

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
MAJOR BRIDGE PROGRAM
FAU 5345 (FAIRVIEW DRIVE)
OVER SOUTH BRANCH OF
KISHWAUKEE RIVER**

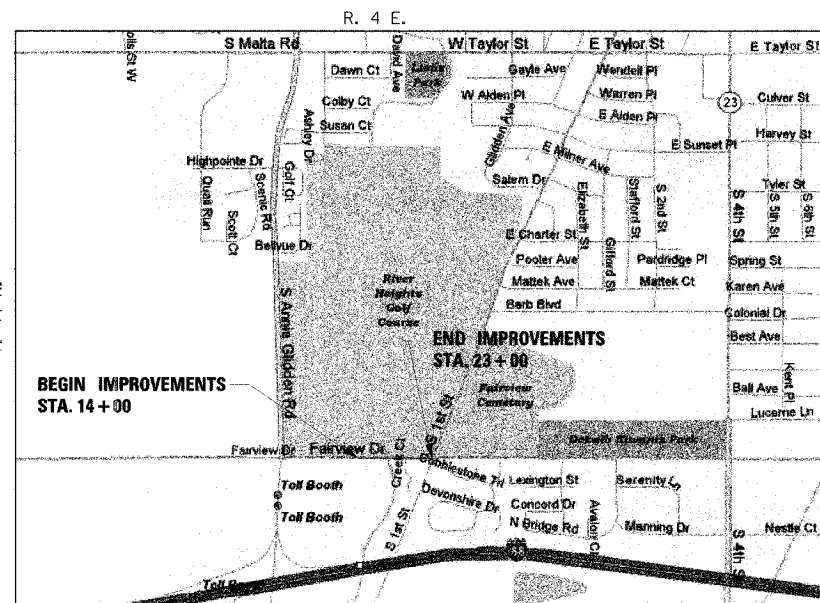
**SECTION 04-00166-00-BR
PROJECT BHM-5017 (39)
DEKALB COUNTY
JOB NO. C-93-027-07**

PROJECT LOCATION



- INDEX OF SHEETS**
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- HIGHWAY STANDARDS**
- | | |
|-----------|--|
| 280001-04 | TEMPORARY EROSION CONTROL SYSTEMS |
| 420401-06 | BRIDGE APPROACH PAVEMENT |
| 515001-02 | NAME PLATE FOR BRIDGES |
| 542301-01 | END SECTION, FLARED, PRECAST REINFORCED CONCRETE, ROUND CONCRETE HEADWALL FOR PIPE DRAIN |
| 601101 | MANHOLE TYPE A, 72" DIAMETER |
| 602406-02 | FLAT SLAB TOP, PRECAST REINFORCED CONCRETE |
| 602601-01 | MANHOLE STEPS |
| 602701-01 | FRAME AND LIDS, TYPE 1 |
| 604001-02 | FRAME AND GRATE, TYPE 11V |
| 604056-02 | COMBINATION CONCRETE CURB AND GUTTER |
| 606001-03 | STEEL PLATE BEAM GUARDRAIL |
| 630001-07 | TRAFFIC BARRIER TERMINAL: TYPE 1 SPECIAL, SHOULDER WIDENING FOR |
| 630301-04 | TRAFFIC BARRIER TERMINAL: TYPE 6 |
| 631031-06 | REFLECTOR AND TERMINAL MARKER PLACEMENT |
| 635006-02 | MARKERS; RIGHT-OF-WAY |
| 666001 | PERMANENT SURVEY MARKERS |
| 667101 | PERMANENT SURVEY MARKERS |
| 701301-02 | LANE CLOSURE, 2L, 2W: SHORT TIME OPERATIONS |
| 701501-04 | LANE CLOSURE, URBAN: 2L, 2W, UNDIVIDED |
| 701901 | TRAFFIC CONTROL DEVICES |
| 720001 | SIGN PANEL MOUNTING DETAILS |
| 720006-01 | SIGN PANEL ERECTION DETAILS |
| 720011 | POSTS, METAL, FOR SIGNS, MARKERS AND DELINEATORS |
| 729001 | POSTS, METAL, APPLICATIONS FOR TYPE A AND B |
| 780001-01 | TYPICAL PAVEMENT MARKINGS |
| BLR 21-7 | TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES |
| BLR 22-5 | TRAFFIC CONTROL: DEVICES; TYPICAL APPLICATION OF, ON RURAL LOCAL HIGHWAYS (2L, 2W RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC) |



PROPOSED IMPROVEMENTS:

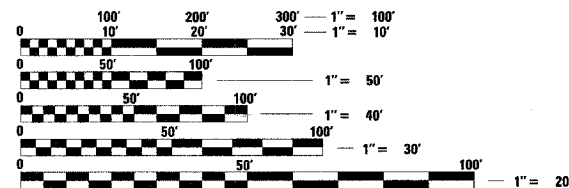
REMOVAL OF EXISTING TWO SPAN CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE CARRYING TWO EXISTING LANES OF FAIRVIEW DRIVE OVER SOUTH BRANCH KISHWAUKEE RIVER.

CONSTRUCTION OF A NEW FOUR LANE THREE SPAN CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE ON AN EXISTING ALIGNMENT WITH NEW PROFILE; STORM SEWER; RELOCATED WATER MAIN; AND LANDSCAPING. LENGTH OF NEW ROADWAY PORTION IS APPROXIMATELY 900 FEET.

CONSTRUCTION WILL BEGIN IN THE SPRING OF 2008 AND WILL NOT BE STAGED. TRAFFIC CONTROL WILL CONSIST OF FULL CLOSURE OF FAIRVIEW DRIVE WITH A SIGNED DETOUR ROUTE.

TRAFFIC DATA:

FUNCTIONAL CLASSIFICATION: ARTERIAL
CURRENT ADT : 3868
2027 ADT : 13000
DESIGN SPEED : 30 MPH
POSTED SPEED : 30 MPH



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.

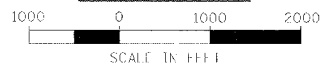
**J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123**

CONTRACT NO. 87339

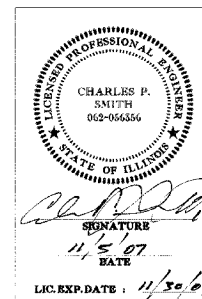
UTILITY NOTE

THE LOCATIONS OF THOSE BURIED AND ABOVEGROUND UTILITIES SHOWN ARE APPROXIMATE, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVEGROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED AMONG THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS, ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

LOCATION PLAN



NET LENGTH = 900 FEET (0.17 MILES)



**ILLINOIS DESIGN FIRM
LICENSE NO: 184-001-084**

AGENCY RESPONSIBLE FOR LETTING

APPROVED November 5, 2007
Joel C. Maurer
CITY OF DEKALB, CITY ENGINEER

PASSED 11-08 2007
Benjamin L. Fry
DISTRICT 3 ENGINEER OF LOCAL ROADS & STREETS

RELEASED FOR BID BASED ON LIMITED REVIEW 11-08 2007
George E. Ryan
DEPUTY DIRECTOR OF HIGHWAYS, REGION 2 ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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OF THE STATE OF ILLINOIS**

EARTHWORK

STATION	END AREAS		VOLUME	
	CUT (SQ FT)	FILL (SQ FT)	CUT (CU YD)	FILL (CU YD)
14+00.00	49.8	0.6	---	---
14+50.00	53.5	1.7	95.6	2.1
15+00.00	53.3	0.2	98.9	1.8
15+50.00	51.4	0.7	96.9	0.8
16+00.00	42.3	3.7	86.8	4.1
16+50.00	34.3	53.7	70.9	53.1
17+00.00	53.1	154.8	80.9	193.1
17+50.00	54.2	276.4	99.4	399.3
17+71.02	31.8	377.5	33.5	254.5
BRIDGE	---	---	567.9	82.8
19+03.06	11.0	410.9	---	---
19+50.00	11.1	240.4	19.2	566.1
20+00.00	41.0	137.7	48.2	350.1
20+50.00	67.3	50.9	100.3	174.6
20+73.94	86.6	7.3	68.2	25.8
21+00.00	74.1	0.4	77.6	3.7
21+50.00	85.3	13.4	147.6	12.8
22+00.00	81.8	12.0	154.7	23.5
22+50.00	73.2	8.2	143.5	18.7
23+00.00	64.0	1.8	127.0	9.3
TOTALS	---	---	2117.2	2176.2

SCHEDULES

<p>56103300 DUCTILE IRON WATER MAIN 12" STA. 17+00 TO STA. 20+70</p> <p>56103400 DUCTILE IRON WATER MAIN 16" STA. 16+13 TO STA. 21+53</p> <p>60605000 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 STA. 19+29 TO STA. 20+62</p> <p>63000000 STEEL PLATE BEAM GUARDRAIL, TYPE A STA. 19+18 TO STA. 19+68</p> <p>63100089 TRAFFIC BARRIER TERMINAL, TYPE 6 STA. 17+21 TO STA. 17+64 STA. 18+75 TO STA. 19+18</p> <p>63100167 TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT) STA. 16+71 TO STA. 17+21 (RT) STA. 19+68 TO STA. 20+18 (LT)</p> <p>63200307 STEEL PLATE BEAM GUARD RAIL REMOVAL, ATTACHED TO STRUCTURE STA. 17+55 TO STA. 17+95 (LT) STA. 18+63 TO STA. 19+00 (LT) STA. 17+69 TO STA. 18+07 (RT) STA. 18+75 TO STA. 19+14 (RT)</p> <p>78000100 THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS STA. 22+50 STA. 22+90 STA. 23+30</p> <p>78000200 THERMOPLASTIC PAVEMENT MARKING - LINE 4" STA. 14+00 TO STA. 17+58, STA. 19+11 TO STA. 23+00 STA. 22+35 TO STA. 23+00</p> <p>78000500 THERMOPLASTIC PAVEMENT MARKING - LINE 8" STA. 22+35 TO STA. 23+00</p> <p>78000600 THERMOPLASTIC PAVEMENT MARKING - LINE 12" STA. 19+11 TO STA. 19+95 (LT - DIAG.) STA. 16+74 TO STA 17+58 (RT - DIAG.)</p> <p>78001110 PAINT PAVEMENT MARKING - LINE 4" STA. 17+52 TO STA. 19+17 STA. 17+47 TO STA. 19+11 (LT) STA. 17+58 TO STA. 19+22 (RT)</p> <p>78001150 PAINT PAVEMENT MARKING - LINE 12" STA. 17+51 TO STA. 19+05 (LT - DIAG.) STA. 17+64 TO STA 19+18 (RT - DIAG.)</p>	<p>459 FT</p> <p>203 FT</p> <p>148 FT</p> <p>50 FT</p> <p>1 EACH 1 EACH</p> <p>1 EACH 1 EACH</p> <p>39.5 FT 37.5 FT 38.5 FT 39.5 FT 155 FT</p> <p>15.5 SQ FT 15.5 SQ FT 15.5 SQ FT 46.5 SQ FT</p> <p>1669 FT 130 FT 1799 FT</p> <p>65 FT</p> <p>51 FT 51 FT 102 FT</p> <p>40 FT 164.5 FT 164.5 FT 369 FT</p> <p>164 FT 164 FT 328 FT</p>
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STORM SEWER

FROM		TO		LENGTH (FT)	SIZE (INCH)
STATION	OFFSET	STATION	OFFSET		
21+25.00	43.50' RT	20+92.96	40.26' RT	30	42
20+92.96	40.26' RT	20+33.72	40.37' RT	58	42
20+36.81	26.58' RT	20+33.72	40.37' RT	15	12
20+33.72	40.37' RT	18+92.83	53.62' RT	140	42

STATION	OFFSET	STRUCTURE
18+92.83	53.62' RT	42" PRC EQUIV F.E.S.
20+33.72	40.37' RT	6"Ø MH TYPE A
20+36.81	26.58' RT	CATCH BASIN SPECIAL
20+92.96	40.26' RT	6"Ø MH TYPE A
21+25.00	43.50' RT	42" PRC EQUIV F.E.S.
22+72.65	36.65' RT	SLOPED METAL END SECTION WITH GRATE

TREE REMOVAL

STATION	OFFSET	UNITS
19+06	40' RT	8
19+08	58' RT	8
19+11	63' RT	8
19+14	55' RT	8
19+17	73' RT	6
21+48	53' RT	24
TOTALS		62

NOTE

SEE BRIDGE PLANS FOR ADDITIONAL SCHEDULES.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SECTION 04-00166-00-BR
DEKALB COUNTY
FAIRVIEW DRIVE BRIDGE

SCHEDULES

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 LAYOUT: MWH 10/09/07 PMP
 DRAWN: MWH 10/19/07 PMP
 REVIEWED: CPS 10/19/07 PMP
 10/19/07 10:40:56 AM
 10/19/07 10:40:56 AM
 10/19/07 10:40:56 AM

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5345	04-00166-00-BR	DEKALB	39	4
STA. 14+00		TO STA. 23+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 87339				

GENERAL NOTES

- WHERE SECTION, SUBSECTION, SUBDIVISION, OR PROPERTY MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL PROPERTY MARKERS UNTIL AN OWNER OR AUTHORIZED SURVEYOR HAS WITNESSED OR REFERENCED THEIR LOCATION.
- CONTRACTORS BIDDING THIS PROJECT SHALL VISIT THE SITE BEFORE BIDDING.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCY IMMEDIATELY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS TO ANY UTILITY LINES AND EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED AS A RESULT OF THE WORK, AND AT HIS EXPENSE.
- ALL SECTIONS, DETAILS, AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS OTHERWISE SHOWN.
- NO MATERIALS ARE TO BE STOCKPILED OR STORED OFF THE RIGHT-OF-WAY.
- ALL STORM SEWER STRUCTURES SHALL BE PRECAST CONCRETE. STORM SEWER PIPE SHALL BE AS SHOWN ON THE PLAN SHEETS. SIZE OF PRECAST RISERS AND/OR GRADE RINGS SHALL BE THE SAME INSIDE SIZE AS THE PRECAST BOX OR MATCH THE NOMINAL SIZE OF THE INLET BOX.
- ALL REINFORCEMENT BARS SHALL CONFORM TO AASHTO M31, M42, OR M53 GRADE 60.
- ADJUSTMENT OF PROPOSED GRADES TO MATCH EXISTING ENTRANCES OR OTHER FIELD CONDITIONS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
- DAMAGE TO ANY EXISTING SIDEWALK OR CURB TO REMAIN DURING CONSTRUCTION ACTIVITY SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- THE CONNECTION OF EXISTING DRAIN TILES, PIPE UNDERDRAINS, PIPE CULVERTS, AND STORM SEWERS TO THE PROPOSED DRAINAGE SYSTEM STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF STANDARD SPECIFICATIONS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE STORM SEWER PAY ITEMS.
- ANY EXCAVATION IN CHANNEL TO PLACE STONE RIPRAP SHALL BE CONSIDERED INCIDENTAL TO THE COST OF EARTH EXCAVATION.
- ALL ELEVATIONS, STATIONS, AND OFFSETS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- ALL PAVEMENT, CURB, SIDEWALK AND DRIVEWAYS TO BE ADJUSTED SHALL BE SAW CUT FULL DEPTH AT THE LIMITS OF THE ADJUSTMENT AND TRANSITION. PAYMENT FOR THE SAW CUT SHALL BE INCLUDED IN THE COST OF THE ITEM BEING REMOVED.
- ANY UNCONTROLLED CRACKING THAT OCCURS IN P.C.C. PAVEMENTS, SIDEWALKS, CURBS, OR CURB AND GUTTER PRIOR TO FINAL ACCEPTANCE SHALL BE ROUTED OR SAWED AND SEALED ACCORDING TO IDOT STANDARD SPECIFICATION SECTION 452. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONCRETE ITEMS.
- TRENCH BACKFILL SHALL BE USED IN ALL LOCATIONS WHERE THE EDGE OF THE EXCAVATION TRENCH FOR UTILITY EXCAVATION IS WITHIN 2 FEET OF PROPOSED ROADWAY, CURB AND/OR SIDEWALK. QUANTITY FOR TRENCH BACKFILL WAS CALCULATED FROM IDOT "TRENCH BACKFILL TABLE" BASED ON A THEORETICAL TRENCH WIDTH. ADDITIONAL TRENCH BACKFILL THAT IS NECESSARY DUE TO OVER EXCAVATION OF TRENCH WILL NOT BE PAID FOR.
- TRENCH BACKFILL FOR MANHOLES, INLETS, AND CATCH BASINS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL OT THE COST OF THOSE ITEMS.
- ALL TRENCH BACKFILL SHALL BE COMPACTED TO 98% OF STANDARD PROCTOR DENSITY, NO JETTING WILL BE ALLOWED.
- ALL TRENCH BACKFILL SHALL BE IMPORTED GRANULAR MATERIAL UNLESS EXISTING GRANULAR MATERIALS ARE SPECIFICALLY APPROVED BY THE ENGINEER.
- ALL WARNING SIGNS FOR TRAFFIC CONTROL AND PROTECTION SHALL BE 48-IN. SIZE AND FLOURESCENT ORANGE.
- ALL RCP STORM SEWER JOINTS SHALL CONFORM TO ASTM C 443. COST FOR MATERIAL OR LABOR NECESSARY TO MEET THIS REQUIREMENT SHALL BE INCIDENTAL TO THE STORM SEWER PAY ITEMS.

- QUANTITIES FOR THE VARIOUS PAY ITEMS ASSOCIATED WITH THE RESTORATION OF VEGETATED SURFACES SHALL BE CALCULATED BASED ON THE EARTHWORK LIMITS SHOWN ON THE CROSS SECTIONS, OR OTHERWISE APPROVED BY THE ENGINEER. ADDITIONAL AREAS BEYOND THESE LIMITS THAT ARE DISTURBED AS THE RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT NO ADDITIONAL COST TO THE CONTRACT. ALL RESTORATION SHALL BE COMPLETED IN ACCORDANCE WITH THE SPECIFICATION REQUIREMENTS OF THE APPLICABLE CONTRACT PAY ITEMS.
- EARTH EXCAVATION FOR DRIVEWAY CONSTRUCTION, INCLUDING BASE MATERIAL, SHALL BE INCIDENTAL TO "DRIVEWAY PAVEMENT REMOVAL".
- REMOVAL OF EXISTING AGGREGATE SHOULDER MATERIAL AND ANY OTHER EXCAVATION REQUIRED TO CONSTRUCT NEW BITUMINOUS SHOULDERS, INCLUDING SUBBASE, SHALL BE INCIDENTAL TO "PAVEMENT REMOVAL".
- EXISTING ROADSIDE SIGNS ARE SHOWN ON THE PLANS IN THEIR APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING INVENTORY OF EXISTING ROADSIDE SIGNS WITHIN THE CONSTRUCTION LIMITS PRIOR TO BEGINNING CONSTRUCTION. PRIOR TO REOPENING FAIRVIEW DRIVE, THE CONTRACTOR SHALL COORDINATE THE RELOCATION OF SIGNS WITH THE ENGINEER. THE CONTRACTOR SHALL REINSTALL OR RELOCATE THESE SIGNS IN APPROXIMATELY THE SAME LOCATION AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE INCIDENTAL TO "RELOCATE SIGN PANEL - TYPE 1".
- ALL SIGN PANELS TO BE REMOVED SHALL BE CAREFULLY SALVAGED AND SHALL BECOME, OR REMAIN, THE PROPERTY OF THE CITY OF DEKALB. THIS WORK SHALL BE INCIDENTAL TO "REMOVE SIGN PANEL - TYPE 1".
- THE COST OF REMOVING EXISTING WATERMANS SHALL BE INCLUDED IN THE COST FOR THE WATERMAIN BEING INSTALLED WITH THE EXCEPTION OF THE WATERMAIN IN CASING. REMOVAL OF THE WATERMAIN IN CASING SHALL BE PAID FOR AS "REMOVE EXISTING WATERMAIN AND CASING."
- ALL NEW MANHOLE, CATCH BASIN OR VALVE VAULT LIDS ON THIS PROJECT SHALL HAVE EITHER THE WORD "STORM", "SANITARY", OR "WATER" ON THE LIDS, AS APPLICABLE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE WORD TO USE ON THE LID. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK.
- PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE OWNERS OF ALL PROPERTIES ADJACENT TO THE PROJECT IN ORDER TO COORDINATE ACCESS TO SAID PROPERTIES DURING CONSTRUCTION. ACCESS FOR RESIDENTS TO THE TIMBER CREEK P.U.D. WILL ONLY BE ALLOWED FROM THE ENTRANCE LOCATED ON FIRST STREET.
- THE EXISTING PAVEMENT TO BE REMOVED IS ASSUMED TO BE TWELVE TO FOURTEEN INCHES OF BITUMINOUS PAVEMENT MATERIAL.

UTILITY CONTACTS

UTILITY NAME	TYPE	CONTACT	PHONE NUMBER	INITIAL PROJECT INFO SENT	PREFINAL PLANS SENT	RELOCATION STATUS
COMMONWEALTH EDISON CO. 123 ENERGY AVENUE ROCKFORD, ILLINOIS 61109	ELECTRICAL	MIKE LENOX	(815) 490-2869	6/23/06	10/31/07	*
CITY OF DEKALB WATER RESOURCE DIVISION 1216 MARKET ST. DEKALB, IL 60115	WATER	BRYAN FAIVRE	(815) 748-2050	6/23/06	10/31/07	INCLUDED IN PROJECT
DEKALB SANITARY DISTRICT 303 HOLLISTER AVE PO BOX 624 DEKALB, IL 60115-0624	SANITARY	MIKE ZIMA	(815) 758-3513	6/23/06	10/31/07	*
COMCAST CABLE 688 INDUSTRIAL DRIVE ELMHURST, IL 60126	TV	TED WYMAN	(630) 600-6349	6/23/06	10/31/07	*
VERIZON NORTH, INC 112 W. ELM ST. SYCAMORE, IL 60178	COMMUNICATIONS	JOEL PLAPP	(815) 895-1415	6/23/06	10/31/07	*
NICOR GAS UTILITY CONSULTANT 1844 FERRY RD NAPERVILLE, IL 60563	GAS	CONSTANCE LANE	(630) 388-3830	6/23/06	10/31/07	*

* ANY RELOCATION NECESSARY IS TO BE COMPLETED BY OTHERS PRIOR TO THE START OF WORK FOR THIS PROJECT.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION SECTION 04-00166-00-BR DEKALB COUNTY FAIRVIEW DRIVE BRIDGE
NAME	DATE	
		GENERAL NOTES

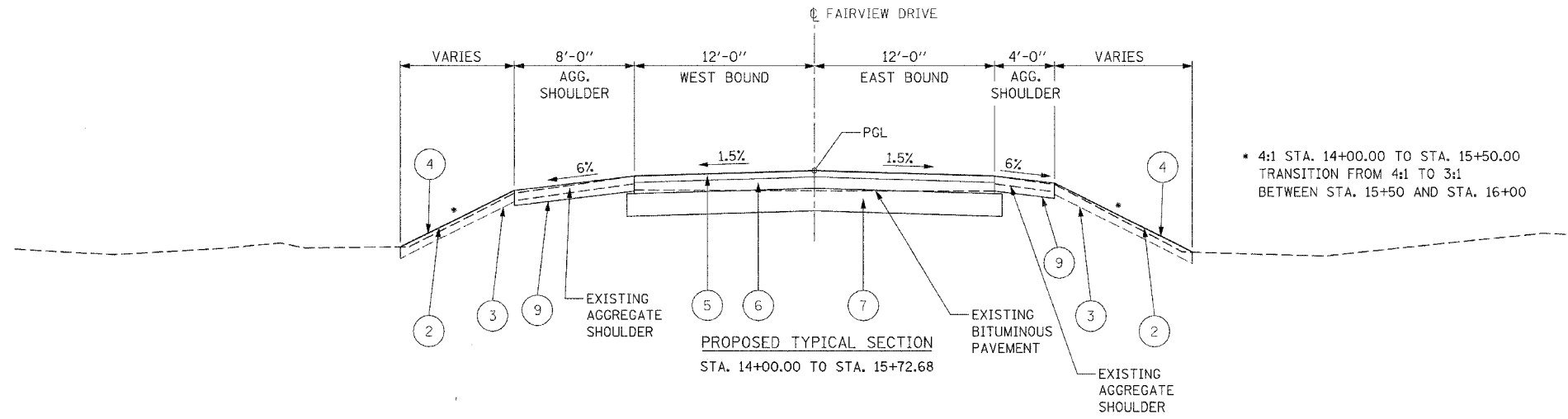
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DATE 11/05/07

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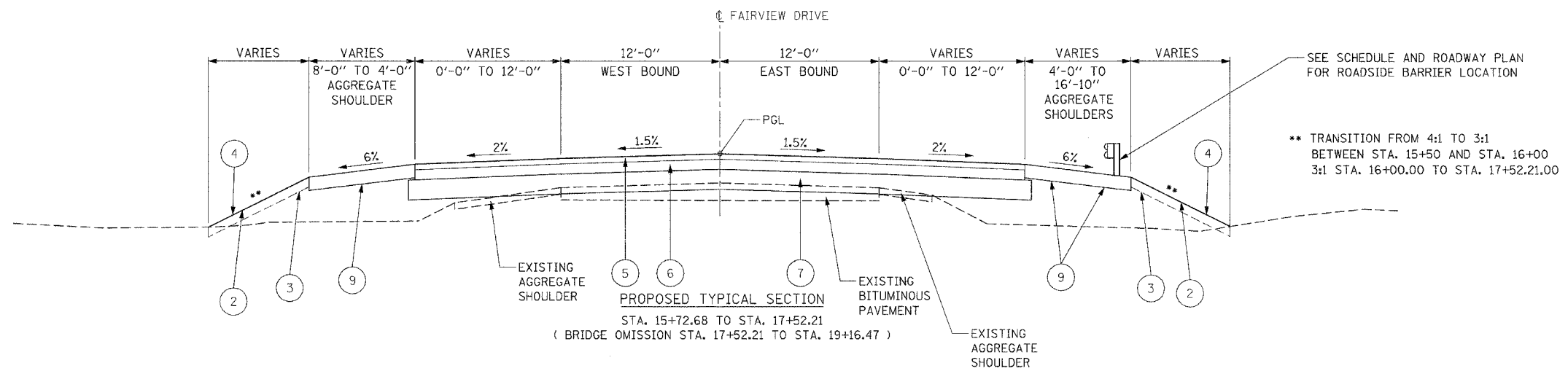


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LAYOUT: 11/16/06
DRAWN: MWH 02/05/07
REVIEWED: CPS 02/12/07
11/16/06 11:16:06 AM
02/05/07 10:05:20 AM
02/12/07 10:05:20 AM



* 4:1 STA. 14+00.00 TO STA. 15+50.00
TRANSITION FROM 4:1 TO 3:1
BETWEEN STA. 15+50 AND STA. 16+00



SEE SCHEDULE AND ROADWAY PLAN
FOR ROADSIDE BARRIER LOCATION

** TRANSITION FROM 4:1 TO 3:1
BETWEEN STA. 15+50 AND STA. 16+00
3:1 STA. 16+00.00 TO STA. 17+52.21.00

LEGEND

- | | |
|--|---|
| 1 EXISTING GROUND LINE | 6 PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 10" |
| 2 PROPOSED GROUND LINE | 7 PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE A, 12" (CA06 3", CA02 9") |
| 3 PROPOSED TOPSOIL FURNISH AND PLACE, 4" | 8 PROPOSED COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 |
| 4 SEE LANDSCAPE RESTORATION PLAN FOR SEEDING / SOD DETAILS | 9 PROPOSED AGGREGATE SHOULDERS, TYPE A, 8" |
| 5 PROPOSED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5 OR IL-12.5, MIX "D", N50, 2" | |

	HMA BINDER	HMA SURFACE
PG GRADE	PG58-22	PG64-22
MAX% RAP ALLOWABLE*	25%	15%
DESIGN AIR VOIDS	4% @ N50	4% @ N50
MIXTURE COMPOSITION	IL-19.0	IL-12.5 OR IL 9.5
FRICTION AGGREGATE		MIXTURE D
DENSITY TEST METHOD	CORES / NUCLEAR	CORES / NUCLEAR

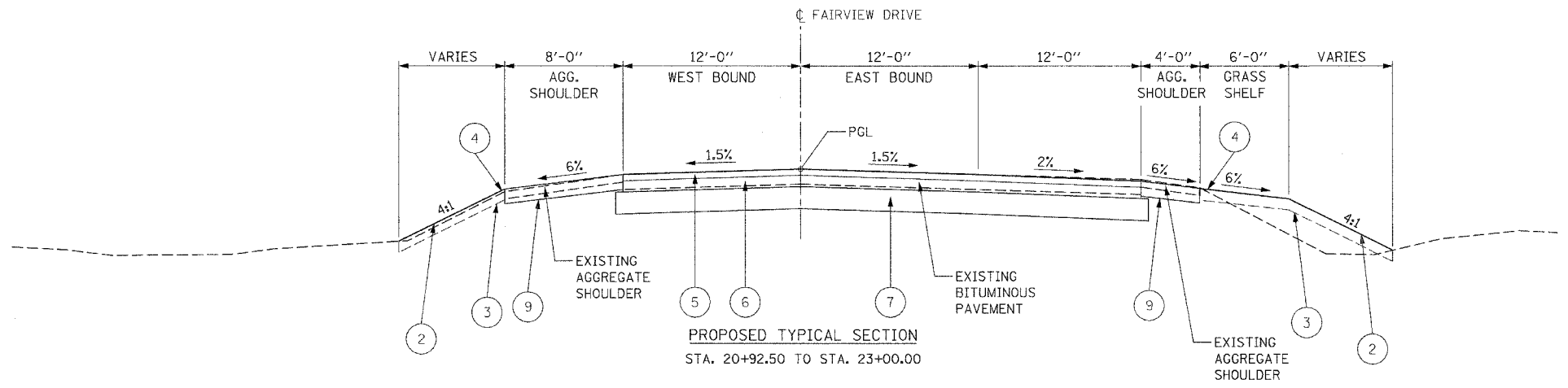
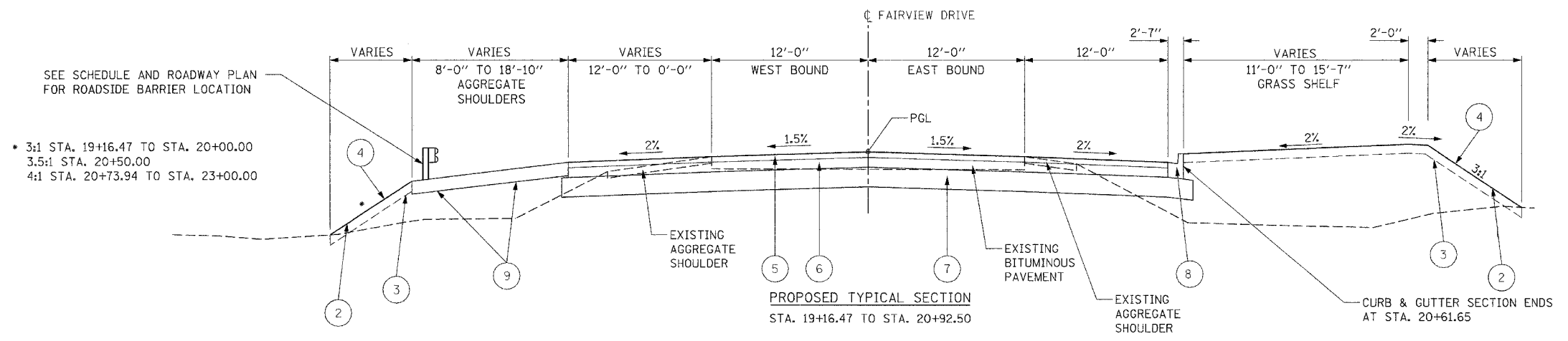
* IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SECTION 04-00166-00-BR
DEKALB COUNTY
FAIRVIEW DRIVE BRIDGE
FAIRVIEW DRIVE BRIDGE
TYPICAL SECTIONS

SCALE: AS SHOWN
DATE 11/05/07

DRAWN BY MWH
CHECKED BY CPS



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LEGEND	
1	EXISTING GROUND LINE
2	PROPOSED GROUND LINE
3	PROPOSED TOPSOIL FURNISH AND PLACE, 4"
4	SEE LANDSCAPE RESTORATION PLAN FOR SEEDING / SOD DETAILS
5	PROPOSED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5 OR IL-12.5, MIX "D", N50, 2"
6	PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 10"
7	PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE A, 12" (CA06 3", CA02 9")
8	PROPOSED COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
9	PROPOSED AGGREGATE SHOULDERS, TYPE A, 8"

	HMA BINDER	HMA SURFACE
PG GRADE	PG58-22	PG64-22
MAX% RAP ALLOWABLE*	25%	15%
DESIGN AIR VOIDS	4% @ N50	4% @ N50
MIXTURE COMPOSITION	IL-19.0	IL-12.5 OR IL 9.5
FRICTION AGGREGATE		MIXTURE D
DENSITY TEST METHOD	CORES / NUCLEAR	CORES / NUCLEAR

* IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

REVISIONS	
NAME	DATE

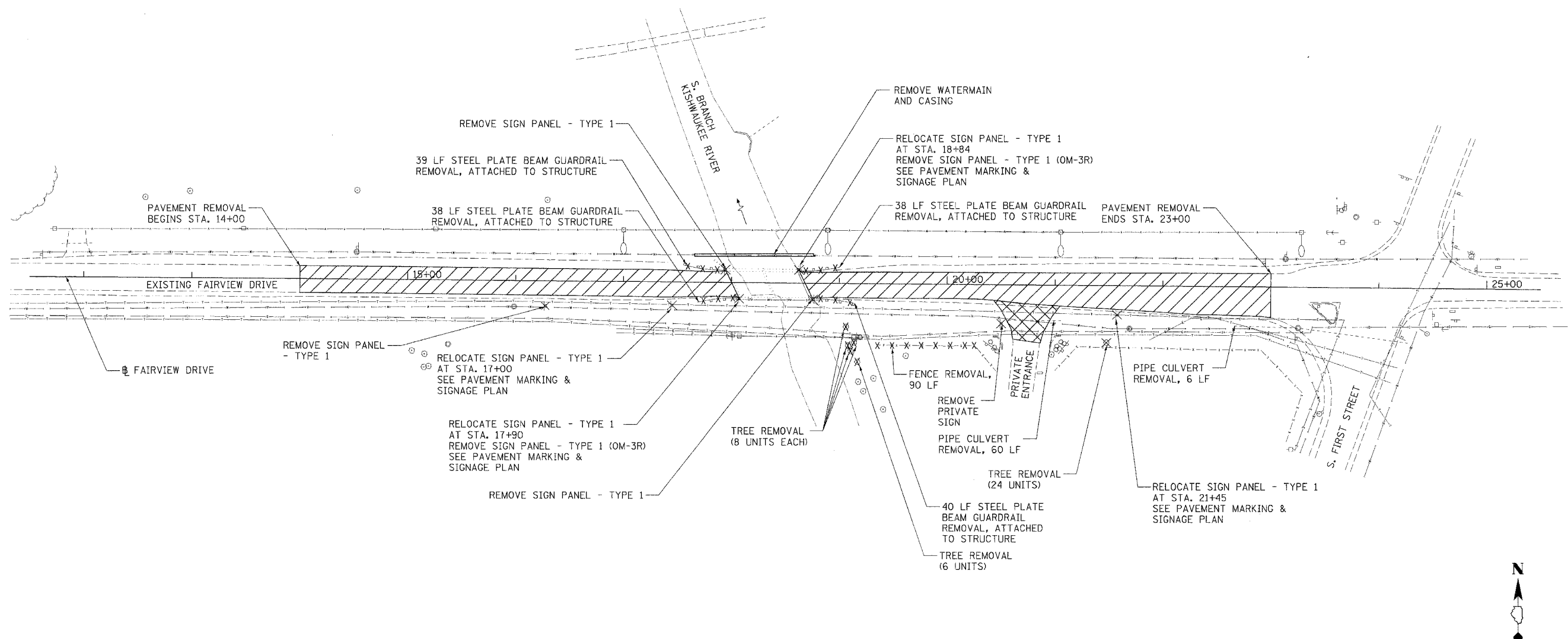
ILLINOIS DEPARTMENT OF TRANSPORTATION
 SECTION 04-00166-00-BR
 DEKALB COUNTY
 FAIRVIEW DRIVE BRIDGE
 TYPICAL SECTIONS

SCALE: AS SHOWN
 DATE 11/05/07

DRAWN BY MWH
 CHECKED BY CPS

LAYOUT MWH 11/16/06
 DRAWN MWH 10/09/07
 REVIEWED CPS 10/19/07
 11/05/07 10:00 AM 11/05/07 10:00 AM

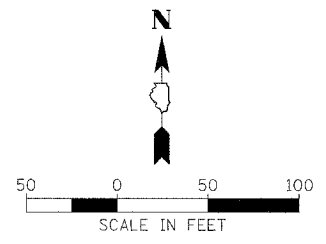
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5345	04-00166-00-BR	DEKALB	39	8
STA. 14+00		TO STA. 23+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 87339				



NOTE:
1. SEE BRIDGE SHEETS FOR BRIDGE REMOVAL ITEMS.

LEGEND

	PAVEMENT REMOVAL
	DRIVEWAY PAVEMENT REMOVAL
	GUARDRAIL REMOVAL
	FENCE REMOVAL
	EXISTING SIGN TO BE REMOVED OR RELOCATED
	EXISTING TREE TO BE REMOVED



REVISIONS	
NAME	DATE

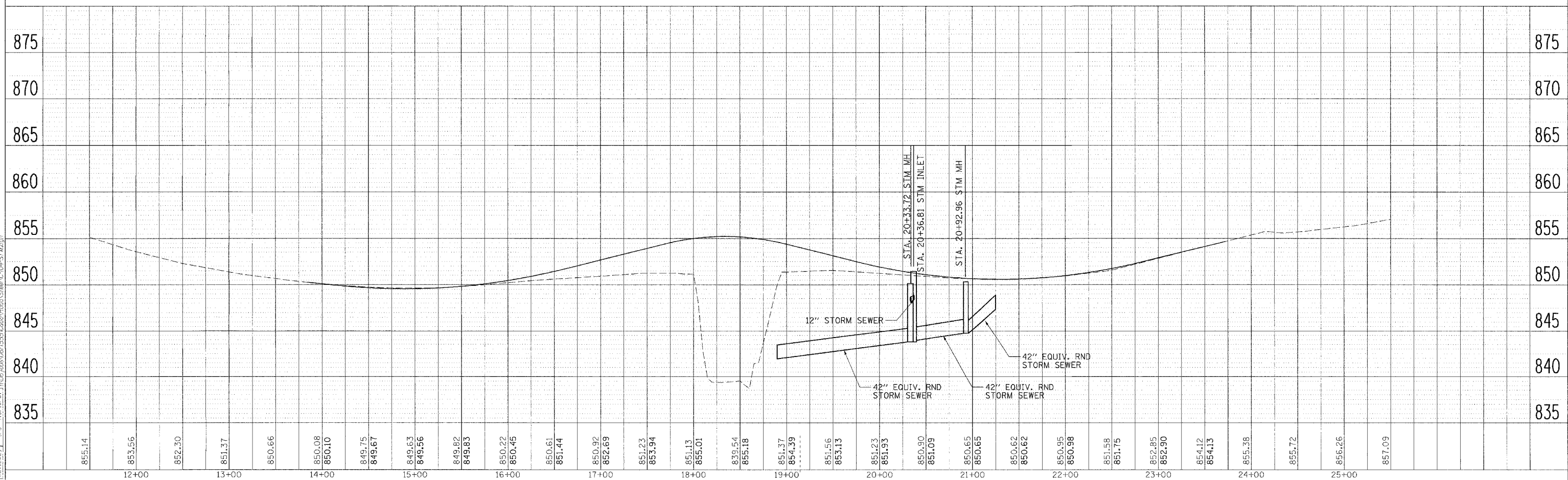
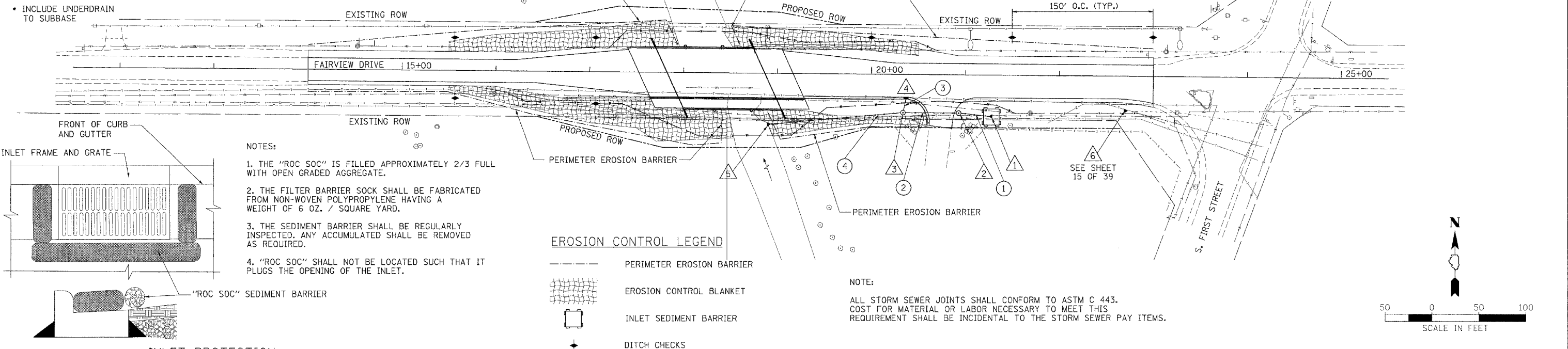
ILLINOIS DEPARTMENT OF TRANSPORTATION
SECTION 04-00166-00-BR
DEKALB COUNTY
FAIRVIEW DRIVE BRIDGE
REMOVAL PLAN
SCALE: AS SHOWN
DATE 11/05/07
DRAWN BY MWH
CHECKED BY CPS

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 LAYOUT: MME 11/17/06
 DRAWN: MWH 02/05/07
 REVIEWED: CPS 02/12/07
 11/05/07 03:39 PM
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STR. NO.	STATION	OFFSET	TYPE	F & G	RIM EL.	INV. N	INV. S	INV. E	INV. W
1	21+25.00	43.50' RT	42" PRC EQUIV F.E.S.	--	--	--	--	--	846.94
2	20+92.96	40.26' RT	6" MH TYPE A	TYPE 1 CLOSED	849.21	--	--	844.4	844.3
3	20+33.72	40.37' RT	6" MH TYPE A	TYPE 1 CLOSED	851.24	847.91	--	843.48	843.38
4	20+36.81	26.58' RT	CATCH BASIN SPECIAL	TYPE IIV	851.10	--	848.10	--	--
5	18+92.83	53.62' RT	42" PRC EQUIV F.E.S.	--	--	--	--	841.50	--
6	22+72.65	36.65' RT	SLOPED METAL E.S. WITH GRATE	--	--	--	--	848.02	--

PIPE NO.	U/S-D/S	LENGTH (FT)	SIZE (INCH)	U/S INV.	D/S INV.	SLOPE (%)	CLASS/TYPE
1	1-2	30	42	844.4	846.69	7.6	TYPE 1, REINF. CONC., EQUIVALENT RND
2	2-3	58	42	844.3	843.48	1.4	TYPE 1, REINF. CONC., EQUIVALENT RND
3	4-3	15	12	848.10	847.91	1.2	STORM SEWERS, CLASS A, TYPE 1
4	3-5	140	42	843.38	841.50	1.3	TYPE 1, REINF. CONC., EQUIVALENT RND

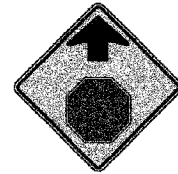
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STA. 14+00		TO STA. 23+00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
CONTRACT NO. 87339				



LAYOUT: 01/16/07
 DRAWN: 10/19/07
 REVIEWED: 05/10/19/07
 DATE: 07/07/07 07:42 AM
 PROJECT: 04-00166-00-BR

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5345	04-00166-00-BR	DEKALB	39	12
STA. 14+00		TO STA. 23+00		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		
CONTRACT NO. 87339				

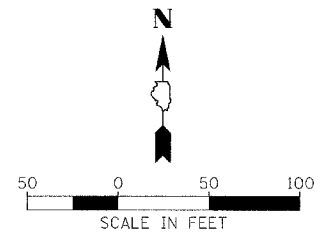
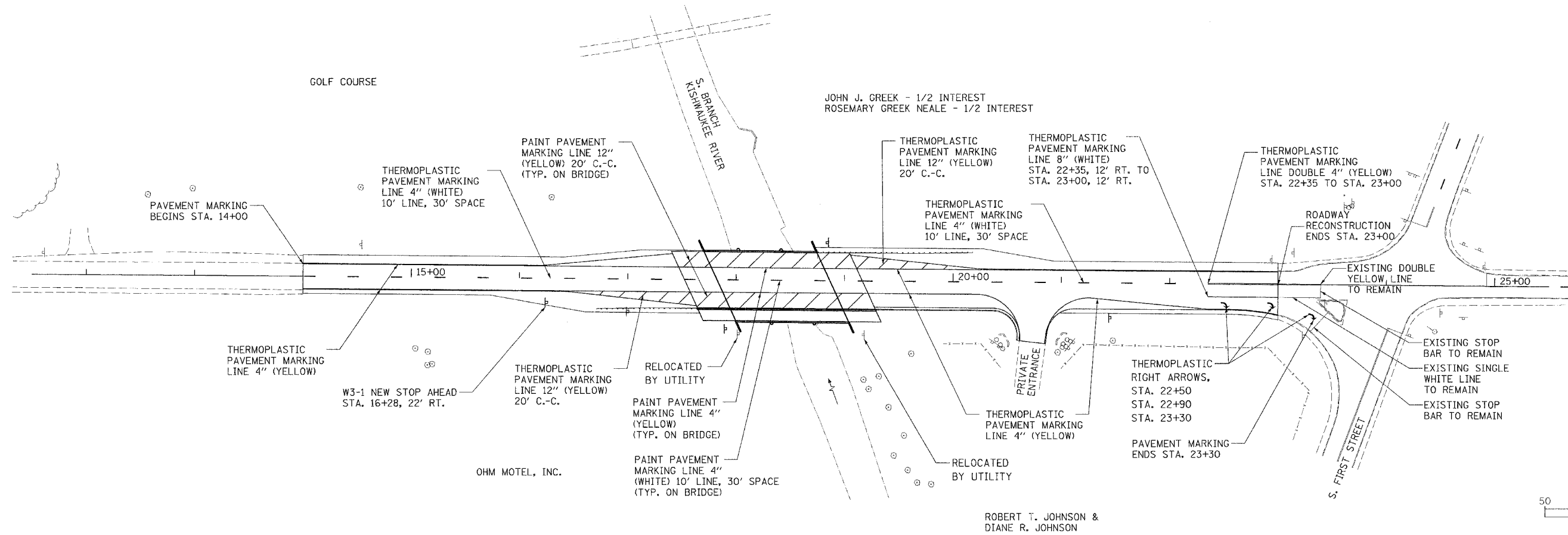
SIGN LEGEND



W3-1

STATION	OFFSET	TYPE	PANEL DIM.	PANEL AREA	METAL POST TYPE A	SIGN PANEL TYPE 1
16+28.00	22.00 RT.	W3-1	36"x36"	9 SQ FT	(2) 15 FT	
17+00.00	30.00 RT.	*			15 FT	
17+90.00	45.00 RT.	*			13 FT	
18+84.00	35.00 RT.	*			13 FT	
21+45.00	32.00 RT.	*			13 FT	

* RELOCATED SIGN



ROBERT T. JOHNSON &
DIANE R. JOHNSON

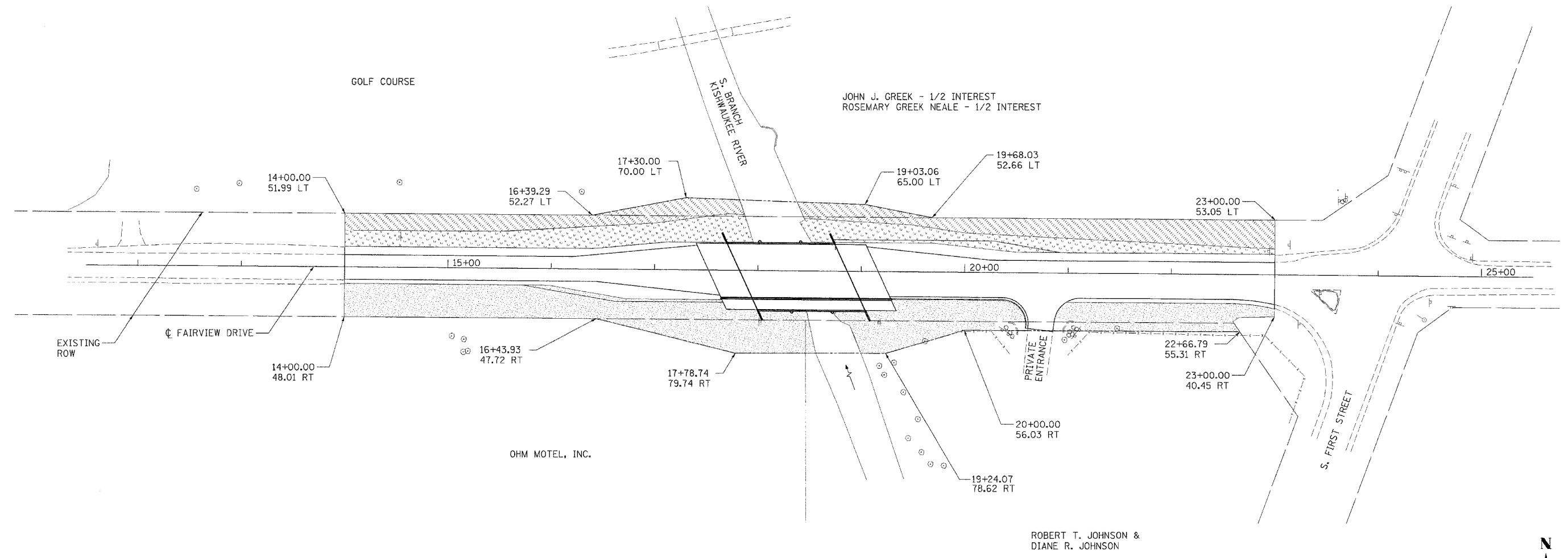
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SECTION 04-00166-00-BR
DEKALB COUNTY
FAIRVIEW DRIVE BRIDGE
**PAVEMENT MARKING
& SIGNAGE PLAN**

SCALE: AS SHOWN
DATE 11/05/07
DRAWN BY MWH
CHECKED BY CPS

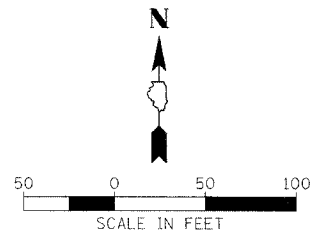
HANSON Professional Services Inc. Copyright Hanson Professional Services Inc. 2006
 LAYOUT MWH 11/17/06
 DRAWN MWH 01/22/07
 REVIEWED CPS 02/12/07
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 14+00		TO STA. 23+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 87339				



LEGEND

	CLASS 4A IDOT LOW PROFILE NATIVE GRASS
	SOD
	CLASS 2 IDOT ROADSIDE MIXTURE

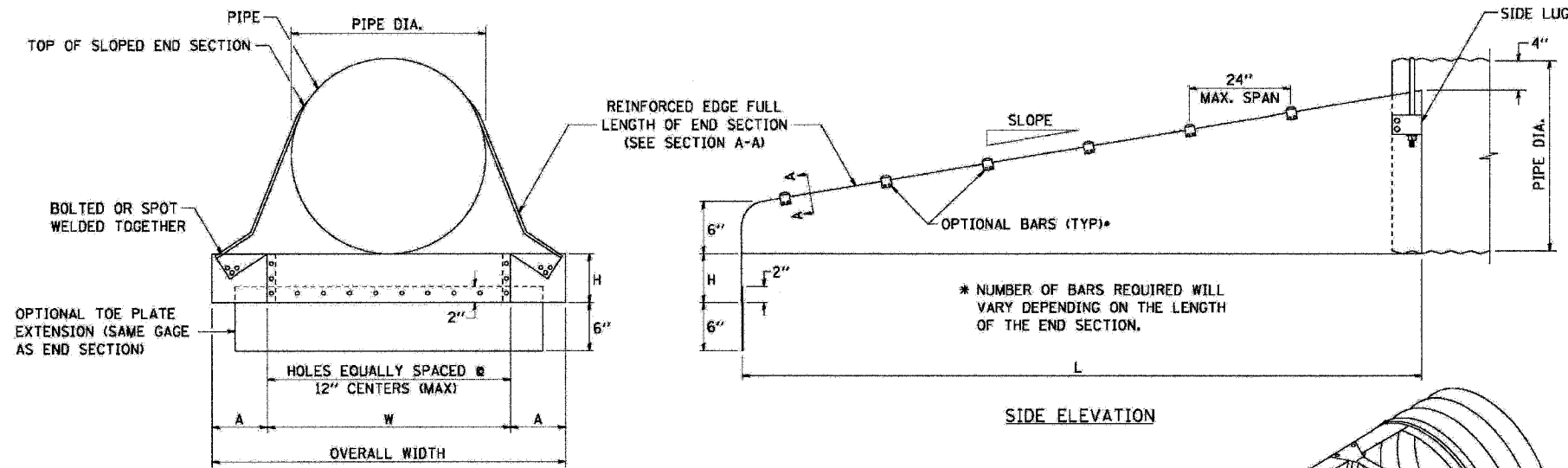


REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION SECTION 04-00166-00-BR DEKALB COUNTY FAIRVIEW DRIVE BRIDGE LANDSCAPE RESTORATION PLAN
NAME	DATE	
		SCALE: AS SHOWN DATE 11/05/07 DRAWN BY MWH CHECKED BY CPS

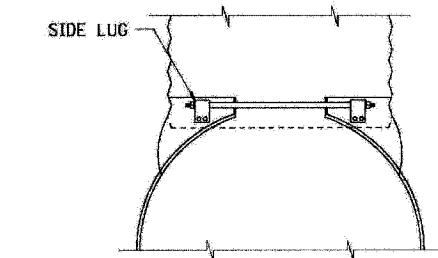
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LAYOUT: MWH 01/16/07
 DRAWN: MWH 10/19/07
 REVIEWED: CPS 10/19/07
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SLOPED METAL END SECTIONS WITH GRATE



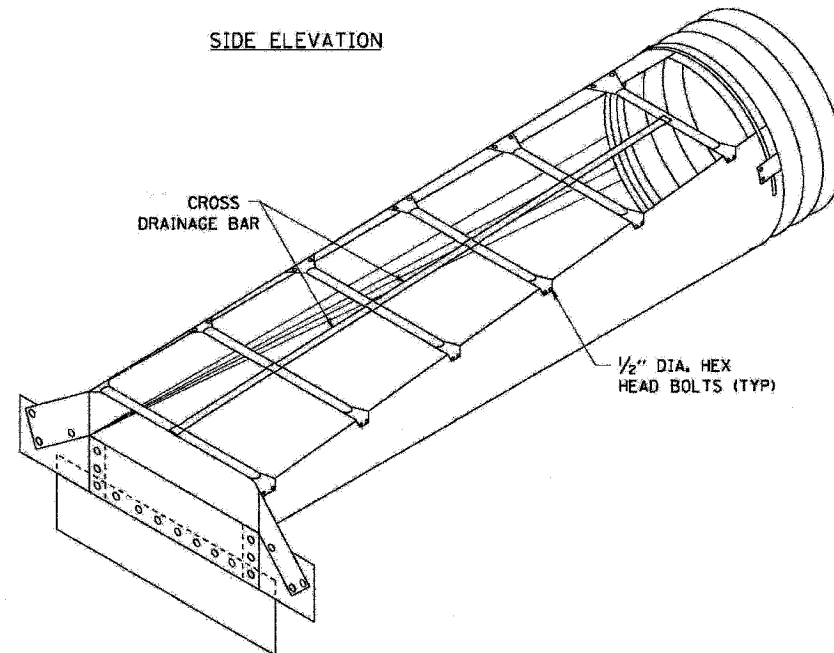
FRONT VIEW ROUND PIPE



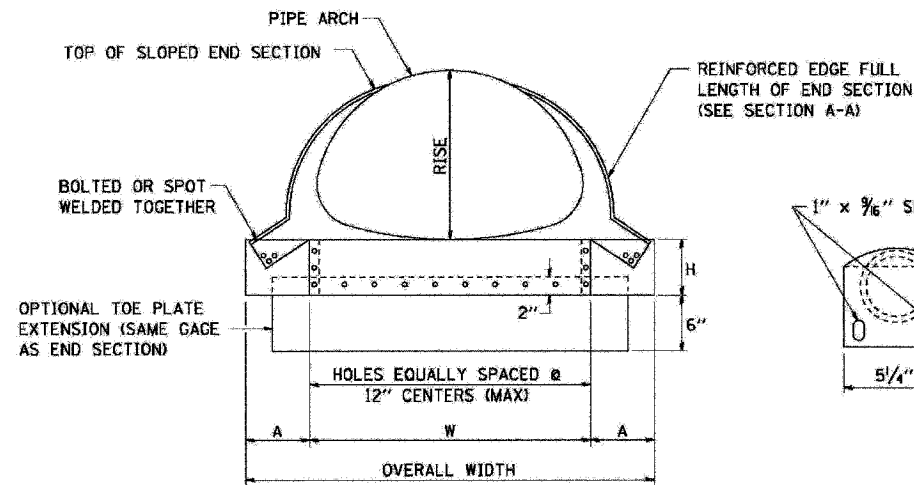
TYPE #2 CONNECTOR DETAILS (SHOWN)

TYPE #1 CONNECTOR DETAILS
THRU 24"
GALVANIZED STRAP

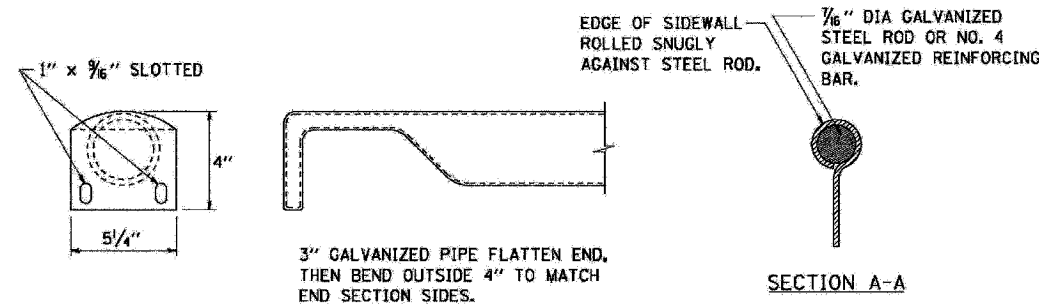
TYPE #2 CONNECTOR DETAILS (SHOWN)
FOR 30" AND LARGER
21" x 15" AND LARGER
1/2" THREADED ROD W/FLANGED
NUT AND SIDE LUG



CIRCULAR PIPE ISOMETRIC VIEW



FRONT VIEW PIPE ARCH



DETAIL OF BARS

GENERAL NOTES

- CONNECTORS - ROUND SIZES THRU 24" ATTACH TO PIPE WITH TYPE #1 STRAPS, ALL OTHER SIZES ATTACH WITH TYPE #2 RODS AND LUGS.
- TOE PLATE EXTENSIONS - WHEN REQUIRED, TOE PLATE EXTENSIONS ARE TO BE THE SAME GAGE AS END SECTION. DIMENSIONS SHALL BE OVERALL WIDTH LESS 6 INCHES BY 8 INCHES HIGH.
- BARS SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE.
- TYPICALLY PARALLEL BARS ARE PLACED ON 24" CENTERS.
- TYPICALLY THE CROSS BARS ARE USED ON CROSS DRAIN APPLICATIONS.
- HOLES FOR BAR ATTACHMENTS SHALL BE PROVIDED ON ALL END SECTIONS.
- DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
- THESE END SECTIONS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR SLOPED METAL END SECTIONS WITH GRATE OF THE DIA. AND SLOPE SPECIFIED, WHICH SHALL INCLUDE FURNISHING AND INSTALLING THE END SECTION COMPLETE IN PLACE, INCLUDING THE TOE PLATE, EXCAVATING, BACKFILLING, CONNECTING TO THE PIPE, AND CROSS DRAINAGE BARS.

METAL END SECTIONS FOR ROUND PIPE

PIPE DIA. (IN)	MIN. THICK IN.	GAGE	DIMENSIONS (INCHES)				L DIMENSIONS			
			A	H	#	OVERALL WIDTH	SLOPE	LENGTH (IN.)	SLOPE	LENGTH (IN.)
15	.064	16	8	6	21	37	6:1	30	4:1	20
18	.064	16	8	6	24	40	6:1	48	4:1	32
21	.064	16	8	6	27	43	6:1	66	4:1	44
24	.064	16	8	6	30	46	6:1	84	4:1	56
30	.109	12	12	9	36	60	6:1	120	4:1	80
36	.109	12	12	9	42	66	4:1	104	6:1	156
42	.109	12	16	12	48	80	4:1	128	6:1	192
48	.109	12	16	12	54	86	4:1	152	6:1	228
54	.109	12	16	12	60	92	4:1	176	6:1	264
60	.109	12	16	12	66	98	4:1	200	6:1	300

METAL END SECTIONS FOR PIPE ARCH

EQUIV. DIA. (IN)	(INCHES)		MIN. THICK IN.	GAGE	DIMENSIONS (INCHES)				L DIMENSIONS			
	SPAN	RISE			A	H	W	OVERALL WIDTH	SLOPE	LENGTH (IN.)	SLOPE	LENGTH (IN.)
18	21	15	.064	16	8	6	27	43	6:1	30	4:1	20
21	24	18	.064	16	8	6	30	46	6:1	48	4:1	32
24	28	20	.064	16	8	6	34	50	6:1	60	4:1	40
30	36	24	.079	14	12	9	41	65	6:1	84	4:1	56
36	42	29	.109	12	12	9	48	72	6:1	114	4:1	76
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138
48	57	38	.109	12	16	12	63	95	4:1	112	6:1	168
54	64	43	.109	12	16	12	70	102	4:1	132	6:1	198
60	71	47	.109	12	16	12	77	109	4:1	148	6:1	222
72	83	57	.109	12	16	12	89	121	4:1	188	6:1	282

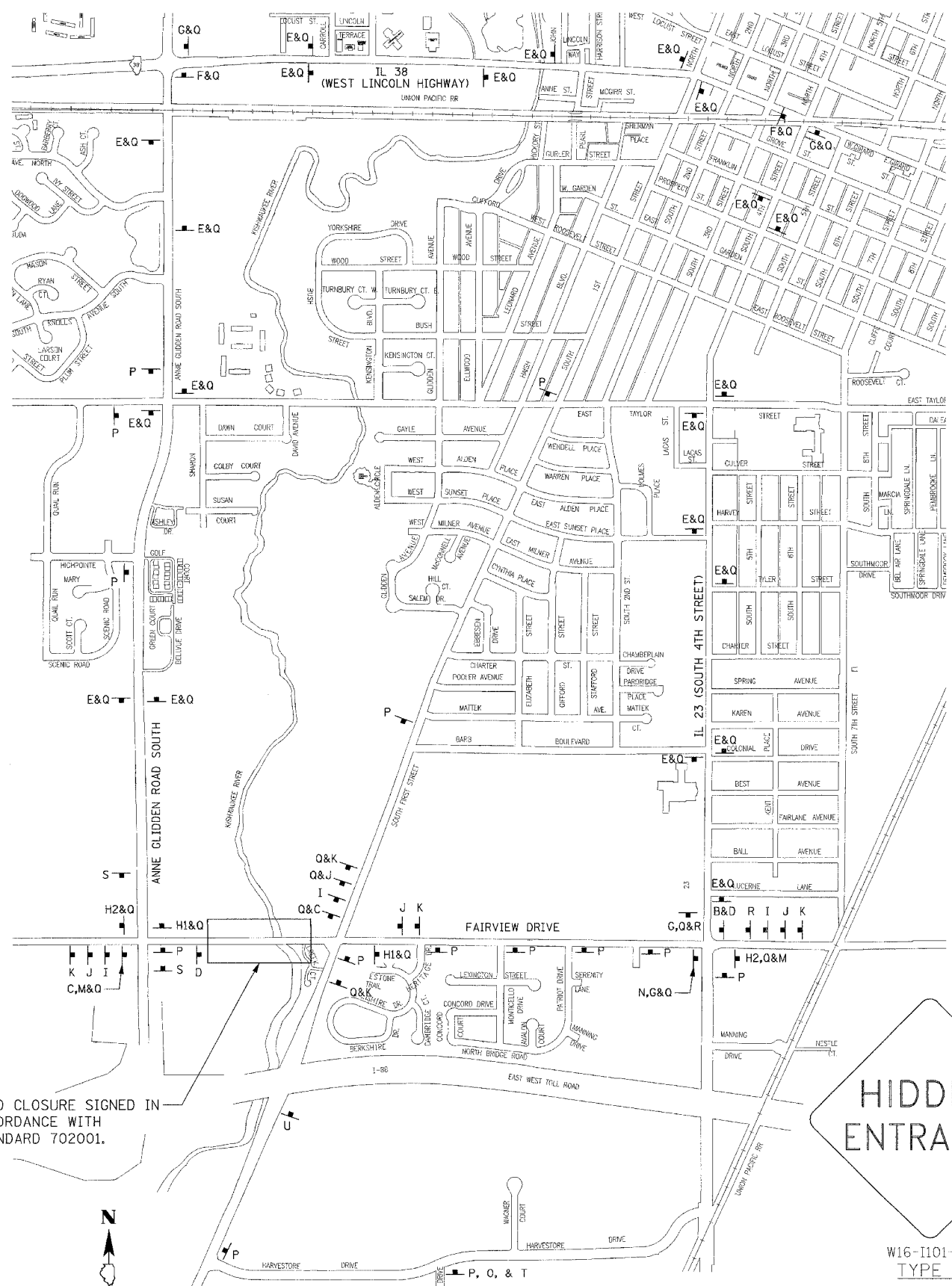
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SECTION 04-00166-00-BR
DEKALB COUNTY
FAIRVIEW DRIVE BRIDGE

SLOPED METAL
END SECTION DETAIL

SCALE: AS SHOWN
DATE 11/05/07

DRAWN BY MWH
CHECKED BY CPS



ROAD CLOSURE SIGNED IN ACCORDANCE WITH STANDARD 702001.

LAYOUT	08/12/05	CP
DESIGN	10/19/07	CP
REVISIONS	10/19/07	CP

ROAD CLOSED
R11-2(W)-4830
TYPE A

ROAD CLOSED TO THRU TRAFFIC
R11-4(O)-4830
TYPE D

BEGIN DETOUR
M4-8A Modified (O)-2418
TYPE H1

END DETOUR
M4-8A(O)-2418
TYPE H2

ROAD CONSTRUCTION AHEAD
W20-1(O)-36
TYPE K

END CONSTRUCTION
G20-2(O)-3618
TYPE L

TOLLWAY RAMP
G20-2(O)-3618
TYPE O

DETOUR
M4-10R-4818
TYPE B

DETOUR
M4-10L-4818
TYPE C

DETOUR
M4-8(O)-2412
TYPE E

DETOUR
M4-9R(O)-3024
TYPE F

DETOUR
M4-9L(O)-3024
TYPE G

DETOUR AHEAD
W20-2(O)-36
TYPE I

ROAD CLOSED AHEAD
W20-3(O)-36
TYPE J

FAIRVIEW DRIVE CLOSED AT KISHWAUKEE RIVER
R11-3 Modified (W)-4830
TYPE P

FAIRVIEW DRIVE WESTBOUND OPEN TO SOUTH FIRST STREET
R11-3 Modified (W)-4830
TYPE R

FAIRVIEW DRIVE OPEN TO SUPER 8 MOTEL
R11-3 Modified (W)-4830
TYPE S

EAST
M3-2(O)-2012
TYPE M

WEST
M3-4(O)-2012
TYPE N

FAIRVIEW DR.
(O)
TYPE Q

HIDDEN ENTRANCE
W16-I101-36
TYPE U

TYPE B FLASHER

TYPE B FLASHER

TYPE T

- NOTES:**
- 72 HOURS PRIOR TO CONSTRUCTION ON STATE RIGHT-OF-WAY, THE CONTRACTOR SHALL CONTACT THE BUREAU OF OPERATIONS, 815-434-8511 OR FAX 815-434-6998 WITH A CONTACT PERSON THAT CAN BE REACHED 24/7 TO CORRECT TRAFFIC CONTROL DEFICIENCIES.
 - ALL SIGNS SHALL BE POST MOUNTED IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARD 702001.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SECTION 04-00166-00-BR
DEKALB COUNTY
FAIRVIEW DRIVE BRIDGE
DETOUR AND TEMPORARY TRAFFIC CONTROL PLAN
SCALE: AS SHOWN
DATE 11/05/07
DRAWN BY MWH
CHECKED BY CPS

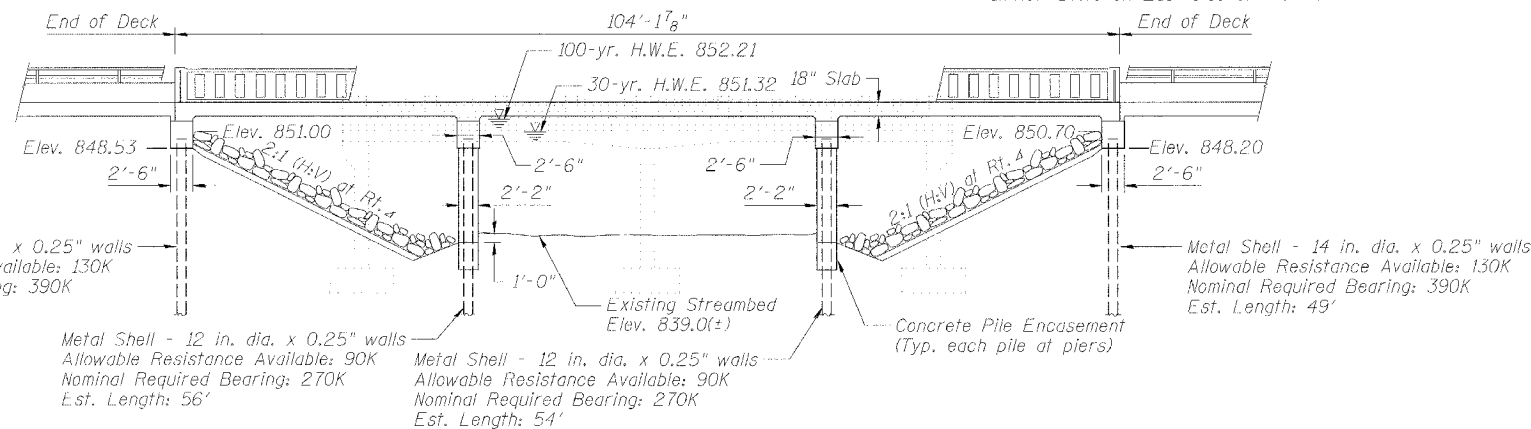
Existing Structure: Structure Number 019-4701 consists of a two-span, cast-in-place, reinforced concrete slab bridge built in 1950. The existing structure is 67'-2" long and 28'-6" wide. The substructure consists of closed concrete abutments and a concrete wall pier supported on timber piles. The existing structure shall be completely removed, unless noted otherwise. Fairview Drive will be closed during construction.

Bench Marks: FFMA RM 26. Metal rivet. Top of Northeast wingwall of existing structure carrying Fairview Drive over Kishwaukee River. Elev. 851.74.

Chisled square on south side of headwall of 66" RCP approximately 130 feet north of centerline Fairview Drive on East side of Kishwaukee River. Elev. 846.07.

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO.
FAU 5345	*	DeKalb	39	17	19 SHEETS
PROJECT NO. 04-00166-00-BR					CONTRACT NO. B7339

No salvage



ELEVATION

KISHWAUKEE RIVER
BUILT 20... BY
CITY OF DEKALB
SECTION 04-00166-00-BR
F.A.U. RT. 5345 STA. 18+34.34
F.A.U. PROJECT BHM-5017(39)
STR. NO. 019-6106 LOADING HS20

LETTERING FOR NAME PLATE
(See Std. 515001-02)

LOADING HS20
Allow 50 #/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

1999 AASHTO Guide for the Development of Bicycle Facilities

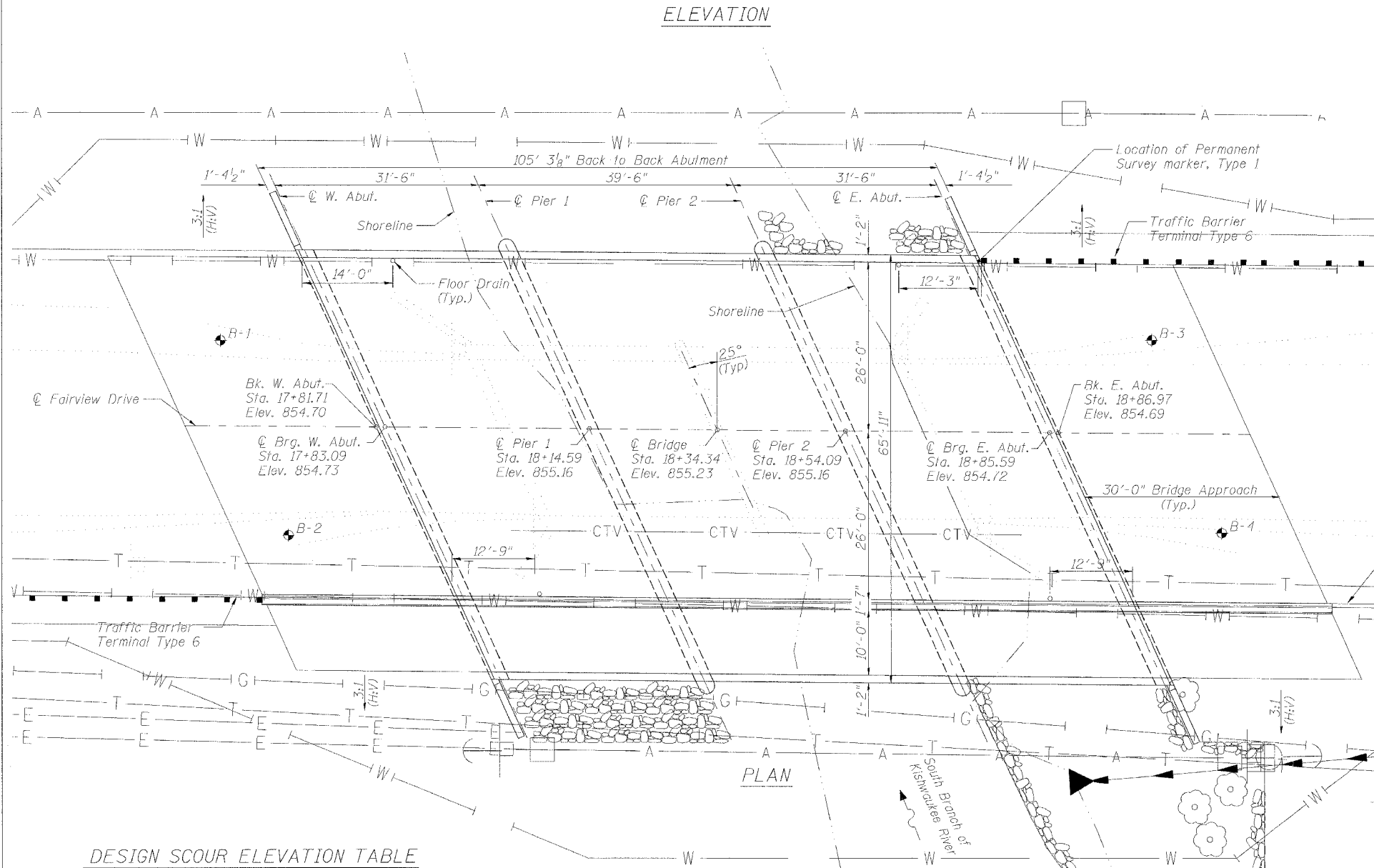
DESIGN STRESSES

FIELD UNITS

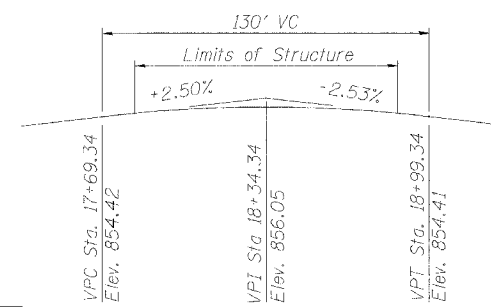
$f'_c = 4,000$ psi (superstructure)
 $f'_c = 3,500$ psi (all other units)
 $f_y = 60,000$ psi (reinforcement)

SEISMIC DATA

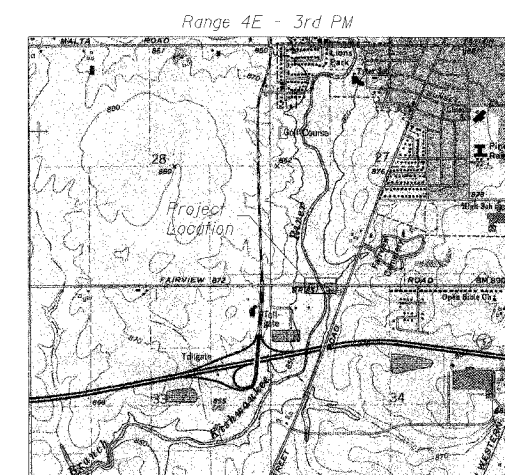
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035g
Site Coefficient (S) = 1.0



PLAN



PROFILE GRADE
FAIRVIEW DRIVE



LOCATION SKETCH

Professional Engineer Seal for Stuart M. Kemp, License No. 081-004897, State of Illinois. Signature and date: 11/5/07.

"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."

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	851.00	836.30	836.30	850.70

WATERWAY INFORMATION

Drainage Area = 72.9 sq. mi. Low Grade Elev. 849.55 ft. @ Sta. 14+89.02

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Not. Prop.	H.W.E.	Head-Ft. Exist.	Headwater El. Exist.	Headwater El. Prop.
Design	30	4200	546	725	851.32	0.27	0.18	851.60
Base	100	5250	546	804	852.21	0.10	0.09	852.31

LAYOUT: 06/15/06
 DRAWN: 10/19/07
 REVIEWED: 10/19/07
 11/4/05 AM
 11/05/2007 11:43 AM
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Corporate License Number 184-001-084

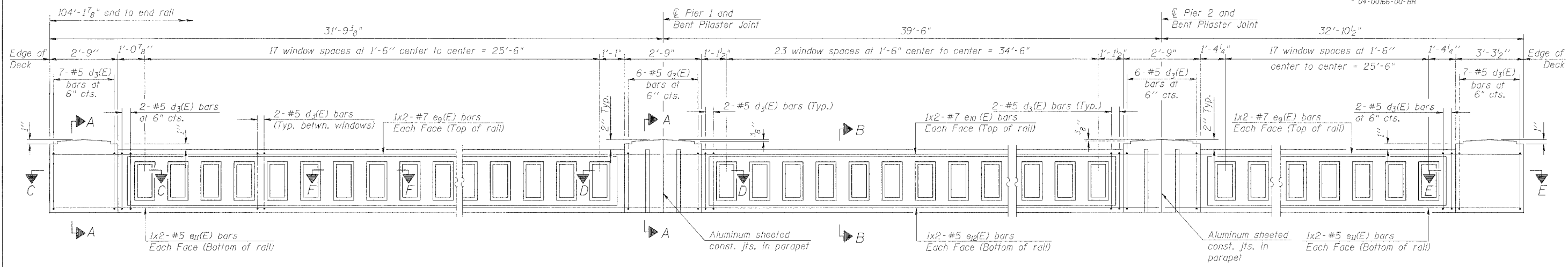
GENERAL PLAN & ELEVATION

FAIRVIEW DRIVE BRIDGE OVER SOUTH BRANCH OF KISHWAUKEE RIVER
FAU 5345
SECTION 04-00166-00-BR
DEKALB, ILLINOIS
STRUCTURE NUMBER 019-6106
STATION 18+34.34

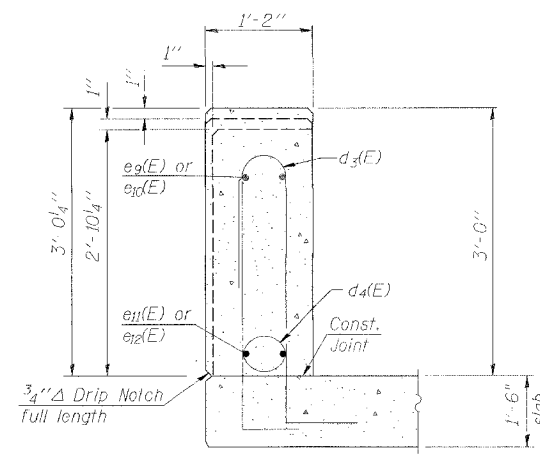
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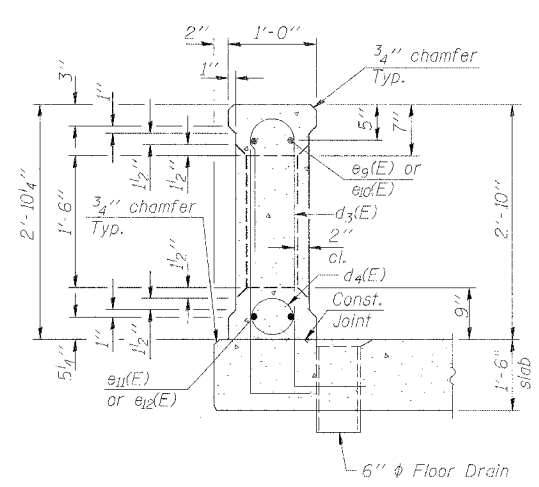
JOB NO. 06R1555
DATE 11/05/07



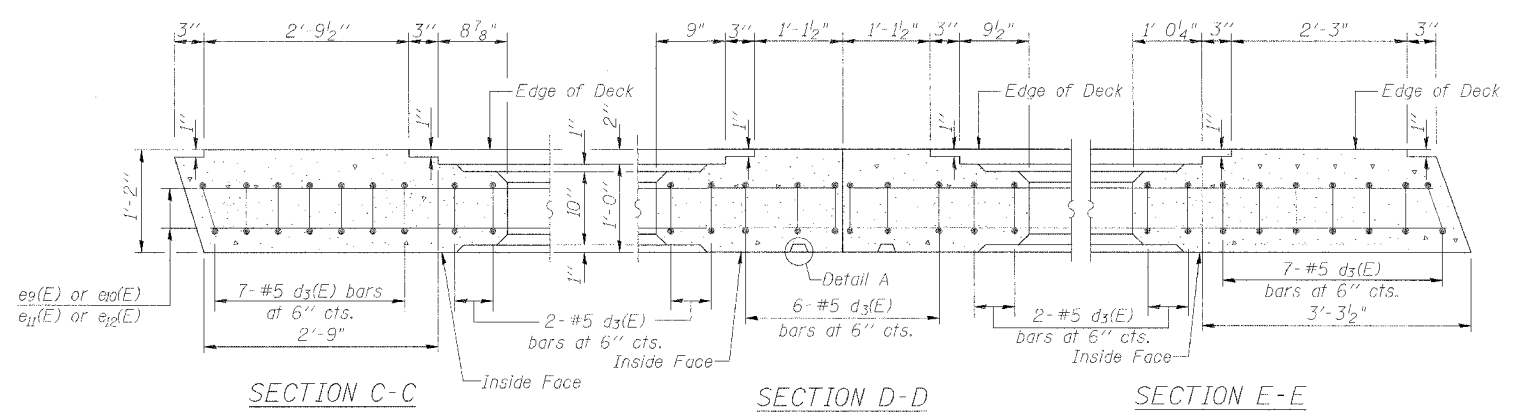
INSIDE ELEVATION OF RAIL
(Looking North at North Rail)



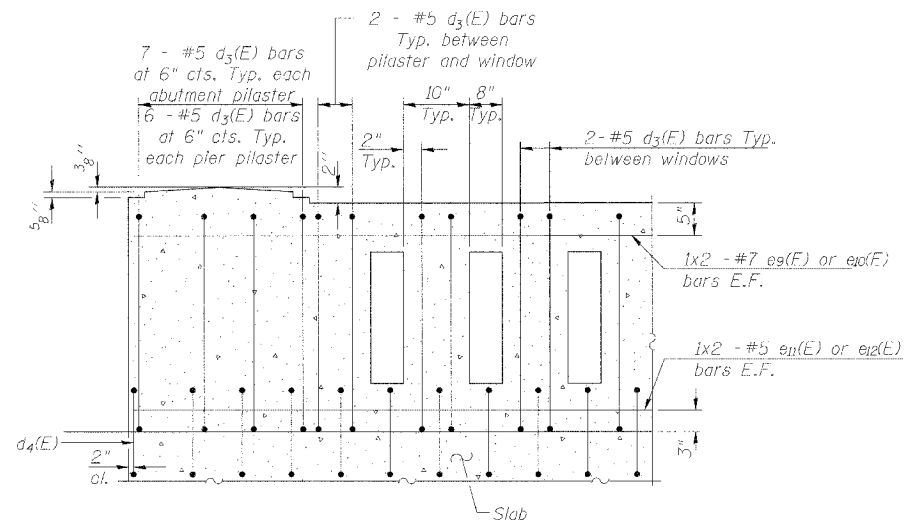
SECTION A-A
THRU POST ON SLAB BRIDGE



SECTION B-B
THRU WINDOW ON SLAB BRIDGE



SECTION C-C **SECTION D-D** **SECTION E-E**



TYPICAL REINFORCEMENT PLACEMENT
(Inside Face)

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

NOTES:
All concrete for railing wall shall be Class BS according to Article 1020.04 of the Standard Specifications. Surface of railing shall receive a rubbed finish according to Article 503.15(b) of the Standard Specifications.
All parts of the railing including concrete and reinforcing will be paid for at the contract unit price per foot for Concrete Bridge Railing.
Holes and recesses must be formed or cored. Drilling is not permitted.
Reinforcement bars designated (E) shall be epoxy coated.
Bars marked thus 3x2 - #4 etc. indicate 3 lines of bars with 2 lengths per line.
Work this Sheet with Sheet 7 of 19.

Corporate License Number 184-001-084

CONCRETE BRIDGE RAILING

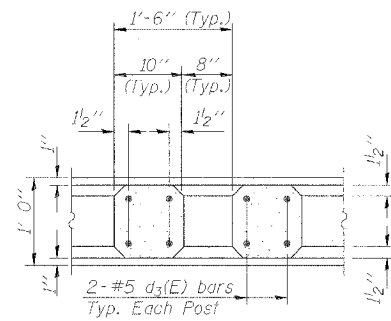
FAIRVIEW DRIVE BRIDGE OVER
SOUTH BRANCH OF KISHWAUKEE RIVER
FAU 5345
SECTION 04-00166-00-BR
DEKALB, ILLINOIS
STRUCTURE NUMBER 019-6106
STATION 18+34.34

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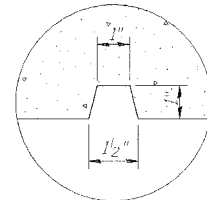
HANSON

JOB NO.
06R1555
DATE
11/05/07

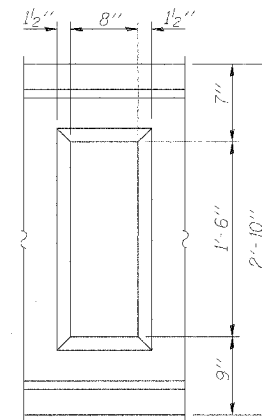
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REVIEWED: JAR 10/19/07



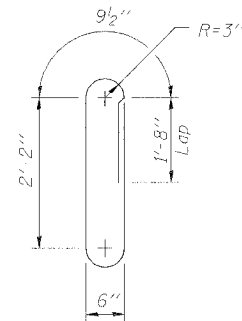
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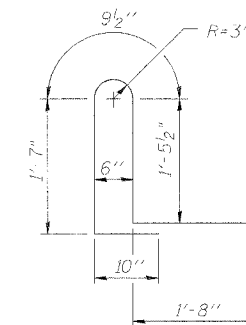
DETAIL A



WINDOW DETAIL



BAR d3(E)



BAR d4(E)

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

NOTES:

All concrete for railing wall shall be Class BS according to Article 1020.04 of the Standard Specifications. Surface of railing shall receive a rubbed finish according to Article 503.15(b) of the Standard Specifications.
 All parts of the railing including concrete and reinforcing will be paid for at the contract unit price per foot for Concrete Bridge Railing.
 Holes and recesses must be formed or cored. Drilling is not permitted.
 Reinforcement bars designated (E) shall be epoxy coated.
 Bars marked thus 3x2 - #4 etc. indicate 3 lines of bars with 2 lengths per line.
 Work this Sheet with Sheet 6 of 19.

**CONCRETE BRIDGE RAILING
 BILL OF MATERIAL**

Bar No.	Size	Length	Shape
d3(E)	#5	7'-7"	
d4(E)	#5	6'-4"	
e9(E)	#7	17'-9"	
e10(E)	#7	21'-0"	
e11(E)	#5	17'-3"	
e12(E)	#5	20'-6"	
Concrete Bridge Railing		Foot	104

Corporate License Number 184-001-084

CONCRETE BRIDGE RAILING

FAIRVIEW DRIVE BRIDGE OVER
 SOUTH BRANCH OF KISHWAUKEE RIVER
 FAU 5345
 SECTION 04-00166-00-BR
 DEKALB, ILLINOIS
 STRUCTURE NUMBER 019-6106
 STATION 18+34.34

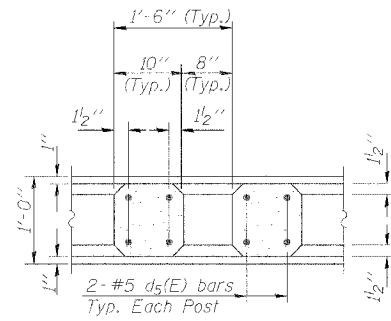
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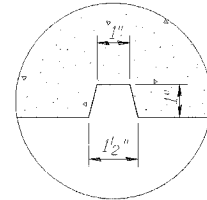
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DATE
11/05/07

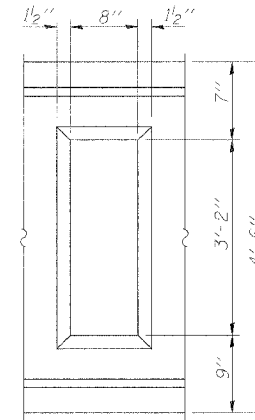
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 REVIEWED: JKR 10/19/07



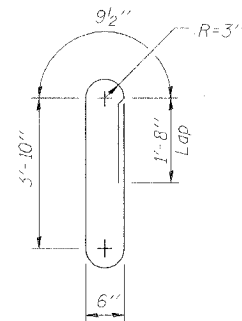
SECTION F-F



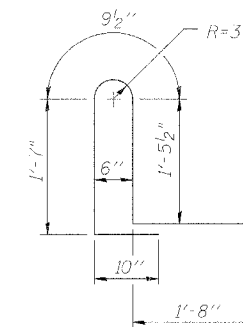
DETAIL A



WINDOW DETAIL



BAR d5(E)



BAR d4(E)

MIN. BAR LAP

#5 bars = 1'-8"
#7 bars = 2'-8"

NOTES:

All concrete for railing wall shall be Class BS according to Article 1020.04 of the Standard Specifications. Surface of railing shall receive a rubbed finish according to Article 503.15(b) of the Standard Specifications.

All parts of the railing including concrete and reinforcing will be paid for at the contract unit prices per foot for Modified Concrete Bridge Railing.

Holes and recesses must be formed or cored. Drilling is not permitted. Reinforcement bars designated (E) shall be epoxy coated.

Bars marked thus 3x2 - #4 etc. indicate 3 lines of bars with 2 lengths per line.

Work this Sheet with Sheet 8 of 19.

**MODIFIED CONCRETE BRIDGE RAILING
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d4(E)	152	#5	6'-4"	U
d5(E)	152	#5	10'-11"	U
e9(E)	8	#7	17'-9"	—
e11(E)	4	#7	21'-0"	—
e11(E)	8	#5	17'-3"	—
e12(E)	4	#5	20'-6"	—
Modified Concrete Bridge Railing		Foot	104	

Corporate License Number 184-001-084

MODIFIED CONCRETE BRIDGE RAILING

FAIRVIEW DRIVE BRIDGE OVER
SOUTH BRANCH OF KISHWAUKEE RIVER
FAU 5345
SECTION 04-00166-00-BR
DEKALB, ILLINOIS
STRUCTURE NUMBER 019-6106
STATION 18+34.34

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JOB NO.

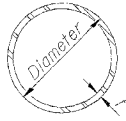
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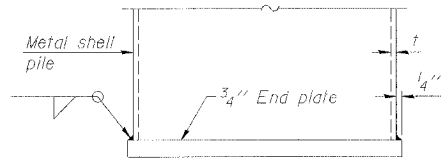
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DRAWN	10/19/07
REVIEWED	JER

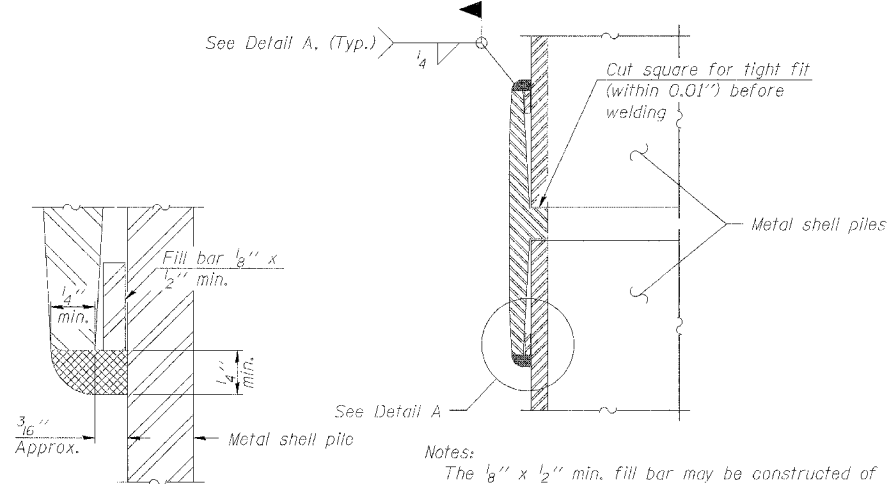


METAL SHELL PILE TABLE

Designation	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)	Encasement diameter A
PP12	0.250"	31.37	0.0267	26"
PP14	0.250"	36.71	0.0368	N/A



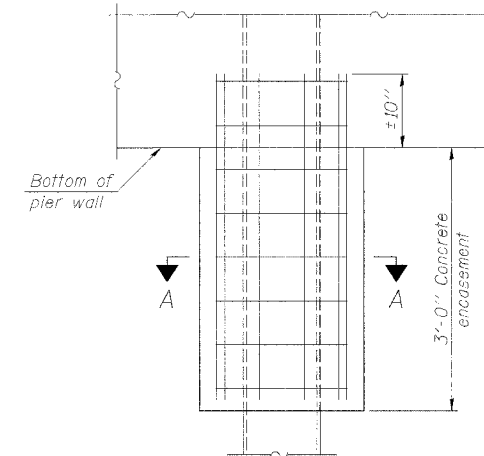
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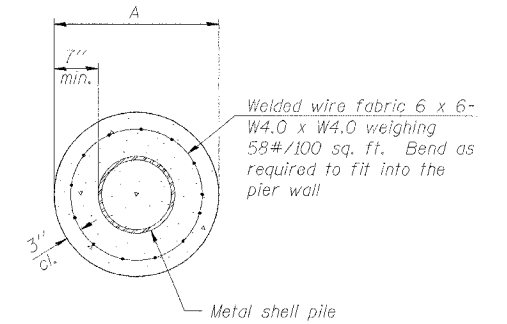
DETAIL A

Notes:
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



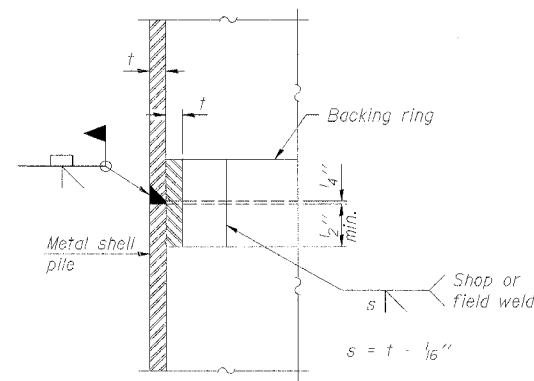
ELEVATION



SECTION A-A

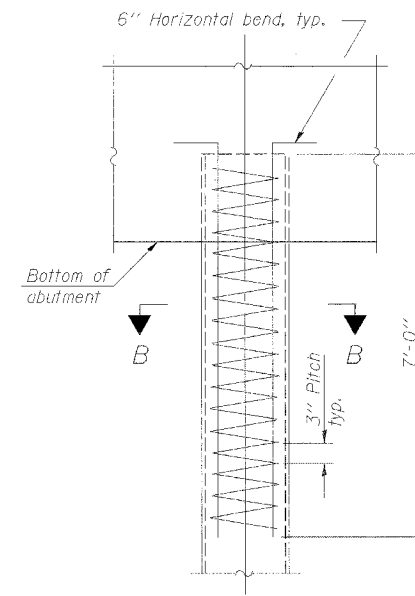
Notes:
 See Metal Shell Pile Table for dimension "A".
 Forms for encasement may be omitted when soil conditions permit.

CONCRETE ENCASEMENT AT PIERS



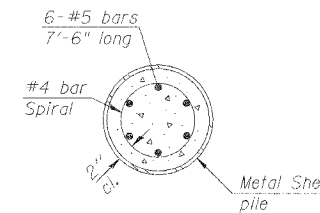
COMPLETE PENETRATION WELD SPLICE

Backing ring made from pile shell. Remove segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION

METAL SHELL REINFORCEMENT AT ABUTMENTS



SECTION B-B

NOTES:
 The metal shell piles shall be according to ASTM A 252 Grade 3.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 14
FAU 5345	*	DeKalb	39	30	19 SHEETS
FED. ROAD DIST. NO. 7	S.I. INITS	FED. AID PROJECT			CONTRACT NO. B7339

* 04-00166-00-BR

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LAYOUT	01/24/07
DRAWN	07/19/07
REVIEWED	07/19/07

Corporate License Number 184-001-084

METAL SHELL PILE DETAILS

FAIRVIEW DRIVE BRIDGE OVER
 SOUTH BRANCH OF KISHWAUKEE RIVER
 FAU 5345
 SECTION 04-00166-00-BR
 DEKALB, ILLINOIS
 STRUCTURE NUMBER 019-6106
 STATION 18+34.34

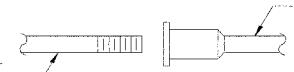
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The diameter of this part is equal or larger than the diameter of bar spliced.

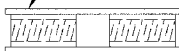


ROLLED THREAD DOWEL BAR



** ONE PIECE

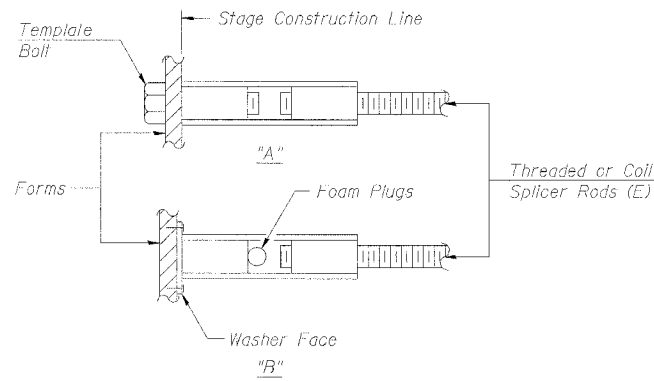
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



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.

NOTES:

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity = $1.25 \times f_y \times A_T$
 (Tension in kips)
- ② Minimum *Pull-out Strength = $1.25 \times f_{sallow} \times A_T$
 (Tension in kips)

Where f_y = Yield strength of lapped reinforcement bars in ksi.

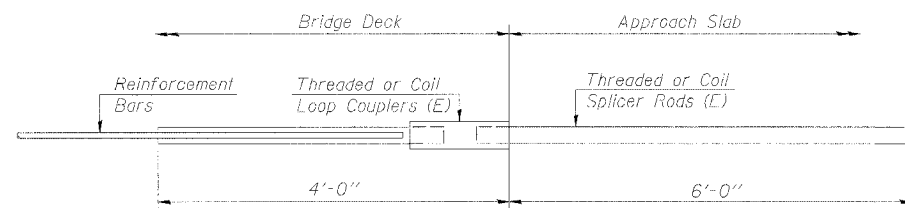
f_{sallow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)

A_T = Tensile stress area of lapped reinforcement bars.

* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 128

Corporate License Number 184-001-084

BAR SPLICER ASSEMBLY DETAILS

FAIRVIEW DRIVE BRIDGE OVER
 SOUTH BRANCH OF KISHWAUKEE RIVER
 FAU 5345
 SECTION 04-00166-00-BR
 DEKALB, ILLINOIS
 STRUCTURE NUMBER 019-6106
 STATION 18+34.34

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JOB NO.

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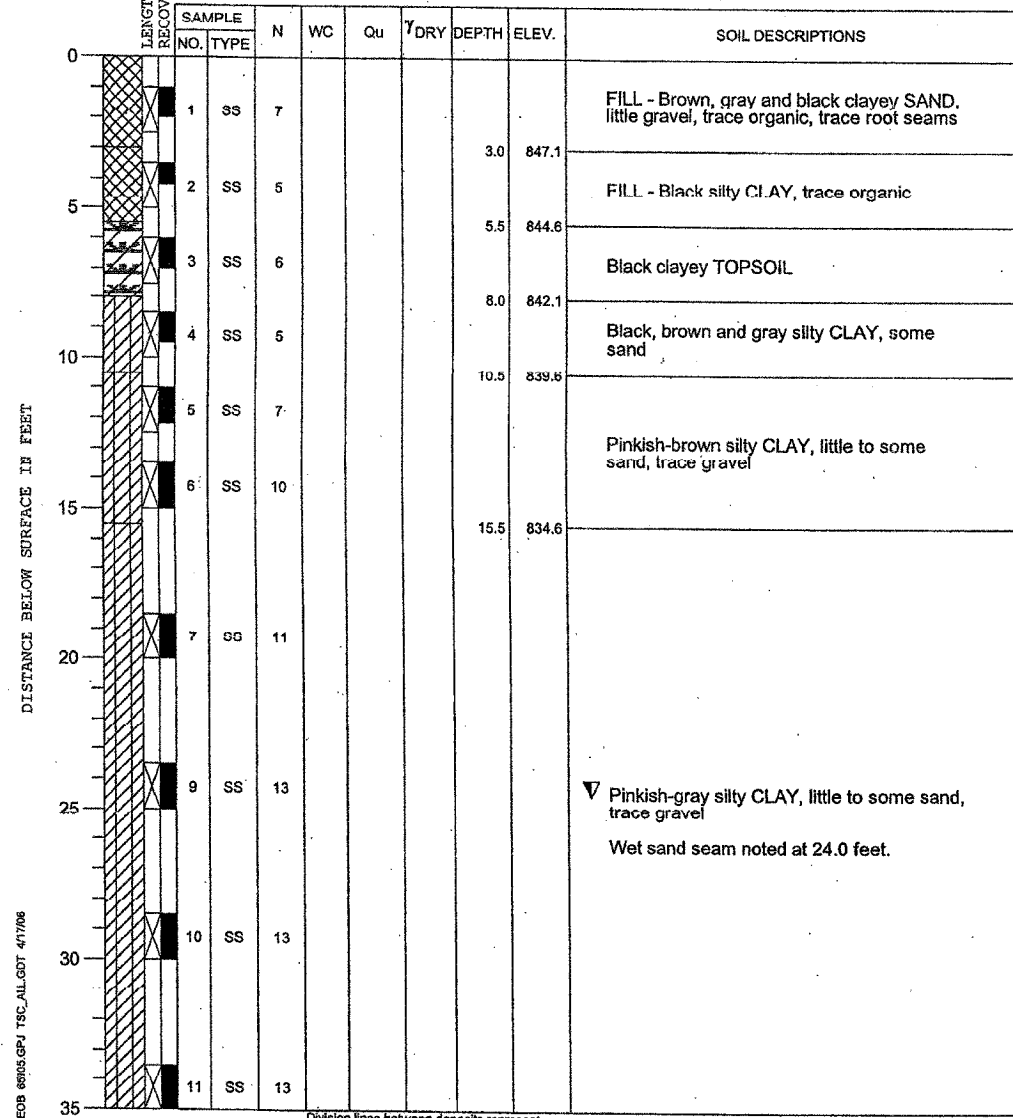
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 REVIEWED: JKR 10/19/07

PROJECT **Fairview Drive Bridge Replacement, DeKalb, Illinois**
 CLIENT **Hanson Professional Services, Rockford, Illinois**
 BORING **2** DATE STARTED **4-13-06** DATE COMPLETED **4-13-06** JOB **L-65,905**



ELEVATIONS WATER LEVEL OBSERVATIONS
 GROUND SURFACE **850.1** WHILE DRILLING **24.5'**
 END OF BORING **790.1** AT END OF BORING **Dry**
 24 HOURS

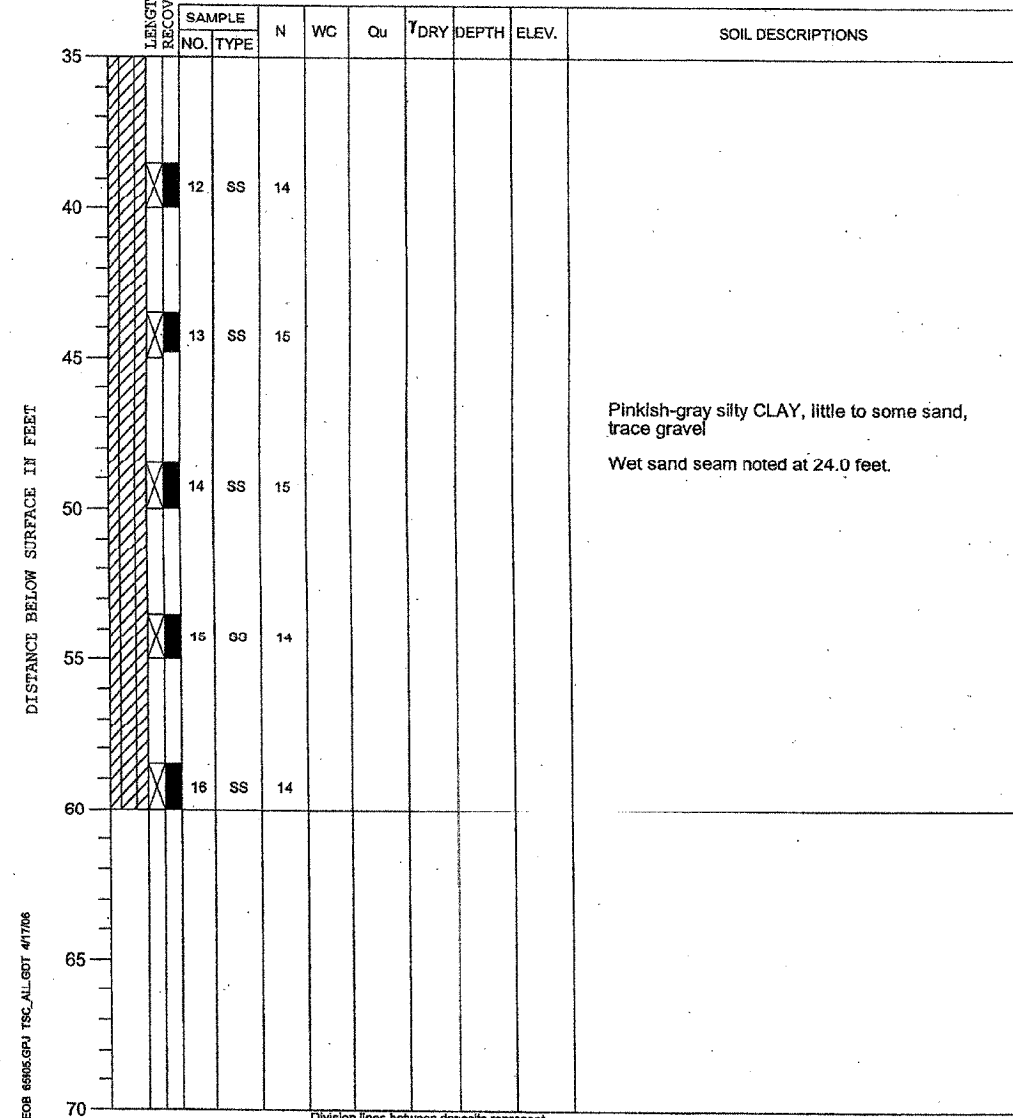


DRILL RIG NO. **262** End of Boring at 60.0' Page 1 of 2

PROJECT **Fairview Drive Bridge Replacement, DeKalb, Illinois**
 CLIENT **Hanson Professional Services, Rockford, Illinois**
 BORING **2** DATE STARTED **4-13-06** DATE COMPLETED **4-13-06** JOB **L-65,905**



ELEVATIONS WATER LEVEL OBSERVATIONS
 GROUND SURFACE **850.1** WHILE DRILLING **24.5'**
 END OF BORING **790.1** AT END OF BORING **Dry**
 24 HOURS



DRILL RIG NO. **262** End of Boring at 60.0' Page 2 of 2

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 REVIEWED: JRR 10/19/07

Corporate License Number 184-001-084

BORING LOGS

FAIRVIEW DRIVE BRIDGE OVER
 SOUTH BRANCH OF KISHWAUKEE RIVER
 FAU 5345
 SECTION 04-00166-00-BR
 DEKALB, ILLINOIS
 STRUCTURE NUMBER 019-6106
 STATION 18+34.34

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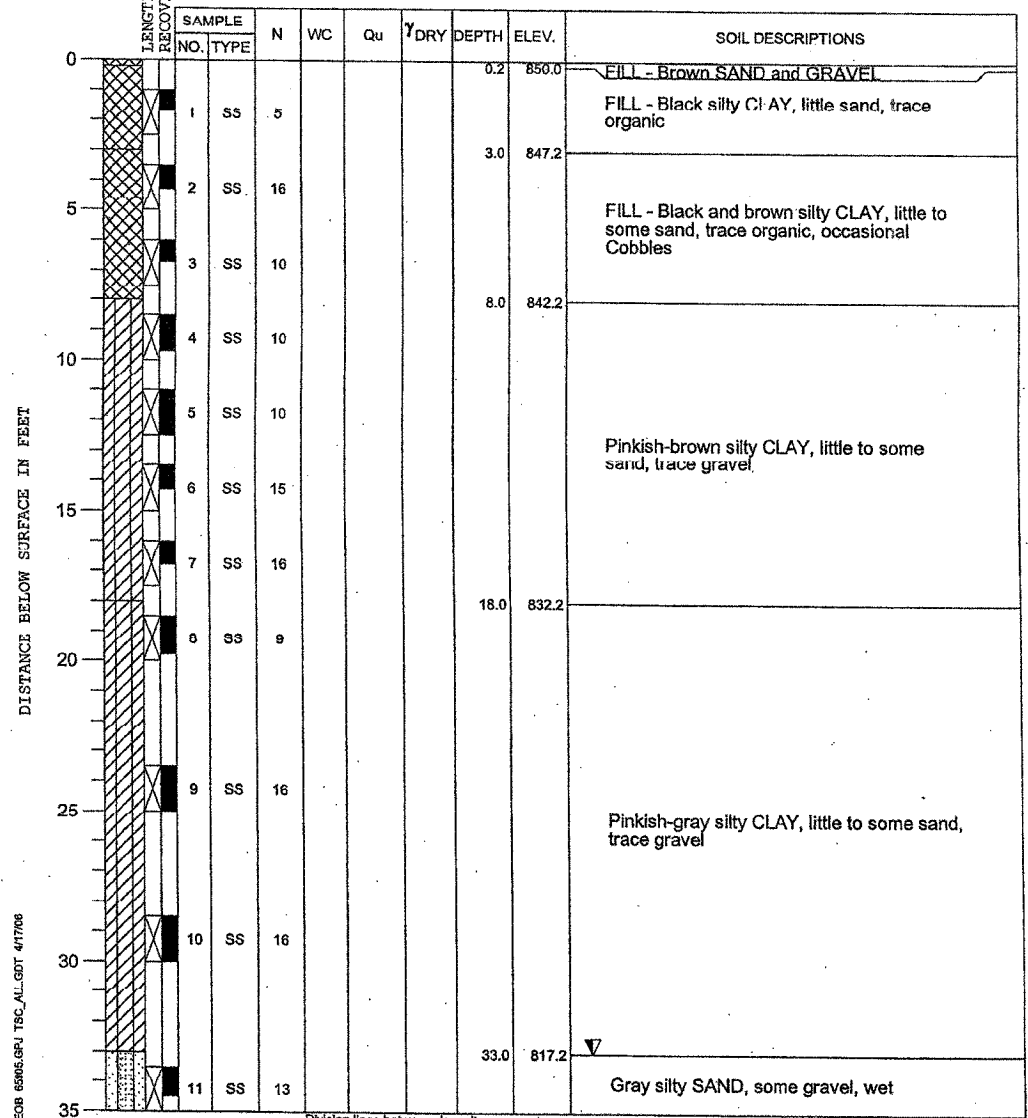
HANSON

JOB NO. 06R1555
 DATE 11/05/07

PROJECT **Fairview Drive Bridge Replacement, DeKalb, Illinois**
 CLIENT **Hanson Professional Services, Rockford, Illinois**
 BORING **4** DATE STARTED **4-12-06** DATE COMPLETED **4-12-06** JOB **L-65,905**



ELEVATIONS WATER LEVEL OBSERVATIONS
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 END OF BORING **790.2** AT END OF BORING **Dry**
 24 HOURS

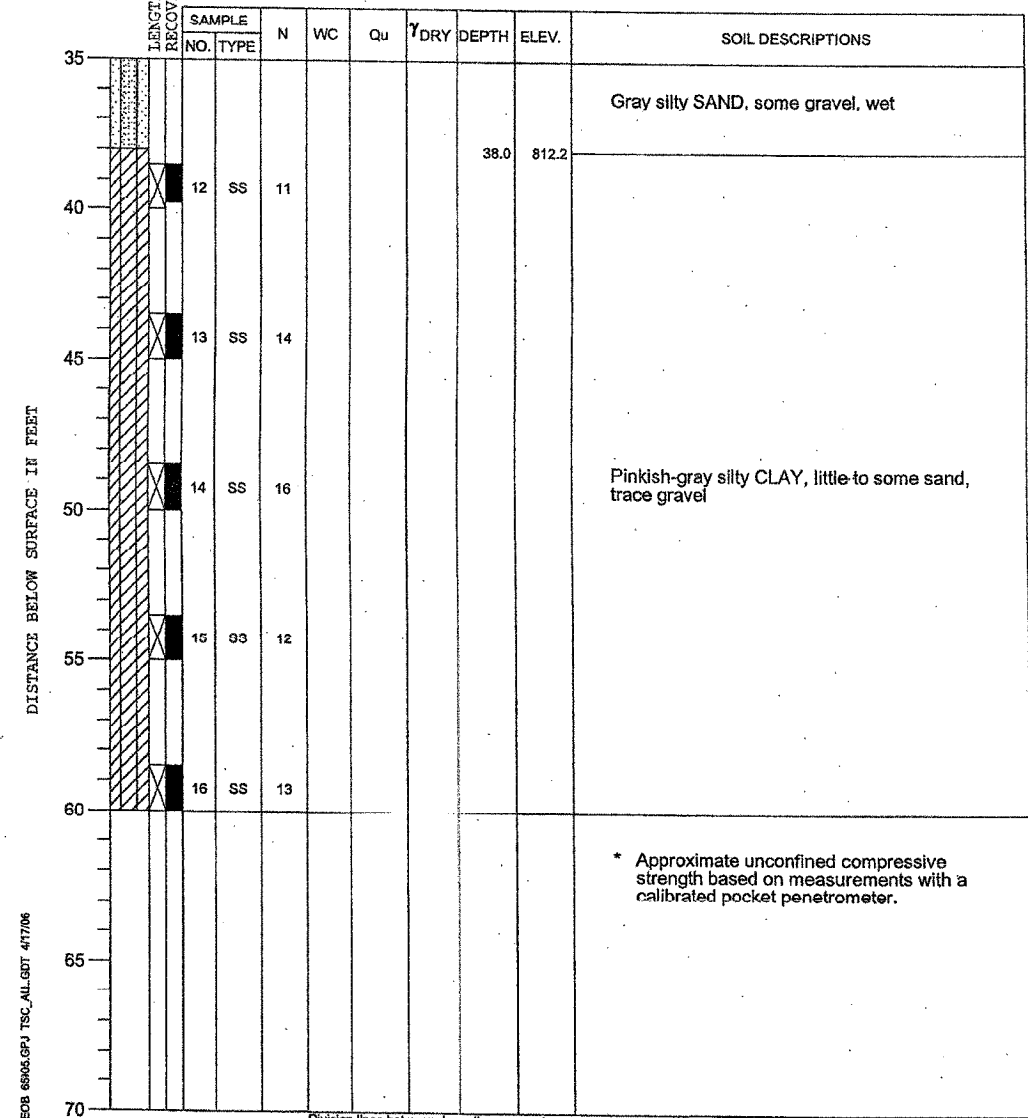


DRILL RIG NO. **262** End of Boring at 60.0' Page 1 of 2

PROJECT **Fairview Drive Bridge Replacement, DeKalb, Illinois**
 CLIENT **Hanson Professional Services, Rockford, Illinois**
 BORING **4** DATE STARTED **4-12-06** DATE COMPLETED **4-12-06** JOB **L-65,905**



ELEVATIONS WATER LEVEL OBSERVATIONS
 GROUND SURFACE **850.2** WHILE DRILLING **33.0'**
 END OF BORING **790.2** AT END OF BORING **Dry**
 24 HOURS



DRILL RIG NO. **262** End of Boring at 60.0' Page 2 of 2

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 DRAWN: MW 10/19/07
 REVIEWED: JKR 10/19/07

Corporate License Number 184-001-084

BORING LOGS

FAIRVIEW DRIVE BRIDGE OVER
 SOUTH BRANCH OF KISHWAUKEE RIVER
 FAU 5345
 SECTION 04-00166-00-BR
 DEKALB, ILLINOIS
 STRUCTURE NUMBER 019-6106
 STATION 18+34.34

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JOB NO. 06R1555
 DATE 11/05/07

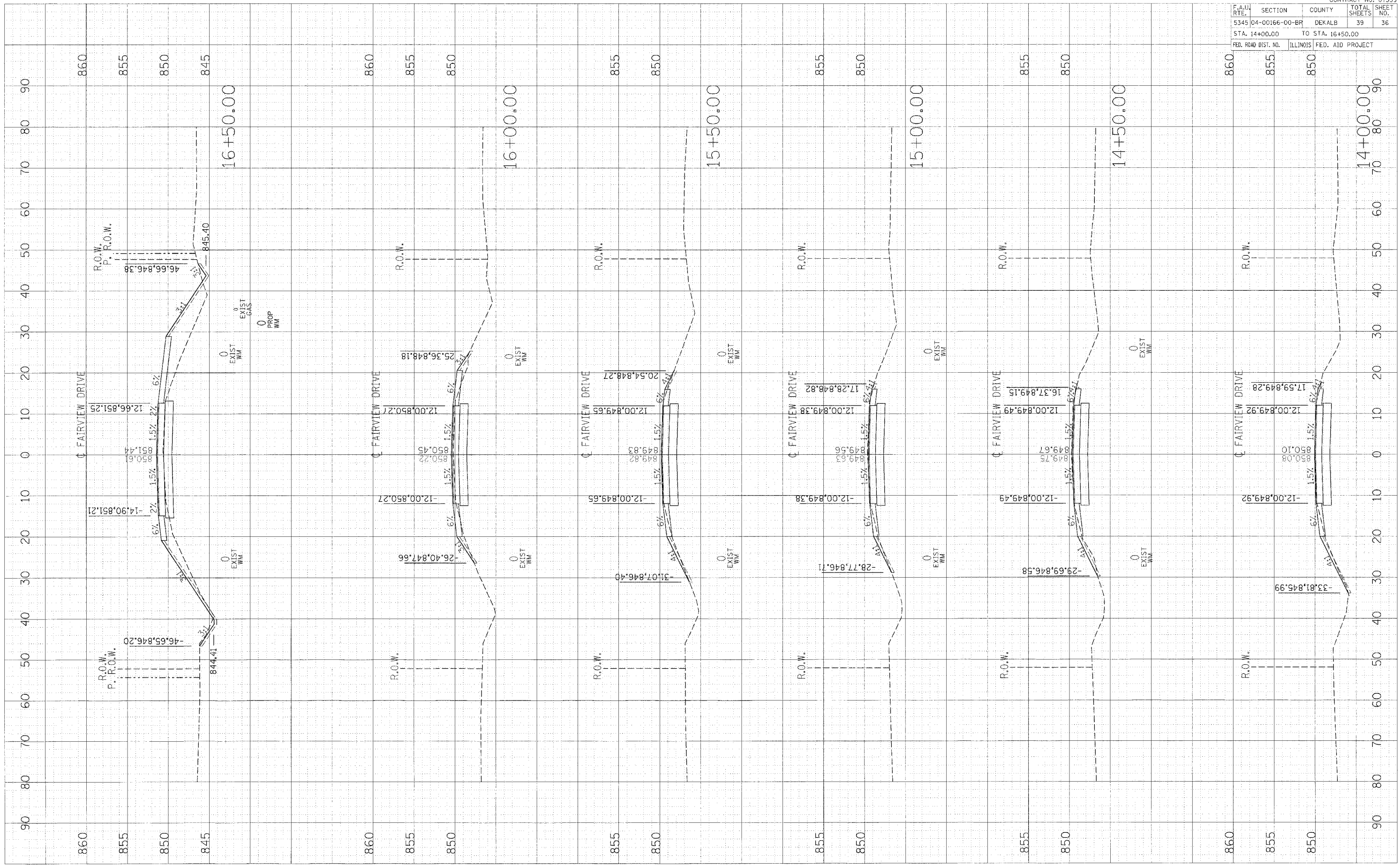
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 DATE _____
 BY _____

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FINAL SURVEY
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 DATE _____
 BY _____

DESIGNED
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 REVISIONS

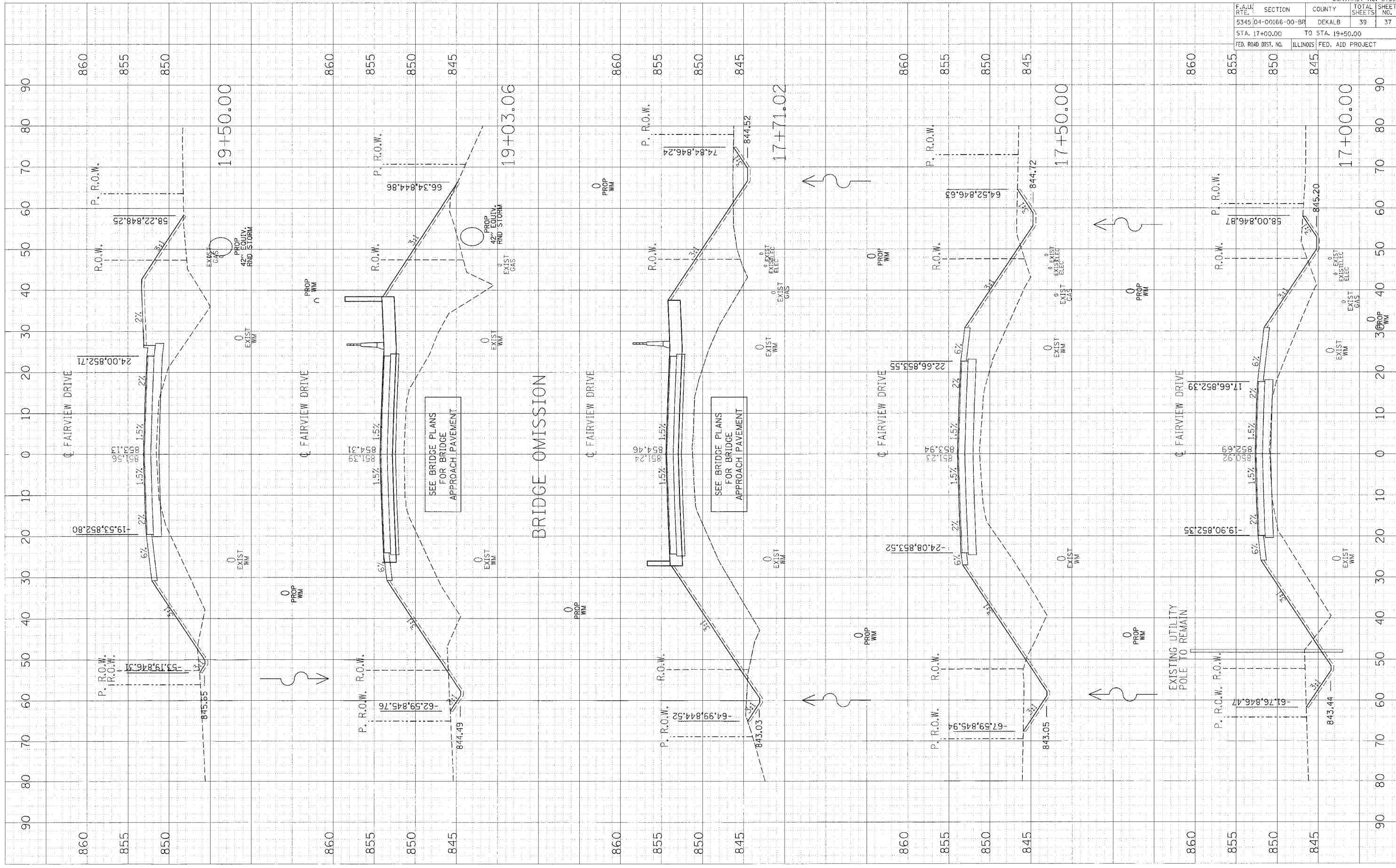
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FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	



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 DATE _____ BY _____
 NO. _____

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FINAL SURVEY PLOTTED AREAS CHECKED
 DATE _____ BY _____
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17+00.00

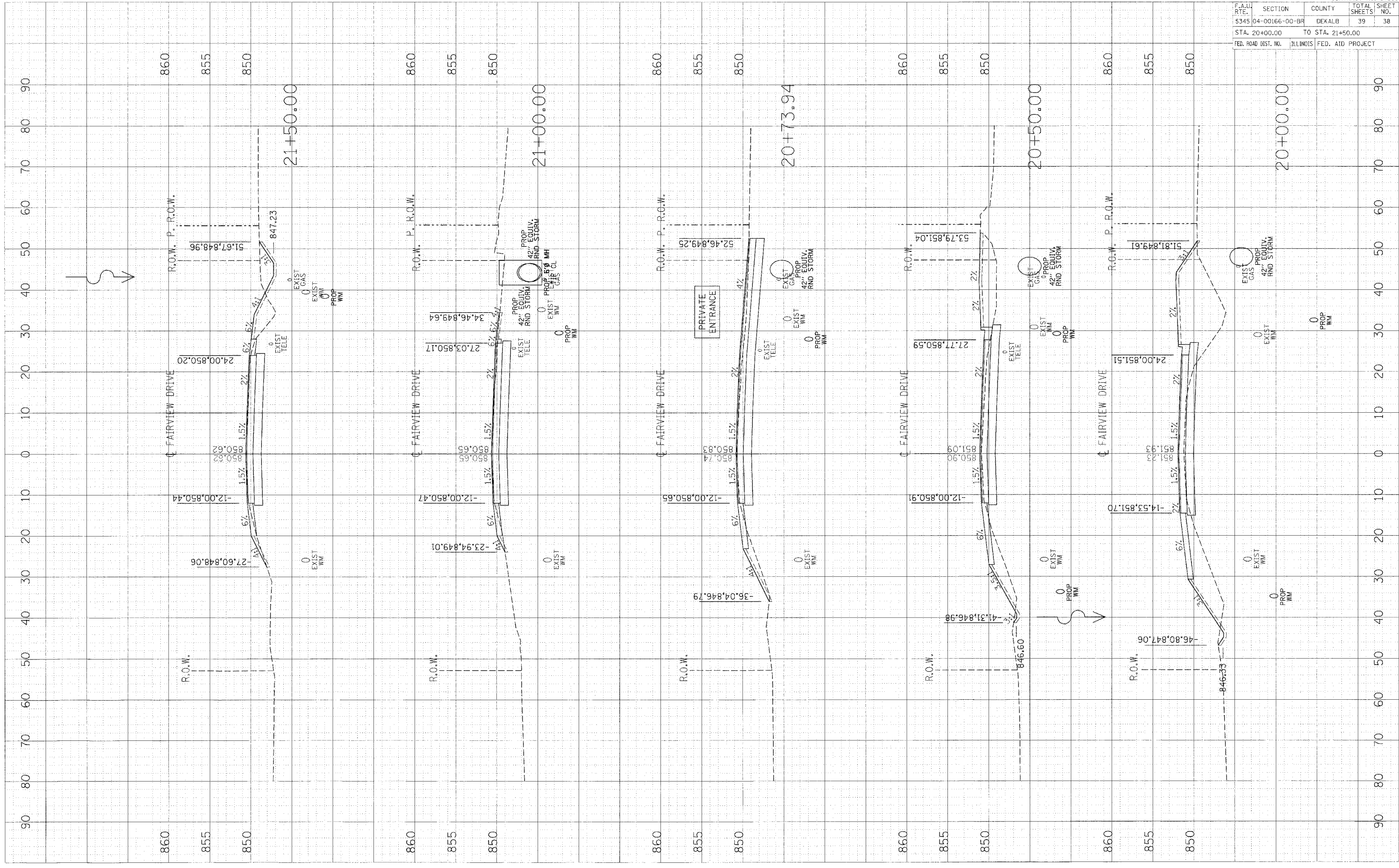
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17+00.00

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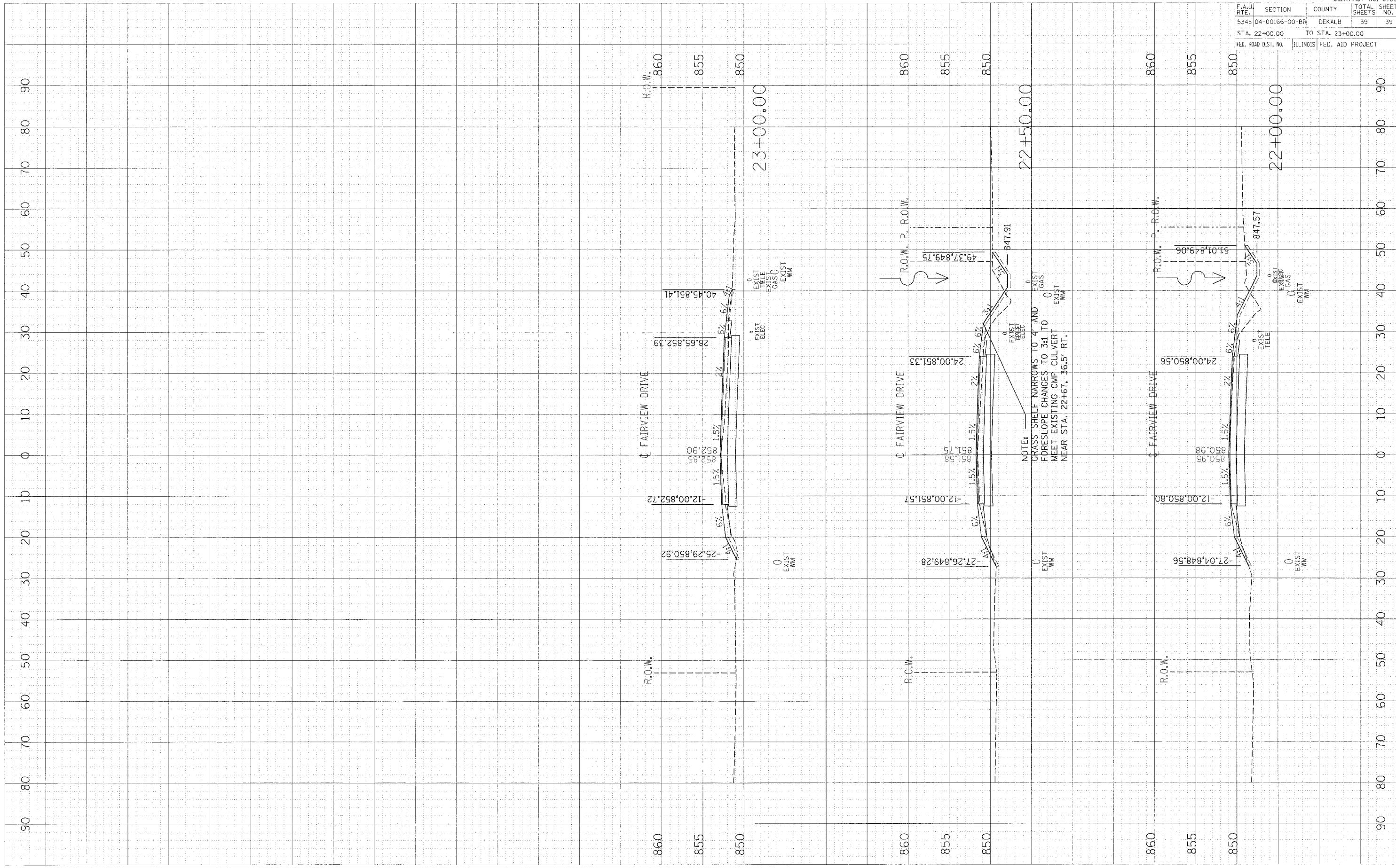
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FINAL SURVEY PLOTTED
 DATE _____ BY _____
 NOTE BOOK TEMPLATE AREAS CHECKED

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CONTRACT NO. 87339			
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