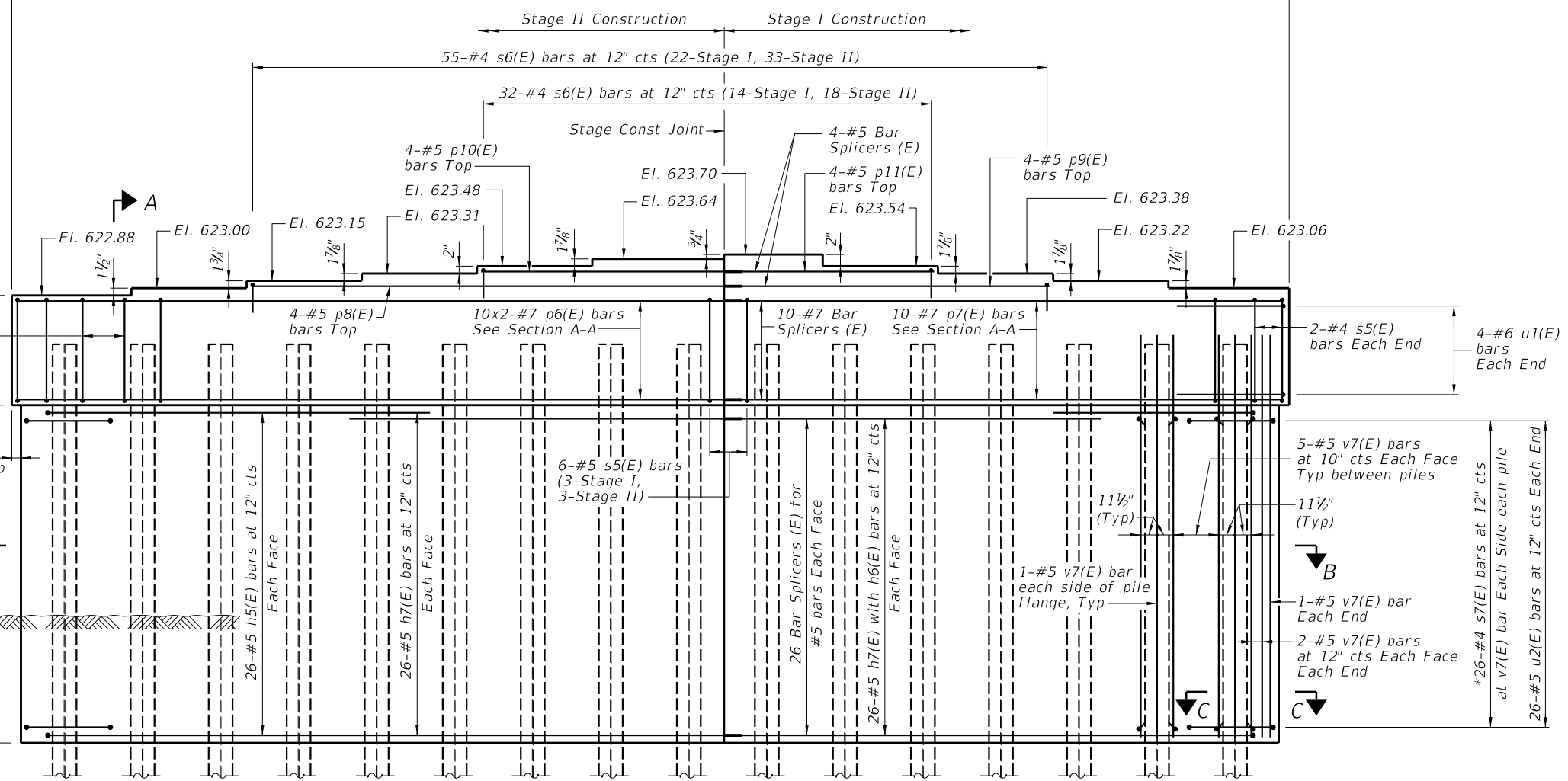
Type: Steel HP14x73
 Nominal Required Bearing: 517 kips
 Factored Resistance Available: 284 kips
 Est. Length: 86'
 No. Req'd: 15
 Test Pile: 1



SECTION A-A



PLAN



ELEVATION
(Looking West)

*Hook s7(E) bars around h5(E), h6(E) and v7(E) bars.
 Clear cover for the s7(E) bars will be 1 3/8".

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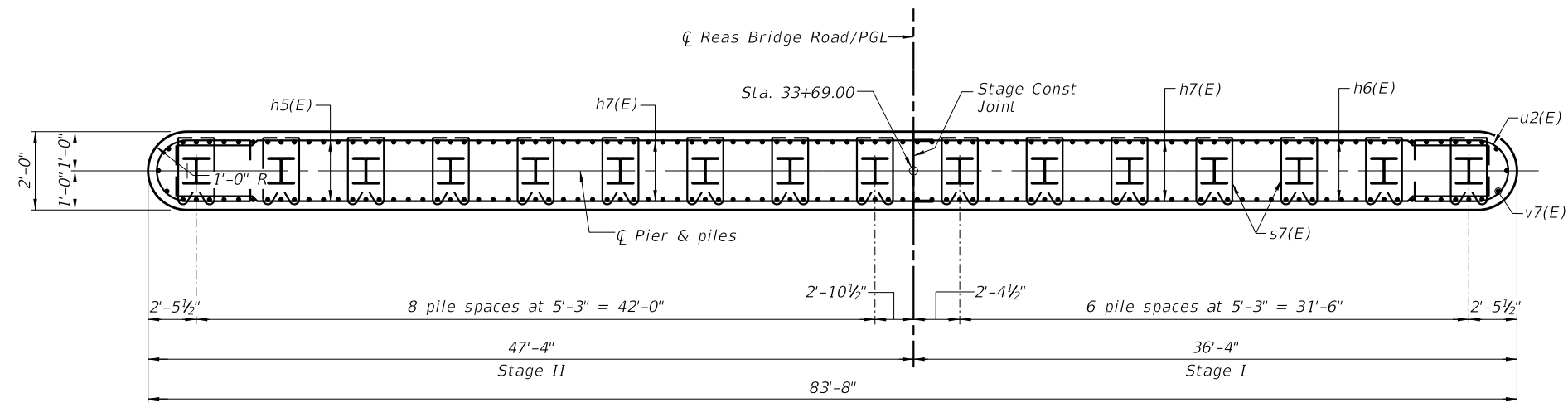
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PIER
STRUCTURE NO. 058-3409

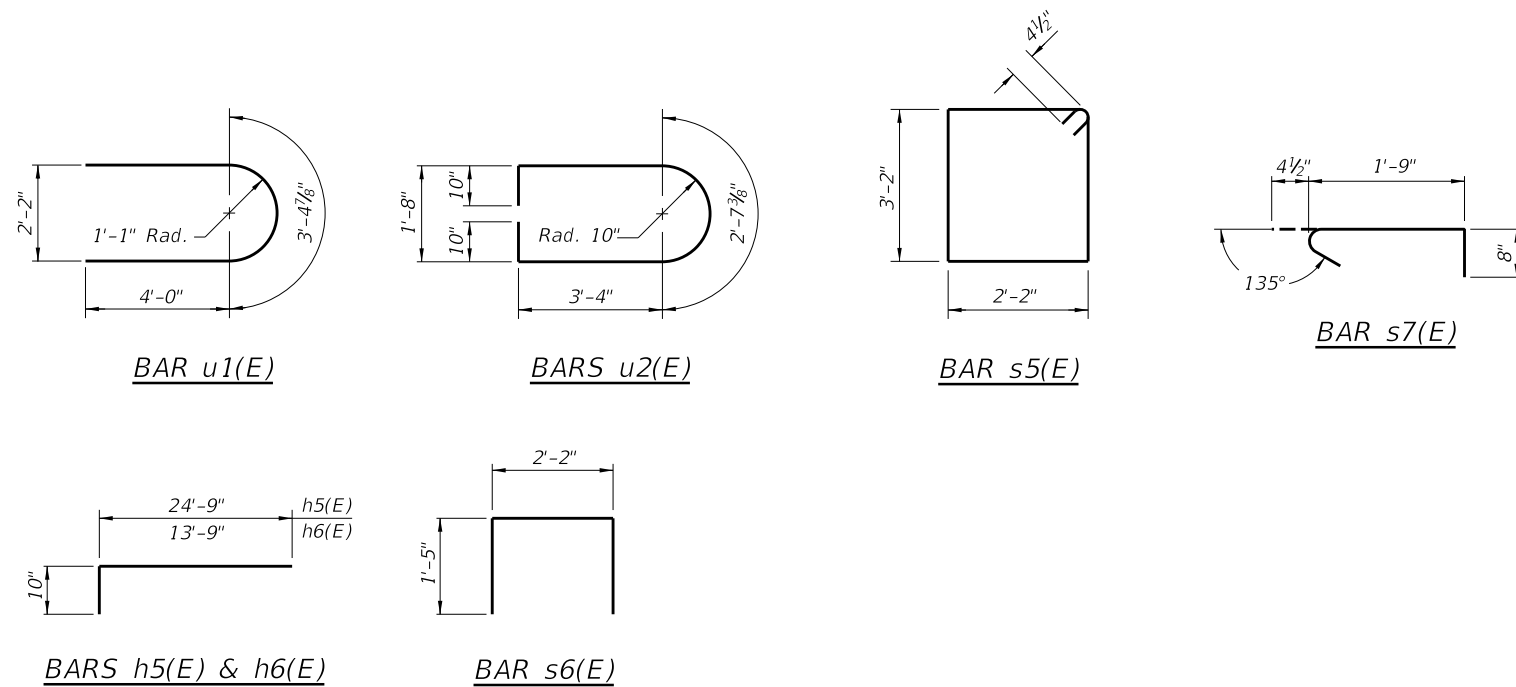
SHEET NO. 29 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	93
CONTRACT NO. 95912				
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SECTION B-B



MIN BAR LAP

#5 bar = 3'-4"
#7 bar = 4'-8"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h5(E)	52	#5	25'-7"	┌───┐
h6(E)	52	#5	14'-7"	┌───┐
h7(E)	104	#5	24'-9"	┌───┐
p6(E)	20	#7	25'-5"	───
p7(E)	10	#7	35'-2"	───
p8(E)	4	#5	32'-4"	───
p9(E)	4	#5	21'-4"	───
p10(E)	4	#5	16'-10"	───
p11(E)	4	#5	13'-7"	───
s5(E)	79	#4	11'-5"	□
s6(E)	87	#4	5'-0"	┌───┐
s7(E)	832	#4	2'-10"	┌───┐
u1(E)	8	#6	11'-5"	U
u2(E)	52	#5	11'-0"	U
v7(E)	192	#5	27'-9"	───
Cofferdam Excavation		Cu. Yd.	473	
Cofferdam (Type 2) (Location 1)		Each	1	
Concrete Structures		Cu. Yd.	186.8	
Reinforcement Bars, Epoxy Coated		Pound	15,730	
Furnishing Steel Piles HP14x73		Foot	1,290	
Driving Piles		Foot	1,290	
Test Pile Steel HP14x73		Each	1	

Notes:

- Pour steps monolithically with cap.
- For details of piles, see sheet 31 of 33.
- For details of Bar Splicers, see sheet 32 of 33.
- All edges shall have standard 3/4" chamfer.
- Space reinforcement in cap to miss anchor bolts.
- Bars indicated thus 4x2-#7 etc. indicates 4 lines of bars with 2 lengths per line.

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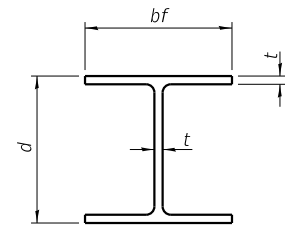
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PIER DETAILS
STRUCTURE NO. 058-3409

SHEET NO. 30 OF 33 SHEETS

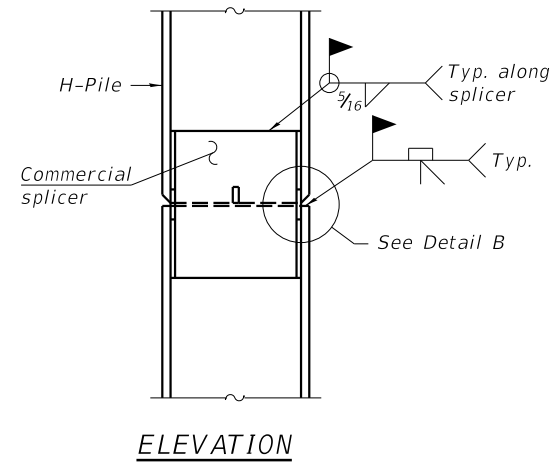
FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	94
CONTRACT NO. 95912				

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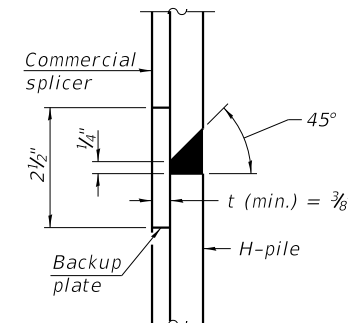


STEEL PILE TABLE

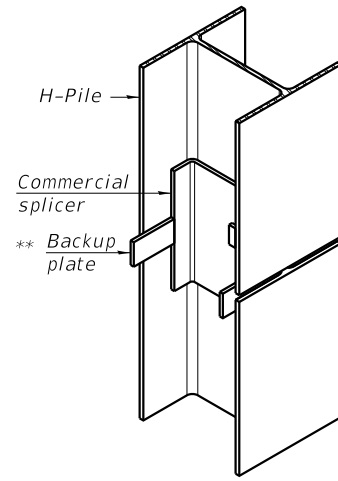
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 3/8"	14 3/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

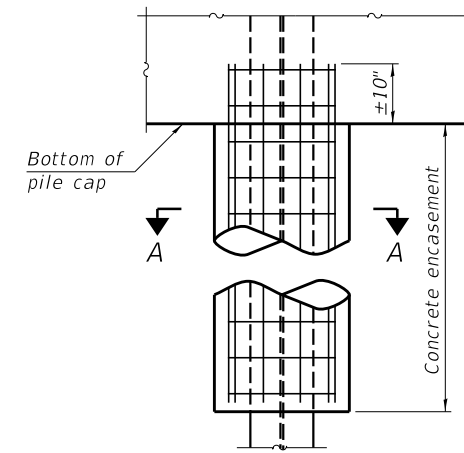


DETAIL "B"

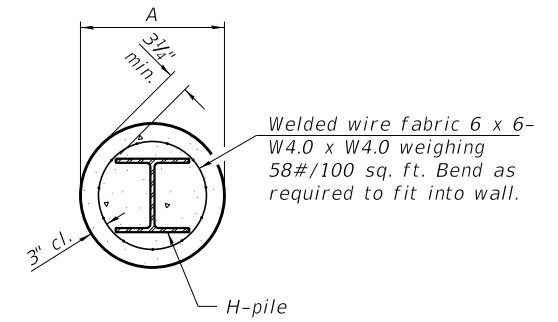


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE

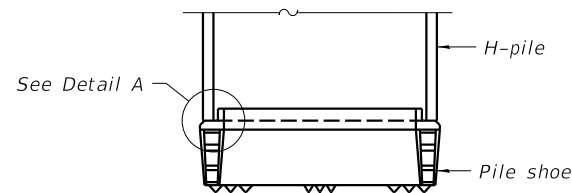


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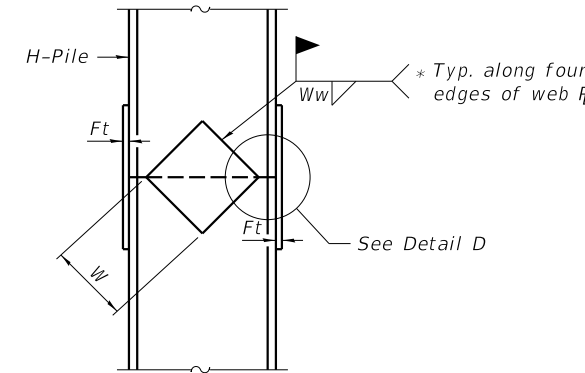


SECTION A-A

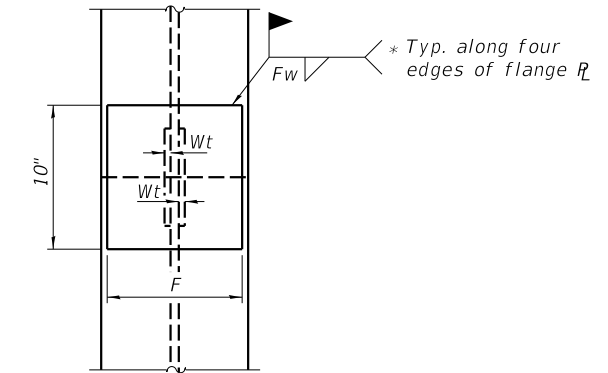
INDIVIDUAL PILE CONCRETE ENCASUREMENT (when specified)



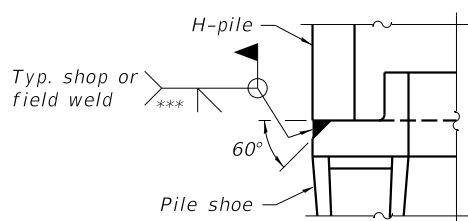
ELEVATION



ELEVATION

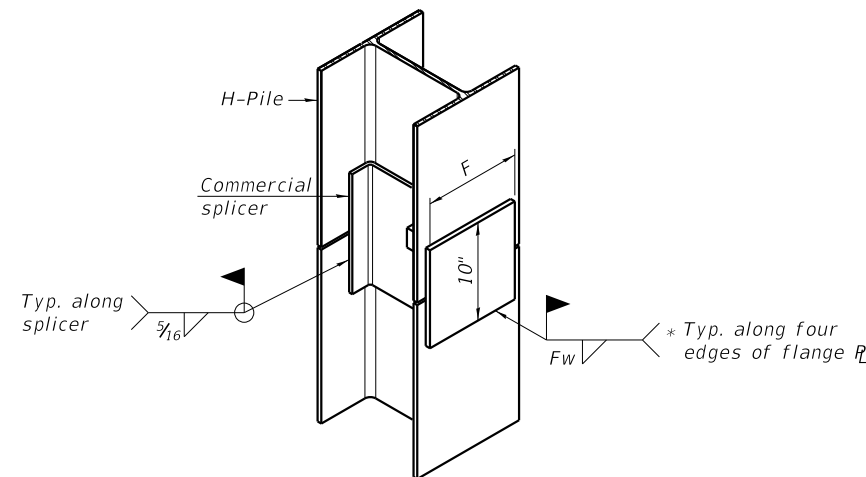


END VIEW



DETAIL A

SHOE ATTACHMENT



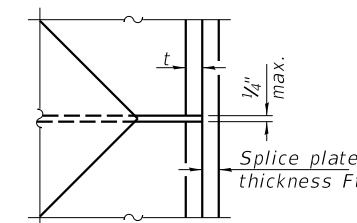
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

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F-HP 1-1-2020

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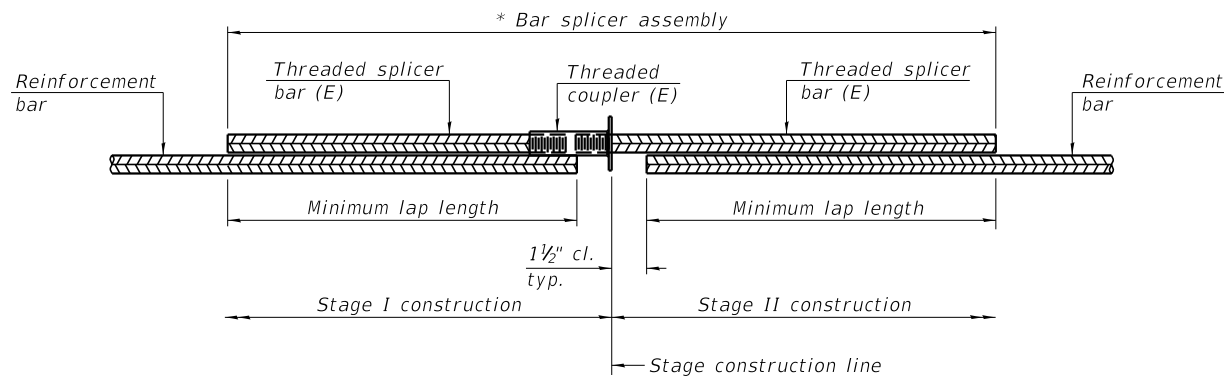
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HP PILE DETAILS
STRUCTURE NO. 058-3409

SHEET NO. 31 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	95
CONTRACT NO. 95912			ILLINOIS FED. AID PROJECT	

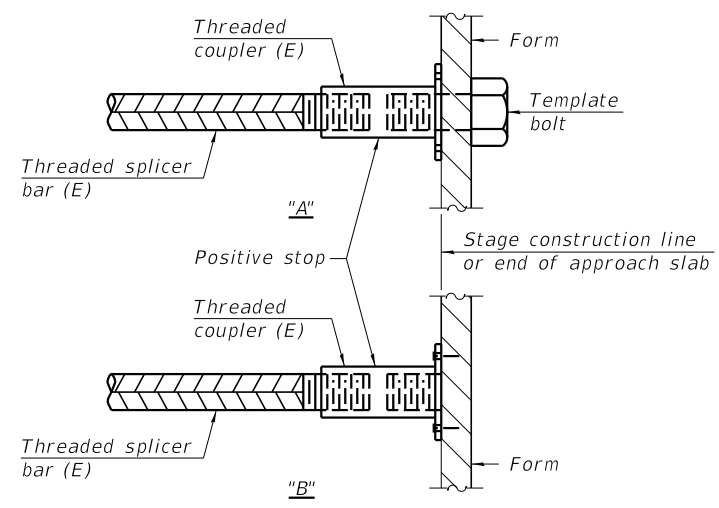


STANDARD BAR SPLICER ASSEMBLY PLAN
 (All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

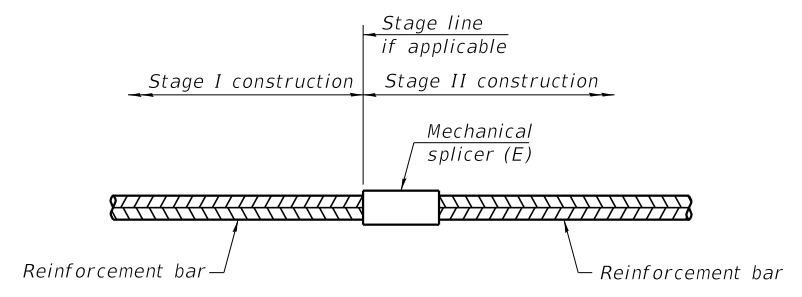
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	966	3'-6"
Approach slab	#5	172	3'-0"
Approach slab	#8	120	4'-9"
E. abutment	#5	14	3'-6"
E. abutment	#7	8	4'-8"
W. abutment	#5	14	3'-6"
W. abutment	#7	8	4'-8"
Pier	#5	60	3'-6"
Pier	#7	10	4'-8"
E. diaphragm	#6	8	5'-4"
W. diaphragm	#6	8	5'-4"



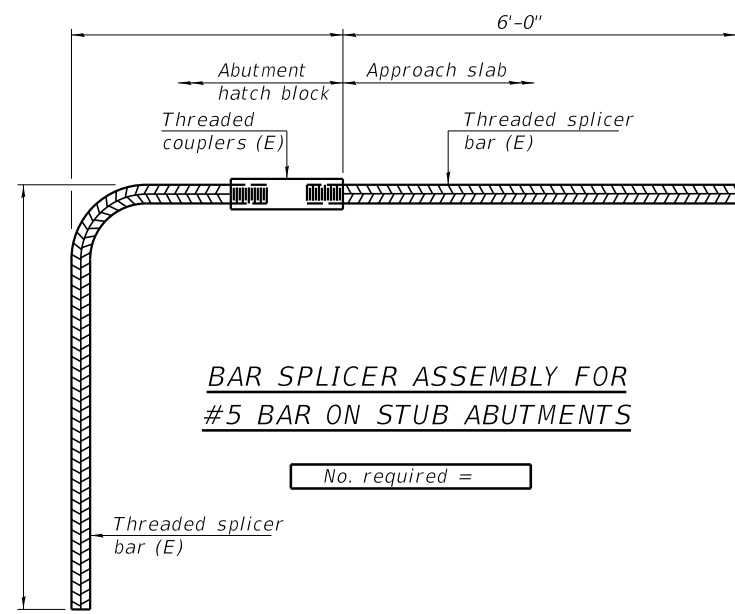
INSTALLATION AND SETTING METHODS

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



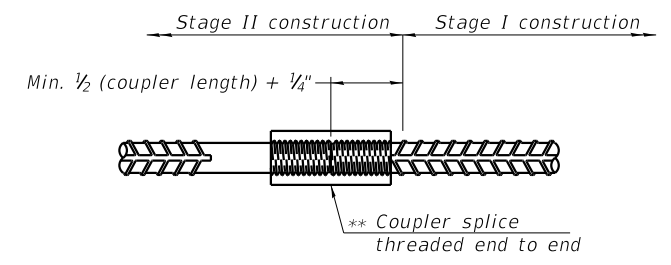
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =



DETAIL A

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

FILE NAME = I:\Municipalities\Macon County\6487 Reos Bridge Road Bridge Replacement\CADD\Structural\EastBridge\bar-splicer.dgn

BSD-1

1-1-2020

NOT FOR CONSTRUCTION

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BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 058-3409

SHEET NO. 32 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	96
CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT

B-06
Sta. 32+61, 6.6' LT
06/07/2016

Depth	N	Qu	w%	Description
526.1				Asphalt
625.5	9	1.5P	15	SAND, SILT, GRAVEL & CLAY (fill)
623.1	5	2.52S	14	VERY STIFF brown mottled with gray SILTY CLAY
	5	1.96S	13	
	8	2.52B	15	
614.1				MEDIUM STIFF gray to dark gray SANDY CLAY
609.1				Gray to dark gray CLAYEY SAND
607.6				DD
604.1	5	1.12S	44	MEDIUM STIFF very dark gray CLAY (LL=60 PI=33)
599.1	1		27	VERY LOOSE dark gray SILTY SAND
	2		19	
589.1	36		19	DENSE gray SILTY SAND
581.7	31		13	DENSE gray SILTY SAND
577.1	33		19	DENSE gray SILTY SAND
574.1	19		9	MEDIUM DENSE gray SILTY SAND
569.1	50/5"	8.24S	7	HARD gray SILTY CLAY
	50/5"	4.36S	7	
560.6				Bottom of Hole = 65.5 feet

B-07
Sta. 33+54, 30' RT
06/16/2016

Depth	N	Qu	w%	Description
614.5				Lakewater
598.5				Unconsolidated sediments
596.0				LOOSE dark gray GRAVELLY SAND
	5		14	
	7		13	
586.5				MEDIUM DENSE gray SAND
	20		20	
	14		16	
571.5	30		16	HARD dark gray SILTY SANDY CLAY
	46	8.53S	9	
	97	9.27S	10	
	50/4.5"	9.27S	11	
	44	6.21B	11	
550.5				VERY DENSE gray SILTY SAND
547.3	71		20	Light gray to gray SHALE
	8		8	
543.3	50/3"	2.5P	10	Bottom of Hole = 71.3 feet

B-08
Sta. 34+77, 7.6' LT
06/08/2016

Depth	N	Qu	w%	Description
626.6				Asphalt
625.8				SILT, CLAY, SAND & GRAVEL (fill)
624.9	10	4.25P	12	HARD brown SILTY CLAY
623.6	5	2.25P	12	VERY STIFF brown to gray SILTY CLAY
	8	3.30S	12	
	7	3.30S	14	
	8	1.94S	16	
609.6				SOFT dark gray SILTY CLAY
608.1	3	0.66S	23	Dark gray CLAYEY SAND (LL=26 PI=13)
606.6		0.25P		
603.6	1		20	VERY LOOSE dark gray SILTY SAND
	8		29	
594.6				MEDIUM DENSE gray SAND
	20		22	
	29		24	
	13		13	
	29		12	
574.6	87	9.12S	8	HARD gray to dark gray SILTY CLAY
566.6	50/4"	12.78S	9	

566.6	50/4"	14.22S	10	
	50/5"	8.95S	10	
553.1	50/5"			DENSE gray SILTY SAND
547.6	50/4"	4.5P	6	HARD gray to light gray SILTY CLAY
545.6				Gray SHALE
542.8	50/3"	4.5	12	Rec. = 100% RQD = 63% Gray SHALE
				Rec. = 100% RQD = 72%
				Rec. = 100% RQD = 94%
532.4				Bottom of Hole = 94.2 feet

LEGEND

N Standard Penetration Test N (blows/ft)
Qu Unconfined Strength (tsf)
w% Natural Moisture Content (%)

DD Water Surface Elevation Encountered in Boring
DD during drilling
Oh at completion
24h = 24 hours after completion

	USER NAME =	DESIGNED - KKC	REVISED	SUBSURFACE DATA PROFILE CH 24 (REA'S BRIDGE ROAD) SHEET NO. 1 OF 2 SHEETS	FAA/RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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SUBSURFACE DATA PROFILE
STRUCTURE NO. 058-3409
SHEET NO. 33 OF 33 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	97
CONTRACT NO. 95912				
ILLINOIS FED. AID PROJECT				

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Structural Data
- 3 Footing Layout
- 4 Stage Construction Details
- 5 Temporary Soil Retention System
- 6 Temporary Concrete Barrier for Stage Construction
- 7 Top of Deck Elevations
- 8 Top of Deck Elevations
- 9 Top of Deck Elevations
- 10 Top of Deck Elevations
- 11 Top of Deck Elevations
- 12 Top of East Approach Slab Elevations
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- 14 Superstructure
- 15 Superstructure Details
- 16 Superstructure Details
- 17 Superstructure Details
- 18 Diaphragm Details
- 19 Bridge Approach Slab Details
- 20 Bridge Approach Slab Details
- 21 Bridge Approach Slab Details
- 22 Bridge Approach Slab Details
- 23 Bridge Approach Slab Details
- 24 Bridge Approach Slab Details
- 25 Bicycle Railing
- 26 Drainage Scupper, DS-12
- 27 Framing Plan and Details
- 28 Framing Details
- 29 Framing Details
- 30 Moment Tables
- 31 Bearing Details
- 32 East Abutment
- 33 West Abutment
- 34 Abutment Details
- 35 Pier 1
- 36 Pier 2
- 37 Pier Details
- 38 HP Pile Details
- 39 Bar Splicer Assembly and Mechanical Splicer Details
- 40 Subsurface Data Profile

GENERAL NOTES:

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas.
Bolts 7/8" Ø in holes 1 1/16" Ø, unless otherwise noted.

Calculated weight of Structural Steel = 661,020 lb
All structural steel shall be AASHTO M270 Grade 50W
No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

If the CONTRACTOR elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 18 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.

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

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

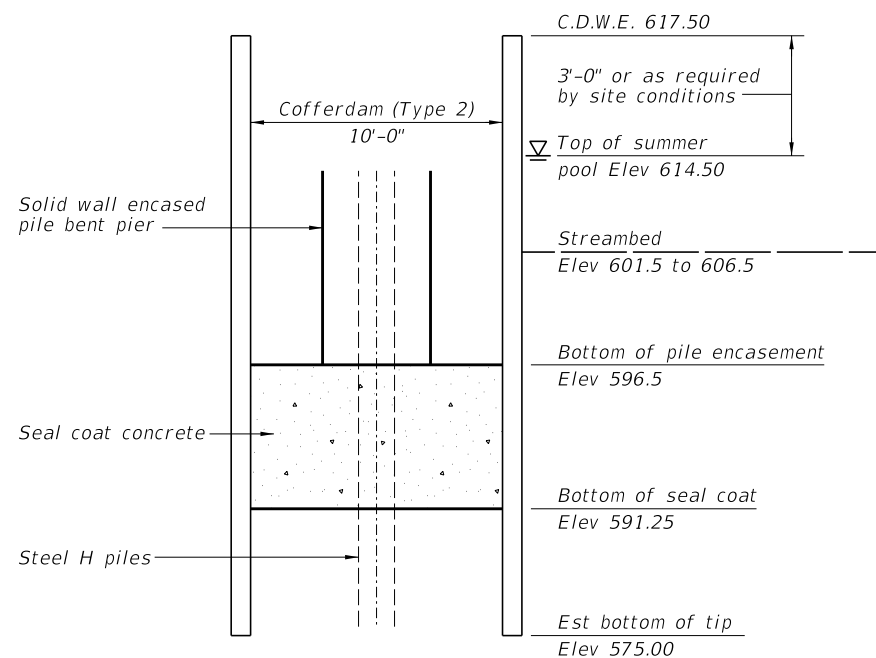
The CONTRACTOR shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc.

Seal coat thickness design is based on the Estimated Water Surface Elevation (EWSE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the ENGINEER for approval with the cofferdam design.

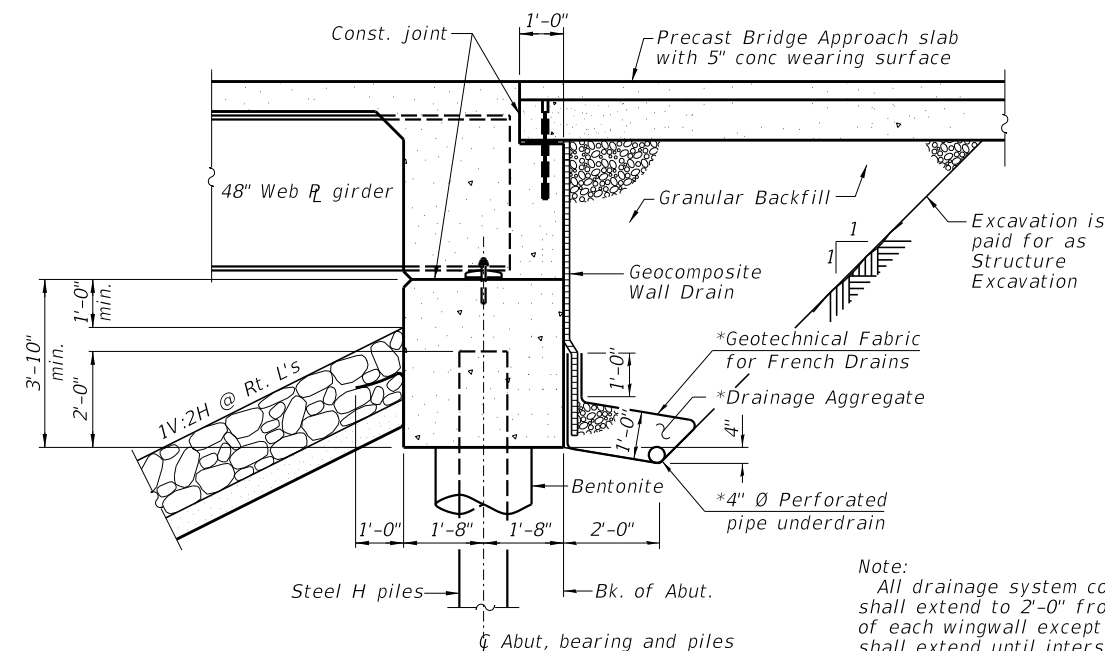
Slipforming of parapets is not allowed.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Removal of Existing Structures No. 2	Each	1	---	1
Structure Excavation	Cu. Yd.	---	109	109
Cofferdam Excavation	Cu. Yd.	---	832	832
Cofferdam (Type 2) (Location - 2)	Each	---	1	1
Cofferdam (Type 2) (Location - 3)	Each	---	1	1
Concrete Structures	Cu. Yd.	---	554.4	554.4
Concrete Superstructure	Cu. Yd.	948.7	---	948.7
Bridge Deck Grooving	Sq. Yd.	2316	---	2316
Seal Coat Concrete	Cu. Yd.	---	356	356
Protective Coat	Sq. Yd.	3785	---	3785
Furnishing and Erecting Structural Steel	L. Sum	0.5	---	0.5
Stud Shear Connectors	Each	9570	---	9570
Reinforcement Bars, Epoxy Coated	Pound	242,260	47,730	289,990
Bar Splicers	Each	1582	186	1768
Bicycle Railing	Foot	378	---	378
Parapet Railing	Foot	378	---	378
Furnishing Steel Piles HP14x73	Foot	---	3290	3290
Driving Piles	Foot	---	3290	3290
Test Pile Steel HP14x73	Each	---	4	4
Name Plates	Each	1	---	1
Preformed Joint Strip Seal	Foot	167	---	167
Anchor Bolts, 1"	Each	---	44	44
Anchor Bolts, 1 1/4"	Each	---	44	44
Temporary Soil Retention System	Sq. Ft.	---	1692	1692
Geocomposite Wall Drain	Sq. Yd.	---	175	175
Concrete Wearing Surface, 5"	Sq. Yd.	558	---	558
Precast Bridge Approach Slab	Sq. Ft.	4800	---	4800
Granular Backfill for Structures	Cu. Yd.	---	313	313
Drainage Scuppers, DS-12	Each	14	---	14
Pipe Underdrains for Structures 4"	Foot	---	242	242



SEAL COAT SCHEMATIC



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

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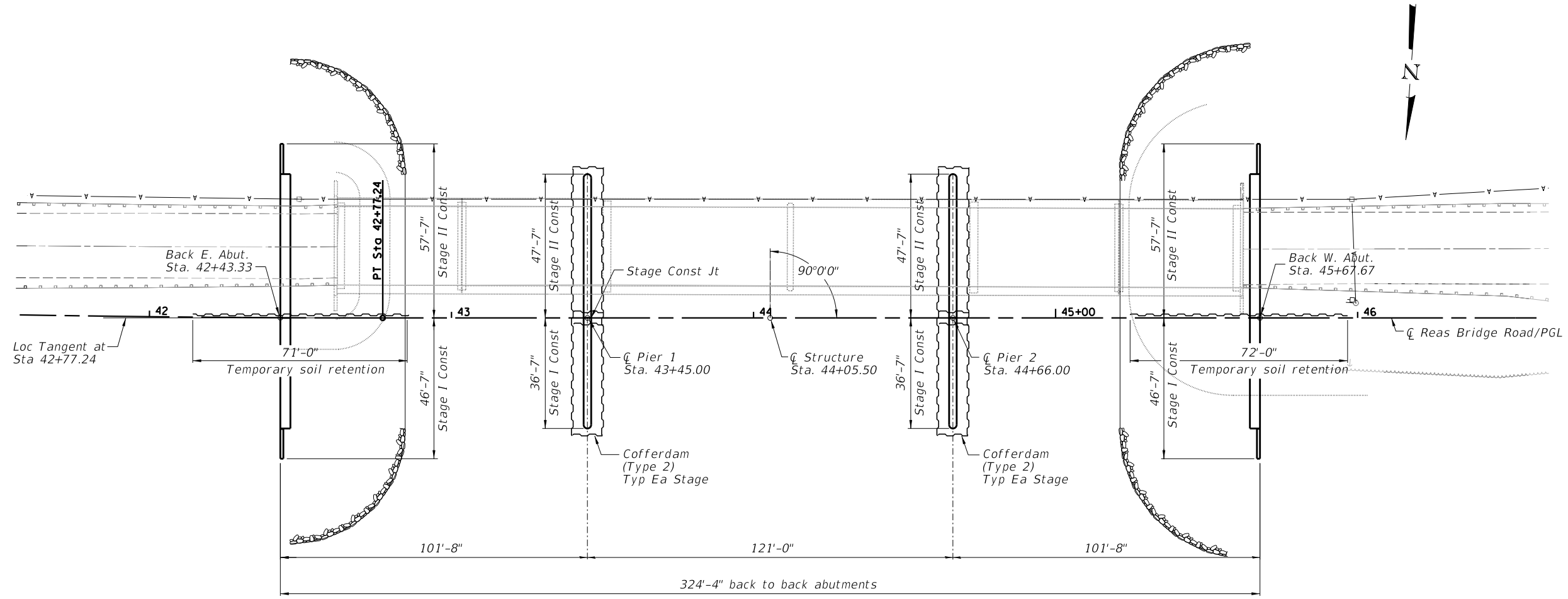
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GENERAL STRUCTURAL DATA
STRUCTURE NO. 058-3408

SHEET NO. 2 OF 40 SHEETS

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	99
CONTRACT NO. 95912			ILLINOIS FED. AID PROJECT	

FILE NAME = I:\Municipalities\Macon County\6487 Reos Bridge Road Bridge Replacement\CADD\Structural\WestBridge\Footing.dgn



PLAN

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FOOTING LAYOUT
STRUCTURE NO. 058-3408

SHEET NO. 3 OF 40 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7355	12-00251-00-BR	MACON	196	100
CONTRACT NO. 95912				

ILLINOIS FED. AID PROJECT